



**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.6 (March 2013)**

15 April 2013

Revision 1

**Main Contractor**



**Designer**

**ATKINS**



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## 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/A for HKLR and EP-353/2009/E for HKBCF were issued on 31 October 2011 and 16 October 2012, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012.

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

This is the sixth Monthly EM&A report for the Contract which summaries the monitoring results and audit findings of the EM&A programme during the reporting period from 1 March to 31 March 2013.

## 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 in this reporting month is listed below:

1-hr TSP Monitoring	4, 8, 14, 20 and 26 March 2013
24-hr TSP Monitoring	1, 7, 13, 19 and 25 March 2013
Noise Monitoring	4, 14, 20 and 26 March 2013
Water Quality Monitoring	1, 4, 6, 8, 11, 13, 15, 18, 20, 22, 25, 27 and 29 March 2013
Chinese White Dolphin Monitoring	6, 11, 13 and 20 March 2013
Mudflat Monitoring (Ecology)	2, 3, 10, 11, 12 and 16 March 2013
Site Inspection	5, 12, 19, and 26 March 2013

## 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 <sub>eq</sub> (30 min)	1	0
Water Quality	Suspended solids level (SS)	10	86
	Turbidity level	8	78
	Dissolved oxygen level (DO)	0	0

During the reporting month, there are 10 Action Level exceedances and 86 Limit Level exceedances of suspended solids level. 8 Action Level exceedances and 78 Limit Level exceedances of turbidity level were recorded. No major marine works were carried out near the monitoring stations. Geotextile installation work, rock and sand fillings were being carried out within silt curtains near the restricted area during the sampling period. These activities were unlikely to cause adverse water quality impact. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise. Therefore, all exceedances were considered as non-contract related.

There is one Action Level exceedances for noise. A complaint was received on 1 March 2013 regarding the cranes operating on the barges for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating squeak noise in the evening of 1 March 2013 causing an annoyance to public. The Contractor confirmed that the works were undertaken in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13 on 1 March 2013. No power mechanical equipment was used to carry out the construction works as described in the CNP GW-RS0020-13. According to the operation team, all barges have been regularly maintained and all works were carried out without making any squeak noise. A site inspection was undertaken by the Environmental Team (ET) on 19 March 2013. During the site inspection, rock material was transferred by a derrick barge and rock filling activities was undertaken using a pelican barge. No squeak noise was noticeable. Based on the information provided by the Contractor and the ET's observations of 19 March 2013, there was no evidence that the Contractor generated squeak noise on 1 March 2013. Therefore, the complaint is considered not related to the contract. A subsequent enquiry from the complainant was received on 2 April 2013 regarding the cranes and barges operating for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating noise in the morning of 31 March 2013 and 1 April 2013 causing an annoyance to public. According to the information provided by the Contractor, the construction works undertaken in the morning of 31 March 2013 and 1 April 2013 were in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13. However, in order to further minimise the potential noise impact, the Contractor implemented noise mitigation measures including the provision of brief for operators of barges for proper operation of marine vessels, operation of barges by experienced operators only, provision of adequate routine maintenance for barges, minimisation of quantities of plant to be used during restricted hours, speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment and switching off all unnecessary machinery and plants during restricted hours.

No Limit Level exceedances for noise were recorded during this reporting month.

There are no Action and Limit Level exceedances for 1-hr TSP and 24-TSP during this reporting month.

All investigation reports for exceedances of the Contract have been submitted to ENPO/IEC for comments and/or follow up to identify whether the exceedances occurred related to other HZMB contracts.

### Complaint Log

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

Environmental Complaint No.	Date of Complaint Received	Description of Environmental Complaints
COM-2013-018	1 March 2013	Noise

### 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.

### Future Key Issues

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

- Removal of Existing Rock for Existing Seawall at Portion X;
- Stone Column Installation at Portion X;
- Sand Filling behind Stone Platform in according to EP requirements at Portion X;
- Band Drains Installation at Portion X;
- Temporary Stone Platform Construction at Portion X;
- Site Formation at West Portal;
- Tree Felling at West Portal;
- Slope Protection / Stabilization (Soil Nailing Works) at West Portal;
- Works for Diversion of Airport Road and Kwo Lo Wan Road at Kwo Lo Wan / Airport Road;
- Pre-grouting and pipe piling works for AEL access shafts at AEL;
- Utilities Detection at Kwo Lo Wan / Airport Road / AEL;
- Establishment of Site Access at Kwo Lo Wan / Airport Road / AEL;
- Works for East Access Shaft at Kwo Lo Wan / Airport Road / AEL;
- Access Shaft Construction for SHT and HAT at Portion Y; and
- Utility Culvert Excavation at Portion Y.

## 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/A for HKLR and EP-353/2009/E for HKBCF were issued on 31 October 2011 and 16 October 2012, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012. **Figure 1.1** shows the project site boundary. The works area are shown in Appendix O,
- 1.1.4 The Contract includes the following key aspects:
- New reclamation along the east coast of the approximately 23 hectares.
  - Tunnel of Scenic Hill (Tunnel SHT) from Scenic Hill to the new reclamation, of approximately 1km in length with three (3) lanes for the east bound carriageway heading to the HKBCF and four (4) lanes for the westbound carriageway heading to the HZMB Main Bridge.
  - An abutment of the viaduct portion of the HKLR at the west portal of Tunnel SHT and associated road works at the west portal of Tunnel SHT.
  - An at grade road on the new reclamation along the east coast of the HKIA to connect with the HKBCF, of approximately 1.6 km along dual 3-lane carriageway with hard shoulder for each bound.
  - Road links between the HKBCF and the HKIA including new roads and the modification of existing roads at the HKIA, involving viaducts, at grade roads and a Tunnel HAT.
  - A highway operation and maintenance area (HMA) located on the new reclamation, south of the Dragonair Headquarters Building, including the construction of buildings, connection roads and other associated facilities.
  - Associated civil, structural, building, geotechnical, marine, environmental protection, landscaping, drainage and sewerage, tunnel and highway electrical and mechanical works, together with the installation of street lightings, traffic aids and sign gantries, water mains and fire hydrants, provision of facilities for installation of traffic control and surveillance system (TCSS), reprovisioning works of affected existing facilities, implementation of transplanting, compensatory planting and protection of existing trees, and implementation of an environmental monitoring and audit (EM&A) program.
- 1.1.5 This is the sixth Monthly Environmental Monitoring and Audit (EM&A) report for the Contract which summaries the monitoring results and audit findings of the EM&A programme during the reporting period from 1 March to 31 March 2013.

- 1.1.6 BMT Asia Pacific Limited has been appointed by the Contractor to implement the EM&A programme for the Contract in accordance with the Updated EM&A Manual for HKLR (Version 1.0) for HKLR and will be providing environmental team services to the Contract. ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) for the Project. The project organization with regard to the environmental works is as follows.

## 1.2 Project Organisation

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

**Table 1.1 Contact Information of Key Personnel**

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

## 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
Removal of existing rock for existing seawall	Portion X
Stone Column installation	Portion X
Sand filling behind stone platform in according to EP requirement	Portion X
Temporary stone platform construction	Portion X
Site formation	West Portal
Tree Felling	West Portal
Slope protection/ stabilization (soil nailing works)	West Portal



Description of Activities	Site Area
Boulder removal/ stabilization works	West Portal
Works for diversion of Airport Road and Kwo Lo Wan Road	Kwo Lo Wan / Airport Road
Utilities detection	Kwo Lo Wan/ Airport Road/ AEL
Establishment of site access	Kwo Lo Wan/ Airport Road/ AEL
Works for East access shaft	Kwo Lo Wan/ Airport Road/ AEL
Access Shaft Construction for SHT & HAT	Portion Y
Utility culvert excavation	Portion Y

## 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 2 air quality monitoring stations were established. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while impact 24-hour TSP monitoring was carried out for at least once every 6 days. The Action and Limit Level for 1-hr TSP and 24-hr TSP are provided in **Table 2.1** and **Table 2.2**, respectively.

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

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

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

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

### 2.2 Monitoring Equipment

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



**Table 2.3 Air Quality Monitoring Equipment**

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

## 2.3 Monitoring Locations

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

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

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

## 2.4 Monitoring Parameters, Frequency and Duration

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

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

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

## 2.5 Monitoring Methodology

- 2.5.1 24-hour TSP Monitoring
- (a) The HVS was installed in the vicinity of the air sensitive receivers. The following criteria were considered in the installation of the HVS.
- (i) A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
  - (ii) The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
  - (iii) A minimum of 2 meters separation from walls, parapets and penthouse for rooftop sampler.
  - (iv) No furnace or incinerator flues nearby.
  - (v) Airflow around the sampler was unrestricted.





- (vi) Permission was obtained to set up the samplers and access to the monitoring stations.
  - (vii) A secured supply of electricity was obtained to operate the samplers.
  - (viii) The sampler was located more than 20 meters from any dripline.
  - (ix) Any wire fence and gate, required to protect the sampler, did not obstruct the monitoring process.
  - (x) Flow control accuracy was kept within  $\pm 2.5\%$  deviation over 24-hour sampling period.
- (b) Preparation of Filter Papers
- (i) Glass fibre filters, G810 were labelled and sufficient filters that were clean and without pinholes were selected.
  - (ii) All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than  $\pm 3$  °C; the relative humidity (RH) was < 50% and not variable by more than  $\pm 5\%$ . A convenient working RH was 40%.
  - (iii) All filter papers were prepared and analysed by ALS Technichem (HK) Pty Ltd., which is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.
- (c) Field Monitoring
- (i) The power supply was checked to ensure the HVS works properly.
  - (ii) The filter holder and the area surrounding the filter were cleaned.
  - (iii) The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
  - (iv) The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
  - (v) The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied was sufficient to avoid air leakage at the edges.
  - (vi) Then the shelter lid was closed and was secured with the aluminum strip.
  - (vii) The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
  - (viii) A new flow rate record sheet was set into the flow recorder.
  - (ix) On site temperature and atmospheric pressure readings were taken and the flow rate of the HVS was checked and adjusted at around 1.1 m<sup>3</sup>/min, and complied with the range specified in the Updated EM&A Manual for HKLR (Version 1.0) (i.e. 0.6-1.7 m<sup>3</sup>/min).
  - (x) The programmable digital timer was set for a sampling period of 24 hrs, 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 March 2013 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	53	15 – 98	352	500
AMS6	62	13 – 133	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	55	28 – 90	164	260
AMS6	58	22 – 105	173	260

- 2.7.2 No Action and Limit Levels exceedances were recorded at all monitoring stations during this reporting month.
- 2.7.3 The event action plan is annexed in **Appendix F**.
- 2.7.4 There were technical problems of the on-site weather station from 20 March 2013 to 23 March 2013. As the wind data could not be monitored, the wind data for this period were reference to the wind data of Hong Kong Observatory's Chek Lap Kok weather station. The wind data obtained from the on-site weather station and from Hong Kong Observatory's Chek Lap Kok weather station during the reporting month is shown in **Appendix G**.

### 3 Noise Monitoring

#### 3.1 Monitoring Requirements

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

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

Monitoring Station	Time Period	Action Level	Limit Level
NMS5 - Ma Wan Chung Village (Ma Wan Chung Resident Association) (Tung Chung)	0700-1900 hrs 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;
- (e) 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.
- (f) 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.
- (g) 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.
- (h) 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 March 2013 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	55 – 61	75

\*+3dB(A) Façade correction included

- 3.7.2 There is one Action Level exceedances for noise. A complaint was received on 1 March 2013 regarding the cranes operating on the barges for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating squeak noise in the evening of 1 March 2013 causing an annoyance to public. The Contractor confirmed that the works were undertaken in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13 on 1 March 2013. No power mechanical equipment was used to carry out the construction works as described in the CNP GW-RS0020-13. According to the operation team, all barges have been regularly maintained and all works were carried out without making any squeak noise. A site inspection was undertaken by the Environmental Team (ET) on 19 March 2013. During the site inspection, rock material was transferred by a derrick barge and rock filling activities was undertaken using a pelican barge. No squeak noise was noticeable. Based on the information provided by the Contractor and the ET's observations of 19 March 2013, there was no evidence that the Contractor generated squeak noise on 1 March 2013. Therefore, the complaint is considered not related to the contract. A subsequent enquiry from the complainant was received on 2 April 2013 regarding the cranes and barges operating for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating noise in the morning of 31 March 2013 and 1 April 2013 causing an annoyance to public. According to the information provided by the Contractor, the construction works undertaken in the morning of 31 March 2013 and 1 April 2013 were in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13. However, in order to further minimise the potential noise impact, the Contractor implemented noise mitigation measures including the provision of brief for operators of barges for proper operation of marine vessels, operation of barges by experienced operators only, provision of adequate routine maintenance for barges, minimisation of quantities of plant to be used during restricted hours, speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment and switching off all unnecessary machinery and plants during restricted hours.
- 3.7.3 No Limit Level exceedances were recorded at NMS5 during the reporting month.
- 3.7.4 Major noise sources during the noise monitoring included construction activities of the Contract and nearby traffic noise.
- 3.7.5 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 was detected, and that timely action was taken to rectify the situation. For impact water quality monitoring, measurements were taken in accordance with the Contract Specific EM&A Manual. **Table 4.1** shows the established Action/Limit Levels for the environmental monitoring works. The ET proposed to amend the Action Level and Limit Level for turbidity and suspended solid and EPD approved ET's proposal on 25 March 2013. Therefore, Action Level and Limit Level for the Contract have been changed since 25 March 2013.

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

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

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

Notes:

- (1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths.
- (2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
- (3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher

than the limits.

- (4) The change to the Action and limit Levels for Water Quality Monitoring for the EM&A works was approved by EPD on 25 March 2013

## 4.2 Monitoring Equipment

- 4.2.1 **Table 4.2** summarises 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 V2-M, 650
Positioning Equipment	DGPS – KODEN : KGP913MkII, KBG3
Water Depth Detector	Layin Associates: SM-5 & SM5A
Water Sampler	Wildlife Supply Company : 5487-10

## 4.3 Monitoring Parameters, Frequency and Duration

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

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

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

## 4.4 Monitoring Locations

- 4.4.1 In accordance with the Contract Specific EM&A Manual, thirteen stations (6 Impact Stations, 5 Sensitive Receiver Stations and 2 Control Stations) were designated for impact water quality monitoring. The six Impact Stations (IS) were chosen on the basis of their proximity to the reclamation and thus the greatest potential for water quality impacts, the five Sensitive Receiver Stations (SR) were chosen as they are close to the key sensitive receives and the two Control Stations (CS) were chosen to facilitate comparison of the water quality of the IS stations with less influence by the Project/ ambient water quality conditions.

- 4.4.2 The locations of these monitoring stations are summarized in **Table 4.4** and shown in **Figure 2.1**.

**Table 4.4 Impact Water Quality Monitoring Stations**

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

## 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 March 2013 is provided in **Appendix D**.

### 4.7 Monitoring Results

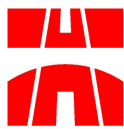
- 4.7.1 Impact water quality monitoring was conducted at all designated monitoring stations during the reporting month. Impact water quality monitoring results and relevant graphical plots are provided in **Appendix E**.

- 4.7.2 Exceedances were recorded for turbidity and suspended solids during the reporting month. Number of exceedances recorded during the reporting month at each impact station are summarised 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	--	--	--	--	2013-03-08	---	---	2013-03-18	1	1
	Limit Level	--	--	--	--	2013-03-22	2013-03-04 2013-03-08 2013-03-11 2013-03-18 2013-03-20 2013-03-22	2013-03-01 2013-03-04 2013-03-11 2013-03-13 2013-03-20 2013-03-22		4	13
IS(Mf)6	Action Level	--	--	--	--	--	2013-03-15	--	2013-03-11	0	2
	Limit Level	--	--	--	--	2013-03-01 2013-03-08 2013-03-22	2013-03-01 2013-03-04 2013-03-06 2013-03-08 2013-03-11 2013-03-13 2013-03-20 2013-03-22	2013-03-01 2013-03-04 2013-03-06 2013-03-13 2013-03-15 2013-03-22		6	14
IS7	Action Level	--	--	--	--	2013-03-04	--	--	2013-03-25	1	1





Station	Exceedance Level	DO (S&M)		DO (Bottom)		Turbidity		SS		Total number of exceedances	
		Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood
	Limit Level	--	--	--	--	2013-03-08 2013-03-11	2013-03-01 2013-03-04 2013-03-06 2013-03-08 2013-03-11 2013-03-13 2013-03-15 2013-03-20 2013-03-22	2013-03-01 2013-03-04	2013-03-01 2013-03-04 2013-03-06 2013-03-08 2013-03-11 2013-03-13 2013-03-15 2013-03-22	4	17
	Action Level	--	--	--	--	2013-03-20	--	--	--	1	0
IS8	Limit Level	--	--	--	--	2013-03-01 2013-03-22	2013-03-04 2013-03-08 2013-03-11 2013-03-15 2013-03-20 2013-03-22	2013-03-01 2013-03-04 2013-03-20	2013-03-01 2013-03-11 2013-03-13 2013-03-15 2013-03-18 2013-03-22	5	12
	Action Level	--	--	--	--	--	2013-03-18	2013-03-29	--	1	1
IS(Mf)9	Limit Level	--	--	--	--	2013-03-22	2013-03-01 2013-03-04 2013-03-08 2013-03-11 2013-03-13 2013-03-15 2013-03-20 2013-03-22	2013-03-04 2013-03-20	2013-03-04 2013-03-11 2013-03-13 2013-03-15 2013-03-20 2013-03-22	3	15
	Action Level	--	--	--	--	--	--	2013-03-01	--	1	0
IS10	Limit Level	--	--	--	--	2013-03-08 2013-03-22	2013-03-01 2013-03-04 2013-03-06 2013-03-08 2013-03-11 2013-03-15 2013-03-20 2013-03-22	2013-03-04	2013-03-01 2013-03-04 2013-03-06 2013-03-11 2013-03-13 2013-03-15 2013-03-20	3	15
	Action Level	--	--	--	--	--	--	--	--	0	0
SR3	Limit Level	--	--	--	--	--	2013-03-01 2013-03-04 2013-03-08 2013-03-11 2013-03-15 2013-03-18 2013-03-20 2013-03-22	2013-03-01 2013-03-04	2013-03-01 2013-03-04 2013-03-06 2013-03-11 2013-03-13 2013-03-15 2013-03-20 2013-03-22	2	16
	Action Level	--	--	--	--	2013-03-20	--	2013-03-08	2013-03-08	2	1
SR4	Limit Level	--	--	--	--	--	2013-03-01 2013-03-04 2013-03-08 2013-03-11 2013-03-20 2013-03-22	2013-03-04 2013-03-20	2013-03-04 2013-03-06 2013-03-11 2013-03-13 2013-03-20 2013-02-22	2	12

Station	Exceedance Level	DO (S&M)		DO (Bottom)		Turbidity		SS		Total number of exceedances	
		Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood
SR5	Action Level	--	--	--	--	--	2013-03-08 2013-03-18	--	--	0	2
	Limit Level	--	--	--	--	2013-03-18 2013-03-22	2013-03-01 2013-03-04 2013-03-06 2013-03-15 2013-03-20 2013-03-22	2013-03-04 2013-03-18	2013-03-01 2013-03-04 2013-03-08 2013-03-11 2013-03-15 2013-03-20 2013-03-29	4	12
SR10A	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	2013-03-04	2013-03-01 2013-03-04	1	2
SR10B	Action Level	--	--	--	--	--	--	--	2013-03-08 2013-03-18 2013-03-20	0	3
	Limit Level	--	--	--	--	--	--	--	2013-03-01	0	1
Total	Action	0	0	0	0	4	4	3	7	18**	
	Limit	0	0	0	0	13	65	21	65	164**	

Notes:  
S: Surface;  
M: Mid-depth;  
\*\* The total exceedances.

- 4.7.3 During the reporting month, there are 10 Action Level exceedances and 86 Limit Level exceedances of suspended solids level. 8 Action Level exceedances and 78 Limit Level exceedances of turbidity level were recorded. The completed "Notification of Environmental Quality Limit Exceedances" forms for all water quality exceedances are provided in **Appendix N**. No major marine works were carried out near the monitoring stations. Geotextile installation work, rock and sand fillings were being carried out within silt curtains near the restricted area during the sampling period. These activities were unlikely to cause adverse water quality impact. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise. Therefore, all exceedances were considered as non-contract related.
- 4.7.4 Water quality impact sources during the water quality monitoring were the construction activities of the Contract, nearby construction activities by other parties and nearby operating vessels by other parties.
- 4.7.5 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.

### 5.2 Monitoring Methodology

#### Vessel-based Line-transect Survey

- 5.2.1 According to the requirements of the Updated EM&A Manual for HKLR (Version 1.0), dolphin monitoring programme should cover all transect lines in NEL and NWL survey areas (see **Figure 1 of Appendix H**) twice per month. The co-ordinates of all transect lines are shown in **Table 5.1**.

**Table 5.1 Co-ordinates of transect lines**

Line No.		Easting	Northing		Line No.	Easting	Northing	
1	Start Point	804671	814577		13	Start Point	816506	819480
1	End Point	804671	831404		13	End Point	816506	824859
2	Start Point	805475	815457		14	Start Point	817537	820220
2	End Point	805477	826654		14	End Point	817537	824613
3	Start Point	806464	819435		15	Start Point	818568	820735
3	End Point	806464	822911		15	End Point	818568	824433
4	Start Point	807518	819771		16	Start Point	819532	821420
4	End Point	807518	829230		16	End Point	819532	824209
5	Start Point	808504	820220		17	Start Point	820451	822125
5	End Point	808504	828602		17	End Point	820451	823671
6	Start Point	809490	820466		18	Start Point	821504	822371
6	End Point	809490	825352		18	End Point	821504	823761
7	Start Point	810499	820690		19	Start Point	822513	823268
7	End Point	810499	824613		19	End Point	822513	824321
8	Start Point	811508	820847		20	Start Point	823477	823402
8	End Point	811508	824254		20	End Point	823477	824613
9	Start Point	812516	820892		21	Start Point	805476	827081
9	End Point	812516	824254		21	End Point	805476	830562
10	Start Point	813525	820872		22	Start Point	806464	824033
10	End Point	813525	824657		22	End Point	806464	829598
11	Start Point	814556	818449		23	Start Point	814559	821739
11	End Point	814556	820992		23	End Point	814559	824768
12	Start Point	815542	818807					
12	End Point	815542	824882					

- 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 16 years of marine mammal monitoring surveys in Hong Kong developed

by HKCRP (see Hung 2012). For each monitoring vessel survey, a 15-m inboard vessel (Standard 31516) 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 Steiner 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 travelled 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 labelled as “primary survey effort, while the survey effort conducted along the connecting lines between parallel lines was labelled 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 Two professional digital cameras (Canon EOS 7D and 60D models), each 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 appendix in the quarterly EM&A report.

### 5.3 Monitoring Results

#### Vessel-based Line-transect Survey

- 5.3.1 During the month of March 2013, two sets of systematic line-transect vessel surveys were conducted on the 6<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup> and 20<sup>th</sup>, to cover all transect lines in NWL and NEL survey areas twice. The survey routes of each survey day are presented in **Figure 2-5 of Appendix H**.
- 5.3.2 From these surveys, a total of 300.4 km of survey effort was collected, with 97.0% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) (**Annex I of Appendix H**). Among the two areas, 117.4 km and 183.0 km of survey effort were conducted in NEL and NWL survey areas respectively. In addition, the total survey effort conducted on primary lines was 221.8 km, while the effort on secondary lines was 78.6 km. Survey effort conducted on primary and secondary lines were both treated as on-effort survey data.
- 5.3.3 During the two sets of monitoring surveys in March 2013, a total of 21 groups of 84 Chinese White Dolphins were sighted (**Annex II of Appendix H**). Notably, only a single sighting of a lone animal was sighted in NEL during the two sets of surveys as in the previous month of monitoring. All sightings except one were made during on-effort search. Nineteen on-effort sightings were made on primary lines, while only one on-effort sighting was made on secondary lines. One of the dolphin groups was associated with an operating purse-seine fishing vessel during the March's surveys.
- 5.3.4 Distribution of these dolphin sightings made during March's surveys was shown in Figure 6. These sightings were mainly concentrated to the western end of Northwest Lantau, with more dolphin occurrence within Sha Chau and Lung Kwu Chau Marine Park (**Figure 6 of Appendix H**).
- 5.3.5 None of the dolphin groups was sighted adjacent to the HKBCF construction site or the HKLR03 construction site (**Figure 6 of Appendix H**). However, a few dolphin sightings were made near the HKLR09 alignment to the west of the airport.
- 5.3.6 During March'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 **Table 5.2**.

**Table 5.2 Dolphin encounter rates (sightings per 100 km of survey effort) in March's surveys**

Area	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
Northwest Lantau	11.8	9.8	42.2	44.2
Northeast Lantau	1.3	0.9	1.3	0.9

5.3.7 The average group size of Chinese White Dolphins was 4.0 individuals per group during March's surveys. Moreover, the average group sizes of dolphins in NWL and NEL were 4.2 and 1.0 individuals per group respectively. Three of the dolphin groups exceeded the group size of 10, but the majority of the dolphin groups were composed of only 1-3 animals.

#### Photo-identification Work

5.3.8 A total of 43 re-sightings of known individual Chinese White Dolphins were made during the March's surveys (**Annexes III and IV of Appendix H**). Among these 43 re-sightings, 29 individuals were identified.

5.3.9 Notably, eight individuals were re-sighted twice, while three individuals (NL202, NL244 and NL286) were re-sighted thrice during the month. The lone individual sighted in NEL was identified as NL18, which has regularly occurred in this survey area in the past six months of HKLR03 monitoring surveys.

5.3.10 During the March's surveys, four well-recognized females, NL46, NL93, NL104 and NL202, were accompanied with their calves during their re-sightings. Notably, these mother-calf pairs were also sighted repeatedly in previous months of HKLR03 monitoring surveys.

#### Conclusion

5.3.11 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.

5.3.12 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 (March – May 2013) and baseline monitoring period (3-month period) will be made.

## 5.4 Reference

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## 6 Mudflat Monitoring

### 6.1 Sedimentation Rate Monitoring

#### Methodology

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

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

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

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

#### Monitoring Locations

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

#### Monitoring Results

- 6.1.5 The baseline sedimentation rate monitoring was in September 2012 and impact sedimentation rate monitoring was undertaken on 23 March 2013. The mudflat surface levels at the four established monitoring stations and the corresponding XYZ HK1980 GRID coordinates are presented in **Table 6.2 and Table 6.3**.



Table 6.2 Measured Mudflat Surface Level Results

Monitoring Station	Baseline Monitoring (September 2012)			Impact Monitoring (March 2012)		
	Easting (m)	Northing (m)	Sedimentation Rate (mPD)	Easting (m)	Northing (m)	Sedimentation Rate (mPD)
S1	810291.160	816678.727	0.950	810291.111	816678.640	0.995
S2	810958.272	815831.531	0.864	810958.296	815831.551	0.953
S3	810716.585	815953.308	1.341	810716.583	815953.344	1.422
S4	811221.433	816151.381	0.931	811221.485	816151.324	1.068

Table 6.3 Comparison of measurement

Monitoring Station	Comparison of measurement			Remarks and Recommendation
	Easting (m)	Northing (m)	Sedimentation Rate (mPD)	
S1	-0.049	-0.087	0.045	Within tolerance, no significant change
S2	0.024	0.019	0.091	Level continuously increased
S3	-0.003	0.036	0.081	Level continuously increased
S4	0.052	-0.057	0.137	Level continuously increased

6.1.6 This measurement was generally and relatively higher than the baseline measurement at S3, S2 and S4. The mudflat level is continuously increased. For S1, the level has increased within tolerance and their sea bed depth would not be considered as significant change.

## 6.2 Water Quality Monitoring

6.2.1 The mudflat monitoring covered water quality monitoring data. Reference was made to the water quality monitoring data of the representative water quality monitoring station (i.e. SR3) as in the EM&A Manual. The water quality monitoring location (SR3) is shown in **Figure 2.1**.

6.2.2 Impact water quality monitoring in San Tau (monitoring station SR3) was conducted in March 2013. The monitoring parameters included dissolved oxygen (DO), turbidity and suspended solids (SS).

6.2.3 The Impact monitoring results for SR3 were extracted and summarised below:



**Table 6.4 Impact Water Quality Monitoring Results (Depth Average)**

Date	Mid Ebb Tide			Mid Flood Tide		
	DO (mg/L)	Turbidity (NTU)	SS (mg/L)	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
01-Mar-13	8.0	3.35	5.7	7.4	4.5	8.6
04-Mar-13	7.8	3.1	5.95	7.4	4.5	8.6
06-Mar-13	8.2	2.5	3.35	7.8	2.4	3.9
08-Mar-13	8.9	2.25	3.5	8.9	2.4	3.6
11-Mar-13	8.5	4.4	4.25	8.3	6.7	7.1
13-Mar-13	7.7	2.85	3.85	7.6	3.4	5.5
15-Mar-13	7.2	3.15	3.85	7.2	4.1	4.6
18-Mar-13	7.5	4.35	4.7	7.1	4.9	4.3
20-Mar-13	7.7	2.65	2.55	6.8	3.7	3.8
22-Mar-13	7.1	3.5	3.3	7.4	6.5	8.3
25-Mar-13	7.1	10.65	8.85	7.0	7.7	11.4
27-Mar-13	7.1	7.9	14.5	6.9	13.3	17.6
29-Mar-13	6.8	8.15	5.8	6.7	13.5	14.6
Average	7.7	4.5	5.4	7.4	6.0	7.8

## 6.3 Mudflat Ecology Monitoring Methodology

### Sampling Zone

- 6.3.1 There are two survey areas specified under the updated EM&A Manual for the Contract, namely Tung Chung Bay and San Tau. Tung Chung Bay survey area is divided into three sampling zones (TC1, TC2 and TC3) and there is one sampling zone at San Tau (ST). Survey of horseshoe crabs, seagrass beds and intertidal communities were conducted in each sampling zone. The locations of sampling zones are shown in **Annex I of Appendix I**.

### Horseshoe Crabs

- 6.3.2 An active search method was adopted for horseshoe crab survey at each sampling zone. The survey was undertaken by 2 specialists at each sampling zone. During the search period, any accessible and potential area would be investigated for any horseshoe crab individuals within 2-3 hours in low tide period (tidal level below 1.2 m above Chart Datum (C.D.)). Once a horseshoe crab was found, the species, size and inhabiting substrate, photographic record and respective GPS coordinate were recorded with reference to Li (2008). The horseshoe crab surveys were conducted on 11<sup>th</sup> (for zones TC1 and TC2) and 12<sup>th</sup> (for zones TC3 and ST) March 2013 with windy and cloudy weather.

### Seagrass Beds

- 6.3.3 An active search method was adopted for seagrass bed survey at each sampling zone. The survey was undertaken by 2 specialists each spending within 2-3 hours in low tide period. Once seagrass bed was observed, the species, the estimated area (m<sup>2</sup>), photographic record and respective GPS coordinate were recorded. The seagrass bed surveys were conducted on 11<sup>th</sup> (for zones TC1 and TC2) and 12<sup>th</sup> (for zones TC3 and ST) March 2013 with windy and cloudy weather.

### Intertidal Soft Shore Communities

- 6.3.4 The sandy shore of San Tau and Tung Chung Bay from the uppermost part of the shore and to the water edge was divided into three tidal zones – upper, middle and lower zones, at each sampling zone, TC1, TC2, TC3 and ST. A 100m transect was laid in each of the three tidal zones for fauna sampling.
- 6.3.5 At each sampling zone, three 100m horizontal transects were laid at 2.0m, 1.5m and 1.0m above C.D. Along each transect, ten random quadrats (0.5 m x 0.5m) were placed. In each quadrat, the epifauna and infauna (within the top 5cm sediment) in each quadrat were identified and their numbers/coverage percentages were recorded. One core of 10cm diameter x 20cm depth was also collected within each quadrat. The sediments of the cores were sieved with 2mm mesh-size sieve and the biota inside was identified and counted. All collected fauna were released after recording except some tiny individuals that *in-situ* identification was not feasible. These tiny individuals were collected and were identified in the laboratory. Species and abundance of biota in both cores and quadrats were reported. The intertidal soft shore community surveys were conducted in low tide period on 2<sup>nd</sup> (for TC2), 3<sup>rd</sup> (for TC1), 10<sup>th</sup> (for ST) and 16<sup>th</sup> March 2013 (for TC3).

### Data Analysis

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

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

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

where S is the total number of species in the sample, N is the total number of individuals, and N<sub>i</sub> is the number of individuals of the i<sup>th</sup> species.

## 6.4 Event and Action Plan for Mudflat Monitoring

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

6.4.2

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

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

Notes:

ET – Environmental Team  
 IEC – Independent Environmental Checker  
 SO – Supervising Officer

**6.5 Mudflat Ecology Monitoring Results and Conclusion**

**Horseshoe Crabs**

- 6.5.1 **Table 3.1 and Figure 3.1 of Appendix I** show the records of horseshoe crab survey at every sampling zone. In general, horseshoe crab *Tachypleus tridentatus* was found at TC1 (5 individuals), TC3 (2 individuals) and ST (15 individuals). All individuals were found on either soft mud or sandy substratum. Grouping was observed while each group consisted of 2 individuals only. One individual was just completed moulting at TC3. Another individual was found with broken prosoma at ST that might be caused by birds' pecking. Another horseshoe crab species *Carcinoscorpius rotundicauda*, reported at ST in previous survey (December 2012) was not encountered in the present survey.
- 6.5.2 According to **Table 3.2 of Appendix I**, the search records of *Tachypleus tridentatus* were 1.25 individuals hr<sup>-1</sup> person<sup>-1</sup> (mean prosomal widths: 40.68 mm) and 0.50 individuals hr<sup>-1</sup> person<sup>-1</sup> (34.71 mm) at TC1 and TC3, respectively. Similar to previous surveys, the highest search record of 3.00 individuals hr<sup>-1</sup> person<sup>-1</sup> (32.46 mm) was reported at ST. According to Li (2008), the prosomal width of *Tachypleus tridentatus* recorded ranged 15.02–47.98 mm that corresponded to an estimated age of 2.1–5.8 years old. Summary of prosomal width of horseshoe crab is shown in **Table 6.6**.

**Table 6.6 Summary of Prosomal Width of Horseshoe Crab Survey**

	Sampling Zone			
	TC1	TC2	TC3	ST
Search duration (hr)	2	2	2	2.5
<i>Tachypleus tridentatus</i>				
No. of individuals	5	N.A.	2	15
Mean prosomal width (mm)	40.68	N.A.	34.71	32.46
Range of prosomal width (mm)	34.31-47.98	N.A.	28.29-41.12	15.02-42.73
Search record (individual hr <sup>-1</sup> person <sup>-1</sup> )	1.25	N.A.	0.50	3.00

- 6.5.3 **Figure 3.2 of Appendix I** shows the changes of number of individuals, mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* at the four sampling zones along the sampling months. From September to December 2012, the search records declined generally at all sampling zones during dry season. The horseshoe crabs were inactive and burrowed in the sediments during cold weather (<15 °C). Similar results of low search record in dry seasons were reported in a previous territory-wide survey of horseshoe crab. For example, the search records at Tung Chung Wan were 0.17 individuals hr<sup>-1</sup> person<sup>-1</sup> and 0 individual hr<sup>-1</sup> person<sup>-1</sup> in wet season and dry season respectively (details see Li, 2008). From December 2012 to March 2013 (present survey), the search records increased at the three sampling zones with the increased ambient temperature. Therefore, significant changes of population structure or cohort pattern were not determined
- 6.5.4 By comparing the search record and mean prosomal width of *Tachypleus tridentatus* among the sampling zones, ST was usually inhabited by more individuals of smaller size. Larger individuals were usually found at TC1 and TC3 at lower abundance. ST was believed a more important nursery ground for horseshoe crab especially newly hatched individuals. When reaching larger size of higher mobility, few individuals might migrate to nearby sampling zones TC1 and TC3 for foraging.
- 6.5.5 The present survey was the second time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on horseshoe crabs considering the factor of natural, seasonal variation, In case, abnormal phenomenon (e.g. very few numbers of horseshoe individuals in warm weather) is observed, it would be reported as soon as possible.

#### **Seagrass Beds**

- 6.5.6 **Table 3.3 and Figure 3.3 of Appendix I** show the records of seagrass beds survey at every sampling zone. Three patches of *Halophila ovalis* were recorded nearby the mangrove vegetation at tidal level 2 m above C.D. at ST. The estimated total area and mean area were 528.8 m<sup>2</sup> and 176.3 m<sup>2</sup> respectively while the estimated coverage ranged 70-100%. One of the patches was a long seagrass strand with estimated total area 442.2 m<sup>2</sup>.
- 6.5.7 Three small patches of *Zostera japonica* were found within the long strand of *Halophila ovalis*. The estimated total area and mean area were 10.4 m<sup>2</sup> and 3.5 m<sup>2</sup> respectively while the estimated coverage ranged 15-50% only. Since *Zostera japonica* was not reported in the previous surveys, it indicated the seasonal recruitment of this seagrass species between December and March.
- 6.5.8 **Figure 3.4 of Appendix I** shows the changes of estimated total area of seagrass beds *Halophila ovalis* at ST along the sampling months. Relative to previous surveys, the total area and estimated coverage increased gradually. Since the location of seagrass was the same, it was believed that scattered patches of seagrass grew and merged into single, large patch.

6.5.9 The present survey was the second time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on seagrass. In case, abnormal phenomenon (e.g. rapid reduction of seagrass patch size) was observed, it would be reported as soon as possible.

#### Intertidal Soft Shore Communities

6.5.10 **Table 3.4 and Figure 3.5 of Appendix I** show the types of substratum along the horizontal transect at every tidal level of every sampling zone. The relative distribution of different substrata was estimated by investigating the substratum types (Gravels & Boulders / Sands / Soft mud) of the ten random quadrats along every horizontal transect.

6.5.11 The distribution of substratum types varied strongly among tidal levels and sampling zones. At TC1, even distribution of 'Gravels and Boulders' (50%) and 'Sands' (40%) were recorded at high tidal level. Higher percentage of 'Gravels and Boulders' (80-90%) was recorded at mid and low tidal levels. At TC2, high percentage of 'Sands' (70-90%) was recorded at high and mid tidal levels while 'Soft mud' was recorded only (100%) at low tidal level. At TC3, high percentage of 'Sands' (70-90%) was recorded at high and mid tidal levels followed by 'Soft mud' (10-30%). 'Gravels and Boulders' was recorded only (100%) at low tidal level. At ST, 'Gravels and Boulders' (100%) and 'Soft mud' (100%) were recorded only at high and low tidal levels respectively. Even distribution of 'Sands' (60%) and 'Gravels and Boulders' (40%) was recorded at mid tidal level.

6.5.12 There was neither consistent vertical nor horizontal zonation pattern of substratum type in the study site. Such heterogeneous variation should be caused by different hydrology (e.g. wave in different direction and intensity) received by the four sampling zones

6.5.13 **Table 3.5 of Appendix I** lists the total abundance, density and number of taxon of every phylum in the present survey. A total of 20159 individuals were recorded. Mollusks were significantly the most abundant phylum (total individuals 19714, density 657 individuals m<sup>-2</sup>, relative abundance 97.8%). The second abundant group was arthropod (total individuals: 339, density 11 individuals m<sup>-2</sup>, 1.7%) respectively. Relatively other phyla were very low in abundance (≤0.4%). Similarly, the most diverse phylum were mollusks (38 taxa) followed by annelids (14 taxa) and arthropods (12 taxa). The number of taxon of other phyla was relatively small (≤ 2 taxa). The complete list of collected specimens is provided in **Annex III of Appendix I**.

6.5.14 **Table 3.6 of Appendix I** shows the number of individual, relative abundance and density of each phylum at every sampling zone. The results were similar among the four sampling zones. In general, mollusks were the most dominant phylum (no. of individuals: 2708-6491 individuals, relative abundance 92.5-99.3%). Arthropods were the second abundant phylum (no. of individuals: 30-201 individuals, 0.5-6.9%) although the number of individuals was significantly lower than that of mollusks. Relatively, other phyla were very low in abundance across the four sampling zones (< 1%).

6.5.15 **Table 3.7 of Appendix I** lists the abundant species (relative abundance >10%) at every sampling zone. At TC1, gastropod *Batillaria multiformis* was a clearly dominant species (203-693 individuals m<sup>-2</sup>, relative abundance 31-89%) regardless of tidal levels. Rock oyster *Saccostrea cucullata* was the second abundant species (164-170 individuals m<sup>-2</sup>, 16-26%) at mid and low tidal levels. Gastropod *Monodonta labio* was the third abundant species (151 individuals m<sup>-2</sup>, 23%) at low tidal level.

6.5.16 At TC2, gastropod *Batillaria multiformis* was highly abundant (308 individuals m<sup>-2</sup>, relative abundance 62%) at high tidal level followed by gastropod *Cerithidea djadjariensis* (86 individuals m<sup>-2</sup>, 17%). At mid tidal level, gastropod *Cerithidea djadjariensis* was the most abundant (128 individuals m<sup>-2</sup>, 34%) while rock oyster *Saccostrea cucullata* (72 individuals m<sup>-2</sup>, 19%), gastropod *Batillaria zonalis* (50 individuals m<sup>-2</sup>, 13%) and *Cerithidea cingulata* (43 individuals m<sup>-2</sup>, 11%) were other abundant species at lower density. At low tidal level, the abundant species were gastropod *Batillaria zonalis* (76 individuals m<sup>-2</sup>, 26%), *Cerithidea djadjariensis* (70 individuals m<sup>-2</sup>, 24%), rock oyster *Saccostrea cucullata* (64 individuals m<sup>-2</sup>, 22%) and barnacle *Balanus amphitrite* (50 individuals m<sup>-2</sup>, 17%) at similar density.



- 6.5.17 At TC3, the high and mid tidal levels were mainly dominated by gastropods *Batillaria multiformis* (532-652 individuals m<sup>-2</sup>, relative abundance 65-67%) and *Cerithidea djadjaricensis* (166-214 individuals m<sup>-2</sup>, 20-22%). At low tidal level, the abundant species were rock oyster *Saccostrea cucullata* (282 individuals m<sup>-2</sup>, 34%), gastropods *Batillaria multiformis* (280 individuals m<sup>-2</sup>, 34%) and *Monodonta labio* (154 individuals m<sup>-2</sup>, 19%) at similar density.
- 6.5.18 At ST, gastropod *Batillaria multiformis* was highly abundant (845 individuals m<sup>-2</sup>, relative abundance 75%) at high tidal level followed by gastropod *Monodonta labio* (114 individuals m<sup>-2</sup>, 10%). At mid tidal level, rocky oyster *Saccostrea cucullata* (136 individuals m<sup>-2</sup>, 25%) and gastropod *Cerithidea djadjaricensis* (120 individuals m<sup>-2</sup>, 22%) were abundant species at mid tidal level followed by gastropod *Batillaria multiformis* (62 individuals m<sup>-2</sup>, 11%) at lower density. Relatively, the abundant species rocky oyster *Saccostrea cucullata* (39 individuals m<sup>-2</sup>, 26%), gastropod *Batillaria zonalis* (32 individuals m<sup>-2</sup>, 21%) and *Cerithidea djadjaricensis* (31 individuals m<sup>-2</sup>, 20%) were lower in density at low tidal level.
- 6.5.19 There was no consistent zonation pattern of species distribution observed across sampling zones and tidal levels in Tung Chung Wan and San Tau. The species distribution should be determined by the type of substratum primarily. In general, gastropod *Batillaria multiformis* (in present survey = 10710 individuals), *Cerithidea djadjaricensis* (2367 individuals), *Monodonta labio* (1443 individuals) and rocky oyster *Saccostrea cucullata* (2653 individuals) were the most common occurring species among the four sampling zones.
- 6.5.20 Table 3.8 shows the mean values of number of species, density, *H'* and *J* of soft shore communities at every tidal level and sampling zone. Among the sampling zones, the mean number of species was similar and ranged 6-13 spp. 0.25 m<sup>-2</sup>. The mean densities of TC1 (647-1020 individuals m<sup>-2</sup>), TC3 (819-970 individuals m<sup>-2</sup>) and ST (151-1126 individuals m<sup>-2</sup>) were generally higher than that of TC2 (296-498 individuals m<sup>-2</sup>). For ST, the mean density was obviously higher at high tidal level. The mean biodiversity index and species evenness were similar that ranged 1.12-1.40 and 0.50-0.65 respectively.
- 6.5.21 Across the tidal levels, there was no consistent pattern of the mean number of species and mean density. In general higher biodiversity index and species evenness were observed at lower tidal levels (1.0-1.5 m above C.D.).
- 6.5.22 **Figure 3.6 of Appendix I** shows the temporal changes of number of species, density, *H'* and *J* at every tidal level and sampling zone since the baseline monitoring survey (Sep 2012). No significant temporal change was observed at all sampling zones. Although declined densities were reported at sampling zones TC2 (mid and low tidal levels) and TC3 (high and mid tidal levels) in dry season (Dec 2012), it was believed a natural, seasonal variation due to higher mortality and lower activity rate of intertidal fauna during cold, dry season. The densities of both sampling zones had increased in the present survey with the warm weather.
- 6.5.23 The present survey was the second time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on intertidal soft shore community.

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- 6.6.11 Yang, D.J, Sun, R.P., 1988. Polychaetous annelids commonly seen from the Chinese waters (Chinese version). China Agriculture Press, China.

## 7 ENVIRONMENTAL SITE INSPECTION AND AUDIT

### 7.1 Site Inspection

7.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. During the reporting month, five site inspections were carried out on 5, 12, 19, and 26 March 2013.

7.1.2 Particular observations during the site inspections are described below.

#### 5 March 2013

- (a) High pressure water jet and sedimentation tank which form part of the wheel washing facilities were not provided at the site exit of WA4. The contractor provided water jet spray at the site exit of WA4. (This observation was found on 26 February 2013 and closed on 5 March 2013.)
- (b) The chemical containers were found to be without drip tray at vessel Shing Yip 101. The chemical containers were removed. (This observation closed on 12 March 2013.)
- (c) The chemical containers were found to be without drip tray at vessel Shing Yip 101. The chemical containers were removed. (This observation closed on 12 March 2013.)
- (d) The skip was found to be full at Stone Column Platform. The Contractor disposed of rubbish regularly to avoid waste accumulation. (This observation closed on 12 March 2013.)
- (e) The unpaved road was found to be dry at West Portal. The Contractor was sprayed water on the unpaved roads. (This observation closed on 12 March 2013.)
- (f) The stagnant water was found at Kwo Lo Wan Road. The Contractor removed the stagnant water. (This observation closed on 12 March 2013.)

#### 12 March 2013

- (a) The wastewater containers were found to be without drip tray at vessel Chun Ming 83. The Contractor removed the wastewater containers. (This observation closed on 19 March 2013.)
- (b) The chemical containers were found to be without drip tray at vessel Sun Shun 2. The Contractor removed the chemical containers. (This observation closed on 19 March 2013.)
- (c) The unpaved area was found to be dry at Chun Ming 83. The Contractor sprayed the unpaved area. (This observation closed on 19 March 2013.)
- (d) The operating machine generated black smoke at S11. The Contractor provided maintenance for the machine. (This observation closed on 19 March 2013.)
- (e) Sand was found at the passageway of Chun Ming 83. The Contractor cleaned up the passageway of the vessel. (This observation closed on 19 March 2013.)
- (f) The unpaved road was found to be dry at West Portal. The Contractor sprayed the unpaved road with water. (This observation closed on 19 March 2013.)

#### 19 March 2013

- (a) The chemical containers were found to be without drip tray at vessel Yiu Ming 1. The Contractor removed the chemical containers. (This observation closed on 26 March 2013.)
- (b) The chemical containers were found to be without drip tray at vessel Yiu Ming 1. The Contractor removed the chemical containers. (This observation closed on 26 March 2013.)
- (c) The stagnant water was found at Shing Yip 101. The contractor cleaned up the stagnant water. (This observation closed on 26 March 2013.)

#### 26 March 2013



- (a) The wasted battery storage was found to be without label / signs and lock at the WA N4.
- (b) The stagnant water was found inside the wasted battery storage at the WA N4.
- (c) The stagnant water was found at inside the concrete blocks at the WA N4.

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

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

- 7.2.1 The Contractor had submitted application form for registration as a chemical waste producer for the Project. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 7.2.2 Monthly summary of waste flow table is detailed in **Appendix J**.
- 7.2.3 The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practise on the Packaging, Labelling and Storage of Chemical Wastes.

## 7.3 Environmental Licenses and Permits

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

## 7.4 Implementation Status of Environmental Mitigation Measures

- 7.4.1 In response to the site audit findings, the Contractors carried out corrective actions.
- 7.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix M**. Most of the necessary mitigation measures were implemented properly.
- 7.4.3 Regular marine travel route for marine vessels were implemented properly in accordance to the submitted plan and relevant records were kept properly.
- 7.4.4 Dolphin Watching Plan was implemented during the reporting month. No dolphins were observed. The relevant records were kept properly.

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

- 7.5.1 For 1-hour TSP and 24- hour TSP, no Action and Limit Level exceedances were recorded at AMS 5 and AMS 6 during the reporting month.
- 7.5.2 For construction noise, one Action Level exceedance was recorded on 1 March 2013. No Limit Level exceedances were recorded at the monitoring station during the reporting month.
- 7.5.3 During the reporting month, there are 10 Action Level exceedances and 86 Limit Level exceedances of suspended solids level. 8 Action Level exceedances and 78 Limit Level exceedances of turbidity level were recorded. No major marine works were carried out near the monitoring stations. Geotextile installation work, rock and sand fillings were being carried out within silt curtains near the restricted area during the sampling period. These activities were unlikely to cause adverse water quality impact. Therefore, all exceedances were considered as non-contract related.



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

7.6.1 There was one complaint received during this reporting month. The summary of environmental complaints is presented in **Table 6.1**. The details of Environmental Complaints are provided in **Appendix K**.

**Table 6.1 A Summary of Environmental Complaints for the Reporting Month**

<b>Environmental Complaint No.</b>	<b>Date of Complaint Received</b>	<b>Description of Environmental Complaints</b>
COM-2013-018	1 March 2013	Noise

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

7.6.3 Statistics on notifications of summons and successful prosecutions are summarized in **Appendix N**.

## 8 FUTURE KEY ISSUES

### 8.1 Construction Programme for the Coming Months

8.1.1 As informed by the Contractor, the major construction for March 2013 and April 2013 are summarized in **Table 7.1**.

**Table 7.1 Construction Activities for March 2013 and April 2013**

Site Area	Description of Activities
Portion Y	Erection of hoardings and fencings at site boundaries
Portion Y	Site clearing for road and drainage work
Portion X	Removal of armour rocks of existing seawall
Portion X	Sand filling behind stone platform
Portion X	Formation of temporary stone platform
Portion X	Installation of stone column
Portion X	Reclamation
Portion X	Amour rock bund installation for temporary barging point
Portion X	Geotextile installation on sea bed
Airport Road and Kwo Lo Wan Road	Works for diversion
AEL	Pre-grouting and pip piling works for AEL access shafts
West portal	Site formation work for tunnelling
West portal	Installation of soil nails
West portal	Tree felling/tree transplanting
West portal	Boulder removal/stabilization works
West portal	Access Shaft Construction for SHT & HAT
Portion Y	Erection of hoardings and fencings at site boundaries
Portion X	Site clearing for road and drainage work
Portion X	Removal of armour rocks of existing seawall
Portion X	Installation of silt curtain and geotextile laying
Portion X	Formation of temporary stone platform
Portion X	Installation of stone column
Kwo Lo Wan Road	Reclamation
West Portal	Relocation of flag poles
West Portal	Site formation work for tunnelling
Portion Y	Installation of soil nails
Portion Y	Access shaft construction for SHT & HAT

### 8.2 Environmental Monitoring Scheme for the Coming Month

8.2.1 The tentative schedule for environmental monitoring in March 2013 is provided in **Appendix D**.

## 9 CONCLUSION

### 9.1 Conclusions

- 9.1.1 The construction phase and EM&A programme of the Contract commenced on 17 October 2012.
- 9.1.2 For 1-hour TSP and 24-hour TSP, no Action and Limit Level exceedances are recorded at AMS 5 and AMS 6 during the reporting month.
- 9.1.3 There is one Action Level exceedances for noise. A complaint was received on 1 March 2013 regarding the cranes operating on the barges for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating squeak noise in the evening of 1 March 2013 causing an annoyance to public. The Contractor confirmed that the works were undertaken in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13 on 1 March 2013. No power mechanical equipment was used to carry out the construction works as described in the CNP GW-RS0020-13. According to the operation team, all barges have been regularly maintained and all works were carried out without making any squeak noise. A site inspection was undertaken by the Environmental Team (ET) on 19 March 2013. During the site inspection, rock material was transferred by a derrick barge and rock filling activities was undertaken using a pelican barge. No squeak noise was noticeable. Based on the information provided by the Contractor and the ET's observations of 19 March 2013, there was no evidence that the Contractor generated squeak noise on 1 March 2013. Therefore, the complaint is considered not related to the contract. A subsequent enquiry from the complainant was received on 2 April 2013 regarding the cranes and barges operating for the Hong Kong-Zhuhai-Macao Bridge Hong Kong project generating noise in the morning of 31 March 2013 and 1 April 2013 causing an annoyance to public. According to the information provided by the Contractor, the construction works undertaken in the morning of 31 March 2013 and 1 April 2013 were in compliance with Construction Noise Permit (CNP) No. GW-RS0019-13. However, in order to further minimise the potential noise impact, the Contractor implemented noise mitigation measures including the provision of brief for operators of barges for proper operation of marine vessels, operation of barges by experienced operators only, provision of adequate routine maintenance for barges, minimisation of quantities of plant to be used during restricted hours, speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment and switching off all unnecessary machinery and plants during restricted hours. No Limit Level exceedances for noise were recorded during this reporting month.
- 9.1.4 During the reporting month, there are 10 Action Level exceedances and 86 Limit Level exceedances of suspended solids level. 8 Action Level exceedances and 78 Limit Level exceedances of turbidity level were recorded. No major marine works were carried out near the monitoring stations. Geotextile installation work, rock and sand fillings were being carried out within silt curtains near the restricted area during the sampling period. These activities were unlikely to cause adverse water quality impact. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise. Therefore, all exceedances were considered as non-contract related.
- 9.1.5 A total of 43 re-sightings of known individual Chinese White Dolphins were made during the March's surveys. Among these 43 re-sightings, 29 individuals were identified.
- 9.1.6 Notably, eight individuals were re-sighted twice, while three individuals (NL202, NL244 and NL286) were re-sighted thrice during the month. The lone individual sighted in NEL was identified as NL18, which has regularly occurred in this survey area in the past six months of HKLR03 monitoring surveys.
- 9.1.7 During the March's surveys, four well-recognized females, NL46, NL93, NL104 and NL202, were accompanied with their calves during their re-sightings. Notably, these mother-calf pairs were also sighted repeatedly in previous months of HKLR03 monitoring surveys.

- 9.1.8 The sedimentation rate measurement was generally and relatively higher than the baseline measurement at S3, S2 and S4. The mudflat level is continuously increased. For S1, the level has increased within tolerance and their sea bed depth would not be considered as significant change.
- 9.1.9 The March 2013 survey results indicate that the impacts of the HKLR project could not be detected on horseshoe crabs, seagrass and intertidal soft shore community.
- 9.1.10 Environmental site inspection was carried out on 5, 12, 19 and 26 March 2013. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.
- 9.1.11 There was one noise complaint during this reporting month.
- 9.1.12 No notification of summons and prosecution was received during the reporting period.



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**HIGHWAYS DEPARTMENT**

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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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## FIGURES


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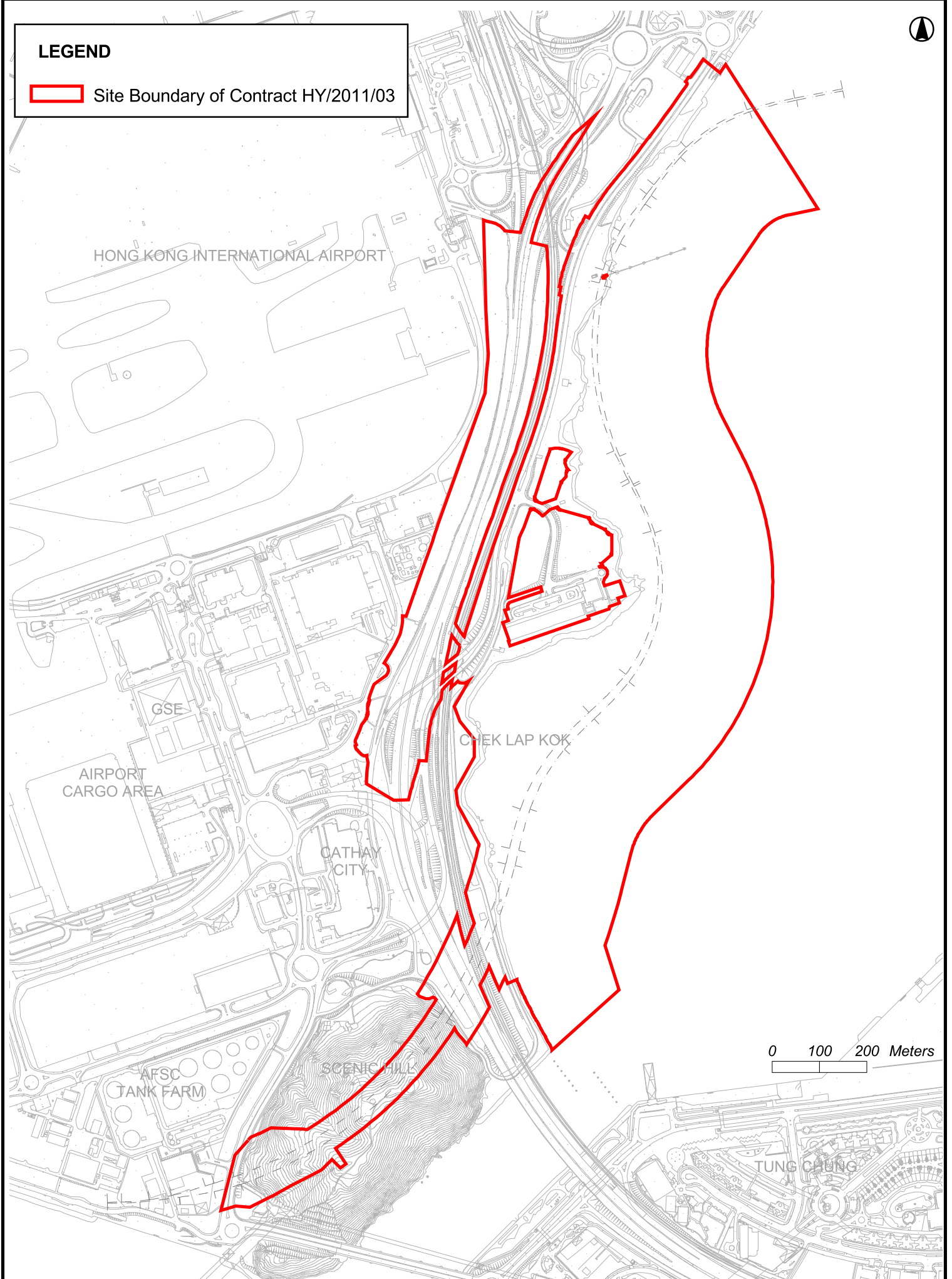


中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.



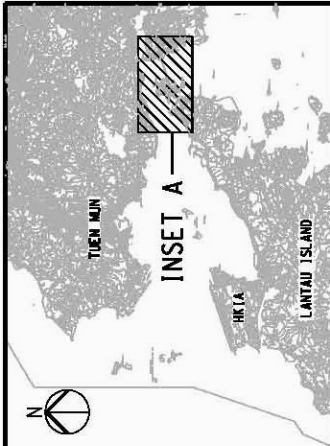
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 Site Boundary of Contract HY/2011/03



**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 (EMPO) 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, EMPO AND SUPERVISING OFFICER THE DETAILS OF THE MUDFLAT SURVEY IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED IN THE EIA REPORTS AND EMMA MANUALS.
- THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS STIPULATED IN THE EMMA 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

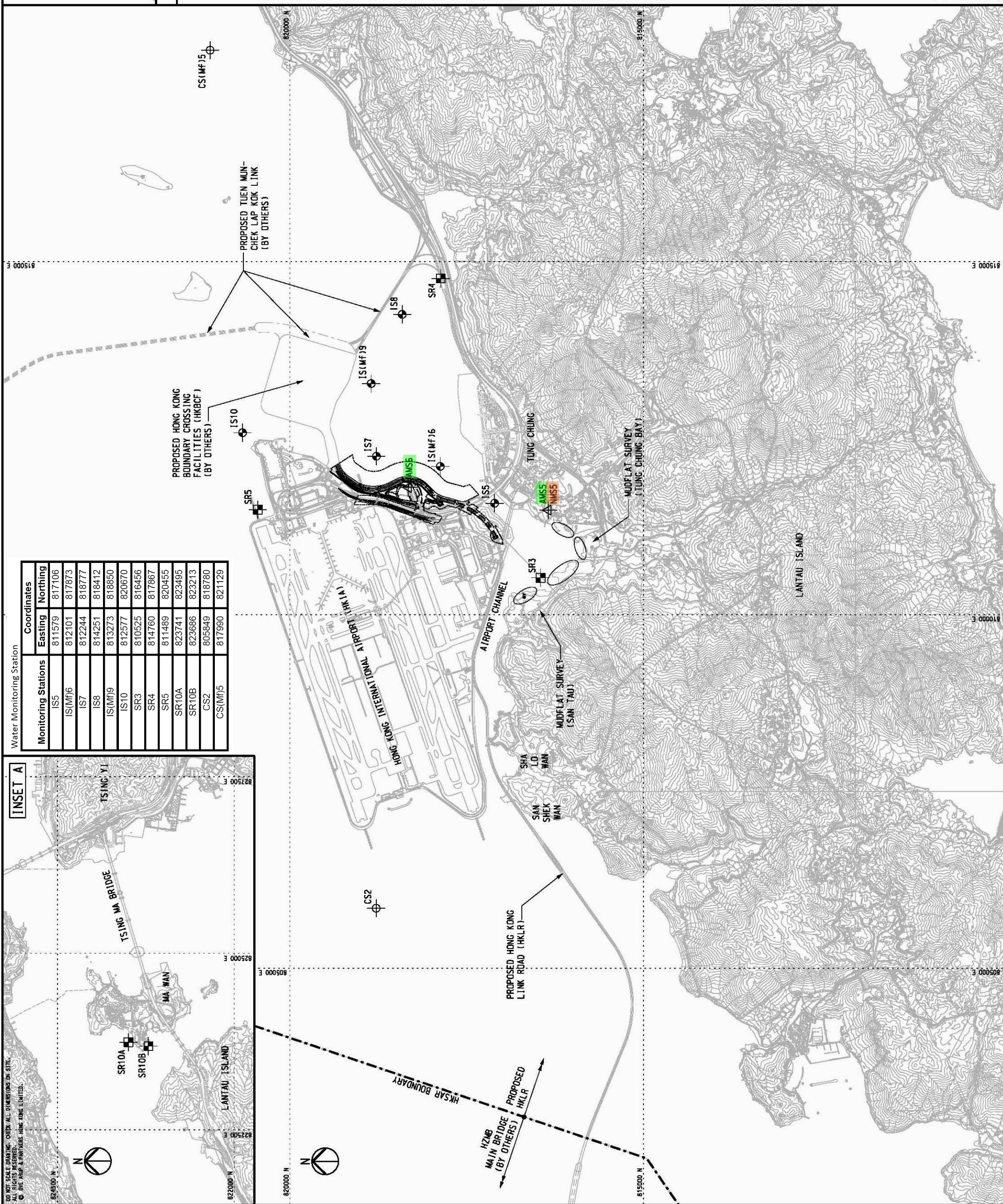
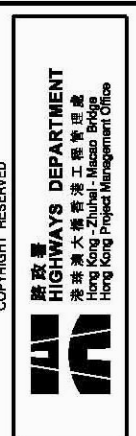
Rev	Description	AW	11/11	Date
A	TENDER ADDENDUM ISSUE	AW	11/11	Date

**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**

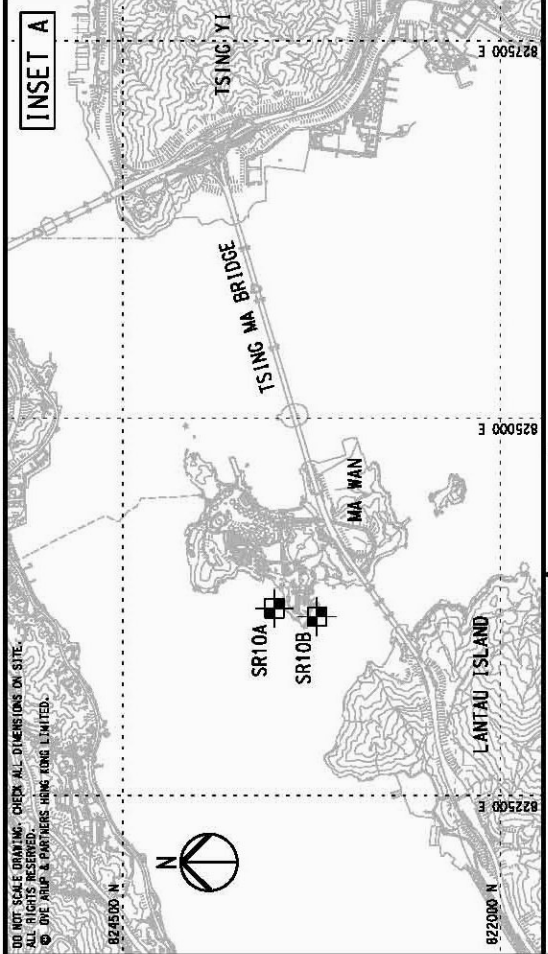
Drawing title:  
**ENVIRONMENTAL MONITORING STATIONS**

Drawing	Figure 2.1	Rev.	A
Drawn By	Date	Checked By	Approved By
Scale	AS SHOWN	Status	SK



Water Monitoring Station

Monitoring Stations	Coordinates
Eastings	Northings
IS5	811579 817106
IS(MF)6	812101 817873
IS7	812244 818777
IS8	814251 818412
IS(MF)9	813273 818850
IS10	812577 820670
SR3	810525 816456
SR4	814760 817867
SR5	811489 820455
SR10A	823741 823495
SR10B	823686 823213
CS2	805849 818780
CS(MF)5	817990 821129



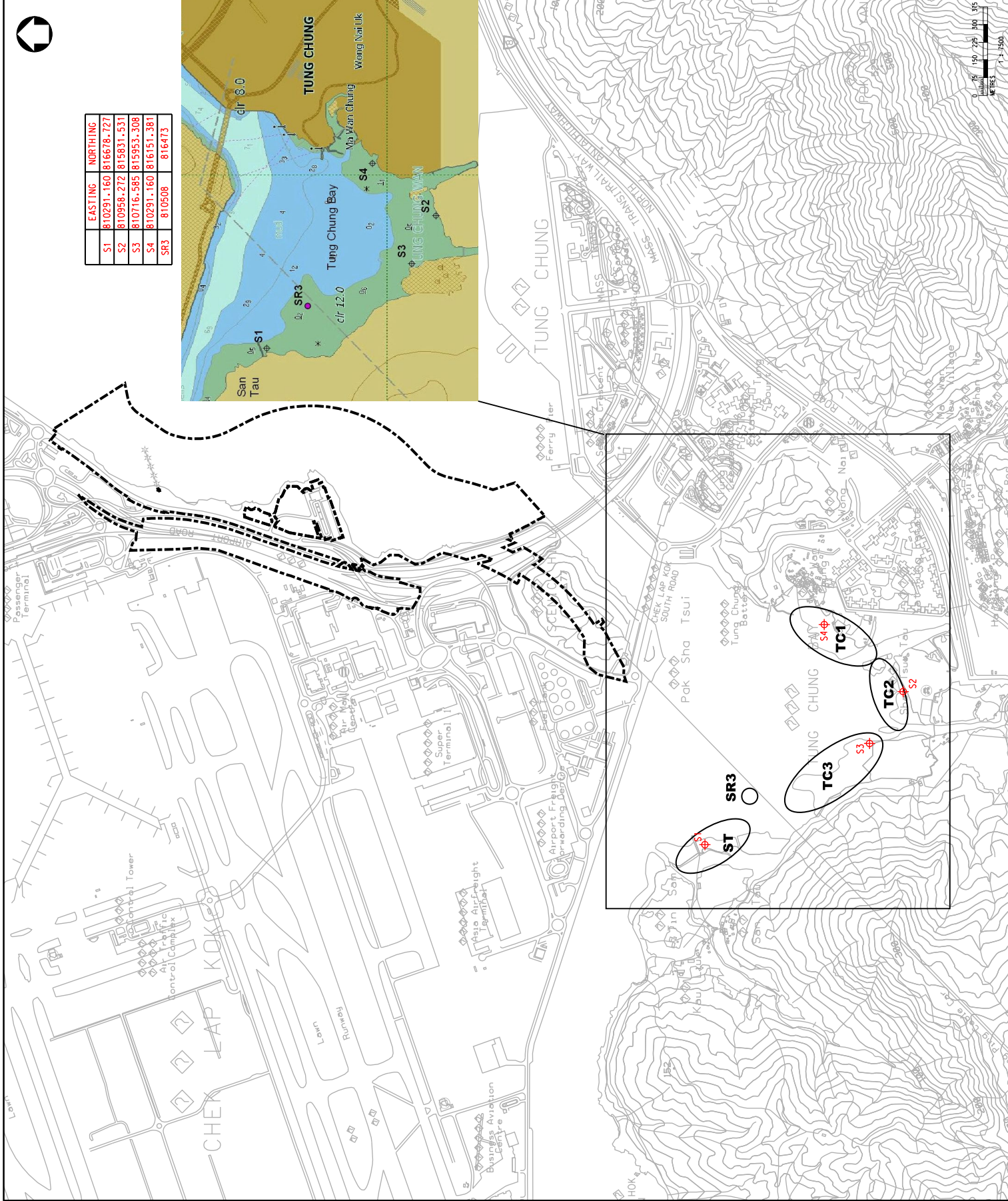
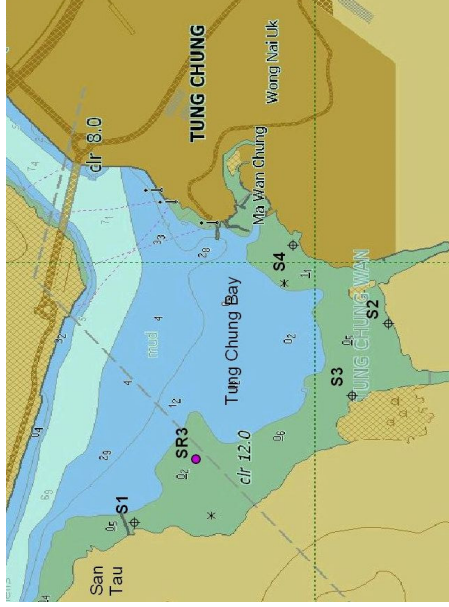
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE. ALL RIGHTS RESERVED. © OVE ARUP & PARTNERS HONG KONG LIMITED.



**LEGEND:**

- WORKS BOUNDARY
- SR3
- WATER QUALITY MONITORING STATION
- SAMPLING ZONE
- ⊕ S1 MEASUREMENT POINT SEDIMENTATION RATE

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



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Rev.	Description	By	Date																		
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**HIGHWAYS DEPARTMENT**

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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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## **APPENDIX A**

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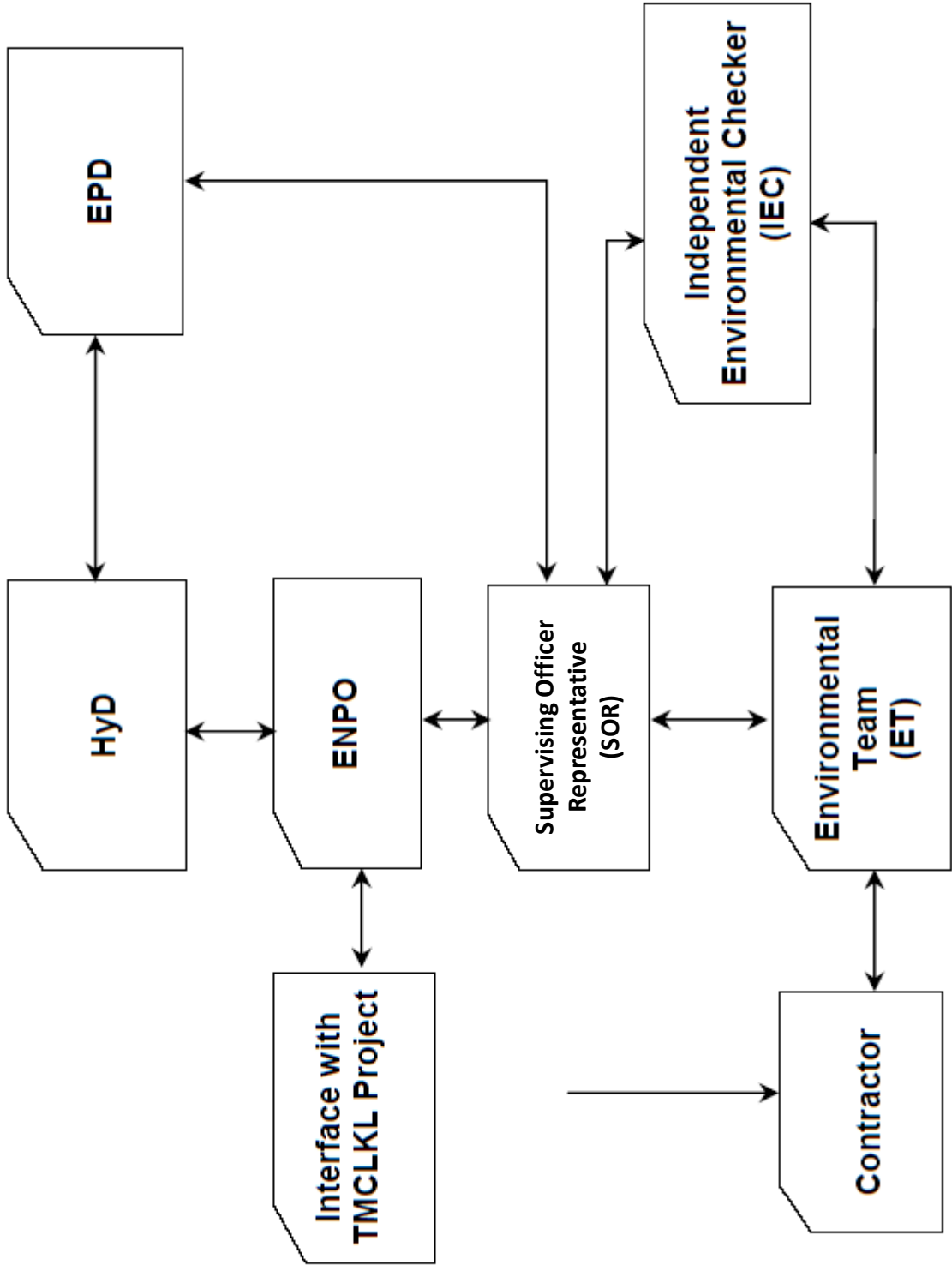
### Environmental Management Structure



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

# Project Organization for Environmental Works

Line of communication





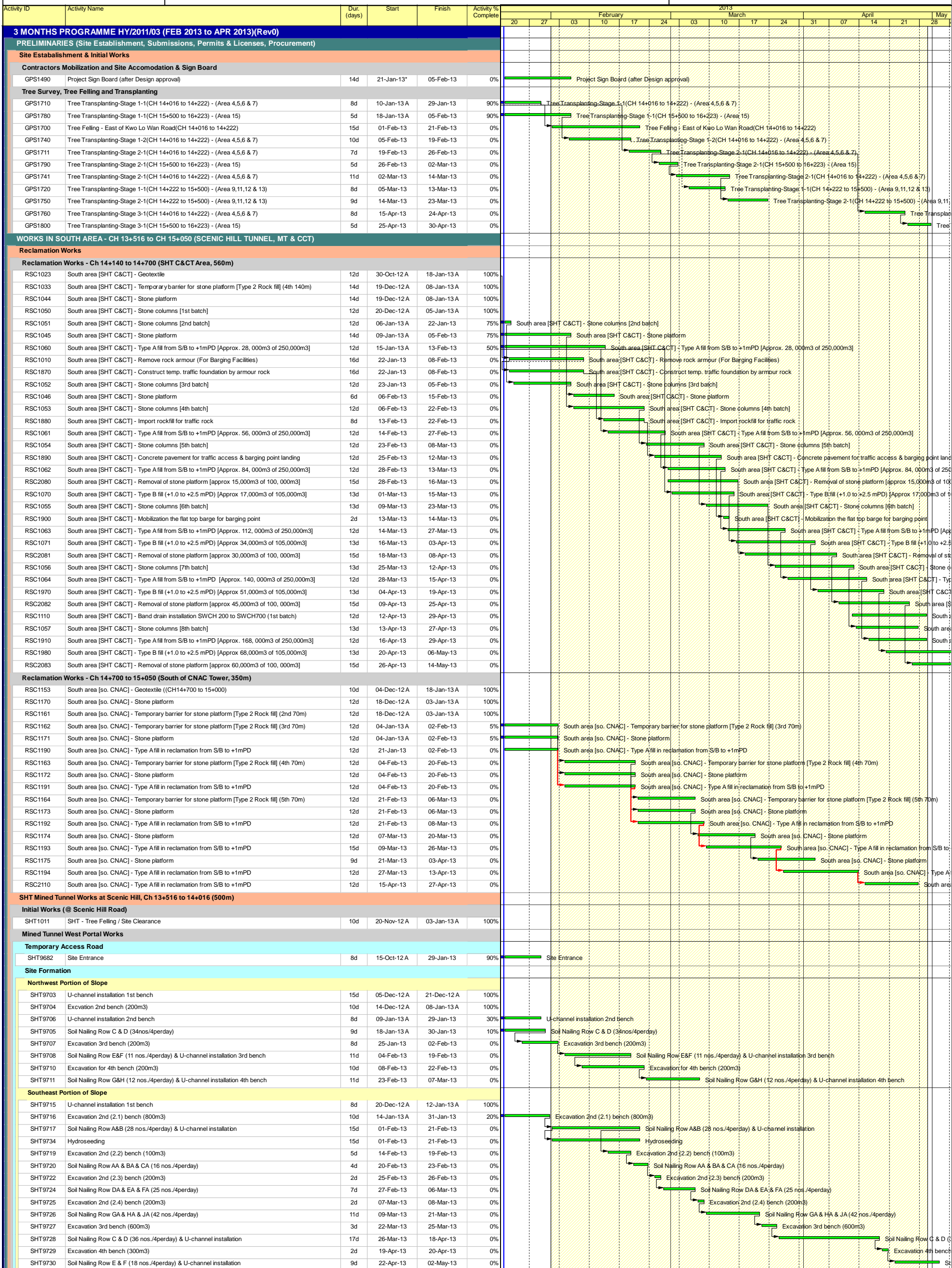
## **APPENDIX B**

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### Construction Programme







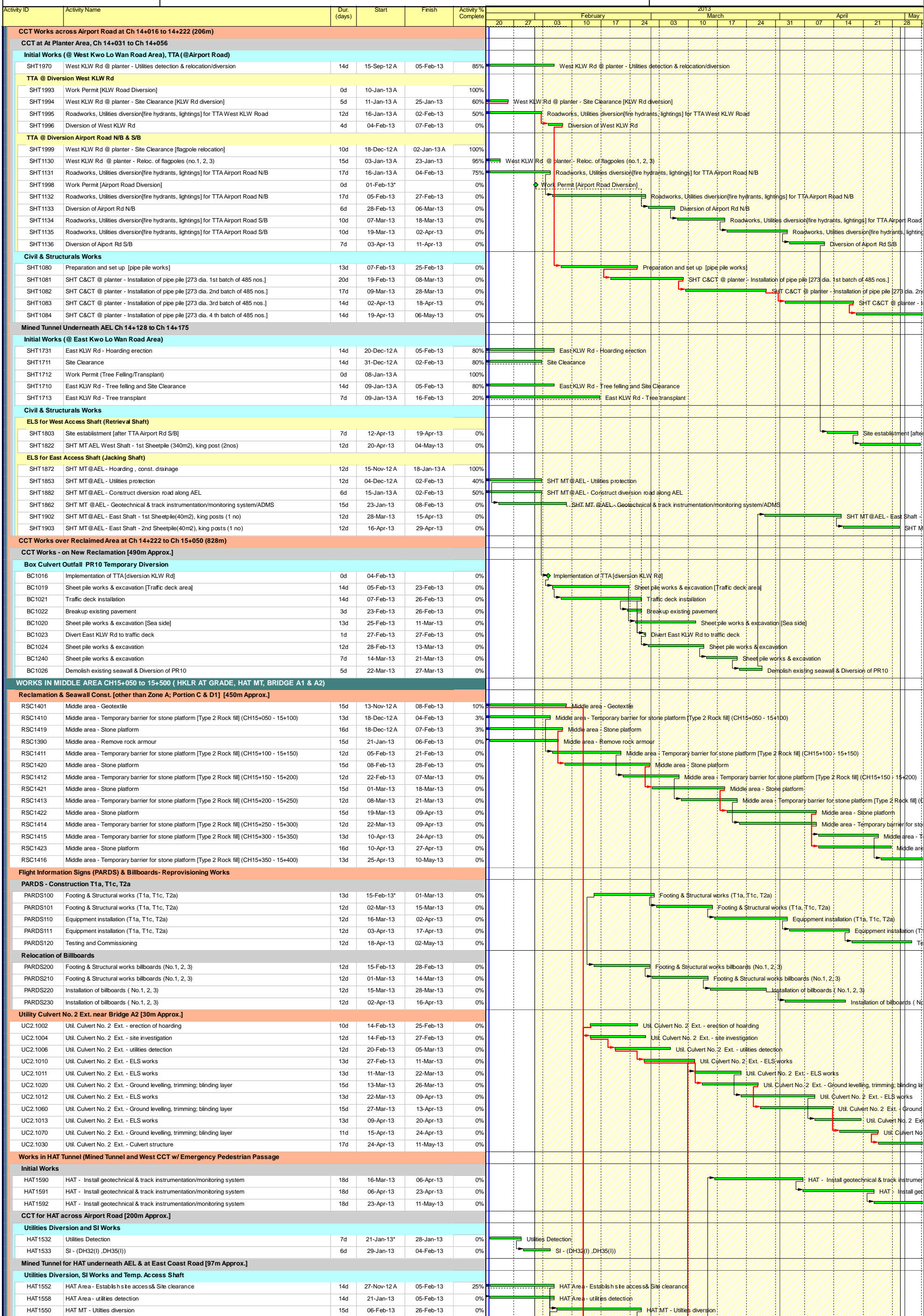
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◆ Milestone  
◆ Milestone

**China State Construction Engineering (Hong Kong) Ltd -**  
**Contract No. HY/2011/03 - HZMB, Hong Kong Link Road**  
**, Section between Scenic Hill and HKBCF**

Prepared by W/C/KK

Date	Revision	Che...	Approved
21-Jan-13		HKC	SYT

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









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港珠澳大橋香港工程管理處  
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Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
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6<sup>th</sup> Monthly EM&A Report

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## **APPENDIX C**

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### Calibration Certificates



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



Brüel & Kjær

### Calibration Chart

Type 4231

Serial No. 3004068

**Sound Pressure Level:** 94.00 or 114.00 dB  $\pm$  0.20 dB  
(re 20  $\mu$ Pa at reference conditions)

**Frequency:** 1000 Hz  $\pm$  0.1%

**Distortion:** < 1%

**Reference Conditions:**

Temperature: 23°C  
Pressure: 101.325 kPa  
Humidity: 50% RH  
Load: 0.25 cm<sup>3</sup> (½" Brüel & Kjær Mic.)

Date: 16/07/12 Signed: R Khan



Brüel & Kjær

### Sound Calibrator Type 4231

**Levels for Brüel & Kjær ½" Microphones:**

Equivalent Free Field: 93.85 dB or 113.85 dB  
Equivalent Diffuse Field: 94.00 dB or 114.00 dB  
Pressure Field: 94.00 dB or 114.00 dB

**Frequency:** 1000 Hz

**Conforms to:**

ANSI S1.40-1984 and IEC 60942 (2003) Class 1 & LS

**Ambient Conditions:**

Temperature: -10° to 50°C, Class LS +16° to 30°C  
Pressure: 65 kPa to 108 kPa  
Humidity: 25% to 90% RH

For further information refer to the User Manual

BC0210-12



# Certificate of Calibration 校正證書

Certificate No. : C126606  
證書編號

**ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC12-2838)**

Description / 儀器名稱 : Integrating Sound Level Meter  
Manufacturer / 製造商 : Brüel & Kjær  
Model No. / 型號 : 2238  
Serial No. / 編號 : 2684502  
Supplied By / 委託者 : Atkins China Limited  
13/F, Wharf T&T Centre, Harbour City, Tsim Sha Tsui, Kowloon

**TEST CONDITIONS / 測試條件**

Temperature / 溫度 :  $(23 \pm 2)^{\circ}\text{C}$       Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$   
Line Voltage / 電壓 : ---

**TEST SPECIFICATIONS / 測試規範**

Calibration check

**DATE OF TEST / 測試日期** : 15 November 2012


**TEST RESULTS / 測試結果**

The results apply to the particular unit-under-test only.  
All results are within 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
- Rohde & Schwarz Laboratory, Germany
- Fluke Precision Measurement Ltd., UK
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By  
測試

  
K C Lee

Certified By  
核證

  
C C Cheung

Date of Issue : 15 November 2012  
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。



# Certificate of Calibration

## 校正證書

Certificate No. : C126606  
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 6.4.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C120016
CL281	Multifunction Acoustic Calibrator	DC110233

- Test procedure : MA101N.

- Results :

### 6.1 Sound Pressure Level

#### 6.1.1 Reference Sound Pressure Level

##### 6.1.1.1 Before Self-calibration

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

##### 6.1.1.2 After Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFF</sub>	A	F	94.00	1	94.1	± 0.7

##### 6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L <sub>AFF</sub>	A	F	94.00	1	94.1 (Ref.)
				104.00		104.1
				114.00		114.1

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

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

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

# Certificate of Calibration

## 校正證書

Certificate No. : C126606

證書編號

### 6.2 Time Weighting

#### 6.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFP</sub>	A	F	94.00	1	94.1	Ref.
	L <sub>ASP</sub>		S			94.1	± 0.1
	L <sub>AIP</sub>		I			94.1	± 0.1

#### 6.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L <sub>AFP</sub>	A	F	106.0	Continuous	106.0	Ref.
	L <sub>AFMax</sub>				200 ms	105.0	-1.0 ± 1.0
	L <sub>ASP</sub>	S	Continuous		106.0	Ref.	
	L <sub>ASMax</sub>		500 ms		102.0	-4.1 ± 1.0	

### 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>AFP</sub>	A	F	94.00	31.5 Hz	54.8	-39.4 ± 1.5
					63 Hz	67.9	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.0
					250 Hz	85.4	-8.6 ± 1.0
					500 Hz	90.8	-3.2 ± 1.0
					1 kHz	94.1	Ref.
					2 kHz	95.3	+1.2 ± 1.0
					4 kHz	95.1	+1.0 ± 1.0
					8 kHz	93.0	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.9	-4.3 (+3.0 ; -6.0)

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# Certificate of Calibration

## 校正證書

Certificate No. : C126606  
證書編號

### 6.3.2 C-Weighting

Range (dB)	UUT Setting			Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>CFP</sub>	C	F	94.00	31.5 Hz	91.3	-3.0 ± 1.5
					63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.0
					250 Hz	94.1	0.0 ± 1.0
					500 Hz	94.1	0.0 ± 1.0
					1 kHz	94.1	Ref.
					2 kHz	93.9	-0.2 ± 1.0
					4 kHz	93.3	-0.8 ± 1.0
					8 kHz	91.1	-3.0 (+1.5 ; -3.0)
					12.5 kHz	88.0	-6.2 (+3.0 ; -6.0)

### 6.4 Time Averaging

Range (dB)	UUT Setting			Applied Value					UUT Reading (dB)	IEC 60804 Type 1 Spec. (dB)
	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)		
30 - 110	L <sub>Acq</sub>	A	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5
						1/10 <sup>2</sup>		90	89.9	± 0.5
						1/10 <sup>3</sup>		80	79.7	± 1.0
						1/10 <sup>4</sup>		70	69.7	± 1.0
			60 sec.							
			5 min.							

Remarks : - Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB : 31.5 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)
Burst equivalent level	: ± 0.2 dB (Ref. 110 dB continuous sound level)

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

#### Note :

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

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輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C125261  
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC12-2206)

Description / 儀器名稱 : Integrating Sound Level Meter  
Manufacturer / 製造商 : Bruel & Kjaer  
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

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C

Relative Humidity / 相對濕度 : (55 ± 20)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 7 September 2012

TEST RESULTS / 測試結果

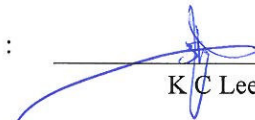
The results apply to the particular unit-under-test only.  
All results are within manufacturer's specification.  
The results are detailed in the subsequent page(s).

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Precision Measurement Ltd., UK
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

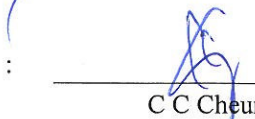
Tested By

測試

  
K C Lee

Certified By

核證

  
C C Cheung

Date of Issue

簽發日期

10 September 2012

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Sun Creation Engineering Limited – Calibration & Testing Laboratory

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輝創工程有限公司 – 校正及檢測實驗室

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Page 1 of 4

# Certificate of Calibration

## 校正證書

Certificate No. : C125261

證書編號

1. 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.
2. The results presented are the mean of 3 measurements at each calibration point.
3. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C120016
CL281	Multifunction Acoustic Calibrator	DC110233

4. Test procedure : MA101N.

5. Results :

- 5.1 Sound Pressure Level

- 5.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFP</sub>	A	F	94.00	1	94.0	± 0.7

- 5.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L <sub>AFP</sub>	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

- 5.2 Time Weighting

- 5.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFP</sub>	A	F	94.00	1	94.0	Ref.
	L <sub>ASP</sub>		S			94.0	± 0.1
	L <sub>AIP</sub>		I			94.0	± 0.1

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# Certificate of Calibration

## 校正證書

Certificate No. : C125261  
證書編號

### 5.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L <sub>AFP</sub>	A	F	106.0	Continuous	106.0	Ref.
	L <sub>AFMax</sub>				200 ms	105.0	-1.0 ± 1.0
	L <sub>ASP</sub>	S	Continuous		106.0	Ref.	
	L <sub>ASMax</sub>		500 ms		102.0	-4.1 ± 1.0	

### 5.3 Frequency Weighting

#### 5.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>AFP</sub>	A	F	94.00	31.5 Hz	54.7	-39.4 ± 1.5
					63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.0
					250 Hz	85.3	-8.6 ± 1.0
					500 Hz	90.7	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.0
					4 kHz	95.0	+1.0 ± 1.0
					8 kHz	92.9	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)

#### 5.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>CFP</sub>	C	F	94.00	31.5 Hz	91.1	-3.0 ± 1.5
					63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.2	-0.8 ± 1.0
					8 kHz	90.9	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

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# Certificate of Calibration

## 校正證書

Certificate No. : C125261  
證書編號

### 5.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range (dB)	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Spec. (dB)
30 - 110	L <sub>Aeq</sub>	A	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5
			60 sec.					90	89.9	± 0.5
			60 sec.					80	79.7	± 1.0
			5 min.					70	69.8	± 1.0

Remarks : - Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB : 31.5 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)
Burst equivalent level	: ± 0.2 dB (Ref. 110 dB continuous sound level)

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

#### Note :

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ENVIROTECH SERVICES CO.

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

Location : ANS5(Ma Wan Chung Village)  
Calibrated by : K.F.Ho  
Date : 02/02/2013

**Sampler**

Model : TE-5170  
Serial Number : S/N3640

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 1378  
Service Date : 22 Feb 2012  
Slope (m) : 1.99405  
Intercept (b) : -0.00397  
Correlation Coefficient(r) : 0.99984

**Standard Condition**

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

**Calibration Condition**

Pa (hpa) : 1015  
Ta(K) : 299

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	10.8	3.320	1.667	59	59.6
2   13 holes	8.6	2.963	1.488	52	52.5
3   10 holes	6.6	2.595	1.304	46	46.5
4   7 holes	4.3	2.095	1.053	38	38.4
5   5 holes	2.6	1.629	0.819	29	29.3

**Sampler Calibration Relationship**

Slope(m):31.351 Intercept(b):4.579 Correlation Coefficient(r):0.9992

Checked by: Magnum Fan

Date: 03/02/2013

ENVIROTECH SERVICES CO.

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

Location : ANS6(Dragonair Building)  
Calibrated by : K.F.Ho  
Date : 02/02/2013

**Sampler**

Model : TE-5170  
Serial Number : S/N3639

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 1378  
Service Date : 22 Feb 2012  
Slope (m) : 1.99405  
Intercept (b) : -0.00397  
Correlation Coefficient(r) : 0.99984

**Standard Condition**

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

**Calibration Condition**

Pa (hpa) : 1016  
Ta(K) : 294

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	10.9	3.289	1.601	60	59.8
2   13 holes	8.6	2.921	1.423	53	52.8
3   10 holes	6.8	2.598	1.267	47	46.8
4   7 holes	4.7	2.160	1.055	38	37.9
5   5 holes	2.8	1.667	0.817	29	28.9

**Sampler Calibration Relationship**

Slope(m):35.222 Intercept(b): -0.154 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 03/02/2013



TISCH ENVIRONMENTAL, INC.  
 145 SOUTH MIAMI AVE.  
 VILLAGE OF CLEVELAND, OH 45002  
 513.467.9000  
 877.263.7610 TOLL FREE  
 513.467.9009 FAX  
 WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Feb 22, 2012 Rootsmeter S/N 0438320 Ta (K) - 295  
 Operator Tisch Orifice I.D. - 1378 Pa (mm) - 740.41

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3940	3.2	2.00
2	NA	NA	1.00	0.9740	6.4	4.00
3	NA	NA	1.00	0.8720	8.0	5.00
4	NA	NA	1.00	0.8340	8.8	5.50
5	NA	NA	1.00	0.6870	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9799	0.7029	1.4029	0.9957	0.7142	0.8927
0.9756	1.0017	1.9841	0.9914	1.0178	1.2624
0.9734	1.1163	2.2183	0.9891	1.1343	1.4114
0.9724	1.1660	2.3265	0.9881	1.1848	1.4803
0.9671	1.4077	2.8059	0.9827	1.4304	1.7853
Qstd slope (m) = 1.99405			Qa slope (m) = 1.24864		
intercept (b) = -0.00397			intercept (b) = -0.00252		
coefficient (r) = 0.99984			coefficient (r) = 0.99984		
y axis = SQRT[H2O(Pa/760)(298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

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

For subsequent flow rate calculations:

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

## EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor  
 Manufacturer / Brand : SIBATA  
 Model No.: LD-3B  
 Equipment No.: LD-3B-002  
 Sensitivity Adjustment Scale Setting : 622 CPM

Operator: \_\_\_\_\_

### Standard Equipment

Equipment : MFC High Volume Air Sampler  
 Venue : Wah Ming House, Wah Fu Estate  
 Model No.: TE-5170 Total Suspended Particulated  
 Serial No.: 2100

Previous Calibration Date 10/21/2011

### Calibration Result

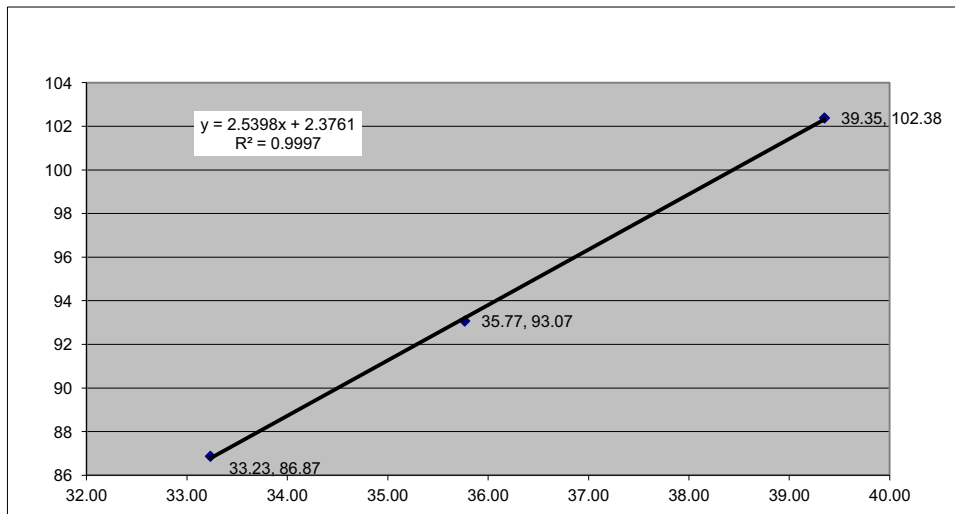
Sensitivity Adjustment Scale Setting (Before Calibration) : 622 CPM  
 Sensitivity Adjustment Scale Setting (After Calibration) : 622 CPM

Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (obtained by High Volume Sampler) (ug/m3) Y-axis	Total Count for 60mins (obtained by Laser Dust Monitor)	Count per Minute X-axis
				Temp (C)	R.H. (%)			
1	15-Oct-12	13:12	14:12	26.3	74%	86.87	1994	33.23
2	15-Oct-12	14:16	15:16	26.3	74%	93.07	2146	35.77
3	15-Oct-12	15:33	16:33	26.3	74%	102.38	2361	39.35

Be Linear Regression of Y or X

Slope (K-factor): 2.5398  
 Correlation coefficient : 0.9997

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



Recorded by: Ruby Law

Signature: *Ruby Law*

Date: 10/21/2012

Checked by: Keith Chau

Signature: *Keith Chau*

Date: 10/21/2012

## EQUIPMENT CALIBRATION RECORD

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

Operator: \_\_\_\_\_

### Standard Equipment

Equipment : MFC High Volume Air Sampler  
 Venue : Wah Ming House, Wah Fu Estate  
 Model No.: TE-5170 Total Suspended Particulated  
 Serial No.: 276018

Previous Calibration Date N/A

### Calibration Result

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

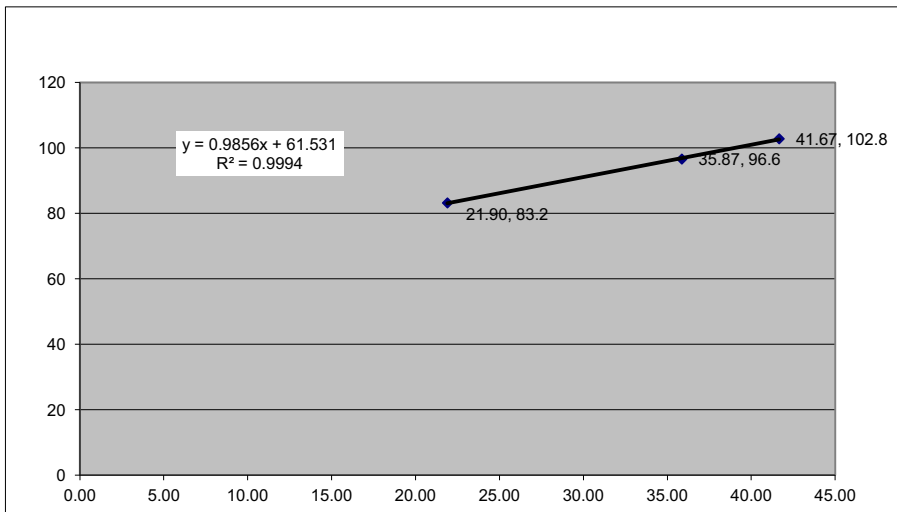
Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (ug/m3) Y-axis	Total Count	Count/Minute X-axis
				Temp (C)	R.H. (%)			
1	16-Oct-12	13:14	14:14	26.2	74%	83.2	1314	21.90
2	16-Oct-12	14:22	15:22	26.2	74%	96.6	2152	35.87
3	16-Oct-12	15:30	16:30	26.2	74%	102.8	2500	41.67

Be Linear Regression of Y or X

Slope (K-factor): 0.9856

Correlation coefficient : 0.9994

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



Recorded by: Ruby Law

Signature: 

Date: 10/21/2012

Checked by: Keith Chau

Signature: 

Date: 10/21/2012

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**Work Order:** HK1300554  
**Date of Issue:** 09/01/2013  
**Client:** AECOM ASIA COMPANY LIMITED



**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6820 V2-M  
**Serial No.:** 12D100972  
**Equipment No.:** W.026.36  
**Date of Calibration:** 08 January, 2013

**Date of next Calibration:** 08 April, 2013

**Parameters:**

**Conductivity**

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

Expected Reading (uS/cm)	Displayed Reading (uS/cm )	Tolerance (%)
146.9	155.0	5.5
6667	6527	-2.1
12890	12050	-6.5
58670	55650	-5.1
Tolerance Limit (±%)		10.0

**Dissolved Oxygen**

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.33	4.26	-0.07
5.98	5.93	-0.05
8.65	8.83	0.18
Tolerance Limit (±mg/L)		0.20

**pH Value**

**Method Ref: APHA 21st Ed. 4500H:B**

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.18	0.18
7.0	7.18	0.18
10.0	9.94	-0.06
Tolerance Limit (±pH unit)		0.20

**Salinity**

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.55	-4.5
20	19.72	-1.4
30	30.65	2.2
Tolerance Limit (±%)		10.0

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

  
 Mr. Fung Lim Chee, Richard  
 General Manager  
 Greater China & Hong Kong



# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



**Work Order:** HK1300554  
**Date of Issue:** 09/01/2013  
**Client:** AECOM ASIA COMPANY LIMITED

**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6820 V2-M  
**Serial No.:** 12D100972  
**Equipment No.:** W.026.36  
**Date of Calibration:** 08 January, 2013

**Date of next Calibration:** 08 April, 2013

**Parameters:**

**Temperature**

**Method Ref: Section 6 of International Accreditation New Zealand Technical**

**Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
18.0	17.85	-0.1
28.5	28.56	0.1
40.0	39.75	-0.3
Tolerance Limit (±°C)		2.0

**Turbidity**

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.7	-7.5
10	10.2	2.0
20	20.6	3.0
50	48.7	-2.6
100	100.1	0.1
Tolerance Limit (±%)		10.0

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

Mr. Fung Lim Chee, Richard  
 General Manager -  
 Greater China & Hong Kong





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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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## **APPENDIX D**

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### Monitoring Schedule



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

**Mar-13**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Time</b>					01-Mar	02-Mar	03-Mar
					AMS6/AMS5 - 24hr Dust Water Quality Monitoring	Mudflat monitoring	Mudflat monitoring
<b>Time</b>	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar
	AMS6 - 1-hr TSP AMS5 - 1-hr TSP +NMS5 Water Quality Monitoring		1st Dolphin Monitoring Water Quality Monitoring	AMS6/AMS5 - 24hr Dust	AMS6-1hr TSP AMS5-1hr TSP Water Quality Monitoring		
<b>Time</b>	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar
	1st Dolphin Monitoring Mudflat monitoring Water Quality Monitoring			AMS6 - 1-hr TSP AMS5 - 1-hr TSP +NMS5			
<b>Time</b>	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar
	1st Dolphin Monitoring Mudflat monitoring Water Quality Monitoring	Mudflat monitoring	AMS6/AMS5 - 24hr Dust 2nd Dolphin Monitoring Water Quality Monitoring		Water Quality Monitoring	Mudflat monitoring	
<b>Time</b>	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar
	Water Quality Monitoring	AMS6/AMS5 - 24hr Dust	AMS6 - 1-hr TSP AMS5 - 1-hr TSP +NMS5 2nd Dolphin Monitoring Water Quality Monitoring		Water Quality Monitoring		
<b>Time</b>					Holiday	Holiday	
	AMS6/AMS5 - 24hr Dust Mudflat monitoring(sedimentation rate monitoring) Water Quality Monitoring	AMS6 - 1-hr TSP AMS5 - 1-hr TSP +NMS5			Water Quality Monitoring		

### Apr-13

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



# APPENDIX E

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## 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	Site Observation
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:28	1.0	Surface	1	1	19.8	8.48	30.99	108.1	8.22	3.1	5.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:47	1.0	Surface	1	2	19.8	8.49	30.99	108.3	8.23	3	5.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:47	4.6	Middle	2	1	19.78	8.48	31	108	8.23	3.1	5.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:22	4.6	Middle	2	2	19.77	8.48	31.01	107.9	8.21	3.1	6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:36	8.2	Bottom	3	1	19.79	8.48	30.99	108	8.21	3.1	5.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS5	13:59:17	8.2	Bottom	3	2	19.79	8.48	30.99	107.8	8.2	3.1	5.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J6	14:05:37	1.0	Surface	1	1	20.31	8.51	30.6	106.7	8.05	5.1	11.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J6	14:05:28	1.0	Surface	1	2	20.33	8.51	30.6	106.4	8.05	6.2	10.4	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J6	14:05:33	2.4	Bottom	3	1	20.32	8.51	30.59	106.5	8.04	6.5	6.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J6	14:05:24	2.4	Bottom	3	2	20.34	8.51	30.59	106.4	8.02	6.7	7.1	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS7	14:12:44	1.0	Surface	1	1	20.3	8.53	30.41	110.9	8.38	2.9	6.5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS7	14:12:53	1.0	Surface	1	2	20.29	8.53	30.42	111.1	8.4	3	7.1	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS7	14:12:49	2.4	Bottom	3	1	20.3	8.53	30.41	111	8.39	2.9	6.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS8	14:12:40	2.4	Bottom	3	2	20.38	8.53	30.41	110.6	8.36	3	6.1	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS8	14:38:33	1.0	Surface	1	1	20.38	8.53	30.53	110.6	8.34	4.9	5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS8	14:38:46	1.0	Surface	1	2	20.39	8.53	30.52	110.6	8.34	4.6	5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS8	14:38:29	2.6	Bottom	3	1	20.4	8.53	30.52	110.5	8.34	7.5	5.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS8	14:38:40	2.6	Bottom	3	2	20.38	8.53	30.54	110.5	8.33	4.2	4.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J9	14:19:22	1.0	Surface	1	1	20.06	8.53	30.36	113.1	8.59	1.6	5.1	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J9	14:19:13	1.0	Surface	1	2	20.08	8.53	30.36	112.8	8.57	1.6	4.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J9	14:19:09	2.4	Bottom	3	1	20.09	8.53	30.35	112.8	8.56	1.7	3.3	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS(M)J9	14:19:18	2.4	Bottom	3	2	20.09	8.53	30.34	113	8.57	1.6	2.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:20:09	1.0	Surface	1	1	19.93	8.45	30.74	113.9	8.65	2.6	4.8	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:20:56	1.0	Surface	1	2	19.89	8.45	30.79	113.8	8.64	2.8	4.3	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:20:43	5.3	Middle	2	1	19.7	8.45	31.16	112.2	8.54	4.4	4.3	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:19:52	5.3	Middle	2	2	19.68	8.45	31.18	112.3	8.55	4.3	3.4	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:20:27	9.5	Bottom	3	1	19.61	8.43	31.25	111.9	8.52	5.3	4.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	IS10	15:19:42	9.5	Bottom	3	2	19.67	8.44	31.2	112.8	8.59	5.2	4.8	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR3	13:51:26	0.8	Middle	2	1	20.15	8.47	30.77	105.3	7.97	3.3	5.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR3	13:51:22	0.8	Middle	2	2	20.14	8.47	30.78	105.3	7.96	3.4	5.8	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR4	14:29:25	1.0	Surface	1	1	20.37	8.52	30.52	110.1	8.3	1.1	4.4	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR4	14:29:16	1.0	Surface	1	2	20.34	8.52	30.54	109.8	8.28	1.2	4.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR4	14:29:20	2.4	Bottom	3	1	20.37	8.52	30.52	109.6	8.29	1.2	3.1	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR4	14:29:12	2.4	Bottom	3	2	20.34	8.52	30.54	109.6	8.27	1.2	3.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR5	15:08:41	1.0	Surface	1	1	19.93	8.45	30.75	114.2	8.68	1.9	3.5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR5	15:08:29	3.6	Bottom	3	1	19.87	8.45	30.87	113.8	8.64	2	2.3	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR5	15:08:08	3.6	Bottom	3	2	19.85	8.45	30.91	113.5	8.63	1.9	4.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:55	1.0	Surface	1	1	19.37	8.43	31.09	104.7	8.02	1.3	2.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:32	1.0	Surface	1	2	19.34	8.42	31.07	104	7.97	1.4	2.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:25	3.3	Middle	2	1	19.25	8.41	31.2	103.6	7.95	1.7	4.3	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:48	3.3	Middle	2	2	19.29	8.42	31.15	104.3	7.89	1.6	5.4	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:42	5.5	Bottom	3	1	19.31	8.42	31.14	104.3	8	1.8	4.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10A	15:34:15	5.5	Bottom	3	2	19.31	8.42	31.14	104	7.97	1.9	4.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10B	15:41:06	1.0	Surface	1	1	19.29	8.42	31.15	104.7	8.02	1.4	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10B	15:41:20	1.0	Surface	1	2	19.33	8.43	31.11	104.8	8.03	1.5	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10B	15:40:59	4.6	Bottom	3	1	19.3	8.42	31.15	104.6	8.02	1.5	3.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	SR10B	15:41:11	4.6	Bottom	3	2	19.32	8.43	31.13	104.7	8.02	1.5	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:41:47	1.0	Surface	1	1	19.84	8.48	30.82	109.6	8.34	3.5	3.4	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:42:27	1.0	Surface	1	2	19.76	8.47	30.96	110.5	8.41	3.6	3.8	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:41:33	3.8	Middle	2	1	19.67	8.47	31.1	107.4	8.18	4.1	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:42:17	3.8	Middle	2	2	19.64	8.46	31.21	109.5	8.34	4.1	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:42:01	6.6	Bottom	3	1	19.49	8.46	31.54	108.9	8.3	5.3	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS2	13:41:13	6.6	Bottom	3	2	19.38	8.45	31.67	102.6	7.83	5.5	3.9	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:11:03	1.0	Surface	1	1	19.59	8.47	30.69	108.2	8.27	2.8	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:11:30	1.0	Surface	1	2	19.59	8.47	30.7	108.2	8.27	2.6	2.8	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:10:58	6.7	Middle	2	1	19.58	8.47	30.7	108	8.26	3	3.5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:11:23	6.7	Middle	2	2	19.56	8.47	30.73	107.8	8.25	2.9	3.5	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:10:49	12.4	Bottom	3	1	19.57	8.47	30.72	107.9	8.25	3.3	3.6	
HCLR	HY/2011/03	2013-03-01	Mid-Ebb	Fine	CS(M)J5	15:11:17	12.4	Bottom	3	2	19.56	8.47	30.73	107.7	8.24	3.2	3.8	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS5	09:13:49	1.0	Surface	1	1	20.1	8.49	30.62	106.1	8.04	2.4	7.6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS5	09:14:11	1.0	Surface	1	2	20.1	8.5	30.62	106.4	8.06	2.5	7.1	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS5	09:13:45	4.6	Middle	2	1	20.1	8.49	30.62	106	8.03	2.4	8.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS5	09:14:04	4.6	Middle	2	2	20.1	8.5	30.63	106.2	8.04	2.5	8.6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS5	09:13:58	8.1	Bottom	3	1	20.1	8.5	30.63	106.1	8.04	2.6	9.5	
HCLR	HY/2011/03</																	



Project	Works	Date (yyyy-mm-dd)	Title	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS8	08:34:28	1.0	Surface	1	2	19.81	8.47	30.35	108.1	8.25	3.2	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS8	08:34:23	2.6	Bottom	3	1	19.81	8.47	30.35	108	8.24	3.1	6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS8	08:34:33	2.6	Bottom	3	2	19.81	8.48	30.35	108.1	8.24	3.1	6.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS(M)9	08:53:12	1.0	Surface	1	1	19.63	8.48	30.48	109.7	8.39	3.6	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS(M)9	08:53:19	1.0	Surface	1	2	19.62	8.47	30.48	109.8	8.4	3.5	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS(M)9	08:53:08	2.5	Bottom	3	1	19.63	8.48	30.48	109.6	8.38	3.8	5	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS(M)9	08:53:16	2.5	Bottom	3	2	19.63	8.48	30.48	109.8	8.48	3.7	4.3	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:57:11	1.0	Surface	1	1	19.72	8.41	30.89	111	8.46	5.3	3.9	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:57:11	1.0	Surface	1	2	19.72	8.41	30.88	111.2	8.46	5.4	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:57:37	5.1	Middle	1	1	19.73	8.41	30.89	110.7	8.43	6.3	5.3	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:56:59	5.1	Middle	2	1	19.73	8.41	30.91	110.5	8.42	6.2	5.7	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:56:42	9.2	Bottom	3	1	19.84	8.41	30.94	110.4	8.4	7.4	6.3	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	IS10	08:57:24	9.2	Bottom	3	2	19.74	8.41	30.93	110.5	8.42	7.5	6.4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR3	09:23:07	0.8	Middle	2	1	20.07	8.47	30.6	104.3	7.91	3.7	5.3	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR3	09:23:10	0.8	Middle	2	2	20.07	8.48	30.6	104.5	7.92	3.6	4.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR4	08:43:57	1.0	Surface	1	1	19.81	8.48	30.35	108.3	8.26	3.1	4.1	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR4	08:43:46	1.0	Surface	1	2	19.81	8.48	30.35	108.4	8.27	2.9	4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR4	08:43:42	2.4	Bottom	3	1	19.81	8.48	30.35	108.4	8.27	4.3	4.5	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR4	08:43:52	2.4	Bottom	3	2	19.81	8.48	30.35	108.3	8.27	4.6	4.1	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR5	09:04:11	1.0	Surface	1	1	19.85	8.42	30.94	108.7	8.26	10.4	14.6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR5	09:03:50	1.0	Surface	1	2	19.85	8.42	30.94	108.7	8.26	10.9	15.6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR5	09:03:36	3.4	Bottom	3	1	19.84	8.42	30.95	108.5	8.24	10.7	13.1	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR5	09:04:01	3.4	Bottom	3	2	19.84	8.42	30.95	108.6	8.25	10.6	12.9	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:41	1.0	Surface	1	1	19.42	8.43	30.9	106.6	8.17	1.7	4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:24	1.0	Surface	1	2	19.41	8.43	30.91	106.5	8.16	1.8	5.9	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:37	3.3	Middle	2	1	19.42	8.43	30.9	106.6	8.16	1.8	3.3	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:19	3.3	Middle	2	2	19.42	8.43	30.91	106.4	8.15	1.9	4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:13	5.5	Bottom	3	1	19.42	8.43	30.91	106.3	8.15	1.9	5.1	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10A	07:39:21	5.5	Bottom	3	2	19.42	8.43	30.9	106.5	8.16	2	5.9	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10B	07:31:10	1.0	Surface	1	1	19.23	8.4	31.34	103.3	7.92	2.4	6.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10B	07:31:03	1.0	Surface	1	2	19.23	8.4	31.37	103.3	7.92	2.5	7	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10B	07:30:58	4.6	Bottom	3	1	19.23	8.39	31.36	103.2	7.91	2.7	3.5	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	SR10B	07:31:06	4.6	Bottom	3	2	19.23	8.4	31.36	103.3	7.92	2.6	4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:39:11	1.0	Surface	1	1	19.68	8.41	31.08	110.8	8.44	7.5	7.6	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:39:51	1.0	Surface	1	2	19.67	8.41	31.08	110.9	8.44	7.2	7.8	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:39:36	3.9	Middle	2	1	19.67	8.41	31.08	110.6	8.42	7.7	10.4	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:39:00	3.9	Middle	2	2	19.67	8.41	31.08	110.6	8.42	8.1	9.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:38:48	6.8	Bottom	3	1	19.67	8.41	31.08	110.5	8.42	7.9	11.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS2	10:39:22	6.8	Bottom	3	2	19.67	8.41	31.08	110.6	8.42	7.9	10.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:55	1.0	Surface	1	1	19.7	8.47	30.39	110.4	8.43	2.6	3.8	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:26	1.0	Surface	1	2	19.7	8.47	30.41	110.2	8.42	2.8	3.9	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:50	6.7	Middle	2	1	19.66	8.46	30.47	109.9	8.4	2.7	3.7	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:21	6.7	Middle	2	2	19.65	8.46	30.49	109.8	8.39	2.7	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:41	12.4	Bottom	3	1	19.58	8.45	30.66	109.6	8.38	2.8	3.2	
HCLR	HY/2011/03	2013-03-01	Mid-Flood	Cloudy	CS(M)5	08:06:13	12.4	Bottom	3	2	19.61	8.45	30.62	109.7	8.38	2.9	3.3	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:20	1.0	Surface	1	1	18.88	8.38	30.63	100.4	7.78	3.1	5.9	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:49	1.0	Surface	1	2	18.92	8.38	30.6	100.7	7.8	3.1	5.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:39	4.6	Middle	2	1	18.87	8.38	30.64	100.4	7.78	3.2	6.5	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:13	4.6	Middle	2	2	18.87	8.39	30.65	100.3	7.78	3.2	5.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:32	8.2	Bottom	3	1	18.85	8.39	30.66	100.2	7.77	3.4	8.5	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS5	16:25:06	8.2	Bottom	3	2	18.87	8.38	30.64	100.3	7.77	3.3	7.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)6	16:32:34	1.0	Surface	1	1	19.2	8.37	30.34	98.3	7.59	3.7	8.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)6	16:32:22	1.0	Surface	1	2	19.22	8.37	30.32	98.3	7.59	3.7	8.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)6	16:32:28	2.4	Bottom	3	1	19.22	8.37	30.32	98.2	7.58	3.6	8.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)6	16:32:17	2.4	Bottom	3	2	19.26	8.36	30.29	98.2	7.57	3.8	7.4	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS7	16:38:58	1.0	Surface	1	1	19.42	8.39	30.22	99.8	7.68	4.2	9	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS7	16:39:12	1.0	Surface	1	2	19.43	8.39	30.22	99.9	7.68	4.2	8.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS7	16:39:05	2.4	Bottom	3	1	19.42	8.39	30.22	99.9	7.68	4.3	7.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS7	16:39:15	2.4	Bottom	3	2	19.42	8.38	30.22	99.7	7.67	4.2	6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS8	17:05:53	1.0	Surface	1	1	19.32	8.4	30.21	99.6	7.68	2	4.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS8	17:05:30	2.0	Bottom	3	1	19.31	8.4	30.21	99.6	7.67	2	5.4	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS8	17:05:29	2.6	Bottom	3	2	19.33	8.4	30.21	99.6	7.67	2	5.9	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS8	17:05:35	2.6	Bottom	3	1	19.33	8.4	30.21	99.6	7.67	2	5.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS8	17:05:34	2.6	Bottom	3	2	19.34	8.4	30.2	99.6	7.67	2.1	5.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)9	16:46:01	1.0	Surface	1	1	19.37	8.4	30.24	100.7	7.75	3.1	5.8	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)9	16:45:50	1.0	Surface	1	2	19.35	8.39	30.24	100.6	7.74	3.2	4.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)9	16:45:46	2.4	Bottom	3	1	19.38	8.39	30.21	100.6	7.74	3.3	6.5	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS(M)9	16:45:55	2.4	Bottom	3	2	19.38	8.4	30.22	100.6	7.74	3.4	6.9	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS10	17:53:59	1.0	Surface	1	1	19.1	8.35	30.85	98.4	7.58	3.2	5.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS10	17:54:56	1.0	Surface	1	2	19.12	8.35	30.85	99	7.63	3.3	6.8	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS10	17:54:41	5.0	Middle	2	1	19.06	8.34	30.86	97	7.48	3.3	6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	IS10	17:53:50	5.0	Middle	2	2	19.05	8.34	30.86	97.4	7.51	3.5	6.3	

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	Site Observation
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR4	16:54:52	1.0	Surface	1	1	19.18	8.38	30.24	97.8	7.56	2.4	4.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR4	16:54:43	1	Surface	1	2	19.12	8.38	30.25	97.7	7.55	2.5	4.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR4	16:54:48	2.4	Bottom	3	1	19.15	8.38	30.25	97.7	7.55	2.6	6.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR4	16:54:38	2.4	Bottom	3	2	19.12	8.38	30.24	97.7	7.55	2.6	7.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR5	17:45:46	1.0	Surface	1	1	19.29	8.33	30.96	97.9	7.52	4	7.8	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR5	17:46:21	1.0	Surface	1	2	19.39	8.32	30.97	98.2	7.52	3.9	7.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR5	17:45:31	3.7	Bottom	3	1	19.18	8.32	30.96	97.5	7.51	4.1	7.4	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR5	17:45:59	3.7	Bottom	3	2	19.2	8.33	30.95	97.6	7.51	4	6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:48	1.0	Surface	1	1	18.71	8.32	31.54	94.6	7.31	1.1	3.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:48	1.0	Surface	1	2	18.69	8.32	31.56	94.5	7.31	1.1	4.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:25	3.3	Middle	2	1	18.67	8.32	31.59	94.3	7.31	1.2	4.4	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:43	3.3	Middle	2	2	18.69	8.32	31.56	94.5	7.31	1.1	3.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:37	5.5	Bottom	3	1	18.7	8.32	31.56	94.4	7.3	1.2	8.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10A	18:05:18	5.5	Bottom	3	2	18.69	8.32	31.57	94.4	7.3	1.2	7.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10B	18:15:51	1.0	Surface	1	1	18.71	8.33	31.55	95	7.34	1.2	3.1	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10B	18:16:00	1.0	Surface	1	2	18.71	8.33	31.55	94.9	7.34	1.2	3.8	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10B	18:15:46	4.6	Bottom	3	1	18.72	8.33	31.55	95.1	7.35	1.2	3.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	SR10B	18:15:56	4.6	Bottom	3	2	18.72	8.33	31.54	94.9	7.34	1.2	3.4	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:16:29	1.0	Surface	1	1	19.03	8.35	30.74	102.1	7.88	2.6	3	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:17:04	1.0	Surface	1	2	19.02	8.35	30.79	101.9	7.87	2.7	2.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:16:14	3.9	Middle	2	1	18.76	8.35	31.19	101.2	7.84	3.5	3.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:16:53	3.9	Middle	2	2	18.77	8.35	31.18	101.2	7.84	3.5	3.2	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:16:43	6.8	Bottom	3	1	18.78	8.35	31.23	101	7.82	4	5.7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	C52	16:15:56	6.8	Bottom	3	2	18.75	8.35	31.21	100.4	7.77	3.8	5.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	CS1(MP)5	17:40:03	1.0	Surface	1	1	18.89	8.33	31.28	95.4	7.37	1.1	3.9	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	CS1(MP)5	17:40:24	1.0	Surface	1	2	18.89	8.34	31.28	95.5	7.37	1.2	3.6	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	CS1(MP)5	17:39:57	6.7	Middle	2	1	18.87	8.33	31.3	95.3	7.36	1.3	7.8	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	CS1(MP)5	17:40:19	6.7	Middle	2	2	18.87	8.33	31.31	95.3	7.36	1.4	7	
HCLR	HY/2011/03	2013-03-04	Mid-Ebb	Sunny	CS1(MP)5	17:39:51	12.4	Bottom	3	1	18.87	8.34	31.3	95.4	7.36	1.3	7.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:11	1.0	Surface	1	1	18.91	8.39	30.4	95.2	7.38	3.3	6.6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:31	1.0	Surface	1	2	18.92	8.39	30.4	95.3	7.39	3.3	6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:07	4.5	Middle	2	1	18.9	8.38	30.35	94.9	7.36	3.3	7.2	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:26	4.5	Middle	2	2	18.87	8.39	30.36	94.9	7.37	3.4	7.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:02	8.0	Bottom	3	1	18.92	8.38	30.35	94.9	7.36	3.5	7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS5	11:12:20	8.0	Bottom	3	2	19	8.38	30.33	94.9	7.35	3.4	7.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)6	11:04:57	1.0	Surface	1	1	18.93	8.39	30.29	96.2	7.47	4.2	10.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)6	11:04:50	1.0	Surface	1	2	18.93	8.39	30.29	96.4	7.48	4.1	10.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)6	11:04:47	2.4	Bottom	3	1	18.93	8.39	30.29	96.5	7.48	4.2	7.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)6	11:04:54	2.4	Bottom	3	2	18.93	8.39	30.29	96.3	7.48	4.1	7.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS7	10:56:55	1.0	Surface	1	1	18.99	8.38	30.28	95.3	7.39	4.6	9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS7	10:56:44	1.0	Surface	1	2	18.96	8.38	30.28	95.4	7.4	4.5	8.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS7	10:56:39	2.4	Bottom	3	1	18.99	8.38	30.26	95.5	7.4	4.9	6.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS8	10:56:48	2.4	Bottom	3	2	19	8.38	30.26	95.4	7.39	4.8	6.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS8	10:30:56	1.0	Surface	1	1	18.9	8.38	30.21	95.6	7.42	2.1	4.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS8	10:30:46	1.0	Surface	1	2	18.9	8.38	30.21	95.7	7.43	2	4.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS8	10:30:41	2.6	Bottom	3	1	18.9	8.38	30.21	95.7	7.43	2	5.6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS8	10:30:51	2.6	Bottom	3	2	18.91	8.38	30.21	95.6	7.42	2	6.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)9	10:49:55	1.0	Surface	1	1	18.91	8.39	30.26	98	7.61	3.5	5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)9	10:50:04	1.0	Surface	1	2	18.91	8.39	30.26	98	7.61	3.4	4.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)9	10:49:49	2.4	Bottom	3	1	18.92	8.38	30.24	98.1	7.61	3.6	10.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS1(MP)9	10:50:00	2.4	Bottom	3	2	18.92	8.39	30.25	98	7.6	3.5	10.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:32:25	1.0	Surface	1	1	18.93	8.35	30.9	99.9	7.73	5.3	8.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:31:22	1.0	Surface	1	2	18.93	8.35	30.9	99.9	7.72	5.2	8.8	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:31:04	5.3	Middle	2	1	18.92	8.35	30.9	99.4	7.69	6.5	8.6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:32:05	5.3	Middle	2	2	18.92	8.35	30.9	99.5	7.69	6.5	8.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:30:53	9.6	Bottom	3	1	18.91	8.35	30.9	99.1	7.66	6.9	8.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	IS10	10:31:52	9.6	Bottom	3	2	18.91	8.35	30.9	99.4	7.69	6.7	8.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR3	11:20:25	0.8	Middle	2	1	18.89	8.33	30.35	95.2	7.39	4.5	8.2	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR3	11:20:26	0.8	Middle	2	2	18.89	8.33	30.35	95.1	7.38	4.5	8.9	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR4	10:40:22	1.0	Surface	1	1	18.91	8.4	30.21	95.4	7.41	3.2	7.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR4	10:40:12	1.0	Surface	1	2	18.9	8.4	30.21	95.4	7.41	3.3	7.6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR4	10:40:08	2.4	Bottom	3	1	18.9	8.4	30.21	95.4	7.41	3.3	5.5	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR4	10:40:18	2.4	Bottom	3	2	18.9	8.4	30.21	95.4	7.4	3.4	5.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR5	10:38:55	1.0	Surface	1	1	18.94	8.34	30.87	98.5	7.62	13.5	15.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR5	10:39:23												

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	Site Observation
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR108	09:22:30	1.0	Surface	1	2	18.49	8.35	31.63	93.1	7.23	1.2		
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR108	09:22:26	4.5	Bottom	3	1	18.49	8.35	31.63	93.1	7.23	1.2	4.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	SR108	09:22:35	4.5	Bottom	3	2	18.49	8.35	31.63	93.1	7.22	1.2	4.2	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:21:14	1.0	Surface	1	1	18.99	8.36	30.96	100.8	7.78	3.3	4.2	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:21:50	1.0	Surface	1	2	18.98	8.36	30.97	100.8	7.78	3.4	3.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:21:56	4.1	Middle	2	1	18.94	8.35	31	100.4	7.75	4.3	5.8	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:20:57	4.1	Middle	2	2	18.95	8.35	31.01	100.3	7.74	4	6.3	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:20:39	7.1	Bottom	3	1	18.95	8.35	31.01	100.5	7.76	4.1	5.1	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS2	12:21:24	7.1	Bottom	3	2	18.95	8.35	30.99	100.6	7.77	3.9	4.6	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:59:45	1.0	Surface	1	1	18.77	8.38	30.92	95.7	7.42	1.1	4.8	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:59:45	1.0	Surface	1	2	18.76	8.38	30.93	95.8	7.43	1.1	4.4	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:59:35	6.7	Middle	2	1	18.73	8.37	31.03	95.1	7.37	1.3	4.7	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:59:35	6.7	Middle	2	2	18.73	8.37	31	95.3	7.39	1.2	4.2	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:59:41	12.4	Bottom	3	1	18.74	8.36	31.24	94.3	7.35	1.7	4	
HCLR	HY/2011/03	2013-03-04	Mid-Flood	Sunny	CS1(MF)5	09:58:35	12.4	Bottom	3	2	18.74	8.36	31.22	95.2	7.37	1.6	4.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:41:13	1.0	Surface	1	1	19.16	8.41	31.19	105.5	8.1	2.6	4.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:41:49	1.0	Surface	1	2	19.16	8.41	31.19	105.5	8.1	2.6	4.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:41:55	4.1	Middle	2	1	18.94	8.42	31.52	104.9	8.08	2.5	4.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:41:01	4.1	Middle	2	2	19.09	8.41	31.28	105.1	8.09	2.6	3.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:40:46	7.1	Bottom	3	1	18.82	8.42	31.66	104.6	8.07	2.6	2.9	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	19:41:24	7.1	Bottom	3	2	18.86	8.41	31.57	104.4	8.05	2.7	2.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)6	19:50:06	1.0	Surface	1	1	19.4	8.41	30.67	104.3	8	2.1	3.3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)6	19:49:48	1.0	Surface	1	2	19.4	8.41	30.67	104.2	8	2.1	2.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)6	19:49:55	2.1	Bottom	3	1	19.4	8.41	30.67	104.2	8	2.1	3.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)6	19:49:37	2.1	Bottom	3	2	19.39	8.41	30.67	104.2	8	2.1	2.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS7	19:58:45	1.0	Surface	1	1	19.4	8.41	30.67	104.4	8.01	2.2	3.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS7	19:59:02	1.0	Surface	1	2	19.39	8.41	30.67	104.3	8	2.2	5.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS7	19:58:34	2.3	Bottom	3	1	19.4	8.41	30.67	104.3	8.01	2.2	3.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS7	19:58:54	2.3	Bottom	3	2	19.39	8.41	30.67	104.3	8	2.1	2.5	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	20:24:24	1.0	Surface	1	1	18.75	8.39	30.83	98.2	7.62	2.3	2.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	20:24:56	1.0	Surface	1	2	18.77	8.39	30.83	98	7.6	2.3	3.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	20:24:11	2.9	Bottom	3	1	18.77	8.39	30.83	98.2	7.62	2.3	5.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	BS	20:24:39	2.9	Bottom	3	2	18.79	8.39	30.84	98	7.6	2.4	3.9	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)9	20:06:33	1.0	Surface	1	1	19.2	8.41	30.81	103.9	8	3.2	4.3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)9	20:06:53	1.0	Surface	1	2	19.2	8.41	30.82	103.9	8	3.3	3.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)9	20:06:31	2.7	Bottom	3	1	19.19	8.41	30.82	103.6	7.98	3.3	3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS1(MF)9	20:06:42	2.7	Bottom	3	2	19.2	8.41	30.82	103.9	7.99	3.4	3.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:18:09	1.0	Surface	1	1	18.82	8.28	31.74	104.4	8.05	2.4	2.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:18:24	1.0	Surface	1	2	18.82	8.28	31.74	104.8	8.08	2.4	3.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:18:27	5.6	Middle	2	1	18.77	8.28	31.82	104.4	8.05	2.3	3.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:18:03	5.6	Middle	2	2	18.77	8.28	31.78	104.2	8.04	2.3	2.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:17:53	10.2	Bottom	3	1	18.76	8.28	31.82	103.9	8.01	2.3	2.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	IS10	20:18:20	10.2	Bottom	3	2	18.77	8.28	31.88	104	8.02	2.3	3.7	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR3	19:31:57	0.7	Middle	2	1	19.24	8.44	31.26	106.7	8.18	1.6	3.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR3	19:31:46	0.7	Middle	2	2	19.19	8.44	31.27	106.5	8.18	1.6	2.3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR4	20:18:33	1.0	Surface	1	1	18.95	8.4	30.79	101.7	7.86	3.1	3.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR4	20:18:53	1.0	Surface	1	2	18.97	8.4	30.78	101.8	7.87	3	2.5	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR4	20:18:41	2.8	Bottom	3	1	18.99	8.4	30.79	101.8	7.86	3.2	2.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR4	20:18:21	2.8	Bottom	3	2	18.87	8.4	30.76	101.6	7.87	3.4	3.9	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR5	20:07:49	1.0	Surface	1	1	18.87	8.28	32	106.6	8.19	2.2	3.8	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR5	20:07:49	1.0	Surface	1	2	18.87	8.28	32	106.6	8.22	2.2	3.8	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR5	20:08:03	1.0	Surface	1	2	18.86	8.28	31.99	106.9	8.22	2.2	3.1	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR5	20:07:40	4.5	Bottom	3	1	18.89	8.28	32.01	106.2	8.17	2.3	2.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR5	20:07:56	4.5	Bottom	3	2	18.89	8.28	32.01	106.5	8.19	2.5	2.6	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:23:40	1.0	Surface	1	1	18.53	8.34	31.62	91.9	7.13	1.6	2.4	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:24:16	1.0	Surface	1	2	18.53	8.34	31.63	91.8	7.12	1.6	2.1	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:24:05	3.2	Middle	2	1	18.49	8.33	31.68	91.6	7.11	1.6	2.3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:23:28	5.3	Middle	2	2	18.49	8.33	31.68	91.2	7.07	1.7	3.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:23:16	5.3	Bottom	3	1	18.45	8.33	31.73	91	7.06	1.7	3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10A	21:23:53	5.3	Bottom	3	2	18.5	8.34	31.67	90.8	7.12	1.6	2.5	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10B	21:33:05	1.0	Surface	1	1	18.47	8.33	31.7	90.9	7.06	3.1	3.1	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10B	21:32:40	1.0	Surface	1	2	18.47	8.33	31.7	91.2	7.08	1.6	2.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10B	21:32:54	4.0	Bottom	3	1	18.45	8.33	31.73	90.8	7.05	1.6	4.2	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine	SR10B	21:32:32	4.0	Bottom	3	2	18.47	8.33	31.7	91.1	7.07	1.6	4.3	
HCLR	HY/2011/03	2013-03-06	Mid-Ebb	Fine</														

Project	Works	Date (yyyy-mm-dd)	Weather Condition	Tide	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:51:36	1.0	Surface	1	1	18.66	8.38	30.77	98.3	7.64	2.3	4.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:50:53	1.0	Surface	1	2	18.71	8.38	30.73	98.5	7.66	2.3	5.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:50:40	4.2	Middle	2	1	18.44	8.38	31.13	98	7.64	2.3	4.9	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:51:26	4.2	Middle	2	2	18.48	8.38	31.05	98.1	7.64	2.3	5.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:51:14	7.3	Bottom	3	1	18.31	8.38	31.5	98	7.64	2.3	5.3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I55	13:50:31	7.3	Bottom	3	2	18.42	8.38	31.36	98	7.65	2.2	4.2	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I6	13:38:50	1.0	Surface	1	1	18.91	8.39	30.66	100.7	7.8	3.6	5.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I6	13:38:29	1.0	Surface	1	2	18.89	8.39	30.7	100.6	7.8	3.7	5.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I6	13:38:15	2.2	Bottom	3	1	18.74	8.39	30.72	100.2	7.78	3.5	4.3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I6	13:38:38	2.2	Bottom	3	2	18.74	8.39	30.71	100.5	7.81	3.5	5.9	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I57	13:27:29	1.0	Surface	1	1	18.99	8.4	30.67	102	7.89	3.5	5.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I57	13:27:12	1.0	Surface	1	2	18.99	8.4	30.67	102	7.89	3.5	5.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I57	13:27:02	2.4	Bottom	3	1	18.94	8.4	30.64	101.7	7.87	3.6	5.5	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I57	13:27:21	2.4	Bottom	3	2	18.98	8.4	30.65	101.9	7.88	3.6	4.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I58	13:03:36	1.0	Surface	1	1	19.08	8.4	30.85	102.2	7.88	2	4.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I58	13:03:19	1.0	Surface	1	2	19.09	8.4	30.82	102	7.86	2	2.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I58	13:03:09	3.1	Bottom	3	1	18.86	8.41	30.83	101.4	7.85	2.2	3.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I58	13:03:28	3.1	Bottom	3	2	18.93	8.41	30.8	101.4	7.84	2.2	2.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I9	13:20:03	1.0	Surface	1	1	19.14	8.4	30.78	101.7	7.84	2.1	3.3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I9	13:19:59	1.0	Surface	1	2	19.16	8.4	30.78	101.7	7.84	2.1	2.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I9	13:19:52	2.6	Bottom	3	1	18.99	8.4	30.78	101.3	7.84	2.3	2.2	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I5(M)I9	13:19:28	2.6	Bottom	3	2	19	8.4	30.81	101.1	7.81	2.4	2.4	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:36:35	1.0	Surface	1	1	18.78	8.25	31.52	100	7.73	5.5	8.5	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:36:11	1.0	Surface	1	2	18.77	8.24	31.52	99.8	7.71	5.6	8.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:36:30	5.8	Middle	2	1	18.78	8.25	31.57	99.7	7.71	5.6	8.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:36:07	5.8	Middle	2	2	18.77	8.24	31.57	99.7	7.7	5.5	7.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:35:59	10.6	Bottom	3	1	18.78	8.24	31.6	99.5	7.68	5.7	7.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I510	12:36:22	10.6	Bottom	3	2	18.77	8.25	31.59	99.5	7.68	5.6	7.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I583	13:57:31	0.7	Middle	2	1	18.92	8.39	30.94	100.7	7.78	2.4	3.5	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I583	13:57:20	0.7	Middle	2	2	18.92	8.39	30.94	100.7	7.79	2.4	4.3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I584	13:09:07	1.0	Surface	1	1	19.23	8.39	30.87	101.6	7.81	2.1	3.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I584	13:08:45	1.0	Surface	1	2	19.3	8.39	30.89	101.9	7.83	2.1	4.5	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I584	13:08:32	2.7	Bottom	3	1	18.99	8.4	30.82	100.9	7.79	2.3	5.4	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I584	13:08:55	2.7	Bottom	3	2	18.99	8.4	30.83	101.2	7.82	2.1	5.9	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:43:05	1.0	Surface	1	1	18.63	8.24	31.63	98.6	7.63	5.5	6.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:43:45	1.0	Surface	1	2	18.65	8.24	31.62	98.7	7.64	5.6	6.2	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:43:10	4.5	Bottom	3	1	18.65	8.24	31.62	98.4	7.61	5.6	5.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:43:00	4.5	Bottom	3	2	18.65	8.24	31.62	98.6	7.63	5.6	7.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:43:10	1.0	Surface	1	1	18.62	8.31	31.56	90.8	7.03	1.6	4	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:03:38	1.0	Surface	1	2	18.59	8.31	31.57	90.9	7.05	1.6	3.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:03:03	3.3	Middle	2	1	18.59	8.31	31.58	91.1	7.06	1.6	3.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:02:53	3.3	Middle	2	2	18.55	8.32	31.58	91	7.06	1.5	2.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:03:26	3.3	Middle	2	3	18.55	8.32	31.58	90.5	7.05	1.6	3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:03:15	5.6	Bottom	3	1	18.51	8.32	31.58	90.7	7.04	1.6	2.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:02:41	5.6	Bottom	3	2	18.49	8.31	31.7	90.4	7.02	1.7	2.4	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	11:57:20	1.0	Surface	1	1	18.41	8.31	31.7	90.2	7.01	1.6	3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	11:57:40	1.0	Surface	1	2	18.4	8.31	31.7	90.1	7.01	1.7	2.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	11:57:29	4.3	Bottom	3	1	18.4	8.31	31.7	90.3	7.01	1.7	3.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	11:57:07	4.3	Bottom	3	2	18.41	8.31	31.7	90.3	7.01	1.7	3.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:45:23	1.0	Surface	1	1	18.91	8.25	31.74	100.8	7.75	1.3	2.3	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:44:51	1.0	Surface	1	2	18.87	8.25	31.74	100.7	7.76	1.5	2.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:44:45	4.1	Middle	2	1	18.86	8.24	31.74	100.5	7.74	1.8	2.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:44:45	4.1	Middle	2	2	18.86	8.24	31.74	100.5	7.74	1.6	2.1	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:44:33	7.2	Bottom	3	1	18.88	8.24	31.74	100.5	7.74	1.9	4.8	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	13:45:03	7.2	Bottom	3	2	18.82	8.25	31.74	100.3	7.73	2	3.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:31:50	1.0	Surface	1	1	18.77	8.35	31.35	98.9	7.26	2.1	2.9	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:32:03	1.0	Surface	1	2	18.74	8.34	31.37	98.5	7.23	2.1	2.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:31:17	6.3	Middle	2	1	18.5	8.34	31.48	98.5	7.18	2.3	2.7	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:31:54	6.3	Middle	2	2	18.5	8.34	31.49	98.5	7.18	2.2	2.6	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:31:43	11.6	Bottom	3	1	18.56	8.34	31.5	98.2	7.23	2.5	3.2	
HCLR	HY/2011/03	2013-03-06	Sunny	Mid-Flood	I585	12:31:04	11.6	Bottom	3	2	18.54	8.34	31.52	98.2	7.23	2.4	2.2	
HCLR	HY/2011/03	2013-03-08	Sunny	Mid-Ebb	I55	11:54:11	1.0	Surface	1	1	19.62	8.4	30.46	110.1	8.42	3.1	2.5	
HCLR	HY/2011/03	2013-03-08	Sunny	Mid-Ebb	I55	11:54:45	1.0	Surface	1	2	19.62	8.4	30.46	110.2	8.43	3	2.3	
HCLR	HY/2011/03	2013-03-08	Sunny	Mid-Ebb	I55	11:54:40	4.7	Middle	2	1	19.6	8.4	30.47	109.9	8.41	3.1	4.6	
HCLR	HY/2011/03	2013-03-08	Sunny	Mid-Ebb	I55													

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	Site Observation
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS8	11:14:45	1.0	Surface	1	2	19.72	8.39	30.13	109.8	8.4	2.6	2.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS8	11:15:06	2.5	Bottom	3	1	19.67	8.37	30.47	109.3	8.35	3.5	3.3	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS8	11:15:26	2.5	Bottom	3	2	19.68	8.38	30.4	109.5	8.37	3.4	4.2	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	ISM9	11:31:36	1.0	Surface	1	1	19.62	8.4	30.28	112.8	8.64	2.1	2.7	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	ISM9	11:31:46	1.0	Surface	1	2	19.63	8.4	30.28	113.1	8.66	2.2	2.9	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	ISM9	11:31:31	2.4	Bottom	3	1	19.65	8.4	30.26	112.8	8.65	2.2	6.1	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	ISM9	11:31:41	2.4	Bottom	3	2	19.65	8.4	30.25	113.1	8.66	2.1	5.5	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:00:07	1.0	Surface	1	2	19.75	8.32	29.39	109.6	8.41	2	3.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:01:25	1.0	Surface	1	2	19.72	8.33	29.59	109.3	8.39	2.1	3.2	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:01:00	5.3	Middle	2	1	19.49	8.32	30.68	106.3	8.14	4.5	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:05:31	5.3	Middle	2	2	19.49	8.32	30.69	106.8	8.18	4.2	5	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:00:44	9.5	Bottom	3	1	19.4	8.31	31.1	106	8.12	4.7	6.2	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	IS10	11:00:44	9.5	Bottom	3	2	19.4	8.31	31.1	106	8.12	4.7	6.2	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR3	12:00:41	0.8	Middle	2	1	19.64	8.43	31.07	105.4	8.06	4.9	5.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR3	12:00:36	0.8	Middle	2	2	19.64	8.43	31.02	105.4	8.06	4.9	5.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR4	11:20:45	1.0	Surface	1	2	19.72	8.38	30.05	108.5	8.31	2	4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR4	11:20:57	1.0	Surface	1	1	19.72	8.37	30.06	108.2	8.29	1.9	4.9	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR4	11:20:51	2.5	Bottom	3	1	19.72	8.37	30.1	108.6	8.31	1.9	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR4	11:20:59	2.5	Bottom	3	2	19.72	8.37	30.06	108.7	8.32	2.1	6.1	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR5	11:08:42	1.0	Surface	1	1	19.81	8.32	29.7	110.8	8.49	1.9	2.7	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR5	11:09:17	1.0	Surface	1	2	19.7	8.32	29.89	110.7	8.48	2	3	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR5	11:08:20	4.4	Bottom	3	1	19.51	8.33	30.62	110.3	8.42	2.2	4.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR5	11:08:59	4.4	Bottom	3	2	19.55	8.33	30.57	110.2	8.44	2.2	4.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10A	09:56:18	1.0	Surface	1	1	18.73	8.3	31.66	92.8	7.17	1.1	3.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10A	09:56:39	1.0	Surface	1	2	18.69	8.31	31.69	92.7	7.17	1.1	4.7	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10A	09:56:33	3.3	Middle	2	1	18.67	8.31	31.71	92.5	7.16	1.2	5.1	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10A	09:56:26	5.5	Bottom	3	1	18.69	8.31	31.72	92.6	7.16	1.2	4.1	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10A	09:56:03	5.5	Bottom	3	2	18.69	8.31	31.7	92.6	7.15	1.2	5.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10B	09:46:03	1.0	Surface	1	1	18.63	8.31	31.78	98.1	7.2	1.2	3.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10B	09:45:46	1.0	Surface	1	2	18.64	8.31	31.78	98.2	7.2	1.2	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10B	09:45:54	4.5	Bottom	3	1	18.64	8.31	31.77	98.1	7.2	1.2	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	SR10B	09:45:37	4.5	Bottom	3	2	18.64	8.31	31.78	98.2	7.21	1.2	5.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:14:22	1.0	Surface	1	2	20.3	8.33	29	111.8	8.52	1.8	3.2	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:15:54	3.8	Middle	2	1	20.23	8.34	29.14	112.4	8.57	2	3.5	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:14:05	3.8	Middle	2	2	19.41	8.33	31.04	106.7	8.17	1.9	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:15:35	3.8	Middle	2	1	19.42	8.33	31.03	107.6	8.24	2.1	4.6	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:15:04	6.6	Bottom	3	1	19.36	8.32	31.19	107.1	8.2	4	6	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS2	12:13:25	6.6	Bottom	3	2	19.31	8.31	31.3	104.5	8.01	3.7	3.4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:30:45	1.0	Surface	1	1	19.04	8.34	31.23	96.5	7.43	1.1	4.3	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:31:34	1.0	Surface	1	2	19.07	8.34	31.18	97	7.47	1.2	3.9	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:31:22	6.8	Middle	2	1	18.93	8.32	31.39	95.5	7.36	1.2	4.7	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:30:53	6.8	Middle	2	2	18.91	8.32	31.42	95.6	7.37	1.2	4	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:31:08	12.5	Bottom	3	1	18.87	8.32	31.46	96.6	7.37	1.2	5.8	
HKLR	HY/2011/03	2013-03-08	Mid-Ebb	Sunny	CS1(M)5	10:30:20	12.5	Bottom	3	2	18.89	8.32	31.44	96.3	7.43	1.3	5.3	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:34:18	1.0	Surface	1	1	19.88	8.43	30.32	115.2	8.74	2.4	2.9	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:33:34	1.0	Surface	1	2	19.85	8.42	30.32	114.6	8.74	2.4	2.2	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:34:11	4.8	Middle	2	1	19.8	8.41	30.38	113.3	8.64	2.4	4.5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:33:28	4.8	Middle	2	2	19.77	8.41	30.39	113.2	8.64	2.5	4	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:33:56	8.5	Bottom	3	1	19.64	8.39	30.62	112.1	8.57	2.6	6.7	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS5	14:33:15	8.5	Bottom	3	2	19.64	8.39	30.59	112.4	8.59	2.7	5.2	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM6	14:41:14	1.0	Surface	1	1	20.1	8.4	30.77	114.4	8.66	7.3	3.7	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM6	14:41:02	1.0	Surface	1	2	20.1	8.4	30.81	114.2	8.66	7.1	3.8	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM6	14:40:57	2.5	Bottom	3	1	20.16	8.4	30.7	114.3	8.65	7.5	5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM6	14:41:07	2.5	Bottom	3	2	20.1	8.4	30.73	114	8.63	7.4	4.5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS7	14:49:27	1.0	Surface	1	1	20.07	8.45	30.29	123.8	9.41	4.9	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS7	14:49:42	1.0	Surface	1	2	20.09	8.45	30.28	123.8	9.4	4.9	4.4	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS7	14:49:32	2.5	Bottom	3	1	20.05	8.45	30.25	123.7	9.4	5.3	7.1	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS7	14:49:17	2.5	Bottom	3	2	19.96	8.45	30.27	123.6	9.41	5.6	8	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS8	15:15:09	1.0	Surface	1	1	20.47	8.43	30.05	119.7	9.04	2.6	2.4	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS8	15:14:57	1.0	Surface	1	2	20.46	8.43	30.07	119.8	9.05	2.7	3	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS8	15:14:51	2.5	Bottom	3	1	20.46	8.43	30.06	119.8	9.04	2.7	4.8	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS8	15:15:01	2.5	Bottom	3	2	20.46	8.43	30.05	119.8	9.05	2.7	5.5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM9	14:56:26	1.0	Surface	1	1	19.91	8.42	30.44	116.7	8.88	2.6	4.9	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM9	14:57:41	1.0	Surface	1	2	20.21	8.41	30.29	116.3	8.81	2.7	5.6	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM9	14:56:22	2.5	Bottom	3	1	20.02	8.42	30.37	116.4	8.84	2.7	4.3	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	ISM9	14:57:19	2.5	Bottom	3	2	19.62	8.4	30.78	115.4	8.81	2.7	4.7	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:47:34	1.0	Surface	1	1	20.26	8.39	28.65	117.8	9	2.4	3.4	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:46:57	1.0	Surface	1	2	20.35	8.39	28.65	119.9	9.15	2.3	2.5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:46:10	5.4	Middle	2	1	19.48	8.31	30.88	106.7	8.17	4.1	5	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:47:15	5.4	Middle	2	2	19.49	8.32	30.79	108.8	8.33	3.9	3.7	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:45:58	9.8	Bottom	3	1	19.38	8.32	31.12	107.4	8.22	3.1	5.1	
HKLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	IS10	15:47:06	9.8	Bottom	3	2	19.42	8.32	31.03	110.7	8.48	3	4.1	
HKLR	HY/2																	



Project	Works	Date (yyyy-mm-dd)	Title	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR4	15:04:50	1.0	Surface	1	1	20.42	8.43	30.13	120.7	9.12	2.8	4.3	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR4	15:05:02	2.5	Bottom	1	2	20.44	8.43	30.08	120.5	9.11	2.7	4.7	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR4	15:04:57	1.0	Surface	3	2	20.43	8.43	30.08	120.6	9.11	2.8	4.1	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR4	15:04:44	2.5	Bottom	3	2	20.45	8.43	30.12	120.8	9.12	2.8	4.7	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR5	15:33:04	1.0	Surface	1	1	20.4	8.37	28.84	121.8	9.28	1.7	2.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR5	15:32:28	1.0	Surface	1	2	20.29	8.37	28.9	121	9.3	1.6	3.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR5	15:32:44	4.5	Bottom	3	1	19.82	8.39	29.4	121.2	9.28	2.4	5.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR5	15:32:07	4.5	Bottom	3	2	19.83	8.39	29.41	121.2	9.29	2.5	5.8	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:27:05	1.0	Surface	1	1	18.89	8.31	31.64	95.8	7.38	1.2	3.3	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:27:29	1.0	Surface	1	2	18.89	8.31	31.64	95.8	7.38	1.2	3.3	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:26:59	3.3	Middle	1	2	18.88	8.31	31.64	95.7	7.37	1.3	3.8	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:27:25	3.3	Middle	2	2	18.89	8.31	31.64	95.7	7.37	1.3	3.8	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:26:52	5.6	Bottom	3	1	18.88	8.31	31.64	95.6	7.36	1.4	6.2	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10A	16:27:18	5.6	Bottom	3	2	18.89	8.31	31.64	95.7	7.37	1.3	7.3	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10B	16:36:41	1.0	Surface	1	1	18.9	8.31	31.64	96.3	7.42	1.3	3.6	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10B	16:36:41	1.0	Surface	1	2	18.9	8.31	31.63	96.4	7.42	1.2	3.7	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10B	16:36:56	4.4	Bottom	3	1	18.9	8.31	31.63	96.3	7.42	1.2	6.1	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	SR10B	16:36:27	4.4	Bottom	3	2	18.9	8.31	31.63	96.4	7.42	1.3	5.2	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:27:21	1.0	Surface	1	1	20.04	8.37	29.27	116.3	8.89	1.7	3.2	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:26:29	1.0	Surface	1	2	20.06	8.38	29.28	115	8.79	1.8	2.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:26:16	4.0	Middle	2	1	19.76	8.39	29.63	112.3	8.61	1.7	5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:27:00	4.0	Middle	2	2	19.69	8.39	29.74	113.9	8.74	1.9	3.7	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:25:51	7.0	Bottom	3	1	19.51	8.37	30.47	107.4	8.23	4.8	4.8	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS2	14:26:46	7.0	Bottom	3	2	19.57	8.37	30.35	113.4	8.69	1.9	4.4	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:53:49	1.0	Surface	1	1	19.89	8.43	30.32	118.8	9.05	1.5	2.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:54:22	1.0	Surface	1	2	20.07	8.44	30.15	119.8	9.11	1.6	2.9	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:53:45	6.8	Middle	2	1	19.81	8.43	30.4	117.6	8.97	1.6	2.6	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:54:17	6.8	Middle	2	2	19.86	8.43	30.34	118	9	1.6	3.5	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:54:01	12.6	Bottom	3	1	19.46	8.4	30.89	116.6	8.92	1.6	4.7	
HCLR	HY/2011/03	2013-03-08	Mid-Flood	Sunny	CS1(M)5	15:53:30	12.6	Bottom	3	2	19.4	8.4	30.94	116.4	8.92	1.7	5.7	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:46:58	1.0	Surface	1	1	21	8.37	29.05	111.7	8.4	3.7	5.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:47:58	1.0	Surface	1	2	21.16	8.37	29	111.2	8.34	4	4.4	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:46:46	4.7	Middle	2	1	20.46	8.37	29.11	109.9	8.35	3.9	4.6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:47:35	4.7	Middle	2	2	20.51	8.38	29.11	110.1	8.35	4	6.5	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:47:19	8.3	Bottom	3	1	20.18	8.37	29.13	109	8.32	5.5	6.9	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS5	13:46:30	8.3	Bottom	3	2	20.22	8.37	29.12	109.1	8.32	5.5	6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)6	13:33:43	1.0	Surface	1	1	21.07	8.38	29.03	111.2	8.35	3.6	5.8	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)6	13:34:13	1.0	Surface	1	2	21.09	8.37	29.02	111.5	8.37	3.6	5.6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)6	13:33:33	2.7	Bottom	3	1	20.99	8.38	29.04	110.4	8.3	3.6	4.4	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)6	13:33:58	2.7	Bottom	3	2	20.94	8.38	29.05	111.3	8.38	3.4	5.9	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS7	13:27:33	1.0	Surface	1	1	21.33	8.39	28.89	111.3	8.33	6.7	6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS7	13:27:55	1.0	Surface	1	2	21.32	8.39	28.89	111.3	8.33	6.5	5.9	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS7	13:27:46	2.4	Bottom	3	1	21.29	8.39	28.89	111	8.31	7.6	6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS8	13:02:03	1.0	Surface	1	2	21.22	8.38	28.94	111.6	8.36	3.9	2.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS8	13:01:45	1.0	Surface	1	2	21.24	8.38	28.94	111.4	8.35	4	2.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS8	13:01:54	2.7	Bottom	3	1	21.23	8.38	28.94	111.4	8.35	4.4	3.5	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS8	13:01:31	2.7	Bottom	3	2	21.21	8.38	28.95	111	8.32	4.9	4.6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)9	13:19:40	1.0	Surface	1	1	20.96	8.39	28.8	113.7	8.57	4	5.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)9	13:19:58	1.0	Surface	1	2	20.93	8.39	28.8	113.9	8.59	4.2	4.6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)9	13:19:28	2.4	Bottom	3	1	20.92	8.39	28.79	113.4	8.56	4.6	3.5	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS1(M)9	13:19:51	2.4	Bottom	3	2	20.89	8.39	28.8	113.7	8.58	4.5	4.1	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:26	1.0	Surface	1	1	20.52	8.32	29.19	109.7	8.31	3.8	3.6	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:11	5.3	Bottom	3	2	20.14	8.32	29.21	109.6	8.31	3.9	3.9	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:11	5.3	Middle	2	1	20.15	8.32	29.59	108.2	8.24	5.2	3.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:57	5.3	Middle	2	2	20.15	8.32	29.57	108.5	8.26	5.1	2.2	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:40	9.6	Bottom	3	1	20.2	8.32	29.54	108.5	8.26	6.3	3.1	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	IS10	13:18:00	9.6	Bottom	3	2	20.07	8.32	29.67	107.9	8.23	6.3	4	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR3	13:53:06	0.7	Middle	2	1	20.9	8.39	29.1	112.4	8.47	4.6	4.5	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR3	13:53:20	0.7	Middle	2	2	20.9	8.39	29.1	113	8.52	4.2	4	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR4	13:09:20	1.0	Surface	1	1	21.29	8.37	28.87	113	8.46	3.6	4.8	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR4	13:08:53	1.0	Surface	1	2	21.24	8.37	28.87	112.8	8.46	3.6	4.7	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR4	13:09:07	2.5	Bottom	3	1	21.08	8.38	28.87	112.8	8.48	4	3	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR4	13:08:41	2.5	Bottom	3	2	21.12	8.38	28.84	111.8	8.4	3.9	2.9	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb	Sunny	SR5	13:26:59	1.0	Surface	1	1	20.76	8.32	29.27	108.8	8.21	5.2	5.4	
HCLR	HY/2011/03	2013-03-11	Mid-Ebb															

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	Site Observation
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	SR10B	11:34:23	1.0	Surface	1	2	19.58	8.3	30.75	100.6	7.69	1.6	2.2	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	SR10B	11:34:02	4.7	Bottom	3	1	19.57	8.3	30.76	100.4	7.68	2.1	3.4	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	SR10B	11:34:43	4.7	Bottom	3	2	19.56	8.3	30.75	100.3	7.67	2	3.4	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:44:25	1.0	Surface	1	1	20.45	8.34	29.19	112.7	8.56	3.7	2.2	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:43:50	1.0	Surface	1	2	20.43	8.34	29.24	112.8	8.56	3.9	2.9	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:43:16	3.9	Middle	2	1	20.11	8.36	29.91	112.4	8.55	4.2	7	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:44:11	3.9	Middle	2	2	20.2	8.35	29.63	112.4	8.55	4.2	6.4	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:43:52	6.8	Bottom	3	1	19.99	8.36	30.11	111.2	8.47	5.4	8.2	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS2	14:42:54	6.8	Bottom	3	2	19.87	8.36	30.26	110.6	8.43	5.3	8.6	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:21:34	1.0	Surface	1	1	20.44	8.35	29.62	107.3	8.13	2.5	3	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:22:33	1.0	Surface	1	2	20.42	8.35	29.62	106.9	8.1	2.3	3.7	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:21:09	6.6	Middle	2	1	19.98	8.33	29.86	103.9	7.93	3.8	2.8	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:22:15	6.6	Middle	2	2	20.01	8.33	29.84	104.4	7.96	3.8	3	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:21:53	12.2	Bottom	3	1	19.93	8.3	29.79	104.8	8	8.3	4.6	
HCLR	HY2011/03	2013-03-11	Mid-Ebb	Sunny	CS1	12:20:50	12.2	Bottom	3	2	19.89	8.33	29.95	103.9	7.93	8.9	5.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:20:23	1.0	Surface	1	1	21.29	8.38	28.95	110.7	8.29	5	5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:18:05	1.0	Surface	1	2	21.31	8.38	28.95	111.3	8.33	4.5	4.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:20:04	4.8	Middle	2	1	21.3	8.38	28.95	109.6	8.2	5	6.6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:17:46	4.8	Middle	2	2	21.29	8.38	28.96	110.6	8.28	4.6	5.9	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:19:47	8.6	Bottom	3	1	21.22	8.37	28.97	108	8.09	4.8	6.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	17:17:36	8.6	Bottom	3	2	21.28	8.38	28.96	110.8	8.29	4.3	5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS1	17:27:46	1.0	Surface	1	1	21.44	8.4	28.96	112.3	8.38	5.8	5.9	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS1	17:28:07	1.0	Surface	1	2	21.44	8.4	28.96	112.5	8.4	5.7	5.1	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS1	17:27:58	2.5	Bottom	3	1	21.44	8.4	28.97	112.5	8.39	6	5.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS1	17:27:36	2.5	Bottom	3	2	21.45	8.4	28.96	112	8.36	5.6	5.5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS7	17:35:20	1.0	Surface	1	1	21.37	8.4	28.94	112.7	8.42	7.1	7.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS7	17:34:53	1.0	Surface	1	2	21.38	8.4	28.95	112.1	8.38	6.9	7.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS7	17:35:04	2.6	Bottom	3	1	21.38	8.4	28.93	112.2	8.39	9	7.9	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS7	17:34:38	2.6	Bottom	3	2	21.38	8.4	28.95	111.9	8.36	8.6	7.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	18:00:32	1.0	Surface	1	1	20.94	8.39	28.86	112	8.44	6.9	8.7	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	18:00:53	1.0	Surface	1	2	20.95	8.39	28.86	112	8.44	7.7	8.6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	18:00:21	2.7	Bottom	3	1	20.95	8.39	28.86	111.9	8.43	7.7	10.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	BS	18:00:45	2.7	Bottom	3	2	20.96	8.39	28.86	111.8	8.43	7.7	10.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS8	17:41:52	1.0	Surface	1	1	20.86	8.38	28.87	110.6	8.35	5.4	6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS8	17:42:12	1.0	Surface	1	2	20.86	8.39	28.87	110.7	8.36	5.7	6.6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS8	17:41:42	2.6	Bottom	3	1	20.84	8.38	28.87	110.4	8.34	5.8	6.1	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS8	17:41:59	2.6	Bottom	3	2	20.86	8.39	28.87	110.6	8.35	5.5	5.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:21	1.0	Surface	1	1	20.5	8.36	29.53	109.8	8.31	6.4	9	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:56	1.0	Surface	1	2	20.55	8.36	29.54	109.8	8.3	6.5	8.9	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:11	5.2	Middle	2	1	20.44	8.36	29.58	109.5	8.3	8.1	9.7	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:46	5.2	Middle	2	2	20.43	8.36	29.57	109.3	8.28	8.5	9.7	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:01	9.3	Bottom	3	1	20.4	8.36	29.62	109.4	8.29	8.3	9.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	IS10	18:51:36	9.3	Bottom	3	2	20.41	8.36	29.62	108.8	8.25	8.5	10.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR3	17:04:16	0.9	Middle	2	1	21.39	8.39	28.97	110.6	8.26	6.5	7.3	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR3	17:04:33	0.9	Middle	2	2	21.39	8.39	28.96	111.2	8.31	6.8	6.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR4	17:50:49	1.0	Surface	1	1	20.94	8.39	28.86	111.7	8.42	6.4	11.1	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR4	17:51:13	1.0	Surface	1	2	20.94	8.39	28.86	111.8	8.43	6.5	12.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR4	17:51:01	2.5	Bottom	3	1	20.94	8.39	28.86	111.7	8.42	6.6	8.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR4	17:50:32	2.5	Bottom	3	2	20.94	8.39	28.86	111.6	8.41	6.6	8.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR4	18:41:57	1.0	Surface	1	1	20.46	8.36	29.56	110.3	8.33	3.9	6.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR5	18:42:46	1.0	Surface	1	2	20.46	8.36	29.55	110.3	8.36	3.8	7.1	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR5	18:42:20	3.3	Bottom	3	1	20.47	8.36	29.57	110.3	8.33	3.8	5.5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR5	18:41:25	3.3	Bottom	3	2	20.46	8.35	29.57	109.9	8.32	3.8	5.5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:17:25	1.0	Surface	1	1	19.71	8.33	30.62	101.1	7.72	1.4	2.6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:16:42	1.0	Surface	1	2	19.7	8.33	30.62	101.1	7.72	1.4	3.6	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:16:26	3.5	Middle	2	1	19.66	8.33	30.7	100.7	7.69	1.7	4.2	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:17:10	3.5	Middle	2	2	19.66	8.33	30.69	100.7	7.69	1.6	3.3	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:16:17	5.9	Bottom	3	1	19.62	8.33	30.77	100.6	7.68	1.6	3.4	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10A	19:16:59	5.9	Bottom	3	2	19.62	8.33	30.78	100.6	7.68	1.6	3.5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10B	19:26:06	1.0	Surface	1	1	19.42	8.32	31.09	100.3	7.68	1.7	3.7	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10B	19:25:33	1.0	Surface	1	2	19.35	8.31	31.15	100.3	7.68	1.9	3.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10B	19:24:36	4.5	Bottom	3	1	19.4	8.32	31.11	100.2	7.66	3.8	4.5	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	SR10B	19:25:48	4.5	Bottom	3	2	19.41	8.32	31.11	100.3	7.68	3.5	3	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	CS2	17:08:23	1.0	Surface	1	1	20.67	8.39	29	110.1	8.33	6.1	5.8	
HCLR	HY2011/03	2013-03-11	Mid-Flood	Sunny	CS2	17:07:17	1.0	Surface	1	2	20.64	8.41	29.					

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	Site Observation
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:50:33	1.0	Surface	1	1	21.07	8.36	29.41	102.6	7.69	2.8	2.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:51:11	1.0	Surface	1	2	21.05	8.36	29.4	102.6	7.69	2.8	2.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:50:59	4.1	Middle	2	1	20.89	8.36	29.41	101.9	7.66	2.8	3.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:50:20	4.1	Middle	2	2	20.93	8.36	29.4	102	7.66	2.8	3.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:50:09	7.2	Bottom	3	1	20.85	8.36	29.38	101.7	7.66	2.8	3.3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS5	14:50:43	7.2	Bottom	3	2	20.9	8.36	29.37	101.9	7.66	3	3.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J6	14:42:10	1.0	Surface	1	1	21.13	8.36	29.36	100.4	7.52	5.5	4.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J6	14:41:52	1.0	Surface	1	2	21.14	8.36	29.37	100.4	7.52	5.5	3.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J6	14:41:40	2.1	Bottom	3	1	21.07	8.36	29.32	100.3	7.52	5.7	4.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J6	14:41:58	2.1	Bottom	3	2	21.09	8.36	29.38	100.5	7.53	5.8	3.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS7	14:35:08	1.0	Surface	1	1	21.06	8.38	29.19	104.6	7.85	4.5	1.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS7	14:35:32	1.0	Surface	1	2	21.05	8.38	29.2	105	7.88	4.5	1.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS7	14:35:19	2.4	Bottom	3	1	21.08	8.38	29.3	104.9	7.87	5.2	1.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS7	14:34:57	2.4	Bottom	3	2	21.07	8.38	29.43	104.4	7.82	5.1	1.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS8	14:13:45	1.0	Surface	1	1	21.18	8.37	29.13	103.8	7.78	2.1	4.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS8	14:13:28	1.0	Surface	1	2	21.12	8.37	29.21	103.7	7.77	2.2	3.7	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS8	14:13:34	2.9	Bottom	3	1	21.11	8.37	29.33	103.6	7.76	2.2	4.7	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS8	14:13:20	2.9	Bottom	3	2	21.1	8.37	29.06	103.5	7.76	2.2	4	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J9	14:29:05	1.0	Surface	1	1	21.12	8.36	29.04	103	7.73	4.5	5	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J9	14:28:37	1.0	Surface	1	2	21.1	8.36	29.07	102.8	7.72	4.5	5.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J9	14:28:55	2.7	Bottom	3	1	20.93	8.37	29.11	102.6	7.72	4.5	4.5	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS(M)J9	14:28:25	2.7	Bottom	3	2	20.98	8.36	29.09	102.1	7.61	4.6	4.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:27:42	1.0	Surface	1	1	21.1	8.25	28.4	101	7.61	4.9	4	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:27:12	1.0	Surface	1	2	21.17	8.25	28.39	101.3	7.62	5	3.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:27:34	5.6	Middle	2	1	20.95	8.25	28.72	100.6	7.59	5.6	3.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:27:03	5.6	Middle	2	2	20.9	8.26	28.94	100.5	7.58	5.1	3.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:26:50	10.1	Bottom	3	1	20.94	8.25	28.99	100.4	7.56	5.9	4.5	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	IS10	14:26:10	10.1	Bottom	3	2	20.9	8.25	29.12	100.2	7.55	5.6	3.3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR3	14:59:28	0.6	Middle	2	1	21.11	8.37	29.39	103.1	7.72	2.8	4.3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR3	14:59:25	0.6	Middle	2	2	21.08	8.37	29.39	103.1	7.72	2.9	3.4	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR4	14:18:56	1.0	Surface	1	1	21.94	8.36	29.41	103.3	7.62	1.8	3.4	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR4	14:18:36	1.0	Surface	1	2	21.8	8.36	29.4	102.8	7.61	2.1	2.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR4	14:18:25	2.7	Bottom	3	1	21.64	8.36	28.43	102.3	7.59	2	2.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR5	14:31:27	1.0	Surface	1	1	21.13	8.24	28.36	101	7.61	3.7	3.7	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR5	14:31:50	1.0	Surface	1	2	21.19	8.24	28.31	101	7.6	3.4	3.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR5	14:31:11	4.0	Bottom	3	1	20.92	8.25	29.01	100.3	7.56	3.8	3.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR5	14:31:39	4.0	Bottom	3	2	21.02	8.25	28.53	100.5	7.58	3.7	3.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	13:00:40	1.0	Surface	1	1	20	8.32	30.38	98.6	7.49	1.5	1.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	12:59:59	1.0	Surface	1	2	20.02	8.32	30.37	98.7	7.5	1.5	1.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	12:59:40	3.2	Middle	2	1	20.02	8.31	30.37	98.4	7.48	1.5	1.8	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	13:00:25	3.2	Middle	2	2	20.01	8.32	30.37	98.5	7.48	1.6	1.3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	13:00:14	5.4	Bottom	3	1	20	8.32	30.38	98.3	7.47	1.6	2.4	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10A	12:59:29	5.4	Bottom	3	2	20.02	8.31	30.37	98.3	7.47	1.6	2.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10B	12:53:50	1.0	Surface	1	1	20.01	8.3	30.55	98.1	7.44	1.6	3.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10B	12:54:06	1.0	Surface	1	2	20.01	8.3	30.57	98.2	7.46	1.6	3.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10B	12:53:57	3.9	Bottom	3	1	20.01	8.3	30.58	98	7.44	1.6	4.2	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	SR10B	12:53:41	3.9	Bottom	3	2	20.01	8.3	30.58	97.8	7.42	1.6	5	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:51:43	1.0	Surface	1	1	20.97	8.22	28.17	99.4	7.51	6.1	4.3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:51:54	1.0	Surface	1	2	20.83	8.24	28.46	99.4	7.52	6.6	4.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:51:47	4.1	Middle	2	1	20.73	8.25	29.04	99.2	7.49	6.8	4.9	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:50:54	4.1	Middle	2	2	20.74	8.25	28.96	98.8	7.47	6.9	4.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:51:32	7.1	Bottom	3	1	20.69	8.26	29.26	98.2	7.42	7.1	7.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS2	15:50:27	7.1	Bottom	3	2	20.64	8.26	29.39	98.4	7.44	6.9	6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:38:07	1.0	Surface	1	1	20.58	8.36	29.4	101.2	7.65	1.5	3	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:38:49	1.0	Surface	1	2	20.58	8.36	29.41	101.1	7.65	1.5	2.5	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:38:38	6.2	Middle	2	1	20.14	8.35	29.89	99.2	7.54	1.5	2.6	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:37:53	6.2	Middle	2	2	20.15	8.35	29.87	98.9	7.52	1.5	2.1	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:38:27	11.3	Bottom	3	1	20.01	8.34	30.16	99.7	7.59	1.6	2.7	
HCLR	HY/2011/03	2013-03-13	Mid-Ebb	Sunny	CS(M)J5	13:37:42	11.3	Bottom	3	2	20.02	8.34	30.14	99.1	7.54	1.5	2.6	
HCLR	HY/2011/03	2013-03-13	Mid-Flood	Fine	IS5	19:01:38	1.0	Surface	1	1	21.31	8.38	29.28	102.6	7.67	3.9	3	
HCLR	HY/2011/03	2013-03-13	Mid-Flood	Fine	IS5	19:02:07	1.0	Surface	1	2	21.31	8.38	29.28	102.7	7.67	3.7	3.6	
HCLR	HY/2011/03	2013-03-13	Mid-Flood	Fine	IS5	19:01:31	4.4	Middle	2	1	21.3	8.38	29.29	102.3	7.64	4	4.5	
HCLR	HY/2011/03	2013-03-13	Mid-Flood	Fine	IS5	19:01:58	4.4	Middle	2	2	21.28	8.38	29.29	102.3	7.64	3.7	4.6	
HCLR	HY/2011/03	2013-03-13	Mid-Flood	Fine	IS5	19:01:48	7.7	Bottom	3	1	21.28	8.38	29.29	102.4	7.65	4.1	5.4	
HCLR	HY/2011/03	2013-03-13	Mid-Flood															

Project	Works	Date (yyyy-mm-dd)	Weather Condition	Title	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS8	19:43:49	1.0	Surface	1	2	21.17	8.36	28.52	101.2	7.62	7.2	6.5	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS8	19:43:47	2.7	Bottom	3	1	21.21	8.37	29.02	101.3	7.6	7.5	6.2	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS8	19:43:38	2.7	Bottom	3	2	21.2	8.36	29.02	101.2	7.59	7.4	7.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS(M)9	19:25:29	1.0	Surface	1	1	20.98	8.36	28.92	98.6	7.42	10.1	12.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS(M)9	19:25:08	1.0	Surface	1	2	20.96	8.36	28.92	98.6	7.42	10.3	12.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS(M)9	19:24:54	2.3	Bottom	3	1	20.97	8.36	29.22	98.5	7.41	10.5	11.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS(M)9	19:25:20	2.3	Bottom	3	2	20.97	8.36	29.2	98.6	7.41	10.7	11.7	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:39:36	1.0	Surface	1	1	20.93	8.25	28.37	97.4	7.36	3.3	4.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:40:14	1.0	Surface	1	2	20.94	8.25	28.35	97.4	7.36	3	4.2	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:40:06	5.6	Middle	2	1	20.93	8.25	28.38	97.3	7.36	3.1	4.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:39:29	5.6	Middle	2	2	20.92	8.25	28.41	97.3	7.35	4.2	4.2	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:39:55	10.2	Bottom	3	1	20.93	8.25	28.43	97.2	7.35	3.5	5	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	IS10	19:39:20	10.2	Bottom	3	2	20.91	8.25	28.45	97.2	7.35	3.7	5.1	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR3	18:48:06	0.6	Middle	2	1	21.27	8.39	29.4	101.9	7.61	3.5	5.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR3	18:47:56	0.6	Middle	2	2	21.27	8.39	29.42	101.8	7.6	3.3	5.1	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR4	19:33:49	1.0	Surface	1	1	21.19	8.37	28.9	101.9	7.65	3.7	6.1	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR4	19:34:06	1.0	Surface	1	2	21.19	8.37	28.94	101.9	7.64	3.8	6.1	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR4	19:33:55	2.9	Bottom	3	1	21.2	8.37	29.12	101.8	7.62	4.2	6	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR4	19:33:55	2.9	Bottom	3	2	21.22	8.38	29.2	101.9	7.63	4.1	5.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR5	19:33:50	1.0	Surface	1	1	20.94	8.25	28.35	97.5	7.37	3	3.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR5	19:33:26	1.0	Surface	1	2	20.93	8.25	28.39	97.5	7.37	3.2	2.1	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR5	19:33:39	4.1	Bottom	3	1	20.94	8.25	28.39	97.3	7.36	3.1	3.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR5	19:33:47	4.1	Bottom	3	2	20.93	8.25	28.4	97.5	7.37	3.5	2.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:56:34	1.0	Surface	1	1	20.18	8.36	30.12	97.7	7.42	1.4	2.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:56:02	1.0	Surface	1	2	20.19	8.36	30.11	97.8	7.42	1.4	3.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:55:50	3.2	Middle	2	1	21.05	8.35	30.14	97.6	7.41	1.5	2.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:56:25	3.2	Middle	2	2	20.17	8.35	30.13	97.7	7.41	1.4	2.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:56:15	5.4	Bottom	3	1	20.17	8.35	30.13	97.5	7.4	1.5	3.7	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10A	20:55:39	5.4	Bottom	3	2	20.16	8.35	30.15	97.5	7.4	1.5	3.6	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10B	21:07:25	1.0	Surface	1	1	20.15	8.35	30.17	97.6	7.41	1.8	3.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10B	21:06:58	1.0	Surface	1	2	20.13	8.35	30.2	97.5	7.4	1.8	3.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10B	21:07:12	4.2	Bottom	3	1	20.12	8.35	30.24	97.3	7.39	2.1	2.7	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	SR10B	21:06:46	4.2	Bottom	3	2	20.11	8.35	30.25	97.3	7.39	2.1	2.5	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:29:43	1.0	Surface	1	1	21.18	8.27	27.62	98.2	7.42	2.4	3.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:30:30	1.0	Surface	1	2	21.22	8.27	27.52	98.5	7.42	2.6	2.6	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:29:35	4.1	Middle	2	1	21.12	8.27	27.78	97.6	7.38	2.5	2.5	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:30:17	4.1	Middle	2	2	21.08	8.27	27.89	98	7.4	2.6	2.4	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:30:06	7.1	Bottom	3	1	21.05	8.27	28.17	97.8	7.39	2.3	2.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS2	18:29:48	7.1	Bottom	3	2	21	8.27	28.23	97.4	7.36	2.5	2.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:20:41	1.0	Surface	1	1	20.9	8.36	28.69	100.6	7.6	4.3	2.5	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:20:01	6.0	Surface	1	2	20.86	8.36	28.75	100.4	7.59	4.2	2.2	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:19:49	6.4	Middle	2	1	20.87	8.36	29.57	99	7.5	7.1	2.7	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:20:27	6.4	Middle	2	2	20.53	8.36	29.48	99.2	7.5	7.2	2.3	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:19:36	11.7	Bottom	3	1	20.46	8.36	29.64	99	7.5	7.1	4.8	
HCLR	HY/2011/03	2013-03-13	Fine	Mid-Flood	CS(M)5	20:20:15	11.7	Bottom	3	2	20.48	8.36	29.6	99.2	7.51	7.1	4.2	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:54:57	1.0	Surface	1	1	20.52	8.35	29.63	97.9	7.4	3.7	4.7	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:54:47	1.0	Surface	1	2	20.48	8.35	29.7	97.8	7.4	4.2	4	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:54:45	4.6	Middle	2	1	20.27	8.36	30	97.6	7.4	4.1	4.4	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:54:01	4.6	Middle	2	2	20.15	8.37	30.14	97.5	7.4	4.1	4.7	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:53:53	8.2	Bottom	3	1	19.98	8.37	30.44	96.6	7.34	4.2	3.5	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS5	13:54:32	8.2	Bottom	3	2	20.06	8.37	30.34	96.8	7.35	4.4	4.8	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)6	14:01:13	1.0	Surface	1	1	20.75	8.3	28.87	93.6	7.08	5.8	4.6	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)6	14:01:37	1.0	Surface	1	2	20.76	8.3	28.84	93.4	7.07	5.8	5.1	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)6	14:01:23	2.3	Bottom	3	1	20.55	8.31	29.2	93	7.05	5.8	3.9	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)6	14:01:02	2.3	Bottom	3	2	20.64	8.31	29.02	93.5	7.08	5.6	3.6	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS7	14:08:25	1.0	Surface	1	1	21.08	8.31	28.76	96.3	7.25	2.9	3.6	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS7	14:08:45	2.4	Bottom	3	1	21.1	8.31	28.75	96.2	7.23	2.9	3.1	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS7	14:08:34	2.4	Bottom	3	2	21.06	8.31	28.75	96.2	7.23	2.9	4.3	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS7	14:08:18	2.4	Bottom	3	1	21.09	8.31	28.75	96.2	7.24	2.9	3.1	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS8	14:29:54	1.0	Surface	1	1	20.89	8.31	28.84	94.1	7.11	3.6	4.2	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS8	14:30:08	1.0	Surface	1	2	20.87	8.31	28.85	93.7	7.08	3.5	3.8	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS8	14:29:45	2.4	Bottom	3	1	20.86	8.31	28.84	93.9	7.09	3.6	3.6	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS8	14:30:00	2.4	Bottom	3	2	20.89	8.31	28.83	93.8	7.08	3.5	3.2	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)9	14:15:26	1.0	Surface	1	1	20.96	8.31	28.74	94.6	7.14	3.6	3.5	
HCLR	HY/2011/03	2013-03-15	Sunny	Mid-Ebb	IS(M)9	14:15												

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	Site Observation
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR4	14:25:04	1.0	Surface	1	1	20.77	8.3	28.83	91.9	6.96	3.4	3.7	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR4	14:25:20	1.0	Surface	1	2	20.8	8.3	28.85	91.6	6.92	3.3	3.4	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR4	14:25:43	2.3	Bottom	3	1	20.76	8.3	28.82	91.6	6.93	3.3	3.4	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR4	14:24:53	2.3	Bottom	3	2	20.68	8.3	28.84	91.8	6.94	3.6	4	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR5	15:09:19	1.0	Surface	1	1	20.72	8.26	29.84	96.4	7.25	4.4	4.3	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR5	15:08:46	1.0	Surface	1	2	20.75	8.26	29.82	96.5	7.26	4.4	5.2	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR5	15:08:32	3.5	Bottom	3	1	20.57	8.26	29.91	96	7.24	4.3	3.6	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR5	15:09:03	3.5	Bottom	3	2	20.6	8.26	29.89	95.9	7.23	4.4	3.6	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:40	1.0	Surface	1	1	20.43	8.34	30.16	95.7	7.22	1.1	2.3	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:40	1.0	Surface	1	2	20.43	8.34	30.16	95.7	7.22	1.1	2.3	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:24:04	1.0	Surface	1	1	20.43	8.34	30.16	95.5	7.21	1.1	2.4	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:54	3.3	Middle	2	1	20.31	8.34	30.11	95.4	7.21	1.2	2.1	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:32	3.3	Middle	2	2	20.4	8.34	30.2	95.7	7.23	1.2	2.9	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:25	5.5	Bottom	3	1	20.42	8.34	30.19	95.5	7.21	1.2	2.3	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10A	15:23:46	5.5	Bottom	3	2	20.42	8.34	30.18	95.1	7.19	1.1	2.2	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10B	15:28:08	1.0	Surface	1	1	20.1	8.34	30.53	94.5	7.16	1.4	2.1	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10B	15:28:24	1.0	Surface	1	2	20.11	8.34	30.53	94.2	7.14	1.4	2.1	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10B	15:28:03	4.1	Bottom	3	1	20.1	8.34	30.53	94.4	7.15	1.4	3.1	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	SR10B	15:28:14	4.1	Bottom	3	2	20.11	8.34	30.53	94.2	7.14	1.3	3.1	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:41:49	1.0	Surface	1	1	20.56	8.33	30.03	98.8	7.45	5.2	3.5	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:42:43	1.0	Surface	1	2	20.61	8.32	29.98	98.2	7.4	5.3	3	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:41:36	3.8	Middle	2	1	20.25	8.35	30.6	98.4	7.43	7.5	3.7	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:42:26	3.8	Middle	2	2	20.19	8.35	30.77	97.8	7.39	7.7	3.7	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:42:02	6.5	Bottom	3	1	19.87	8.36	31.83	97.1	7.33	7.5	6.8	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS2	13:41:04	6.5	Bottom	3	2	19.82	8.37	31.78	96.9	7.33	7.4	5.2	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	14:59:57	1.0	Surface	1	1	20.8	8.33	29.39	94.1	7.09	3.6	6.8	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	15:00:36	1.0	Surface	1	2	20.69	8.33	29.48	93.8	7.08	3.9	6.4	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	14:59:42	6.6	Middle	2	1	20.09	8.33	30.08	92.5	7.03	3.7	6.6	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	15:00:26	6.6	Middle	2	2	20.22	8.33	29.96	92.8	7.04	3.9	6.5	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	14:59:26	12.1	Bottom	3	1	20.11	8.33	30.12	91.8	6.98	3.9	5	
HCLR	HY/2011/03	2013-03-15	Mid-Ebb	Sunny	CS1(MP)5	15:00:09	12.1	Bottom	3	2	20.26	8.33	29.98	92.4	7.02	3.9	5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:50:42	1.0	Surface	1	1	20.37	8.3	28.86	91.8	6.99	3.6	3.1	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:50:13	1.0	Surface	1	2	20.38	8.3	28.88	91.8	6.99	3.7	3.6	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:49:59	4.6	Middle	2	1	20.37	8.3	28.9	91.5	6.97	3.1	3.1	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:50:33	4.6	Middle	2	2	20.36	8.3	28.92	91.5	6.97	3.6	3.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:50:28	8.1	Bottom	3	1	20.36	8.3	28.94	91.3	6.96	3.6	4.1	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS5	08:49:48	8.1	Bottom	3	2	20.36	8.3	28.95	91.3	6.95	3.7	3.4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)6	08:41:26	1.0	Surface	1	1	20.4	8.3	28.83	93.2	7.1	3.9	5.2	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)6	08:41:06	1.0	Surface	1	2	20.4	8.3	28.84	93.2	7.14	3.9	4.4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)6	08:41:15	2.3	Bottom	3	1	20.4	8.3	28.84	93.1	7.09	3.8	4.4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)6	08:40:57	2.3	Bottom	3	2	20.4	8.3	28.84	93.5	7.12	3.9	4.3	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS7	08:34:53	1.0	Surface	1	1	20.45	8.31	28.83	93.1	7.08	4.3	6.6	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS7	08:34:37	1.0	Surface	1	2	20.45	8.31	28.83	93.3	7.1	4.1	7.2	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS7	08:34:45	2.3	Bottom	3	1	20.45	8.31	28.83	93	7.08	4.4	5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS7	08:34:28	2.3	Bottom	3	2	20.45	8.31	28.83	93.2	7.09	4.2	4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS8	08:11:50	1.0	Surface	1	1	20.38	8.32	28.95	93.9	7.15	5.1	6.8	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS8	08:12:42	1.0	Surface	1	2	20.38	8.32	28.95	93.4	7.11	5.1	6.9	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS8	08:11:41	2.7	Bottom	3	1	20.38	8.32	28.95	93.6	7.13	5.1	5.4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS8	08:11:56	2.7	Bottom	3	2	20.38	8.32	28.95	93.2	7.09	5.2	4.3	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)9	08:28:06	1.0	Surface	1	1	20.29	8.33	28.95	95.3	7.27	12	12	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)9	08:28:27	1.0	Surface	1	2	20.29	8.33	28.95	94.7	7.22	9.5	12.9	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)9	08:28:15	2.5	Bottom	3	1	20.29	8.33	28.95	94.7	7.22	9.8	11.6	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS1(MP)9	08:27:53	2.5	Bottom	3	2	20.29	8.33	28.95	94.9	7.23	9.7	11.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:33:34	1.0	Surface	1	1	20.25	8.22	29.39	94	7.16	7.1	6.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:32:45	1.0	Surface	1	2	20.25	8.22	29.39	94.1	7.16	6.9	6.9	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:32:28	5.1	Middle	2	1	20.22	8.22	29.61	93.8	7.14	7.5	6.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:33:17	5.1	Middle	2	2	20.21	8.22	29.64	93.7	7.12	7.2	7.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:32:59	9.1	Bottom	3	1	20.19	8.23	29.88	93.4	7.1	7.3	6.3	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	IS10	08:32:14	9.1	Bottom	3	2	20.19	8.23	29.93	93.5	7.1	7.3	7.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR3	08:55:47	0.7	Middle	2	1	20.37	8.3	28.96	94.7	7.21	4	4.4	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR3	08:55:22	0.7	Middle	2	2	20.38	8.3	28.97	94.4	7.18	4.1	4.8	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR4	08:18:20	1.0	Surface	1	1	20.39	8.3	28.95	91.1	6.94	3.4	3.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR4	08:18:48	1.0	Surface	1	2	20.4	8.29	28.84	90.8	6.91	3.4	3.2	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR4	08:18:06	2.7	Bottom	3	1	20.39	8.3	28.93	91	6.93	4	3.9	
HCLR	HY/2011/03	2013-03-15																



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	Site Observation
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR108	07:08:02	1.0	Surface	1	2	19.74	8.32	30.82	95.1	7.24	2.4	3.3	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR108	07:07:34	4.1	Bottom	3	1	19.72	8.31	30.83	95.7	7.29	2.4	3.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	SR108	07:07:53	4.1	Bottom	3	2	19.73	8.32	30.82	94.7	7.22	2.4	3.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS2	10:16:07	1.0	Surface	1	1	20.25	8.23	29.52	94.4	7.18	6.8	4.9	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	C52	10:15:25	1.0	Surface	1	2	20.25	8.23	29.55	94.5	7.18	7.1	5.3	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	C52	10:15:52	4.1	Middle	2	1	20.21	8.24	29.85	94.1	7.15	7.6	4.2	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	C52	10:15:10	4.1	Middle	2	2	20.2	8.24	29.9	94.2	7.15	7.9	5.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	C52	10:15:37	7.1	Bottom	3	1	20.19	8.24	29.96	94.1	7.14	8.5	5.8	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	C52	10:14:58	7.1	Bottom	3	2	20.18	8.24	30.03	94	7.14	8.4	5.5	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:42:09	1.0	Surface	1	2	20.24	8.33	28.96	94.2	7.19	2.7	2.7	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:41:09	1.0	Surface	1	2	20.23	8.33	28.96	94.2	7.19	2.7	2.7	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:41:47	6.8	Middle	2	1	20.04	8.33	30.08	92.6	7.05	3	3.2	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:40:51	6.8	Middle	2	2	20.05	8.33	30.08	92.6	7.05	3	3.7	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:41:30	12.5	Bottom	3	1	20	8.33	30.03	92.9	7.07	3.0	3.7	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Cloudy	CS1(MF)5	07:40:40	12.5	Bottom	3	2	20.01	8.32	30.22	92.7	7.05	3.4	2.9	
HCLR	HY/2011/03	2013-03-15	Mid-Flood	Sunny	BS5	15:53:22	1.0	Surface	1	1	21.5	8.31	28.44	96.8	7.07	3.2	3.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS5	15:54:16	1.0	Surface	1	2	21.56	8.31	28.3	98.1	7.33	4.4	5.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS5	15:53:56	4.7	Middle	2	1	21.24	8.29	29.05	98.9	7.1	5.2	4.9	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS5	15:53:10	4.7	Middle	2	2	21.24	8.29	28.99	94.8	7.1	4.7	5.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS5	15:52:55	8.4	Bottom	3	1	21.22	8.29	29.1	95.3	7.14	4.6	4.6	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS5	15:53:41	8.4	Bottom	3	2	21.24	8.29	29.09	95.4	7.15	5.1	4.8	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)6	16:01:47	1.0	Surface	1	1	21.59	8.31	28.74	98.6	7.35	6.6	7.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)6	16:01:25	1.0	Surface	1	2	21.7	8.31	28.52	99.3	7.4	5.7	5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)6	16:01:13	2.2	Bottom	3	1	21.37	8.3	29.24	98.4	7.34	7.3	4.3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)6	16:01:38	2.2	Bottom	3	2	21.4	8.3	29.21	98.6	7.36	7.3	5.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS7	16:08:41	1.0	Surface	1	1	21.99	8.32	27.72	102.8	7.66	4.1	4.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS7	16:08:13	1.0	Surface	1	2	21.92	8.31	27.87	101.7	7.57	3.9	3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS7	16:08:25	2.4	Bottom	3	1	21.79	8.3	28.59	102	7.58	7.4	3.8	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS7	16:08:03	2.4	Bottom	3	2	21.8	8.3	28.59	101.7	7.55	7.3	5.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS8	16:31:05	1.0	Surface	1	1	21.48	8.32	28.04	100.8	7.56	3.2	2.3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS8	16:30:42	1.0	Surface	1	2	21.56	8.32	28.03	101.1	7.57	3.3	3.3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS8	16:30:55	2.4	Bottom	3	1	21.32	8.31	28.65	100.4	7.53	3.6	3.9	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	BS8	16:30:34	2.4	Bottom	3	2	21.57	8.31	28.42	101	7.54	4	5.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)9	16:15:30	1.0	Surface	1	1	21.67	8.32	28.08	103.3	7.72	3.2	4.3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)9	16:15:53	1.0	Surface	1	2	21.56	8.33	28.1	103.2	7.72	3.1	4.8	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)9	16:15:42	2.6	Bottom	3	1	21.49	8.32	28.34	102.9	7.71	3.2	4.3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS1(MF)9	16:15:23	2.6	Bottom	3	2	21.6	8.32	28.25	103	7.7	3.3	4.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:38:46	1.0	Surface	1	1	21.14	8.14	28.71	94.2	7.08	5.4	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:39:47	1.0	Surface	1	2	21.16	8.14	28.72	94.5	7.1	4.2	4.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:39:30	5.6	Middle	2	1	21.05	8.14	29.01	98.1	6.99	7.1	3	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:38:36	5.6	Middle	2	2	21.06	8.14	28.97	98.2	7	6.7	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:38:18	10.2	Bottom	3	1	20.89	8.14	29.48	97.5	6.95	7.9	5.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	IS10	16:39:15	10.2	Bottom	3	2	20.93	8.14	29.4	92.7	6.97	7.7	4.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR3	15:38:07	0.8	Middle	2	1	21.62	8.32	28.29	100.2	7.48	4.5	5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR3	15:38:18	0.8	Middle	2	2	21.57	8.31	28.34	100.1	7.49	4.2	4.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR4	16:25:53	1.0	Surface	1	1	21.41	8.31	28.52	99.1	7.42	3.5	3.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR4	16:25:27	1.0	Surface	1	2	21.44	8.31	28.54	99.1	7.41	3.3	4.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR4	16:25:14	2.5	Bottom	3	1	21.25	8.31	29.14	98.4	7.36	3.9	3.7	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR4	16:25:40	2.5	Bottom	3	2	21.26	8.3	29.06	98.7	7.39	4	2.9	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR5	16:29:18	1.0	Surface	1	1	21.55	8.12	28.6	98.5	6.98	8.6	6.6	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR5	16:29:31	1.0	Surface	1	2	21.35	8.12	28.84	98.3	6.98	8.7	8.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR5	16:29:06	4.5	Bottom	3	1	21.26	8.12	29.02	98.2	6.98	8.9	8.2	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR5	16:29:24	4.5	Bottom	3	2	21.49	8.12	28.8	93	6.95	9	7.5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:30:59	1.0	Surface	1	1	21.02	8.33	29.6	97.7	7.32	1.6	4.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:30:38	1.0	Surface	1	2	20.99	8.33	29.62	97.5	7.31	1.5	5.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:30:04	3.2	Middle	2	1	20.94	8.33	29.7	97.2	7.29	1.4	3.1	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:30:41	3.2	Middle	2	2	20.95	8.33	29.71	97.2	7.29	1.6	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:29:56	5.4	Bottom	3	1	20.93	8.33	29.71	97.1	7.29	1.5	3.8	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10A	17:30:32	5.4	Bottom	3	2	20.94	8.33	29.69	97.2	7.29	1.7	3.7	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10B	17:41:55	1.0	Surface	1	1	20.96	8.33	29.67	97.5	7.31	1.5	2.5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10B	17:42:36	1.0	Surface	1	2	20.95	8.33	29.69	97.2	7.29	1.5	2.5	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10B	17:41:33	4.5	Bottom	3	1	20.92	8.33	29.72	97	7.28	1.5	2.4	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	SR10B	17:42:20	4.5	Bottom	3	2	20.9	8.33	29.76	96.9	7.27	1.5	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Ebb	Sunny	CS2	15:36:11	1.0	Surface	1	1	21.52	8.12	28.15	96	7.19	4.4	4	
HCLR	HY/2011/03	2013-03-18	Mid															

Project	Works	Date (yyyy-mm-dd)	Title	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:04:38	1.0	Surface	1	1	21.17	8.3	29.21	94.5	7.08	4.5	4.3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:05:28	1.0	Surface	1	2	21.17	8.3	29.23	94	7.04	4.6	4.3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:05:42	4.8	Middle	2	1	21.03	8.28	29.42	91.4	6.86	5.4	5.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:04:20	4.8	Middle	2	2	21.03	8.28	29.39	92	6.91	5.8	5.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:04:10	8.6	Bottom	3	1	21.02	8.28	29.47	92.7	6.95	5.6	4.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	12:05:01	8.6	Bottom	3	2	21.01	8.28	29.49	91.6	6.87	5.5	4.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J6	11:55:48	1.0	Surface	1	1	21.67	8.3	28.41	98.9	7.38	3.2	4.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J6	11:56:42	1.0	Surface	1	2	21.65	8.3	28.39	98.7	7.36	3.5	4.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J6	11:56:00	2.4	Bottom	3	1	21.31	8.3	28.93	97.9	7.33	4	4.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J6	11:55:36	2.4	Bottom	3	2	21.35	8.3	28.94	97.9	7.32	4	4.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS7	11:47:41	1.0	Surface	1	1	21.22	8.3	29.04	97.5	7.32	3.1	5.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS7	11:47:41	1.0	Surface	1	2	21.22	8.3	29.04	97.5	7.32	3.1	5.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS7	11:48:00	1.0	Surface	1	1	21.18	8.3	29.03	97.5	7.31	3.3	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS7	11:47:24	2.7	Bottom	3	1	21.18	8.3	29.13	97.4	7.3	3	3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS7	11:47:51	2.7	Bottom	3	2	21.19	8.3	29.11	97.4	7.3	3.6	3.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS8	11:20:52	1.0	Surface	1	1	21.2	8.28	27.83	95.7	7.22	3.2	7.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS8	11:20:52	1.0	Surface	1	2	21.28	8.29	27.7	95.5	7.2	3.3	6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS8	11:20:52	2.6	Bottom	3	1	21.18	8.28	27.99	95.7	7.22	3.8	8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS8	11:19:52	2.6	Bottom	3	2	21.2	8.28	27.99	95.3	7.18	4.2	6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J9	11:41:52	1.0	Surface	1	1	21.12	8.29	28.47	94.4	7.11	4.3	4.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J9	11:41:52	1.0	Surface	1	2	21.11	8.29	28.55	94.4	7.11	4.3	4.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J9	11:41:39	2.6	Bottom	3	1	21.07	8.29	29.09	94.2	7.07	4.4	4.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS(M)J9	11:41:19	2.6	Bottom	3	2	21.11	8.28	28.73	94.2	7.08	4.6	3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:33:25	1.0	Surface	1	1	21.15	8.16	28.72	94.3	7.09	3.5	3.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:32:49	1.0	Surface	1	2	21.2	8.16	28.69	94.5	7.1	3.5	3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:33:15	5.8	Middle	2	1	21.05	8.16	28.9	93.8	7.06	3.5	5.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:32:43	5.8	Middle	2	2	21.07	8.16	28.84	93.8	7.06	3.6	3.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:32:30	10.6	Bottom	3	1	20.92	8.16	29.33	93.5	7.03	3.7	3.3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS10	11:33:04	10.6	Bottom	3	2	20.9	8.16	29.44	93.4	7.02	3.7	3.9	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR3	12:12:36	0.8	Middle	2	1	21.11	8.3	29.27	95.1	7.13	4.8	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR3	12:12:24	0.8	Middle	2	2	21.1	8.29	29.29	95.2	7.13	4.9	5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR4	11:29:06	1.0	Surface	1	1	21.56	8.27	27.37	96.3	7.24	3	3.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR4	11:28:18	1.0	Surface	1	2	21.54	8.28	27.38	96.4	7.25	3	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR4	11:29:00	2.4	Bottom	3	1	21.55	8.27	27.39	96.2	7.23	2.8	3.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR4	11:28:10	2.4	Bottom	3	2	21.54	8.28	27.4	96.3	7.24	3	3.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR5	11:43:35	1.0	Surface	1	1	21.2	8.14	28.73	93.8	7.04	4.3	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR5	11:43:48	1.0	Surface	1	2	21.31	8.14	28.58	94.2	7.06	4.1	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR5	11:43:27	1.0	Surface	1	1	21.05	8.14	29.15	93.4	7.01	4.5	4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR5	11:43:41	4.5	Bottom	3	1	21.34	8.14	28.69	93.7	7.02	4.3	4.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10A	10:19:30	1.0	Surface	1	1	20.35	8.31	30.38	91.4	6.9	1.4	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10A	10:15:17	1.0	Surface	1	2	20.24	8.31	30.49	90.8	6.87	1.4	2.9	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10A	10:19:18	3.4	Middle	2	1	20.25	8.31	30.49	90.9	6.87	1.5	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10A	10:15:09	3.4	Middle	2	2	20.2	8.31	30.55	90.6	6.85	1.5	3.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10A	10:19:01	5.7	Bottom	3	1	20.2	8.31	30.54	90.7	6.87	1.4	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10B	10:14:57	5.7	Bottom	3	2	20.24	8.31	30.6	90.4	6.84	1.4	2.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10B	10:04:58	1.0	Surface	1	1	20.28	8.31	30.59	91	6.88	1.5	2.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10B	10:04:32	1.0	Surface	1	2	20.25	8.31	30.65	91.1	6.88	1.4	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10B	10:04:42	4.6	Bottom	3	1	20.2	8.31	30.77	90.8	6.86	1.6	5.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	SR10B	10:04:46	4.6	Bottom	3	2	20.19	8.31	30.71	90.8	6.86	1.5	6.3	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:41:17	1.0	Surface	1	1	21.38	8.17	29.12	95.8	7.15	3.6	2.6	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:40:27	1.0	Surface	1	2	21.09	8.17	29.22	95	7.13	3.9	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:40:21	4.1	Middle	2	1	21.05	8.17	29.25	94.6	7.1	4.1	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:41:07	4.1	Middle	2	2	20.97	8.17	29.33	94.5	7.1	4	2.1	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:40:08	7.2	Bottom	3	1	20.89	8.17	29.44	94.2	7.09	4.9	3.5	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS2	12:40:40	7.2	Bottom	3	2	20.86	8.17	29.58	94.3	7.09	4.7	2.7	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:49:10	1.0	Surface	1	1	20.9	8.31	29.16	93.7	7.06	2.3	2.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:48:05	1.0	Surface	1	2	21	8.31	29.04	94.5	7.11	2.5	2.8	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:48:49	6.6	Middle	2	1	20.2	8.31	30.43	90.7	6.87	3.2	4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:47:44	6.6	Middle	2	2	20.24	8.32	30.25	91.1	6.9	3.3	3.4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:47:28	12.2	Bottom	3	1	20.1	8.31	30.71	91.2	6.9	5.1	4	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	CS(M)J5	10:48:24	12.2	Bottom	3	2	20.12	8.31	30.67	91.4	6.92	4.5	5.2	
HCLR	HY/2011/03	2013-03-18	Mid-Flood	Sunny	IS5	18:40:54	1.0	Surface	1	1	8.25	8.25	25.09	101	7.52	4	2.7	
HCLR	HY/2011/03	2013-03-20	Mid-Ebb	Fine	IS5	18:40:06	1.0	Surface	1	2	23.78	8.27	24.58	102.5	7.53	4.1	3.2	
HCLR	HY/2011/03	2013-03-20	Mid-Ebb	Fine	IS5	18:39:51	4.2	Middle	2	1	22.32	8.27	26.54	98.2	7.32	4.2	2.3	
HCLR	HY/2011/03	2013-03-20	Mid-Ebb	Fine	IS5	18:40:41	4.2	Middle	2	2	22							

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	Site Observation
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS8	19:32:17	1.0	Surface	1	2	22.43	8.25	25.72	96.1	7.18	5.7	5.8	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS8	19:32:28	2.9	Bottom	3	1	22.34	8.24	26.91	95.8	7.16	6.4	7.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS8	19:32:04	2.9	Bottom	3	2	22.29	8.24	26.01	95.6	7.15	6.5	5.9	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	ISM9j	19:14:14	1.0	Surface	1	1	22.4	8.25	25.75	96.2	7.19	5.2	5.2	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	ISM9j	19:13:49	1.0	Surface	1	2	22.4	8.25	25.76	96.2	7.19	5.3	5.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	ISM9j	19:13:34	2.5	Bottom	3	1	22.31	8.24	25.91	95.6	7.18	5.5	5	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	ISM9j	19:14:01	2.5	Bottom	3	2	22.35	8.24	25.84	96	7.18	5.3	5.9	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:21:13	1.0	Surface	1	1	23.06	8.13	24.62	94.5	7.03	4.3	3.6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:20:11	1.0	Surface	1	2	23.07	8.14	24.62	95	7.06	4.2	2.8	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:20:59	5.3	Middle	2	1	21.6	8.14	28.34	88.6	6.7	4.2	2.6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:20:56	5.3	Middle	2	2	21.4	8.14	28.5	88.8	6.65	4.1	3.4	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:20:38	9.6	Bottom	3	1	20.51	8.16	31.03	87.3	6.55	3.8	2.8	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	IS10	19:20:38	9.6	Bottom	3	2	20.55	8.15	30.97	90	6.75	3.8	2.9	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR3	18:30:56	0.7	Middle	2	1	23.54	8.3	24.86	105	7.73	2.6	2.6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR3	18:30:46	0.7	Middle	2	2	23.59	8.3	24.81	104.5	7.69	2.7	2.5	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR4	19:26:05	1.0	Surface	1	1	22.43	8.25	25.69	96.5	7.21	6.1	5.6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR4	19:26:27	1.0	Surface	1	2	22.44	8.24	25.67	96.4	7.21	6.2	5.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR4	19:26:14	2.7	Bottom	3	1	22.41	8.24	25.74	96.3	7.2	6.4	6.8	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR4	19:25:49	2.7	Bottom	3	2	22.38	8.24	25.77	96.2	7.19	6.5	7.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR5	19:08:03	1.0	Surface	1	1	22.35	8.16	26.15	97.3	7.27	4.5	3.6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR5	19:07:21	1.0	Surface	1	2	22.24	8.16	26.58	97.4	7.26	4.4	3.1	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR5	19:07:48	4.5	Bottom	3	1	21.91	8.17	27.32	96.6	7.22	4	2.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR5	19:07:07	4.5	Bottom	3	2	21.91	8.17	27.34	96.6	7.22	4	2.5	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:37:55	1.0	Surface	1	1	22.58	8.3	26.69	102.3	7.58	2.2	3.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:37:12	1.0	Surface	1	2	22.66	8.3	26.62	102.3	7.57	2.2	4.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:36:57	3.2	Middle	2	1	22.17	8.29	27.3	100.4	7.47	2.2	3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:37:44	3.2	Middle	2	2	22.24	8.29	27.19	101	7.51	2.3	3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:36:45	5.4	Bottom	3	1	22.1	8.29	27.43	100.3	7.46	2.5	3.5	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10A	20:37:31	5.4	Bottom	3	2	22.08	8.29	27.47	101	7.52	2.4	2.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10B	20:45:45	1.0	Surface	1	1	22.7	8.3	26.53	103.3	7.65	1.7	2.2	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10B	20:45:20	1.0	Surface	1	2	22.43	8.3	26.69	102.3	7.59	1.7	3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10B	20:45:20	3.8	Bottom	3	1	22.36	8.29	27.18	102.2	7.58	1.7	3.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	SR10B	20:45:14	3.8	Bottom	3	2	22.31	8.29	27.07	101.8	7.56	1.7	2.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:02:28	1.0	Surface	1	1	22.85	8.18	25.01	96.1	7.16	4.6	3.7	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:01:39	1.0	Surface	1	2	22.82	8.19	25.08	96.3	7.17	4.5	4.2	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:02:15	3.3	Middle	2	1	22.18	8.2	26.8	92.7	6.92	5.3	4	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:01:27	3.3	Middle	2	2	22.18	8.19	26.8	92.7	6.92	5.3	4	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:01:12	5.6	Bottom	3	1	21.5	8.2	26.68	91.7	6.85	5.1	3.1	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS2	18:02:02	5.6	Bottom	3	2	21.37	8.19	26.93	90.9	6.8	5	3.8	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:10:05	1.0	Surface	1	1	22.82	8.26	28.93	97.5	7.27	2.4	6	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:11:14	1.0	Surface	1	2	22.89	8.27	28.76	97.5	7.26	2.5	6.2	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:09:51	6.1	Middle	2	1	21.79	8.27	26.93	93.4	7.01	2.4	6.1	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:10:58	6.1	Middle	2	2	21.67	8.27	27.05	92	6.92	2.5	7.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:09:29	11.2	Bottom	3	1	20.32	8.27	30.74	90.7	6.84	2.5	7.3	
HCLR	HY2011/03	2013-03-20	Mid-Ebb	Fine	CS1M9j5	20:10:41	11.2	Bottom	3	2	20.26	8.29	30.85	88.9	6.71	2.7	7	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:43:10	1.0	Surface	1	1	21.93	8.24	27.47	89.7	6.69	4.1	4.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:42:33	1.0	Surface	1	2	21.93	8.25	27.53	89.5	6.68	4.1	4.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:42:22	4.2	Middle	2	1	21.68	8.25	27.92	88.7	6.63	4.3	3.2	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:42:57	4.2	Middle	2	2	21.64	8.25	28.03	88.4	6.61	4.3	3.7	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:42:47	7.4	Bottom	3	1	21.44	8.25	28.52	88.2	6.6	4.4	3.6	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS5	07:42:10	7.4	Bottom	3	2	21.41	8.25	28.58	88.4	6.62	4.2	3.9	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j6	07:34:38	1.0	Surface	1	1	21.85	8.26	27.09	92	6.9	7.5	2.1	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j6	07:35:03	1.0	Surface	1	2	21.84	8.26	27.1	93.7	7.02	7.1	2.3	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j6	07:34:49	2.0	Bottom	3	1	21.85	8.26	27.05	93.1	6.98	10.6	3.1	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j6	07:34:26	2.0	Bottom	3	2	21.85	8.24	27.47	92.3	6.82	10.4	4.1	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS7	07:26:48	1.0	Surface	1	1	21.83	8.27	26.87	93.7	7.03	3.3	3.8	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS7	07:27:17	1.0	Surface	1	2	21.84	8.26	26.87	91.8	6.88	3.4	2.6	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS7	07:27:01	2.3	Bottom	3	1	21.7	8.22	27.33	88.8	6.66	4.5	3.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS7	07:26:24	2.3	Bottom	3	2	21.76	8.25	27.18	92.3	6.93	4.5	2.3	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS8	07:03:24	1.0	Surface	1	1	21.67	8.26	27.18	92.3	6.93	7.3	3.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS8	07:03:58	1.0	Surface	1	2	21.67	8.26	27.18	92.3	6.93	7.3	3.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS8	07:03:41	3.0	Bottom	3	1	21.67	8.23	27.7	90.2	6.75	7.8	2.4	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	IS8	07:03:07	3.0	Bottom	3	2	21.7	8.25	27.59	92.1	6.9	7.7	2.3	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j9	07:20:25	1.0	Surface	1	1	21.76	8.27	26.91	93.7	7.03	4.1	3	
HCLR	HY2011/03	2013-03-20	Mid-Flood	Fine	ISM9j9	07:20:00	1.0	Surface	1	2	21.75	8.27	26.91	93.7				

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	Site Observation
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR4	07:09:25	1.0	Surface	1	1	21.75	8.23	27.47	86.4	6.47	3.9	2.6	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR4	07:09:55	1	Surface	2	2	21.76	8.22	27.54	86.3	6.46	3.7	3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR4	07:09:41	2.9	Bottom	3	1	21.54	8.22	27.87	85.5	6.41	4.6	4.9	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR4	07:09:13	2.9	Bottom	3	2	21.57	8.22	27.8	86.1	6.45	4.5	5.5	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR5	07:10:52	1.0	Surface	1	1	21.93	8.1	24.86	92.7	7.02	4.1	3.2	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR5	07:10:02	1.0	Surface	2	2	21.93	8.11	24.84	92.9	7.04	4.2	4.3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR5	07:09:34	4.7	Bottom	3	1	21.68	8.11	27.02	91.1	6.85	5.4	3.2	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR5	07:10:22	4.7	Bottom	3	2	21.69	8.11	27.13	91.2	6.85	5.4	3.5	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:53:43	1.0	Surface	1	2	21.16	8.27	28.43	91	6.85	2	3.1	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:53:43	1.0	Surface	2	2	21.16	8.27	28.36	91	6.85	2	3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:54:18	1.0	Surface	1	2	21.19	8.27	28.36	91	6.85	2	3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:54:03	3.3	Middle	2	2	20.88	8.28	29.15	90.3	6.81	1.9	3.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:53:31	3.3	Middle	2	2	20.92	8.28	29.06	90.5	6.82	1.9	2.1	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:53:12	5.5	Bottom	3	2	20.81	8.27	29.5	90.3	6.8	2.1	2.9	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10A	05:53:52	5.5	Bottom	3	2	20.81	8.27	29.78	90.1	6.78	2.1	2.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10B	05:48:48	1.0	Surface	1	2	21.08	8.27	28.6	91.7	6.9	1.8	3.5	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10B	05:48:11	1.0	Surface	1	2	21.06	8.27	28.63	92.5	6.96	1.9	3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10B	05:48:30	4.0	Bottom	3	1	20.83	8.27	29.45	91.4	6.88	1.8	3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	SR10B	05:47:51	4.0	Bottom	3	2	20.87	8.27	29.22	92.6	6.99	1.9	3.6	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:13:58	1.0	Surface	1	1	21.98	8.1	24.53	92.3	7	4.4	4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:14:58	1.0	Surface	1	2	21.96	8.09	24.79	92	6.97	4.4	4.5	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:14:38	3.4	Middle	2	1	21.7	8.13	26.73	89.2	6.71	5.1	3.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:13:41	3.4	Middle	2	2	21.7	8.13	26.78	90.3	6.8	4.9	3.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:13:25	5.8	Bottom	3	1	21	8.12	29.4	89.1	6.69	4.8	4.1	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS2	08:14:23	5.8	Bottom	3	2	20.97	8.12	29.52	86.5	6.49	5.5	3.9	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:29:43	1.0	Surface	1	1	21.39	8.28	27.82	91.3	6.87	2.1	2.9	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:27:59	1.0	Surface	2	2	21.61	8.27	27.3	92.9	6.98	2.1	2.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:27:37	6.4	Middle	2	2	20.79	8.29	29.43	89.9	6.78	2.2	2.4	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:29:28	6.4	Middle	2	2	20.83	8.29	29.35	89.3	6.72	2.1	2.3	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:29:02	11.7	Bottom	3	1	20.42	8.29	30.34	87.2	6.58	2.1	3.2	
HCLR	HY/2011/03	2013-03-20	Mid-Flood	Fine	CS1(MF)5	06:27:22	11.7	Bottom	3	2	20.49	8.29	30.28	89.7	6.76	2.1	2.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:07:42	1.0	Surface	1	1	21.36	8.32	27.94	95.4	7.17	7.4	6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:07:12	1.0	Surface	1	2	21.17	8.33	28.38	95.1	7.16	7.4	6.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:07:32	4.0	Middle	2	1	20.76	8.33	29.58	94.1	7.09	7.2	5.7	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:07:01	4.0	Middle	2	2	20.61	8.34	29.92	93.7	7.06	7.5	5.9	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:07:21	7.0	Bottom	3	2	20.82	8.33	29.82	93.9	7.05	7.4	8.2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS5	11:06:51	7.0	Bottom	3	2	20.73	8.33	29.94	93.6	7.04	7.3	8.6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)6	10:58:58	1.0	Surface	1	1	21.61	8.29	26.87	97.1	7.31	5	4.6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)6	10:59:19	1.0	Surface	2	2	21.63	8.29	26.85	97.3	7.33	4.9	3.9	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)6	10:58:48	2.1	Bottom	3	1	21.58	8.29	26.93	96.9	7.3	4.7	5.7	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)6	10:59:08	2.1	Bottom	3	2	21.6	8.28	26.96	97.1	7.31	4.8	4.7	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS7	10:52:25	1.0	Surface	1	1	21.45	8.28	27.56	96.1	7.23	3.1	3.5	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS7	10:53:02	1.0	Surface	1	2	21.47	8.28	27.56	95.8	7.2	3.1	3.7	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS7	10:52:13	2.4	Bottom	3	1	21.45	8.28	27.56	96.1	7.23	2.9	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS7	10:52:47	2.4	Bottom	3	2	21.44	8.28	27.57	95.5	7.18	2.8	2.8	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS8	10:27:57	1.0	Surface	1	1	21.16	8.28	28.61	89.9	6.76	4.7	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS8	10:27:36	1.0	Surface	1	2	21.19	8.27	28.55	90.4	6.8	4.8	3.5	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS8	10:27:19	3.0	Bottom	3	2	20.92	8.28	28.32	89.7	6.75	5.8	3.2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS8	10:27:46	3.0	Bottom	3	2	20.96	8.28	29.25	89.7	6.75	5.8	2.9	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)9	10:45:38	1.0	Surface	1	1	21.27	8.29	28.09	93.4	7.03	4.7	4.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)9	10:46:09	1.0	Surface	2	2	21.25	8.29	28.08	93.3	7.03	4.7	5.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)9	10:45:26	2.5	Bottom	3	1	21.11	8.28	28.48	93	7	5	4.2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS1(MF)9	10:45:51	2.5	Bottom	3	2	21.09	8.28	28.55	92.6	6.97	5.3	5.1	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	10:00:08	1.0	Surface	1	1	20.99	8.16	29.51	90.5	6.79	4.5	5.6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	09:59:27	1.0	Surface	2	2	20.96	8.16	29.56	89.9	6.75	4.7	5.7	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	09:59:19	5.7	Middle	2	1	20.81	8.16	29.93	89.1	6.69	5.3	5.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	09:59:59	5.7	Middle	2	2	20.89	8.17	29.7	89.5	6.72	5.2	5.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	09:59:05	10.4	Bottom	3	1	20.61	8.16	30.85	88.8	6.66	5.6	5.1	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	IS10	09:59:49	10.4	Bottom	3	2	20.66	8.16	30.49	88.8	6.66	5.4	5.8	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR3	11:12:22	0.6	Middle	2	1	22.5	8.26	26.77	96.2	7.13	3.4	2.8	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR3	11:12:32	0.6	Middle	2	2	22.41	8.27	26.76	95.4	7.09	3.6	3.8	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR4	10:33:14	1.0	Surface	1	1	21.25	8.24	28.34	86.2	6.48	3.9	4.6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR4	10:33:41	1.0	Surface	2	2	21.26	8.24	28.57	86.5	6.49	3.8	5.5	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR4	10:33:01	2.5	Bottom	3	1	21.12	8.25	28.92	85.8	6.44	4.1	3.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR4	10:33:2												

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	Site Observation
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR10B	09:10:33	1.0	Surface	1	2	20.21	8.31	31.46	91.7	6.9	1.7	2.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR10B	09:10:21	3.9	Bottom	3	1	20.18	8.31	31.53	91.6	6.89	1.8	1.8	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	SR10B	09:10:45	3.9	Bottom	3	2	20.14	8.31	31.61	91.3	6.87	1.7	2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:07:20	1.0	Surface	1	1	21.05	8.17	29.37	92	6.9	3.4	4.9	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:06:40	1.0	Surface	1	2	21.06	8.16	29.39	92.3	6.92	3.5	4.1	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:06:53	4.1	Middle	2	1	20.89	8.16	29.81	91.3	6.85	3.7	4.9	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:07:12	4.1	Middle	2	2	20.84	8.17	29.93	91	6.83	3.5	5.6	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:06:55	7.1	Bottom	3	1	20.58	8.17	30.93	90.9	6.82	3.7	5.2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS2	11:06:45	7.1	Bottom	3	2	20.53	8.15	30.92	91.4	6.84	4.1	5	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:48:44	1.0	Surface	1	1	20.4	8.32	30.71	90.4	6.81	3.1	2.1	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:48:44	1.0	Surface	1	2	20.32	8.33	30.9	90.4	6.81	3.2	2	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:47:49	6.1	Middle	2	1	20.15	8.34	31.5	89.7	6.76	3.1	2.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:48:30	6.1	Middle	2	2	20.15	8.34	31.5	89.8	6.76	3.1	3.4	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:48:19	11.1	Bottom	3	1	20.15	8.34	31.49	89.7	6.75	3.2	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Ebb	Fine	CS1(MF)5	09:47:39	11.1	Bottom	3	2	20.17	8.33	31.45	89.8	6.76	3.1	3.2	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:43:20	1.0	Surface	1	1	22.48	8.31	27.46	96.8	7.16	9.6	13.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:42:54	1.0	Surface	1	2	22.45	8.3	27.27	97.7	7.23	9.4	12	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:42:42	4.0	Middle	2	1	20.82	8.33	29.48	94.9	7.14	9.1	13.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:43:11	4.0	Middle	2	2	20.95	8.32	29.11	95.2	7.17	9.1	12.9	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:43:01	7.0	Bottom	3	1	20.58	8.31	30.43	96.8	7.28	8.6	15.5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS5	13:42:33	7.0	Bottom	3	2	20.54	8.32	30.33	95.7	7.2	8.6	15.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)6	13:50:40	1.0	Surface	1	1	22.38	8.27	26.99	99.2	7.37	4.5	5.4	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)6	13:50:19	1.0	Surface	1	2	22.38	8.27	27	99.2	7.36	4.3	5.4	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)6	13:50:07	2.1	Bottom	3	1	21.88	8.27	27.31	98.3	7.35	3.6	5.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)6	13:50:29	2.1	Bottom	3	2	21.93	8.27	27.3	98.3	7.34	3.7	6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS7	13:57:41	1.0	Surface	1	1	22.12	8.28	27.46	100	7.44	3.6	3.9	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS7	13:57:15	1.0	Surface	1	2	22.11	8.28	27.47	99.8	7.43	3.4	4.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS7	13:57:02	2.1	Bottom	3	1	22	8.28	27.59	99.4	7.4	3.3	4.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS7	13:57:30	2.1	Bottom	3	2	21.97	8.28	27.62	99.6	7.42	3.5	5.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS8	14:21:19	1.0	Surface	1	1	21.6	8.27	28.94	92.2	6.86	4.9	3.8	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS8	14:20:59	1.0	Surface	1	2	21.61	8.27	28.93	92.1	6.86	4.8	4.5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS8	14:20:42	2.7	Bottom	3	1	21.21	8.28	29.36	91.3	6.83	5.3	5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	BS8	14:21:10	2.7	Bottom	3	2	21.15	8.28	28.99	91.8	6.84	5.4	4.5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)9	14:04:40	1.0	Surface	1	1	21.9	8.28	28.28	95.5	7.1	4.6	4.8	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)9	14:04:30	1.0	Surface	1	2	21.88	8.27	28.29	95.4	7.09	4.4	5.6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)9	14:04:07	2.6	Bottom	3	1	21.66	8.27	28.42	94.7	7.07	4.8	5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS1(MF)9	14:03:53	2.6	Bottom	3	2	21.72	8.27	28.37	95	7.08	4.9	4.5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:21	1.0	Surface	1	1	21.12	8.17	30.53	96.7	7.19	3.2	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:44	1.0	Surface	1	2	21.07	8.18	30.56	96.4	7.18	3.3	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:37	5.7	Middle	2	1	20.87	8.19	30.76	96	7.16	3.3	2.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:13	5.7	Middle	2	2	20.92	8.18	30.69	96.3	7.19	3.5	2.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:31	10.4	Bottom	3	1	20.97	8.18	30.75	95.6	7.12	3.7	3.6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	IS10	14:23:07	10.4	Bottom	3	2	20.87	8.18	30.75	96	7.16	3.7	4.8	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR3	13:31:24	0.6	Middle	2	1	22.39	8.31	27.27	99.7	7.39	6.3	8.9	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR3	13:31:54	0.6	Middle	2	2	22.41	8.3	27.23	100.1	7.42	6.6	7.6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR4	14:14:33	1.0	Surface	1	1	21.1	8.25	29.22	85.7	6.42	12.9	8.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR4	14:15:28	1.0	Surface	1	2	21.24	8.24	29.19	88.6	6.63	12.4	8.4	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR4	14:15:45	2.7	Bottom	3	1	21.23	8.25	29.16	92.5	6.92	12.6	7.6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR4	14:14:22	2.7	Bottom	3	2	21.09	8.25	29.23	85.9	6.44	12.6	8.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR5	14:12:51	1.0	Surface	1	1	21.24	8.18	30.26	97	7.22	3.3	2.5	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR5	14:12:27	1.0	Surface	1	2	21.14	8.18	30.36	96.1	7.15	3.5	1.8	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR5	14:12:45	4.6	Bottom	3	1	20.84	8.17	31.1	94.9	7.08	3.9	2.2	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR5	14:12:41	4.6	Bottom	3	2	20.89	8.18	30.82	96	7.16	3.8	2.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:23:58	1.0	Surface	1	1	20.32	8.34	31.61	91.8	6.89	1.5	2.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:23:35	1.0	Surface	1	2	20.29	8.34	31.62	91.7	6.88	1.7	2.2	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:23:25	3.2	Middle	2	1	20.25	8.34	31.64	91.6	6.87	1.6	2.9	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:23:45	3.2	Middle	2	2	20.27	8.34	31.63	91.6	6.88	1.5	2.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:22:45	5.3	Bottom	3	1	20.25	8.34	31.64	91.4	6.87	1.6	3.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10A	15:22:32	5.3	Bottom	3	2	20.26	8.34	31.64	91.5	6.87	1.6	3.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10B	15:31:56	1.0	Surface	1	1	20.29	8.34	31.62	91.6	6.88	1.8	1.3	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10B	15:32:26	4.3	Bottom	3	1	20.27	8.34	31.63	91.6	6.88	1.7	1.1	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10B	15:32:07	4.3	Bottom	3	2	20.26	8.34	31.63	91.4	6.87	1.4	1.4	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	SR10B	15:31:41	4.3	Bottom	3	1	20.25	8.34	31.64	91.4	6.87	1.8	1.6	
HCLR	HY/2011/03	2013-03-22	Mid-Flood	Sunny	CS2	13:16:43	1.0	Surface	1	1	21.04	8.14	30.21	92.3	6.89	3.4	2.9	
HCLR	HY/2011/03	2013-03-22	Mid-Flood</															

Project	Works	Date (yyyy-mm-dd)	Weather Condition	Tide	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:29:40	1.0	Surface	1	1	22.24	8.25	25.82	94.9	7.11	14	9.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:28:45	1.0	Surface	2	2	22.24	8.25	25.83	94.8	7.1	13.9	10.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:29:34	4.8	Middle	2	1	22.23	8.25	25.84	94.8	7.1	13.9	9.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:28:38	4.8	Middle	2	2	22.23	8.24	25.86	94.9	7.08	14	10.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:29:28	8.5	Bottom	3	1	22.24	8.25	25.85	94.9	7.11	14.5	9.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS5	16:28:28	8.5	Bottom	3	2	22.23	8.24	25.89	94.7	7.09	14.3	10.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J6	16:37:35	1.0	Surface	1	1	22.19	8.25	26.46	98.6	7	9.9	16.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J6	16:37:24	1.0	Surface	1	2	22.19	8.24	26.46	98.6	7.01	10.1	16.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J6	16:37:16	2.5	Bottom	3	1	22.19	8.24	26.46	98.8	7.01	10.4	16.6	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J6	16:37:30	2.5	Bottom	3	2	22.19	8.24	26.46	98.7	7	10.5	16.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS7	16:44:43	1.0	Surface	1	1	22.06	8.24	25.82	94.8	7.13	24.8	15.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS7	16:44:24	1.0	Surface	1	2	22.06	8.24	25.82	94.6	7.11	24.7	15.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS7	16:44:18	2.5	Bottom	3	1	22.06	8.24	25.82	94.7	7.12	24.6	15.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS7	16:44:09	2.5	Bottom	3	2	22.06	8.24	25.82	94.8	7.13	24.9	15.6	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS8	17:18:12	1.0	Surface	1	1	21.96	8.26	26.2	98.5	7.02	6.7	6	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS8	17:17:55	1.0	Surface	1	2	21.96	8.26	26.2	98.6	7.04	6.7	5.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS8	17:17:46	2.6	Bottom	3	1	21.96	8.26	26.22	98.7	7.04	6.8	5.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS8	17:18:02	2.6	Bottom	3	2	21.96	8.26	26.25	98.6	7.03	7.1	6.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J9	16:50:57	1.0	Surface	1	1	22.09	8.25	26.43	94.4	7.07	9.4	13.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J9	16:51:06	1.0	Surface	1	2	22.09	8.25	26.43	94.4	7.07	9.7	12.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J9	16:50:52	2.5	Bottom	3	1	22.09	8.25	26.43	94.5	7.07	9.9	11.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS(M)J9	16:51:01	2.5	Bottom	3	2	22.09	8.25	26.43	94.4	7.07	9.8	10.6	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:26:20	1.0	Surface	1	1	21.63	8.19	27.44	91.8	6.89	7.4	7.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:27:45	1.0	Surface	1	2	21.64	8.19	27.47	91.5	6.87	7.7	6.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:25:54	5.2	Middle	2	1	21.44	8.18	28.33	88.9	6.66	8.5	5.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:27:20	5.2	Middle	2	2	21.49	8.18	28.1	89.4	6.7	8.1	7.2	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:26:40	9.4	Bottom	3	1	21.39	8.17	28.55	89.1	6.67	9	7.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	IS10	17:25:27	9.4	Bottom	3	2	21.63	8.18	28.42	92.2	6.92	7.4	7.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR3	16:19:29	0.7	Middle	2	1	22.16	8.17	26.19	94.5	7.08	10.7	9.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR3	16:19:26	0.7	Middle	2	2	22.16	8.15	26.21	94.7	7.09	10.6	8.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR4	17:06:24	1.0	Surface	1	1	21.91	8.24	26.35	98.3	7.01	11.9	6.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR4	17:06:32	1.0	Surface	1	2	21.95	8.24	26.23	98.3	7.01	11.7	6.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR4	17:06:28	2.5	Bottom	3	1	21.94	8.24	26.26	98.1	7	13.8	5.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR4	17:06:20	2.5	Bottom	3	2	21.92	8.23	26.36	98.7	7.04	14.1	6.4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR5	17:15:26	1.0	Surface	1	1	21.62	8.18	27.47	92.7	6.96	7.1	4.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR5	17:16:06	1.0	Surface	1	2	21.63	8.18	27.45	92.7	6.96	7.1	4.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR5	17:15:09	4.5	Bottom	3	1	21.58	8.18	27.55	92.4	6.93	7.1	4.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR5	17:15:44	4.5	Bottom	3	2	21.61	8.18	27.65	91.9	6.9	7.9	3.2	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10A	18:32:27	1.0	Surface	1	1	20.95	8.31	29.93	90.6	6.78	3.3	3.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10A	18:33:04	1.0	Surface	1	2	20.95	8.32	29.93	90.4	6.77	1.9	4.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10A	18:32:19	3.3	Middle	2	1	20.86	8.31	30.32	90.1	6.74	2.1	4	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10A	18:32:56	3.3	Middle	2	2	20.82	8.32	30.42	89.8	6.72	2.3	3.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10A	18:32:06	5.6	Bottom	3	1	20.79	8.31	30.54	90	6.74	2.5	4.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10B	18:32:41	5.6	Bottom	3	2	20.79	8.31	30.53	89.9	6.73	2.7	4.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10B	18:45:28	1.0	Surface	1	1	20.99	8.32	30	91.5	6.85	1.7	4.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10B	18:46:22	1.0	Surface	1	2	21.02	8.32	29.91	91.4	6.84	1.5	5.1	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10B	18:45:59	4.5	Bottom	3	1	20.88	8.32	30.28	90.9	6.8	1.7	3.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	SR10B	18:44:58	4.5	Bottom	3	2	20.9	8.31	30.27	91.3	6.83	1.8	4.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:09:05	1.0	Surface	1	1	21.7	8.24	27.36	95.8	7.4	4.3	4.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:10:00	1.0	Surface	1	2	21.7	8.23	27.37	95	7.13	7.3	4.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:09:35	3.5	Middle	2	1	21.68	8.23	27.48	95.5	7.01	7.7	4.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:08:47	3.5	Middle	2	2	21.68	8.24	27.42	95.3	7.14	7.8	4.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:08:35	5.9	Bottom	3	1	21.63	8.24	27.72	96.7	7.25	8.6	5.6	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS2	16:09:25	5.9	Bottom	3	2	21.59	8.22	27.82	98.9	7.04	8.2	5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:55:37	1.0	Surface	1	1	21.47	8.29	28.21	91.8	6.88	2.9	4.9	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:56:11	1.0	Surface	1	2	21.44	8.3	28.26	91.7	6.87	2.9	4.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:56:05	6.8	Middle	2	1	21.36	8.3	28.43	90.7	6.8	3	5.7	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:55:30	6.8	Middle	2	2	21.39	8.29	28.37	90.8	6.81	3	5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:55:55	12.6	Bottom	3	1	21.09	8.29	29.28	90	6.75	3	4.5	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Ebb	CS(M)J5	17:55:20	12.6	Bottom	3	2	21.08	8.28	29.29	89.9	6.74	3.1	5.2	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Flood	IS5	12:25:40	1.0	Surface	1	1	21.99	8.26	26.33	91.5	6.87	10.4	26	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Flood	IS5	12:26:04	1.0	Surface	1	2	21.99	8.26	26.33	91.4	6.86	10.4	25.8	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Flood	IS5	12:25:59	4.7	Middle	2	1	21.98	8.27	26.34	91.3	6.85	10.8	17.3	
HCLR	HY/2011/03	2013-03-25	Fine	Mid-Flood	IS5	12:25:34	4.7	Middle	2	2	21.96	8.26	26.34	91.3	6.85	11.1	18	
HCLR	HY/2011/03	2013-03-25	Fine															



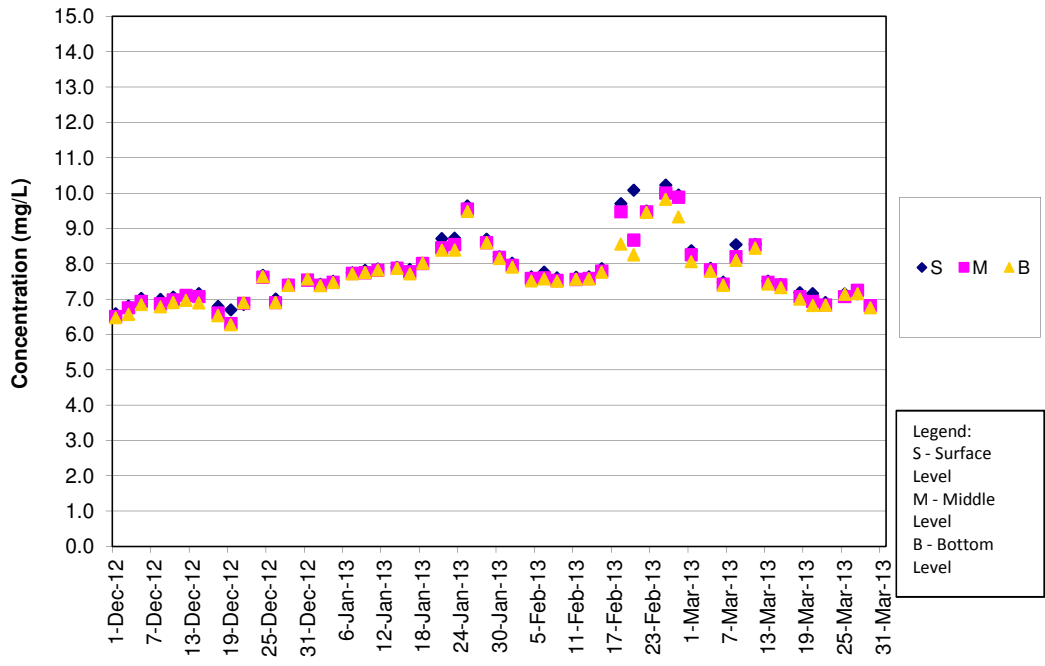
Project	Works	Date (yyyy-mm-dd)	Weather Condition	Tide	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS8	11:43:32	1.0	Surface	1	2	22.08	8.26	25.87	95.5	7.03	5.5	7.9	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS8	11:43:43	2.5	Bottom	3	1	22.08	8.26	25.87	95.8	7.05	5.8	6.9	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS8	11:43:27	2.5	Bottom	3	2	22.08	8.26	25.87	98.3	7.01	6	5.7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	ISM9	12:06:09	1.0	Surface	1	1	22.02	8.25	25.84	99.2	7.01	11.5	7.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	ISM9	12:06:20	1.0	Surface	1	1	22.02	8.25	25.85	98.1	7.01	11.3	8.9	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	ISM9	12:06:15	2.4	Bottom	3	1	22.02	8.25	25.84	98.2	7.01	11.7	7.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	ISM9	12:06:00	2.4	Bottom	3	2	22.02	8.25	25.84	98.2	7.01	11.9	7.7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:51:53	1.0	Surface	1	1	21.73	8.16	27.05	98.4	6.86	8.3	5.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:51:02	1.0	Surface	1	2	21.74	8.15	27.01	92.4	6.94	8.9	4.7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:51:41	5.1	Middle	2	1	21.65	8.16	27.42	89.8	6.74	9.9	6.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:50:33	5.1	Middle	2	2	21.64	8.16	27.44	90.3	6.78	10.4	6.6	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:50:43	9.1	Bottom	3	1	21.46	8.14	28.16	89.3	6.69	13.1	7.1	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	IS10	11:51:23	9.1	Bottom	3	2	21.44	8.14	28.26	88.7	6.64	13.8	6.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR3	12:35:22	0.6	Middle	2	1	22.01	8.27	26.32	98.5	7.01	7.6	11.4	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR3	12:35:25	0.6	Middle	2	2	22.01	8.27	26.32	98.3	7	7.8	11.4	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR4	11:52:12	1.0	Surface	1	1	22.08	8.27	25.89	98.5	7.02	5.7	7.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR4	11:52:23	1.0	Surface	1	1	22.08	8.27	25.89	98.8	7.04	5.4	7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR4	11:52:18	2.5	Bottom	3	1	22.08	8.27	25.89	98.6	7.03	6.1	7.1	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR4	11:52:02	2.5	Bottom	3	2	22.07	8.27	25.94	98.5	7.03	6.4	6.2	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR5	11:59:42	1.0	Surface	1	1	21.73	8.16	27.08	92.8	6.97	9	6.5	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR5	11:59:22	1.0	Surface	1	2	21.73	8.16	27.08	92.8	6.97	9	6.5	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR5	11:59:08	4.2	Bottom	3	1	21.7	8.16	27.24	92.5	6.94	9.1	5.2	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR5	11:59:30	4.2	Bottom	3	2	21.72	8.16	27.17	92.6	6.95	9.4	5.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:34:13	1.0	Surface	1	1	20.74	8.32	30.42	89.7	6.72	2.4	1.2	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:34:43	1.0	Surface	1	2	20.78	8.32	30.35	89.7	6.72	2.3	1.1	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:34:34	3.3	Middle	2	1	20.76	8.32	30.41	89.4	6.7	2.3	1.9	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:34:07	3.3	Middle	2	2	20.72	8.32	30.51	89.5	6.7	2.4	1.7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:34:27	5.6	Bottom	3	1	20.75	8.32	30.45	89.4	6.7	2.5	2.5	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10A	10:33:59	5.6	Bottom	3	2	20.7	8.32	30.58	89.3	6.7	2.6	2.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10B	10:25:25	1.0	Surface	1	1	20.81	8.32	30.25	90	6.75	2.1	3.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10B	10:24:10	1.0	Surface	1	2	20.82	8.32	30.26	89.9	6.74	2.2	2.1	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10B	10:23:48	4.5	Bottom	3	1	20.79	8.32	30.31	89.7	6.73	2.3	4.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	SR10B	10:24:55	4.5	Bottom	3	2	20.83	8.32	30.27	90	6.74	2.2	5.1	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:04:02	1.0	Surface	1	1	21.85	8.19	26.86	95.5	7.16	8.6	6.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:04:56	1.0	Surface	1	2	21.81	8.19	26.88	94.4	7.01	8.9	6.6	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:03:50	3.4	Middle	2	1	21.73	8.19	27.07	93.5	7.02	14.8	6.4	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:04:42	3.4	Middle	2	2	21.43	8.18	28.1	91	6.83	13.1	6.5	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:04:16	5.7	Bottom	3	1	21.47	8.18	28.08	93.5	7.01	15.5	7.6	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS2	13:03:37	5.7	Bottom	3	2	21.44	8.18	28.06	93	6.98	16.2	6.7	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:08:16	1.0	Surface	1	1	21.24	8.3	28.89	89.9	6.74	3.5	1.9	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:08:48	1.0	Surface	1	2	21.25	8.3	28.86	89.9	6.74	3.5	1.6	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:08:38	6.8	Middle	2	1	21.13	8.31	29.09	89.2	6.71	3.5	2.3	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:08:09	6.8	Middle	2	2	21.17	8.31	29.01	89.7	6.73	3.4	3.5	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:08:29	12.5	Bottom	3	1	21.01	8.3	29.58	89.1	6.68	3.6	3.8	
HCLR	HY2011/03	2013-03-25	Fine	Mid-Flood	CS1M9	11:07:59	12.5	Bottom	3	2	21.01	8.31	29.51	89.3	6.7	3.7	2.5	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:12:00	1.0	Surface	1	1	21.06	8.3	28.64	91.6	6.9	8.4	8.4	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:12:34	1.0	Surface	1	2	21.05	8.3	28.64	91.6	6.9	10.3	6.8	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:12:21	4.6	Middle	2	1	21.03	8.31	28.74	91.5	6.89	11.3	8.9	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:11:50	4.6	Middle	2	2	21.04	8.31	28.72	91.5	6.89	11.3	7.7	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:12:09	8.2	Bottom	3	1	21.03	8.3	29	91.2	6.86	11.4	9.5	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS5	14:11:37	8.2	Bottom	3	2	21	8.3	29.2	91.3	6.86	11.4	9.5	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	14:02:52	1.0	Surface	1	1	21.1	8.28	28.43	90.2	6.8	6.3	6.3	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	14:03:13	1.0	Surface	1	2	21.1	8.27	28.5	89.9	6.77	12.4	5.7	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	14:03:00	2.3	Bottom	3	1	21.09	8.27	28.68	90	6.77	13.3	2.7	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	14:02:35	2.3	Bottom	3	2	21.09	8.27	28.64	89.8	6.76	13.2	3	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS7	13:52:38	1.0	Surface	1	1	21.04	8.26	28.36	91.1	6.88	11.4	3.2	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS7	13:52:59	1.0	Surface	1	2	21.07	8.26	28.24	90.4	6.82	10.9	2.9	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS7	13:52:46	2.2	Bottom	3	1	21.05	8.26	28.38	90.1	6.8	13.7	5.3	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS7	13:52:33	2.2	Bottom	3	2	21.06	8.26	28.32	90.7	6.84	12.8	5.8	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS8	13:10:32	1.0	Surface	1	1	21.14	8.27	27.96	91.3	6.9	6.9	6.4	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS8	13:10:48	2.5	Bottom	3	1	21.13	8.27	28.14	91.3	6.88	7.7	5.9	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS8	13:10:23	2.5	Bottom	3	2	21.13	8.27	28.14	91.3	6.88	7.7	5.9	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	IS8	13:10:07	2.5	Bottom	3	2	21.08	8.27	28.64	91.2	6.86	7.5	5.1	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	13:44:10	1.0	Surface	1	1	21.14	8.27	28.07	90.6	6.84	17.2	11.7	
HCLR	HY2011/03	2013-03-27	Cloudy	Mid-Ebb	ISM9	13:44:33	1.0	Surface	1	2	21.14	8.27						

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	Site Observation
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR4	13:15:30	1.0	Surface	1	1	21.11	8.24	27.95	87.3	6.59	9.6	11.2	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR4	13:15:53	1.0	Surface	1	2	21.11	8.24	27.96	87.3	6.59	9	10.2	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR4	13:15:20	2.6	Bottom	3	1	21.09	8.24	28	87.2	6.58	9.7	8.1	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR4	13:15:34	2.6	Bottom	3	2	21.11	8.24	27.96	87.3	6.59	9.4	8.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR5	12:39:39	1.0	Surface	1	1	21.2	8.14	28.38	89.4	6.73	15.4	6.7	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR5	12:40:10	1.0	Surface	1	2	21.22	8.14	28.39	89.1	6.7	16	6.1	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR5	12:39:56	4.4	Bottom	3	1	21.08	8.15	28.88	88.7	6.71	16.9	11.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR5	12:39:21	4.4	Bottom	3	2	21.1	8.14	28.86	88.3	6.71	17	11.2	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:49:00	1.0	Surface	1	2	20.5	8.31	31.5	89.7	6.71	2.3	3.4	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:48:34	1.0	Surface	1	2	20.5	8.31	31.5	89.7	6.72	2.3	3.5	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:48:29	3.1	Middle	2	1	20.49	8.31	31.51	89.6	6.71	2.3	3.5	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:48:23	3.1	Middle	2	2	20.5	8.31	31.5	89.7	6.71	2.5	7.6	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:48:45	5.1	Bottom	3	1	20.5	8.31	31.51	89.6	6.7	2.3	8.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10A	11:48:22	5.1	Bottom	3	2	20.5	8.31	31.5	89.7	6.71	2.5	8.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10B	11:42:50	1.0	Surface	1	1	20.46	8.3	31.67	89.8	6.73	3.8	5.1	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10B	11:42:36	1.0	Surface	1	2	20.46	8.3	31.67	90	6.73	3.3	5.6	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10B	11:42:43	3.8	Bottom	3	1	20.46	8.3	31.67	89.8	6.71	3.7	3.1	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	SR10B	11:42:30	3.8	Bottom	3	2	20.46	8.3	31.67	89.9	6.73	3.2	3	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:58:41	1.0	Surface	1	1	21.16	8.16	27.68	94.2	7.12	10.6	13.4	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:57:42	1.0	Surface	1	2	21.16	8.15	27.67	95	7.17	10.8	13.2	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:58:23	3.4	Middle	2	1	20.93	8.22	29.41	95.5	7.17	7.8	9.6	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:57:20	3.4	Middle	2	2	20.93	8.21	29.48	97.5	7.33	9.9	9	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:58:06	5.8	Bottom	3	1	20.63	8.25	31.97	94.3	7.02	12.1	11.5	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS2	13:57:09	5.8	Bottom	3	2	20.77	8.23	31.85	98.1	7.3	11.5	8.4	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:30:24	1.0	Surface	1	1	20.77	8.31	29.83	89.4	6.72	4	4	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:29:50	1.0	Surface	1	2	20.58	8.31	29.8	90	6.76	4	4.6	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:29:38	6.6	Middle	2	1	20.58	8.31	31.02	89.4	6.7	4.1	2.6	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:30:15	6.6	Middle	2	2	20.61	8.31	30.91	89.2	6.68	4.6	4.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:29:31	12.1	Bottom	3	1	20.61	8.3	30.99	88.9	6.66	4.6	4.8	
HCLR	HY/2011/03	2013-03-27	Mid-Ebb	Cloudy	CS1(M)5	12:30:04	12.1	Bottom	3	2	20.62	8.3	30.94	88.7	6.65	4.8	3.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:41:36	1.0	Surface	1	1	21.16	8.27	28.27	91.2	6.87	10.9	12.1	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:42:11	1.0	Surface	1	2	21.17	8.27	28.21	91.6	6.87	10.6	13.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:41:28	4.6	Middle	2	1	21.15	8.27	28.34	90.9	6.85	10.8	13.2	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:41:56	4.6	Middle	2	2	21.14	8.27	28.33	90.9	6.84	11.3	15.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:41:16	8.1	Bottom	3	1	21.14	8.27	28.39	90.9	6.85	11.5	13.2	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS5	17:41:48	8.1	Bottom	3	2	21.14	8.27	28.43	90.7	6.83	11.4	14.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)6	17:51:05	1.0	Surface	1	1	21.15	8.26	28.31	91	6.85	19.3	11.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)6	17:50:23	1.0	Surface	1	2	21.15	8.26	28.31	91	6.86	18.9	12.7	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)6	17:50:12	2.2	Bottom	3	1	21.15	8.26	28.3	90.8	6.84	19.2	11.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)6	17:50:28	2.2	Bottom	3	2	21.15	8.26	28.31	90.8	6.84	19.6	11.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS7	17:59:16	1.0	Surface	1	1	21.15	8.27	28.24	91.9	6.93	11.6	12.1	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS7	17:58:40	1.0	Surface	1	2	21.14	8.27	28.27	91.5	6.9	12.1	14.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS7	17:58:22	2.3	Bottom	3	1	21.11	8.26	28.4	91.3	6.88	12.5	10.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS7	17:58:45	2.3	Bottom	3	2	21.12	8.26	28.38	91.2	6.87	12.1	11.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS8	18:24:33	1.0	Surface	1	1	21.23	8.27	27.61	92.8	7	5.9	11.1	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS8	18:24:15	1.0	Surface	1	2	21.23	8.27	27.62	92.9	7.01	5.6	9.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS8	18:23:56	2.5	Bottom	3	1	21.22	8.27	27.84	92.8	7	6.3	8.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS8	18:24:21	2.5	Bottom	3	2	21.22	8.27	27.8	92.7	7	5.9	6.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)9	18:06:39	1.0	Surface	1	1	21.16	8.26	27.95	90.5	6.82	17.6	21.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)9	18:07:00	1.0	Surface	1	2	21.15	8.26	27.98	90	6.79	17.7	21.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)9	18:06:22	2.6	Bottom	3	1	21.11	8.26	28.34	90.1	6.8	17.6	20.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS1(M)9	18:06:43	2.6	Bottom	3	2	21.14	8.26	28.11	89.8	6.78	17.9	18.7	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:04:46	1.0	Surface	1	1	21.31	8.15	27.58	89.8	6.77	8.6	8.1	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:03:44	1.0	Surface	1	2	21.3	8.15	27.62	89.9	6.78	9	8.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:04:28	5.9	Middle	2	1	21.2	8.15	27.93	89.4	6.75	13	7.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:03:28	5.9	Middle	2	2	21.19	8.15	27.97	89.7	6.75	13.9	6.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:04:09	10.7	Bottom	3	1	21.1	8.15	24.17	88.7	6.85	18.5	10.8	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	19:03:42	10.7	Bottom	3	2	21.2	8.15	24.17	88.3	6.82	17.7	10.7	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	IS10	17:33:39	1.1	Middle	2	1	21.13	8.27	28.48	91.4	6.88	13	17.5	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR3	17:33:20	1.1	Middle	2	2	21.13	8.27	28.5	91.1	6.93	13.6	17.7	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR4	18:19:11	1.0	Surface	1	1	21.19	8.26	27.93	90.5	6.82	9.1	7.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR4	18:18:48	1.0	Surface	1	2	21.19	8.26	27.95	90.6	6.83	8.6	8.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR4	18:18:35	2.4	Bottom	3	1	21.17	8.26	28.08	90.5	6.83	9.8	8.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR4	18:18:53	2.4	Bottom	3	2	21.18	8.26	28.07	90.4	6.82	9.4		

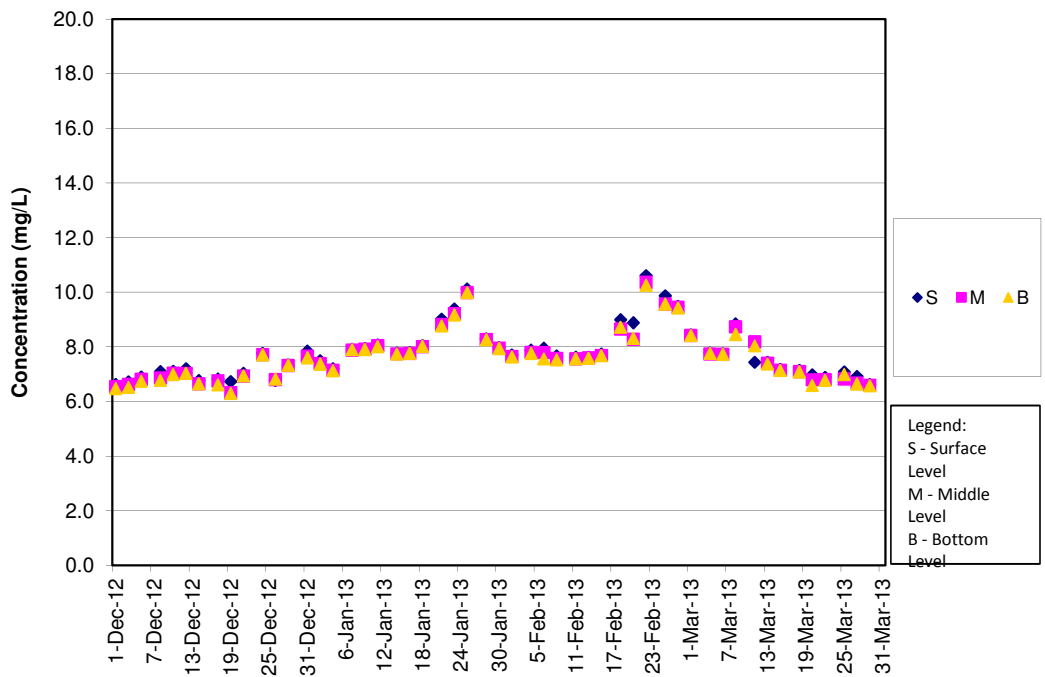
Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR108	19:37:19	1.0	Surface	1	2	20.52	8.32	31.38	90.5	6.78	4.5	4.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR108	19:37:20	3.8	Bottom	3	1	20.52	8.32	31.38	89.8	6.72	4.6	6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	SR108	19:37:24	3.8	Bottom	3	2	20.52	8.32	31.38	90.1	6.75	4.8	8.2	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:37:23	1.0	Surface	1	1	21.41	8.12	26.85	89.7	6.78	8.6	6.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:38:10	1.0	Surface	1	2	21.41	8.12	26.87	90.8	7.07	8	6.6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:37:09	3.5	Middle	2	1	21.31	8.14	27.58	90.3	6.81	11	5.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:37:55	3.5	Middle	2	2	21.31	8.14	27.55	88.5	6.68	9.9	5.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:37:41	6.0	Bottom	3	1	21.3	8.14	27.66	88.6	6.68	14.1	5.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS2	17:36:48	6.0	Bottom	3	2	21.29	8.14	27.69	88.1	6.61	13.9	6	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:59:11	1.0	Surface	1	1	21.1	8.28	28.06	90.1	6.8	6.3	3.4	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:59:55	1.0	Surface	1	2	21.12	8.28	28.02	90.3	6.82	6.6	3.5	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:59:36	6.6	Middle	2	1	20.76	8.29	30	89.1	6.67	7.1	5.1	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:58:56	6.6	Middle	2	2	20.79	8.29	30.08	89.4	6.7	6.8	4.3	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:59:25	12.2	Bottom	3	1	20.79	8.28	30.45	88.6	6.66	7.1	4.9	
HCLR	HY/2011/03	2013-03-27	Mid-Flood	Cloudy	CS(MF)5	18:58:43	12.2	Bottom	3	2	20.79	8.28	30.44	88.8	6.67	7	4.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:00:14	1.0	Surface	1	1	20.99	8.26	28.22	88.3	6.75	15.2	16.4	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	12:59:35	1.0	Surface	1	2	20.99	8.26	28.2	89.3	6.75	15.1	16.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:00:00	4.2	Middle	2	1	20.98	8.26	28.27	89	6.73	15.9	16.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	12:59:21	4.2	Middle	2	2	20.98	8.26	28.28	89.1	6.74	15.7	17.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	12:59:07	7.4	Bottom	3	1	20.97	8.27	28.33	89	6.72	16.8	16.6	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	12:59:48	7.4	Bottom	3	2	20.98	8.26	28.28	88.9	6.72	16.5	17.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)6	13:08:54	1.0	Surface	1	1	21.19	8.23	27.66	89.3	6.74	6.1	5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)6	13:08:33	1.0	Surface	1	2	21.15	8.23	27.66	89.4	6.76	6.2	5.8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)6	13:08:44	2.0	Bottom	3	1	21.07	8.23	27.69	89	6.74	6.6	4.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)6	13:08:22	2.0	Bottom	3	2	21.06	8.23	27.73	89	6.74	6.6	5.2	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS7	13:20:21	1.0	Surface	1	1	21.12	8.23	27.66	89	6.74	5.9	4.8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS7	13:20:46	1.0	Surface	1	2	21.15	8.23	27.66	89	6.73	6	3.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS7	13:20:35	2.3	Bottom	3	1	21.04	8.23	27.77	88.5	6.71	6.6	8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS7	13:20:07	2.3	Bottom	3	2	21.07	8.23	27.75	88.8	6.73	6.5	6.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:46:48	1.0	Surface	1	1	21.26	8.24	27.73	90	6.79	7.6	4.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:47:13	1.0	Surface	1	2	21.23	8.23	27.75	89.9	6.78	7.6	5.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:47:00	2.8	Bottom	3	1	21.14	8.23	27.81	89.8	6.78	8.5	5.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	BS	13:46:36	2.8	Bottom	3	2	21.13	8.23	27.83	89.7	6.78	8.7	6.4	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)9	13:30:08	1.0	Surface	1	1	21.13	8.22	27.67	88.3	6.68	18.9	2.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)9	13:30:31	1.0	Surface	1	2	21.12	8.22	27.68	87.9	6.65	18.6	27.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)9	13:30:22	2.6	Bottom	3	1	21.11	8.22	27.68	88	6.66	21.2	27.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS(MF)9	13:29:58	2.6	Bottom	3	2	21.11	8.22	27.68	88.4	6.69	20.9	27.4	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:13:01	1.0	Surface	1	1	21.26	8.1	27.34	89.1	6.74	10.8	7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:11:44	1.0	Surface	1	2	21.23	8.11	27.42	89.5	6.77	11.3	7.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:12:28	5.7	Middle	2	1	20.87	8.15	28.95	88.8	6.7	15.6	6.6	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:11:28	5.7	Middle	2	2	20.85	8.16	29.1	89	6.71	15.1	8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:12:03	10.3	Bottom	3	1	20.85	8.16	29.26	88.4	6.66	20.5	7.2	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	IS10	14:11:09	10.3	Bottom	3	2	20.85	8.15	29.26	88.3	6.65	20.6	7.6	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR3	12:53:30	0.8	Middle	2	1	21.1	8.25	27.79	89.6	6.77	8.2	5.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR3	12:53:22	0.8	Middle	2	2	21.12	8.25	27.79	90.1	6.81	8.1	6.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR4	13:41:20	1.0	Surface	1	1	21.2	8.2	27.3	86.1	6.52	7.8	8.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR4	13:40:30	1.0	Surface	1	2	21.17	8.2	27.34	87.1	6.59	8.1	7.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR4	13:40:15	2.7	Bottom	3	1	21.13	8.2	27.37	88.2	6.67	7.9	10.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR4	13:41:07	2.7	Bottom	3	2	21.13	8.2	27.36	86.3	6.54	7.9	9.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR5	13:56:53	1.0	Surface	1	1	21.26	8.09	27.34	89.2	6.74	8.2	8.3	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR5	13:57:31	1.0	Surface	1	2	21.25	8.09	27.41	89.1	6.74	8.1	7.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR5	13:57:13	3.9	Bottom	3	1	21.21	8.1	27.7	89.1	6.73	7.8	7.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR5	13:56:36	3.9	Bottom	3	2	21.23	8.1	27.67	89	6.72	7.8	6.9	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:50:36	1.0	Surface	1	1	21.11	8.27	29.07	89.6	6.73	4.5	4.1	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:51:14	1.0	Surface	1	2	21.14	8.27	28.99	89.8	6.74	4.4	4.6	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:51:03	3.2	Middle	2	1	21.04	8.27	29.26	89.3	6.7	4.7	4.8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:50:21	3.2	Middle	2	2	20.95	8.27	29.63	89	6.68	4.7	5.4	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:50:12	5.3	Bottom	3	1	21.01	8.27	29.37	89.2	6.69	4.5	4.4	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10A	14:50:52	5.3	Bottom	3	2	21.01	8.27	29.56	89.3	6.7	4.8	5.7	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10B	14:59:07	1.0	Surface	1	1	21	8.27	29.56	89.6	6.72	5.1	4.6	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10B	14:58:46	1.0	Surface	1	2	21.01	8.27	29.54	89.7	6.72	5	5.8	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10B	14:58:35	3.8	Bottom	3	1	21.01	8.27	29.55	89.3	6.7	4.9	4.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	SR10B	14:58:56	3.8	Bottom	3	2	21.01	8.27	29.55	89.3	6.7	4.9	4.5	
HCLR	HY/2011/03	2013-03-29	Mid-Ebb	Rainy	CS2	12:42:32	1.0	Surface	1	1	21.3	8.07	27.22	89.7	6.79	8	8.2	
HCLR	HY																	

Project	Works	Date (yyyy-mm-dd)	Weather Condition	Tide	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:21:18	1.0	Surface	1	1	20.92	8.23	27.81	88.7	6.73	14	14	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:21:57	1.0	Surface	1	2	20.92	8.23	27.81	88.7	6.73	14.5	14.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:22:02	4.4	Middle	2	1	20.91	8.23	27.82	88.4	6.71	15.5	13.7	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:21:40	4.4	Middle	2	2	20.91	8.23	27.81	88.3	6.7	15.6	15.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:21:31	7.8	Bottom	3	1	20.92	8.23	27.81	88.3	6.7	16.6	16	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS5	08:20:45	7.8	Bottom	3	2	20.91	8.23	27.82	88.4	6.71	16.8	16	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J6	08:12:33	1.0	Surface	1	1	20.96	8.24	27.97	89.6	6.77	9.3	6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J6	08:12:59	1.0	Surface	1	2	20.96	8.24	27.97	89.6	6.77	9.6	6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J6	08:12:21	2.3	Bottom	3	1	20.95	8.23	27.99	89.8	6.8	11.5	5.3	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J6	08:12:48	2.3	Bottom	3	2	20.94	8.23	27.99	89.4	6.8	11.3	6.2	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS7	08:06:45	1.0	Surface	1	1	21.04	8.23	27.52	89	6.75	9.5	9.2	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS7	08:06:39	1.0	Surface	1	2	21.06	8.23	27.46	89.1	6.75	9.2	8.6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS7	08:06:00	2.4	Bottom	3	1	20.98	8.23	27.78	89	6.75	11.7	8.2	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS7	08:06:23	2.4	Bottom	3	2	21	8.23	27.7	88.9	6.69	11.6	6.9	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS8	07:43:51	1.0	Surface	1	1	21.02	8.23	27.58	88.2	6.69	18.5	19.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS8	07:43:28	1.0	Surface	1	2	21.02	8.23	27.58	88.4	6.7	18.7	17.6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS8	07:43:18	3.2	Bottom	3	1	21.01	8.23	27.58	88.3	6.7	19.4	19.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS8	07:43:09	3.2	Bottom	3	2	21.01	8.23	27.58	88.3	6.69	19.5	18.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J9	08:00:05	1.0	Surface	1	1	21.05	8.23	27.69	88.5	6.7	14.1	16.3	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J9	08:00:26	1.0	Surface	1	2	21.03	8.23	27.69	88.5	6.7	14.6	14.3	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J9	07:59:50	2.6	Bottom	3	1	21.03	8.23	27.73	88.5	6.7	15.2	11.7	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS(M)J9	08:00:17	2.6	Bottom	3	2	21.01	8.23	27.73	88.2	6.69	15.3	14.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:51:07	1.0	Surface	1	1	20.98	8.11	28	87.6	6.63	18.7	10.9	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:52:21	1.0	Surface	1	2	21.01	8.11	27.89	87.6	6.63	18.7	10.9	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:51:49	5.8	Middle	2	1	20.96	8.11	28.11	87.4	6.62	21.4	12.7	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:50:42	5.8	Middle	2	2	20.95	8.11	28.13	87.3	6.6	20.2	12.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:50:26	10.6	Bottom	3	1	20.95	8.11	28.13	86.7	6.56	22.8	15.3	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	IS10	07:51:29	10.6	Bottom	3	2	20.95	8.11	28.13	87.1	6.59	23.9	14.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR3	08:29:38	0.7	Middle	2	1	20.92	8.23	27.82	88.7	6.73	13.3	15.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR3	08:29:49	0.7	Middle	2	2	20.92	8.23	27.81	88.7	6.73	13.6	13.8	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR4	07:49:34	1.0	Surface	1	1	21.01	8.22	27.39	88.2	6.7	17.3	8.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR4	07:49:11	1.0	Surface	1	2	21.01	8.22	27.38	88.5	6.72	17.3	10.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR4	07:48:59	2.9	Bottom	3	1	21	8.22	27.41	88.7	6.7	20.5	9.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR4	07:49:22	2.9	Bottom	3	2	21	8.22	27.41	88.2	6.7	19.4	9.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR5	08:03:25	1.0	Surface	1	1	21.03	8.11	27.76	87.4	6.62	21.7	4.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR5	08:02:45	1.0	Surface	1	2	21.09	8.1	27.43	87.4	6.62	20.5	42.7	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR5	08:02:18	4.0	Bottom	3	1	21.01	8.11	27.87	87.3	6.61	22.5	26.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR5	08:03:04	4.0	Bottom	3	2	21.03	8.11	27.8	87.1	6.6	23	25.8	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:45:23	1.0	Surface	1	1	20.7	8.25	30.09	87.8	6.6	5.6	6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:45:03	1.0	Surface	1	2	20.7	8.25	30.11	87.7	6.59	5.4	6.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:45:50	3.3	Middle	2	1	20.68	8.25	30.23	87.5	6.58	5.9	6.6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:45:09	3.3	Middle	2	2	20.67	8.25	30.27	87.5	6.58	6.1	6.9	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:45:36	5.5	Bottom	3	1	20.66	8.25	30.39	87.4	6.56	6.3	5.9	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10A	06:44:58	5.5	Bottom	3	2	20.66	8.25	30.39	87.5	6.57	6.1	7.1	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10B	06:39:40	1.0	Surface	1	1	20.56	8.23	31	87.8	6.58	10.3	15.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10B	06:40:01	1.0	Surface	1	2	20.57	8.24	31	87.7	6.57	10.6	15.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10B	06:39:30	4.2	Bottom	3	1	20.57	8.23	31.01	87.8	6.58	10.9	15.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	SR10B	06:39:51	4.2	Bottom	3	2	20.56	8.24	31	87.6	6.57	10.5	16.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:12:14	1.0	Surface	1	1	21.09	8.12	27.77	87.6	6.63	13	12	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:11:21	1.0	Surface	1	2	21.1	8.12	27.76	87.5	6.62	12.6	12.7	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:11:02	3.5	Middle	2	1	21.01	8.12	27.84	87.1	6.6	15.3	13	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:11:59	3.5	Middle	2	2	20.98	8.13	28.19	87.3	6.6	15.9	12.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:11:44	5.9	Bottom	3	1	20.96	8.13	28.45	87.1	6.58	18.3	12.8	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS2	09:10:39	5.9	Bottom	3	2	20.96	8.13	28.5	87.1	6.58	17.7	13.5	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:15:38	1.0	Surface	1	1	20.87	8.26	29.05	88.2	6.65	6.6	4.2	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:16:05	1.0	Surface	1	2	20.91	8.26	28.88	88.5	6.67	6.4	4.4	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:15:48	6.3	Middle	2	1	20.72	8.26	29.98	87.3	6.56	8.7	3.8	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:15:03	6.3	Middle	2	2	20.72	8.26	29.98	87.3	6.56	8.8	3.8	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:14:52	11.5	Bottom	3	1	20.72	8.26	30.01	87.2	6.55	9.8	4.6	
HCLR	HY/2011/03	2013-03-29	Fine	Mid-Flood	CS(M)J5	07:15:34	11.5	Bottom	3	2	20.73	8.26	29.97	87.3	6.57	9.6	3.9	

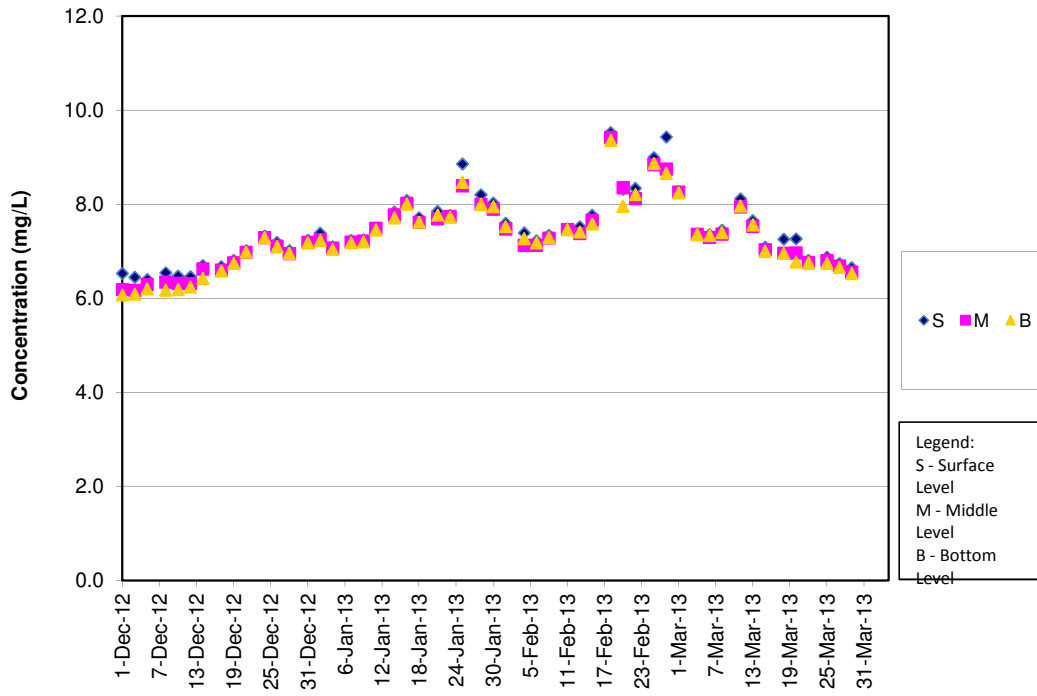
DO Concentrations at Station CS2 (Mid Ebb)



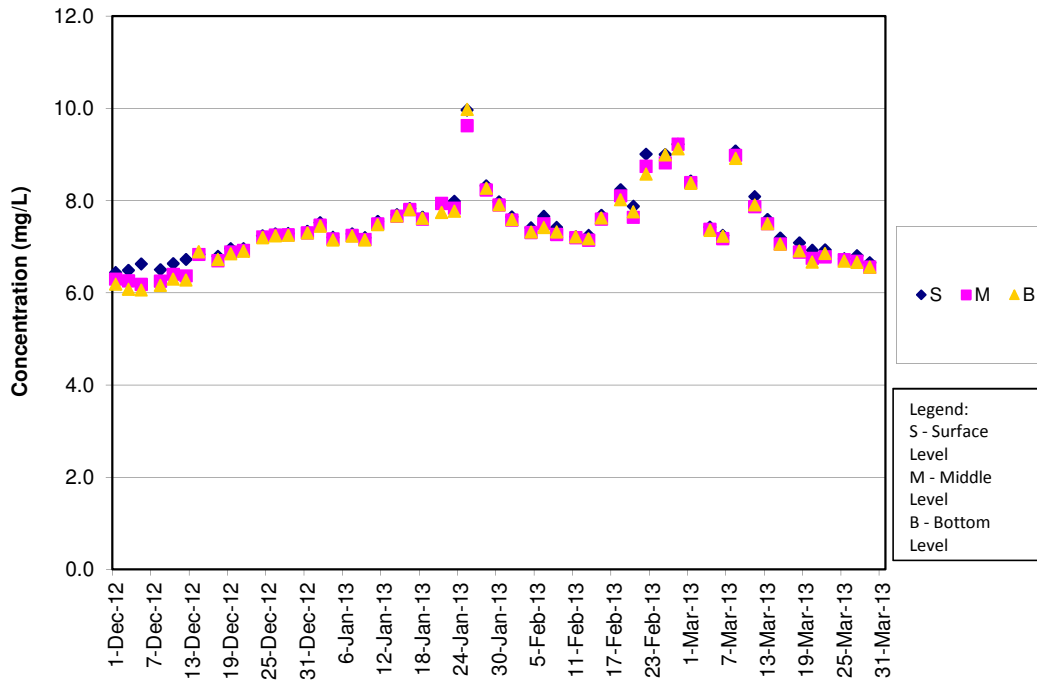
DO Concentrations at Station CS2 (Mid Flood)



DO Concentrations at Station CS(Mf)5 (Mid Ebb)

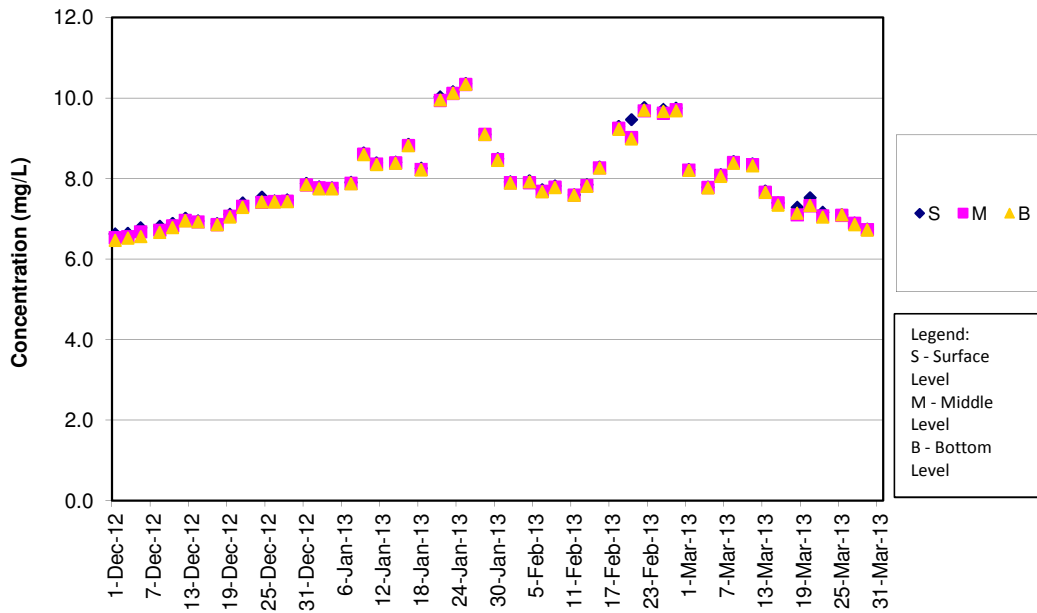


DO Concentrations at Station CS(Mf)5 (Mid Flood)

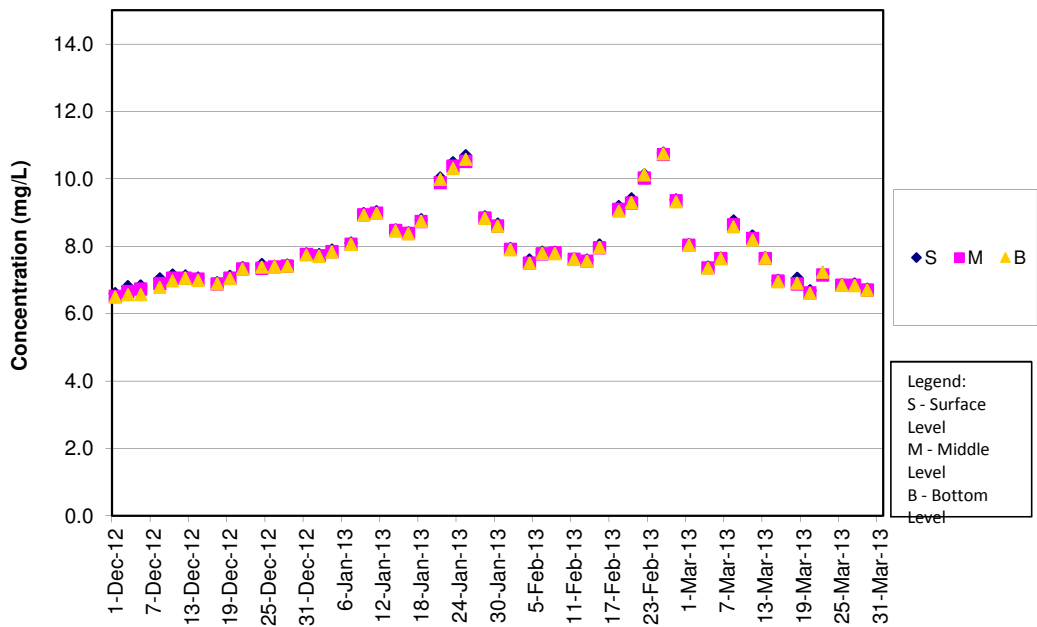




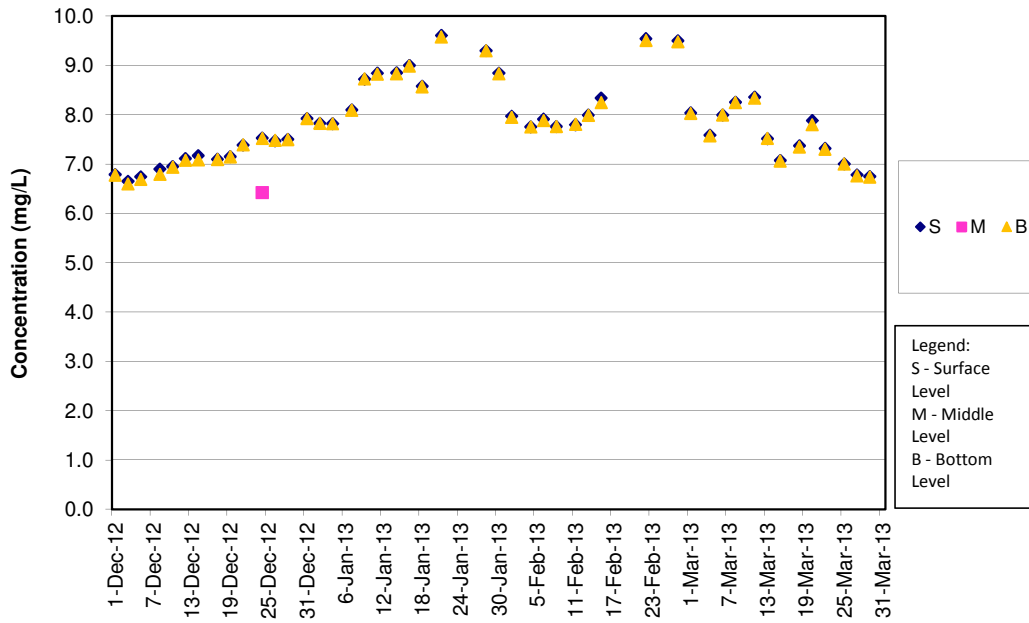
**DO Concentrations at Station IS5 (Mid Ebb)**



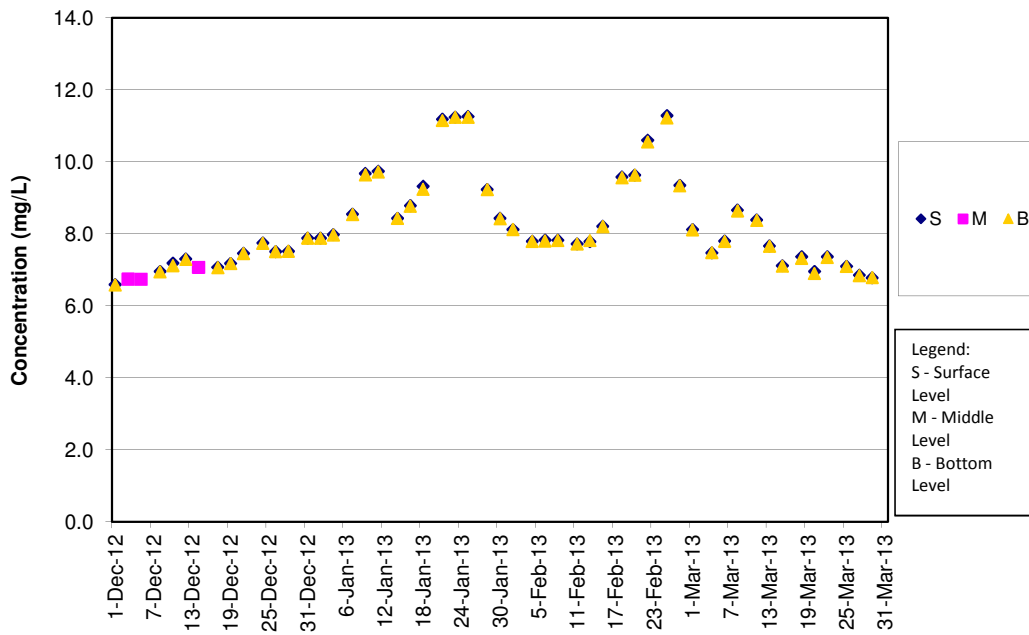
**DO Concentrations at Station IS5 (Mid Flood)**



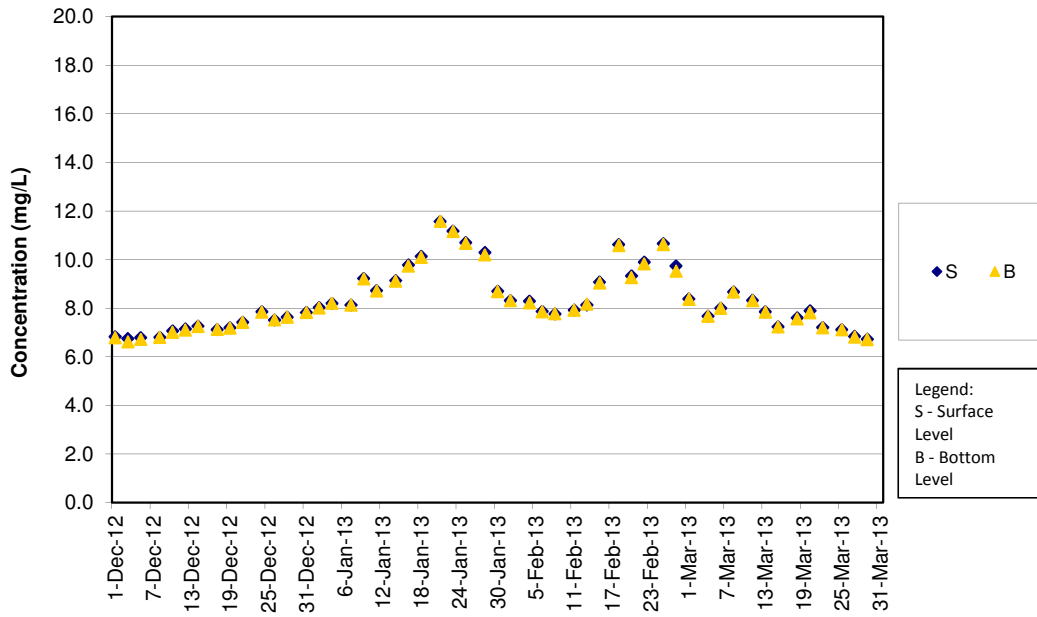
DO Concentrations at Station IS(Mf)6 (Mid Ebb)



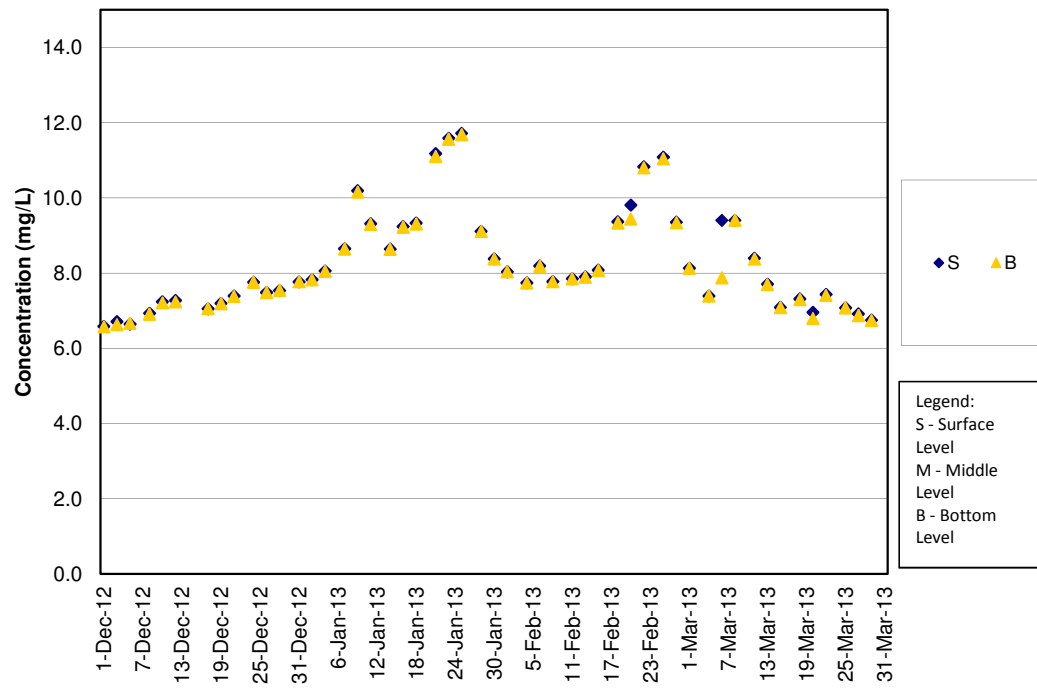
DO Concentrations at Station IS(Mf)6 (Mid Flood)



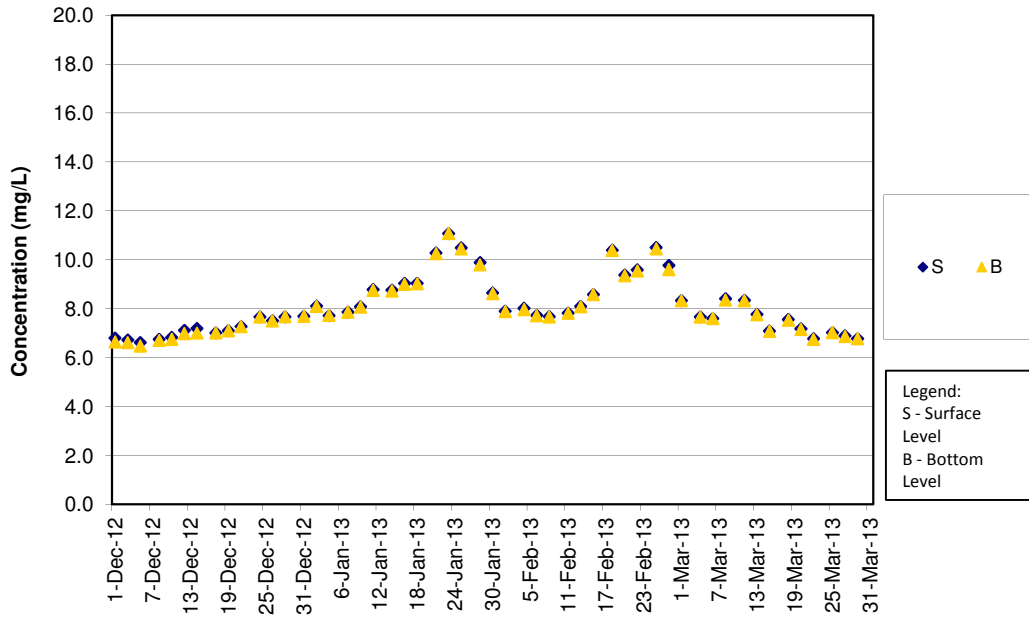
DO Concentrations at Station IS7 (Mid Ebb)



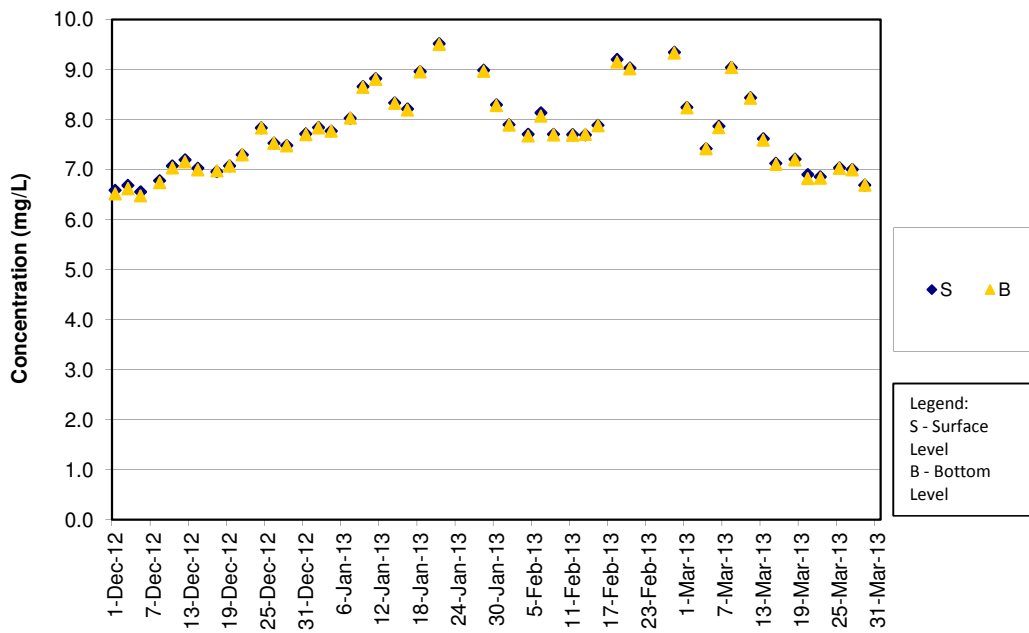
DO Concentrations at Station IS7 (Mid Flood)



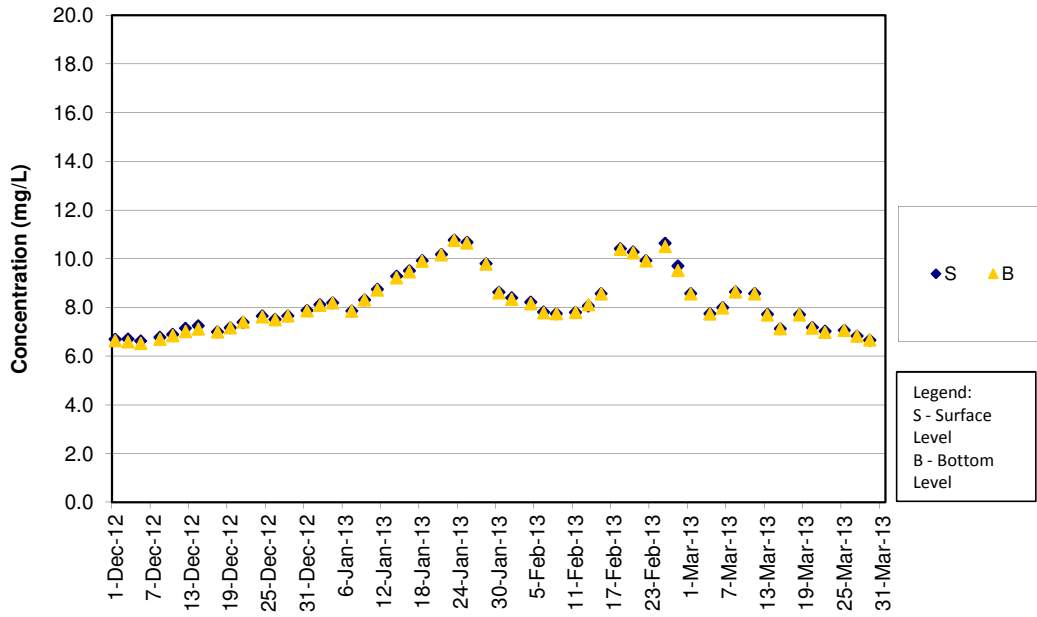
DO Concentrations at Station IS8 (Mid Ebb)



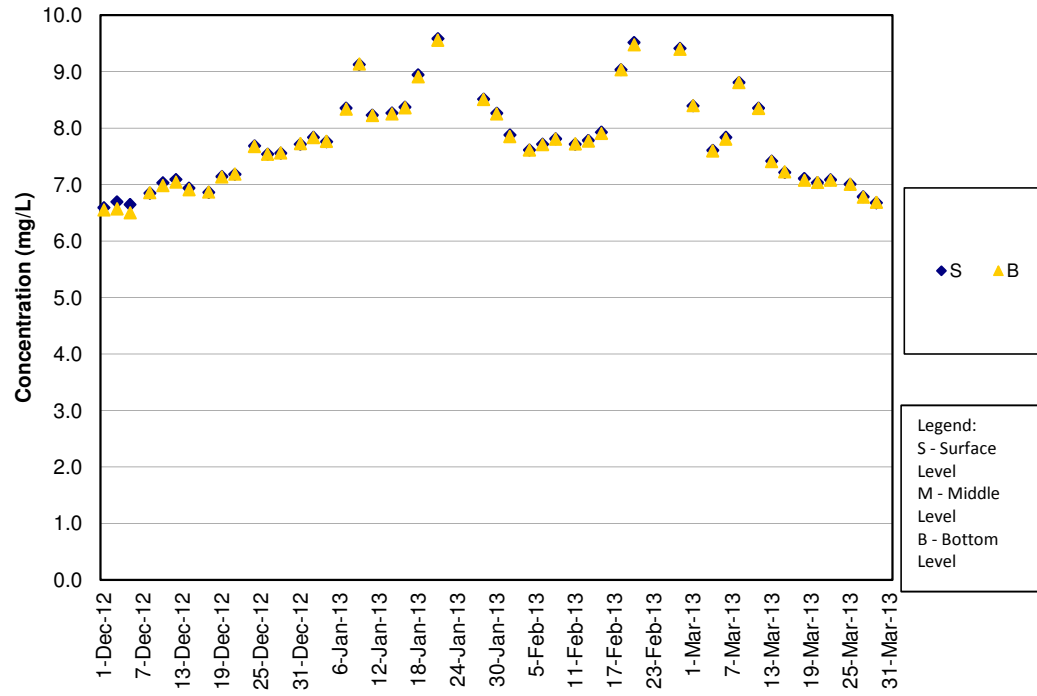
DO Concentrations at Station IS8 (Mid Flood)



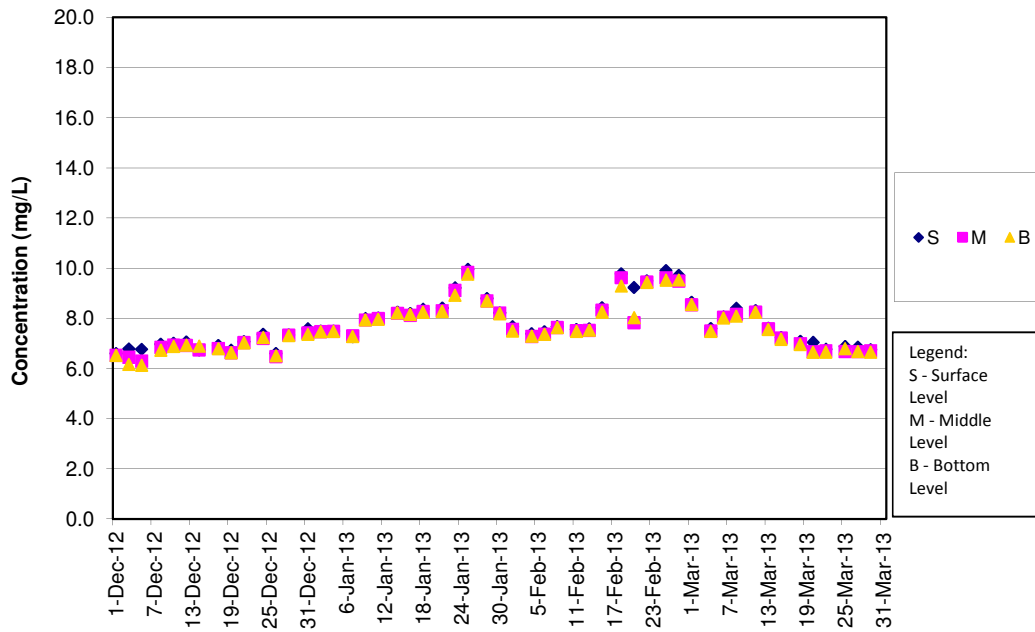
DO Concentrations at Station IS(Mf)9 (Mid Ebb)



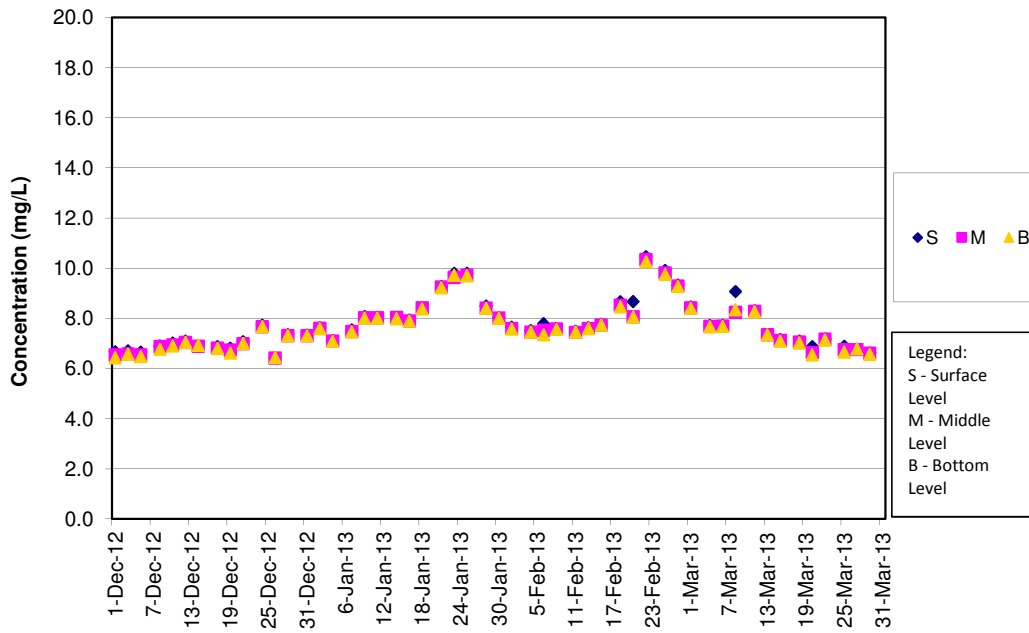
DO Concentrations at Station IS(Mf)9 (Mid Flood)



DO Concentrations at Station IS10 (Mid Ebb)

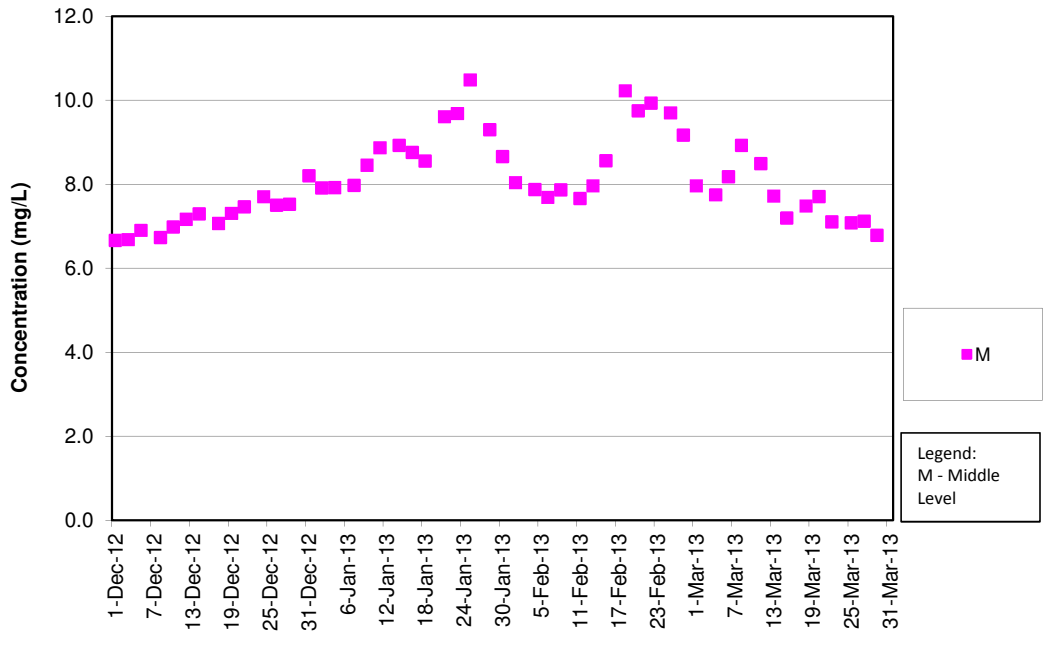


DO Concentrations at Station IS10 (Mid Flood)

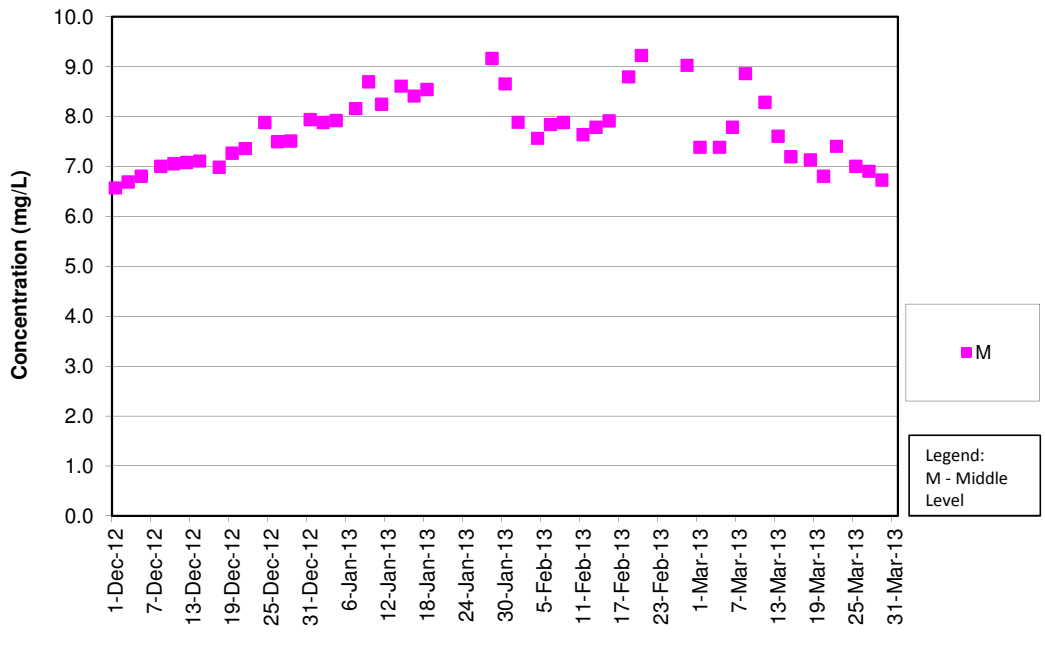




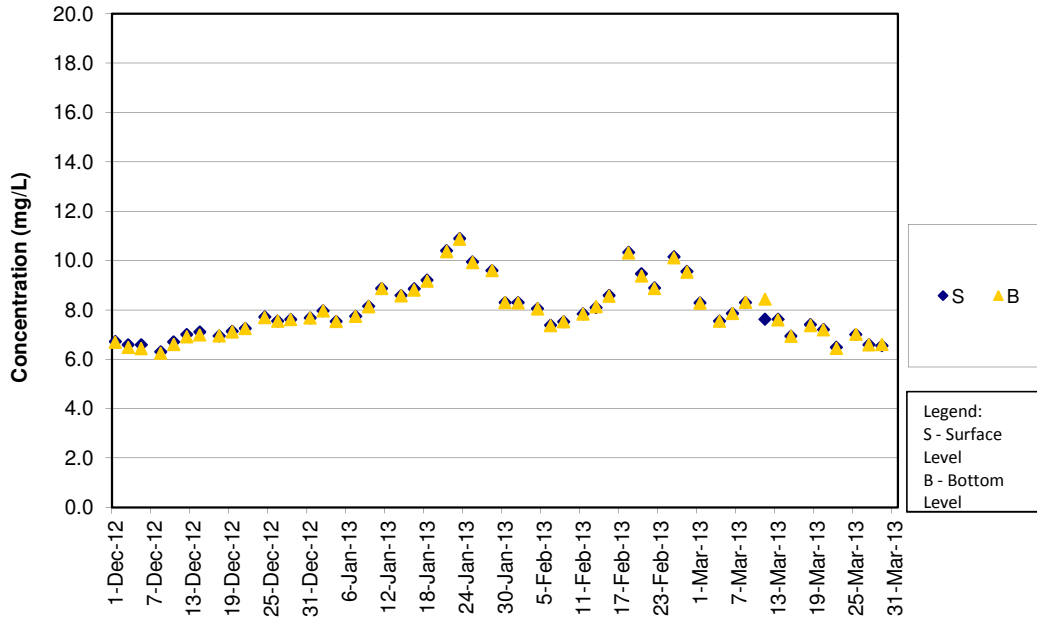
DO Concentrations at Station SR3 (Mid Ebb)



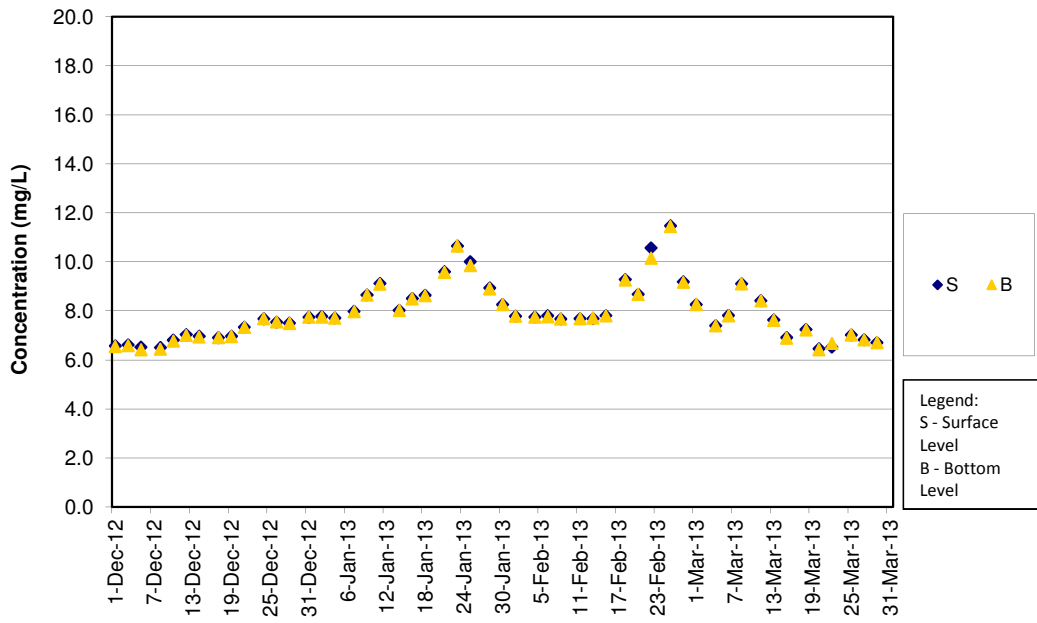
DO Concentrations at Station SR3 (Mid Flood)

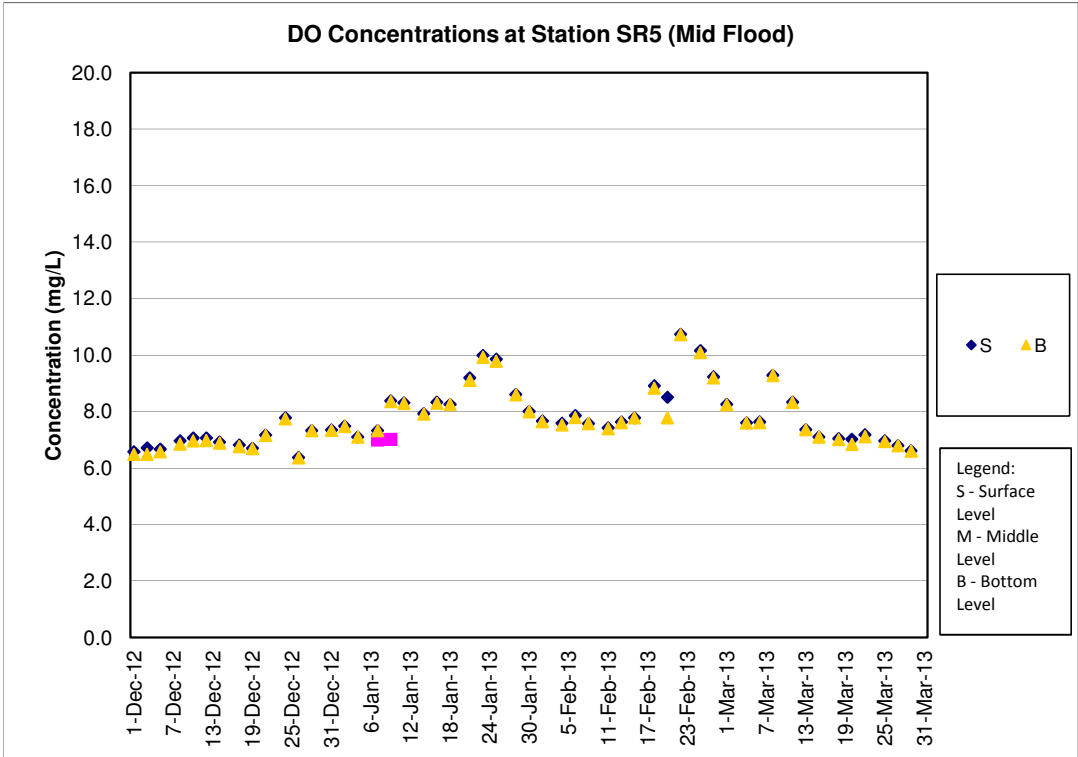
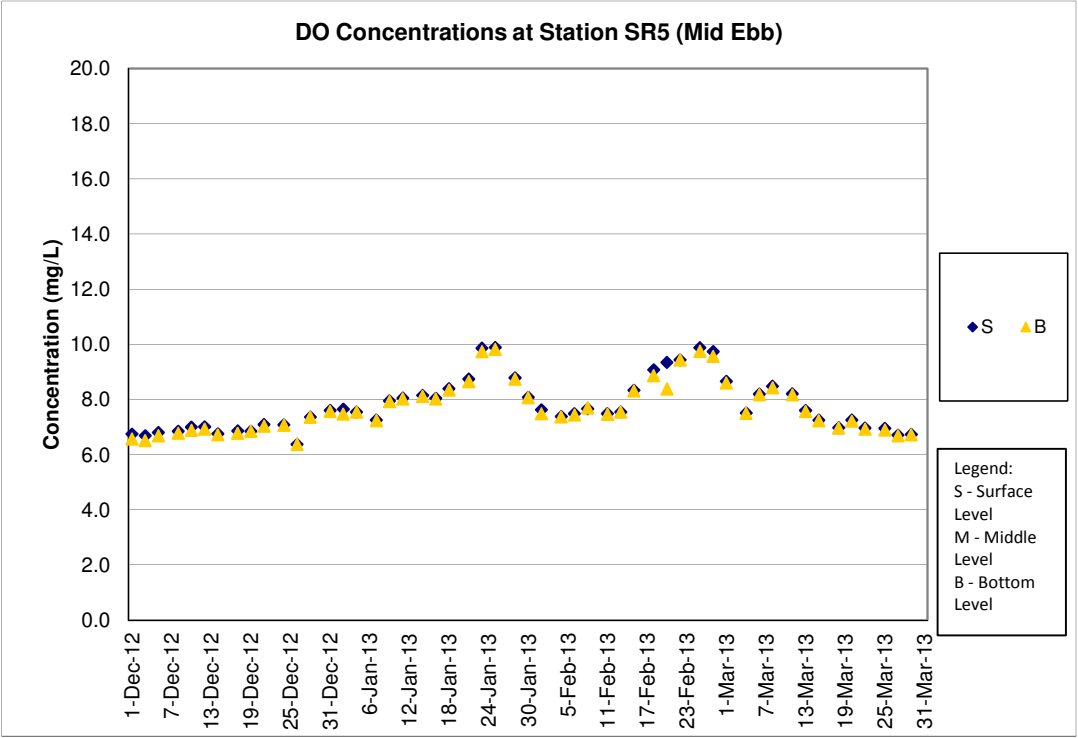


DO Concentrations at Station SR4 (Mid Ebb)

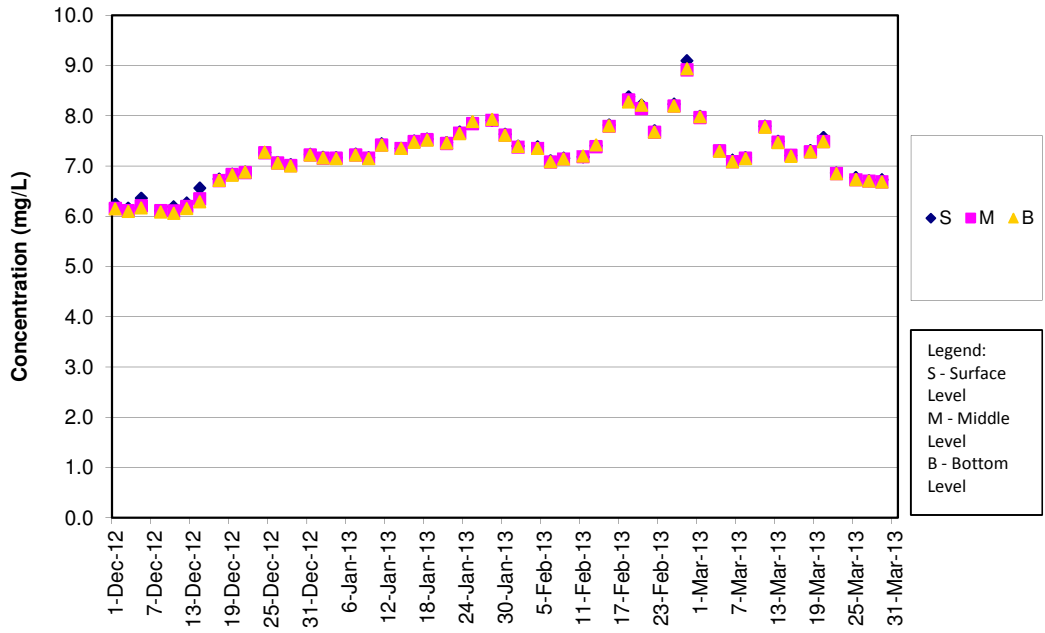


DO Concentrations at Station SR4 (Mid Flood)

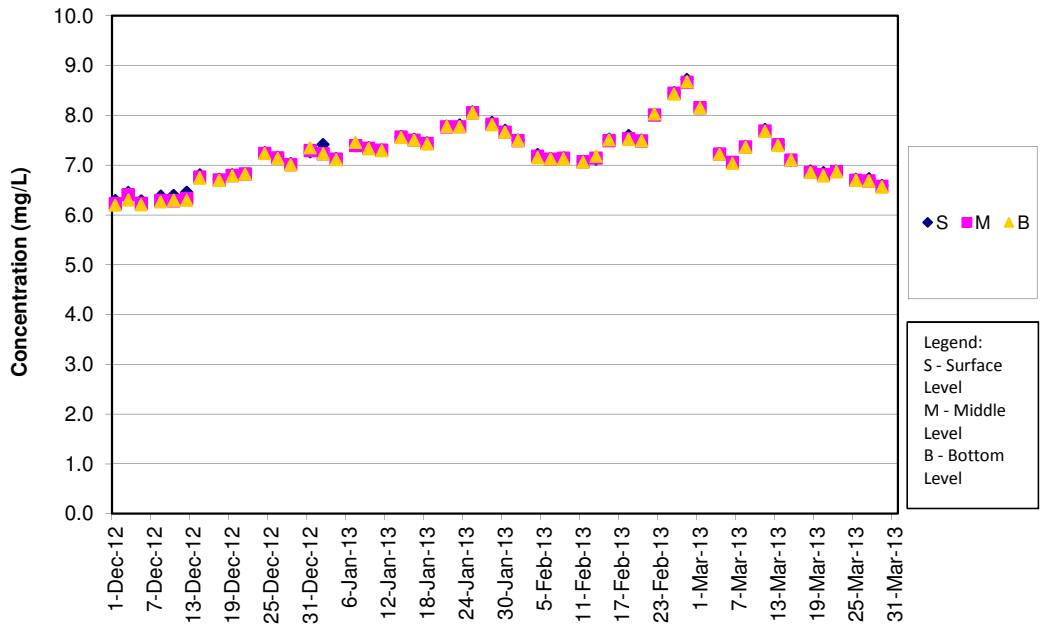




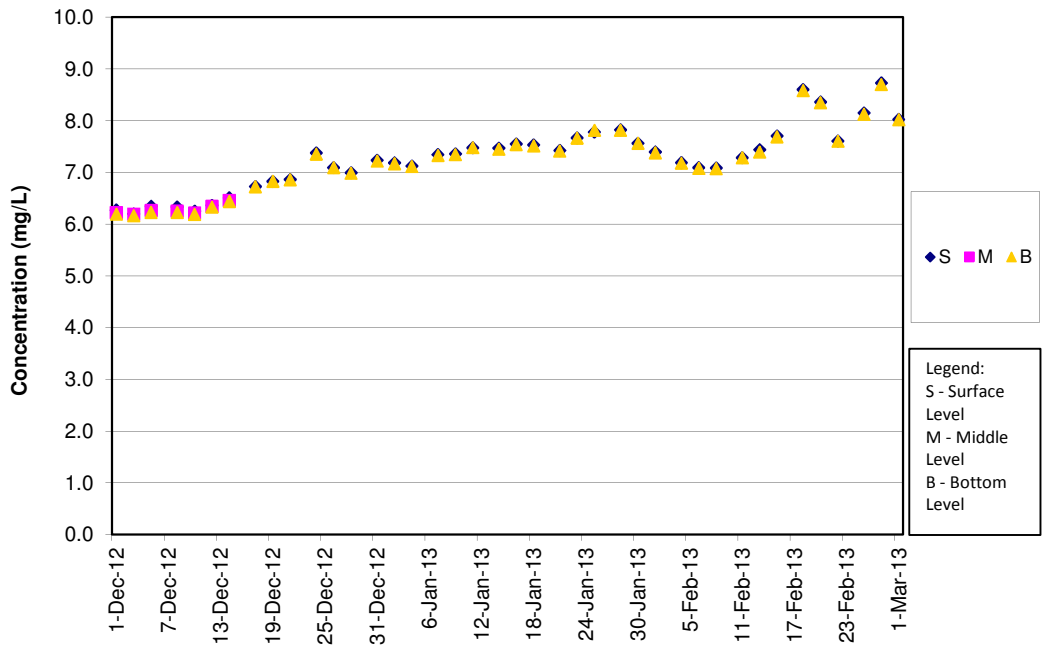
DO Concentrations at Station SR10A (Mid Ebb)



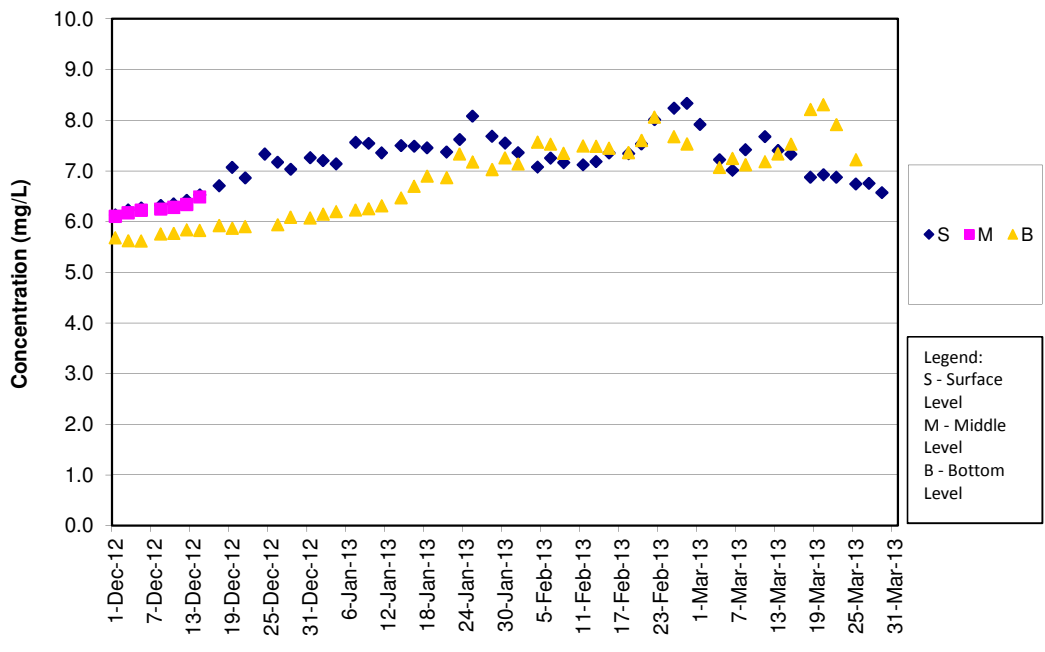
DO Concentrations at Station SR10A (Mid Flood)



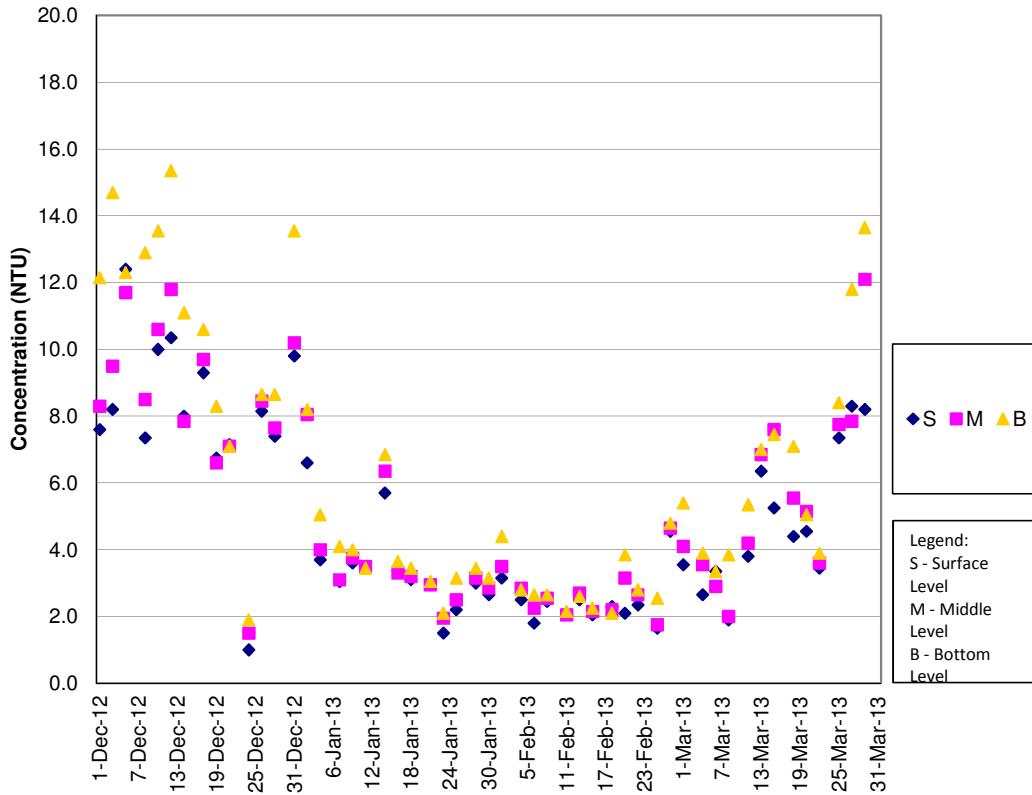
DO Concentrations at Station SR10B (Mid Ebb)



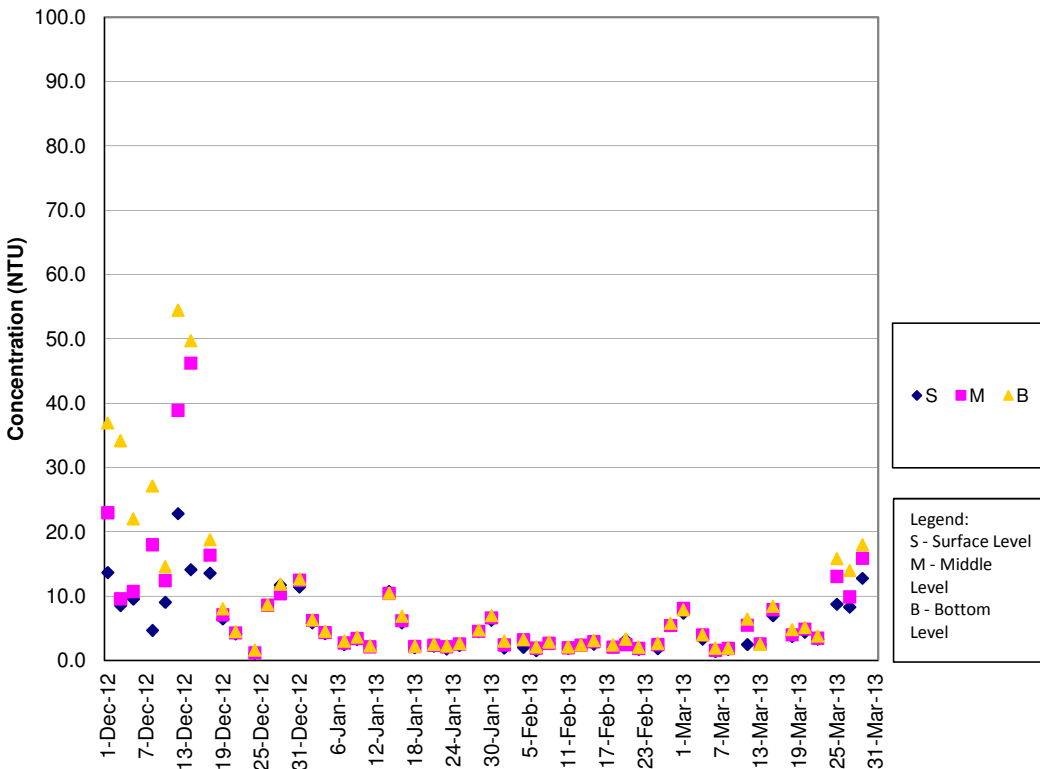
DO Concentrations at Station SR10B (Mid Flood)



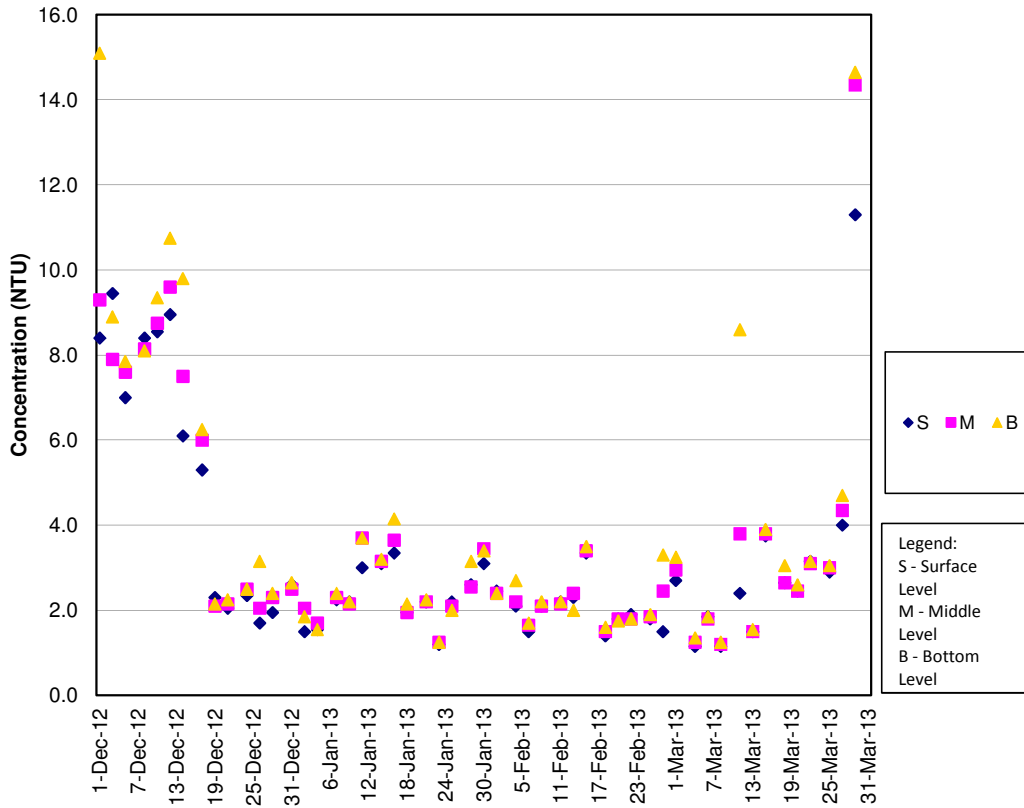
**Turbidity Concentrations at Station CS2 (Mid Ebb)**



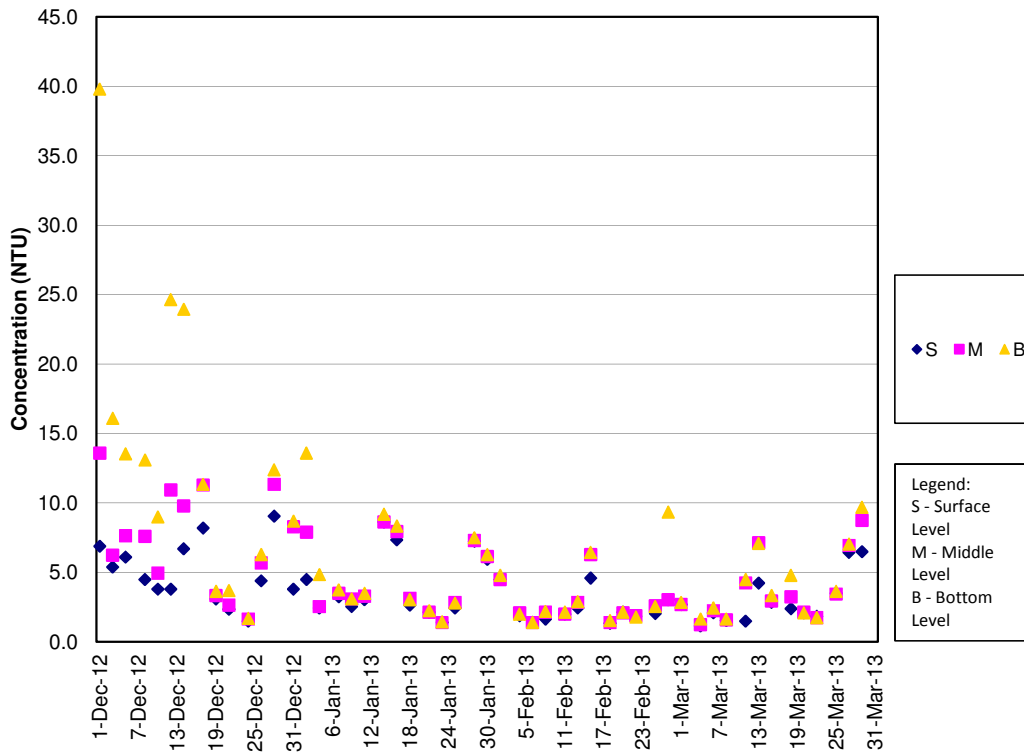
**Turbidity Concentrations at Station CS2 (Mid Flood)**



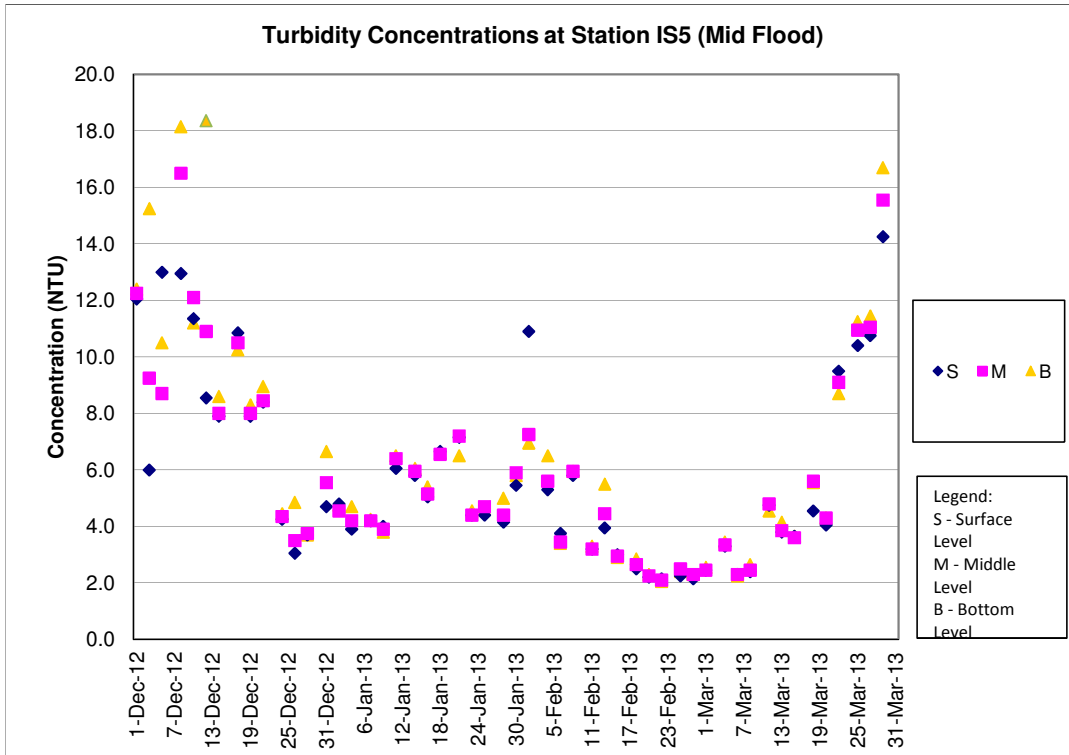
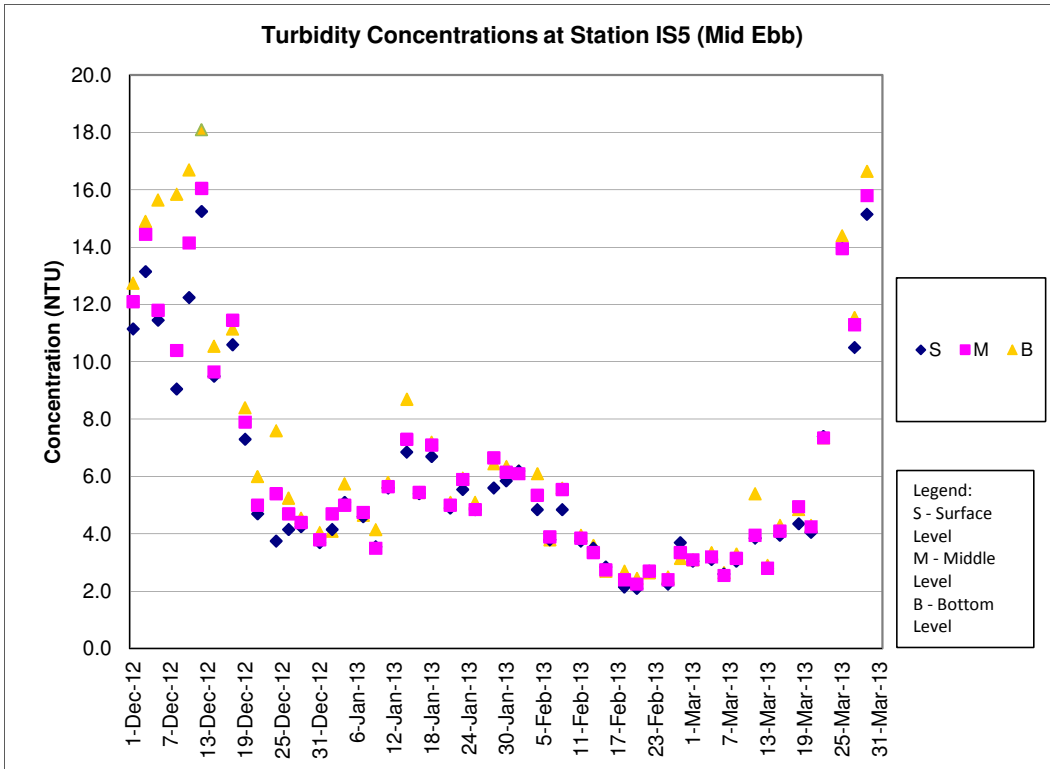
Turbidity Concentrations at Station CS(Mf)5 (Mid Ebb)



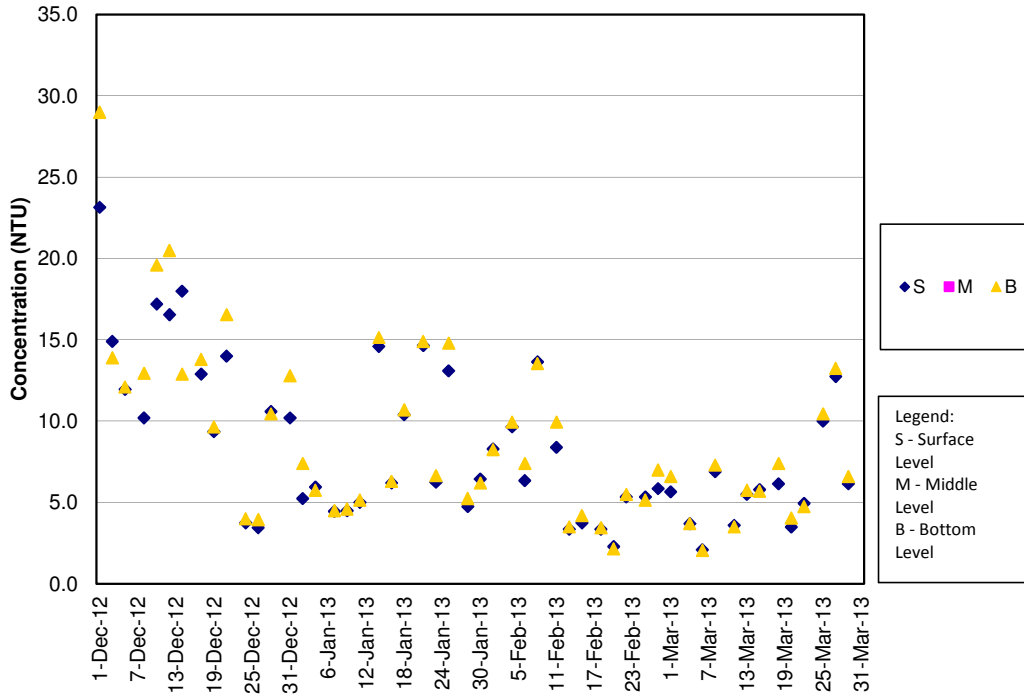
Turbidity Concentrations at Station CS(Mf)5 (Mid Flood)



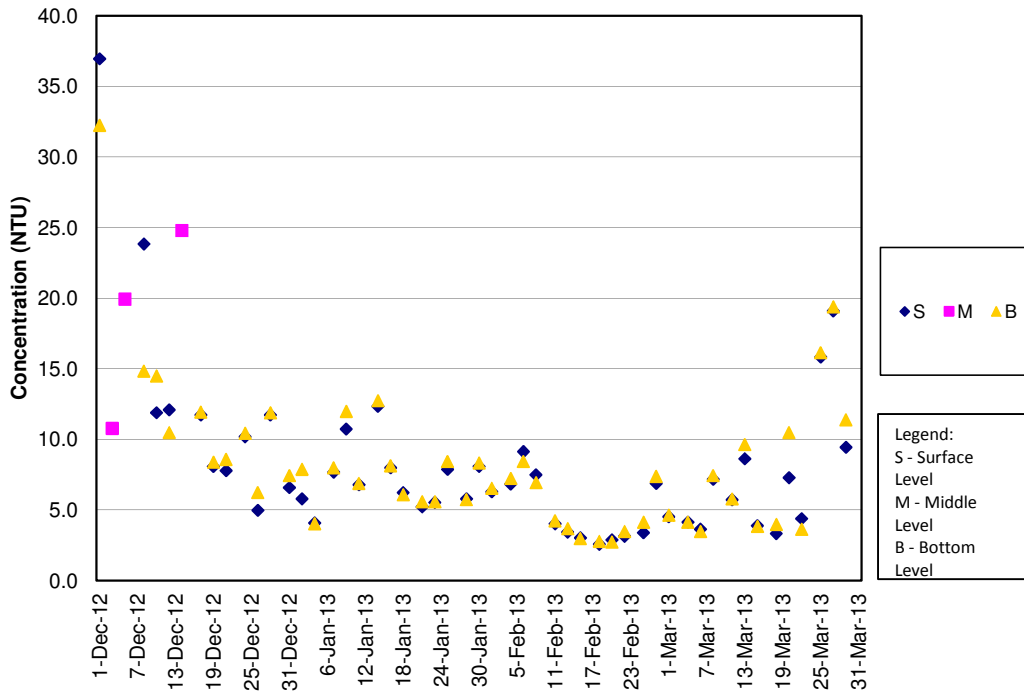




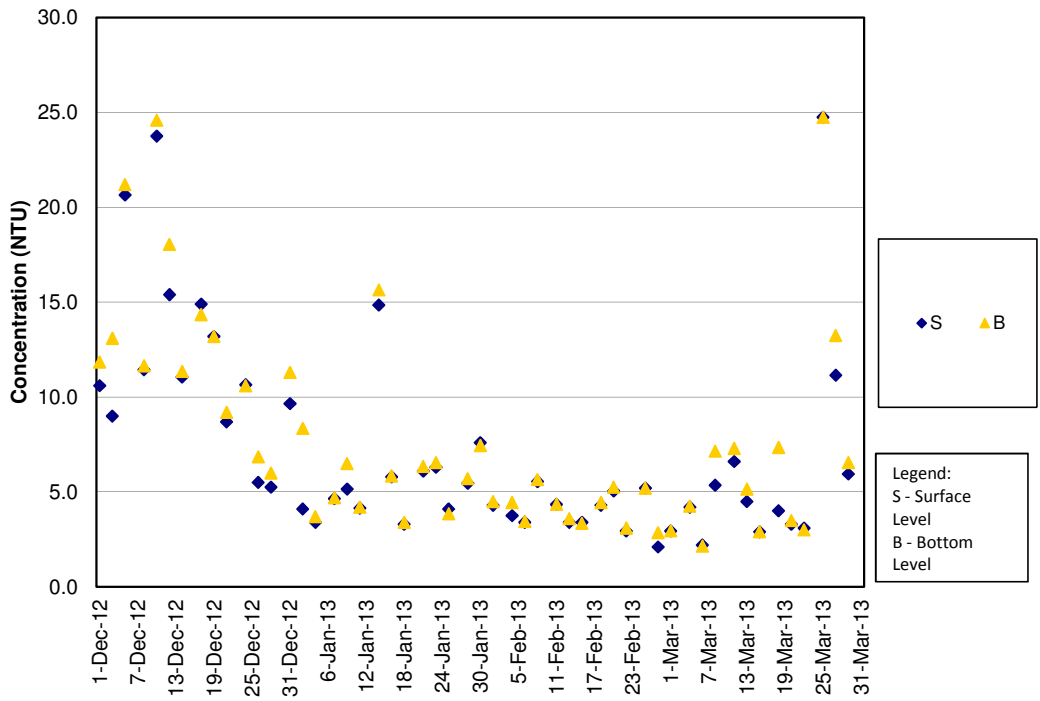
Turbidity Concentrations at Station IS(Mf)6 (Mid Ebb)



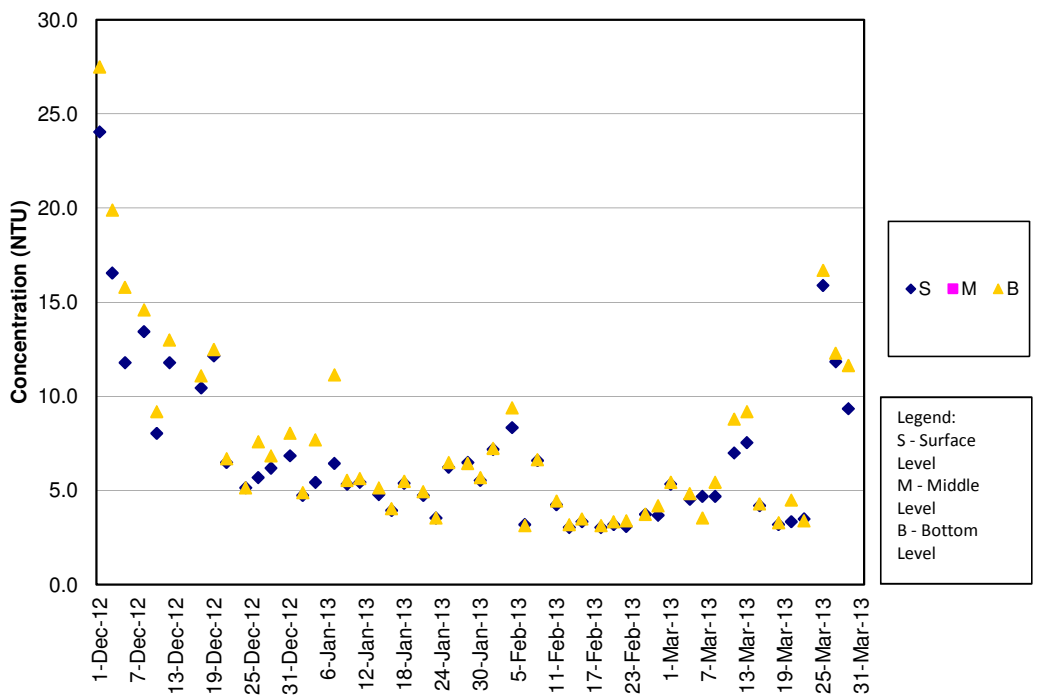
Turbidity Concentrations at Station IS(Mf)6 (Mid Flood)



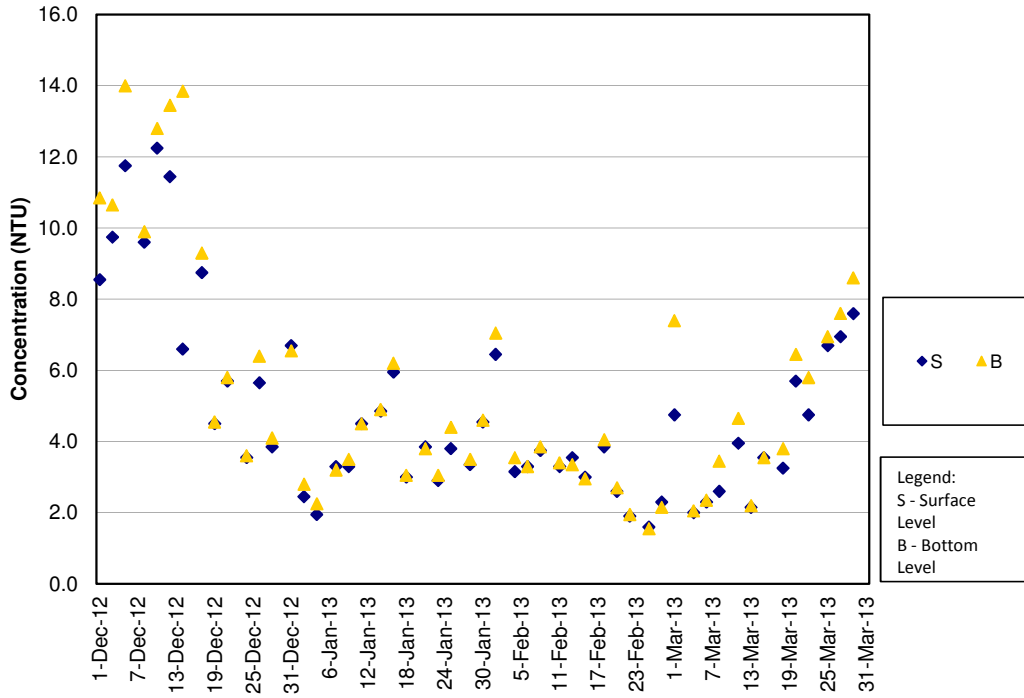
**Turbidity Concentrations at Station IS7 (Mid Ebb)**



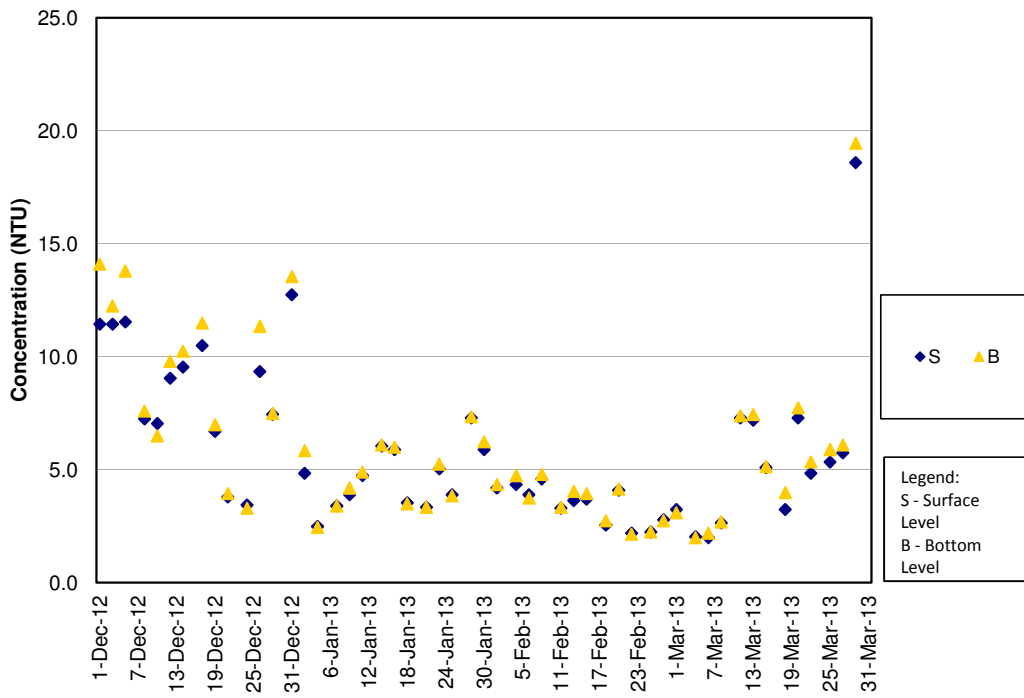
**Turbidity Concentrations at Station IS7 (Mid Flood)**



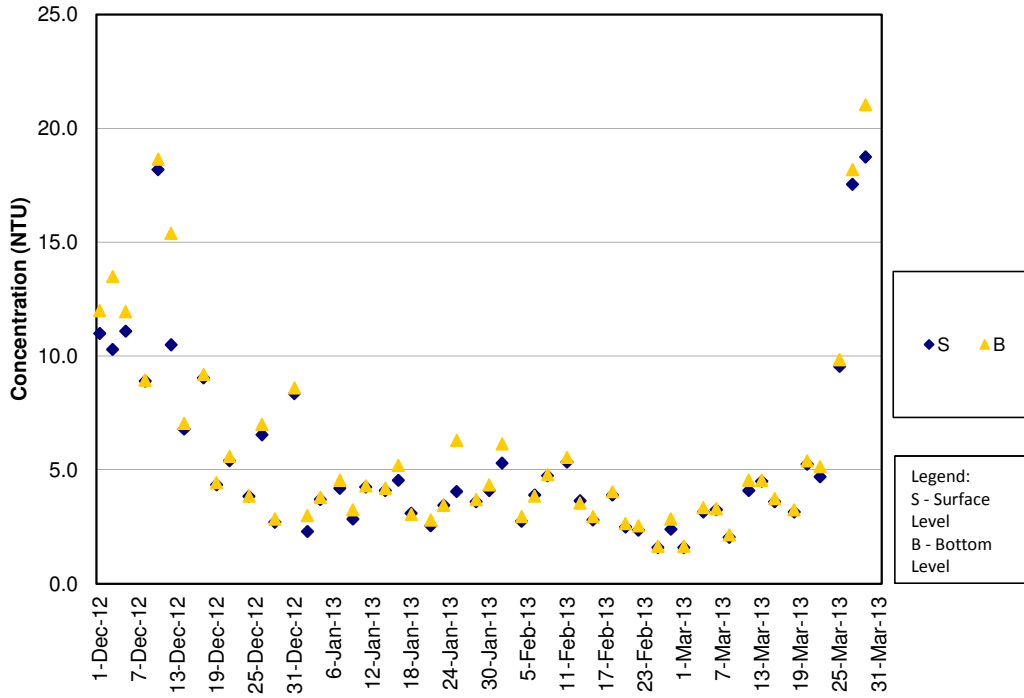
Turbidity Concentrations at Station IS8 (Mid Ebb)



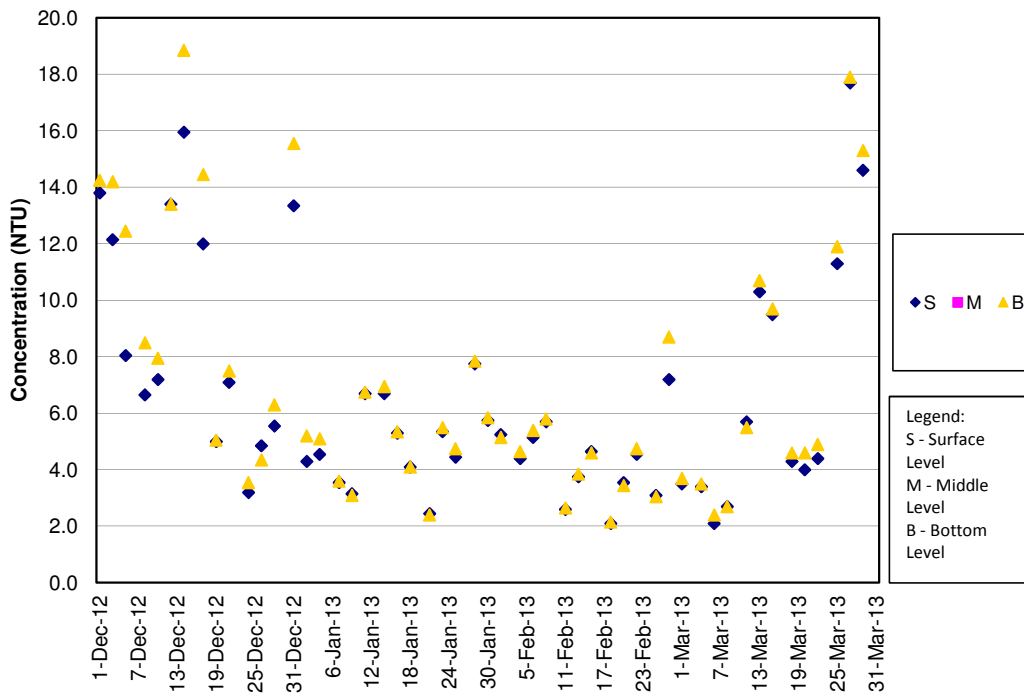
Turbidity Concentrations at Station IS8 (Mid Flood)



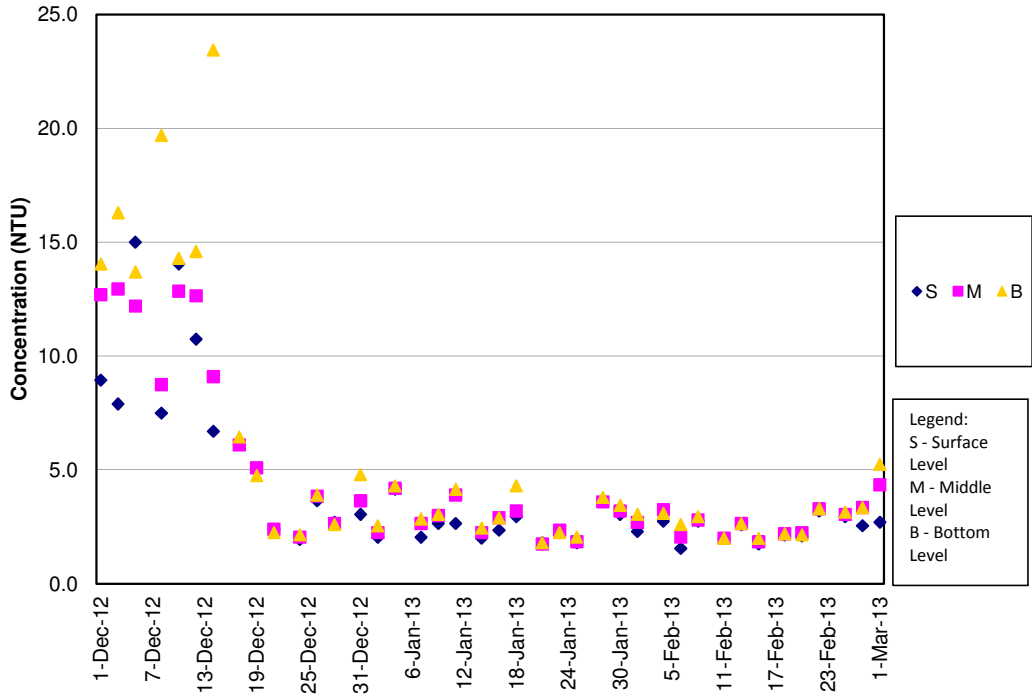
**Turbidity Concentrations at Station IS(Mf)9 (Mid Ebb)**



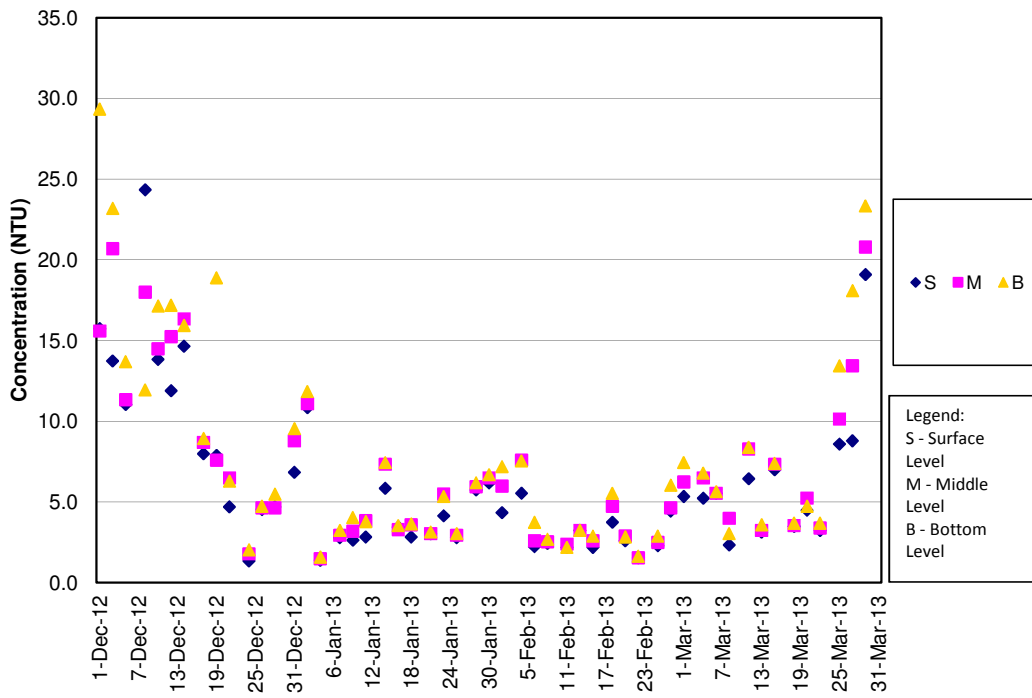
**Turbidity Concentrations at Station IS(Mf)9 (Mid Flood)**



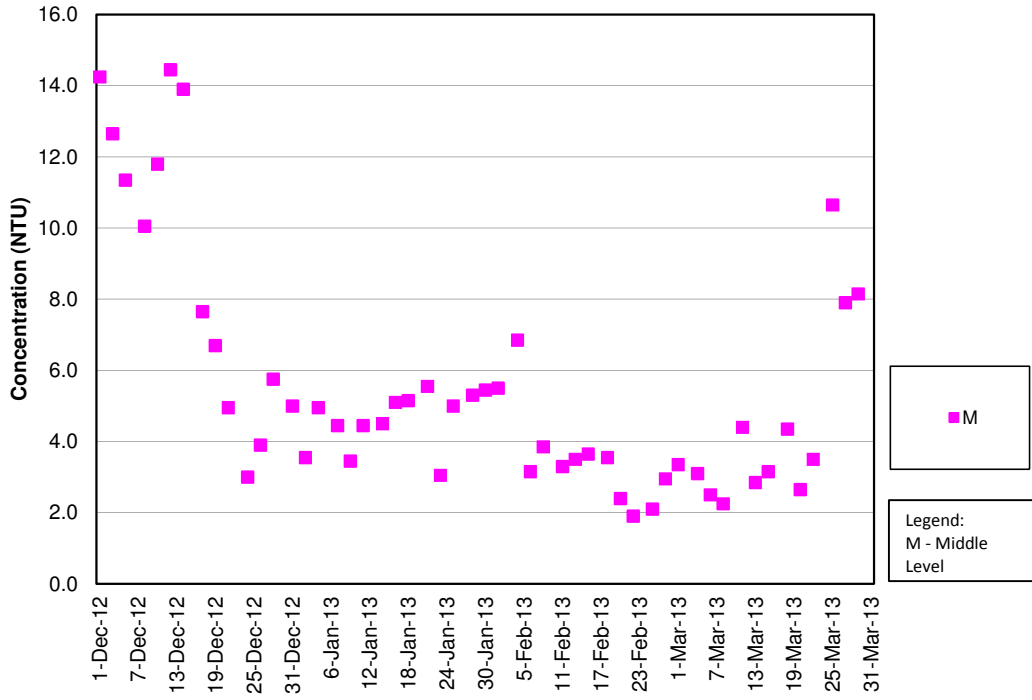
Turbidity Concentrations at Station IS10 (Mid Ebb)



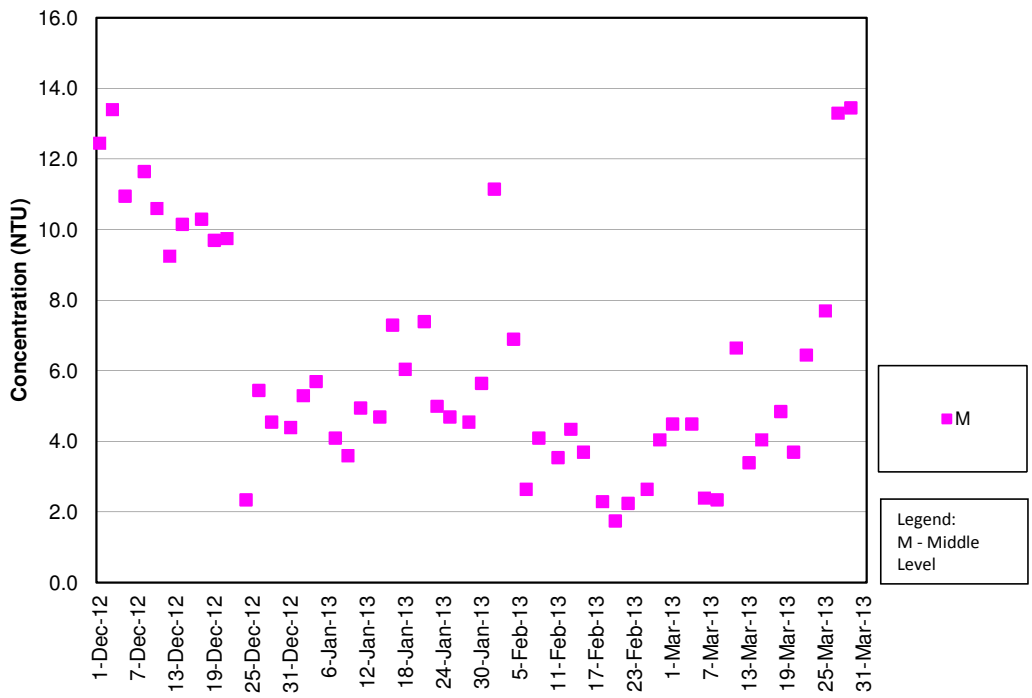
Turbidity Concentrations at Station IS10 (Mid Flood)



Turbidity Concentrations at Station SR3 (Mid Ebb)

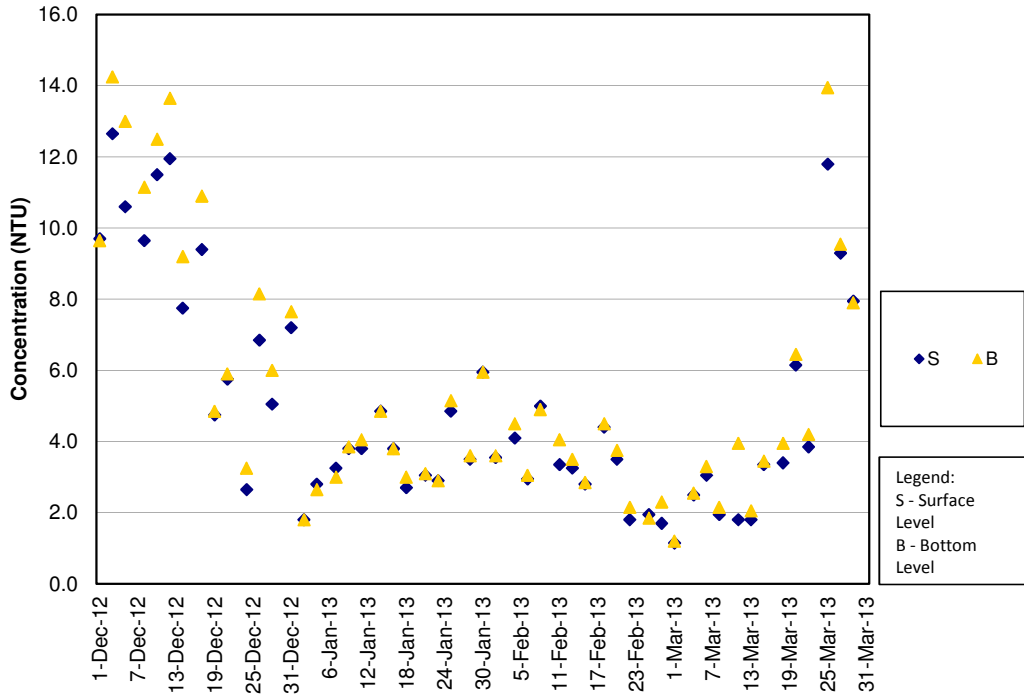


Turbidity Concentrations at Station SR3 (Mid Flood)

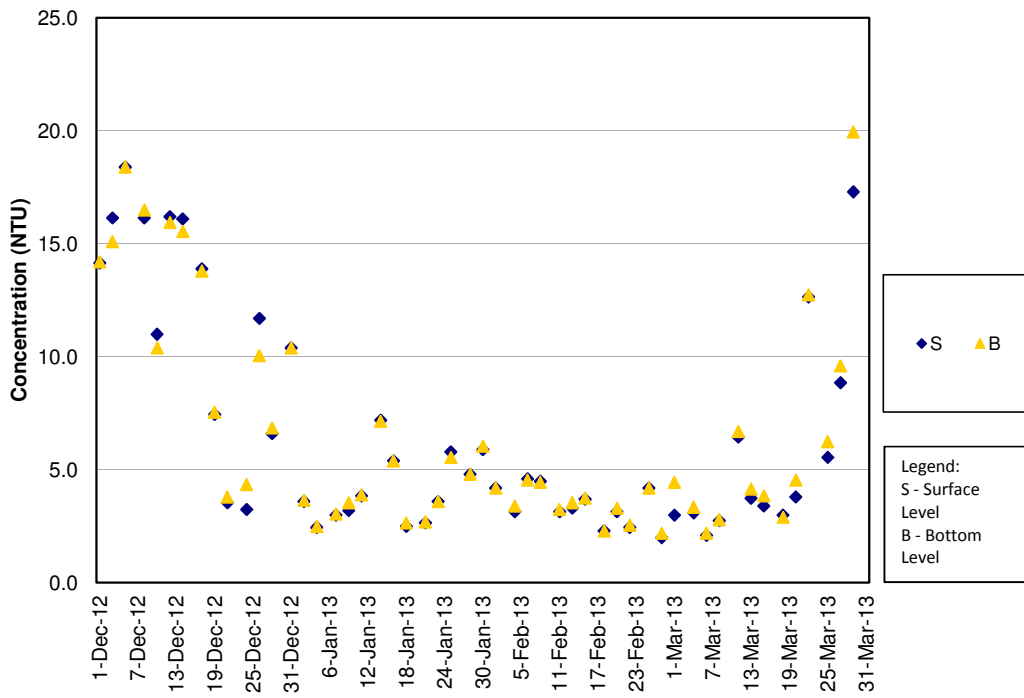




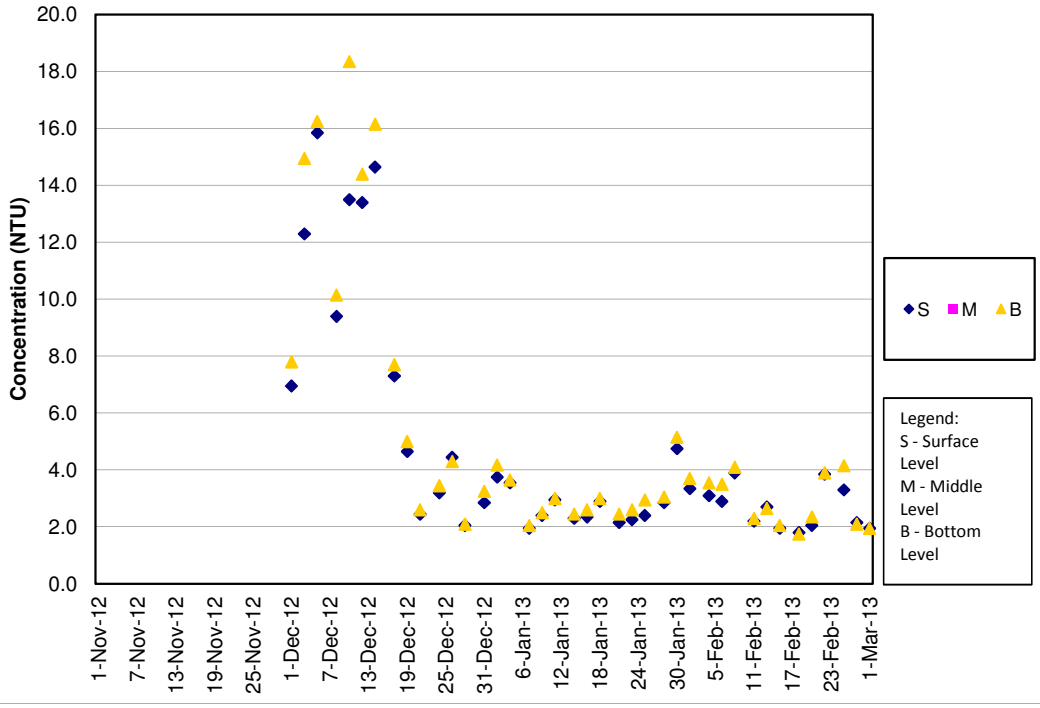
Turbidity Concentrations at Station SR4 (Mid Ebb)



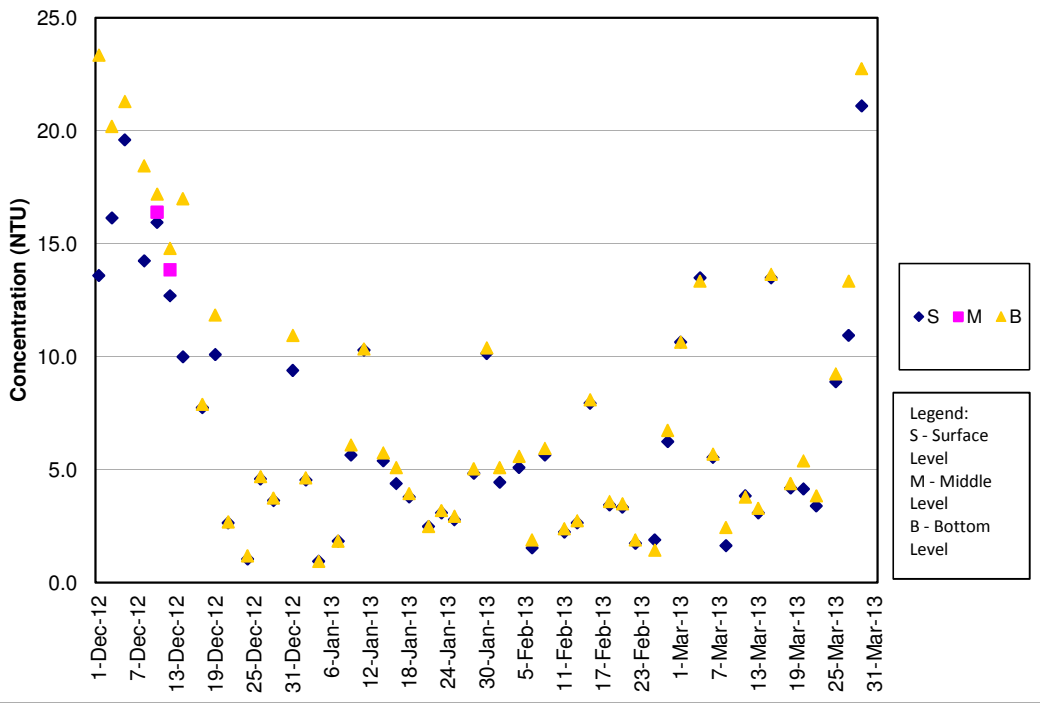
Turbidity Concentrations at Station SR4 (Mid Flood)



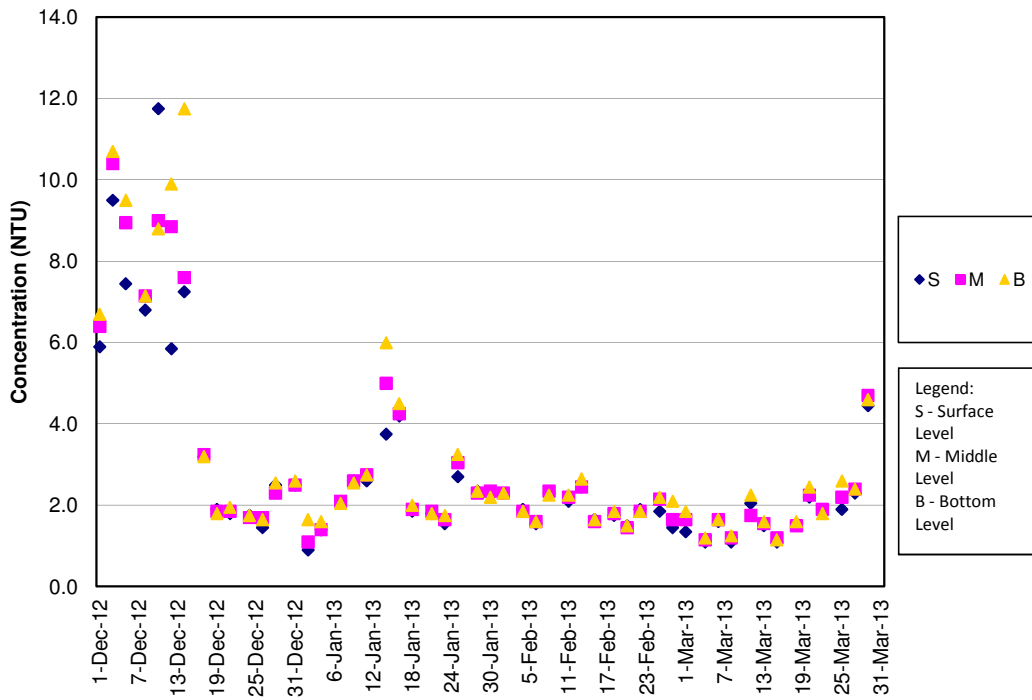
**Turbidity Concentrations at Station SR5 (Mid Ebb)**



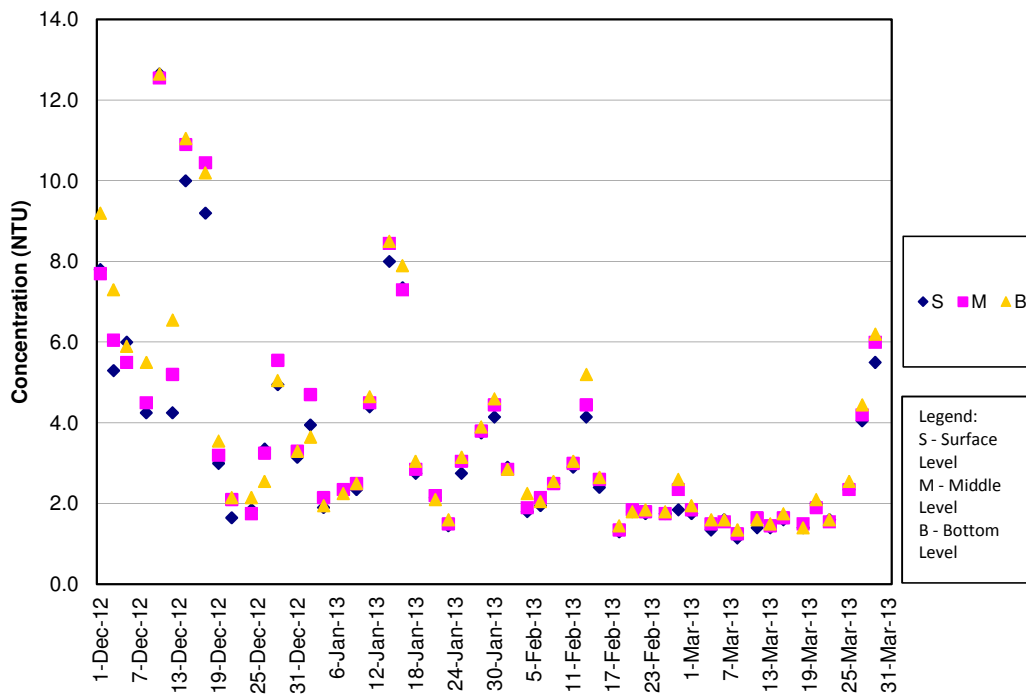
**Turbidity Concentrations at Station SR5 (Mid Flood)**



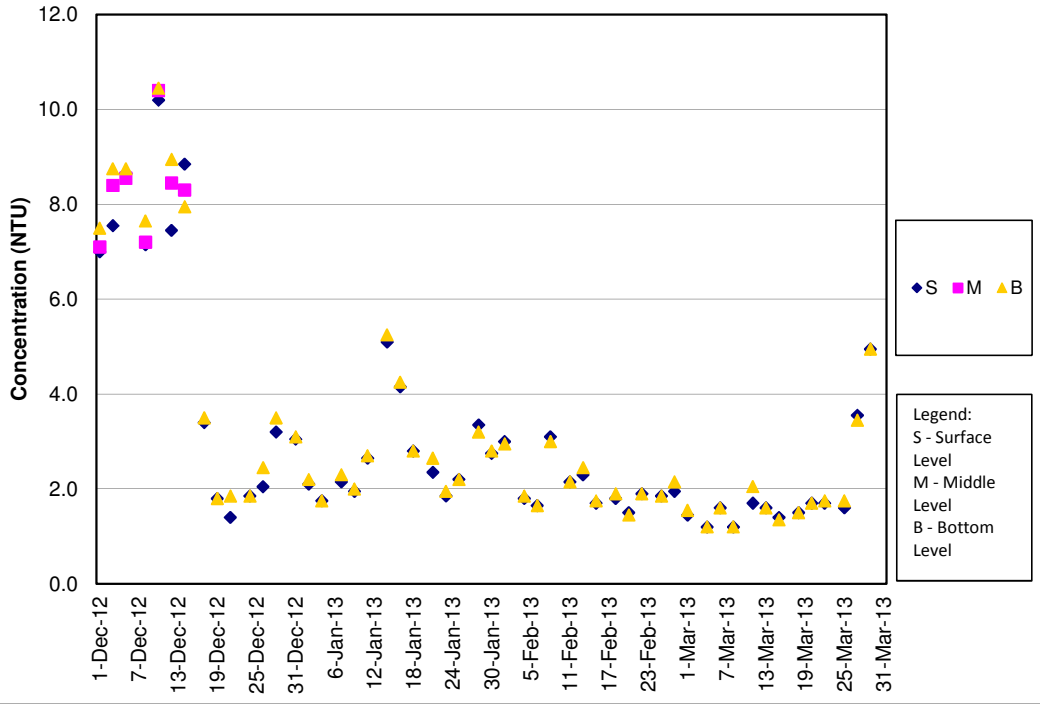
**Turbidity Concentrations at Station SR10A (Mid Ebb)**



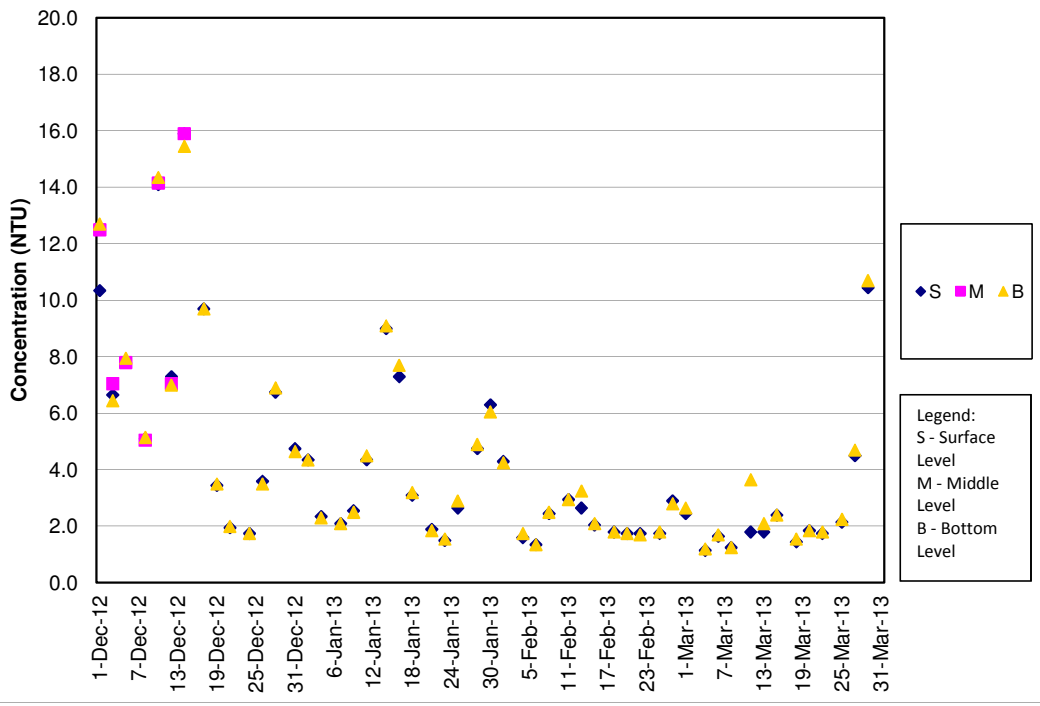
**Turbidity Concentrations at Station SR10A (Mid Flood)**



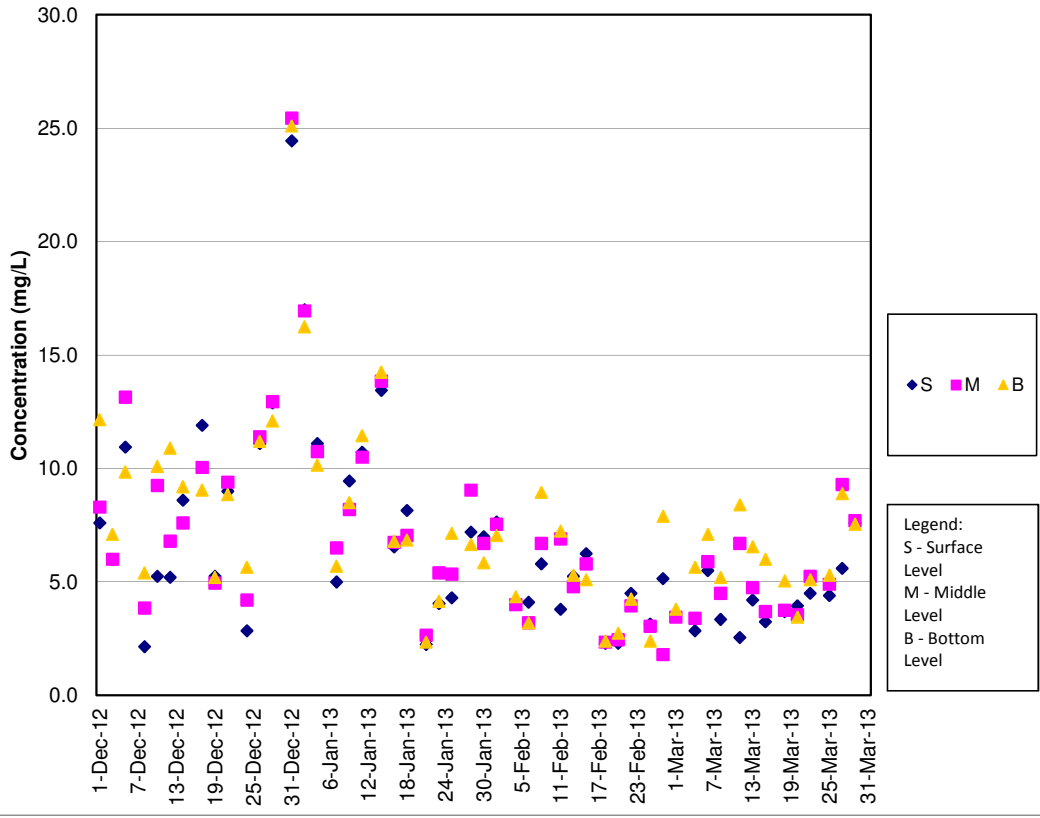
**Turbidity Concentrations at Station SR10B (Mid Ebb)**



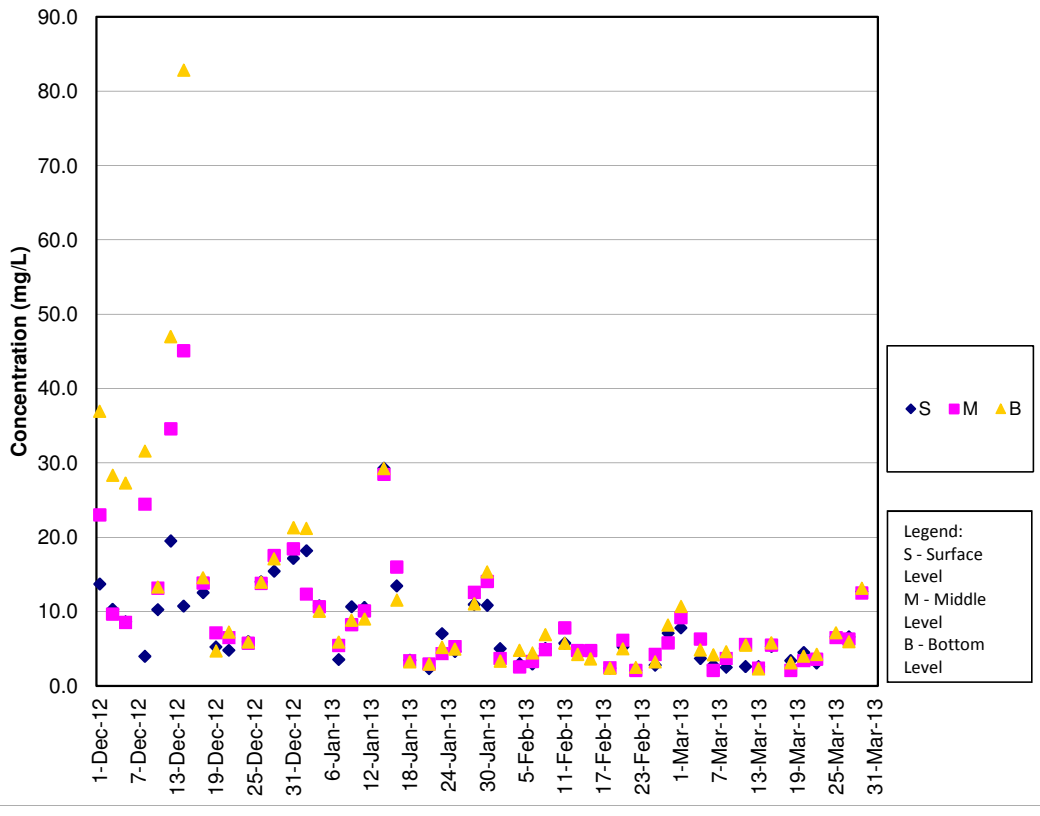
**Turbidity Concentrations at Station SR10B (Mid Flood)**



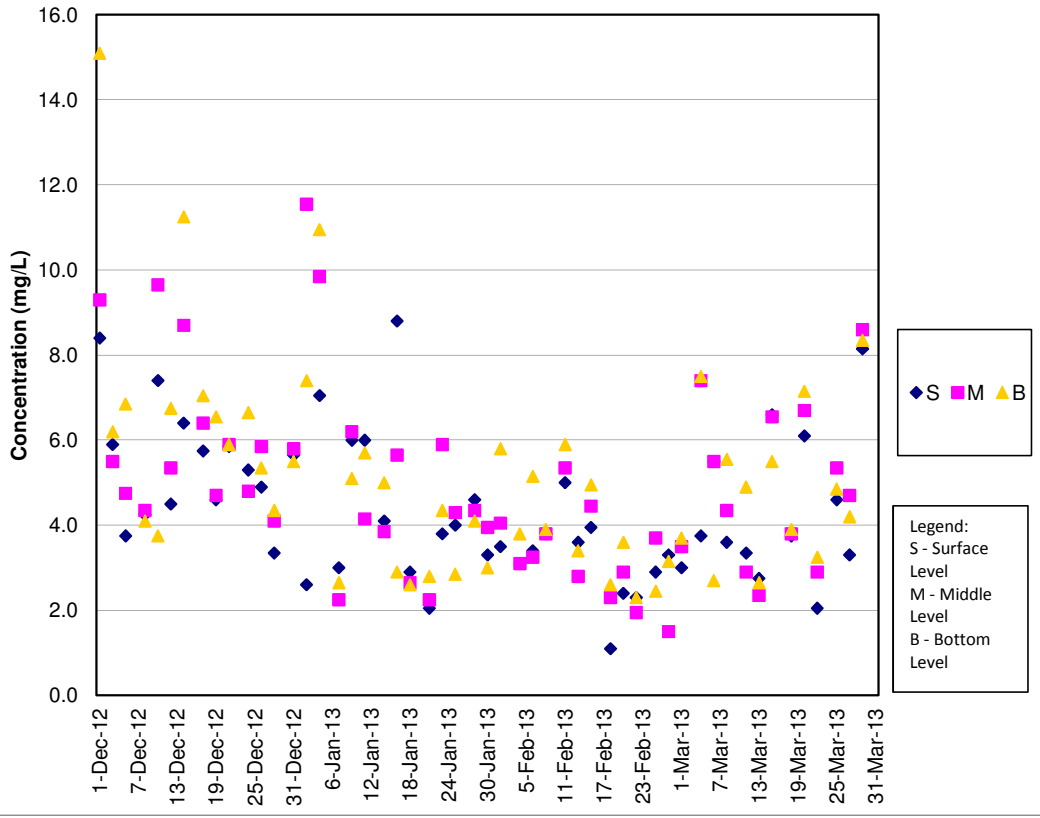
SS Concentrations at Station CS2 (Mid Ebb)



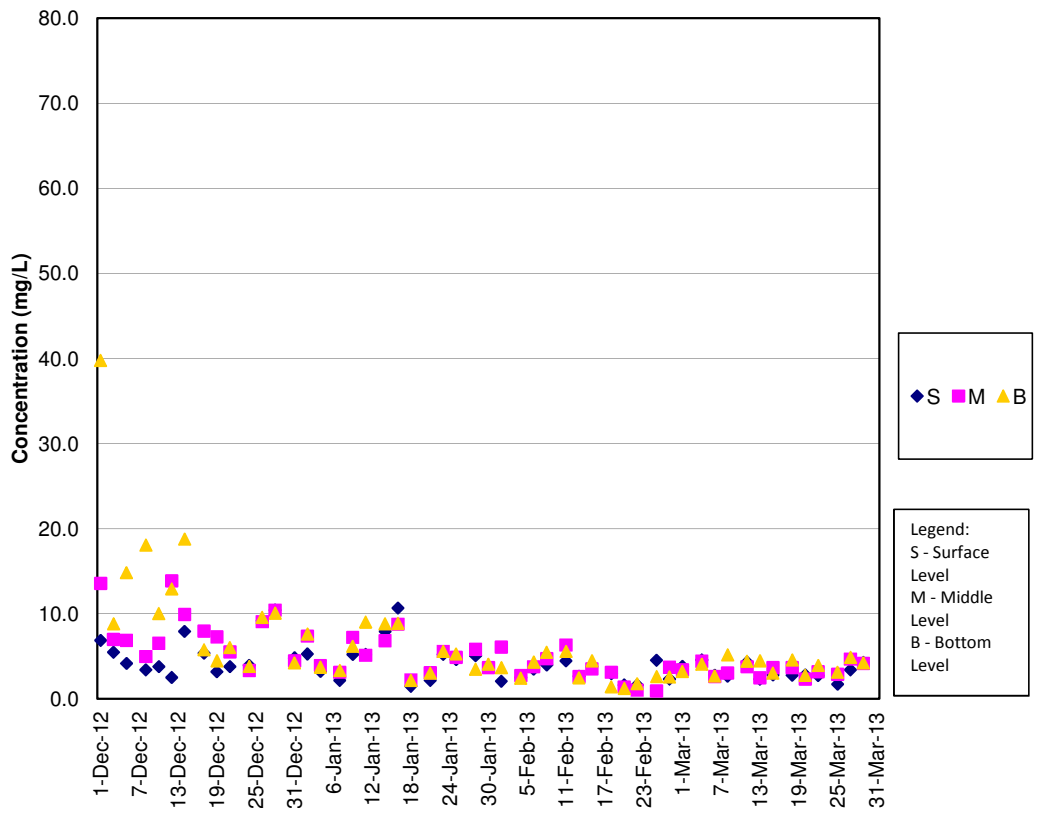
SS Concentrations at Station CS2 (Mid Flood)

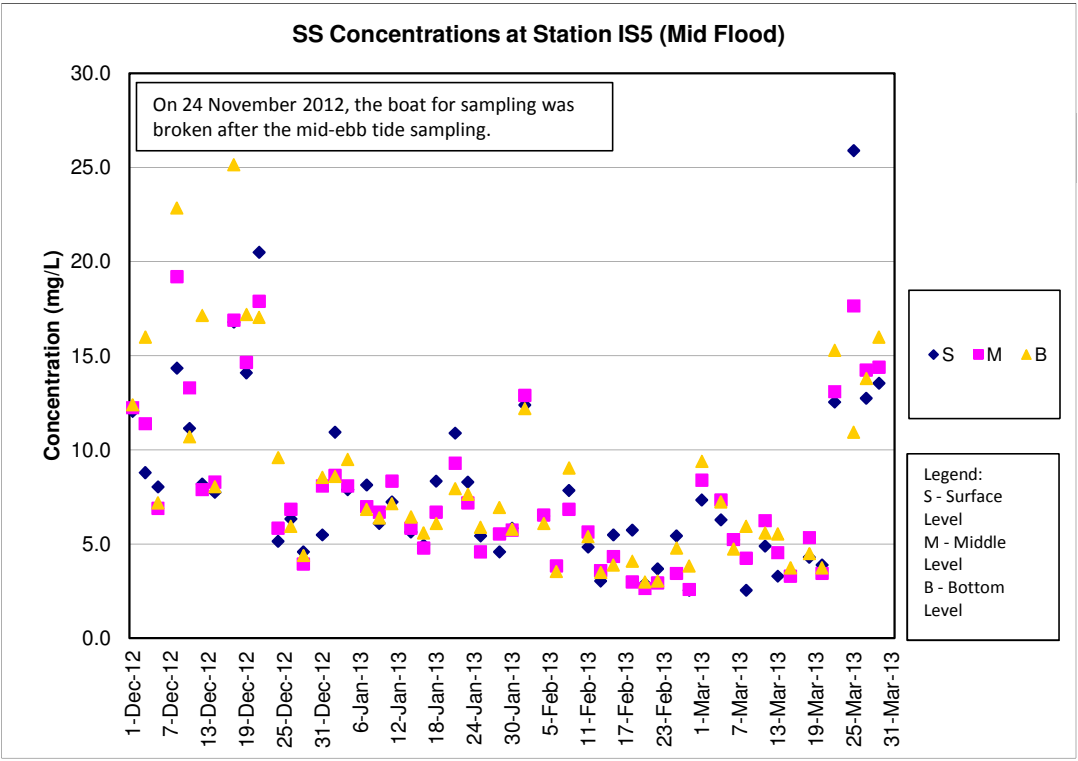
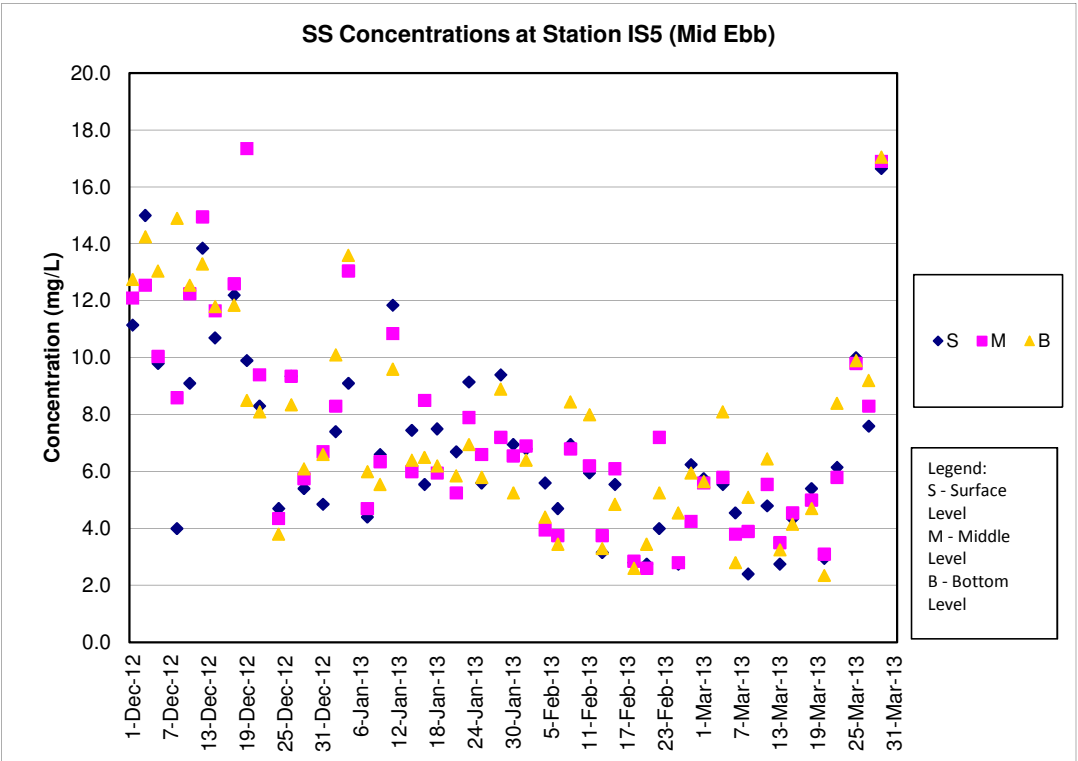


SS Concentrations at Station CS(Mf)5 (Mid Ebb)



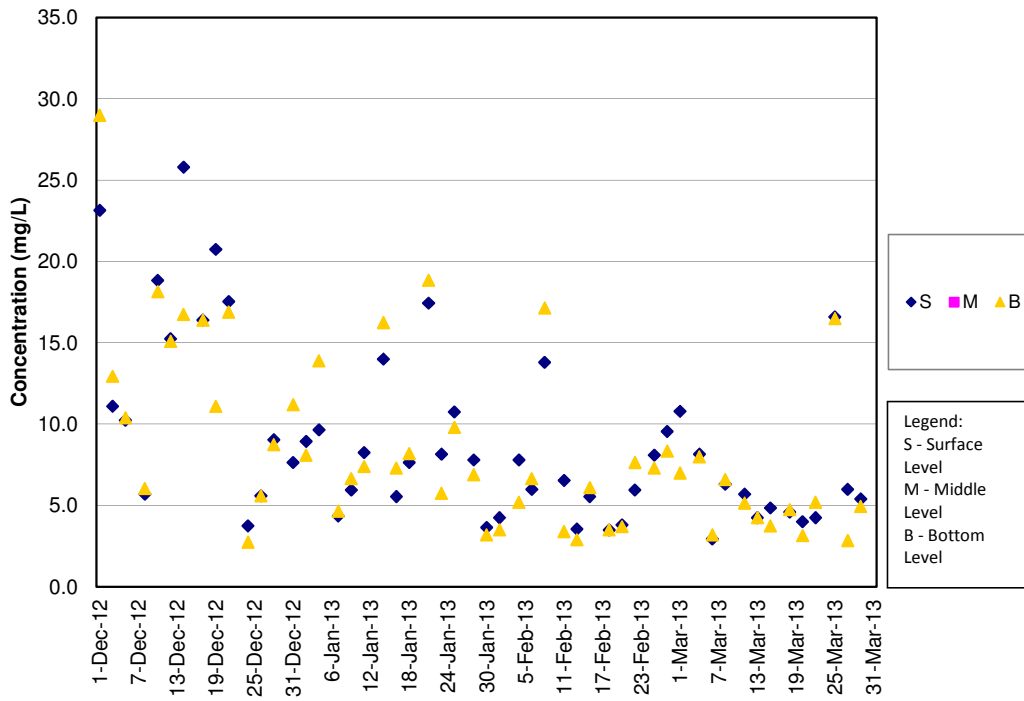
SS Concentrations at Station CS(Mf)5 (Mid Flood)



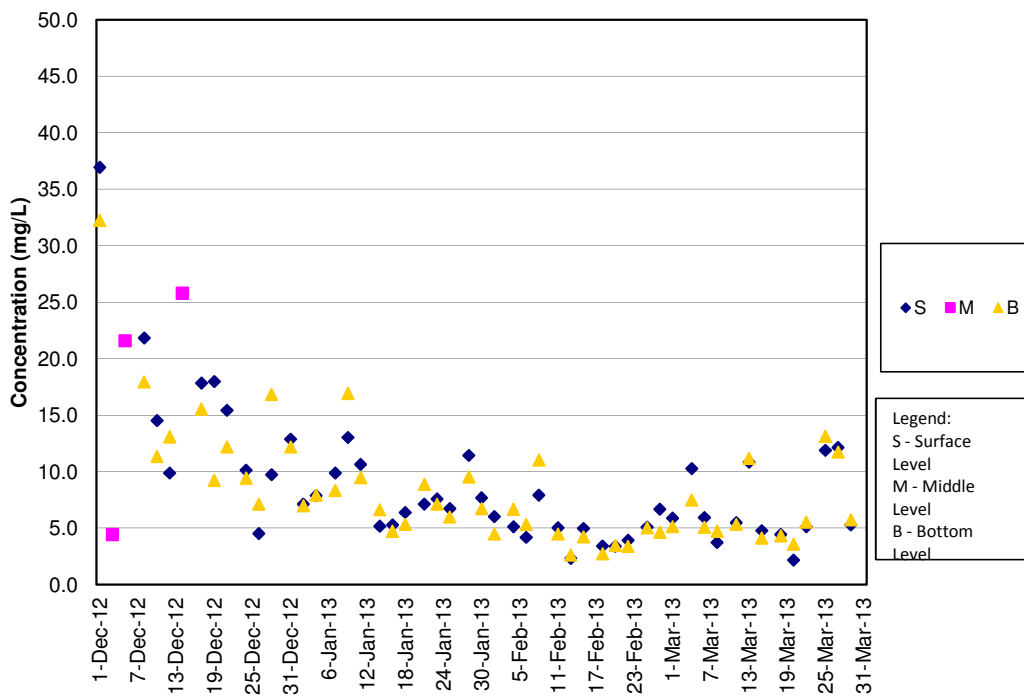




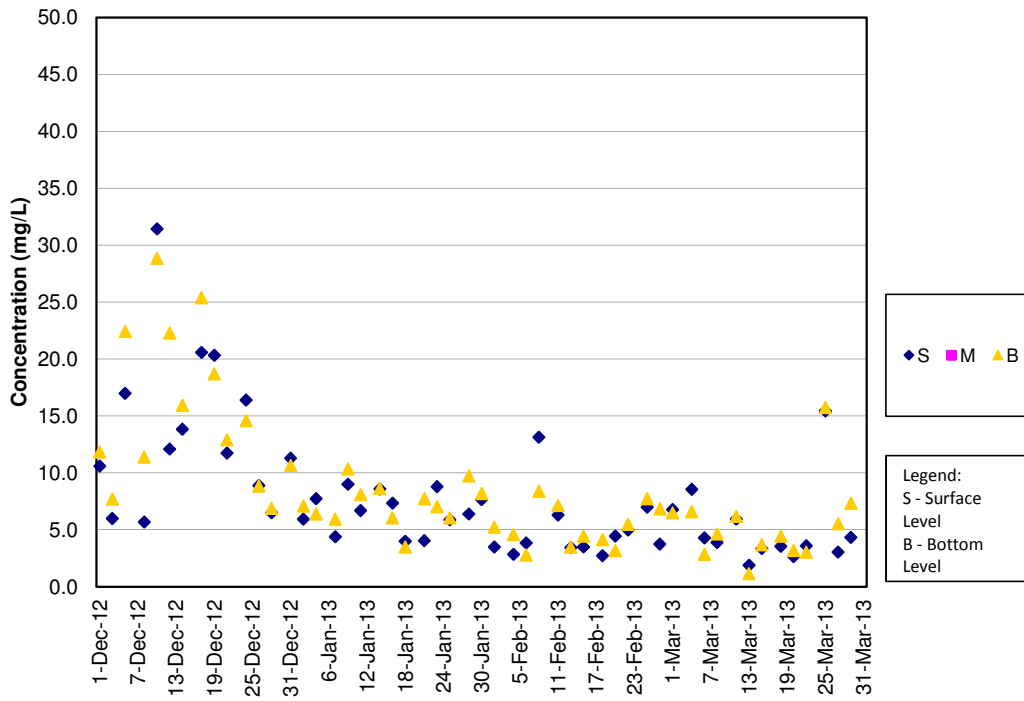
SS Concentrations at Station IS(Mf)6 (Mid Ebb)



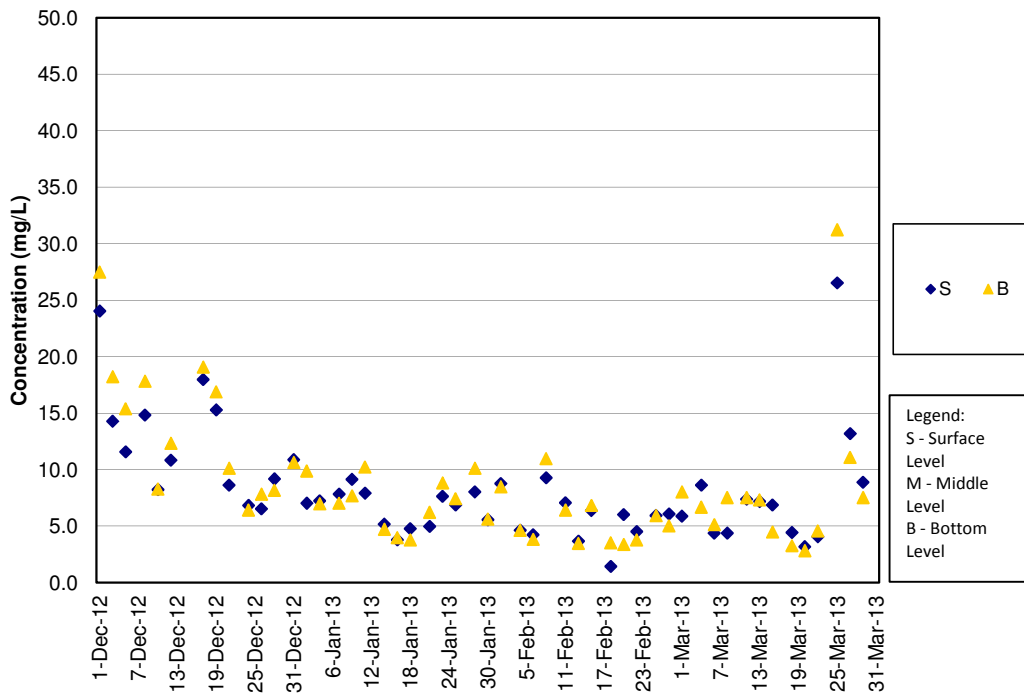
SS Concentrations at Station IS(Mf)6 (Mid Flood)



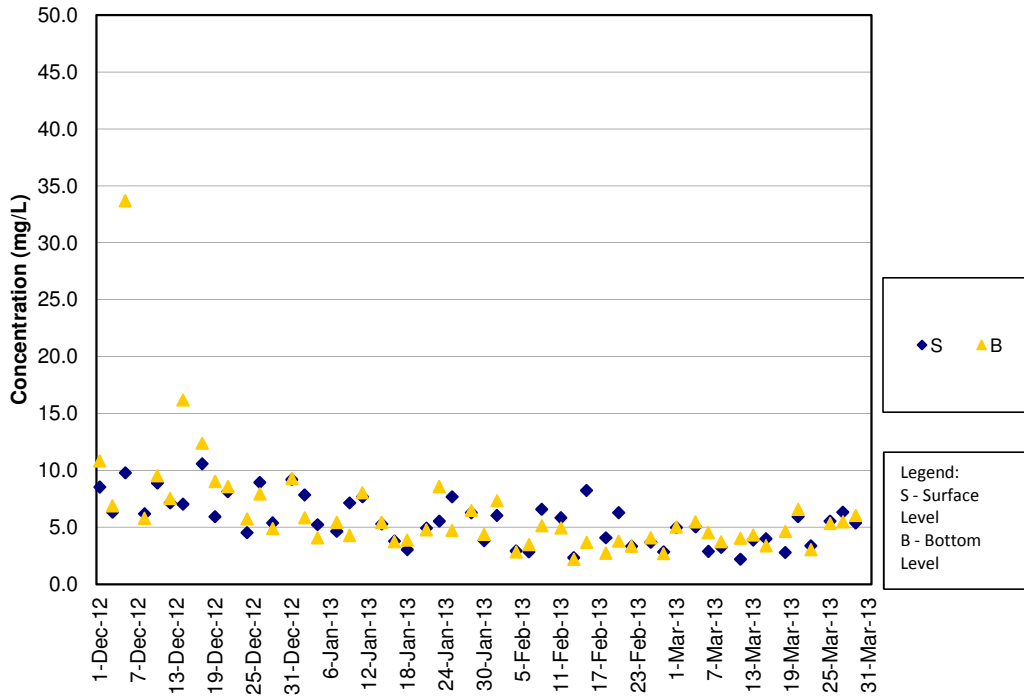
SS Concentrations at Station IS7 (Mid Ebb)



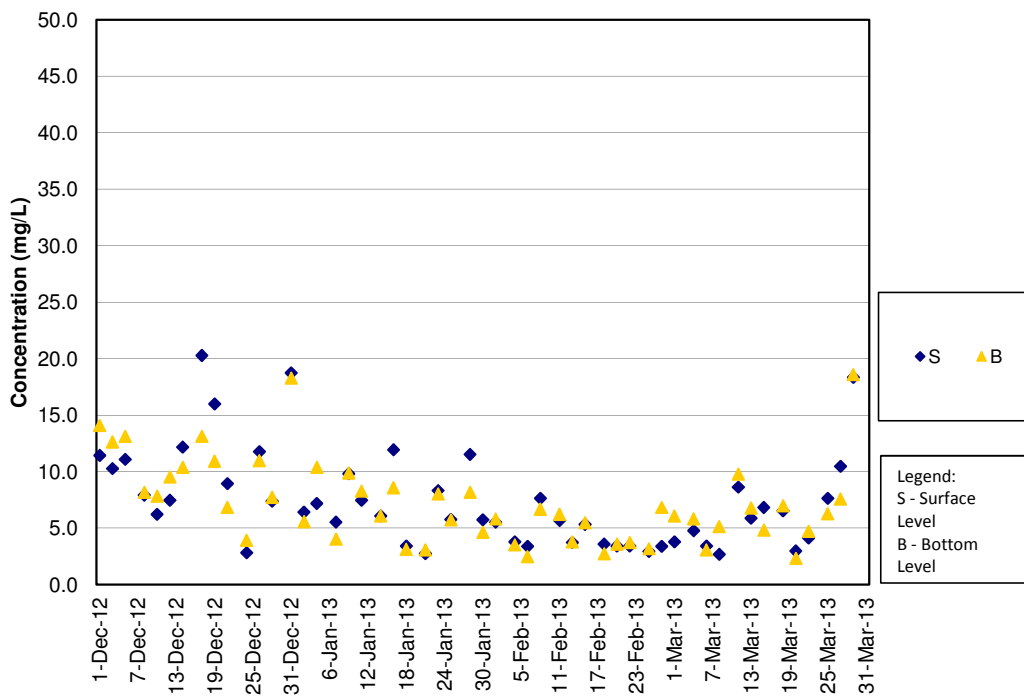
SS Concentrations at Station IS7 (Mid Flood)



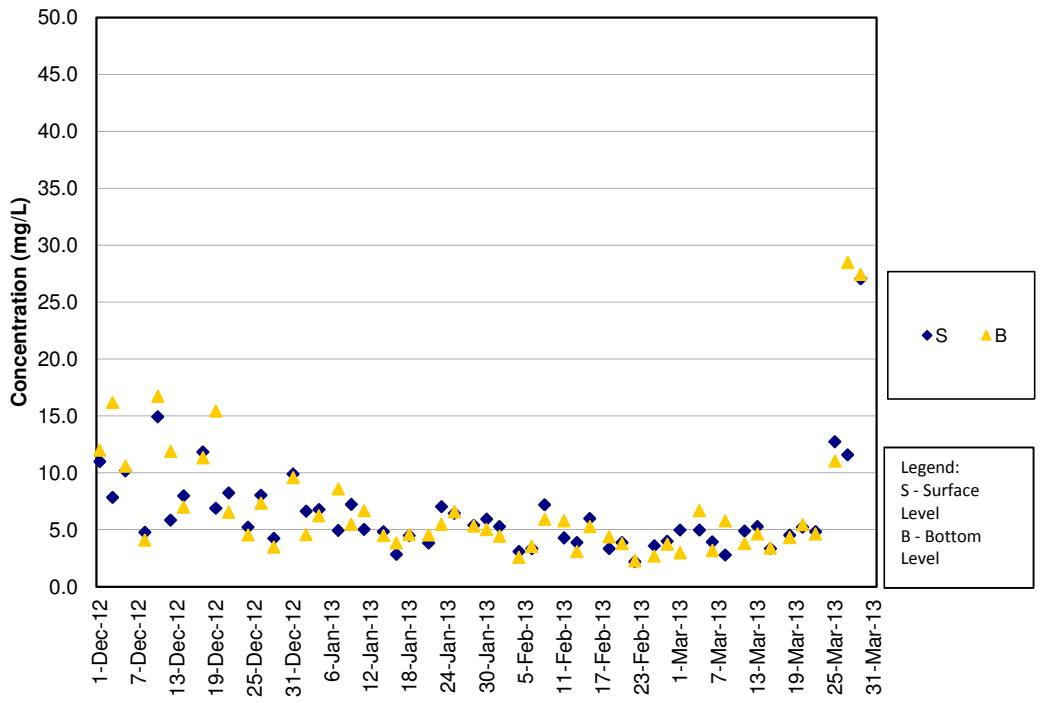
SS Concentrations at Station IS8 (Mid Ebb)



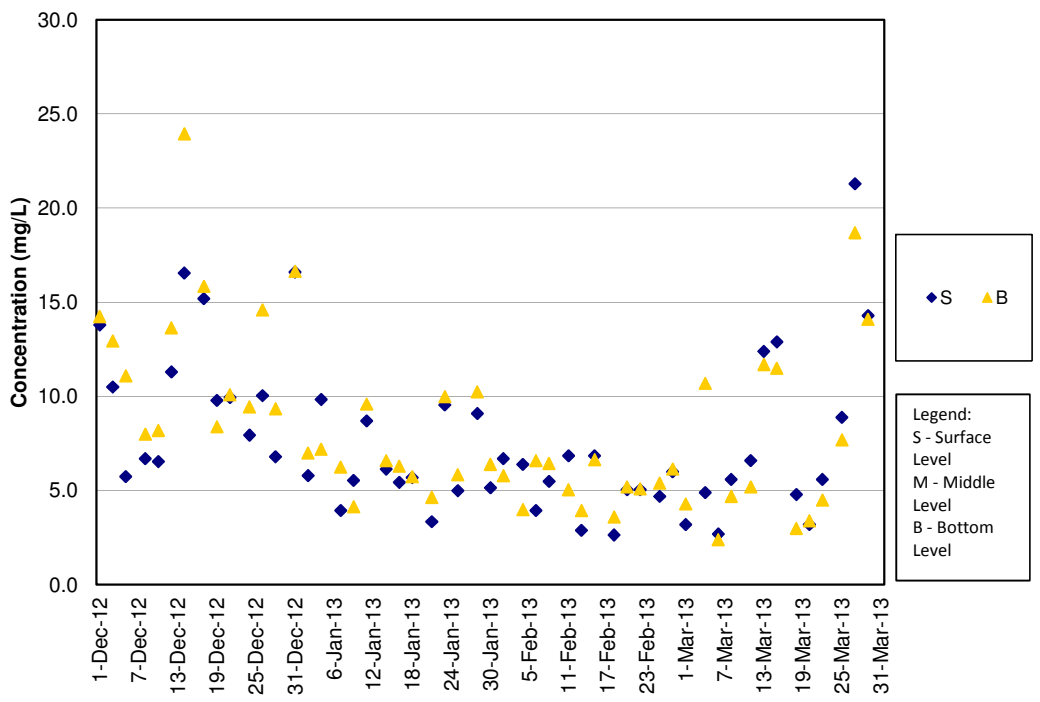
SS Concentrations at Station IS8 (Mid Flood)

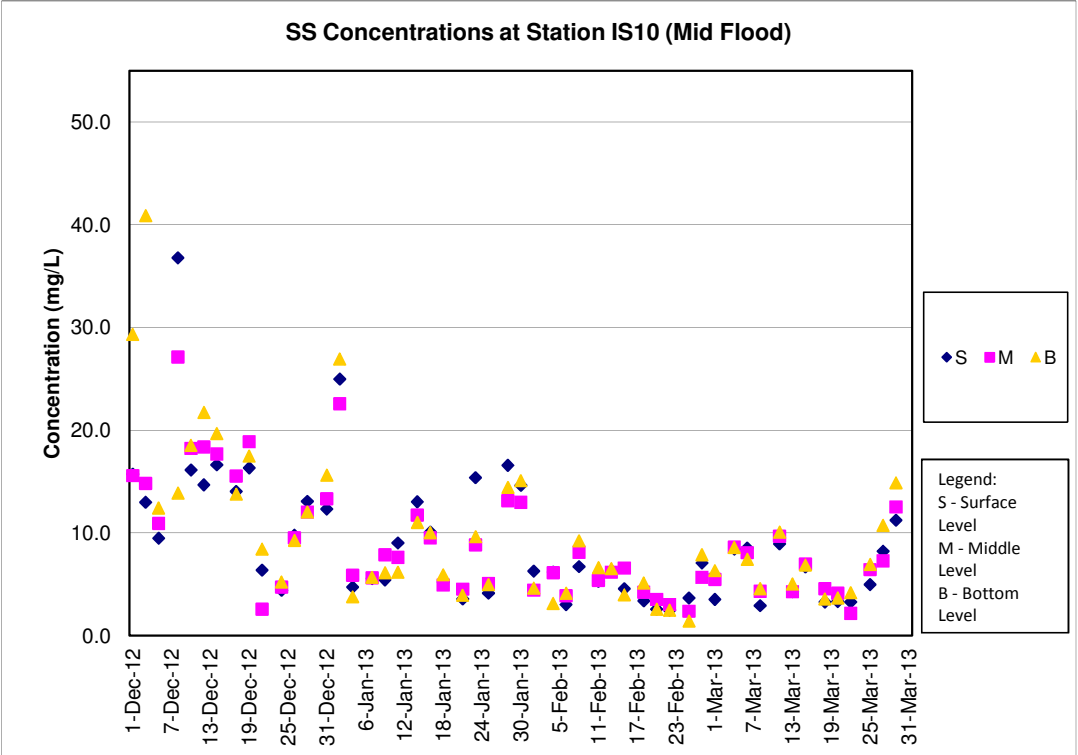
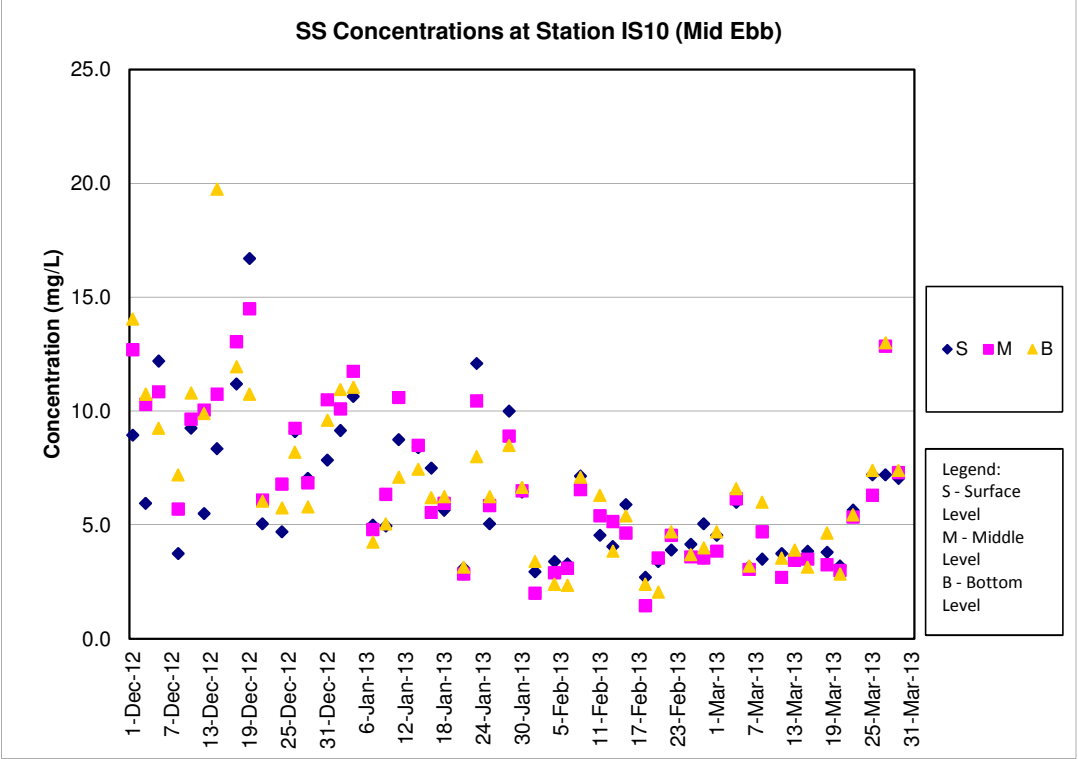


SS Concentrations at Station IS(Mf)9 (Mid Ebb)

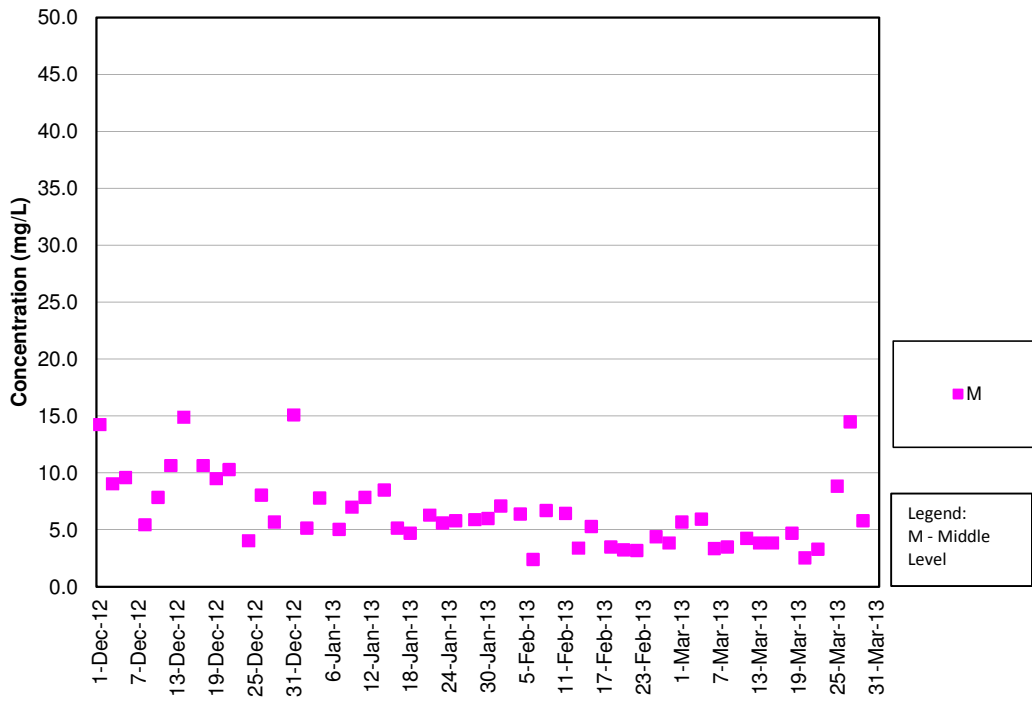


SS Concentrations at Station IS(Mf)9 (Mid Flood)

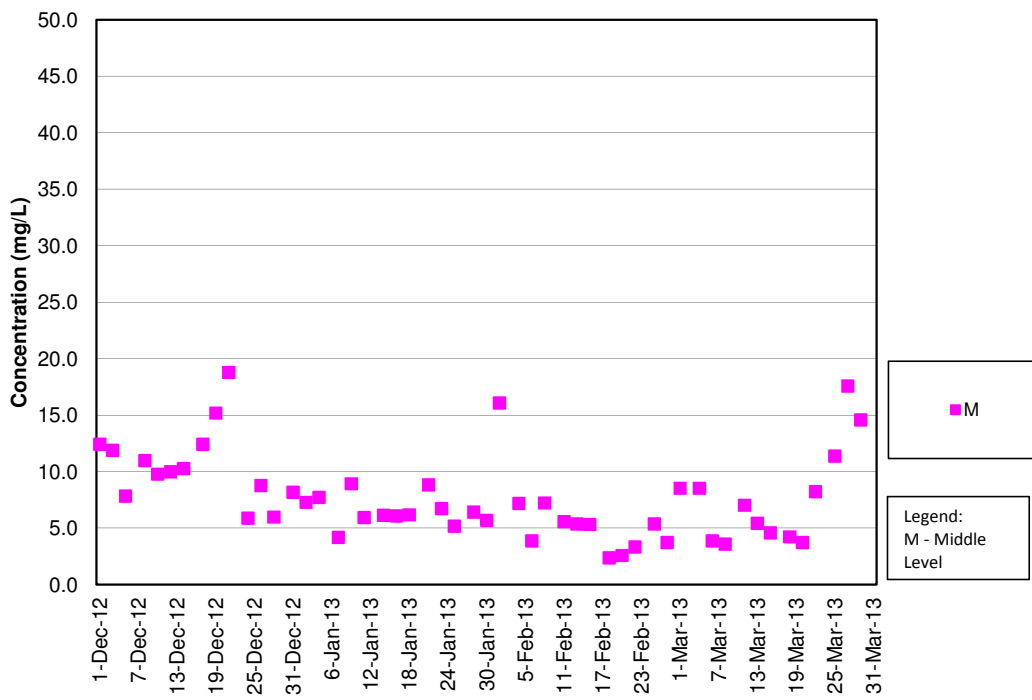




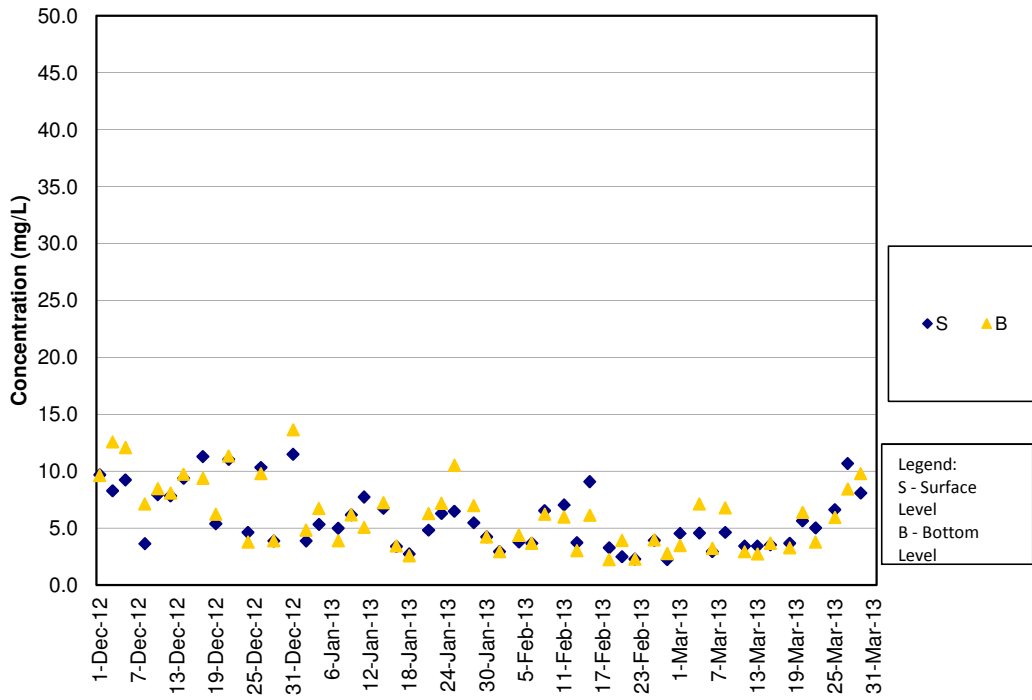
SS Concentrations at Station SR3 (Mid Ebb)



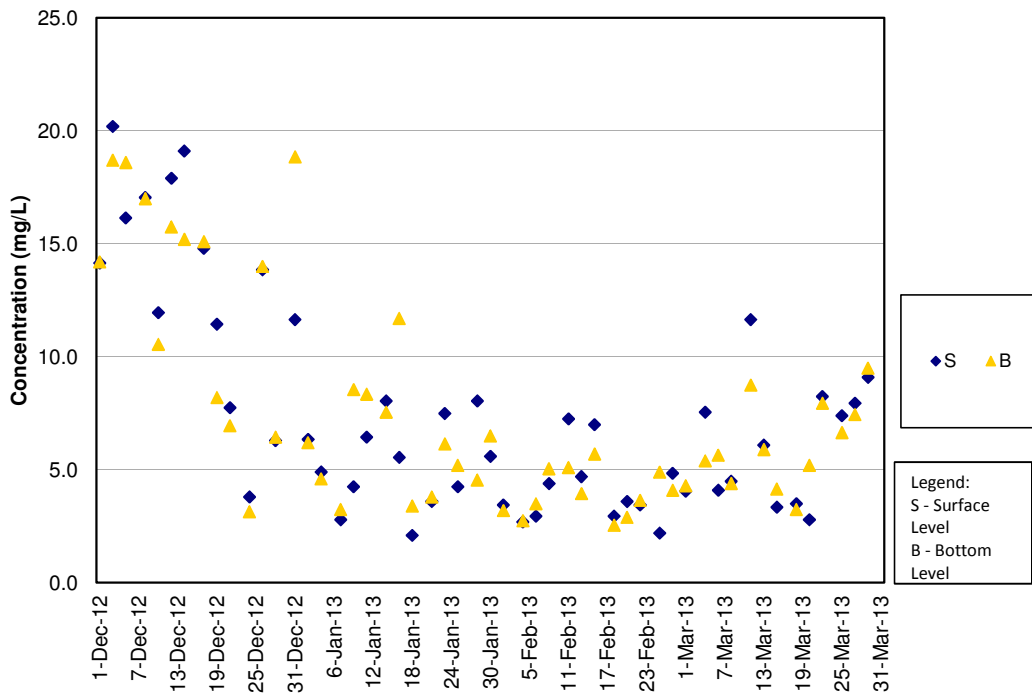
SS Concentrations at Station SR3 (Mid Flood)



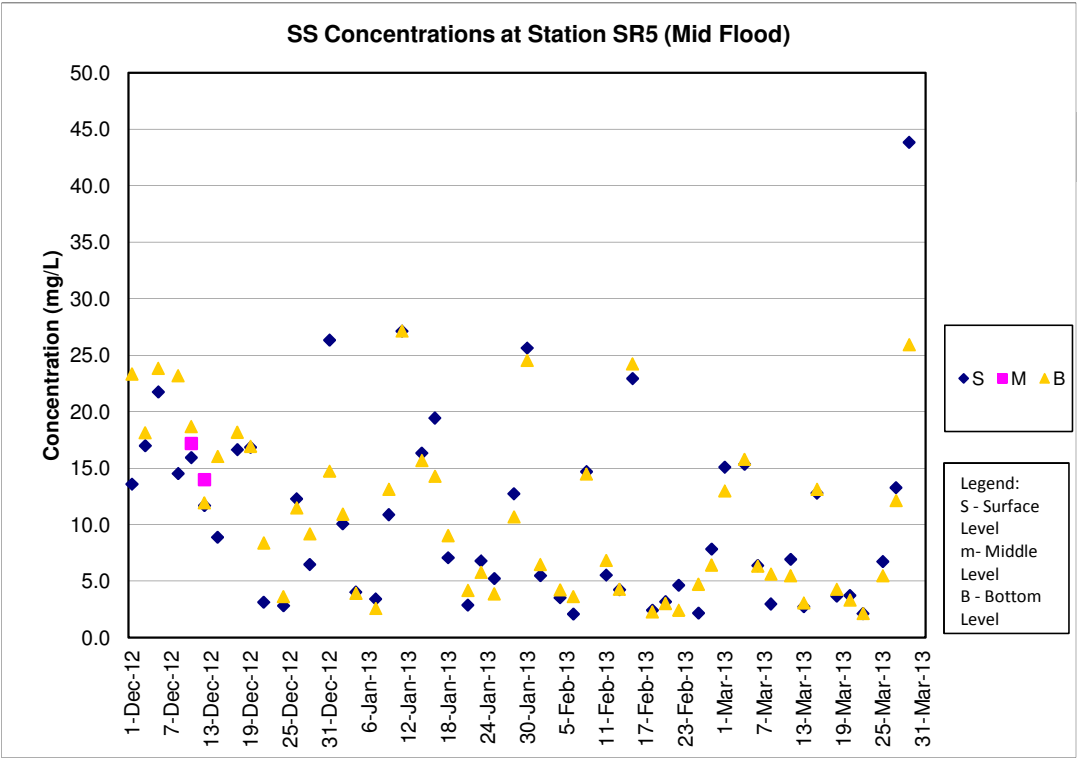
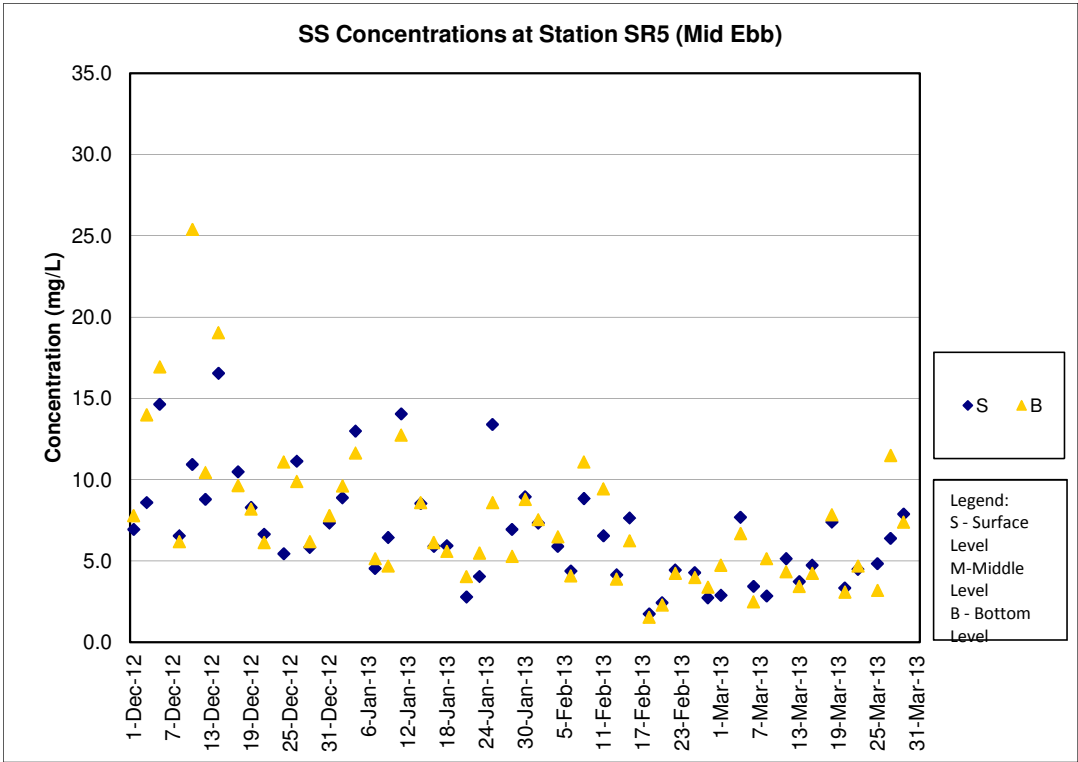
SS Concentrations at Station SR4 (Mid Ebb)

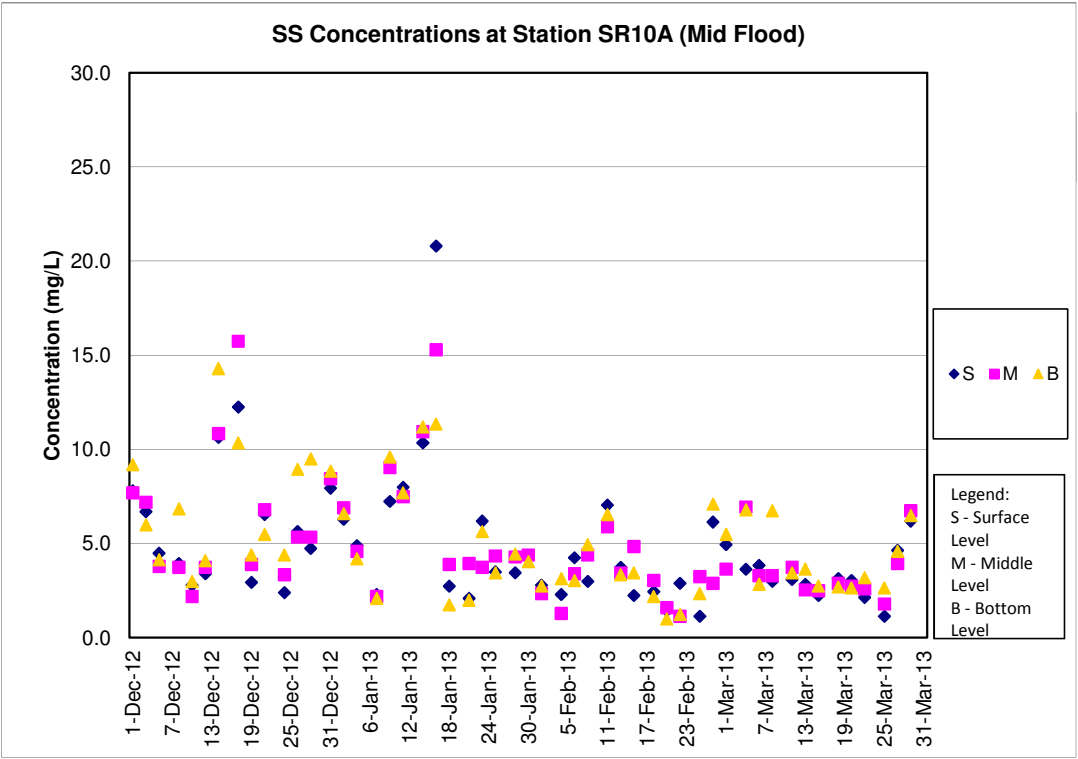
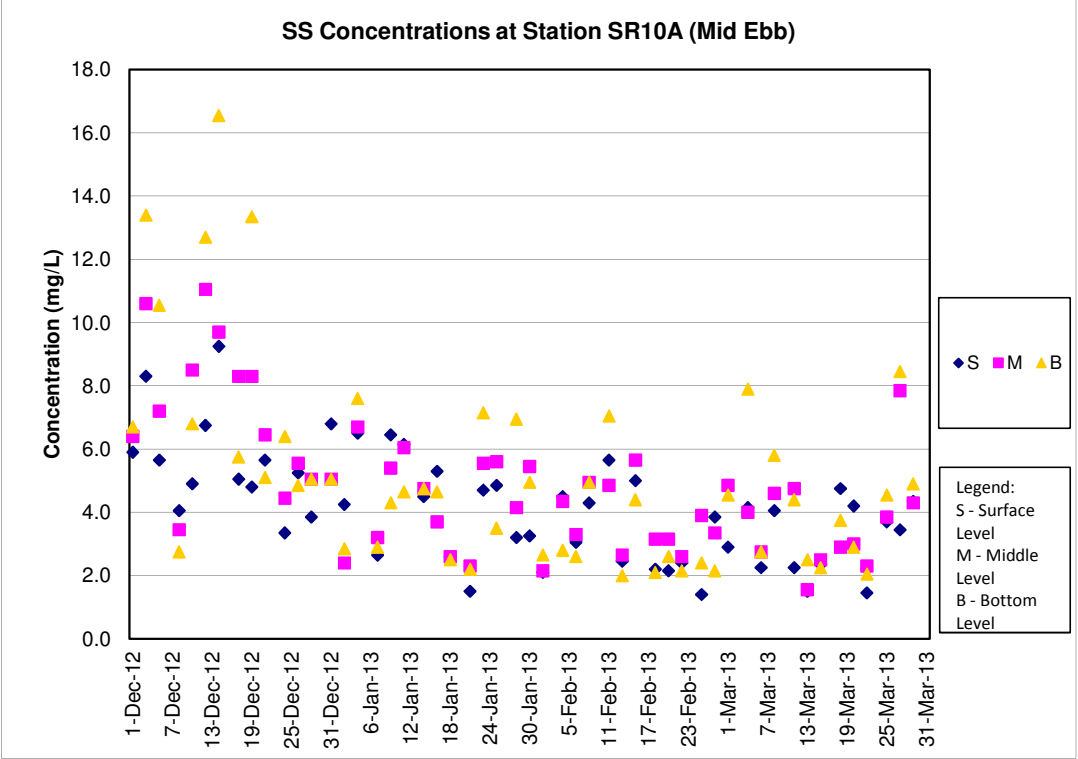


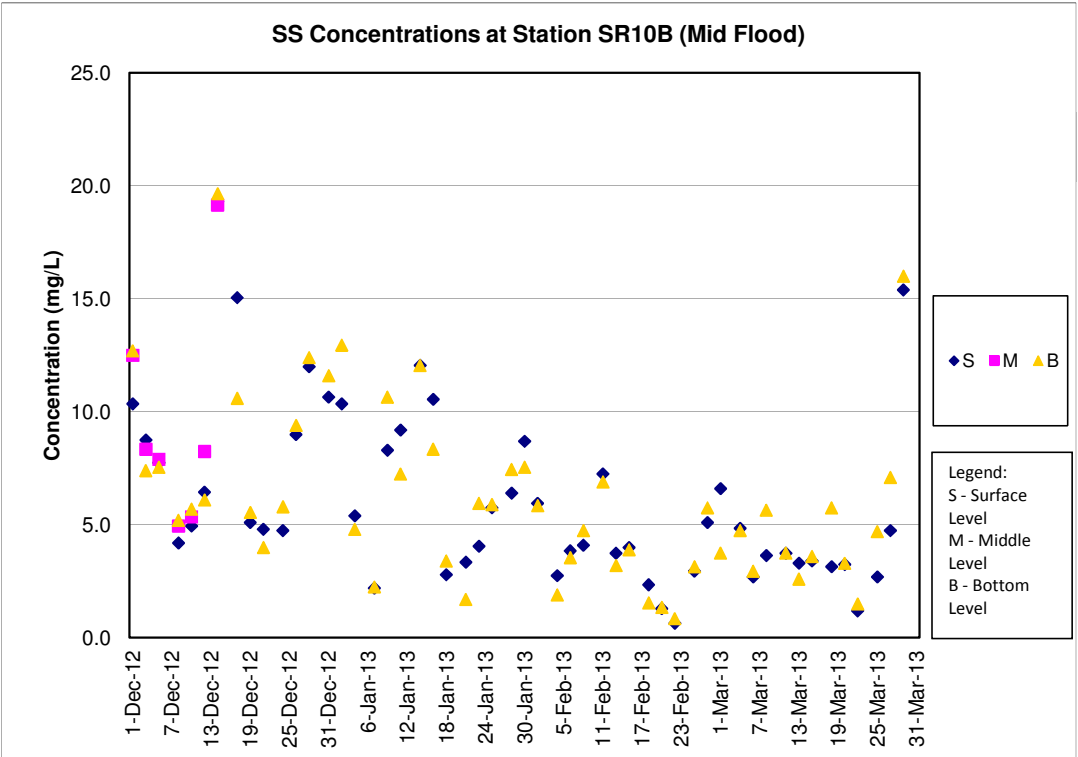
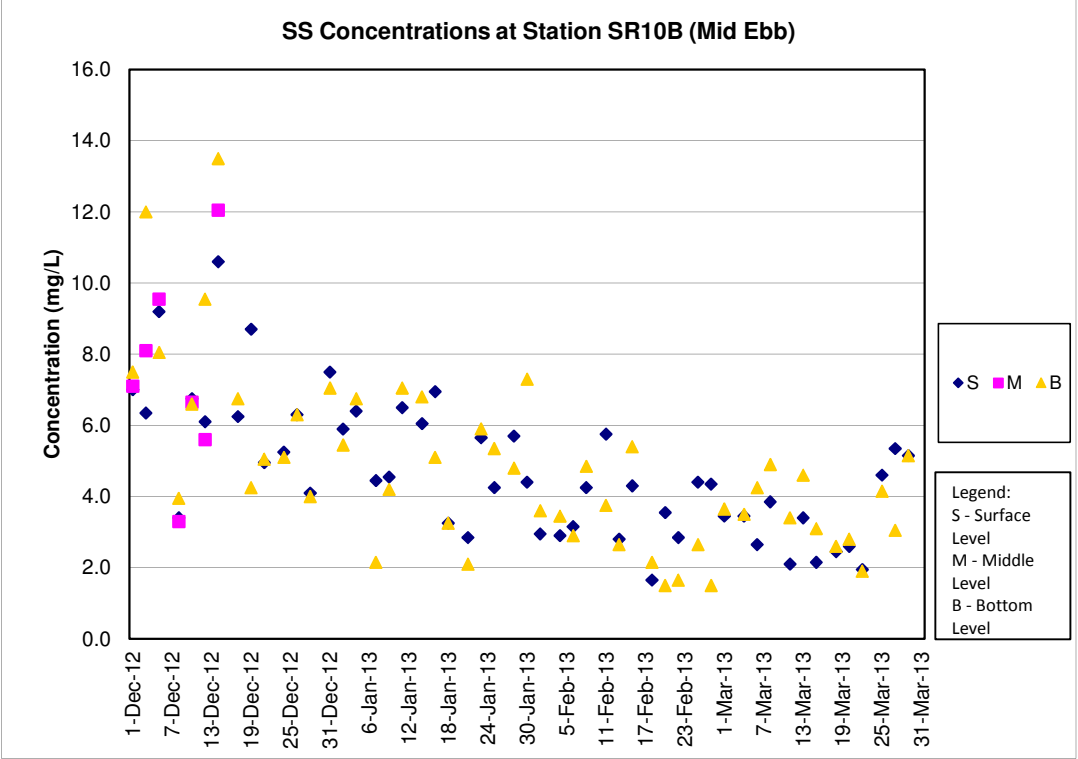
SS Concentrations at Station SR4 (Mid Flood)







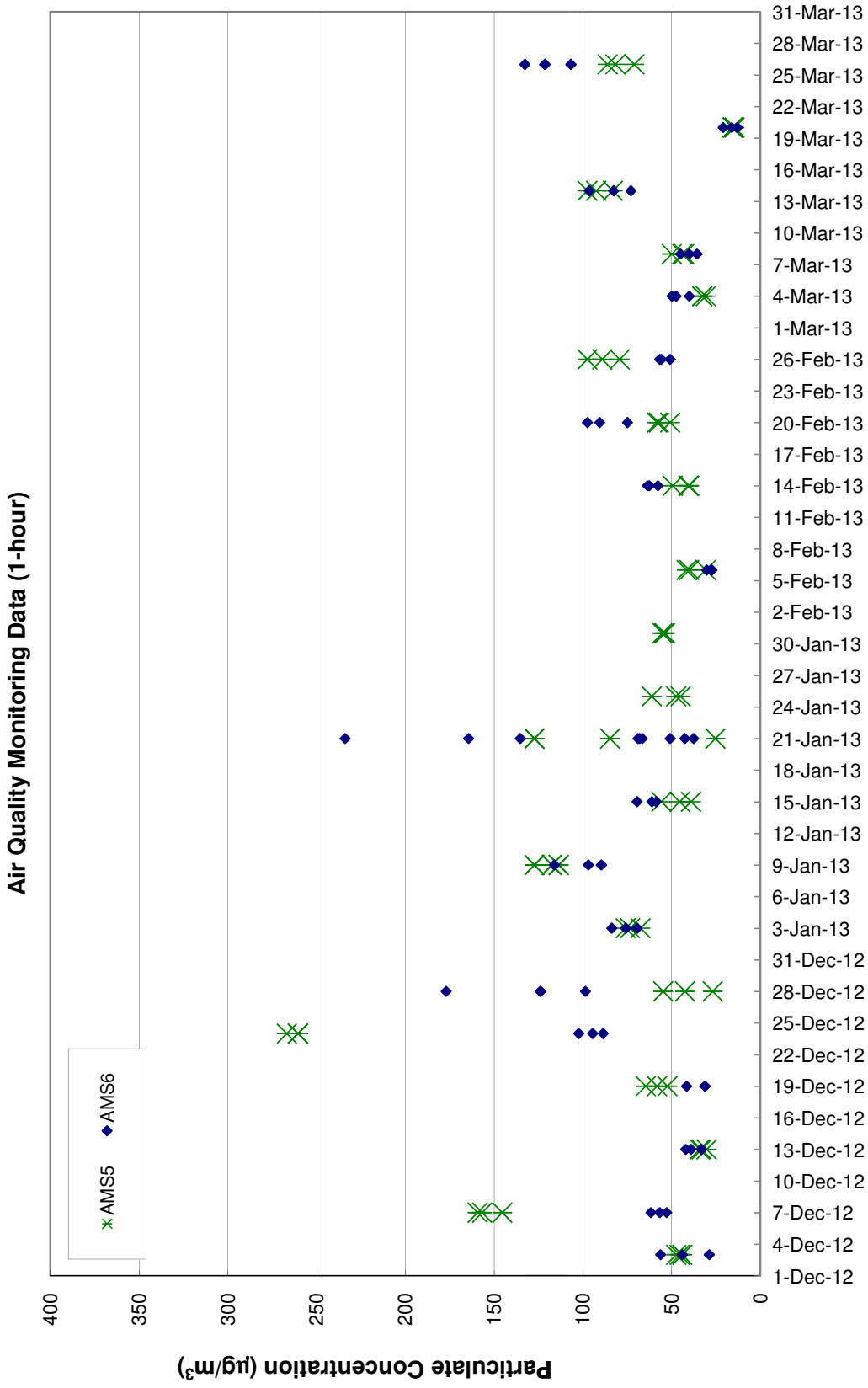




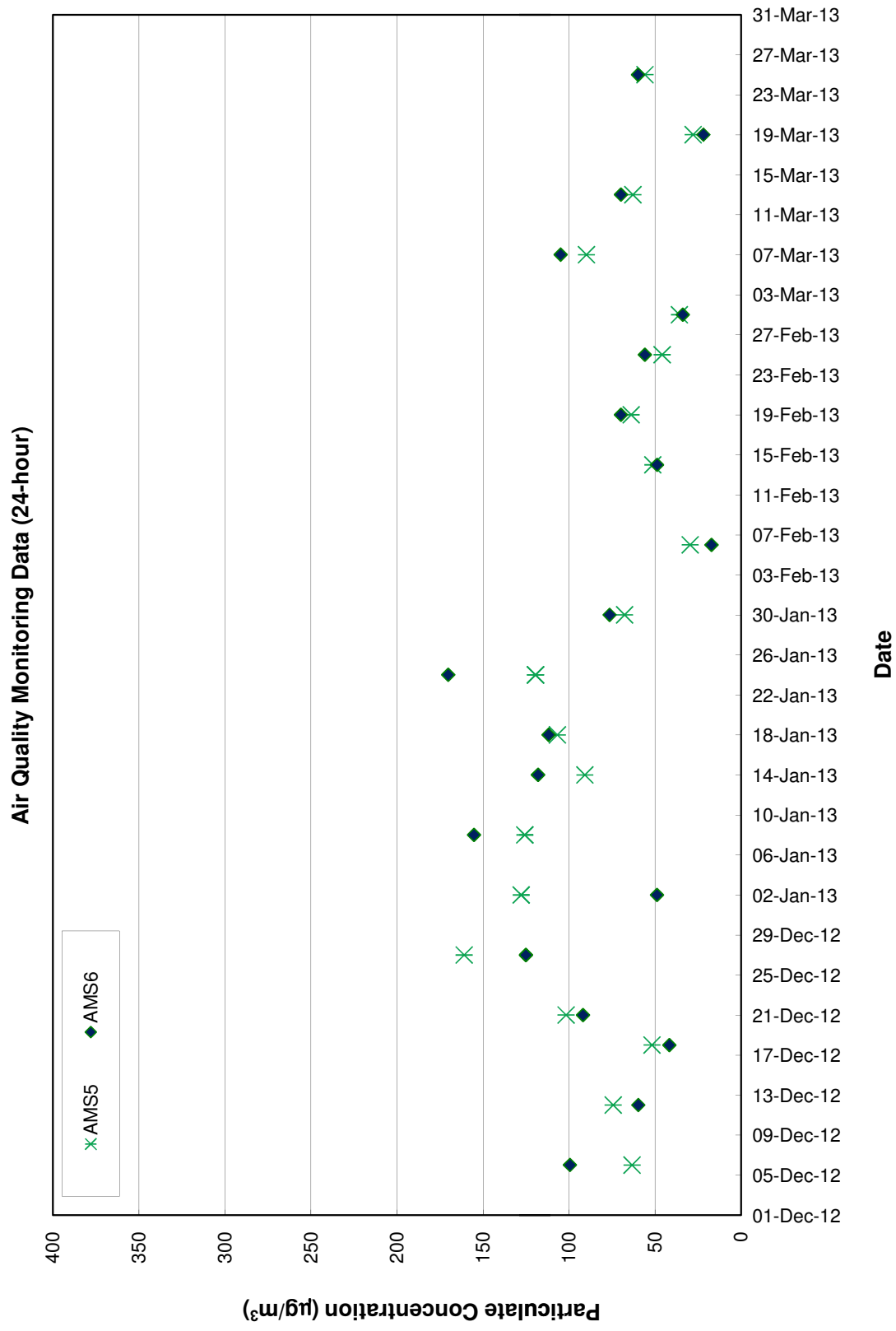
## Air Quality Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Parameter	Results	Unit
HKLR	HY/2011/03	2013-03-04	AMS5	09:35	1-hr TSP	33	ug/m3
HKLR	HY/2011/03	2013-03-04	AMS5	10:35	1-hr TSP	33	ug/m3
HKLR	HY/2011/03	2013-03-04	AMS5	11:35	1-hr TSP	31	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS5	09:35	1-hr TSP	50	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS5	10:35	1-hr TSP	43	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS5	11:35	1-hr TSP	44	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS5	09:10	1-hr TSP	83	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS5	10:10	1-hr TSP	93	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS5	11:10	1-hr TSP	98	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS5	09:40	1-hr TSP	16	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS5	10:40	1-hr TSP	15	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS5	11:40	1-hr TSP	16	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS5	09:20	1-hr TSP	82	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS5	10:20	1-hr TSP	71	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS5	11:20	1-hr TSP	86	ug/m3
HKLR	HY/2011/03	2013-03-01	AMS5	08:00	24-hr TSP	36	ug/m3
HKLR	HY/2011/03	2013-03-07	AMS5	08:00	24-hr TSP	90	ug/m3
HKLR	HY/2011/03	2013-03-13	AMS5	08:00	24-hr TSP	63	ug/m3
HKLR	HY/2011/03	2013-03-19	AMS5	08:00	24-hr TSP	28	ug/m3
HKLR	HY/2011/03	2013-03-25	AMS5	08:00	24-hr TSP	56	ug/m3
HKLR	HY/2011/03	2013-03-04	AMS6	13:20	1-hr TSP	40	ug/m3
HKLR	HY/2011/03	2013-03-04	AMS6	14:20	1-hr TSP	48	ug/m3
HKLR	HY/2011/03	2013-03-04	AMS6	15:20	1-hr TSP	50	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS6	13:34	1-hr TSP	36	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS6	14:34	1-hr TSP	45	ug/m3
HKLR	HY/2011/03	2013-03-08	AMS6	15:34	1-hr TSP	40	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS6	13:10	1-hr TSP	73	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS6	14:10	1-hr TSP	83	ug/m3
HKLR	HY/2011/03	2013-03-14	AMS6	15:10	1-hr TSP	97	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS6	13:25	1-hr TSP	13	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS6	14:25	1-hr TSP	16	ug/m3
HKLR	HY/2011/03	2013-03-20	AMS6	15:25	1-hr TSP	21	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS6	13:45	1-hr TSP	107	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS6	14:45	1-hr TSP	122	ug/m3
HKLR	HY/2011/03	2013-03-26	AMS6	15:45	1-hr TSP	133	ug/m3
HKLR	HY/2011/03	2013-03-01	AMS6	08:00	24-hr TSP	34	ug/m3
HKLR	HY/2011/03	2013-03-07	AMS6	08:00	24-hr TSP	105	ug/m3
HKLR	HY/2011/03	2013-03-13	AMS6	08:00	24-hr TSP	70	ug/m3
HKLR	HY/2011/03	2013-03-19	AMS6	08:00	24-hr TSP	22	ug/m3
HKLR	HY/2011/03	2013-03-25	AMS6	08:00	24-hr TSP	60	ug/m3

Graphical Plot of 1-hour TSP at AMS5 and AMS6



Graphical Plot of 24-hour TSP at AMS5 and AMS6



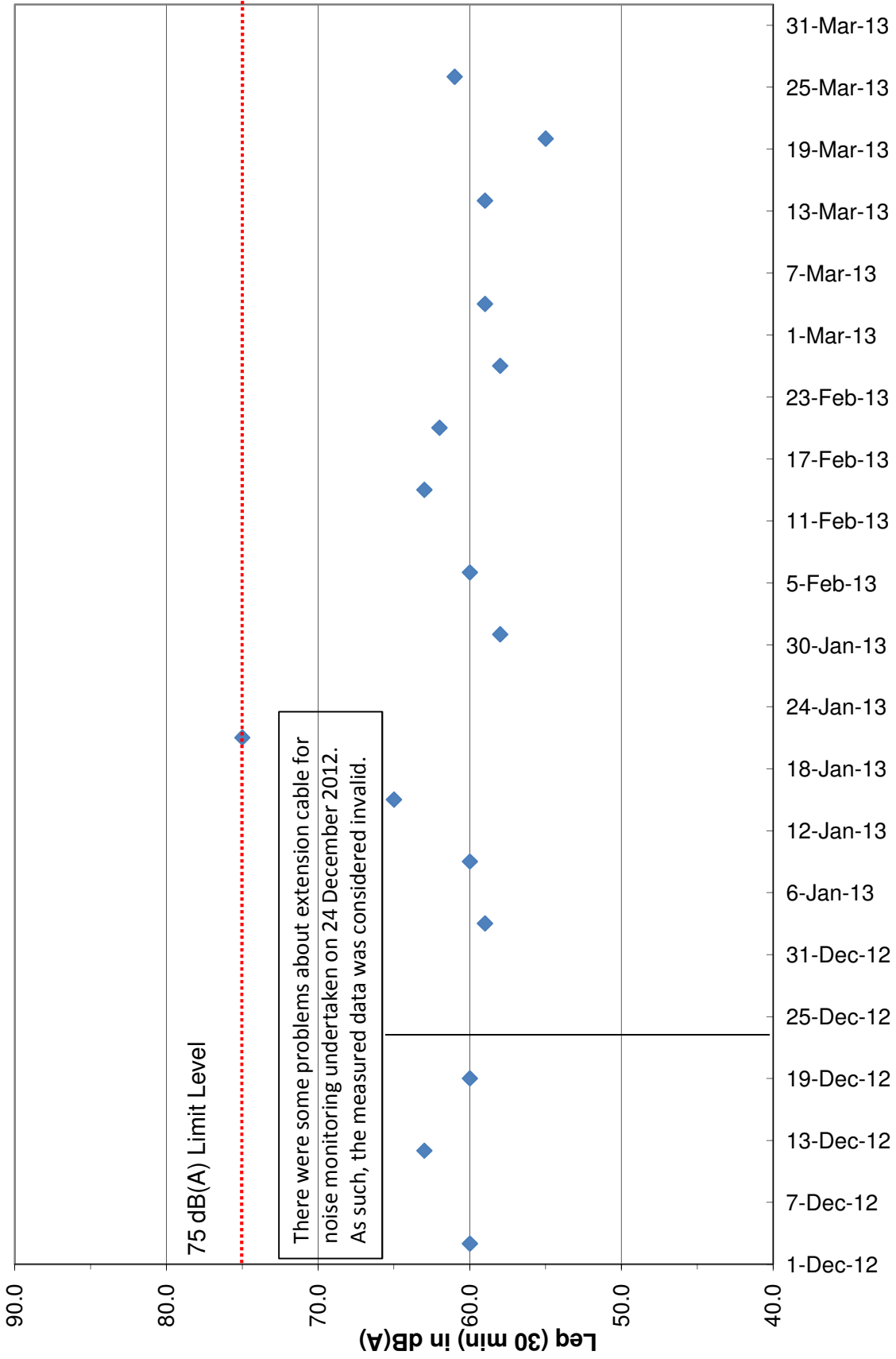
Noise Monitoring Data

Project	Works	Date [yyy-mm-dd]	Station	Start Time	1st set 5mins		2nd set 5mins		3rd set 5mins		4th set 5mins		5th set 5mins		6th set 5mins		Overall (30mins)*		Unit
					Leq	L10	Leq	L10	Leq	L10	Leq	L10	Leq	L10	Leq	L10	Leq	L10	
HKLR	HY/2011/03	2013-03-04	NMSS	9:55	56.6	58.5	56.7	58.0	56.9	59.5	54.8	55.5	56.0	56.5	57.4	59.5	61.2	dB(A)	
					L90: 53.5	L90: 54.5	L90: 53.5	L90: 53.0	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5	L90: 54.5		
HKLR	HY/2011/03	2013-03-14	NMSS	9:25	55.8	59.5	56.0	59.5	54.2	56.5	55.8	59.0	57.1	57.3	59.1	62.4	dB(A)		
					L90: 50.5	L90: 50.5	L90: 51.6	L90: 51.0	L90: 51.0	L90: 51.0	L90: 51.1	L90: 51.2	L90: 51.0	L90: 51.0	L90: 51.0	L90: 51.0		L90: 51.0	
HKLR	HY/2011/03	2013-03-20	NMSS	10:07	54.5	60.0	52.7	54.5	49.0	53.5	50.6	52.5	52.0	55.0	56.8	dB(A)			
					L90: 50.0	L90: 50.0	L90: 49.5	L90: 49.0	L90: 50.0	L90: 50.0	L90: 49.5	L90: 49.5	L90: 49.5	L90: 49.5	L90: 49.5		L90: 49.5	L90: 49.5	
HKLR	HY/2011/03	2013-03-26	NMSS	9:45	56.8	60.0	54.3	55.0	58.2	57.7	59.5	59.3	59.4	60.9	dB(A)				
					L90: 52.5	L90: 53.0	L90: 53.0	L90: 54.5	L90: 53.0	L90: 53.0	L90: 53.0	L90: 53.0	L90: 53.0	L90: 53.0		L90: 53.0	L90: 53.0	L90: 53.0	

Notes:  
 \* +3dB(A) Facade correction included.

# Graphical Plot of Noise Levels at NMS5

## Continuous Noise Monitoring Data (NMS5)







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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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# APPENDIX F

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## Event and Action Plan



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

### Event and Action Plan for Air Quality

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

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

## Event and Action Plan for Noise

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

## Event and Action Plan for Water Quality

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

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



## APPENDIX G

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### Wind Data



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
01/03/2013	00:05	5	SSE	01/03/2013	04:30	5	SSE
01/03/2013	00:10	8	SSE	01/03/2013	04:35	1	NNW
01/03/2013	00:15	8	SE	01/03/2013	04:40	1	ENE
01/03/2013	00:20	9	SSE	01/03/2013	04:45	0	---
01/03/2013	00:25	9	SSE	01/03/2013	04:50	0	---
01/03/2013	00:30	6	SSE	01/03/2013	04:55	0	---
01/03/2013	00:35	4	SSE	01/03/2013	05:00	0	---
01/03/2013	00:40	5	SE	01/03/2013	05:05	0	---
01/03/2013	00:45	7	SSE	01/03/2013	05:10	1	W
01/03/2013	00:50	8	SSE	01/03/2013	05:15	3	SSW
01/03/2013	00:55	9	SSE	01/03/2013	05:20	2	W
01/03/2013	01:00	8	SSE	01/03/2013	05:25	3	NNE
01/03/2013	01:05	8	SE	01/03/2013	05:30	5	NNE
01/03/2013	01:10	7	SSE	01/03/2013	05:35	6	NNE
01/03/2013	01:15	7	SSE	01/03/2013	05:40	5	NE
01/03/2013	01:20	7	SSE	01/03/2013	05:45	3	S
01/03/2013	01:25	9	SSE	01/03/2013	05:50	4	SSE
01/03/2013	01:30	8	SSE	01/03/2013	05:55	3	NNW
01/03/2013	01:35	7	SSE	01/03/2013	06:00	3	NE
01/03/2013	01:40	6	SSE	01/03/2013	06:05	4	NNE
01/03/2013	01:45	9	SSE	01/03/2013	06:10	3	SE
01/03/2013	01:50	10	SSE	01/03/2013	06:15	3	NNE
01/03/2013	01:55	8	SSE	01/03/2013	06:20	6	SSE
01/03/2013	02:00	7	SSE	01/03/2013	06:25	10	SE
01/03/2013	02:05	6	SSE	01/03/2013	06:30	11	SSE
01/03/2013	02:10	6	NE	01/03/2013	06:35	9	SE
01/03/2013	02:15	7	NNE	01/03/2013	06:40	12	SE
01/03/2013	02:20	6	NNE	01/03/2013	06:45	10	SSE
01/03/2013	02:25	5	NNE	01/03/2013	06:50	10	SSE
01/03/2013	02:30	9	SE	01/03/2013	06:55	12	SSE
01/03/2013	02:35	13	SSE	01/03/2013	07:00	10	SSE
01/03/2013	02:40	14	SE	01/03/2013	07:05	6	SSE
01/03/2013	02:45	13	SE	01/03/2013	07:10	4	SSW
01/03/2013	02:50	16	SSE	01/03/2013	07:15	5	NNE
01/03/2013	02:55	12	SSE	01/03/2013	07:20	4	NNE
01/03/2013	03:00	14	SE	01/03/2013	07:25	3	NNE
01/03/2013	03:05	13	SSE	01/03/2013	07:30	4	S
01/03/2013	03:10	12	SSE	01/03/2013	07:35	9	SE
01/03/2013	03:15	11	SSE	01/03/2013	07:40	11	SE
01/03/2013	03:20	12	SE	01/03/2013	07:45	12	SE
01/03/2013	03:25	14	SSE	01/03/2013	07:50	11	SSE
01/03/2013	03:30	13	SSE	01/03/2013	07:55	12	SSE
01/03/2013	03:35	14	SSE	01/03/2013	08:00	14	SSE
01/03/2013	03:40	15	SSE	01/03/2013	08:05	15	SSE
01/03/2013	03:45	12	SSE	01/03/2013	08:10	17	SSE
01/03/2013	03:50	15	SSE	01/03/2013	08:15	16	SSE
01/03/2013	03:55	13	SSE	01/03/2013	08:20	15	SSE
01/03/2013	04:00	13	SSE	01/03/2013	08:25	16	SSE
01/03/2013	04:05	11	SSE	01/03/2013	08:30	14	SSE
01/03/2013	04:10	9	SSE	01/03/2013	08:35	12	SSE
01/03/2013	04:15	9	SSE	01/03/2013	08:40	11	SSE
01/03/2013	04:20	5	SE	01/03/2013	08:45	11	SSE
01/03/2013	04:25	5	SSE	01/03/2013	08:50	11	SSE



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
01/03/2013	08:55	11	SSE	01/03/2013	13:20	11	SE
01/03/2013	09:00	9	SSE	01/03/2013	13:25	9	SE
01/03/2013	09:05	10	SSE	01/03/2013	13:30	10	SE
01/03/2013	09:10	9	SSE	01/03/2013	13:35	10	SE
01/03/2013	09:15	7	SSE	01/03/2013	13:40	11	SSE
01/03/2013	09:20	3	SE	01/03/2013	13:45	10	SE
01/03/2013	09:25	6	NE	01/03/2013	13:50	8	SE
01/03/2013	09:30	4	N	01/03/2013	13:55	4	SSE
01/03/2013	09:35	8	SSE	01/03/2013	14:00	6	SE
01/03/2013	09:40	8	SSE	01/03/2013	14:05	3	S
01/03/2013	09:45	9	SSE	01/03/2013	14:10	6	SE
01/03/2013	09:50	8	SSE	01/03/2013	14:15	4	SSE
01/03/2013	09:55	7	SSE	01/03/2013	14:20	5	SSE
01/03/2013	10:00	9	SSE	01/03/2013	14:25	5	SSE
01/03/2013	10:05	9	SSE	01/03/2013	14:30	7	SSE
01/03/2013	10:10	10	SE	01/03/2013	14:35	6	SE
01/03/2013	10:15	10	SE	01/03/2013	14:40	7	SSE
01/03/2013	10:20	12	SSE	01/03/2013	14:45	11	SSE
01/03/2013	10:25	14	SSE	01/03/2013	14:50	5	SE
01/03/2013	10:30	11	SE	01/03/2013	14:55	2	E
01/03/2013	10:35	11	SE	01/03/2013	15:00	6	SE
01/03/2013	10:40	15	SSE	01/03/2013	15:05	6	SSE
01/03/2013	10:45	12	SE	01/03/2013	15:10	6	SE
01/03/2013	10:50	11	SSE	01/03/2013	15:15	3	NNW
01/03/2013	10:55	12	SE	01/03/2013	15:20	6	SE
01/03/2013	11:00	14	SE	01/03/2013	15:25	6	ESE
01/03/2013	11:05	14	SSE	01/03/2013	15:30	3	SE
01/03/2013	11:10	13	SE	01/03/2013	15:35	5	SSE
01/03/2013	11:15	12	SE	01/03/2013	15:40	5	SSE
01/03/2013	11:20	12	SE	01/03/2013	15:45	2	E
01/03/2013	11:25	11	SSE	01/03/2013	15:50	6	SE
01/03/2013	11:30	10	SSE	01/03/2013	15:55	3	SE
01/03/2013	11:35	9	SE	01/03/2013	16:00	3	SE
01/03/2013	11:40	5	SSE	01/03/2013	16:05	4	SSE
01/03/2013	11:45	4	SSE	01/03/2013	16:10	6	SE
01/03/2013	11:50	7	SSE	01/03/2013	16:15	7	SSE
01/03/2013	11:55	6	NNW	01/03/2013	16:20	4	SE
01/03/2013	12:00	4	NW	01/03/2013	16:25	5	SSE
01/03/2013	12:05	3	ESE	01/03/2013	16:30	5	SE
01/03/2013	12:10	4	SW	01/03/2013	16:35	5	SE
01/03/2013	12:15	5	ENE	01/03/2013	16:40	10	SSE
01/03/2013	12:20	6	SW	01/03/2013	16:45	5	SSE
01/03/2013	12:25	7	SSE	01/03/2013	16:50	5	SE
01/03/2013	12:30	5	ESE	01/03/2013	16:55	4	SE
01/03/2013	12:35	3	ENE	01/03/2013	17:00	5	S
01/03/2013	12:40	7	SSE	01/03/2013	17:05	8	SSE
01/03/2013	12:45	5	SE	01/03/2013	17:10	5	SE
01/03/2013	12:50	4	N	01/03/2013	17:15	3	ESE
01/03/2013	12:55	5	SSE	01/03/2013	17:20	6	SSE
01/03/2013	13:00	7	SSE	01/03/2013	17:25	7	SSE
01/03/2013	13:05	6	SE	01/03/2013	17:30	7	SSE
01/03/2013	13:10	11	SSE	01/03/2013	17:35	3	NE
01/03/2013	13:15	7	SE	01/03/2013	17:40	5	E

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
01/03/2013	17:45	3	ENE	01/03/2013	22:10	2	NE
01/03/2013	17:50	5	NE	01/03/2013	22:15	2	W
01/03/2013	17:55	3	NNE	01/03/2013	22:20	3	ESE
01/03/2013	18:00	4	N	01/03/2013	22:25	1	ESE
01/03/2013	18:05	5	E	01/03/2013	22:30	3	E
01/03/2013	18:10	7	ENE	01/03/2013	22:35	0	SE
01/03/2013	18:15	4	NE	01/03/2013	22:40	2	SE
01/03/2013	18:20	5	E	01/03/2013	22:45	3	SSE
01/03/2013	18:25	5	SE	01/03/2013	22:50	1	SSE
01/03/2013	18:30	3	ENE	01/03/2013	22:55	0	SSE
01/03/2013	18:35	6	E	01/03/2013	23:00	1	E
01/03/2013	18:40	5	NE	01/03/2013	23:05	1	E
01/03/2013	18:45	4	ENE	01/03/2013	23:10	2	NW
01/03/2013	18:50	3	SSE	01/03/2013	23:15	1	NW
01/03/2013	18:55	3	SE	01/03/2013	23:20	0	NW
01/03/2013	19:00	6	NNW	01/03/2013	23:25	0	NW
01/03/2013	19:05	7	NNE	01/03/2013	23:30	1	NW
01/03/2013	19:10	7	N	01/03/2013	23:35	1	NW
01/03/2013	19:15	4	NNW	01/03/2013	23:40	0	---
01/03/2013	19:20	3	ENE	01/03/2013	23:45	1	N
01/03/2013	19:25	2	ENE	01/03/2013	23:50	2	ESE
01/03/2013	19:30	2	NE	01/03/2013	23:55	3	NNE
01/03/2013	19:35	8	E	02/03/2013	00:00	1	E
01/03/2013	19:40	6	SE	02/03/2013	00:05	0	E
01/03/2013	19:45	2	SE	02/03/2013	00:10	1	ENE
01/03/2013	19:50	4	NW	02/03/2013	00:15	1	ENE
01/03/2013	19:55	3	N	02/03/2013	00:20	1	E
01/03/2013	20:00	3	NNE	02/03/2013	00:25	2	NNW
01/03/2013	20:05	1	NE	02/03/2013	00:30	3	SE
01/03/2013	20:10	1	NE	02/03/2013	00:35	3	E
01/03/2013	20:15	2	NNE	02/03/2013	00:40	4	E
01/03/2013	20:20	4	ENE	02/03/2013	00:45	1	E
01/03/2013	20:25	3	ENE	02/03/2013	00:50	1	E
01/03/2013	20:30	1	S	02/03/2013	00:55	3	SE
01/03/2013	20:35	1	NNW	02/03/2013	01:00	3	SSE
01/03/2013	20:40	1	NNW	02/03/2013	01:05	2	SSE
01/03/2013	20:45	1	NW	02/03/2013	01:10	0	SSE
01/03/2013	20:50	2	NNE	02/03/2013	01:15	0	---
01/03/2013	20:55	1	N	02/03/2013	01:20	0	---
01/03/2013	21:00	0	N	02/03/2013	01:25	1	SSE
01/03/2013	21:05	1	NW	02/03/2013	01:30	2	SSE
01/03/2013	21:10	3	NW	02/03/2013	01:35	2	NNW
01/03/2013	21:15	5	E	02/03/2013	01:40	1	NW
01/03/2013	21:20	3	E	02/03/2013	01:45	1	WNW
01/03/2013	21:25	1	E	02/03/2013	01:50	1	WNW
01/03/2013	21:30	1	NE	02/03/2013	01:55	1	SW
01/03/2013	21:35	1	ESE	02/03/2013	02:00	2	SSW
01/03/2013	21:40	2	ESE	02/03/2013	02:05	0	SSW
01/03/2013	21:45	1	SE	02/03/2013	02:10	1	NW
01/03/2013	21:50	1	ESE	02/03/2013	02:15	1	NE
01/03/2013	21:55	0	ESE	02/03/2013	02:20	0	---
01/03/2013	22:00	2	W	02/03/2013	02:25	0	NE
01/03/2013	22:05	2	NNE	02/03/2013	02:30	1	NE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
02/03/2013	02:35	1	NE	02/03/2013	07:00	0	SSW
02/03/2013	02:40	2	SSE	02/03/2013	07:05	1	SSW
02/03/2013	02:45	3	SSE	02/03/2013	07:10	2	NNW
02/03/2013	02:50	5	SSE	02/03/2013	07:15	1	NW
02/03/2013	02:55	4	SSE	02/03/2013	07:20	2	NW
02/03/2013	03:00	3	SSE	02/03/2013	07:25	3	ESE
02/03/2013	03:05	2	SE	02/03/2013	07:30	7	SSE
02/03/2013	03:10	2	SE	02/03/2013	07:35	10	SSE
02/03/2013	03:15	3	SE	02/03/2013	07:40	8	SSE
02/03/2013	03:20	1	S	02/03/2013	07:45	6	E
02/03/2013	03:25	0	S	02/03/2013	07:50	7	E
02/03/2013	03:30	0	S	02/03/2013	07:55	5	SE
02/03/2013	03:35	1	WNW	02/03/2013	08:00	4	S
02/03/2013	03:40	0	WNW	02/03/2013	08:05	4	SE
02/03/2013	03:45	0	WNW	02/03/2013	08:10	6	SE
02/03/2013	03:50	0	WNW	02/03/2013	08:15	7	SE
02/03/2013	03:55	2	NW	02/03/2013	08:20	5	SE
02/03/2013	04:00	3	N	02/03/2013	08:25	5	SSE
02/03/2013	04:05	2	NNE	02/03/2013	08:30	7	SSE
02/03/2013	04:10	0	NNE	02/03/2013	08:35	8	SE
02/03/2013	04:15	0	---	02/03/2013	08:40	7	ESE
02/03/2013	04:20	0	---	02/03/2013	08:45	6	E
02/03/2013	04:25	2	S	02/03/2013	08:50	5	E
02/03/2013	04:30	1	S	02/03/2013	08:55	9	ENE
02/03/2013	04:35	1	S	02/03/2013	09:00	8	ESE
02/03/2013	04:40	1	S	02/03/2013	09:05	6	SE
02/03/2013	04:45	0	S	02/03/2013	09:10	6	SE
02/03/2013	04:50	1	S	02/03/2013	09:15	10	SE
02/03/2013	04:55	1	S	02/03/2013	09:20	13	SE
02/03/2013	05:00	0	SSE	02/03/2013	09:25	16	SE
02/03/2013	05:05	2	WNW	02/03/2013	09:30	14	SE
02/03/2013	05:10	1	WNW	02/03/2013	09:35	15	SE
02/03/2013	05:15	0	WNW	02/03/2013	09:40	17	SE
02/03/2013	05:20	1	SSE	02/03/2013	09:45	15	SE
02/03/2013	05:25	1	SSE	02/03/2013	09:50	16	SSE
02/03/2013	05:30	2	WNW	02/03/2013	09:55	14	SSE
02/03/2013	05:35	1	NW	02/03/2013	10:00	15	SE
02/03/2013	05:40	0	N	02/03/2013	10:05	13	SSE
02/03/2013	05:45	0	N	02/03/2013	10:10	14	SE
02/03/2013	05:50	0	N	02/03/2013	10:15	15	SE
02/03/2013	05:55	1	N	02/03/2013	10:20	14	SE
02/03/2013	06:00	2	S	02/03/2013	10:25	14	SE
02/03/2013	06:05	1	SSW	02/03/2013	10:30	15	SE
02/03/2013	06:10	1	S	02/03/2013	10:35	11	SE
02/03/2013	06:15	3	E	02/03/2013	10:40	5	E
02/03/2013	06:20	2	ESE	02/03/2013	10:45	5	NNW
02/03/2013	06:25	1	SSE	02/03/2013	10:50	7	NNE
02/03/2013	06:30	2	NW	02/03/2013	10:55	4	NNE
02/03/2013	06:35	2	N	02/03/2013	11:00	9	SE
02/03/2013	06:40	2	ENE	02/03/2013	11:05	11	SE
02/03/2013	06:45	1	N	02/03/2013	11:10	12	SE
02/03/2013	06:50	1	SSW	02/03/2013	11:15	12	SE
02/03/2013	06:55	0	SSW	02/03/2013	11:20	13	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
02/03/2013	11:25	15	SE	02/03/2013	15:50	5	E
02/03/2013	11:30	13	SE	02/03/2013	15:55	6	E
02/03/2013	11:35	8	SSE	02/03/2013	16:00	5	E
02/03/2013	11:40	9	SE	02/03/2013	16:05	4	SE
02/03/2013	11:45	8	SE	02/03/2013	16:10	3	SE
02/03/2013	11:50	8	SSE	02/03/2013	16:15	3	ESE
02/03/2013	11:55	8	SSE	02/03/2013	16:20	5	E
02/03/2013	12:00	6	SSE	02/03/2013	16:25	3	ESE
02/03/2013	12:05	6	S	02/03/2013	16:30	3	SE
02/03/2013	12:10	6	SSE	02/03/2013	16:35	3	SSE
02/03/2013	12:15	6	SSE	02/03/2013	16:40	4	SSE
02/03/2013	12:20	6	SSE	02/03/2013	16:45	3	SSE
02/03/2013	12:25	6	SSE	02/03/2013	16:50	3	S
02/03/2013	12:30	4	SSE	02/03/2013	16:55	4	SSE
02/03/2013	12:35	4	S	02/03/2013	17:00	3	S
02/03/2013	12:40	5	SE	02/03/2013	17:05	6	SSE
02/03/2013	12:45	7	SSE	02/03/2013	17:10	6	SSE
02/03/2013	12:50	6	SSE	02/03/2013	17:15	5	S
02/03/2013	12:55	5	SE	02/03/2013	17:20	4	SSE
02/03/2013	13:00	6	SSE	02/03/2013	17:25	5	S
02/03/2013	13:05	8	SSE	02/03/2013	17:30	4	S
02/03/2013	13:10	6	SSE	02/03/2013	17:35	2	SSE
02/03/2013	13:15	6	SE	02/03/2013	17:40	3	S
02/03/2013	13:20	5	SSE	02/03/2013	17:45	5	SSE
02/03/2013	13:25	6	SE	02/03/2013	17:50	5	SSE
02/03/2013	13:30	7	SE	02/03/2013	17:55	5	SE
02/03/2013	13:35	8	SE	02/03/2013	18:00	5	SE
02/03/2013	13:40	6	SSE	02/03/2013	18:05	6	SE
02/03/2013	13:45	8	SSE	02/03/2013	18:10	5	SSE
02/03/2013	13:50	7	SSE	02/03/2013	18:15	5	SE
02/03/2013	13:55	8	SSE	02/03/2013	18:20	6	SSE
02/03/2013	14:00	7	SSE	02/03/2013	18:25	7	SSE
02/03/2013	14:05	7	SSE	02/03/2013	18:30	7	SSE
02/03/2013	14:10	6	SE	02/03/2013	18:35	5	SSE
02/03/2013	14:15	6	SE	02/03/2013	18:40	5	SSE
02/03/2013	14:20	6	SSE	02/03/2013	18:45	3	ESE
02/03/2013	14:25	7	SSE	02/03/2013	18:50	6	ENE
02/03/2013	14:30	5	SSE	02/03/2013	18:55	5	SSE
02/03/2013	14:35	6	SE	02/03/2013	19:00	4	SE
02/03/2013	14:40	5	SE	02/03/2013	19:05	4	ESE
02/03/2013	14:45	4	SE	02/03/2013	19:10	3	E
02/03/2013	14:50	4	SE	02/03/2013	19:15	4	E
02/03/2013	14:55	4	SE	02/03/2013	19:20	5	E
02/03/2013	15:00	5	ESE	02/03/2013	19:25	3	SE
02/03/2013	15:05	3	ESE	02/03/2013	19:30	5	SSE
02/03/2013	15:10	4	ESE	02/03/2013	19:35	4	SE
02/03/2013	15:15	4	E	02/03/2013	19:40	4	SSE
02/03/2013	15:20	6	E	02/03/2013	19:45	4	ESE
02/03/2013	15:25	6	E	02/03/2013	19:50	3	SSE
02/03/2013	15:30	6	E	02/03/2013	19:55	5	SSE
02/03/2013	15:35	5	E	02/03/2013	20:00	6	SSE
02/03/2013	15:40	3	ESE	02/03/2013	20:05	6	SSE
02/03/2013	15:45	3	ESE	02/03/2013	20:10	6	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
02/03/2013	20:15	4	SSE	03/03/2013	00:40	4	SSE
02/03/2013	20:20	4	ESE	03/03/2013	00:45	5	SE
02/03/2013	20:25	7	E	03/03/2013	00:50	8	E
02/03/2013	20:30	6	E	03/03/2013	00:55	6	E
02/03/2013	20:35	7	E	03/03/2013	01:00	7	ENE
02/03/2013	20:40	8	ENE	03/03/2013	01:05	4	SE
02/03/2013	20:45	5	E	03/03/2013	01:10	5	E
02/03/2013	20:50	2	SE	03/03/2013	01:15	5	E
02/03/2013	20:55	4	E	03/03/2013	01:20	8	E
02/03/2013	21:00	4	SSE	03/03/2013	01:25	7	ESE
02/03/2013	21:05	4	SE	03/03/2013	01:30	7	E
02/03/2013	21:10	5	SE	03/03/2013	01:35	6	ESE
02/03/2013	21:15	4	SSE	03/03/2013	01:40	5	E
02/03/2013	21:20	5	SSE	03/03/2013	01:45	7	E
02/03/2013	21:25	5	SE	03/03/2013	01:50	5	SE
02/03/2013	21:30	4	SSE	03/03/2013	01:55	6	E
02/03/2013	21:35	4	SSE	03/03/2013	02:00	7	E
02/03/2013	21:40	3	SE	03/03/2013	02:05	7	E
02/03/2013	21:45	4	SE	03/03/2013	02:10	3	SE
02/03/2013	21:50	5	SE	03/03/2013	02:15	3	E
02/03/2013	21:55	5	SSE	03/03/2013	02:20	3	SE
02/03/2013	22:00	4	SE	03/03/2013	02:25	3	SSE
02/03/2013	22:05	5	SE	03/03/2013	02:30	5	E
02/03/2013	22:10	5	SSE	03/03/2013	02:35	6	E
02/03/2013	22:15	3	SE	03/03/2013	02:40	3	ESE
02/03/2013	22:20	5	SSE	03/03/2013	02:45	5	E
02/03/2013	22:25	4	SE	03/03/2013	02:50	5	E
02/03/2013	22:30	4	SE	03/03/2013	02:55	5	E
02/03/2013	22:35	3	SE	03/03/2013	03:00	6	E
02/03/2013	22:40	3	SE	03/03/2013	03:05	9	ENE
02/03/2013	22:45	5	SE	03/03/2013	03:10	9	E
02/03/2013	22:50	5	SSE	03/03/2013	03:15	7	ENE
02/03/2013	22:55	4	SSE	03/03/2013	03:20	5	ENE
02/03/2013	23:00	2	SE	03/03/2013	03:25	3	E
02/03/2013	23:05	2	SE	03/03/2013	03:30	2	SSE
02/03/2013	23:10	3	SSE	03/03/2013	03:35	3	ESE
02/03/2013	23:15	6	SSE	03/03/2013	03:40	3	E
02/03/2013	23:20	4	ESE	03/03/2013	03:45	3	ENE
02/03/2013	23:25	1	SE	03/03/2013	03:50	3	NE
02/03/2013	23:30	2	SE	03/03/2013	03:55	5	ENE
02/03/2013	23:35	8	ENE	03/03/2013	04:00	4	ESE
02/03/2013	23:40	6	E	03/03/2013	04:05	4	SE
02/03/2013	23:45	4	SE	03/03/2013	04:10	5	E
02/03/2013	23:50	5	E	03/03/2013	04:15	3	E
02/03/2013	23:55	7	ENE	03/03/2013	04:20	5	E
03/03/2013	00:00	5	ENE	03/03/2013	04:25	9	E
03/03/2013	00:05	5	ENE	03/03/2013	04:30	8	ENE
03/03/2013	00:10	4	ENE	03/03/2013	04:35	3	E
03/03/2013	00:15	3	SE	03/03/2013	04:40	7	E
03/03/2013	00:20	3	SE	03/03/2013	04:45	8	ENE
03/03/2013	00:25	3	SSE	03/03/2013	04:50	8	ENE
03/03/2013	00:30	2	SE	03/03/2013	04:55	6	ENE
03/03/2013	00:35	3	E	03/03/2013	05:00	10	ENE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
03/03/2013	05:05	11	ENE	03/03/2013	09:30	9	E
03/03/2013	05:10	9	ENE	03/03/2013	09:35	11	ENE
03/03/2013	05:15	5	ENE	03/03/2013	09:40	10	ENE
03/03/2013	05:20	6	E	03/03/2013	09:45	11	ENE
03/03/2013	05:25	6	ENE	03/03/2013	09:50	10	E
03/03/2013	05:30	8	E	03/03/2013	09:55	8	E
03/03/2013	05:35	4	ESE	03/03/2013	10:00	6	E
03/03/2013	05:40	5	E	03/03/2013	10:05	5	ESE
03/03/2013	05:45	4	E	03/03/2013	10:10	3	SSE
03/03/2013	05:50	5	SE	03/03/2013	10:15	4	E
03/03/2013	05:55	4	SSE	03/03/2013	10:20	5	E
03/03/2013	06:00	5	E	03/03/2013	10:25	3	E
03/03/2013	06:05	5	ESE	03/03/2013	10:30	4	E
03/03/2013	06:10	7	E	03/03/2013	10:35	3	SE
03/03/2013	06:15	6	E	03/03/2013	10:40	5	E
03/03/2013	06:20	6	E	03/03/2013	10:45	3	E
03/03/2013	06:25	4	ESE	03/03/2013	10:50	3	SE
03/03/2013	06:30	3	ENE	03/03/2013	10:55	4	E
03/03/2013	06:35	3	E	03/03/2013	11:00	5	ENE
03/03/2013	06:40	5	ENE	03/03/2013	11:05	5	E
03/03/2013	06:45	4	ENE	03/03/2013	11:10	6	ENE
03/03/2013	06:50	3	ENE	03/03/2013	11:15	5	E
03/03/2013	06:55	2	ENE	03/03/2013	11:20	4	E
03/03/2013	07:00	1	WNW	03/03/2013	11:25	4	E
03/03/2013	07:05	2	ESE	03/03/2013	11:30	4	E
03/03/2013	07:10	2	ESE	03/03/2013	11:35	3	E
03/03/2013	07:15	2	ESE	03/03/2013	11:40	3	ENE
03/03/2013	07:20	5	ESE	03/03/2013	11:45	1	E
03/03/2013	07:25	2	ESE	03/03/2013	11:50	2	E
03/03/2013	07:30	2	E	03/03/2013	11:55	2	NE
03/03/2013	07:35	3	SE	03/03/2013	12:00	3	ENE
03/03/2013	07:40	1	SE	03/03/2013	12:05	3	ESE
03/03/2013	07:45	5	SSE	03/03/2013	12:10	5	ENE
03/03/2013	07:50	4	SSE	03/03/2013	12:15	3	ENE
03/03/2013	07:55	4	SSE	03/03/2013	12:20	2	ENE
03/03/2013	08:00	3	SSE	03/03/2013	12:25	5	E
03/03/2013	08:05	2	SSW	03/03/2013	12:30	7	NNE
03/03/2013	08:10	4	SSE	03/03/2013	12:35	7	NE
03/03/2013	08:15	3	SSE	03/03/2013	12:40	7	NE
03/03/2013	08:20	2	SSE	03/03/2013	12:45	6	NE
03/03/2013	08:25	3	SE	03/03/2013	12:50	7	N
03/03/2013	08:30	2	SE	03/03/2013	12:55	5	NNE
03/03/2013	08:35	1	SSE	03/03/2013	13:00	6	N
03/03/2013	08:40	2	SSE	03/03/2013	13:05	5	N
03/03/2013	08:45	3	NE	03/03/2013	13:10	5	ENE
03/03/2013	08:50	4	N	03/03/2013	13:15	3	ENE
03/03/2013	08:55	3	NNE	03/03/2013	13:20	1	ENE
03/03/2013	09:00	3	NNE	03/03/2013	13:25	5	E
03/03/2013	09:05	4	ENE	03/03/2013	13:30	2	E
03/03/2013	09:10	2	E	03/03/2013	13:35	2	E
03/03/2013	09:15	4	NE	03/03/2013	13:40	0	ESE
03/03/2013	09:20	5	NE	03/03/2013	13:45	1	ENE
03/03/2013	09:25	6	ENE	03/03/2013	13:50	2	E

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
03/03/2013	13:55	4	E	03/03/2013	18:20	3	NNE
03/03/2013	14:00	3	ENE	03/03/2013	18:25	5	ENE
03/03/2013	14:05	2	E	03/03/2013	18:30	4	ENE
03/03/2013	14:10	6	NNW	03/03/2013	18:35	5	NE
03/03/2013	14:15	5	NE	03/03/2013	18:40	5	ENE
03/03/2013	14:20	7	N	03/03/2013	18:45	5	ENE
03/03/2013	14:25	5	N	03/03/2013	18:50	4	NE
03/03/2013	14:30	4	N	03/03/2013	18:55	6	NE
03/03/2013	14:35	5	N	03/03/2013	19:00	6	NE
03/03/2013	14:40	3	NNE	03/03/2013	19:05	6	NE
03/03/2013	14:45	4	NNE	03/03/2013	19:10	5	NE
03/03/2013	14:50	4	N	03/03/2013	19:15	7	ENE
03/03/2013	14:55	5	NE	03/03/2013	19:20	4	ENE
03/03/2013	15:00	2	NNW	03/03/2013	19:25	5	ENE
03/03/2013	15:05	4	NNE	03/03/2013	19:30	7	ENE
03/03/2013	15:10	5	NNE	03/03/2013	19:35	5	ENE
03/03/2013	15:15	5	N	03/03/2013	19:40	6	NE
03/03/2013	15:20	5	NNE	03/03/2013	19:45	5	ENE
03/03/2013	15:25	4	ENE	03/03/2013	19:50	6	NE
03/03/2013	15:30	4	NE	03/03/2013	19:55	5	NE
03/03/2013	15:35	4	NNE	03/03/2013	20:00	6	NE
03/03/2013	15:40	5	NNE	03/03/2013	20:05	7	ENE
03/03/2013	15:45	5	NNE	03/03/2013	20:10	6	NE
03/03/2013	15:50	3	NE	03/03/2013	20:15	6	NE
03/03/2013	15:55	4	ENE	03/03/2013	20:20	5	NE
03/03/2013	16:00	3	NE	03/03/2013	20:25	9	ENE
03/03/2013	16:05	4	ENE	03/03/2013	20:30	7	ENE
03/03/2013	16:10	4	ENE	03/03/2013	20:35	7	ENE
03/03/2013	16:15	4	ENE	03/03/2013	20:40	7	ENE
03/03/2013	16:20	4	ENE	03/03/2013	20:45	7	ENE
03/03/2013	16:25	4	ENE	03/03/2013	20:50	7	ENE
03/03/2013	16:30	4	ENE	03/03/2013	20:55	7	ENE
03/03/2013	16:35	7	ENE	03/03/2013	21:00	6	ENE
03/03/2013	16:40	6	ENE	03/03/2013	21:05	7	E
03/03/2013	16:45	7	ENE	03/03/2013	21:10	5	ENE
03/03/2013	16:50	7	ENE	03/03/2013	21:15	5	ENE
03/03/2013	16:55	6	ENE	03/03/2013	21:20	5	E
03/03/2013	17:00	7	ENE	03/03/2013	21:25	7	ENE
03/03/2013	17:05	5	ENE	03/03/2013	21:30	6	ENE
03/03/2013	17:10	7	E	03/03/2013	21:35	6	ENE
03/03/2013	17:15	6	ENE	03/03/2013	21:40	7	ENE
03/03/2013	17:20	8	ENE	03/03/2013	21:45	7	ENE
03/03/2013	17:25	5	E	03/03/2013	21:50	7	ENE
03/03/2013	17:30	4	ENE	03/03/2013	21:55	6	E
03/03/2013	17:35	3	ENE	03/03/2013	22:00	4	E
03/03/2013	17:40	4	NNE	03/03/2013	22:05	5	ENE
03/03/2013	17:45	4	NE	03/03/2013	22:10	4	E
03/03/2013	17:50	4	ENE	03/03/2013	22:15	4	E
03/03/2013	17:55	4	ENE	03/03/2013	22:20	5	E
03/03/2013	18:00	3	NE	03/03/2013	22:25	6	ENE
03/03/2013	18:05	4	ENE	03/03/2013	22:30	7	ENE
03/03/2013	18:10	3	NE	03/03/2013	22:35	5	ENE
03/03/2013	18:15	5	NE	03/03/2013	22:40	6	ENE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
03/03/2013	22:45	6	ENE	04/03/2013	03:10	3	SSE
03/03/2013	22:50	6	ENE	04/03/2013	03:15	3	SSE
03/03/2013	22:55	7	ENE	04/03/2013	03:20	1	NW
03/03/2013	23:00	8	ENE	04/03/2013	03:25	0	NW
03/03/2013	23:05	6	ENE	04/03/2013	03:30	3	NE
03/03/2013	23:10	7	ENE	04/03/2013	03:35	2	ENE
03/03/2013	23:15	5	E	04/03/2013	03:40	2	ENE
03/03/2013	23:20	8	ENE	04/03/2013	03:45	1	NE
03/03/2013	23:25	5	E	04/03/2013	03:50	0	NNE
03/03/2013	23:30	6	E	04/03/2013	03:55	1	W
03/03/2013	23:35	6	E	04/03/2013	04:00	1	WNW
03/03/2013	23:40	4	E	04/03/2013	04:05	1	WNW
03/03/2013	23:45	6	ENE	04/03/2013	04:10	1	WNW
03/03/2013	23:50	4	ESE	04/03/2013	04:15	2	WNW
03/03/2013	23:55	4	E	04/03/2013	04:20	2	WNW
04/03/2013	00:00	3	SE	04/03/2013	04:25	3	NW
04/03/2013	00:05	5	ESE	04/03/2013	04:30	1	WNW
04/03/2013	00:10	5	SE	04/03/2013	04:35	1	WSW
04/03/2013	00:15	5	SE	04/03/2013	04:40	1	WNW
04/03/2013	00:20	4	SE	04/03/2013	04:45	2	WNW
04/03/2013	00:25	3	SSE	04/03/2013	04:50	2	WNW
04/03/2013	00:30	4	SSE	04/03/2013	04:55	3	WNW
04/03/2013	00:35	2	SSE	04/03/2013	05:00	1	WNW
04/03/2013	00:40	3	SE	04/03/2013	05:05	1	WNW
04/03/2013	00:45	2	SSE	04/03/2013	05:10	1	WNW
04/03/2013	00:50	3	SSE	04/03/2013	05:15	1	WNW
04/03/2013	00:55	5	ENE	04/03/2013	05:20	1	WNW
04/03/2013	01:00	3	NE	04/03/2013	05:25	2	WNW
04/03/2013	01:05	3	ENE	04/03/2013	05:30	2	WSW
04/03/2013	01:10	3	ESE	04/03/2013	05:35	2	WSW
04/03/2013	01:15	3	SE	04/03/2013	05:40	2	W
04/03/2013	01:20	2	ENE	04/03/2013	05:45	3	WNW
04/03/2013	01:25	3	SE	04/03/2013	05:50	2	WNW
04/03/2013	01:30	1	SE	04/03/2013	05:55	1	WNW
04/03/2013	01:35	2	ENE	04/03/2013	06:00	2	WNW
04/03/2013	01:40	2	NE	04/03/2013	06:05	2	W
04/03/2013	01:45	3	NE	04/03/2013	06:10	1	WSW
04/03/2013	01:50	4	ENE	04/03/2013	06:15	1	WSW
04/03/2013	01:55	3	ENE	04/03/2013	06:20	2	W
04/03/2013	02:00	2	ENE	04/03/2013	06:25	1	W
04/03/2013	02:05	3	NE	04/03/2013	06:30	1	WNW
04/03/2013	02:10	3	ENE	04/03/2013	06:35	1	WNW
04/03/2013	02:15	1	ENE	04/03/2013	06:40	0	---
04/03/2013	02:20	1	ENE	04/03/2013	06:45	0	---
04/03/2013	02:25	2	ENE	04/03/2013	06:50	1	WNW
04/03/2013	02:30	1	SSW	04/03/2013	06:55	2	WNW
04/03/2013	02:35	1	NE	04/03/2013	07:00	3	NW
04/03/2013	02:40	1	S	04/03/2013	07:05	2	WNW
04/03/2013	02:45	2	S	04/03/2013	07:10	2	W
04/03/2013	02:50	1	SSE	04/03/2013	07:15	2	W
04/03/2013	02:55	2	SSE	04/03/2013	07:20	3	W
04/03/2013	03:00	2	N	04/03/2013	07:25	2	W
04/03/2013	03:05	3	NW	04/03/2013	07:30	2	WNW



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
04/03/2013	07:35	2	WNW	04/03/2013	12:00	1	ENE
04/03/2013	07:40	2	NW	04/03/2013	12:05	1	E
04/03/2013	07:45	1	NW	04/03/2013	12:10	1	ENE
04/03/2013	07:50	1	W	04/03/2013	12:15	2	NE
04/03/2013	07:55	3	W	04/03/2013	12:20	2	ENE
04/03/2013	08:00	3	WNW	04/03/2013	12:25	2	ENE
04/03/2013	08:05	2	W	04/03/2013	12:30	4	ENE
04/03/2013	08:10	1	WNW	04/03/2013	12:35	3	NE
04/03/2013	08:15	1	WNW	04/03/2013	12:40	3	NE
04/03/2013	08:20	1	WNW	04/03/2013	12:45	3	NE
04/03/2013	08:25	2	N	04/03/2013	12:50	3	NE
04/03/2013	08:30	2	E	04/03/2013	12:55	3	NE
04/03/2013	08:35	4	ENE	04/03/2013	13:00	2	ENE
04/03/2013	08:40	4	E	04/03/2013	13:05	4	NE
04/03/2013	08:45	3	E	04/03/2013	13:10	5	ENE
04/03/2013	08:50	6	E	04/03/2013	13:15	4	NE
04/03/2013	08:55	4	E	04/03/2013	13:20	6	NNE
04/03/2013	09:00	5	E	04/03/2013	13:25	5	NNE
04/03/2013	09:05	3	ENE	04/03/2013	13:30	5	NNE
04/03/2013	09:10	3	E	04/03/2013	13:35	4	NNE
04/03/2013	09:15	2	NE	04/03/2013	13:40	3	NE
04/03/2013	09:20	4	NE	04/03/2013	13:45	4	NNE
04/03/2013	09:25	4	ENE	04/03/2013	13:50	5	N
04/03/2013	09:30	1	ESE	04/03/2013	13:55	7	N
04/03/2013	09:35	1	NE	04/03/2013	14:00	6	NNE
04/03/2013	09:40	1	NE	04/03/2013	14:05	5	N
04/03/2013	09:45	1	N	04/03/2013	14:10	6	NNE
04/03/2013	09:50	2	ENE	04/03/2013	14:15	6	N
04/03/2013	09:55	3	ENE	04/03/2013	14:20	6	N
04/03/2013	10:00	4	E	04/03/2013	14:25	5	N
04/03/2013	10:05	5	E	04/03/2013	14:30	6	N
04/03/2013	10:10	4	E	04/03/2013	14:35	6	NNE
04/03/2013	10:15	4	E	04/03/2013	14:40	5	N
04/03/2013	10:20	2	NE	04/03/2013	14:45	7	N
04/03/2013	10:25	1	E	04/03/2013	14:50	6	NNW
04/03/2013	10:30	2	N	04/03/2013	14:55	7	N
04/03/2013	10:35	4	E	04/03/2013	15:00	6	N
04/03/2013	10:40	2	E	04/03/2013	15:05	7	N
04/03/2013	10:45	3	E	04/03/2013	15:10	6	N
04/03/2013	10:50	2	E	04/03/2013	15:15	7	NW
04/03/2013	10:55	3	ENE	04/03/2013	15:20	7	NW
04/03/2013	11:00	1	ENE	04/03/2013	15:25	7	NW
04/03/2013	11:05	1	NNE	04/03/2013	15:30	8	NW
04/03/2013	11:10	2	WSW	04/03/2013	15:35	6	NW
04/03/2013	11:15	2	W	04/03/2013	15:40	7	N
04/03/2013	11:20	1	N	04/03/2013	15:45	6	N
04/03/2013	11:25	1	NE	04/03/2013	15:50	6	NNW
04/03/2013	11:30	1	NE	04/03/2013	15:55	6	NNW
04/03/2013	11:35	1	E	04/03/2013	16:00	7	NW
04/03/2013	11:40	2	ENE	04/03/2013	16:05	6	NW
04/03/2013	11:45	1	E	04/03/2013	16:10	5	NW
04/03/2013	11:50	1	ENE	04/03/2013	16:15	6	NW
04/03/2013	11:55	1	E	04/03/2013	16:20	6	NNW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
04/03/2013	16:25	7	NNW	04/03/2013	20:50	0	SSW
04/03/2013	16:30	7	NNW	04/03/2013	20:55	1	SSW
04/03/2013	16:35	7	NNW	04/03/2013	21:00	0	SSW
04/03/2013	16:40	7	NNW	04/03/2013	21:05	0	SSW
04/03/2013	16:45	7	NNW	04/03/2013	21:10	1	WNW
04/03/2013	16:50	8	NNW	04/03/2013	21:15	0	WNW
04/03/2013	16:55	7	NNW	04/03/2013	21:20	1	SSE
04/03/2013	17:00	4	NW	04/03/2013	21:25	0	SSE
04/03/2013	17:05	5	NNW	04/03/2013	21:30	0	SSE
04/03/2013	17:10	5	NNW	04/03/2013	21:35	1	NW
04/03/2013	17:15	5	NW	04/03/2013	21:40	0	NW
04/03/2013	17:20	6	NNW	04/03/2013	21:45	1	NW
04/03/2013	17:25	2	WNW	04/03/2013	21:50	0	NW
04/03/2013	17:30	2	W	04/03/2013	21:55	0	NW
04/03/2013	17:35	2	ESE	04/03/2013	22:00	0	NW
04/03/2013	17:40	1	NW	04/03/2013	22:05	1	NW
04/03/2013	17:45	1	ESE	04/03/2013	22:10	2	SW
04/03/2013	17:50	3	SSE	04/03/2013	22:15	1	SE
04/03/2013	17:55	2	S	04/03/2013	22:20	1	WSW
04/03/2013	18:00	2	S	04/03/2013	22:25	1	E
04/03/2013	18:05	2	S	04/03/2013	22:30	0	E
04/03/2013	18:10	1	S	04/03/2013	22:35	1	SE
04/03/2013	18:15	1	N	04/03/2013	22:40	1	SE
04/03/2013	18:20	1	NW	04/03/2013	22:45	1	SE
04/03/2013	18:25	1	N	04/03/2013	22:50	1	NE
04/03/2013	18:30	2	NW	04/03/2013	22:55	3	SE
04/03/2013	18:35	2	WNW	04/03/2013	23:00	3	SE
04/03/2013	18:40	3	WNW	04/03/2013	23:05	3	SE
04/03/2013	18:45	2	WNW	04/03/2013	23:10	2	ENE
04/03/2013	18:50	1	WNW	04/03/2013	23:15	2	SE
04/03/2013	18:55	0	W	04/03/2013	23:20	4	SSE
04/03/2013	19:00	0	NW	04/03/2013	23:25	4	SW
04/03/2013	19:05	0	NW	04/03/2013	23:30	4	SE
04/03/2013	19:10	1	NW	04/03/2013	23:35	1	SE
04/03/2013	19:15	0	NW	04/03/2013	23:40	1	WNW
04/03/2013	19:20	0	NW	04/03/2013	23:45	3	WNW
04/03/2013	19:25	1	NNW	04/03/2013	23:50	4	N
04/03/2013	19:30	2	NW	04/03/2013	23:55	3	WNW
04/03/2013	19:35	2	WNW	05/03/2013	00:00	4	NNW
04/03/2013	19:40	0	NW	05/03/2013	00:05	1	N
04/03/2013	19:45	0	---	05/03/2013	00:10	4	NNW
04/03/2013	19:50	0	NW	05/03/2013	00:15	4	NNW
04/03/2013	19:55	1	NW	05/03/2013	00:20	5	NNW
04/03/2013	20:00	1	NW	05/03/2013	00:25	3	NNW
04/03/2013	20:05	0	NW	05/03/2013	00:30	1	W
04/03/2013	20:10	0	NW	05/03/2013	00:35	3	NNW
04/03/2013	20:15	0	---	05/03/2013	00:40	3	NW
04/03/2013	20:20	1	SW	05/03/2013	00:45	2	NE
04/03/2013	20:25	2	SSW	05/03/2013	00:50	3	ESE
04/03/2013	20:30	1	SSW	05/03/2013	00:55	2	E
04/03/2013	20:35	0	SSW	05/03/2013	01:00	3	ESE
04/03/2013	20:40	0	SSW	05/03/2013	01:05	4	SSE
04/03/2013	20:45	1	SSW	05/03/2013	01:10	3	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
05/03/2013	01:15	4	SE	05/03/2013	05:40	1	SSE
05/03/2013	01:20	4	WNW	05/03/2013	05:45	2	SW
05/03/2013	01:25	4	N	05/03/2013	05:50	1	NE
05/03/2013	01:30	2	NE	05/03/2013	05:55	1	ENE
05/03/2013	01:35	4	NW	05/03/2013	06:00	2	SE
05/03/2013	01:40	5	NNW	05/03/2013	06:05	2	E
05/03/2013	01:45	4	NNW	05/03/2013	06:10	2	ESE
05/03/2013	01:50	2	NW	05/03/2013	06:15	2	SE
05/03/2013	01:55	4	WNW	05/03/2013	06:20	3	SE
05/03/2013	02:00	4	WNW	05/03/2013	06:25	2	SSE
05/03/2013	02:05	5	NNW	05/03/2013	06:30	2	SSE
05/03/2013	02:10	2	NNE	05/03/2013	06:35	2	S
05/03/2013	02:15	5	NW	05/03/2013	06:40	2	SSE
05/03/2013	02:20	5	NNW	05/03/2013	06:45	2	SSE
05/03/2013	02:25	6	NNW	05/03/2013	06:50	3	S
05/03/2013	02:30	4	NNW	05/03/2013	06:55	2	S
05/03/2013	02:35	3	N	05/03/2013	07:00	2	S
05/03/2013	02:40	4	NE	05/03/2013	07:05	2	SSW
05/03/2013	02:45	2	NE	05/03/2013	07:10	1	S
05/03/2013	02:50	4	SE	05/03/2013	07:15	1	S
05/03/2013	02:55	4	S	05/03/2013	07:20	1	S
05/03/2013	03:00	4	SSE	05/03/2013	07:25	1	S
05/03/2013	03:05	4	SE	05/03/2013	07:30	1	S
05/03/2013	03:10	2	SE	05/03/2013	07:35	1	SW
05/03/2013	03:15	4	SE	05/03/2013	07:40	2	SSW
05/03/2013	03:20	5	SSE	05/03/2013	07:45	1	SSE
05/03/2013	03:25	4	SSE	05/03/2013	07:50	0	SSE
05/03/2013	03:30	4	SSE	05/03/2013	07:55	0	SSE
05/03/2013	03:35	6	SSE	05/03/2013	08:00	1	E
05/03/2013	03:40	5	SSE	05/03/2013	08:05	2	E
05/03/2013	03:45	6	SE	05/03/2013	08:10	2	ESE
05/03/2013	03:50	4	SSE	05/03/2013	08:15	3	SSE
05/03/2013	03:55	4	SE	05/03/2013	08:20	5	SE
05/03/2013	04:00	5	SSE	05/03/2013	08:25	6	SE
05/03/2013	04:05	4	SE	05/03/2013	08:30	7	SSE
05/03/2013	04:10	6	SE	05/03/2013	08:35	6	SSE
05/03/2013	04:15	5	SE	05/03/2013	08:40	5	SSE
05/03/2013	04:20	4	SSE	05/03/2013	08:45	7	SSE
05/03/2013	04:25	5	SE	05/03/2013	08:50	7	SSE
05/03/2013	04:30	5	SE	05/03/2013	08:55	7	SSE
05/03/2013	04:35	5	SSE	05/03/2013	09:00	8	SSE
05/03/2013	04:40	5	SSE	05/03/2013	09:05	8	SSE
05/03/2013	04:45	4	SSE	05/03/2013	09:10	7	SSE
05/03/2013	04:50	3	SSE	05/03/2013	09:15	8	SSE
05/03/2013	04:55	2	SSE	05/03/2013	09:20	9	SSE
05/03/2013	05:00	3	SE	05/03/2013	09:25	9	SSE
05/03/2013	05:05	3	SE	05/03/2013	09:30	6	SSE
05/03/2013	05:10	1	SSE	05/03/2013	09:35	8	SSE
05/03/2013	05:15	1	SE	05/03/2013	09:40	5	SSE
05/03/2013	05:20	1	WSW	05/03/2013	09:45	8	SE
05/03/2013	05:25	2	S	05/03/2013	09:50	8	SE
05/03/2013	05:30	2	S	05/03/2013	09:55	6	SSE
05/03/2013	05:35	2	E	05/03/2013	10:00	3	SSW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
05/03/2013	10:05	5	SSE	05/03/2013	14:30	10	SSE
05/03/2013	10:10	7	SSE	05/03/2013	14:35	14	SSE
05/03/2013	10:15	7	SSE	05/03/2013	14:40	11	SSE
05/03/2013	10:20	5	SSE	05/03/2013	14:45	11	SSE
05/03/2013	10:25	6	S	05/03/2013	14:50	12	SSE
05/03/2013	10:30	6	SSE	05/03/2013	14:55	12	SSE
05/03/2013	10:35	6	SSE	05/03/2013	15:00	11	SSE
05/03/2013	10:40	7	SSE	05/03/2013	15:05	11	SSE
05/03/2013	10:45	6	SSE	05/03/2013	15:10	10	SE
05/03/2013	10:50	5	SSE	05/03/2013	15:15	8	SSE
05/03/2013	10:55	5	SSE	05/03/2013	15:20	11	SE
05/03/2013	11:00	7	S	05/03/2013	15:25	11	SSE
05/03/2013	11:05	6	SSE	05/03/2013	15:30	11	SSE
05/03/2013	11:10	6	SSE	05/03/2013	15:35	9	S
05/03/2013	11:15	5	SSE	05/03/2013	15:40	10	SSE
05/03/2013	11:20	8	SSE	05/03/2013	15:45	9	SSE
05/03/2013	11:25	8	SSE	05/03/2013	15:50	11	SSE
05/03/2013	11:30	9	SSE	05/03/2013	15:55	7	SSE
05/03/2013	11:35	9	SSE	05/03/2013	16:00	10	S
05/03/2013	11:40	9	SSE	05/03/2013	16:05	10	SSE
05/03/2013	11:45	8	S	05/03/2013	16:10	10	SSE
05/03/2013	11:50	10	SSE	05/03/2013	16:15	9	SSE
05/03/2013	11:55	11	SSE	05/03/2013	16:20	9	SSE
05/03/2013	12:00	7	SSE	05/03/2013	16:25	8	SSE
05/03/2013	12:05	7	S	05/03/2013	16:30	9	SSE
05/03/2013	12:10	8	SSE	05/03/2013	16:35	8	SSE
05/03/2013	12:15	8	SSE	05/03/2013	16:40	7	SSE
05/03/2013	12:20	5	SSE	05/03/2013	16:45	7	SSE
05/03/2013	12:25	7	SSE	05/03/2013	16:50	8	SSE
05/03/2013	12:30	11	SSE	05/03/2013	16:55	8	SSE
05/03/2013	12:35	11	SSE	05/03/2013	17:00	7	SE
05/03/2013	12:40	10	SSE	05/03/2013	17:05	8	SSE
05/03/2013	12:45	8	S	05/03/2013	17:10	7	SSE
05/03/2013	12:50	9	SE	05/03/2013	17:15	7	SSE
05/03/2013	12:55	10	SE	05/03/2013	17:20	8	SSE
05/03/2013	13:00	12	SE	05/03/2013	17:25	6	SSE
05/03/2013	13:05	13	SSE	05/03/2013	17:30	8	SSE
05/03/2013	13:10	12	SSE	05/03/2013	17:35	11	SSE
05/03/2013	13:15	10	SSE	05/03/2013	17:40	8	SSE
05/03/2013	13:20	13	SSE	05/03/2013	17:45	7	SE
05/03/2013	13:25	13	SSE	05/03/2013	17:50	9	SSE
05/03/2013	13:30	12	SSE	05/03/2013	17:55	9	SE
05/03/2013	13:35	12	SSE	05/03/2013	18:00	8	SE
05/03/2013	13:40	10	SSE	05/03/2013	18:05	10	SE
05/03/2013	13:45	9	SSE	05/03/2013	18:10	7	SE
05/03/2013	13:50	13	SE	05/03/2013	18:15	8	ESE
05/03/2013	13:55	13	SSE	05/03/2013	18:20	4	SE
05/03/2013	14:00	11	SSE	05/03/2013	18:25	4	N
05/03/2013	14:05	14	SE	05/03/2013	18:30	3	NNE
05/03/2013	14:10	11	SE	05/03/2013	18:35	4	N
05/03/2013	14:15	12	SSE	05/03/2013	18:40	5	NW
05/03/2013	14:20	11	SSE	05/03/2013	18:45	5	NW
05/03/2013	14:25	9	SSE	05/03/2013	18:50	3	N

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
05/03/2013	18:55	3	N	05/03/2013	23:20	10	SE
05/03/2013	19:00	5	N	05/03/2013	23:25	9	SE
05/03/2013	19:05	4	NE	05/03/2013	23:30	6	SE
05/03/2013	19:10	5	N	05/03/2013	23:35	7	SE
05/03/2013	19:15	6	NNW	05/03/2013	23:40	8	SE
05/03/2013	19:20	7	NNW	05/03/2013	23:45	8	SE
05/03/2013	19:25	6	NNW	05/03/2013	23:50	8	SE
05/03/2013	19:30	4	NW	05/03/2013	23:55	7	SE
05/03/2013	19:35	4	WNW	06/03/2013	00:00	7	SE
05/03/2013	19:40	2	NW	06/03/2013	00:05	7	SSE
05/03/2013	19:45	1	NW	06/03/2013	00:10	7	SE
05/03/2013	19:50	1	SE	06/03/2013	00:15	6	SE
05/03/2013	19:55	1	SE	06/03/2013	00:20	5	SE
05/03/2013	20:00	1	SE	06/03/2013	00:25	5	SE
05/03/2013	20:05	0	SE	06/03/2013	00:30	5	SE
05/03/2013	20:10	0	ESE	06/03/2013	00:35	7	SE
05/03/2013	20:15	2	SSE	06/03/2013	00:40	8	SE
05/03/2013	20:20	3	E	06/03/2013	00:45	8	SE
05/03/2013	20:25	3	ESE	06/03/2013	00:50	8	SE
05/03/2013	20:30	2	SE	06/03/2013	00:55	9	SE
05/03/2013	20:35	2	ESE	06/03/2013	01:00	9	SE
05/03/2013	20:40	2	W	06/03/2013	01:05	9	SE
05/03/2013	20:45	2	WNW	06/03/2013	01:10	10	SE
05/03/2013	20:50	1	WNW	06/03/2013	01:15	9	SE
05/03/2013	20:55	2	W	06/03/2013	01:20	9	SE
05/03/2013	21:00	2	SE	06/03/2013	01:25	9	SE
05/03/2013	21:05	2	ESE	06/03/2013	01:30	10	SE
05/03/2013	21:10	3	S	06/03/2013	01:35	10	SE
05/03/2013	21:15	4	SSE	06/03/2013	01:40	10	SE
05/03/2013	21:20	4	SSE	06/03/2013	01:45	10	SE
05/03/2013	21:25	4	SE	06/03/2013	01:50	10	SE
05/03/2013	21:30	4	SE	06/03/2013	01:55	11	SE
05/03/2013	21:35	5	SSE	06/03/2013	02:00	11	SE
05/03/2013	21:40	6	SE	06/03/2013	02:05	12	SE
05/03/2013	21:45	7	SE	06/03/2013	02:10	10	SE
05/03/2013	21:50	8	SE	06/03/2013	02:15	11	SSE
05/03/2013	21:55	7	SE	06/03/2013	02:20	10	SE
05/03/2013	22:00	7	SE	06/03/2013	02:25	9	SE
05/03/2013	22:05	8	SE	06/03/2013	02:30	11	SE
05/03/2013	22:10	7	SE	06/03/2013	02:35	10	SE
05/03/2013	22:15	7	SE	06/03/2013	02:40	11	SE
05/03/2013	22:20	7	SE	06/03/2013	02:45	10	SE
05/03/2013	22:25	9	SE	06/03/2013	02:50	12	SSE
05/03/2013	22:30	8	SE	06/03/2013	02:55	10	SE
05/03/2013	22:35	7	SE	06/03/2013	03:00	9	SE
05/03/2013	22:40	7	SE	06/03/2013	03:05	9	SE
05/03/2013	22:45	8	SE	06/03/2013	03:10	9	SE
05/03/2013	22:50	7	SE	06/03/2013	03:15	11	SE
05/03/2013	22:55	10	SE	06/03/2013	03:20	9	SE
05/03/2013	23:00	10	SE	06/03/2013	03:25	9	SE
05/03/2013	23:05	9	SE	06/03/2013	03:30	10	SE
05/03/2013	23:10	10	SE	06/03/2013	03:35	12	SE
05/03/2013	23:15	10	SE	06/03/2013	03:40	12	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction
06/03/2013	03:45	11	SE
06/03/2013	03:50	11	SE
06/03/2013	03:55	11	SE
06/03/2013	04:00	10	SE
06/03/2013	04:05	10	SE
06/03/2013	04:10	10	SE
06/03/2013	04:15	8	SE
06/03/2013	04:20	8	SE
06/03/2013	04:25	7	SE
06/03/2013	04:30	8	SE
06/03/2013	04:35	4	SE
06/03/2013	04:40	4	SE
06/03/2013	04:45	4	SE
06/03/2013	04:50	5	ESE
06/03/2013	04:55	6	SE
06/03/2013	05:00	5	SE
06/03/2013	05:05	7	SE
06/03/2013	05:10	7	SE
06/03/2013	05:15	7	SE
06/03/2013	05:20	8	SE
06/03/2013	05:25	6	SSE
06/03/2013	05:30	6	SE
06/03/2013	05:35	7	SSE
06/03/2013	05:40	8	SSE
06/03/2013	05:45	8	SE
06/03/2013	05:50	9	SE
06/03/2013	05:55	10	SE
06/03/2013	06:00	10	SE
06/03/2013	06:05	9	SE
06/03/2013	06:10	9	SE
06/03/2013	06:15	11	SE
06/03/2013	06:20	9	SE
06/03/2013	06:25	10	SE
06/03/2013	06:30	12	SE
06/03/2013	06:35	11	SE
06/03/2013	06:40	9	SE
06/03/2013	06:45	11	SE
06/03/2013	06:50	9	SE
06/03/2013	06:55	9	SE
06/03/2013	07:00	9	ESE
06/03/2013	07:05	8	ESE
06/03/2013	07:10	8	ESE
06/03/2013	07:15	7	SE
06/03/2013	07:20	5	ESE
06/03/2013	07:25	8	E
06/03/2013	07:30	5	E
06/03/2013	07:35	5	ESE
06/03/2013	07:40	6	SE
06/03/2013	07:45	6	E
06/03/2013	07:50	5	SE
06/03/2013	07:55	5	ESE
06/03/2013	08:00	6	SE
06/03/2013	08:05	5	ESE

Date	Time	Wind Speed (mph)	Wind Direction
06/03/2013	08:10	6	ESE
06/03/2013	08:15	4	E
06/03/2013	08:20	3	ESE
06/03/2013	08:25	4	ESE
06/03/2013	08:30	3	ENE
06/03/2013	08:35	3	NNE
06/03/2013	08:40	4	E
06/03/2013	08:45	2	NNE
06/03/2013	08:50	4	SSE
06/03/2013	08:55	5	SE
06/03/2013	09:00	5	E
06/03/2013	09:05	4	SE
06/03/2013	09:10	4	SSE
06/03/2013	09:15	2	WNW
06/03/2013	09:20	6	SE
06/03/2013	09:25	6	ESE
06/03/2013	09:30	7	SE
06/03/2013	09:35	6	SE
06/03/2013	09:40	5	SE
06/03/2013	09:45	7	SE
06/03/2013	09:50	7	SE
06/03/2013	09:55	9	SSE
06/03/2013	10:00	10	SE
06/03/2013	10:05	9	SE
06/03/2013	10:10	11	SE
06/03/2013	10:15	9	SE
06/03/2013	10:20	10	SE
06/03/2013	10:25	9	SSE
06/03/2013	10:30	10	SE
06/03/2013	10:35	9	SE
06/03/2013	10:40	8	SE
06/03/2013	10:45	10	SE
06/03/2013	10:50	9	SSE
06/03/2013	10:55	9	SE
06/03/2013	11:00	8	SSE
06/03/2013	11:05	11	SSE
06/03/2013	11:10	8	SSE
06/03/2013	11:15	8	SSE
06/03/2013	11:20	9	SSE
06/03/2013	11:25	9	SSE
06/03/2013	11:30	9	SSE
06/03/2013	11:35	8	SSE
06/03/2013	11:40	9	SE
06/03/2013	11:45	8	SE
06/03/2013	11:50	8	SSE
06/03/2013	11:55	9	SE
06/03/2013	12:00	9	SSE
06/03/2013	12:05	7	SE
06/03/2013	12:10	7	SE
06/03/2013	12:15	5	SE
06/03/2013	12:20	5	SSE
06/03/2013	12:25	6	SSE
06/03/2013	12:30	4	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
06/03/2013	12:35	6	E	06/03/2013	17:00	2	NNW
06/03/2013	12:40	5	E	06/03/2013	17:05	3	NNW
06/03/2013	12:45	8	E	06/03/2013	17:10	4	NNW
06/03/2013	12:50	8	E	06/03/2013	17:15	4	NNW
06/03/2013	12:55	7	E	06/03/2013	17:20	3	NNW
06/03/2013	13:00	7	E	06/03/2013	17:25	3	NNW
06/03/2013	13:05	7	E	06/03/2013	17:30	2	NNW
06/03/2013	13:10	8	E	06/03/2013	17:35	3	N
06/03/2013	13:15	8	E	06/03/2013	17:40	4	N
06/03/2013	13:20	7	E	06/03/2013	17:45	3	N
06/03/2013	13:25	7	E	06/03/2013	17:50	3	N
06/03/2013	13:30	6	E	06/03/2013	17:55	2	N
06/03/2013	13:35	5	E	06/03/2013	18:00	3	N
06/03/2013	13:40	5	ENE	06/03/2013	18:05	3	N
06/03/2013	13:45	3	ENE	06/03/2013	18:10	2	NNW
06/03/2013	13:50	4	NE	06/03/2013	18:15	2	E
06/03/2013	13:55	5	NE	06/03/2013	18:20	3	E
06/03/2013	14:00	4	NNE	06/03/2013	18:25	1	E
06/03/2013	14:05	5	ENE	06/03/2013	18:30	1	E
06/03/2013	14:10	3	NNE	06/03/2013	18:35	1	NE
06/03/2013	14:15	5	NNW	06/03/2013	18:40	1	NE
06/03/2013	14:20	4	NNE	06/03/2013	18:45	1	NE
06/03/2013	14:25	5	NNE	06/03/2013	18:50	1	NE
06/03/2013	14:30	4	NNE	06/03/2013	18:55	0	NE
06/03/2013	14:35	4	NNE	06/03/2013	19:00	0	NE
06/03/2013	14:40	6	NNE	06/03/2013	19:05	0	NE
06/03/2013	14:45	4	NNE	06/03/2013	19:10	0	NE
06/03/2013	14:50	2	N	06/03/2013	19:15	0	NE
06/03/2013	14:55	3	N	06/03/2013	19:20	0	NE
06/03/2013	15:00	4	ENE	06/03/2013	19:25	1	NE
06/03/2013	15:05	5	E	06/03/2013	19:30	2	E
06/03/2013	15:10	6	E	06/03/2013	19:35	0	E
06/03/2013	15:15	6	ENE	06/03/2013	19:40	0	E
06/03/2013	15:20	6	ENE	06/03/2013	19:45	0	E
06/03/2013	15:25	7	ENE	06/03/2013	19:50	0	E
06/03/2013	15:30	6	E	06/03/2013	19:55	1	E
06/03/2013	15:35	7	E	06/03/2013	20:00	0	E
06/03/2013	15:40	6	E	06/03/2013	20:05	0	---
06/03/2013	15:45	6	E	06/03/2013	20:10	0	---
06/03/2013	15:50	6	E	06/03/2013	20:15	0	---
06/03/2013	15:55	6	E	06/03/2013	20:20	0	---
06/03/2013	16:00	6	E	06/03/2013	20:25	0	SSE
06/03/2013	16:05	6	E	06/03/2013	20:30	1	S
06/03/2013	16:10	5	E	06/03/2013	20:35	0	S
06/03/2013	16:15	5	E	06/03/2013	20:40	0	---
06/03/2013	16:20	3	E	06/03/2013	20:45	0	S
06/03/2013	16:25	3	ENE	06/03/2013	20:50	2	S
06/03/2013	16:30	3	ENE	06/03/2013	20:55	1	NNW
06/03/2013	16:35	2	NE	06/03/2013	21:00	0	NNW
06/03/2013	16:40	1	N	06/03/2013	21:05	0	NNW
06/03/2013	16:45	2	N	06/03/2013	21:10	0	NNW
06/03/2013	16:50	1	NNW	06/03/2013	21:15	0	---
06/03/2013	16:55	2	NW	06/03/2013	21:20	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
06/03/2013	21:25	0	---	07/03/2013	01:50	0	---
06/03/2013	21:30	0	---	07/03/2013	01:55	0	---
06/03/2013	21:35	0	---	07/03/2013	02:00	0	---
06/03/2013	21:40	0	---	07/03/2013	02:05	0	---
06/03/2013	21:45	0	---	07/03/2013	02:10	0	---
06/03/2013	21:50	0	---	07/03/2013	02:15	0	---
06/03/2013	21:55	0	---	07/03/2013	02:20	0	---
06/03/2013	22:00	0	---	07/03/2013	02:25	0	---
06/03/2013	22:05	0	---	07/03/2013	02:30	0	---
06/03/2013	22:10	0	---	07/03/2013	02:35	0	---
06/03/2013	22:15	0	---	07/03/2013	02:40	0	---
06/03/2013	22:20	0	---	07/03/2013	02:45	0	---
06/03/2013	22:25	0	---	07/03/2013	02:50	0	---
06/03/2013	22:30	0	---	07/03/2013	02:55	1	SW
06/03/2013	22:35	0	---	07/03/2013	03:00	2	SSW
06/03/2013	22:40	0	---	07/03/2013	03:05	1	SSW
06/03/2013	22:45	0	---	07/03/2013	03:10	0	SSW
06/03/2013	22:50	0	---	07/03/2013	03:15	0	SSW
06/03/2013	22:55	0	---	07/03/2013	03:20	0	SSW
06/03/2013	23:00	0	---	07/03/2013	03:25	0	---
06/03/2013	23:05	0	---	07/03/2013	03:30	0	---
06/03/2013	23:10	1	NW	07/03/2013	03:35	0	---
06/03/2013	23:15	1	SSE	07/03/2013	03:40	0	---
06/03/2013	23:20	1	S	07/03/2013	03:45	0	---
06/03/2013	23:25	1	SSW	07/03/2013	03:50	0	---
06/03/2013	23:30	0	SSW	07/03/2013	03:55	0	---
06/03/2013	23:35	0	---	07/03/2013	04:00	0	---
06/03/2013	23:40	0	---	07/03/2013	04:05	0	---
06/03/2013	23:45	1	WNW	07/03/2013	04:10	0	---
06/03/2013	23:50	3	WNW	07/03/2013	04:15	0	---
06/03/2013	23:55	1	WNW	07/03/2013	04:20	0	---
07/03/2013	00:00	1	W	07/03/2013	04:25	0	---
07/03/2013	00:05	1	W	07/03/2013	04:30	0	---
07/03/2013	00:10	0	---	07/03/2013	04:35	0	---
07/03/2013	00:15	0	---	07/03/2013	04:40	0	---
07/03/2013	00:20	0	---	07/03/2013	04:45	0	---
07/03/2013	00:25	0	---	07/03/2013	04:50	0	---
07/03/2013	00:30	0	---	07/03/2013	04:55	0	---
07/03/2013	00:35	0	---	07/03/2013	05:00	0	---
07/03/2013	00:40	0	---	07/03/2013	05:05	0	---
07/03/2013	00:45	0	---	07/03/2013	05:10	0	---
07/03/2013	00:50	0	---	07/03/2013	05:15	0	---
07/03/2013	00:55	0	---	07/03/2013	05:20	0	---
07/03/2013	01:00	0	---	07/03/2013	05:25	0	---
07/03/2013	01:05	0	---	07/03/2013	05:30	0	---
07/03/2013	01:10	0	---	07/03/2013	05:35	0	---
07/03/2013	01:15	0	---	07/03/2013	05:40	0	---
07/03/2013	01:20	0	---	07/03/2013	05:45	0	---
07/03/2013	01:25	0	---	07/03/2013	05:50	0	---
07/03/2013	01:30	0	---	07/03/2013	05:55	0	---
07/03/2013	01:35	0	---	07/03/2013	06:00	0	---
07/03/2013	01:40	0	---	07/03/2013	06:05	0	---
07/03/2013	01:45	0	---	07/03/2013	06:10	0	---



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
07/03/2013	06:15	0	---	07/03/2013	10:40	2	ENE
07/03/2013	06:20	0	---	07/03/2013	10:45	1	NE
07/03/2013	06:25	0	---	07/03/2013	10:50	2	NNE
07/03/2013	06:30	0	---	07/03/2013	10:55	3	N
07/03/2013	06:35	0	---	07/03/2013	11:00	4	N
07/03/2013	06:40	0	---	07/03/2013	11:05	5	N
07/03/2013	06:45	0	---	07/03/2013	11:10	4	N
07/03/2013	06:50	0	---	07/03/2013	11:15	3	N
07/03/2013	06:55	0	---	07/03/2013	11:20	3	N
07/03/2013	07:00	0	---	07/03/2013	11:25	4	NNE
07/03/2013	07:05	0	---	07/03/2013	11:30	4	N
07/03/2013	07:10	0	---	07/03/2013	11:35	4	N
07/03/2013	07:15	0	---	07/03/2013	11:40	4	N
07/03/2013	07:20	0	---	07/03/2013	11:45	5	N
07/03/2013	07:25	0	---	07/03/2013	11:50	4	N
07/03/2013	07:30	0	---	07/03/2013	11:55	5	N
07/03/2013	07:35	0	---	07/03/2013	12:00	6	N
07/03/2013	07:40	0	---	07/03/2013	12:05	6	N
07/03/2013	07:45	0	---	07/03/2013	12:10	6	N
07/03/2013	07:50	0	---	07/03/2013	12:15	6	N
07/03/2013	07:55	0	---	07/03/2013	12:20	6	N
07/03/2013	08:00	0	---	07/03/2013	12:25	6	NNW
07/03/2013	08:05	0	ESE	07/03/2013	12:30	7	NNW
07/03/2013	08:10	1	SSE	07/03/2013	12:35	6	N
07/03/2013	08:15	1	SSE	07/03/2013	12:40	6	N
07/03/2013	08:20	1	SSE	07/03/2013	12:45	6	NNE
07/03/2013	08:25	1	SE	07/03/2013	12:50	7	NNE
07/03/2013	08:30	2	E	07/03/2013	12:55	6	N
07/03/2013	08:35	2	E	07/03/2013	13:00	7	N
07/03/2013	08:40	3	E	07/03/2013	13:05	6	N
07/03/2013	08:45	3	E	07/03/2013	13:10	6	NNW
07/03/2013	08:50	2	E	07/03/2013	13:15	7	NNW
07/03/2013	08:55	3	E	07/03/2013	13:20	8	NNW
07/03/2013	09:00	3	E	07/03/2013	13:25	5	NNW
07/03/2013	09:05	3	E	07/03/2013	13:30	6	N
07/03/2013	09:10	2	E	07/03/2013	13:35	6	N
07/03/2013	09:15	2	ENE	07/03/2013	13:40	5	N
07/03/2013	09:20	2	E	07/03/2013	13:45	7	N
07/03/2013	09:25	2	E	07/03/2013	13:50	4	NNE
07/03/2013	09:30	2	E	07/03/2013	13:55	5	NNE
07/03/2013	09:35	1	E	07/03/2013	14:00	6	NNE
07/03/2013	09:40	1	ENE	07/03/2013	14:05	6	NNE
07/03/2013	09:45	3	ENE	07/03/2013	14:10	5	NNE
07/03/2013	09:50	3	ENE	07/03/2013	14:15	3	NNE
07/03/2013	09:55	3	ENE	07/03/2013	14:20	4	N
07/03/2013	10:00	2	E	07/03/2013	14:25	2	NNE
07/03/2013	10:05	3	E	07/03/2013	14:30	4	N
07/03/2013	10:10	2	E	07/03/2013	14:35	3	NNE
07/03/2013	10:15	3	E	07/03/2013	14:40	2	NE
07/03/2013	10:20	3	E	07/03/2013	14:45	3	NNE
07/03/2013	10:25	3	E	07/03/2013	14:50	4	N
07/03/2013	10:30	2	E	07/03/2013	14:55	4	NNE
07/03/2013	10:35	1	ENE	07/03/2013	15:00	5	NNE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
07/03/2013	15:05	4	N	07/03/2013	19:30	1	S
07/03/2013	15:10	4	NE	07/03/2013	19:35	0	S
07/03/2013	15:15	4	NNE	07/03/2013	19:40	0	S
07/03/2013	15:20	2	NNE	07/03/2013	19:45	1	S
07/03/2013	15:25	2	NNE	07/03/2013	19:50	1	SW
07/03/2013	15:30	4	NNE	07/03/2013	19:55	2	W
07/03/2013	15:35	4	NNE	07/03/2013	20:00	3	NW
07/03/2013	15:40	3	NNE	07/03/2013	20:05	3	NW
07/03/2013	15:45	3	NE	07/03/2013	20:10	2	NW
07/03/2013	15:50	2	NE	07/03/2013	20:15	0	NW
07/03/2013	15:55	3	NNE	07/03/2013	20:20	0	NW
07/03/2013	16:00	2	NNE	07/03/2013	20:25	0	NW
07/03/2013	16:05	2	ENE	07/03/2013	20:30	0	NW
07/03/2013	16:10	2	E	07/03/2013	20:35	0	---
07/03/2013	16:15	1	E	07/03/2013	20:40	0	NW
07/03/2013	16:20	2	E	07/03/2013	20:45	0	NW
07/03/2013	16:25	3	ENE	07/03/2013	20:50	1	NW
07/03/2013	16:30	3	E	07/03/2013	20:55	1	W
07/03/2013	16:35	4	SE	07/03/2013	21:00	0	W
07/03/2013	16:40	5	SE	07/03/2013	21:05	0	W
07/03/2013	16:45	4	ESE	07/03/2013	21:10	0	W
07/03/2013	16:50	5	SE	07/03/2013	21:15	0	W
07/03/2013	16:55	6	SE	07/03/2013	21:20	0	W
07/03/2013	17:00	7	SSE	07/03/2013	21:25	0	W
07/03/2013	17:05	6	SSE	07/03/2013	21:30	0	---
07/03/2013	17:10	7	SSE	07/03/2013	21:35	0	---
07/03/2013	17:15	6	SSE	07/03/2013	21:40	0	---
07/03/2013	17:20	5	SE	07/03/2013	21:45	0	---
07/03/2013	17:25	6	SE	07/03/2013	21:50	0	---
07/03/2013	17:30	5	SE	07/03/2013	21:55	0	W
07/03/2013	17:35	4	SE	07/03/2013	22:00	0	---
07/03/2013	17:40	5	SE	07/03/2013	22:05	0	---
07/03/2013	17:45	4	SE	07/03/2013	22:10	0	W
07/03/2013	17:50	3	SE	07/03/2013	22:15	0	W
07/03/2013	17:55	3	SE	07/03/2013	22:20	0	---
07/03/2013	18:00	3	SE	07/03/2013	22:25	0	---
07/03/2013	18:05	3	SE	07/03/2013	22:30	0	---
07/03/2013	18:10	2	SE	07/03/2013	22:35	0	W
07/03/2013	18:15	1	SE	07/03/2013	22:40	0	W
07/03/2013	18:20	2	SE	07/03/2013	22:45	0	---
07/03/2013	18:25	1	ESE	07/03/2013	22:50	0	---
07/03/2013	18:30	1	ESE	07/03/2013	22:55	0	---
07/03/2013	18:35	2	NNE	07/03/2013	23:00	0	---
07/03/2013	18:40	3	NW	07/03/2013	23:05	0	---
07/03/2013	18:45	3	NW	07/03/2013	23:10	0	---
07/03/2013	18:50	3	NW	07/03/2013	23:15	0	---
07/03/2013	18:55	2	NNW	07/03/2013	23:20	0	---
07/03/2013	19:00	1	NNW	07/03/2013	23:25	0	---
07/03/2013	19:05	1	SSE	07/03/2013	23:30	0	---
07/03/2013	19:10	0	S	07/03/2013	23:35	0	---
07/03/2013	19:15	1	S	07/03/2013	23:40	0	W
07/03/2013	19:20	0	S	07/03/2013	23:45	1	W
07/03/2013	19:25	0	S	07/03/2013	23:50	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction
07/03/2013	23:55	0	---
08/03/2013	00:00	0	---
08/03/2013	00:05	0	---
08/03/2013	00:10	1	W
08/03/2013	00:15	1	W
08/03/2013	00:20	0	---
08/03/2013	00:25	0	---
08/03/2013	00:30	0	---
08/03/2013	00:35	0	---
08/03/2013	00:40	0	---
08/03/2013	00:45	0	---
08/03/2013	00:50	0	---
08/03/2013	00:55	0	---
08/03/2013	01:00	0	---
08/03/2013	01:05	0	---
08/03/2013	01:10	0	---
08/03/2013	01:15	0	---
08/03/2013	01:20	0	---
08/03/2013	01:25	0	---
08/03/2013	01:30	0	---
08/03/2013	01:35	0	---
08/03/2013	01:40	0	---
08/03/2013	01:45	0	---
08/03/2013	01:50	0	---
08/03/2013	01:55	0	---
08/03/2013	02:00	0	---
08/03/2013	02:05	0	---
08/03/2013	02:10	0	---
08/03/2013	02:15	0	---
08/03/2013	02:20	0	---
08/03/2013	02:25	0	---
08/03/2013	02:30	0	---
08/03/2013	02:35	0	---
08/03/2013	02:40	0	---
08/03/2013	02:45	0	---
08/03/2013	02:50	0	---
08/03/2013	02:55	0	---
08/03/2013	03:00	0	---
08/03/2013	03:05	0	---
08/03/2013	03:10	0	---
08/03/2013	03:15	0	---
08/03/2013	03:20	0	---
08/03/2013	03:25	0	---
08/03/2013	03:30	0	---
08/03/2013	03:35	0	---
08/03/2013	03:40	0	---
08/03/2013	03:45	0	---
08/03/2013	03:50	0	---
08/03/2013	03:55	0	---
08/03/2013	04:00	0	---
08/03/2013	04:05	0	---
08/03/2013	04:10	0	SSW
08/03/2013	04:15	1	SSW

Date	Time	Wind Speed (mph)	Wind Direction
08/03/2013	04:20	0	---
08/03/2013	04:25	0	---
08/03/2013	04:30	0	SSW
08/03/2013	04:35	0	SSW
08/03/2013	04:40	0	SSW
08/03/2013	04:45	0	---
08/03/2013	04:50	0	---
08/03/2013	04:55	0	---
08/03/2013	05:00	0	---
08/03/2013	05:05	0	---
08/03/2013	05:10	0	---
08/03/2013	05:15	1	WSW
08/03/2013	05:20	1	W
08/03/2013	05:25	1	W
08/03/2013	05:30	1	W
08/03/2013	05:35	0	W
08/03/2013	05:40	1	W
08/03/2013	05:45	0	W
08/03/2013	05:50	0	---
08/03/2013	05:55	0	W
08/03/2013	06:00	1	W
08/03/2013	06:05	0	---
08/03/2013	06:10	0	---
08/03/2013	06:15	0	W
08/03/2013	06:20	0	---
08/03/2013	06:25	0	---
08/03/2013	06:30	0	---
08/03/2013	06:35	0	---
08/03/2013	06:40	0	---
08/03/2013	06:45	0	---
08/03/2013	06:50	0	---
08/03/2013	06:55	0	W
08/03/2013	07:00	2	WNW
08/03/2013	07:05	1	WNW
08/03/2013	07:10	0	WNW
08/03/2013	07:15	0	WNW
08/03/2013	07:20	0	WSW
08/03/2013	07:25	0	---
08/03/2013	07:30	0	---
08/03/2013	07:35	0	---
08/03/2013	07:40	0	---
08/03/2013	07:45	0	---
08/03/2013	07:50	1	WSW
08/03/2013	07:55	1	WSW
08/03/2013	08:00	1	WSW
08/03/2013	08:05	0	---
08/03/2013	08:10	0	---
08/03/2013	08:15	0	---
08/03/2013	08:20	0	---
08/03/2013	08:25	0	---
08/03/2013	08:30	0	---
08/03/2013	08:35	0	---
08/03/2013	08:40	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
08/03/2013	08:45	0	---	08/03/2013	13:10	6	N
08/03/2013	08:50	0	---	08/03/2013	13:15	6	N
08/03/2013	08:55	0	---	08/03/2013	13:20	6	N
08/03/2013	09:00	0	---	08/03/2013	13:25	8	N
08/03/2013	09:05	0	---	08/03/2013	13:30	6	NNW
08/03/2013	09:10	0	---	08/03/2013	13:35	9	NNW
08/03/2013	09:15	0	---	08/03/2013	13:40	8	N
08/03/2013	09:20	1	ENE	08/03/2013	13:45	8	N
08/03/2013	09:25	1	ENE	08/03/2013	13:50	6	N
08/03/2013	09:30	1	ENE	08/03/2013	13:55	6	N
08/03/2013	09:35	1	ENE	08/03/2013	14:00	5	N
08/03/2013	09:40	1	ENE	08/03/2013	14:05	5	N
08/03/2013	09:45	2	ENE	08/03/2013	14:10	5	N
08/03/2013	09:50	4	E	08/03/2013	14:15	6	NNW
08/03/2013	09:55	4	E	08/03/2013	14:20	7	N
08/03/2013	10:00	5	E	08/03/2013	14:25	9	N
08/03/2013	10:05	5	E	08/03/2013	14:30	8	NNW
08/03/2013	10:10	5	E	08/03/2013	14:35	8	NNW
08/03/2013	10:15	3	E	08/03/2013	14:40	8	NNW
08/03/2013	10:20	5	E	08/03/2013	14:45	8	NNW
08/03/2013	10:25	5	E	08/03/2013	14:50	9	NNW
08/03/2013	10:30	5	E	08/03/2013	14:55	8	NNW
08/03/2013	10:35	4	E	08/03/2013	15:00	7	NNW
08/03/2013	10:40	3	E	08/03/2013	15:05	8	NNW
08/03/2013	10:45	3	E	08/03/2013	15:10	8	NNW
08/03/2013	10:50	2	E	08/03/2013	15:15	7	N
08/03/2013	10:55	3	E	08/03/2013	15:20	8	NNW
08/03/2013	11:00	3	E	08/03/2013	15:25	8	NNW
08/03/2013	11:05	3	E	08/03/2013	15:30	7	NNW
08/03/2013	11:10	3	ENE	08/03/2013	15:35	6	NNW
08/03/2013	11:15	2	ENE	08/03/2013	15:40	5	N
08/03/2013	11:20	1	NE	08/03/2013	15:45	6	NNW
08/03/2013	11:25	1	ENE	08/03/2013	15:50	6	NNW
08/03/2013	11:30	2	NNW	08/03/2013	15:55	8	NNW
08/03/2013	11:35	3	NW	08/03/2013	16:00	6	NNW
08/03/2013	11:40	2	NW	08/03/2013	16:05	6	N
08/03/2013	11:45	3	NNE	08/03/2013	16:10	5	NNW
08/03/2013	11:50	3	NNE	08/03/2013	16:15	5	NNW
08/03/2013	11:55	3	NE	08/03/2013	16:20	4	N
08/03/2013	12:00	4	NNE	08/03/2013	16:25	3	N
08/03/2013	12:05	4	N	08/03/2013	16:30	2	N
08/03/2013	12:10	3	NNE	08/03/2013	16:35	2	ENE
08/03/2013	12:15	3	NNE	08/03/2013	16:40	1	ENE
08/03/2013	12:20	5	NNE	08/03/2013	16:45	1	ENE
08/03/2013	12:25	5	NNW	08/03/2013	16:50	4	SE
08/03/2013	12:30	5	NNW	08/03/2013	16:55	7	SE
08/03/2013	12:35	4	N	08/03/2013	17:00	7	SE
08/03/2013	12:40	5	N	08/03/2013	17:05	7	SE
08/03/2013	12:45	4	NNE	08/03/2013	17:10	6	SE
08/03/2013	12:50	4	NNW	08/03/2013	17:15	7	SE
08/03/2013	12:55	5	NNW	08/03/2013	17:20	7	SE
08/03/2013	13:00	8	NNW	08/03/2013	17:25	7	SE
08/03/2013	13:05	6	NNW	08/03/2013	17:30	7	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
08/03/2013	17:35	7	SSE	08/03/2013	22:00	0	---
08/03/2013	17:40	7	SSE	08/03/2013	22:05	0	---
08/03/2013	17:45	6	SE	08/03/2013	22:10	0	---
08/03/2013	17:50	5	SE	08/03/2013	22:15	0	---
08/03/2013	17:55	4	SE	08/03/2013	22:20	0	---
08/03/2013	18:00	4	SE	08/03/2013	22:25	0	---
08/03/2013	18:05	4	SSE	08/03/2013	22:30	0	---
08/03/2013	18:10	5	SSE	08/03/2013	22:35	0	---
08/03/2013	18:15	3	SSE	08/03/2013	22:40	0	---
08/03/2013	18:20	4	SE	08/03/2013	22:45	0	---
08/03/2013	18:25	3	SSE	08/03/2013	22:50	0	---
08/03/2013	18:30	3	SE	08/03/2013	22:55	0	---
08/03/2013	18:35	1	SSE	08/03/2013	23:00	0	---
08/03/2013	18:40	0	SSE	08/03/2013	23:05	0	---
08/03/2013	18:45	2	NNW	08/03/2013	23:10	0	---
08/03/2013	18:50	2	N	08/03/2013	23:15	0	---
08/03/2013	18:55	2	NW	08/03/2013	23:20	0	---
08/03/2013	19:00	1	NW	08/03/2013	23:25	0	---
08/03/2013	19:05	1	NW	08/03/2013	23:30	0	---
08/03/2013	19:10	1	WNW	08/03/2013	23:35	0	---
08/03/2013	19:15	2	NNW	08/03/2013	23:40	0	---
08/03/2013	19:20	2	NW	08/03/2013	23:45	1	SSW
08/03/2013	19:25	2	NW	08/03/2013	23:50	1	S
08/03/2013	19:30	3	NW	08/03/2013	23:55	0	S
08/03/2013	19:35	2	NW	09/03/2013	00:00	0	S
08/03/2013	19:40	1	NW	09/03/2013	00:05	0	---
08/03/2013	19:45	0	NW	09/03/2013	00:10	0	---
08/03/2013	19:50	0	NW	09/03/2013	00:15	0	---
08/03/2013	19:55	0	NW	09/03/2013	00:20	0	S
08/03/2013	20:00	0	NW	09/03/2013	00:25	0	S
08/03/2013	20:05	0	NW	09/03/2013	00:30	0	S
08/03/2013	20:10	0	---	09/03/2013	00:35	1	SSW
08/03/2013	20:15	0	---	09/03/2013	00:40	1	WSW
08/03/2013	20:20	0	---	09/03/2013	00:45	0	WSW
08/03/2013	20:25	0	---	09/03/2013	00:50	0	WSW
08/03/2013	20:30	0	---	09/03/2013	00:55	1	WSW
08/03/2013	20:35	0	---	09/03/2013	01:00	0	WSW
08/03/2013	20:40	0	---	09/03/2013	01:05	0	WSW
08/03/2013	20:45	0	---	09/03/2013	01:10	0	WSW
08/03/2013	20:50	0	---	09/03/2013	01:15	1	WSW
08/03/2013	20:55	0	---	09/03/2013	01:20	1	WSW
08/03/2013	21:00	0	---	09/03/2013	01:25	0	WSW
08/03/2013	21:05	0	---	09/03/2013	01:30	0	WSW
08/03/2013	21:10	0	---	09/03/2013	01:35	0	WSW
08/03/2013	21:15	0	---	09/03/2013	01:40	0	WSW
08/03/2013	21:20	0	---	09/03/2013	01:45	0	WSW
08/03/2013	21:25	0	---	09/03/2013	01:50	0	WSW
08/03/2013	21:30	0	---	09/03/2013	01:55	0	---
08/03/2013	21:35	0	---	09/03/2013	02:00	0	---
08/03/2013	21:40	0	---	09/03/2013	02:05	0	---
08/03/2013	21:45	0	---	09/03/2013	02:10	0	---
08/03/2013	21:50	0	---	09/03/2013	02:15	0	---
08/03/2013	21:55	0	---	09/03/2013	02:20	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
09/03/2013	02:25	0	---	09/03/2013	06:50	0	WSW
09/03/2013	02:30	0	---	09/03/2013	06:55	0	WSW
09/03/2013	02:35	0	---	09/03/2013	07:00	0	WSW
09/03/2013	02:40	0	---	09/03/2013	07:05	0	---
09/03/2013	02:45	0	---	09/03/2013	07:10	0	---
09/03/2013	02:50	0	---	09/03/2013	07:15	1	W
09/03/2013	02:55	0	---	09/03/2013	07:20	1	W
09/03/2013	03:00	0	---	09/03/2013	07:25	1	W
09/03/2013	03:05	0	---	09/03/2013	07:30	0	W
09/03/2013	03:10	0	---	09/03/2013	07:35	1	W
09/03/2013	03:15	0	---	09/03/2013	07:40	0	WNW
09/03/2013	03:20	0	---	09/03/2013	07:45	0	S
09/03/2013	03:25	0	---	09/03/2013	07:50	0	---
09/03/2013	03:30	0	---	09/03/2013	07:55	0	S
09/03/2013	03:35	0	---	09/03/2013	08:00	0	S
09/03/2013	03:40	0	---	09/03/2013	08:05	0	S
09/03/2013	03:45	0	---	09/03/2013	08:10	0	S
09/03/2013	03:50	0	---	09/03/2013	08:15	1	WSW
09/03/2013	03:55	0	---	09/03/2013	08:20	0	WSW
09/03/2013	04:00	0	---	09/03/2013	08:25	0	WSW
09/03/2013	04:05	0	---	09/03/2013	08:30	0	WSW
09/03/2013	04:10	0	---	09/03/2013	08:35	1	WSW
09/03/2013	04:15	0	---	09/03/2013	08:40	0	WSW
09/03/2013	04:20	0	---	09/03/2013	08:45	1	WSW
09/03/2013	04:25	0	---	09/03/2013	08:50	1	WSW
09/03/2013	04:30	1	WSW	09/03/2013	08:55	1	WSW
09/03/2013	04:35	1	WSW	09/03/2013	09:00	1	NE
09/03/2013	04:40	0	WSW	09/03/2013	09:05	1	NE
09/03/2013	04:45	0	WSW	09/03/2013	09:10	1	NE
09/03/2013	04:50	1	W	09/03/2013	09:15	1	N
09/03/2013	04:55	0	W	09/03/2013	09:20	0	N
09/03/2013	05:00	1	W	09/03/2013	09:25	0	NE
09/03/2013	05:05	1	W	09/03/2013	09:30	1	E
09/03/2013	05:10	0	W	09/03/2013	09:35	1	ENE
09/03/2013	05:15	1	WNW	09/03/2013	09:40	2	ENE
09/03/2013	05:20	0	WNW	09/03/2013	09:45	2	E
09/03/2013	05:25	0	WNW	09/03/2013	09:50	2	E
09/03/2013	05:30	0	WNW	09/03/2013	09:55	3	E
09/03/2013	05:35	0	WNW	09/03/2013	10:00	3	E
09/03/2013	05:40	0	WNW	09/03/2013	10:05	3	E
09/03/2013	05:45	0	WNW	09/03/2013	10:10	2	E
09/03/2013	05:50	0	WNW	09/03/2013	10:15	3	NNE
09/03/2013	05:55	0	---	09/03/2013	10:20	7	NNW
09/03/2013	06:00	0	WNW	09/03/2013	10:25	6	NNW
09/03/2013	06:05	0	---	09/03/2013	10:30	4	N
09/03/2013	06:10	1	WNW	09/03/2013	10:35	7	N
09/03/2013	06:15	1	WNW	09/03/2013	10:40	4	N
09/03/2013	06:20	1	WNW	09/03/2013	10:45	5	N
09/03/2013	06:25	2	WNW	09/03/2013	10:50	5	N
09/03/2013	06:30	1	WNW	09/03/2013	10:55	6	N
09/03/2013	06:35	1	WSW	09/03/2013	11:00	5	N
09/03/2013	06:40	1	WSW	09/03/2013	11:05	4	N
09/03/2013	06:45	0	WSW	09/03/2013	11:10	5	N

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
09/03/2013	11:15	6	NNW	09/03/2013	15:40	7	ENE
09/03/2013	11:20	7	N	09/03/2013	15:45	5	ENE
09/03/2013	11:25	8	N	09/03/2013	15:50	5	E
09/03/2013	11:30	5	N	09/03/2013	15:55	6	E
09/03/2013	11:35	5	S	09/03/2013	16:00	6	E
09/03/2013	11:40	5	S	09/03/2013	16:05	7	E
09/03/2013	11:45	6	E	09/03/2013	16:10	6	E
09/03/2013	11:50	5	E	09/03/2013	16:15	6	E
09/03/2013	11:55	4	E	09/03/2013	16:20	6	ENE
09/03/2013	12:00	5	E	09/03/2013	16:25	4	ENE
09/03/2013	12:05	4	E	09/03/2013	16:30	2	NE
09/03/2013	12:10	6	E	09/03/2013	16:35	1	ENE
09/03/2013	12:15	3	ENE	09/03/2013	16:40	1	ENE
09/03/2013	12:20	4	E	09/03/2013	16:45	2	ENE
09/03/2013	12:25	5	E	09/03/2013	16:50	1	ESE
09/03/2013	12:30	3	E	09/03/2013	16:55	1	ESE
09/03/2013	12:35	3	E	09/03/2013	17:00	2	E
09/03/2013	12:40	5	E	09/03/2013	17:05	3	SSW
09/03/2013	12:45	4	E	09/03/2013	17:10	3	S
09/03/2013	12:50	5	E	09/03/2013	17:15	2	SE
09/03/2013	12:55	6	E	09/03/2013	17:20	3	ESE
09/03/2013	13:00	5	E	09/03/2013	17:25	3	S
09/03/2013	13:05	5	E	09/03/2013	17:30	3	ESE
09/03/2013	13:10	2	ENE	09/03/2013	17:35	3	S
09/03/2013	13:15	4	ENE	09/03/2013	17:40	3	SE
09/03/2013	13:20	4	E	09/03/2013	17:45	2	SE
09/03/2013	13:25	4	ENE	09/03/2013	17:50	3	SE
09/03/2013	13:30	3	NE	09/03/2013	17:55	3	SSE
09/03/2013	13:35	3	NE	09/03/2013	18:00	3	ESE
09/03/2013	13:40	3	NE	09/03/2013	18:05	4	ESE
09/03/2013	13:45	2	NE	09/03/2013	18:10	3	SE
09/03/2013	13:50	2	N	09/03/2013	18:15	2	SE
09/03/2013	13:55	2	NE	09/03/2013	18:20	2	ESE
09/03/2013	14:00	3	N	09/03/2013	18:25	3	SE
09/03/2013	14:05	5	ENE	09/03/2013	18:30	2	SE
09/03/2013	14:10	3	NE	09/03/2013	18:35	1	SE
09/03/2013	14:15	4	E	09/03/2013	18:40	2	SE
09/03/2013	14:20	5	E	09/03/2013	18:45	1	NNW
09/03/2013	14:25	2	ENE	09/03/2013	18:50	2	ESE
09/03/2013	14:30	3	E	09/03/2013	18:55	2	E
09/03/2013	14:35	3	NNE	09/03/2013	19:00	1	SSE
09/03/2013	14:40	5	E	09/03/2013	19:05	2	N
09/03/2013	14:45	3	ENE	09/03/2013	19:10	3	NW
09/03/2013	14:50	3	E	09/03/2013	19:15	1	WNW
09/03/2013	14:55	2	E	09/03/2013	19:20	2	SE
09/03/2013	15:00	3	ENE	09/03/2013	19:25	2	ESE
09/03/2013	15:05	3	E	09/03/2013	19:30	2	SE
09/03/2013	15:10	2	NNE	09/03/2013	19:35	2	SSE
09/03/2013	15:15	6	ENE	09/03/2013	19:40	1	ESE
09/03/2013	15:20	4	E	09/03/2013	19:45	0	E
09/03/2013	15:25	3	ENE	09/03/2013	19:50	2	ESE
09/03/2013	15:30	5	ENE	09/03/2013	19:55	1	SSE
09/03/2013	15:35	7	E	09/03/2013	20:00	2	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
09/03/2013	20:05	1	SSE	10/03/2013	00:30	0	WSW
09/03/2013	20:10	1	SSE	10/03/2013	00:35	0	WSW
09/03/2013	20:15	0	SSE	10/03/2013	00:40	0	---
09/03/2013	20:20	1	SSE	10/03/2013	00:45	0	---
09/03/2013	20:25	2	SSE	10/03/2013	00:50	0	---
09/03/2013	20:30	1	SSE	10/03/2013	00:55	0	---
09/03/2013	20:35	1	SSE	10/03/2013	01:00	0	---
09/03/2013	20:40	1	SSE	10/03/2013	01:05	1	WSW
09/03/2013	20:45	1	S	10/03/2013	01:10	1	SSW
09/03/2013	20:50	1	S	10/03/2013	01:15	1	W
09/03/2013	20:55	1	S	10/03/2013	01:20	0	W
09/03/2013	21:00	0	S	10/03/2013	01:25	0	W
09/03/2013	21:05	1	ESE	10/03/2013	01:30	1	W
09/03/2013	21:10	0	ESE	10/03/2013	01:35	1	NW
09/03/2013	21:15	0	ESE	10/03/2013	01:40	0	NW
09/03/2013	21:20	2	SSW	10/03/2013	01:45	0	NW
09/03/2013	21:25	2	SW	10/03/2013	01:50	2	NW
09/03/2013	21:30	1	SW	10/03/2013	01:55	2	WNW
09/03/2013	21:35	1	SW	10/03/2013	02:00	2	WNW
09/03/2013	21:40	0	SW	10/03/2013	02:05	2	WNW
09/03/2013	21:45	2	SW	10/03/2013	02:10	2	WNW
09/03/2013	21:50	2	SSE	10/03/2013	02:15	1	W
09/03/2013	21:55	3	S	10/03/2013	02:20	2	W
09/03/2013	22:00	2	S	10/03/2013	02:25	1	W
09/03/2013	22:05	2	SSE	10/03/2013	02:30	1	W
09/03/2013	22:10	1	SSE	10/03/2013	02:35	0	W
09/03/2013	22:15	0	SSE	10/03/2013	02:40	1	W
09/03/2013	22:20	0	SSE	10/03/2013	02:45	1	WSW
09/03/2013	22:25	2	SSE	10/03/2013	02:50	0	WSW
09/03/2013	22:30	1	SSW	10/03/2013	02:55	0	WSW
09/03/2013	22:35	1	SSW	10/03/2013	03:00	1	WSW
09/03/2013	22:40	1	SSW	10/03/2013	03:05	1	WSW
09/03/2013	22:45	0	SSW	10/03/2013	03:10	0	WSW
09/03/2013	22:50	0	SSW	10/03/2013	03:15	0	WSW
09/03/2013	22:55	0	SSW	10/03/2013	03:20	0	WSW
09/03/2013	23:00	1	SSW	10/03/2013	03:25	0	WSW
09/03/2013	23:05	1	SSW	10/03/2013	03:30	1	WSW
09/03/2013	23:10	1	SSW	10/03/2013	03:35	0	WSW
09/03/2013	23:15	1	SSW	10/03/2013	03:40	0	WSW
09/03/2013	23:20	1	SSW	10/03/2013	03:45	0	WSW
09/03/2013	23:25	0	SSW	10/03/2013	03:50	1	S
09/03/2013	23:30	1	SSW	10/03/2013	03:55	1	S
09/03/2013	23:35	1	SSW	10/03/2013	04:00	1	S
09/03/2013	23:40	2	SSW	10/03/2013	04:05	1	WSW
09/03/2013	23:45	1	SSW	10/03/2013	04:10	0	WSW
09/03/2013	23:50	1	SSW	10/03/2013	04:15	1	WSW
09/03/2013	23:55	1	WNW	10/03/2013	04:20	1	WSW
10/03/2013	00:00	1	WSW	10/03/2013	04:25	1	WSW
10/03/2013	00:05	0	WSW	10/03/2013	04:30	2	SSW
10/03/2013	00:10	0	WSW	10/03/2013	04:35	1	NW
10/03/2013	00:15	0	WSW	10/03/2013	04:40	1	NW
10/03/2013	00:20	1	WSW	10/03/2013	04:45	2	WNW
10/03/2013	00:25	1	WSW	10/03/2013	04:50	1	WNW



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
10/03/2013	04:55	1	W	10/03/2013	09:20	4	E
10/03/2013	05:00	1	W	10/03/2013	09:25	4	E
10/03/2013	05:05	1	W	10/03/2013	09:30	4	E
10/03/2013	05:10	2	S	10/03/2013	09:35	3	ENE
10/03/2013	05:15	1	S	10/03/2013	09:40	2	ENE
10/03/2013	05:20	0	S	10/03/2013	09:45	2	ENE
10/03/2013	05:25	1	S	10/03/2013	09:50	2	ENE
10/03/2013	05:30	0	S	10/03/2013	09:55	3	E
10/03/2013	05:35	0	S	10/03/2013	10:00	3	E
10/03/2013	05:40	0	S	10/03/2013	10:05	2	ENE
10/03/2013	05:45	0	S	10/03/2013	10:10	2	ENE
10/03/2013	05:50	2	S	10/03/2013	10:15	1	ENE
10/03/2013	05:55	2	S	10/03/2013	10:20	3	E
10/03/2013	06:00	2	S	10/03/2013	10:25	5	E
10/03/2013	06:05	2	WNW	10/03/2013	10:30	5	E
10/03/2013	06:10	1	WNW	10/03/2013	10:35	4	E
10/03/2013	06:15	1	WNW	10/03/2013	10:40	5	E
10/03/2013	06:20	0	WNW	10/03/2013	10:45	5	E
10/03/2013	06:25	0	WNW	10/03/2013	10:50	5	E
10/03/2013	06:30	0	WNW	10/03/2013	10:55	5	E
10/03/2013	06:35	1	WNW	10/03/2013	11:00	5	E
10/03/2013	06:40	2	SSW	10/03/2013	11:05	3	E
10/03/2013	06:45	1	S	10/03/2013	11:10	3	ENE
10/03/2013	06:50	0	SSW	10/03/2013	11:15	3	E
10/03/2013	06:55	0	SSW	10/03/2013	11:20	3	ENE
10/03/2013	07:00	0	SW	10/03/2013	11:25	3	E
10/03/2013	07:05	0	---	10/03/2013	11:30	3	E
10/03/2013	07:10	0	---	10/03/2013	11:35	3	E
10/03/2013	07:15	0	SW	10/03/2013	11:40	3	E
10/03/2013	07:20	1	SW	10/03/2013	11:45	3	E
10/03/2013	07:25	1	W	10/03/2013	11:50	3	E
10/03/2013	07:30	0	W	10/03/2013	11:55	3	E
10/03/2013	07:35	0	W	10/03/2013	12:00	1	E
10/03/2013	07:40	0	---	10/03/2013	12:05	1	NE
10/03/2013	07:45	0	W	10/03/2013	12:10	3	ENE
10/03/2013	07:50	0	---	10/03/2013	12:15	4	N
10/03/2013	07:55	0	---	10/03/2013	12:20	5	NNE
10/03/2013	08:00	0	---	10/03/2013	12:25	5	NNE
10/03/2013	08:05	0	---	10/03/2013	12:30	6	NNE
10/03/2013	08:10	0	W	10/03/2013	12:35	6	NNE
10/03/2013	08:15	1	S	10/03/2013	12:40	8	NNW
10/03/2013	08:20	0	S	10/03/2013	12:45	7	NNW
10/03/2013	08:25	1	E	10/03/2013	12:50	7	NNE
10/03/2013	08:30	2	E	10/03/2013	12:55	7	NNE
10/03/2013	08:35	3	E	10/03/2013	13:00	6	NNE
10/03/2013	08:40	3	E	10/03/2013	13:05	7	N
10/03/2013	08:45	3	E	10/03/2013	13:10	7	NNW
10/03/2013	08:50	3	E	10/03/2013	13:15	8	NNW
10/03/2013	08:55	4	E	10/03/2013	13:20	7	N
10/03/2013	09:00	5	E	10/03/2013	13:25	5	NNE
10/03/2013	09:05	4	E	10/03/2013	13:30	5	N
10/03/2013	09:10	4	E	10/03/2013	13:35	5	N
10/03/2013	09:15	4	E	10/03/2013	13:40	5	N

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
10/03/2013	13:45	6	NNE	10/03/2013	18:10	2	SE
10/03/2013	13:50	6	NNE	10/03/2013	18:15	1	SSE
10/03/2013	13:55	7	NNE	10/03/2013	18:20	1	SSE
10/03/2013	14:00	7	N	10/03/2013	18:25	2	SSE
10/03/2013	14:05	5	N	10/03/2013	18:30	2	SE
10/03/2013	14:10	7	N	10/03/2013	18:35	2	SE
10/03/2013	14:15	5	N	10/03/2013	18:40	1	ESE
10/03/2013	14:20	4	NNW	10/03/2013	18:45	1	SSE
10/03/2013	14:25	5	N	10/03/2013	18:50	2	SSE
10/03/2013	14:30	5	N	10/03/2013	18:55	1	SSE
10/03/2013	14:35	6	NNW	10/03/2013	19:00	0	SSE
10/03/2013	14:40	9	NNW	10/03/2013	19:05	1	SSE
10/03/2013	14:45	9	NNW	10/03/2013	19:10	0	SSE
10/03/2013	14:50	6	NNW	10/03/2013	19:15	1	SSE
10/03/2013	14:55	6	NNW	10/03/2013	19:20	1	SSE
10/03/2013	15:00	6	N	10/03/2013	19:25	0	SSE
10/03/2013	15:05	6	N	10/03/2013	19:30	1	SSE
10/03/2013	15:10	6	N	10/03/2013	19:35	0	SSE
10/03/2013	15:15	7	N	10/03/2013	19:40	0	---
10/03/2013	15:20	6	N	10/03/2013	19:45	0	SSE
10/03/2013	15:25	5	N	10/03/2013	19:50	0	SSE
10/03/2013	15:30	5	N	10/03/2013	19:55	0	---
10/03/2013	15:35	5	N	10/03/2013	20:00	0	SSE
10/03/2013	15:40	6	N	10/03/2013	20:05	0	---
10/03/2013	15:45	6	NNW	10/03/2013	20:10	0	---
10/03/2013	15:50	6	NNW	10/03/2013	20:15	0	---
10/03/2013	15:55	5	NNW	10/03/2013	20:20	1	N
10/03/2013	16:00	4	N	10/03/2013	20:25	1	N
10/03/2013	16:05	4	N	10/03/2013	20:30	1	NNW
10/03/2013	16:10	3	NE	10/03/2013	20:35	1	NNW
10/03/2013	16:15	3	ENE	10/03/2013	20:40	1	NNW
10/03/2013	16:20	3	E	10/03/2013	20:45	2	WNW
10/03/2013	16:25	3	ESE	10/03/2013	20:50	2	WNW
10/03/2013	16:30	4	SSE	10/03/2013	20:55	1	WNW
10/03/2013	16:35	6	SE	10/03/2013	21:00	0	WNW
10/03/2013	16:40	6	SE	10/03/2013	21:05	0	WNW
10/03/2013	16:45	4	SE	10/03/2013	21:10	0	WNW
10/03/2013	16:50	5	SE	10/03/2013	21:15	1	WNW
10/03/2013	16:55	5	SE	10/03/2013	21:20	0	WNW
10/03/2013	17:00	4	SE	10/03/2013	21:25	0	WNW
10/03/2013	17:05	4	SSE	10/03/2013	21:30	0	WNW
10/03/2013	17:10	4	SE	10/03/2013	21:35	0	WNW
10/03/2013	17:15	4	SE	10/03/2013	21:40	1	S
10/03/2013	17:20	4	SSE	10/03/2013	21:45	1	S
10/03/2013	17:25	3	SSE	10/03/2013	21:50	1	S
10/03/2013	17:30	3	SSE	10/03/2013	21:55	0	S
10/03/2013	17:35	3	SE	10/03/2013	22:00	0	---
10/03/2013	17:40	2	SSE	10/03/2013	22:05	0	S
10/03/2013	17:45	2	SSE	10/03/2013	22:10	0	S
10/03/2013	17:50	2	SE	10/03/2013	22:15	0	S
10/03/2013	17:55	2	SSE	10/03/2013	22:20	1	SSW
10/03/2013	18:00	2	SE	10/03/2013	22:25	2	WNW
10/03/2013	18:05	2	SE	10/03/2013	22:30	1	WNW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
10/03/2013	22:35	1	WNW	11/03/2013	03:00	0	WNW
10/03/2013	22:40	2	NW	11/03/2013	03:05	1	WNW
10/03/2013	22:45	2	NW	11/03/2013	03:10	1	WNW
10/03/2013	22:50	1	NW	11/03/2013	03:15	2	W
10/03/2013	22:55	0	NW	11/03/2013	03:20	1	SSW
10/03/2013	23:00	0	NW	11/03/2013	03:25	1	S
10/03/2013	23:05	0	NW	11/03/2013	03:30	1	WSW
10/03/2013	23:10	0	---	11/03/2013	03:35	2	WNW
10/03/2013	23:15	0	---	11/03/2013	03:40	1	NW
10/03/2013	23:20	0	---	11/03/2013	03:45	0	W
10/03/2013	23:25	0	NW	11/03/2013	03:50	0	W
10/03/2013	23:30	0	---	11/03/2013	03:55	1	W
10/03/2013	23:35	1	NW	11/03/2013	04:00	1	SW
10/03/2013	23:40	0	NW	11/03/2013	04:05	2	S
10/03/2013	23:45	0	---	11/03/2013	04:10	2	SE
10/03/2013	23:50	0	NW	11/03/2013	04:15	2	SW
10/03/2013	23:55	0	NW	11/03/2013	04:20	1	S
11/03/2013	00:00	0	---	11/03/2013	04:25	2	SSE
11/03/2013	00:05	1	NW	11/03/2013	04:30	2	SSE
11/03/2013	00:10	1	NW	11/03/2013	04:35	5	SSE
11/03/2013	00:15	1	NW	11/03/2013	04:40	3	S
11/03/2013	00:20	0	---	11/03/2013	04:45	2	S
11/03/2013	00:25	0	NW	11/03/2013	04:50	4	SSE
11/03/2013	00:30	1	NNW	11/03/2013	04:55	1	SSE
11/03/2013	00:35	1	NNW	11/03/2013	05:00	3	SSE
11/03/2013	00:40	3	NW	11/03/2013	05:05	4	SSE
11/03/2013	00:45	4	NW	11/03/2013	05:10	5	SE
11/03/2013	00:50	3	NW	11/03/2013	05:15	5	SSE
11/03/2013	00:55	4	W	11/03/2013	05:20	6	SE
11/03/2013	01:00	3	W	11/03/2013	05:25	5	SE
11/03/2013	01:05	3	WNW	11/03/2013	05:30	4	ESE
11/03/2013	01:10	3	WNW	11/03/2013	05:35	5	SSE
11/03/2013	01:15	2	WNW	11/03/2013	05:40	5	SE
11/03/2013	01:20	1	WNW	11/03/2013	05:45	7	SE
11/03/2013	01:25	1	WNW	11/03/2013	05:50	7	SSE
11/03/2013	01:30	1	SSW	11/03/2013	05:55	9	SE
11/03/2013	01:35	0	SSW	11/03/2013	06:00	9	ESE
11/03/2013	01:40	0	SSW	11/03/2013	06:05	8	SSE
11/03/2013	01:45	1	SW	11/03/2013	06:10	11	SE
11/03/2013	01:50	1	SW	11/03/2013	06:15	12	SE
11/03/2013	01:55	2	SW	11/03/2013	06:20	12	SE
11/03/2013	02:00	2	W	11/03/2013	06:25	10	SE
11/03/2013	02:05	1	W	11/03/2013	06:30	9	SE
11/03/2013	02:10	0	W	11/03/2013	06:35	10	SE
11/03/2013	02:15	0	W	11/03/2013	06:40	12	SE
11/03/2013	02:20	0	W	11/03/2013	06:45	10	SE
11/03/2013	02:25	1	W	11/03/2013	06:50	11	SE
11/03/2013	02:30	1	W	11/03/2013	06:55	10	SE
11/03/2013	02:35	1	S	11/03/2013	07:00	11	SSE
11/03/2013	02:40	1	S	11/03/2013	07:05	12	SSE
11/03/2013	02:45	2	SSW	11/03/2013	07:10	12	SE
11/03/2013	02:50	0	WNW	11/03/2013	07:15	13	SSE
11/03/2013	02:55	1	WNW	11/03/2013	07:20	10	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
11/03/2013	07:25	11	SE	11/03/2013	11:50	9	SE
11/03/2013	07:30	12	SE	11/03/2013	11:55	9	SE
11/03/2013	07:35	12	SE	11/03/2013	12:00	10	SE
11/03/2013	07:40	12	SE	11/03/2013	12:05	6	SE
11/03/2013	07:45	11	SSE	11/03/2013	12:10	8	SE
11/03/2013	07:50	10	SSE	11/03/2013	12:15	8	SE
11/03/2013	07:55	11	SE	11/03/2013	12:20	8	ESE
11/03/2013	08:00	13	SSE	11/03/2013	12:25	9	ESE
11/03/2013	08:05	11	SSE	11/03/2013	12:30	8	SE
11/03/2013	08:10	11	SSE	11/03/2013	12:35	12	SE
11/03/2013	08:15	7	SSE	11/03/2013	12:40	13	SE
11/03/2013	08:20	10	SE	11/03/2013	12:45	10	SE
11/03/2013	08:25	11	SE	11/03/2013	12:50	9	SE
11/03/2013	08:30	10	SSE	11/03/2013	12:55	6	ESE
11/03/2013	08:35	9	SSE	11/03/2013	13:00	8	SE
11/03/2013	08:40	12	SSE	11/03/2013	13:05	6	E
11/03/2013	08:45	8	SSE	11/03/2013	13:10	9	ESE
11/03/2013	08:50	9	SSE	11/03/2013	13:15	8	ESE
11/03/2013	08:55	11	SE	11/03/2013	13:20	6	E
11/03/2013	09:00	11	SE	11/03/2013	13:25	4	SE
11/03/2013	09:05	11	SSE	11/03/2013	13:30	7	ESE
11/03/2013	09:10	10	SSE	11/03/2013	13:35	2	ESE
11/03/2013	09:15	10	SSE	11/03/2013	13:40	5	ESE
11/03/2013	09:20	10	SSE	11/03/2013	13:45	7	SE
11/03/2013	09:25	11	SSE	11/03/2013	13:50	7	SE
11/03/2013	09:30	9	SSE	11/03/2013	13:55	7	SE
11/03/2013	09:35	8	SSE	11/03/2013	14:00	6	SE
11/03/2013	09:40	9	SSE	11/03/2013	14:05	8	SE
11/03/2013	09:45	10	SE	11/03/2013	14:10	6	SSE
11/03/2013	09:50	11	SSE	11/03/2013	14:15	7	SE
11/03/2013	09:55	10	SSE	11/03/2013	14:20	6	SSE
11/03/2013	10:00	7	SSE	11/03/2013	14:25	6	SE
11/03/2013	10:05	7	SSE	11/03/2013	14:30	7	SE
11/03/2013	10:10	5	SSE	11/03/2013	14:35	8	SE
11/03/2013	10:15	6	S	11/03/2013	14:40	9	SE
11/03/2013	10:20	9	SSE	11/03/2013	14:45	7	S
11/03/2013	10:25	6	SSE	11/03/2013	14:50	6	SSE
11/03/2013	10:30	5	SE	11/03/2013	14:55	5	SE
11/03/2013	10:35	7	SE	11/03/2013	15:00	7	SE
11/03/2013	10:40	7	SSE	11/03/2013	15:05	7	SE
11/03/2013	10:45	6	SE	11/03/2013	15:10	8	SSE
11/03/2013	10:50	8	SSE	11/03/2013	15:15	8	SE
11/03/2013	10:55	10	SE	11/03/2013	15:20	5	SSE
11/03/2013	11:00	12	SE	11/03/2013	15:25	5	SE
11/03/2013	11:05	11	SE	11/03/2013	15:30	2	E
11/03/2013	11:10	10	SE	11/03/2013	15:35	4	NE
11/03/2013	11:15	8	SE	11/03/2013	15:40	2	ENE
11/03/2013	11:20	6	SSE	11/03/2013	15:45	3	ENE
11/03/2013	11:25	8	SE	11/03/2013	15:50	3	ENE
11/03/2013	11:30	8	SE	11/03/2013	15:55	2	NE
11/03/2013	11:35	5	SSE	11/03/2013	16:00	1	WNW
11/03/2013	11:40	9	SE	11/03/2013	16:05	2	NNW
11/03/2013	11:45	9	SE	11/03/2013	16:10	5	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
11/03/2013	16:15	5	SE	11/03/2013	20:40	7	SSE
11/03/2013	16:20	3	SE	11/03/2013	20:45	6	SSE
11/03/2013	16:25	4	ESE	11/03/2013	20:50	5	SSE
11/03/2013	16:30	7	SSE	11/03/2013	20:55	6	SSE
11/03/2013	16:35	6	SE	11/03/2013	21:00	5	SSE
11/03/2013	16:40	5	SSE	11/03/2013	21:05	4	SE
11/03/2013	16:45	5	SE	11/03/2013	21:10	6	SE
11/03/2013	16:50	3	E	11/03/2013	21:15	5	SSE
11/03/2013	16:55	5	SE	11/03/2013	21:20	3	SSE
11/03/2013	17:00	5	SE	11/03/2013	21:25	6	SE
11/03/2013	17:05	4	ESE	11/03/2013	21:30	5	SSE
11/03/2013	17:10	4	E	11/03/2013	21:35	6	SSE
11/03/2013	17:15	3	ENE	11/03/2013	21:40	8	SE
11/03/2013	17:20	2	SE	11/03/2013	21:45	8	SSE
11/03/2013	17:25	5	N	11/03/2013	21:50	6	SE
11/03/2013	17:30	3	N	11/03/2013	21:55	6	SE
11/03/2013	17:35	3	NE	11/03/2013	22:00	6	SE
11/03/2013	17:40	3	NE	11/03/2013	22:05	7	SE
11/03/2013	17:45	3	E	11/03/2013	22:10	8	SE
11/03/2013	17:50	2	SE	11/03/2013	22:15	3	S
11/03/2013	17:55	2	NE	11/03/2013	22:20	4	E
11/03/2013	18:00	2	ESE	11/03/2013	22:25	7	SSE
11/03/2013	18:05	3	ESE	11/03/2013	22:30	7	SSE
11/03/2013	18:10	4	ESE	11/03/2013	22:35	8	SE
11/03/2013	18:15	6	SE	11/03/2013	22:40	6	SSE
11/03/2013	18:20	6	SE	11/03/2013	22:45	6	SSE
11/03/2013	18:25	5	SE	11/03/2013	22:50	6	SE
11/03/2013	18:30	4	SE	11/03/2013	22:55	6	ESE
11/03/2013	18:35	4	SE	11/03/2013	23:00	5	SE
11/03/2013	18:40	2	SE	11/03/2013	23:05	4	ESE
11/03/2013	18:45	2	SSE	11/03/2013	23:10	4	E
11/03/2013	18:50	4	ESE	11/03/2013	23:15	4	ESE
11/03/2013	18:55	2	ESE	11/03/2013	23:20	5	ESE
11/03/2013	19:00	4	SE	11/03/2013	23:25	3	E
11/03/2013	19:05	4	SE	11/03/2013	23:30	5	NE
11/03/2013	19:10	5	SSE	11/03/2013	23:35	6	NE
11/03/2013	19:15	4	SE	11/03/2013	23:40	6	NNE
11/03/2013	19:20	3	ESE	11/03/2013	23:45	5	NNE
11/03/2013	19:25	4	SE	11/03/2013	23:50	4	E
11/03/2013	19:30	4	SE	11/03/2013	23:55	2	E
11/03/2013	19:35	4	SE	12/03/2013	00:00	4	NNW
11/03/2013	19:40	6	SE	12/03/2013	00:05	3	WNW
11/03/2013	19:45	8	SSE	12/03/2013	00:10	5	SSE
11/03/2013	19:50	7	SSE	12/03/2013	00:15	3	SE
11/03/2013	19:55	4	SE	12/03/2013	00:20	6	SSE
11/03/2013	20:00	1	W	12/03/2013	00:25	5	SSE
11/03/2013	20:05	2	W	12/03/2013	00:30	7	SSE
11/03/2013	20:10	1	NE	12/03/2013	00:35	9	SSE
11/03/2013	20:15	3	SE	12/03/2013	00:40	8	SSE
11/03/2013	20:20	1	SE	12/03/2013	00:45	8	SSE
11/03/2013	20:25	3	ESE	12/03/2013	00:50	10	SSE
11/03/2013	20:30	6	SE	12/03/2013	00:55	11	SSE
11/03/2013	20:35	6	SSE	12/03/2013	01:00	10	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
12/03/2013	01:05	9	SSE	12/03/2013	05:30	7	NNW
12/03/2013	01:10	10	SSE	12/03/2013	05:35	4	NNE
12/03/2013	01:15	11	SSE	12/03/2013	05:40	4	ENE
12/03/2013	01:20	9	SSE	12/03/2013	05:45	4	E
12/03/2013	01:25	9	SSE	12/03/2013	05:50	5	SE
12/03/2013	01:30	10	SSE	12/03/2013	05:55	7	SE
12/03/2013	01:35	9	SSE	12/03/2013	06:00	8	SE
12/03/2013	01:40	8	SSE	12/03/2013	06:05	5	ESE
12/03/2013	01:45	7	SSE	12/03/2013	06:10	4	ESE
12/03/2013	01:50	6	SSE	12/03/2013	06:15	3	ENE
12/03/2013	01:55	6	SSE	12/03/2013	06:20	2	WNW
12/03/2013	02:00	5	SSE	12/03/2013	06:25	4	N
12/03/2013	02:05	5	SSE	12/03/2013	06:30	2	NNE
12/03/2013	02:10	4	SSE	12/03/2013	06:35	1	SE
12/03/2013	02:15	4	SSE	12/03/2013	06:40	1	ENE
12/03/2013	02:20	6	SSE	12/03/2013	06:45	2	ESE
12/03/2013	02:25	6	SSE	12/03/2013	06:50	2	NE
12/03/2013	02:30	6	SSE	12/03/2013	06:55	4	N
12/03/2013	02:35	6	SSE	12/03/2013	07:00	3	NNE
12/03/2013	02:40	6	SSE	12/03/2013	07:05	5	NNE
12/03/2013	02:45	8	SSE	12/03/2013	07:10	2	NNE
12/03/2013	02:50	5	SSE	12/03/2013	07:15	3	SSE
12/03/2013	02:55	5	SSE	12/03/2013	07:20	3	E
12/03/2013	03:00	5	SSE	12/03/2013	07:25	3	NE
12/03/2013	03:05	8	SSE	12/03/2013	07:30	3	NE
12/03/2013	03:10	7	SSE	12/03/2013	07:35	2	NE
12/03/2013	03:15	6	SSE	12/03/2013	07:40	2	E
12/03/2013	03:20	6	SSE	12/03/2013	07:45	3	NE
12/03/2013	03:25	5	SSE	12/03/2013	07:50	2	N
12/03/2013	03:30	8	SSE	12/03/2013	07:55	2	NE
12/03/2013	03:35	6	SSE	12/03/2013	08:00	2	ENE
12/03/2013	03:40	8	SSE	12/03/2013	08:05	3	NNE
12/03/2013	03:45	9	SSE	12/03/2013	08:10	3	NNE
12/03/2013	03:50	7	SSE	12/03/2013	08:15	3	NE
12/03/2013	03:55	9	SSE	12/03/2013	08:20	3	NNE
12/03/2013	04:00	7	SSE	12/03/2013	08:25	5	NE
12/03/2013	04:05	6	SSE	12/03/2013	08:30	6	ENE
12/03/2013	04:10	3	SSE	12/03/2013	08:35	3	ENE
12/03/2013	04:15	8	SE	12/03/2013	08:40	3	SSE
12/03/2013	04:20	7	SSE	12/03/2013	08:45	2	WNW
12/03/2013	04:25	4	SSE	12/03/2013	08:50	4	WNW
12/03/2013	04:30	2	SE	12/03/2013	08:55	2	N
12/03/2013	04:35	5	ESE	12/03/2013	09:00	2	NNE
12/03/2013	04:40	3	E	12/03/2013	09:05	2	NE
12/03/2013	04:45	2	NNW	12/03/2013	09:10	2	NNE
12/03/2013	04:50	2	ENE	12/03/2013	09:15	3	ENE
12/03/2013	04:55	3	NNE	12/03/2013	09:20	5	NE
12/03/2013	05:00	3	ENE	12/03/2013	09:25	3	NE
12/03/2013	05:05	4	ESE	12/03/2013	09:30	2	SE
12/03/2013	05:10	2	NNE	12/03/2013	09:35	3	S
12/03/2013	05:15	3	ESE	12/03/2013	09:40	3	SW
12/03/2013	05:20	4	NNE	12/03/2013	09:45	3	S
12/03/2013	05:25	4	N	12/03/2013	09:50	3	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
12/03/2013	09:55	4	S	12/03/2013	14:20	2	NNE
12/03/2013	10:00	4	S	12/03/2013	14:25	4	E
12/03/2013	10:05	4	S	12/03/2013	14:30	3	NNE
12/03/2013	10:10	4	NE	12/03/2013	14:35	2	N
12/03/2013	10:15	5	S	12/03/2013	14:40	3	SE
12/03/2013	10:20	4	SSW	12/03/2013	14:45	5	SE
12/03/2013	10:25	4	NE	12/03/2013	14:50	4	E
12/03/2013	10:30	3	W	12/03/2013	14:55	8	ESE
12/03/2013	10:35	4	ENE	12/03/2013	15:00	5	SE
12/03/2013	10:40	4	SSE	12/03/2013	15:05	3	SE
12/03/2013	10:45	5	SSE	12/03/2013	15:10	4	ENE
12/03/2013	10:50	6	SE	12/03/2013	15:15	5	ENE
12/03/2013	10:55	3	SE	12/03/2013	15:20	4	NE
12/03/2013	11:00	7	SSE	12/03/2013	15:25	5	E
12/03/2013	11:05	7	S	12/03/2013	15:30	5	E
12/03/2013	11:10	8	SSE	12/03/2013	15:35	4	SE
12/03/2013	11:15	9	SSE	12/03/2013	15:40	5	E
12/03/2013	11:20	9	SE	12/03/2013	15:45	2	ENE
12/03/2013	11:25	9	SE	12/03/2013	15:50	3	ENE
12/03/2013	11:30	7	SSE	12/03/2013	15:55	3	NE
12/03/2013	11:35	5	SSE	12/03/2013	16:00	2	NE
12/03/2013	11:40	6	SSE	12/03/2013	16:05	1	NE
12/03/2013	11:45	9	SE	12/03/2013	16:10	2	E
12/03/2013	11:50	11	SE	12/03/2013	16:15	3	ENE
12/03/2013	11:55	12	SE	12/03/2013	16:20	3	NE
12/03/2013	12:00	10	SE	12/03/2013	16:25	3	E
12/03/2013	12:05	10	SE	12/03/2013	16:30	4	ENE
12/03/2013	12:10	10	SE	12/03/2013	16:35	5	N
12/03/2013	12:15	12	SE	12/03/2013	16:40	6	N
12/03/2013	12:20	13	SE	12/03/2013	16:45	4	NNW
12/03/2013	12:25	13	SE	12/03/2013	16:50	4	NNW
12/03/2013	12:30	11	SE	12/03/2013	16:55	4	NNW
12/03/2013	12:35	10	SE	12/03/2013	17:00	3	N
12/03/2013	12:40	7	SE	12/03/2013	17:05	3	NE
12/03/2013	12:45	6	ENE	12/03/2013	17:10	3	ESE
12/03/2013	12:50	5	E	12/03/2013	17:15	3	SE
12/03/2013	12:55	4	SSE	12/03/2013	17:20	3	E
12/03/2013	13:00	4	SSE	12/03/2013	17:25	4	NNE
12/03/2013	13:05	4	SE	12/03/2013	17:30	3	NE
12/03/2013	13:10	7	SSE	12/03/2013	17:35	2	ENE
12/03/2013	13:15	5	SSE	12/03/2013	17:40	2	E
12/03/2013	13:20	5	SSE	12/03/2013	17:45	3	E
12/03/2013	13:25	4	SE	12/03/2013	17:50	3	NE
12/03/2013	13:30	6	SE	12/03/2013	17:55	2	NE
12/03/2013	13:35	5	SSE	12/03/2013	18:00	2	NNW
12/03/2013	13:40	5	SSE	12/03/2013	18:05	2	ENE
12/03/2013	13:45	4	SSE	12/03/2013	18:10	1	ENE
12/03/2013	13:50	7	SSE	12/03/2013	18:15	1	ENE
12/03/2013	13:55	8	SE	12/03/2013	18:20	2	ESE
12/03/2013	14:00	7	SE	12/03/2013	18:25	2	E
12/03/2013	14:05	4	SE	12/03/2013	18:30	1	E
12/03/2013	14:10	6	SE	12/03/2013	18:35	1	E
12/03/2013	14:15	6	SE	12/03/2013	18:40	1	E

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
12/03/2013	18:45	1	E	12/03/2013	23:10	1	ESE
12/03/2013	18:50	2	ENE	12/03/2013	23:15	2	ESE
12/03/2013	18:55	2	NE	12/03/2013	23:20	1	SE
12/03/2013	19:00	2	N	12/03/2013	23:25	1	SE
12/03/2013	19:05	1	NNW	12/03/2013	23:30	1	SE
12/03/2013	19:10	0	NNW	12/03/2013	23:35	0	SE
12/03/2013	19:15	0	NNW	12/03/2013	23:40	1	SE
12/03/2013	19:20	0	NNW	12/03/2013	23:45	0	SE
12/03/2013	19:25	1	NNW	12/03/2013	23:50	1	SE
12/03/2013	19:30	0	NNW	12/03/2013	23:55	1	SE
12/03/2013	19:35	1	NNW	13/03/2013	00:00	1	E
12/03/2013	19:40	1	NNW	13/03/2013	00:05	1	E
12/03/2013	19:45	2	NE	13/03/2013	00:10	0	E
12/03/2013	19:50	2	ESE	13/03/2013	00:15	1	E
12/03/2013	19:55	3	SSE	13/03/2013	00:20	1	E
12/03/2013	20:00	2	SSW	13/03/2013	00:25	0	---
12/03/2013	20:05	3	SSE	13/03/2013	00:30	0	---
12/03/2013	20:10	2	SE	13/03/2013	00:35	0	---
12/03/2013	20:15	3	ESE	13/03/2013	00:40	0	---
12/03/2013	20:20	3	ESE	13/03/2013	00:45	0	---
12/03/2013	20:25	2	SE	13/03/2013	00:50	2	NNE
12/03/2013	20:30	3	ESE	13/03/2013	00:55	2	NNW
12/03/2013	20:35	3	ESE	13/03/2013	01:00	2	NNE
12/03/2013	20:40	5	ESE	13/03/2013	01:05	1	NNE
12/03/2013	20:45	2	ESE	13/03/2013	01:10	1	NNE
12/03/2013	20:50	2	SE	13/03/2013	01:15	2	ESE
12/03/2013	20:55	2	SE	13/03/2013	01:20	1	E
12/03/2013	21:00	2	SE	13/03/2013	01:25	1	ENE
12/03/2013	21:05	6	ESE	13/03/2013	01:30	0	NE
12/03/2013	21:10	5	ESE	13/03/2013	01:35	0	NE
12/03/2013	21:15	3	ESE	13/03/2013	01:40	0	NE
12/03/2013	21:20	1	SE	13/03/2013	01:45	0	---
12/03/2013	21:25	0	SE	13/03/2013	01:50	1	NE
12/03/2013	21:30	0	---	13/03/2013	01:55	1	NE
12/03/2013	21:35	0	ENE	13/03/2013	02:00	1	N
12/03/2013	21:40	1	NNE	13/03/2013	02:05	1	N
12/03/2013	21:45	0	---	13/03/2013	02:10	0	N
12/03/2013	21:50	0	---	13/03/2013	02:15	1	N
12/03/2013	21:55	1	E	13/03/2013	02:20	0	NE
12/03/2013	22:00	1	SE	13/03/2013	02:25	0	NE
12/03/2013	22:05	1	NNW	13/03/2013	02:30	1	NE
12/03/2013	22:10	2	ESE	13/03/2013	02:35	0	NE
12/03/2013	22:15	0	ESE	13/03/2013	02:40	0	NE
12/03/2013	22:20	0	---	13/03/2013	02:45	0	NE
12/03/2013	22:25	0	ESE	13/03/2013	02:50	0	---
12/03/2013	22:30	0	ESE	13/03/2013	02:55	0	NE
12/03/2013	22:35	0	ESE	13/03/2013	03:00	0	NE
12/03/2013	22:40	1	ESE	13/03/2013	03:05	0	NE
12/03/2013	22:45	0	ESE	13/03/2013	03:10	0	NE
12/03/2013	22:50	0	ESE	13/03/2013	03:15	1	NE
12/03/2013	22:55	0	ESE	13/03/2013	03:20	0	NE
12/03/2013	23:00	0	ESE	13/03/2013	03:25	0	---
12/03/2013	23:05	0	ESE	13/03/2013	03:30	0	---



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
13/03/2013	03:35	0	---	13/03/2013	08:00	2	SE
13/03/2013	03:40	0	---	13/03/2013	08:05	2	ESE
13/03/2013	03:45	1	WNW	13/03/2013	08:10	5	SE
13/03/2013	03:50	2	NNW	13/03/2013	08:15	6	SE
13/03/2013	03:55	2	NNW	13/03/2013	08:20	4	SE
13/03/2013	04:00	3	NNW	13/03/2013	08:25	3	SE
13/03/2013	04:05	1	NW	13/03/2013	08:30	2	SSE
13/03/2013	04:10	1	SSW	13/03/2013	08:35	2	SE
13/03/2013	04:15	2	N	13/03/2013	08:40	2	E
13/03/2013	04:20	1	N	13/03/2013	08:45	3	E
13/03/2013	04:25	1	NNE	13/03/2013	08:50	2	E
13/03/2013	04:30	1	NNE	13/03/2013	08:55	0	SSE
13/03/2013	04:35	1	SE	13/03/2013	09:00	2	E
13/03/2013	04:40	0	SSE	13/03/2013	09:05	2	E
13/03/2013	04:45	1	SSE	13/03/2013	09:10	2	E
13/03/2013	04:50	1	SSE	13/03/2013	09:15	2	E
13/03/2013	04:55	1	SSE	13/03/2013	09:20	2	E
13/03/2013	05:00	1	SSE	13/03/2013	09:25	2	E
13/03/2013	05:05	0	SSE	13/03/2013	09:30	1	NE
13/03/2013	05:10	0	---	13/03/2013	09:35	2	NE
13/03/2013	05:15	0	SSE	13/03/2013	09:40	1	ENE
13/03/2013	05:20	0	SSE	13/03/2013	09:45	0	ENE
13/03/2013	05:25	0	SSE	13/03/2013	09:50	1	ENE
13/03/2013	05:30	1	SSE	13/03/2013	09:55	2	ENE
13/03/2013	05:35	1	SSE	13/03/2013	10:00	2	ENE
13/03/2013	05:40	1	SSE	13/03/2013	10:05	2	ENE
13/03/2013	05:45	2	SSE	13/03/2013	10:10	1	ENE
13/03/2013	05:50	1	W	13/03/2013	10:15	2	ENE
13/03/2013	05:55	0	W	13/03/2013	10:20	3	ENE
13/03/2013	06:00	1	NNE	13/03/2013	10:25	4	ENE
13/03/2013	06:05	1	NNE	13/03/2013	10:30	4	E
13/03/2013	06:10	0	NNE	13/03/2013	10:35	3	E
13/03/2013	06:15	1	NNE	13/03/2013	10:40	2	E
13/03/2013	06:20	1	SE	13/03/2013	10:45	2	E
13/03/2013	06:25	2	SE	13/03/2013	10:50	2	ENE
13/03/2013	06:30	1	SE	13/03/2013	10:55	1	ENE
13/03/2013	06:35	0	SE	13/03/2013	11:00	2	ENE
13/03/2013	06:40	1	WSW	13/03/2013	11:05	2	ENE
13/03/2013	06:45	2	N	13/03/2013	11:10	1	E
13/03/2013	06:50	1	NE	13/03/2013	11:15	2	E
13/03/2013	06:55	2	NW	13/03/2013	11:20	3	ENE
13/03/2013	07:00	0	NNE	13/03/2013	11:25	3	ENE
13/03/2013	07:05	0	NNE	13/03/2013	11:30	5	E
13/03/2013	07:10	1	NNE	13/03/2013	11:35	3	E
13/03/2013	07:15	1	NNE	13/03/2013	11:40	5	E
13/03/2013	07:20	1	NE	13/03/2013	11:45	5	E
13/03/2013	07:25	0	NE	13/03/2013	11:50	3	ENE
13/03/2013	07:30	2	E	13/03/2013	11:55	2	ENE
13/03/2013	07:35	0	ESE	13/03/2013	12:00	6	NNW
13/03/2013	07:40	0	ESE	13/03/2013	12:05	6	N
13/03/2013	07:45	1	ESE	13/03/2013	12:10	5	N
13/03/2013	07:50	0	ESE	13/03/2013	12:15	5	N
13/03/2013	07:55	0	ESE	13/03/2013	12:20	5	N

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
13/03/2013	12:25	4	N	13/03/2013	16:50	6	SE
13/03/2013	12:30	3	NNE	13/03/2013	16:55	5	SE
13/03/2013	12:35	5	N	13/03/2013	17:00	5	SSE
13/03/2013	12:40	5	N	13/03/2013	17:05	5	SE
13/03/2013	12:45	5	N	13/03/2013	17:10	5	SE
13/03/2013	12:50	5	NNW	13/03/2013	17:15	5	SE
13/03/2013	12:55	4	NW	13/03/2013	17:20	4	SE
13/03/2013	13:00	4	NNW	13/03/2013	17:25	5	SE
13/03/2013	13:05	3	N	13/03/2013	17:30	5	SE
13/03/2013	13:10	2	NE	13/03/2013	17:35	6	SE
13/03/2013	13:15	3	N	13/03/2013	17:40	4	SSE
13/03/2013	13:20	2	N	13/03/2013	17:45	5	SSE
13/03/2013	13:25	2	N	13/03/2013	17:50	6	SE
13/03/2013	13:30	2	ENE	13/03/2013	17:55	5	SE
13/03/2013	13:35	3	NNE	13/03/2013	18:00	5	SSE
13/03/2013	13:40	4	NNE	13/03/2013	18:05	3	SSE
13/03/2013	13:45	5	N	13/03/2013	18:10	4	SE
13/03/2013	13:50	5	NNE	13/03/2013	18:15	4	SSE
13/03/2013	13:55	3	N	13/03/2013	18:20	4	SSE
13/03/2013	14:00	4	NNE	13/03/2013	18:25	5	SSE
13/03/2013	14:05	3	NNE	13/03/2013	18:30	5	SSE
13/03/2013	14:10	4	NNE	13/03/2013	18:35	5	SSE
13/03/2013	14:15	3	NNE	13/03/2013	18:40	3	SSE
13/03/2013	14:20	3	NE	13/03/2013	18:45	4	SE
13/03/2013	14:25	3	NE	13/03/2013	18:50	3	SSE
13/03/2013	14:30	3	N	13/03/2013	18:55	3	SE
13/03/2013	14:35	2	NE	13/03/2013	19:00	1	SE
13/03/2013	14:40	1	NE	13/03/2013	19:05	2	E
13/03/2013	14:45	2	E	13/03/2013	19:10	2	E
13/03/2013	14:50	2	E	13/03/2013	19:15	1	ESE
13/03/2013	14:55	3	E	13/03/2013	19:20	1	ESE
13/03/2013	15:00	4	SE	13/03/2013	19:25	3	ESE
13/03/2013	15:05	4	SE	13/03/2013	19:30	3	SE
13/03/2013	15:10	3	ESE	13/03/2013	19:35	2	ESE
13/03/2013	15:15	5	ESE	13/03/2013	19:40	2	SE
13/03/2013	15:20	4	E	13/03/2013	19:45	2	SE
13/03/2013	15:25	2	SE	13/03/2013	19:50	2	SE
13/03/2013	15:30	2	ENE	13/03/2013	19:55	2	SE
13/03/2013	15:35	5	SSE	13/03/2013	20:00	2	SE
13/03/2013	15:40	6	SSE	13/03/2013	20:05	1	SE
13/03/2013	15:45	4	SE	13/03/2013	20:10	1	SE
13/03/2013	15:50	4	SE	13/03/2013	20:15	0	SE
13/03/2013	15:55	4	E	13/03/2013	20:20	0	SE
13/03/2013	16:00	4	E	13/03/2013	20:25	0	SE
13/03/2013	16:05	3	SE	13/03/2013	20:30	0	SE
13/03/2013	16:10	2	SE	13/03/2013	20:35	0	---
13/03/2013	16:15	2	ENE	13/03/2013	20:40	2	E
13/03/2013	16:20	2	SSE	13/03/2013	20:45	1	ESE
13/03/2013	16:25	3	ESE	13/03/2013	20:50	1	SE
13/03/2013	16:30	4	SSE	13/03/2013	20:55	0	SE
13/03/2013	16:35	4	SSE	13/03/2013	21:00	1	SE
13/03/2013	16:40	5	SSE	13/03/2013	21:05	1	SE
13/03/2013	16:45	6	SE	13/03/2013	21:10	1	NNE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
13/03/2013	21:15	1	NNW	14/03/2013	01:40	2	NW
13/03/2013	21:20	1	NNW	14/03/2013	01:45	2	NNW
13/03/2013	21:25	1	NNW	14/03/2013	01:50	1	SSW
13/03/2013	21:30	1	NW	14/03/2013	01:55	1	S
13/03/2013	21:35	3	NNW	14/03/2013	02:00	1	SSW
13/03/2013	21:40	2	WNW	14/03/2013	02:05	2	N
13/03/2013	21:45	2	NW	14/03/2013	02:10	1	WNW
13/03/2013	21:50	2	NW	14/03/2013	02:15	1	WNW
13/03/2013	21:55	1	NW	14/03/2013	02:20	1	NW
13/03/2013	22:00	1	NW	14/03/2013	02:25	0	NW
13/03/2013	22:05	1	NW	14/03/2013	02:30	1	NW
13/03/2013	22:10	1	NW	14/03/2013	02:35	1	NW
13/03/2013	22:15	1	SSW	14/03/2013	02:40	2	WNW
13/03/2013	22:20	2	SSW	14/03/2013	02:45	1	WNW
13/03/2013	22:25	1	SSW	14/03/2013	02:50	1	W
13/03/2013	22:30	0	---	14/03/2013	02:55	2	WNW
13/03/2013	22:35	0	---	14/03/2013	03:00	1	WNW
13/03/2013	22:40	0	---	14/03/2013	03:05	1	WNW
13/03/2013	22:45	2	ESE	14/03/2013	03:10	0	NW
13/03/2013	22:50	2	ESE	14/03/2013	03:15	1	NW
13/03/2013	22:55	0	ESE	14/03/2013	03:20	2	WNW
13/03/2013	23:00	1	ESE	14/03/2013	03:25	2	WNW
13/03/2013	23:05	0	---	14/03/2013	03:30	2	WNW
13/03/2013	23:10	0	---	14/03/2013	03:35	3	WNW
13/03/2013	23:15	0	---	14/03/2013	03:40	2	NW
13/03/2013	23:20	0	---	14/03/2013	03:45	2	WSW
13/03/2013	23:25	0	ESE	14/03/2013	03:50	2	SW
13/03/2013	23:30	2	NW	14/03/2013	03:55	2	W
13/03/2013	23:35	3	N	14/03/2013	04:00	1	S
13/03/2013	23:40	1	N	14/03/2013	04:05	1	S
13/03/2013	23:45	2	S	14/03/2013	04:10	0	WSW
13/03/2013	23:50	1	SSW	14/03/2013	04:15	2	W
13/03/2013	23:55	0	SSW	14/03/2013	04:20	2	W
14/03/2013	00:00	0	---	14/03/2013	04:25	1	W
14/03/2013	00:05	0	---	14/03/2013	04:30	1	WSW
14/03/2013	00:10	1	SSW	14/03/2013	04:35	0	WSW
14/03/2013	00:15	1	SSW	14/03/2013	04:40	2	ESE
14/03/2013	00:20	0	SSW	14/03/2013	04:45	0	ESE
14/03/2013	00:25	1	SSW	14/03/2013	04:50	1	SSE
14/03/2013	00:30	1	W	14/03/2013	04:55	1	SSE
14/03/2013	00:35	1	WNW	14/03/2013	05:00	2	S
14/03/2013	00:40	2	WNW	14/03/2013	05:05	1	ESE
14/03/2013	00:45	2	W	14/03/2013	05:10	1	S
14/03/2013	00:50	0	W	14/03/2013	05:15	2	NNW
14/03/2013	00:55	1	W	14/03/2013	05:20	2	NW
14/03/2013	01:00	2	NW	14/03/2013	05:25	3	WNW
14/03/2013	01:05	1	WNW	14/03/2013	05:30	2	W
14/03/2013	01:10	0	WNW	14/03/2013	05:35	2	N
14/03/2013	01:15	2	WNW	14/03/2013	05:40	1	N
14/03/2013	01:20	2	W	14/03/2013	05:45	1	N
14/03/2013	01:25	2	WNW	14/03/2013	05:50	1	WNW
14/03/2013	01:30	3	WNW	14/03/2013	05:55	2	N
14/03/2013	01:35	2	WNW	14/03/2013	06:00	1	NW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
14/03/2013	06:05	1	NW	14/03/2013	10:30	6	SSE
14/03/2013	06:10	2	WNW	14/03/2013	10:35	8	SSE
14/03/2013	06:15	2	WNW	14/03/2013	10:40	9	S
14/03/2013	06:20	2	NW	14/03/2013	10:45	10	SSE
14/03/2013	06:25	1	WNW	14/03/2013	10:50	11	SSE
14/03/2013	06:30	1	WNW	14/03/2013	10:55	9	SSE
14/03/2013	06:35	1	WNW	14/03/2013	11:00	10	SSE
14/03/2013	06:40	1	WNW	14/03/2013	11:05	12	SSE
14/03/2013	06:45	1	W	14/03/2013	11:10	10	SSE
14/03/2013	06:50	1	W	14/03/2013	11:15	12	SSE
14/03/2013	06:55	1	SSE	14/03/2013	11:20	11	SSE
14/03/2013	07:00	1	SSE	14/03/2013	11:25	12	SSE
14/03/2013	07:05	1	ESE	14/03/2013	11:30	11	SSE
14/03/2013	07:10	1	ESE	14/03/2013	11:35	11	SSE
14/03/2013	07:15	1	ESE	14/03/2013	11:40	11	SSE
14/03/2013	07:20	1	SE	14/03/2013	11:45	11	SSE
14/03/2013	07:25	3	SSE	14/03/2013	11:50	13	SSE
14/03/2013	07:30	8	SSE	14/03/2013	11:55	10	SSE
14/03/2013	07:35	8	SSE	14/03/2013	12:00	10	SSE
14/03/2013	07:40	9	SSE	14/03/2013	12:05	10	SSE
14/03/2013	07:45	10	SSE	14/03/2013	12:10	14	SSE
14/03/2013	07:50	10	SSE	14/03/2013	12:15	12	SSE
14/03/2013	07:55	9	SSE	14/03/2013	12:20	13	SSE
14/03/2013	08:00	9	SSE	14/03/2013	12:25	14	SSE
14/03/2013	08:05	8	SSE	14/03/2013	12:30	12	SSE
14/03/2013	08:10	10	SSE	14/03/2013	12:35	11	SSE
14/03/2013	08:15	10	SSE	14/03/2013	12:40	13	SE
14/03/2013	08:20	9	SSE	14/03/2013	12:45	12	SSE
14/03/2013	08:25	8	S	14/03/2013	12:50	11	SSE
14/03/2013	08:30	9	SSE	14/03/2013	12:55	13	SSE
14/03/2013	08:35	11	SSE	14/03/2013	13:00	11	SSE
14/03/2013	08:40	9	SSE	14/03/2013	13:05	12	SSE
14/03/2013	08:45	11	SSE	14/03/2013	13:10	14	SSE
14/03/2013	08:50	10	SSE	14/03/2013	13:15	12	SSE
14/03/2013	08:55	10	SSE	14/03/2013	13:20	12	SSE
14/03/2013	09:00	10	SSE	14/03/2013	13:25	12	SSE
14/03/2013	09:05	11	SSE	14/03/2013	13:30	12	SSE
14/03/2013	09:10	10	SSE	14/03/2013	13:35	11	SSE
14/03/2013	09:15	8	SSE	14/03/2013	13:40	10	SSE
14/03/2013	09:20	9	SSE	14/03/2013	13:45	12	SSE
14/03/2013	09:25	8	SSE	14/03/2013	13:50	9	SSE
14/03/2013	09:30	9	SSE	14/03/2013	13:55	10	SSE
14/03/2013	09:35	12	SSE	14/03/2013	14:00	9	SSE
14/03/2013	09:40	11	SSE	14/03/2013	14:05	11	SE
14/03/2013	09:45	9	SSE	14/03/2013	14:10	12	SSE
14/03/2013	09:50	9	SSE	14/03/2013	14:15	12	SSE
14/03/2013	09:55	8	SE	14/03/2013	14:20	11	SSE
14/03/2013	10:00	7	SSE	14/03/2013	14:25	10	SSE
14/03/2013	10:05	9	SSE	14/03/2013	14:30	7	SSE
14/03/2013	10:10	5	SSE	14/03/2013	14:35	8	SSE
14/03/2013	10:15	6	SSE	14/03/2013	14:40	8	SSE
14/03/2013	10:20	7	SSE	14/03/2013	14:45	7	SSE
14/03/2013	10:25	9	SSE	14/03/2013	14:50	7	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
14/03/2013	14:55	8	SSE	14/03/2013	19:20	8	SSE
14/03/2013	15:00	4	SSE	14/03/2013	19:25	9	SSE
14/03/2013	15:05	4	SE	14/03/2013	19:30	7	SSE
14/03/2013	15:10	4	SE	14/03/2013	19:35	9	SSE
14/03/2013	15:15	5	SE	14/03/2013	19:40	8	SSE
14/03/2013	15:20	7	SE	14/03/2013	19:45	7	S
14/03/2013	15:25	6	SE	14/03/2013	19:50	5	SSE
14/03/2013	15:30	10	SE	14/03/2013	19:55	5	SSE
14/03/2013	15:35	10	SE	14/03/2013	20:00	5	SSE
14/03/2013	15:40	10	SE	14/03/2013	20:05	6	SSE
14/03/2013	15:45	11	SE	14/03/2013	20:10	7	SSE
14/03/2013	15:50	10	SSE	14/03/2013	20:15	8	SSE
14/03/2013	15:55	7	SSE	14/03/2013	20:20	7	SSE
14/03/2013	16:00	8	SSE	14/03/2013	20:25	8	SSE
14/03/2013	16:05	8	SSE	14/03/2013	20:30	7	SSE
14/03/2013	16:10	8	SSE	14/03/2013	20:35	8	SSE
14/03/2013	16:15	9	SSE	14/03/2013	20:40	7	SSE
14/03/2013	16:20	7	SSE	14/03/2013	20:45	5	SSE
14/03/2013	16:25	6	SE	14/03/2013	20:50	5	SSE
14/03/2013	16:30	7	SSE	14/03/2013	20:55	7	SSE
14/03/2013	16:35	9	SSE	14/03/2013	21:00	5	SSE
14/03/2013	16:40	7	SSE	14/03/2013	21:05	8	SSE
14/03/2013	16:45	8	SSE	14/03/2013	21:10	5	SSE
14/03/2013	16:50	8	SSE	14/03/2013	21:15	8	SSE
14/03/2013	16:55	6	SSE	14/03/2013	21:20	8	SSE
14/03/2013	17:00	9	SSE	14/03/2013	21:25	7	SE
14/03/2013	17:05	7	SSE	14/03/2013	21:30	8	SE
14/03/2013	17:10	6	SE	14/03/2013	21:35	11	SE
14/03/2013	17:15	3	SE	14/03/2013	21:40	10	SSE
14/03/2013	17:20	6	SSE	14/03/2013	21:45	9	SSE
14/03/2013	17:25	8	SE	14/03/2013	21:50	7	SSE
14/03/2013	17:30	9	SSE	14/03/2013	21:55	8	SE
14/03/2013	17:35	6	SE	14/03/2013	22:00	10	SSE
14/03/2013	17:40	6	SSE	14/03/2013	22:05	8	SSE
14/03/2013	17:45	7	SSE	14/03/2013	22:10	7	SSE
14/03/2013	17:50	7	SE	14/03/2013	22:15	6	SSE
14/03/2013	17:55	7	SSE	14/03/2013	22:20	8	SSE
14/03/2013	18:00	6	SE	14/03/2013	22:25	9	SSE
14/03/2013	18:05	7	SSE	14/03/2013	22:30	7	SSE
14/03/2013	18:10	6	SE	14/03/2013	22:35	7	SSE
14/03/2013	18:15	6	SSE	14/03/2013	22:40	8	SSE
14/03/2013	18:20	5	SSE	14/03/2013	22:45	9	SSE
14/03/2013	18:25	4	SSE	14/03/2013	22:50	9	SSE
14/03/2013	18:30	4	S	14/03/2013	22:55	7	SSE
14/03/2013	18:35	4	SSE	14/03/2013	23:00	7	SE
14/03/2013	18:40	6	SSE	14/03/2013	23:05	6	S
14/03/2013	18:45	7	SSE	14/03/2013	23:10	8	SSE
14/03/2013	18:50	8	SSE	14/03/2013	23:15	9	SSE
14/03/2013	18:55	8	SSE	14/03/2013	23:20	9	SSE
14/03/2013	19:00	8	SSE	14/03/2013	23:25	9	SSE
14/03/2013	19:05	9	SSE	14/03/2013	23:30	10	SSE
14/03/2013	19:10	8	SSE	14/03/2013	23:35	8	SSE
14/03/2013	19:15	8	SSE	14/03/2013	23:40	8	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
14/03/2013	23:45	9	SSE	15/03/2013	04:10	5	ESE
14/03/2013	23:50	7	SSE	15/03/2013	04:15	6	SE
14/03/2013	23:55	6	SSE	15/03/2013	04:20	6	SE
15/03/2013	00:00	6	SSE	15/03/2013	04:25	6	SE
15/03/2013	00:05	7	SSE	15/03/2013	04:30	7	SE
15/03/2013	00:10	6	SSE	15/03/2013	04:35	7	SSE
15/03/2013	00:15	5	SSE	15/03/2013	04:40	7	SSE
15/03/2013	00:20	4	SSE	15/03/2013	04:45	7	SSE
15/03/2013	00:25	5	SSE	15/03/2013	04:50	7	SSE
15/03/2013	00:30	3	S	15/03/2013	04:55	8	SE
15/03/2013	00:35	6	SSE	15/03/2013	05:00	8	SSE
15/03/2013	00:40	5	SE	15/03/2013	05:05	8	SE
15/03/2013	00:45	5	SSE	15/03/2013	05:10	9	SE
15/03/2013	00:50	6	SSE	15/03/2013	05:15	9	SE
15/03/2013	00:55	7	SE	15/03/2013	05:20	9	SE
15/03/2013	01:00	5	SSE	15/03/2013	05:25	10	SE
15/03/2013	01:05	6	SE	15/03/2013	05:30	11	SSE
15/03/2013	01:10	8	SE	15/03/2013	05:35	10	SSE
15/03/2013	01:15	7	SE	15/03/2013	05:40	5	SE
15/03/2013	01:20	8	SE	15/03/2013	05:45	4	SE
15/03/2013	01:25	9	SE	15/03/2013	05:50	5	SE
15/03/2013	01:30	7	SE	15/03/2013	05:55	5	SE
15/03/2013	01:35	9	SE	15/03/2013	06:00	3	SSE
15/03/2013	01:40	7	SE	15/03/2013	06:05	3	SE
15/03/2013	01:45	9	SE	15/03/2013	06:10	4	SSE
15/03/2013	01:50	6	SSE	15/03/2013	06:15	2	S
15/03/2013	01:55	5	S	15/03/2013	06:20	3	S
15/03/2013	02:00	4	SSE	15/03/2013	06:25	2	SSE
15/03/2013	02:05	6	SSE	15/03/2013	06:30	3	SSW
15/03/2013	02:10	5	S	15/03/2013	06:35	1	S
15/03/2013	02:15	5	SSE	15/03/2013	06:40	2	E
15/03/2013	02:20	3	WSW	15/03/2013	06:45	1	E
15/03/2013	02:25	3	SE	15/03/2013	06:50	1	ESE
15/03/2013	02:30	2	ESE	15/03/2013	06:55	3	SE
15/03/2013	02:35	1	ESE	15/03/2013	07:00	5	SE
15/03/2013	02:40	3	SSE	15/03/2013	07:05	6	SSE
15/03/2013	02:45	3	S	15/03/2013	07:10	7	SE
15/03/2013	02:50	3	S	15/03/2013	07:15	7	SE
15/03/2013	02:55	3	SSE	15/03/2013	07:20	8	SE
15/03/2013	03:00	3	SSE	15/03/2013	07:25	9	SE
15/03/2013	03:05	2	SE	15/03/2013	07:30	9	SE
15/03/2013	03:10	2	SSE	15/03/2013	07:35	9	SE
15/03/2013	03:15	3	SSE	15/03/2013	07:40	10	SE
15/03/2013	03:20	2	S	15/03/2013	07:45	9	SE
15/03/2013	03:25	3	SSE	15/03/2013	07:50	9	SSE
15/03/2013	03:30	3	SSW	15/03/2013	07:55	7	SSE
15/03/2013	03:35	2	S	15/03/2013	08:00	6	SE
15/03/2013	03:40	3	SSE	15/03/2013	08:05	6	SE
15/03/2013	03:45	4	E	15/03/2013	08:10	6	SSE
15/03/2013	03:50	3	SE	15/03/2013	08:15	7	SSE
15/03/2013	03:55	3	ESE	15/03/2013	08:20	7	SE
15/03/2013	04:00	4	ESE	15/03/2013	08:25	6	SSE
15/03/2013	04:05	4	E	15/03/2013	08:30	7	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
15/03/2013	08:35	7	SE	15/03/2013	13:00	10	SE
15/03/2013	08:40	7	SSE	15/03/2013	13:05	8	SSE
15/03/2013	08:45	8	SSE	15/03/2013	13:10	9	SSE
15/03/2013	08:50	7	SSE	15/03/2013	13:15	7	SSE
15/03/2013	08:55	6	SE	15/03/2013	13:20	9	SE
15/03/2013	09:00	8	SE	15/03/2013	13:25	8	SSE
15/03/2013	09:05	6	SE	15/03/2013	13:30	7	SSE
15/03/2013	09:10	7	SE	15/03/2013	13:35	6	SSE
15/03/2013	09:15	7	SSE	15/03/2013	13:40	6	SSE
15/03/2013	09:20	7	SSE	15/03/2013	13:45	8	SE
15/03/2013	09:25	8	SSE	15/03/2013	13:50	8	SE
15/03/2013	09:30	7	SE	15/03/2013	13:55	6	SSE
15/03/2013	09:35	9	SE	15/03/2013	14:00	9	SSE
15/03/2013	09:40	9	SSE	15/03/2013	14:05	8	SSE
15/03/2013	09:45	10	SSE	15/03/2013	14:10	10	SE
15/03/2013	09:50	9	SE	15/03/2013	14:15	9	SSE
15/03/2013	09:55	10	SSE	15/03/2013	14:20	8	SE
15/03/2013	10:00	9	SSE	15/03/2013	14:25	9	SE
15/03/2013	10:05	10	SE	15/03/2013	14:30	7	SE
15/03/2013	10:10	11	SE	15/03/2013	14:35	7	SE
15/03/2013	10:15	12	SE	15/03/2013	14:40	5	SE
15/03/2013	10:20	12	SE	15/03/2013	14:45	4	S
15/03/2013	10:25	10	SE	15/03/2013	14:50	3	SE
15/03/2013	10:30	11	SE	15/03/2013	14:55	4	SSE
15/03/2013	10:35	12	SE	15/03/2013	15:00	3	E
15/03/2013	10:40	12	SE	15/03/2013	15:05	5	SE
15/03/2013	10:45	12	SE	15/03/2013	15:10	2	E
15/03/2013	10:50	11	SE	15/03/2013	15:15	4	SE
15/03/2013	10:55	11	SE	15/03/2013	15:20	5	SE
15/03/2013	11:00	11	SSE	15/03/2013	15:25	5	SE
15/03/2013	11:05	11	SE	15/03/2013	15:30	6	SSE
15/03/2013	11:10	11	SE	15/03/2013	15:35	5	SE
15/03/2013	11:15	11	SE	15/03/2013	15:40	5	SE
15/03/2013	11:20	11	SE	15/03/2013	15:45	4	SSE
15/03/2013	11:25	9	SE	15/03/2013	15:50	3	SSE
15/03/2013	11:30	9	SE	15/03/2013	15:55	5	SE
15/03/2013	11:35	10	SSE	15/03/2013	16:00	5	SSE
15/03/2013	11:40	9	SE	15/03/2013	16:05	5	SE
15/03/2013	11:45	11	SE	15/03/2013	16:10	4	SE
15/03/2013	11:50	11	SE	15/03/2013	16:15	4	SSE
15/03/2013	11:55	10	SSE	15/03/2013	16:20	3	SE
15/03/2013	12:00	10	SE	15/03/2013	16:25	3	SSE
15/03/2013	12:05	12	SE	15/03/2013	16:30	2	ESE
15/03/2013	12:10	10	SE	15/03/2013	16:35	3	SSE
15/03/2013	12:15	10	SE	15/03/2013	16:40	4	SSE
15/03/2013	12:20	11	SE	15/03/2013	16:45	4	SE
15/03/2013	12:25	12	SE	15/03/2013	16:50	5	SE
15/03/2013	12:30	12	SE	15/03/2013	16:55	2	NW
15/03/2013	12:35	13	SE	15/03/2013	17:00	3	SE
15/03/2013	12:40	10	SE	15/03/2013	17:05	3	ESE
15/03/2013	12:45	11	SE	15/03/2013	17:10	3	E
15/03/2013	12:50	10	SSE	15/03/2013	17:15	3	SE
15/03/2013	12:55	11	SSE	15/03/2013	17:20	2	N

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
15/03/2013	17:25	2	N	15/03/2013	21:50	2	ESE
15/03/2013	17:30	3	N	15/03/2013	21:55	4	SE
15/03/2013	17:35	2	NNE	15/03/2013	22:00	2	SE
15/03/2013	17:40	3	NNW	15/03/2013	22:05	1	SSE
15/03/2013	17:45	4	NNW	15/03/2013	22:10	1	S
15/03/2013	17:50	4	NW	15/03/2013	22:15	2	SSE
15/03/2013	17:55	4	NW	15/03/2013	22:20	4	SE
15/03/2013	18:00	4	N	15/03/2013	22:25	2	ESE
15/03/2013	18:05	5	NNW	15/03/2013	22:30	2	SSE
15/03/2013	18:10	5	NNW	15/03/2013	22:35	1	SE
15/03/2013	18:15	3	NNW	15/03/2013	22:40	5	SE
15/03/2013	18:20	2	N	15/03/2013	22:45	6	SSE
15/03/2013	18:25	2	N	15/03/2013	22:50	6	SE
15/03/2013	18:30	3	N	15/03/2013	22:55	5	SE
15/03/2013	18:35	3	N	15/03/2013	23:00	8	SE
15/03/2013	18:40	4	NNW	15/03/2013	23:05	6	SE
15/03/2013	18:45	3	N	15/03/2013	23:10	7	SE
15/03/2013	18:50	1	N	15/03/2013	23:15	5	SE
15/03/2013	18:55	1	ESE	15/03/2013	23:20	3	SSE
15/03/2013	19:00	1	N	15/03/2013	23:25	4	SE
15/03/2013	19:05	3	N	15/03/2013	23:30	2	S
15/03/2013	19:10	1	NW	15/03/2013	23:35	2	SE
15/03/2013	19:15	3	NNE	15/03/2013	23:40	2	SE
15/03/2013	19:20	2	NNE	15/03/2013	23:45	4	SE
15/03/2013	19:25	4	E	15/03/2013	23:50	4	SSE
15/03/2013	19:30	3	E	15/03/2013	23:55	3	SSE
15/03/2013	19:35	0	E	16/03/2013	00:00	3	SE
15/03/2013	19:40	2	ESE	16/03/2013	00:05	3	SE
15/03/2013	19:45	2	ESE	16/03/2013	00:10	4	ESE
15/03/2013	19:50	4	SSE	16/03/2013	00:15	3	SSE
15/03/2013	19:55	3	ESE	16/03/2013	00:20	4	ESE
15/03/2013	20:00	3	SSE	16/03/2013	00:25	2	ESE
15/03/2013	20:05	2	SE	16/03/2013	00:30	2	E
15/03/2013	20:10	2	NNW	16/03/2013	00:35	3	NE
15/03/2013	20:15	3	N	16/03/2013	00:40	4	SE
15/03/2013	20:20	2	NNE	16/03/2013	00:45	4	ESE
15/03/2013	20:25	2	NE	16/03/2013	00:50	5	ESE
15/03/2013	20:30	0	NE	16/03/2013	00:55	6	SE
15/03/2013	20:35	3	NW	16/03/2013	01:00	7	SE
15/03/2013	20:40	3	NW	16/03/2013	01:05	6	SE
15/03/2013	20:45	4	NNW	16/03/2013	01:10	5	SE
15/03/2013	20:50	2	NW	16/03/2013	01:15	5	E
15/03/2013	20:55	3	NNW	16/03/2013	01:20	4	E
15/03/2013	21:00	3	NW	16/03/2013	01:25	5	E
15/03/2013	21:05	3	NNW	16/03/2013	01:30	4	NNE
15/03/2013	21:10	3	NNW	16/03/2013	01:35	4	NE
15/03/2013	21:15	2	NNW	16/03/2013	01:40	4	ESE
15/03/2013	21:20	2	NNE	16/03/2013	01:45	7	S
15/03/2013	21:25	3	NNW	16/03/2013	01:50	5	SE
15/03/2013	21:30	2	NW	16/03/2013	01:55	6	SE
15/03/2013	21:35	1	NW	16/03/2013	02:00	7	SE
15/03/2013	21:40	0	NW	16/03/2013	02:05	7	SE
15/03/2013	21:45	2	ESE	16/03/2013	02:10	6	SE



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
16/03/2013	02:15	5	SE	16/03/2013	06:40	2	SSE
16/03/2013	02:20	5	SE	16/03/2013	06:45	2	SSE
16/03/2013	02:25	6	SE	16/03/2013	06:50	3	SSE
16/03/2013	02:30	5	SE	16/03/2013	06:55	3	SE
16/03/2013	02:35	6	SE	16/03/2013	07:00	4	SE
16/03/2013	02:40	5	SE	16/03/2013	07:05	3	S
16/03/2013	02:45	6	SE	16/03/2013	07:10	3	SE
16/03/2013	02:50	6	SE	16/03/2013	07:15	4	SSE
16/03/2013	02:55	6	SE	16/03/2013	07:20	5	SE
16/03/2013	03:00	7	SE	16/03/2013	07:25	4	SE
16/03/2013	03:05	5	SE	16/03/2013	07:30	4	SSE
16/03/2013	03:10	6	SE	16/03/2013	07:35	5	SSE
16/03/2013	03:15	6	SE	16/03/2013	07:40	5	SE
16/03/2013	03:20	6	SE	16/03/2013	07:45	7	SSE
16/03/2013	03:25	5	SE	16/03/2013	07:50	4	SE
16/03/2013	03:30	5	SE	16/03/2013	07:55	4	SE
16/03/2013	03:35	6	SE	16/03/2013	08:00	4	SE
16/03/2013	03:40	4	SE	16/03/2013	08:05	4	SE
16/03/2013	03:45	6	SE	16/03/2013	08:10	5	SE
16/03/2013	03:50	4	SE	16/03/2013	08:15	5	SE
16/03/2013	03:55	5	SSE	16/03/2013	08:20	5	SSE
16/03/2013	04:00	5	SE	16/03/2013	08:25	6	SSE
16/03/2013	04:05	5	SE	16/03/2013	08:30	6	SSE
16/03/2013	04:10	4	SE	16/03/2013	08:35	8	SE
16/03/2013	04:15	4	SE	16/03/2013	08:40	7	SSE
16/03/2013	04:20	4	SSE	16/03/2013	08:45	7	SSE
16/03/2013	04:25	4	SSE	16/03/2013	08:50	6	SSE
16/03/2013	04:30	4	SE	16/03/2013	08:55	7	SE
16/03/2013	04:35	4	SSE	16/03/2013	09:00	8	SSE
16/03/2013	04:40	3	SSE	16/03/2013	09:05	9	SSE
16/03/2013	04:45	2	SSE	16/03/2013	09:10	10	SSE
16/03/2013	04:50	3	SSE	16/03/2013	09:15	9	SSE
16/03/2013	04:55	3	SSE	16/03/2013	09:20	11	SSE
16/03/2013	05:00	3	SSE	16/03/2013	09:25	12	SSE
16/03/2013	05:05	2	SSW	16/03/2013	09:30	9	SSE
16/03/2013	05:10	2	SSE	16/03/2013	09:35	9	SSE
16/03/2013	05:15	3	SSE	16/03/2013	09:40	9	SSE
16/03/2013	05:20	3	SSE	16/03/2013	09:45	8	SSE
16/03/2013	05:25	3	SSE	16/03/2013	09:50	8	SSE
16/03/2013	05:30	3	SSE	16/03/2013	09:55	7	SSE
16/03/2013	05:35	3	SE	16/03/2013	10:00	8	SSE
16/03/2013	05:40	3	SSE	16/03/2013	10:05	9	SSE
16/03/2013	05:45	3	SSE	16/03/2013	10:10	8	SSE
16/03/2013	05:50	2	S	16/03/2013	10:15	8	SSE
16/03/2013	05:55	3	SSE	16/03/2013	10:20	5	SSE
16/03/2013	06:00	3	SSE	16/03/2013	10:25	6	SSE
16/03/2013	06:05	2	SSE	16/03/2013	10:30	5	SSE
16/03/2013	06:10	2	SSW	16/03/2013	10:35	4	SSE
16/03/2013	06:15	2	SSE	16/03/2013	10:40	5	SSE
16/03/2013	06:20	2	SE	16/03/2013	10:45	2	SSW
16/03/2013	06:25	2	SE	16/03/2013	10:50	4	ESE
16/03/2013	06:30	1	WSW	16/03/2013	10:55	5	SE
16/03/2013	06:35	1	SSE	16/03/2013	11:00	4	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
16/03/2013	11:05	3	SE	16/03/2013	15:30	5	SE
16/03/2013	11:10	6	SE	16/03/2013	15:35	6	SSE
16/03/2013	11:15	5	SSE	16/03/2013	15:40	5	SE
16/03/2013	11:20	6	SSE	16/03/2013	15:45	6	SSE
16/03/2013	11:25	7	SSE	16/03/2013	15:50	6	SE
16/03/2013	11:30	9	SE	16/03/2013	15:55	5	SE
16/03/2013	11:35	6	SE	16/03/2013	16:00	3	ENE
16/03/2013	11:40	6	SE	16/03/2013	16:05	3	E
16/03/2013	11:45	10	SE	16/03/2013	16:10	5	E
16/03/2013	11:50	10	SSE	16/03/2013	16:15	4	SSE
16/03/2013	11:55	13	SSE	16/03/2013	16:20	5	SSE
16/03/2013	12:00	12	SSE	16/03/2013	16:25	4	SE
16/03/2013	12:05	10	SSE	16/03/2013	16:30	5	SE
16/03/2013	12:10	10	SE	16/03/2013	16:35	6	SE
16/03/2013	12:15	9	SSE	16/03/2013	16:40	3	SSE
16/03/2013	12:20	10	SSE	16/03/2013	16:45	4	SSE
16/03/2013	12:25	7	SSE	16/03/2013	16:50	3	SE
16/03/2013	12:30	9	SE	16/03/2013	16:55	4	SE
16/03/2013	12:35	8	SSE	16/03/2013	17:00	3	SE
16/03/2013	12:40	10	SSE	16/03/2013	17:05	3	SSE
16/03/2013	12:45	9	SSE	16/03/2013	17:10	3	SSE
16/03/2013	12:50	11	SE	16/03/2013	17:15	1	SE
16/03/2013	12:55	11	SSE	16/03/2013	17:20	2	ESE
16/03/2013	13:00	10	SSE	16/03/2013	17:25	1	ENE
16/03/2013	13:05	8	SSE	16/03/2013	17:30	2	ENE
16/03/2013	13:10	10	SSE	16/03/2013	17:35	2	NNE
16/03/2013	13:15	9	SSE	16/03/2013	17:40	2	NNW
16/03/2013	13:20	10	SSE	16/03/2013	17:45	2	NNW
16/03/2013	13:25	12	SE	16/03/2013	17:50	3	NNW
16/03/2013	13:30	11	SSE	16/03/2013	17:55	3	NNW
16/03/2013	13:35	13	SE	16/03/2013	18:00	3	NNW
16/03/2013	13:40	12	SE	16/03/2013	18:05	2	NNW
16/03/2013	13:45	11	SE	16/03/2013	18:10	2	NNW
16/03/2013	13:50	10	SE	16/03/2013	18:15	3	NNW
16/03/2013	13:55	10	SE	16/03/2013	18:20	3	NNW
16/03/2013	14:00	11	SE	16/03/2013	18:25	2	N
16/03/2013	14:05	8	SE	16/03/2013	18:30	2	ENE
16/03/2013	14:10	9	SE	16/03/2013	18:35	2	SE
16/03/2013	14:15	7	SSE	16/03/2013	18:40	2	ESE
16/03/2013	14:20	8	SE	16/03/2013	18:45	1	SE
16/03/2013	14:25	9	SE	16/03/2013	18:50	2	SSE
16/03/2013	14:30	9	SE	16/03/2013	18:55	2	SSE
16/03/2013	14:35	6	SSE	16/03/2013	19:00	1	SE
16/03/2013	14:40	6	SSE	16/03/2013	19:05	2	ENE
16/03/2013	14:45	6	SSE	16/03/2013	19:10	2	NE
16/03/2013	14:50	5	SE	16/03/2013	19:15	4	NNE
16/03/2013	14:55	3	S	16/03/2013	19:20	4	N
16/03/2013	15:00	4	SSE	16/03/2013	19:25	3	NNW
16/03/2013	15:05	3	SSE	16/03/2013	19:30	2	NNW
16/03/2013	15:10	4	SSE	16/03/2013	19:35	1	W
16/03/2013	15:15	2	SSE	16/03/2013	19:40	2	SSE
16/03/2013	15:20	5	ESE	16/03/2013	19:45	3	E
16/03/2013	15:25	4	SE	16/03/2013	19:50	4	ENE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
16/03/2013	19:55	2	SE	17/03/2013	00:20	1	SSW
16/03/2013	20:00	1	NE	17/03/2013	00:25	2	SSE
16/03/2013	20:05	0	NE	17/03/2013	00:30	1	SSE
16/03/2013	20:10	0	NE	17/03/2013	00:35	2	ESE
16/03/2013	20:15	2	N	17/03/2013	00:40	2	SSW
16/03/2013	20:20	2	N	17/03/2013	00:45	0	ESE
16/03/2013	20:25	3	NW	17/03/2013	00:50	1	ESE
16/03/2013	20:30	2	NW	17/03/2013	00:55	1	ESE
16/03/2013	20:35	1	NNW	17/03/2013	01:00	1	WNW
16/03/2013	20:40	2	ENE	17/03/2013	01:05	0	WNW
16/03/2013	20:45	1	SE	17/03/2013	01:10	0	WNW
16/03/2013	20:50	0	SE	17/03/2013	01:15	1	WNW
16/03/2013	20:55	1	SE	17/03/2013	01:20	1	ESE
16/03/2013	21:00	2	NW	17/03/2013	01:25	1	SE
16/03/2013	21:05	2	WNW	17/03/2013	01:30	2	SE
16/03/2013	21:10	1	NW	17/03/2013	01:35	1	SE
16/03/2013	21:15	2	ENE	17/03/2013	01:40	1	SSE
16/03/2013	21:20	1	SE	17/03/2013	01:45	1	SSE
16/03/2013	21:25	0	SE	17/03/2013	01:50	1	SSE
16/03/2013	21:30	1	SE	17/03/2013	01:55	1	SSE
16/03/2013	21:35	2	WNW	17/03/2013	02:00	1	SE
16/03/2013	21:40	2	NW	17/03/2013	02:05	1	SW
16/03/2013	21:45	1	W	17/03/2013	02:10	0	SW
16/03/2013	21:50	2	S	17/03/2013	02:15	1	S
16/03/2013	21:55	1	S	17/03/2013	02:20	2	WNW
16/03/2013	22:00	0	S	17/03/2013	02:25	2	NW
16/03/2013	22:05	1	S	17/03/2013	02:30	2	WNW
16/03/2013	22:10	1	W	17/03/2013	02:35	3	SE
16/03/2013	22:15	1	W	17/03/2013	02:40	2	SE
16/03/2013	22:20	0	W	17/03/2013	02:45	1	S
16/03/2013	22:25	1	NE	17/03/2013	02:50	0	S
16/03/2013	22:30	1	N	17/03/2013	02:55	2	WNW
16/03/2013	22:35	0	N	17/03/2013	03:00	2	WNW
16/03/2013	22:40	2	N	17/03/2013	03:05	2	W
16/03/2013	22:45	2	SSE	17/03/2013	03:10	1	SE
16/03/2013	22:50	1	SSE	17/03/2013	03:15	1	SE
16/03/2013	22:55	1	WSW	17/03/2013	03:20	1	W
16/03/2013	23:00	1	W	17/03/2013	03:25	1	SSE
16/03/2013	23:05	2	SSE	17/03/2013	03:30	1	SSE
16/03/2013	23:10	1	SSE	17/03/2013	03:35	2	NNW
16/03/2013	23:15	0	SSE	17/03/2013	03:40	3	NW
16/03/2013	23:20	1	SSE	17/03/2013	03:45	2	W
16/03/2013	23:25	1	SSW	17/03/2013	03:50	1	S
16/03/2013	23:30	1	SE	17/03/2013	03:55	1	S
16/03/2013	23:35	0	SSE	17/03/2013	04:00	2	WNW
16/03/2013	23:40	1	S	17/03/2013	04:05	2	NW
16/03/2013	23:45	1	E	17/03/2013	04:10	2	WNW
16/03/2013	23:50	1	SSE	17/03/2013	04:15	2	SSE
16/03/2013	23:55	1	S	17/03/2013	04:20	1	SE
17/03/2013	00:00	1	SSW	17/03/2013	04:25	2	NW
17/03/2013	00:05	1	ESE	17/03/2013	04:30	2	WNW
17/03/2013	00:10	0	ESE	17/03/2013	04:35	3	NW
17/03/2013	00:15	1	ESE	17/03/2013	04:40	3	NNW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
17/03/2013	04:45	2	NW	17/03/2013	09:10	6	SSE
17/03/2013	04:50	1	NNW	17/03/2013	09:15	6	SSE
17/03/2013	04:55	1	NNW	17/03/2013	09:20	4	SE
17/03/2013	05:00	1	WNW	17/03/2013	09:25	6	SE
17/03/2013	05:05	2	NE	17/03/2013	09:30	8	SE
17/03/2013	05:10	2	NE	17/03/2013	09:35	8	SE
17/03/2013	05:15	4	NW	17/03/2013	09:40	8	SE
17/03/2013	05:20	4	NNW	17/03/2013	09:45	9	SE
17/03/2013	05:25	2	N	17/03/2013	09:50	10	SE
17/03/2013	05:30	2	W	17/03/2013	09:55	9	SE
17/03/2013	05:35	1	N	17/03/2013	10:00	7	SE
17/03/2013	05:40	2	NW	17/03/2013	10:05	6	ESE
17/03/2013	05:45	4	NNW	17/03/2013	10:10	7	SSE
17/03/2013	05:50	2	E	17/03/2013	10:15	4	SE
17/03/2013	05:55	1	N	17/03/2013	10:20	3	SW
17/03/2013	06:00	1	NE	17/03/2013	10:25	3	SSE
17/03/2013	06:05	0	NE	17/03/2013	10:30	5	SSE
17/03/2013	06:10	1	SSW	17/03/2013	10:35	9	SSE
17/03/2013	06:15	1	NNE	17/03/2013	10:40	8	SSE
17/03/2013	06:20	1	E	17/03/2013	10:45	8	SE
17/03/2013	06:25	2	NNW	17/03/2013	10:50	8	SE
17/03/2013	06:30	2	NE	17/03/2013	10:55	7	SSE
17/03/2013	06:35	1	NE	17/03/2013	11:00	10	SSE
17/03/2013	06:40	3	SE	17/03/2013	11:05	10	SE
17/03/2013	06:45	3	ESE	17/03/2013	11:10	10	SE
17/03/2013	06:50	1	SE	17/03/2013	11:15	11	SE
17/03/2013	06:55	1	SSW	17/03/2013	11:20	11	SE
17/03/2013	07:00	2	NW	17/03/2013	11:25	11	SE
17/03/2013	07:05	4	N	17/03/2013	11:30	11	SE
17/03/2013	07:10	2	NE	17/03/2013	11:35	11	SSE
17/03/2013	07:15	2	SE	17/03/2013	11:40	10	SE
17/03/2013	07:20	2	SSE	17/03/2013	11:45	9	SSE
17/03/2013	07:25	3	NNE	17/03/2013	11:50	9	SE
17/03/2013	07:30	4	N	17/03/2013	11:55	8	SE
17/03/2013	07:35	3	NNW	17/03/2013	12:00	10	SE
17/03/2013	07:40	4	NE	17/03/2013	12:05	9	SSE
17/03/2013	07:45	4	NE	17/03/2013	12:10	9	SE
17/03/2013	07:50	3	SE	17/03/2013	12:15	10	SSE
17/03/2013	07:55	5	NNE	17/03/2013	12:20	9	SSE
17/03/2013	08:00	4	ENE	17/03/2013	12:25	9	SE
17/03/2013	08:05	4	ESE	17/03/2013	12:30	9	SSE
17/03/2013	08:10	4	NE	17/03/2013	12:35	7	SSE
17/03/2013	08:15	6	SE	17/03/2013	12:40	8	SSE
17/03/2013	08:20	5	SE	17/03/2013	12:45	7	SSE
17/03/2013	08:25	5	ESE	17/03/2013	12:50	10	SE
17/03/2013	08:30	3	ENE	17/03/2013	12:55	8	SSE
17/03/2013	08:35	8	ENE	17/03/2013	13:00	7	SSE
17/03/2013	08:40	5	SE	17/03/2013	13:05	7	SE
17/03/2013	08:45	4	ENE	17/03/2013	13:10	9	SE
17/03/2013	08:50	6	SE	17/03/2013	13:15	9	SSE
17/03/2013	08:55	7	E	17/03/2013	13:20	7	SSE
17/03/2013	09:00	5	ESE	17/03/2013	13:25	7	SSE
17/03/2013	09:05	3	ESE	17/03/2013	13:30	10	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
17/03/2013	13:35	8	SSE	17/03/2013	18:00	4	ESE
17/03/2013	13:40	8	SE	17/03/2013	18:05	4	ENE
17/03/2013	13:45	7	SSE	17/03/2013	18:10	2	NE
17/03/2013	13:50	6	SSE	17/03/2013	18:15	2	E
17/03/2013	13:55	7	SSE	17/03/2013	18:20	1	E
17/03/2013	14:00	5	ESE	17/03/2013	18:25	2	N
17/03/2013	14:05	8	SSE	17/03/2013	18:30	4	N
17/03/2013	14:10	6	SSE	17/03/2013	18:35	3	NNE
17/03/2013	14:15	6	SSE	17/03/2013	18:40	5	NNE
17/03/2013	14:20	5	NE	17/03/2013	18:45	5	N
17/03/2013	14:25	5	ESE	17/03/2013	18:50	4	N
17/03/2013	14:30	4	SSE	17/03/2013	18:55	2	NNW
17/03/2013	14:35	6	E	17/03/2013	19:00	2	NNE
17/03/2013	14:40	5	N	17/03/2013	19:05	3	ENE
17/03/2013	14:45	6	ESE	17/03/2013	19:10	2	NNE
17/03/2013	14:50	4	SSE	17/03/2013	19:15	3	E
17/03/2013	14:55	4	SSE	17/03/2013	19:20	2	SE
17/03/2013	15:00	6	NE	17/03/2013	19:25	2	ENE
17/03/2013	15:05	5	E	17/03/2013	19:30	2	ENE
17/03/2013	15:10	4	ENE	17/03/2013	19:35	2	SE
17/03/2013	15:15	7	NE	17/03/2013	19:40	3	SE
17/03/2013	15:20	4	ENE	17/03/2013	19:45	1	SE
17/03/2013	15:25	6	NNE	17/03/2013	19:50	1	SE
17/03/2013	15:30	7	ENE	17/03/2013	19:55	2	ESE
17/03/2013	15:35	6	ENE	17/03/2013	20:00	1	ESE
17/03/2013	15:40	7	E	17/03/2013	20:05	2	ESE
17/03/2013	15:45	5	ENE	17/03/2013	20:10	2	SE
17/03/2013	15:50	4	ENE	17/03/2013	20:15	1	SE
17/03/2013	15:55	4	NNE	17/03/2013	20:20	0	SE
17/03/2013	16:00	5	NE	17/03/2013	20:25	0	SE
17/03/2013	16:05	6	N	17/03/2013	20:30	0	SE
17/03/2013	16:10	4	E	17/03/2013	20:35	1	SE
17/03/2013	16:15	5	N	17/03/2013	20:40	1	SE
17/03/2013	16:20	5	NNW	17/03/2013	20:45	1	NNW
17/03/2013	16:25	5	NNE	17/03/2013	20:50	1	ENE
17/03/2013	16:30	8	NNW	17/03/2013	20:55	1	ENE
17/03/2013	16:35	6	NW	17/03/2013	21:00	1	N
17/03/2013	16:40	4	NNW	17/03/2013	21:05	1	N
17/03/2013	16:45	7	NNW	17/03/2013	21:10	2	N
17/03/2013	16:50	4	SE	17/03/2013	21:15	1	N
17/03/2013	16:55	3	SE	17/03/2013	21:20	2	N
17/03/2013	17:00	2	N	17/03/2013	21:25	1	N
17/03/2013	17:05	2	ESE	17/03/2013	21:30	1	N
17/03/2013	17:10	2	NNE	17/03/2013	21:35	1	N
17/03/2013	17:15	4	NNW	17/03/2013	21:40	0	N
17/03/2013	17:20	3	NW	17/03/2013	21:45	0	N
17/03/2013	17:25	4	NW	17/03/2013	21:50	1	N
17/03/2013	17:30	4	NW	17/03/2013	21:55	2	SE
17/03/2013	17:35	2	NNE	17/03/2013	22:00	1	SE
17/03/2013	17:40	3	N	17/03/2013	22:05	0	SE
17/03/2013	17:45	3	N	17/03/2013	22:10	0	---
17/03/2013	17:50	2	NNW	17/03/2013	22:15	0	---
17/03/2013	17:55	2	ENE	17/03/2013	22:20	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
17/03/2013	22:25	0	---	18/03/2013	02:50	1	N
17/03/2013	22:30	1	NNE	18/03/2013	02:55	0	---
17/03/2013	22:35	1	NNE	18/03/2013	03:00	0	---
17/03/2013	22:40	0	NNE	18/03/2013	03:05	0	ESE
17/03/2013	22:45	0	NNE	18/03/2013	03:10	1	ESE
17/03/2013	22:50	2	E	18/03/2013	03:15	1	SE
17/03/2013	22:55	0	E	18/03/2013	03:20	1	SE
17/03/2013	23:00	0	E	18/03/2013	03:25	0	SE
17/03/2013	23:05	0	---	18/03/2013	03:30	2	NNE
17/03/2013	23:10	0	E	18/03/2013	03:35	0	NNE
17/03/2013	23:15	0	E	18/03/2013	03:40	2	E
17/03/2013	23:20	0	E	18/03/2013	03:45	1	E
17/03/2013	23:25	1	E	18/03/2013	03:50	1	SE
17/03/2013	23:30	1	E	18/03/2013	03:55	1	S
17/03/2013	23:35	1	E	18/03/2013	04:00	0	S
17/03/2013	23:40	0	E	18/03/2013	04:05	0	---
17/03/2013	23:45	0	E	18/03/2013	04:10	0	S
17/03/2013	23:50	1	E	18/03/2013	04:15	2	WNW
17/03/2013	23:55	1	E	18/03/2013	04:20	1	WNW
18/03/2013	00:00	1	N	18/03/2013	04:25	2	WNW
18/03/2013	00:05	1	WNW	18/03/2013	04:30	2	WNW
18/03/2013	00:10	1	NW	18/03/2013	04:35	1	WNW
18/03/2013	00:15	1	NW	18/03/2013	04:40	2	WNW
18/03/2013	00:20	0	---	18/03/2013	04:45	2	W
18/03/2013	00:25	0	NW	18/03/2013	04:50	2	W
18/03/2013	00:30	1	NW	18/03/2013	04:55	1	W
18/03/2013	00:35	1	NW	18/03/2013	05:00	0	W
18/03/2013	00:40	2	ESE	18/03/2013	05:05	1	W
18/03/2013	00:45	1	NNE	18/03/2013	05:10	0	W
18/03/2013	00:50	1	NNE	18/03/2013	05:15	0	---
18/03/2013	00:55	0	NNE	18/03/2013	05:20	1	W
18/03/2013	01:00	0	---	18/03/2013	05:25	1	S
18/03/2013	01:05	0	---	18/03/2013	05:30	1	S
18/03/2013	01:10	0	---	18/03/2013	05:35	1	S
18/03/2013	01:15	0	---	18/03/2013	05:40	1	S
18/03/2013	01:20	0	---	18/03/2013	05:45	0	---
18/03/2013	01:25	0	NE	18/03/2013	05:50	0	---
18/03/2013	01:30	1	NNE	18/03/2013	05:55	0	---
18/03/2013	01:35	1	NE	18/03/2013	06:00	0	---
18/03/2013	01:40	1	ENE	18/03/2013	06:05	0	---
18/03/2013	01:45	0	---	18/03/2013	06:10	0	---
18/03/2013	01:50	0	---	18/03/2013	06:15	0	---
18/03/2013	01:55	0	---	18/03/2013	06:20	0	---
18/03/2013	02:00	0	---	18/03/2013	06:25	0	---
18/03/2013	02:05	0	---	18/03/2013	06:30	0	---
18/03/2013	02:10	0	---	18/03/2013	06:35	0	---
18/03/2013	02:15	0	---	18/03/2013	06:40	0	---
18/03/2013	02:20	0	---	18/03/2013	06:45	0	---
18/03/2013	02:25	0	---	18/03/2013	06:50	0	---
18/03/2013	02:30	0	---	18/03/2013	06:55	0	---
18/03/2013	02:35	1	NW	18/03/2013	07:00	0	---
18/03/2013	02:40	2	NNW	18/03/2013	07:05	1	NNW
18/03/2013	02:45	2	NNW	18/03/2013	07:10	2	ESE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
18/03/2013	07:15	0	ESE	18/03/2013	11:40	3	E
18/03/2013	07:20	1	ESE	18/03/2013	11:45	2	E
18/03/2013	07:25	1	SW	18/03/2013	11:50	2	ENE
18/03/2013	07:30	1	W	18/03/2013	11:55	4	E
18/03/2013	07:35	0	---	18/03/2013	12:00	4	E
18/03/2013	07:40	0	---	18/03/2013	12:05	3	ESE
18/03/2013	07:45	1	NW	18/03/2013	12:10	5	SSE
18/03/2013	07:50	3	NNW	18/03/2013	12:15	5	SSE
18/03/2013	07:55	3	NNW	18/03/2013	12:20	5	SSE
18/03/2013	08:00	3	NNW	18/03/2013	12:25	6	SSE
18/03/2013	08:05	3	NNW	18/03/2013	12:30	5	SSE
18/03/2013	08:10	3	NNW	18/03/2013	12:35	4	SSE
18/03/2013	08:15	3	N	18/03/2013	12:40	4	SSE
18/03/2013	08:20	2	ENE	18/03/2013	12:45	4	SSE
18/03/2013	08:25	1	ENE	18/03/2013	12:50	5	SE
18/03/2013	08:30	2	E	18/03/2013	12:55	5	SE
18/03/2013	08:35	2	ENE	18/03/2013	13:00	5	SE
18/03/2013	08:40	1	ENE	18/03/2013	13:05	5	SE
18/03/2013	08:45	0	ENE	18/03/2013	13:10	5	SE
18/03/2013	08:50	0	ENE	18/03/2013	13:15	5	SE
18/03/2013	08:55	0	ENE	18/03/2013	13:20	4	SE
18/03/2013	09:00	1	NNE	18/03/2013	13:25	5	E
18/03/2013	09:05	1	NNE	18/03/2013	13:30	3	SSE
18/03/2013	09:10	1	NNE	18/03/2013	13:35	3	SE
18/03/2013	09:15	0	NNE	18/03/2013	13:40	3	SSE
18/03/2013	09:20	2	E	18/03/2013	13:45	3	SSE
18/03/2013	09:25	4	E	18/03/2013	13:50	4	SE
18/03/2013	09:30	3	ESE	18/03/2013	13:55	3	SE
18/03/2013	09:35	4	E	18/03/2013	14:00	3	SE
18/03/2013	09:40	5	E	18/03/2013	14:05	4	SE
18/03/2013	09:45	3	E	18/03/2013	14:10	4	SE
18/03/2013	09:50	3	ENE	18/03/2013	14:15	3	ESE
18/03/2013	09:55	4	E	18/03/2013	14:20	4	ESE
18/03/2013	10:00	3	E	18/03/2013	14:25	6	E
18/03/2013	10:05	4	E	18/03/2013	14:30	6	E
18/03/2013	10:10	4	E	18/03/2013	14:35	4	E
18/03/2013	10:15	4	E	18/03/2013	14:40	5	E
18/03/2013	10:20	4	E	18/03/2013	14:45	2	SE
18/03/2013	10:25	4	E	18/03/2013	14:50	3	E
18/03/2013	10:30	3	E	18/03/2013	14:55	3	ESE
18/03/2013	10:35	4	E	18/03/2013	15:00	3	E
18/03/2013	10:40	3	E	18/03/2013	15:05	3	E
18/03/2013	10:45	2	ENE	18/03/2013	15:10	4	SSE
18/03/2013	10:50	2	E	18/03/2013	15:15	3	SE
18/03/2013	10:55	1	WSW	18/03/2013	15:20	4	SSE
18/03/2013	11:00	1	WNW	18/03/2013	15:25	4	SE
18/03/2013	11:05	3	E	18/03/2013	15:30	3	SSE
18/03/2013	11:10	2	E	18/03/2013	15:35	3	ESE
18/03/2013	11:15	2	ENE	18/03/2013	15:40	4	SSE
18/03/2013	11:20	1	ENE	18/03/2013	15:45	4	SSE
18/03/2013	11:25	2	NE	18/03/2013	15:50	5	SSE
18/03/2013	11:30	1	NNE	18/03/2013	15:55	4	SSE
18/03/2013	11:35	3	E	18/03/2013	16:00	5	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
18/03/2013	16:05	3	SSE	18/03/2013	20:30	0	SE
18/03/2013	16:10	4	SE	18/03/2013	20:35	1	SE
18/03/2013	16:15	4	SE	18/03/2013	20:40	1	NE
18/03/2013	16:20	4	SE	18/03/2013	20:45	2	E
18/03/2013	16:25	4	SE	18/03/2013	20:50	1	E
18/03/2013	16:30	4	SE	18/03/2013	20:55	0	E
18/03/2013	16:35	3	SE	18/03/2013	21:00	0	E
18/03/2013	16:40	3	SE	18/03/2013	21:05	1	ENE
18/03/2013	16:45	3	SE	18/03/2013	21:10	1	ENE
18/03/2013	16:50	3	SE	18/03/2013	21:15	0	ENE
18/03/2013	16:55	3	SSE	18/03/2013	21:20	1	ENE
18/03/2013	17:00	2	SSE	18/03/2013	21:25	1	ENE
18/03/2013	17:05	3	SSE	18/03/2013	21:30	1	ENE
18/03/2013	17:10	4	SE	18/03/2013	21:35	1	ENE
18/03/2013	17:15	3	SE	18/03/2013	21:40	1	ENE
18/03/2013	17:20	3	SE	18/03/2013	21:45	2	NNE
18/03/2013	17:25	3	SE	18/03/2013	21:50	2	NNE
18/03/2013	17:30	2	ESE	18/03/2013	21:55	1	NNE
18/03/2013	17:35	2	ESE	18/03/2013	22:00	0	NNE
18/03/2013	17:40	3	ESE	18/03/2013	22:05	1	NNE
18/03/2013	17:45	2	SE	18/03/2013	22:10	0	NNE
18/03/2013	17:50	2	ESE	18/03/2013	22:15	1	NNE
18/03/2013	17:55	0	ESE	18/03/2013	22:20	1	NNE
18/03/2013	18:00	0	ESE	18/03/2013	22:25	1	NNE
18/03/2013	18:05	1	ESE	18/03/2013	22:30	1	NNE
18/03/2013	18:10	0	ESE	18/03/2013	22:35	0	NNE
18/03/2013	18:15	2	ESE	18/03/2013	22:40	0	NNE
18/03/2013	18:20	1	ESE	18/03/2013	22:45	1	NNE
18/03/2013	18:25	1	SSE	18/03/2013	22:50	1	NNE
18/03/2013	18:30	2	NE	18/03/2013	22:55	1	NNE
18/03/2013	18:35	1	NE	18/03/2013	23:00	0	NNE
18/03/2013	18:40	1	NE	18/03/2013	23:05	0	NNE
18/03/2013	18:45	1	NNE	18/03/2013	23:10	0	NNE
18/03/2013	18:50	1	NNE	18/03/2013	23:15	0	---
18/03/2013	18:55	0	NNE	18/03/2013	23:20	0	NNE
18/03/2013	19:00	1	NNE	18/03/2013	23:25	2	NNE
18/03/2013	19:05	0	---	18/03/2013	23:30	2	SE
18/03/2013	19:10	1	N	18/03/2013	23:35	1	SE
18/03/2013	19:15	1	N	18/03/2013	23:40	3	SE
18/03/2013	19:20	1	N	18/03/2013	23:45	2	SE
18/03/2013	19:25	1	N	18/03/2013	23:50	2	SSE
18/03/2013	19:30	0	N	18/03/2013	23:55	1	SSE
18/03/2013	19:35	0	---	19/03/2013	00:00	0	SSE
18/03/2013	19:40	0	N	19/03/2013	00:05	0	SSE
18/03/2013	19:45	1	N	19/03/2013	00:10	0	SSE
18/03/2013	19:50	2	SE	19/03/2013	00:15	1	ESE
18/03/2013	19:55	1	SE	19/03/2013	00:20	1	NE
18/03/2013	20:00	1	SE	19/03/2013	00:25	0	NE
18/03/2013	20:05	1	SE	19/03/2013	00:30	0	NE
18/03/2013	20:10	0	SE	19/03/2013	00:35	1	NE
18/03/2013	20:15	0	SE	19/03/2013	00:40	2	NE
18/03/2013	20:20	0	SE	19/03/2013	00:45	1	NNE
18/03/2013	20:25	0	SE	19/03/2013	00:50	1	NNE



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
19/03/2013	00:55	2	NE	19/03/2013	05:20	3	SSW
19/03/2013	01:00	2	NNE	19/03/2013	05:25	5	NW
19/03/2013	01:05	1	NE	19/03/2013	05:30	7	NW
19/03/2013	01:10	3	E	19/03/2013	05:35	4	NW
19/03/2013	01:15	1	E	19/03/2013	05:40	3	ENE
19/03/2013	01:20	4	SE	19/03/2013	05:45	5	SE
19/03/2013	01:25	4	SSE	19/03/2013	05:50	4	N
19/03/2013	01:30	4	SSE	19/03/2013	05:55	3	NNE
19/03/2013	01:35	3	SE	19/03/2013	06:00	3	ESE
19/03/2013	01:40	3	E	19/03/2013	06:05	4	SE
19/03/2013	01:45	5	SSE	19/03/2013	06:10	3	ESE
19/03/2013	01:50	4	SE	19/03/2013	06:15	4	ENE
19/03/2013	01:55	5	SE	19/03/2013	06:20	3	N
19/03/2013	02:00	4	SSE	19/03/2013	06:25	4	NW
19/03/2013	02:05	3	SE	19/03/2013	06:30	5	NNW
19/03/2013	02:10	3	SSE	19/03/2013	06:35	4	NNW
19/03/2013	02:15	3	SSE	19/03/2013	06:40	6	N
19/03/2013	02:20	4	NW	19/03/2013	06:45	4	N
19/03/2013	02:25	4	N	19/03/2013	06:50	3	NE
19/03/2013	02:30	2	WNW	19/03/2013	06:55	2	ESE
19/03/2013	02:35	2	E	19/03/2013	07:00	4	NNW
19/03/2013	02:40	2	SSE	19/03/2013	07:05	5	NNW
19/03/2013	02:45	4	NW	19/03/2013	07:10	4	NW
19/03/2013	02:50	5	NW	19/03/2013	07:15	7	NW
19/03/2013	02:55	3	SE	19/03/2013	07:20	3	S
19/03/2013	03:00	3	NNW	19/03/2013	07:25	4	SSE
19/03/2013	03:05	3	N	19/03/2013	07:30	4	NE
19/03/2013	03:10	4	NNE	19/03/2013	07:35	3	SSE
19/03/2013	03:15	4	NNE	19/03/2013	07:40	4	NE
19/03/2013	03:20	4	NNW	19/03/2013	07:45	5	ESE
19/03/2013	03:25	4	SE	19/03/2013	07:50	5	NNW
19/03/2013	03:30	3	SSE	19/03/2013	07:55	6	NW
19/03/2013	03:35	3	NE	19/03/2013	08:00	4	SE
19/03/2013	03:40	2	NE	19/03/2013	08:05	4	N
19/03/2013	03:45	2	NNE	19/03/2013	08:10	3	N
19/03/2013	03:50	2	ENE	19/03/2013	08:15	4	NNE
19/03/2013	03:55	3	ESE	19/03/2013	08:20	4	NW
19/03/2013	04:00	4	SSE	19/03/2013	08:25	3	ESE
19/03/2013	04:05	4	NNE	19/03/2013	08:30	4	SSE
19/03/2013	04:10	5	NNE	19/03/2013	08:35	3	NNW
19/03/2013	04:15	3	E	19/03/2013	08:40	4	NW
19/03/2013	04:20	6	N	19/03/2013	08:45	4	N
19/03/2013	04:25	4	N	19/03/2013	08:50	5	NNW
19/03/2013	04:30	4	N	19/03/2013	08:55	2	NE
19/03/2013	04:35	5	NE	19/03/2013	09:00	3	N
19/03/2013	04:40	4	N	19/03/2013	09:05	3	SE
19/03/2013	04:45	4	N	19/03/2013	09:10	4	SSE
19/03/2013	04:50	3	E	19/03/2013	09:15	5	N
19/03/2013	04:55	2	ENE	19/03/2013	09:20	3	NE
19/03/2013	05:00	2	ESE	19/03/2013	09:25	2	NNW
19/03/2013	05:05	5	ENE	19/03/2013	09:30	5	SE
19/03/2013	05:10	3	NNW	19/03/2013	09:35	4	ENE
19/03/2013	05:15	2	ENE	19/03/2013	09:40	5	NNE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
19/03/2013	09:45	3	NE	19/03/2013	14:10	5	NW
19/03/2013	09:50	2	NE	19/03/2013	14:15	6	NNE
19/03/2013	09:55	3	NW	19/03/2013	14:20	3	W
19/03/2013	10:00	3	NNW	19/03/2013	14:25	4	ESE
19/03/2013	10:05	3	ESE	19/03/2013	14:30	5	NE
19/03/2013	10:10	4	ENE	19/03/2013	14:35	7	N
19/03/2013	10:15	4	ENE	19/03/2013	14:40	9	N
19/03/2013	10:20	3	E	19/03/2013	14:45	7	N
19/03/2013	10:25	2	N	19/03/2013	14:50	4	NE
19/03/2013	10:30	5	NW	19/03/2013	14:55	5	NE
19/03/2013	10:35	4	NE	19/03/2013	15:00	5	NE
19/03/2013	10:40	6	E	19/03/2013	15:05	4	SE
19/03/2013	10:45	5	ESE	19/03/2013	15:10	3	E
19/03/2013	10:50	5	ENE	19/03/2013	15:15	4	SE
19/03/2013	10:55	4	E	19/03/2013	15:20	3	SE
19/03/2013	11:00	4	NE	19/03/2013	15:25	2	SE
19/03/2013	11:05	5	ENE	19/03/2013	15:30	3	E
19/03/2013	11:10	6	E	19/03/2013	15:35	6	NE
19/03/2013	11:15	4	ENE	19/03/2013	15:40	9	N
19/03/2013	11:20	4	SSE	19/03/2013	15:45	9	NNW
19/03/2013	11:25	4	NNW	19/03/2013	15:50	4	ENE
19/03/2013	11:30	3	NE	19/03/2013	15:55	9	SE
19/03/2013	11:35	5	E	19/03/2013	16:00	5	S
19/03/2013	11:40	4	ENE	19/03/2013	16:05	3	E
19/03/2013	11:45	4	SE	19/03/2013	16:10	4	E
19/03/2013	11:50	4	SE	19/03/2013	16:15	4	ENE
19/03/2013	11:55	4	ENE	19/03/2013	16:20	6	ENE
19/03/2013	12:00	4	SSE	19/03/2013	16:25	3	ESE
19/03/2013	12:05	2	ENE	19/03/2013	16:30	3	ENE
19/03/2013	12:10	3	E	19/03/2013	16:35	5	SSE
19/03/2013	12:15	5	E	19/03/2013	16:40	5	N
19/03/2013	12:20	5	SE	19/03/2013	16:45	3	SE
19/03/2013	12:25	5	ENE	19/03/2013	16:50	4	ESE
19/03/2013	12:30	4	ESE	19/03/2013	16:55	7	N
19/03/2013	12:35	6	NW	19/03/2013	17:00	3	NNW
19/03/2013	12:40	4	N	19/03/2013	17:05	6	ENE
19/03/2013	12:45	6	E	19/03/2013	17:10	6	E
19/03/2013	12:50	2	NE	19/03/2013	17:15	6	SSE
19/03/2013	12:55	3	NNE	19/03/2013	17:20	9	SSE
19/03/2013	13:00	4	NE	19/03/2013	17:25	6	SSE
19/03/2013	13:05	5	S	19/03/2013	17:30	8	NE
19/03/2013	13:10	5	NNW	19/03/2013	17:35	8	E
19/03/2013	13:15	5	NNW	19/03/2013	17:40	9	NNW
19/03/2013	13:20	5	NE	19/03/2013	17:45	6	SE
19/03/2013	13:25	6	NNE	19/03/2013	17:50	6	NNE
19/03/2013	13:30	8	NNW	19/03/2013	17:55	8	SE
19/03/2013	13:35	7	NNW	19/03/2013	18:00	9	SE
19/03/2013	13:40	7	NNW	19/03/2013	18:05	11	SE
19/03/2013	13:45	7	N	19/03/2013	18:10	9	ESE
19/03/2013	13:50	7	NNW	19/03/2013	18:15	10	SE
19/03/2013	13:55	6	N	19/03/2013	18:20	7	SE
19/03/2013	14:00	5	NW	19/03/2013	18:25	5	SE
19/03/2013	14:05	6	N	19/03/2013	18:30	5	E

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
19/03/2013	18:35	4	ENE	19/03/2013	23:00	3	ENE
19/03/2013	18:40	5	SE	19/03/2013	23:05	3	E
19/03/2013	18:45	3	E	19/03/2013	23:10	2	ENE
19/03/2013	18:50	3	ENE	19/03/2013	23:15	2	ENE
19/03/2013	18:55	2	NE	19/03/2013	23:20	3	ENE
19/03/2013	19:00	0	E	19/03/2013	23:25	3	NE
19/03/2013	19:05	2	ENE	19/03/2013	23:30	3	ENE
19/03/2013	19:10	4	SE	19/03/2013	23:35	4	ENE
19/03/2013	19:15	4	SE	19/03/2013	23:40	3	E
19/03/2013	19:20	4	SE	19/03/2013	23:45	3	WSW
19/03/2013	19:25	6	S	19/03/2013	23:50	6	ESE
19/03/2013	19:30	3	SSE	19/03/2013	23:55	6	SSW
19/03/2013	19:35	6	SSE	24/03/2013	11:15	2	S
19/03/2013	19:40	3	SW	24/03/2013	11:20	1	SSW
19/03/2013	19:45	7	SSE	24/03/2013	11:25	0	SSW
19/03/2013	19:50	6	SE	24/03/2013	11:30	3	NNE
19/03/2013	19:55	6	SSE	24/03/2013	11:35	3	NE
19/03/2013	20:00	5	SSE	24/03/2013	11:40	1	NNE
19/03/2013	20:05	6	SSE	24/03/2013	11:45	2	E
19/03/2013	20:10	3	ESE	24/03/2013	11:50	3	E
19/03/2013	20:15	3	ENE	24/03/2013	11:55	3	E
19/03/2013	20:20	3	ENE	24/03/2013	12:00	2	E
19/03/2013	20:25	4	SSE	24/03/2013	12:05	3	SE
19/03/2013	20:30	3	SE	24/03/2013	12:10	1	SSE
19/03/2013	20:35	4	SE	24/03/2013	12:15	2	SSE
19/03/2013	20:40	6	SSE	24/03/2013	12:20	2	SSE
19/03/2013	20:45	4	S	24/03/2013	12:25	2	SSE
19/03/2013	20:50	2	ESE	24/03/2013	12:30	2	SSE
19/03/2013	20:55	3	E				
19/03/2013	21:00	1	E				
19/03/2013	21:05	4	E				
19/03/2013	21:10	5	SSE				
19/03/2013	21:15	3	S				
19/03/2013	21:20	4	SE				
19/03/2013	21:25	2	WNW				
19/03/2013	21:30	2	NW				
19/03/2013	21:35	3	ESE				
19/03/2013	21:40	2	SE				
19/03/2013	21:45	2	SSW				
19/03/2013	21:50	4	SE				
19/03/2013	21:55	4	SSE				
19/03/2013	22:00	3	SSE				
19/03/2013	22:05	4	SSE				
19/03/2013	22:10	3	E				
19/03/2013	22:15	2	ESE				
19/03/2013	22:20	3	NE				
19/03/2013	22:25	5	ENE				
19/03/2013	22:30	5	ENE				
19/03/2013	22:35	3	ENE				
19/03/2013	22:40	2	NE				
19/03/2013	22:45	4	E				
19/03/2013	22:50	2	NW				
19/03/2013	22:55	2	N				

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
24/03/2013	12:35	2	SSE	24/03/2013	17:00	1	ESE
24/03/2013	12:40	3	E	24/03/2013	17:05	1	ESE
24/03/2013	12:45	5	E	24/03/2013	17:10	1	SE
24/03/2013	12:50	2	ESE	24/03/2013	17:15	1	ESE
24/03/2013	12:55	2	SSE	24/03/2013	17:20	0	ENE
24/03/2013	13:00	3	SE	24/03/2013	17:25	1	NE
24/03/2013	13:05	3	SSE	24/03/2013	17:30	3	N
24/03/2013	13:10	3	SSE	24/03/2013	17:35	3	N
24/03/2013	13:15	2	ESE	24/03/2013	17:40	3	N
24/03/2013	13:20	4	E	24/03/2013	17:45	3	NNE
24/03/2013	13:25	2	ENE	24/03/2013	17:50	3	NNE
24/03/2013	13:30	2	ESE	24/03/2013	17:55	4	N
24/03/2013	13:35	3	E	24/03/2013	18:00	3	N
24/03/2013	13:40	2	NE	24/03/2013	18:05	2	NNW
24/03/2013	13:45	2	NNE	24/03/2013	18:10	4	WNW
24/03/2013	13:50	3	NNE	24/03/2013	18:15	1	WNW
24/03/2013	13:55	2	NE	24/03/2013	18:20	2	S
24/03/2013	14:00	1	S	24/03/2013	18:25	2	SSE
24/03/2013	14:05	2	S	24/03/2013	18:30	1	NNE
24/03/2013	14:10	1	S	24/03/2013	18:35	1	NNW
24/03/2013	14:15	1	SSE	24/03/2013	18:40	1	NE
24/03/2013	14:20	0	SSW	24/03/2013	18:45	2	N
24/03/2013	14:25	2	N	24/03/2013	18:50	1	N
24/03/2013	14:30	3	NE	24/03/2013	18:55	1	N
24/03/2013	14:35	3	E	24/03/2013	19:00	0	---
24/03/2013	14:40	3	ENE	24/03/2013	19:05	0	---
24/03/2013	14:45	3	E	24/03/2013	19:10	2	NW
24/03/2013	14:50	7	E	24/03/2013	19:15	1	WNW
24/03/2013	14:55	5	E	24/03/2013	19:20	2	NW
24/03/2013	15:00	5	E	24/03/2013	19:25	3	WNW
24/03/2013	15:05	4	ESE	24/03/2013	19:30	2	W
24/03/2013	15:10	4	SE	24/03/2013	19:35	1	W
24/03/2013	15:15	4	SSE	24/03/2013	19:40	1	S
24/03/2013	15:20	4	SE	24/03/2013	19:45	2	SE
24/03/2013	15:25	3	SE	24/03/2013	19:50	1	SE
24/03/2013	15:30	3	ESE	24/03/2013	19:55	0	SE
24/03/2013	15:35	4	SE	24/03/2013	20:00	2	ESE
24/03/2013	15:40	4	SE	24/03/2013	20:05	4	SE
24/03/2013	15:45	2	E	24/03/2013	20:10	5	SSE
24/03/2013	15:50	3	SSE	24/03/2013	20:15	4	SSE
24/03/2013	15:55	3	SE	24/03/2013	20:20	2	SE
24/03/2013	16:00	3	SE	24/03/2013	20:25	2	SE
24/03/2013	16:05	4	SE	24/03/2013	20:30	1	S
24/03/2013	16:10	3	SSE	24/03/2013	20:35	1	SW
24/03/2013	16:15	4	SSE	24/03/2013	20:40	1	SW
24/03/2013	16:20	3	SSE	24/03/2013	20:45	1	SW
24/03/2013	16:25	4	E	24/03/2013	20:50	1	SW
24/03/2013	16:30	3	ESE	24/03/2013	20:55	3	NW
24/03/2013	16:35	3	SE	24/03/2013	21:00	3	NW
24/03/2013	16:40	3	SE	24/03/2013	21:05	2	NW
24/03/2013	16:45	3	SE	24/03/2013	21:10	3	WNW
24/03/2013	16:50	3	SE	24/03/2013	21:15	2	NW
24/03/2013	16:55	3	SE	24/03/2013	21:20	2	NW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
24/03/2013	21:25	2	WNW	25/03/2013	01:50	0	ENE
24/03/2013	21:30	3	SE	25/03/2013	01:55	0	---
24/03/2013	21:35	2	SE	25/03/2013	02:00	0	ENE
24/03/2013	21:40	1	SE	25/03/2013	02:05	0	ENE
24/03/2013	21:45	0	SE	25/03/2013	02:10	1	SSE
24/03/2013	21:50	0	SE	25/03/2013	02:15	2	SE
24/03/2013	21:55	1	SE	25/03/2013	02:20	1	SE
24/03/2013	22:00	0	SE	25/03/2013	02:25	0	SE
24/03/2013	22:05	0	SE	25/03/2013	02:30	0	---
24/03/2013	22:10	0	SE	25/03/2013	02:35	0	---
24/03/2013	22:15	0	SE	25/03/2013	02:40	0	SW
24/03/2013	22:20	1	SE	25/03/2013	02:45	1	SW
24/03/2013	22:25	2	ENE	25/03/2013	02:50	1	NNW
24/03/2013	22:30	0	ENE	25/03/2013	02:55	2	NNW
24/03/2013	22:35	0	---	25/03/2013	03:00	2	NNW
24/03/2013	22:40	1	ENE	25/03/2013	03:05	1	NNW
24/03/2013	22:45	2	ENE	25/03/2013	03:10	0	---
24/03/2013	22:50	1	S	25/03/2013	03:15	0	NNW
24/03/2013	22:55	0	S	25/03/2013	03:20	0	NNW
24/03/2013	23:00	0	---	25/03/2013	03:25	1	NNW
24/03/2013	23:05	0	---	25/03/2013	03:30	0	NNW
24/03/2013	23:10	0	---	25/03/2013	03:35	0	---
24/03/2013	23:15	0	S	25/03/2013	03:40	0	NNW
24/03/2013	23:20	0	S	25/03/2013	03:45	1	NNW
24/03/2013	23:25	1	S	25/03/2013	03:50	0	NNW
24/03/2013	23:30	1	NE	25/03/2013	03:55	1	NNW
24/03/2013	23:35	0	NE	25/03/2013	04:00	0	NNW
24/03/2013	23:40	1	E	25/03/2013	04:05	1	NNW
24/03/2013	23:45	0	E	25/03/2013	04:10	2	ESE
24/03/2013	23:50	0	E	25/03/2013	04:15	0	ESE
24/03/2013	23:55	0	E	25/03/2013	04:20	1	ESE
25/03/2013	00:00	0	E	25/03/2013	04:25	0	ESE
25/03/2013	00:05	1	E	25/03/2013	04:30	0	ESE
25/03/2013	00:10	1	E	25/03/2013	04:35	1	N
25/03/2013	00:15	1	SSE	25/03/2013	04:40	2	NW
25/03/2013	00:20	1	SSE	25/03/2013	04:45	1	NW
25/03/2013	00:25	1	SSE	25/03/2013	04:50	2	NW
25/03/2013	00:30	1	SSE	25/03/2013	04:55	4	NW
25/03/2013	00:35	0	SSE	25/03/2013	05:00	3	WNW
25/03/2013	00:40	1	SSE	25/03/2013	05:05	1	SSE
25/03/2013	00:45	1	SSE	25/03/2013	05:10	1	NNE
25/03/2013	00:50	2	SSE	25/03/2013	05:15	2	NNE
25/03/2013	00:55	3	W	25/03/2013	05:20	2	NNE
25/03/2013	01:00	2	W	25/03/2013	05:25	1	E
25/03/2013	01:05	3	W	25/03/2013	05:30	1	NNE
25/03/2013	01:10	2	WNW	25/03/2013	05:35	2	SW
25/03/2013	01:15	1	WNW	25/03/2013	05:40	2	ESE
25/03/2013	01:20	1	WNW	25/03/2013	05:45	3	SSE
25/03/2013	01:25	1	WNW	25/03/2013	05:50	3	SE
25/03/2013	01:30	1	NNW	25/03/2013	05:55	5	SE
25/03/2013	01:35	1	NNW	25/03/2013	06:00	6	SE
25/03/2013	01:40	0	NNW	25/03/2013	06:05	7	SE
25/03/2013	01:45	0	NNW	25/03/2013	06:10	5	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
25/03/2013	06:15	5	SE	25/03/2013	10:40	12	SSE
25/03/2013	06:20	4	SE	25/03/2013	10:45	15	SSE
25/03/2013	06:25	4	SE	25/03/2013	10:50	12	SSE
25/03/2013	06:30	4	SSE	25/03/2013	10:55	12	SSE
25/03/2013	06:35	5	SE	25/03/2013	11:00	13	SSE
25/03/2013	06:40	3	ESE	25/03/2013	11:05	16	SSE
25/03/2013	06:45	2	SE	25/03/2013	11:10	15	SSE
25/03/2013	06:50	3	SE	25/03/2013	11:15	13	SSE
25/03/2013	06:55	2	S	25/03/2013	11:20	12	SSE
25/03/2013	07:00	1	ESE	25/03/2013	11:25	15	SSE
25/03/2013	07:05	1	ESE	25/03/2013	11:30	13	SSE
25/03/2013	07:10	4	SE	25/03/2013	11:35	12	SSE
25/03/2013	07:15	7	SE	25/03/2013	11:40	14	SSE
25/03/2013	07:20	5	SSE	25/03/2013	11:45	14	SE
25/03/2013	07:25	4	SSE	25/03/2013	11:50	12	SE
25/03/2013	07:30	3	SSE	25/03/2013	11:55	13	SSE
25/03/2013	07:35	6	SE	25/03/2013	12:00	11	SSE
25/03/2013	07:40	7	SE	25/03/2013	12:05	11	SE
25/03/2013	07:45	9	SE	25/03/2013	12:10	15	SE
25/03/2013	07:50	10	SE	25/03/2013	12:15	15	SE
25/03/2013	07:55	10	SE	25/03/2013	12:20	15	SSE
25/03/2013	08:00	7	SE	25/03/2013	12:25	15	SE
25/03/2013	08:05	6	SE	25/03/2013	12:30	15	SSE
25/03/2013	08:10	6	SE	25/03/2013	12:35	14	SSE
25/03/2013	08:15	7	SE	25/03/2013	12:40	13	SSE
25/03/2013	08:20	8	SE	25/03/2013	12:45	15	SSE
25/03/2013	08:25	7	SSE	25/03/2013	12:50	15	SE
25/03/2013	08:30	7	SSE	25/03/2013	12:55	16	SE
25/03/2013	08:35	6	SSE	25/03/2013	13:00	13	SSE
25/03/2013	08:40	8	SSE	25/03/2013	13:05	13	SSE
25/03/2013	08:45	6	SSE	25/03/2013	13:10	13	SSE
25/03/2013	08:50	7	SSE	25/03/2013	13:15	15	SE
25/03/2013	08:55	7	SSE	25/03/2013	13:20	16	SE
25/03/2013	09:00	7	S	25/03/2013	13:25	15	SSE
25/03/2013	09:05	7	SSE	25/03/2013	13:30	18	SSE
25/03/2013	09:10	8	SSE	25/03/2013	13:35	17	SE
25/03/2013	09:15	8	SSE	25/03/2013	13:40	13	SSE
25/03/2013	09:20	13	SSE	25/03/2013	13:45	15	SSE
25/03/2013	09:25	13	SSE	25/03/2013	13:50	14	SE
25/03/2013	09:30	11	SSE	25/03/2013	13:55	15	SE
25/03/2013	09:35	12	SSE	25/03/2013	14:00	15	SE
25/03/2013	09:40	12	SSE	25/03/2013	14:05	14	SE
25/03/2013	09:45	13	SSE	25/03/2013	14:10	12	SSE
25/03/2013	09:50	11	SSE	25/03/2013	14:15	13	SSE
25/03/2013	09:55	9	SSE	25/03/2013	14:20	8	SSE
25/03/2013	10:00	10	SSE	25/03/2013	14:25	10	SSE
25/03/2013	10:05	11	SE	25/03/2013	14:30	13	SSE
25/03/2013	10:10	9	SSE	25/03/2013	14:35	11	SSE
25/03/2013	10:15	12	SSE	25/03/2013	14:40	9	SE
25/03/2013	10:20	11	SSE	25/03/2013	14:45	14	SE
25/03/2013	10:25	10	SSE	25/03/2013	14:50	13	SE
25/03/2013	10:30	10	SSE	25/03/2013	14:55	16	SE
25/03/2013	10:35	13	SSE	25/03/2013	15:00	15	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
25/03/2013	15:05	15	SE	25/03/2013	19:30	14	SSE
25/03/2013	15:10	16	SE	25/03/2013	19:35	17	SE
25/03/2013	15:15	16	SE	25/03/2013	19:40	18	SE
25/03/2013	15:20	14	SE	25/03/2013	19:45	15	SE
25/03/2013	15:25	14	SSE	25/03/2013	19:50	15	SE
25/03/2013	15:30	15	SE	25/03/2013	19:55	14	SSE
25/03/2013	15:35	15	SSE	25/03/2013	20:00	14	SSE
25/03/2013	15:40	14	SSE	25/03/2013	20:05	19	SE
25/03/2013	15:45	14	SSE	25/03/2013	20:10	18	SE
25/03/2013	15:50	16	SSE	25/03/2013	20:15	17	SSE
25/03/2013	15:55	16	SSE	25/03/2013	20:20	18	SSE
25/03/2013	16:00	17	SSE	25/03/2013	20:25	16	SSE
25/03/2013	16:05	17	SE	25/03/2013	20:30	19	SE
25/03/2013	16:10	17	SSE	25/03/2013	20:35	19	SE
25/03/2013	16:15	16	SE	25/03/2013	20:40	18	SE
25/03/2013	16:20	15	SSE	25/03/2013	20:45	14	SE
25/03/2013	16:25	16	SE	25/03/2013	20:50	17	SE
25/03/2013	16:30	16	SE	25/03/2013	20:55	18	SE
25/03/2013	16:35	15	SE	25/03/2013	21:00	17	SSE
25/03/2013	16:40	16	SE	25/03/2013	21:05	17	SE
25/03/2013	16:45	16	SE	25/03/2013	21:10	17	SE
25/03/2013	16:50	16	SE	25/03/2013	21:15	18	SSE
25/03/2013	16:55	14	SE	25/03/2013	21:20	18	SE
25/03/2013	17:00	16	SE	25/03/2013	21:25	19	SSE
25/03/2013	17:05	18	SE	25/03/2013	21:30	19	SSE
25/03/2013	17:10	17	SE	25/03/2013	21:35	23	SE
25/03/2013	17:15	17	SE	25/03/2013	21:40	18	SSE
25/03/2013	17:20	18	SE	25/03/2013	21:45	17	SSE
25/03/2013	17:25	18	SE	25/03/2013	21:50	18	SE
25/03/2013	17:30	16	SE	25/03/2013	21:55	15	SSE
25/03/2013	17:35	14	SE	25/03/2013	22:00	19	SE
25/03/2013	17:40	16	SE	25/03/2013	22:05	22	SSE
25/03/2013	17:45	15	SE	25/03/2013	22:10	19	SE
25/03/2013	17:50	15	SE	25/03/2013	22:15	17	SE
25/03/2013	17:55	14	SE	25/03/2013	22:20	18	SE
25/03/2013	18:00	12	SE	25/03/2013	22:25	20	SE
25/03/2013	18:05	13	SSE	25/03/2013	22:30	18	SE
25/03/2013	18:10	8	SE	25/03/2013	22:35	17	SE
25/03/2013	18:15	6	SSE	25/03/2013	22:40	17	SE
25/03/2013	18:20	6	E	25/03/2013	22:45	17	SSE
25/03/2013	18:25	6	ENE	25/03/2013	22:50	19	SE
25/03/2013	18:30	8	NE	25/03/2013	22:55	17	SSE
25/03/2013	18:35	7	NNE	25/03/2013	23:00	16	SSE
25/03/2013	18:40	11	NNW	25/03/2013	23:05	17	SSE
25/03/2013	18:45	13	NNW	25/03/2013	23:10	13	SSE
25/03/2013	18:50	10	N	25/03/2013	23:15	17	SSE
25/03/2013	18:55	7	NNW	25/03/2013	23:20	14	SSE
25/03/2013	19:00	8	WNW	25/03/2013	23:25	15	SSE
25/03/2013	19:05	9	SE	25/03/2013	23:30	15	SSE
25/03/2013	19:10	12	SE	25/03/2013	23:35	14	SSE
25/03/2013	19:15	11	SE	25/03/2013	23:40	14	SSE
25/03/2013	19:20	14	SE	25/03/2013	23:45	14	SSE
25/03/2013	19:25	14	SE	25/03/2013	23:50	14	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
25/03/2013	23:55	16	SSE	26/03/2013	04:20	14	SE
26/03/2013	00:00	16	SSE	26/03/2013	04:25	14	SE
26/03/2013	00:05	17	SSE	26/03/2013	04:30	14	SSE
26/03/2013	00:10	18	SSE	26/03/2013	04:35	18	SE
26/03/2013	00:15	19	SSE	26/03/2013	04:40	16	SE
26/03/2013	00:20	18	SSE	26/03/2013	04:45	16	SSE
26/03/2013	00:25	20	SSE	26/03/2013	04:50	15	SE
26/03/2013	00:30	18	SSE	26/03/2013	04:55	14	SSE
26/03/2013	00:35	16	SSE	26/03/2013	05:00	12	SSE
26/03/2013	00:40	16	SE	26/03/2013	05:05	13	SE
26/03/2013	00:45	12	SE	26/03/2013	05:10	11	SE
26/03/2013	00:50	9	SE	26/03/2013	05:15	9	SE
26/03/2013	00:55	9	E	26/03/2013	05:20	12	SE
26/03/2013	01:00	14	SSE	26/03/2013	05:25	11	SSE
26/03/2013	01:05	13	SE	26/03/2013	05:30	12	SE
26/03/2013	01:10	12	SE	26/03/2013	05:35	15	SE
26/03/2013	01:15	17	SE	26/03/2013	05:40	16	SE
26/03/2013	01:20	17	SE	26/03/2013	05:45	16	SE
26/03/2013	01:25	17	SE	26/03/2013	05:50	18	SE
26/03/2013	01:30	17	SE	26/03/2013	05:55	21	SE
26/03/2013	01:35	16	SE	26/03/2013	06:00	21	SSE
26/03/2013	01:40	16	SE	26/03/2013	06:05	17	SE
26/03/2013	01:45	17	SE	26/03/2013	06:10	17	SE
26/03/2013	01:50	15	SE	26/03/2013	06:15	17	SE
26/03/2013	01:55	17	SE	26/03/2013	06:20	17	SE
26/03/2013	02:00	16	SE	26/03/2013	06:25	13	SE
26/03/2013	02:05	20	SE	26/03/2013	06:30	16	SE
26/03/2013	02:10	14	SE	26/03/2013	06:35	16	SE
26/03/2013	02:15	16	SE	26/03/2013	06:40	16	SE
26/03/2013	02:20	14	SE	26/03/2013	06:45	16	SE
26/03/2013	02:25	16	SE	26/03/2013	06:50	16	SE
26/03/2013	02:30	17	SE	26/03/2013	06:55	18	SE
26/03/2013	02:35	18	SE	26/03/2013	07:00	17	SE
26/03/2013	02:40	19	SE	26/03/2013	07:05	15	SE
26/03/2013	02:45	18	SE	26/03/2013	07:10	18	SE
26/03/2013	02:50	18	SE	26/03/2013	07:15	20	SE
26/03/2013	02:55	18	SE	26/03/2013	07:20	18	SE
26/03/2013	03:00	18	SE	26/03/2013	07:25	18	SE
26/03/2013	03:05	17	SE	26/03/2013	07:30	15	SE
26/03/2013	03:10	18	SE	26/03/2013	07:35	19	SE
26/03/2013	03:15	16	SE	26/03/2013	07:40	15	SE
26/03/2013	03:20	15	SE	26/03/2013	07:45	19	SSE
26/03/2013	03:25	18	SE	26/03/2013	07:50	21	SE
26/03/2013	03:30	18	SE	26/03/2013	07:55	17	SE
26/03/2013	03:35	17	SE	26/03/2013	08:00	15	SE
26/03/2013	03:40	17	SE	26/03/2013	08:05	18	SE
26/03/2013	03:45	15	SSE	26/03/2013	08:10	16	SE
26/03/2013	03:50	15	SE	26/03/2013	08:15	15	SSE
26/03/2013	03:55	14	SSE	26/03/2013	08:20	15	SE
26/03/2013	04:00	16	SSE	26/03/2013	08:25	16	SSE
26/03/2013	04:05	17	SSE	26/03/2013	08:30	16	SE
26/03/2013	04:10	19	SE	26/03/2013	08:35	15	SE
26/03/2013	04:15	18	SE	26/03/2013	08:40	16	SE



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
26/03/2013	08:45	14	SSE	26/03/2013	13:10	9	SE
26/03/2013	08:50	14	SE	26/03/2013	13:15	10	SSE
26/03/2013	08:55	17	SE	26/03/2013	13:20	10	SE
26/03/2013	09:00	16	SE	26/03/2013	13:25	8	SSE
26/03/2013	09:05	14	SE	26/03/2013	13:30	11	SE
26/03/2013	09:10	17	ESE	26/03/2013	13:35	12	SSE
26/03/2013	09:15	15	SE	26/03/2013	13:40	14	SE
26/03/2013	09:20	9	SE	26/03/2013	13:45	14	SSE
26/03/2013	09:25	11	ESE	26/03/2013	13:50	14	SE
26/03/2013	09:30	6	E	26/03/2013	13:55	12	SSE
26/03/2013	09:35	8	E	26/03/2013	14:00	7	SSE
26/03/2013	09:40	14	SE	26/03/2013	14:05	4	SSE
26/03/2013	09:45	13	SE	26/03/2013	14:10	5	SW
26/03/2013	09:50	11	SSE	26/03/2013	14:15	5	SSE
26/03/2013	09:55	13	SE	26/03/2013	14:20	11	SSE
26/03/2013	10:00	14	SE	26/03/2013	14:25	11	SSE
26/03/2013	10:05	12	SE	26/03/2013	14:30	10	SSE
26/03/2013	10:10	11	SE	26/03/2013	14:35	12	SE
26/03/2013	10:15	13	SE	26/03/2013	14:40	7	SE
26/03/2013	10:20	11	SSE	26/03/2013	14:45	5	SSE
26/03/2013	10:25	14	SE	26/03/2013	14:50	4	E
26/03/2013	10:30	12	SE	26/03/2013	14:55	5	S
26/03/2013	10:35	8	SE	26/03/2013	15:00	6	SSE
26/03/2013	10:40	11	SE	26/03/2013	15:05	9	SE
26/03/2013	10:45	15	SSE	26/03/2013	15:10	10	SSE
26/03/2013	10:50	14	SSE	26/03/2013	15:15	8	S
26/03/2013	10:55	12	SE	26/03/2013	15:20	11	SSE
26/03/2013	11:00	12	SE	26/03/2013	15:25	16	SSE
26/03/2013	11:05	13	SE	26/03/2013	15:30	15	SE
26/03/2013	11:10	17	SE	26/03/2013	15:35	15	SE
26/03/2013	11:15	17	SSE	26/03/2013	15:40	15	SE
26/03/2013	11:20	19	SE	26/03/2013	15:45	15	SE
26/03/2013	11:25	16	SE	26/03/2013	15:50	13	SSE
26/03/2013	11:30	15	SSE	26/03/2013	15:55	14	SE
26/03/2013	11:35	16	SSE	26/03/2013	16:00	13	SSE
26/03/2013	11:40	16	SE	26/03/2013	16:05	14	SE
26/03/2013	11:45	15	SSE	26/03/2013	16:10	14	SE
26/03/2013	11:50	18	SE	26/03/2013	16:15	16	SE
26/03/2013	11:55	14	SE	26/03/2013	16:20	12	SSE
26/03/2013	12:00	16	SE	26/03/2013	16:25	9	SSE
26/03/2013	12:05	17	SSE	26/03/2013	16:30	4	NNW
26/03/2013	12:10	19	SE	26/03/2013	16:35	3	N
26/03/2013	12:15	19	SSE	26/03/2013	16:40	9	NE
26/03/2013	12:20	14	SE	26/03/2013	16:45	12	NE
26/03/2013	12:25	18	SSE	26/03/2013	16:50	10	E
26/03/2013	12:30	15	SSE	26/03/2013	16:55	5	SSE
26/03/2013	12:35	15	SSE	26/03/2013	17:00	7	S
26/03/2013	12:40	17	SSE	26/03/2013	17:05	6	SSW
26/03/2013	12:45	15	SSE	26/03/2013	17:10	7	NNW
26/03/2013	12:50	12	SSE	26/03/2013	17:15	7	NW
26/03/2013	12:55	15	SSE	26/03/2013	17:20	5	NNW
26/03/2013	13:00	14	SSE	26/03/2013	17:25	6	NNE
26/03/2013	13:05	10	SE	26/03/2013	17:30	4	ENE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
26/03/2013	17:35	4	NE	26/03/2013	22:00	3	WNW
26/03/2013	17:40	5	NNE	26/03/2013	22:05	2	N
26/03/2013	17:45	2	NE	26/03/2013	22:10	2	SW
26/03/2013	17:50	3	WNW	26/03/2013	22:15	4	NW
26/03/2013	17:55	4	NW	26/03/2013	22:20	7	NW
26/03/2013	18:00	2	WNW	26/03/2013	22:25	6	WNW
26/03/2013	18:05	3	WNW	26/03/2013	22:30	6	NW
26/03/2013	18:10	3	W	26/03/2013	22:35	3	WNW
26/03/2013	18:15	2	ESE	26/03/2013	22:40	5	NW
26/03/2013	18:20	4	SSE	26/03/2013	22:45	3	WNW
26/03/2013	18:25	2	SSE	26/03/2013	22:50	2	WNW
26/03/2013	18:30	2	SSE	26/03/2013	22:55	2	SSW
26/03/2013	18:35	5	SSE	26/03/2013	23:00	2	SSW
26/03/2013	18:40	7	SSE	26/03/2013	23:05	1	SW
26/03/2013	18:45	4	S	26/03/2013	23:10	2	WNW
26/03/2013	18:50	4	S	26/03/2013	23:15	3	WNW
26/03/2013	18:55	4	SSE	26/03/2013	23:20	3	W
26/03/2013	19:00	4	SSE	26/03/2013	23:25	3	NW
26/03/2013	19:05	5	SSE	26/03/2013	23:30	3	NNW
26/03/2013	19:10	7	SSE	26/03/2013	23:35	2	NNE
26/03/2013	19:15	5	SSE	26/03/2013	23:40	3	WNW
26/03/2013	19:20	6	SSE	26/03/2013	23:45	3	NE
26/03/2013	19:25	6	SSE	26/03/2013	23:50	4	NE
26/03/2013	19:30	5	SSE	26/03/2013	23:55	2	NNE
26/03/2013	19:35	4	SE	27/03/2013	00:00	1	NE
26/03/2013	19:40	5	SSE	27/03/2013	00:05	1	NE
26/03/2013	19:45	3	SSE	27/03/2013	00:10	1	N
26/03/2013	19:50	2	SSE	27/03/2013	00:15	0	---
26/03/2013	19:55	3	S	27/03/2013	00:20	1	NW
26/03/2013	20:00	5	S	27/03/2013	00:25	0	NW
26/03/2013	20:05	6	SW	27/03/2013	00:30	0	---
26/03/2013	20:10	9	SSE	27/03/2013	00:35	0	NW
26/03/2013	20:15	10	SSE	27/03/2013	00:40	4	NW
26/03/2013	20:20	9	NNW	27/03/2013	00:45	3	WNW
26/03/2013	20:25	12	NNW	27/03/2013	00:50	2	NW
26/03/2013	20:30	11	N	27/03/2013	00:55	2	NW
26/03/2013	20:35	7	NW	27/03/2013	01:00	0	NW
26/03/2013	20:40	4	SSE	27/03/2013	01:05	1	NW
26/03/2013	20:45	9	N	27/03/2013	01:10	0	---
26/03/2013	20:50	11	N	27/03/2013	01:15	0	---
26/03/2013	20:55	12	ENE	27/03/2013	01:20	0	---
26/03/2013	21:00	6	SSE	27/03/2013	01:25	0	---
26/03/2013	21:05	7	NNE	27/03/2013	01:30	0	---
26/03/2013	21:10	3	NW	27/03/2013	01:35	0	NE
26/03/2013	21:15	3	WNW	27/03/2013	01:40	2	NE
26/03/2013	21:20	2	S	27/03/2013	01:45	1	NE
26/03/2013	21:25	1	WNW	27/03/2013	01:50	1	NE
26/03/2013	21:30	1	WNW	27/03/2013	01:55	3	ESE
26/03/2013	21:35	4	N	27/03/2013	02:00	2	SE
26/03/2013	21:40	6	NNW	27/03/2013	02:05	2	ESE
26/03/2013	21:45	4	NNW	27/03/2013	02:10	3	SSE
26/03/2013	21:50	4	WNW	27/03/2013	02:15	4	SE
26/03/2013	21:55	2	NW	27/03/2013	02:20	3	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
27/03/2013	02:25	3	SSE	27/03/2013	06:50	1	WNW
27/03/2013	02:30	3	SSE	27/03/2013	06:55	2	NW
27/03/2013	02:35	3	SSE	27/03/2013	07:00	1	W
27/03/2013	02:40	3	SSE	27/03/2013	07:05	2	WNW
27/03/2013	02:45	3	SSE	27/03/2013	07:10	2	WNW
27/03/2013	02:50	3	SSE	27/03/2013	07:15	0	NE
27/03/2013	02:55	4	SSE	27/03/2013	07:20	0	NE
27/03/2013	03:00	3	SSE	27/03/2013	07:25	0	ENE
27/03/2013	03:05	3	SSE	27/03/2013	07:30	0	---
27/03/2013	03:10	2	SSE	27/03/2013	07:35	0	ENE
27/03/2013	03:15	2	SE	27/03/2013	07:40	1	ENE
27/03/2013	03:20	3	S	27/03/2013	07:45	1	ENE
27/03/2013	03:25	2	S	27/03/2013	07:50	1	ENE
27/03/2013	03:30	1	S	27/03/2013	07:55	0	ENE
27/03/2013	03:35	1	SSE	27/03/2013	08:00	0	---
27/03/2013	03:40	3	SSE	27/03/2013	08:05	0	ENE
27/03/2013	03:45	3	SSE	27/03/2013	08:10	1	ENE
27/03/2013	03:50	2	SSE	27/03/2013	08:15	2	SE
27/03/2013	03:55	2	SSE	27/03/2013	08:20	1	SE
27/03/2013	04:00	4	E	27/03/2013	08:25	2	SSE
27/03/2013	04:05	2	SE	27/03/2013	08:30	4	SSE
27/03/2013	04:10	1	E	27/03/2013	08:35	5	SE
27/03/2013	04:15	1	SE	27/03/2013	08:40	6	SE
27/03/2013	04:20	3	E	27/03/2013	08:45	6	SE
27/03/2013	04:25	2	ESE	27/03/2013	08:50	4	SE
27/03/2013	04:30	2	SSE	27/03/2013	08:55	4	SE
27/03/2013	04:35	2	ESE	27/03/2013	09:00	4	SE
27/03/2013	04:40	3	SSE	27/03/2013	09:05	2	SE
27/03/2013	04:45	2	SSE	27/03/2013	09:10	3	E
27/03/2013	04:50	3	SSE	27/03/2013	09:15	3	E
27/03/2013	04:55	2	S	27/03/2013	09:20	2	E
27/03/2013	05:00	3	SSE	27/03/2013	09:25	1	E
27/03/2013	05:05	4	SSE	27/03/2013	09:30	1	E
27/03/2013	05:10	4	SSE	27/03/2013	09:35	1	E
27/03/2013	05:15	5	SSE	27/03/2013	09:40	0	E
27/03/2013	05:20	4	SSE	27/03/2013	09:45	1	E
27/03/2013	05:25	4	SSE	27/03/2013	09:50	2	E
27/03/2013	05:30	4	SSE	27/03/2013	09:55	2	E
27/03/2013	05:35	3	SSE	27/03/2013	10:00	0	E
27/03/2013	05:40	3	SSE	27/03/2013	10:05	1	E
27/03/2013	05:45	4	SE	27/03/2013	10:10	2	E
27/03/2013	05:50	4	SSE	27/03/2013	10:15	2	NNE
27/03/2013	05:55	3	SSE	27/03/2013	10:20	1	NNE
27/03/2013	06:00	2	S	27/03/2013	10:25	0	NNE
27/03/2013	06:05	2	SSE	27/03/2013	10:30	2	E
27/03/2013	06:10	3	SE	27/03/2013	10:35	2	E
27/03/2013	06:15	1	SE	27/03/2013	10:40	2	E
27/03/2013	06:20	1	SSE	27/03/2013	10:45	3	E
27/03/2013	06:25	1	S	27/03/2013	10:50	3	E
27/03/2013	06:30	2	SSW	27/03/2013	10:55	2	ENE
27/03/2013	06:35	1	SSW	27/03/2013	11:00	1	NE
27/03/2013	06:40	1	WNW	27/03/2013	11:05	1	NE
27/03/2013	06:45	1	WNW	27/03/2013	11:10	1	E

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
27/03/2013	11:15	1	ESE	27/03/2013	15:40	4	WNW
27/03/2013	11:20	0	NNE	27/03/2013	15:45	4	NW
27/03/2013	11:25	0	---	27/03/2013	15:50	3	NW
27/03/2013	11:30	0	---	27/03/2013	15:55	3	NNW
27/03/2013	11:35	0	---	27/03/2013	16:00	3	NNW
27/03/2013	11:40	2	N	27/03/2013	16:05	3	NNW
27/03/2013	11:45	2	NNE	27/03/2013	16:10	2	N
27/03/2013	11:50	2	SE	27/03/2013	16:15	2	WNW
27/03/2013	11:55	1	WSW	27/03/2013	16:20	2	WSW
27/03/2013	12:00	4	ESE	27/03/2013	16:25	3	NW
27/03/2013	12:05	3	ENE	27/03/2013	16:30	4	WNW
27/03/2013	12:10	2	NNW	27/03/2013	16:35	2	WNW
27/03/2013	12:15	2	ESE	27/03/2013	16:40	3	NW
27/03/2013	12:20	6	NNW	27/03/2013	16:45	3	NW
27/03/2013	12:25	8	N	27/03/2013	16:50	3	WNW
27/03/2013	12:30	6	NNE	27/03/2013	16:55	3	WNW
27/03/2013	12:35	5	N	27/03/2013	17:00	2	WNW
27/03/2013	12:40	3	W	27/03/2013	17:05	2	WNW
27/03/2013	12:45	3	S	27/03/2013	17:10	2	NW
27/03/2013	12:50	3	SSW	27/03/2013	17:15	3	WNW
27/03/2013	12:55	1	W	27/03/2013	17:20	3	WNW
27/03/2013	13:00	2	NNE	27/03/2013	17:25	2	W
27/03/2013	13:05	2	NNW	27/03/2013	17:30	2	WNW
27/03/2013	13:10	2	NNE	27/03/2013	17:35	0	NW
27/03/2013	13:15	1	NE	27/03/2013	17:40	0	NW
27/03/2013	13:20	1	S	27/03/2013	17:45	1	WSW
27/03/2013	13:25	0	S	27/03/2013	17:50	0	SSE
27/03/2013	13:30	1	S	27/03/2013	17:55	0	SSE
27/03/2013	13:35	2	ESE	27/03/2013	18:00	1	SSE
27/03/2013	13:40	7	ENE	27/03/2013	18:05	1	SSE
27/03/2013	13:45	6	ENE	27/03/2013	18:10	2	ESE
27/03/2013	13:50	3	ENE	27/03/2013	18:15	1	ESE
27/03/2013	13:55	1	SSW	27/03/2013	18:20	2	E
27/03/2013	14:00	2	E	27/03/2013	18:25	1	ESE
27/03/2013	14:05	1	SE	27/03/2013	18:30	2	SE
27/03/2013	14:10	3	E	27/03/2013	18:35	3	ESE
27/03/2013	14:15	2	SSE	27/03/2013	18:40	3	SE
27/03/2013	14:20	4	SE	27/03/2013	18:45	2	SE
27/03/2013	14:25	5	SSE	27/03/2013	18:50	3	SSE
27/03/2013	14:30	6	SE	27/03/2013	18:55	3	SE
27/03/2013	14:35	5	SSE	27/03/2013	19:00	3	SE
27/03/2013	14:40	4	SSE	27/03/2013	19:05	2	SE
27/03/2013	14:45	5	SSE	27/03/2013	19:10	2	SE
27/03/2013	14:50	6	SSE	27/03/2013	19:15	0	SSE
27/03/2013	14:55	3	S	27/03/2013	19:20	1	SW
27/03/2013	15:00	2	NNE	27/03/2013	19:25	1	WNW
27/03/2013	15:05	4	NW	27/03/2013	19:30	0	NW
27/03/2013	15:10	3	WNW	27/03/2013	19:35	2	SSE
27/03/2013	15:15	4	N	27/03/2013	19:40	3	SE
27/03/2013	15:20	5	NNW	27/03/2013	19:45	2	SSE
27/03/2013	15:25	3	NNW	27/03/2013	19:50	1	ESE
27/03/2013	15:30	3	NNW	27/03/2013	19:55	1	ESE
27/03/2013	15:35	1	WNW	27/03/2013	20:00	2	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
27/03/2013	20:05	1	S	28/03/2013	00:30	9	SSE
27/03/2013	20:10	0	SSE	28/03/2013	00:35	9	SSE
27/03/2013	20:15	1	SE	28/03/2013	00:40	10	SE
27/03/2013	20:20	2	ESE	28/03/2013	00:45	10	SE
27/03/2013	20:25	2	SE	28/03/2013	00:50	9	SE
27/03/2013	20:30	2	SE	28/03/2013	00:55	9	SE
27/03/2013	20:35	2	SE	28/03/2013	01:00	8	SE
27/03/2013	20:40	2	SSE	28/03/2013	01:05	7	SE
27/03/2013	20:45	1	S	28/03/2013	01:10	6	SE
27/03/2013	20:50	1	S	28/03/2013	01:15	6	SE
27/03/2013	20:55	1	SE	28/03/2013	01:20	5	ESE
27/03/2013	21:00	1	SE	28/03/2013	01:25	6	ESE
27/03/2013	21:05	2	NW	28/03/2013	01:30	3	ESE
27/03/2013	21:10	2	WNW	28/03/2013	01:35	2	SSE
27/03/2013	21:15	0	WNW	28/03/2013	01:40	5	SSE
27/03/2013	21:20	1	WNW	28/03/2013	01:45	6	SE
27/03/2013	21:25	1	W	28/03/2013	01:50	5	SE
27/03/2013	21:30	1	W	28/03/2013	01:55	5	SE
27/03/2013	21:35	2	WNW	28/03/2013	02:00	4	SE
27/03/2013	21:40	2	ENE	28/03/2013	02:05	6	SE
27/03/2013	21:45	3	SE	28/03/2013	02:10	7	SSE
27/03/2013	21:50	5	SE	28/03/2013	02:15	10	SE
27/03/2013	21:55	5	SE	28/03/2013	02:20	10	SE
27/03/2013	22:00	4	SE	28/03/2013	02:25	8	SE
27/03/2013	22:05	3	SSE	28/03/2013	02:30	10	SE
27/03/2013	22:10	3	SE	28/03/2013	02:35	10	SE
27/03/2013	22:15	2	SE	28/03/2013	02:40	11	SE
27/03/2013	22:20	2	SE	28/03/2013	02:45	8	SE
27/03/2013	22:25	0	SE	28/03/2013	02:50	10	SSE
27/03/2013	22:30	0	NNW	28/03/2013	02:55	9	SSE
27/03/2013	22:35	2	NE	28/03/2013	03:00	8	SE
27/03/2013	22:40	2	SE	28/03/2013	03:05	9	SE
27/03/2013	22:45	2	SSE	28/03/2013	03:10	11	SE
27/03/2013	22:50	2	SSE	28/03/2013	03:15	10	SE
27/03/2013	22:55	2	SSE	28/03/2013	03:20	9	SE
27/03/2013	23:00	0	SE	28/03/2013	03:25	9	ESE
27/03/2013	23:05	0	SE	28/03/2013	03:30	6	ESE
27/03/2013	23:10	1	SE	28/03/2013	03:35	8	SE
27/03/2013	23:15	1	SE	28/03/2013	03:40	9	SE
27/03/2013	23:20	0	---	28/03/2013	03:45	9	SE
27/03/2013	23:25	1	SE	28/03/2013	03:50	11	SE
27/03/2013	23:30	0	SE	28/03/2013	03:55	10	SE
27/03/2013	23:35	2	SSE	28/03/2013	04:00	10	SE
27/03/2013	23:40	3	SSE	28/03/2013	04:05	11	SE
27/03/2013	23:45	5	SSE	28/03/2013	04:10	12	SE
27/03/2013	23:50	8	SSE	28/03/2013	04:15	12	SE
27/03/2013	23:55	9	SSE	28/03/2013	04:20	11	SE
28/03/2013	00:00	10	SSE	28/03/2013	04:25	10	SE
28/03/2013	00:05	8	SSE	28/03/2013	04:30	11	SE
28/03/2013	00:10	7	SSE	28/03/2013	04:35	10	SE
28/03/2013	00:15	7	SE	28/03/2013	04:40	9	SE
28/03/2013	00:20	8	SE	28/03/2013	04:45	8	SE
28/03/2013	00:25	7	SE	28/03/2013	04:50	7	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
28/03/2013	04:55	6	SE	28/03/2013	09:20	10	SSE
28/03/2013	05:00	8	SE	28/03/2013	09:25	11	SSE
28/03/2013	05:05	9	SE	28/03/2013	09:30	12	SSE
28/03/2013	05:10	8	SE	28/03/2013	09:35	14	SSE
28/03/2013	05:15	10	SE	28/03/2013	09:40	14	SE
28/03/2013	05:20	10	SE	28/03/2013	09:45	15	SE
28/03/2013	05:25	10	SE	28/03/2013	09:50	14	SE
28/03/2013	05:30	10	SE	28/03/2013	09:55	13	SE
28/03/2013	05:35	11	SE	28/03/2013	10:00	15	SE
28/03/2013	05:40	9	SE	28/03/2013	10:05	14	SE
28/03/2013	05:45	11	SE	28/03/2013	10:10	13	SE
28/03/2013	05:50	11	SE	28/03/2013	10:15	12	SE
28/03/2013	05:55	12	SSE	28/03/2013	10:20	14	SE
28/03/2013	06:00	11	SSE	28/03/2013	10:25	15	SE
28/03/2013	06:05	10	SSE	28/03/2013	10:30	15	SSE
28/03/2013	06:10	8	SSE	28/03/2013	10:35	13	SE
28/03/2013	06:15	6	SSE	28/03/2013	10:40	13	SE
28/03/2013	06:20	7	SSE	28/03/2013	10:45	11	SE
28/03/2013	06:25	8	SSE	28/03/2013	10:50	12	SE
28/03/2013	06:30	7	SSE	28/03/2013	10:55	11	SSE
28/03/2013	06:35	8	SE	28/03/2013	11:00	10	SE
28/03/2013	06:40	11	SSE	28/03/2013	11:05	11	SE
28/03/2013	06:45	11	SSE	28/03/2013	11:10	9	SE
28/03/2013	06:50	11	SSE	28/03/2013	11:15	12	SE
28/03/2013	06:55	11	SSE	28/03/2013	11:20	9	SE
28/03/2013	07:00	12	SSE	28/03/2013	11:25	10	SE
28/03/2013	07:05	11	SSE	28/03/2013	11:30	4	SE
28/03/2013	07:10	8	SE	28/03/2013	11:35	5	E
28/03/2013	07:15	12	SSE	28/03/2013	11:40	11	ENE
28/03/2013	07:20	15	SSE	28/03/2013	11:45	15	NNE
28/03/2013	07:25	9	SSE	28/03/2013	11:50	7	NE
28/03/2013	07:30	9	SSE	28/03/2013	11:55	5	E
28/03/2013	07:35	9	SSE	28/03/2013	12:00	2	W
28/03/2013	07:40	10	SE	28/03/2013	12:05	2	SSW
28/03/2013	07:45	9	SE	28/03/2013	12:10	2	SW
28/03/2013	07:50	12	SE	28/03/2013	12:15	2	SW
28/03/2013	07:55	10	SSE	28/03/2013	12:20	1	SW
28/03/2013	08:00	11	SE	28/03/2013	12:25	3	WNW
28/03/2013	08:05	10	SE	28/03/2013	12:30	4	WNW
28/03/2013	08:10	11	SE	28/03/2013	12:35	4	WNW
28/03/2013	08:15	9	SE	28/03/2013	12:40	3	WNW
28/03/2013	08:20	10	SE	28/03/2013	12:45	3	WNW
28/03/2013	08:25	11	SE	28/03/2013	12:50	7	WNW
28/03/2013	08:30	10	SSE	28/03/2013	12:55	4	WNW
28/03/2013	08:35	10	SSE	28/03/2013	13:00	3	WNW
28/03/2013	08:40	12	SSE	28/03/2013	13:05	1	S
28/03/2013	08:45	10	SSE	28/03/2013	13:10	2	WSW
28/03/2013	08:50	11	SSE	28/03/2013	13:15	2	SW
28/03/2013	08:55	12	SE	28/03/2013	13:20	2	SW
28/03/2013	09:00	13	SSE	28/03/2013	13:25	2	SSW
28/03/2013	09:05	13	SE	28/03/2013	13:30	2	WNW
28/03/2013	09:10	11	SSE	28/03/2013	13:35	3	SSE
28/03/2013	09:15	16	SE	28/03/2013	13:40	1	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
28/03/2013	13:45	1	S	28/03/2013	18:10	5	S
28/03/2013	13:50	2	SE	28/03/2013	18:15	2	SSE
28/03/2013	13:55	2	S	28/03/2013	18:20	3	NNE
28/03/2013	14:00	4	SSW	28/03/2013	18:25	3	ENE
28/03/2013	14:05	4	SSE	28/03/2013	18:30	4	NW
28/03/2013	14:10	2	ESE	28/03/2013	18:35	4	WNW
28/03/2013	14:15	3	S	28/03/2013	18:40	4	S
28/03/2013	14:20	1	S	28/03/2013	18:45	4	WNW
28/03/2013	14:25	4	ENE	28/03/2013	18:50	1	NW
28/03/2013	14:30	4	NE	28/03/2013	18:55	2	SE
28/03/2013	14:35	3	SE	28/03/2013	19:00	2	W
28/03/2013	14:40	2	SSE	28/03/2013	19:05	1	WNW
28/03/2013	14:45	2	SSE	28/03/2013	19:10	2	NW
28/03/2013	14:50	2	ENE	28/03/2013	19:15	4	NW
28/03/2013	14:55	2	NE	28/03/2013	19:20	11	NW
28/03/2013	15:00	2	ENE	28/03/2013	19:25	12	NW
28/03/2013	15:05	1	NE	28/03/2013	19:30	10	NW
28/03/2013	15:10	1	E	28/03/2013	19:35	9	WNW
28/03/2013	15:15	1	SE	28/03/2013	19:40	8	NW
28/03/2013	15:20	1	ESE	28/03/2013	19:45	5	W
28/03/2013	15:25	1	SSE	28/03/2013	19:50	4	WNW
28/03/2013	15:30	2	ENE	28/03/2013	19:55	3	NW
28/03/2013	15:35	3	ESE	28/03/2013	20:00	3	ESE
28/03/2013	15:40	4	SE	28/03/2013	20:05	4	E
28/03/2013	15:45	4	SSE	28/03/2013	20:10	3	ENE
28/03/2013	15:50	4	SE	28/03/2013	20:15	1	ENE
28/03/2013	15:55	3	ESE	28/03/2013	20:20	0	ESE
28/03/2013	16:00	0	ESE	28/03/2013	20:25	2	SSE
28/03/2013	16:05	2	NNE	28/03/2013	20:30	3	SSE
28/03/2013	16:10	1	ENE	28/03/2013	20:35	3	SSE
28/03/2013	16:15	2	NNE	28/03/2013	20:40	2	S
28/03/2013	16:20	2	NNE	28/03/2013	20:45	2	SSE
28/03/2013	16:25	1	NW	28/03/2013	20:50	3	SSE
28/03/2013	16:30	2	NNW	28/03/2013	20:55	3	SSE
28/03/2013	16:35	3	E	28/03/2013	21:00	3	SE
28/03/2013	16:40	5	ENE	28/03/2013	21:05	5	SSE
28/03/2013	16:45	5	NNE	28/03/2013	21:10	7	SSE
28/03/2013	16:50	7	N	28/03/2013	21:15	4	SE
28/03/2013	16:55	6	NNE	28/03/2013	21:20	4	SE
28/03/2013	17:00	5	NNE	28/03/2013	21:25	4	SE
28/03/2013	17:05	5	NE	28/03/2013	21:30	3	SSE
28/03/2013	17:10	8	N	28/03/2013	21:35	3	SE
28/03/2013	17:15	15	N	28/03/2013	21:40	5	SE
28/03/2013	17:20	3	SSW	28/03/2013	21:45	3	ESE
28/03/2013	17:25	3	SSW	28/03/2013	21:50	4	SE
28/03/2013	17:30	3	SE	28/03/2013	21:55	5	SSE
28/03/2013	17:35	5	SE	28/03/2013	22:00	3	S
28/03/2013	17:40	2	SSE	28/03/2013	22:05	0	SSE
28/03/2013	17:45	5	SSE	28/03/2013	22:10	0	S
28/03/2013	17:50	5	SSE	28/03/2013	22:15	7	S
28/03/2013	17:55	2	SSE	28/03/2013	22:20	6	SE
28/03/2013	18:00	2	ESE	28/03/2013	22:25	6	SE
28/03/2013	18:05	4	SSE	28/03/2013	22:30	7	WNW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
28/03/2013	22:35	10	SE	29/03/2013	03:00	1	WNW
28/03/2013	22:40	11	ESE	29/03/2013	03:05	2	WNW
28/03/2013	22:45	10	E	29/03/2013	03:10	3	NNW
28/03/2013	22:50	9	SE	29/03/2013	03:15	2	E
28/03/2013	22:55	12	SE	29/03/2013	03:20	1	ESE
28/03/2013	23:00	11	ESE	29/03/2013	03:25	2	ESE
28/03/2013	23:05	10	SE	29/03/2013	03:30	0	SSE
28/03/2013	23:10	10	SSE	29/03/2013	03:35	2	NW
28/03/2013	23:15	5	S	29/03/2013	03:40	1	NNE
28/03/2013	23:20	8	SSE	29/03/2013	03:45	1	WNW
28/03/2013	23:25	9	SSE	29/03/2013	03:50	1	WNW
28/03/2013	23:30	5	SSE	29/03/2013	03:55	0	WNW
28/03/2013	23:35	5	SE	29/03/2013	04:00	0	---
28/03/2013	23:40	3	SE	29/03/2013	04:05	0	---
28/03/2013	23:45	3	SSE	29/03/2013	04:10	0	---
28/03/2013	23:50	6	SSE	29/03/2013	04:15	0	---
28/03/2013	23:55	3	SSE	29/03/2013	04:20	0	---
29/03/2013	00:00	2	W	29/03/2013	04:25	0	W
29/03/2013	00:05	3	NNW	29/03/2013	04:30	1	SW
29/03/2013	00:10	2	NW	29/03/2013	04:35	1	WNW
29/03/2013	00:15	8	NNW	29/03/2013	04:40	1	WNW
29/03/2013	00:20	9	NNW	29/03/2013	04:45	1	WNW
29/03/2013	00:25	7	NW	29/03/2013	04:50	1	WNW
29/03/2013	00:30	5	NW	29/03/2013	04:55	3	WNW
29/03/2013	00:35	4	WNW	29/03/2013	05:00	2	WNW
29/03/2013	00:40	3	S	29/03/2013	05:05	0	WNW
29/03/2013	00:45	2	S	29/03/2013	05:10	0	WNW
29/03/2013	00:50	4	NNW	29/03/2013	05:15	0	WNW
29/03/2013	00:55	5	SSE	29/03/2013	05:20	0	WNW
29/03/2013	01:00	3	SSW	29/03/2013	05:25	0	---
29/03/2013	01:05	2	SW	29/03/2013	05:30	0	WNW
29/03/2013	01:10	1	N	29/03/2013	05:35	0	WNW
29/03/2013	01:15	1	N	29/03/2013	05:40	1	WNW
29/03/2013	01:20	1	NW	29/03/2013	05:45	0	WNW
29/03/2013	01:25	1	NW	29/03/2013	05:50	0	---
29/03/2013	01:30	2	SW	29/03/2013	05:55	0	---
29/03/2013	01:35	5	SE	29/03/2013	06:00	0	---
29/03/2013	01:40	5	SSE	29/03/2013	06:05	0	---
29/03/2013	01:45	2	SE	29/03/2013	06:10	0	---
29/03/2013	01:50	2	ESE	29/03/2013	06:15	0	---
29/03/2013	01:55	1	NW	29/03/2013	06:20	0	---
29/03/2013	02:00	2	SSE	29/03/2013	06:25	0	---
29/03/2013	02:05	2	SE	29/03/2013	06:30	3	SSE
29/03/2013	02:10	3	WNW	29/03/2013	06:35	3	SSE
29/03/2013	02:15	2	WNW	29/03/2013	06:40	2	SSE
29/03/2013	02:20	2	ESE	29/03/2013	06:45	3	S
29/03/2013	02:25	1	N	29/03/2013	06:50	2	SSW
29/03/2013	02:30	0	NW	29/03/2013	06:55	1	SSE
29/03/2013	02:35	0	NNW	29/03/2013	07:00	1	S
29/03/2013	02:40	2	E	29/03/2013	07:05	2	SSE
29/03/2013	02:45	2	S	29/03/2013	07:10	1	SSE
29/03/2013	02:50	3	S	29/03/2013	07:15	2	S
29/03/2013	02:55	2	SSE	29/03/2013	07:20	1	S



Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
29/03/2013	07:25	1	SSE	29/03/2013	11:50	3	N
29/03/2013	07:30	2	SSE	29/03/2013	11:55	4	NNW
29/03/2013	07:35	2	S	29/03/2013	12:00	4	NNW
29/03/2013	07:40	2	S	29/03/2013	12:05	3	N
29/03/2013	07:45	1	S	29/03/2013	12:10	4	NNW
29/03/2013	07:50	2	SSE	29/03/2013	12:15	4	NW
29/03/2013	07:55	1	SSE	29/03/2013	12:20	3	WNW
29/03/2013	08:00	1	SSE	29/03/2013	12:25	3	N
29/03/2013	08:05	1	E	29/03/2013	12:30	4	N
29/03/2013	08:10	3	E	29/03/2013	12:35	4	N
29/03/2013	08:15	3	S	29/03/2013	12:40	4	N
29/03/2013	08:20	2	S	29/03/2013	12:45	4	NNW
29/03/2013	08:25	3	SSE	29/03/2013	12:50	4	N
29/03/2013	08:30	3	SSE	29/03/2013	12:55	4	N
29/03/2013	08:35	4	SSE	29/03/2013	13:00	5	N
29/03/2013	08:40	3	SSE	29/03/2013	13:05	4	NNW
29/03/2013	08:45	4	SSE	29/03/2013	13:10	3	NNW
29/03/2013	08:50	4	ESE	29/03/2013	13:15	3	N
29/03/2013	08:55	4	SE	29/03/2013	13:20	3	NW
29/03/2013	09:00	4	SSE	29/03/2013	13:25	2	NNW
29/03/2013	09:05	5	SE	29/03/2013	13:30	3	NW
29/03/2013	09:10	5	SE	29/03/2013	13:35	3	NW
29/03/2013	09:15	4	SE	29/03/2013	13:40	2	NNW
29/03/2013	09:20	3	SSE	29/03/2013	13:45	2	NW
29/03/2013	09:25	3	E	29/03/2013	13:50	1	NW
29/03/2013	09:30	3	E	29/03/2013	13:55	1	NW
29/03/2013	09:35	3	E	29/03/2013	14:00	4	NNW
29/03/2013	09:40	3	E	29/03/2013	14:05	5	NNW
29/03/2013	09:45	2	E	29/03/2013	14:10	3	NNW
29/03/2013	09:50	2	E	29/03/2013	14:15	2	NW
29/03/2013	09:55	1	E	29/03/2013	14:20	1	NNW
29/03/2013	10:00	2	E	29/03/2013	14:25	1	NNW
29/03/2013	10:05	2	E	29/03/2013	14:30	1	NNW
29/03/2013	10:10	2	E	29/03/2013	14:35	1	N
29/03/2013	10:15	2	ENE	29/03/2013	14:40	1	N
29/03/2013	10:20	2	ENE	29/03/2013	14:45	1	N
29/03/2013	10:25	1	ENE	29/03/2013	14:50	1	NW
29/03/2013	10:30	1	S	29/03/2013	14:55	0	---
29/03/2013	10:35	1	ENE	29/03/2013	15:00	0	---
29/03/2013	10:40	3	E	29/03/2013	15:05	1	ENE
29/03/2013	10:45	2	ESE	29/03/2013	15:10	1	ENE
29/03/2013	10:50	1	SSE	29/03/2013	15:15	1	ENE
29/03/2013	10:55	1	SE	29/03/2013	15:20	2	ENE
29/03/2013	11:00	0	E	29/03/2013	15:25	1	ENE
29/03/2013	11:05	2	NNE	29/03/2013	15:30	1	ENE
29/03/2013	11:10	2	NNE	29/03/2013	15:35	0	ENE
29/03/2013	11:15	3	N	29/03/2013	15:40	0	---
29/03/2013	11:20	4	N	29/03/2013	15:45	0	ENE
29/03/2013	11:25	2	NNE	29/03/2013	15:50	0	---
29/03/2013	11:30	3	NNW	29/03/2013	15:55	0	---
29/03/2013	11:35	4	NNW	29/03/2013	16:00	0	---
29/03/2013	11:40	3	NNW	29/03/2013	16:05	0	---
29/03/2013	11:45	4	NNW	29/03/2013	16:10	0	---

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
29/03/2013	16:15	3	N	29/03/2013	20:40	4	E
29/03/2013	16:20	3	NNW	29/03/2013	20:45	5	NW
29/03/2013	16:25	1	NNW	29/03/2013	20:50	1	NNW
29/03/2013	16:30	0	NNW	29/03/2013	20:55	4	ENE
29/03/2013	16:35	1	NNW	29/03/2013	21:00	4	E
29/03/2013	16:40	3	NNW	29/03/2013	21:05	3	NE
29/03/2013	16:45	3	NNW	29/03/2013	21:10	3	NE
29/03/2013	16:50	1	NW	29/03/2013	21:15	3	ESE
29/03/2013	16:55	2	NW	29/03/2013	21:20	4	ESE
29/03/2013	17:00	1	NW	29/03/2013	21:25	6	SE
29/03/2013	17:05	0	---	29/03/2013	21:30	10	SSE
29/03/2013	17:10	2	SE	29/03/2013	21:35	9	SSE
29/03/2013	17:15	1	SE	29/03/2013	21:40	9	SSE
29/03/2013	17:20	1	E	29/03/2013	21:45	12	SSE
29/03/2013	17:25	1	ENE	29/03/2013	21:50	9	SSE
29/03/2013	17:30	2	NNW	29/03/2013	21:55	12	SSE
29/03/2013	17:35	2	W	29/03/2013	22:00	12	SSE
29/03/2013	17:40	2	NW	29/03/2013	22:05	9	SSE
29/03/2013	17:45	2	NW	29/03/2013	22:10	8	SE
29/03/2013	17:50	3	NW	29/03/2013	22:15	11	SSE
29/03/2013	17:55	3	NW	29/03/2013	22:20	9	SSE
29/03/2013	18:00	3	NNW	29/03/2013	22:25	8	SSE
29/03/2013	18:05	2	NNW	29/03/2013	22:30	9	SSE
29/03/2013	18:10	1	NNW	29/03/2013	22:35	10	SE
29/03/2013	18:15	2	SSE	29/03/2013	22:40	11	SE
29/03/2013	18:20	2	SE	29/03/2013	22:45	10	SSE
29/03/2013	18:25	1	SE	29/03/2013	22:50	10	SSE
29/03/2013	18:30	2	SSE	29/03/2013	22:55	10	SSE
29/03/2013	18:35	2	SSE	29/03/2013	23:00	7	SE
29/03/2013	18:40	2	SW	29/03/2013	23:05	7	SSE
29/03/2013	18:45	3	SSE	29/03/2013	23:10	9	SSE
29/03/2013	18:50	4	SSE	29/03/2013	23:15	8	SSE
29/03/2013	18:55	4	SSE	29/03/2013	23:20	10	SSE
29/03/2013	19:00	1	SSE	29/03/2013	23:25	8	SSE
29/03/2013	19:05	3	SE	29/03/2013	23:30	12	SSE
29/03/2013	19:10	1	SE	29/03/2013	23:35	8	SSE
29/03/2013	19:15	4	SSE	29/03/2013	23:40	10	SSE
29/03/2013	19:20	3	SSE	29/03/2013	23:45	8	SSE
29/03/2013	19:25	4	SSE	29/03/2013	23:50	10	SSE
29/03/2013	19:30	4	SSE	29/03/2013	23:55	11	SSE
29/03/2013	19:35	5	SSE	30/03/2013	00:00	10	SSE
29/03/2013	19:40	4	SSE	30/03/2013	00:05	9	SSE
29/03/2013	19:45	2	SSE	30/03/2013	00:10	9	SSE
29/03/2013	19:50	2	SE	30/03/2013	00:15	10	SSE
29/03/2013	19:55	1	ESE	30/03/2013	00:20	9	SSE
29/03/2013	20:00	2	ESE	30/03/2013	00:25	9	SSE
29/03/2013	20:05	3	SSE	30/03/2013	00:30	10	SSE
29/03/2013	20:10	1	SE	30/03/2013	00:35	10	SSE
29/03/2013	20:15	2	SE	30/03/2013	00:40	11	SSE
29/03/2013	20:20	3	SSE	30/03/2013	00:45	11	SSE
29/03/2013	20:25	2	NNE	30/03/2013	00:50	13	SSE
29/03/2013	20:30	4	NE	30/03/2013	00:55	11	SSE
29/03/2013	20:35	2	N	30/03/2013	01:00	9	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
30/03/2013	01:05	11	SSE	30/03/2013	05:30	3	SSE
30/03/2013	01:10	10	SSE	30/03/2013	05:35	4	SSE
30/03/2013	01:15	11	SSE	30/03/2013	05:40	4	ESE
30/03/2013	01:20	9	SSE	30/03/2013	05:45	3	SE
30/03/2013	01:25	11	SSE	30/03/2013	05:50	6	SSE
30/03/2013	01:30	11	SSE	30/03/2013	05:55	9	SSE
30/03/2013	01:35	14	SSE	30/03/2013	06:00	8	SSE
30/03/2013	01:40	12	SSE	30/03/2013	06:05	7	SE
30/03/2013	01:45	13	SSE	30/03/2013	06:10	8	SE
30/03/2013	01:50	14	SE	30/03/2013	06:15	3	SW
30/03/2013	01:55	14	SE	30/03/2013	06:20	5	SSE
30/03/2013	02:00	14	SE	30/03/2013	06:25	5	SE
30/03/2013	02:05	12	SSE	30/03/2013	06:30	6	SE
30/03/2013	02:10	13	SSE	30/03/2013	06:35	8	SE
30/03/2013	02:15	15	SSE	30/03/2013	06:40	8	SSE
30/03/2013	02:20	11	SE	30/03/2013	06:45	9	SSE
30/03/2013	02:25	15	SSE	30/03/2013	06:50	8	SSE
30/03/2013	02:30	14	SSE	30/03/2013	06:55	11	SSE
30/03/2013	02:35	11	SSE	30/03/2013	07:00	10	SSE
30/03/2013	02:40	14	SE	30/03/2013	07:05	12	SSE
30/03/2013	02:45	12	SE	30/03/2013	07:10	10	SSE
30/03/2013	02:50	11	SE	30/03/2013	07:15	12	SSE
30/03/2013	02:55	15	SSE	30/03/2013	07:20	10	SE
30/03/2013	03:00	14	SSE	30/03/2013	07:25	8	SE
30/03/2013	03:05	13	SE	30/03/2013	07:30	7	SSE
30/03/2013	03:10	9	SSE	30/03/2013	07:35	8	SSE
30/03/2013	03:15	11	SSE	30/03/2013	07:40	10	SE
30/03/2013	03:20	13	SSE	30/03/2013	07:45	9	SE
30/03/2013	03:25	13	SSE	30/03/2013	07:50	11	SE
30/03/2013	03:30	14	SSE	30/03/2013	07:55	12	SSE
30/03/2013	03:35	12	SSE	30/03/2013	08:00	11	SSE
30/03/2013	03:40	15	SSE	30/03/2013	08:05	11	SE
30/03/2013	03:45	12	SSE	30/03/2013	08:10	10	SE
30/03/2013	03:50	12	SSE	30/03/2013	08:15	7	SSE
30/03/2013	03:55	12	SSE	30/03/2013	08:20	10	SSE
30/03/2013	04:00	13	SSE	30/03/2013	08:25	5	SE
30/03/2013	04:05	11	SSE	30/03/2013	08:30	8	ESE
30/03/2013	04:10	9	SSE	30/03/2013	08:35	5	NNE
30/03/2013	04:15	10	SE	30/03/2013	08:40	6	SSE
30/03/2013	04:20	11	SE	30/03/2013	08:45	10	SE
30/03/2013	04:25	8	SE	30/03/2013	08:50	13	SE
30/03/2013	04:30	10	SSE	30/03/2013	08:55	8	SE
30/03/2013	04:35	13	SSE	30/03/2013	09:00	10	SE
30/03/2013	04:40	13	SSE	30/03/2013	09:05	10	SE
30/03/2013	04:45	8	SE	30/03/2013	09:10	6	SE
30/03/2013	04:50	5	N	30/03/2013	09:15	8	SE
30/03/2013	04:55	5	N	30/03/2013	09:20	12	SSE
30/03/2013	05:00	7	NW	30/03/2013	09:25	10	SE
30/03/2013	05:05	8	N	30/03/2013	09:30	11	SE
30/03/2013	05:10	4	N	30/03/2013	09:35	15	SE
30/03/2013	05:15	5	N	30/03/2013	09:40	13	SE
30/03/2013	05:20	4	NNE	30/03/2013	09:45	14	SE
30/03/2013	05:25	2	ENE	30/03/2013	09:50	16	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
30/03/2013	09:55	15	SE	30/03/2013	14:20	8	SE
30/03/2013	10:00	16	SSE	30/03/2013	14:25	15	SSE
30/03/2013	10:05	14	SSE	30/03/2013	14:30	22	SSE
30/03/2013	10:10	13	SE	30/03/2013	14:35	18	SSE
30/03/2013	10:15	11	SE	30/03/2013	14:40	17	SE
30/03/2013	10:20	9	SSE	30/03/2013	14:45	16	SSE
30/03/2013	10:25	13	SE	30/03/2013	14:50	14	SE
30/03/2013	10:30	14	SSE	30/03/2013	14:55	14	SSE
30/03/2013	10:35	16	SSE	30/03/2013	15:00	16	SE
30/03/2013	10:40	14	SSE	30/03/2013	15:05	26	SSE
30/03/2013	10:45	15	SSE	30/03/2013	15:10	19	SE
30/03/2013	10:50	20	SE	30/03/2013	15:15	21	SE
30/03/2013	10:55	19	SSE	30/03/2013	15:20	24	SSE
30/03/2013	11:00	17	SSE	30/03/2013	15:25	22	SSE
30/03/2013	11:05	14	SSE	30/03/2013	15:30	18	SE
30/03/2013	11:10	16	SSE	30/03/2013	15:35	18	SSE
30/03/2013	11:15	14	SSE	30/03/2013	15:40	14	SSE
30/03/2013	11:20	12	SSE	30/03/2013	15:45	17	SE
30/03/2013	11:25	12	SSE	30/03/2013	15:50	15	SSE
30/03/2013	11:30	9	SSE	30/03/2013	15:55	15	SSE
30/03/2013	11:35	11	SSE	30/03/2013	16:00	15	SE
30/03/2013	11:40	10	SSE	30/03/2013	16:05	13	SSE
30/03/2013	11:45	11	SSE	30/03/2013	16:10	12	SSE
30/03/2013	11:50	7	SSE	30/03/2013	16:15	16	SE
30/03/2013	11:55	5	N	30/03/2013	16:20	13	SE
30/03/2013	12:00	7	N	30/03/2013	16:25	12	SSE
30/03/2013	12:05	6	NNE	30/03/2013	16:30	15	SE
30/03/2013	12:10	8	NNE	30/03/2013	16:35	12	SE
30/03/2013	12:15	6	N	30/03/2013	16:40	14	SSE
30/03/2013	12:20	7	NNW	30/03/2013	16:45	12	SSE
30/03/2013	12:25	4	NNE	30/03/2013	16:50	11	SSE
30/03/2013	12:30	6	NE	30/03/2013	16:55	15	SSE
30/03/2013	12:35	7	NNW	30/03/2013	17:00	15	SSE
30/03/2013	12:40	5	N	30/03/2013	17:05	10	SE
30/03/2013	12:45	7	NNW	30/03/2013	17:10	6	E
30/03/2013	12:50	9	N	30/03/2013	17:15	8	ENE
30/03/2013	12:55	8	NNE	30/03/2013	17:20	12	ENE
30/03/2013	13:00	5	NE	30/03/2013	17:25	12	ENE
30/03/2013	13:05	7	NW	30/03/2013	17:30	4	E
30/03/2013	13:10	7	SSE	30/03/2013	17:35	2	SE
30/03/2013	13:15	6	SSE	30/03/2013	17:40	4	SSE
30/03/2013	13:20	7	ENE	30/03/2013	17:45	3	SE
30/03/2013	13:25	9	NNE	30/03/2013	17:50	3	SE
30/03/2013	13:30	10	N	30/03/2013	17:55	3	SE
30/03/2013	13:35	9	NNW	30/03/2013	18:00	5	SSE
30/03/2013	13:40	7	NNW	30/03/2013	18:05	5	SSE
30/03/2013	13:45	9	SSE	30/03/2013	18:10	7	SSE
30/03/2013	13:50	18	SSE	30/03/2013	18:15	4	SSE
30/03/2013	13:55	13	SE	30/03/2013	18:20	5	SSE
30/03/2013	14:00	10	ESE	30/03/2013	18:25	6	S
30/03/2013	14:05	9	NE	30/03/2013	18:30	5	S
30/03/2013	14:10	7	NNW	30/03/2013	18:35	4	S
30/03/2013	14:15	9	SSE	30/03/2013	18:40	3	SSW

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
30/03/2013	18:45	2 S		30/03/2013	23:10	3	N
30/03/2013	18:50	3 S		30/03/2013	23:15	3	SE
30/03/2013	18:55	3 SW		30/03/2013	23:20	4	E
30/03/2013	19:00	4 SSW		30/03/2013	23:25	3	N
30/03/2013	19:05	3 SSW		30/03/2013	23:30	3	E
30/03/2013	19:10	2 SSW		30/03/2013	23:35	2	SE
30/03/2013	19:15	5 SSE		30/03/2013	23:40	2	W
30/03/2013	19:20	5 S		30/03/2013	23:45	5	E
30/03/2013	19:25	4 SSW		30/03/2013	23:50	6	E
30/03/2013	19:30	3 WSW		30/03/2013	23:55	8	E
30/03/2013	19:35	3 SSW		31/03/2013	00:00	4	SSE
30/03/2013	19:40	4 W		31/03/2013	00:05	2	E
30/03/2013	19:45	4 W		31/03/2013	00:10	6	SE
30/03/2013	19:50	4 S		31/03/2013	00:15	8	SE
30/03/2013	19:55	3 SSW		31/03/2013	00:20	8	SE
30/03/2013	20:00	2 NNE		31/03/2013	00:25	8	SE
30/03/2013	20:05	3 NNE		31/03/2013	00:30	7	SE
30/03/2013	20:10	5 N		31/03/2013	00:35	7	SSE
30/03/2013	20:15	9 NW		31/03/2013	00:40	7	SSE
30/03/2013	20:20	6 NNW		31/03/2013	00:45	5	SSE
30/03/2013	20:25	7 N		31/03/2013	00:50	3	SSE
30/03/2013	20:30	9 SE		31/03/2013	00:55	1	SSW
30/03/2013	20:35	13 SE		31/03/2013	01:00	2	SE
30/03/2013	20:40	13 SE		31/03/2013	01:05	3	ESE
30/03/2013	20:45	14 SE		31/03/2013	01:10	3	SE
30/03/2013	20:50	15 SSE		31/03/2013	01:15	2	SE
30/03/2013	20:55	11 SSE		31/03/2013	01:20	2	ESE
30/03/2013	21:00	9 SSE		31/03/2013	01:25	1	ENE
30/03/2013	21:05	8 SSE		31/03/2013	01:30	3	ESE
30/03/2013	21:10	10 SSE		31/03/2013	01:35	5	SE
30/03/2013	21:15	8 SSW		31/03/2013	01:40	3	SE
30/03/2013	21:20	5 SSE		31/03/2013	01:45	4	SE
30/03/2013	21:25	5 SE		31/03/2013	01:50	4	SE
30/03/2013	21:30	5 SSE		31/03/2013	01:55	3	SE
30/03/2013	21:35	6 SE		31/03/2013	02:00	2	SE
30/03/2013	21:40	6 SE		31/03/2013	02:05	1	SSW
30/03/2013	21:45	6 SE		31/03/2013	02:10	1	S
30/03/2013	21:50	8 SE		31/03/2013	02:15	1	SSE
30/03/2013	21:55	3 SSE		31/03/2013	02:20	1	SSE
30/03/2013	22:00	6 NNW		31/03/2013	02:25	1	SE
30/03/2013	22:05	9 N		31/03/2013	02:30	1	SE
30/03/2013	22:10	5 N		31/03/2013	02:35	2	ESE
30/03/2013	22:15	5 E		31/03/2013	02:40	2	ESE
30/03/2013	22:20	6 SE		31/03/2013	02:45	1	SE
30/03/2013	22:25	6 SE		31/03/2013	02:50	0	SE
30/03/2013	22:30	10 SSE		31/03/2013	02:55	4	E
30/03/2013	22:35	10 SE		31/03/2013	03:00	3	E
30/03/2013	22:40	9 SE		31/03/2013	03:05	2	ESE
30/03/2013	22:45	5 NE		31/03/2013	03:10	2	E
30/03/2013	22:50	6 NE		31/03/2013	03:15	1	ESE
30/03/2013	22:55	6 ENE		31/03/2013	03:20	0	---
30/03/2013	23:00	12 N		31/03/2013	03:25	1	SSE
30/03/2013	23:05	9 NE		31/03/2013	03:30	0	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
31/03/2013	03:35	0	---	31/03/2013	08:00	2	S
31/03/2013	03:40	0	---	31/03/2013	08:05	3	SE
31/03/2013	03:45	0	---	31/03/2013	08:10	1	S
31/03/2013	03:50	0	---	31/03/2013	08:15	3	E
31/03/2013	03:55	1	SE	31/03/2013	08:20	4	SSE
31/03/2013	04:00	2	SE	31/03/2013	08:25	4	SSE
31/03/2013	04:05	2	SE	31/03/2013	08:30	3	ESE
31/03/2013	04:10	2	SE	31/03/2013	08:35	4	SE
31/03/2013	04:15	2	SSE	31/03/2013	08:40	4	SE
31/03/2013	04:20	1	SE	31/03/2013	08:45	5	E
31/03/2013	04:25	1	SE	31/03/2013	08:50	5	ENE
31/03/2013	04:30	1	ESE	31/03/2013	08:55	5	ENE
31/03/2013	04:35	1	SSE	31/03/2013	09:00	3	E
31/03/2013	04:40	4	SSE	31/03/2013	09:05	3	E
31/03/2013	04:45	3	SSE	31/03/2013	09:10	4	E
31/03/2013	04:50	4	SSE	31/03/2013	09:15	5	E
31/03/2013	04:55	3	SSE	31/03/2013	09:20	4	E
31/03/2013	05:00	3	SE	31/03/2013	09:25	3	NE
31/03/2013	05:05	4	SSE	31/03/2013	09:30	4	ENE
31/03/2013	05:10	4	SSE	31/03/2013	09:35	4	ENE
31/03/2013	05:15	4	SE	31/03/2013	09:40	5	ENE
31/03/2013	05:20	3	SE	31/03/2013	09:45	4	ENE
31/03/2013	05:25	2	SSE	31/03/2013	09:50	2	E
31/03/2013	05:30	2	SSE	31/03/2013	09:55	1	ENE
31/03/2013	05:35	2	SSE	31/03/2013	10:00	1	NE
31/03/2013	05:40	2	SSE	31/03/2013	10:05	0	NE
31/03/2013	05:45	1	SW	31/03/2013	10:10	1	NE
31/03/2013	05:50	1	SSW	31/03/2013	10:15	1	E
31/03/2013	05:55	2	SE	31/03/2013	10:20	1	E
31/03/2013	06:00	2	SSE	31/03/2013	10:25	0	E
31/03/2013	06:05	2	SSE	31/03/2013	10:30	0	E
31/03/2013	06:10	1	SSE	31/03/2013	10:35	1	E
31/03/2013	06:15	2	SSE	31/03/2013	10:40	0	ESE
31/03/2013	06:20	3	SSE	31/03/2013	10:45	1	ESE
31/03/2013	06:25	3	SSE	31/03/2013	10:50	1	ENE
31/03/2013	06:30	2	SSE	31/03/2013	10:55	2	ENE
31/03/2013	06:35	3	SSE	31/03/2013	11:00	0	ENE
31/03/2013	06:40	2	NNW	31/03/2013	11:05	1	SSE
31/03/2013	06:45	1	NW	31/03/2013	11:10	3	S
31/03/2013	06:50	1	NE	31/03/2013	11:15	5	SSE
31/03/2013	06:55	1	SSE	31/03/2013	11:20	4	SSE
31/03/2013	07:00	2	SSE	31/03/2013	11:25	5	SSE
31/03/2013	07:05	1	SE	31/03/2013	11:30	6	SSE
31/03/2013	07:10	2	S	31/03/2013	11:35	6	SSE
31/03/2013	07:15	2	SE	31/03/2013	11:40	10	SE
31/03/2013	07:20	2	NE	31/03/2013	11:45	8	SSE
31/03/2013	07:25	3	SSE	31/03/2013	11:50	8	SSE
31/03/2013	07:30	2	SE	31/03/2013	11:55	6	SSE
31/03/2013	07:35	2	E	31/03/2013	12:00	5	SSE
31/03/2013	07:40	3	SSE	31/03/2013	12:05	4	SSE
31/03/2013	07:45	4	SE	31/03/2013	12:10	6	SSE
31/03/2013	07:50	3	SSE	31/03/2013	12:15	6	SSE
31/03/2013	07:55	3	SE	31/03/2013	12:20	4	SSE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

Date	Time	Wind Speed (mph)	Wind Direction	Date	Time	Wind Speed (mph)	Wind Direction
31/03/2013	12:25	3	SSE	31/03/2013	16:50	7	SSE
31/03/2013	12:30	5	SE	31/03/2013	16:55	7	SSE
31/03/2013	12:35	5	SSE	31/03/2013	17:00	7	SSE
31/03/2013	12:40	5	SSE	31/03/2013	17:05	7	SE
31/03/2013	12:45	3	S	31/03/2013	17:10	5	SE
31/03/2013	12:50	1	SSE	31/03/2013	17:15	4	SSE
31/03/2013	12:55	2	ESE	31/03/2013	17:20	4	S
31/03/2013	13:00	2	SSW	31/03/2013	17:25	3	SSE
31/03/2013	13:05	2	NNE	31/03/2013	17:30	1	E
31/03/2013	13:10	2	N	31/03/2013	17:35	1	N
31/03/2013	13:15	3	ENE	31/03/2013	17:40	2	N
31/03/2013	13:20	5	ESE	31/03/2013	17:45	3	SSE
31/03/2013	13:25	4	SSE	31/03/2013	17:50	3	S
31/03/2013	13:30	4	SE	31/03/2013	17:55	4	SSE
31/03/2013	13:35	4	E	31/03/2013	18:00	4	SE
31/03/2013	13:40	7	SE	31/03/2013	18:05	5	SE
31/03/2013	13:45	4	SSE	31/03/2013	18:10	5	SSE
31/03/2013	13:50	5	SE	31/03/2013	18:15	6	SSE
31/03/2013	13:55	7	SSE	31/03/2013	18:20	6	SSE
31/03/2013	14:00	4	SE	31/03/2013	18:25	8	SSE
31/03/2013	14:05	2	SE	31/03/2013	18:30	6	SSE
31/03/2013	14:10	2	NE	31/03/2013	18:35	7	SSE
31/03/2013	14:15	9	N	31/03/2013	18:40	10	SSE
31/03/2013	14:20	7	N	31/03/2013	18:45	10	SSE
31/03/2013	14:25	7	N	31/03/2013	18:50	9	SSE
31/03/2013	14:30	4	NNE	31/03/2013	18:55	11	SSE
31/03/2013	14:35	4	N	31/03/2013	19:00	10	SSE
31/03/2013	14:40	2	N	31/03/2013	19:05	9	SSE
31/03/2013	14:45	1	NE	31/03/2013	19:10	10	SSE
31/03/2013	14:50	1	NE	31/03/2013	19:15	11	SSE
31/03/2013	14:55	1	SE	31/03/2013	19:20	12	SSE
31/03/2013	15:00	2	SE	31/03/2013	19:25	14	SSE
31/03/2013	15:05	2	SE	31/03/2013	19:30	13	SSE
31/03/2013	15:10	6	SE	31/03/2013	19:35	10	SSE
31/03/2013	15:15	8	SE	31/03/2013	19:40	11	SSE
31/03/2013	15:20	9	SE	31/03/2013	19:45	9	SSE
31/03/2013	15:25	9	SE	31/03/2013	19:50	10	SE
31/03/2013	15:30	11	SSE	31/03/2013	19:55	10	SSE
31/03/2013	15:35	10	SSE	31/03/2013	20:00	12	SSE
31/03/2013	15:40	8	SSE	31/03/2013	20:05	13	SE
31/03/2013	15:45	6	SSE	31/03/2013	20:10	13	SE
31/03/2013	15:50	5	SSE	31/03/2013	20:15	11	SE
31/03/2013	15:55	9	SSE	31/03/2013	20:20	13	SSE
31/03/2013	16:00	4	E	31/03/2013	20:25	15	SE
31/03/2013	16:05	5	NNW	31/03/2013	20:30	12	SE
31/03/2013	16:10	6	NE	31/03/2013	20:35	14	SE
31/03/2013	16:15	8	SE	31/03/2013	20:40	13	SE
31/03/2013	16:20	12	SE	31/03/2013	20:45	12	SE
31/03/2013	16:25	10	SE	31/03/2013	20:50	8	SE
31/03/2013	16:30	7	SE	31/03/2013	20:55	10	SE
31/03/2013	16:35	7	SE	31/03/2013	21:00	12	SE
31/03/2013	16:40	8	SE	31/03/2013	21:05	12	SE
31/03/2013	16:45	7	SSE	31/03/2013	21:10	11	SE

Extracted from the Weather Station at Tung Chung China State Site Office Rooftop

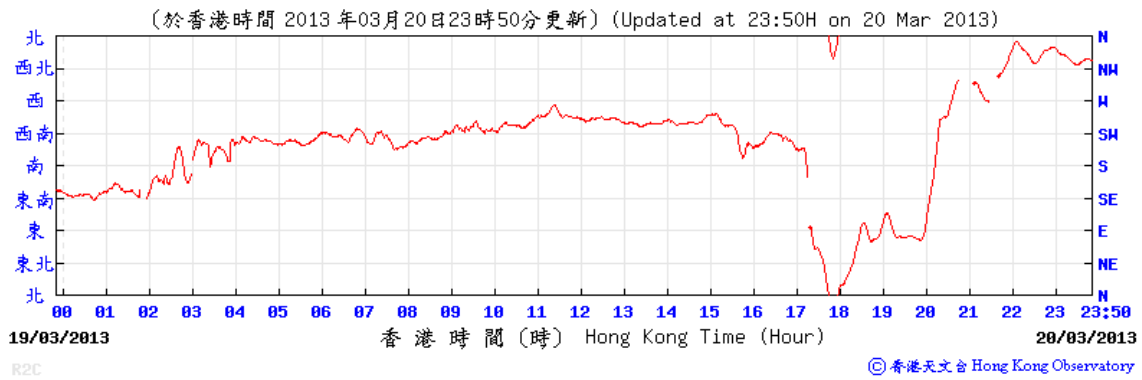
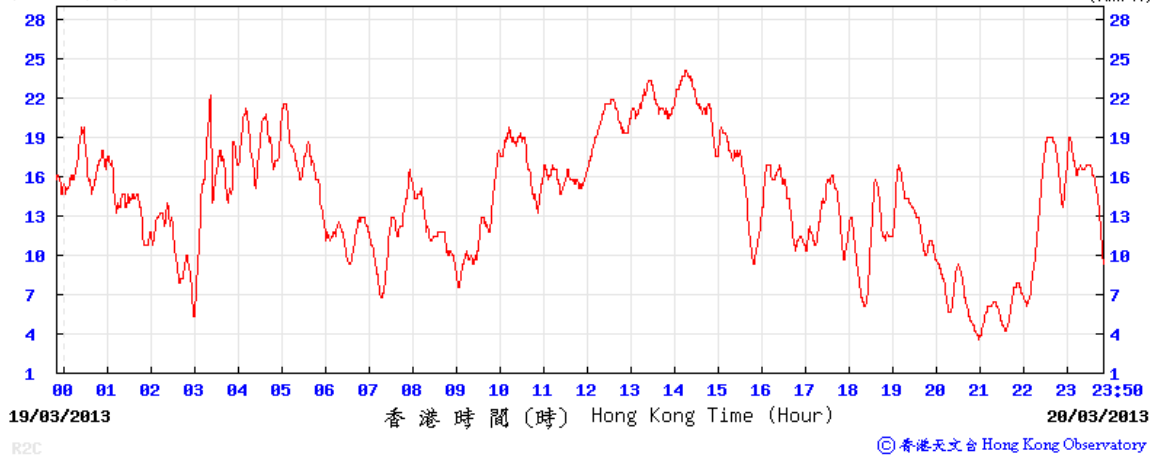
Date	Time	Wind Speed (mph)	Wind Direction
31/03/2013	21:15	8	SE
31/03/2013	21:20	10	SE
31/03/2013	21:25	12	SE
31/03/2013	21:30	11	SE
31/03/2013	21:35	9	SSE
31/03/2013	21:40	10	SSE
31/03/2013	21:45	13	SSE
31/03/2013	21:50	15	SE
31/03/2013	21:55	16	SE
31/03/2013	22:00	14	SSE
31/03/2013	22:05	15	SSE
31/03/2013	22:10	16	SSE
31/03/2013	22:15	16	SSE
31/03/2013	22:20	15	SSE
31/03/2013	22:25	14	SSE
31/03/2013	22:30	15	SSE
31/03/2013	22:35	11	SSE
31/03/2013	22:40	10	SSE
31/03/2013	22:45	10	SSE
31/03/2013	22:50	11	SSE
31/03/2013	22:55	16	SSE
31/03/2013	23:00	16	SSE
31/03/2013	23:05	16	SSE
31/03/2013	23:10	14	SSE
31/03/2013	23:15	16	SSE
31/03/2013	23:20	13	SSE
31/03/2013	23:25	13	SSE
31/03/2013	23:30	12	SSE
31/03/2013	23:35	12	SE
31/03/2013	23:40	14	SE
31/03/2013	23:45	13	SSE
31/03/2013	23:50	14	SSE
31/03/2013	23:55	17	SSE

Date	Time	Wind Speed (mph)	Wind Direction
------	------	------------------	----------------

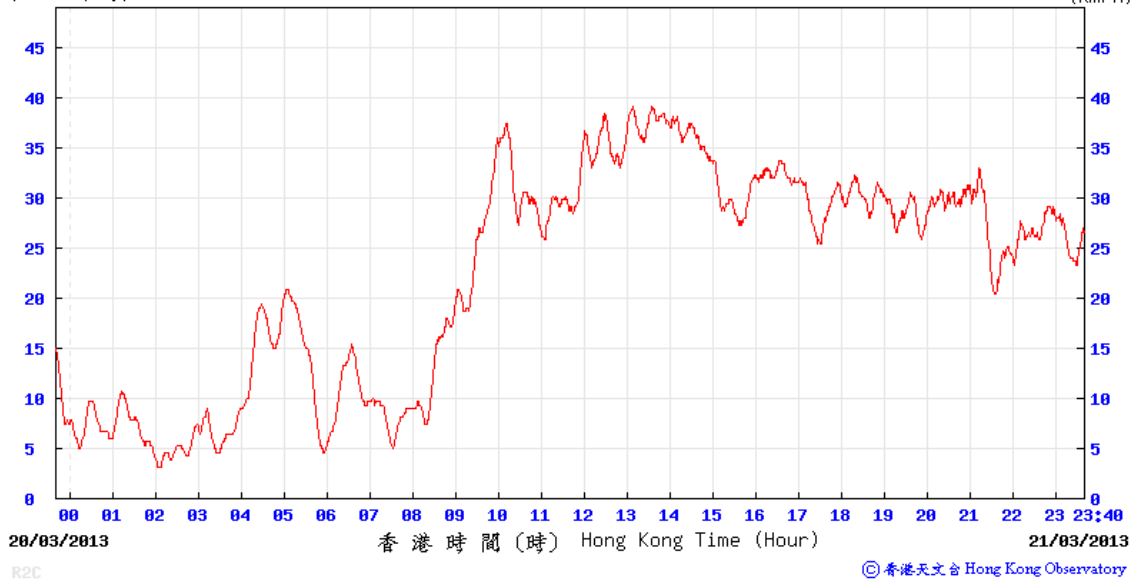


# Wind data of Hong Kong Observatory's Chek Lap Kok weather station

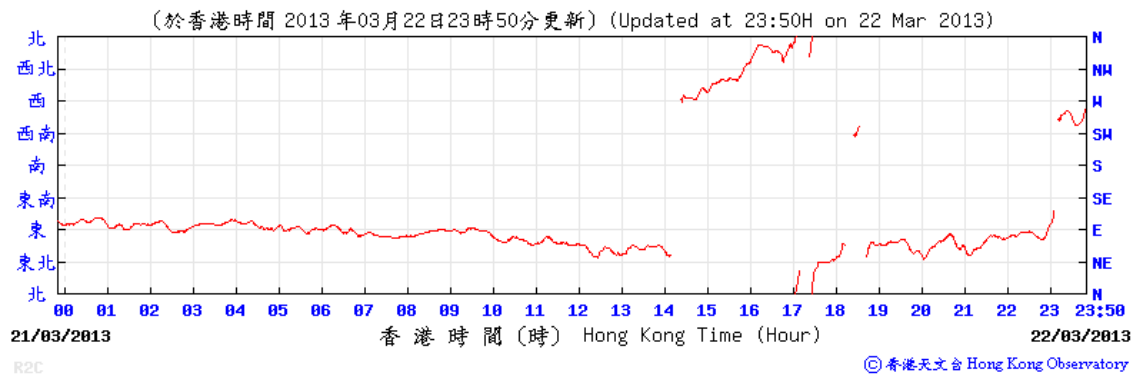
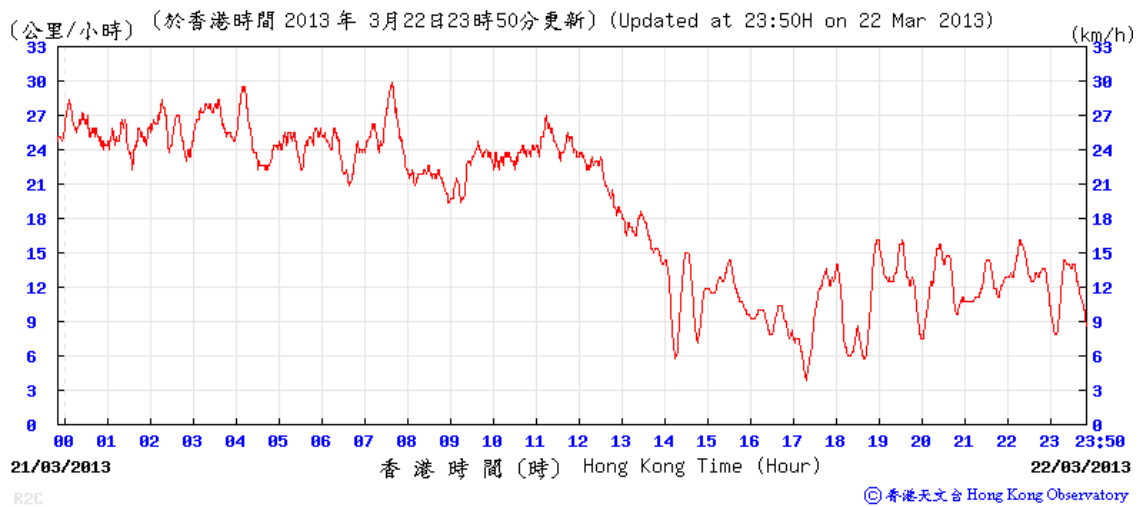
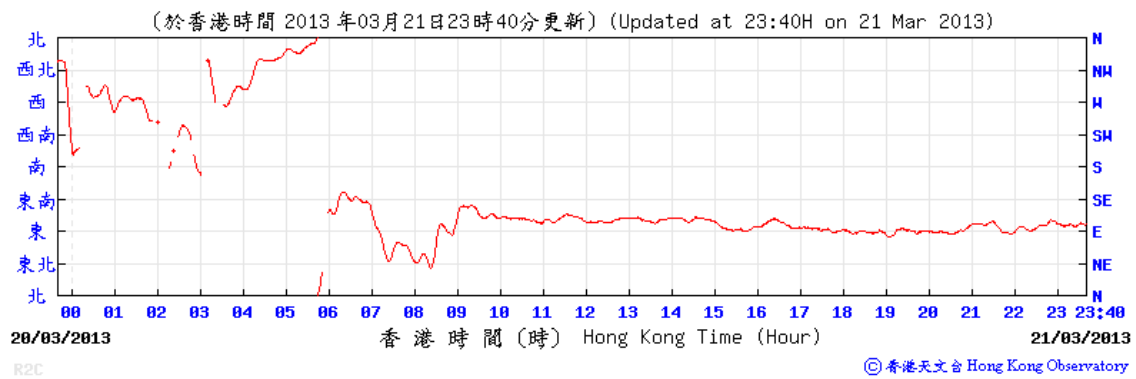
(公里/小時) (於香港時間 2013 年 3月20日23時50分更新) (Updated at 23:50H on 20 Mar 2013) (km/h)



(公里/小時) (於香港時間 2013 年 3月21日23時40分更新) (Updated at 23:40H on 21 Mar 2013) (km/h)

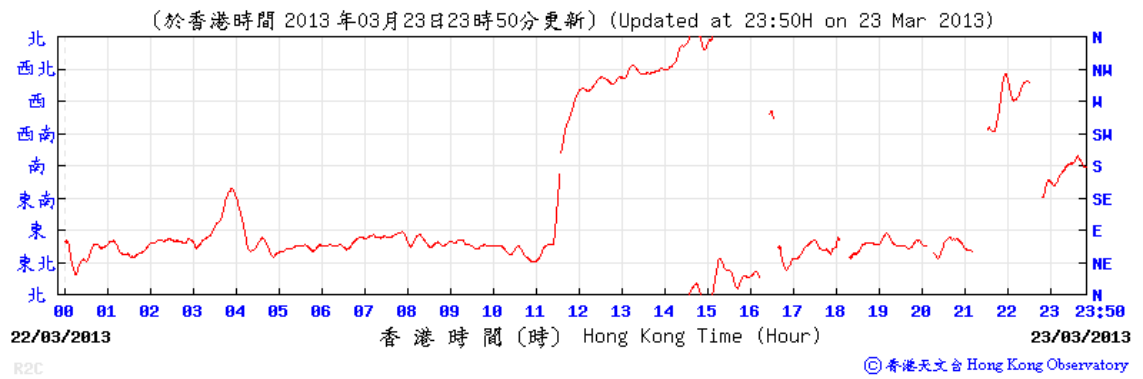
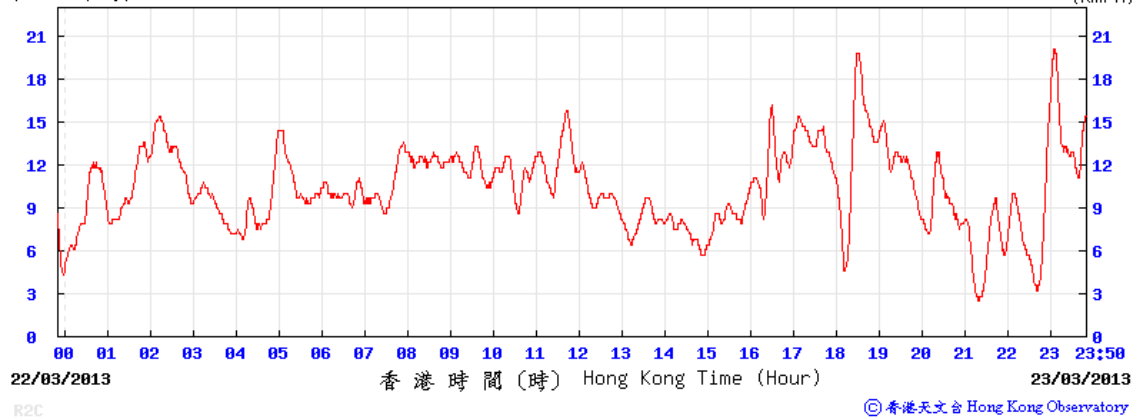


## Wind data of Hong Kong Observatory's Chek Lap Kok weather station



# Wind data of Hong Kong Observatory's Chek Lap Kok weather station

(公里/小時) (於香港時間 2013 年 3 月 23 日 23 時 50 分更新) (Updated at 23:50H on 23 Mar 2013) (km/h)





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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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# APPENDIX H

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## Dolphin Monitoring Results



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

# Annex I. HKLR03 Survey Effort Database (March 2013)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
6-Mar-13	NE LANTAU	1	1.32	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NE LANTAU	2	11.12	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NE LANTAU	3	5.51	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NE LANTAU	1	2.14	SPRING	STANDARD31516	HKLR	S
6-Mar-13	NE LANTAU	2	5.11	SPRING	STANDARD31516	HKLR	S
6-Mar-13	NE LANTAU	3	2.40	SPRING	STANDARD31516	HKLR	S
6-Mar-13	NW LANTAU	0	2.81	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NW LANTAU	1	7.37	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NW LANTAU	2	14.99	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NW LANTAU	3	14.56	SPRING	STANDARD31516	HKLR	P
6-Mar-13	NW LANTAU	1	1.70	SPRING	STANDARD31516	HKLR	S
6-Mar-13	NW LANTAU	2	3.56	SPRING	STANDARD31516	HKLR	S
6-Mar-13	NW LANTAU	3	6.70	SPRING	STANDARD31516	HKLR	S
11-Mar-13	NE LANTAU	2	6.63	SPRING	STANDARD31516	HKLR	P
11-Mar-13	NE LANTAU	3	13.70	SPRING	STANDARD31516	HKLR	P
11-Mar-13	NE LANTAU	1	1.27	SPRING	STANDARD31516	HKLR	S
11-Mar-13	NE LANTAU	2	4.90	SPRING	STANDARD31516	HKLR	S
11-Mar-13	NE LANTAU	3	4.40	SPRING	STANDARD31516	HKLR	S
11-Mar-13	NW LANTAU	2	4.11	SPRING	STANDARD31516	HKLR	P
11-Mar-13	NW LANTAU	3	18.87	SPRING	STANDARD31516	HKLR	P
11-Mar-13	NW LANTAU	4	8.95	SPRING	STANDARD31516	HKLR	P
11-Mar-13	NW LANTAU	2	2.56	SPRING	STANDARD31516	HKLR	S
11-Mar-13	NW LANTAU	3	5.31	SPRING	STANDARD31516	HKLR	S
13-Mar-13	NW LANTAU	0	3.41	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NW LANTAU	1	32.24	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NW LANTAU	2	4.38	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NW LANTAU	0	2.01	SPRING	STANDARD31516	HKLR	S
13-Mar-13	NW LANTAU	1	5.83	SPRING	STANDARD31516	HKLR	S
13-Mar-13	NW LANTAU	2	4.28	SPRING	STANDARD31516	HKLR	S
13-Mar-13	NE LANTAU	0	1.19	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NE LANTAU	1	7.39	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NE LANTAU	2	6.89	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NE LANTAU	3	3.80	SPRING	STANDARD31516	HKLR	P
13-Mar-13	NE LANTAU	1	2.20	SPRING	STANDARD31516	HKLR	S
13-Mar-13	NE LANTAU	2	6.40	SPRING	STANDARD31516	HKLR	S
20-Mar-13	NE LANTAU	1	13.70	SPRING	STANDARD31516	HKLR	P
20-Mar-13	NE LANTAU	2	6.60	SPRING	STANDARD31516	HKLR	P
20-Mar-13	NE LANTAU	1	8.70	SPRING	STANDARD31516	HKLR	S
20-Mar-13	NE LANTAU	2	2.00	SPRING	STANDARD31516	HKLR	S
20-Mar-13	NW LANTAU	1	1.20	SPRING	STANDARD31516	HKLR	P
20-Mar-13	NW LANTAU	2	25.70	SPRING	STANDARD31516	HKLR	P
20-Mar-13	NW LANTAU	3	5.40	SPRING	STANDARD31516	HKLR	P
20-Mar-13	NW LANTAU	1	2.40	SPRING	STANDARD31516	HKLR	S
20-Mar-13	NW LANTAU	2	4.70	SPRING	STANDARD31516	HKLR	S

## Annex II. HKLR03 Chinese White Dolphin Sighting Database (March 2013)

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
6-Mar-13	1	1401	20	NW LANTAU	3	294	ON	HCLR	823815	806677	SPRING	NONE	S
6-Mar-13	2	1532	10	NW LANTAU	2	132	ON	HCLR	823288	804667	SPRING	NONE	P
11-Mar-13	1	1309	2	NW LANTAU	3	105	ON	HCLR	821698	807518	SPRING	NONE	P
11-Mar-13	2	1356	2	NW LANTAU	2	75	ON	HCLR	828398	807530	SPRING	NONE	P
11-Mar-13	3	1421	3	NW LANTAU	2	39	ON	HCLR	829964	805464	SPRING	NONE	P
11-Mar-13	4	1434	2	NW LANTAU	2	296	ON	HCLR	828646	805451	SPRING	NONE	P
11-Mar-13	5	1452	3	NW LANTAU	4	96	ON	HCLR	825113	805433	SPRING	NONE	P
11-Mar-13	6	1510	2	NW LANTAU	4	58	ON	HCLR	822666	805428	SPRING	NONE	P
11-Mar-13	7	1517	2	NW LANTAU	3	32	ON	HCLR	821625	805437	SPRING	NONE	P
13-Mar-13	1	1019	2	NW LANTAU	1	262	ON	HCLR	815768	804652	SPRING	NONE	P
13-Mar-13	2	1026	2	NW LANTAU	2	74	ON	HCLR	816322	804643	SPRING	NONE	P
13-Mar-13	3	1035	4	NW LANTAU	1	735	ON	HCLR	817341	804531	SPRING	NONE	P
13-Mar-13	4	1103	8	NW LANTAU	1	349	ON	HCLR	822845	804666	SPRING	NONE	P
13-Mar-13	5	1125	1	NW LANTAU	1	858	ON	HCLR	826532	804664	SPRING	NONE	P
13-Mar-13	6	1129	2	NW LANTAU	1	24	ON	HCLR	827086	804665	SPRING	NONE	P
13-Mar-13	7	1213	13	NW LANTAU	2	242	ON	HCLR	827437	806458	SPRING	PURSE SEINE	P
13-Mar-13	8	1415	1	NW LANTAU	1	255	ON	HCLR	822723	810507	SPRING	NONE	P
13-Mar-13	9	1510	1	NE LANTAU	0	116	ON	HCLR	822030	814555	SPRING	NONE	P
20-Mar-13	1	1359	2	NW LANTAU	2	473	ON	HCLR	826604	807537	SPRING	NONE	P
20-Mar-13	2	1403	1	NW LANTAU	2	435	ON	HCLR	827036	807528	SPRING	NONE	P
20-Mar-13	3	1525	1	NW LANTAU	2	ND	OFF	HCLR	817373	805459	SPRING	NONE	N/A

**Annex III. Individual dolphins identified during HKLR03 monitoring surveys in March 2013**

<b>ID#</b>	<b>DATE</b>	<b>STG#</b>	<b>AREA</b>
CH34	06/03/13	1	NW LANTAU
NL18	13/03/13	9	NE LANTAU
NL24	06/03/13	1	NW LANTAU
NL46	06/03/13	2	NW LANTAU
	13/03/13	7	NW LANTAU
NL49	06/03/13	1	NW LANTAU
	11/03/13	1	NW LANTAU
NL93	06/03/13	1	NW LANTAU
	13/03/13	7	NW LANTAU
NL104	06/03/13	1	NW LANTAU
	13/03/13	4	NW LANTAU
NL145	13/03/13	7	NW LANTAU
NL165	06/03/13	1	NW LANTAU
NL179	06/03/13	1	NW LANTAU
NL202	06/03/13	1	NW LANTAU
	06/03/13	2	NW LANTAU
	13/03/13	7	NW LANTAU
NL233	11/03/13	3	NW LANTAU
NL244	06/03/13	1	NW LANTAU
	11/03/13	6	NW LANTAU
	13/03/13	4	NW LANTAU
NL259	06/03/13	1	NW LANTAU
NL261	11/03/13	7	NW LANTAU
NL262	06/03/13	1	NW LANTAU
	13/03/13	7	NW LANTAU
NL264	13/03/13	7	NW LANTAU
NL272	13/03/13	7	NW LANTAU
NL284	06/03/13	1	NW LANTAU
	11/03/13	7	NW LANTAU
NL286	06/03/13	1	NW LANTAU
	06/03/13	2	NW LANTAU
	13/03/13	7	NW LANTAU
NL295	11/03/13	6	NW LANTAU
	13/03/13	4	NW LANTAU
WL05	06/03/13	1	NW LANTAU
WL44	13/03/13	4	NW LANTAU
WL46	06/03/13	1	NW LANTAU
WL50	13/03/13	3	NW LANTAU
WL61	13/03/13	1	NW LANTAU
WL98	13/03/13	4	NW LANTAU
WL131	13/03/13	3	NW LANTAU
WL199	06/03/13	1	NW LANTAU
	13/03/13	4	NW LANTAU

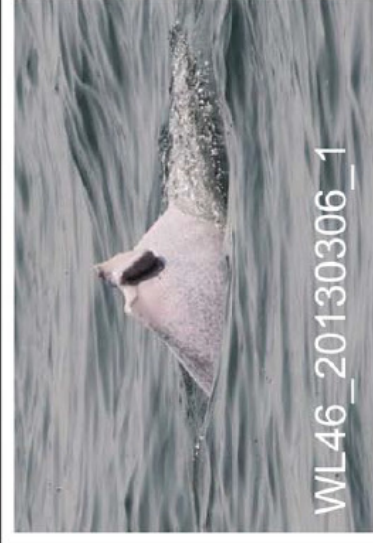
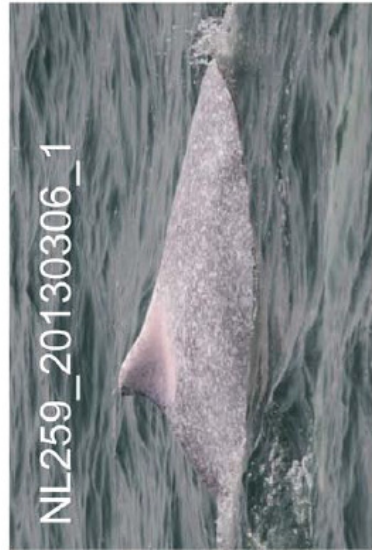
*Annex IV: Photographs of Identified  
Individual Dolphins in March 2013  
(HKLR03)*





Annex IV: Photographs of Identified Individual Dolphins in March 2013 (HKLR03)



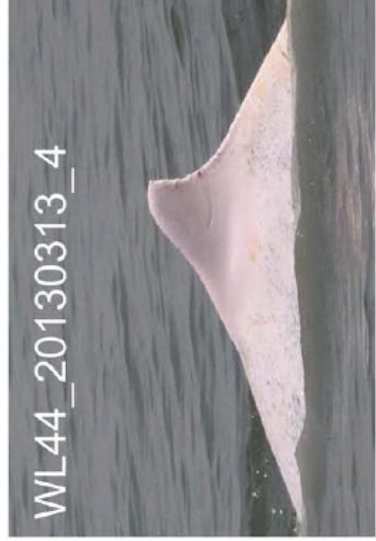
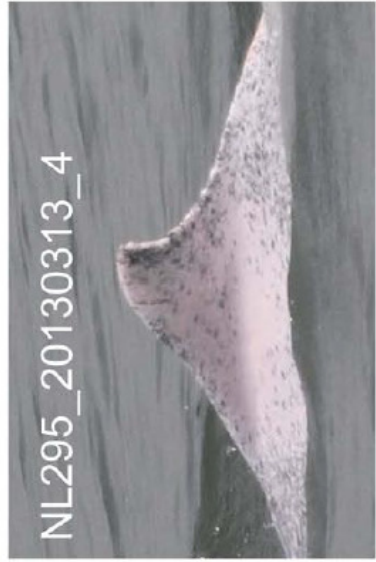


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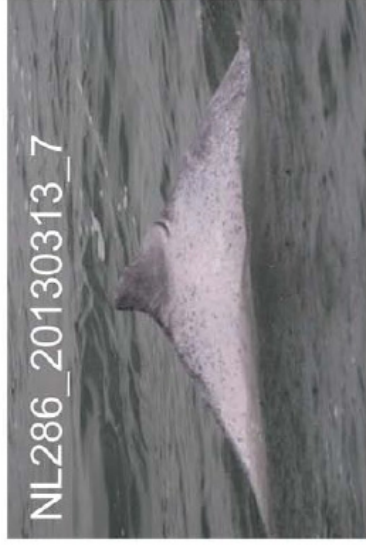
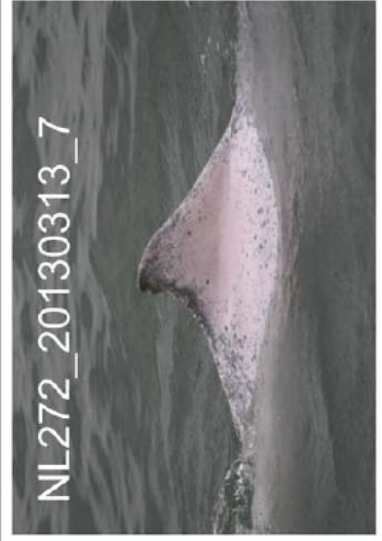


Annex IV (cont'd).





Annex IV (cont'd).



Annex IV (cont'd).

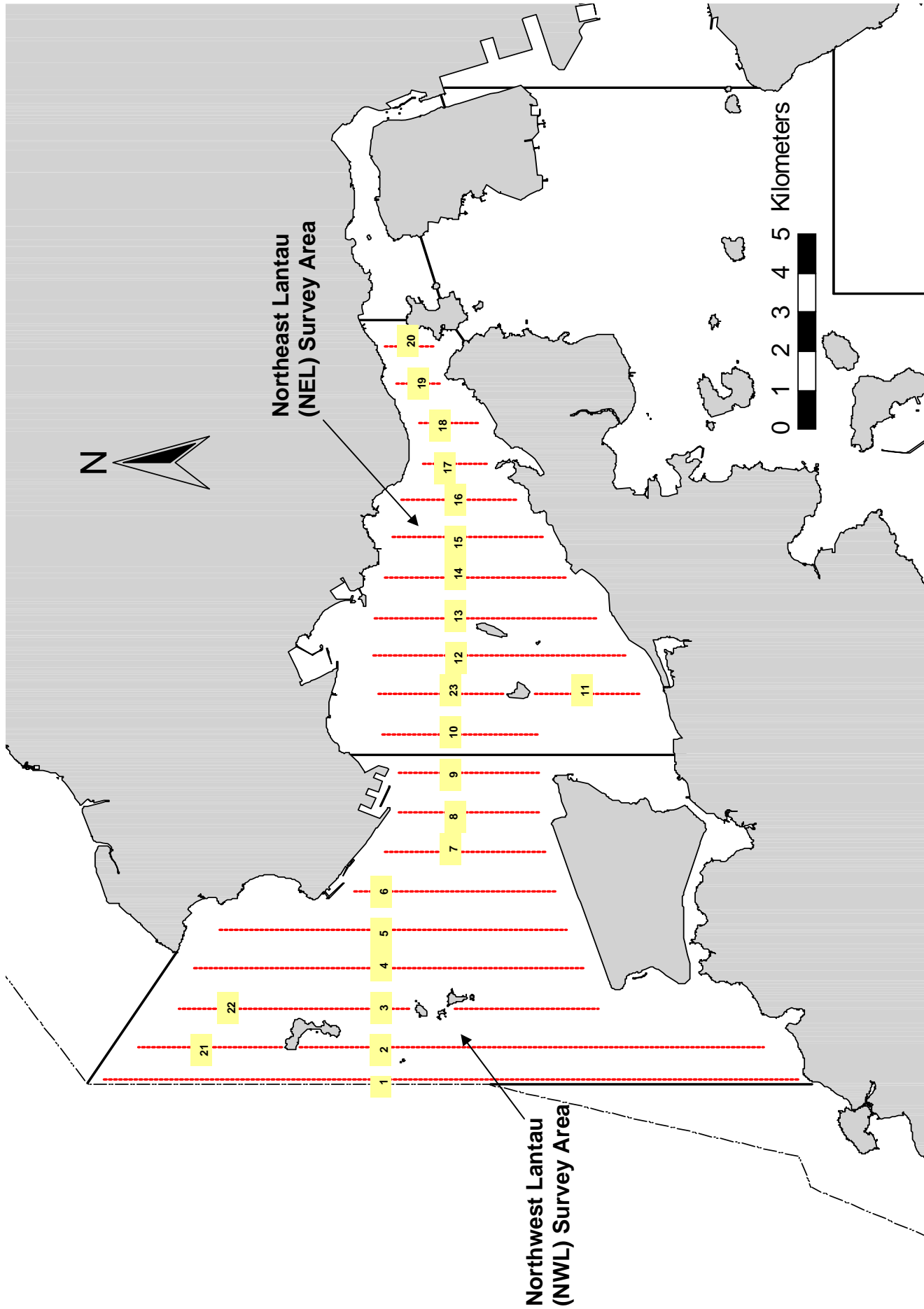


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas



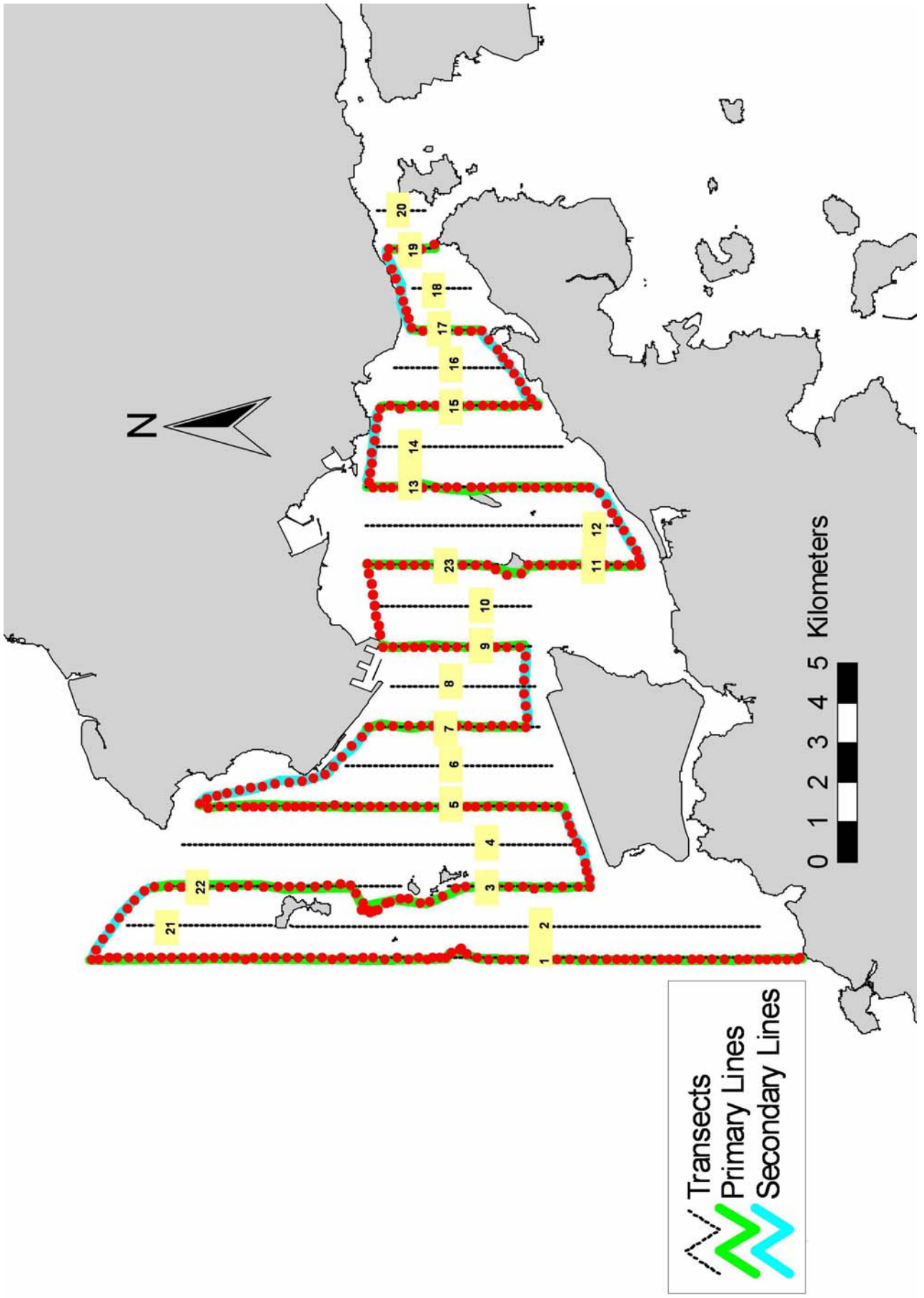


Figure 2. Survey Route on March 6<sup>th</sup>, 2013

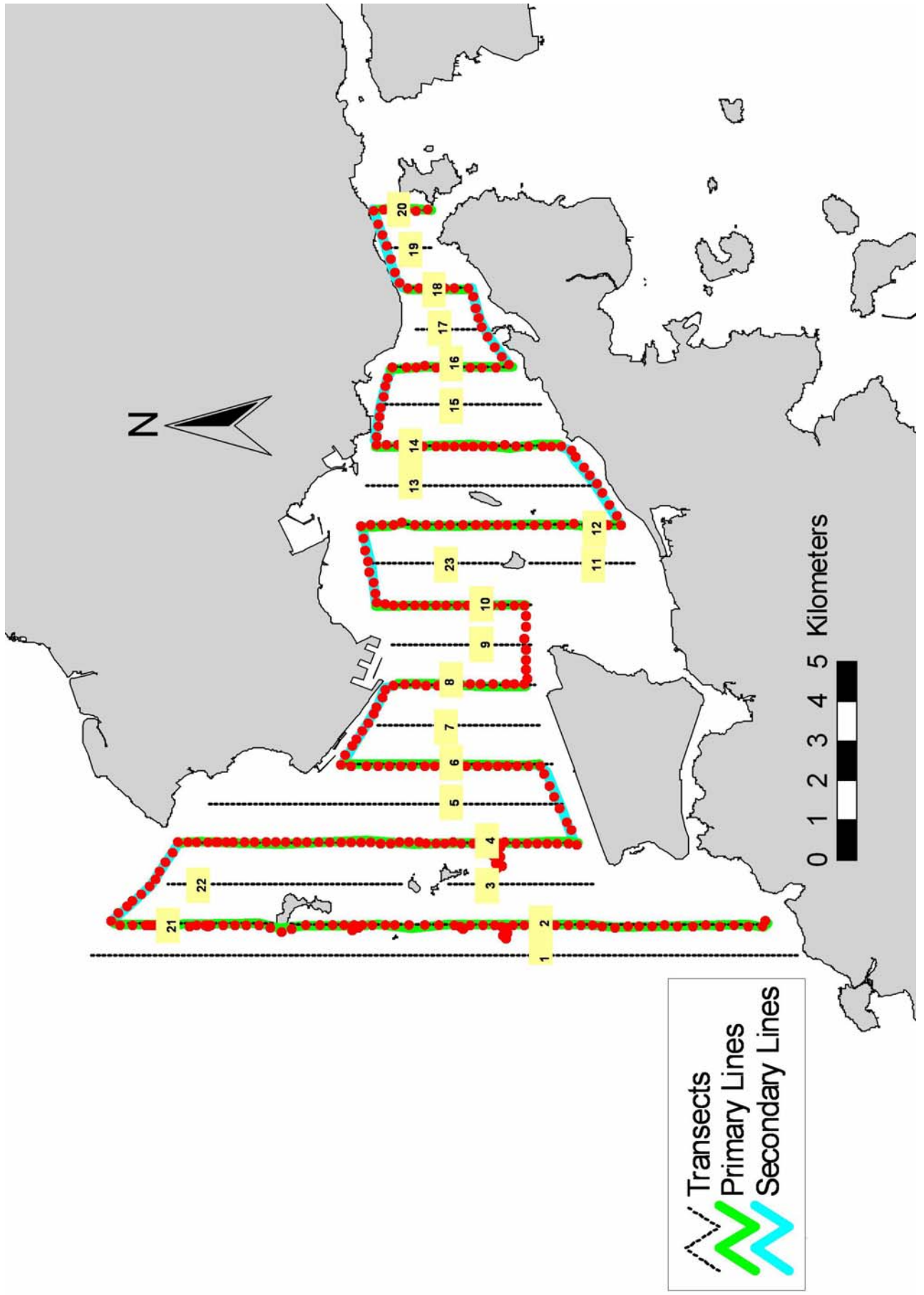


Figure 3. Survey Route on March 11<sup>th</sup>, 2013



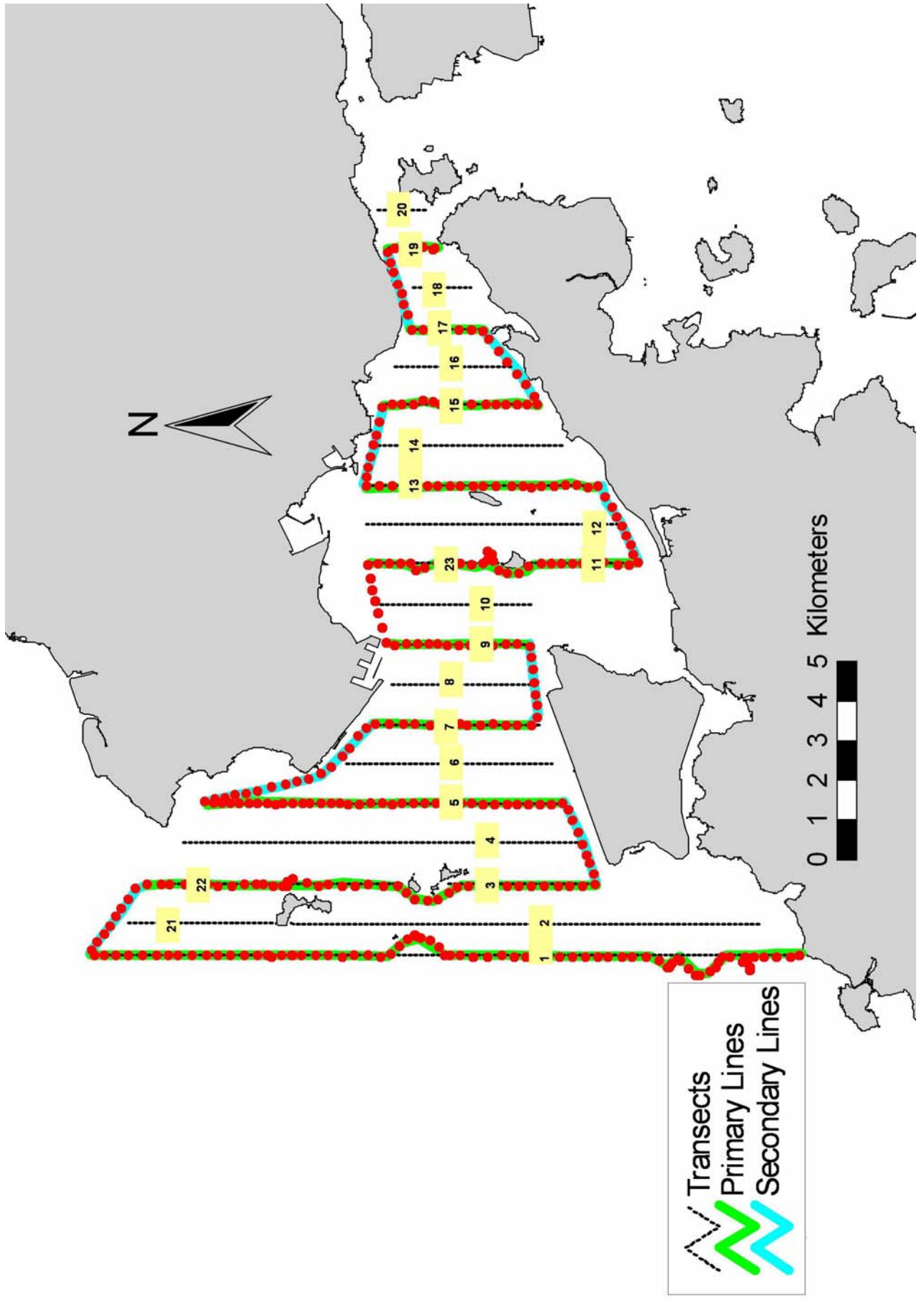


Figure 4. Survey Route on March 13<sup>th</sup>, 2013

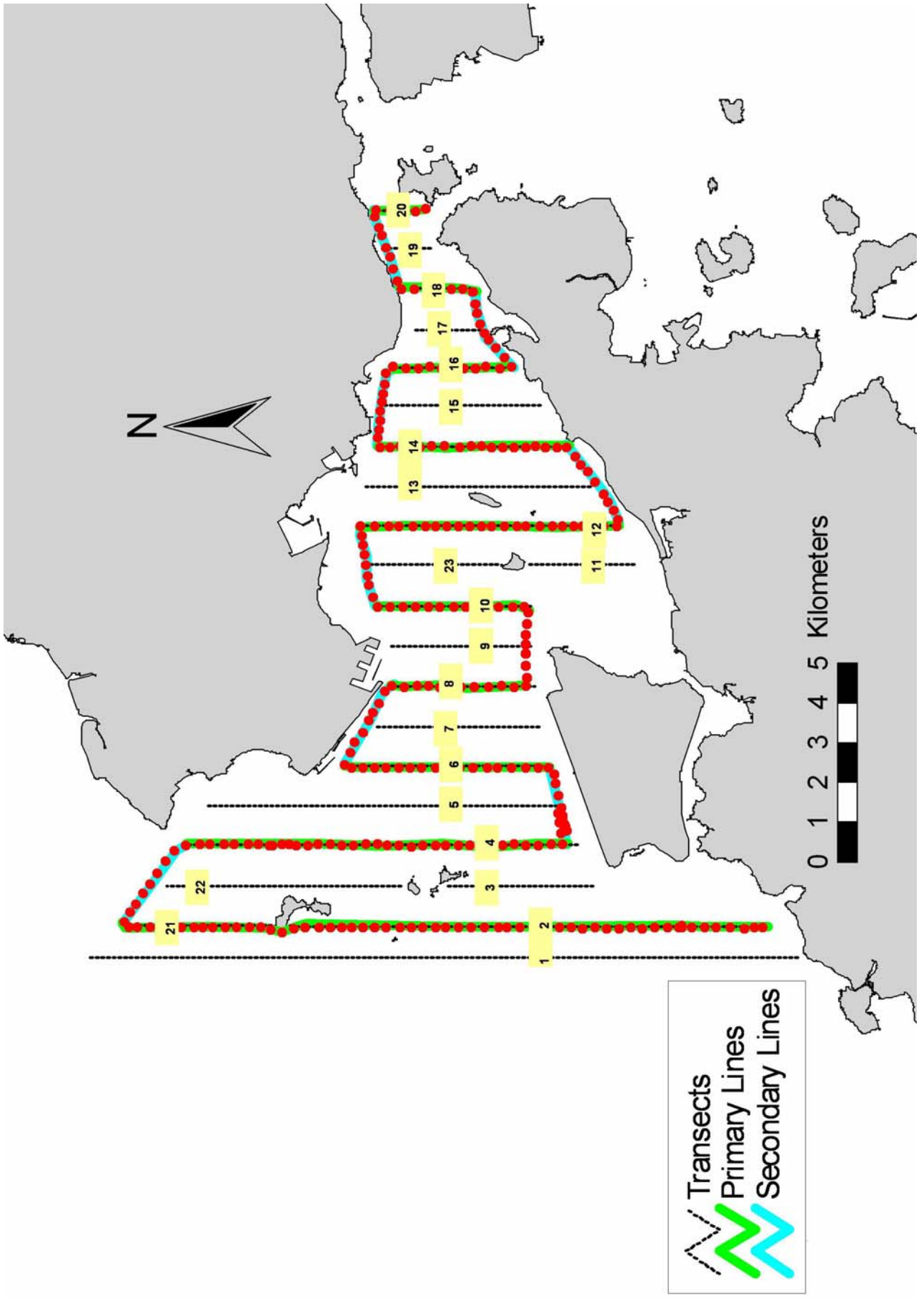


Figure 5. Survey Route on March 20<sup>th</sup>, 2013

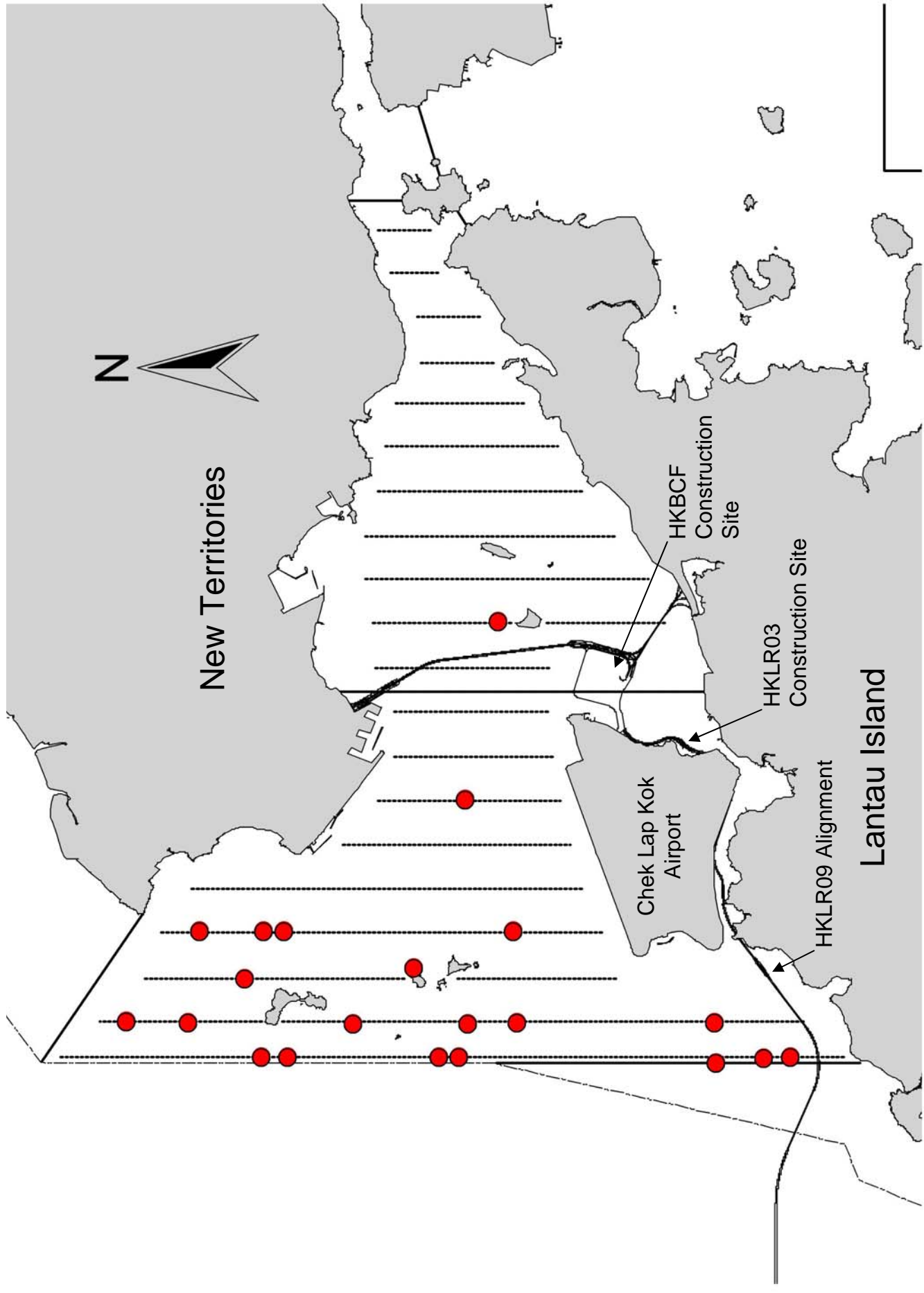


Figure 6. Distribution of Chinese White Dolphin Sightings During March 2013 HKLR03 Monitoring Surveys



路政署  
HIGHWAYS DEPARTMENT

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# APPENDIX I

## Mudflat Monitoring Results



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

**Table 3.1.** Record of horseshoe crab survey at every sampling zone.

Species	Prosomal width (mm)	Substratum	GPS coordinate	Grouping	Remark
TC1 (search hour = 2 hr)					
<i>Tachypleus tridentatus</i>	39.59	M	22° 17.078' N 113° 56.054' E		
<i>T. tridentatus</i>	47.98	M	22° 17.077' N 113° 56.050' E		
<i>T. tridentatus</i>	34.31	M	22° 17.088' N 113° 56.047' E		
<i>T. tridentatus</i>	44.11	M	22° 17.083' N 113° 56.045' E		
<i>T. tridentatus</i>	37.42	M	22° 17.085' N 113° 56.045' E		
TC2 (search hour = 2 hr)					
No record					
TC3 (search hour = 2 hr)					
<i>T. tridentatus</i>	41.12	S	22° 17.090' N 113° 55.582' E		
<i>T. tridentatus</i>	28.29	S	22° 16.982' N 113° 55.655' E		Just complete moulting

M = Soft mud, S = Sand

**Table 3.1 (Cont'd).** Record of horseshoe crab survey at every sampling zone.

Species	Prosomal width (mm)	Substratum	GPS coordinate	Grouping	Remark
ST (search hour = 2.5 hr)					
<i>T. tridentatus</i>	37.39	S	22° 17.218' N 113° 55.475' E	1	
<i>T. tridentatus</i>	36.93	S	22° 17.218' N 113° 55.475' E	1	
<i>T. tridentatus</i>	37.25	S	22° 17.217' N 113° 55.470' E		
<i>T. tridentatus</i>	25.31	S	22° 17.218' N 113° 55.469' E		
<i>T. tridentatus</i>	15.02	S	22° 17.384' N 113° 55.462' E	2	
<i>T. tridentatus</i>	35.69	S	22° 17.384' N 113° 55.462' E	2	
<i>T. tridentatus</i>	33.43	S	22° 17.390' N 113° 55.457' E		
<i>T. tridentatus</i>	26.32	S	22° 17.389' N 113° 55.455' E		
<i>T. tridentatus</i>	34.51	S	22° 17.390' N 113° 55.460' E		
<i>T. tridentatus</i>	42.73	S	22° 17.248' N 113° 55.503' E		
<i>T. tridentatus</i>	25.71	S	22° 17.242' N 113° 55.511' E		
<i>T. tridentatus</i>	35.63	S	22° 17.218' N 113° 55.481' E		
<i>T. tridentatus</i>	33.93	S	22° 17.209' N 113° 55.481' E	3	
<i>T. tridentatus</i>	26.42	S	22° 17.209' N 113° 55.481' E	3	
<i>T. tridentatus</i>	40.61	S	22° 17.196' N 113° 55.487' E		Broken prosoma

S = Sand

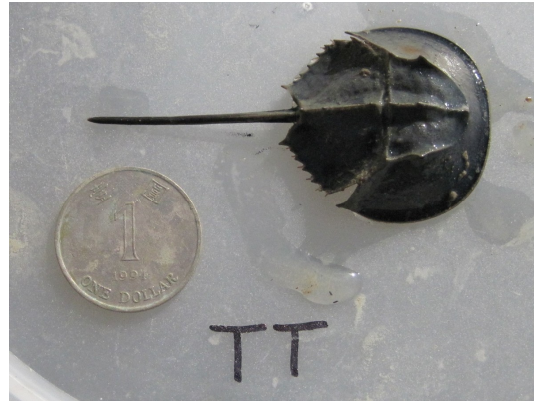
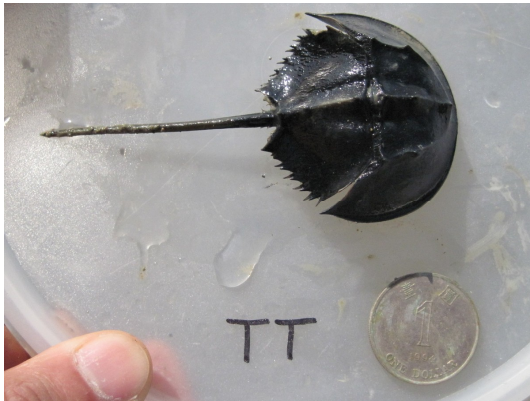
Individuals in a group was given the same grouping number

**Table 3.2.** Summary of horseshoe crab survey at every sampling zone.

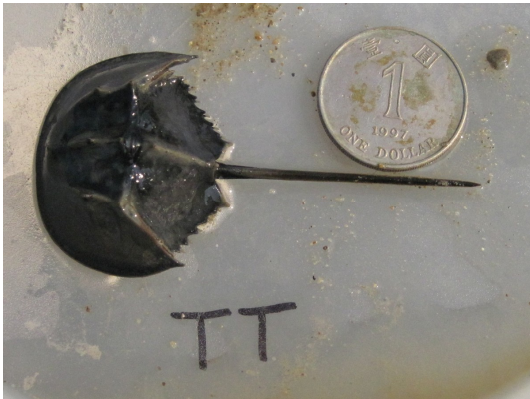
	TC1	TC2	TC3	ST
Search duration (hr)	2	2	2	2.5
<i>Tachypleus tridentatus</i>				
no. of individuals	5	N.A.	2	15
mean prosomal width (mm)	40.68		34.71	32.46
range of prosomal width (mm)	34.31-47.98		28.29-41.12	15.02-42.73
Search record (ind. hr <sup>-1</sup> person <sup>-1</sup> )	1.25		0.50	3.00



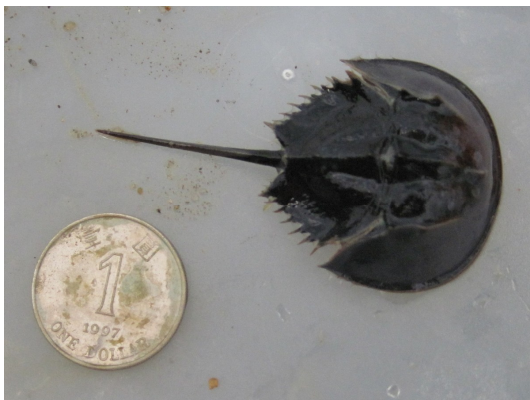
TC1



TC3

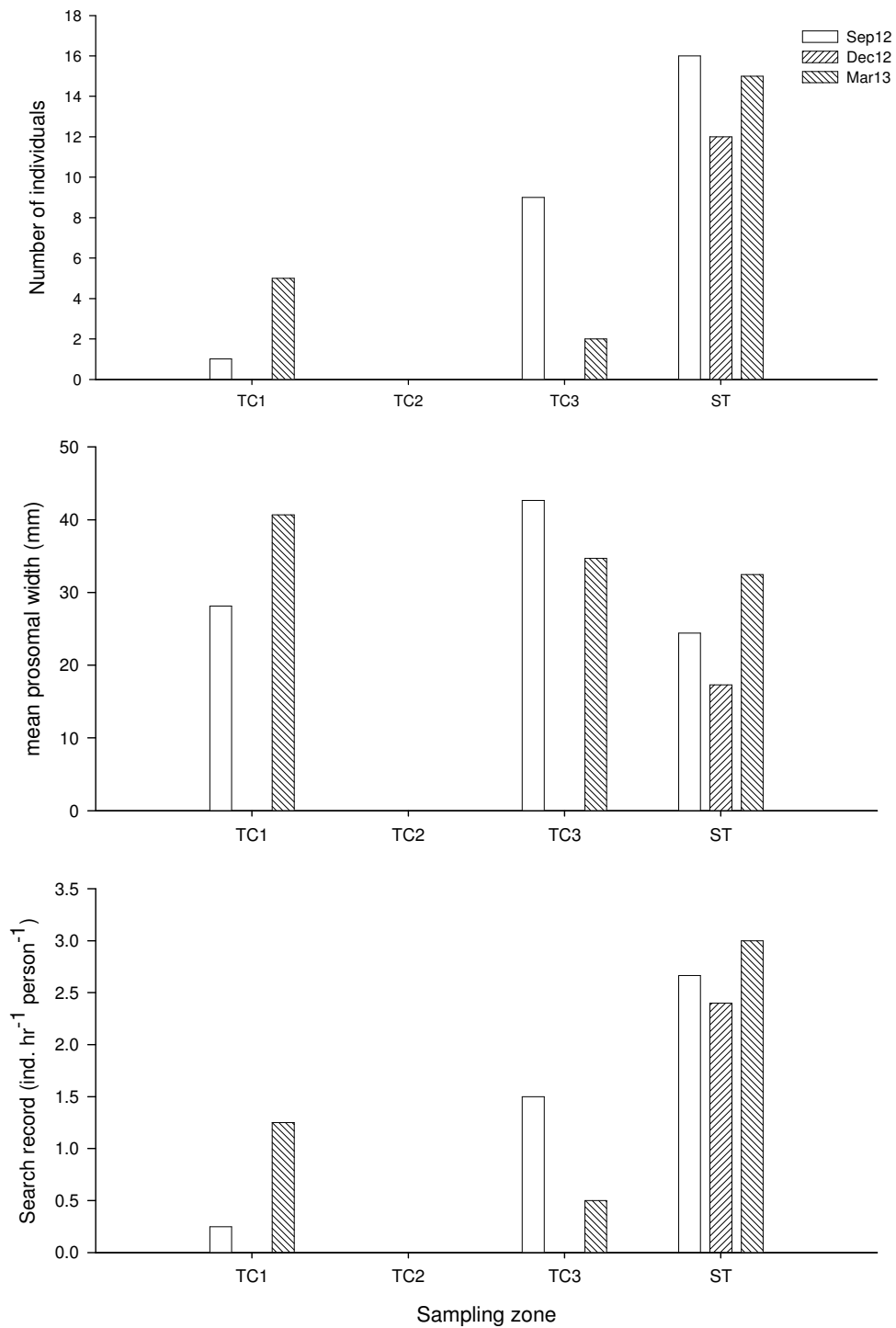


ST



**Figure 3.1.** Examples of photographic records of horseshoe crab *Tachypleus tridentatus* in the present survey (taken on 11<sup>th</sup> and 12<sup>th</sup> March 2013)





**Figure 3.2.** Changes of number of individuals, mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* at the four sampling zones along the sampling months

**Table 3.3. Summary of seagrass beds survey at every sampling zone**

Species	Estimated area (m <sup>2</sup> )	GPS coordinate	Estimated coverage (%)	Remark
<b>TC1 &amp; TC2 &amp; TC3</b> (search hour = 2 hr / zone)				
No record				
<b>ST</b> (search hour = 2.5 hr)				
<i>Halophila ovalis</i>	442.2	22° 17.199' N 113° 55.475' E -- 22° 17.210' N 113° 55.474' E	90-100	A long strand of seagrass nearby the seaward side of mangrove vegetation at tidal level 2.0m above C.D.
<i>H. ovalis</i>	63.8	22° 17.220' N 113° 55.471' E -- 22° 17.210' N 113° 55.472' E	70-85	A medium patch of seagrass
<i>H. ovalis</i>	22.7	22° 17.218' N 113° 55.475' E -- 22° 17.222' N 113° 55.474' E	70-90	A small patch of seagrass
<b>no. of patches</b>	3			
<b>Total area (m<sup>2</sup>)</b>	528.8			
<b>Average area (m<sup>2</sup>)</b>	176.3			

**Table 3.3 (Cont'd).** Summary of seagrass beds survey at every sampling zone

		Estimated		Estimated	
Species	Estimated area (m <sup>2</sup> )	GPS coordinate	Estimated coverage (%)	Remark	
ST	(search hour = 2.5 hr)				
<i>Zostera japonica</i>	9.5	22° 17.209' N 113° 55.471' E	50	A small patch grown in the long strand of another seagrass species <i>Halophila ovalis</i>	
<i>Z. japonica</i>	0.7	22° 17.215' N 113° 55.467' E	30	A small patch grown in the long strand of another seagrass species <i>Halophila ovalis</i>	
<i>Z. japonica</i>	0.2	22° 17.215' N 113° 55.467' E	15	A small patch grown in the long strand of another seagrass species <i>Halophila ovalis</i>	

no. of patches 3

Total area (m<sup>2</sup>) 10.4

Average area (m<sup>2</sup>) 3.5

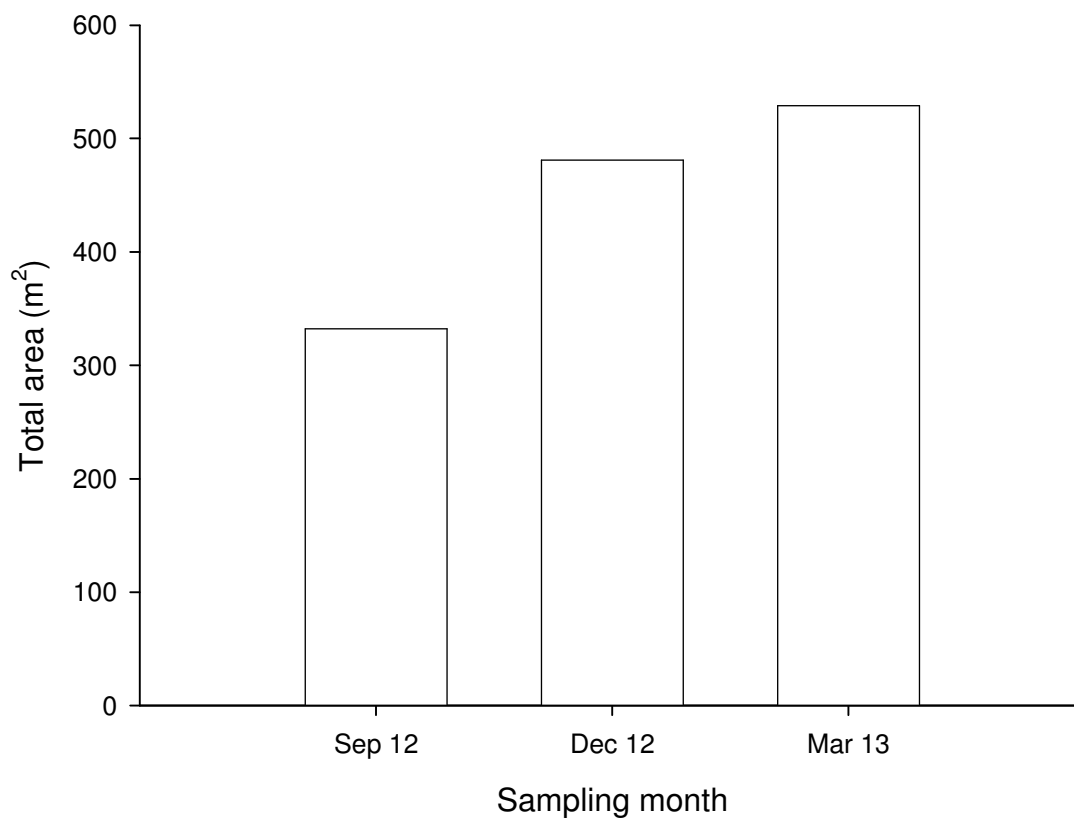
*Halophila ovalis*



*Zostera japonica*



**Figure 3.3.** Examples of photographic records of seagrass beds survey at ST (taken on 12/03/2013)



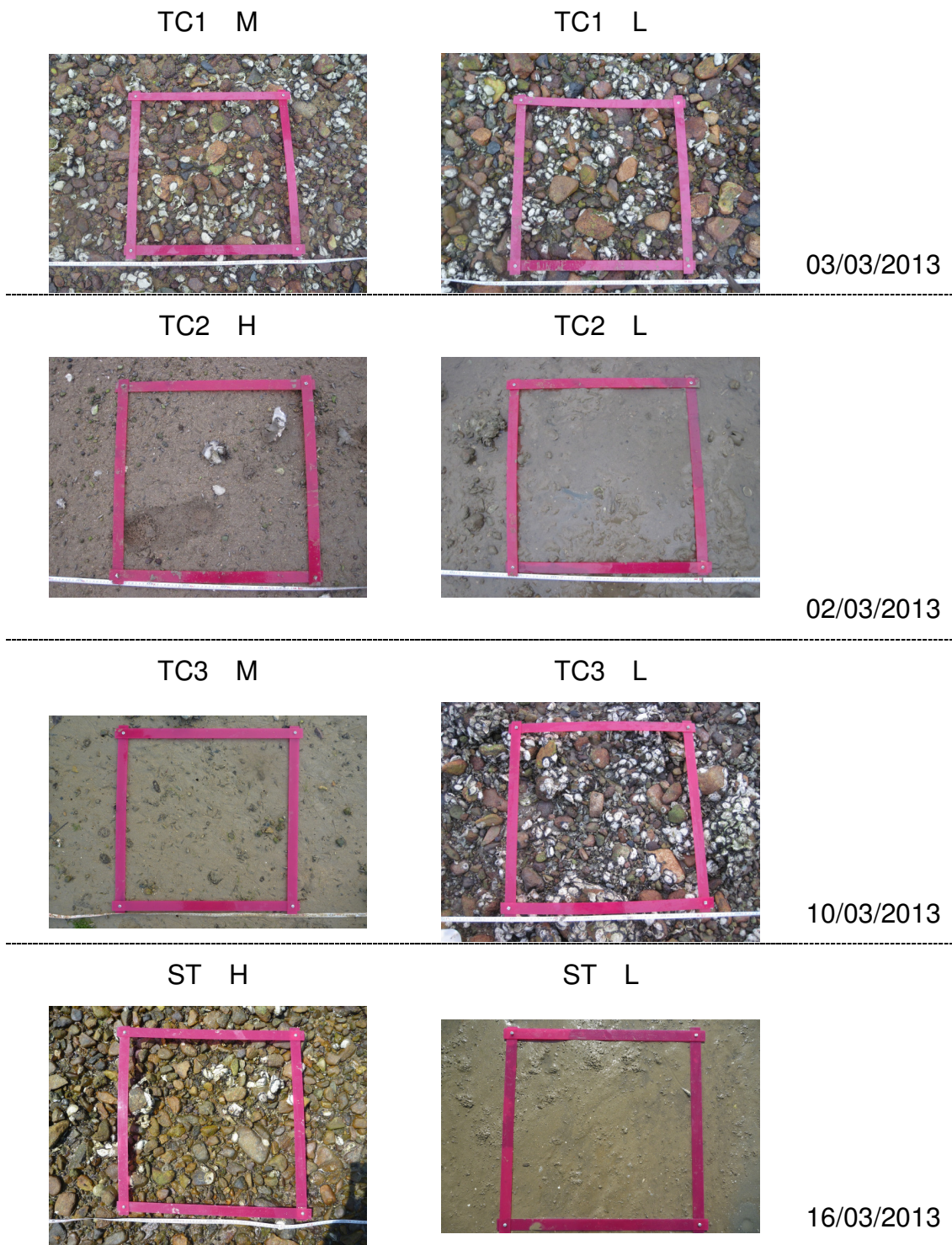
**Figure 3.4.** *Changes of estimated total area of seagrass beds Halophila ovalis at sampling zone ST along the sampling months*

**Table 3.4.** *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	50	40	10
	M	80	10	10
	L	90	10	
TC2	H		90	10
	M	10	70	20
	L			100
TC3	H		70	30
	M		90	10
	L	100		
ST	H	100		
	M	40	60	
	L			100

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





**Figure 3.5.** *Examples of photographic records of quadrat for intertidal soft shore community survey (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)*

**Table 3.5.** *Total abundance, density and number of taxon of every phylum*

Phylum	Total Abundance	%	Density (ind. m <sup>-2</sup> )	Number of taxon
<i>Mar 2013</i>				
Mollusca	19714	97.8	657	38
Arthropoda	339	1.7	11	12
Annelida	68	0.3	2	14
Sipuncula	20	0.1	1	2
Cnidaria	11	0.1	0	1
Platyhelminthes	4	0.0	0	1
Chordata	1	0.0	0	1
Nemertea	1	0.0	0	1
Echinodermata	1	0.0	0	1
<b>Total</b>	20159			

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

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



**Table 3.6.** The number of individuals, relative abundance (percentage) and density of each phylum at every sampling zone.

Phylum	TC1		TC2		TC3		ST		Density (ind. m <sup>-2</sup> )
	TC1	%	TC2	%	TC3	%	ST	%	
Mollusca	6074	99.3	2708	92.5	6491	99.1	4441	97.2	592
Arthropoda	33	0.5	201	6.9	30	0.5	75	1.6	10
Annelida	4	0.1	18	0.6	14	0.2	32	0.7	4
Sipuncula	4	0.1	1	0.2	11	0.2	5	0.1	1
Nemertea	1	0.0	0						
Platyhelminthes	1	0.0	0				3	0.1	0
Chordata							1	0.0	0
Cnidaria							11	0.2	1
Echinodermata					1	0.0	0		
<b>Sub-total</b>	<b>6117</b>		<b>2927</b>		<b>6547</b>		<b>4568</b>		

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

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

**Table 3.7.** The abundant species (relative abundance >10%) at every sampling zone.

Sampling zone TC 1	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	693	89	89
Mid	G	<i>Batillaria multiformis</i>	668	66	66
	Bi	<i>Saccostrea cucullata</i>	164	16	82
Low	G	<i>Batillaria multiformis</i>	203	31	31
	Bi	<i>Saccostrea cucullata</i>	170	26	58
	G	<i>Monodonta labio</i>	151	23	81

Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** The abundant species (relative abundance >10%) at every sampling zone.

Sampling zone	TC 2	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	308	62	62	
	G	<i>Cerithidea djadjariensis</i>	86	17	79	
Mid	G	<i>Cerithidea djadjariensis</i>	128	34	34	
	Bi	<i>Saccostrea cucullata</i>	72	19	53	
	G	<i>Batillaria zonalis</i>	50	13	66	
	G	<i>Cerithidea cingulata</i>	43	11	77	
Low	G	<i>Batillaria zonalis</i>	76	26	26	
	G	<i>Cerithidea djadjariensis</i>	70	24	49	
	Bi	<i>Saccostrea cucullata</i>	64	22	71	
	Ba	<i>Balanus amphitrite</i>	50	17	88	

Ba = Barnacle, Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** The abundant species at every sampling zone.

Sampling zone	TC 3	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High	G	G	<i>Batillaria multiformis</i>	652	67	67
			<i>Cerithidea djadjariensis</i>	214	22	89
Mid	G	G	<i>Batillaria multiformis</i>	532	65	65
			<i>Cerithidea djadjariensis</i>	166	20	85
Low	Bi	G	<i>Saccostrea cucullata</i>	282	34	34
			<i>Batillaria multiformis</i>	280	34	68
			<i>Monodonta labio</i>	154	19	86

Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** *The abundant species at every sampling zone.*

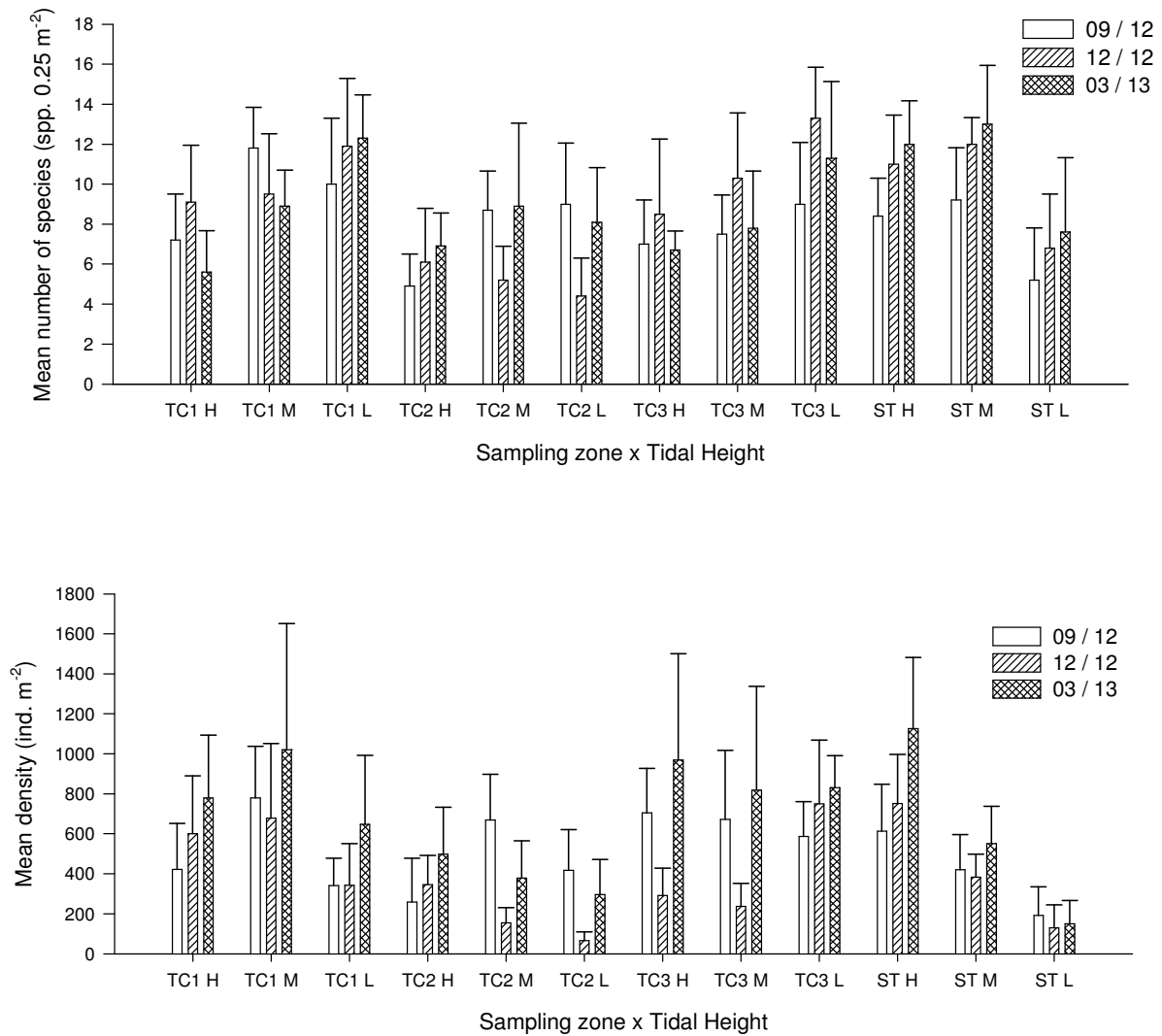
Sampling zone	ST	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High		G	<i>Batillaria multiformis</i>	845	75	75
		G	<i>Monodonta labio</i>	114	10	85
Mid		Bi	<i>Saccostrea cucullata</i>	136	25	25
		G	<i>Cerithidea djadjariensis</i>	120	22	47
		G	<i>Batillaria multiformis</i>	62	11	58
Low		Bi	<i>Saccostrea cucullata</i>	39	26	26
		G	<i>Batillaria zonalis</i>	32	21	47
		G	<i>Cerithidea djadjariensis</i>	31	20	67

Bi = Bivalve, G = Gastropod

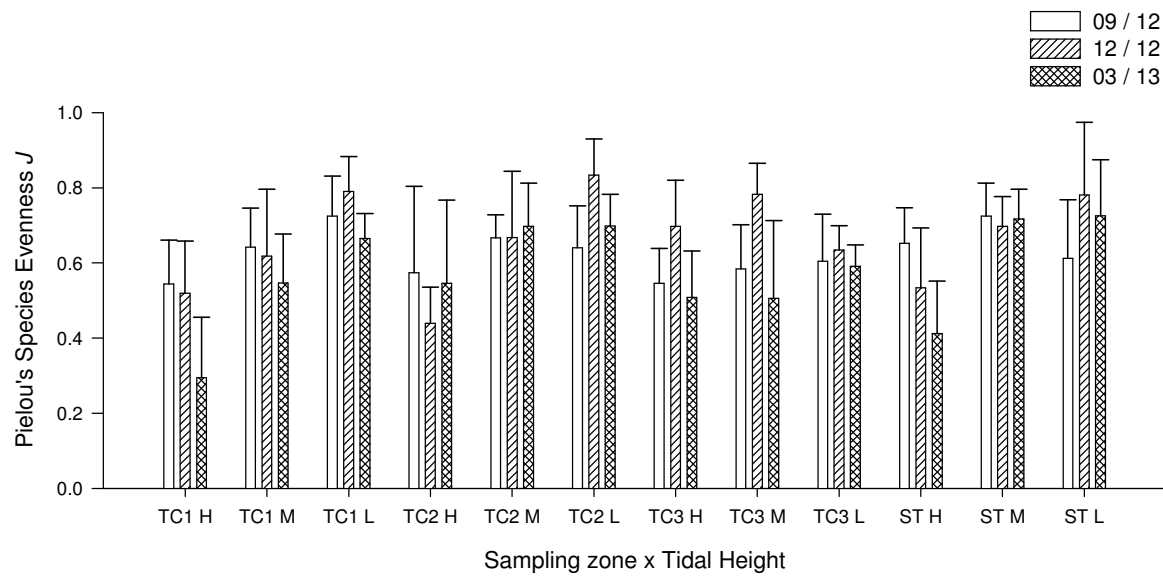
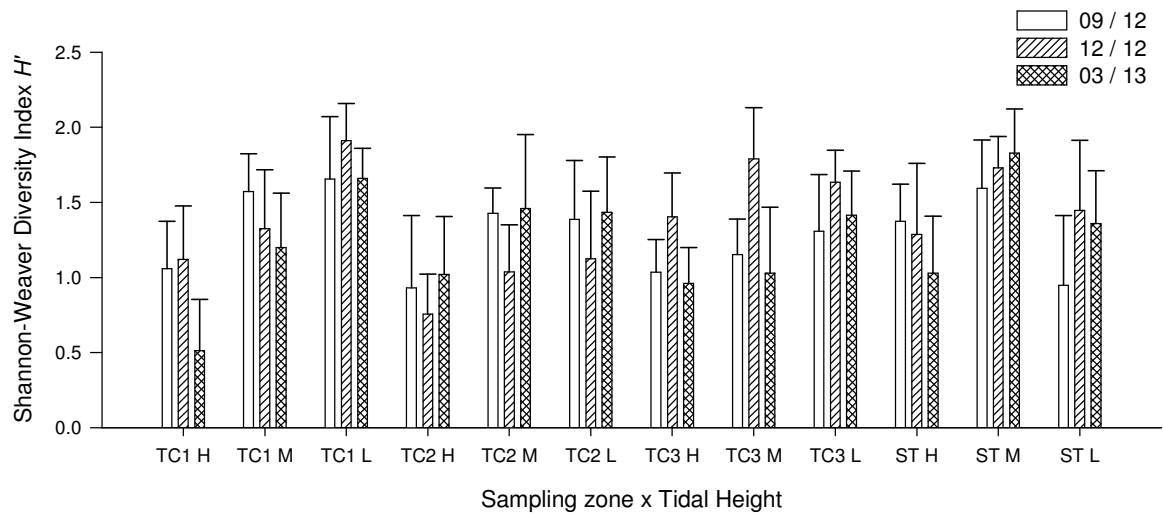
**Table 3.8.** Mean values of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) at every tidal level and sampling zone

Sampling zone	Tidal level	Mean number of species (spp. 0.25 m <sup>-2</sup> )	Mean density (ind. m <sup>-2</sup> )	Mean $H'$	Mean $H'$ across tidal level	Mean $J$	Mean $J$ across tidal level
TC1	H	6	779	0.51		0.29	
	M	9	1020	1.20	1.12	0.55	0.50
	L	12	647	1.66		0.67	
TC2	H	7	498	1.02		0.55	
	M	9	378	1.46	1.30	0.70	0.65
	L	8	296	1.43		0.70	
TC3	H	7	970	0.96		0.51	
	M	8	819	1.03	1.13	0.51	0.54
	L	11	830	1.41		0.59	
ST	H	12	1126	1.03		0.41	
	M	13	551	1.83	1.40	0.72	0.62
	L	8	151	1.36		0.73	

**Figure 3.6.** Temporal changes of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean  $\pm$  SD) at every tidal level and sampling zone



**Figure 3.6 (Cont'd).** Temporal changes of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean  $\pm$  SD) at every tidal level and sampling zone







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

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Annelida	Clitellata			Marine oligochaete spp.
Animalia	Annelida	Polychaeta	Eunicida	Eunicidae	Eunicidae spp.
Animalia	Annelida	Polychaeta	Eunicida	Onuphidae	Onuphidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Glyceridae	Glyceridae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereididae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae spp.
Animalia	Annelida	Polychaeta	Sabellida	Oweniidae	Oweniidae spp.
Animalia	Annelida	Polychaeta	Spionida	Magelonidae	<i>Magelonidae</i> spp.
Animalia	Annelida	Polychaeta	Spionida	Poecilochaetidae	Poecilochaetidae spp.
Animalia	Annelida	Polychaeta	Spionida	Spionidae	Spionidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Cirratulidae	Cirratulidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Pectinariidae	Pectinariidae spp.
Animalia	Annelida	Polychaeta		Maldanidae	Maldanidae spp.
Animalia	Arthropoda	Malacostraca	Decapoda	Diogenidae	<i>Clibanarius</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Diogenidae	<i>Diogenes</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Leucosiidae	<i>Philyra carinata</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Macrophthalmus erato</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca borealis</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca vocans</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Clistocoeloma</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Nanosesarma minutum</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Chordata	Actinopterygii	Perciformes	Blenniidae	<i>Omobranchus fasciolatoiceps</i>
Animalia	Cnidaria				Sea anemone
Animalia	Echinodermata	Holothuroidea			Sea cucumber
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia signata</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Bivalvia	Mytiloidea	Mytilidae	<i>Xenostrobus atrata</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>

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

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>	<b>Order</b>	<b>Family</b>	<b>Species</b>
Animalia	Mollusca	Bivalvia	Veneroida	Corbiculidae	<i>Geloina erosa</i>
Animalia	Mollusca	Bivalvia	Veneroida	Mesodesmatidae	<i>Caecella chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Anomalocardia squamosa</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Cyclina sinesis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Dosinia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Meretrix meretrix</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria bornii</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria zonalis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea cingulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea djarjariensis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea rhizophorarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Terebralia sulcata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Turritellidae	<i>Turritella terebra</i>
Animalia	Mollusca	Gastropoda	Cephalaspidea	Philineidae	<i>Philine vitrea</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon faba</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon oualaniensis</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita polita</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraia melanostoma</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Peasiella</i> sp.
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius semiplicatus</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana grata</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana toreuma</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Chlorostoma argyrostoma</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> sp.

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

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>	<b>Order</b>	<b>Family</b>	<b>Species</b>
Animalia	Mollusca	Scaphopoda	Dentaliida	Dentaliidae	<i>Dentalium sinuosum</i>
Animalia	Nemertea				Nemertea spp.
Animalia	Platyhelminthes				Platyhelminthes spp.
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Siphonosoma cumanense</i>
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Sipunculus nudus</i>

### Annex III List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		High tidal level (2.0 m above C.D.)												
Sampling zone TC 1		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
Bi	<i>Geloina erosa</i>									2				2
Bi	<i>Saccostrea cucullata</i>	7	7	2						1		12		29
Bi	<i>Xenostrobus atrata</i>		1								2			3
C	<i>Nanosesarma minutum</i>										1			1
G	<i>Batillaria multiformis</i>	175	36	257	130	71	233	247	158	186		240		1733
G	<i>Cerithidea cingulata</i>		3		1			1	1	2		1		9
G	<i>Cerithidea djadjariensis</i>	5	17		3	10	1	5	9	16		13		79
G	<i>Clithon oualaniensis</i>									2				2
G	<i>Littoraria articulata</i>								1			5		6
G	<i>Lunella coronata</i>		1											1
G	<i>Monodonta labio</i>	3	2	2	6	3	5	3	4	4		26		58
G	<i>Nerita polita</i>						8	6	1	5				20
G	<i>Nipponacmea concinna</i>	1												1
Ne	<i>Nemertea</i> spp.	1												1
OI	<i>Marine oligochaete</i> spp.							2		1				3
											Total	1948		

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013		Sampling zone TC 1										Mid tidal level (1.5 m above C.D.)	
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>			2					1			3	
Bi	<i>Barbatia signata</i>	1						3				4	
Bi	<i>Barbatia virescens</i>		2			1						3	
Bi	<i>Cyclina sinensis</i>			2								2	
Bi	<i>Ruditapes philippinarum</i>							1				1	
Bi	<i>Saccostrea cucullata</i>	87	7	22	22	54	16	38	89	46	28	409	
Bi	<i>Xenostrobus atrata</i>	5	7	1		3	5	5	20	3	8	57	
C	<i>Hemigrapsus penicillatus</i>	2			1			1				4	
C	<i>Nanosesarma minutum</i>	1						2				3	
G	<i>Batillaria bornii</i>	1	1									2	
G	<i>Batillaria multiformis</i>	135	51	2	69	61	7	56	240	338	415	1671	
G	<i>Cerithidea cingulata</i>		3		1	10					29	60	
G	<i>Cerithidea djadjariensis</i>		36	3	9	7	18	12	4	1		95	
G	<i>Cerithidea rhizophorarum</i>								1			1	
G	<i>Clithon oualaniensis</i>										1	1	
G	<i>Littoraria articulata</i>									4		4	
G	<i>Lunella coronata</i>	2	1	1	1	2	1	8	1	1		18	
G	<i>Monodonta labio</i>	38	1	11	16	1	21	20	20	27	5	193	

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone TC 1	Mid tidal level (1.5 m above C.D.)										sub-total						
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	C	C	C	C	C	sub-total
G	<i>Nassarius festivus</i>	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	10
																		1
G	<i>Nerita polita</i>				1		1	1										3
G	<i>Nipponacmea concinna</i>				1		4	1										6
P	Maldanidae spp.									1								1
Pl	Platyhelminthes spp.	1																1
																Total	2551	

**Annex III (Cont'd)** *List of recorded fauna of intertidal soft shore community survey at every sampling zone*

Mar 2013		Sampling zone TC 1										Low tidal level (1.0 m above C.D.)										
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>						4										4					8
Bi	<i>Barbatia signata</i>	1			1			2	2									2	2		2	10
Bi	<i>Barbatia virescens</i>	1			2			10	4	2								4	5	1	11	36
Bi	<i>Cyclina sinensis</i>							1														1
Bi	<i>Ruditapes philippinarum</i>							5	1	2								1				8
Bi	<i>Saccostrea cucullata</i>	21			65			35	28	23							39	28	28	104	71	426
Bi	<i>Xenostrobus atrata</i>				2			2	3	1							4	3	10	3	23	50
C	<i>Hemigrapsus penicillatus</i>	1						1											1	1	2	6
C	<i>Nanosesarma minutum</i>							1	1	3									1		1	7
G	<i>Batillaria bornii</i>	1			1												1					5
G	<i>Batillaria multiformis</i>	28			52			74	72	20							5	1	72	149	47	508
G	<i>Cerithidea cingulata</i>	2						5		2							2					9
G	<i>Cerithidea djadjarjensis</i>	7			9			4	2	2							9	4	2			45
G	<i>Clithon oualaniensis</i>	5			2			4	2	1								2	1			15
G	<i>Lepidozona</i> sp.							1														1
G	<i>Littoraria articulata</i>																			2		2
G	<i>Lunella coronata</i>	9			8			4	8	10							2	1	8	4	5	57
G	<i>Monodonta labio</i>	7			25			46	29	44							13	29	70	67	71	377



**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		Sampling zone TC 1										Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Nassarius festivus</i>	1					1					2	
G	<i>Nerita polita</i>			1	3			1	3		8	16	
G	<i>Nipponacmea concinna</i>			3	4	4			3	2	3	19	
G	<i>Patelloida pygmaea</i>					1					1	2	
G	<i>Peasiella</i> sp.								1			1	
G	<i>Thais luteostoma</i>			1		1						2	
Hc	<i>Cilbanarius</i> sp.								1			1	
Sp	<i>Siphonosoma cumanense</i>							1				1	
Sp	<i>Sipunculus nudus</i>							1		1	1	3	
Total											1618		

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013	Sampling zone TC 2	High tidal level (2.0 m above C.D.)											sub-total						
			1	2	3	4	5	6	7	8	9	10							
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C				
Ba	<i>Balanus amphitrite</i>	31						1								32			
Bi	<i>Saccostrea cucullata</i>	18	3	39	12	1	13	8	2							96			
Bi	<i>Xenostrobus atrata</i>							1								1			
C	<i>Macrophthalmus erato</i>	2														2			
G	<i>Batillaria multiformis</i>		11	45	1	135	4	180	17	85	6	77	2	50	126	3	27	1	770
G	<i>Batillaria zonalis</i>		1		2	3		3				1	4	1		5	4	21	
G	<i>Cerithidea cingulata</i>		8	6	2	3	2		1	5	14	3	6	7	11	3	5	76	
G	<i>Cerithidea djadjariensis</i>	5	39	29	19	22	17			33	8	5	13	3	9	4	6	4	216
G	<i>Cerithidea rhizophorarum</i>									1					1			2	
G	<i>Clithon oualaniensis</i>			1														1	
G	<i>Lunella coronata</i>	1		1	1	1		2		4		1	1	1	1			13	
G	<i>Monodonta labio</i>				1				1	1								3	
G	<i>Nassarius festivus</i>	1		1	1	1		2		1		1	1	1				8	
G	<i>Nipponacmea concinna</i>	1																1	
G	<i>Terebralia sulcata</i>	1																1	
OI	Marine oligochaete spp.													1				1	
														Total	1244				

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Gp	Taxon	Mid tidal level (1.5 m above C.D.)										sub-total								
		1	2	3	4	5	6	7	8	9	10									
Ba	<i>Balanus amphitrite</i>			4	9	8	2	5		1	2		1	2	31					
Bi	<i>Barbatia signata</i>				1								1		2					
Bi	<i>Barbatia virescens</i>					1		1				1	5		7					
Bi	<i>Meretrix meretrix</i>				1										1					
Bi	<i>Ruditapes philippinarum</i>			1	1										2					
Bi	<i>Saccostrea cucullata</i>			3	23	27	31	16	55		24				179					
Bi	<i>Xenostrobus atrata</i>					2		2	3						7					
C	<i>Clistocoeloma</i> sp.							1							1					
C	<i>Hemigrapsus penicillatus</i>			1		3		1	1						6					
C	<i>Nanosesarma minutum</i>								1						1					
C	<i>Uca vocans</i>									1					1					
G	<i>Batillaria bornii</i>				1		2	3	5						15					
G	<i>Batillaria multiformis</i>					18	19	3	4	4	27	11			86					
G	<i>Batillaria zonalis</i>						3	4	26	39	2	46	2		124					
G	<i>Cerithidea cingulata</i>	17	13	2	10	2	16	5	1	2	4	10	9	11	2	3	108			
G	<i>Cerithidea djarjariensis</i>	24	4	30	23	21	4	14	15	36	3	29	3	33	2	19	4	47	8	319
G	<i>Clithon oualaniensis</i>						1								1			1	2	

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013		Mid tidal level (1.5 m above C.D.)										sub-total
Sampling zone TC 2		1	2	3	4	5	6	7	8	9	10	
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	C
G	<i>Littoraimelanosstoma</i>							1				1
G	<i>Lunella coronata</i>					10	4	3	5			22
G	<i>Monodonta labio</i>					7	4		2		3	16
G	<i>Nassarius festivus</i>			2			1					4
G	<i>Nerita polita</i>					3			1			4
Hc	<i>Diogenes</i> sp.		1									1
P	Maldanidae spp.			1					1		1	4
											Total	944

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013	Sampling zone TC 2	Low tidal level (1.0 m above C.D.)										sub-total									
		1	2	3	4	5	6	7	8	9	10										
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C						
Ba	<i>Balanus amphitrite</i>	3	37			16	5	14	24	10	15				124						
Bi	<i>Anomalocardia squamosa</i>			1			1			1					3						
Bi	<i>Barbatia signata</i>									1					1						
Bi	<i>Barbatia virescens</i>					1	1		3	6	4				14						
Bi	<i>Dosinia japonica</i>									1					1						
Bi	<i>Ruditapes philippinarum</i>		1							1					2						
Bi	<i>Saccostrea cucullata</i>		9				2	33	45	58	14				161						
Bi	<i>Xenostrobus atrata</i>								4						4						
C	<i>Hemigrapsus penicillatus</i>											1			1						
C	<i>Nanosesarma minutum</i>							1							1						
G	<i>Batillaria bornii</i>							1	1						2						
G	<i>Batillaria multiformis</i>											1	2		3						
G	<i>Batillaria zonalis</i>	7	14	1	4	3	12	1	20	10	3	31	2	17	3	56	5	189			
G	<i>Cerithidea cingulata</i>		1	1	1			1	1	2	1	1			3	1	13				
G	<i>Cerithidea djadjariensis</i>	4	2	9	10	16	7	9	3	9	7	25	5	17	4	2	11	3	25	2	174
G	<i>Cerithidea rhizophorarum</i>						1		1												2
G	<i>Dentalium sinuosum</i>									2											2
G	<i>Lunella coronata</i>		1							4	7	5	2								19

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		Sampling zone TC 2										Low tidal level (1.0 m above C.D.)		
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	sub-total		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Nassarius festivus</i>		1					2	1			2		7
G	<i>Nerita polita</i>							1		2				3
P	Maldanidae spp.	1			1	1								3
P	Onuphidae spp.	1			1		4			3				9
P	Pectinariidae spp.						1							1
											Total	739		

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		Sampling zone TC 3										High tidal level (2.0 m above C.D.)										
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>				2																	2
Bi	<i>Cyclina sinensis</i>						1										1				1	3
Bi	<i>Ruditapes philippinarum</i>																	1				1
Bi	<i>Saccostrea cucullata</i>				4		2															6
C	<i>Philyra carinata</i>		1																			1
C	<i>Uca borealis</i>	1																				1
C	<i>Uca sp.</i>		1					1														2
G	<i>Batillaria multiformis</i>	149	7	86	2	88	6	435	5	166	5	257	2	131	4	235	1	36	1	13		1629
G	<i>Batillaria zonalis</i>	3		1		1	1	1		3		3		4		5						22
G	<i>Cerithidea cingulata</i>	23	2	25		28	4	17	2	35	2	33	2	1	8	8				1		191
G	<i>Cerithidea djadjariensis</i>	45	1	81	1	48	5	31	3	62		46	1	38	4	95	2	50	4	19		536
G	<i>Cerithidea rhizophororum</i>																	1				1
G	<i>Clithon faba</i>							1														1
G	<i>Clithon oualaniensis</i>	2				1						3										6
G	<i>Nassarius festivus</i>	1								1		3		3		1		1		1		11
G	<i>Nerita polita</i>	1																				1
G	<i>Philine vitrea</i>							3				1										4

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone TC 3	High tidal level (2.0 m above C.D.)										sub-total										
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	C	C	C	C	C	C	C	C	sub-total	
Hc	<i>Cilbanarius</i> sp.	Q	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	1	1
P	Maldanidae spp.					1															4	5
																			Total	2424		



**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013		Sampling zone TC 3		Mid tidal level (1.5 m above C.D.)										sub-total								
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>			3											1							4
Bi	<i>Anomalocardia squamosa</i>	1																				1
Bi	<i>Caecella chinensis</i>																			2		2
Bi	<i>Dosinia japonica</i>		2																			2
Bi	<i>Saccostrea cucullata</i>			24											11					4		39
Bi	<i>Xenostrobus atrata</i>			6																		6
C	<i>Hemigrapsus penicillatus</i>			1											2							3
C	<i>Uca</i> sp.		2																			2
G	<i>Batillaria multiformis</i>	48	2	198	1	3	11	11	52	4	89	3	124	82	270	15	408	20				1330
G	<i>Batillaria zonalis</i>	28		5		12	1	13	1	1	1			1								63
G	<i>Cerithidea cingulata</i>	9	1	4		1	8	2	12	8	18	1	50	1	1		9	1				126
G	<i>Cerithidea djarjariensis</i>	35	4	37		29	4	44	2	39	1	57	2	88	1	44	3	23	2			415
G	<i>Cerithidea rhizophorarum</i>	2		2		2	2	2	2	2	1	1	1	3			5					21
G	<i>Littoraria articulata</i>			1																		1
G	<i>Lunella coronata</i>			1																		1
G	<i>Monodonta labio</i>			9					1	1		2					2					14
G	<i>Nassarius festivus</i>	1	2	1					1	1												6
G	<i>Nassarius semiplicatus</i>					1	1	1														2

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone TC 3	Mid tidal level (1.5 m above C.D.)										sub-total										
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	C	C	C	C	C	C	C	C	sub-total	
G	<i>Patelloida pygmaea</i>	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	1	2
Hc	<i>Clibanarius</i> sp.							1														1
Ol	Marine oligochaete spp.								2			1										4
P	Maldanidae spp.			1	1	1																3
																	Total	2048				

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		Sampling zone TC 3										Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>				5							5	
Bi	<i>Barbatia signata</i>	2	3		4	1						10	
Bi	<i>Barbatia virescens</i>	2		3	1	3			1		1	11	
Bi	<i>Dosinia japonica</i>					2						2	
Bi	<i>Ruditapes philippinarum</i>				1	1						2	
Bi	<i>Saccostrea cucullata</i>	56	115	52	86	99	135	23	32	49	58	705	
Bi	<i>Xenostrobus atrata</i>	3			10		10		7	3	2	35	
C	<i>Hemigrapsus penicillatus</i>	1			1	1		1	2			6	
C	<i>Nanosesarma minutum</i>			1						1		2	
Ec	Sea cucumber			1								1	
G	<i>Batillaria bornii</i>	1			1							2	
G	<i>Batillaria multiformis</i>	88	26	57	6	1	20	116	159	131	78	701	
G	<i>Batillaria zonalis</i>				6							6	
G	<i>Cellana grata</i>			1		2	4			1		8	
G	<i>Cerithidea cingulata</i>					1	1		1	2	3	8	
G	<i>Cerithidea djarjariensis</i>	1	2	3	1	8	1	1	18	30	11	76	
G	<i>Cerithidea rhizophorarum</i>					1			7	5	3	16	
G	<i>Lunella coronata</i>	10	2	8	10	4	2		3	7	3	49	

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		Sampling zone TC 3										Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Monodonta labio</i>	35	57	27	18	51	57	21	45	32	42	385	
G	<i>Nassarius festivus</i>			1	1							2	
G	<i>Nerita polita</i>	2		4	1	4	1	2	3	2		19	
G	<i>Nipponacmea concinna</i>	1	1	4								6	
G	<i>Patelloida pygmaea</i>	1										1	
G	<i>Peasiella</i> sp.				1					1		2	
G	<i>Thais luteostoma</i>	2										2	
P	Nereididae spp.	1										1	
P	Polynoidae spp.		1									1	
Sp	<i>Sipunculus nudus</i>	4			6	1						11	
Total											2075		

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		High tidal level (2.0 m above C.D.)										sub-total		
Sampling zone	ST	1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Bi	<i>Barbatia virescens</i>	1				1		1		1				4
Bi	<i>Ruditapes philippinarum</i>			1										1
Bi	<i>Saccostrea cucullata</i>	6	6	3	20	34	11	4	11	42	28			165
Bi	<i>Xenostrobus atrata</i>		4	1	6	2					1			14
C	<i>Clistocoeloma</i> sp.						1							1
C	<i>Hemigrapsus penicillatus</i>	2			1			1	1	2				7
Cn	Sea anemone	3				1				3	2			9
G	<i>Batillaria bornii</i>	3	1	8		24	7	3	8	2				56
G	<i>Batillaria multiformis</i>	252	326	301	355	111	246	133	75	185	128			2112
G	<i>Cellana grata</i>					3	4	5	2	2	3			19
G	<i>Cellana toreuma</i>				2	2	1				1			6
G	<i>Cerithidea cingulata</i>	4	4	3		3	1	8	5	1	4			33
G	<i>Cerithidea djadjariensis</i>	1	3	8		4	5	9	4		1			35
G	<i>Cerithidea rhizophorarum</i>										1			1
G	<i>Clithon faba</i>	2			3									5
G	<i>Clithon oualaniensis</i>				2			3						5
G	<i>Littoraria articulata</i>			1										1
G	<i>Lunella coronata</i>			3	2	1	2	8	2	4	3			25

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013		High tidal level (2.0 m above C.D.)												
Sampling zone ST		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Monodonta labio</i>	22										30		285
G	<i>Nassarius festivus</i>							3		1				4
G	<i>Nerita polita</i>	1				1		1						4
G	<i>Nipponacmea concinna</i>	2		3	3		1			1		1	1	11
G	<i>Patelloida pygmaea</i>					2	1			2				5
Hc	<i>Cilbanarius</i> sp.							1						1
P	Glyceridae spp.							1						1
PI	Platyhelminthes spp.									1				2
Sp	<i>Siphonosoma cumanense</i>									1				1
Sp	<i>Sipunculus nudus</i>									1				1
												Total	2814	

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Mar 2013	Sampling zone	ST	Mid tidal level (1.5 m above C.D.)										sub-total
Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C
Ba	<i>Balanus amphitrite</i>		1		4	4	5	1			6		21
Bi	<i>Barbatia signata</i>					4	2		10				16
Bi	<i>Barbatia virescens</i>					3	3	1	3	3			13
Bi	<i>Cyclina sinensis</i>			2									2
Bi	<i>Dosinia japonica</i>				2	1							3
Bi	<i>Saccostrea cucullata</i>	14	6		16	62	63	55	38	57	30		341
Bi	<i>Xenostrobus atrata</i>				1		4	7	1	1			14
C	<i>Hemigrapsus penicillatus</i>							2					2
C	<i>Nanosesarma minutum</i>									1			1
Cn	Sea anemone					1							1
F	<i>Omobranchus fasciolatoiceps</i>									1			1
G	<i>Batillaria bornii</i>	17	1			6	3	10	7	13	7		64
G	<i>Batillaria multiformis</i>	3	2	1		3	2	27	13	2	41		154
G	<i>Batillaria zonalis</i>	3		10	22	18	4	4					78
G	<i>Cellana grata</i>							2		1			3
G	<i>Cellana toreuma</i>							2	2	2	2		8
G	<i>Cerithidea cingulata</i>	18	1	4	1	3	2	2	12	2	6		73
G	<i>Cerithidea djadjariensis</i>	58	8	44	2	46	3	25	15	1	13		300

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone ST	Mid tidal level (1.5 m above C.D.)											sub-total								
			1	2	3	4	5	6	7	8	9	10									
Gp	Taxon		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Cerithidea rhizophorarum</i>	3	3			1					2	1	1						1		11
G	<i>Clithon faba</i>											1									1
G	<i>Lunella coronata</i>	12	1			4	21	11		12	10	23	7								101
G	<i>Monodonta labio</i>	2								30	27	33	20								112
G	<i>Nassarius festivus</i>		1	1		12	3	2	1	1		1									22
G	<i>Nerita polita</i>							2		5	1	2	4								14
G	<i>Patelloida pygmaea</i>											1							2		3
G	<i>Peasiella</i> sp.									1											1
G	<i>Turritella terebra</i>									1											1
Hc	<i>Clibanarius</i> sp.									1											2
Hc	<i>Pagurus dubius</i>																				4
P	Cirratulidae spp.									1											1
P	Maldanidae spp.										2										2
P	Onuphidae spp.										2										2
P	Pectinariidae spp.																				1
Pl	Platyhelminthes spp.																				1
Sp	<i>Sipunculus nudus</i>									1	1	1	1								3
																Total	1377				



**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone ST	Low tidal level (1.0 m above C.D.)																					sub-total						
Gp	Taxon	1	2	3	4	5	6	7	8	9	10																		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C								
Ba	<i>Balanus amphitrite</i>	6						7														20	33						
Bi	<i>Barbatia signata</i>	1																				1	2						
Bi	<i>Barbatia virescens</i>						1															1	2						
Bi	<i>Dosinia japonica</i>		2	2	1			1															7						
Bi	<i>Saccostrea cucullata</i>	16					26															55	97						
Bi	<i>Xenostrobus atrata</i>	2																				5	7						
C	<i>Hemigrapsus penicillatus</i>	1					1																2						
C	<i>Nanosesarma minutum</i>						1																1						
Cn	Sea anemone						1																1						
G	<i>Batillaria bornii</i>					1																	1						
G	<i>Batillaria multiformis</i>	6	3			1						1	2										13						
G	<i>Batillaria zonalis</i>	19	5	30	1		4	12	7	1													79						
G	<i>Cerithidea cingulata</i>						1	1	2	1													6						
G	<i>Cerithidea djadjarjensis</i>		1	1	1	14	2	11	1	10	2	26	1	4	3								77						
G	<i>Cerithidea rhizophorarum</i>					1																	1						
G	<i>Chlorostoma argyrostoma</i>																					1	1						
G	<i>Dentalium sinuosum</i>		1																				1						
G	<i>Lunella coronata</i>	2					1															4	7						

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Mar 2013	Sampling zone ST	Low tidal level (1.0 m above C.D.)										sub-total												
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	sub-total
G	<i>Nassarius festivus</i>	1	1		3	1	2		3		1													12
G	<i>Peasiella</i> sp.	1	1																					2
P	Eunicidae spp.		1																					1
P	Goniadidae spp.								1															3
P	Magelonidae spp.					1																		1
P	Maldanidae spp.		1	2																				5
P	Onuphidae spp.		4			2		1	2															12
P	Owenidae spp.		1																					1
P	Poecilochaetidae spp.			1																				1
P	Spionidae spp.			1																				1
Total																					377			



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**HIGHWAYS DEPARTMENT**

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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
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6<sup>th</sup> Monthly EM&A Report

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## APPENDIX J

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### Waste Flow Table



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

**MONTHLY SUMMARY WASTE FLOW TABLE**

Name of Department: Hyd

Contract No.: HY/2011/03

**Monthly Summary Waste Flow Table for 2013**

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (in '000m <sup>3</sup> )	Hard Rock and Large Broken Concrete (in '000m <sup>3</sup> )	Reused in the Contract (Note 8) (in '000m <sup>3</sup> )	Reused in Other Projects (Note 8) (in '000m <sup>3</sup> )	Disposed as Public Fill (Note 6) (in '000m <sup>3</sup> )	Imported Fill (Note 6) (in '000m <sup>3</sup> )	Metals (in '000kg)	Paper / Cardboard Packaging (in '000kg)	Plastics (Note 3) (in '000kg)	Chemical Waste (in '000kg)	Others, e.g. general refuse (Note 8) (in '000m <sup>3</sup> )		
Jan	8.472	0.000	8.472	0.000	0.000	11.120	0.000	0.000	0.000	0.000	0.293		
Feb	8.648	0.000	8.648	0.000	0.000	8.501	0.000	0.000	0.000	0.000	0.117		
Mar	6.826	0.000	6.826	0.000	0.000	0.000	0.243	0.000	0.000	0.091			
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Sub-total	23.946	0.000	23.946	0.000	0.000	19.621	0.243	0.000	0.000	0.501			
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Sub- total	0.000	0.000	0.000	0.000	0.000	0.000	0.243	0.000	0.000	0.000			
Total	23.946	0.000	23.946	0.000	0.000	19.621	0.243	0.000	0.000	0.501			



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Hong Kong Link Road - Section between Scenic Hill  
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6<sup>th</sup> Monthly EM&A Report

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## **APPENDIX K**

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### Cumulative Statistic on Complaints



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

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.	Rec'd Date	Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2012-008	22-Oct-12	16:41	EPD	Environmental (Water Pollution)	文先生控訴填海工程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，要求趕速清理。（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	5-Nov-12	-	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-12	-	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-12	-	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)	6-Nov-12	-	<hzb enquiry@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-12	-	<hzb enquiry@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.	Rec'd Date	Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2012-010(3)	15-Nov-12	-	EPD	Environmental (Noise, water quality & air quality)	The complainant has copied his reply from HYD dated 15 Nov 2012 to EPD and Health Department and he further complained on the following issues: <ul style="list-style-type: none"> <li>Noise nuisance generated by diesel engine;</li> <li>Smell of exhaust pipe gas in his residence; and</li> <li>Suspected marine water pollution (see enclosed photo).</li> </ul> The complainant also requested EPD to install noise and air quality monitoring at Le Bleu Deux estate.	WA6  Portion X	Noise from blowing horn from vessels and barges and Metallic Parts thrown on Ground <ul style="list-style-type: none"> <li>Reminded the Contractor to request the captains of the vessels and barges not blowing the horn except in case of emergency or prevention of ship collisions/serious safety matters;</li> <li>The supervision teams would enhance their light control on the vessels and barges working at that location, and monitor the situation and take corresponding actions; and</li> <li>To enhance the work force of RSS to supervise each step of construction activities and the use of hand tools until the completion of the site office erection.</li> </ul> Noise from Engines and Cranes of the Barges during Marine Operation <ul style="list-style-type: none"> <li>Installation of noise covers onto the generators / motors on all working barges;</li> <li>Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and</li> <li>Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at night time and Sundays.</li> </ul> Noise from power generators <ul style="list-style-type: none"> <li>All generators shall be either screened or covered by adequate sound reducing materials;</li> <li>All generators situated in front of Le Bleu Deux estate will be switched off at 19:00 hrs, except two generators will be kept running up to 22:00hrs and one generator will be kept running overnight for maintaining minimum power requirement; and</li> <li>Arrangement with CLP Power HK Ltd (CLP) for the permanent power supply to the site offices has been chased in a matter of urgency. The use of power generators will be terminated in phase starting from 6 December 2012.</li> </ul> Exhaust Fume Emission <ul style="list-style-type: none"> <li>Tight control on using the machine and generators in the vicinity of Le Bleu Deux estate; and</li> <li>Closely monitor the frequency on engine cleansing and replacement of dust filter.</li> </ul> Change of Sea Water in Yellow <ul style="list-style-type: none"> <li>The Contractor was reminded to move their vessels and barges at areas with adequate water depth as practically as possible.</li> </ul>	Closed	-
COM-2012-010(4)	19-Nov-12	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-12	13:42 hrs. 13:49 hrs	EPD (cc to HyD)	Environmental (Air quality and Noise)	The noise is coming for the following sources: <ul style="list-style-type: none"> <li>power generator</li> <li>engines from the barges used for marine operation</li> <li>engine from the cranes use of the construction barges.</li> <li>engine from the boat used to transport staff in and out</li> <li>boats blowing their horn late in the evening and at night</li> </ul> Gas emissions: <ul style="list-style-type: none"> <li>power generators</li> <li>marine operation</li> </ul> The complainant file again a complaint against the strong exhaust pipe emission flowing towards le Bleu Deux estate this afternoon 24/11/10 at 13:47. I can assure you that it is 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???</i>	WA6			
	25-Nov-12	22:02 hrs. 22:08 hrs.	EPD (cc to HyD)		A pictures taken this morning (25/11/12) around 9:30am-10am showing the water pollution in different area outside the floating barriers.  At 21:56 hrs., boat used by the Highway Department against blew their horn repetitively at close proximity from the residential estate.	Portion X			
COM-2012-012(1)	13-Nov-12	22:27 hrs.	HyD	Environmental (Noise)	Once again your site continues to work late. The attached photo was taken at 10:15pm on Tuesday 13 Nov. The machinery used on the barges is very noisy. Why do you continue to work till 10pm and why do you work on a Sunday. Surely this is classified as a construction site for which you are in breach of various ordinances. An early reply is appreciated.	Portion X	The following further mitigation measures during the course of the reclamation works will be taken: <ul style="list-style-type: none"> <li>Installation of noise covers onto the generators / motors on all working barges;</li> <li>Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and</li> <li>Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at nighttime and Sundays.</li> </ul>	Closed	
COM-2013-015	17-Jan-13	-	EPD	Environmental (Air)	The complainant raised that construction dust was arising from construction site of China State Contruction Engineering (Hong Kong) Ltd near Siu Ho Wan Sewage Treatment Works due to insufficient dust suppression and inadequate wheel washing.	WA3	The Contractor of HY/2011/03 would take the following actions with immediate effect <ul style="list-style-type: none"> <li>To ensure no loosed earth material exposed at the edges of eth stockpiled earth materials i.e. to prevent erosion by wind and water ;</li> <li>To cover the stockpiled earth material by adequate tarpaulin;</li> <li>To enhance the frequency of watering (3 times per day) onto existing haul road and other area as appropriate; and</li> <li>To install a water sprinkler system to enhance the existing dust suppression measures once the water point is ready for water supply by WSD.</li> </ul>	Closed	

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

Complaint Register

Complaint No.	Rec'd Date	Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-016	18-Jan-13	-	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	2-Mar-13	-	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)	4-Mar-13	-	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	CSCE had 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-13	-	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-13	14:19 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	RSS will keep on closely monitoring the situation and ensure that the Contractor will carry out the necessary noise mitigation measures while barges are working in the site area near Le Bleu Deux.	Closed	-
COM-2013-018 (5)	24-Mar-13 31-Mar-13	10:28 hrs 10:25 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	-
	1-Apr-13	10:32 hrs							





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Hong Kong Link Road - Section between Scenic Hill  
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6<sup>th</sup> Monthly EM&A Report

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## APPENDIX L

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### Environmental Licenses and Permits



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

## Summary of Environmental Licences and Permits Application and Status

### ***Environmental Permit***

Date Application Submitted	Status	Date EP Issued	EP No.	EP Holder	Expiry Date
31.10.2011	VEP issued	09.11.2011	EP-352/2009/A	Highways Department	N/A
08.10.2012	VEP Issued	16.10.2012	EP-353/2009/E	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

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

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

### ***Chemical Waste Producer Registration***

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

### ***Wastewater Discharge License***

Item No.	Date Application Submitted	Area Applied	Status	Expiry Date
1	22.06.2012	Site Office for Supervising Officer (WA6)	Application Ref. No. 346651 Letter from the EPD (Ref: EP/RS/0000346267) dated 19.07.2012 confirming that license under WPCO is not required.	N/A
2	04.07.2012	Site Office for China States (WA6)	Application Ref. No. 346982 Water Discharge License WT00014182-2012 was granted on 20 Sep 2012	Valid until 30 Sept 2017

3.	31.07.2012	Portion B, Portion X & Portion Y	Application Ref. No. 348019 Water Discharge License WT00014118-2012 was granted on 20 Sep 2012	Valid until 30 Sep 2017.
4.	15.01.2013	WA 3	Application Ref No.356237 Water Discharge License Ref. WT00015423-2013 was granted on 4 Mar 2013	Valid until 31/03/2018
5.	15.01.2013	WA 4	Application Ref No. 356240 Applied for Water Discharge License and pending for approval	N/A

### Construction Noise Permit

Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
1	30.11.2012	WA 06	Lighting for Office	CNP issued on 14.12.2012 (Valid)	GW-RS1321-12	15.12.2012 19:00	14.06.2013 23:00
2	20.12.2012	Portion X	Marine Works (1900 to 2300)	CNP issued on 10.01.2013 (Valid)	GW-RS0019-13	10.01.2013 19:00	03.07.2013 23:00
3	20.12.2012	Portion X	Marine Works (2300 to 0700)	CNP issued on 10.01.2013 (Valid)	GW-RS0020-13	10.01.2013 23:00	03.07.2013 07:00
4	31.12.2012	Kwo Lo Wan	Street Lighting, Welding and Pile Piling Works (1900 to 2300)	CNP issued on 14.01.2013 (Valid)	GW-RS0035-13	14.01.2013 19:00	15.07.2013 23:00
5	31.12.2012	Kwo Lo Wan	Street Lighting, water treatment and Welding Works	CNP issued on 14.01.2013 (Valid)	GW-RS0037-13	14.01.2013 23:00	15.07.2013 07:00
6.	07.01.2013	West Portal	Site Formation and Waste water treatment	CNP issued on 21.01.2013 (valid)	GW-RS0049-13	21.01.2013 19:00	20.07.2013 07:00
7.	09.01.2013	WA 4	Loading of Fill Materials	CNP issued on 23.01.2013 (Valid)	GW-RW0054-13	25.01.2013 19:00	24.07.2013 23:00
8.	09.01.2013	WA 4	Loading of Fill Materials	Rejected on 23.01.2013	N/A	N/A	N/A

Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
9.	18.01.2013	Kwo Lo Wan	Pile Piling	CNP issued on 01.02.2013 (Valid)	GW-RS0105-13	04.02.2013 19:00	03.08.2013 23:00
10	28.01.2013	WA 03	Street lighting and water pumping	CNP issued on 08.02.2013 (Valid)	GW-RS2128-13	14.02.2013 19:00	13.08.2013 23:00
11	05.02.2013	Kwo Lo Wan	TTA Works	CNP issued on 19.02.2013 (Valid)	GW-RS0184-13	20.02.2013 23:00	31.03.2013 05:00
12	27.02.2013	Airport Road	Wastewater Treatment	CNP issued on 13.03.2013	GW-RS0243-13	13.03.2013 23:00	12.08.2013 07:00
13	13.03.2013	Kwo Lo Wan	TTA Works	Applied on 13.03.2013 and pending for approval	N/A	N/A	N/A
14	15.03.2013	WA 3	Unloading of TTA material and wastewater treatment	Applied on 14.03.2013 and pending for approval	N/A	N/A	N/A



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## **APPENDIX M**

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### Implementation Schedule of Environmental Mitigation Measures



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

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

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

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 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	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant: <ul style="list-style-type: none"> <li>• Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system;</li> <li>• All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP;</li> <li>• Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system;</li> <li>• The materials which may generate airborne dusty emissions should be wetted by water spray system;</li> <li>• All receiving hoppers should be enclosed on three sides up to 3m above unloading point;</li> <li>• All conveyor transfer points should be totally enclosed;</li> <li>• All access and route roads within the premises should be paved and wetted; and</li> <li>• Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body.</li> </ul>	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period	Contractor	Selected representative dust monitoring station	Construction stage	✓



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

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

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

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

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

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

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S9.11.1- S9.11.1. 2	W1	<p>• excess material shall be cleaned from the decks and exposed fittings of barges before the vessel is moved;</p> <p>• 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</p> <p>• 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.</p>	To control construction water quality	Contractor	During seawall filling	Construction stage	✓
S9.11.1- S9.11.1. 2	W1	<p>• Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted;</p> <p>• barges shall have tight fitting seals to their bottom openings to prevent leakage of material;</p> <p>• any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;</p> <p>• loading of barges shall be controlled to prevent splashing of filling materials to the surrounding water.</p> <p>• Barges shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</p> <p>• adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</p> <p>• 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</p> <p>• 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 .</p>	To control construction water quality	Contractor	During seawall filling	Construction stage	✓

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		into the drainage system, and to prevent storm run-off from getting into foul sewers; <ul style="list-style-type: none"> <li>• discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.</li> </ul>					
S9.14	W3	<ul style="list-style-type: none"> <li>• Implement a water quality monitoring programme</li> </ul>	Control water quality	Contractor	At identified monitoring	During construction	✓
<b>Ecology (Construction Phase)</b>							
S10.7	E1	<ul style="list-style-type: none"> <li>• Good site practices to avoid runoff entering woodland habitats in Scenic Hill;</li> <li>• Reinstate works areas in Scenic Hill;</li> <li>• Avoid stream modification in Scenic Hill.</li> </ul>	Avoid potential disturbance on habitat of Romer.s Tree Frog in Scenic Hill	Designer; Contractor	Scenic Hill	During construction	✓
S10.7	E2	<ul style="list-style-type: none"> <li>• Install silt curtain during the construction;</li> <li>• Construct seawall prior to reclamation filling where practicable;</li> <li>• Good site practices;</li> <li>• Site runoff control3;</li> <li>• Spill response plan.</li> </ul>	Minimise marine water quality impacts	Contractor	Seawall, reclamation area	During construction	✓
S10.7	E4	<ul style="list-style-type: none"> <li>• Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater.</li> </ul>	Prevent Sedimentation from Land-based works areas	Contractor	Land-based works areas	During construction	✓
S10.7	E5	<ul style="list-style-type: none"> <li>• Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time</li> </ul>	Prevent disturbance to terrestrial fauna and habitats	Contractor	Land-based works areas	During construction	✓



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

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

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

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



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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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## APPENDIX N

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Record of “Notification of Environmental Quality Limit Exceedances”



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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 115

Date of Notification: 13 March 2013

Works Inspected: Data collected from water sampling works on 1 March 2013 and the results were issued on 4 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS(Mf)6	DA	27.5 or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2:4.35 x 120% = 5.2 for mid ebb AND CS(Mf)5: 2.75 x 120% = 3.3 for mid flood)	47.0 or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2:4.35 x 130% = 5.7 for mid ebb AND CS(Mf)5: 2.75 x 130% = 3.6 for mid flood)	<b><u>6.1</u></b>	<b><u>4.6</u></b>
TURB	IS7	DA			3.0	<b><u>5.4</u></b>
TURB	IS8	DA			<b><u>6.1</u></b>	3.2
TURB	IS(Mf)9	DA			1.6	<b><u>3.7</u></b>
TURB	IS10	DA			4.1	<b><u>6.4</u></b>
TURB	SR3	DA			3.4	<b><u>3.7</u></b>
TURB	SR4	DA			1.2	<b><u>3.7</u></b>
TURB	SR5	DA			2.0	<b><u>10.7</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 1 March 2013, LL exceedances at stations IS(Mf)6 and IS8 were recorded during mid-ebb tide. LL exceedances at stations IS(Mf)6 , IS7, IS(Mf)9, IS10, SR3, SR4 and SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column, rock/sand filling and rock transfer activities were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS(Mf)6 , IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	Min	Max	Min	Max
IS(Mf)6	3.3	21.7	5.3	20.9
IS7	3.4	20	5	19.4
IS8	4	12.2	4.5	24.5
IS(Mf)9	2.7	17	3.4	22.6
IS10	6.7	14.7	8.4	20.8
SR3	4.6	65.7	7.7	19.7
SR4	5.2	18.9	5	20.6
SR5	5.2	12.4	7.1	30.9

The measured values at stations IS(Mf)6 , IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

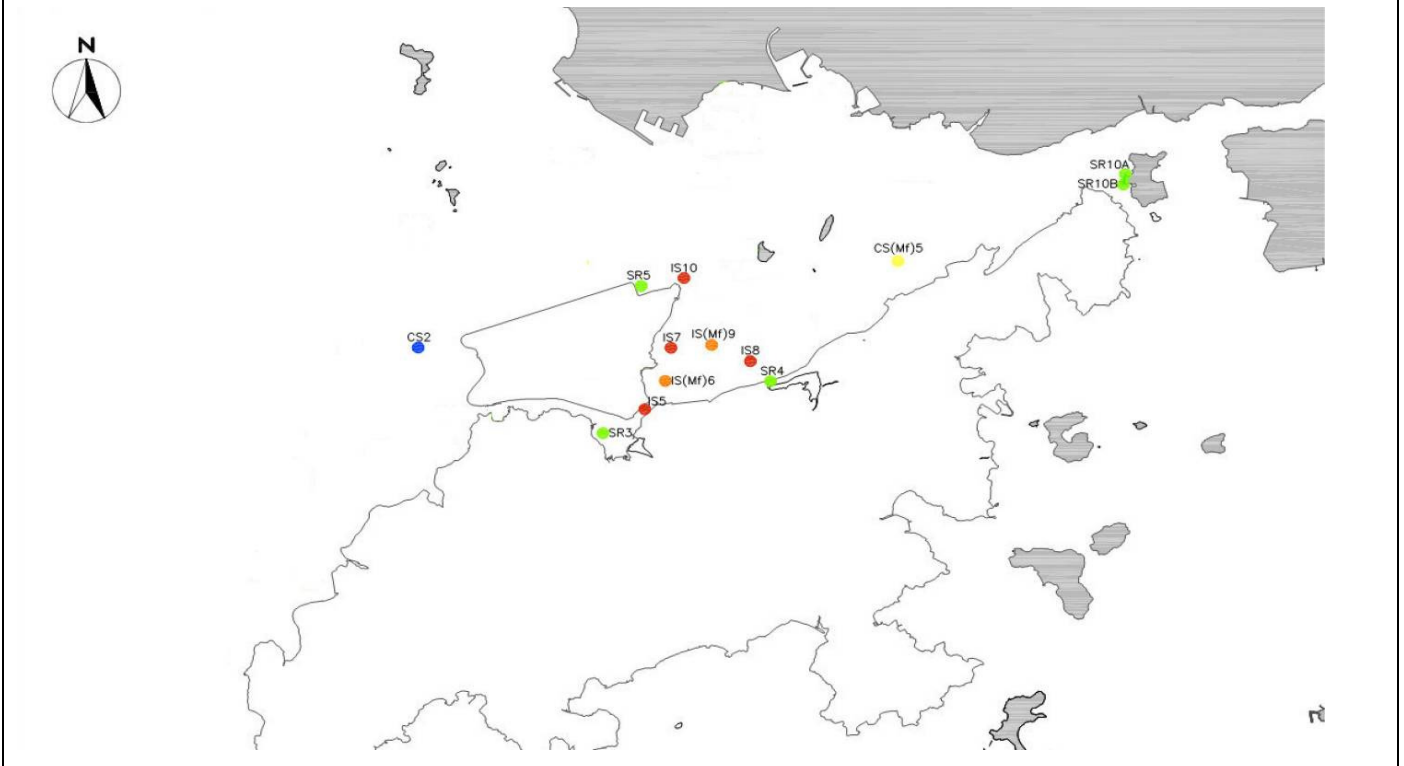
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader

Date : 13 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 116

Date of Notification: 13 March 2013

Works Inspected: Data collected from water sampling works on 4 March 2013 and the results were issued on 7 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	27.5 or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 3.37 x 120% = 4.0 for mid ebb AND CS(Mf)5: 1.35 x 120% = 1.6 for mid flood)	47.0 or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2:3.37 x 130% = 4.4 for mid ebb AND CS(Mf)5: 1.35x 130% = 1.8 for mid flood)	3.2	<b><u>3.4</u></b>
TURB	IS(Mf)6	DA			3.7	<b><u>4.2</u></b>
TURB	IS7	DA			<b>4.2</b>	<b><u>4.7</u></b>
TURB	IS8	DA			2.0	<b><u>2.0</u></b>
TURB	IS(Mf)9	DA			3.3	<b><u>3.5</u></b>
TURB	IS10	DA			3.3	<b><u>6.2</u></b>
TURB	SR3	DA			3.1	<b><u>4.5</u></b>
TURB	SR4	DA			2.5	<b><u>3.2</u></b>
TURB	SR5	DA			4.0	<b><u>13.4</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 4 March 2013, an AL exceedance at station IS7 was recorded during mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
IS5	5.8	to 19.2	5.7	to 21.4
IS(Mf)6	3.3	to 21.7	5.3	to 20.9
IS7	3.4	to 20	5	to 19.4
IS8	4	to 12.2	4.5	to 24.5
IS(Mf)9	2.7	to 17	3.4	to 22.6
IS10	6.7	to 14.7	8.4	to 20.8
SR3	4.6	to 65.7	7.7	to 19.7
SR4	5.2	to 18.9	5	to 20.6
SR5	5.2	to 12.4	7.1	to 30.9

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

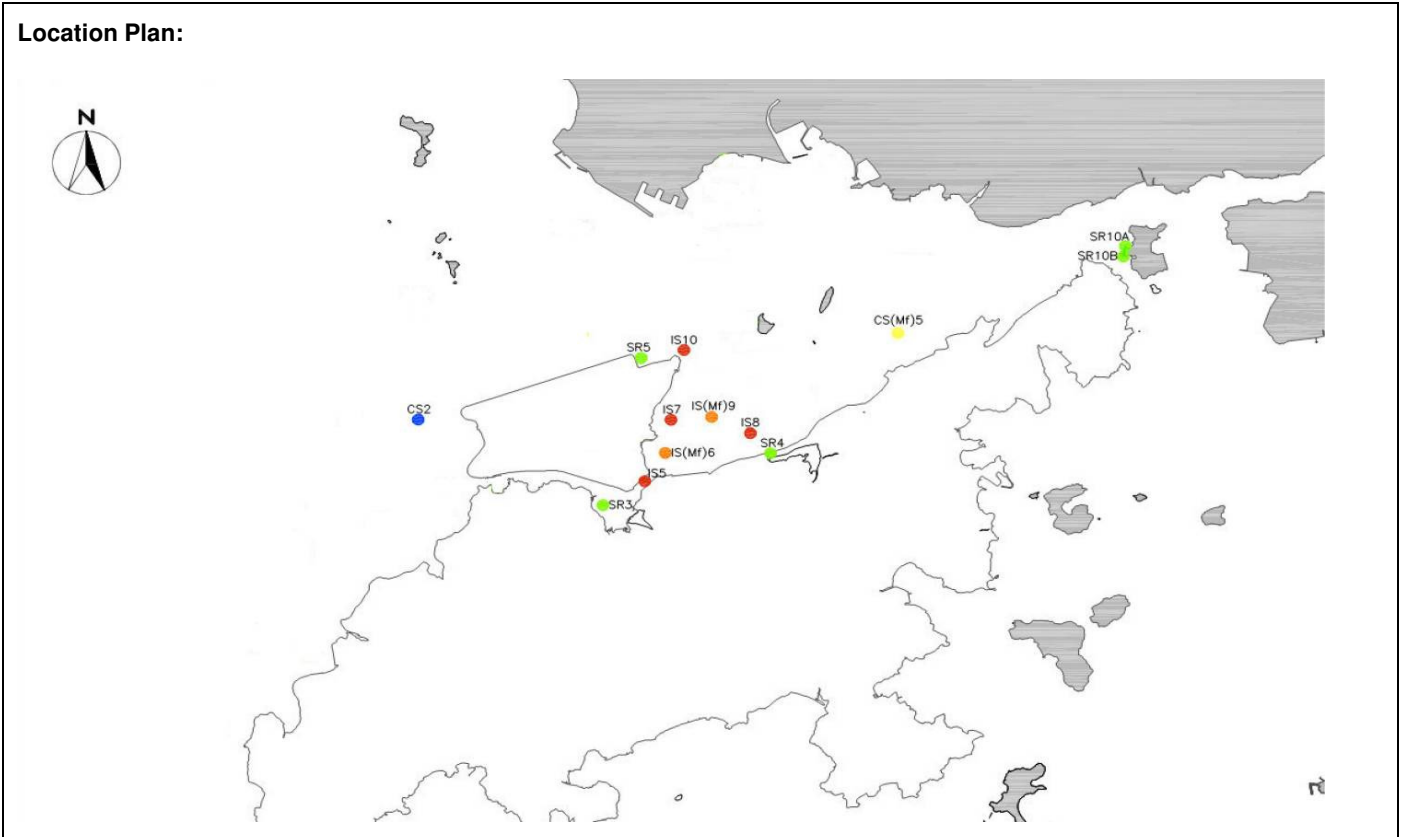
As such, the turbidity levels are considered to be attributed to other external factors such as sea condition, rather than the contract works.



**Actions taken/ to be taken:**

As the turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee Title : ET Leader

 Date : 13 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 117

Date of Notification: 13 March 2013

Works Inspected: Data collected from water sampling works on 6 March 2013 and the results were issued on 7 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS(Mf)6	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: $3.2 \times 120\% = 3.8$ for mid ebb AND CS(Mf)5: $2.27 \times 120\% = 2.7$ for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: $3.2 \times 130\% = 4.2$ for mid ebb AND CS(Mf)5: $2.27 \times 130\% = 2.9$ for mid flood)	2.1	<b><u>3.6</u></b>
TURB	IS7	DA			2.2	<b><u>3.5</u></b>
TURB	IS10	DA			2.3	<b><u>5.6</u></b>
TURB	SR5	DA			2.3	<b><u>5.6</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 6 March 2013, LL exceedances at stations IS(Mf)6 , IS7, IS10, and SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Transferring fill material activity was carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS(Mf)6 , IS7, IS10 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
IS(Mf)6	3.3	to 21.7	5.3	to 20.9
IS7	3.4	to 20	5	to 19.4
IS10	6.7	to 14.7	8.4	to 20.8
SR5	5.2	to 12.4	7.1	to 30.9

The measured values at stations IS(Mf)6 , IS7, IS10 and SR5 were within the range of turbidity for mid-flood tide during baseline monitoring.

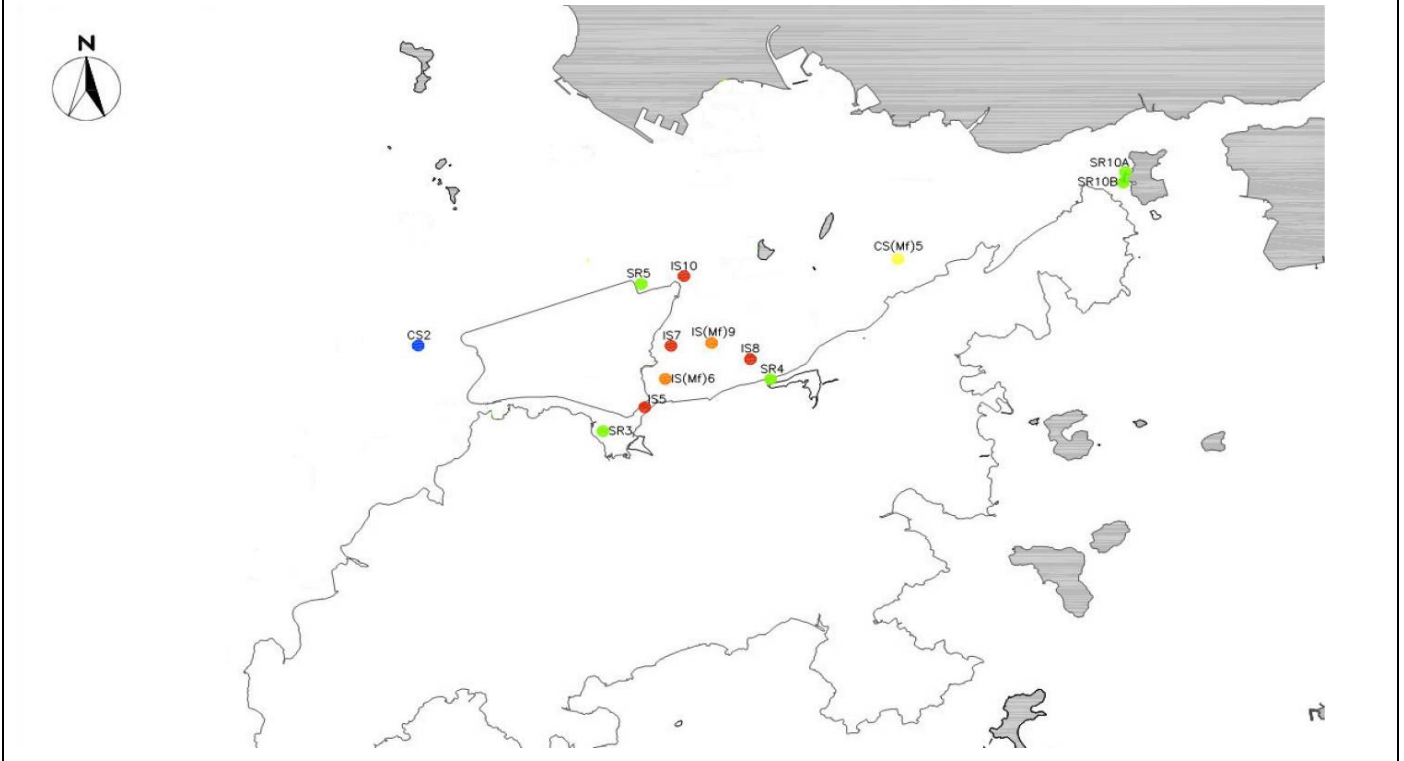
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee

Title : ET Leader

  
\_\_\_\_\_

Date : 13 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 118

**Date of Notification:** 18 March 2013

**Works Inspected:** Data collected from water sampling works on 1 March 2013 and the test report was issued on 8 March 2013.

**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)
SS	IS5	DA	23.5 or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.62 x 120% = 4.3 mg/L for mid ebb) AND CS(Mf)5: 3.52 x 120% = 4.2 mg/L for mid flood)	34.4 or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.62 x 130% = 4.7 mg/L for mid ebb) AND CS(Mf)5: 3.52 x 130% = 4.6 mg/L for mid flood)	<u>5.7</u>	<u>8.4</u>
SS	IS(Mf)6	DA			<u>8.9</u>	<u>5.5</u>
SS	IS7	DA			<u>6.7</u>	<u>7.0</u>
SS	IS8	DA			<u>5.0</u>	<u>5.0</u>
SS	IS10	DA			4.4	<u>5.1</u>
SS	SR3	DA			<u>5.7</u>	<u>4.8</u>
SS	SR5	DA			3.8	<u>14.1</u>
SS	SR10A	DA			4.1	<u>4.7</u>
SS	SR10B	DA			3.6	<u>5.2</u>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 1 March 2013, an AL exceedance at station IS10 and LL exceedances at stations IS5, IS(Mf)6, IS7, IS8 and SR3 were recorded for mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS10, SR3, SR5, SR10A and SR10B were recorded for mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Installation of stone column, rock/sand filling and rock transfer activities were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS8, IS10, SR3, SR5, SR10A and SR10B during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS8	5.5	to 25.5	5.8	to 31.3
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR5	6.7	to 16.5	6.5	to 31.2
SR10A	3.6	to 17	4.8	to 19.2
SR10B	3.1	to 30.8	5.7	to 26.7

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS10, SR3, SR5, SR10A and SR10B were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

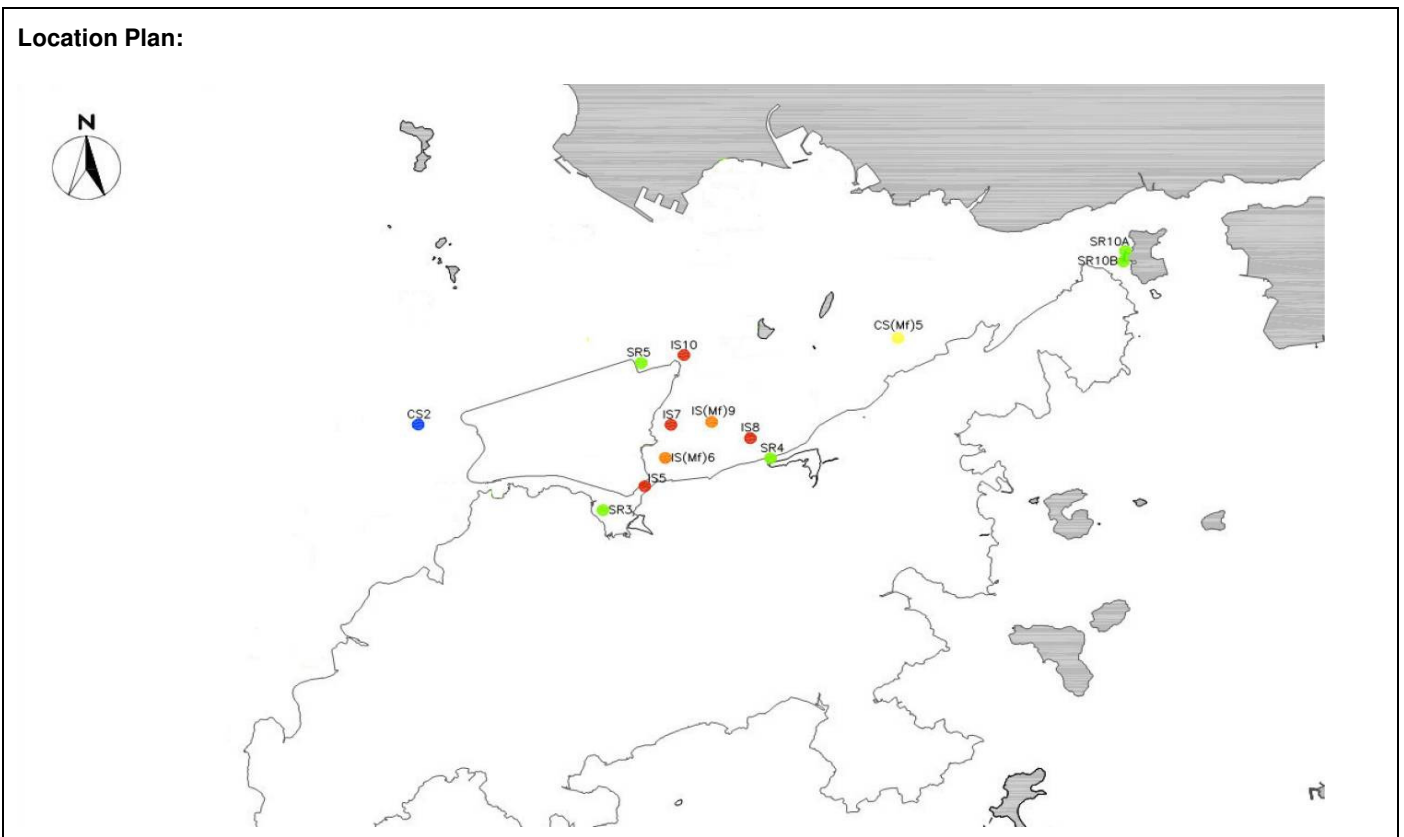
- There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee Title : ET Leader

Date : 18 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 119

Date of Notification: 18 March 2013

Works Inspected: Data collected from water sampling works on 8 March 2013 and the results were issued on 11 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 2.58 x 120% = <b>3.1</b> for mid ebb AND CS(Mf)5: 1.6 x 120% = <b>1.9</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 2.58x 130% = <b>3.4</b> for mid ebb AND CS(Mf)5: 1.6 x 130% = <b>2.1</b> for mid flood)	<b>3.2</b>	<u><b>2.5</b></u>
TURB	IS(Mf)6	DA			<u><b>7.1</b></u>	<u><b>7.3</b></u>
TURB	IS7	DA			<u><b>6.3</b></u>	<u><b>5.1</b></u>
TURB	IS8	DA			3.0	<u><b>2.7</b></u>
TURB	IS(Mf)9	DA			2.1	<u><b>2.7</b></u>
TURB	IS10	DA			<u><b>3.7</b></u>	<u><b>3.1</b></u>
TURB	SR3	DA			2.3	<u><b>2.4</b></u>
TURB	SR4	DA			2.1	<u><b>2.8</b></u>
TURB	SR5	DA			2.1	<b>2.1</b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 8 March 2013, an AL exceedance at station IS5 and LL exceedances at stations IS(Mf)6, IS7 and IS10 were recorded during mid-ebb tide. An AL exceedance at station SR5 and LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	Min	Max	Min	Max
IS5	5.8	19.2	5.7	21.4
IS(Mf)6	3.3	21.7	5.3	20.9
IS7	3.4	20	5	19.4
IS8	4	12.2	4.5	24.5
IS(Mf)9	2.7	17	3.4	22.6
IS10	6.7	14.7	8.4	20.8
SR3	4.6	65.7	7.7	19.7
SR4	5.2	18.9	5	20.6
SR5	5.2	12.4	7.1	30.9

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

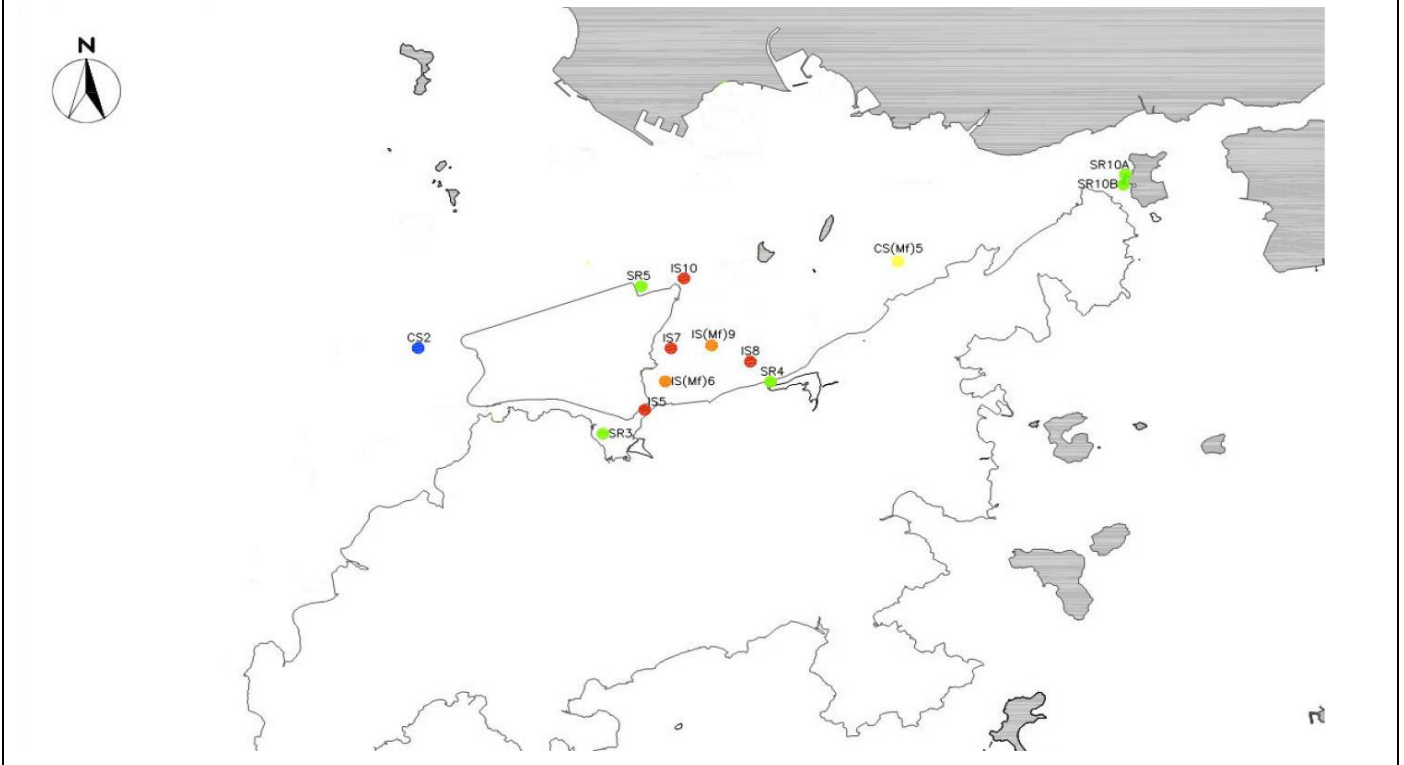
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader

Date : 18 March 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 120

**Date of Notification:** 18 March 2013

**Works Inspected:** Data collected from water sampling works on 11 March 2013 and the results were issued on 11 March 2013

**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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 4.45 x 120% = <b>5.3</b> for mid ebb AND CS(Mf)5: 3.42 x 120% = <b>4.1</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 4.45 x 130% = <b>5.8</b> for mid ebb AND CS(Mf)5: 3.42 x 130% = <b>4.4</b> for mid flood)	4.4	<b><u>4.7</u></b>
TURB	IS(Mf)6	DA			3.6	<b><u>5.8</u></b>
TURB	IS7	DA			<b><u>7.0</u></b>	<b><u>7.9</u></b>
TURB	IS8	DA			4.3	<b><u>7.4</u></b>
TURB	IS(Mf)9	DA			4.3	<b><u>5.6</u></b>
TURB	IS10	DA			5.1	<b><u>7.7</u></b>
TURB	SR3	DA			4.4	<b><u>6.7</u></b>
TURB	SR4	DA			3.8	<b><u>6.6</u></b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 11 March 2013, a LL exceedance at station IS7 was recorded during mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
IS5	5.8	to 19.2	5.7	to 21.4
IS(Mf)6	3.3	to 21.7	5.3	to 20.9
IS7	3.4	to 20	5	to 19.4
IS8	4	to 12.2	4.5	to 24.5
IS(Mf)9	2.7	to 17	3.4	to 22.6
IS10	6.7	to 14.7	8.4	to 20.8
SR3	4.6	to 65.7	7.7	to 19.7
SR4	5.2	to 18.9	5	to 20.6

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

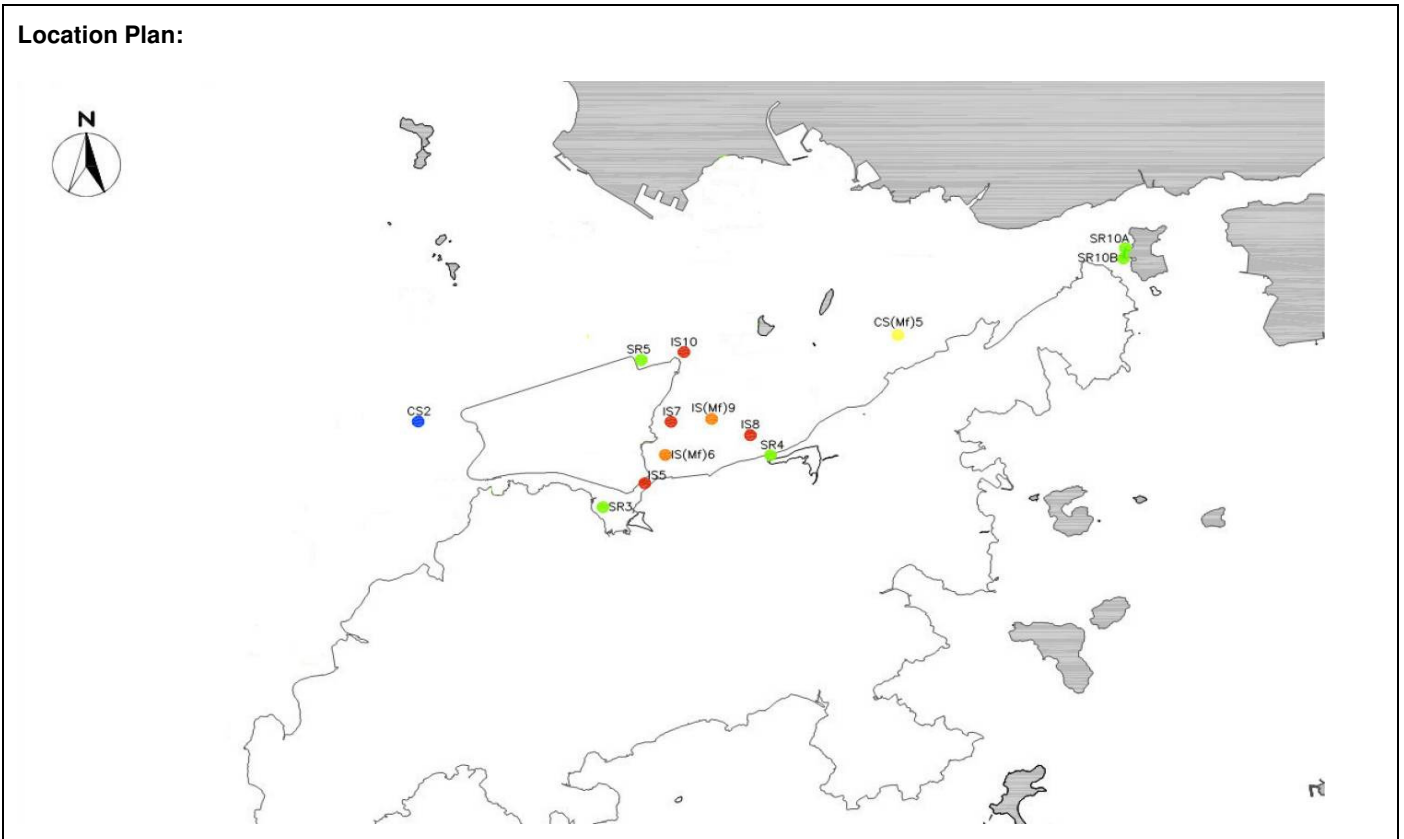
As such, the turbidity levels are considered to be attributed to other external factors such as sea condition, rather than the contract works.



**Actions taken/ to be taken:**

As the turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee Title : ET Leader

 Date : 18 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 121

**Date of Notification:** 18 March 2013

**Works Inspected:** Data collected from water sampling works on 4 March 2013 and the test report was issued on 11 March 2013.

**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)
SS	IS5	DA	23.5 or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.97 x 120% = 4.8 mg/L for mid ebb) AND CS(Mf)5: 4.38 x 120% = 5.3 mg/L for mid flood)	34.4 or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.97 x 130% = 5.2 mg/L for mid ebb) AND CS(Mf)5: 4.38 x 130% = 5.7 mg/L for mid flood)	<b><u>6.5</u></b>	<b><u>7.0</u></b>
SS	IS(Mf)6	DA			<b><u>8.1</u></b>	<b><u>8.9</u></b>
SS	IS7	DA			<b><u>7.6</u></b>	<b><u>7.7</u></b>
SS	IS8	DA			<b><u>5.3</u></b>	5.3
SS	IS(Mf)9	DA			<b><u>5.9</u></b>	<b><u>7.7</u></b>
SS	IS10	DA			<b><u>6.3</u></b>	<b><u>8.6</u></b>
SS	SR3	DA			<b><u>6.0</u></b>	<b><u>8.6</u></b>
SS	SR4	DA			<b><u>5.9</u></b>	<b><u>6.5</u></b>
SS	SR5	DA			<b><u>7.2</u></b>	<b><u>15.6</u></b>
SS	SR10A	DA			<b><u>5.4</u></b>	<b><u>5.8</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 4 March 2013, LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10A were recorded for mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10A were recorded for mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10A during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS8	5.5	to 25.5	5.8	to 31.3
IS(Mf)9	5.5	to 20.1	7.3	to 26
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR4	5.3	to 20	5.6	to 24.5
SR5	6.7	to 16.5	6.5	to 31.2
SR10A	3.6	to 17	4.8	to 19.2

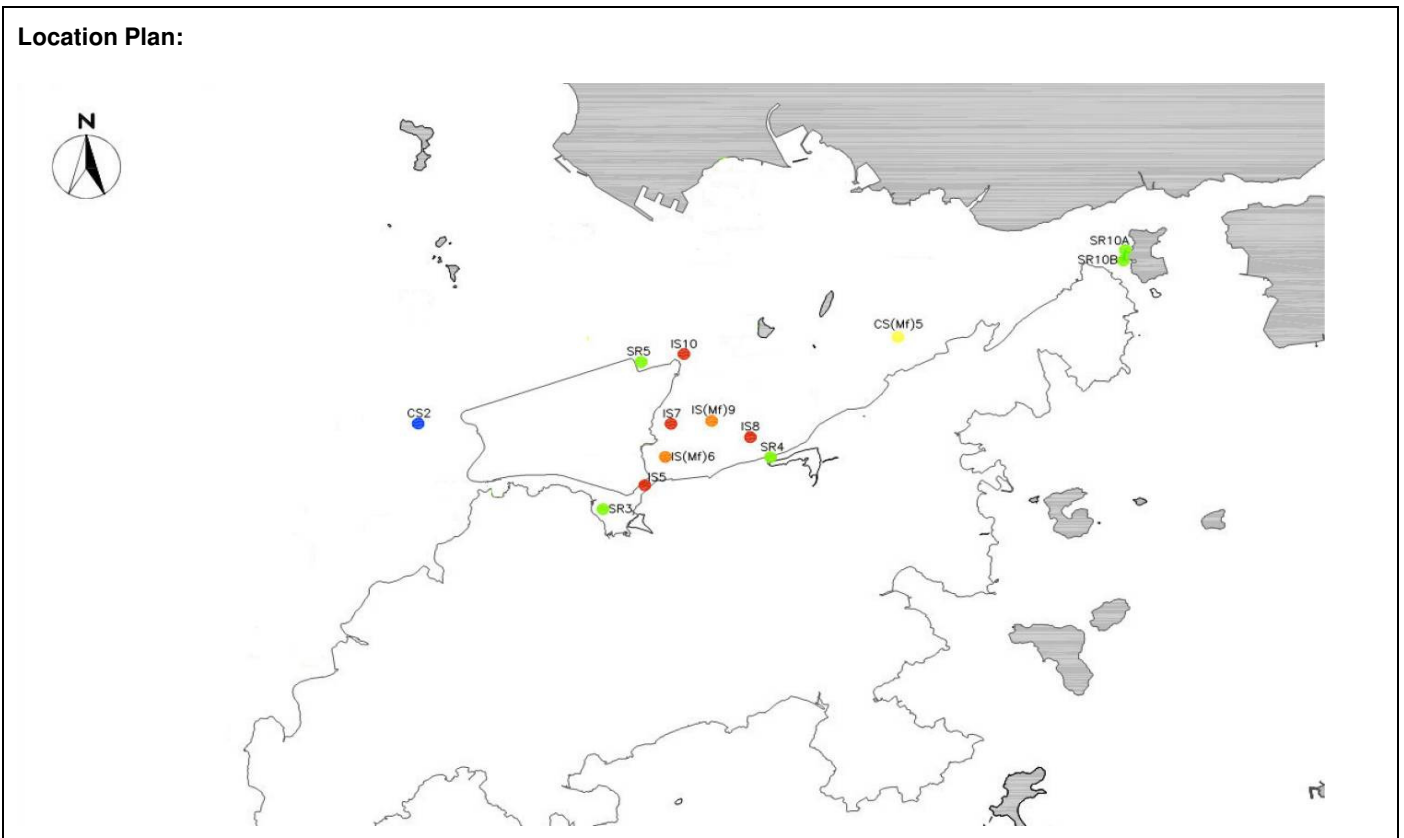
The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10A were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.


- There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
- No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 18 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 122

**Date of Notification:** 18 March 2013

**Works Inspected:** Data collected from water sampling works on 6 March 2013 and the test report was issued on 13 March 2013.

**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)
SS	IS5	DA	<b>23.5</b> or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.17 x 120% = <b>7.4</b> mg/L for mid ebb) AND CS(Mf)5: 2.72 x 120% = <b>3.3</b> mg/L for mid flood)	<b>34.4</b> or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.17 x 130% = <b>8.0</b> mg/L for mid ebb) AND CS(Mf)5: 2.72 x 130% = <b>3.5</b> mg/L for mid flood)	3.7	<b><u>5.1</u></b>
SS	IS(Mf)6	DA			3.1	<b><u>5.5</u></b>
SS	IS7	DA			3.6	<b><u>5.0</u></b>
SS	IS10	DA			3.1	<b><u>8.0</u></b>
SS	SR3	DA			3.4	<b><u>3.9</u></b>
SS	SR4	DA			3.1	<b><u>4.9</u></b>
SS	SR5	DA			3.0	<b><u>6.4</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 6 March 2013, LL exceedances at stations IS5, IS(Mf)6, IS7, IS10, SR3, SR4 and SR5 were recorded for mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Transferring fill material activity was carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS10, SR3, SR4 and SR5 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR4	5.3	to 20	5.6	to 24.5
SR5	6.7	to 16.5	6.5	to 31.2

The measured values at stations IS5, IS(Mf)6, IS7, IS10, SR3, SR4 and SR5 were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

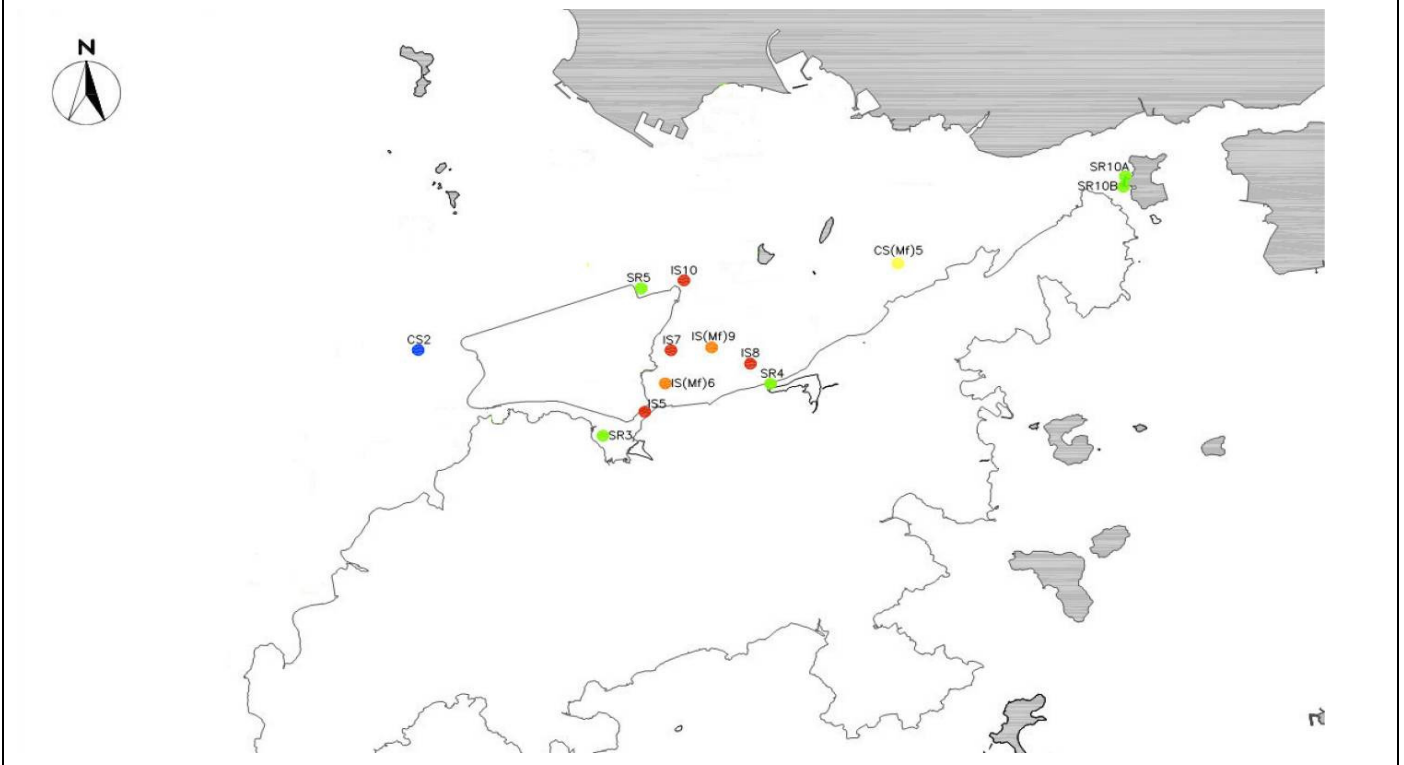
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.


As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 18 March 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 123

**Date of Notification:** 25 March 2013

**Works Inspected:** Data collected from water sampling works on 13 March 2013 and the results were issued on 14 March 2013

**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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS(Mf)6	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 6.73 x 120% = <b>8.1</b> for mid ebb AND CS(Mf)5: 6.17 x 120% = <b>7.4</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 6.73 x 130% = <b>8.8</b> for mid ebb AND CS(Mf)5: 6.17 x 130% = <b>8.0</b> for mid flood)	5.6	<b><u>9.2</u></b>
TURB	IS7	DA			4.8	<b><u>8.4</u></b>
TURB	IS(Mf)9	DA			4.5	<b><u>10.4</u></b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 13 March 2013, LL exceedances at stations IS(Mf)6, IS7 and IS(Mf)9 were recorded during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS(Mf)6, IS7 and IS(Mf)9 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
IS(Mf)6	3.3	to 21.7	5.3	to 20.9
IS7	3.4	to 20	5	to 19.4
IS(Mf)9	2.7	to 17	3.4	to 22.6

The measured values at stations IS(Mf)6, IS7 and IS(Mf)9 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

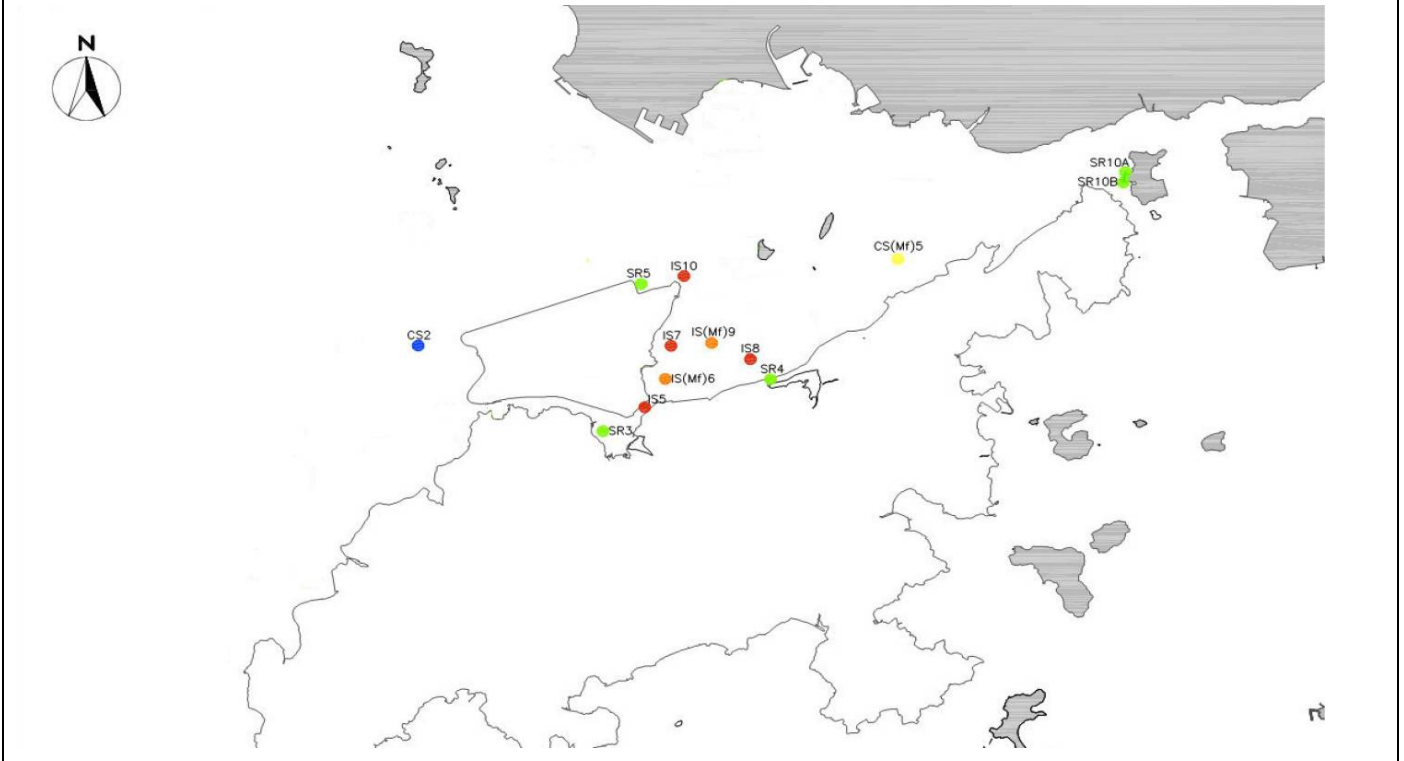
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee \_\_\_\_\_

Title : ET Leader \_\_\_\_\_

  
\_\_\_\_\_

Date : 25 March 2013 \_\_\_\_\_

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 124

Date of Notification: 25 March 2013

Works Inspected: Data collected from water sampling works on 8 March 2013 and the test report was issued on 15 March 2013.

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)
SS	IS(Mf)6	DA	23.5 or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.35 x 120% = 5.2 mg/L for mid ebb) AND CS(Mf)5: 3.65 x 120% = 4.4 mg/L for mid flood)	34.4 or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.35 x 130% = 5.7 mg/L for mid ebb) AND CS(Mf)5: 3.65 x 130% = 4.7 mg/L for mid flood)	<u>6.5</u>	4.3
SS	IS7	DA			4.3	<u>6.0</u>
SS	IS(Mf)9	DA			4.3	<u>4.9</u>
SS	SR4	DA			<u>5.7</u>	<u>4.5</u>
SS	SR10B	DA			4.4	<u>4.7</u>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 8 March 2013, an AL exceedance at station SR4 and a LL exceedance at station IS(Mf)6 were recorded during mid-ebb tide. AL exceedances at stations SR4 and SR10B and LL exceedances at stations IS7 and IS(Mf)9 were recorded 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. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS(Mf)6, IS7, IS(Mf)9, SR4 and SR10B during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS(Mf)9	5.5	to 20.1	7.3	to 26
SR4	5.3	to 20	5.6	to 24.5
SR10B	3.1	to 30.8	5.7	to 26.7

The measured values at stations IS(Mf)6, IS7, IS(Mf)9, SR4 and SR10B were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

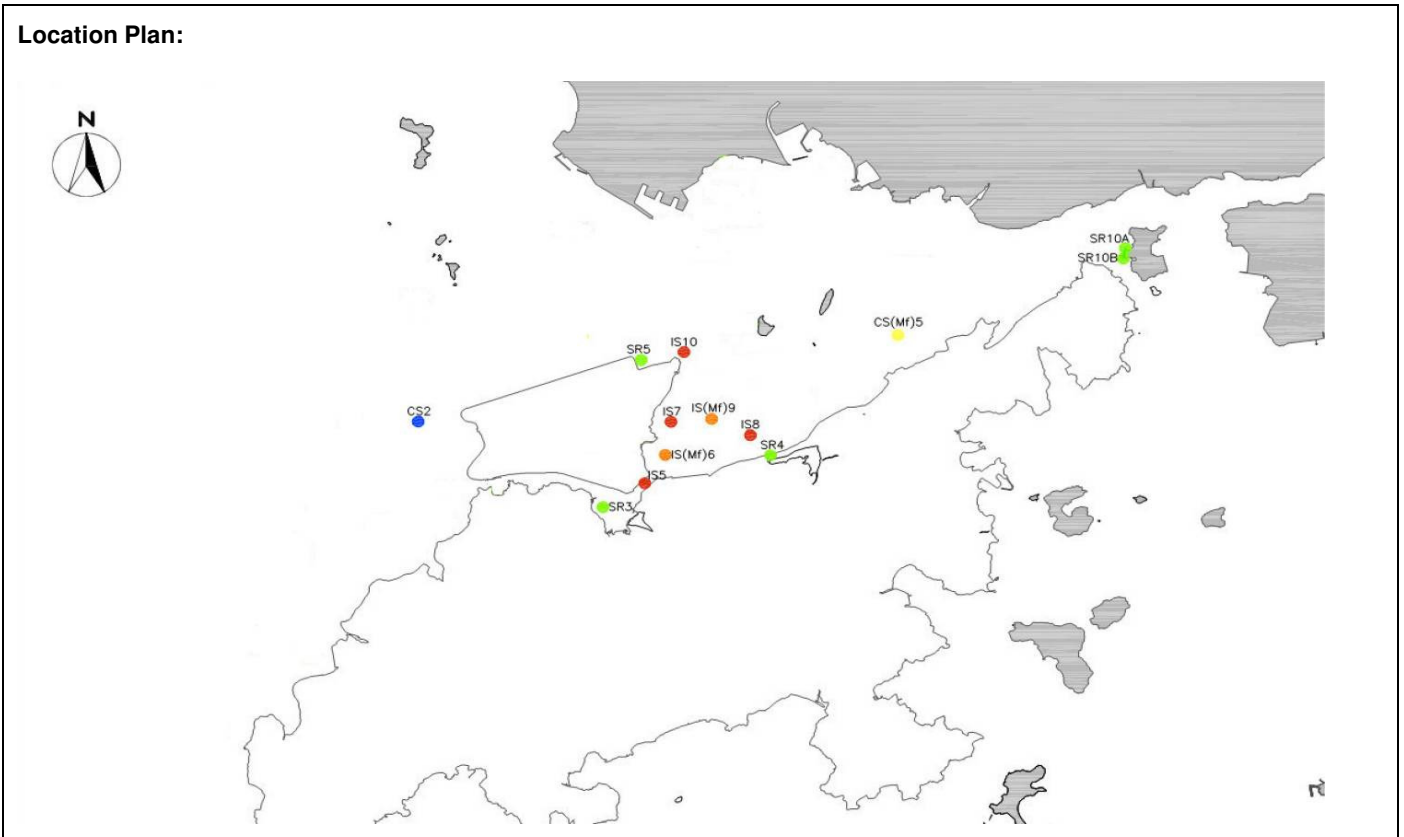
As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.




**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 25 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 125

**Date of Notification:** 25 March 2013

**Works Inspected:** Data collected from water sampling works on 11 March 2013 and the test report was issued on 18 March 2013.

**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)
SS	IS5	DA	<b>23.5</b> or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.88 x 120% = <b>7.1</b> mg/L for mid ebb) AND CS(Mf)5: 4.2 x 120% = <b>5.0</b> mg/L for mid flood)	<b>34.4</b> or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.88 x 130% = <b>7.6</b> mg/L for mid ebb) AND CS(Mf)5: 4.2 x 130% = <b>5.5</b> mg/L for mid flood)	5.6	<b><u>5.6</u></b>
SS	IS(Mf)6	DA			5.4	<b>5.4</b>
SS	IS7	DA			6.1	<b><u>7.5</u></b>
SS	IS8	DA			3.1	<b><u>9.2</u></b>
SS	IS(Mf)9	DA			4.4	<b><u>6.0</u></b>
SS	IS10	DA			3.3	<b><u>9.6</u></b>
SS	SR3	DA			4.3	<b><u>7.1</u></b>
SS	SR4	DA			3.9	<b><u>10.2</u></b>
SS	SR5	DA			4.8	<b><u>6.2</u></b>

Notes:

DA means depth average.

**Bold Italic** means AL exceedances.

**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 11 March 2013, an AL exceedance at station IS(Mf)6 and LL exceedances at stations IS5, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were recorded 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. Installation of stone column was carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide	Range of Suspended Solid (mg/L) Mid- Flood Tide
IS5	8.1 to 25.7	7 to 23.7
IS(Mf)6	7.1 to 19	8.5 to 35
IS7	6.1 to 21	7.8 to 34
IS8	5.5 to 25.5	5.8 to 31.3
IS(Mf)9	5.5 to 20.1	7.3 to 26
IS10	6.1 to 20.2	7.2 to 16
SR3	6.7 to 31	7.6 to 28
SR4	5.3 to 20	5.6 to 24.5
SR5	6.7 to 16.5	6.5 to 31.2

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the

monitoring results.

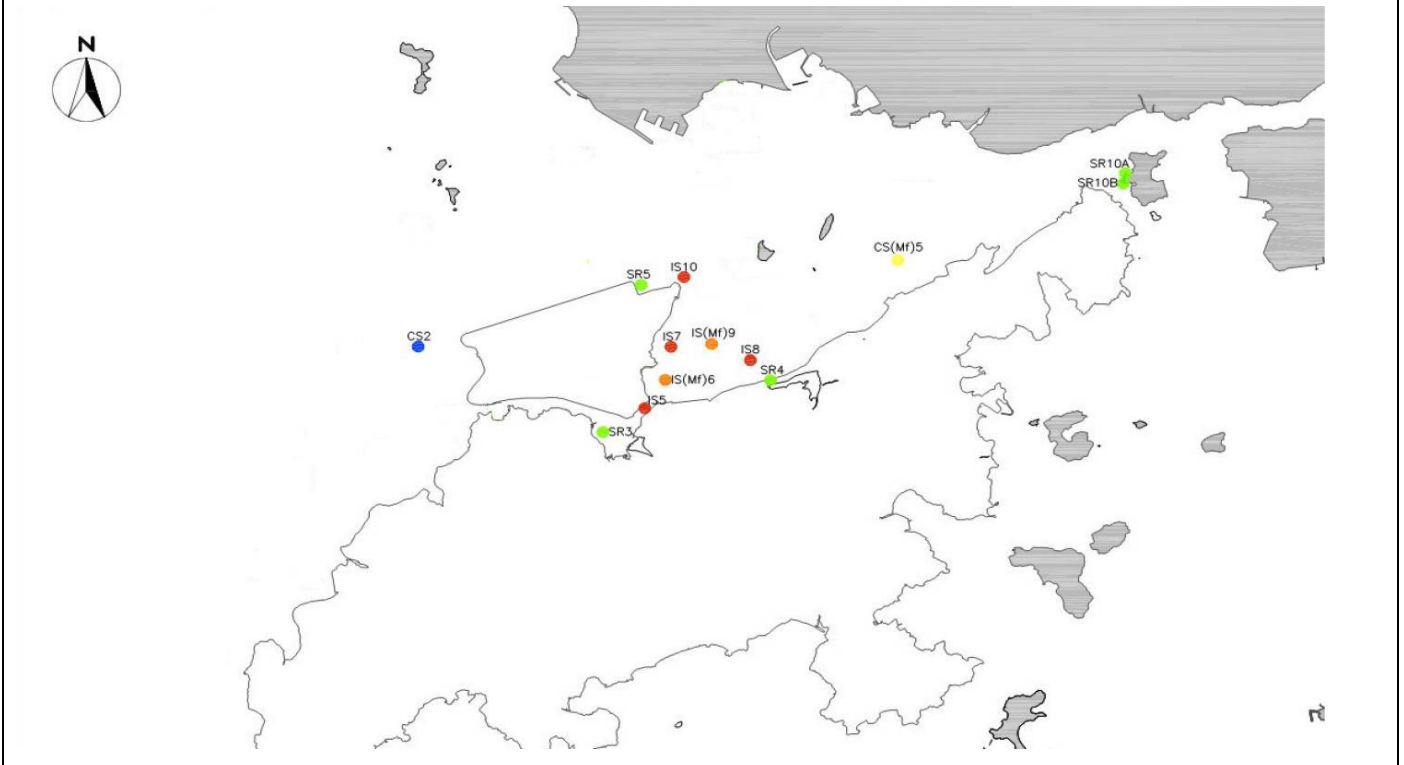
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.


As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 25 March 2013

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

**Date of Notification:** 25 March 2013

**Works Inspected:** Data collected from water sampling works on 13 March 2013 and the test report was issued on 20 March 2013.

**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)
SS	IS5	DA	<b>23.5</b> or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.17 x 120% = <b>6.2</b> mg/L for mid ebb) AND CS(Mf)5: 3.12 x 120% = <b>3.7</b> mg/L for mid flood)	<b>34.4</b> or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.17 x 130% = <b>6.7</b> mg/L for mid ebb) AND CS(Mf)5: 3.12 x 130% = <b>4.1</b> mg/L for mid flood)	3.2	<b><u>4.5</u></b>
SS	IS(Mf)6	DA			4.3	<b><u>11.0</u></b>
SS	IS7	DA			1.5	<b><u>7.3</u></b>
SS	IS8	DA			4.1	<b><u>6.4</u></b>
SS	IS(Mf)9	DA			5.0	<b><u>12.2</u></b>
SS	IS10	DA			3.7	<b><u>4.6</u></b>
SS	SR3	DA			3.9	<b><u>5.5</u></b>
SS	SR4	DA			3.1	<b><u>6.0</u></b>

**Notes:**

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 13 March 2013, LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 were recorded 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. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS8	5.5	to 25.5	5.8	to 31.3
IS(Mf)9	5.5	to 20.1	7.3	to 26
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR4	5.3	to 20	5.6	to 24.5

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR4 were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

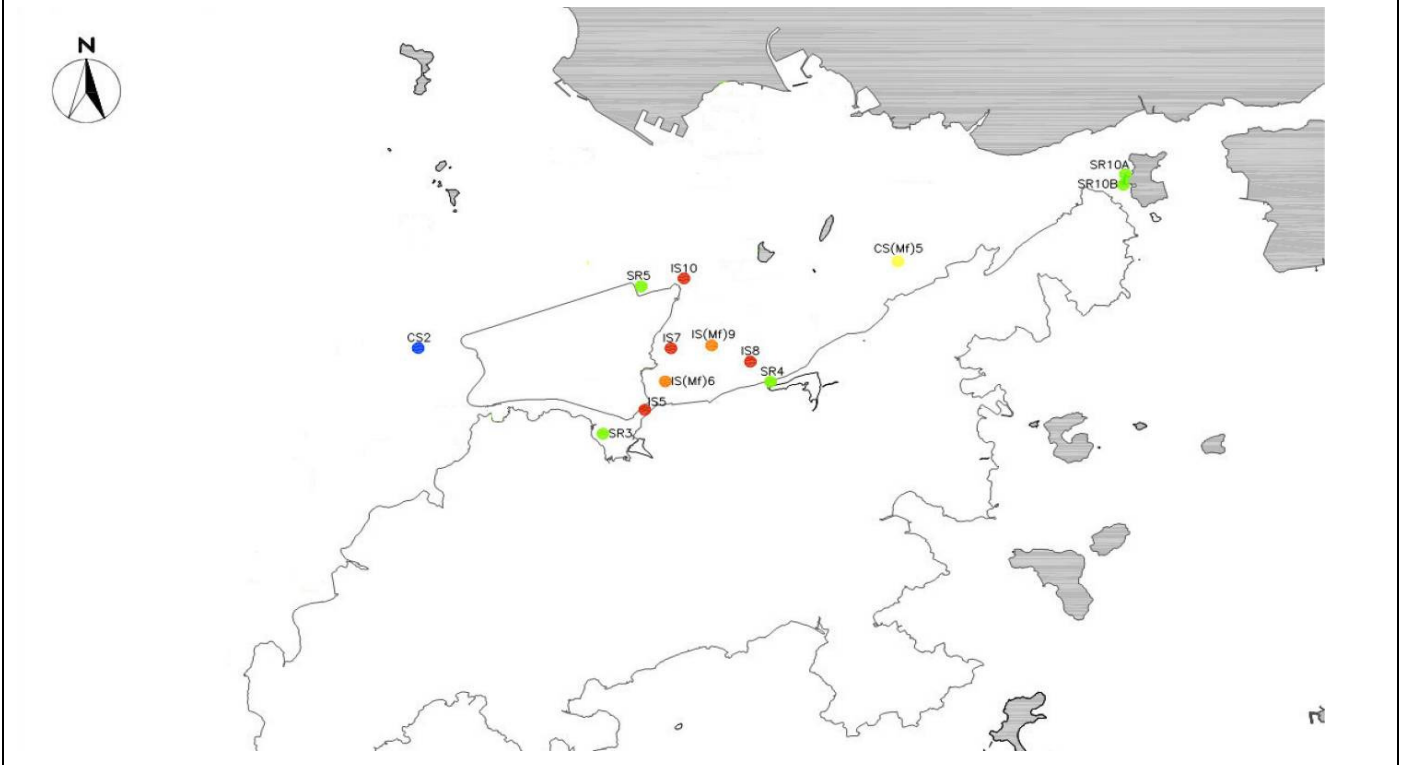
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.


4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise. As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee Title : ET Leader  
 Date : 25 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 127

Date of Notification: 25 March 2013

Works Inspected: Data collected from water sampling works on 15 March 2013 and the results were issued on 18 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS(Mf)6	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 6.77 x 120% = <b>8.1</b> for mid ebb AND CS(Mf)5: 3.05 x 120% = <b>3.7</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 6.77 x 130% = <b>8.8</b> for mid ebb AND CS(Mf)5: 3.05 x 130% = <b>4.0</b> for mid flood)	5.8	<b><u>3.9</u></b>
TURB	IS7	DA			2.9	<b><u>4.3</u></b>
TURB	IS8	DA			3.6	<b><u>5.1</u></b>
TURB	IS(Mf)9	DA			3.7	<b><u>9.7</u></b>
TURB	IS10	DA			6.4	<b><u>7.3</u></b>
TURB	SR3	DA			3.2	<b><u>4.1</u></b>
TURB	SR5	DA			4.4	<b><u>13.6</u></b>

Notes:

DA means depth average.

**Bold Italic** means AL exceedances.

**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 15 March 2013, an AL exceedance at station IS(Mf)6 and LL exceedances at stations IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	Min	Max	Min	Max
IS(Mf)6	3.3	21.7	5.3	20.9
IS7	3.4	20	5	19.4
IS8	4	12.2	4.5	24.5
IS(Mf)9	2.7	17	3.4	22.6
IS10	6.7	14.7	8.4	20.8
SR3	4.6	65.7	7.7	19.7
SR5	5.2	12.4	7.1	30.9

The measured values at stations IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

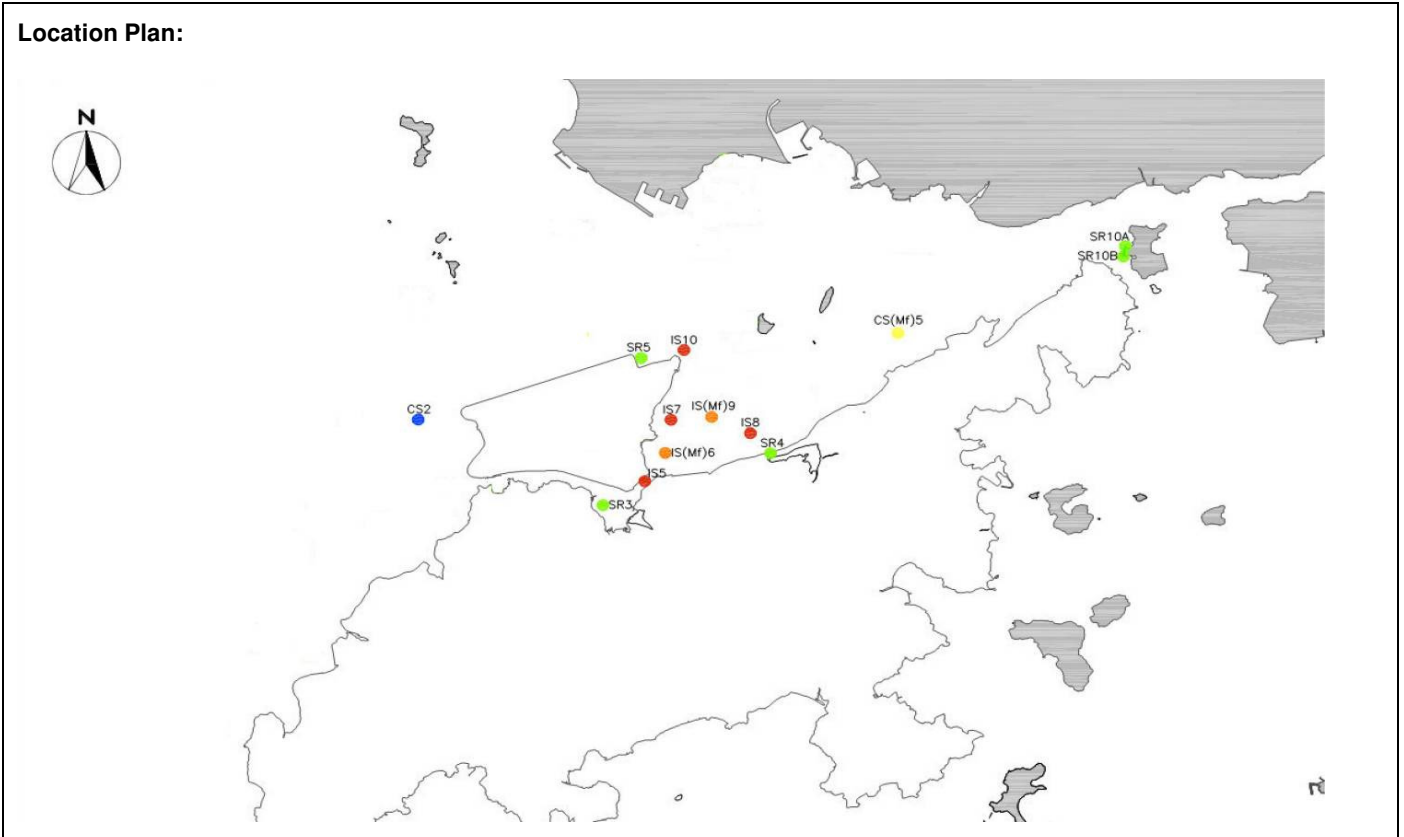
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader



Date : 25 March 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 128

Date of Notification: 25 March 2013

Works Inspected: Data collected from water sampling works on 15 March 2013 and the test report was issued on 22 March 2013.

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)
SS	IS(Mf)6	DA	23.5 or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.32 x 120% = 5.2 mg/L for mid ebb) AND CS(Mf)5: 3.20 x 120% = 3.8 mg/L for mid flood)	34.4 or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.32 x 130% = 5.6 mg/L for mid ebb) AND CS(Mf)5: 3.20 x 130% = 4.2 mg/L for mid flood)	4.3	<b><u>4.5</u></b>
SS	IS7	DA			3.5	<b><u>5.7</u></b>
SS	IS8	DA			3.7	<b><u>5.9</u></b>
SS	IS(Mf)9	DA			3.4	<b><u>12.0</u></b>
SS	IS10	DA			3.5	<b><u>6.9</u></b>
SS	SR3	DA			3.9	<b><u>4.6</u></b>
SS	SR5	DA			4.5	<b><u>13.0</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 15 March 2013, LL exceedances at stations IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 were recorded 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. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS8	5.5	to 25.5	5.8	to 31.3
IS(Mf)9	5.5	to 20.1	7.3	to 26
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR5	6.7	to 16.5	6.5	to 31.2

The measured values at stations IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3 and SR5 were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

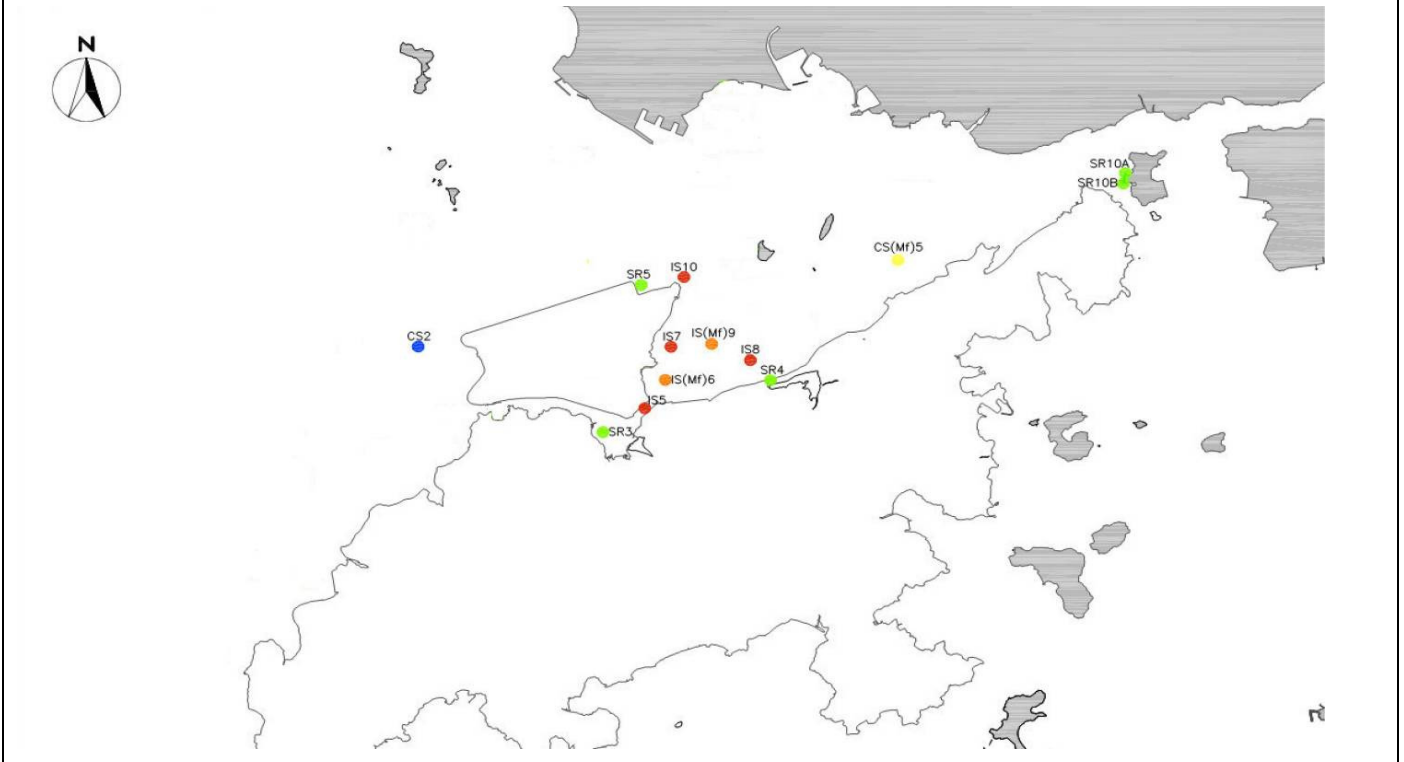
As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.




**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader  
Date : 25 March 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 129

**Date of Notification:** 2 April 2013

**Works Inspected:** Data collected from water sampling works on 18 March 2013 and the results were issued on 19 March 2013

**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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 5.68 x 120% = <b>6.8</b> for mid ebb AND CS(Mf)5: 3.48 x 120% = <b>4.2</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 5.68 x 130% = <b>7.4</b> for mid ebb AND CS(Mf)5: 3.48 x 130% = <b>4.5</b> for mid flood)	4.7	<b><u>5.2</u></b>
TURB	IS(Mf)9	DA			3.2	<b>4.4</b>
TURB	SR3	DA			4.4	<b><u>4.9</u></b>
TURB	SR5	DA			<b><u>8.8</u></b>	<b>4.3</b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**  
 On 18 March 2013, a LL exceedance at station SR5 was recorded during mid-ebb tide. An AL exceedance at station IS(Mf)9, SR5 and LL exceedances at stations IS5 and SR3 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)9, SR3 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	IS5	5.8	to	19.2
IS(Mf)9	2.7	to	17	3.4 to 22.6
SR3	4.6	to	65.7	7.7 to 19.7
SR5	5.2	to	12.4	7.1 to 30.9

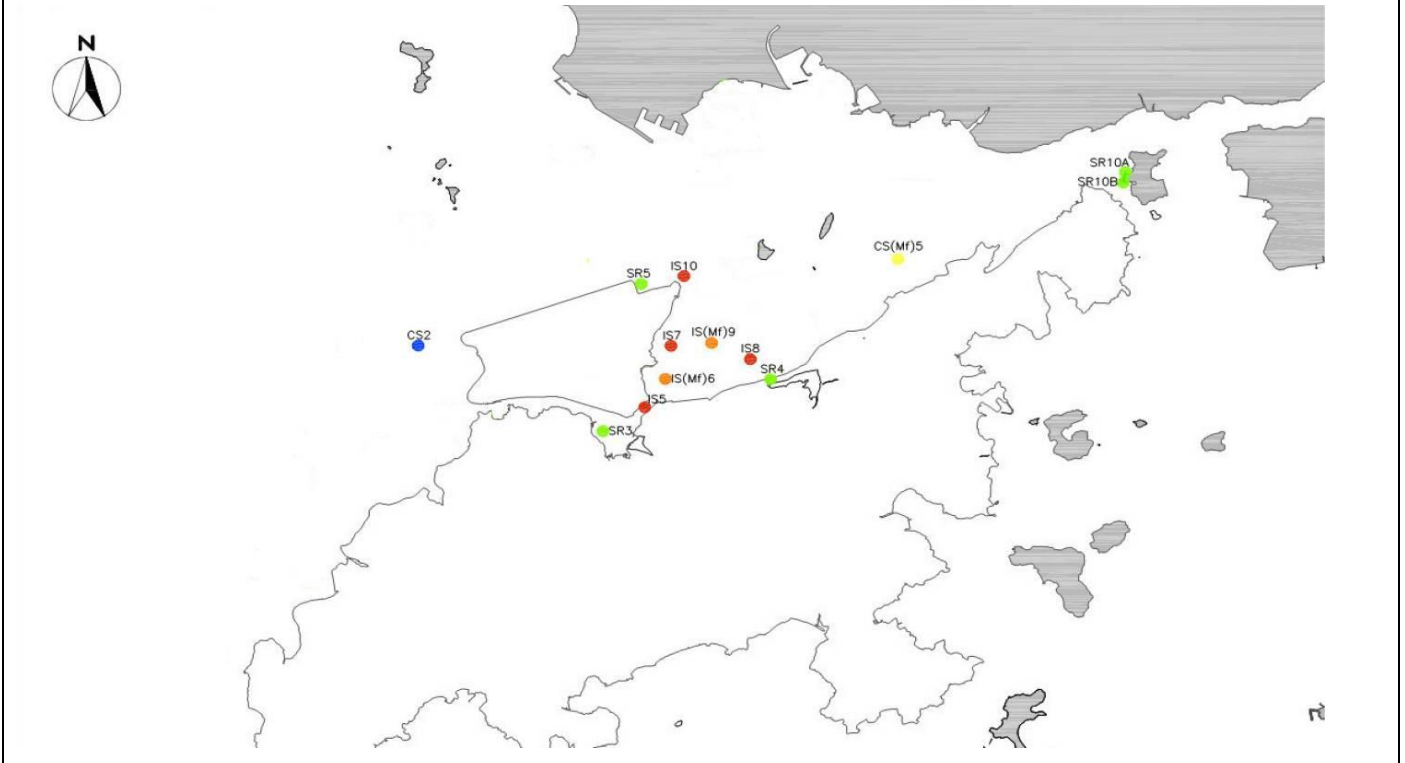
The measured values at stations IS5, IS(Mf)9, SR3 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee

Title : ET Leader

  
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Date : 2 April 2013

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

**Date of Notification:** 2 April 2013

**Works Inspected:** Data collected from water sampling works on 18 March 2013 and the test report was issued on 25 March 2013.

**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)
SS	IS5	DA	<b>23.5</b> or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.17 x 120% = <b>5.0</b> mg/L for mid ebb) AND CS(Mf)5: 3.70 x 120% = <b>4.4</b> mg/L for mid flood)	<b>34.4</b> or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.17 x 130% = <b>5.4</b> mg/L for mid ebb) AND CS(Mf)5: 3.70 x 130% = <b>4.8</b> mg/L for mid flood)	5.0	<b>4.7</b>
SS	IS8	DA			3.7	<b><u>6.8</u></b>
SS	SR5	DA			<b><u>7.6</u></b>	4.0
SS	SR10B	DA			2.5	<b>4.5</b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 18 March 2013, a LL exceedance at station SR5 was recorded during mid-ebb tide. AL exceedances at stations IS5 and SR10B and LL exceedance at station IS8 were recorded 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. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS8, SR5 and SR10B during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS8	5.5	to 25.5	5.8	to 31.3
SR5	6.7	to 16.5	6.5	to 31.2
SR10B	3.1	to 30.8	5.7	to 26.7

The measured values at stations IS5, IS8, SR5 and SR10B were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

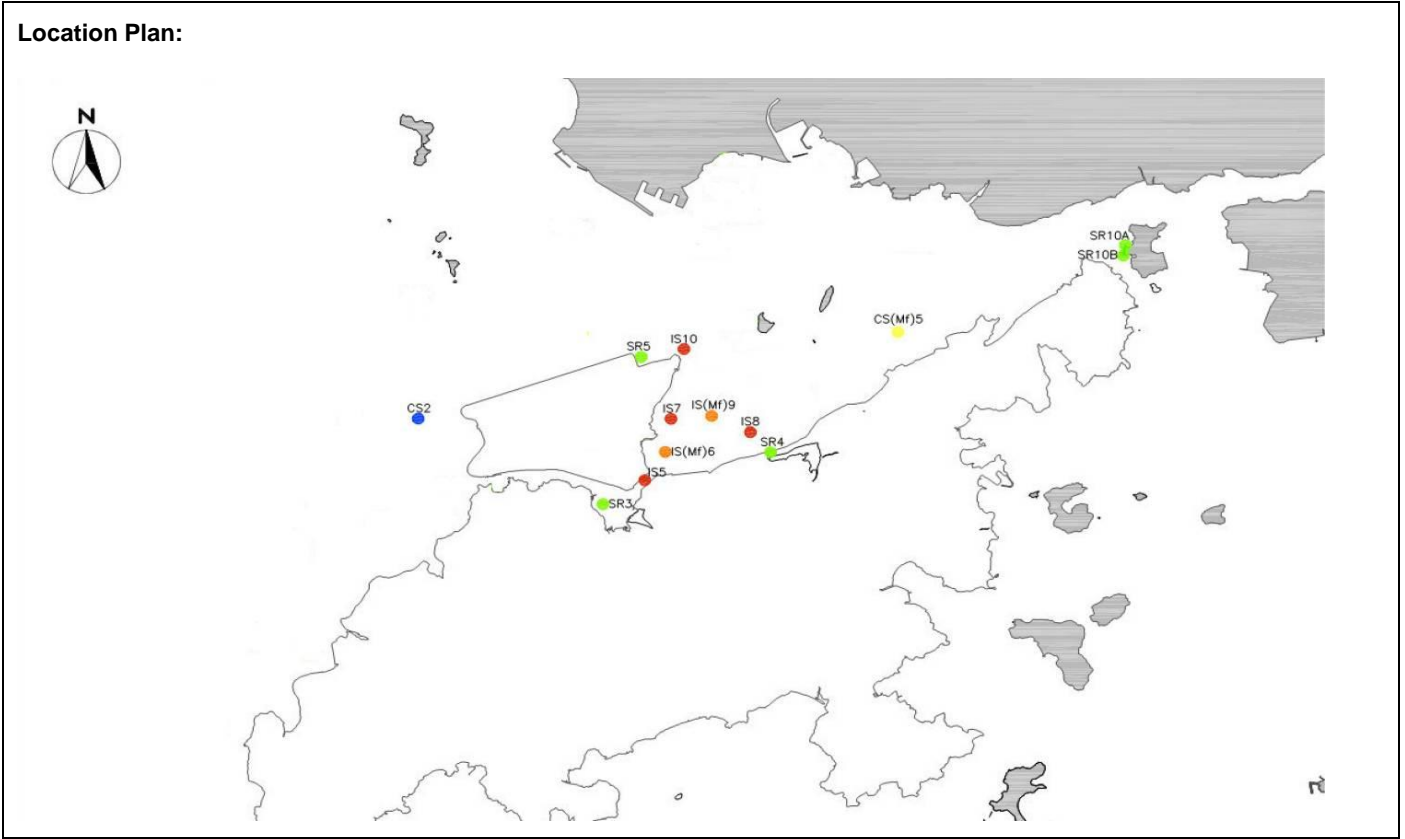
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader

  
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Date : 2 April 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 131

**Date of Notification:** 2 April 2013

**Works Inspected:** Data collected from water sampling works on 20 March 2013 and the results were issued on 25 March 2013

**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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 4.92 x 120% = <b>5.9</b> for mid ebb AND CS(Mf)5: 2.12 x 120% = <b>2.5</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 4.92 x 130% = <b>6.4</b> for mid ebb AND CS(Mf)5: 2.12 x 130% = <b>2.8</b> for mid flood)	4.2	<b><u>4.2</u></b>
TURB	IS(Mf)6	DA			3.8	<b><u>8.9</u></b>
TURB	IS7	DA			3.4	<b><u>3.9</u></b>
TURB	IS8	DA			<b>6.1</b>	<b><u>7.5</u></b>
TURB	IS(Mf)9	DA			5.3	<b><u>4.3</u></b>
TURB	IS10	DA			4.1	<b><u>4.8</u></b>
TURB	SR3	DA			2.7	<b><u>3.7</u></b>
TURB	SR4	DA			<b>6.3</b>	<b><u>4.2</u></b>
TURB	SR5	DA			4.3	<b><u>4.8</u></b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 20 March 2013, AL exceedance at station IS8 and SR4 were recorded during mid-ebb tide. LL exceedance at station IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, SR10, SR3, SR4, SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	Min	Max	Min	Max
IS5	5.8	19.2	5.7	21.4
IS(Mf)6	3.3	21.7	5.3	20.9
IS7	3.4	20	5	19.4
IS8	4	12.2	4.5	24.5
IS(Mf)9	2.7	17	3.4	22.6
IS10	6.7	14.7	8.4	20.8
SR3	4.6	65.7	7.7	19.7
SR4	5.2	18.9	5	20.6
SR5	5.2	12.4	7.1	30.9

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

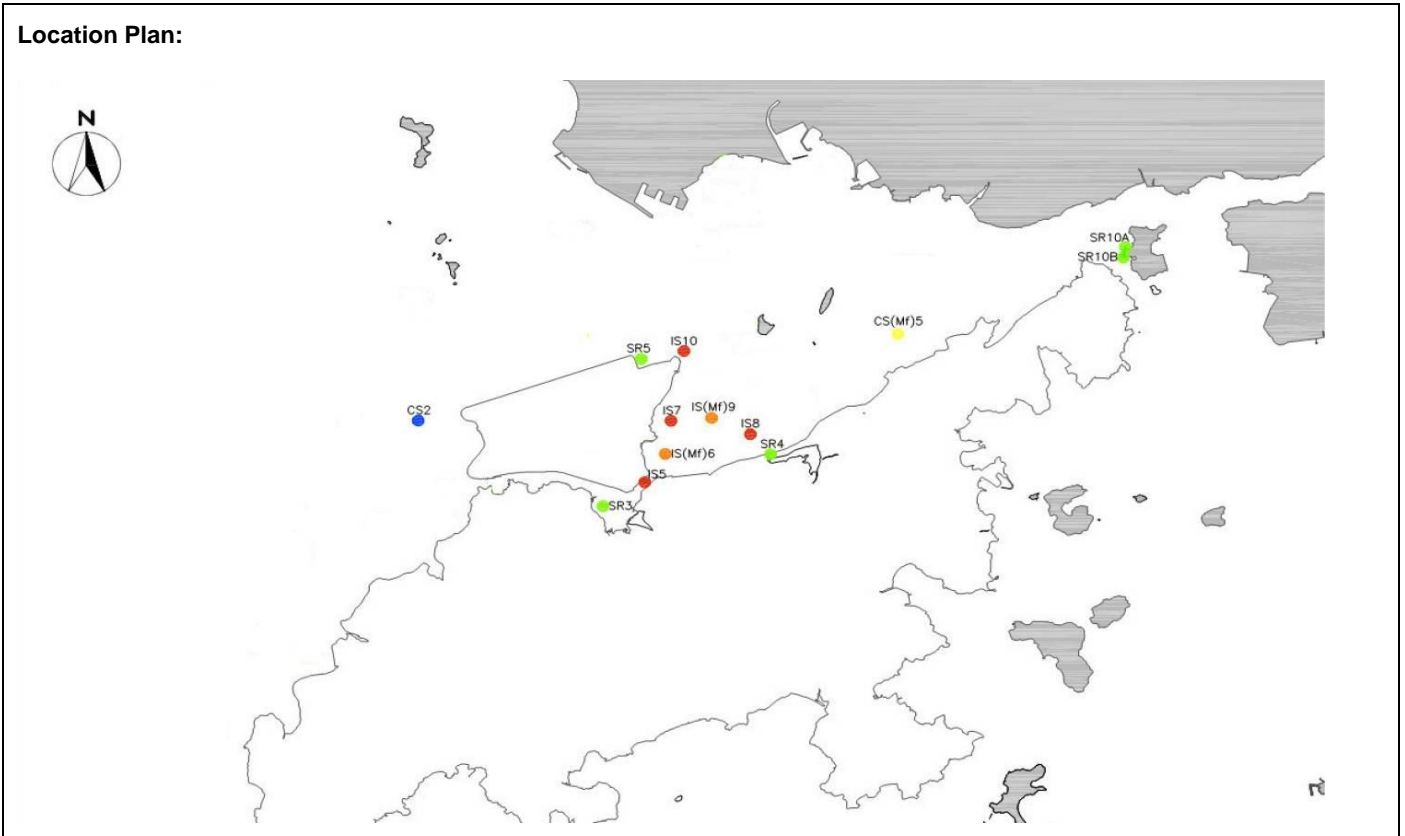
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader

Date : 5 April 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 132

Date of Notification: 2 April 2013

Works Inspected: Data collected from water sampling works on 20 March 2013 and the test report was issued on 27 March 2013.

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)
SS	IS5	DA	23.5 or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.65 x 120% = 4.4 mg/L for mid ebb) AND CS(Mf)5: 2.67 x 120% = 3.2 mg/L for mid flood)	34.4 or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.65 x 130% = 4.7 mg/L for mid ebb) AND CS(Mf)5: 2.67 x 130% = 3.5 mg/L for mid flood)	2.8	<b><u>3.7</u></b>
SS	IS8	DA			<b><u>6.3</u></b>	2.7
SS	IS(Mf)9	DA			<b><u>5.4</u></b>	<b><u>3.6</u></b>
SS	IS10	DA			3.0	<b><u>3.7</u></b>
SS	SR3	DA			2.6	<b><u>3.8</u></b>
SS	SR4	DA			<b><u>6.0</u></b>	<b><u>4.0</u></b>
SS	SR5	DA			3.2	<b><u>3.6</u></b>
SS	SR10B	DA			2.7	<b><u>3.3</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 20 March 2013, LL exceedance at stations IS8, IS(Mf)9 and SR4 were recorded during mid-ebb tide. AL exceedance at station SR10B and LL exceedances at stations IS5, IS(Mf)9, IS10, SR3, SR4 and SR5 were recorded 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. Installation of stone column and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5, IS8, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10B during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS8	5.5	to 25.5	5.8	to 31.3
IS(Mf)9	5.5	to 20.1	7.3	to 26
IS10	6.1	to 20.2	7.2	to 16
SR3	6.7	to 31	7.6	to 28
SR4	5.3	to 20	5.6	to 24.5
SR5	6.7	to 16.5	6.5	to 31.2
SR10B	3.1	to 30.8	5.7	to 26.7

The measured values at stations IS5, IS8, IS(Mf)9, IS10, SR3, SR4, SR5 and SR10B were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

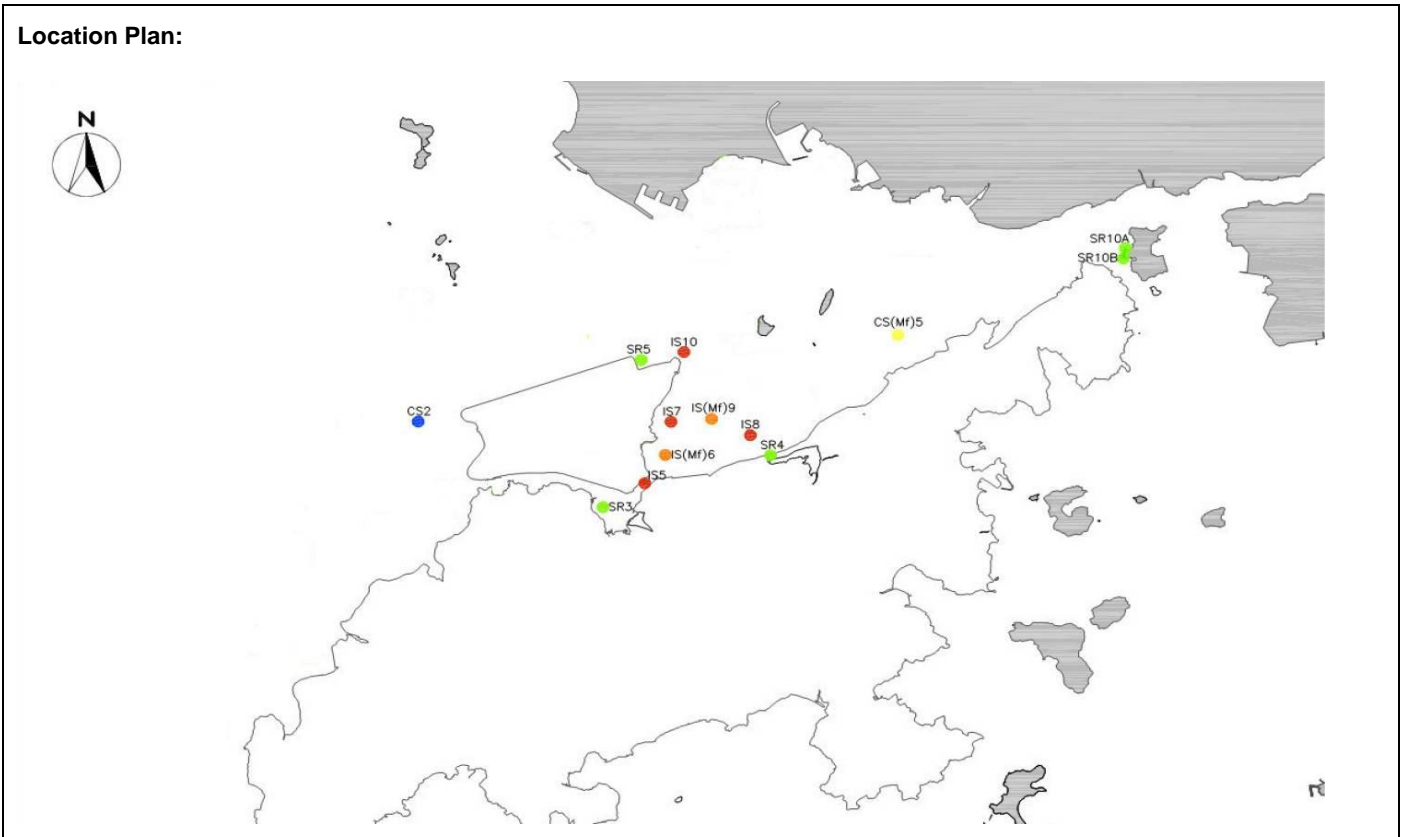
As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.




**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader  
Date : 5 April 2013

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

Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 133

Date of Notification: 2 April 2013

Works Inspected: Data collected from water sampling works on 22 March 2013 and the results were issued on 25 March 2013

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 (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	DA	<b>27.5</b> or 120% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 3.65 x 120% = <b>4.4</b> for mid ebb AND CS(Mf)5: 1.78 x 120% = <b>2.1</b> for mid flood)	<b>47.0</b> or 130% of upstream control station's turbidity at the same tide of the same day (i.e. CS2: 3.65 x 130% = <b>4.7</b> for mid ebb AND CS(Mf)5: 1.78 x 130% = <b>2.3</b> for mid flood)	<b><u>7.4</u></b>	<b><u>9.1</u></b>
TURB	IS(Mf)6	DA			<b><u>4.9</u></b>	<b><u>4.0</u></b>
TURB	IS7	DA			3.1	<b><u>3.5</u></b>
TURB	IS8	DA			<b><u>5.3</u></b>	<b><u>5.1</u></b>
TURB	IS(Mf)9	DA			<b><u>4.9</u></b>	<b><u>4.7</u></b>
TURB	IS10	DA			<b><u>5.1</u></b>	<b><u>3.5</u></b>
TURB	SR3	DA			3.5	<b><u>6.5</u></b>
TURB	SR4	DA			4.0	<b><u>12.7</u></b>
TURB	SR5	DA			<b><u>5.7</u></b>	<b><u>3.6</u></b>

Notes:

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 22 March 2013, LL exceedances at stations IS5, IS(Mf)6, IS8, IS(Mf)9, IS10 and SR5 were recorded during mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, SR10, SR3, SR4, SR5 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reason:

1. Installation of sand and rock filling were carried within silt curtain as recommended in the EIA Report.
2. The range of turbidity at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 during the baseline monitoring is shown as below:

Station	Range of Turbidity(NTU) Mid-Ebb Tide		Range of Turbidity(NTU) Mid-Flood Tide	
	Min	Max	Min	Max
IS5	5.8	19.2	5.7	21.4
IS(Mf)6	3.3	21.7	5.3	20.9
IS7	3.4	20	5	19.4
IS8	4	12.2	4.5	24.5
IS(Mf)9	2.7	17	3.4	22.6
IS10	6.7	14.7	8.4	20.8
SR3	4.6	65.7	7.7	19.7
SR4	5.2	18.9	5	20.6
SR5	5.2	12.4	7.1	30.9

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 were within the range of turbidity for mid-ebb tide and mid-flood tide during baseline monitoring.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

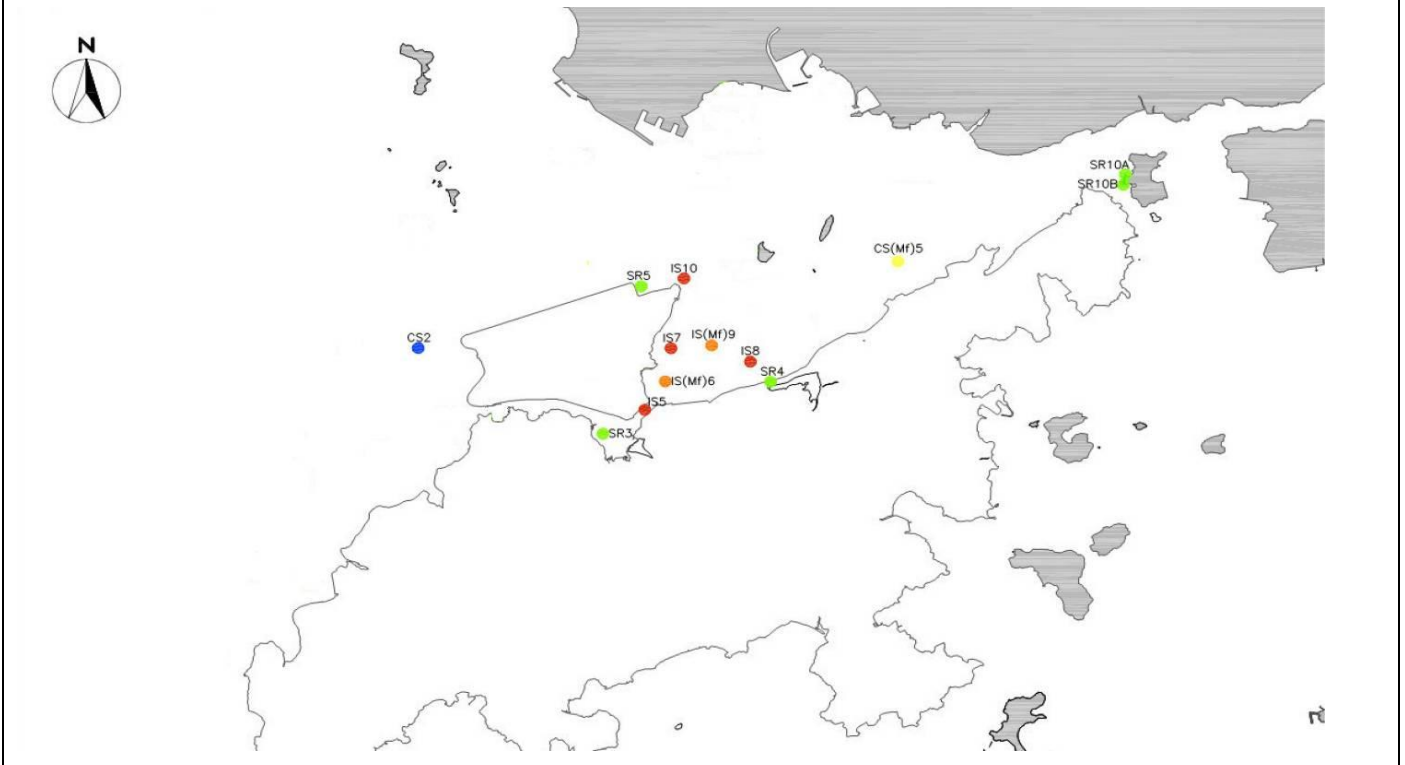
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the turbidity levels 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 turbidity levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader

  
\_\_\_\_\_

Date : 5 April 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 134

**Date of Notification:** 8 April 2013

**Works Inspected:** Data collected from water sampling works on 22 March 2013 and the test report was issued on 2 April 2013.

**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)
SS	IS5	DA	<b>23.5</b> or 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.95 x 120% = <b>5.9</b> mg/L for mid ebb) AND CS(Mf)5: 3.30 x 120% = <b>4.0</b> mg/L for mid flood)	<b>34.4</b> or 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.95 x 130% = <b>6.4</b> mg/L for mid ebb) AND CS(Mf)5: 3.30 x 130% = <b>4.3</b> mg/L for mid flood)	<b><u>6.8</u></b>	<b><u>13.7</u></b>
SS	IS(Mf)6	DA			4.7	<b><u>5.4</u></b>
SS	IS7	DA			3.3	<b><u>4.4</u></b>
SS	IS8	DA			3.2	<b><u>4.5</u></b>
SS	IS(Mf)9	DA			4.8	<b><u>5.0</u></b>
SS	SR3	DA			3.3	<b><u>8.3</u></b>
SS	SR4	DA			4.4	<b><u>8.1</u></b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 22 March 2013, LL exceedance at station IS5 was recorded during mid-ebb tide. LL exceedances at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, SR3 and SR4 were recorded during mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

- Sand and rock filling were carried within silt curtain as recommended in the EIA Report.
- The ranges of suspended solid at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, SR3 and SR4 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
IS8	5.5	to 25.5	5.8	to 31.3
IS(Mf)9	5.5	to 20.1	7.3	to 26
SR3	6.7	to 31	7.6	to 28
SR4	5.3	to 20	5.6	to 24.5

The measured values at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, SR3 and SR4 were within the ranges of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

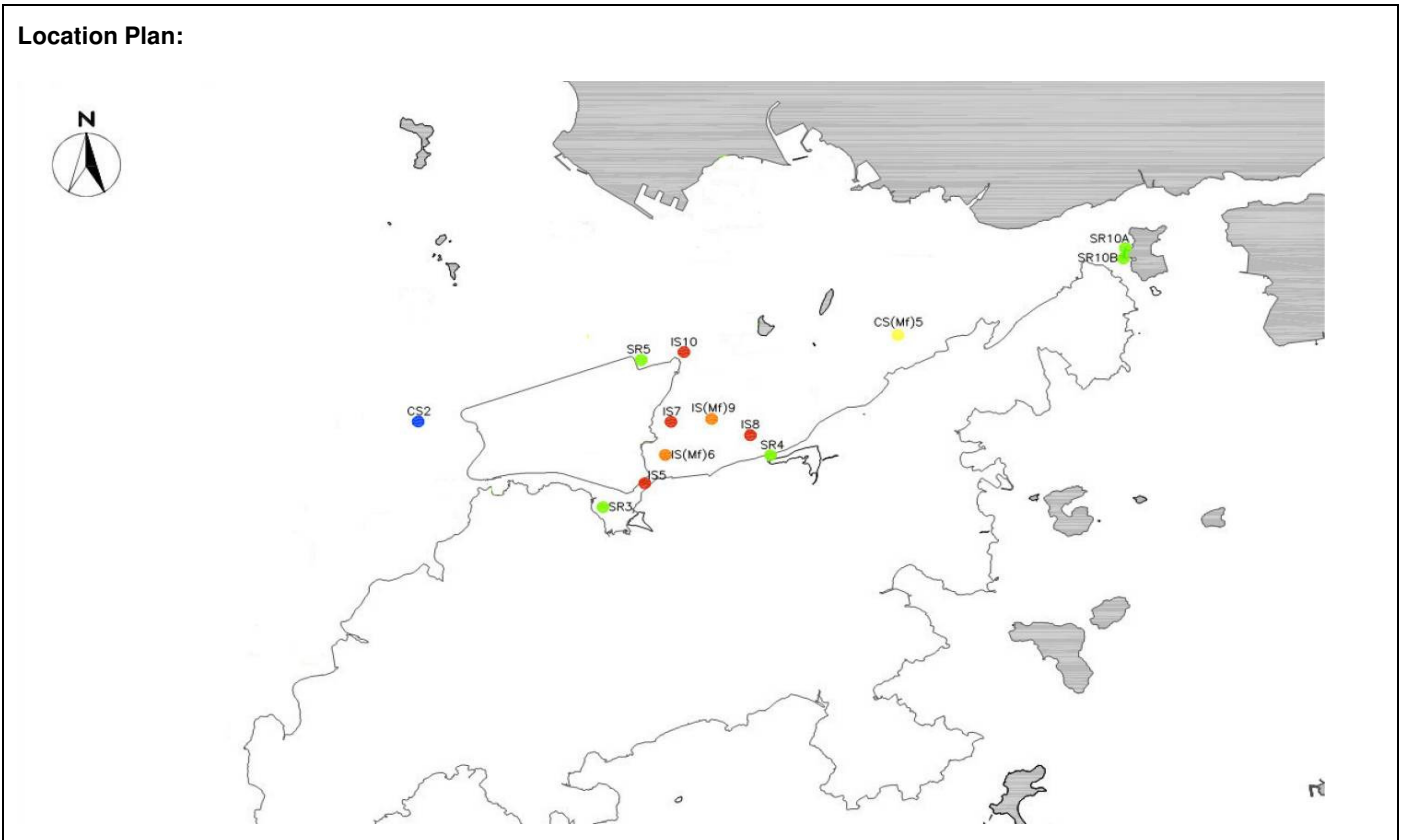
- There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
- No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.


As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 8 April 2013

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

**Contract No. HY/2011/03 - Hong Kong- Zhuhai- Macao Bridge**  
**Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities**  
**Notifications of Environmental Quality Limits Exceedances** Notification No.: 135

**Date of Notification:** 8 April 2013

**Works Inspected:** Data collected from water sampling works on 25 March 2013 and the test report was issued on 5 April 2013.

**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)
SS	IS7	DA	<b>23.5</b> and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.87 x 120% = <b>5.8</b> mg/L for mid ebb) AND CS(Mf)5: 2.60 x 120% = <b>3.1</b> mg/L for mid flood)	<b>34.4</b> and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 4.87 x 130% = <b>6.3</b> mg/L for mid ebb) AND CS(Mf)5: 2.60 x 130% = <b>3.4</b> mg/L for mid flood)	15.6	<b>28.9</b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 25 March 2013, an AL exceedance at station IS7 was recorded during mid-flood tide.

The exceedance has been investigated and is considered unlikely to be related to contract works due to the following reasons:

1. Installation of stone column on stone platform was carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at station IS7 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide	Range of Suspended Solid (mg/L) Mid- Flood Tide
IS7	6.1 to 21	7.8 to 34

The measured value at station IS7 was within the range of suspended solid during baseline monitoring for mid-ebb tide and mid-flood tide.

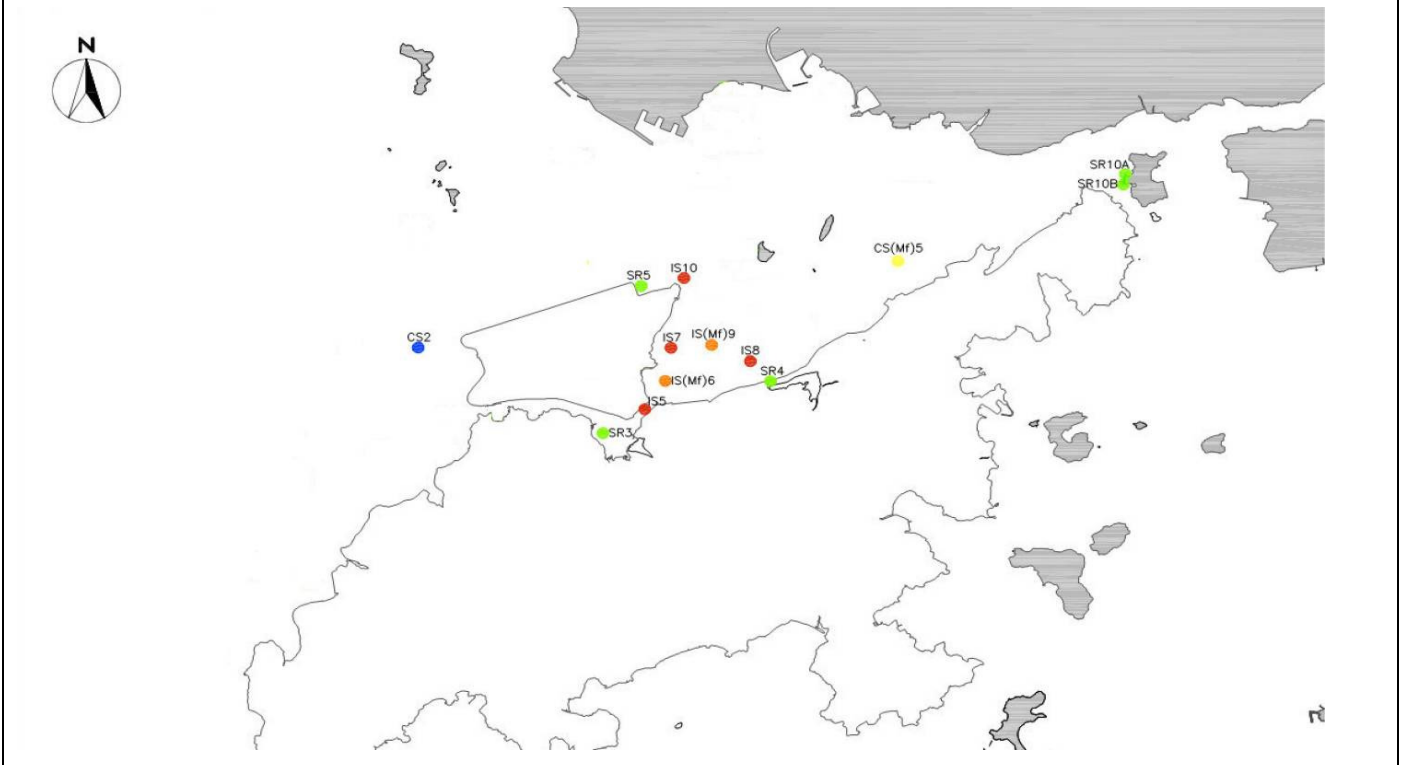
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee

Title : ET Leader

Date : 8 April 2013

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

**Date of Notification:** 15 April 2013

**Works Inspected:** Data collected from water sampling works on 29 March 2013 and the test report was issued on 10 April 2013.

**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)
SS	IS(Mf)9	DA	<b>23.5</b> and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 7.62 x 120% = <b>9.1</b> mg/L for mid ebb) AND CS(Mf)5: 4.25 x 120% = <b>5.1</b> mg/L for mid flood)	<b>34.4</b> and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 7.62 x 130% = <b>9.9</b> mg/L for mid ebb) AND CS(Mf)5: 4.25 x 130% = <b>5.5</b> mg/L for mid flood)	<b>27.3</b>	14.1
SS	SR5	DA			7.7	<b><u>34.9</u></b>

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 29 March 2013, an AL exceedance at station IS(Mf)9 was recorded during mid-ebb tide. An LL exceedance at station SR5 was recorded 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. Marine construction activities including rock filling, rock transfer and removal of temporary stone platform were carried within silt curtain (Zone 3A) as recommended in the EIA Report during the monitoring period.
2. The ranges of suspended solid at stations IS(Mf)9 and SR5 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide	Range of Suspended Solid (mg/L) Mid- Flood Tide
IS(Mf)9	5.5 to 20.1	7.3 to 26
SR5	6.7 to 16.5	6.5 to 31.2

The measured value at station IS(Mf)9 is higher than the range of suspended solid during the mid-ebb tide and the measured value at station SR5 is also higher than the range of suspended solid during the mid-flood tide.

3. For mid-ebb tide, Station IS7 is located closer to the works area of Contact No. HY/2011/03 when compared to IS(Mf)9. For mid-flood tide, Station IS5 is located closer to the works area of Contact No. HY/2011/03 when compared to SR5. Monitoring stations IS7 and IS5 are more representative compared to monitoring stations IS(Mf)9 and SR5 when studying the water quality impact caused by Contact No. HY/2011/03. For both IS7 and IS5, the SS levels complied with the AL and LL.
4. According to the monitoring results of 1 April 2013, the measured suspended levels complied with the AL and LL at IS(Mf)9 and SR5. In addition, the measured suspended levels at all other monitoring stations complied with AL and LL.
5. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
6. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

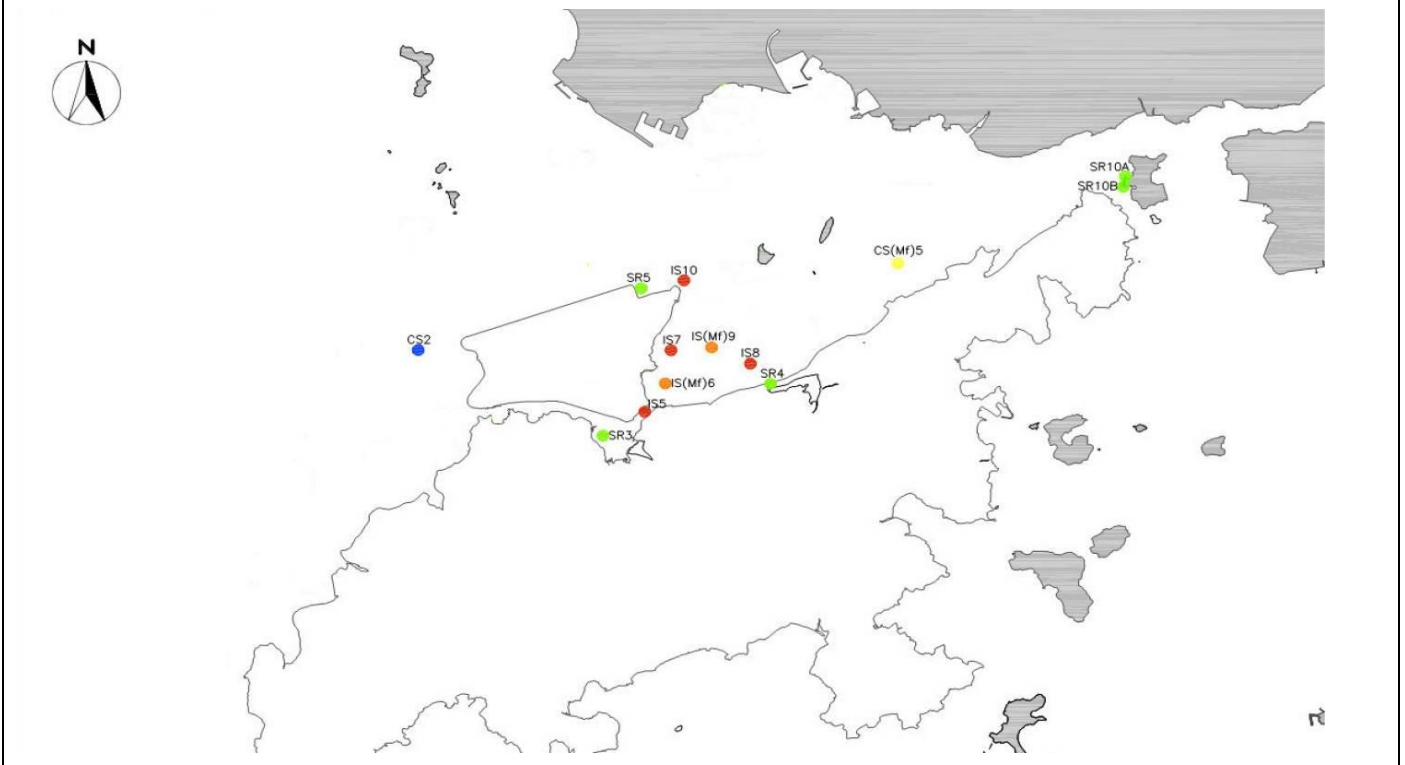


As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader



Date : 15 April 2013

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



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HIGHWAYS DEPARTMENT

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

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
6<sup>th</sup> Monthly EM&A Report

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## APPENDIX O

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Location of Works Areas



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

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**NOTES**

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

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 Seem Hill and  
 Hong Kong Boundary Crossing Facilities

Drawing Title  
**WORKS AREAS  
 KEY PLAN**

Drawing no. **214487/2/T/130** Rev. **A**

Drawn	Date	Checked	Approved
RY	02/12	IL	SK

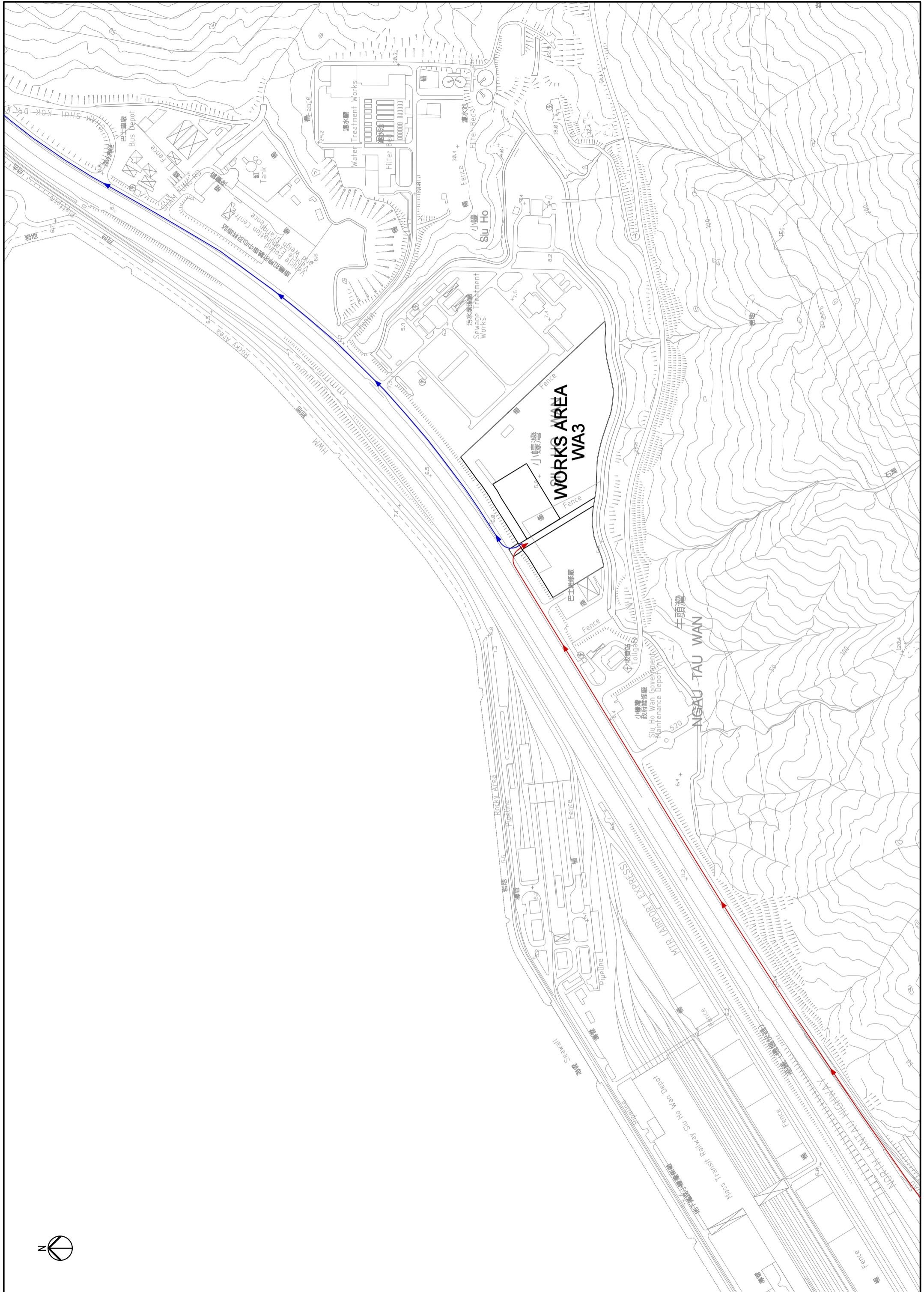
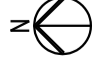
Scale 1:30000 @A1 Status **TENDER**



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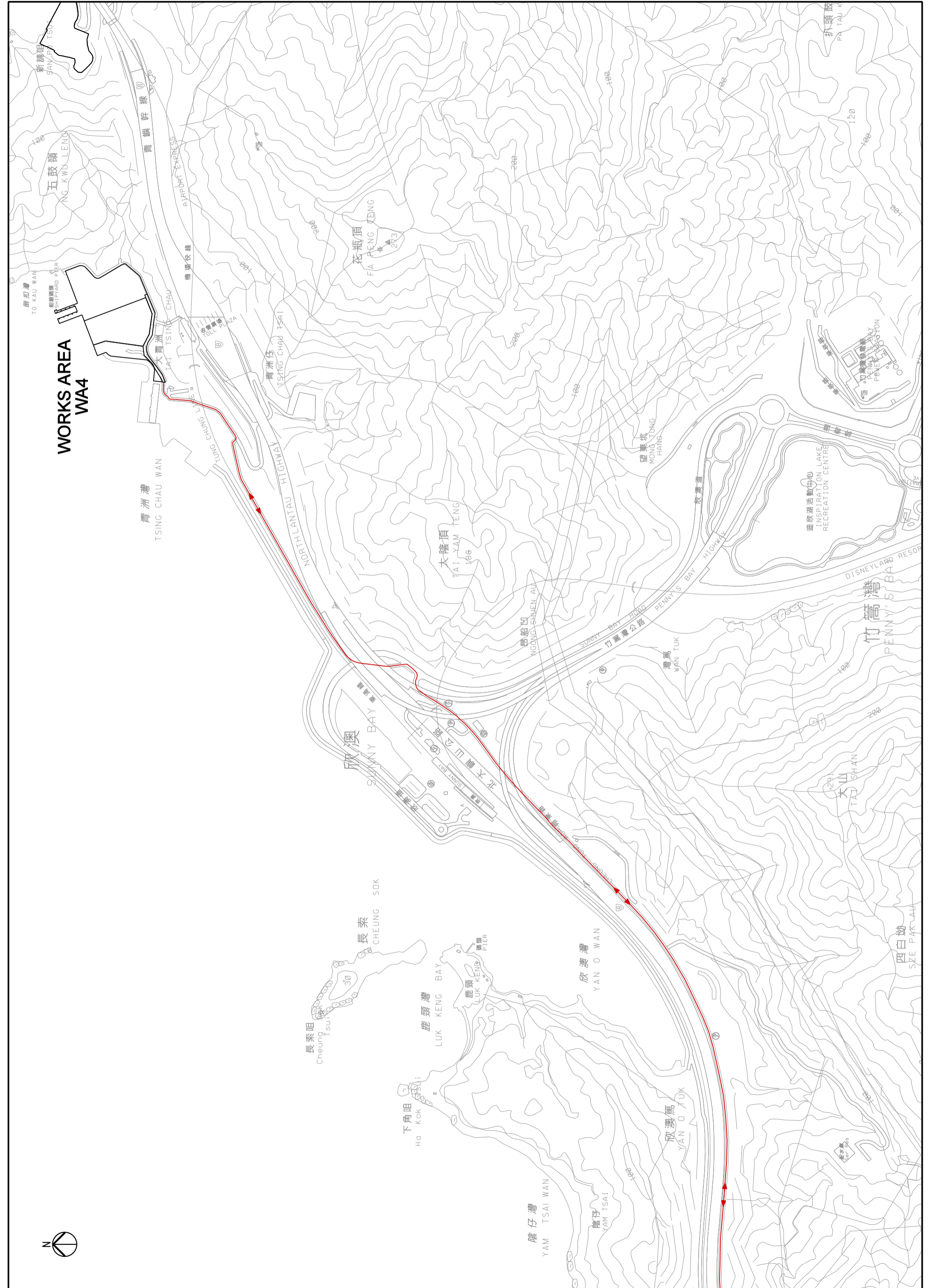




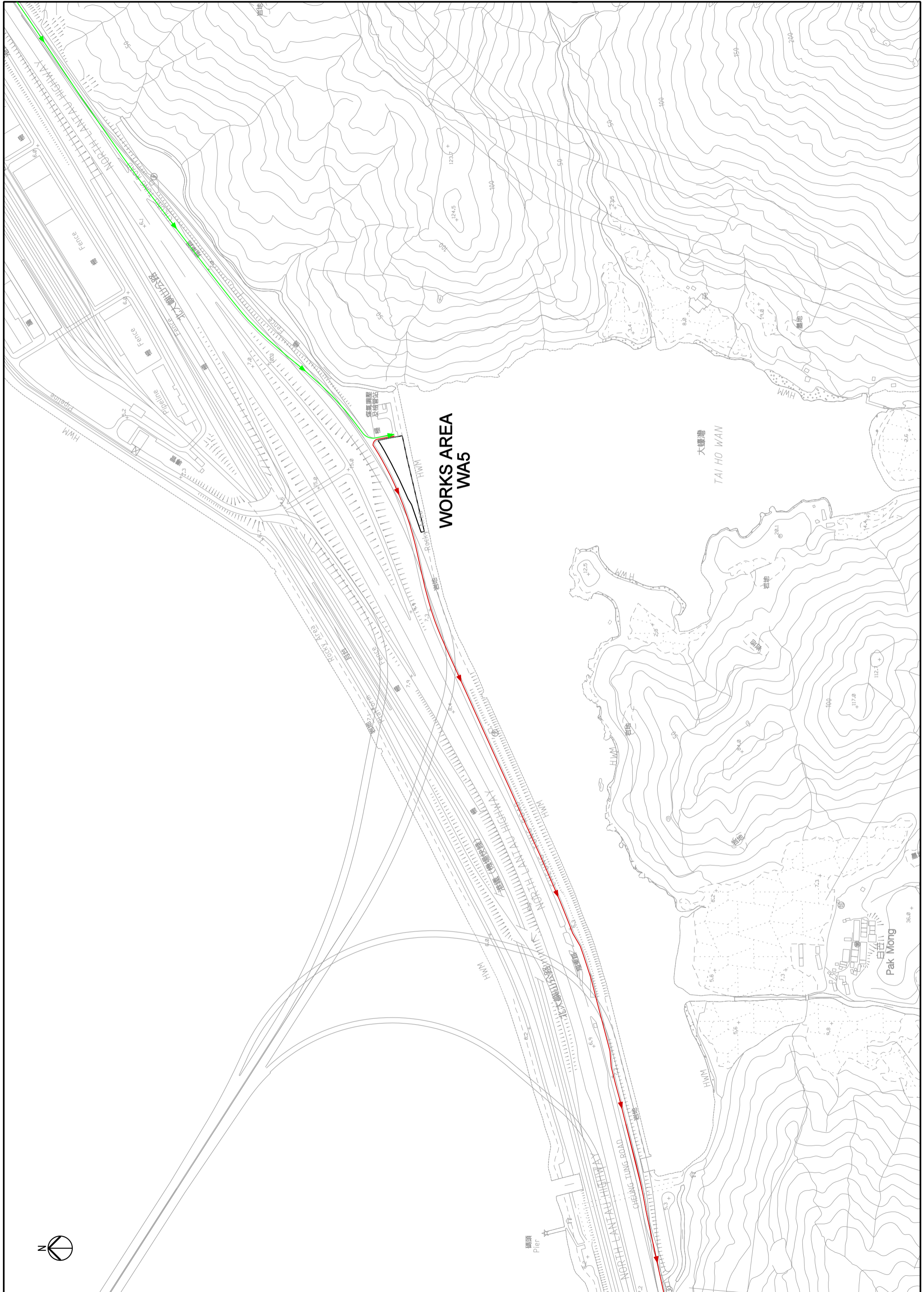




# WORKS AREA WA4



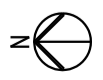




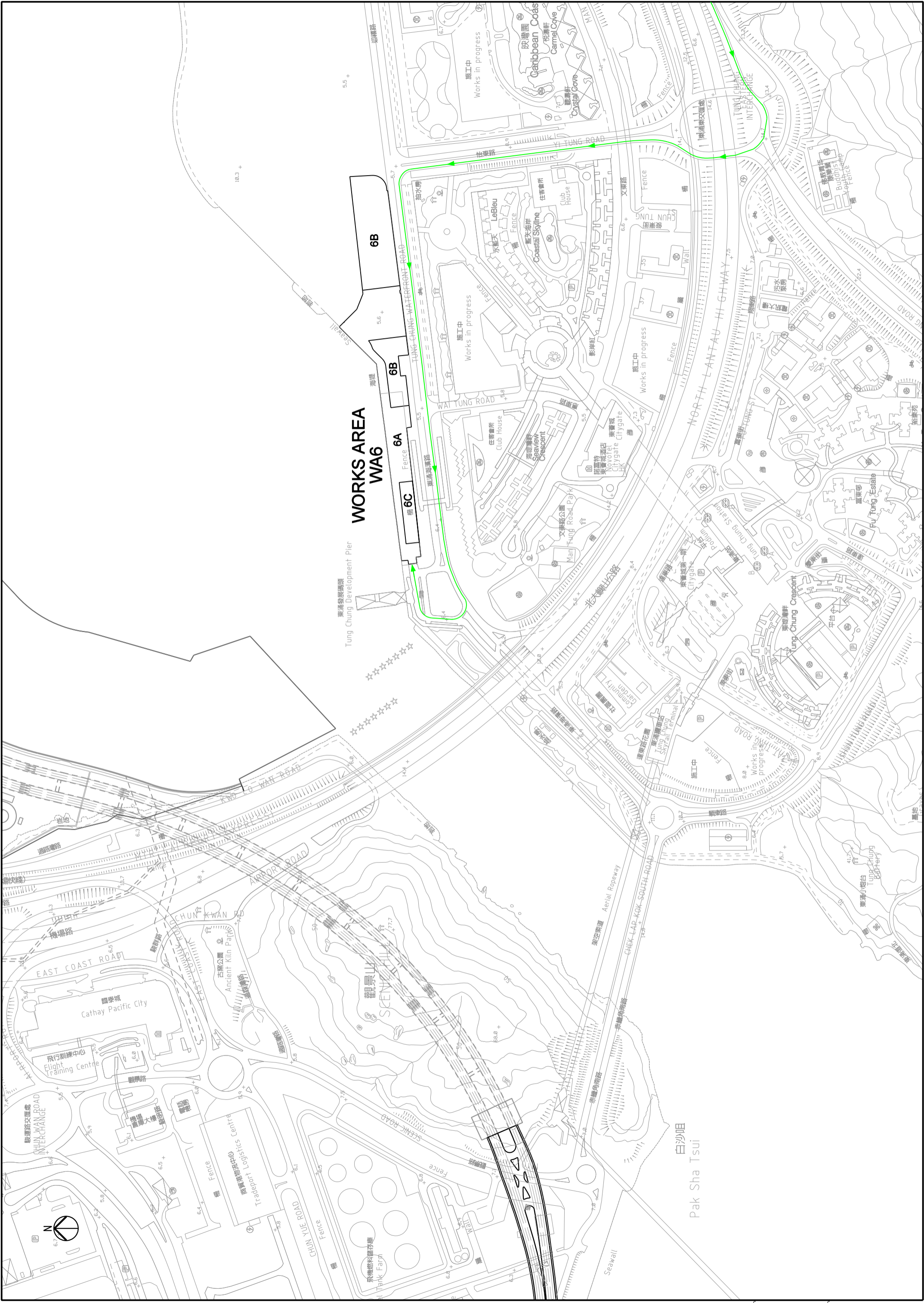
**WORKS AREA  
WA5**

大蠔灣  
TAI HO WAN

白芒  
Pak Mong







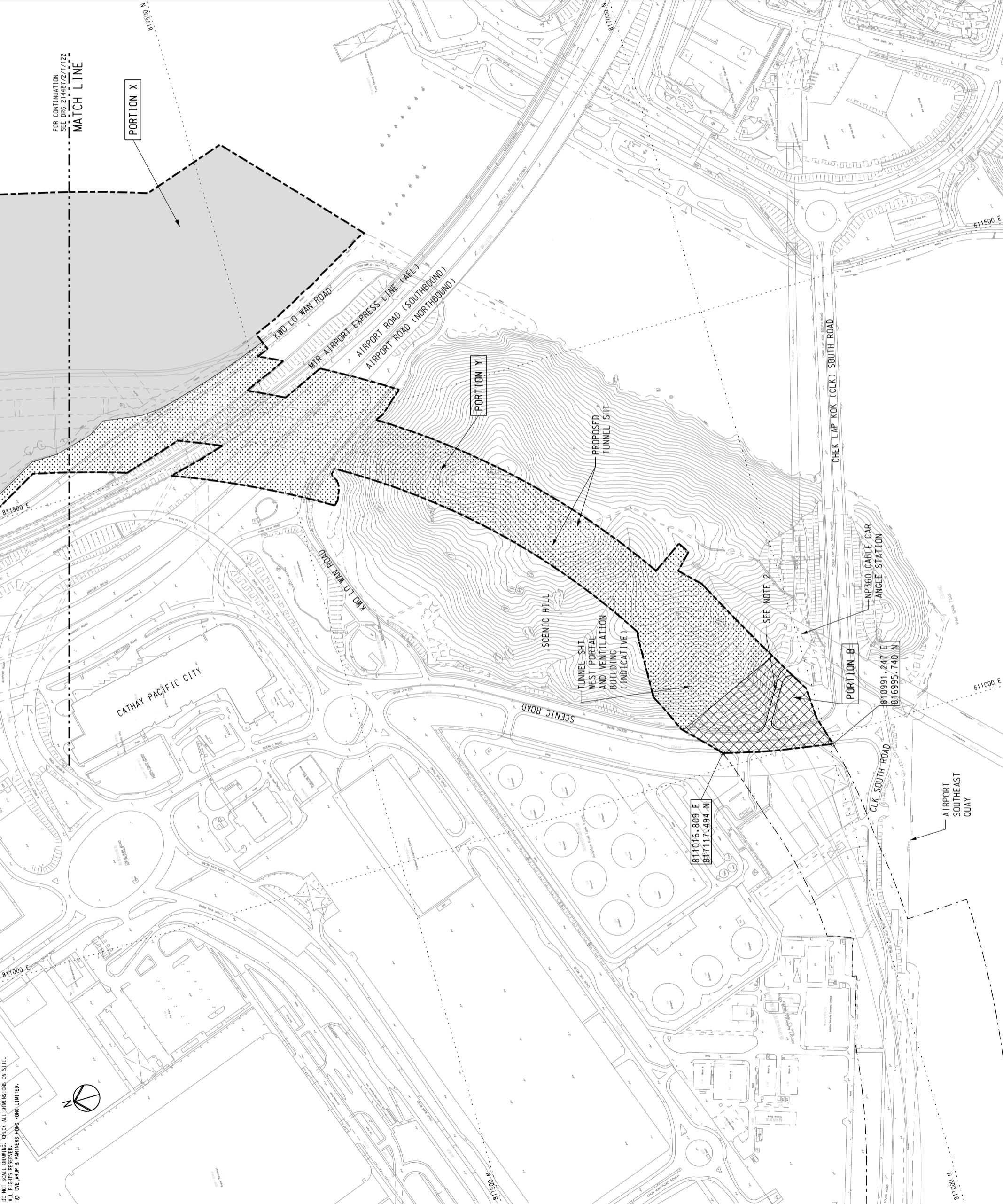
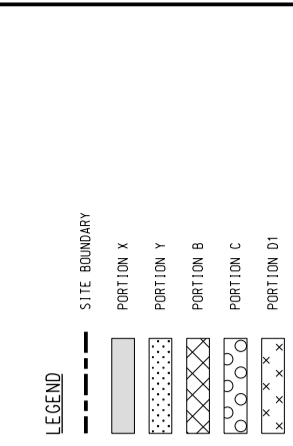
**WORKS AREA  
WA6**

Tung Chung Development Pier

白沙咀  
Pak Sha Tsui

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



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

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

Drawing no.	214487/21/121	Rev.	A
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RY	02/12	Approved	SK
Scale	1:2000 @A1	Status	TENDER

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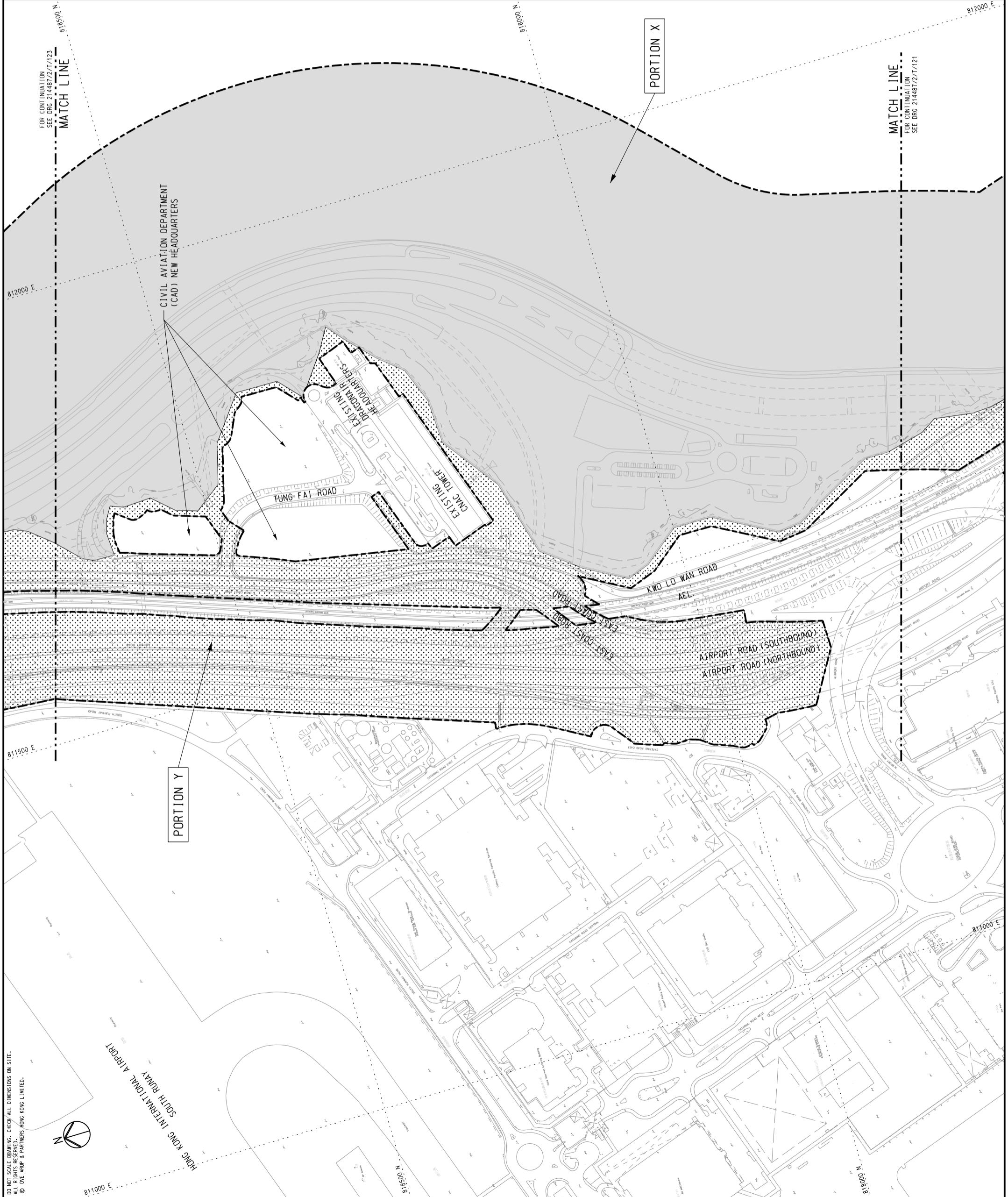
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Rev	Description	By	Date
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Drawing title  
**PORTION OF SITE  
 (SHEET 2 OF 3)**

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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

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Contract No. and Title  
 Contract No. HY/2011/03  
 Hong Kong-Zhuhai-Macao Bridge  
 Hong Kong Link Road -  
 Section Between Seem Hill and  
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Drawing title  
**PORTION OF SITE  
 (SHEET 3 OF 3)**

Drawing no.	214487/2/T/123	Rev.	A
Drawn By	IL	Checked	SK
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