

# **Expansion of Hong Kong International Airport into a Three-Runway System**

Construction Phase Monthly EM&A Report No.33  
(For September 2018)

October 2018

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**This Monthly EM&A Report No. 33 has been reviewed and certified by**

**the Environmental Team Leader (ETL) in accordance with**

**Condition 3.5 of Environmental Permit No. EP-489/2014.**

**Certified by:**

A handwritten signature in black ink, appearing to read 'Terence Kong', written in a cursive style.

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Terence Kong  
Environmental Team Leader (ETL)  
Mott MacDonald Hong Kong Limited

**Date**

12 October 2018

Our Ref : 60440482/C/JCHL181012

**By Email**

Airport Authority Hong Kong  
HKIA Tower, 1 Sky Plaza Road  
Hong Kong International Airport  
Lantau, Hong Kong

Attn: Mr. Lawrence Tsui, Principal Manager

12 October 2018

Dear Sir,

**Contract No. 3102**  
**3RS Independent Environmental Checker Consultancy Services**

**Submission of Monthly EM&A Report No. 33 (September 2018)**

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 33 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 12 October 2018.

We write to verify the captioned submission in accordance with the requirement stipulated in Condition 3.5 of EP-489/2014.

Should you have any query, please feel free to contact the undersigned at 3922 9376.

Yours faithfully,  
AECOM Asia Co. Ltd.



Jackel Law  
Independent Environmental Checker

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# Abbreviations

3RS	Three-Runway System
AAHK	Airport Authority Hong Kong
AECOM	AECOM Asia Company Limited
AFCD	Agriculture, Fisheries and Conservation Department
AIS	Automatic Information System
ANI	Encounter Rate of Number of Dolphins
APM	Automated People Mover
AW	Airport West
BHS	Baggage Handling System
C&D	Construction and Demolition
CAP	Contamination Assessment Plan
CAR	Contamination Assessment Report
CNP	Construction Noise Permit
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EAR	Ecological Acoustic Recorder
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
FCZ	Fish Culture Zone
HDD	Horizontal Directional Drilling
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HOKLAS	Hong Kong Laboratory Accreditation Scheme
HSF	High Speed Ferry
HVS	High Volume Sampler
IEC	Independent Environmental Checker
LKC	Lung Kwu Chau
MMHK	Mott MacDonald Hong Kong Limited
MMWP	Marine Mammal Watching Plan
MSS	Marine Surveillance System
MTRMP-CAV	Marine Travel Routes and Management Plan for Construction and Associated Vessel
NEL	Northeast Lantau
NWL	Northwest Lantau
PAM	Passive Acoustic Monitoring
PVD	Prefabricated Vertical Drain
SC	Sha Chau

SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park
SS	Suspended Solids
SSSI	Site of Special Scientific Interest
STG	Encounter Rate of Number of Dolphin Sightings
SWL	Southwest Lantau
T2	Terminal 2
The Project	The Expansion of Hong Kong International Airport into a Three-Runway System
The SkyPier Plan	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier
The Manual	The Updated EM&A Manual
TSP	Total Suspended Particulates
WL	West Lantau
WMP	Waste Management Plan

# Executive Summary

The “Expansion of Hong Kong International Airport into a Three-Runway System” (the Project) serves to meet the future air traffic demands at Hong Kong International Airport (HKIA). On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the Project was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual).

This is the 33<sup>rd</sup> Construction Phase Monthly EM&A Report for the Project which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 September 2018.

## **Key Activities in the Reporting Period**

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included deep cement mixing (DCM) works, marine filling, seawall construction, laying of sand blanket, and prefabricated vertical drain (PVD) installation. Land-side works involved mainly foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, piling, and excavation works.

## **EM&A Activities Conducted in the Reporting Period**

The monthly EM&A programme was undertaken in accordance with the Manual of the Project. Summary of the monitoring activities during this reporting period is presented as below:

<b>Monitoring Activities</b>	<b>Number of Sessions</b>
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	5
Terrestrial ecology monitoring	1

Environmental auditing works, including weekly site inspections of construction works conducted by the ET and bi-weekly site inspections conducted by the Independent Environmental Checker (IEC), audit of SkyPier High Speed Ferries (HSF), audit of construction and associated vessels, and audit of implementation of Marine Mammal Watching Plan (MMWP) and Dolphin Exclusion Zone (DEZ) Plan, were conducted in the reporting period. Based on information including ET’s observations, records of Marine Surveillance System (MSS), and contractors’ site records, it is noted that environmental pollution control and mitigation measures were properly implemented and construction activities of the Project in the reporting period did not introduce adverse impacts to the sensitive receivers.

**Snapshots of EM&A Activities in the Reporting Period**

		
<p>Noise Monitoring Conducted by ET</p>	<p>Inspection on the Wheel Washing Operation at Site Entrance</p>	<p>Small Vessel Line-transect Survey of Chinese White Dolphin</p>

**Results of Impact Monitoring**

The monitoring works for construction dust, construction noise, water quality, construction waste, landscape & visual, terrestrial ecology, and CWD were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, construction waste, and CWD did not trigger the corresponding Action and Limit Levels in the reporting period.

The water quality monitoring results for turbidity, total alkalinity, and chromium obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For dissolved oxygen (DO), suspended solids (SS), and nickel, some of the testing results triggered the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the cases were not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

**Summary of Upcoming Key Issues**

**Advanced Works:**

**Contract P560 (R) Aviation Fuel Pipeline Diversion Works**

- Trench backfilling;
- Shoreline reinstatement next to the new pipe; and
- Stockpiling of excavated materials from previous HDD operation.

**DCM Works:**

**Contract 3201 to 3203, and 3205 DCM Works**

- DCM works

**Reclamation Works:**

**Contract 3206 Main Reclamation Works**

- Laying of sand blanket;
- PVD installation;
- Seawall construction;
- Marine filling; and

- DCM works.

#### **Airfield Works:**

##### **Contract 3301 North Runway Crossover Taxiway**

- Cable ducting works;
- Subgrade works;
- Operation of aggregate mixing facility; and
- Precast of duct bank and fabrication of steel works.

#### **Terminal 2 Expansion Works:**

##### **Contract 3501 Antenna Farm and Sewage Pumping Station**

- Excavation works; and
- Pipe installation.

##### **Contract 3502 Terminal 2 Automated People Mover (APM) Depot Modification Works**

- Site clearance;
- Plant mobilization; and
- Cable duct installation.

##### **Contract 3503 Terminal 2 Foundation and Substructure Works**

- Site establishment;
- Drainage, utility, and road work;
- Piling and structure works; and
- Demolition of footbridge.

##### **Contract 3505 Terminal 2 Spectrum Lighting Mock-ups**

- Assembly of lighting mock up.

#### **Automated People Mover (APM) works:**

##### **Contract 3602 Existing APM System Modification Works**

- Site establishment;
- Site office construction; and
- Construction of concrete plinth.

#### **Baggage Handling System (BHS) works:**

##### **Contract 3603 3RS Baggage Handling System**

- Site establishment; and
- BHS modification work at Terminal 1.

#### **Airport Support Infrastructure & Logistic Works:**

##### **Contract 3801 APM and BHS Tunnels on Existing Airport Island**

- Site establishment;
- Diversion of underground utilities;
- Piling and foundation works; and
- Demolition of footbridge.

#### **Summary Table**

The following table summarizes the key findings of the EM&A programme during the reporting period:

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level <sup>^</sup>		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level <sup>^</sup>		√	No breach of Action Level was recorded.	Nil
Complaint Received	√		A complaint relating to exhaust gas and dust emission from a construction vessel was received on 21 Sep 2018.	Site inspections which covered all environmental aspects arising from Project's activities are routinely undertaken by ET. As the anonymous complainant did not provide any specific information for investigation, the complaint was considered closed. ET will continue reminding all contractors to regularly maintain their construction vessels and continue the regular site inspection to ensure contractors' measures are properly implemented.
Notification of any summons and status of prosecutions		√	No notification of summons or prosecution was received.	Nil
Change that affect the EM&A	√		Starting from 1 Sep 2018, noise monitoring at NM3A was temporarily suspended.	Nil

Note:

<sup>^</sup> Only triggering of Action or Limit Level found related to Project works is counted as Breach of Action or Limit Level.

# 1 Introduction

## 1.1 Background

On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the “Expansion of Hong Kong International Airport into a Three-Runway System” (the Project) was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1<sup>1</sup>. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

The Project covers the expansion of the existing airport into a three-runway system (3RS) with key project components comprising land formation of about 650 ha and all associated facilities and infrastructure including taxiways, aprons, aircraft stands, a passenger concourse, an expanded Terminal 2, all related airside and landside works and associated ancillary and supporting facilities. The existing submarine aviation fuel pipelines and submarine power cables also require diversion as part of the works.

Construction of the Project is to proceed in the general order of diversion of the submarine aviation fuel pipelines, diversion of the submarine power cables, land formation, and construction of infrastructure, followed by construction of superstructures.

The updated overall phasing programme of all construction works was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 7 and the contract information was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 32.

## 1.2 Scope of this Report

This is the 33<sup>rd</sup> Construction Phase Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 to 30 September 2018.

## 1.3 Project Organisation

The Project’s organization structure presented in Appendix B of the Construction Phase Monthly EM&A Report No.1 remained unchanged during the reporting period. Contact details of the key personnel are presented in **Table 1.1**.

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<sup>1</sup> The Manual is available on the Project’s dedicated website (accessible at: <http://env.threerunwaysystem.com/en/index.html>).

**Table 1.1: Contact Information of Key Personnel**

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environment	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leader	Heidi Yu	2828 5704
	Deputy Environmental Team Leader	Daniel Sum	2585 8495
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9348

**Advanced Works:**

Party	Position	Name	Telephone
Contract P560(R) Aviation Fuel Pipeline Diversion Works (Langfang Huayuan Mechanical and Electrical Engineering Co., Ltd.)	Project Manager	Wei Shih	2117 0566
	Environmental Officer	Lyn Liu	5172 6543

**Deep Cement Mixing (DCM) Works:**

Party	Position	Name	Telephone
Contract 3201 DCM (Package 1) (Penta-Ocean-China State-Dong-Ah Joint Venture)	Project Director	Tsugunari Suzuki	9178 9689
	Environmental Officer	Hiu Yeung Tang	6329 3513
Contract 3202 DCM (Package 2) (Samsung-BuildKing Joint Venture)	Project Manager	Ilkwon Nam	9643 3117
	Environmental Officer	David Man	6421 3238
Contract 3203 DCM (Package 3) (Sambo E&C Co., Ltd)	Project Manager	Eric Kan	9014 6758
	Environmental Officer	David Hung	9765 6151
Contract 3204 DCM (Package 4) (CRBC-SAMBO Joint Venture)	Project Manager	Kyung-Sik Yoo	9683 8697
	Environmental Officer	Kanny Cho	6799 8226

**Deep Cement Mixing (DCM) Works:**

Contract 3205 DCM (Package 5) (Bachy Soletanche - Sambo Joint Venture)	Deputy Project Director	Min Park	9683 0765
	Environmental Officer	Margaret Chung	9130 3696

**Reclamation Works:**

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Kim Chuan Lim	3763 1509
	Environmental Officer	Kwai Fung Wong	3763 1452

**Airfield Works:**

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Project Manager	Kin Hang Chung	9412 1386
	Environmental Officer	Nelson Tam	9721 3942

**Terminal 2 (T2) Expansion Works:**

Party	Position	Name	Telephone
Contract 3501 Antenna Farm and Sewage Pumping Station (Build King Construction Ltd.)	Project Manager	Raymond Au	6985 8860
	Environmental Officer	Edward Tam	9287 8270
Contract 3502 Terminal 2 APM Depot Modification Works (Build King Construction Ltd.)	Project Manager	Kivin Cheng	9380 3635
	Environmental Officer	Chun Pong Chan	9187 7118
Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture)	Construction Manager	Stephen O'Donoghue	9732 6787
	Environmental Officer	Stephen Tsang	5508 6361
Contract 3505 Terminal 2 Spectrum Lighting Mock- Ups (Union Contractors Ltd.)	Project Manager	Wylar Chan	9107 5920
	Environmental Officer	Kelvin Lam	9379 2446

**Automated People Mover (APM) Works:**

Party	Position	Name	Telephone
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Arthur Wong	9170 3394

**Baggage Handling System (BHS) Works:**

Party	Position	Name	Telephone
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	Andy Ng	9102 2739
	Environmental Officer	Eric Ha	9215 3432

**Airport Support Infrastructure and Logistic Works:**

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Tony Wong	9642 8672
	Environmental Officer	Fredrick Wong	9842 2703

**1.4 Summary of Construction Works**

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included deep cement mixing (DCM) works, marine filling, seawall construction, laying of sand blanket, and prefabricated vertical drain (PVD) installation. Land-side works involved mainly foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS) systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

The locations of the works area are presented in **Figure 1.1** to **Figure 1.2**.

**1.5 Summary of EM&A Programme Requirements**

The status for all environmental aspects are presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period and details can be referred to Table 1.2 of the Construction Phase Monthly EM&A Report No. 1.

**Table 1.2: Summary of status for all environmental aspects under the Updated EM&A Manual**

Parameters	Status
<b>Air Quality</b>	
Baseline Monitoring	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
<b>Noise</b>	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going

Parameters	Status
<b>Water Quality</b>	
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	On-going
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	On-going
<b>Waste Management</b>	
Waste Monitoring	On-going
<b>Land Contamination</b>	
Supplementary Contamination Assessment Plan (CAP)	The Supplementary CAP was submitted to EPD pursuant to EP condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.
<b>Terrestrial Ecology</b>	
Pre-construction Egret Survey Plan	The Egret Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	On-going
<b>Marine Ecology</b>	
Pre-Construction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	The coral translocation was completed.
Post-Translocation Coral Monitoring	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
<b>Chinese White Dolphins (CWD)</b>	
<b>Vessel Survey, Land-based Theodolite Tracking and Passive Acoustic Monitoring (PAM)</b>	
Baseline Monitoring	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	On-going
<b>Landscape &amp; Visual</b>	
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
<b>Environmental Auditing</b>	
Regular site inspection	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	On-going
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	On-going

Taking into account the construction works in this reporting period, impact monitoring of air quality, noise, water quality, waste management, landscape & visual, terrestrial ecology, and CWD were carried out in the reporting period.

The EM&A programme also involved weekly site inspections and related auditing conducted by the ET for checking the implementation of the required environmental mitigation measures recommended in the approved EIA Report. To promote the environmental awareness and enhance the environmental performance of the contractors, environmental trainings and regular environmental management meetings were conducted during the reporting period, which are summarized as below:

- One skipper training provided by ET: 5 September 2018
- Seven environmental management meetings for EM&A review with works contracts: 11, 18, 19, 26, and 27 September 2018

The EM&A programme has been following the recommendations presented in the approved EIA Report and the Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix A**.

## 2 Air Quality Monitoring

Air quality monitoring of 1-hour Total Suspended Particulates (TSP) was conducted three times every six days at two representative monitoring stations in the vicinity of air sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 2.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

**Table 2.1: Locations of Impact Air Quality Monitoring Stations**

Monitoring Station	Location
AR1A	Man Tung Road Park
AR2	Village House at Tin Sum

### 2.1 Action and Limit Levels

In accordance with the Manual, baseline air quality monitoring of 1-hour TSP levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the air quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 2.2**.

**Table 2.2: Action and Limit Levels of Air Quality Monitoring**

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AR1A	306	500
AR2	298	

### 2.2 Monitoring Equipment

Portable direct reading dust meter was used to carry out the air quality monitoring. Details of equipment used in the reporting period are given in **Table 2.3**.

**Table 2.3: Air Quality Monitoring Equipment**

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-002 (Serial No. 974350)	24 Aug 2018	<b>Appendix D</b>
	SIBATA LD-3B-003 (Serial No. 276018)	24 Aug 2018	

### 2.3 Monitoring Methodology

#### 2.3.1 Measuring Procedure

The measurement procedures involved in the impact air quality monitoring can be summarised as follows:

- a. The portable direct reading dust meter was mounted on a tripod at a height of 1.2 m above the ground.

- b. Prior to the measurement, the equipment was set up for 1 minute span check and 6 second background check.
- c. The one hour dust measurement was started. Site conditions and dust sources at the nearby area were recorded on a record sheet.
- d. When the measurement completed, the “Count” reading per hour was recorded for result calculation.

### 2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS is provided in **Appendix D**. The calibration certificates of portable direct reading dust meters listed in **Table 2.3** are still valid.

## 2.4 Summary of Monitoring Results

The air quality monitoring schedule involved in the reporting period is provided in **Appendix B**.

The air quality monitoring results in the reporting period are summarized in **Table 2.4**. Detailed impact monitoring results are presented in **Appendix C**.

**Table 2.4: Summary of Air Quality Monitoring Results**

Monitoring Station	1-hr TSP Concentration Range ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AR1A	15 – 65	306	500
AR2	7 – 57	298	

The monitoring results were within the corresponding Action and Limit Levels at all monitoring stations in the reporting period.

General meteorological conditions throughout the impact monitoring period were recorded. Wind data including wind speed and wind direction for each monitoring day were collected from the Chek Lap Kok Wind Station.

## 2.5 Conclusion

No dust emission source from Project activities was observed during impact air quality monitoring. Major sources of dust observed at the monitoring stations during the monitoring sessions were local air pollution and nearby traffic emissions. It is considered that the monitoring work in the reporting period is effective and there was no adverse impact attributable to the Project activities.

### 3 Noise Monitoring

Noise monitoring in the form of 30-minute measurements of  $L_{eq}$ ,  $L_{10}$ , and  $L_{90}$  levels was conducted once per week between 0700 and 1900 on normal weekdays at five representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 3.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

**Table 3.1: Locations of Impact Noise Monitoring Stations**

Monitoring Station	Location	Type of measurement
NM1A	Man Tung Road Park	Free field
NM2 <sup>(1)</sup>	Tung Chung West Development	To be determined
NM3A <sup>(2)</sup>	Site Office	Facade
NM4	Ching Chung Hau Po Woon Primary School	Free field
NM5	Village House in Tin Sum	Free field
NM6	House No. 1, Sha Lo Wan	Free field

Note:

- (1) As described in Section 4.3.3 of the Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.
- (2) With the commencement of construction works of Tung Chung East Development near NM3A, the monitoring results obtained at NM3A would be affected by other construction project. According to Section 4.3.3 of the Manual, the noise monitoring at NM3A was temporarily suspended starting from 1 Sep 2018 and would be resumed with the completion of the Tung Chung East Development.

#### 3.1 Action and Limit Levels

In accordance with the Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the noise monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 3.2**.

**Table 3.2: Action and Limit Levels for Noise Monitoring**

Monitoring Stations	Time Period	Action Level	Limit Level, $L_{eq(30mins)}$ dB(A)
NM1A, NM2, NM3A, NM4, NM5 and NM6	0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A) <sup>(1)</sup>

Note:

- (1) Reduced to 70dB(A) for school and 65dB(A) during school examination periods for NM4.

#### 3.2 Monitoring Equipment

Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was used to check the sound level meters by a known sound pressure level for field measurement. Details of equipment used in the reporting period are given in **Table 3.3**.

**Table 3.3: Noise Monitoring Equipment**

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	B&K 2238 (Serial No. 2381580)	10 May 2018	Monthly EM&A Report No. 30, Appendix D
	B&K 2238 (Serial No. 2800932)	26 Jul 2018	Monthly EM&A Report No. 32, Appendix E
Acoustic Calibrator	B&K 4231 (Serial No. 3003246)	23 Jun 2018	Monthly EM&A Report No. 31, Appendix E
	B&K 4231 (Serial No. 3018753)	10 May 2018	Monthly EM&A Report No. 29, Appendix D

### 3.3 Monitoring Methodology

#### 3.3.1 Monitoring Procedure

The monitoring procedures involved in the noise monitoring can be summarised as follows:

- a. The sound level meter was set on a tripod at least a height of 1.2 m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3 dB(A) was applied to the free field measurements.
- b. Façade measurements were made at the monitoring station NM3A.
- c. Parameters such as frequency weighting, time weighting and measurement time were set.
- d. Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- e. During the monitoring period,  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. In addition, site conditions and noise sources were recorded on a record sheet.
- f. Noise measurement results were corrected with reference to the baseline monitoring levels.
- g. Observations were recorded when high intrusive noise (e.g. dog barking, helicopter noise) was observed during the monitoring.

#### 3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

- 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 laboratory accredited under Hong Kong Laboratory Accreditation Scheme (HOKLAS) to check and calibrate at yearly intervals.

Calibration certificates of the sound level meters and acoustic calibrators used in the noise monitoring listed in **Table 3.3** are still valid.

### 3.4 Summary of Monitoring Results

The noise monitoring schedule involved in the reporting period is provided in **Appendix B**.

The noise monitoring results in the reporting period are summarized in **Table 3.4**. Detailed impact monitoring results are presented in **Appendix C**.

**Table 3.4: Summary of Construction Noise Monitoring Results**

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)
	Leq (30 mins)	Leq (30 mins)
NM1A <sup>(1)</sup>	65 – 73	75
NM4 <sup>(1)</sup>	64 – 66	70 <sup>(2)</sup>
NM5 <sup>(1)</sup>	54 – 58	75
NM6 <sup>(1)</sup>	68 – 71	75

Notes:

- (1) +3 dB(A) Façade correction included;
- (2) Reduced to 65 dB(A) during school examination periods at NM4. No examination was held in this reporting period.

The monitoring results were within the corresponding Action and Limit Levels at all monitoring stations in the reporting period.

### 3.5 Conclusion

As the construction activities were far away from the monitoring stations, major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were traffic and aircraft noise near NM1A, school activities at NM4, and aircraft and helicopter noise near NM5 and NM6 during this reporting period. It is considered that the monitoring work during the reporting period was effective and there was no adverse impact attributable to the Project activities.

## 4 Water Quality Monitoring

Water quality monitoring of DO, pH, temperature, salinity, turbidity, suspended solids (SS), total alkalinity, chromium, and nickel was conducted three days per week, at mid-ebb and mid-flood tides, at a total of 22 water quality monitoring stations, comprising 12 impact (IM) stations, 7 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. The purpose of water quality monitoring at the IM stations is to promptly capture any potential water quality impact from the Project before it could become apparent at sensitive receivers (represented by the SR stations). **Table 4.1** describes the details of the monitoring stations. **Figure 3.1** shows the locations of the monitoring stations.

**Table 4.1: Monitoring Locations and Parameters of Impact Water Quality Monitoring**

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	<u>General Parameters</u>
C2	Control Station	806945	825682	DO, pH, Temperature, Salinity, Turbidity, SS
C3 <sup>(3)</sup>	Control Station	817803	822109	
IM1	Impact Station	807132	817949	<u>DCM Parameters</u>
IM2	Impact Station	806166	818163	Total Alkalinity, Heavy Metals <sup>(2)</sup>
IM3	Impact Station	805594	818784	
IM4	Impact Station	804607	819725	
IM5	Impact Station	804867	820735	
IM6	Impact Station	805828	821060	
IM7	Impact Station	806835	821349	
IM8	Impact Station	808140	821830	
IM9	Impact Station	808811	822094	
IM10	Impact Station	809794	822385	
IM11	Impact Station	811460	822057	
IM12	Impact Station	812046	821459	
SR1 <sup>(1)</sup>	Future Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812586	820069	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR2 <sup>(3)</sup>	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS  <u>DCM Parameters</u> Total Alkalinity, Heavy Metals <sup>(2)(4)</sup>
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	

Monitoring Station	Description	Coordinates	Parameters
SR5A	San Tau Beach SSSI	810696	816593
SR6	Tai Ho Bay, Near Tai Ho Stream SSSI	814663	817899
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636
SR8 <sup>(5)</sup>	Seawater Intake for cooling at Hong Kong International Airport (East)	811418	820246

## Notes:

- (1) The seawater intakes of SR1 for the future HKBCF is not yet in operation, hence no water quality impact monitoring was conducted at this station. The future permanent location for SR1 during impact monitoring is subject to finalisation after the HKBCF seawater intake is commissioned.
- (2) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (<http://env.threerunwaysystem.com/en/ep-submissions.html>). DCM specific water quality monitoring parameters (total alkalinity and heavy metals) were only conducted at C1 to C3, SR2, and IM1 to IM12.
- (3) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.
- (4) Total alkalinity and heavy metals results are collected at SR2 as a control station for regular DCM monitoring.
- (5) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.

#### 4.1 Action and Limit Levels

In accordance with the Manual, baseline water quality levels at the abovementioned representative water quality monitoring stations were established as presented in the Baseline Water Quality Monitoring Report. The Action and Limit Levels of general water quality monitoring and regular DCM monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 4.2**. The control and impact stations during ebb tide and flood tide for general water quality monitoring and regular DCM monitoring are presented in **Table 4.3**.

**Table 4.2: Action and Limit Levels for General Water Quality Monitoring and Regular DCM Monitoring**

Parameters	Action Level (AL)	Limit Level (LL)	
<b>Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1 &amp; SR8)</b>			
General Water Quality Monitoring	DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 4.5 mg/L	Surface and Middle 4.1 mg/L 5 mg/L for Fish Culture Zone (SR7) only
		Bottom 3.4 mg/L	Bottom 2.7 mg/L
	Suspended Solids (SS) in mg/L	23	37
	Turbidity in NTU	22.6	36.1
Regular DCM Monitoring	Total Alkalinity in ppm	95	99
	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/L	0.2	0.2
	Representative Heavy Metals for	3.2	3.6

Parameters	Action Level (AL)	Limit Level (LL)
regular DCM monitoring (Nickel) in µg/L		
<b>Action and Limit Levels SR1</b>		
SS (mg/l)	33	42
<b>Action and Limit Levels SR8</b>		
SS (mg/l)	52	60

Notes:

- (1) For DO measurement, non-compliance occurs when monitoring result is lower than the limits.
- (2) For parameters other than DO, non-compliance of water quality results when monitoring results is higher than the limits.
- (3) Depth-averaged results are used unless specified otherwise.
- (4) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (<http://env.threerunwaysystem.com/en/ep-submissions.html>)
- (5) The Action and Limit Levels for the two representative heavy metals chosen will be the same as that for the intensive DCM monitoring.

**Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring and Regular DCM Monitoring**

Control Station	Impact Stations
<b>Flood Tide</b>	
C1	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, SR3
SR2 <sup>(1)</sup>	IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR3, SR4A, SR5A, SR6, SR8
<b>Ebb Tide</b>	
C1	SR4A, SR5A, SR6
C2	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR2, SR3, SR7, SR8

Note:

- (1) As per findings of Baseline Water Quality Monitoring Report, the control reference has been changed from C3 to SR2 from 1 Sep 2016 onwards.

## 4.2 Monitoring Equipment

**Table 4.4** summarises the equipment used in the reporting period for monitoring of specific water quality parameters under the water quality monitoring programme.

**Table 4.4: Water Quality Monitoring Equipment**

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI ProDSS (Serial No. 16H104233)	27 Jun 2018 <sup>(1)</sup>	Monthly EM&A Report No. 31, Appendix E
	YSI ProDSS (Serial No. 16H104234)	25 Jul 2018	
	YSI ProDSS (Serial No. 17E100747)	27 Jun 2018 <sup>(1)</sup>	
	YSI ProDSS (Serial No. 17H105557)	25 Jul 2018	Monthly EM&A Report No. 32, Appendix E
	YSI 6920 V2 (Serial No. 0001C6A7)	20 Aug 2018	
	YSI 6920 V2 (Serial No. 00019CB2)	20 Aug 2018	
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (Serial No. 10N65665)	19 Jun 2018	Monthly EM&A Report No. 31, Appendix E
	Titrette Digital Burette 50ml Class A (Serial No. 10N64701)	18 Sep 2018	<b>Appendix D</b>

Note:

- (1) The monitoring equipment was not used in the reporting period after the calibration certificate expiry date.

Other equipment used as part of the impact water quality monitoring programme are listed in **Table 4.5**.

**Table 4.5: Other Monitoring Equipment**

Equipment	Brand and Model
Water Sampler	Van Dorn Water Sampler
Positioning Device (measurement of GPS)	Garmin eTrex Vista HCx
Current Meter (measurement of current speed and direction, and water depth)	Sontek HydroSurveyor

## 4.3 Monitoring Methodology

### 4.3.1 Measuring Procedure

Water quality monitoring samples were taken at three depths (at 1m below surface, at mid-depth, and at 1m above bottom) for locations with water depth >6m. For locations with water depth between 3m and 6m, water samples were taken at two depths (surface and bottom). For locations with water depth <3m, only the mid-depth was taken. Duplicate water samples were taken and analysed.

The water samples for all monitoring parameters were collected, stored, preserved and analysed according to the Standard Methods, APHA 22<sup>nd</sup> ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including temperature, pH, DO, turbidity, salinity, alkalinity and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for heavy metals and SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4 °C without being frozen), delivered to the laboratory within 24 hours of collection.

### 4.3.2 Maintenance and Calibration

#### Calibration of In-situ Instruments

All in-situ monitoring instrument were checked, calibrated and certified by a laboratory accredited under HOKLAS before use. Responses of sensors and electrodes were checked with certified standard solutions before each use.

Wet bulb calibration for a DO meter was carried out before commencement of monitoring and after completion of all measurements each day. Calibration was not conducted at each monitoring location as daily calibration is adequate for the type of DO meter employed. A zero check in distilled water was performed with the turbidity probe at least once per monitoring day. The probe was then calibrated with a solution of known NTU. In addition, the turbidity probe was calibrated at least twice per month to establish the relationship between turbidity readings (in NTU) and levels of SS (in mg/L). Accuracy check of the digital titrator was performed at least once per monitoring day.

Calibration certificates of the monitoring equipment used in the reporting period listed in **Table 4.4** are still valid.

### 4.3.3 Laboratory Measurement / Analysis

Analysis of SS and heavy metals have been carried out by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066). Sufficient water samples were collected at all the monitoring stations for carrying out the laboratory SS and heavy metals determination. The SS and heavy metals determination works were started within 24 hours after collection of the

water samples. The analysis of SS and heavy metals have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS and heavy metals were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

**Table 4.6: Laboratory Measurement/ Analysis of SS and Heavy Metals**

Parameters	Instrumentation	Analytical Method	Reporting Limit
SS	Analytical Balance	APHA 2540D	2 mg/L
<b>Heavy Metals</b>			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2 µg/L
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2 µg/L

#### 4.4 Summary of Monitoring Results

The water quality monitoring schedule for the reporting period is updated and provided in **Appendix B**. Ebb tide monitoring session on 15 September 2018 was cancelled due to adverse weather. It should be noted that Tropical Storm Barijat and Super Typhoon Mangkhut affected Hong Kong from 11 to 17 September 2018 and water quality monitoring results might be affected by these weather events.

The water quality monitoring results for turbidity, total alkalinity and chromium obtained during the reporting period were within their corresponding Action and Limit Levels.

For DO, SS and nickel, some of the testing results triggered the corresponding Action and Limit Level, and investigations were conducted accordingly.

**Table 4.7** presents a summary of the DO compliance status at IM and SR stations at surface and middle waters during mid-ebb tide for the reporting period.

**Table 4.7: Summary of DO (Surface and Middle) Compliance Status (Mid-Ebb Tide)**

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7	
1/9/2018																			
4/9/2018																			
6/9/2018																			
8/9/2018																			
11/9/2018																			
13/9/2018																			D
18/9/2018																			
20/9/2018																			
22/9/2018																			
25/9/2018																			
27/9/2018																			
29/9/2018																			
No. of results triggering Action or Limit Level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Note: Detailed results are presented in <b>Appendix C</b> .	
Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
D	Monitoring result triggered the Limit Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring result triggered the corresponding Limit Level on 13 September 2018 at SR7, which was located more than 12 km downstream of the Project. However, all monitoring results recorded at the IM stations, which were located closer to active construction activities, were within the Action and Limit Levels. Therefore, the case was considered not due to the Project.

**Table 4.8** presents a summary of the DO compliance status at IM and SR stations at surface and middle waters during mid-flood tide for the reporting period.

**Table 4.8: Summary of DO (Surface and Middle) Compliance Status (Mid-Flood Tide)**

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6	SR7
1/9/2018																	
4/9/2018																	
6/9/2018																	
8/9/2018																	
11/9/2018																	
13/9/2018																	
15/9/2018																	
18/9/2018																	
20/9/2018																	
22/9/2018																	
25/9/2018																	
27/9/2018																	
29/9/2018																	
No. of results triggering Action or Limit Level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Note: Detailed results are presented in <b>Appendix C</b> .	
Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
	Monitoring result triggered the Limit Level at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Limit Level on 13 September 2018. The case occurred at a monitoring station upstream of the Project during flood tide and would unlikely be affected by the Project. Similar case was also observed at SR7 during ebb tide of the same day, which suggested the presence of external factors that might affect the station.

**Table 4.9** presents a summary of the SS compliance status at IM and SR stations during mid-flood tide for the reporting period.

**Table 4.9: Summary of SS Compliance Status (Mid-Flood Tide)**

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6	SR7	SR8	
1/9/2018																			
4/9/2018																			
6/9/2018																			
8/9/2018																			
11/9/2018																			
13/9/2018																			
15/9/2018																			
18/9/2018																			
20/9/2018																			
22/9/2018																			
25/9/2018																			
27/9/2018																			
29/9/2018																			
No. of results triggering Action or Limit Level	1	1	2	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0

Note: Detailed results are presented in <b>Appendix C</b> .	
Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
	Monitoring result triggered the Action Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Action Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action Levels on 6, 8, 11 and 18 September 2018. Most cases were recorded at locations upstream of the Project during flood tide and would unlikely be affected by the Project. Investigation focusing on the case that occurred at a monitoring station located downstream of the Project was carried out. Details of the Project’s marine construction activities on the concerned monitoring day was collected and findings are summarized in **Table 4.10**.

**Table 4.10: Summary of Findings from Investigation of SS Monitoring Results (Mid-Flood Tide)**

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
08/09/2018	Marine filling, sand blanket laying, seabed regulation works and DCM works	Around 1 km	Localised and enhanced silt curtain deployed	No	No	No

The investigation confirmed that marine filling, sand blanket laying, seabed regulation works and DCM works were operating normally with localised and enhanced silt curtains deployed. The localised and enhanced silt curtains were maintained properly except for a section of enhanced silt curtain which was found to be disconnected. Repair work was completed on the same day.

For the monitoring result at IM5 on 8 September 2018, the SS result was within the baseline range, and the same day exceedances at IM2 and IM3 which are located upstream of IM5 suggests that the elevated SS likely originated from outside (upstream) of the Project. With no observable silt plume during marine works and properly implemented mitigation measures, the incident was considered not due to Project.

**Table 4.11** presents a summary of the nickel compliance status at IM stations during mid-ebb tide for the reporting period.

**Table 4.11: Summary of Nickel Compliance Status (Mid-Ebb Tide)**

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12
1/9/2018												
4/9/2018												
6/9/2018												
8/9/2018												
11/9/2018												
13/9/2018												
18/9/2018												
20/9/2018												
22/9/2018												
25/9/2018												
27/9/2018												
29/9/2018												
No. of results triggering Action or Limit Level	0	0	0	0	0	0	0	0	1	0	0	0

Note: Detailed results are presented in <b>Appendix C</b> .	
Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
	Monitoring result triggered the Action Level at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action Level on 11 September 2018. The case occurred at a monitoring station located upstream of the Project during ebb tide and would unlikely be affected by the Project.

**Table 4.12** presents a summary of the nickel compliance status at IM stations during mid-flood tide for the reporting period.

**Table 4.12: Summary of Nickel Compliance Status (Mid-Flood Tide)**

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12
1/9/2018								D	D	D		
4/9/2018								D	D	D		
6/9/2018						D						
8/9/2018												
11/9/2018												
13/9/2018												
15/9/2018												
18/9/2018					D	D						
20/9/2018												
22/9/2018												
25/9/2018												
27/9/2018												
29/9/2018												
No. of result triggering Action or Limit Level	0	0	0	2	1	2	0	2	2	2	0	0

Note: Detailed results are presented in **Appendix C**.

Legend:	
	The monitoring results complied with the corresponding Action and Limit Levels
	Monitoring result triggered the Action Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Action Level at monitoring station located downstream of the Project based on dominant tidal flow
	Monitoring result triggered the Limit Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Limit Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action and Limit Levels on four monitoring days. Some of the cases occurred at monitoring stations located upstream of the Project during flood tide, that would unlikely be affected by the Project. Therefore, investigations focusing on cases that occurred at monitoring stations located downstream of the Project were carried out.

As part of the investigation on the downstream events, details of the Project’s marine construction activities on the concerned monitoring days were collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.13**.

**Table 4.13: Summary of Findings from Investigation of Nickel Monitoring Results (Mid-Flood Tide)**

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
01/09/2018	Marine filling, seabed regulation works and DCM works	Around 500m	Localised and enhanced silt curtain deployed.	No	No	No
04/09/2018	Marine filling, sand blanket laying, seabed regulation works and DCM works	Around 500m	Localised and enhanced silt curtain deployed.	No	No	No
06/09/2018	Marine filling, seabed regulation works and DCM works	Around 1 km	Localised and enhanced silt curtain deployed.	No	No	No
18/09/2018	Marine filling and DCM works	Around 1 km	Localised and enhanced silt curtain deployed.	No	No	No

According to the investigation findings, it was confirmed that DCM, seabed regulation works, marine filling and sand blanket laying activities were operating normally with localised and enhanced silt curtains deployed. The silt curtains were maintained properly except for some sections of enhanced silt curtain which was found to be disconnected and repair work was conducted accordingly. However, given that there was no elevated SS identified in the vicinity of the disconnected enhanced silt curtain, the nickel concentrations at the impact stations are unlikely to be affected by the condition of the enhanced silt curtain on that day.

As nickel is a representative heavy metal that indicates the potential for release of contaminants from contaminated mud pits due to the disturbance of marine sediment within the pits by DCM activities, relevant investigations were carried out with a focus on DCM activities.

For cases occurred at IM8, IM9, and IM10 on 1 and 4 September 2018, the investigation found that the SS results were within their Action and Limit Levels at all monitoring stations in both days and in addition, nickel concentrations at IM9 and IM10 were within baseline range on 1 September 2018, which indicates that no silt plume and associated water quality impacts occurred during active DCM works. Separately, nickel concentrations at the control stations were found to be higher than baseline range on 4 September 2018, which suggested that there was an external source of nickel that might be affecting the Project area. As all DCM activities of the Project was found to be operating normally with mitigation measures in place, the investigation concluded that the cases were possibly due to external factors and were considered not due to the Project.

Action Level was triggered at IM6 on 6 September 2018. No Action or Limit Level was triggered in other downstream impact stations and there was no observations of silt plumes or other issues during construction works and all mitigation measures were carried out properly. Meanwhile, a similar case at an upstream station (which is unlikely to be affected by the Project) suggested the presence of external sources. Therefore, the investigations concluded that the event was considered not due to the Project.

Monitoring results at IM5 and IM6 triggered the corresponding Limit Levels on 18 September 2018. Given that the nearest DCM barge was located more than 2 km away from these impact

stations, and similar nickel concentration was recorded at an adjacent impact station located upstream of the Project which suggested the presence of external sources, it is considered that these two cases were not related to DCM activities of the Project. As all SS monitoring results at impact stations were within the Action and Limit Levels, and all mitigation measures were properly implemented, this case was considered due to external factors not connected to the Project.

## 4.5 Conclusion

During the reporting period, it is noted that the vast majority of monitoring results were within their corresponding Action and Limit Levels, while only a minor number of results triggered their corresponding Action and Limit Levels, and investigations were conducted accordingly.

Based on the investigation findings, all results that triggered the corresponding Action and Limit Level were not due to the Project. Therefore, the Project did not cause adverse impact at the water quality sensitive receivers. All required actions under the Event and Action Plan were followed. These cases appeared to be due to natural fluctuation or other sources not related to the Project.

Nevertheless, the non-project related triggers have been attended to and have initiated corresponding actions and measures. As part of the EM&A programme, the construction methods and mitigation measures for water quality will continue to be monitored and opportunities for further enhancement will continue to be explored and implemented where possible, to strive for better protection of water quality and the marine environment.

In the meantime, the contractors were reminded to implement and maintain all mitigation measures during weekly site inspection and regular environmental management meetings. These include maintaining mitigation measures properly for reclamation works including DCM works, marine filling, seawall construction, and sand blanket laying works as recommended in the Manual.

## 5 Waste Management

In accordance with the Manual, the waste generated from construction activities was audited once per week to determine if wastes are being managed in accordance with the Waste Management Plan (WMP) prepared for the Project, contract-specific WMP, and any statutory and contractual requirements. All aspects of waste management including waste generation, storage, transportation and disposal were assessed during the audits.

### 5.1 Action and Limit Levels

The Action and Limit Levels of the construction waste are provided in **Table 5.1**.

**Table 5.1: Action and Limit Levels for Construction Waste**

Monitoring Stations	Action Level	Limit Level
Construction Area	When one valid documented complaint is received	Non-compliance of the WMP, contract-specific WMPs, any statutory and contractual requirements

### 5.2 Waste Management Status

Weekly monitoring on all works contracts were carried out by the ET to check and monitor the implementation of proper waste management practices during the construction phase.

Recommendations made included provision and maintenance of proper chemical waste storage area, as well as handling, segregation, and regular disposal of general refuse. The contractors had taken actions to implement the recommended measures.

Based on updated information provided by contractors, construction waste generated in the reporting period is summarized in **Table 5.2**.

There were no complaints, non-compliance of the WMP, contract-specific WMPs, statutory and contractual requirements that triggered Action and Limit Levels in the reporting period.

**Table 5.2: Construction Waste Statistics**

	Excavated Material (m <sup>3</sup> ) <sup>(1)</sup>	C&D <sup>(2)</sup> Material Reused in the Project (m <sup>3</sup> )	C&D Material Reused in other Projects (m <sup>3</sup> )	C&D Material Transferred to Public Fill (m <sup>3</sup> )	Chemical Waste (kg)	Chemical Waste (L)	General Refuse (tonne)
Jun 2018 <sup>(3)</sup>	508	-	-	-	-	-	228
Jul 2018 <sup>(3)</sup>	1,916	-	-	-	1,210	54,400	-
Aug 2018 <sup>(3)</sup>	2,283	3,340	-	10,365	-	-	248
Sep 2018 <sup>(4)</sup>	4,245	1,860	0	5,688	1,870	22,720	434

Notes:

- (1) The excavated materials were temporarily stored at stockpiling area and will be reused in the Project.
- (2) C&D refers to Construction and Demolition.
- (3) Only updated figures are presented.
- (4) Metals were recycled in the reporting period.

## 6 Chinese White Dolphin Monitoring

In accordance with the Manual, CWD monitoring by small vessel line-transect survey supplemented by land-based theodolite tracking survey and passive acoustic monitoring should be conducted during construction phase.

The small vessel line-transect survey as proposed in the Manual should be conducted at a frequency of two full surveys per month while land-based theodolite tracking survey should be conducted at a frequency of one day per month per station during the construction phase. In addition to the land-based theodolite tracking survey required for impact monitoring as stipulated in the Manual, supplemental theodolite tracking surveys have also been conducted during the implementation for the SkyPier HSF diversion and speed control in order to assist in monitoring the effectiveness of these measures, i.e. in total twice per month at the Sha Chau station and three times per month at the Lung Kwu Chau station.

### 6.1 Action and Limit Levels

The Action and Limit Levels for CWD monitoring were formulated by the action response approach using the running quarterly dolphin encounter rates STG and ANI derived from the baseline monitoring data, as presented in the CWD Baseline Monitoring Report. The derived values of Action and Limit Levels for CWD monitoring were summarized in **Table 6.1**.

**Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring**  
NEL, NWL, AW, WL and SWL as a Whole

Action Level <sup>(3)</sup>	Running quarterly <sup>(1)</sup> STG < 1.86 & ANI < 9.35
Limit Level <sup>(3)</sup>	Two consecutive running quarterly <sup>(2)</sup> (3-month) STG < 1.86 & ANI < 9.35

Notes: (referring to the baseline monitoring report)

- (1) Action Level – running quarterly STG & ANI will be calculated from the three preceding survey months. For CWD monitoring for September 2018, data from 1 July 2018 to 30 September 2018 was used to calculate the running quarterly encounter rates STG & ANI;
- (2) Limit Level – two consecutive running quarters mean both the running quarterly encounter rates of the preceding month August 2018 (calculated by data from June 2018 to August 2018) and the running quarterly encounter rates of this month (calculated by data from July 2018 to September 2018).
- (3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

### 6.2 CWD Monitoring Transects and Stations

#### 6.2.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys were conducted along the transects covering Northeast Lantau (NEL), Northwest Lantau (NWL), Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL) areas as proposed in the Manual, which are consistent with the Agriculture, Fisheries and Conservation Department (AFCD) long-term monitoring programme (except the addition of AW). The AW transect has not been previously surveyed in the AFCD programme due to the restrictions of HKIA Approach Area, nevertheless, this transect was established during the EIA of the 3RS Project and refined in the Manual with the aim to collect project specific baseline information within the HKIA Approach Area to fill the data gap that was not covered by the AFCD programme. This also provided a larger sample size for estimating the density, abundance and patterns of movements in the broader study area of the project.

The planned vessel survey transect lines follow the waypoints set for construction phase monitoring as proposed in the Manual and depicted in **Figure 6.1** with the waypoint coordinates of all transect lines given in **Table 6.2**, which are subject to on-site refinement based on the actual survey conditions and constraints.

**Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas**

Waypoint	Easting	Northing	Waypoint	Easting	Northing
<b>NEL</b>					
1S	813525	820900	6N	818568	824433
1N	813525	824657	7S	819532	821420
2S	814556	818449	7N	819532	824209
2N	814559	824768	8S	820451	822125
3S	815542	818807	8N	820451	823671
3N	815542	824882	9S	821504	822371
4S	816506	819480	9N	821504	823761
4N	816506	824859	10S	822513	823268
5S	817537	820220	10N	822513	824321
5N	817537	824613	11S	823477	823402
6S	818568	820735	11N	823477	824613
<b>NWL</b>					
1S	804671	814577	5S	808504	821735
1N	804671	831404	5N	808504	828602
2Sb	805475	815457	6S	809490	822075
2Nb	805476	818571	6N	809490	825352
2Sa	805476	820770	7S	810499	822323
2Na	805476	830562	7N	810499	824613
3S	806464	821033	8S	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	9S	812516	821356
4N	807518	829230	9N	812516	824254
<b>AW</b>					
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
<b>WL</b>					
1W	800600	805450	7W	800400	811450
1E	801760	805450	7E	802400	811450
2W	800300	806450	8W	800800	812450
2E	801750	806450	8E	802900	812450
3W	799600	807450	9W	801500	813550
3E	801500	807450	9E	803120	813550
4W	799400	808450	10W	801880	814500
4E	801430	808450	10E	803700	814500
5W	799500	809450	11W	802860	815500
5E	801300	809450	12S/11E	803750	815500
6W	799800	810450	12N	803750	818500
6E	801400	810450			
<b>SWL</b>					
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	7S	808553	800329

Waypoint	Easting	Northing	Waypoint	Easting	Northing
2N	803489	806720	7N	808553	807377
3S	804484	802509	8S	809547	800338
3N	804484	807048	8N	809547	807396
4S	805478	802105	9S	810542	800423
4N	805478	807556	9N	810542	807462
5S	806473	801250	10S	811446	801335
5N	806473	808458	10N	811446	809436

### 6.2.2 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey stations were set up at two locations, one facing east/south/west on the southern slopes of Sha Chau (SC), and the other facing north/northeast/northwest at Lung Kwu Chau (LKC). The stations (D and E) are depicted in **Figure 6.2** and shown in **Table 6.3** with position coordinates, height of station and approximate distance of consistent theodolite tracking capabilities for CWD.

**Table 6.3: Land-based Theodolite Survey Station Details**

Stations	Location	Geographical Coordinates	Station Height (m)	Approximate Tracking Distance (km)
D	Sha Chau (SC)	22° 20' 43.5" N 113° 53' 24.66" E	45.66	2
E	Lung Kwu Chau (LKC)	22° 22' 44.83" N 113° 53' 0.2" E	70.40	3

## 6.3 CWD Monitoring Methodology

### 6.3.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys provided data for density and abundance estimation and other assessments using distance-sampling methodologies, specifically, line-transect methods.

The surveys involved small vessel line-transect data collection and have been designed to be similar to, and consistent with, previous surveys for the AFCD for their long-term monitoring of small cetaceans in Hong Kong. The survey was designed to provide systematic, quantitative measurements of density, abundance and habitat use.

As mentioned in **Section 6.2.1**, the transects covered NEL, NWL covering the AW, WL and SWL areas as proposed in the Manual and are consistent with the AFCD long-term monitoring programme (except AW). There are two types of transect lines:

- Primary transect lines: the parallel and zigzag transect lines as shown in **Figure 6.1**; and
- Secondary transect lines: transect lines connecting between the primary transect lines and going around islands.

All data collected on both primary and secondary transect lines were used for analysis of sighting distribution, group size, activities including association with fishing boat, and mother-calf pairs. Only on-effort data collected under conditions of Beaufort 0-3 and visibility of approximately 1200 m or beyond were used for analysis of the CWD encounter rates.

A 15-20 m vessel with a flying bridge observation platform about 4 to 5 m above water level and unobstructed forward view, and a team of three to four observers were deployed to undertake the surveys. Two observers were on search effort at all times when following the transect lines with

a constant speed of 7 to 8 knots (i.e. 13 to 15 km per hour), one using 7X handheld binoculars and the other using unaided eyes and recording data.

During on-effort survey periods, the survey team recorded effort data including time, position (waypoints), weather conditions (Beaufort sea state and visibility) and distance travelled in each series with assistance of a handheld GPS device. The GPS device also continuously and automatically logged data including time, position (latitude and longitude) and vessel speed throughout the entire survey.

When CWDs were seen, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+ telephoto lens), then followed until they were lost from view. At that point, the boat returned (off effort) to the survey line at the closest point after obtaining photo records of the dolphin group and began to survey on effort again.

Focal follows of dolphins would be used for providing supplementary information only where practicable (i.e. when individual dolphins or small stable groups of dolphins with at least one member that could be readily identifiable with unaided eyes during observations and weather conditions are favourable). These would involve the boat following (at an appropriate distance to minimize disturbance) an identifiable individual dolphin for an extended period of time, and collecting detailed data on its location, behaviour, response to vessels, and associates.

### 6.3.2 Photo Identification

CWDs can be identified by their unique features like presence of scratches, nick marks, cuts, wounds, deformities of their dorsal fin and distinguished colouration and spotting patterns.

When CWDs were observed, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+ telephoto lens). The survey team attempted to photo both sides of every single dolphin in the group as the colouration and spotting pattern on both sides may not be identical. The photos were taken at the highest available resolution and stored on Compact Flash memory cards for transferring into a computer.

All photos taken were initially examined to sort out those containing potentially identifiable individuals. These sorted-out images would then be examined in detail and compared to the CWD photo-identification catalogue established for 3RS during the baseline monitoring stage.

### 6.3.3 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey obtains fine-scale information on the time of day and movement patterns of the CWDs. A digital theodolite (Sokkia/Sokkisha Model DT5 or similar equipment) with 30-power magnification and 5-s precision was used to obtain the vertical and horizontal angle of each dolphin and vessel position. Angles were converted to geographic coordinates (latitude and longitude) and data were recorded using *Pythagoras* software, Version 1.2. This method delivers precise positions of multiple spatially distant targets in a short period of time. The technique is fully non-invasive, and allows for time and cost-effective descriptions of dolphin habitat use patterns at all times of daylight.

Three surveyors (one theodolite operator, one computer operator, and one observer) were involved in each survey. Observers searched for dolphins using unaided eyes and handheld binoculars (7X50). Theodolite tracking sessions were initiated whenever an individual CWD or group of CWDs was located. Where possible, a distinguishable individual was selected, based on colouration, within the group. The focal individual was then continuously tracked via the theodolite, with a position recorded each time the dolphin surfaced. In case an individual could

not be positively distinguished from other members, the group was tracked by recording positions based on a central point within the group whenever the CWD surfaced. Tracking continued until animals were lost from view; moved beyond the range of reliable visibility (>1-3 km, depending on station height); or environmental conditions obstructed visibility (e.g., intense haze, Beaufort sea state >4, or sunset), at which time the research effort was terminated. In addition to the tracking of CWD, all vessels that moved within 2-3 km of the station were tracked, with effort made to obtain at least two positions for each vessel.

Theodolite tracking included focal follows of CWD groups and vessels. Priority was given to tracking individual or groups of CWD. The survey team also attempted to track all vessels moving within 1 km of the focal CWD.

## 6.4 Monitoring Results and Observations

### 6.4.1 Small Vessel Line-transect Survey

#### Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 7, 10, 14, 18, 19, 20, 21 and 26 September 2018, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

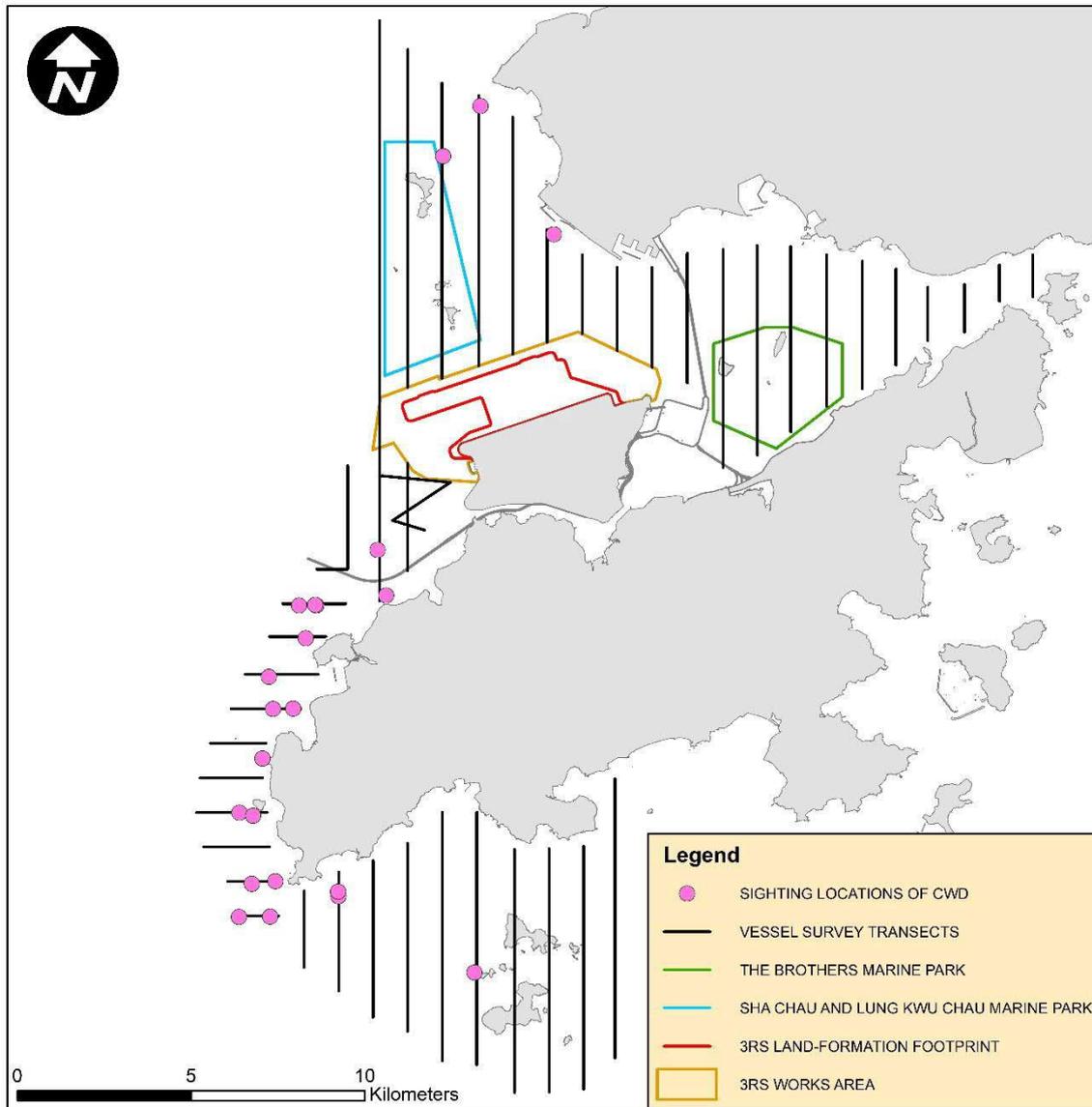
A total of around 447.76 km of survey effort was collected from these surveys, with around 98.87% of the total survey effort being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

#### Sighting Distribution

In September 2018, 22 sightings with 72 dolphins were sighted. Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in September 2018 is illustrated in **Figure 6.3**. In NWL, three CWD sightings were recorded on Urmston Road between Lung Kwu Tan and SCLKCMP. One of these three sightings was recorded at the water just off the Heavy Load Berth of Castle Peak Power Station, where heavy marine traffic activity was observed during the sighting. There were another two sightings recorded at the southwestern corner of the NWL survey area. In WL, CWD sightings were scattered from Tai O to Fan Lau. In SWL, two CWD sightings were recorded at coastal waters near Fan Lau Tung Wan while another sighting was recorded at near Ma Chau which is part of Soko Islands. No sightings of CWD were recorded in NEL survey area.

**Figure 6.3: Sightings Distribution of Chinese White Dolphins**



Remarks: Please note that there are 22 pink circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this distribution map.

**Encounter Rate**

Two types of dolphin encounter rates were calculated based on the data from September 2018. They included the number of dolphin sightings per 100 km survey effort (STG) and total number of dolphins per 100 km survey effort (ANI) in the whole survey area (i.e. NEL, NWL, AW, WL and SWL). In the calculation of dolphin encounter rates, only survey data collected under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility) were used. The formulae used for calculation of the encounter rates are shown below:

Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{\text{Total No. of On - effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

### Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{\text{Total No. of Dolphins from On – effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

(Notes: Only data collected under Beaufort 3 or below condition were used)

In September 2018, a total of around 442.69 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 22 on-effort sightings with 72 dolphins were sighted under such condition. Calculation of the encounter rates in September 2018 are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from July to September 2018), a total of around 1286.10 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 62 on-effort sightings and a total number of 197 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of September 2018 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rates STG and ANI did not trigger Action Level.

**Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels**

	Encounter Rate (STG)	Encounter Rate (ANI)
September 2018	4.97	16.26
Running Quarter from July 2018 to September 2018 <sup>(1)</sup>	4.82	15.32
Action Level	Running quarterly <sup>(1)</sup> < 1.86	Running quarterly <sup>(1)</sup> < 9.35

Note: (1) Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, i.e. the data from July to September 2018, containing six sets of transect surveys for all monitoring areas. Action Level will be triggered if both STG and ANI fall below the criteria.

### **Group Size**

In September 2018, 22 groups with 72 dolphins were sighted, and the average group size of CWDs was 3.27 dolphins per group. Sightings with small group size (i.e. 1-2 dolphins) were dominant. One sighting with large group size (i.e. 10 or more dolphins) were recorded in WL.

### **Activities and Association with Fishing Boats**

Three out of 22 sightings of CWDs were recorded engaging in feeding activities in September 2018. No association with operating fishing boats was observed in this reporting month.

### **Mother-calf Pair**

In September 2018, three sightings were recorded with the presence of mother-and-unspotted calf, mother-and-unspotted juvenile or mother-and-spotted juvenile pairs. Two of these sightings were sighted in WL while the remaining one was encountered in NWL.

### 6.4.2 Photo Identification

In September 2018, a total number of 37 different CWD individuals were identified for totally 42 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

**Table 6.5: Summary of Photo Identification**

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM001	20-Sep-18	1	WL	WLMM043	21-Sep-18	4	WL
		4	WL	WLMM049	21-Sep-18	3	WL
NLMM005	21-Sep-18	4	WL	WLMM056	19-Sep-18	1	SWL
NLMM006	26-Sep-18	3	NWL	WLMM060	20-Sep-18	2	WL
NLMM012	21-Sep-18	1	WL	WLMM071	20-Sep-18	2	WL
NLMM013	14-Sep-18	1	NWL	WLMM076	20-Sep-18	6	WL
	20-Sep-18	2	WL	WLMM081	20-Sep-18	6	WL
NLMM020	19-Sep-18	1	SWL	WLMM086	20-Sep-18	2	WL
NLMM023	20-Sep-18	3	WL	WLMM090	20-Sep-18	2	WL
NLMM040	26-Sep-18	1	NWL	WLMM091	20-Sep-18	2	WL
NLMM041	26-Sep-18	1	NWL	WLMM092	20-Sep-18	2	WL
NLMM052	26-Sep-18	4	NWL	WLMM114	19-Sep-18	1	SWL
NLMM058	20-Sep-18	1	WL	WLMM122	20-Sep-18	1	WL
SLMM034	19-Sep-18	1	SWL			4	WL
SLMM045	26-Sep-18	2	NWL	WLMM123	20-Sep-18	4	WL
SLMM049	19-Sep-18	1	SWL	WLMM124	20-Sep-18	6	WL
SLMM060	19-Sep-18	1	SWL	WLMM125	20-Sep-18	6	WL
		2	SWL	WLMM126	20-Sep-18	6	WL
WLMM007	19-Sep-18	1	SWL	WLMM127	21-Sep-18	3	WL
WLMM013	20-Sep-18	1	WL	WLMM128	21-Sep-18	3	WL
		5	WL	WLMM129	21-Sep-18	6	WL

### 6.4.3 Land-based Theodolite Tracking Survey

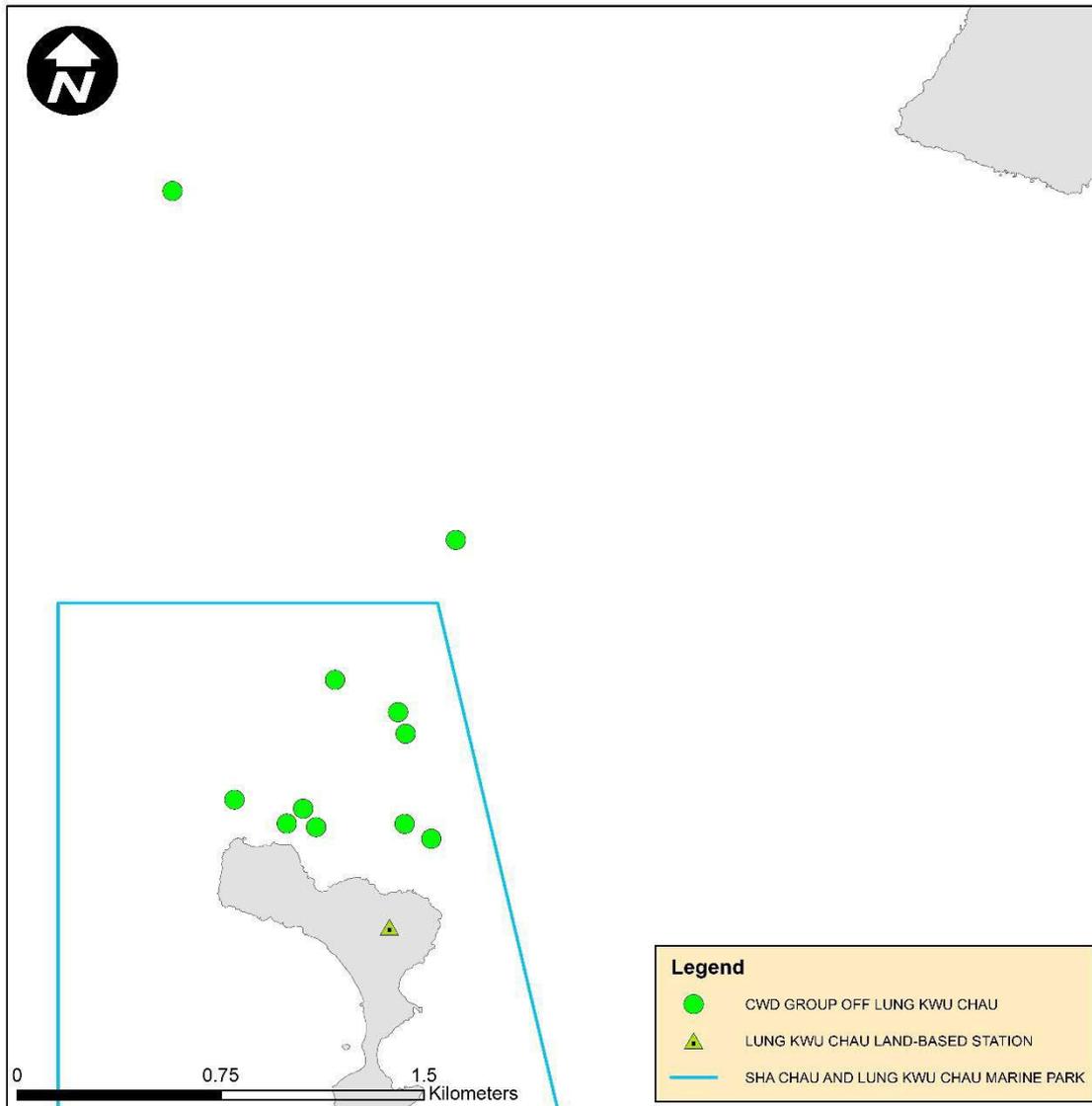
#### **Survey Effort**

Land-based theodolite tracking surveys were conducted at LKC on 4, 14 and 26 September 2018 and at SC on 5 and 18 September 2018, with a total of five days of land-based theodolite tracking survey effort accomplished in this reporting period. A total number of 11 CWD groups were tracked at LKC station during the surveys. Information of survey effort and CWD groups sighted during these land-based theodolite tracking surveys are presented in **Table 6.6**. Details of the survey effort and CWD groups tracked are presented in **Appendix C**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking surveys in September 2018 were depicted in **Figure 6.4**. No CWD group was sighted from SC station in this reporting month.

**Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking**

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau	3	18:00	11	0.61
Sha Chau	2	12:00	0	0
<b>TOTAL</b>	<b>5</b>	<b>30:00</b>	<b>11</b>	<b>0.37</b>

**Figure 6.4: Plots of First Sightings of All CWD Groups obtained from Land-based Stations**



### 6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. In this reporting period, the Ecological Acoustic Recorder (EAR) was retrieved on 4 September 2018 and subsequently redeployed and positioned at south of Sha Chau Island inside the SCLKCMP with 20% duty cycle (**Figure 6.5**). After the EAR unit was retrieved, it was found that no acoustic data had been recorded since the

last deployment on 20 July 2018. The EAR unit was checked for the reason of malfunction, and the connector part to the battery was found faulty. This EAR unit was later repaired by carrying out change of replacement connector. Nevertheless, another EAR unit was deployed and positioned at south of Sha Chau on 5 September 2018. To minimise similar incident of the loss of data collected by PAM as far as practicable, the connector part of each EAR unit will be specifically inspected and changed with replacement connector as needed. The EAR deployment is generally for 6 weeks prior to data retrieval for analysis. As the period of data collection and analysis takes more than four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

## 6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractors for sand blanket laying works, in which dolphin observers were deployed by each contractor in accordance with the MMWP. Teams of at least two dolphin observers were deployed at 12 to 19 dolphin observation stations by the contractors for continuous monitoring of the DEZ by all contractors for ground improvement works (DCM works and PVD installation) and seawall construction in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 647 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. As for DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

Audits of acoustic decoupling measures for construction vessels were carried out during weekly site inspection and the observations are summarised in **Section 7.1**. Audits of SkyPier high speed ferries route diversion and speed control and construction vessel management are presented in **Section 7.2** and **Section 7.3** respectively.

## 6.7 Timing of Reporting CWD Monitoring Results

Detailed analysis of CWD monitoring results collected by small vessel line-transect survey will be provided in future quarterly reports. Detailed analysis of CWD monitoring results collected by land-based theodolite tracking survey and PAM will be provided in future annual reports after a larger sample size of data has been collected.

## 6.8 Summary of CWD Monitoring

Monitoring of CWD was conducted with two complete sets of small vessel line-transect surveys and five days of land-based theodolite tracking survey effort as scheduled. The running quarterly encounter rates STG and ANI in the reporting period did not trigger the Action Level for CWD monitoring.

## 7 Environmental Site Inspection and Audit

### 7.1 Environmental Site Inspection

Site inspections of the construction works were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. The weekly site inspection schedule of the construction works is provided in **Appendix B**. Bi-weekly site inspections were also conducted by the IEC. Besides, *ad-hoc* site inspections were conducted by ET and IEC if environmental problems were identified, or subsequent to receipt of an environmental complaint, or as part of the investigation work. These site inspections provided a direct means to reinforce the specified environmental protection requirements and pollution control measures in construction sites.

During site inspections, environmental situation, status of implementation of pollution control and mitigation measures were observed both within the site area as well as outside the project sites which was likely to be affected, directly or indirectly, by the site activities. Environmental documents and site records, including waste disposal record, maintenance record of environmental equipment, and relevant environmental permit and licences, were also checked on site. Observations were recorded in the site inspection checklist and passed to the contractor together with the appropriate recommended mitigation measures where necessary in order to advise contractors on environmental improvement, awareness and on-site enhancement measures. The observations were made with reference to the following information during the site inspections:

- The EIA and EM&A requirements;
- Relevant environmental protection laws, guidelines, and practice notes;
- The EP conditions and other submissions under the EP;
- Monitoring results of EM&A programme;
- Works progress and programme;
- Proposal of individual works;
- Contract specifications on environmental protection; and
- Previous site inspection results.

Good site practices were observed in site inspections during the reporting period. Advice were given when necessary to ensure the construction workforce were familiar with relevant procedures, and to maintain good environmental performance on site. Regular toolbox talks on environmental issues were organized for the construction workforce by the contractors to ensure understanding and proper implementation of environmental protection and pollution control mitigation measures.

A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix A**.

### 7.2 Audit of SkyPier High Speed Ferries

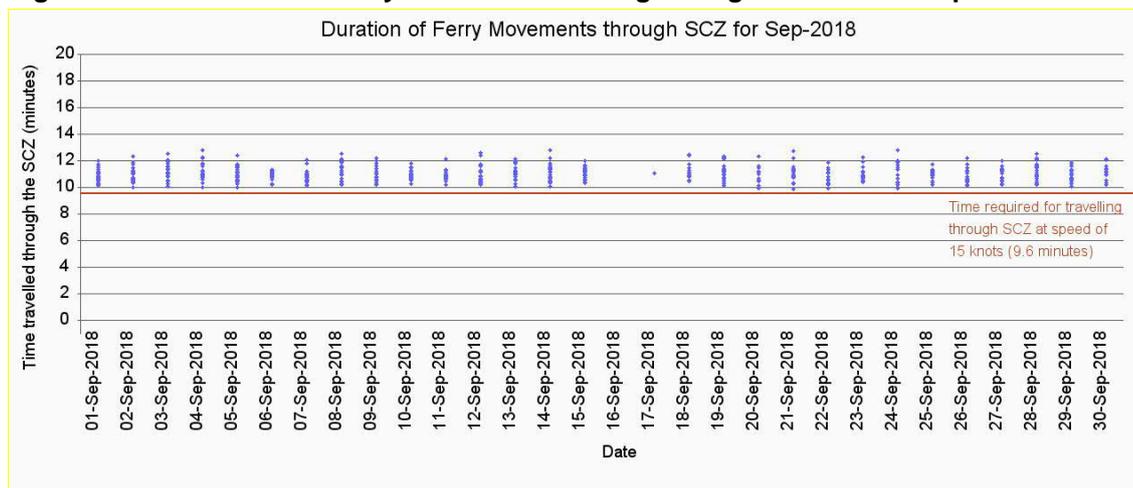
The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) was submitted to the Advisory Council on the Environment for comment and subsequently submitted to and approved by EPD in November 2015 under EP Condition 2.10. The approved SkyPier Plan is available on the dedicated website of the Project. In the SkyPier Plan, AAHK has

committed to implement the mitigation measure of requiring HSFs of SkyPier travelling between HKIA and Zhuhai / Macau to start diverting the route with associated speed control across the area, i.e. Speed Control Zone (SCZ), with high CWD abundance. The route diversion and speed restriction at the SCZ have been implemented since 28 December 2015.

Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and Macau against the requirements of the SkyPier Plan during the reporting period are summarized in **Table 7.1**. The daily movements of all SkyPier HSFs in this reporting period (i.e., 12 to 99 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the annual EM&A Report.

In total, 801 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in September 2018 and the data are presented in **Appendix G**. The time spent by the SkyPier HSFs travelling through the SCZ in September 2018 were presented in **Figure 7.1**. It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowable speed of 15 knots within the SCZ. **Figure 7.1** shows that all of the SkyPier HSFs spent more than 9.6 minutes to travel through the SCZ.

**Figure 7.1: Duration of the SkyPier HSFs travelling through the SCZ for September 2018**



Note: Data above the red line indicated that the time spent by the SkyPier HSFs travelling through the SCZ is more than 9.6 minutes, which is in compliance with the SkyPier Plan.

One ferry was recorded with minor deviation from the diverted route on 10 September 2018. Notice was sent to the ferry operators and the case is under investigation by ET. The investigation results will be presented in the next monthly EM&A report.

As reported in the Construction Phase Monthly EM&A Report No. 32, two ferries were recorded with minor deviation from the diverted route on 2 August 2018, and 22 August 2018. ET’s investigation found that the vessel captains of both cases had to avoid collision with other vessel at the portside for safety reason.

**Table 7.1: Summary of Key Audit Findings against the SkyPier Plan**

Requirements in the SkyPier Plan	1 September to 30 September 2018
Total number of ferry movements recorded and audited	801
Use diverted route and enter / leave SCZ through Gate Access Points	1 deviation

**Requirements in the SkyPier Plan****1 September to 30 September 2018**

Speed control in speed control zone	The average speeds taken within the SCZ by all HSFs were within 15 knots (10.6 knots to 13.8 knots), which complied with the SkyPier Plan. The time used by HSFs to travel through SCZ is presented in <b>Figure 7.1</b> .
Daily Cap (including all SkyPier HSFs)	12 to 99 daily movements (within the maximum daily cap - 125 daily movements).

**7.3 Audit of Construction and Associated Vessels**

The updated Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV) was submitted and approved in November 2016 by EPD under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET carried out the following actions during the reporting period:

- One skipper training session was held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, one skipper was trained by ET and no skipper was trained by contractor's Environmental Officer. In total, 1046 skippers were trained from August 2016 to September 2018.
- The Marine Surveillance System (MSS) automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly MTCC audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

**7.4 Implementation of Dolphin Exclusion Zone**

The DEZ Plan was submitted in accordance with EP Condition 3.1 (v) requirement and Section 10.3 of the Manual, and approved in April 2016 by EPD. The 24-hour DEZs with a 250m radius for marine works were established and implemented by the contractors for ground improvement works (DCM works and PVD installation) and seawall construction according to their Method Statement for DEZ Monitoring that followed the specifications and requirements of the DEZ Plan.

During the reporting period, ET was notified that no dolphin sightings were recorded within the DEZ by the contractors. The ET checked the relevant records by the contractors and conducted competence checking to audit the implementation of DEZ.

**7.5 Terrestrial Ecological Monitoring**

In accordance with the Manual, ecological monitoring shall be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island during the HDD construction works period from August to March to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found. During the reporting period, it was observed

from the monthly ecological monitoring at the HDD daylighting location on Sheung Sha Chau that preparation works for shoreline landscape reinstatement were carried out under the Contract P560(R), and there was no encroachment of any works upon the egret area nor any significant disturbance to the ardeids on the island by the works. No signs of breeding or nursery activities were observed, although adults and juveniles of Black-crowned Night Heron were observed standing on trees at the egret area. At the HDD daylighting location, neither nest nor breeding activity of ardeids were found during the monthly ecological monitoring and weekly site inspections in the reporting period. The site photos and location map regarding the monthly ecological monitoring for the HDD works and egret area are provided in **Appendix C** for reference.

## 7.6 Status of Submissions under Environmental Permits

The current status of submissions under the EP up to the reporting period is presented in **Table 7.2**.

**Table 7.2: Status of Submissions under Environmental Permit**

EP Condition	Submission	Status
2.1	Complaint Management Plan	
2.4	Management Organizations	
2.5	Construction Works Schedule and Location Plans	
2.7	Marine Park Proposal	
2.8	Marine Ecology Conservation Plan	
2.9	Marine Travel Routes and Management Plan for Construction and Associated Vessels	
2.10	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier	
2.11	Marine Mammal Watching Plan	
2.12	Coral Translocation Plan	Accepted / approved by EPD
2.13	Fisheries Management Plan	
2.14	Egret Survey Plan	
2.15	Silt Curtain Deployment Plan	
2.16	Spill Response Plan	
2.17	Detailed Plan on Deep Cement Mixing	
2.19	Waste Management Plan	
2.20	Supplementary Contamination Assessment Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

## 7.7 Compliance with Other Statutory Environmental Requirements

During the reporting period, environmental related licenses and permits required for the construction activities were checked. No non-compliance with environmental statutory requirements was recorded. The environmental licenses and permits which are valid in the reporting period are presented in **Appendix E**.

## 7.8 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions

### 7.8.1 Complaints

A complaint was received on 21 September 2018 relating to exhaust gas and dust emission from a Korean construction vessel. Investigation was conducted by the ET in accordance with the Manual and the Complaint Management Plan of the Project. The anonymous complainant did not provide any specific information (e.g. date, time, location, name of construction vessel) on the case. Site inspections which covered all environmental aspects arising from construction activities in the work site, including air pollution control measures of construction vessels, are routinely undertaken by ET in accordance with the requirements in the EM&A Manual. When air emission problem (e.g. dust, dark smoke) is identified by ET, the responsible contractor will be required to provide immediate rectification. The air quality monitoring data in September was also reviewed, where all monitoring results were within the Action and Limit Levels at all monitoring stations. ET will continue reminding all contractors to conduct on-site training for frontline staff on related environmental issues and regularly maintain and check their construction vessels and equipment. ET will also continue the regular site inspection to ensure contractors' measures are properly implemented. Since there was no further detail for investigation, the complaint case was considered closed.

### 7.8.2 Notifications of Summons or Status of Prosecution

Neither notification of summons nor prosecution was received during the reporting period.

### 7.8.3 Cumulative Statistics

Cumulative statistics on complaints, notifications of summons and status of prosecutions are summarized in **Appendix F**.

## 8 Future Key Issues and Other EIA & EM&A Issues

### 8.1 Construction Programme for the Coming Reporting Period

Key activities anticipated in the next reporting period for the Project will include the following:

#### **Advanced Works:**

##### **Contract P560 (R) Aviation Fuel Pipeline Diversion Works**

- Trench backfilling;
- Shoreline reinstatement next to the new pipe; and
- Stockpiling of excavated materials from previous HDD operation.

#### **DCM Works:**

##### **Contract 3201 to 3203, and 3205 DCM Works**

- DCM works

#### **Reclamation Works:**

##### **Contract 3206 Main Reclamation Works**

- Laying of sand blanket;
- PVD installation;
- Seawall construction;
- Marine filling; and
- DCM works.

#### **Airfield Works:**

##### **Contract 3301 North Runway Crossover Taxiway**

- Cable ducting works;
- Subgrade works;
- Operation of aggregate mixing facility; and
- Precast of duct bank and fabrication of steel works.

#### **Terminal 2 Expansion Works:**

##### **Contract 3501 Antenna Farm and Sewage Pumping Station**

- Excavation works; and
- Pipe installation.

##### **Contract 3502 Terminal 2 Automated People Mover (APM) Depot Modification Works**

- Site clearance;
- Plant mobilization; and
- Cable duct installation.

##### **Contract 3503 Terminal 2 Foundation and Substructure Works**

- Site establishment;
- Drainage, utility, and road work;
- Piling and structure works; and
- Demolition of footbridge.

#### **Contract 3505 Terminal 2 Spectrum Lighting Mock-ups**

- Assembly of lighting mock up.

#### **Automated People Mover (APM) works:**

#### **Contract 3602 Existing APM System Modification Works**

- Site establishment;
- Site office construction; and
- Construction of concrete plinth.

#### **Baggage Handling System (BHS) works:**

#### **Contract 3603 3RS Baggage Handling System**

- Site establishment; and
- BHS modification work at Terminal 1.

#### **Airport Support Infrastructure & Logistic Works:**

#### **Contract 3801 APM and BHS Tunnels on Existing Airport Island**

- Site establishment;
- Diversion of underground utilities;
- Piling and foundation works; and
- Demolition of footbridge.

## **8.2 Key Environmental Issues for the Coming Reporting Period**

The key environmental issues for the Project in the coming reporting period expected to be associated with the construction activities include:

- Generation of dust from construction works and stockpiles;
- Noise from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Water quality from laying of sand blanket, DCM works, and marine filling;
- DEZ monitoring for ground improvement works (DCM works and PVD installation) and seawall construction;
- Implementation of MMWP for silt curtain deployment by the contractors' dolphin observers;
- Terrestrial ecological monitoring on Sheung Sha Chau;
- Sorting, recycling, storage and disposal of general refuse and construction waste;
- Management of chemicals and avoidance of oil spillage on-site; and
- Acoustic decoupling measures for equipment on marine vessels.

The implementation of required mitigation measures by the contractors will be monitored by the ET.

## **8.3 Monitoring Schedule for the Coming Reporting Period**

A tentative schedule of the planned environmental monitoring work in the next reporting period is provided in **Appendix B**.

## 9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included deep cement mixing (DCM) works, marine filling, seawall construction, laying of sand blanket, and prefabricated vertical drain (PVD) installation. Land-side works involved mainly foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS) systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

All the monitoring works for construction dust, construction noise, water quality, construction waste, landscape & visual, terrestrial ecology, and CWD were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, construction waste, and CWD did not trigger the corresponding Action and Limit Levels during the reporting period.

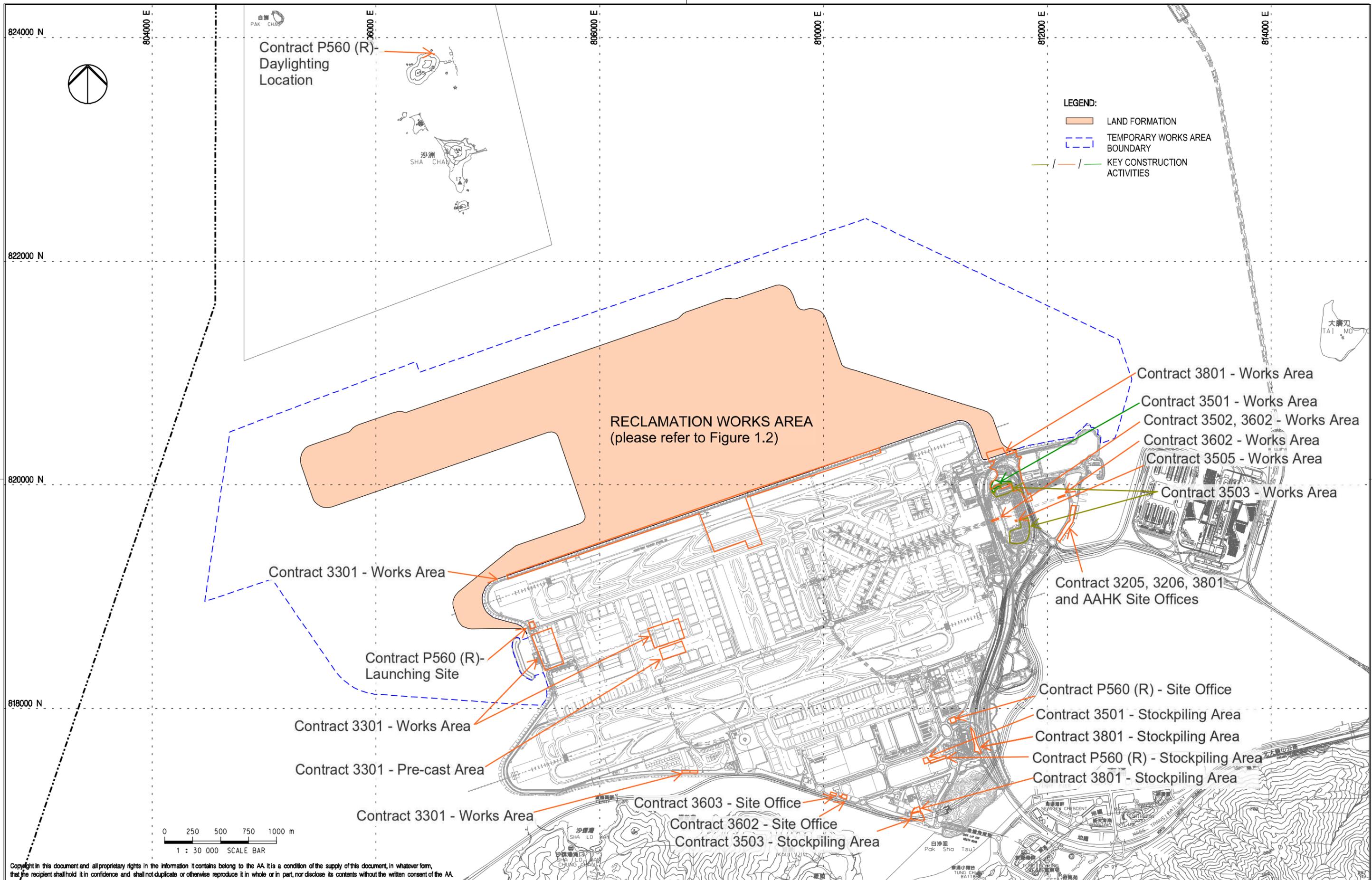
The water quality monitoring results for turbidity, total alkalinity, and chromium obtained during the reporting period complied with the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For DO, SS and nickel, some of the testing results triggered the relevant Action and Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the cases were not related to the Project. To conclude, the construction activities during the reporting period did not introduce adverse impact to all water quality sensitive receivers.

Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection checklists and provided to the contractors to follow up.

On the implementation of the SkyPier Plan, the daily movements of all SkyPier high speed ferries (HSFs) in September 2018 were in the range of 12 to 99 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 801 HSF movements under the SkyPier Plan were recorded in the reporting period. All HSFs had travelled through the SCZ with average speeds under 15 knots (10.6 to 13.8 knots), which were in compliance with the SkyPier Plan. One deviation from the diverted route in September 2018 was recorded in the HSF monitoring. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigations or actions accordingly.

On the implementation of MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone, not travelling through the designated gates. ET conducted checking to ensure the MSS records all deviation cases accurately. Training has been provided for the concerned skippers to facilitate them in familiarising with the requirements of the MTRMP-CAV. Deviations including speeding in the works area, entered no entry zone, and entry from non-designated gates were reviewed by ET. All the concerned captains were reminded by the contractor's MTCC representative to comply with the requirements of the MTRMP-CAV. The ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the

# Figures

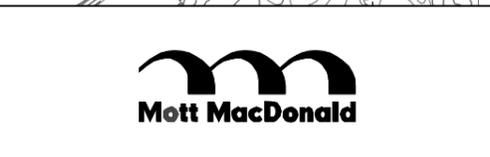


**LEGEND:**

- LAND FORMATION
- TEMPORARY WORKS AREA BOUNDARY
- /  KEY CONSTRUCTION ACTIVITIES

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Rev.	Date	Description	Checked
A	31AUG15	FIRST ISSUE	DC



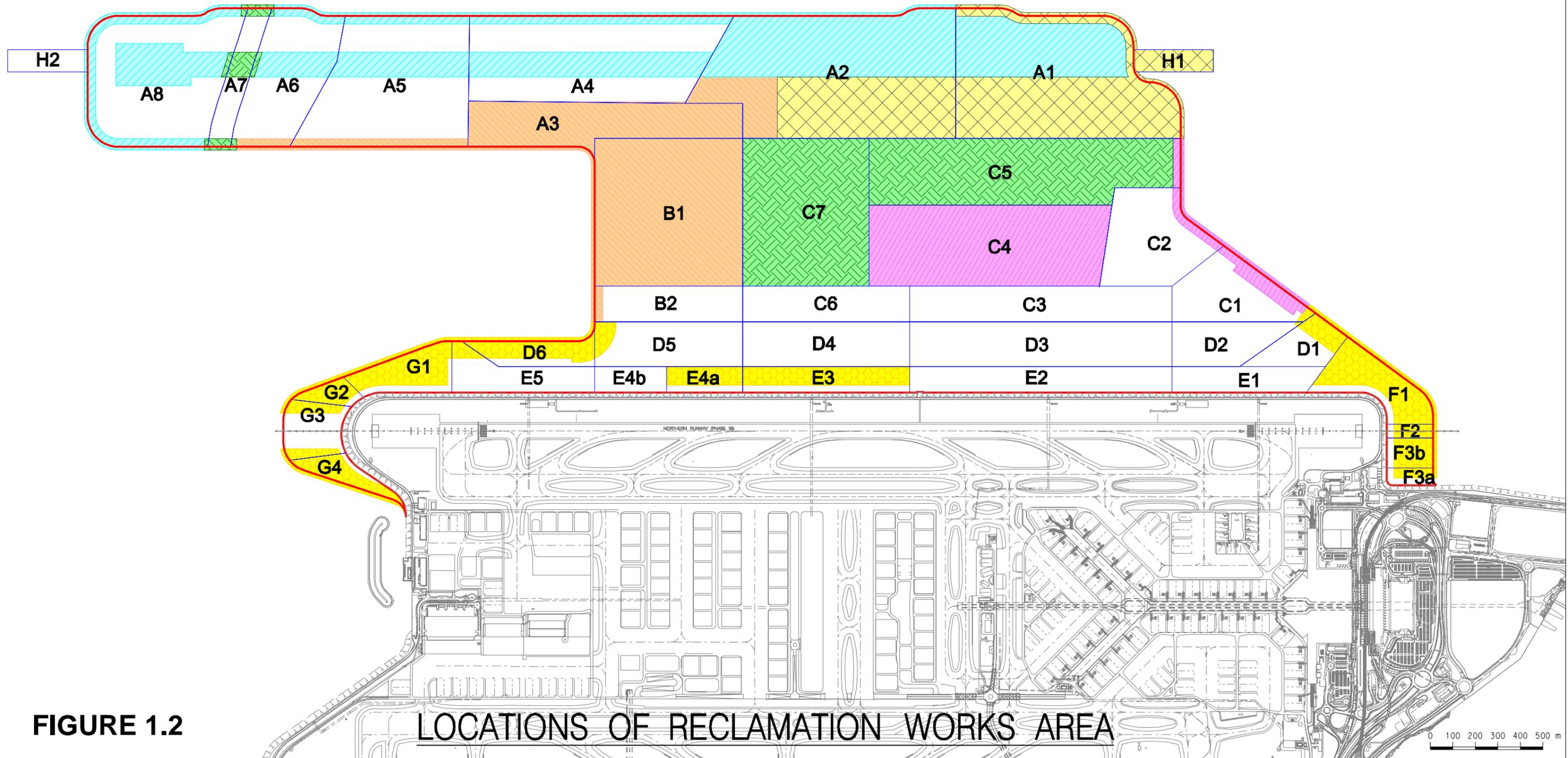
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LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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Design	DC	31AUG15
Checkers	DC	31AUG15
Design Supervisor	EC	31AUG15
Authorised Representative	JFP	31AUG15

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.	<b>FIGURE 1.1</b>	1 : 30000
Rev.	A	



- LEGEND:
- "A1" WORKS AREA
  - CONTRACT 3201
  - CONTRACT 3202
  - CONTRACT 3203
  - CONTRACT 3204
  - CONTRACT 3205
  - CONTRACT 3201 / 3202 / 3203 / 3204
  - CONTRACT 3206





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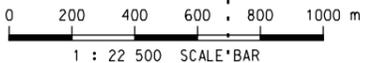
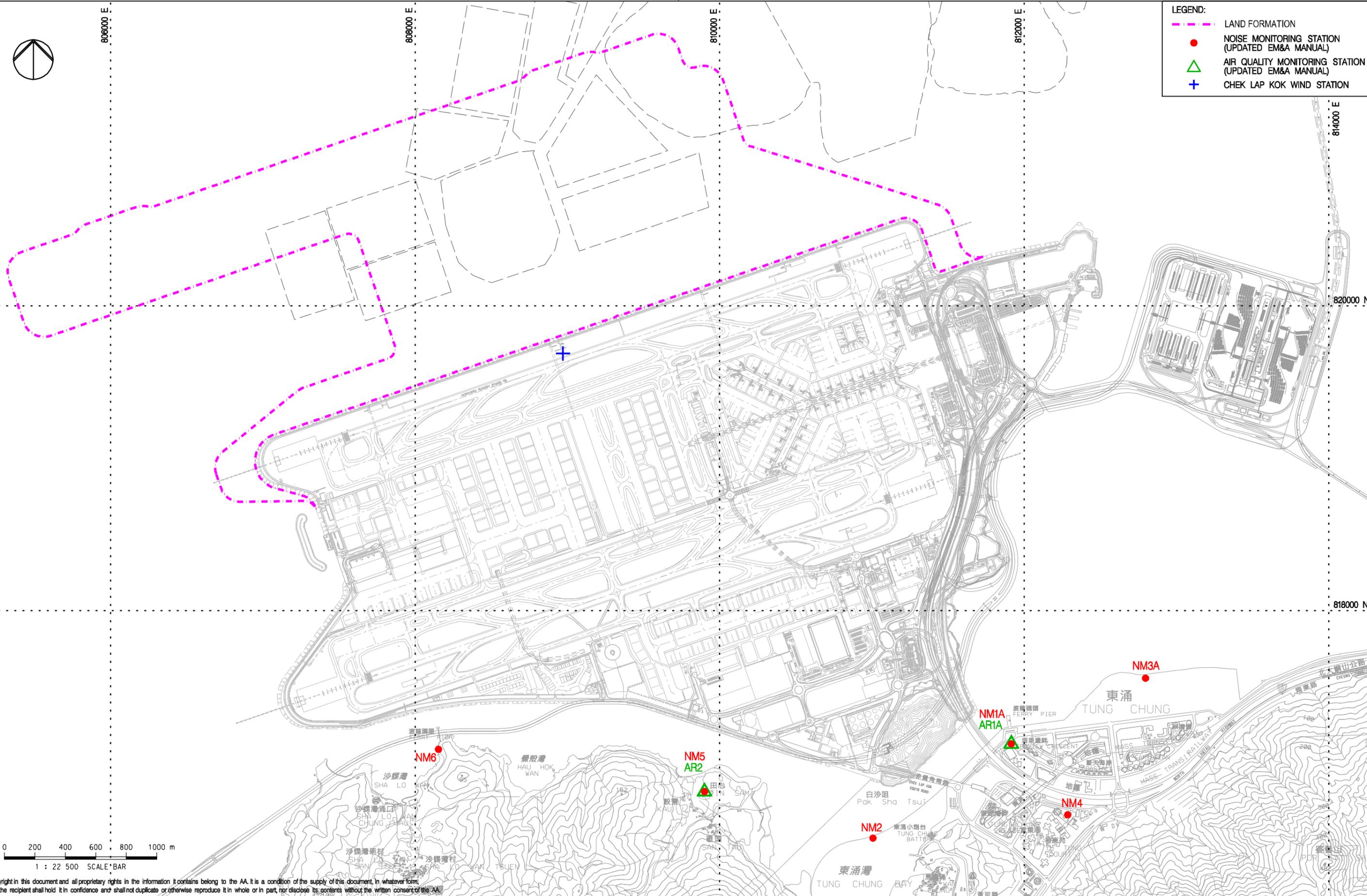
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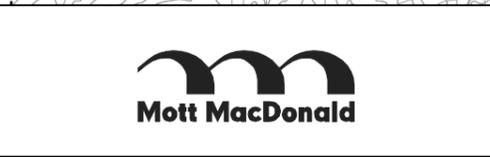
**LEGEND:**

- - - LAND FORMATION
- NOISE MONITORING STATION (UPDATED EM&A MANUAL)
- ▲ AIR QUALITY MONITORING STATION (UPDATED EM&A MANUAL)
- + CHEK LAP KOK WIND STATION



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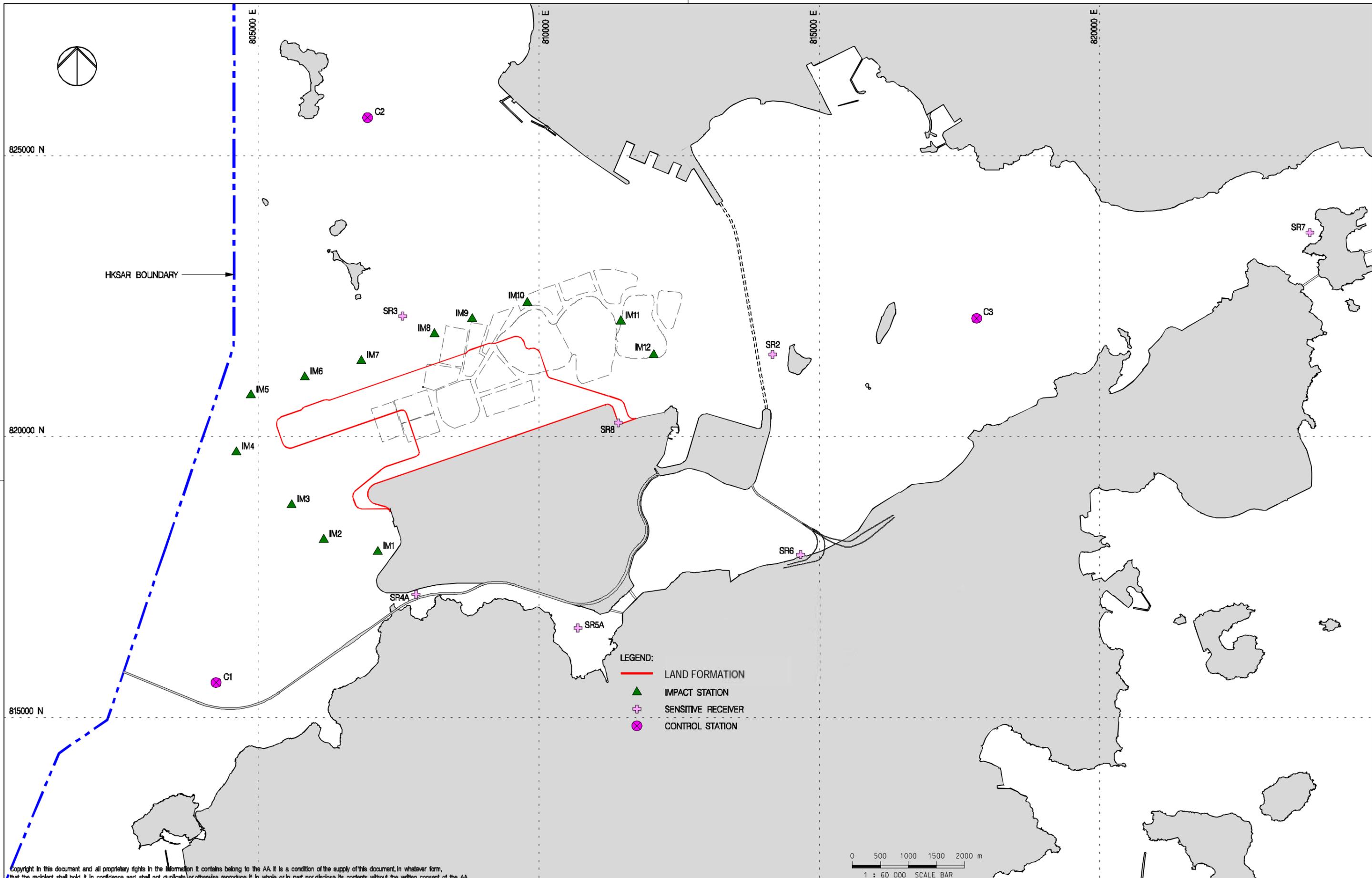
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A	06JAN16	FIRST ISSUE	RO
B	29JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO



Title  
**LOCATIONS OF AIR AND NOISE MONITORING STATIONS AND CHEK LAP KOK WIND STATION**

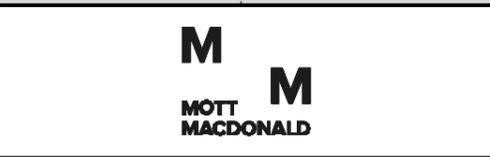
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Approver	EC	11FEB16

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	<b>FIGURE 2.1</b>
Scale at A3	1 : 22500
Rev.	C



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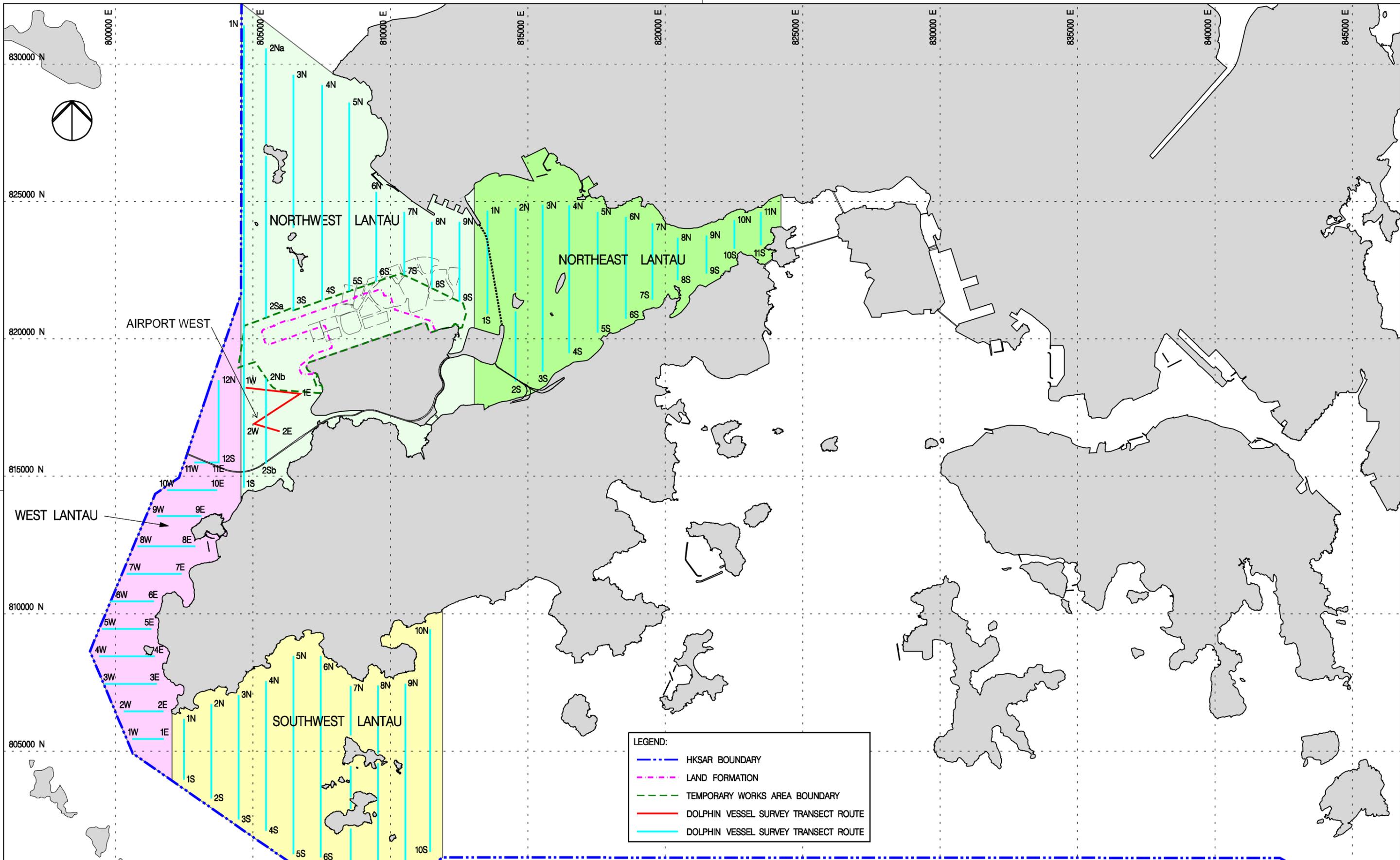
Rev.	Date	Description	Checked
A	25MAY17	FIRST ISSUE	HY
B	07AUG17	GENERAL REVISION	JL
C	25MAY18	GENERAL REVISION	SH



Title  
**WATER QUALITY MONITORING STATIONS**

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Checkers	DC / TK	25MAY18
Approver	EC	25MAY18

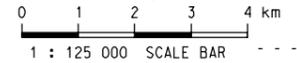
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.	<b>FIGURE 3.1</b>	1 : 60000
Rev.	C	



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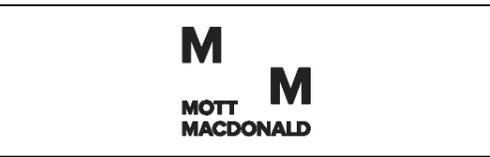
- - - HKSAR BOUNDARY
- - - LAND FORMATION
- - - TEMPORARY WORKS AREA BOUNDARY
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE

Remarks: Transects for operation phase monitoring subject to refinement based on the actual boundaries for the extension of Hong Kong International Airport Approach Areas (HKIAAA) and 3RS Marine Park



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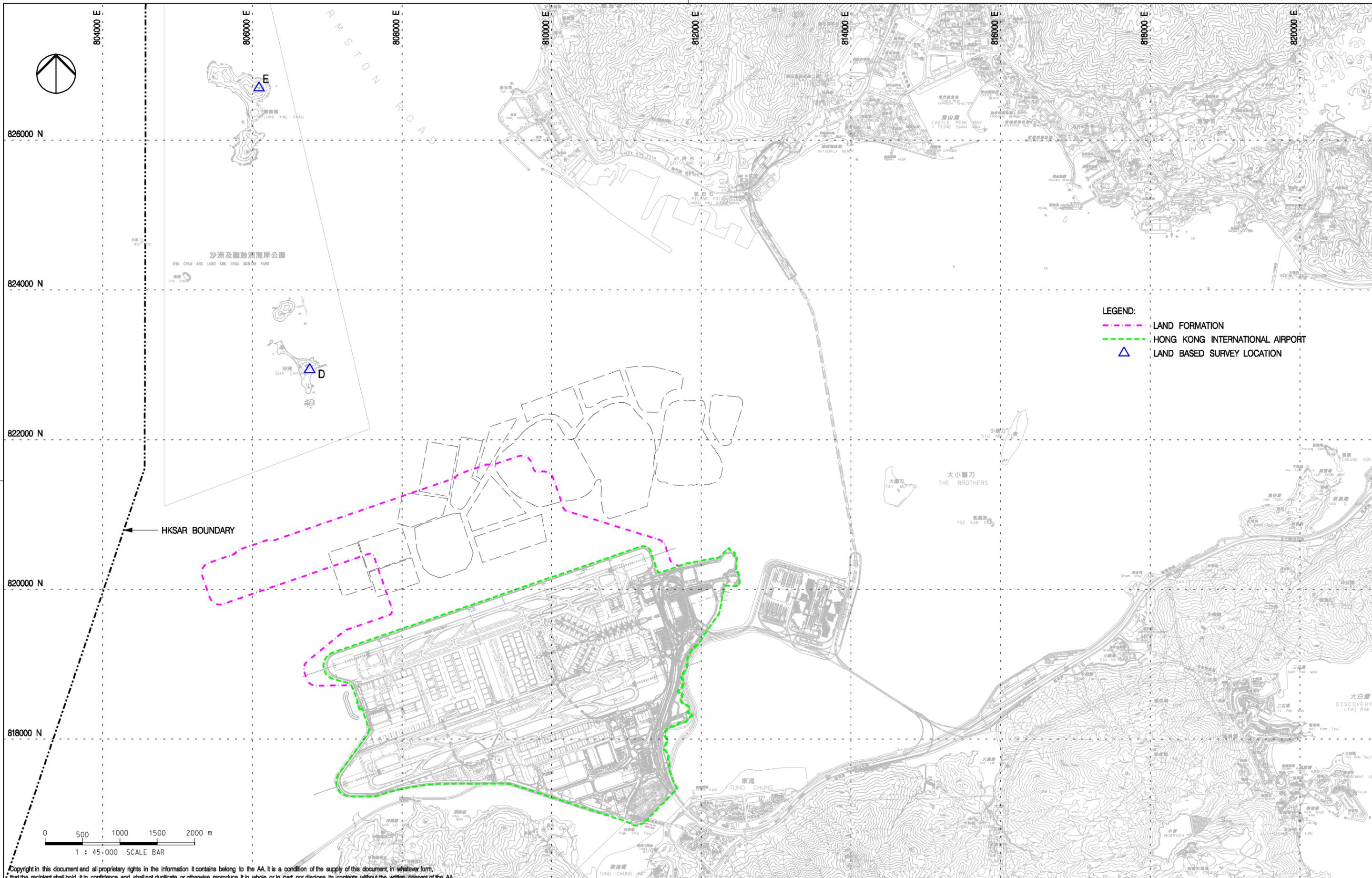
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B	27JUL16	GENERAL REVISION	JT
C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT



Title  
**VESSEL BASED DOLPHIN MONITORING  
 TRANSECTS IN CONSTRUCTION,  
 POST-CONSTRUCTION AND OPERATION PHASES**

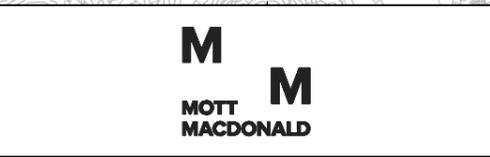
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Checkers	JC / TK	01MAR17
Approver	EC	01MAR17

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	FIGURE 6.1
Scale at A3	1 : 125000
Rev.	D



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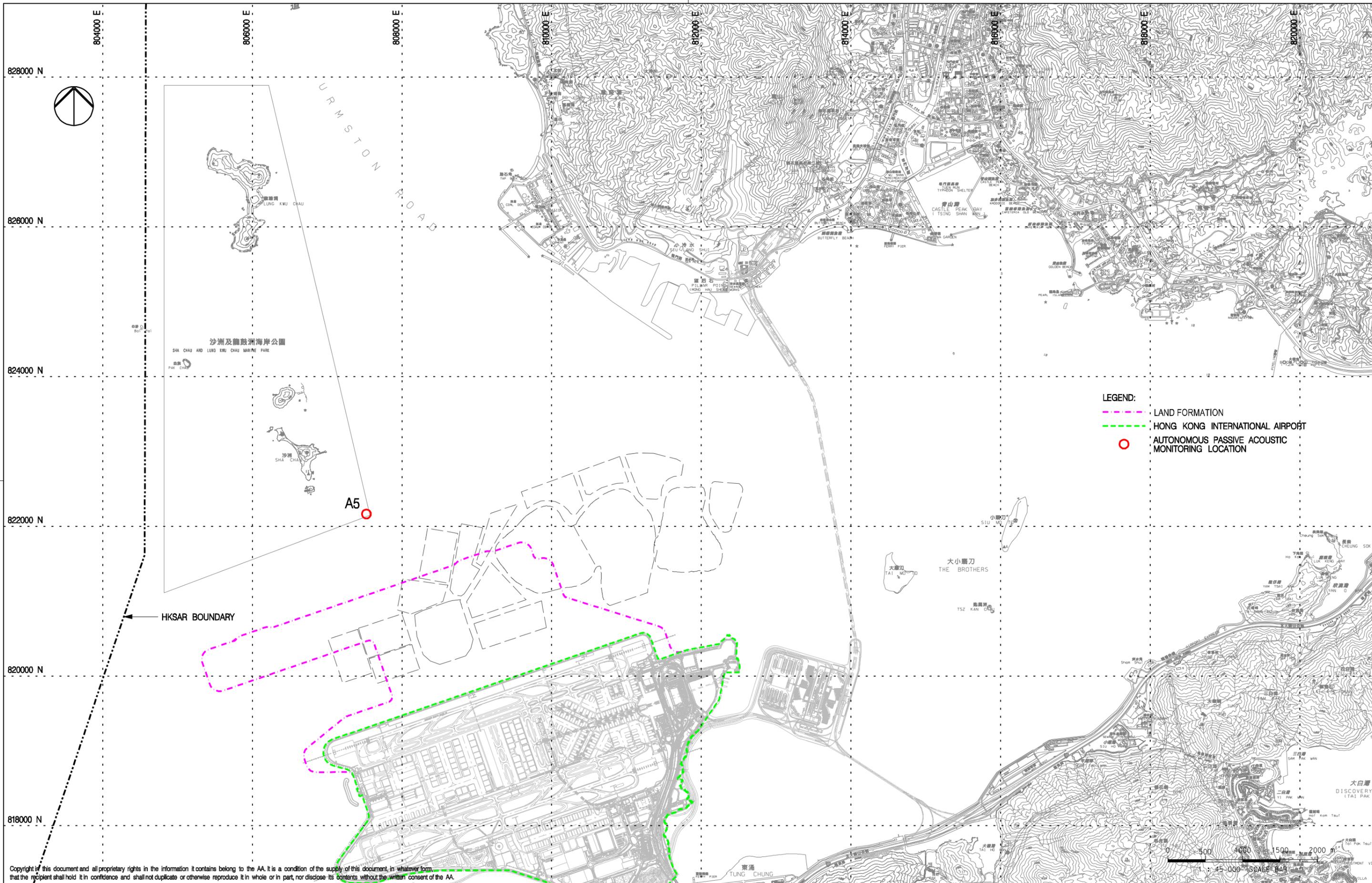
Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	06FEB17	GENERAL REVISION	JC



Title  
**LAND BASED DOLPHIN MONITORING  
 IN BASELINE AND CONSTRUCTION PHASES**

Consultant's Signatures for Approval		Date
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Checkers	JC / TK	06FEB17
Approver	EC	06FEB17

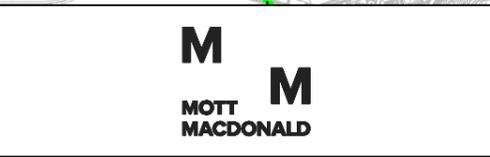
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3 1 : 45000
Drawing No.	FIGURE 6.2	Rev. B



- LEGEND:**
- - - LAND FORMATION
  - - - HONG KONG INTERNATIONAL AIRPORT
  - AUTONOMOUS PASSIVE ACOUSTIC MONITORING LOCATION

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Rev.	Date	Description	Checked
A	29AUG17	FIRST ISSUE	JT



Title  
**LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING**

Consultant's Signatures for Approval		Date
Design	JC	29AUG17
Checkers	JC / TK	29AUG17
Approver	EC	29AUG17

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.	<b>FIGURE 6.5</b>	1 : 45000
Rev.	A	

# **Appendix A. Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase**

# Appendix A Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
<b>Air Quality Impact – Construction Phase</b>					
5.2.6.2	2.1	-	<b>Dust Control Measures</b> <ul style="list-style-type: none"> <li>Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	<ul style="list-style-type: none"> <li>Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.4	2.1	-	Dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted. These practices include: Good Site Management <ul style="list-style-type: none"> <li>Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.</li> </ul>	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads <ul style="list-style-type: none"> <li>Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or</li> <li>Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			Exposed Earth <ul style="list-style-type: none"> <li>Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.</li> </ul>	Within construction site / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>Loading, Unloading or Transfer of Dusty Materials</p> <ul style="list-style-type: none"> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Debris Handling</p> <ul style="list-style-type: none"> <li>Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides; and</li> <li>Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> <li>Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Wheel washing</p> <ul style="list-style-type: none"> <li>Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Use of vehicles</p> <ul style="list-style-type: none"> <li>The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site;</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and</li> <li>Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Site hoarding</p> <ul style="list-style-type: none"> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	<p><b>Best Practices for Concrete Batching Plant</b></p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include:</p> <p>Cement and other dusty materials</p>	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>▪ The loading, unloading, handling, transfer or storage of cement, pulverised fuel ash (PFA) and/or other equally dusty materials shall be carried in a totally enclosed system acceptable to EPD. All dust-laden air or waste gas generated by the process operations shall be properly extracted and vented to fabric filtering system to meet the required emission limit;</li> <li>▪ Cement, PFA and/or other equally dusty materials shall be stored in storage silo fitted with audible high level alarms to warn of over-filling. The high-level alarm indicators shall be interlocked with the material filling line such that in the event of the silo approaching an overfilling condition, an audible alarm will operate, and after 1 minute or less the material filling line will be closed;</li> <li>▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit;</li> <li>▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and</li> <li>▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery.</li> </ul>		
			<p>Other raw materials</p> <ul style="list-style-type: none"> <li>▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions;</li> <li>▪ The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stock piles and material discharge points;</li> <li>▪ All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices;</li> <li>▪ The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals;</li> <li>▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface;</li> <li>▪ Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed;</li> <li>▪ Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used;</li> </ul>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>▪ The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side;</li> <li>▪ Aggregates with a nominal size greater than 5 mm should preferably be stored in a totally enclosed structure. If open stockpiling is used, the stockpile shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; and</li> <li>▪ The opening between the storage bin and weighing scale of the materials shall be fully enclosed.</li> </ul>		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> <li>▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented:                             <ul style="list-style-type: none"> <li>(a) Pre-mixing the materials in a totally enclosed concrete mixer before loading the materials into the concrete truck is recommended. All dust-laden air generated by the pre-mixing process as well as the loading process shall be totally vented to fabric filtering system to meet the required emission limit; and</li> <li>(b) If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit.</li> </ul> </li> <li>▪ The loading bay shall be totally enclosed during the loading process.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Vehicles</p> <ul style="list-style-type: none"> <li>▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and</li> <li>▪ All access and route roads within the premises shall be paved and adequately wetted.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>▪ A high standard of housekeeping shall be maintained. All spillages or deposits of materials on ground, support structures or roofs shall be cleaned up promptly by a cleaning method acceptable to EPD. Any dumping of materials at open area shall be prohibited.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.6	2.1	-	<p><b>Best Practices for Asphaltic Concrete Plant</b></p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Tar and Bitumen Works (Asphaltic Concrete Plant) BPM 15 (94) as well as in the future Specified Process licence should be adopted. These include:</p> <p>Design of Chimney</p> <ul style="list-style-type: none"> <li>▪ The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater;</li> <li>▪ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition;</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>▪ The flue gas exit temperature shall not be less than the acid dew point; and</li> <li>▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected.</li> </ul>		
			<p>Cold feed side</p> <ul style="list-style-type: none"> <li>▪ The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area;</li> <li>▪ Where there is sufficient buffer area surrounding the plant, ground stockpiling may be used. The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side. If these aggregates are stored above the feeding hopper, they shall be enclosed at least on top and three sides and be wetted on the surface to prevent wind-whipping;</li> <li>▪ The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping;</li> <li>▪ Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance;</li> <li>▪ Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and</li> <li>▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures.</li> </ul>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	N/A
			<p>Hot feed side</p> <ul style="list-style-type: none"> <li>▪ The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values;</li> <li>▪ The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value;</li> <li>▪ All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings;</li> <li>▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages;</li> </ul>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and</li> <li>Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units).</li> </ul>		
			<p>Material transportation</p> <ul style="list-style-type: none"> <li>The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions;</li> <li>Roadways from the entrance of the plant to the product loading points and/or any other working areas where there are regular movements of vehicles shall be paved or hard surfaced; and</li> <li>Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Control of emissions from bitumen decanting</p> <ul style="list-style-type: none"> <li>The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note;</li> <li>Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached;</li> <li>Proper chimney for the discharge of bitumen fumes shall be provided at high level;</li> <li>The emission of bitumen fumes shall not exceed the required emission limit; and</li> </ul> <p>The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.</p>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Liquid fuel</p> <ul style="list-style-type: none"> <li>The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.7	2.1	-	<p><b>Best Practices for Rock Crushing Plants</b></p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include:</p>	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>Crushers</p> <ul style="list-style-type: none"> <li>▪ The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter;</li> <li>▪ The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping;</li> <li>▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and</li> <li>▪ Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure.</li> </ul>		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> <li>▪ All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and</li> <li>▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Belt conveyors</p> <ul style="list-style-type: none"> <li>▪ Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides;</li> <li>▪ Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and</li> <li>▪ Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>Storage piles and bins</p> <ul style="list-style-type: none"> <li>Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required.</li> <li>The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable;</li> <li>All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or</li> <li>The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls.</li> <li>Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> <li>Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
<b>Hazard to Human Life – Construction Phase</b>					
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Precautionary measures should be established to request barges to move away during typhoons.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>An appropriate marine traffic management system should be established to minimize risk of ship collision.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Location of all existing hydrant networks should be clearly identified prior to any construction works.</li> </ul>	Construction Site / Construction Period	I
<b>Noise Impact – Construction Phase</b>					
7.5.6	4.3	-	<p><b>Good Site Practice</b></p> <p>Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> <li>only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;</li> <li>machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;</li> <li>mobile plant should be sited as far away from NSRs as possible; and</li> <li>material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>		
7.5.6	4.3	-	<b>Adoption of QPME</b> <ul style="list-style-type: none"> <li>QPME should be adopted as far as applicable.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Movable Noise Barriers</b> <ul style="list-style-type: none"> <li>Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Noise Enclosure/ Acoustic Shed</b> <ul style="list-style-type: none"> <li>Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
<b>Water Quality Impact – Construction Phase</b>					

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.2 and 8.8.1.3	5.1	2.26	<p><b>Marine Construction Activities</b></p> <p><u>General Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> <li>▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</li> <li>▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited;</li> <li>▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved;</li> <li>▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly;</li> <li>▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</li> <li>▪ All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;</li> <li>▪ The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and</li> <li>▪ For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the waste water meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p><u>Specific Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> <li>▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report;</li> <li>▪ A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document;</li> </ul>	Within construction site / Duration of the construction phase	I
			<ul style="list-style-type: none"> <li>▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities;</li> </ul>		I
			<ul style="list-style-type: none"> <li>▪ Closed grab dredger shall be used to excavate marine sediment;</li> <li>▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and</li> </ul>		N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> <li>▪ The Silt Curtain Deployment Plan shall be implemented.</li> </ul>		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p><u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u></p> <ul style="list-style-type: none"> <li>▪ Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains;</li> <li>▪ Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and</li> </ul>	<p>Within construction site / Duration of the construction phase</p>	<p>NA</p> <p>*(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p> <p>For C7a, I</p> <p>For C8, N/A</p> <p>*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> <li>▪ The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		I
			<p><u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u></p> <ul style="list-style-type: none"> <li>▪ Double layer 'Type II' or 'Type III' silt curtains to be applied around the eastern openings between partially completed seawalls prior to commencement of marine filling activities. The silt curtains shall be configured to minimise SS release during ebb tides;</li> <li>▪ Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;</li> </ul>	<p>Within construction site / Duration of the construction phase</p>	<p>I *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p> <p>N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> <li>▪ Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and</li> </ul>		<p>N/A</p> <p>*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> <li>▪ The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p><u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u></p> <ul style="list-style-type: none"> <li>Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping and Sea Ordinance (DASO) permit conditions; and</li> <li>Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.</li> </ul>	Within construction site / Duration of the construction phase	N/A
8.8.1.4	5.1	-	<p><b>Modification of the Existing Seawall</b></p> <ul style="list-style-type: none"> <li>Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works.</li> </ul>	At the existing northern seawall / Duration of the construction phase	N/A
8.8.1.5	5.1	-	<p><b>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</b></p> <ul style="list-style-type: none"> <li>During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations.</li> </ul>	Within construction site / Duration of the construction phase	N/A
8.8.1.6 8.8.1.7	5.1	2.27	<p><b>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</b></p> <p>Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment.</p> <p><u>For construction of the eastern approach lights at the CMPs</u></p> <ul style="list-style-type: none"> <li>Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works;</li> <li>Steel casings shall be installed to enclose the excavation area prior to commencement of excavation;</li> <li>The excavated materials shall be removed using a closed grab within the steel casings;</li> <li>No discharge of the cement mixed materials into the marine environment will be allowed; and</li> <li>Excavated materials shall be treated and reused on-site.</li> </ul>	Within construction site / Duration of the construction phase	N/A
8.8.1.8	5.1	-	<p><b>Construction of Site Runoff and Drainage</b></p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:</p> <ul style="list-style-type: none"> <li>Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site</li> </ul>	Within construction site / Duration of the construction phase	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.12 8.8.1.13	5.1	2.28	<ul style="list-style-type: none"> <li>▪ Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.</li> </ul> <p><b>Drilling Activities for the Submarine Aviation Fuel Pipelines</b></p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> <li>▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau;</li> <li>▪ No bulk storage of chemicals shall be permitted; and</li> <li>▪ A containment pit shall be constructed around the drill holes. This containment pit shall be lined with impermeable lining and bunded on the outside to prevent inflow from off-site areas.</li> </ul>	Within construction site / During construction phase	I
			<p>At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater:</p> <ul style="list-style-type: none"> <li>▪ During pipe cleaning, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meet the WPCO/TM requirements before discharge; and</li> <li>▪ Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.</li> </ul>	Within construction site / During construction phase	I
<b>Waste Management Implication – Construction Phase</b>					
10.5.1.1	7.1	-	<p>Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended:</p> <ul style="list-style-type: none"> <li>▪ The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&amp;D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&amp;D materials;</li> <li>▪ Priority should be given to collect and reuse suitable inert C&amp;D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works;</li> <li>▪ Only non-dredged ground improvement methods should be adopted in order to completely avoid the need for dredging and disposal of marine sediment for the proposed land formation work;</li> <li>▪ Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and</li> </ul>	Project Site Area / During design and construction phase	I    I   I   N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>For the marine sediments expected to be excavated from the piling works of TRC, APM &amp; BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development.</li> </ul>		N/A
10.5.1.1	7.1	-	<p>The following good site practices should be performed during the construction activities include:</p> <ul style="list-style-type: none"> <li>Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;</li> <li>Training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/ similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards;</li> <li>Stockpiles of C&amp;D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust;</li> <li>All dusty materials including C&amp;D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas;</li> <li>C&amp;D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust;</li> <li>The speed of the trucks including dump trucks carrying C&amp;D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and</li> <li>To avoid or minimise dust emission during transport of C&amp;D or waste materials within the site, each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials. Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.3	7.1	-	<p>The following practices should be performed to achieve waste reduction include:</p> <ul style="list-style-type: none"> <li>Use of steel or aluminium formworks and falseworks for temporary works as far as practicable;</li> <li>Adoption of repetitive design to allow reuse of formworks as far as practicable;</li> <li>Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> </ul>	Project Site Area / Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force;</li> <li>Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable;</li> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and</li> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>		
10.5.1.5	7.1		<ul style="list-style-type: none"> <li>Inert and non-inert C&amp;D materials should be handled and stored separately to avoid mixing the two types of materials.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	<ul style="list-style-type: none"> <li>Any recyclable materials should be segregated from the non-inert C&amp;D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.6	7.1	-	<ul style="list-style-type: none"> <li>A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&amp;D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	<ul style="list-style-type: none"> <li>The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.</li> </ul>	Construction Phase	I
10.5.1.16	7.1	-	<p>The following mitigation measures are recommended during excavation and treatment of the sediments:</p> <ul style="list-style-type: none"> <li>On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;</li> <li>The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions;</li> <li>All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;</li> <li>Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;</li> <li>Treated and untreated sediment should be clearly separated and stored separately; and</li> <li>Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge.</li> </ul>	Project Site Area / Construction Phase	N/A
10.5.1.18	7.1	-	<p>The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly</p>	Project Site Area / Construction Phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal:</p> <ul style="list-style-type: none"> <li>Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material;</li> <li>Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by EPD; and</li> <li>Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.</li> </ul>		
10.5.1.19	7.1	-	<p>Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented:</p> <ul style="list-style-type: none"> <li>Good quality containers compatible with the chemical wastes should be used;</li> <li>Incompatible chemicals should be stored separately;</li> <li>Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and</li> <li>The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	<ul style="list-style-type: none"> <li>General refuse should be stored in enclosed bins or compaction units separated from inert C&amp;D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	<ul style="list-style-type: none"> <li>The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.</li> </ul>	Project Site Area / Construction Phase	N/A
<b>Land Contamination – Construction Phase</b>					
11.10.1.2 to 11.10.1.3	8.1	2.32	<p>For areas inaccessible during site reconnaissance survey</p> <ul style="list-style-type: none"> <li>Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.</li> </ul>	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	I
			<ul style="list-style-type: none"> <li>Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas.</li> </ul>		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room.</li> </ul>		I *(CAR for golf course)
			<ul style="list-style-type: none"> <li>Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively.</li> </ul>		N/A
11.8.1.2	8.1	-	<p>If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any):</p> <ul style="list-style-type: none"> <li>To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> <li>Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;</li> <li>Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> <li>The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;</li> <li>Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;</li> <li>Truck bodies and tailgates should be sealed to prevent any discharge;</li> <li>Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;</li> <li>Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit;</li> <li>Strictly observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and</li> <li>Maintain records of waste generation and disposal quantities and disposal arrangements.</li> </ul>	Project Site Area / Construction Phase	N/A
<b>Terrestrial Ecological – Construction Phase</b>					
12.10.1.1	9.2	2.14	<p><b>Pre-construction Egret Survey</b></p> <ul style="list-style-type: none"> <li>Conduct ecological survey for Sha Chau egret to update the latest boundary of the egret.</li> </ul>	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
12.7.2.3 and 12.7.2.6	9.1	2.30	<b>Avoidance and Minimisation of Direct Impact to Egret</b> <ul style="list-style-type: none"> <li>The daylighting location will avoid direct encroachment to the Sheung Sha Chau egret. The daylighting location and mooring of flat top barge, if required, will be kept away from the egret;</li> <li>In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and</li> <li>The containment pit at the daylighting location shall be covered or camouflaged.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.7.2.5	9.1	2.30	<b>Preservation of Nesting Vegetation</b> <ul style="list-style-type: none"> <li>The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.7.2.4 and 12.7.2.6	9.1	2.30	<b>Timing the Pipe Connection Works outside Ardeid's Breeding Season</b> <ul style="list-style-type: none"> <li>All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.10.1.1	9.3	-	<b>Ecological Monitoring</b> <ul style="list-style-type: none"> <li>During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found.</li> </ul>	at Sheung Sha Chau Island	
<b>Marine Ecological Impact – Pre-construction Phase</b>					
13.11.4.1	10.2.2	-	<ul style="list-style-type: none"> <li>Pre-construction phase Coral Dive Survey.</li> </ul>	HKIAAA artificial seawall	
<b>Marine Ecological Impact – Construction Phase</b>					
13.11.1.3 to 13.11.1.6	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	
13.11.1.7 to 13.11.1.10	-	2.31	<b>Use of Construction Methods with Minimal Risk/Disturbance</b> <ul style="list-style-type: none"> <li>Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> <li>Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment;</li> </ul>	During construction phase at marine works area	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;</li> </ul>		N/A
			<ul style="list-style-type: none"> <li>Avoid bored piling during CWD peak calving season (Mar to Jun);</li> </ul>		I
			<ul style="list-style-type: none"> <li>Prohibition of underwater percussive piling; and</li> </ul>		I
			<ul style="list-style-type: none"> <li>Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.</li> </ul>		I
13.11.2.1 to 13.11.2.7	-	-	<p><b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b></p> <ul style="list-style-type: none"> <li>Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> <li>Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> </ul> <p>Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.</p>	All works area during the construction phase	I
					I
					N/A
					I
13.11.1.12	-	-	<p><b>Strict Enforcement of No-Dumping Policy</b></p> <ul style="list-style-type: none"> <li>A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>	All works area during the construction phase	I
13.11.1.13	-	-	<p><b>Good Construction Site Practices</b></p> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> <li>Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.</li> </ul>	All works area during the construction phase	I
13.11.1.3 to 13.11.1.6	-	-	<p><b>Minimisation of Land Formation Area</b></p> <ul style="list-style-type: none"> <li>Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.</li> </ul>	Land formation footprint / during detailed design phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.5.4 to 13.11.5.13	10.3.1	-	<p><b>SkyPier High Speed Ferries' Speed Restrictions and Route Diversions</b></p> <ul style="list-style-type: none"> <li>SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in <b>Drawing No. MCL/P132/EIA/13-023</b> of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&amp;A data and taking reference to changes in total SkyPier HSF numbers; and</li> <li>A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.</li> </ul> <p><b>Other mitigation measures</b></p> <ul style="list-style-type: none"> <li>The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and</li> <li>The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.</li> </ul>	<p>to completion of construction</p> <p>Area between the footprint and SCLKC Marine Park during construction phase</p> <p>Area between the footprint and SCLKC Marine Park during construction phase</p>	<p> </p> <p> </p>
13.11.5.14 to 13.11.5.18	10.3.1	2.31	<p><b>Dolphin Exclusion Zone</b></p> <ul style="list-style-type: none"> <li>Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;</li> <li>A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and</li> <li>A DEZ would also be implemented during bored piling work but as a precautionary measure only.</li> </ul>	<p>Marine waters around land formation works area during construction phase</p>	<p> </p> <p> </p> <p>N/A</p>
13.11.5.19	10.4	2.31	<p><b>Acoustic Decoupling of Construction Equipment</b></p> <ul style="list-style-type: none"> <li>Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and</li> <li>Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.</li> </ul>	<p>Around coastal works area during construction phase</p>	<p> </p>
13.11.5.20	10.6.1	2.29	<p><b>Spill Response Plan</b></p> <ul style="list-style-type: none"> <li>An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage.</li> </ul>	<p>Construction phase</p>	<p> </p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.5.21 to 13.11.5.23	10.6.1	-	<b>Construction Vessel Speed Limits and Skipper Training</b> <ul style="list-style-type: none"> <li>A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and</li> <li>Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing.</li> </ul>	All areas north and west of Lantau Island during construction phase	I
<b>Fisheries Impact – Construction Phase</b>					
14.9.1.2 to 14.9.1.5	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	I
14.9.1.6	-	-	<b>Use of Construction Methods with Minimal Risk/Disturbance</b> <ul style="list-style-type: none"> <li>Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> <li>Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on fisheries and the marine environment;</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> <li>Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.</li> </ul>	During construction phase at marine works area	I  I  N/A  I
14.9.1.11	-	-	<b>Strict Enforcement of No-Dumping Policy</b> <ul style="list-style-type: none"> <li>A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>	All works area during the construction phase	I
14.9.1.12	-	-	<b>Good Construction Site Practices</b> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> </ul>	All works area during the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
14.9.1.13 to 14.9.1.18	-		<ul style="list-style-type: none"> <li>▪ Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.</li> </ul> <p><b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b></p> <ul style="list-style-type: none"> <li>▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> <li>▪ Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);</li> <li>▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> <li>▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.</li> </ul>	All works area during the construction phase	
<b>Landscape and Visual Impact – Construction Phase</b>					
Table 15.6	12.3	-	<b>CM1</b> - The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works; Upon handover and completion of works.	
Table 15.6	12.3	-	<b>CM2</b> - Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	
Table 15.6	12.3	-	<b>CM3</b> - Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works; Upon handover and completion of works.	
Table 15.6	12.3	-	<b>CM4</b> - Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works; Upon handover and completion of works.	
Table 15.6	12.3	-	<b>CM5</b> - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works.	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				may be disassembled in phases	
Table 15.6	12.3	-	<b>CM6</b> - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and completion of works.	N/A
Table 15.6	12.3	-	<b>CM7</b> - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	I
Table 15.6	12.3	-	<b>CM8</b> - All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	All existing trees to be retained; Upon handover and completion of works.	I
Table 15.6	12.3	-	<b>CM9</b> - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	I
Table 15.6	12.3	-	<b>CM10</b> - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works; Upon handover and completion of works.	N/A
<b>Cultural Heritage Impact – Construction Phase</b>					
Not applicable.					

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
<b>Health Impact – Aircraft Emissions</b>					
Not applicable.					
<b>Health Impact – Aircraft Noise</b>					
Not applicable.					

Notes:

I= implemented where applicable;

N/A= not applicable to the construction works implemented during the reporting month.

^ Checked by ET through site inspection and record provided by the Contractor.

## **Appendix B. Monitoring Schedule**

# **Monitoring Schedule of This Reporting Period**

# Sep-18

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						<b>1</b>  WQ General & Regular DCM mid-ebb: 16:29 mid-flood: 10:34
<b>2</b>	<b>3</b>	<b>4</b> Site Inspection CWD Survey (Land-based)  NM6  WQ General & Regular DCM mid-ebb: 7:21 mid-flood: 14:59	<b>5</b> Site Inspection CWD Survey (Land-based)	<b>6</b> Site Inspection  AR1A, AR2 NM1A, NM4, NM5  WQ General & Regular DCM mid-ebb: 9:58 mid-flood: 17:25	<b>7</b> Site Inspection CWD Survey (Vessel)	<b>8</b>  WQ General & Regular DCM mid-ebb: 11:51 mid-flood: 18:50
<b>9</b>	<b>10</b> Site Inspection CWD Survey (Vessel)  NM6	<b>11</b> Site Inspection  WQ General & Regular DCM mid-ebb: 14:09 mid-flood: 7:38	<b>12</b> Site Inspection  AR1A, AR2 NM1A, NM4, NM5	<b>13</b> Site Inspection  WQ General & Regular DCM mid-ebb: 15:29 mid-flood: 9:16	<b>14</b> Site Inspection CWD Survey (Vessel, Land-based)	<b>15</b>  WQ General & Regular DCM mid-ebb: 16:52* mid-flood: 11:07
<b>16</b>	<b>17</b>	<b>18</b> Site Inspection CWD Survey (Vessel, Land-based) AR1A, AR2 NM4, NM5  WQ General & Regular DCM mid-ebb: 7:36 mid-flood: 20:16	<b>19</b> Site Inspection CWD Survey (Vessel)	<b>20</b> Site Inspection CWD Survey (Vessel)  NM1A, NM6  WQ General & Regular DCM mid-ebb: 10:01 mid-flood: 17:41	<b>21</b> Site Inspection CWD Survey (Vessel)	<b>22</b>  WQ General & Regular DCM mid-ebb: 11:29 mid-flood: 18:30
<b>23</b>	<b>24</b> Site Inspection  AR1A, AR2 NM1A, NM4, NM5	<b>25</b>  WQ General & Regular DCM mid-ebb: 13:10 mid-flood: 19:33	<b>26</b> Site Inspection CWD Survey (Vessel, Land-based)  NM6	<b>27</b> Site Inspection  Ecological Monitoring WQ General & Regular DCM mid-ebb: 14:15 mid-flood: 20:17	<b>28</b> Site Inspection  AR1A, AR2	<b>29</b>  WQ General & Regular DCM mid-ebb: 15:29 mid-flood: 9:40
<b>30</b>		<b>Notes:</b>  CWD - Chinese White Dolphin  Air quality and Noise Monitoring Station  WQ - Water Quality DCM - Deep Cement Mixing *Ebb tide WQ monitoring session on 15 September was cancelled due to typhoon.				

# **Tentative Monitoring Schedule of Next Reporting Period**

# Oct-18

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b>	<b>2</b> Site Inspection  NM6  WQ General & Regular DCM mid-ebb: 18:23 mid-flood: 13:19	<b>3</b> Site Inspection	<b>4</b> Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5  WQ General & Regular DCM mid-ebb: 8:17 mid-flood: 16:16	<b>5</b> Site Inspection CWD Survey (Vessel, Land-based)	<b>6</b>   WQ General & Regular DCM mid-ebb: 10:42 mid-flood: 17:43
<b>7</b>	<b>8</b> CWD Survey (Vessel, Land-based)  NM6	<b>9</b> Site Inspection CWD Survey (Vessel)  WQ General & Regular DCM mid-ebb: 13:05 mid-flood: 6:47	<b>10</b> Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5	<b>11</b> Site Inspection  Ecological Monitoring WQ General & Regular DCM mid-ebb: 14:25 mid-flood: 8:24	<b>12</b> Site Inspection	<b>13</b>   WQ General & Regular DCM mid-ebb: 15:44 mid-flood: 10:03
<b>14</b>	<b>15</b> CWD Survey (Land-based) AR1A, AR2 NM1A, NM4, NM5	<b>16</b> Site Inspection CWD Survey (Vessel)  WQ General & Regular DCM mid-ebb: 5:24 mid-flood: 17:49	<b>17</b>	<b>18</b> Site Inspection  NM6  WQ General & Regular DCM mid-ebb: 7:47 mid-flood: 16:25	<b>19</b> Site Inspection  AR1A, AR2	<b>20</b>   WQ General & Regular DCM mid-ebb: 10:02 mid-flood: 17:19
<b>21</b>	<b>22</b> CWD Survey (Vessel, Land-based)	<b>23</b> Site Inspection CWD Survey (Vessel, Land-based)  NM6  WQ General & Regular DCM mid-ebb: 12:02 mid-flood: 5:57	<b>24</b> Site Inspection	<b>25</b> Site Inspection  AR1A, AR2 NM1A, NM4, NM5  WQ General & Regular DCM mid-ebb: 13:14 mid-flood: 7:21	<b>26</b> Site Inspection	<b>27</b>   WQ General & Regular DCM mid-ebb: 14:33 mid-flood: 8:51
<b>28</b>	<b>29</b>   NM6	<b>30</b> Site Inspection  WQ General & Regular DCM mid-ebb: 17:05 mid-flood: 11:55	<b>31</b> Site Inspection  AR1A, AR2 NM1A, NM4, NM5			
<p><b>Notes:</b></p> <p>CWD - Chinese White Dolphin</p> <p>Air quality and Noise Monitoring Station</p> <p>WQ - Water Quality DCM - Deep Cement Mixing</p> <p>NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan</p>						

## **Appendix C. Monitoring Results**

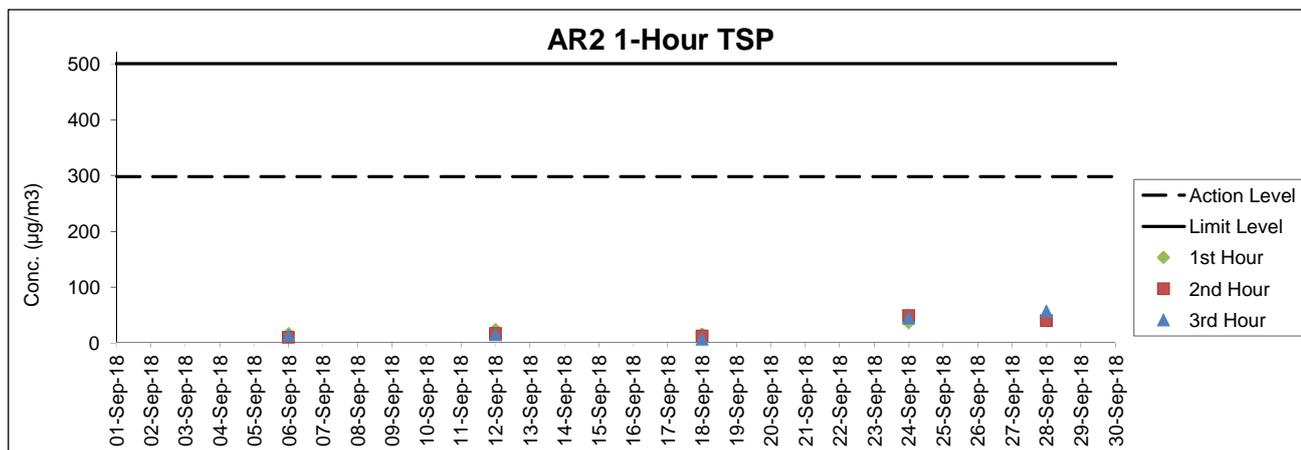
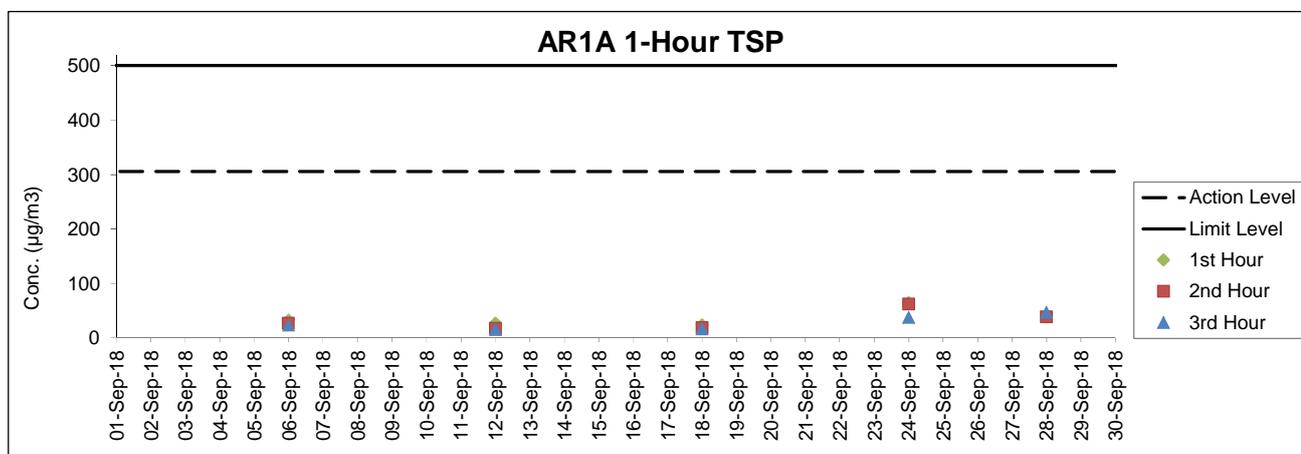
# **Air Quality Monitoring Results**

**1-hour TSP Results**  
**Station: AR1A - Man Tung Road Park**

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
06-Sep-18	8:57	Sunny	2.9	61	33	306	500
06-Sep-18	9:57	Sunny	2.8	35	27	306	500
06-Sep-18	10:57	Sunny	3.5	26	23	306	500
12-Sep-18	9:00	Fine	5.1	32	27	306	500
12-Sep-18	10:00	Fine	5.2	30	17	306	500
12-Sep-18	11:00	Fine	5.6	58	15	306	500
18-Sep-18	9:08	Sunny	7.1	116	24	306	500
18-Sep-18	10:08	Sunny	8.7	114	19	306	500
18-Sep-18	11:08	Sunny	6.6	101	16	306	500
24-Sep-18	08:54	Rainy	6.2	305	65	306	500
24-Sep-18	9:54	Rainy	3.5	222	62	306	500
24-Sep-18	10:54	Rainy	1.3	252	37	306	500
28-Sep-18	9:05	Sunny	3.9	21	41	306	500
28-Sep-18	10:05	Sunny	4.8	354	38	306	500
28-Sep-18	11:05	Sunny	3.8	324	47	306	500

**1-hour TSP Results**  
**Station: AR2 - Village House, Tin Sum**

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
06-Sep-18	9:00	Sunny	3.3	63	17	298	500
06-Sep-18	10:00	Sunny	3.2	45	10	298	500
06-Sep-18	11:00	Sunny	4.1	27	13	298	500
12-Sep-18	8:57	Fine	5.1	32	24	298	500
12-Sep-18	9:57	Fine	5.4	28	17	298	500
12-Sep-18	10:57	Fine	5.5	58	14	298	500
18-Sep-18	8:54	Sunny	7.3	118	16	298	500
18-Sep-18	9:54	Sunny	8.0	118	12	298	500
18-Sep-18	10:54	Sunny	6.9	116	7	298	500
24-Sep-18	8:48	Rainy	6.8	304	36	298	500
24-Sep-18	9:48	Rainy	4.6	227	49	298	500
24-Sep-18	10:48	Cloudy	1.3	252	44	298	500
28-Sep-18	8:55	Fine	3.7	18	44	298	500
28-Sep-18	9:55	Fine	5.1	7	40	298	500
28-Sep-18	10:55	Fine	3.7	328	57	298	500



# Noise Monitoring Results

### Noise Measurement Results

#### Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
06-Sep-18	Sunny	9:12	73.0	55.0	71
06-Sep-18	Sunny	9:17	73.0	56.5	
06-Sep-18	Sunny	9:22	69.5	55.5	
06-Sep-18	Sunny	9:27	69.5	54.0	
06-Sep-18	Sunny	9:32	74.0	56.5	
06-Sep-18	Sunny	9:37	71.5	56.0	
12-Sep-18	Fine	9:20	65.5	57.0	65
12-Sep-18	Fine	9:25	64.0	55.0	
12-Sep-18	Fine	9:30	64.5	56.0	
12-Sep-18	Fine	9:35	64.5	55.0	
12-Sep-18	Fine	9:40	65.0	55.5	
12-Sep-18	Fine	9:45	63.5	55.0	
20-Sep-18	Sunny	11:20	74.5	58.0	72
20-Sep-18	Sunny	11:25	70.5	53.0	
20-Sep-18	Sunny	11:30	72.0	53.0	
20-Sep-18	Sunny	11:35	73.5	54.0	
20-Sep-18	Sunny	11:40	71.0	53.0	
20-Sep-18	Sunny	11:45	69.5	52.5	
24-Sep-18	Fine	13:35	72.0	55.0	73
24-Sep-18	Fine	13:40	74.5	55.5	
24-Sep-18	Fine	13:45	74.0	56.0	
24-Sep-18	Fine	13:50	73.5	55.5	
24-Sep-18	Fine	13:55	72.0	54.0	
24-Sep-18	Fine	14:00	72.5	54.0	

Remarks:

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

### Noise Measurement Results

#### Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
06-Sep-18	Sunny	14:14	62.0	58.5	64
06-Sep-18	Sunny	14:19	64.0	60.5	
06-Sep-18	Sunny	14:24	62.5	58.5	
06-Sep-18	Sunny	14:29	62.5	58.5	
06-Sep-18	Sunny	14:34	63.0	58.5	
06-Sep-18	Sunny	14:39	63.5	58.5	
12-Sep-18	Cloudy	14:34	64.0	60.5	65
12-Sep-18	Cloudy	14:39	63.5	60.0	
12-Sep-18	Cloudy	14:44	63.5	60.0	
12-Sep-18	Cloudy	14:49	64.0	60.5	
12-Sep-18	Cloudy	14:54	64.5	60.0	
12-Sep-18	Cloudy	14:59	65.0	60.5	
18-Sep-18	Sunny	13:43	62.0	58.5	64
18-Sep-18	Sunny	13:48	63.0	59.5	
18-Sep-18	Sunny	13:53	62.5	58.0	
18-Sep-18	Sunny	13:58	62.0	58.5	
18-Sep-18	Sunny	14:03	62.0	59.0	
18-Sep-18	Sunny	14:08	62.5	58.5	
24-Sep-18	Fine	14:44	63.0	59.0	66
24-Sep-18	Fine	14:49	63.5	59.0	
24-Sep-18	Fine	14:54	70.5	59.5	
24-Sep-18	Fine	14:59	63.5	59.5	
24-Sep-18	Fine	15:04	64.0	60.0	
24-Sep-18	Fine	15:09	63.0	59.0	

Remarks:

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

### Noise Measurement Results

#### Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
06-Sep-18	Sunny	8:59	56.0	45.0	56
06-Sep-18	Sunny	9:04	57.0	43.5	
06-Sep-18	Sunny	9:09	50.5	44.0	
06-Sep-18	Sunny	9:14	51.0	44.5	
06-Sep-18	Sunny	9:19	50.0	43.5	
06-Sep-18	Sunny	9:24	50.0	44.0	
12-Sep-18	Fine	9:00	61.5	50.5	57
12-Sep-18	Fine	9:05	60.0	51.0	
12-Sep-18	Fine	9:10	61.0	51.5	
12-Sep-18	Fine	9:15	56.0	49.0	
12-Sep-18	Fine	9:20	56.5	49.5	
12-Sep-18	Fine	9:25	64.0	51.0	
18-Sep-18	Sunny	8:57	56.0	46.5	58
18-Sep-18	Sunny	9:02	61.5	49.0	
18-Sep-18	Sunny	9:07	56.0	47.0	
18-Sep-18	Sunny	9:12	51.5	46.5	
18-Sep-18	Sunny	9:17	55.5	46.5	
18-Sep-18	Sunny	9:22	52.0	46.0	
24-Sep-18	Cloudy	11:06	51.5	46.0	54
24-Sep-18	Cloudy	11:11	51.5	45.5	
24-Sep-18	Cloudy	11:16	49.5	45.5	
24-Sep-18	Cloudy	11:21	50.5	46.0	
24-Sep-18	Cloudy	11:26	49.5	44.5	
24-Sep-18	Cloudy	11:31	52.0	46.0	

Remarks:

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

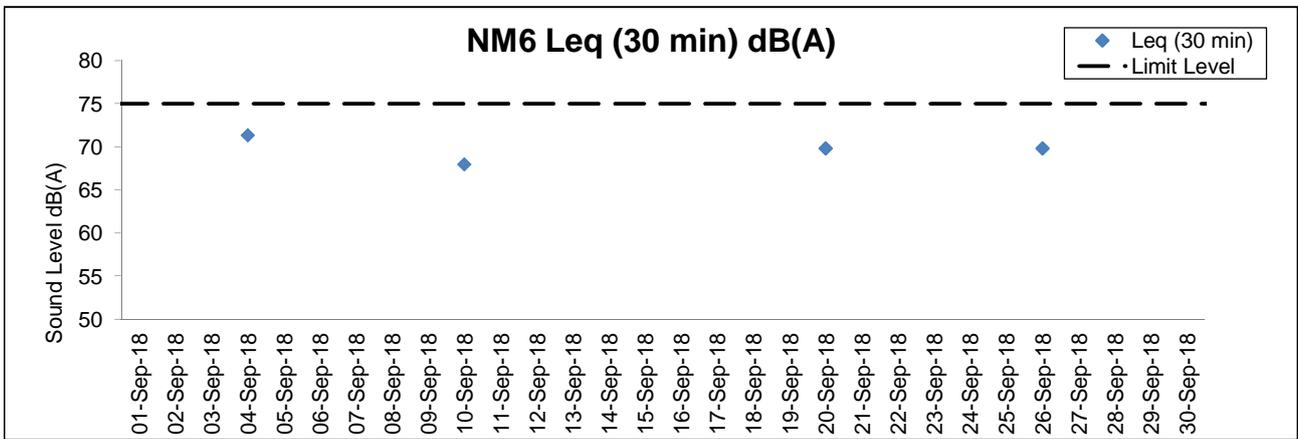
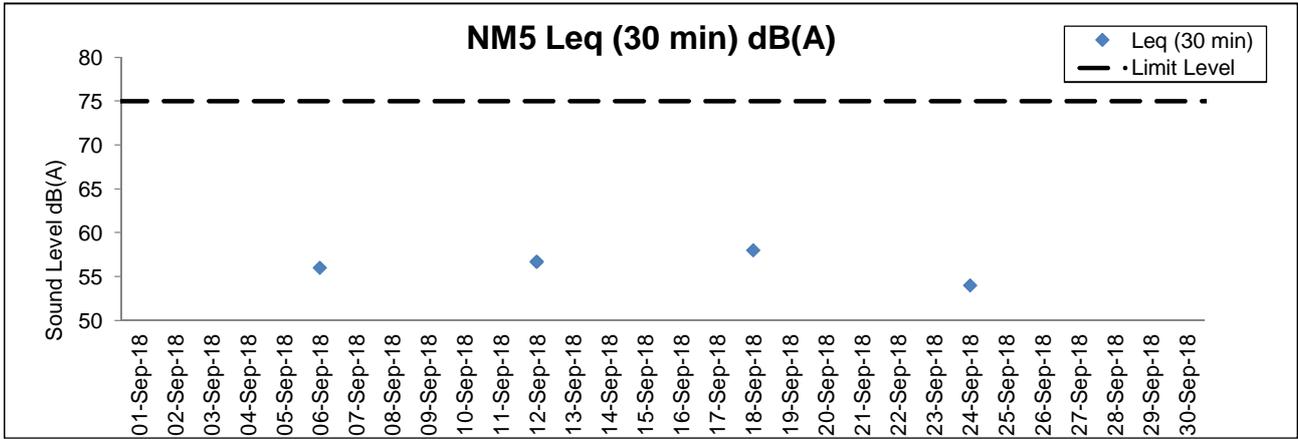
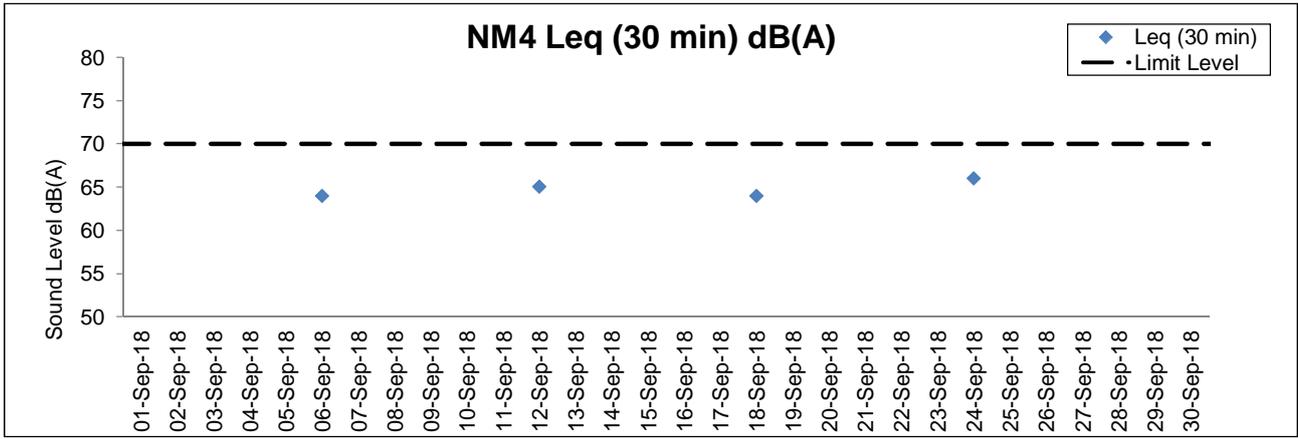
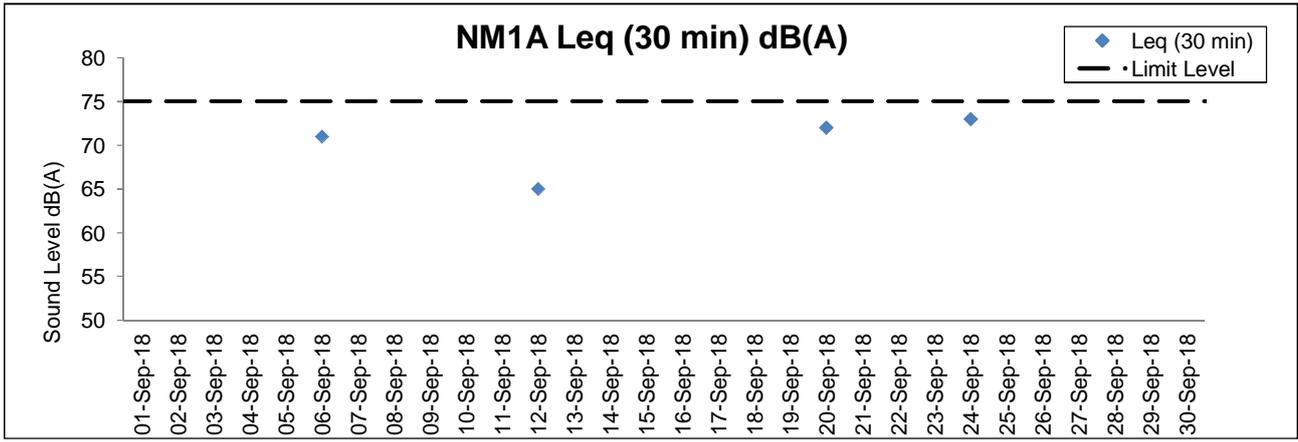
### Noise Measurement Results

#### Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
04-Sep-18	Sunny	9:39	75.5	46.5	71
04-Sep-18	Sunny	9:44	73.5	51.5	
04-Sep-18	Sunny	9:49	72.5	49.5	
04-Sep-18	Sunny	9:54	74.0	49.5	
04-Sep-18	Sunny	9:59	73.0	57.5	
04-Sep-18	Sunny	10:04	71.5	55.0	
10-Sep-18	Sunny	9:40	70.0	53.5	68
10-Sep-18	Sunny	9:45	69.5	55.5	
10-Sep-18	Sunny	9:50	71.0	58.5	
10-Sep-18	Sunny	9:55	72.5	59.5	
10-Sep-18	Sunny	10:00	68.0	57.5	
10-Sep-18	Sunny	10:05	72.5	56.5	
20-Sep-18	Sunny	9:40	76.5	49.0	70
20-Sep-18	Sunny	9:45	71.5	49.0	
20-Sep-18	Sunny	9:50	72.5	45.5	
20-Sep-18	Sunny	9:55	70.0	46.5	
20-Sep-18	Sunny	10:00	74.5	48.5	
20-Sep-18	Sunny	10:05	73.0	46.5	
26-Sep-18	Fine	9:41	72.5	52.5	70
26-Sep-18	Fine	9:46	73.5	49.5	
26-Sep-18	Fine	9:51	74.5	50.0	
26-Sep-18	Fine	9:56	71.5	52.0	
26-Sep-18	Fine	10:01	76.0	51.0	
26-Sep-18	Fine	10:06	73.0	51.0	

Remarks:

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



## **Water Quality Monitoring Results**

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 01 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
					Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Rainy	Moderate	15:51	8.6	Surface	1.0	0.4	247	27.9	7.9	7.9	16.0	16.0	84.2	83.9	6.0	4.9	4	86	90	815608	804226	<0.2	2.4	2.7					
						1.0	0.4	259	27.9	27.9	7.9	7.9	16.0	16.0	83.6	83.9	6.0	5.0	5	87	86	<0.2	2.8							
					Middle	4.3	0.2	130	27.3	27.3	7.9	7.9	23.5	23.4	69.7	69.3	4.9	7.7	5	89	86	<0.2	2.6							
						4.3	0.2	139	27.3	27.3	7.9	7.9	23.4	23.4	68.9	69.3	4.8	8.3	5	90	86	<0.2	3.0							
					Bottom	7.6	0.1	272	26.6	26.6	7.9	7.9	27.5	27.5	67.2	67.9	4.6	12.4	5	93	89	<0.2	2.8							
						7.6	0.1	298	26.6	26.6	7.9	7.9	27.5	27.5	68.5	67.9	4.7	12.1	6	93	89	<0.2	2.8							
C2	Rainy	Moderate	14:48	12.5	Surface	1.0	0.3	94	28.3	28.3	7.8	7.8	12.4	12.5	75.4	75.4	5.5	9.7	4	81	85	825672	806971	<0.2	4.2	4.0				
						1.0	0.3	95	28.3	28.3	7.8	7.8	12.5	12.5	75.4	75.4	5.5	9.7	4	82	85	<0.2	4.2							
					Middle	6.3	0.1	236	28.2	28.2	7.8	7.8	16.6	16.6	71.8	71.8	5.1	13.5	3	85	85	<0.2	4.1							
						6.3	0.1	254	28.2	28.2	7.8	7.8	16.6	16.6	71.8	71.8	5.1	13.5	3	85	85	<0.2	3.9							
					Bottom	11.5	0.1	254	27.9	27.9	7.8	7.8	19.6	19.6	73.0	73.0	5.1	13.7	4	89	89	<0.2	3.9							
						11.5	0.1	275	27.9	27.9	7.8	7.8	19.6	19.6	73.1	73.1	5.1	13.7	4	89	89	<0.2	3.7							
C3	Rainy	Moderate	16:26	12.3	Surface	1.0	0.5	58	27.7	27.7	7.9	7.9	19.2	19.2	74.6	74.6	5.3	9.1	6	81	86	822138	817787	<0.2	2.0	2.3				
						1.0	0.5	63	27.7	27.7	7.9	7.9	19.2	19.2	74.5	74.6	5.3	9.1	6	81	86	<0.2	2.3							
					Middle	6.2	0.2	88	27.2	27.2	7.9	7.9	21.7	21.7	70.7	70.7	5.0	8.2	6	86	86	<0.2	2.2							
						6.2	0.3	93	27.2	27.2	7.9	7.9	21.7	21.7	70.6	70.6	5.0	8.2	6	86	86	<0.2	2.3							
					Bottom	11.3	0.1	27	26.6	26.6	7.9	7.9	24.7	24.7	67.4	67.5	4.7	9.2	6	89	89	<0.2	2.3							
						11.3	0.1	28	26.6	26.6	7.9	7.9	24.7	24.7	67.5	67.5	4.7	9.2	6	89	89	<0.2	2.4							
IM1	Rainy	Moderate	15:32	5.3	Surface	1.0	0.2	168	28.1	28.1	7.8	7.8	16.2	16.3	82.2	82.2	5.9	3.6	4	84	86	817939	807113	<0.2	3.0	3.0				
						1.0	0.3	180	28.1	28.1	7.8	7.8	16.3	16.3	82.1	82.2	5.9	3.7	5	85	86	<0.2	2.8							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	<0.2	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	<0.2	-
					Bottom	4.3	0.2	174	28.1	28.1	7.8	7.8	17.0	17.0	82.9	83.1	5.9	3.9	6	87	87	<0.2	2.8							
						4.3	0.2	175	28.1	28.1	7.8	7.8	16.9	17.0	83.2	83.1	5.9	3.8	5	88	88	<0.2	3.2							
IM2	Rainy	Moderate	15:25	7.5	Surface	1.0	0.2	216	27.9	27.9	7.9	7.9	14.6	14.6	88.2	88.2	6.4	3.7	4	81	86	818142	806141	<0.2	3.3	3.2				
						1.0	0.2	221	27.9	27.9	7.9	7.9	14.6	14.6	88.1	88.2	6.4	3.7	4	82	87	<0.2	3.1							
					Middle	3.8	0.2	207	27.9	27.9	7.9	7.9	18.8	18.8	78.1	78.0	5.5	12.7	4	87	86	<0.2	3.2							
						3.8	0.3	217	27.9	27.9	7.9	7.9	18.8	18.8	77.8	78.0	5.5	13.2	4	87	86	<0.2	3.2							
					Bottom	6.5	0.2	104	27.4	27.4	7.9	7.9	22.8	22.8	77.1	77.2	5.4	22.2	6	90	89	<0.2	3.2							
						6.5	0.2	113	27.4	27.4	7.9	7.9	22.8	22.8	77.3	77.2	5.4	22.0	6	91	89	<0.2	3.1							
IM3	Rainy	Moderate	15:18	8.2	Surface	1.0	0.2	241	28.0	28.0	7.8	7.8	16.8	16.7	82.5	82.5	5.9	4.9	5	83	87	818775	805583	<0.2	3.2	3.0				
						1.0	0.2	252	28.0	28.0	7.8	7.8	16.7	16.7	82.5	82.5	5.9	4.9	6	84	86	<0.2	3.1							
					Middle	4.1	0.2	132	27.7	27.7	7.9	7.9	19.9	19.9	74.9	74.9	5.3	11.5	5	86	86	<0.2	2.9							
						4.1	0.2	138	27.7	27.7	7.9	7.9	19.9	19.9	74.8	74.9	5.3	11.8	6	87	86	<0.2	2.8							
					Bottom	7.2	0.1	135	27.4	27.4	7.9	7.9	22.7	22.7	77.6	77.7	5.4	24.0	7	90	89	<0.2	2.9							
						7.2	0.1	143	27.4	27.4	7.9	7.9	22.7	22.7	77.8	77.8	5.4	24.1	6	90	89	<0.2	2.8							
IM4	Rainy	Moderate	15:08	7.8	Surface	1.0	0.1	301	28.0	28.0	7.8	7.8	16.2	16.2	81.1	81.1	5.8	4.5	5	85	90	819725	804635	<0.2	2.9	2.7				
						1.0	0.1	313	28.0	28.0	7.8	7.8	16.2	16.2	81.1	81.1	5.8	4.6	5	86	86	<0.2	2.7							
					Middle	3.9	0.0	84	27.8	27.8	7.9	7.9	18.9	18.9	77.8	77.8	5.5	9.8	7	89	90	<0.2	2.7							
						3.9	0.0	91	27.8	27.8	7.9	7.9	18.9	18.9	77.7	77.8	5.5	10.0	8	90	89	<0.2	2.6							
					Bottom	6.8	0.1	105	27.5	27.5	7.9	7.9	22.3	22.3	83.9	84.1	5.9	21.3	9	93	93	<0.2	2.8							
						6.8	0.1	109	27.5	27.5	7.9	7.9	22.3	22.3	84.3	84.3	5.9	21.0	9	94	94	<0.2	2.7							
IM5	Rainy	Moderate	14:59	7.3	Surface	1.0	0.2	9	27.9	27.9	7.9	7.9	18.1	18.1	79.9	79.9	5.7	12.6	5	83	87	820740	804893	<0.2	2.6	2.8				
						1.0	0.2	9	27.9	27.9	7.9	7.9	18.1	18.1	79.9	79.9	5.7	12.7	6	83	86	<0.2	2.7							
					Middle	3.7	0.2	302	27.7	27.7	7.9	7.9	20.3	20.4	76.5	76.7	5.4	10.2	7	86	86	<0.2	2.9							
						3.7	0.2	316	27.7	27.7	7.9	7.9	20.4	20.4	76.8	76.7	5.4	10.3	7	86	86	<0.2	2.9							
					Bottom	6.3	0.1	91	27.7	27.7	7.9	7.9	20.6	20.6	80.6	80.7	5.7	14.3	6	92	90	<0.2	3.0							
						6.3	0.1	98	27.7	27.7	7.9	7.9	20.6	20.6	80.8	80.7	5.7	14.3	6	94	90	<0.2	2.6							
IM6	Rainy	Moderate	14:51	7.5	Surface	1.0	0.1	290	28.1	28.1	7.8	7.8	11.8	11.8	82.3	82.3	6.0	5.7	5	82	87	821070	805806	<0.2	4.0	4.1				
						1.0	0.1	294	28.1	28.1	7.8	7.8	11.8	11.8	82.2	82.3	6.0	5.8	5	83	87	<0.2	4.1							
					Middle	3.8	0.0	255	28.0	28.0	7.8	7.8	17.1	17.1	78.8	78.8	5.6	9.9	7	87	88	<0.2	4.0							
						3.8	0.0	279	28.0	28.0	7.8	7.8	17.1	17.1	78.7	78.8	5.6	10.1	8	88	88	<0.2	4.2							
					Bottom	6.5	0.1	122	27.8	27.8	7.9	7.9	20.3	20.3	81.0	81.1	5.7	25.5	8	90	89	<0.2	4.3							
						6.5	0.1	127	27.8	27.8	7.8	7.8	20.3	20.3	81.2	81.1	5.7	25.6	8	91	89	<0.2	4.2							
IM7	Rainy	Moderate	14:44	8.5	Surface	1.0	0.0	271	28.2	28.2	7.8	7.8	11.9	11.9	79.6	79.6	5.8	5.6	4	82	86	821357	806840	<0.2	4.1	4.1				
						1.0	0.0	278	28.2	28.2	7.8	7.8	11.9	11.9	79.6	79.6	5.8	5.7	4	82	86	<0.2	4.2							
					Middle	4.3	0.2	60	28.0	28.0	7.8	7.8	17.1	17.1	79.7	79.7	5.7	8.3	5	86	86	<0.2	4.3							
						4.3	0.3	64	28.0	28.0	7.8	7.8	17.1	17.1	79.7	79.7	5.7	8.3	5	87	86	<0.2	4.0							
					Bottom	7.5	0.2	85	27.9	27.9	7.8	7.8	18.8	18.8	82.4	82.6	5.8	11.6	5	90	89	<0.2	3.9							
						7.5	0.2	85	27.9	27.9	7.8	7.8	18.8	18.8	82.7	82.6	5.8	11.6	5	90	89	<0.2	4.0							
IM8																														

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 01 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA				
					Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Rainy	Moderate	15:19	7.4	Surface	1.0	0.4	105	28.3	28.3	7.7	7.7	11.6	11.6	76.0	76.0	5.6	5.6	9.2	5	82	86	82	86	82	86	82	86	<0.2	<0.2	4.3	4.3				
						1.0	0.4	115	28.3	28.3	7.7	7.7	11.6	11.6	76.0	76.0	5.6	5.6	9.3	6	82	86	82	86	82	86	<0.2	<0.2	4.5	4.5						
					Middle	3.7	0.5	105	28.1	28.1	7.9	7.9	18.1	18.0	76.5	76.5	5.4	5.4	15.3	7	87	87	87	87	87	87	87	87	87	87	<0.2	<0.2	4.4	4.4		
						3.7	0.6	109	28.1	28.1	7.9	7.9	17.8	18.0	76.4	76.5	5.4	5.4	15.3	6	87	87	87	87	87	87	87	87	87	87	<0.2	<0.2	4.3	4.3		
					Bottom	6.4	0.2	95	28.0	28.0	7.9	7.9	18.6	18.6	78.0	78.0	5.5	5.5	20.1	7	89	89	89	89	89	89	89	89	89	89	89	89	<0.2	<0.2	4.4	4.4
						6.4	0.3	103	28.0	28.0	7.9	7.9	18.6	18.6	78.1	78.1	5.5	5.5	20.6	7	90	90	90	90	90	90	90	90	90	90	90	90	<0.2	<0.2	4.0	4.0
IM10	Rainy	Moderate	15:27	7.1	Surface	1.0	0.6	116	28.2	28.2	7.7	7.7	11.3	11.3	73.7	73.7	5.4	5.4	9.3	4	82	87	82	87	82	87	82	87	<0.2	<0.2	3.6	3.6				
						1.0	0.6	118	28.2	28.2	7.7	7.7	11.3	11.3	73.6	73.7	5.4	5.4	9.3	4	83	87	83	87	83	87	83	87	<0.2	<0.2	3.8	3.8				
					Middle	3.6	0.7	103	28.1	28.1	7.9	7.9	15.6	15.6	76.6	76.6	5.5	5.5	14.5	4	86	86	86	86	86	86	86	86	86	86	86	86	<0.2	<0.2	4.2	4.2
						3.6	0.7	108	28.1	28.1	7.9	7.9	15.6	15.6	76.6	76.6	5.5	5.5	14.7	4	86	86	86	86	86	86	86	86	86	86	86	86	<0.2	<0.2	3.6	3.6
					Bottom	6.1	0.4	99	28.0	28.0	7.9	7.9	17.7	17.7	75.2	75.2	5.3	5.3	20.2	4	92	92	92	92	92	92	92	92	92	92	92	92	<0.2	<0.2	3.5	3.5
						6.1	0.4	102	28.0	28.0	7.9	7.9	17.7	17.7	75.2	75.2	5.3	5.3	20.1	5	93	93	93	93	93	93	93	93	93	93	93	93	<0.2	<0.2	3.7	3.7
IM11	Rainy	Moderate	15:37	8.5	Surface	1.0	0.7	116	28.1	28.1	7.8	7.8	11.9	11.9	76.4	76.4	5.6	5.6	8.8	3	85	89	85	89	85	89	85	89	<0.2	<0.2	3.9	3.9				
						1.0	0.7	127	28.1	28.1	7.8	7.8	11.9	11.9	76.3	76.4	5.6	5.6	8.8	3	86	89	86	89	86	89	86	89	<0.2	<0.2	3.8	3.8				
					Middle	4.3	0.6	96	28.2	28.2	7.8	7.8	15.8	15.8	73.0	73.1	5.2	5.2	12.2	3	89	89	89	89	89	89	89	89	89	89	89	89	<0.2	<0.2	3.9	3.9
						4.3	0.7	97	28.2	28.2	7.8	7.8	15.7	15.8	73.1	73.1	5.2	5.2	12.2	4	90	90	90	90	90	90	90	90	90	90	<0.2	<0.2	3.8	3.8		
					Bottom	7.5	0.4	75	27.9	27.9	7.9	7.9	18.0	18.0	74.4	74.4	5.3	5.3	14.0	4	92	92	92	92	92	92	92	92	92	92	92	92	<0.2	<0.2	3.8	3.8
						7.5	0.4	78	27.9	27.9	7.9	7.9	18.0	18.0	74.4	74.4	5.3	5.3	14.0	4	93	93	93	93	93	93	93	93	93	93	93	93	<0.2	<0.2	3.8	3.8
IM12	Rainy	Moderate	15:43	8.3	Surface	1.0	0.7	101	28.2	28.2	7.8	7.8	13.2	13.2	75.3	75.3	5.5	5.5	10.2	3	82	86	82	86	82	86	82	86	<0.2	<0.2	3.2	3.2				
						1.0	0.8	106	28.2	28.2	7.8	7.8	13.2	13.2	75.2	75.3	5.5	5.5	10.3	3	82	86	82	86	82	86	82	86	<0.2	<0.2	3.2	3.2				
					Middle	4.2	0.6	96	28.1	28.1	8.0	8.0	16.4	16.4	73.6	73.6	5.3	5.3	14.7	4	85	85	85	85	85	85	85	85	85	85	85	85	<0.2	<0.2	3.4	3.4
						4.2	0.6	100	28.1	28.1	8.0	8.0	16.4	16.4	73.5	73.6	5.2	5.2	14.7	4	86	86	86	86	86	86	86	86	86	86	86	86	<0.2	<0.2	3.2	3.2
					Bottom	7.3	0.3	71	27.6	27.6	7.9	7.9	20.6	20.6	70.1	70.2	4.9	4.9	24.7	6	90	90	90	90	90	90	90	90	90	90	90	90	<0.2	<0.2	3.3	3.3
						7.3	0.3	72	27.6	27.6	7.9	7.9	20.6	20.6	70.2	70.2	4.9	4.9	24.7	5	90	90	90	90	90	90	90	90	90	90	90	90	<0.2	<0.2	3.3	3.3
SR2	Rainy	Moderate	16:07	4.6	Surface	1.0	0.4	95	28.1	28.1	7.9	7.9	15.3	15.3	77.7	77.8	5.6	5.6	10.6	4	82	85	82	85	82	85	82	85	<0.2	<0.2	2.1	2.1				
						1.0	0.4	95	28.1	28.1	7.9	7.9	15.2	15.3	77.9	77.8	5.6	5.6	10.6	4	83	85	83	85	83	85	83	85	<0.2	<0.2	2.3	2.3				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.6	0.2	98	28.1	28.1	7.9	7.9	15.9	15.9	78.4	78.5	5.6	5.6	11.4	6	87	87	87	87	87	87	87	87	87	87	87	87	<0.2	<0.2	2.2	2.2
						3.6	0.2	103	28.1	28.1	7.9	7.9	15.9	15.9	78.5	78.5	5.6	5.6	11.4	6	87	87	87	87	87	87	87	87	87	87	87	87	<0.2	<0.2	2.3	2.3
SR3	Rainy	Moderate	15:07	9.4	Surface	1.0	0.2	133	28.3	28.3	7.8	7.8	14.2	14.2	73.5	73.6	5.3	5.3	10.9	6	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	134	28.3	28.3	7.8	7.8	14.2	14.2	73.6	73.6	5.3	5.3	10.9	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.7	0.2	111	28.1	28.1	7.9	7.9	16.3	16.3	77.0	77.0	5.5	5.5	13.4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.7	0.2	117	28.1	28.1	7.9	7.9	16.3	16.3	76.9	77.0	5.5	5.5	13.5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	8.4	0.2	89	28.1	28.1	7.9	7.9	17.4	17.4	77.5	77.5	5.5	5.5	15.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						8.4	0.2	96	28.1	28.1	7.9	7.9	17.4	17.4	77.5	77.5	5.5	5.5	15.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR4A	Rainy	Moderate	16:14	8.4	Surface	1.0	0.3	59	28.0	28.0	7.9	7.9	16.8	16.8	83.8	83.7	6.0	6.0	12.4	5	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.4	62	28.0	28.0	7.9	7.9	16.8	16.8	83.6	83.6	6.0	6.0	12.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.2	0.4	63	27.9	27.9	7.9	7.9	18.9	18.9	78.8	78.8	5.6	5.6	15.7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.2	0.4	64	27.9	27.9	7.9	7.9	18.9	18.9	78.8	78.8	5.6	5.6	15.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.4	0.3	51	27.7	27.7	7.9	7.9	20.5	20.5	81.4	81.9	5.7	5.7	18.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.4	0.3	51	27.7	27.7	7.9	7.9	20.5	20.5	82.3	81.9	5.8	5.8	18.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR5A	Rainy	Moderate	16:30	3.8	Surface	1.0	0.1	285	27.8	27.8	7.9	7.9	17.9	17.9	84.5	84.6	6.0	6.0	6.																	





**Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring**

**Water Quality Monitoring Results on 04 September 18 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
C1	Fine	Moderate	06:54	8.1	Surface	1.0	0.3	231	28.8	28.8	7.6	7.6	7.7	7.7	73.1	73.2	5.4	5.4	5.0	5.4	7	6	80	85	815613	804265	<0.2	<0.2	5.5	5.5						
						1.0	0.3	233	28.8	28.8	7.6	7.6	7.7	7.7	73.3	73.2	5.4	5.4	5.1	5.4	6	4	81	85	81	86	<0.2	<0.2	5.5	5.5						
						4.1	0.2	275	28.4	28.4	7.7	7.7	9.8	9.8	72.9	72.7	5.4	5.3	8.3	8.7	4	6	85	86	84	86	<0.2	<0.2	5.5	5.5						
					Middle	4.1	0.2	275	28.4	28.4	7.7	7.7	9.8	9.8	72.4	72.7	5.3	5.3	8.7	8.7	4	6	86	86	84	86	<0.2	<0.2	5.5	5.5						
						7.1	0.3	219	26.7	26.7	7.8	7.8	25.3	25.3	60.2	60.4	4.2	4.2	12.7	12.5	6	6	86	86	84	86	<0.2	<0.2	5.6	5.6						
						7.1	0.3	225	26.8	26.8	7.8	7.8	25.3	25.3	60.5	60.4	4.2	4.2	12.5	12.5	6	6	86	86	84	86	<0.2	<0.2	5.0	5.0						
					Bottom	1.0	0.9	163	28.6	28.6	7.5	7.5	6.2	6.2	62.3	62.3	4.7	4.7	12.0	12.0	10	10	80	80	84	84	<0.2	<0.2	5.9	5.9						
						1.0	1.0	166	28.6	28.6	7.5	7.5	6.2	6.2	62.3	62.3	4.7	4.7	12.0	12.0	8	8	80	80	84	84	<0.2	<0.2	5.6	5.6						
						5.7	0.1	236	27.0	27.0	7.8	7.8	20.9	20.9	53.5	53.5	3.8	3.8	9.2	9.2	7	7	84	84	86	86	<0.2	<0.2	6.0	6.0						
Middle	5.7	0.1	254	27.0	27.0	7.8	7.8	20.9	20.9	53.5	53.5	3.8	3.8	9.2	9.2	9	9	84	84	86	86	<0.2	<0.2	5.8	5.8											
	10.3	0.2	354	26.7	26.7	7.8	7.8	22.8	22.8	54.4	54.4	3.8	3.8	9.6	9.6	8	8	87	87	86	86	<0.2	<0.2	6.0	6.0											
	10.3	0.2	326	26.7	26.7	7.8	7.8	22.8	22.8	54.5	54.5	3.8	3.8	9.6	9.6	9	9	88	88	86	86	<0.2	<0.2	5.9	5.9											
C2	Fine	Moderate	08:18	11.3	Surface	1.0	0.1	292	28.2	28.2	7.8	7.8	12.9	12.9	68.0	68.0	4.9	4.9	8.6	8.6	6	6	81	81	822113	817784	<0.2	<0.2	4.4	4.4						
						1.0	0.1	301	28.2	28.2	7.8	7.8	12.9	12.9	67.9	68.0	4.9	4.9	8.6	8.6	6	6	81	81	81	81	<0.2	<0.2	4.6	4.6						
						6.1	0.0	306	27.2	27.2	7.8	7.8	20.1	20.1	58.8	58.8	4.2	4.2	9.1	9.1	5	5	87	87	86	86	<0.2	<0.2	4.5	4.5						
					Middle	6.1	0.0	309	27.2	27.2	7.8	7.8	20.1	20.1	58.8	58.8	4.2	4.2	9.1	9.1	7	7	87	87	86	86	<0.2	<0.2	4.5	4.5						
						11.1	0.3	129	25.5	25.5	7.9	7.9	26.7	26.7	56.5	56.6	4.0	4.0	10.9	10.9	6	6	91	91	86	86	<0.2	<0.2	4.6	4.6						
						11.1	0.3	136	25.5	25.5	7.9	7.9	26.7	26.7	56.7	56.6	4.0	4.0	10.9	10.9	4	4	90	90	86	86	<0.2	<0.2	4.5	4.5						
					Bottom	1.0	0.0	204	28.2	28.2	7.8	7.8	13.7	13.7	70.3	70.3	5.1	5.1	4.1	4.1	6	6	86	86	88	88	<0.2	<0.2	4.5	4.5						
						1.0	0.0	214	28.2	28.2	7.8	7.8	13.6	13.7	70.3	70.3	5.1	5.1	4.2	4.2	4	4	86	86	88	88	<0.2	<0.2	4.5	4.5						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	3.1	0.1	59	27.7	27.7	7.8	7.8	17.7	17.7	69.1	69.2	4.9	4.9	5.0	5.0	4	4	89	89	86	86	<0.2	<0.2	4.7	4.7											
Bottom	3.1	0.1	64	27.7	27.7	7.8	7.8	17.7	17.7	69.3	69.2	4.9	4.9	5.0	5.0	2	2	90	90	86	86	<0.2	<0.2	4.5	4.5											
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
IM2	Fine	Moderate	07:22	6.6	Surface	1.0	0.2	301	28.7	28.7	7.8	7.8	10.1	10.1	79.5	79.5	5.8	5.8	3.7	3.7	5	5	82	82	818187	806176	<0.2	<0.2	4.5	4.5						
						1.0	0.2	306	28.7	28.7	7.8	7.8	10.1	10.1	79.5	79.5	5.8	5.8	3.7	3.7	6	6	83	83	82	82	<0.2	<0.2	4.6	4.6						
						3.3	0.2	277	28.4	28.4	7.8	7.8	11.6	11.6	73.3	73.3	5.4	5.4	4.3	4.3	5	5	86	86	86	86	<0.2	<0.2	4.6	4.6						
					Middle	3.3	0.2	293	28.4	28.4	7.8	7.8	11.6	11.6	73.2	73.3	5.3	5.3	4.3	4.3	4	4	87	87	86	86	<0.2	<0.2	4.5	4.5						
						5.6	0.0	287	26.7	26.7	7.9	7.9	25.8	25.8	59.7	59.9	4.1	4.1	8.9	8.9	5	5	89	89	86	86	<0.2	<0.2	4.6	4.6						
						5.6	0.0	309	26.7	26.7	7.9	7.9	25.8	25.8	60.0	59.9	4.2	4.2	8.9	8.9	5	5	90	90	86	86	<0.2	<0.2	4.7	4.7						
					Bottom	1.0	0.5	224	28.7	28.7	7.7	7.7	9.1	9.1	66.9	66.9	4.9	4.9	8.2	8.2	8	8	82	82	88	88	<0.2	<0.2	4.6	4.6						
						1.0	0.5	228	28.7	28.7	7.7	7.7	9.1	9.1	66.9	66.9	4.9	4.9	8.2	8.2	9	9	84	84	88	88	<0.2	<0.2	4.4	4.4						
						3.4	0.5	217	28.2	28.2	7.8	7.8	11.5	11.5	65.3	65.3	4.8	4.8	8.1	8.1	8	8	87	87	86	86	<0.2	<0.2	4.6	4.6						
Middle	3.4	0.5	235	28.2	28.2	7.8	7.8	11.5	11.5	65.2	65.3	4.8	4.8	8.1	8.1	6	6	88	88	86	86	<0.2	<0.2	4.7	4.7											
	5.7	0.2	217	27.1	27.1	7.8	7.8	21.8	21.7	67.7	68.0	4.8	4.8	9.3	9.3	6	6	92	92	86	86	<0.2	<0.2	4.6	4.6											
	5.7	0.3	237	27.1	27.1	7.8	7.8	21.7	21.7	68.2	68.0	4.8	4.8	9.1	9.1	6	6	93	93	86	86	<0.2	<0.2	4.4	4.4											
Bottom	1.0	0.7	200	28.7	28.6	7.6	7.6	7.4	7.4	62.3	62.3	4.6	4.6	7.3	7.3	7	7	85	85	90	90	<0.2	<0.2	4.5	4.5											
	1.0	0.7	204	28.6	28.6	7.6	7.6	7.4	7.4	62.3	62.3	4.6	4.6	7.4	7.4	7	7	85	85	86	86	<0.2	<0.2	4.7	4.7											
	3.4	0.5	200	27.9	27.9	7.6	7.6	14.5	14.5	62.2	62.2	4.6	4.6	10.6	10.6	7	7	89	89	86	86	<0.2	<0.2	4.4	4.4											
Middle	3.4	0.5	209	27.9	27.9	7.6	7.6	14.5	14.5	62.1	62.2	4.6	4.6	10.6	10.6	7	7	89	89	86	86	<0.2	<0.2	4.4	4.4											
	5.8	0.2	223	27.3	27.3	7.7	7.7	19.2	19.2	64.6	64.8	4.6	4.6	17.9	17.9	7	7	94	94	86	86	<0.2	<0.2	4.5	4.5											
	5.8	0.2	241	27.3	27.3	7.7	7.7	19.2	19.2	65.0	64.8	4.6	4.6	18.0	18.0	7	7	95	95	86	86	<0.2	<0.2	4.6	4.6											
IM4	Fine	Moderate	07:38	6.8	Surface	1.0	0.8	271	28.7	28.7	7.5	7.5	7.3	7.3	63.4	63.4	4.7	4.7	8.3	8.3	6	6	84	84	819708	804594	<0.2	<0.2	4.5	4.5						
						1.0	0.8	275	28.7	28.7	7.5	7.5	7.4	7.4	63.3	63.4	4.7	4.7	8.3	8.3	7	7	84	84	86	86	<0.2	<0.2	4.5	4.5						
						3.2	0.7	272	28.3	28.3	7.6	7.6	8.4	8.4	63.2	63.3	4.7	4.7	9.4	9.4	5	5	85	85	86	86	<0.2	<0.2	4.8	4.8						
					Middle	3.2	0.7	278	28.3	28.3	7.6	7.6	8.4	8.4	63.3	63.3	4.7	4.7	9.5	9.5	6	6	85</													

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 04 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA			
					Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
IM9	Fine	Moderate	07:32	7.4	Surface	1.0	0.3	160	29.1	29.1	7.6	7.6	5.7	5.7	67.7	67.8	5.0	4.8	13.3	11.5	10	9	81	86	822064	808790	<0.2	<0.2	4.0	4.0			
						1.0	0.3	163	29.1	29.1	7.6	7.6	5.8	5.7	67.8	67.8	5.0	4.8	13.3	11.5	9	8	82	86	<0.2	<0.2	4.0	4.0					
					Middle	3.7	0.0	61	28.5	28.5	7.6	7.6	8.6	8.6	61.9	61.9	4.6	4.6	10.9	10.8	8	9	86	86	<0.2	<0.2	4.2	4.2					
						3.7	0.0	61	28.5	28.5	7.6	7.6	8.6	8.6	61.9	61.9	4.6	4.6	10.8	10.8	9	8	86	86	<0.2	<0.2	4.2	4.2					
					Bottom	6.4	0.1	37	28.3	28.3	7.6	7.6	10.5	10.5	62.5	62.5	4.6	4.6	10.2	10.2	8	8	90	90	<0.2	<0.2	4.5	4.5					
						6.4	0.1	40	28.3	28.3	7.6	7.6	10.5	10.5	62.5	62.5	4.6	4.6	10.2	10.2	8	8	90	90	<0.2	<0.2	3.8	3.8					
IM10	Fine	Moderate	07:25	9.0	Surface	1.0	0.5	117	28.4	28.4	7.6	7.6	9.1	9.1	62.0	62.0	4.6	4.5	10.6	10.1	7	8	81	86	822399	809785	<0.2	<0.2	4.6	4.6			
						1.0	0.5	128	28.4	28.4	7.6	7.6	9.1	9.1	62.0	62.0	4.6	4.5	10.5	10.1	6	8	81	86	<0.2	<0.2	4.7	4.7					
					Middle	4.5	0.3	84	28.3	28.3	7.6	7.6	10.7	10.7	59.4	59.4	4.4	4.4	10.1	10.1	8	9	86	85	<0.2	<0.2	4.7	4.6					
						4.5	0.3	89	28.3	28.3	7.6	7.6	10.7	10.7	59.4	59.4	4.4	4.4	10.1	10.1	9	8	86	85	<0.2	<0.2	4.6	4.6					
					Bottom	8.0	0.3	99	27.2	27.2	7.8	7.8	19.9	19.8	54.2	54.2	3.9	3.9	9.6	9.6	7	9	90	90	<0.2	<0.2	4.5	4.5					
						8.0	0.3	101	27.2	27.2	7.8	7.8	19.7	19.8	54.1	54.2	3.9	3.9	9.6	9.6	9	9	90	90	<0.2	<0.2	4.6	4.6					
IM11	Fine	Moderate	07:11	9.3	Surface	1.0	0.6	103	28.8	28.8	7.6	7.6	6.8	6.8	65.0	65.0	4.8	4.6	11.7	14.4	8	7	81	86	822051	811473	<0.2	<0.2	5.1	4.9			
						1.0	0.6	107	28.8	28.8	7.6	7.6	6.8	6.8	65.0	65.0	4.8	4.6	11.7	14.4	7	7	81	87	<0.2	<0.2	4.8	4.8					
					Middle	4.7	0.4	99	28.0	28.0	7.7	7.7	14.4	14.4	59.1	59.1	4.3	4.3	11.2	11.3	6	6	87	86	<0.2	<0.2	4.8	4.8					
						4.7	0.4	107	28.0	28.0	7.7	7.7	14.4	14.4	59.1	59.1	4.3	4.3	11.3	11.3	7	6	86	90	<0.2	<0.2	4.7	4.7					
					Bottom	8.3	0.2	113	27.3	27.3	7.8	7.8	19.6	19.6	58.2	58.2	4.1	4.1	20.3	20.4	6	6	90	90	<0.2	<0.2	4.7	4.9					
						8.3	0.2	121	27.3	27.3	7.8	7.8	19.6	19.6	58.2	58.2	4.1	4.1	20.4	20.4	6	6	90	90	<0.2	<0.2	4.9	4.9					
IM12	Fine	Moderate	07:02	9.6	Surface	1.0	0.5	98	28.8	28.8	7.6	7.6	5.6	5.6	65.9	65.9	4.9	4.6	11.6	12.3	7	7	82	86	821480	812037	<0.2	<0.2	5.1	5.0			
						1.0	0.5	99	28.8	28.8	7.6	7.6	5.6	5.6	65.9	65.9	4.9	4.6	11.6	12.3	6	7	81	85	<0.2	<0.2	5.2	5.1					
					Middle	4.8	0.4	100	28.1	28.1	7.7	7.7	13.2	13.2	59.8	59.8	4.3	4.3	9.5	9.5	8	8	85	87	<0.2	<0.2	5.0	5.0					
						4.8	0.4	103	28.1	28.1	7.7	7.7	13.2	13.2	59.8	59.8	4.3	4.3	9.5	9.5	6	7	86	90	<0.2	<0.2	5.1	5.0					
					Bottom	8.6	0.1	138	26.6	26.6	7.8	7.8	22.0	22.0	54.8	54.9	3.9	3.9	15.9	15.9	7	5	90	88	<0.2	<0.2	5.0	4.9					
						8.6	0.1	148	26.6	26.6	7.8	7.8	22.1	22.0	54.9	54.9	3.9	3.9	15.9	15.9	5	5	88	88	<0.2	<0.2	4.9	4.9					
SR2	Fine	Moderate	06:42	4.3	Surface	1.0	0.2	59	28.4	28.4	7.6	7.6	9.2	9.2	68.2	68.3	5.0	5.1	9.5	9.3	5	5	81	81	821440	814137	<0.2	<0.2	5.5	5.5			
						1.0	0.2	62	28.4	28.4	7.6	7.6	9.2	9.2	68.3	68.3	5.1	5.1	9.5	9.3	5	5	81	81	<0.2	<0.2	5.5	5.5					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.3	0.1	317	28.4	28.4	7.7	7.7	11.2	11.2	71.3	71.3	5.2	5.2	9.1	9.1	5	5	85	86	<0.2	<0.2	5.6	5.6					
						3.3	0.1	342	28.4	28.4	7.7	7.7	11.2	11.2	71.3	71.3	5.2	5.2	9.1	9.1	5	5	86	86	<0.2	<0.2	5.7	5.7					
SR3	Fine	Moderate	07:46	9.1	Surface	1.0	0.7	205	29.0	29.0	7.5	7.5	5.3	5.3	63.2	63.2	4.7	4.5	12.2	10.7	7	8	-	-	822147	807559	-	-	-	-			
						1.0	0.7	218	29.0	29.0	7.5	7.5	5.3	5.3	63.2	63.2	4.7	4.5	12.1	10.7	8	8	-	-	-	-	-	-	-	-	-		
					Middle	4.6	0.5	235	28.1	28.1	7.6	7.6	12.2	12.1	58.5	58.5	4.3	4.3	10.1	10.1	9	9	-	-	-	-	-	-	-	-	-	-	-
						4.6	0.5	247	28.1	28.1	7.6	7.6	12.1	12.1	58.5	58.5	4.3	4.3	10.1	10.1	9	9	-	-	-	-	-	-	-	-	-	-	
					Bottom	8.1	0.5	242	27.9	27.9	7.7	7.7	14.4	14.4	58.6	58.7	4.2	4.3	9.9	9.9	9	9	-	-	-	-	-	-	-	-	-	-	-
						8.1	0.5	242	27.9	27.9	7.7	7.7	14.4	14.4	58.7	58.7	4.3	4.3	9.9	9.9	9	9	-	-	-	-	-	-	-	-	-	-	-
SR4A	Fine	Calm	06:34	8.4	Surface	1.0	0.5	239	28.6	28.6	7.8	7.8	12.0	12.0	73.7	73.7	5.3	4.7	9.2	11.9	5	5	-	-	817190	807797	-	-	-	-			
						1.0	0.5	260	28.6	28.6	7.8	7.8	12.0	12.0	73.7	73.7	5.3	4.7	9.2	11.9	4	5	-	-	-	-	-	-	-	-	-		
					Middle	4.2	0.3	233	27.5	27.5	7.8	7.8	20.1	20.1	56.9	56.9	4.0	4.0	13.1	13.1	6	6	-	-	-	-	-	-	-	-	-	-	
						4.2	0.3	253	27.5	27.5	7.8	7.8	20.1	20.1	56.9	56.9	4.0	4.0	13.1	13.1	5	5	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.4	0.4	241	26.7	26.7	7.8	7.8	25.4	25.4	59.8	60.0	4.2	4.2	13.3	13.3	5	5	-	-	-	-	-	-	-	-	-	-	-
						7.4	0.5	256	26.7	26.7	7.8	7.8	25.4	25.4	60.1	60.1	4.2	4.2	13.4	13.4	6	6	-	-	-	-	-	-	-	-	-	-	
SR5A	Fine	Calm	06:16	3.6	Surface	1.0	0.1	304	28.7	28.7	7.7	7.7	11.5	11.5	72.8	72.7	5.3	5.3	8.1	11.1	7	7	-	-	816618	810697	-	-	-	-			
						1.0	0.1	306	28.7	28.7	7.7	7.7	11.5	11.5	72.6	72.7	5.3	5.3	8.7	11.1	6	7	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	2.6	0.1	320	28.7	28.7	7.7	7.7	13.0	13.0	73.3	73.4	5.3	5.3	13.8	13.8	6	6	-	-	-	-	-	-	-	-	-	-	
						2.6	0.1	335	28.7	28.7	7.7	7.7	13.0	13.0	73.4	73.4	5.3	5.3	13.8	13.8	7	6	-	-	-	-	-	-	-	-	-		
SR6	Fine	Calm	05:44	3.9	Surface	1.0	0.1	258	28.7	28.7	7.7	7.7	11.8	11.8	71.8	71.7	5.2	5.2	10.5	11.5	7	6	-	-	817892	814689	-	-	-	-			
						1.0	0.1	264	28.7	28.7	7.7	7.7	11.8	11.8	71.6	71.7																	

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 04 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA				
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	14:35	8.0	Surface	1.0	0.4	43	29.3	7.6	7.6	7.6	7.5	69.1	69.1	5.1	5.1	5.9	5.9	5	5	80	80	85	815622	804239	<0.2	<0.2	4.9	4.9				
						1.0	0.4	43	29.3	29.3	7.6	7.6	7.5	7.5	69.0	69.1	5.1	5.1	5.8	5.8	5	5	81	81	85	815622	804239	<0.2	<0.2	4.9	4.9			
						4.0	0.5	47	28.2	28.2	7.7	7.7	12.0	12.0	64.7	64.7	4.7	4.7	5.9	5.9	6	6	86	86	85	815622	804239	<0.2	<0.2	4.9	4.9			
					4.0	0.5	50	28.2	28.2	7.7	7.7	12.0	12.0	64.6	64.7	4.7	4.7	6.2	6.2	5	5	87	87	85	815622	804239	<0.2	<0.2	4.9	4.9				
					7.0	0.3	28	26.6	26.6	7.8	7.8	25.8	25.7	53.3	53.3	3.7	3.7	11.3	11.3	5	5	89	89	85	815622	804239	<0.2	<0.2	5.0	5.0				
					7.0	0.3	28	26.6	26.6	7.8	7.8	25.7	25.7	53.4	53.4	3.7	3.7	11.1	11.1	6	6	89	89	85	815622	804239	<0.2	<0.2	4.8	4.8				
C2	Sunny	Moderate	13:15	10.2	Surface	1.0	0.8	167	28.7	7.5	7.5	6.3	6.2	59.6	59.6	4.5	4.5	12.8	12.8	11	11	82	82	87	825667	806964	<0.2	<0.2	5.8	5.8				
						1.0	0.8	167	28.7	28.7	7.5	7.5	6.2	6.2	59.6	59.6	4.5	4.5	12.8	12.8	10	10	82	82	87	825667	806964	<0.2	<0.2	6.3	6.3			
						5.1	0.1	191	27.2	27.2	7.8	7.8	20.1	20.1	52.7	52.7	3.7	3.7	9.1	9.1	9	9	87	87	85	825667	806964	<0.2	<0.2	6.1	6.1			
					5.1	0.1	202	27.2	27.2	7.8	7.8	20.1	20.1	52.7	52.7	3.7	3.7	9.1	9.1	10	10	87	87	85	825667	806964	<0.2	<0.2	6.0	6.0				
					9.2	0.3	345	26.7	26.7	7.9	7.9	23.0	23.0	54.9	54.9	3.9	3.9	9.0	9.0	10	10	92	92	85	825667	806964	<0.2	<0.2	6.0	6.0				
					9.2	0.3	354	26.7	26.7	7.9	7.9	22.9	23.0	54.9	54.9	3.9	3.9	9.1	9.1	10	10	91	91	85	825667	806964	<0.2	<0.2	6.1	6.1				
C3	Sunny	Moderate	15:00	11.2	Surface	1.0	0.4	257	28.9	28.9	7.8	7.8	12.5	12.5	75.2	75.2	5.4	5.4	7.8	7.8	6	6	81	81	85	822079	817818	<0.2	<0.2	4.1	4.1			
						1.0	0.4	280	28.9	28.9	7.8	7.8	12.5	12.5	75.1	75.2	5.4	5.4	7.8	7.8	5	5	81	81	85	822079	817818	<0.2	<0.2	4.3	4.3			
						5.6	0.3	218	26.7	26.7	7.9	7.9	21.8	21.9	56.3	56.3	4.0	4.0	7.5	7.5	6	6	85	85	85	822079	817818	<0.2	<0.2	4.2	4.2			
					5.6	0.3	221	26.7	26.7	7.9	7.9	21.9	21.9	56.2	56.3	4.0	4.0	7.5	7.5	4	4	85	85	85	822079	817818	<0.2	<0.2	4.2	4.2				
					10.2	0.3	293	25.7	25.7	7.9	7.9	26.3	26.3	56.0	56.0	3.9	3.9	9.3	9.3	5	5	90	90	85	822079	817818	<0.2	<0.2	4.2	4.2				
					10.2	0.3	307	25.7	25.7	7.9	7.9	26.3	26.3	56.0	56.0	3.9	3.9	9.3	9.3	4	4	89	89	85	822079	817818	<0.2	<0.2	4.4	4.4				
IM1	Cloudy	Moderate	14:07	4.7	Surface	1.0	0.1	233	29.1	29.1	7.8	7.8	9.8	9.8	85.7	85.7	6.2	6.2	3.8	3.8	6	6	82	82	84	817923	807144	<0.2	<0.2	4.7	4.7			
						1.0	0.1	234	29.1	29.1	7.8	7.8	9.8	9.8	85.6	85.7	6.2	6.2	3.9	3.9	5	5	83	83	84	817923	807144	<0.2	<0.2	4.8	4.8			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					3.7	0.0	234	28.5	28.5	7.8	7.8	11.6	11.6	84.2	84.3	6.1	6.1	4.1	4.1	4	4	84	84	85	817923	807144	<0.2	<0.2	4.8	4.8				
					3.7	0.0	256	28.5	28.5	7.8	7.8	11.6	11.6	84.4	84.3	6.1	6.1	4.2	4.2	4	4	85	85	85	817923	807144	<0.2	<0.2	4.7	4.7				
IM2	Cloudy	Moderate	14:15	6.4	Surface	1.0	0.8	5	29.3	29.3	7.7	7.7	9.1	9.1	75.6	75.6	5.5	5.5	5.8	5.8	4	4	81	81	86	818142	806150	<0.2	<0.2	4.8	4.8			
						1.0	0.8	5	29.3	29.3	7.7	7.7	9.1	9.1	75.6	75.6	5.5	5.5	5.9	5.9	4	4	82	82	86	818142	806150	<0.2	<0.2	5.0	5.0			
						3.2	0.6	351	27.8	27.8	7.9	7.9	14.1	14.1	63.8	63.8	4.6	4.6	7.1	7.1	4	4	86	86	85	818142	806150	<0.2	<0.2	4.9	4.9			
					3.2	0.6	323	27.7	27.7	7.9	7.9	14.1	14.1	63.7	63.8	4.6	4.6	7.2	7.2	5	5	86	86	85	818142	806150	<0.2	<0.2	4.9	4.9				
					5.4	0.3	18	27.3	27.3	7.8	7.8	22.6	22.5	72.6	72.6	5.1	5.1	10.8	10.8	3	3	89	89	85	818142	806150	<0.2	<0.2	4.7	4.7				
					5.4	0.3	19	27.3	27.3	7.8	7.8	22.5	22.5	72.6	72.6	5.1	5.1	10.7	10.7	5	5	90	90	85	818142	806150	<0.2	<0.2	4.7	4.7				
IM3	Cloudy	Moderate	13:53	6.9	Surface	1.0	0.5	287	28.9	28.9	7.8	7.8	9.8	9.8	80.3	80.3	5.9	5.9	4.5	4.5	4	4	81	81	86	818774	805608	<0.2	<0.2	5.1	5.1			
						1.0	0.5	315	28.9	28.9	7.8	7.8	9.8	9.8	80.3	80.3	5.9	5.9	4.6	4.6	3	3	81	81	86	818774	805608	<0.2	<0.2	5.2	5.2			
						3.5	0.5	296	28.5	28.5	7.8	7.8	11.7	11.7	76.0	76.0	5.5	5.5	5.1	5.1	4	4	85	85	85	818774	805608	<0.2	<0.2	5.2	5.2			
					3.5	0.6	301	28.5	28.5	7.8	7.8	11.7	11.7	75.9	76.0	5.5	5.5	5.2	5.2	4	4	85	85	85	818774	805608	<0.2	<0.2	5.3	5.3				
					5.9	0.3	322	26.8	26.8	7.9	7.9	24.5	24.5	57.7	57.8	4.0	4.0	11.0	11.0	3	3	90	90	85	818774	805608	<0.2	<0.2	5.6	5.6				
					5.9	0.3	347	26.8	26.8	7.9	7.9	24.5	24.5	57.9	57.8	4.0	4.0	11.2	11.2	3	3	91	91	85	818774	805608	<0.2	<0.2	5.1	5.1				
IM4	Cloudy	Moderate	13:42	7.0	Surface	1.0	0.5	325	29.1	29.1	7.6	7.6	7.7	7.7	66.1	66.1	4.9	4.9	8.1	8.1	8	8	80	80	85	819752	804590	<0.2	<0.2	5.1	5.1			
						1.0	0.5	336	29.1	29.1	7.6	7.6	7.7	7.7	66.1	66.1	4.9	4.9	8.0	8.0	7	7	81	81	85	819752	804590	<0.2	<0.2	5.4	5.4			
						3.5	0.3	334	27.7	27.7	7.7	7.7	16.8	16.8	58.6	58.6	4.2	4.2	8.5	8.5	7	7	85	85	85	819752	804590	<0.2	<0.2	5.2	5.2			
					3.5	0.3	307	27.7	27.7	7.7	7.7	16.8	16.8	58.6	58.6	4.2	4.2	8.6	8.6	8	8	85	85	85	819752	804590	<0.2	<0.2	5.3	5.3				
					6.0	0.2	19	27.1	27.1	7.8	7.8	20.7	20.7	57.7	57.8	4.1	4.1	14.7	14.7	8	8	90	90	85	819752	804590	<0.2	<0.2	5.1	5.1				
					6.0	0.2	19	27.1	27.1	7.8	7.8	20.7	20.7	57.9	57.8	4.1	4.1	14.8	14.8	6	6	90	90	85	819752	804590	<0.2	<0.2	5.5	5.5				
IM5	Cloudy	Moderate	13:33	6.4	Surface	1.0	0.6	286	28.8	28.8	7.6	7.6	6.9	6.9	62.5	62.5	4.7	4.7	9.6	9.6	8	8	82	82	85	820709	804881	<0.2	<0.2	5.2	5.2			
						1.0	0.6	301	28.8	28.8	7.6	7.6	6.9	6.9	62.5	62.5	4.6	4.6	9.6	9.6	6	6	83	83	85	820709	804881	<0.2	<0.2	5.3	5.3			
						3.2	0.4	285	27.7	27.7	7.7	7.7	16.7	16.7	62.7	62.8	4.5	4.5	10.0	10.0	6	6	86	86	85	820709	804881	<0.2	<0.2	5.3	5.3			

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on **04 September 18 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Sunny	Moderate	13:44	6.6	Surface	1.0	0.3	204	29.5	29.5	7.6	7.6	5.9	5.9	68.0	68.0	5.0	4.9	11.8	11.0	7	8	83	87	822086	808800	<0.2	<0.2	5.8	5.8						
						1.0	0.3	211	29.5	7.6	7.6	5.8	5.9	68.0	68.0	5.0	4.9	11.8	11.0	7	8	83	87	<0.2	<0.2	5.7	5.7									
					Middle	3.3	0.2	212	29.1	29.1	7.7	7.7	6.9	7.0	63.3	63.3	4.7	4.7	11.2	11.0	7	8	87	87	<0.2	<0.2	5.6	5.6								
						3.3	0.2	225	29.1	29.1	7.7	7.7	7.0	7.0	63.2	63.3	4.7	4.7	11.2	11.0	7	8	87	87	<0.2	<0.2	5.7	5.7								
					Bottom	5.6	0.2	225	27.7	27.7	7.7	7.7	16.6	16.6	59.3	59.4	4.3	4.3	10.0	10.0	8	8	92	91	<0.2	<0.2	5.8	5.8								
						5.6	0.2	229	27.7	27.7	7.7	7.7	16.6	16.6	59.4	59.4	4.3	4.3	10.0	10.0	8	8	91	91	<0.2	<0.2	5.8	5.8								
IM10	Sunny	Moderate	13:53	6.5	Surface	1.0	0.1	283	29.2	29.2	7.6	7.6	7.1	7.1	69.3	69.3	5.1	4.9	11.0	12.0	5	6	83	87	822379	809782	<0.2	<0.2	5.7	5.6						
						1.0	0.1	298	29.2	29.2	7.6	7.6	7.1	7.1	69.3	69.3	5.1	4.9	10.9	12.0	6	6	83	87	<0.2	<0.2	5.6	5.6								
					Middle	3.3	0.1	336	28.7	28.7	7.6	7.6	9.2	9.2	64.3	64.3	4.7	4.7	10.8	10.8	4	6	87	87	<0.2	<0.2	5.6	5.6								
						3.3	0.1	342	28.7	28.7	7.6	7.6	9.2	9.2	64.2	64.3	4.7	4.7	10.8	10.8	6	6	87	87	<0.2	<0.2	5.5	5.5								
					Bottom	5.5	0.2	290	27.5	27.5	7.8	7.8	18.9	18.9	59.1	59.1	4.2	4.2	14.2	14.2	5	7	91	91	<0.2	<0.2	5.8	5.8								
						5.5	0.2	315	27.4	27.4	7.8	7.8	18.8	18.9	59.3	59.2	4.2	4.2	14.2	14.2	7	7	91	91	<0.2	<0.2	5.8	5.8								
IM11	Sunny	Moderate	14:04	7.4	Surface	1.0	0.2	339	29.0	29.0	7.6	7.6	7.8	7.8	67.7	67.7	5.0	4.6	10.8	13.4	5	6	82	87	822057	811487	<0.2	<0.2	5.1	5.1						
						1.0	0.2	352	29.0	29.0	7.6	7.6	7.8	7.8	67.7	67.7	5.0	4.6	10.8	13.4	6	6	83	87	<0.2	<0.2	5.0	5.0								
					Middle	3.7	0.4	318	27.8	27.8	7.8	7.8	16.9	17.1	58.6	58.6	4.2	4.2	9.7	9.7	7	6	87	87	<0.2	<0.2	5.1	5.1								
						3.7	0.5	346	27.8	27.8	7.8	7.8	17.2	17.1	58.6	58.6	4.2	4.2	9.7	9.7	7	6	87	87	<0.2	<0.2	5.1	5.1								
					Bottom	6.4	0.4	297	26.8	26.8	7.8	7.8	22.1	22.1	54.8	54.8	3.9	3.9	19.8	19.8	7	6	91	91	<0.2	<0.2	5.1	5.1								
						6.4	0.5	317	26.8	26.8	7.8	7.8	22.1	22.1	54.8	54.8	3.9	3.9	19.7	19.7	6	6	91	91	<0.2	<0.2	5.0	5.0								
IM12	Sunny	Moderate	14:12	7.8	Surface	1.0	0.3	301	29.8	29.8	7.7	7.7	6.7	6.7	71.9	71.9	5.3	4.9	10.9	14.9	7	6	83	87	821444	812055	<0.2	<0.2	5.1	5.0						
						1.0	0.3	317	29.8	29.8	7.7	7.7	6.7	6.7	71.8	71.9	5.3	4.9	10.9	14.9	7	6	83	87	<0.2	<0.2	5.0	5.0								
					Middle	3.9	0.5	283	28.0	28.0	7.8	7.8	16.6	16.6	63.4	63.4	4.5	4.5	13.4	13.5	6	6	86	90	<0.2	<0.2	5.1	5.1								
						3.9	0.5	299	28.0	28.0	7.8	7.8	16.6	16.6	63.3	63.4	4.5	4.5	13.5	13.5	6	6	87	90	<0.2	<0.2	5.0	5.0								
					Bottom	6.8	0.5	280	26.5	26.5	7.9	7.9	23.5	23.5	54.4	54.5	3.8	3.8	20.3	20.3	6	6	90	91	<0.2	<0.2	5.0	5.0								
						6.8	0.5	294	26.5	26.5	7.9	7.9	23.5	23.5	54.5	54.5	3.8	3.8	20.3	20.3	6	6	91	91	<0.2	<0.2	5.0	5.0								
SR2	Sunny	Moderate	14:37	4.8	Surface	1.0	0.2	97	29.0	29.0	7.7	7.7	8.6	8.6	72.4	72.4	5.3	5.3	11.5	17.3	5	4	82	85	821474	814191	<0.2	<0.2	4.5	4.4						
						1.0	0.2	104	29.0	29.0	7.7	7.7	8.6	8.6	72.3	72.3	5.3	5.3	11.5	17.3	4	4	83	88	<0.2	<0.2	4.4	4.4								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.8	0.1	103	27.7	27.7	7.8	7.8	17.5	17.5	62.0	62.2	4.4	4.4	23.1	23.1	4	4	88	88	<0.2	<0.2	4.5	4.5								
						3.8	0.1	104	27.7	27.7	7.8	7.8	17.5	17.5	62.3	62.2	4.4	4.4	23.1	23.1	4	4	88	88	<0.2	<0.2	4.4	4.4								
SR3	Sunny	Moderate	13:31	8.4	Surface	1.0	0.4	216	28.8	28.8	7.6	7.6	7.1	7.0	62.2	62.2	4.6	4.5	11.3	10.3	10	10	-	-	822129	807568	-	-	-	-						
						1.0	0.5	223	28.8	28.8	7.6	7.6	6.9	7.0	62.2	62.2	4.6	4.5	11.3	10.3	11	10	-	-	-	-	-	-	-	-						
					Middle	4.2	0.4	248	28.1	28.1	7.7	7.7	13.0	13.0	59.1	59.1	4.3	4.3	9.5	9.5	11	10	-	-	-	-	-	-	-	-	-	-				
						4.2	0.4	263	28.1	28.1	7.7	7.7	13.0	13.0	59.1	59.1	4.3	4.3	9.5	9.5	9	10	-	-	-	-	-	-	-	-	-					
					Bottom	7.4	0.4	249	27.7	27.7	7.7	7.7	14.6	14.7	60.6	60.6	4.4	4.4	10.2	10.2	8	10	-	-	-	-	-	-	-	-	-	-				
						7.4	0.4	257	27.7	27.7	7.7	7.7	14.7	14.7	60.6	60.6	4.4	4.4	10.2	10.2	8	10	-	-	-	-	-	-	-	-	-					
SR4A	Cloudy	Moderate	15:00	8.4	Surface	1.0	0.1	320	29.5	29.5	7.9	7.9	14.3	14.3	93.6	93.5	6.6	5.9	7.9	10.1	7	8	-	-	817193	807839	-	-	-	-						
						1.0	0.1	341	29.5	29.5	7.9	7.9	14.3	14.3	93.4	93.5	6.6	5.9	8.3	10.1	9	8	-	-	-	-	-	-	-	-						
					Middle	4.2	0.1	304	29.0	29.0	7.9	7.9	14.8	14.8	72.8	72.5	5.2	5.2	8.7	8.8	7	8	-	-	-	-	-	-	-	-	-					
						4.2	0.1	329	29.0	29.0	7.9	7.9	14.8	14.8	72.2	72.5	5.1	5.1	8.8	8.8	7	8	-	-	-	-	-	-	-	-						
					Bottom	7.4	0.1	135	27.5	27.5	7.8	7.8	20.9	20.9	68.3	68.6	4.8	4.8	13.4	13.4	10	8	-	-	-	-	-	-	-	-	-					
						7.4	0.1	135	27.5	27.5	7.8	7.8	20.9	20.9	68.8	68.6	4.8	4.8	13.5	13.5	8	8	-	-	-	-	-	-	-	-						
SR5A	Cloudy	Calm	15:13	4.6	Surface	1.0	0.2	321	29.1	29.1	7.9	7.9	14.6	14.6	90.4	90.4	6.4	6.4	4.6	4.5	8	8	-	-	816596	810690	-	-	-	-						
						1.0	0.2	341	29.1	29.1	7.9	7.9	14.6	14.6	90.4	90.4	6.4	6.4	4.6	4.5	8	8	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Bottom	3.6	0.1	335	29.1	29.1	7.9	7.9	14.7	14.7	92.2	92.3	6.5	6.5	4.3	6.5	7	6	-	-	-	-	-	-	-	-						
						3.6	0.2	348	29.1	29.1	7.9	7.9	14.7	14.7	92.3	92.3	6.5	6.5	4.3	6.5	7	6	-	-	-	-	-	-	-							
SR6	Cloudy	Calm	15:38	4.3	Surface	1.0	0.0	197	29.7	29.7	7.8	7.8	9.4	9.4	85.7	85.7	6.2	6.2	6.6	7.6	6	6	-	-	817916	814665	-	-	-	-						
						1.0	0.0	209	29.7	29.7	7.8	7.8	9.4	9.4	85.7	85.7	6.2	6.2	6.7	7.6	6	6	-	-	-	-	-	-								

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 06 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	Average	DA	Value	DA		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	Average	DA	Value	DA		
C1	Fine	Moderate	10:08	8.3	Surface	1.0	0.9	208	28.7	28.7	7.9	7.9	17.0	17.0	60.3	60.1	4.3	3.7	3.9	8.0	4	6	77	85	815623	804260	<0.2	<0.2	3.4	3.8			
						1.0	1.0	228	28.7	28.7	7.9	7.9	16.9	17.0	59.8	60.1	4.2	3.7	4.0	8.0	6	6	78	85	815623	804260	<0.2	<0.2	3.7	3.8			
					Middle	4.2	0.7	224	26.6	26.6	7.9	7.9	25.5	25.5	46.0	46.0	3.2	3.2	6.6	6.7	6.6	8.0	6	6	87	85	815623	804260	<0.2	<0.2	3.8	3.9	
						4.2	0.8	226	26.6	26.6	7.9	7.9	25.5	25.5	45.9	46.0	3.2	3.2	6.7	6.7	6.7	8.0	5	5	87	85	815623	804260	<0.2	<0.2	3.8	3.9	
					Bottom	7.3	0.6	228	26.1	26.1	7.9	7.9	27.8	27.8	41.8	41.8	2.9	2.9	13.4	13.3	13.4	8.0	7	7	91	85	815623	804260	<0.2	<0.2	4.0	4.0	
						7.3	0.6	237	26.1	26.1	7.9	7.9	27.8	27.8	41.8	41.8	2.9	2.9	13.3	13.3	13.3	8.0	6	6	92	85	815623	804260	<0.2	<0.2	4.0	4.0	
C2	Sunny	Moderate	11:42	11.2	Surface	1.0	1.5	174	29.5	29.5	7.9	7.9	10.1	10.1	78.2	78.2	5.7	4.8	10.3	20.0	6	6	77	84	825657	806947	<0.2	<0.2	5.2	5.2			
						1.0	1.5	176	29.5	29.5	7.9	7.9	10.1	10.1	78.2	78.2	5.7	4.8	10.3	20.0	10.3	20.0	6	6	77	84	825657	806947	<0.2	<0.2	5.3	5.2	
					Middle	5.6	0.9	180	26.1	26.1	7.9	7.9	23.6	23.6	54.9	54.9	3.9	3.9	22.0	22.0	22.0	20.0	6	6	84	84	825657	806947	<0.2	<0.2	4.8	4.8	
						5.6	1.0	196	26.1	26.1	7.9	7.9	23.6	23.6	54.9	54.9	3.9	3.9	22.0	22.0	22.0	20.0	6	6	84	84	825657	806947	<0.2	<0.2	5.2	5.2	
					Bottom	10.2	0.3	148	26.0	26.0	7.9	7.9	25.5	25.5	62.2	62.2	4.4	4.4	27.7	27.7	27.7	20.0	6	6	90	84	825657	806947	<0.2	<0.2	5.3	5.3	
						10.2	0.3	160	26.0	26.0	7.9	7.9	25.5	25.5	62.2	62.2	4.4	4.4	27.7	27.7	27.7	20.0	6	6	90	84	825657	806947	<0.2	<0.2	5.3	5.3	
C3	Sunny	Moderate	09:32	11.8	Surface	1.0	0.3	145	27.9	27.9	8.0	8.0	16.4	16.4	73.1	73.1	5.2	4.9	7.5	8.5	5	6	74	80	822083	817790	<0.2	<0.2	4.7	4.8			
						1.0	0.3	145	27.9	27.9	8.0	8.0	16.4	16.4	73.1	73.1	5.2	4.9	7.5	7.5	7.5	8.5	5	5	75	80	822083	817790	<0.2	<0.2	4.8	4.8	
					Middle	5.9	0.1	94	26.7	26.7	8.0	8.0	22.9	22.9	64.0	64.0	4.5	4.5	7.5	7.5	7.5	8.5	5	6	82	80	822083	817790	<0.2	<0.2	5.0	4.6	
						5.9	0.1	98	26.7	26.7	8.0	8.0	22.9	22.9	64.0	64.0	4.5	4.5	7.5	7.5	7.5	8.5	5	5	81	80	822083	817790	<0.2	<0.2	4.6	4.7	
					Bottom	10.8	0.2	78	25.0	25.0	8.0	8.0	28.7	28.7	57.6	57.6	4.1	4.1	10.5	10.5	10.5	8.5	7	6	85	80	822083	817790	<0.2	<0.2	4.7	4.9	
						10.8	0.3	80	25.0	25.0	8.0	8.0	28.7	28.7	57.6	57.6	4.1	4.1	10.5	10.5	10.5	8.5	7	6	84	80	822083	817790	<0.2	<0.2	4.9	4.9	
IM1	Fine	Moderate	10:33	5.9	Surface	1.0	0.5	186	27.2	27.2	8.0	8.0	21.5	21.5	64.8	64.8	4.6	4.6	9.7	8.0	10	11	85	89	817944	807158	<0.2	<0.2	3.8	3.6			
						1.0	0.5	188	27.2	27.2	8.0	8.0	21.5	21.5	64.8	64.8	4.6	4.6	9.7	9.7	9.7	8.0	10	10	85	89	817944	807158	<0.2	<0.2	3.6	3.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.0	-	11	-	89	817944	807158	<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.0	-	11	-	89	817944	807158	<0.2	<0.2	-
					Bottom	4.9	0.1	195	26.1	26.1	7.9	7.9	27.8	27.8	50.2	50.2	3.5	3.5	6.2	6.2	6.2	8.0	13	11	92	89	817944	807158	<0.2	<0.2	3.6	3.3	
						4.9	0.1	199	26.1	26.1	7.9	7.9	27.8	27.8	50.2	50.2	3.5	3.5	6.2	6.2	6.2	8.0	12	12	92	89	817944	807158	<0.2	<0.2	3.3	3.3	
IM2	Fine	Moderate	10:41	6.6	Surface	1.0	0.8	222	28.1	28.1	7.9	7.9	18.3	18.3	68.8	68.8	4.9	4.6	8.7	12.9	6	7	82	85	818144	806182	<0.2	<0.2	3.2	2.8			
						1.0	0.8	235	28.1	28.1	7.9	7.9	18.3	18.3	68.8	68.8	4.9	4.6	8.8	8.8	8.8	12.9	6	7	82	85	818144	806182	<0.2	<0.2	2.8	3.0	
					Middle	3.3	0.7	212	27.3	27.3	7.9	7.9	21.6	21.6	60.8	60.8	4.3	4.3	13.5	13.5	13.5	12.9	7	7	85	85	818144	806182	<0.2	<0.2	3.0	3.3	
						3.3	0.7	229	27.3	27.3	7.9	7.9	21.4	21.4	60.8	60.8	4.3	4.3	14.2	14.2	14.2	12.9	7	7	85	85	818144	806182	<0.2	<0.2	3.0	3.3	
					Bottom	5.6	0.4	195	26.5	26.5	7.9	7.9	25.6	25.6	53.3	53.3	3.7	3.7	16.0	16.0	16.0	12.9	7	7	88	85	818144	806182	<0.2	<0.2	3.1	3.1	
						5.6	0.4	203	26.5	26.5	7.9	7.9	25.6	25.6	53.3	53.3	3.7	3.7	16.1	16.1	16.1	12.9	7	7	88	85	818144	806182	<0.2	<0.2	3.1	3.1	
IM3	Fine	Moderate	10:54	6.4	Surface	1.0	0.9	228	28.2	28.2	7.8	7.8	17.7	17.7	67.0	67.0	4.7	4.6	8.5	12.4	8	10	80	83	818775	805584	<0.2	<0.2	3.0	3.0			
						1.0	1.0	233	28.2	28.2	7.8	7.8	17.7	17.7	67.0	67.0	4.7	4.6	8.6	8.6	8.6	12.4	8	10	80	83	818775	805584	<0.2	<0.2	3.0	3.0	
					Middle	3.2	0.8	225	27.9	27.9	7.9	7.9	19.5	19.5	62.9	62.9	4.5	4.5	13.2	13.2	13.2	12.4	11	10	81	83	818775	805584	<0.2	<0.2	2.7	2.8	
						3.2	0.9	243	27.9	27.9	7.9	7.9	18.1	18.1	62.8	62.8	4.5	4.5	13.5	13.5	13.5	12.4	11	10	82	83	818775	805584	<0.2	<0.2	2.8	3.0	
					Bottom	5.4	0.6	215	27.1	27.1	7.8	7.8	22.9	22.9	63.1	63.1	4.4	4.4	15.4	15.4	15.4	12.4	11	11	86	83	818775	805584	<0.2	<0.2	3.0	3.2	
						5.4	0.7	229	27.1	27.1	7.8	7.8	22.9	22.9	63.5	63.5	4.4	4.4	15.4	15.4	15.4	12.4	11	11	86	83	818775	805584	<0.2	<0.2	3.2	3.2	
IM4	Fine	Moderate	11:06	6.2	Surface	1.0	1.2	217	28.8	28.8	7.7	7.7	13.5	13.6	69.9	69.9	5.0	4.8	9.7	12.1	8	9	76	80	819715	804604	<0.2	<0.2	4.4	4.5			
						1.0	1.2	220	28.9	28.9	7.7	7.7	13.6	13.6	69.9	69.9	5.0	4.8	9.7	9.7	9.7	12.1	8	9	76	80	819715	804604	<0.2	<0.2	4.3	4.5	
					Middle	3.1	0.9	220	27.9	27.9	7.8	7.8	18.4	18.4	64.8	64.8	4.6	4.6	12.4	12.4	12.4	12.1	9	9	81	80	819715	804604	<0.2	<0.2	4.5	4.5	
						3.1	0.9	223	27.9	27.9	7.8	7.8	18.4	18.4	64.8	64.8	4.6	4.6	12.8	12.8	12.8	12.1	9	9	81	80	819715	804604	<0.2	<0.2	4.5	4.5	
					Bottom	5.2	0.6	215	27.5	27.5	7.8	7.8	19.7	19.7	63.3	63.3	4.5	4.5	14.1	14.1	14.1	12.1	11	11	83	80	819715	804604	<0.2	<0.2	4.6	4.6	
						5.2	0.6	226	27.5	27.5	7.8	7.8	19.7	19.7	63.5	63.5	4.5	4.5	14.1	14.1	14.1	12.1	10	10	84	80	819715	804604	<0.2	<0.2	4.4	4.4	
IM5	Fine	Moderate	11:15	6.9	Surface	1.0	1.0	213	29.2	29.2	7.7	7.7	13.8	13.5	72.1	72.1	5.1	4.7	6.3	10.1	9	9	75	79									

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 06 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)			Nickel (µg/L)								
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA				
								Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
IM9	Sunny	Moderate	11:05	6.5	Surface	1.0	0.6	157	28.7	28.7	7.9	7.9	12.9	12.9	68.4	68.4	4.9	4.6	8.6	9.6	3	4	71	74	822089	808808	<0.2	<0.2	<0.2	5.0	4.8	5.2	4.9	5.0			
						1.0	0.6	166	28.7	28.7	7.9	7.9	12.9	12.9	68.4	68.4	4.9	4.6	8.6	9.6	3	4	70	74	<0.2	<0.2	<0.2	4.8	4.8	5.2	4.9	5.0					
					Middle	3.3	0.3	136	27.4	27.4	7.9	7.9	20.2	20.2	59.4	59.4	4.2	4.7	9.3	9.3	4	4	72	74	<0.2	<0.2	<0.2	4.9	4.9	5.2	4.9	5.0					
						3.3	0.3	148	27.4	27.4	7.9	7.9	20.2	20.2	59.4	59.4	4.2	4.7	9.3	9.3	4	4	74	74	<0.2	<0.2	<0.2	4.9	4.9	5.2	4.9	5.0					
					Bottom	5.5	0.1	66	27.0	27.0	7.9	7.9	22.1	22.1	66.2	66.2	4.7	4.7	11.0	11.0	5	5	77	77	<0.2	<0.2	<0.2	5.0	5.0	5.2	5.0	5.0					
						5.5	0.1	72	27.0	27.0	7.9	7.9	22.1	22.1	66.2	66.2	4.7	4.7	11.0	11.0	6	6	77	77	<0.2	<0.2	<0.2	5.0	5.0	5.2	5.0	5.0					
IM10	Sunny	Moderate	10:59	7.1	Surface	1.0	0.8	131	28.0	28.0	7.9	7.9	15.1	15.1	66.6	66.6	4.8	4.6	8.1	10.9	4	5	70	74	822370	809795	<0.2	<0.2	<0.2	4.9	5.1	5.5	5.0	5.2			
						1.0	0.8	135	28.0	28.0	7.9	7.9	15.1	15.1	66.6	66.6	4.8	4.6	8.1	10.9	4	5	72	75	<0.2	<0.2	<0.2	5.1	5.5	5.0	5.2	5.2					
					Middle	3.6	0.6	117	26.8	26.8	7.9	7.9	23.1	23.1	61.4	61.4	4.3	4.3	10.9	10.9	5	5	75	75	<0.2	<0.2	<0.2	5.0	5.0	5.2	5.0	5.2					
						3.6	0.6	128	26.8	26.8	7.9	7.9	23.1	23.1	61.4	61.4	4.3	4.3	10.9	10.9	5	5	76	76	<0.2	<0.2	<0.2	5.0	5.0	5.2	5.0	5.2					
					Bottom	6.1	0.5	108	26.6	26.6	7.9	7.9	24.5	24.5	53.0	53.0	3.7	3.7	13.7	13.7	6	6	76	76	<0.2	<0.2	<0.2	5.2	5.2	5.2	5.2	5.2					
						6.1	0.5	111	26.6	26.6	7.9	7.9	24.5	24.5	53.0	53.0	3.7	3.7	13.7	13.7	6	6	77	77	<0.2	<0.2	<0.2	5.2	5.2	5.2	5.2	5.2					
IM11	Sunny	Moderate	10:47	7.1	Surface	1.0	0.9	108	28.8	28.8	7.9	7.9	14.2	14.2	74.2	74.2	5.3	4.8	8.9	11.7	4	5	71	76	822051	811474	<0.2	<0.2	<0.2	4.9	4.9	4.9	4.9	4.9			
						1.0	1.0	116	28.8	28.8	7.9	7.9	14.2	14.2	74.2	74.2	5.3	4.8	8.9	10.7	4	5	72	76	<0.2	<0.2	<0.2	4.9	4.9	4.9	4.9	4.9					
					Middle	3.6	0.7	105	27.8	27.8	7.9	7.9	17.2	17.2	60.3	60.3	4.3	4.3	10.7	10.7	4	4	75	75	<0.2	<0.2	<0.2	4.9	4.9	4.9	4.9	4.9					
						3.6	0.7	115	27.8	27.8	7.9	7.9	17.2	17.2	60.3	60.3	4.3	4.3	10.7	10.7	4	4	76	76	<0.2	<0.2	<0.2	4.9	4.9	4.9	4.9	4.9					
					Bottom	6.1	0.4	83	26.5	26.5	7.9	7.9	24.3	24.3	57.1	57.1	4.0	4.0	15.4	15.4	6	6	80	80	<0.2	<0.2	<0.2	4.6	4.6	4.6	4.6	4.6					
						6.1	0.4	91	26.5	26.5	7.9	7.9	24.3	24.3	57.1	57.1	4.0	4.0	15.4	15.4	6	6	79	79	<0.2	<0.2	<0.2	4.6	4.6	4.6	4.6	4.6					
IM12	Sunny	Moderate	10:40	8.6	Surface	1.0	0.4	101	28.6	28.6	8.0	8.0	16.1	16.1	72.3	72.3	5.1	4.7	9.1	17.0	7	8	75	78	821462	812066	<0.2	<0.2	<0.2	4.9	4.7	4.9	4.9	4.8			
						1.0	0.4	107	28.6	28.6	8.0	8.0	16.1	16.1	72.3	72.3	5.1	4.7	9.1	20.3	8	8	74	79	<0.2	<0.2	<0.2	4.7	4.9	4.6	4.6	4.8					
					Middle	4.3	0.5	99	26.8	26.8	7.9	7.9	23.5	23.5	61.4	61.4	4.3	4.3	20.3	20.3	9	9	79	78	<0.2	<0.2	<0.2	4.9	4.9	4.6	4.6	4.6					
						4.3	0.5	100	26.8	26.8	7.9	7.9	23.5	23.5	61.4	61.4	4.3	4.3	20.3	20.3	9	9	78	78	<0.2	<0.2	<0.2	4.9	4.9	4.6	4.6	4.6					
					Bottom	7.6	0.4	95	26.7	26.7	7.9	7.9	24.2	24.2	51.1	51.1	3.6	3.6	21.5	21.5	10	10	82	82	<0.2	<0.2	<0.2	5.0	5.0	4.7	4.7	4.7					
						7.6	0.4	104	26.7	26.7	7.9	7.9	24.2	24.2	51.1	51.1	3.6	3.6	21.5	21.5	10	10	82	82	<0.2	<0.2	<0.2	4.7	4.7	4.7	4.7	4.7					
SR2	Sunny	Moderate	09:58	4.9	Surface	1.0	0.6	72	28.1	28.1	8.0	8.0	16.8	16.8	63.5	63.5	4.5	4.5	9.5	10.1	4	5	78	82	821460	814157	<0.2	<0.2	<0.2	4.7	4.8	4.7	4.8	4.7			
						1.0	0.6	75	28.1	28.1	8.0	8.0	16.8	16.8	63.5	63.5	4.5	4.5	9.5	9.5	5	5	79	79	<0.2	<0.2	<0.2	4.8	4.8	4.8	4.8	4.8					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.9	0.4	72	26.9	26.9	7.9	7.9	22.4	22.4	69.5	69.5	4.9	4.9	10.7	10.7	6	6	85	84	<0.2	<0.2	<0.2	4.6	4.6	4.8	4.8	4.8					
						3.9	0.4	72	26.9	26.9	7.9	7.9	22.4	22.4	69.5	69.5	4.9	4.9	10.7	10.7	6	6	84	84	<0.2	<0.2	<0.2	4.8	4.8	4.8	4.8	4.8					
SR3	Sunny	Moderate	11:18	8.2	Surface	1.0	1.0	188	28.8	28.8	7.8	7.8	11.9	11.9	68.4	68.4	4.9	4.6	9.3	11.1	4	5	-	-	822124	807559	-	-	-	-	-	-	-	-			
						1.0	1.0	189	28.8	28.8	7.8	7.8	11.9	11.9	68.4	68.4	4.9	4.6	9.3	9.3	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.1	0.3	230	26.7	26.7	7.9	7.9	23.8	23.8	59.6	59.6	4.2	4.2	11.4	11.4	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.1	0.3	246	26.7	26.7	7.9	7.9	23.8	23.8	59.6	59.6	4.2	4.2	11.4	11.4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.2	0.2	246	26.6	26.6	7.9	7.9	24.5	24.5	52.6	52.6	3.7	3.7	12.5	12.5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.2	0.2	263	26.6	26.6	7.9	7.9	24.5	24.5	52.6	52.6	3.7	3.7	12.5	12.5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR4A	Fine	Calm	09:47	8.8	Surface	1.0	0.3	258	28.7	28.7	7.9	7.9	16.2	16.3	73.9	73.9	5.2	4.8	5.1	9.5	4	5	-	-	817161	807810	-	-	-	-	-	-	-	-			
						1.0	0.3	277	28.7	28.7	7.9	7.9	16.3	16.3	73.8	73.8	5.2	4.8	5.1	5.1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.4	0.3	248	26.2	26.2	7.9	7.9	27.7	27.7	64.2	64.2	4.4	4.4	10.7	10.7	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.4	0.3	265	26.2	26.2	7.9	7.9	27.7	27.7	64.2	64.2	4.4	4.4	10.7	10.7	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.8	0.2	251	26.0	26.0	7.9	7.9	28.1	28.1	50.2	50.2	3.5	3.5	12.6	12.6	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.8	0.2	258	26.0	26.0	7.9	7.9	28.1	28.1	50.3	50.3	3.5	3.5	12.5	12.5	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR5A	Fine	Calm	09:30	4.7	Surface	1.0	0.1	346	29.6	29.6	8.0	8.0	14.6	14.6	71.5	71.0	5.0	5.0	6.6	8.2	6																

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 06 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	Average	DA	Value	DA			
C1	Fine	Moderate	16:46	7.2	Surface	1.0	0.1	176	28.5	28.5	8.0	8.0	17.2	17.2	69.1	69.1	4.9	4.5	8.4	9.8	10	10	81	85	85	815615	804219	<0.2	<0.2	<0.2	3.0			
						1.0	0.1	180	28.5	28.5	8.0	8.0	17.2	17.2	69.1	69.1	4.9	4.5	8.4	9.8	10	10	81	85	85	815615	804219	<0.2	<0.2	<0.2	3.0			
						3.6	0.1	86	27.6	27.6	7.9	7.9	20.4	20.4	58.2	58.2	4.1	4.1	8.3	9.8	10	10	86	86	86	815615	804219	<0.2	<0.2	<0.2	2.9			
					Middle	3.6	0.1	87	27.6	27.6	7.9	7.9	20.4	20.4	58.1	58.2	4.1	4.1	8.4	9.8	11	10	86	86	86	815615	804219	<0.2	<0.2	<0.2	3.0			
						6.2	0.2	61	26.8	26.8	7.9	7.9	24.3	24.3	49.3	49.3	3.4	3.4	12.5	9.8	10	10	88	88	88	815615	804219	<0.2	<0.2	<0.2	3.0			
						6.2	0.2	62	26.8	26.8	7.9	7.9	24.3	24.3	49.3	49.3	3.4	3.4	12.6	9.8	10	10	88	88	88	815615	804219	<0.2	<0.2	<0.2	3.1			
C2	Sunny	Moderate	15:48	10.5	Surface	1.0	1.4	174	29.0	29.0	7.7	7.7	10.2	10.2	60.9	60.9	4.4	3.9	10.9	12.7	7	7	70	73	74	825670	806941	<0.2	<0.2	<0.2	5.0			
						1.0	1.4	179	29.0	29.0	7.7	7.7	10.2	10.2	60.9	60.9	4.4	3.9	10.9	12.7	7	7	70	73	73	825670	806941	<0.2	<0.2	<0.2	5.0			
						5.3	0.7	168	26.6	26.6	7.9	7.9	22.4	22.4	46.9	46.9	3.3	3.3	13.2	12.7	7	7	73	73	73	825670	806941	<0.2	<0.2	<0.2	4.8			
					Middle	5.3	0.7	170	26.6	26.6	7.9	7.9	22.4	22.4	46.9	46.9	3.3	3.3	13.2	12.7	7	7	73	73	73	825670	806941	<0.2	<0.2	<0.2	5.5			
						9.5	0.0	288	26.2	26.2	8.0	8.0	24.7	24.7	47.4	47.4	3.3	3.3	13.9	12.7	7	7	80	80	80	825670	806941	<0.2	<0.2	<0.2	4.7			
						9.5	0.0	307	26.2	26.2	8.0	8.0	24.7	24.7	47.4	47.4	3.3	3.3	13.9	12.7	7	7	78	78	78	825670	806941	<0.2	<0.2	<0.2	4.7			
C3	Cloudy	Moderate	17:29	12.2	Surface	1.0	0.4	270	29.0	29.0	8.1	8.1	17.0	17.0	80.9	80.9	5.7	5.0	8.9	9.4	6	7	77	81	82	822108	817799	<0.2	<0.2	<0.2	5.0			
						1.0	0.4	290	29.0	29.0	8.1	8.1	17.0	17.0	80.9	80.9	5.7	5.0	8.9	9.4	6	7	76	81	81	822108	817799	<0.2	<0.2	<0.2	4.9			
						6.1	0.4	236	26.0	26.0	7.9	7.9	25.4	25.4	59.4	59.4	4.2	4.2	9.7	9.4	6	7	81	82	82	822108	817799	<0.2	<0.2	<0.2	5.3			
					Middle	6.1	0.4	253	26.0	26.0	7.9	7.9	25.4	25.4	59.4	59.4	4.2	4.2	9.7	9.4	6	7	82	82	82	822108	817799	<0.2	<0.2	<0.2	5.2			
						11.2	0.3	276	26.0	26.0	7.9	7.9	25.8	25.8	69.1	69.4	4.9	4.9	9.7	9.4	9	9	87	87	87	822108	817799	<0.2	<0.2	<0.2	5.4			
						11.2	0.3	292	26.0	26.0	7.9	7.9	25.7	25.7	69.7	69.4	4.9	4.9	9.6	9.4	9	9	86	86	86	822108	817799	<0.2	<0.2	<0.2	5.2			
IM1	Fine	Moderate	16:25	3.8	Surface	1.0	0.3	18	28.0	28.0	8.0	8.0	20.7	20.7	66.4	66.4	4.6	4.6	10.2	10.9	11	13	84	84	87	817936	807121	<0.2	<0.2	<0.2	2.2			
						1.0	0.3	19	28.0	28.0	8.0	8.0	20.7	20.7	66.4	66.4	4.6	4.6	10.3	10.9	12	13	84	84	84	817936	807121	<0.2	<0.2	<0.2	2.4			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						2.8	0.3	14	27.9	27.9	8.0	8.0	21.5	21.5	69.1	69.2	4.8	4.8	11.5	10.9	14	13	89	89	89	817936	807121	<0.2	<0.2	<0.2	2.2			
						2.8	0.3	14	27.9	27.9	8.0	8.0	21.5	21.5	69.2	69.2	4.8	4.8	11.6	10.9	14	13	89	89	89	817936	807121	<0.2	<0.2	<0.2	2.1			
IM2	Fine	Moderate	16:18	6.4	Surface	1.0	0.3	202	29.1	29.1	8.0	8.0	14.0	14.2	70.1	70.0	5.0	4.6	10.7	13.0	17	18	79	79	84	818188	806151	<0.2	<0.2	<0.2	3.7			
						1.0	0.3	208	29.1	29.1	8.0	8.0	14.3	14.2	69.8	70.0	5.0	4.6	10.8	13.0	17	18	79	79	79	818188	806151	<0.2	<0.2	<0.2	3.4			
						3.2	0.1	8	27.6	27.6	8.0	8.0	21.1	21.2	57.8	57.8	4.1	4.1	12.8	13.0	18	18	85	85	85	818188	806151	<0.2	<0.2	<0.2	3.2			
					Middle	3.2	0.1	8	27.6	27.6	8.0	8.0	21.2	21.2	57.8	57.8	4.1	4.1	12.8	13.0	18	18	86	86	86	818188	806151	<0.2	<0.2	<0.2	4.0			
						5.4	0.2	5	27.3	27.3	8.0	8.0	22.3	22.3	55.3	55.3	3.9	3.9	15.3	13.0	18	18	87	87	87	818188	806151	<0.2	<0.2	<0.2	3.5			
						5.4	0.2	5	27.3	27.3	8.0	8.0	22.3	22.3	55.3	55.3	3.9	3.9	15.4	13.0	18	18	89	89	89	818188	806151	<0.2	<0.2	<0.2	3.8			
IM3	Fine	Moderate	16:11	6.9	Surface	1.0	0.6	226	29.2	29.2	7.8	7.8	12.8	12.8	74.2	74.2	5.3	4.7	13.8	16.9	24	28	77	77	84	818780	805592	<0.2	<0.2	<0.2	3.5			
						1.0	0.6	230	29.3	29.3	7.8	7.8	12.8	12.8	74.1	74.1	5.3	4.7	13.8	16.9	25	28	77	77	77	818780	805592	<0.2	<0.2	<0.2	3.8			
						3.5	0.3	251	27.7	27.7	7.9	7.9	19.8	19.8	57.8	57.8	4.1	4.1	16.3	16.9	28	28	84	84	84	818780	805592	<0.2	<0.2	<0.2	3.4			
					Middle	3.5	0.3	268	27.7	27.7	7.9	7.9	19.8	19.8	57.7	57.7	4.1	4.1	16.3	16.9	27	27	84	84	84	818780	805592	<0.2	<0.2	<0.2	3.4			
						5.9	0.2	338	26.2	26.2	7.9	7.9	27.5	27.5	56.3	56.3	3.9	3.9	20.4	16.9	30	30	90	90	90	818780	805592	<0.2	<0.2	<0.2	3.7			
						5.9	0.2	311	26.2	26.2	7.9	7.9	27.5	27.5	56.3	56.3	3.9	3.9	20.7	16.9	31	30	90	90	90	818780	805592	<0.2	<0.2	<0.2	3.5			
IM4	Fine	Moderate	16:01	6.8	Surface	1.0	0.4	233	28.5	28.5	7.8	7.8	15.4	15.4	74.1	74.1	5.3	4.8	14.6	17.3	26	27	80	81	83	819698	804603	<0.2	<0.2	<0.2	3.8			
						1.0	0.4	243	28.5	28.5	7.8	7.8	15.4	15.4	74.1	74.1	5.3	4.8	14.6	17.3	27	27	81	81	81	819698	804603	<0.2	<0.2	<0.2	3.7			
						3.4	0.3	226	28.0	28.0	7.8	7.8	16.9	16.9	59.7	59.7	4.3	4.3	17.6	17.3	27	27	82	82	82	819698	804603	<0.2	<0.2	<0.2	3.6			
					Middle	3.4	0.3	234	28.0	28.0	7.8	7.8	16.9	16.9	59.6	59.7	4.3	4.3	17.3	17.3	26	26	81	81	81	819698	804603	<0.2	<0.2	<0.2	3.7			
						5.8	0.5	213	27.4	27.4	7.8	7.8	20.1	20.1	56.6	56.6	3.9	3.9	20.3	17.3	27	27	85	85	85	819698	804603	<0.2	<0.2	<0.2	3.6			
						5.8	0.5	229	27.4	27.4	7.8	7.8	20.1	20.1	55.7	55.7	3.9	3.9	19.9	17.3	28	28	86	86	86	819698	804603	<0.2	<0.2	<0.2	3.6			
IM5	Fine	Moderate	15:54	6.6	Surface	1.0	1.0	240	28.5	28.5	7.7	7.7	14.6	14.6	67.7	67.7	4.8	4.6	13.3	16.2	11	12	79	78	80	820747	804866	<0.2	<0.2	<0.2	3.3			
						1.0	1.0	252	28.5	28.5	7.7	7.7	14.6	14.6	67.7	67.7	4.8	4.6	13.1	16.2	10	12	78	80	80	820747	804866	<0.2	<0.2	<				

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 06 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
IM9	Sunny	Moderate	16:18	6.5	Surface	1.0	0.4	166	30.0	7.8	7.8	6.8	6.8	77.1	77.1	5.6	5.5	10.2	9.8	5	6	72	75	822073	808811	<0.2	<0.2	<0.2	4.6				
						1.0	0.4	180	30.0	7.8	7.8	6.8	6.8	77.1	77.1	5.6	5.5	10.2	9.8	5	6	71	75	72	75	<0.2	<0.2	<0.2	4.6				
					Middle	3.3	0.1	135	28.9	28.9	7.8	7.8	13.3	13.3	74.2	74.2	5.3	5.3	9.7	9.8	6	6	73	75	73	75	<0.2	<0.2	<0.2	5.0			
						3.3	0.1	135	28.9	28.9	7.8	7.8	13.3	13.3	74.2	74.2	5.3	5.3	9.7	9.8	6	6	73	75	73	75	<0.2	<0.2	<0.2	5.0			
					Bottom	5.5	0.1	1	28.4	28.4	7.8	7.8	14.4	14.4	75.3	75.3	5.4	5.4	9.5	9.5	6	6	79	75	80	75	79	75	<0.2	<0.2	<0.2	4.6	
						5.5	0.1	1	28.4	28.4	7.8	7.8	14.4	14.4	75.3	75.3	5.4	5.4	9.5	9.5	6	6	80	75	80	75	79	75	<0.2	<0.2	<0.2	4.6	
IM10	Sunny	Moderate	16:26	7.0	Surface	1.0	0.4	147	30.0	7.9	7.9	12.2	11.7	78.9	78.9	5.6	5.0	9.7	9.2	7	8	71	75	822382	809791	<0.2	<0.2	<0.2	4.8				
						1.0	0.4	151	30.0	7.9	7.9	11.2	11.7	78.9	78.9	5.6	5.0	9.7	9.2	7	8	72	75	71	75	<0.2	<0.2	<0.2	4.8				
					Middle	3.5	0.2	97	27.9	27.9	7.9	7.9	16.6	16.6	59.6	59.6	4.3	4.3	9.0	9.0	7	8	73	75	73	75	<0.2	<0.2	<0.2	4.5			
						3.5	0.2	103	27.9	27.9	7.9	7.9	16.6	16.6	59.6	59.6	4.3	4.3	9.0	9.0	7	8	75	75	73	75	<0.2	<0.2	<0.2	4.5			
					Bottom	6.0	0.1	95	27.2	27.2	7.8	7.8	20.8	20.8	62.0	62.0	4.4	4.4	8.9	8.9	9	8	78	75	78	75	78	75	<0.2	<0.2	<0.2	4.7	
						6.0	0.1	100	27.2	27.2	7.8	7.8	20.8	20.8	62.0	62.0	4.4	4.4	8.9	8.9	9	8	78	75	78	75	78	75	<0.2	<0.2	<0.2	4.5	
IM11	Sunny	Moderate	16:36	7.2	Surface	1.0	0.3	98	29.3	7.9	7.9	12.3	12.3	71.1	71.1	5.1	4.7	10.3	11.9	5	6	69	75	822046	811444	<0.2	<0.2	<0.2	4.6				
						1.0	0.3	99	29.3	7.9	7.9	12.3	12.3	71.1	71.1	5.1	4.7	10.3	11.9	5	6	71	75	69	75	<0.2	<0.2	<0.2	4.6				
					Middle	3.6	0.2	39	27.9	27.9	7.9	7.9	17.3	17.3	60.0	60.0	4.3	4.3	11.4	11.4	6	6	75	75	74	75	<0.2	<0.2	<0.2	4.6			
						3.6	0.2	40	27.9	27.9	7.9	7.9	17.3	17.3	60.0	60.0	4.3	4.3	11.4	11.4	6	6	74	75	74	75	<0.2	<0.2	<0.2	4.6			
					Bottom	6.2	0.2	326	27.6	27.6	7.8	7.8	19.6	19.6	60.8	60.8	4.3	4.3	14.0	14.0	6	6	80	75	80	75	80	75	<0.2	<0.2	<0.2	4.3	
						6.2	0.2	358	27.6	27.6	7.8	7.8	19.6	19.6	60.8	60.8	4.3	4.3	14.0	14.0	6	6	79	75	79	75	79	75	<0.2	<0.2	<0.2	4.8	
IM12	Cloudy	Moderate	16:43	7.8	Surface	1.0	0.2	113	29.3	7.9	7.9	12.2	12.2	75.5	75.5	5.4	5.2	9.5	10.2	6	6	72	77	821441	812027	<0.2	<0.2	<0.2	4.6				
						1.0	0.2	113	29.3	7.9	7.9	12.2	12.2	75.5	75.5	5.4	5.2	9.5	10.2	6	6	71	77	72	77	<0.2	<0.2	<0.2	4.9				
					Middle	3.9	0.3	1	28.8	28.8	7.9	7.9	14.3	14.3	68.0	68.0	4.9	4.9	10.1	10.1	6	6	77	77	78	77	<0.2	<0.2	<0.2	4.6			
						3.9	0.3	1	28.8	28.8	7.9	7.9	14.3	14.3	68.0	68.0	4.9	4.9	10.1	10.1	6	6	78	77	78	77	<0.2	<0.2	<0.2	4.5			
					Bottom	6.8	0.1	285	26.8	26.8	7.9	7.9	22.0	22.0	70.0	70.0	5.0	5.0	10.9	10.9	6	6	81	77	82	77	81	77	<0.2	<0.2	<0.2	4.7	
						6.8	0.1	311	26.8	26.8	7.9	7.9	22.0	22.0	70.0	70.0	5.0	5.0	10.9	10.9	6	6	82	77	82	77	82	77	<0.2	<0.2	<0.2	4.9	
SR2	Cloudy	Moderate	17:07	3.8	Surface	1.0	0.1	331	29.1	7.9	7.9	13.3	13.3	84.7	84.7	6.0	6.0	10.4	10.6	4	5	75	79	821461	814166	<0.2	<0.2	<0.2	4.9				
						1.0	0.1	345	29.1	7.9	7.9	13.3	13.3	84.7	84.7	6.0	6.0	10.5	10.6	5	5	74	79	75	79	<0.2	<0.2	<0.2	4.5				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	2.8	0.1	335	29.0	29.0	7.9	7.9	13.9	13.9	86.8	86.8	6.2	6.2	10.8	10.8	5	5	83	79	83	79	83	79	<0.2	<0.2	<0.2	4.9	
						2.8	0.1	345	29.0	29.0	7.9	7.9	13.9	13.9	86.8	86.8	6.2	6.2	10.8	10.8	5	5	83	79	83	79	83	79	<0.2	<0.2	<0.2	4.7	
SR3	Sunny	Moderate	16:07	8.2	Surface	1.0	0.8	185	29.1	7.9	7.9	9.0	9.2	70.6	70.4	5.2	4.6	9.9	10.1	6	6	-	-	822113	807564	-	-	-	-				
						1.0	0.9	198	29.1	7.9	7.9	9.3	9.2	70.1	70.4	5.1	4.6	9.9	10.1	6	6	-	-	-	-	-	-	-	-	-	-		
					Middle	4.1	0.5	216	27.4	27.4	7.8	7.8	18.8	18.8	57.8	57.8	4.1	4.1	10.1	10.1	6	6	-	-	-	-	-	-	-	-	-	-	-
						4.1	0.5	237	27.4	27.4	7.8	7.8	18.8	18.8	57.8	57.8	4.1	4.1	10.1	10.1	6	6	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.2	0.4	244	27.4	27.4	7.8	7.8	19.4	19.4	62.4	62.4	4.4	4.4	10.4	10.4	6	6	-	-	-	-	-	-	-	-	-	-	-
						7.2	0.4	254	27.4	27.4	7.8	7.8	19.4	19.4	62.4	62.4	4.4	4.4	10.4	10.4	6	6	-	-	-	-	-	-	-	-	-	-	-
SR4A	Fine	Calm	17:07	8.1	Surface	1.0	0.6	248	29.1	8.1	8.1	17.9	17.9	85.8	85.6	5.9	5.2	14.7	17.8	12	12	-	-	817194	807813	-	-	-	-				
						1.0	0.6	271	29.1	8.1	8.1	17.9	17.9	85.4	85.6	5.9	5.2	14.7	17.8	12	12	-	-	-	-	-	-	-	-	-			
					Middle	4.1	0.6	251	28.2	28.2	7.9	7.9	20.3	20.3	63.9	63.7	4.5	4.5	16.9	17.0	12	12	-	-	-	-	-	-	-	-	-		
						4.1	0.6	268	28.2	28.2	7.9	7.9	20.3	20.3	63.4	63.7	4.4	4.4	17.0	17.0	12	12	-	-	-	-	-	-	-	-	-		
					Bottom	7.1	0.4	254	27.1	27.1	7.8	7.8	23.8	23.8	49.0	49.0	3.4	3.4	21.8	21.8	12	12	-	-	-	-	-	-	-	-	-		
						7.1	0.4	264	27.1	27.1	7.8	7.8	23.8	23.8	49.0	49.0	3.4	3.4	21.9	21.9	12	12	-	-	-	-	-	-	-	-			
SR5A	Fine	Calm	17:27	3.9	Surface	1.0	0.4	305	29.4	8.2	8.2	15.9	15.9	99.1	98.7	6.9	6.9	8.6	10.1	8	8	-	-	816613	810708	-	-	-	-				
						1.0	0.5	320	29.4	8.2	8.2	15.9	15.9	98.3	98.7	6.9	6.9	8.7	10.1	8	8	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	2.9	0.4	307	28.7	28.7	8.0	8.0	18.2	18.2	90.1	90.2	6.3	6.3	11.5	11.6	8	8	-	-	-	-	-	-	-	-			
						2.9	0.4	313	28.7	28.7	8.0	8.0	18.2	18.2	90.2	90.2	6.3	6.3	11.6	11.6	8	8	-	-	-	-	-	-	-				
SR6	Fine	Calm																															

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 08 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value	Value
C1	Misty	Moderate	12:03	8.0	Surface	1.0	0.8	197	27.7	8.0	8.0	21.8	21.8	75.5	75.5	5.3	3.7	4	81	86	815641	804231	<0.2	2.1	2.0									
						1.0	0.8	215	27.7	8.0	8.0	21.7	21.8	75.4	75.5	5.3	3.7	4	82	86	<0.2	1.8												
					Middle	4.0	0.8	199	25.9	25.9	7.9	7.9	28.1	28.1	46.0	46.1	3.2	10.2	6	87	86	<0.2	2.1											
						4.0	0.8	209	25.9	25.9	7.9	7.9	28.1	28.1	46.1	46.1	3.2	10.3	6	87	86	<0.2	1.9											
					Bottom	7.0	0.5	206	25.6	25.6	7.9	7.9	29.1	29.1	51.3	51.5	3.6	18.6	8	90	87	<0.2	2.1											
						7.0	0.5	225	25.6	25.6	7.9	7.9	29.1	29.1	51.6	51.5	3.6	18.6	8	91	87	<0.2	1.9											
C2	Fine	Moderate	13:36	11.2	Surface	1.0	1.5	170	28.4	28.4	7.9	7.9	15.0	15.0	70.7	70.7	5.1	9.4	3	70	76	825691	806937	<0.2	3.0	3.1								
						1.0	1.6	180	28.4	28.4	7.9	7.9	15.0	15.0	70.7	70.7	5.1	9.4	3	71	76	<0.2	3.4											
					Middle	5.6	1.0	170	27.2	27.1	7.9	7.9	19.5	19.5	54.4	54.4	3.9	26.3	3	74	76	<0.2	3.1											
						5.6	1.0	178	27.1	27.1	7.9	7.9	19.5	19.5	54.3	54.4	3.9	26.6	3	73	76	<0.2	3.0											
					Bottom	10.2	0.3	188	26.5	26.5	7.9	7.9	24.8	24.8	54.5	54.5	3.8	32.5	3	84	84	<0.2	3.0											
						10.2	0.3	202	26.5	26.5	7.9	7.9	24.8	24.8	54.5	54.5	3.8	32.5	3	84	84	<0.2	2.8											
C3	Fine	Moderate	11:25	12.2	Surface	1.0	0.3	104	27.1	27.1	8.1	8.1	22.7	22.7	72.6	72.6	5.1	9.1	3	78	82	822125	817792	<0.2	2.9	3.0								
						1.0	0.3	111	27.1	27.1	8.1	8.1	22.7	22.7	72.6	72.6	5.1	9.1	3	75	82	<0.2	3.0											
					Middle	6.1	0.2	90	26.4	26.4	8.1	8.1	24.3	24.3	70.7	70.7	5.0	9.9	3	81	82	<0.2	3.2											
						6.1	0.2	98	26.4	26.4	8.1	8.1	24.3	24.3	70.7	70.7	5.0	9.9	3	81	82	<0.2	3.0											
					Bottom	11.2	0.3	52	26.1	26.1	8.1	8.1	25.7	25.7	77.1	77.1	5.4	10.0	3	88	82	<0.2	3.0											
						11.2	0.3	54	26.1	26.1	8.1	8.1	25.7	25.7	77.1	77.1	5.4	10.0	3	87	82	<0.2	2.9											
IM1	Misty	Moderate	12:28	5.4	Surface	1.0	0.1	165	26.6	26.6	7.9	7.9	26.4	26.4	65.2	65.2	4.6	10.8	12	86	88	817949	807137	<0.2	1.4	1.5								
						1.0	0.1	172	26.6	26.6	7.9	7.9	26.4	26.4	65.2	65.2	4.6	10.8	13	87	88	<0.2	1.6											
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-		
					Bottom	4.4	0.1	173	26.0	26.0	7.9	7.9	27.8	27.8	51.0	51.1	3.5	15.8	15	89	88	<0.2	1.5											
						4.4	0.1	187	26.0	26.0	7.9	7.9	27.8	27.8	51.1	51.1	3.6	15.8	16	90	88	<0.2	1.4											
IM2	Misty	Moderate	12:35	6.8	Surface	1.0	0.7	167	28.0	28.0	8.0	8.0	21.2	21.2	78.2	78.2	5.4	6.9	12	83	87	818157	806176	<0.2	1.4	1.4								
						1.0	0.7	168	28.0	28.0	8.0	8.0	21.2	21.2	78.2	78.2	5.4	6.9	11	83	87	<0.2	1.6											
					Middle	3.4	0.5	166	26.4	26.4	7.9	7.9	26.2	26.2	55.1	55.2	3.8	18.0	14	86	87	<0.2	1.5											
						3.4	0.6	167	26.4	26.4	7.9	7.9	26.2	26.2	55.2	55.2	3.8	18.1	14	87	87	<0.2	1.4											
					Bottom	5.8	0.2	166	26.0	26.0	7.9	7.9	27.8	27.8	49.3	49.4	3.4	20.4	18	90	87	<0.2	1.4											
						5.8	0.2	171	26.0	26.0	7.9	7.9	27.8	27.8	49.4	49.4	3.4	20.3	19	91	87	<0.2	1.3											
IM3	Misty	Moderate	12:43	7.0	Surface	1.0	1.0	200	27.9	27.9	7.9	7.9	20.8	20.8	71.9	71.9	5.0	6.0	11	83	88	818773	805599	<0.2	1.8	1.9								
						1.0	1.0	205	27.9	27.9	7.9	7.9	20.8	20.8	71.9	71.9	5.0	6.1	11	84	88	<0.2	1.9											
					Middle	3.5	0.8	197	27.1	27.1	7.9	7.9	23.6	23.7	59.6	59.6	4.2	18.7	13	87	88	<0.2	1.9											
						3.5	0.8	209	27.1	27.1	7.9	7.9	23.7	23.7	59.6	59.6	4.2	18.2	13	89	88	<0.2	1.9											
					Bottom	6.0	0.5	171	26.4	26.4	7.9	7.9	26.4	26.3	51.9	52.0	3.6	20.4	13	93	87	<0.2	1.9											
						6.0	0.5	171	26.4	26.4	7.9	7.9	26.3	26.3	52.0	52.0	3.6	20.4	13	93	87	<0.2	1.8											
IM4	Misty	Moderate	12:54	7.1	Surface	1.0	1.3	177	27.8	27.8	7.9	7.9	20.3	20.3	71.4	71.4	5.0	4.9	7	85	90	819748	804599	<0.2	2.3	2.1								
						1.0	1.4	194	27.8	27.8	7.9	7.9	20.3	20.3	71.4	71.4	5.0	4.9	7	86	90	<0.2	2.1											
					Middle	3.6	1.2	184	27.5	27.5	7.9	7.9	21.4	21.4	65.2	65.2	4.6	9.6	8	89	87	<0.2	2.3											
						3.6	1.3	186	27.5	27.5	7.9	7.9	21.4	21.4	65.2	65.2	4.6	9.7	9	90	87	<0.2	2.0											
					Bottom	6.1	0.8	177	26.5	26.5	7.9	7.9	25.8	25.7	55.1	55.2	3.8	21.0	9	94	87	<0.2	2.0											
						6.1	0.9	190	26.5	26.5	7.9	7.9	25.7	25.7	55.2	55.2	3.8	21.0	8	95	87	<0.2	2.1											
IM5	Misty	Moderate	13:09	6.4	Surface	1.0	1.4	190	27.7	27.7	7.9	7.9	20.7	20.7	69.4	69.4	4.9	7.9	5	85	86	820745	804855	<0.2	1.9	2.1								
						1.0	1.5	206	27.7	27.7	7.9	7.9	20.7	20.7	69.4	69.4	4.9	7.9	6	84	86	<0.2	2.0											
					Middle	3.2	1.1	196	27.2	27.2	7.9	7.9	22.8	22.8	59.9	59.9	4.2	12.7	6	85	86	<0.2	2.1											
						3.2	1.2	196	27.2	27.2	7.9	7.9	22.8	22.8	59.8	59.9	4.2	12.9	6	86	86	<0.2	2.1											
					Bottom	5.4	0.8	193	26.8	26.8	7.9	7.9	24.6	24.6	58.7	58.8	4.1	22.1	8	89	87	<0.2	2.1											
						5.4	0.8	211	26.8	26.8	7.9	7.9	24.6	24.6	58.8	58.8	4.1	22.1	8	89	87	<0.2	2.4											
IM6	Misty	Moderate	13:21	6.1	Surface	1.0	0.9	219	27.3	27.3	7.9	7.9	22.1	22.1	68.0	68.1	4.7	10.9	9	84	87	821066	805821	<0.2	1.9	1.9								
						1.0	1.0	238	27.3	27.3	7.9	7.9	22.1	22.1	68.2	68.1	4.7	10.9	9	84	87	<0.2	1.8											
					Middle	3.1	0.8	213	27.0	27.0	7.9	7.9	23.6	23.5	63.4	63.4	4.4	17.4	10	87	87	<0.2	1.9											
						3.1	0.8	231	27.0	27.0	7.9	7.9	23.5	23.5	63.4	63.4	4.4	17.3	11	88	87	<0.2	1.9											
					Bottom	5.1	0.7	212	26.9	26.9	7.9	7.9	24.2	24.2	56.3	56.4	3.9	22.8	11	90	87	<0.2	2.0											
						5.1	0.7	229	26.9	26.9	7.9	7.9	24.2	24.2	56.4	56.4	3.9	22.8	12	91	87	<0.2	2.0											
IM7	Misty	Moderate	13:32	7.2	Surface	1.0	1.0	219	27.6	27.6	7.9	7.9	20.4	20.4	68.0	68.0	4.8	10.2	4	82	87	821339	806846	<0.2	2.3	2.2								
						1.0	1.1	230	27.6	27.6	7.9	7.9	20.4	20.9	67.9	68.0	4.8	10.3	5	83	87	<0.2	2.2											
					Middle	3.6	0.9	225	27.5	27.5	7.9	7.9	20.9	20.9	65.6	65.6	4.6	16.5	7	86	87	<0.2	2.3											
						3.6	0.9	235	27.5	27.5	7.9	7.9	20.9	20.9	65.6	65.6	4.6	16.7	6	87	87	<0.2	2.3											
					Bottom	6.2	0.8	232	27.5	27.5	7.9	7.9	21.0	21.0	66.9	67.0	4.7	22.2	24	91	87	<0.2	2.1											
						6.2	0.8	244	27.5	27.5	7.9	7.9	21.0	21.0	67.0	67.0																		

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 08 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
IM9	Fine	Moderate	13:05	7.3	Surface	1.0	0.6	172	27.9	8.0	8.0	19.2	19.2	70.4	70.4	5.0	4.8	9.1	10.8	2	75	78	822090	808812	<0.2	<0.2	3.3	3.2				
						1.0	0.6	188	27.9	8.0	8.0	19.2	19.2	70.4	70.4	5.0	4.8	9.1	10.8	2	74	78	<0.2	<0.2	3.2	3.2						
					Middle	3.7	0.4	172	27.5	8.0	8.0	20.7	20.7	65.6	65.6	4.6	4.7	11.4	11.4	3	77	78	<0.2	<0.2	3.3	3.3						
						3.7	0.4	185	27.5	8.0	8.0	20.7	20.7	65.6	65.6	4.6	4.7	11.4	11.4	3	77	78	<0.2	<0.2	3.3	3.3						
					Bottom	6.3	0.2	178	27.4	8.0	8.0	21.0	21.0	66.2	66.2	4.7	4.7	11.8	11.8	4	81	81	<0.2	<0.2	3.0	3.0						
						6.3	0.2	187	27.4	8.0	8.0	21.0	21.0	66.2	66.2	4.7	4.7	11.8	11.8	4	81	81	<0.2	<0.2	3.0	3.0						
IM10	Fine	Moderate	12:52	7.2	Surface	1.0	0.9	140	27.7	8.0	8.0	20.0	20.0	67.0	67.0	4.7	4.6	11.3	16.9	3	74	78	822376	809767	<0.2	<0.2	3.4	3.1				
						1.0	0.9	146	27.7	8.0	8.0	20.0	20.0	67.0	67.0	4.7	4.6	11.3	16.9	3	76	78	<0.2	<0.2	3.3	3.1						
					Middle	3.6	0.7	124	27.2	8.0	8.0	22.3	22.3	62.0	62.0	4.4	4.4	19.6	19.6	3	79	79	<0.2	<0.2	2.9	2.9						
						3.6	0.7	128	27.2	8.0	8.0	22.3	22.3	62.0	62.0	4.4	4.4	19.6	19.6	3	79	79	<0.2	<0.2	2.9	2.9						
					Bottom	6.2	0.6	120	27.2	8.0	8.0	22.4	22.4	64.0	64.0	4.5	4.5	19.8	19.8	2	81	80	<0.2	<0.2	3.1	3.1						
						6.2	0.6	122	27.2	8.0	8.0	22.4	22.4	64.0	64.0	4.5	4.5	19.8	19.8	3	80	80	<0.2	<0.2	3.1	3.1						
IM11	Fine	Moderate	12:43	7.4	Surface	1.0	0.9	105	27.9	8.1	8.1	19.2	19.2	72.0	72.0	5.1	4.8	12.6	13.8	<2	74	77	822050	811432	<0.2	<0.2	3.1	3.0				
						1.0	0.9	107	27.9	8.1	8.1	19.2	19.2	72.0	72.0	5.1	4.8	12.6	13.8	<2	72	77	<0.2	<0.2	2.9	2.9						
					Middle	3.7	0.7	103	27.2	8.0	8.0	22.1	22.1	62.0	62.0	4.4	4.4	11.9	11.9	3	79	78	<0.2	<0.2	3.0	3.0						
						3.7	0.7	107	27.2	8.0	8.0	22.1	22.1	62.0	62.0	4.4	4.4	11.9	11.9	3	78	78	<0.2	<0.2	2.9	2.9						
					Bottom	6.4	0.4	103	27.1	8.0	8.0	22.6	22.6	66.4	66.4	4.7	4.7	16.8	16.8	3	81	80	<0.2	<0.2	2.8	2.8						
						6.4	0.4	105	27.1	8.0	8.0	22.6	22.6	66.4	66.4	4.7	4.7	16.8	16.8	4	80	80	<0.2	<0.2	2.8	2.8						
IM12	Fine	Moderate	12:36	8.8	Surface	1.0	0.8	102	27.8	8.0	8.0	19.8	19.8	71.5	71.5	5.0	4.8	10.4	16.3	2	79	82	821439	812025	<0.2	<0.2	2.8	2.8				
						1.0	0.8	109	27.8	8.0	8.0	19.8	19.8	71.5	71.5	5.0	4.8	10.4	16.3	3	78	82	<0.2	<0.2	3.0	3.0						
					Middle	4.4	0.6	102	27.4	8.0	8.0	21.1	21.1	63.2	63.2	4.5	4.5	16.2	16.2	3	82	83	<0.2	<0.2	2.6	2.6						
						4.4	0.6	109	27.4	8.0	8.0	21.1	21.1	63.2	63.2	4.5	4.5	16.2	16.2	3	83	83	<0.2	<0.2	2.9	2.9						
					Bottom	7.8	0.4	108	27.2	8.0	8.0	22.2	22.2	65.9	65.9	4.6	4.6	22.4	22.4	4	85	86	<0.2	<0.2	2.8	2.7						
						7.8	0.4	109	27.2	8.0	8.0	22.2	22.2	65.9	65.9	4.6	4.6	22.4	22.4	4	86	86	<0.2	<0.2	2.7	2.7						
SR2	Fine	Moderate	11:52	3.6	Surface	1.0	0.5	81	27.7	8.0	8.0	20.3	20.3	65.6	65.6	4.6	4.6	14.6	16.6	3	77	80	821459	814153	<0.2	<0.2	3.2	2.8				
						1.0	0.6	87	27.7	8.0	8.0	20.3	20.3	65.6	65.6	4.6	4.6	14.6	16.6	4	78	81	<0.2	<0.2	2.8	2.8						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	2.6	0.4	80	27.3	8.0	8.0	21.7	21.7	64.3	64.3	4.5	4.5	18.6	18.6	3	81	84	<0.2	<0.2	2.8	2.8						
						2.6	0.4	85	27.3	8.0	8.0	21.7	21.7	64.3	64.3	4.5	4.5	18.6	18.6	4	84	84	<0.2	<0.2	2.8	2.8						
SR3	Fine	Moderate	13:17	8.2	Surface	1.0	1.0	182	28.1	8.0	8.0	17.5	17.5	70.3	70.3	5.0	4.7	9.8	14.0	4	-	-	822148	807541	-	-	-	-				
						1.0	1.1	191	28.1	8.0	8.0	17.5	17.5	70.3	70.3	5.0	4.7	9.8	14.0	3	-	-	-	-	-	-	-	-				
					Middle	4.1	0.6	200	27.3	8.0	8.0	21.3	21.3	61.5	61.5	4.3	4.3	14.6	14.6	4	-	-	-	-	-	-	-	-	-			
						4.1	0.7	215	27.3	8.0	8.0	21.3	21.3	61.5	61.5	4.3	4.3	14.6	14.6	5	-	-	-	-	-	-	-	-	-			
					Bottom	7.2	0.5	229	27.1	8.0	8.0	22.4	22.4	62.2	62.2	4.4	4.4	17.6	17.6	5	-	-	-	-	-	-	-	-	-			
						7.2	0.5	238	27.1	8.0	8.0	22.4	22.4	62.2	62.2	4.4	4.4	17.6	17.6	5	-	-	-	-	-	-	-	-	-			
SR4A	Misty	Calm	11:45	9.6	Surface	1.0	0.1	113	27.8	8.0	8.0	21.3	21.2	74.3	74.3	5.2	4.9	6.6	16.0	5	-	-	-	-	-	-	-					
						1.0	0.1	113	27.8	8.0	8.0	21.2	21.2	74.2	74.2	5.2	4.9	6.7	16.0	5	-	-	-	-	-	-	-					
					Middle	4.8	0.3	52	26.0	7.9	7.9	27.9	27.9	66.2	66.2	4.6	4.6	18.8	18.8	7	-	-	-	-	-	-	-	-				
						4.8	0.3	56	26.0	7.9	7.9	27.9	27.9	66.2	66.2	4.6	4.6	18.7	18.7	7	-	-	-	-	-	-	-	-				
					Bottom	8.6	0.2	66	26.0	7.9	7.9	28.1	28.1	49.1	49.1	3.4	3.4	22.5	22.5	12	-	-	-	-	-	-	-	-				
						8.6	0.2	70	26.0	7.9	7.9	28.1	28.1	49.0	49.0	3.4	3.4	22.6	22.6	11	-	-	-	-	-	-	-	-				
SR5A	Misty	Calm	11:28	4.7	Surface	1.0	0.1	334	28.5	8.0	8.0	20.2	20.2	78.5	78.5	5.5	5.5	5.6	7.6	6	-	-	816621	810702	-	-	-	-				
						1.0	0.1	307	28.5	8.0	8.0	20.2	20.2	78.5	78.5	5.5	5.5	5.6	7.6	6	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.7	0.0	110	27.6	7.9	7.9	22.4	22.4	68.0	68.1	4.7	4.7	9.6	9.6	7	-	-	-	-	-	-	-	-				
						3.7	0.0	114	27.6	7.9	7.9	22.4	22.4	68.2	68.1	4.7	4.7	9.6	9.6	7	-	-	-	-	-	-	-	-				
SR6	Misty	Calm	11:02	4.5	Surface	1.0	0.1	57	28.4	8.0	8.0	19.2	19.2	77.2	77.2	5.4	5.4	5.3	5.2	5	-	-	-	-	-	-						
						1.0	0.1	61	28.4	8.0	8.0	19.2	19.2	77.2	77.2	5.4	5.4	5.3	5.2	5	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.5	0.1	55	28.1	7.9	7.9	20.3	20.3	73.8	73.9	5.2	5.2	5.1	5.1	7	-	-	-	-	-	-	-					
						3.5	0.2	56	28.1	7.9	7.9	20.3	20.3	73.9	73.9	5.2	5.2	5.1	5.1	7	-	-	-	-	-	-	-					
SR7	Fine	Moderate	10:44	16.2	Surface	1.0	0.5	76	27.0	8.1	8.1	22.5	22.5	75.2	75.2	5.3	5.1	7.4	7.9	2	-	-										

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 08 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value
C1	Misty	Moderate	18:15	7.9	Surface	1.0	0.6	182	27.5	7.9	7.9	21.9	21.9	66.7	66.7	4.7	4.7	14.2	14.2	14	14	81	81	815604	804230	<0.2	<0.2	2.0	2.0		
						1.0	0.6	187	27.5	7.9	7.9	21.9	21.9	66.7	66.7	4.7	4.7	14.1	14.1	15	15	82	82	<0.2	<0.2	1.9	1.9				
						4.0	0.4	191	26.9	7.9	7.9	24.3	24.3	59.9	59.9	4.2	4.2	21.5	21.5	14	14	87	87	<0.2	<0.2	2.3	2.3				
					4.0	0.4	207	26.9	7.9	7.9	24.3	24.3	59.8	59.8	4.2	4.2	21.5	21.5	14	14	88	88	<0.2	<0.2	2.0	2.0					
					6.9	0.2	231	26.5	7.9	7.9	26.2	26.2	55.4	55.4	3.9	3.9	20.9	20.9	15	15	90	90	<0.2	<0.2	2.3	2.3					
					6.9	0.2	231	26.5	7.9	7.9	26.2	26.2	55.6	55.5	3.9	3.9	20.8	20.8	15	15	90	90	<0.2	<0.2	1.9	1.9					
C2	Fine	Moderate	17:09	11.5	Surface	1.0	1.6	178	28.3	7.8	7.8	14.2	14.2	66.1	66.1	4.8	4.8	10.0	10.0	4	4	73	73	825674	806936	<0.2	<0.2	3.0	3.0		
						1.0	1.7	192	28.3	7.8	7.8	14.2	14.2	66.1	66.1	4.8	4.8	10.0	10.0	4	4	74	74	<0.2	<0.2	3.0	3.0				
						5.8	1.2	173	27.5	7.9	7.9	18.6	18.6	55.7	55.7	4.0	4.0	13.2	13.2	5	5	77	77	<0.2	<0.2	2.7	2.7				
					5.8	1.3	186	27.5	7.9	7.9	18.6	18.6	55.7	55.7	4.0	4.0	13.2	13.2	4	4	79	79	<0.2	<0.2	3.1	3.1					
					10.5	0.4	186	26.7	7.9	7.9	23.9	23.9	62.0	62.0	4.4	4.4	16.6	16.6	6	6	81	81	<0.2	<0.2	3.0	3.0					
					10.5	0.5	193	26.7	7.9	7.9	23.9	23.9	62.0	62.0	4.4	4.4	16.6	16.6	6	6	82	82	<0.2	<0.2	3.2	3.2					
C3	Fine	Moderate	18:44	11.8	Surface	1.0	0.4	354	27.5	8.0	8.0	21.5	21.5	65.9	65.9	4.6	4.6	12.2	12.2	7	7	79	79	822127	817821	<0.2	<0.2	3.0	3.0		
						1.0	0.5	359	27.5	8.0	8.0	21.5	21.5	65.9	65.9	4.6	4.6	12.2	12.2	7	7	78	78	<0.2	<0.2	3.3	3.3				
						5.9	0.4	313	26.8	8.0	8.0	23.4	23.4	61.7	61.7	4.3	4.3	13.1	13.1	7	7	83	83	<0.2	<0.2	3.0	3.0				
					5.9	0.5	317	26.8	8.0	8.0	23.4	23.4	61.7	61.7	4.3	4.3	13.1	13.1	8	8	81	81	<0.2	<0.2	3.2	3.2					
					10.8	0.3	258	26.1	8.0	8.0	25.9	25.9	67.2	67.2	4.7	4.7	12.5	12.5	10	10	88	88	<0.2	<0.2	3.3	3.3					
					10.8	0.3	266	26.1	8.0	8.0	25.9	25.9	67.2	67.2	4.7	4.7	12.5	12.5	9	9	87	87	<0.2	<0.2	3.0	3.0					
IM1	Misty	Moderate	17:57	4.1	Surface	1.0	0.1	137	27.4	8.0	8.0	22.7	22.7	69.3	69.3	4.9	4.9	17.8	17.8	10	10	83	83	817931	807122	<0.2	<0.2	2.2	2.2		
						1.0	0.1	142	27.4	8.0	8.0	22.7	22.7	69.3	69.3	4.9	4.9	17.8	17.8	10	10	84	84	<0.2	<0.2	2.0	2.0				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					3.1	0.1	289	27.0	8.0	8.0	24.4	24.4	58.1	58.1	4.1	4.1	21.6	21.6	16	16	85	85	<0.2	<0.2	2.0	2.0					
					3.1	0.1	309	27.0	8.0	8.0	24.4	24.4	58.1	58.1	4.1	4.1	21.7	21.7	17	17	86	86	<0.2	<0.2	2.0	2.0					
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Misty	Moderate	17:49	6.7	Surface	1.0	0.7	177	27.8	8.0	8.0	20.7	20.7	69.2	69.2	4.9	4.9	13.1	13.1	18	18	82	82	818165	806153	<0.2	<0.2	2.2	2.2		
						1.0	0.7	180	27.8	8.0	8.0	20.7	20.7	69.2	69.2	4.9	4.9	13.1	13.1	18	18	83	83	<0.2	<0.2	2.2	2.2				
						3.4	0.4	175	27.3	8.0	8.0	22.4	22.4	59.9	59.9	4.2	4.2	18.4	18.4	20	20	86	86	<0.2	<0.2	2.1	2.1				
					3.4	0.4	184	27.3	8.0	8.0	22.4	22.4	59.8	59.8	4.2	4.2	18.4	18.4	20	20	87	87	<0.2	<0.2	2.1	2.1					
					5.7	0.1	209	26.6	8.0	8.0	25.8	25.8	53.6	53.7	3.7	3.7	22.3	22.3	34	34	90	90	<0.2	<0.2	2.1	2.1					
					5.7	0.1	223	26.6	8.0	8.0	25.8	25.8	53.7	53.7	3.7	3.7	22.4	22.4	33	33	90	90	<0.2	<0.2	2.2	2.2					
IM3	Misty	Moderate	17:42	7.0	Surface	1.0	0.5	192	27.9	7.9	7.9	19.2	19.2	72.4	72.4	5.1	5.1	12.0	12.0	21	21	82	82	818777	805614	<0.2	<0.2	2.1	2.1		
						1.0	0.6	211	27.9	7.9	7.9	19.3	19.3	72.3	72.3	5.1	5.1	12.2	12.2	20	20	82	82	<0.2	<0.2	2.1	2.1				
						3.5	0.4	200	27.7	7.9	7.9	20.2	20.2	70.3	70.3	4.9	4.9	14.5	14.5	24	24	85	85	<0.2	<0.2	1.8	1.8				
					3.5	0.5	204	27.7	7.9	7.9	20.2	20.2	70.3	70.3	4.9	4.9	14.5	14.5	23	23	86	86	<0.2	<0.2	1.9	1.9					
					6.0	0.3	190	27.6	7.9	7.9	20.7	20.7	70.0	70.0	4.9	4.9	22.8	22.8	31	31	91	91	<0.2	<0.2	1.9	1.9					
					6.0	0.4	193	27.6	7.9	7.9	20.8	20.8	70.1	70.1	4.9	4.9	22.8	22.8	30	30	92	92	<0.2	<0.2	2.1	2.1					
IM4	Misty	Moderate	17:33	6.9	Surface	1.0	0.9	190	27.6	7.9	7.9	20.5	20.5	67.1	67.1	4.7	4.7	10.6	10.6	20	20	81	81	819703	804603	<0.2	<0.2	1.8	1.8		
						1.0	1.0	194	27.6	7.9	7.9	20.5	20.5	67.1	67.1	4.7	4.7	10.6	10.6	20	20	81	81	<0.2	<0.2	2.0	2.0				
						3.5	0.9	191	27.5	7.9	7.9	20.7	20.7	66.9	66.9	4.7	4.7	13.2	13.2	21	21	85	85	<0.2	<0.2	1.8	1.8				
					3.5	1.0	205	27.5	7.9	7.9	20.7	20.7	66.9	66.9	4.7	4.7	13.2	13.2	21	21	86	86	<0.2	<0.2	2.1	2.1					
					5.9	0.7	187	27.5	7.9	7.9	20.8	20.8	58.1	58.1	4.0	4.0	17.8	17.8	26	26	90	90	<0.2	<0.2	2.3	2.3					
					5.9	0.7	198	27.5	7.9	7.9	20.8	20.8	58.1	58.1	4.0	4.0	17.8	17.8	26	26	90	90	<0.2	<0.2	1.9	1.9					
IM5	Misty	Moderate	17:27	6.3	Surface	1.0	1.0	205	27.4	7.9	7.9	21.2	21.2	67.8	67.8	4.8	4.8	12.7	12.7	23	23	83	83	820720	804874	<0.2	<0.2	2.2	2.2		
						1.0	1.1	216	27.4	7.9	7.9	21.2	21.2	67.8	67.8	4.8	4.8	12.7	12.7	22	22	84	84	<0.2	<0.2	1.9	1.9				
						3.2	0.9	208	27.3	7.9	7.9	21.6	21.6	63.3	63.3	4.5	4.5	16.6	16.6	25	25	86	86	<0.2	<0.2	2.1	2.1				
					3.2	1.0	214	27.3	7.9	7.9	21.6	21.6	63.3	63.3	4.5	4.5	16.6	16.6	25	25	87	87	<0.2	<0.2	2.1	2.1					
					5.3	0.7	197	27.2	7.9	7.9	22.4	22.4	61.9	61.9	4.3	4.3	21.2	21.2	29	29	88	88	<0.2	<0.2	2.2	2.2					
					5.3	0.7	204	27.2	7.9	7.9	22.4	22.4	62.0	62.0	4.4	4.4	21.2	21.2	30	30	88	88	<0.2	<0.2	2.0	2.0					
IM6	Misty	Moderate	17:20	6.2	Surface	1.0	1.2	214	27.6	7.9	7.9	19.6	19.6	69.1	69.1	4.9	4.9	10.2	10.2	14	14	80	80	821056	805850	<0.2	<0.2	2.2	2.2		
						1.0	1.2	222	27.6	7.9	7.9	19.6	19.6	69.1	69.1	4.9	4.9	10.2	10.2	14	14	82	82	<0.2	<0.2	2.1	2.1				
						3.1	1.2	214	27.6	7.9	7.9	19.7	19.7	63.4	63.4	4.4	4.4	16.3	16.3	19	19	87	87	<0.2	<0.2	2.4	2.4				
					3.1	1.3	234	27.6	7.9	7.9	19.7	19.7	63.4																		



Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 11 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA				
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
C1	Fine	Moderate	14:05	8.4	Surface	1.0	0.1	29	27.3	8.0	8.0	22.0	22.0	70.0	70.0	4.9	4.9	6.1	6.1	6	6	80	80	815624	804275	<0.2	<0.2	2.1	1.9					
						1.0	0.1	29	27.3	8.0	8.0	22.0	22.0	70.0	70.0	4.9	4.9	6.1	6.1	6	6	79	79	80	80	<0.2	<0.2	1.9	1.9					
					Middle	4.2	0.1	261	26.6	26.6	8.0	8.0	24.6	24.6	63.9	63.9	4.5	4.5	11.8	11.8	6	6	83	83	815624	804275	<0.2	<0.2	1.7	1.7				
						4.2	0.1	286	26.6	26.6	8.0	8.0	24.6	24.6	63.9	63.9	4.5	4.5	11.8	11.8	7	7	84	84	80	80	<0.2	<0.2	1.9	1.9				
					Bottom	7.4	0.2	196	26.3	26.3	8.0	8.0	26.8	26.8	64.9	64.9	4.5	4.5	14.6	14.6	8	8	86	86	815624	804275	<0.2	<0.2	1.7	1.7				
						7.4	0.2	207	26.3	26.3	8.0	8.0	26.8	26.8	64.9	64.9	4.5	4.5	14.6	14.6	8	8	87	87	80	80	<0.2	<0.2	1.8	1.8				
C2	Sunny	Moderate	12:25	12.9	Surface	1.0	0.4	43	27.2	7.9	7.9	22.1	22.1	72.4	72.4	5.1	5.1	15.7	15.7	7	7	81	81	825695	806948	<0.2	<0.2	2.0	1.9					
						1.0	0.5	44	27.2	7.9	7.9	22.1	22.1	72.4	72.4	5.1	5.1	16.0	16.0	8	8	80	80	825695	806948	<0.2	<0.2	2.0	1.8					
					Middle	6.5	0.5	51	26.9	26.9	7.9	7.9	23.3	23.3	70.3	70.3	4.9	4.9	19.9	19.9	8	8	85	85	825695	806948	<0.2	<0.2	1.8	1.9				
						6.5	0.5	53	26.9	26.9	7.9	7.9	23.3	23.3	70.2	70.3	4.9	4.9	20.1	20.1	8	8	86	86	825695	806948	<0.2	<0.2	1.8	1.9				
					Bottom	11.9	0.3	30	26.5	26.5	7.9	7.9	24.6	24.6	59.3	59.3	4.2	4.2	21.8	21.8	8	8	91	91	825695	806948	<0.2	<0.2	1.9	1.9				
						11.9	0.3	30	26.5	26.5	7.9	7.9	24.6	24.6	59.4	59.4	4.2	4.2	22.0	22.0	9	9	90	90	825695	806948	<0.2	<0.2	1.7	1.7				
C3	Sunny	Moderate	14:12	13.3	Surface	1.0	0.6	82	26.9	26.9	8.0	8.0	24.7	24.7	74.7	74.6	5.2	5.2	9.3	9.3	8	8	83	83	822092	817774	<0.2	<0.2	2.1	2.2				
						1.0	0.6	82	26.9	26.9	8.0	8.0	24.7	24.7	74.5	74.6	5.2	5.2	9.3	9.3	9	9	83	83	822092	817774	<0.2	<0.2	2.2	2.2				
					Middle	6.7	0.4	90	26.1	26.1	8.0	8.0	26.0	26.0	68.4	68.5	4.8	4.8	9.5	9.5	10	10	87	87	822092	817774	<0.2	<0.2	2.3	2.3				
						6.7	0.4	96	26.1	26.1	8.0	8.0	26.0	26.0	68.5	68.5	4.8	4.8	9.5	9.5	11	11	87	87	822092	817774	<0.2	<0.2	2.2	2.2				
					Bottom	12.3	0.3	97	25.8	25.8	8.0	8.0	26.8	26.8	60.5	60.5	4.2	4.2	14.7	14.7	12	12	92	92	822092	817774	<0.2	<0.2	2.0	2.2				
						12.3	0.3	98	25.8	25.8	8.0	8.0	26.8	26.8	60.5	60.5	4.2	4.2	14.7	14.7	11	11	92	92	822092	817774	<0.2	<0.2	2.2	2.2				
IM1	Fine	Moderate	13:45	5.6	Surface	1.0	0.1	189	27.4	27.4	7.9	7.9	22.5	22.5	69.3	69.3	4.8	4.8	5.1	5.1	6	6	81	81	817956	807109	<0.2	<0.2	1.8	1.9				
						1.0	0.1	202	27.4	27.4	7.9	7.9	22.5	22.5	69.3	69.3	4.8	4.8	5.1	5.1	6	6	82	82	817956	807109	<0.2	<0.2	2.0	2.0				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	84	817956	807109	<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	84	817956	807109	<0.2	<0.2	-
					Bottom	4.6	0.2	262	27.2	27.2	7.9	7.9	23.2	23.2	67.9	67.9	4.7	4.7	5.8	5.8	6	6	86	86	817956	807109	<0.2	<0.2	1.9	1.9				
						4.6	0.2	285	27.2	27.2	7.9	7.9	23.2	23.2	67.9	67.9	4.7	4.7	5.8	5.8	7	7	85	85	817956	807109	<0.2	<0.2	1.8	1.8				
IM2	Fine	Moderate	13:38	8.1	Surface	1.0	0.2	60	27.3	27.3	7.9	7.9	21.9	21.9	71.2	71.2	5.0	5.0	7.1	7.1	8	8	81	81	818143	806158	<0.2	<0.2	1.7	1.6				
						1.0	0.2	60	27.3	27.3	7.9	7.9	21.9	21.9	71.2	71.2	5.0	5.0	7.1	7.1	9	9	83	83	818143	806158	<0.2	<0.2	1.6	1.6				
					Middle	4.1	0.1	69	26.7	26.7	7.9	7.9	24.0	24.0	61.3	61.3	4.3	4.3	14.2	14.2	9	9	85	85	818143	806158	<0.2	<0.2	1.8	1.7				
						4.1	0.1	74	26.7	26.7	7.9	7.9	24.0	24.0	61.3	61.3	4.3	4.3	14.2	14.2	9	9	88	88	818143	806158	<0.2	<0.2	1.7	1.7				
					Bottom	7.1	0.2	90	26.6	26.6	7.9	7.9	25.2	25.2	62.4	62.4	4.4	4.4	14.1	14.1	10	10	88	88	818143	806158	<0.2	<0.2	1.7	1.7				
						7.1	0.2	92	26.6	26.6	7.9	7.9	25.2	25.2	62.4	62.4	4.4	4.4	14.1	14.1	10	10	91	91	818143	806158	<0.2	<0.2	1.7	1.7				
IM3	Fine	Moderate	13:31	8.6	Surface	1.0	0.5	49	27.0	27.0	8.0	8.0	22.8	22.8	68.8	68.8	4.8	4.8	8.9	8.9	9	9	80	80	818761	805598	<0.2	<0.2	1.6	1.8				
						1.0	0.5	52	27.0	27.0	8.0	8.0	22.8	22.8	68.8	68.8	4.8	4.8	8.9	8.9	8	8	79	79	818761	805598	<0.2	<0.2	1.8	1.8				
					Middle	4.3	0.3	45	26.5	26.5	8.0	8.0	25.3	25.3	61.7	61.7	4.3	4.3	17.3	17.3	10	10	83	83	818761	805598	<0.2	<0.2	1.9	1.9				
						4.3	0.3	46	26.5	26.5	8.0	8.0	25.3	25.3	61.7	61.7	4.3	4.3	17.3	17.3	10	10	83	83	818761	805598	<0.2	<0.2	1.8	1.8				
					Bottom	7.6	0.2	43	26.5	26.5	8.0	8.0	25.5	25.5	62.3	62.3	4.3	4.3	19.2	19.2	10	10	87	87	818761	805598	<0.2	<0.2	1.8	1.8				
						7.6	0.2	45	26.5	26.5	8.0	8.0	25.5	25.5	62.3	62.3	4.3	4.3	19.2	19.2	9	9	88	88	818761	805598	<0.2	<0.2	1.8	1.8				
IM4	Fine	Moderate	13:16	8.4	Surface	1.0	0.3	84	27.2	27.2	8.0	8.0	24.5	24.5	68.8	68.8	4.8	4.8	9.5	9.5	7	7	83	83	819695	804591	<0.2	<0.2	1.7	1.8				
						1.0	0.3	90	27.2	27.2	8.0	8.0	24.5	24.5	68.8	68.8	4.8	4.8	9.5	9.5	8	8	81	81	819695	804591	<0.2	<0.2	1.8	1.8				
					Middle	4.2	0.2	97	26.8	26.8	8.0	8.0	24.8	24.8	62.8	62.8	4.4	4.4	17.1	17.1	7	7	86	86	819695	804591	<0.2	<0.2	1.6	1.7				
						4.2	0.2	102	26.8	26.8	8.0	8.0	24.8	24.8	62.8	62.8	4.4	4.4	17.1	17.1	8	8	86	86	819695	804591	<0.2	<0.2	1.7	1.7				
					Bottom	7.4	0.1	19	26.5	26.5	8.0	8.0	26.1	26.1	63.5	63.5	4.4	4.4	15.5	15.5	11	11	88	88	819695	804591	<0.2	<0.2	2.0	2.0				
						7.4	0.1	20	26.5	26.5	8.0	8.0	26.1	26.1	63.5	63.5	4.4	4.4	15.5	15.5	11	11	87	87	819695	804591	<0.2	<0.2	1.7	1.7				
IM5	Fine	Moderate	13:07	8.1	Surface	1.0	0.3	4	27.1	27.1	8.0	8.0	24.6	24.6	71.2	71.2	4.9	4.9	10.9	10.9	10	10	83	83	820752	804892	<0.2	<0.2	1.8	1.8				
						1.0	0.3	4	27.1	27.1	8.0	8.0	24.6	24.6	71.2	71.2	4.9	4.9	10.9	10.9	11	11	84	84	820752	804892	<0.2	<0.2	1.9	1.8				
					Middle	4.1	0.3	0	26.6	26.6	8.0	8.0	25.2	25.2	62.4	62.4	4.3	4.3	17.9	17.9	11	11	86	86	820752	804892	<0.2	<0.2	1.6	1.6				
						4.1	0.4	0	26.6	26.6	8.0	8.0	25.2	25.2	62.4	62.4	4.3	4.3	17.9															



**Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring**

**Water Quality Monitoring Results on 11 September 18 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA				
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
C1	Fine	Moderate	07:42	9.6	Surface	1.0	0.8	32	26.9	26.9	7.9	7.9	22.0	22.0	64.1	64.1	4.5	4.4	15.4	15.9	6	81	85	85	815615	804226	<0.2	1.3	<0.2	1.4				
						1.0	0.8	34	26.9		7.9	7.9	22.0	22.0	64.1	64.1	4.5	4.4	15.4		7	82					<0.2	1.4						
						4.8	0.7	33	26.5		8.0	8.0	25.6	25.6	61.8	61.8	4.3	4.3	16.9		9	84					<0.2	1.3						
					Middle	4.8	0.7	33	26.5	26.5	8.0	8.0	25.6	25.6	8.0	8.0	25.6	25.6	61.8	61.8	4.3	4.3	16.9	16.9	8	85	85	85	815615	804226	<0.2	1.4	<0.2	1.4
						8.6	0.7	35	26.5		8.0	8.0	26.1		26.1	64.5	64.5		4.5		4.5		15.3		11	89					<0.2	1.4		
						8.6	0.7	35	26.5		8.0	8.0	26.1		26.1	64.5	64.5		4.5		4.5		15.3		12	90					<0.2	1.4		
C2	Fine	Moderate	09:21	12.6	Surface	1.0	0.3	21	27.0	27.0	7.8	7.8	21.2	21.2	66.3	66.3	4.7	4.7	11.8	16.0	6	77	82	82	825652	806954	<0.2	2.4	<0.2	2.2				
						1.0	0.3	22	27.0		7.8	7.8	21.2	21.2	66.2	66.3	4.7	4.7	11.9		6	77					<0.2	2.2						
						6.3	0.4	27	26.8		7.8	7.8	21.9	21.9	65.3	65.3	4.6	4.6	15.5		6	81					<0.2	2.4						
					Middle	6.3	0.4	29	26.8	26.8	7.8	7.8	21.9	21.9	7.8	7.8	21.9	21.9	65.3	65.3	4.6	4.6	15.8	15.8	5	80	80	80	825652	806954	<0.2	2.0	<0.2	2.0
						11.6	0.4	331	26.4		7.9	7.9	24.6		24.6	55.6	55.6		3.9		3.9		20.4		6	87					<0.2	2.2		
						11.6	0.5	352	26.4		7.9	7.9	24.6		24.6	55.6	55.6		3.9		3.9		20.3		6	87					<0.2	2.0		
C3	Fine	Moderate	07:28	12.1	Surface	1.0	0.7	262	26.6	26.6	8.0	8.0	23.8	23.8	69.1	69.1	4.9	4.7	12.2	20.2	4	82	86	86	822126	817811	<0.2	2.0	<0.2	2.0				
						1.0	0.7	275	26.6		8.0	8.0	23.8	23.8	69.0	69.1	4.8	4.7	12.2		5	82					<0.2	2.0						
						6.1	0.7	260	26.0		8.0	8.0	26.0	26.0	63.7	63.7	4.5	4.5	17.8		6	88					<0.2	2.0						
					Middle	6.1	0.7	260	26.0	26.0	8.0	8.0	26.0	26.0	8.0	8.0	26.0	26.0	63.6	63.7	4.5	4.5	18.0	18.0	6	87	87	87	822126	817811	<0.2	2.6	<0.2	2.6
						11.1	0.5	264	25.9		7.9	7.9	26.3		26.3	56.9	56.9		4.0		4.0		30.4		8	89					<0.2	2.5		
						11.1	0.5	280	25.9		7.9	7.9	26.3		26.3	56.9	56.9		4.0		4.0		30.3		8	90					<0.2	2.0		
IM1	Fine	Moderate	07:59	5.4	Surface	1.0	0.1	5	26.8	26.8	7.9	7.9	24.0	24.0	66.1	66.1	4.6	4.6	13.4	15.7	29	83	29	29	817970	807111	<0.2	1.3	<0.2	1.3				
						1.0	0.1	5	26.8		7.9	7.9	24.0	24.0	66.1	66.1	4.6	4.6	13.4		28	84					<0.2	1.3						
						-	-	-	-		-	-	-	-	-	-	-	-	-		-	-					-	-			-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	817970	807111	<0.2	-	<0.2	-	
						4.4	0.1	31	26.8		7.9	7.9	24.0		24.0	73.1	73.1		5.1		5.1		18.0		29					85	<0.2			1.2
						4.4	0.1	32	26.8		7.9	7.9	24.0		24.0	73.1	73.1		5.1		5.1		18.0		28					86	<0.2			1.3
IM2	Fine	Moderate	08:07	8.3	Surface	1.0	0.7	2	26.8	26.8	7.9	7.9	23.3	23.3	72.2	72.2	5.1	4.7	14.6	17.8	18	81	20	20	818136	806143	<0.2	1.7	<0.2	1.5				
						1.0	0.7	2	26.8		7.9	7.9	23.3	23.3	72.2	72.2	5.1	4.7	14.6		19	83					<0.2	1.5						
						4.2	0.5	5	26.7		7.9	7.9	24.2	24.2	59.8	59.8	4.2	4.2	18.1		19	86					<0.2	1.4						
					Middle	4.2	0.5	5	26.7	26.7	7.9	7.9	24.2	24.2	7.9	7.9	24.2	24.2	59.8	59.8	4.2	4.2	18.1	18.1	20	88	20	20	818136	806143	<0.2	1.5	<0.2	1.5
						7.3	0.4	355	26.7		7.9	7.9	24.3		24.3	62.5	62.5		4.4		4.4		20.7		21	91					<0.2	1.7		
						7.3	0.4	327	26.7		7.9	7.9	24.3		24.3	62.5	62.5		4.4		4.4		20.7		22	90					<0.2	1.6		
IM3	Fine	Moderate	08:15	8.5	Surface	1.0	0.7	7	26.8	26.8	7.9	7.9	23.1	23.1	64.2	64.2	4.5	4.6	12.7	12.9	12	83	14	14	818775	805598	<0.2	1.7	<0.2	1.6				
						1.0	0.8	7	26.8		7.9	7.9	23.1	23.1	64.2	64.2	4.5	4.5	12.7		14	84					<0.2	1.6						
						4.3	0.6	357	26.7		7.9	7.9	24.6	24.6	66.7	66.7	4.7	4.7	11.0		14	86					<0.2	1.8						
					Middle	4.3	0.6	328	26.7	26.7	7.9	7.9	24.6	24.6	7.9	7.9	24.6	24.6	66.7	66.7	4.7	4.7	11.0	11.0	15	88	15	15	818775	805598	<0.2	1.8	<0.2	1.8
						7.5	0.6	2	26.7		7.9	7.9	24.6		24.6	72.1	72.1		5.0		5.0		14.9		15	89					<0.2	1.9		
						7.5	0.6	2	26.7		7.9	7.9	24.6		24.6	72.1	72.1		5.0		5.0		14.9		15	88					<0.2	1.8		
IM4	Fine	Moderate	08:27	8.5	Surface	1.0	0.5	353	26.7	26.7	7.9	7.9	24.6	24.6	67.8	67.8	4.7	4.6	11.9	13.5	14	81	16	16	819709	804619	<0.2	1.7	<0.2	1.7				
						1.0	0.5	325	26.7		7.9	7.9	24.6	24.6	67.8	67.8	4.7	4.6	11.9		15	82					<0.2	1.7						
						4.3	0.5	357	26.7		7.9	7.9	24.8	24.8	63.2	63.2	4.4	4.4	12.9		16	87					<0.2	1.7						
					Middle	4.3	0.6	359	26.7	26.7	7.9	7.9	24.8	24.8	7.9	7.9	24.8	24.8	63.2	63.2	4.4	4.4	12.9	12.9	16	84	16	16	819709	804619	<0.2	1.8	<0.2	1.8
						7.5	0.4	358	26.6		7.9	7.9	24.9		24.9	67.1	67.1		4.7		4.7		15.8		17	88					<0.2	1.7		
						7.5	0.4	329	26.6		7.9	7.9	24.9		24.9	67.1	67.1		4.7		4.7		15.8		18	89					<0.2	2.0		
IM5	Fine	Moderate	08:35	7.8	Surface	1.0	0.6	3	26.8	26.8	7.9	7.9	24.2	24.2	68.8	68.8	4.8	4.6	11.4	13.3	12	81	13	13	820754	804859	<0.2	2.6	<0.2	2.6				
						1.0	0.7	3	26.8		7.9	7.9	24.2	24.2	68.8	68.8	4.8	4.6	11.4		12	82					<0.2	2.6						
						3.9	0.6	1	26.7		7.9	7.9	24.4	24.4	61.5	61.5	4.3	4.3	13.6		13	87					<0.2	2.5						
					Middle	3.9	0.6	1	26.7	26.7	7.9	7.9	24.4	24.4	7.9	7.9	24.4	24.4	61.5	61.5	4.3	4.3	13.6	13.6	12	87	12	12	820754	804859	<0.2	2.7	<0.2	2.7
						6.8	0.5	355	26.7		7.9	7.9	24.4		24.4	64.1	64.1		4.5		4.5		14.9		13	87					<0.2	2.8		
						6.8	0.5	327	26.7		7.9	7.9	24.4		24.4	64.1	64.1		4.5		4.5		14.9		13	88					<0.2	2.5		
IM6	Fine	Moderate	08:41	7.7	Surface	1.0	0.5	29	26.9	26.9	7.9	7.9	23.4	23.4	66.6	66.6	4.7	4.6	14.3	12.0	10	80	11	11	821051	805856	<0.2	2.6	<0.2	2.6				
						1.0	0.5	31	26.9		7.9	7.9	23.4	23.4	66.6	66.6	4.7	4.6	14.3		11	79					<0.2	2.6						
						3.9	0.4	28	26.8		7.9	7.9	23.6	23.6	63.7	63.7	4.5	4.5	10.2		11	82					<0.2	2.3						
					Middle	3.9	0.4	29	26.8	26.8	7.9	7.9	23.6	23.6	7.9	7.9	23.6	23.6	63.7	63.7	4.5	4.5	10.2	10.2	11	84	11	11	821051	805856	<0.2	2.5	<0.2	2.5
						6.7	0.2	16	26.7		7.9	7.9	24.1		24.1	70.1	70.1		4.9		4.9		11											



Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 13 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value
C1	Cloudy	Moderate	15:03	9.3	Surface	1.0	0.1	127	27.3	8.0	8.0	23.2	23.2	77.5	77.4	5.4	5.1	4.9	8.7	6	6	87	90	815627	804270	<0.2	1.7	1.6	1.6				
						1.0	0.1	128	27.3	8.0	8.0	23.2	23.2	77.3	77.4	5.4	5.1	4.9	8.7	6	6	88	90	87	90	<0.2	1.6	1.6	1.6				
					Middle	4.7	0.0	356	26.5	26.5	8.0	8.0	26.6	26.6	69.9	69.9	4.8	4.9	10.3	11.0	6	6	89	91	87	91	<0.2	1.5	1.5	1.5			
						4.7	0.0	357	26.5	26.5	8.0	8.0	26.6	26.6	69.9	69.9	4.8	4.9	10.3	11.0	6	6	90	91	87	91	<0.2	1.6	1.6	1.6			
					Bottom	8.3	0.0	330	26.4	26.4	8.0	8.0	26.8	26.8	71.8	71.9	5.0	5.0	11.0	11.0	7	7	91	93	87	93	<0.2	1.5	1.5	1.5			
						8.3	0.0	339	26.4	26.4	8.0	8.0	26.8	26.8	72.0	71.9	5.0	5.0	11.0	11.0	7	7	92	93	87	93	<0.2	1.7	1.7	1.7			
C2	Fine	Moderate	13:46	11.4	Surface	1.0	0.1	35	27.1	7.9	7.9	22.3	22.3	70.8	70.8	5.0	5.0	16.0	17.8	9	9	82	86	825685	806956	<0.2	2.3	2.2	2.2				
						1.0	0.2	37	27.1	7.9	7.9	22.3	22.3	70.8	70.8	5.0	5.0	16.1	17.8	9	9	82	86	87	90	<0.2	2.1	2.1	2.1				
					Middle	5.7	0.3	48	27.2	27.2	7.9	7.9	22.6	22.6	72.0	72.1	5.0	5.0	17.5	17.7	10	9	86	86	825685	806956	<0.2	2.6	2.6	2.6			
						5.7	0.3	49	27.2	27.2	7.9	7.9	22.6	22.6	72.1	72.1	5.0	5.0	17.7	17.7	10	9	86	86	825685	806956	<0.2	2.0	2.0	2.0			
					Bottom	10.4	0.2	49	27.0	27.0	8.0	8.0	23.5	23.5	72.7	72.7	5.1	5.1	19.8	19.8	9	9	90	90	825685	806956	<0.2	1.9	1.9	1.9			
						10.4	0.2	49	27.0	27.0	8.0	8.0	23.5	23.5	72.6	72.7	5.1	5.1	19.6	19.6	9	9	90	90	825685	806956	<0.2	2.0	2.0	2.0			
C3	Fine	Moderate	15:46	12.6	Surface	1.0	0.4	49	27.5	8.0	8.0	23.5	23.5	76.3	76.3	5.3	5.1	8.3	8.4	5	5	82	83	822087	817781	<0.2	1.8	1.9	1.9				
						1.0	0.4	50	27.5	8.0	8.0	23.5	23.5	76.2	76.3	5.3	5.1	8.3	8.4	4	4	83	86	822087	817781	<0.2	2.2	2.2	2.2				
					Middle	6.3	0.3	91	26.8	26.8	8.0	8.0	24.7	24.7	69.0	69.0	4.8	4.8	8.7	8.7	5	5	86	87	822087	817781	<0.2	2.0	2.0	2.0			
						6.3	0.3	91	26.8	26.8	8.0	8.0	24.7	24.7	69.0	69.0	4.8	4.8	8.7	8.7	5	5	86	87	822087	817781	<0.2	1.9	1.9	1.9			
					Bottom	11.6	0.2	96	26.5	26.5	8.0	8.0	25.4	25.4	68.3	68.3	4.8	4.8	8.2	8.2	6	6	90	91	822087	817781	<0.2	1.8	1.8	1.8			
						11.6	0.3	97	26.5	26.5	8.0	8.0	25.4	25.4	68.3	68.3	4.8	4.8	8.2	8.2	5	5	90	91	822087	817781	<0.2	1.7	1.7	1.7			
IM1	Cloudy	Moderate	14:42	5.0	Surface	1.0	0.1	163	27.1	8.0	8.0	25.1	25.1	79.9	79.9	5.5	5.5	5.3	5.3	9	9	85	86	817975	807153	<0.2	1.5	1.6	1.6				
						1.0	0.1	164	27.1	8.0	8.0	25.1	25.1	79.9	79.9	5.5	5.5	5.4	5.4	9	9	85	86	817975	807153	<0.2	1.5	1.5	1.5				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	817975	807153	<0.2	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	817975	807153	<0.2	-	-
					Bottom	4.0	0.1	198	27.0	27.0	8.0	8.0	25.1	25.1	82.5	82.6	5.7	5.7	5.2	5.2	12	12	89	89	817975	807153	<0.2	1.6	1.6	1.6			
						4.0	0.1	212	27.0	27.0	8.0	8.0	25.1	25.1	82.6	82.6	5.7	5.7	5.2	5.2	12	12	89	89	817975	807153	<0.2	1.6	1.6	1.6			
IM2	Cloudy	Moderate	14:35	7.9	Surface	1.0	0.2	47	27.2	8.0	8.0	23.8	23.8	75.2	75.2	5.2	5.1	6.5	11.9	7	9	85	89	818142	806183	<0.2	1.5	1.5	1.5				
						1.0	0.2	51	27.2	8.0	8.0	23.8	23.8	75.1	75.2	5.2	5.1	6.5	11.9	8	9	85	89	818142	806183	<0.2	1.5	1.5	1.5				
					Middle	4.0	0.1	27	26.5	26.5	8.0	8.0	25.7	25.7	70.0	70.0	4.9	4.9	13.2	13.3	8	9	89	90	818142	806183	<0.2	1.6	1.6	1.6			
						4.0	0.1	27	26.5	26.5	8.0	8.0	25.7	25.7	70.0	70.0	4.9	4.9	13.3	13.3	9	9	89	90	818142	806183	<0.2	1.6	1.6	1.6			
					Bottom	6.9	0.1	69	26.5	26.5	8.0	8.0	25.8	25.8	74.9	75.1	5.2	5.2	16.1	16.0	10	10	93	92	818142	806183	<0.2	1.4	1.4	1.4			
						6.9	0.1	75	26.5	26.5	8.0	8.0	25.8	25.8	75.2	75.1	5.2	5.2	16.0	16.0	10	10	92	92	818142	806183	<0.2	1.6	1.6	1.6			
IM3	Cloudy	Moderate	14:24	7.5	Surface	1.0	0.2	39	27.0	8.0	8.0	24.1	24.1	72.2	72.2	5.0	4.9	7.6	14.7	7	8	87	89	818796	805610	<0.2	1.6	1.5	1.5				
						1.0	0.2	42	27.0	8.0	8.0	24.1	24.1	72.2	72.2	5.0	4.9	7.6	14.7	7	8	87	89	818796	805610	<0.2	1.5	1.5	1.5				
					Middle	3.8	0.1	37	26.5	26.5	8.0	8.0	25.9	25.9	68.4	68.5	4.8	4.8	15.4	15.4	8	8	89	90	818796	805610	<0.2	1.5	1.5	1.5			
						3.8	0.1	39	26.5	26.5	8.0	8.0	25.9	25.9	68.5	68.5	4.8	4.8	15.4	15.4	8	8	89	90	818796	805610	<0.2	1.5	1.5	1.5			
					Bottom	6.5	0.2	30	26.4	26.4	8.0	8.0	26.1	26.1	72.1	72.2	5.0	5.0	21.0	20.9	9	10	92	93	818796	805610	<0.2	1.5	1.5	1.5			
						6.5	0.2	31	26.4	26.4	8.0	8.0	26.1	26.1	72.3	73.3	5.0	5.0	20.9	20.9	10	10	93	93	818796	805610	<0.2	1.5	1.5	1.5			
IM4	Cloudy	Moderate	14:14	8.2	Surface	1.0	0.3	27	27.0	8.0	8.0	24.7	24.7	73.8	73.7	5.1	5.0	6.8	12.7	10	11	86	87	819740	804588	<0.2	1.4	1.4	1.4				
						1.0	0.3	29	27.0	8.0	8.0	24.7	24.7	73.6	73.6	5.1	5.0	7.0	12.7	10	11	87	87	819740	804588	<0.2	1.5	1.5	1.5				
					Middle	4.1	0.2	21	26.7	26.7	8.0	8.0	25.7	25.7	70.3	70.3	4.9	4.9	11.5	11.5	10	10	90	91	819740	804588	<0.2	1.4	1.4	1.4			
						4.1	0.2	21	26.8	26.8	8.0	8.0	25.7	25.7	70.3	70.3	4.9	4.9	11.5	11.5	10	10	91	91	819740	804588	<0.2	1.5	1.5	1.5			
					Bottom	7.2	0.1	354	26.4	26.4	8.0	8.0	26.3	26.3	69.6	69.7	4.8	4.8	19.6	19.6	14	14	93	93	819740	804588	<0.2	1.4	1.4	1.4			
						7.2	0.1	326	26.4	26.4	8.0	8.0	26.3	26.3	69.7	69.7	4.8	4.8	19.6	19.6	13	13	93	93	819740	804588	<0.2	1.4	1.4	1.4			
IM5	Cloudy	Moderate	14:06	7.6	Surface	1.0	0.2	13	27.2	8.0	8.0	24.5	24.4	74.8	74.8	5.2	5.0	10.4	11.3	9	10	85	87	820705	804857	<0.2	2.2	2.2	2.2				
						1.0	0.2	13	27.2	8.0	8.0	24.4	24.4	74.7	74.8	5.2	5.0	10.5	11.3	9	10	87	87	820705	804857	<0.2	2.3	2.3	2.3				
					Middle	3.8	0.1	17	26.5	26.5	8.0	8.0	26.0	26.0	69.1	69.2	4.8	4.8	10.2	10.2	10	10	90	91	820705	804857	<0.2	2.0	2.0	2.0			
						3.8	0.1	18	26.5	26.5	8.0	8.0	26.0	26.0	69.2	69.2	4.8	4.8	10.2	10.2	9	10	91	91	820705	804857	<0.2	2.1	2.1	2.1			
					Bottom	6.6	0.1	22	26.5	26.5	8.0	8.0	26																				



**Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring**

**Water Quality Monitoring Results on 13 September 18 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	08:51	9.1	Surface	1.0	0.6	45	27.0	7.9	7.9	23.1	23.1	73.0	73.0	5.1	5.0	7.7	12.6	8	9	86	90	815645	804257	<0.2	<0.2	2.5	2.1	
						1.0	0.6	46	27.0	7.9	7.9	23.1	23.1	73.0	73.0	5.1	5.0	7.8	12.6	8	9	87	90	86	90	<0.2	<0.2	2.4	2.3	
						4.6	0.5	40	26.5	8.0	8.0	25.7	25.6	68.9	69.0	4.8	4.8	12.2	12.7	9	10	90	90	86	90	<0.2	<0.2	1.8	1.7	
					Middle	4.6	0.5	41	26.6	8.0	8.0	25.6	25.6	69.1	69.0	4.8	4.8	12.7	12.7	10	10	90	90	86	90	<0.2	<0.2	1.8	1.7	
						8.1	0.5	40	26.4	8.0	8.0	26.4	26.4	72.3	73.0	5.0	5.1	17.3	17.7	11	10	93	94	86	90	<0.2	<0.2	1.7	1.7	
						8.1	0.5	43	26.4	8.0	8.0	26.4	26.4	73.6	73.0	5.1	5.1	17.7	17.7	10	10	94	94	86	90	<0.2	<0.2	1.7	1.7	
C2	Fine	Moderate	10:11	11.3	Surface	1.0	0.2	351	27.5	7.8	7.8	20.1	20.1	71.1	71.2	5.0	4.9	9.8	17.9	3	4	86	89	825695	806923	<0.2	<0.2	2.1	2.2	
						1.0	0.2	323	27.5	7.8	7.8	20.1	20.1	71.2	71.2	5.0	4.9	9.8	17.9	3	4	85	89	86	89	<0.2	<0.2	2.2	2.1	
						5.7	0.4	28	27.1	7.9	7.9	21.3	21.3	68.4	68.5	4.8	4.8	17.4	17.4	4	4	89	90	86	89	<0.2	<0.2	2.3	2.3	
					Middle	5.7	0.4	30	27.1	7.9	7.9	21.3	21.3	68.5	68.5	4.8	4.8	17.4	17.4	4	4	90	90	86	89	<0.2	<0.2	2.3	2.3	
						10.3	0.3	16	27.0	7.9	7.9	21.9	21.9	69.1	69.1	4.9	4.9	26.5	26.7	5	6	94	93	86	89	<0.2	<0.2	2.3	2.2	
						10.3	0.4	16	27.0	7.9	7.9	21.9	21.9	69.1	69.1	4.9	4.9	26.5	26.7	5	6	94	93	86	89	<0.2	<0.2	2.3	2.2	
C3	Fine	Moderate	08:16	10.6	Surface	1.0	0.7	259	26.7	8.0	8.0	24.0	24.0	67.6	67.6	4.7	4.6	10.0	13.7	4	7	84	88	822128	817795	<0.2	<0.2	1.7	1.7	
						1.0	0.7	274	26.7	8.0	8.0	24.0	24.0	67.6	67.6	4.7	4.6	10.0	13.7	4	7	84	88	86	88	<0.2	<0.2	1.8	1.8	
						5.3	0.8	256	26.5	8.0	8.0	24.8	24.8	64.8	64.8	4.5	4.5	10.6	10.6	7	8	88	88	86	88	<0.2	<0.2	1.7	1.7	
					Middle	5.3	0.8	273	26.5	8.0	8.0	24.8	24.8	64.8	64.8	4.5	4.5	10.6	10.6	8	8	88	88	86	88	<0.2	<0.2	1.6	1.6	
						9.6	0.4	261	26.3	8.0	8.0	25.5	25.5	64.1	64.1	4.5	4.5	20.6	20.6	9	9	92	92	86	88	<0.2	<0.2	1.7	1.7	
						9.6	0.5	263	26.3	8.0	8.0	25.5	25.5	64.1	64.1	4.5	4.5	20.6	20.6	9	9	92	92	86	88	<0.2	<0.2	1.6	1.6	
IM1	Cloudy	Moderate	09:13	4.6	Surface	1.0	0.2	317	26.6	8.0	8.0	26.1	26.1	69.9	69.9	4.8	4.9	10.6	9.5	16	18	86	87	817954	807119	<0.2	<0.2	2.4	2.3	
						1.0	0.2	345	26.6	8.0	8.0	26.1	26.1	69.9	69.9	4.9	4.9	10.6	10.6	16	18	87	87	86	87	<0.2	<0.2	2.3	2.3	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	88	<0.2	<0.2	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	88	<0.2	<0.2	-	-
						3.6	0.2	13	26.5	8.0	8.0	26.2	26.2	73.2	73.3	5.1	5.1	8.4	8.4	19	20	90	90	86	87	<0.2	<0.2	2.3	2.2	
						3.6	0.2	13	26.5	8.0	8.0	26.2	26.2	73.4	73.3	5.1	5.1	8.4	8.4	19	20	90	90	86	87	<0.2	<0.2	2.3	2.2	
IM2	Cloudy	Moderate	09:20	8.1	Surface	1.0	0.4	27	27.0	8.0	8.0	24.2	24.2	73.0	73.0	5.1	5.1	11.9	12.3	8	9	87	87	818185	806193	<0.2	<0.2	1.4	1.5	
						1.0	0.5	29	27.0	8.0	8.0	24.2	24.2	72.9	73.0	5.1	5.1	11.1	11.1	8	9	87	87	86	87	<0.2	<0.2	1.5	1.5	
						4.1	0.3	13	26.5	8.0	8.0	25.7	25.7	71.5	71.6	5.0	5.0	10.3	10.3	9	9	89	90	86	87	<0.2	<0.2	1.8	1.8	
					Middle	4.1	0.3	13	26.5	8.0	8.0	25.7	25.7	71.6	71.6	5.0	5.0	10.3	10.3	9	9	89	90	86	87	<0.2	<0.2	1.4	1.4	
						7.1	0.3	7	26.5	8.0	8.0	25.9	25.8	74.3	74.4	5.2	5.2	15.0	15.0	11	11	94	94	86	87	<0.2	<0.2	1.6	1.6	
						7.1	0.3	7	26.5	8.0	8.0	25.8	25.8	74.5	74.5	5.2	5.2	15.1	15.1	11	11	94	94	86	87	<0.2	<0.2	1.4	1.4	
IM3	Cloudy	Moderate	09:41	8.4	Surface	1.0	0.4	19	27.2	8.0	8.0	24.0	24.0	75.7	75.7	5.3	5.1	8.3	11.5	8	10	87	87	818806	805578	<0.2	<0.2	1.8	1.8	
						1.0	0.4	19	27.2	8.0	8.0	24.0	24.0	75.7	75.7	5.3	5.1	8.4	8.4	9	9	87	87	86	87	<0.2	<0.2	1.8	1.8	
						4.2	0.3	18	26.4	8.0	8.0	25.9	25.9	70.5	70.6	4.9	4.9	10.7	10.9	9	9	89	90	86	87	<0.2	<0.2	1.7	1.7	
					Middle	4.2	0.3	18	26.4	8.0	8.0	25.9	25.9	70.6	70.6	4.9	4.9	10.9	10.9	9	9	89	90	86	87	<0.2	<0.2	1.8	1.8	
						7.4	0.2	0	26.5	8.0	8.0	25.9	25.9	75.1	75.3	5.2	5.3	15.1	15.1	12	12	94	94	86	87	<0.2	<0.2	1.8	1.8	
						7.4	0.2	0	26.5	8.0	8.0	25.9	25.9	75.4	75.3	5.3	5.3	15.6	15.6	12	12	94	94	86	87	<0.2	<0.2	1.6	1.6	
IM4	Cloudy	Moderate	09:55	8.5	Surface	1.0	0.4	17	27.2	8.0	8.0	24.3	24.3	75.3	75.3	5.2	5.0	7.8	11.6	12	13	85	86	819741	804615	<0.2	<0.2	2.0	2.0	
						1.0	0.4	17	27.2	8.0	8.0	24.3	24.3	75.2	75.2	5.2	5.0	7.9	7.9	12	13	86	86	86	86	<0.2	<0.2	2.4	2.4	
						4.3	0.3	9	26.4	8.0	8.0	26.2	26.2	68.2	68.2	4.7	4.7	10.8	10.3	13	13	89	90	86	86	<0.2	<0.2	2.0	2.0	
					Middle	4.3	0.4	9	26.4	8.0	8.0	26.2	26.2	68.2	68.2	4.7	4.7	10.3	10.3	13	13	89	90	86	86	<0.2	<0.2	1.8	1.8	
						7.5	0.3	18	26.4	8.0	8.0	26.2	26.2	71.2	71.2	4.9	4.9	16.4	16.4	13	13	91	91	86	86	<0.2	<0.2	2.0	2.0	
						7.5	0.3	18	26.4	8.0	8.0	26.2	26.2	71.3	71.3	5.0	5.0	16.3	16.3	13	13	92	92	86	86	<0.2	<0.2	2.0	2.0	
IM5	Cloudy	Moderate	10:04	7.8	Surface	1.0	0.4	13	27.1	8.0	8.0	24.4	24.4	75.5	75.5	5.2	5.0	11.0	12.7	12	13	84	85	820729	804893	<0.2	<0.2	1.6	1.6	
						1.0	0.4	13	27.1	8.0	8.0	24.4	24.4	75.4	75.5	5.2	5.0	11.2	11.2	13	13	84	85	86	85	<0.2	<0.2	1.7	1.7	
						3.9	0.3	6	26.5	8.0	8.0	25.9	25.9	68.9	69.0	4.8	4.8	12.4	12.3	13	13	85	86	86	85	<0.2	<0.2	1.6	1.6	
					Middle	3.9	0.4	6	26.5	8.0	8.0	25.9	25.9	69.1	69.0	4.8	4.8	12.3	12.3	13	13	86	86	86	85	<0.2	<0.2	1.7	1.7	
						6.8	0.3	34	26.5	8.0	8.0	25.9	25.9	74.7	74.7	5.2	5.2	14.7	14.7	13	13	89	90	86	85	<0.2	<0.2	1.4	1.4	
						6.8	0.3	36	26.5	8.0	8.0	25.9	25.9	75.0	74.9	5.2	5.2	14.4	14.4	13	13	90	90	86	85	<0.2	<0.2	1.6	1.6	
IM6	Cloudy	Moderate	10:13	7.9	Surface	1.0	0.2	4	27.0	8.0	8.0	24.6	24.6	73.9	73.9	5.1	5.0	11.4	14.0	9										

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 13 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)											
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA										
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA								
IM9	Fine	Moderate	09:31	7.6	Surface	1.0	0.4	40	27.3	27.3	7.9	7.9	21.1	21.1	72.6	72.7	5.1	5.1	13.9	13.9	13	13	86	86	89	822075	808812		<0.2	<0.2	2.0	2.0								
						1.0	0.4	43	27.3	27.3	7.9	7.9	21.1	21.1	72.7	72.7	5.1	5.1	13.9	13.9	13	13	85	85							2.0	2.0								
					Middle	3.8	0.4	42	27.1	27.1	7.9	7.9	21.8	21.8	71.5	71.5	5.0	5.0	16.4	16.4	15	15	89	89							<0.2	<0.2	1.6	1.6						
						3.8	0.4	42	27.1	27.1	7.9	7.9	21.8	21.8	71.5	71.5	5.0	5.0	16.5	16.5	15	15	89	89							<0.2	<0.2	2.2	2.2						
					Bottom	6.6	0.5	9	27.0	27.0	7.9	7.9	22.8	22.9	72.7	72.7	5.1	5.1	22.4	22.4	17	17	93	93							<0.2	<0.2	1.7	1.7						
						6.6	0.5	9	27.0	27.0	7.9	7.9	22.9	22.9	72.7	72.7	5.1	5.1	22.4	22.4	17	17	94	94							<0.2	<0.2	2.0	2.0						
IM10	Fine	Moderate	09:22	8.1	Surface	1.0	0.4	317	27.1	27.1	7.9	7.9	22.7	22.7	73.1	73.1	5.1	5.1	19.7	19.7	14	14	85	85	89	822381	809817		<0.2	<0.2	1.7	1.7								
						1.0	0.5	342	27.1	27.1	7.9	7.9	22.7	22.7	73.0	73.1	5.1	5.1	19.8	19.8	14	14	86	86							1.6	1.6								
					Middle	4.1	0.4	336	27.0	27.0	7.9	7.9	22.7	22.7	72.3	72.3	5.1	5.1	21.3	21.3	14	14	89	89							<0.2	<0.2	1.8	1.8						
						4.1	0.4	345	27.0	27.0	7.9	7.9	22.7	22.7	72.3	72.3	5.1	5.1	21.3	21.3	14	14	89	89							<0.2	<0.2	1.8	1.8						
					Bottom	7.1	0.4	333	27.0	27.0	7.9	7.9	22.8	22.8	73.5	73.5	5.2	5.2	26.1	26.1	15	15	93	93							<0.2	<0.2	1.6	1.6						
						7.1	0.4	349	27.0	27.0	7.9	7.9	22.8	22.8	73.5	73.5	5.2	5.2	26.0	26.0	15	15	93	93							<0.2	<0.2	1.8	1.8						
IM11	Fine	Moderate	09:11	7.8	Surface	1.0	0.2	303	27.0	27.0	7.9	7.9	23.3	23.3	72.1	72.1	5.0	5.0	15.2	15.2	13	13	85	85	89	822029	811443		<0.2	<0.2	1.6	1.6								
						1.0	0.2	315	27.0	27.0	7.9	7.9	23.3	23.3	72.0	72.1	5.0	5.0	15.2	15.2	13	13	86	86							1.7	1.7								
					Middle	3.9	0.3	44	26.9	26.9	7.9	7.9	23.5	23.5	70.6	70.6	4.9	4.9	18.6	18.6	14	14	89	89							<0.2	<0.2	1.8	1.8						
						3.9	0.4	47	26.9	26.9	7.9	7.9	23.5	23.5	70.6	70.6	4.9	4.9	18.6	18.6	13	13	89	89							<0.2	<0.2	1.6	1.6						
					Bottom	6.8	0.4	95	26.8	26.8	7.9	7.9	23.6	23.6	70.4	70.4	4.9	4.9	26.1	26.1	15	15	93	93							<0.2	<0.2	1.8	1.8						
						6.8	0.4	95	26.8	26.8	7.9	7.9	23.6	23.6	70.4	70.4	4.9	4.9	26.1	26.1	14	14	93	93							<0.2	<0.2	1.7	1.7						
IM12	Fine	Moderate	09:03	8.9	Surface	1.0	0.7	279	26.9	26.9	7.9	7.9	23.5	23.5	70.4	70.4	4.9	4.9	15.4	15.4	21	21	85	85	89	821449	812059		<0.2	<0.2	1.6	1.6								
						1.0	0.8	304	26.9	26.9	7.9	7.9	23.5	23.5	70.3	70.4	4.9	4.9	15.4	15.4	21	21	85	85							1.5	1.5								
					Middle	4.5	0.6	276	26.8	26.8	7.9	7.9	23.6	23.6	69.7	69.7	4.9	4.9	18.8	18.8	21	21	90	90							<0.2	<0.2	1.6	1.6						
						4.5	0.7	297	26.8	26.8	7.9	7.9	23.6	23.6	69.6	69.7	4.9	4.9	18.8	18.8	22	22	89	89							<0.2	<0.2	1.6	1.6						
					Bottom	7.9	0.5	270	26.8	26.8	7.9	7.9	23.6	23.6	70.6	70.6	4.9	4.9	21.4	21.4	23	23	94	94							<0.2	<0.2	1.6	1.6						
						7.9	0.5	292	26.8	26.8	7.9	7.9	23.6	23.6	70.6	70.6	4.9	4.9	21.4	21.4	22	22	93	93							<0.2	<0.2	1.6	1.6						
SR2	Fine	Moderate	08:36	4.8	Surface	1.0	0.3	51	26.9	26.9	8.0	8.0	23.3	23.3	71.6	71.6	5.0	5.0	16.4	16.4	9	9	85	85	87	821457	814138		<0.2	<0.2	1.6	1.6								
						1.0	0.3	51	26.9	26.9	8.0	8.0	23.3	23.3	71.6	71.6	5.0	5.0	16.5	16.5	10	10	85	85							1.6	1.6								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	
					Bottom	3.8	0.3	42	26.9	26.9	8.0	8.0	23.4	23.4	73.0	73.1	5.1	5.1	19.2	19.2	14	14	90	90							<0.2	<0.2	1.6	1.6						
						3.8	0.3	45	26.9	26.9	8.0	8.0	23.4	23.4	73.1	73.1	5.1	5.1	19.1	19.1	14	14	89	89							<0.2	<0.2	1.6	1.6						
SR3	Fine	Moderate	09:49	8.2	Surface	1.0	0.2	37	27.3	27.3	7.9	7.9	20.8	20.8	71.8	71.8	5.1	5.1	9.7	9.7	5	5	-	-	-	822169	807588													
						1.0	0.2	38	27.3	27.3	7.9	7.9	20.8	20.8	71.7	71.8	5.1	5.1	9.8	9.8	4	4	-	-																
					Middle	4.1	0.6	65	26.8	26.8	8.0	8.0	24.0	24.0	68.7	68.7	4.8	4.8	14.9	14.9	7	7	-	-																
						4.1	0.6	69	26.8	26.8	8.0	8.0	24.0	24.0	68.7	68.7	4.8	4.8	14.7	14.7	6	6	-	-																
					Bottom	7.2	0.5	65	26.7	26.7	8.0	8.0	24.8	24.8	68.9	68.9	4.8	4.8	25.4	25.4	7	7	-	-																
						7.2	0.5	66	26.7	26.7	8.0	8.0	24.8	24.8	68.8	68.8	4.8	4.8	25.4	25.4	7	7	-	-																
SR4A	Cloudy	Moderate	08:28	9.2	Surface	1.0	0.1	86	26.9	26.9	7.9	7.9	24.1	24.1	71.7	71.7	5.0	5.0	7.2	7.2	9	9	-	-	-	817176	807837													
						1.0	0.1	86	26.9	26.9	7.9	7.9	24.1	24.1	71.7	71.7	5.0	5.0	7.2	7.2	10	10	-	-																
					Middle	4.6	0.2	90	26.7	26.7	7.9	7.9	24.8	24.8	69.8	69.9	4.9	4.9	9.7	9.7	10	10	-	-																
						4.6	0.3	97	26.7	26.7	7.9	7.9	24.8	24.8	69.9	69.9	4.9	4.9	9.9	9.9	10	10	-	-																
					Bottom	8.2	0.3	78	26.5	26.5	8.0	8.0	25.9	25.9	71.5	71.6	5.0	5.0	12.6	12.6	12	12	-	-																
						8.2	0.3	78	26.5	26.5	8.0	8.0	25.9	25.9	71.6	71.6	5.0	5.0	12.4	12.4	11	11	-	-																
SR5A	Cloudy	Calm	08:10	3.8	Surface	1.0	0.1	243	26.9	26.9	7.9	7.9	23.6	23.6	74.9	74.9	5.2	5.2	8.8	8.8	11	11	-	-	-	816567	810724													
						1.0	0.2	250	26.9	26.9	7.9	7.9	23.6	23.6	74.9	74.9	5.2	5.2	8.9	8.9	10	10	-	-																
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								-	-	-	-	-	-	-	-	
					Bottom	2.8	0.1	269	26.9	26.9	7.9	7.9	23.6	23.6	77.9	78.0	5.5	5.5	10.3	10.3	11	11	-	-																
						2.8	0.1	277	26.9	26.9	7.9	7.9	23.6	23.6	78.0	78.0	5.5	5.5	10.4	10.4	10	10	-	-																
SR6	Cloudy	Calm	07:46	4.5	Surface	1.0	0.1	217	26.9	26.9	7.8	7.8	23.5	23.5	78.4	78.5	5.5	5.5	8.7	8.7	10	10	-	-	-	817896	814635													
						1.0	0.2	227	26.9	26.9	7.8	7.8	23.5	23.5	78.6	78.5	5.5	5.5	8.7	8.7	10	10	-	-																
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								-	-	-	-	-	-	-		
					Bottom	3.5																																		

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 15 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
C1	Fine	Moderate	11:32	8.9	Surface	1.0	0.7	46	27.7	27.7	8.0	8.0	21.1	21.0	78.8	78.8	5.5	5.5	13.5	13.4	4	4	85	85	89	815610	804251	<0.2	<0.2	2.0	2.0			
						1.0	0.7	48	27.9	27.7	8.0	8.0	20.9	20.9	78.8	78.8	5.5	5.5	13.4	13.4	5	5	86	86	89	815610	804251	<0.2	<0.2	2.0	2.0			
					Middle	4.5	0.3	35	26.9	26.9	8.1	8.1	27.6	27.6	78.3	78.5	5.4	5.4	15.6	15.4	4	4	89	89	90	815610	804251	<0.2	<0.2	2.0	2.0			
						4.5	0.3	35	26.9	26.9	8.1	8.1	27.6	27.6	78.7	78.7	5.4	5.4	15.4	15.4	4	4	90	90	90	815610	804251	<0.2	<0.2	2.0	2.0			
					Bottom	7.9	0.4	31	26.9	26.9	8.1	8.1	28.0	28.0	80.9	80.9	5.5	5.5	18.5	18.6	5	5	93	93	93	815610	804251	<0.2	<0.2	1.9	1.9			
						7.9	0.4	33	26.9	26.9	8.1	8.1	28.0	28.0	81.1	81.0	5.5	5.5	18.6	18.6	4	4	93	93	93	815610	804251	<0.2	<0.2	2.1	2.1			
C2	Fine	Moderate	12:30	12.0	Surface	1.0	0.3	27	28.3	28.3	7.9	7.9	16.9	16.9	71.3	71.3	5.1	5.1	8.9	8.9	4	4	79	79	83	825662	806966	<0.2	<0.2	2.7	2.7			
						1.0	0.3	28	28.3	28.3	7.9	7.9	16.9	16.9	71.3	71.3	5.1	5.1	8.9	8.9	3	3	79	79	82	825662	806966	<0.2	<0.2	2.9	2.9			
					Middle	6.0	0.2	358	27.4	27.4	7.9	7.9	22.6	22.6	67.0	67.1	4.7	4.7	15.0	15.1	4	4	82	82	82	825662	806966	<0.2	<0.2	2.6	2.6			
						6.0	0.2	329	27.4	27.4	7.9	7.9	22.6	22.6	67.1	67.1	4.7	4.7	15.1	15.1	4	4	82	82	87	825662	806966	<0.2	<0.2	2.5	2.5			
					Bottom	11.0	0.3	322	26.9	26.9	7.9	7.9	24.4	24.4	66.8	66.8	4.7	4.7	20.2	20.1	4	4	87	87	87	825662	806966	<0.2	<0.2	2.7	2.7			
						11.0	0.3	330	26.9	26.9	7.9	7.9	24.4	24.4	66.8	66.8	4.7	4.7	20.1	20.1	4	4	87	87	91	825662	806966	<0.2	<0.2	2.7	2.7			
C3	Fine	Moderate	10:39	11.8	Surface	1.0	0.4	218	27.7	27.7	7.9	7.9	22.5	22.5	74.0	74.0	5.1	5.1	7.7	7.7	4	4	82	82	87	822121	817826	<0.2	<0.2	2.4	2.4			
						1.0	0.5	230	27.7	27.7	7.9	7.9	22.5	22.5	74.0	74.0	5.1	5.1	7.7	7.7	5	5	82	82	88	822121	817826	<0.2	<0.2	2.3	2.3			
					Middle	5.9	0.4	233	27.2	27.2	7.9	7.9	23.8	23.9	70.2	70.1	4.9	4.9	7.9	7.9	6	6	88	88	88	822121	817826	<0.2	<0.2	2.6	2.6			
						5.9	0.4	255	27.2	27.2	7.9	7.9	23.9	23.9	70.0	70.0	4.9	4.9	7.9	7.9	6	6	88	88	91	822121	817826	<0.2	<0.2	2.7	2.7			
					Bottom	10.8	0.6	289	26.7	26.7	8.0	8.0	25.7	25.7	70.6	70.7	4.9	4.9	12.0	11.9	4	4	91	91	91	822121	817826	<0.2	<0.2	2.7	2.7			
						10.8	0.6	278	26.7	26.7	8.0	8.0	25.7	25.7	70.7	70.7	4.9	4.9	11.9	11.9	4	4	91	91	91	822121	817826	<0.2	<0.2	2.6	2.6			
IM1	Fine	Moderate	11:51	5.6	Surface	1.0	0.1	310	28.0	28.0	7.9	7.9	18.6	18.6	83.9	84.0	5.9	5.9	8.0	8.0	5	5	86	86	87	817967	807132	<0.2	<0.2	1.7	1.8			
						1.0	0.1	313	28.0	28.0	7.9	7.9	18.6	18.6	84.1	84.1	5.9	5.9	8.0	8.0	5	5	86	86	88	817967	807132	<0.2	<0.2	1.8	1.8			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	817967	807132	<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	817967	807132	<0.2	<0.2	-
					Bottom	4.6	0.0	303	27.9	27.9	7.9	7.9	18.8	18.8	88.3	88.5	6.2	6.3	8.1	8.1	4	4	88	88	89	817967	807132	<0.2	<0.2	1.8	1.7			
						4.6	0.0	330	27.9	27.9	7.9	7.9	18.8	18.8	88.7	88.7	6.3	6.3	7.9	7.9	6	6	89	89	89	817967	807132	<0.2	<0.2	1.7	1.7			
IM2	Fine	Moderate	11:59	7.7	Surface	1.0	0.3	324	28.1	28.1	7.9	7.9	18.9	18.9	79.1	79.1	5.6	5.6	9.2	9.4	3	3	84	85	89	818170	806168	<0.2	<0.2	1.8	2.0			
						1.0	0.4	350	28.1	28.1	7.9	7.9	18.9	18.9	79.0	79.1	5.6	5.6	9.4	9.4	4	4	85	85	89	818170	806168	<0.2	<0.2	1.8	1.8			
					Middle	3.9	0.5	346	27.2	27.2	8.0	8.0	24.6	24.6	74.5	74.6	5.2	5.2	11.6	11.4	3	3	89	89	90	818170	806168	<0.2	<0.2	1.8	1.8			
						3.9	0.5	354	27.2	27.2	8.0	8.0	24.6	24.6	74.7	74.7	5.2	5.2	11.4	11.4	3	3	89	89	91	818170	806168	<0.2	<0.2	1.7	1.7			
					Bottom	6.7	0.4	12	27.2	27.2	7.9	7.9	24.7	24.7	79.7	79.9	5.5	5.5	17.8	17.9	3	3	93	93	94	818170	806168	<0.2	<0.2	2.1	2.1			
						6.7	0.4	12	27.2	27.2	7.9	7.9	24.7	24.7	80.1	80.1	5.5	5.5	17.9	17.9	5	5	94	94	94	818170	806168	<0.2	<0.2	2.1	2.1			
IM3	Fine	Moderate	12:05	7.9	Surface	1.0	0.4	352	28.1	28.0	7.9	7.9	18.8	18.8	77.5	77.5	5.5	5.5	12.6	12.3	6	6	86	87	90	818767	805587	<0.2	<0.2	2.5	2.3			
						1.0	0.4	324	28.0	28.0	7.9	7.9	18.8	18.8	77.4	77.4	5.5	5.5	12.3	12.3	4	4	87	87	90	818767	805587	<0.2	<0.2	2.5	2.5			
					Middle	4.0	0.4	8	27.1	27.1	8.0	8.0	25.0	25.0	74.7	74.8	5.2	5.2	13.7	13.5	5	5	90	90	94	818767	805587	<0.2	<0.2	1.8	2.5			
						4.0	0.4	8	27.1	27.1	8.0	8.0	25.0	25.0	74.9	74.8	5.2	5.2	13.5	13.5	6	6	90	90	94	818767	805587	<0.2	<0.2	2.5	2.5			
					Bottom	6.9	0.3	17	27.1	27.1	8.0	8.0	25.4	25.3	80.6	80.8	5.6	5.6	16.1	15.7	5	5	94	94	95	818767	805587	<0.2	<0.2	2.5	2.4			
						6.9	0.3	18	27.1	27.1	8.0	8.0	25.3	25.3	80.9	80.8	5.6	5.6	15.7	15.7	7	7	95	95	95	818767	805587	<0.2	<0.2	2.4	2.4			
IM4	Fine	Moderate	12:14	8.0	Surface	1.0	0.5	5	27.8	27.8	7.9	7.9	20.3	20.3	76.4	76.4	5.4	5.4	11.9	12.0	5	5	86	87	89	819725	804626	<0.2	<0.2	2.5	2.3			
						1.0	0.5	5	27.8	27.8	7.9	7.9	20.3	20.3	76.4	76.4	5.4	5.4	12.0	12.0	7	7	87	87	89	819725	804626	<0.2	<0.2	2.6	2.5			
					Middle	4.0	0.4	357	27.2	27.2	8.0	8.0	24.9	24.9	75.6	75.7	5.2	5.2	12.8	12.9	7	7	89	89	91	819725	804626	<0.2	<0.2	2.6	2.5			
						4.0	0.4	328	27.2	27.2	8.0	8.0	24.9	24.9	75.8	75.8	5.2	5.2	12.9	12.9	8	8	91	91	93	819725	804626	<0.2	<0.2	2.6	2.6			
					Bottom	7.0	0.4	358	27.2	27.2	8.0	8.0	24.9	24.8	80.0	80.2	5.5	5.6	14.1	13.7	6	6	93	93	94	819725	804626	<0.2	<0.2	2.6	2.4			
						7.0	0.4	358	27.2	27.2	8.0	8.0	24.8	24.8	80.3	80.2	5.5	5.6	13.7	13.7	7	7	94	94	94	819725	804626	<0.2	<0.2	2.4	2.4			
IM5	Fine	Moderate	12:21	7.3	Surface	1.0	0.6	4	27.9	27.9	7.9	7.9	20.5	20.5	75.9	75.9	5.3	5.3	6.0	6.1	5	5	86	86	89	820706	804851	<0.2	<0.2	2.4	2.4			
						1.0	0.6	4	27.9	27.9	7.9	7.9	20.5	20.5	75.8	75.8	5.3	5.3	6.1	6.1	4	4	86	86	89	820706	804851	<0.2	<0.2	2.4	2.4			

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 15 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
IM9	Fine	Moderate	11:54	7.6	Surface	1.0	0.2	48	28.7	28.7	7.9	7.9	14.7	14.7	75.1	75.1	5.4	5.2	9.2	11.5	4	5	78	83	822067	808832	<0.2	<0.2	2.4	2.5				
						1.0	0.2	52	28.7	28.7	7.9	7.9	14.7	14.7	75.0	75.0	5.3	5.2	9.2	11.5	5	5	78	83	822067	808832	<0.2	<0.2	2.5	2.5				
					Middle	3.8	0.3	40	27.9	27.9	7.9	7.9	18.6	18.6	70.9	71.0	5.0	5.0	10.7	11.5	5	5	82	83	822067	808832	<0.2	<0.2	2.3	2.3				
						3.8	0.3	41	27.9	27.9	7.9	7.9	18.6	18.6	71.0	71.0	5.0	5.0	10.8	11.5	6	6	82	83	822067	808832	<0.2	<0.2	2.3	2.3				
					Bottom	6.6	0.3	78	27.6	27.6	7.9	7.9	21.3	21.3	69.9	69.9	4.9	4.9	14.4	14.4	7	7	88	88	822067	808832	<0.2	<0.2	2.7	2.7				
						6.6	0.3	84	27.6	27.6	7.9	7.9	21.3	21.3	69.9	69.9	4.9	4.9	14.4	14.4	5	5	88	88	822067	808832	<0.2	<0.2	2.6	2.6				
IM10	Fine	Moderate	11:45	7.8	Surface	1.0	0.3	35	28.8	28.8	7.9	7.9	13.9	13.9	77.1	77.1	5.5	5.3	10.8	15.9	6	6	78	83	822359	809808	<0.2	<0.2	2.1	1.9				
						1.0	0.3	38	28.8	28.8	7.9	7.9	13.9	13.9	77.1	77.1	5.5	5.3	10.9	15.9	6	6	78	83	822359	809808	<0.2	<0.2	1.9	1.7				
					Middle	3.9	0.4	339	27.9	27.9	7.9	7.9	20.4	20.4	72.6	72.6	5.1	5.1	15.9	15.9	6	6	83	83	822359	809808	<0.2	<0.2	1.7	1.9				
						3.9	0.4	312	27.9	27.9	7.9	7.9	20.3	20.4	72.5	72.5	5.1	5.0	16.4	15.9	4	4	83	83	822359	809808	<0.2	<0.2	1.9	1.9				
					Bottom	6.8	0.5	316	27.4	27.4	7.9	7.9	23.0	23.0	71.5	71.5	5.0	5.0	20.6	20.6	6	6	88	88	822359	809808	<0.2	<0.2	1.9	1.8				
						6.8	0.5	346	27.4	27.4	7.9	7.9	23.0	23.0	71.5	71.5	5.0	5.0	20.5	20.5	6	6	88	88	822359	809808	<0.2	<0.2	1.8	1.8				
IM11	Fine	Moderate	11:34	8.6	Surface	1.0	0.3	325	28.1	28.1	7.9	7.9	20.6	20.6	75.9	75.8	5.3	5.1	8.4	12.1	6	5	81	86	822081	811468	<0.2	<0.2	2.0	1.9				
						1.0	0.4	327	28.1	28.1	7.9	7.9	20.6	20.6	75.7	75.8	5.3	5.1	8.5	12.1	4	5	81	86	822081	811468	<0.2	<0.2	1.9	2.2				
					Middle	4.3	0.4	299	27.4	27.4	7.9	7.9	23.1	23.1	69.8	69.8	4.9	4.9	12.6	12.6	4	4	87	88	822081	811468	<0.2	<0.2	1.9	1.9				
						4.3	0.4	304	27.4	27.4	7.9	7.9	23.1	23.1	69.8	69.8	4.9	4.9	12.6	12.6	4	4	88	88	822081	811468	<0.2	<0.2	1.9	1.9				
					Bottom	7.6	0.2	297	27.1	27.1	7.9	7.9	24.1	24.1	68.5	68.5	4.8	4.8	15.1	15.1	5	5	90	90	822081	811468	<0.2	<0.2	1.7	1.8				
						7.6	0.2	323	27.1	27.1	7.9	7.9	24.1	24.1	68.5	68.5	4.8	4.8	15.1	15.1	6	6	90	90	822081	811468	<0.2	<0.2	1.8	1.8				
IM12	Fine	Moderate	11:27	8.9	Surface	1.0	0.5	282	27.9	27.9	7.9	7.9	21.5	21.5	74.0	74.0	5.1	5.0	10.0	14.9	8	7	81	86	821466	812022	<0.2	<0.2	1.7	1.7				
						1.0	0.5	304	27.9	27.9	7.9	7.9	21.5	21.5	73.9	73.9	5.1	5.0	10.2	14.9	7	7	82	86	821466	812022	<0.2	<0.2	1.7	1.7				
					Middle	4.5	0.5	287	27.4	27.4	7.9	7.9	23.2	23.2	70.6	70.6	4.9	4.9	15.2	14.9	7	7	87	88	821466	812022	<0.2	<0.2	1.7	1.8				
						4.5	0.6	289	27.4	27.4	7.9	7.9	23.2	23.2	70.5	70.5	4.9	4.9	15.2	14.9	8	8	88	88	821466	812022	<0.2	<0.2	1.8	2.0				
					Bottom	7.9	0.4	285	27.2	27.2	7.9	7.9	23.7	23.7	70.4	70.4	4.9	4.9	19.4	19.4	6	6	90	89	821466	812022	<0.2	<0.2	1.7	1.8				
						7.9	0.4	293	27.2	27.2	7.9	7.9	23.7	23.7	70.4	70.4	4.9	4.9	19.5	19.5	5	5	89	89	821466	812022	<0.2	<0.2	1.8	1.8				
SR2	Fine	Moderate	11:01	4.3	Surface	1.0	0.2	320	27.7	27.7	7.9	7.9	22.4	22.4	73.7	73.6	5.1	5.1	10	11.6	10	8	82	85	821449	814142	<0.2	<0.2	1.8	1.8				
						1.0	0.2	320	27.7	27.7	7.9	7.9	22.4	22.4	73.5	73.5	5.1	5.1	9.5	11.6	8	8	82	85	821449	814142	<0.2	<0.2	1.8	1.8				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.3	0.0	328	27.2	27.2	7.9	7.9	23.8	23.8	71.0	71.1	4.9	5.0	13.7	13.7	6	6	87	87	821449	814142	<0.2	<0.2	1.7	1.7				
						3.3	0.0	344	27.2	27.2	7.9	7.9	23.8	23.8	71.2	71.1	4.9	5.0	13.7	13.7	6	6	87	87	821449	814142	<0.2	<0.2	1.7	1.7				
SR3	Fine	Moderate	12:09	9.2	Surface	1.0	0.2	22	28.5	28.5	7.9	7.9	15.3	15.3	73.6	73.6	5.3	5.1	12.6	15.1	4	4	-	-	822126	807587	-	-	-	-				
						1.0	0.2	23	28.5	28.5	7.9	7.9	15.3	15.3	73.5	73.5	5.2	5.1	12.8	15.1	5	5	-	4	-	-	822126	807587	-	-	-	-		
					Middle	4.6	0.2	77	27.8	27.8	7.9	7.9	20.0	20.0	71.5	71.6	5.0	5.0	14.8	15.1	3	3	-	-	-	-	822126	807587	-	-	-	-		
						4.6	0.2	78	27.8	27.8	7.9	7.9	20.0	20.0	71.6	71.6	5.0	5.0	15.3	15.1	5	5	-	-	-	-	822126	807587	-	-	-	-		
					Bottom	8.2	0.2	76	27.6	27.6	8.0	8.0	21.9	21.9	71.5	71.6	5.0	5.0	17.7	17.5	3	3	-	-	-	-	822126	807587	-	-	-	-		
						8.2	0.2	83	27.6	27.6	8.0	8.0	21.9	21.9	71.6	71.6	5.0	5.0	17.5	17.5	3	3	-	-	-	-	822126	807587	-	-	-	-		
SR4A	Fine	Moderate	11:09	8.6	Surface	1.0	0.1	35	28.2	28.2	7.9	7.9	19.7	19.7	79.1	79.1	5.5	5.4	5.8	5.9	5	5	-	-	817197	807821	-	-	-	-				
						1.0	0.1	36	28.3	28.3	7.9	7.9	19.7	19.7	79.1	79.1	5.5	5.4	5.8	5.9	6	6	-	5	-	-	817197	807821	-	-	-	-		
					Middle	4.3	0.1	246	27.8	27.8	7.9	7.9	23.3	23.3	76.8	76.8	5.3	5.3	5.8	5.9	5	5	-	-	-	-	817197	807821	-	-	-	-		
						4.3	0.1	254	27.8	27.8	7.9	7.9	23.3	23.3	76.8	76.8	5.3	5.3	5.8	5.9	7	7	-	-	-	-	817197	807821	-	-	-	-		
					Bottom	7.6	0.1	234	27.7	27.7	7.9	7.9	23.4	23.4	78.2	78.3	5.4	5.4	6.2	6.1	5	5	-	-	-	-	817197	807821	-	-	-	-		
						7.6	0.2	244	27.7	27.7	7.9	7.9	23.4	23.4	78.4	78.4	5.4	5.4	6.1	6.1	4	4	-	-	-	-	817197	807821	-	-	-	-		
SR5A	Fine	Moderate	10:52	4.3	Surface	1.0	0.2	254	27.7	27.7	7.9	7.9	23.3	23.3	78.6	78.6	5.4	5.4	4.4	4.6	2	5	-	-	816565	810720	-	-	-	-				
						1.0	0.2	263	27.7	27.7	7.9	7.9	23.3	23.3	78.6	78.6	5.4	5.4	4.4	4.6	4	4	-	5	-	-	816565	810720	-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	3.3	0.1	263	27.7	27.7	7.9	7.9	23.3	23.3	83.4	83.4	5.8	5.8	4.8	4.8	6	6	-	-										

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 18 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA						
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA						
C1	Fine	Moderate	07:44	8.8	Surface	1.0	0.1	162	26.9	26.9	8.0	8.0	23.2	23.2	93.4	93.4	6.6	6.6	5.1	5.1	7	7	82	82	815609	804230	<0.2	<0.2	1.7	1.7						
						1.0	0.1	171	26.9	8.0	8.0	23.2	23.2	93.4	93.4	6.6	6.6	5.1	5.1	6	6	83	83	1.9					1.9							
					Middle	4.4	0.1	54	26.8	26.8	8.0	8.0	23.4	23.4	91.7	91.7	6.4	6.4	6.5	6.5	7	7	85	85					1.7	1.7						
						4.4	0.1	59	26.8	26.8	8.0	8.0	23.4	23.4	91.7	91.7	6.4	6.4	6.6	6.6	6	6	86	86					1.7	1.7						
					Bottom	7.8	0.1	10	26.6	26.6	8.1	8.1	26.6	26.6	88.4	88.4	6.1	6.1	12.6	12.6	9	9	91	91					1.5	1.5						
						7.8	0.1	10	26.6	26.6	8.1	8.1	26.6	26.6	88.4	88.4	6.1	6.1	12.5	12.5	10	10	91	91					1.4	1.4						
C2	Fine	Rough	09:18	10.1	Surface	1.0	0.8	173	27.5	27.5	7.9	7.9	12.1	12.1	87.9	87.8	6.5	6.5	10.6	10.6	4	4	78	78	825686	806973	<0.2	<0.2	4.4	4.4						
						1.0	0.9	181	27.5	7.9	7.9	12.1	12.1	87.7	87.8	6.5	6.5	10.9	10.9	4	4	79	79	4.2					4.2							
					Middle	5.1	0.5	161	26.8	26.8	8.0	8.0	23.6	23.6	86.2	86.2	6.0	6.0	11.1	11.1	4	4	81	81					4.3	4.3						
						5.1	0.5	164	26.8	26.8	8.0	8.0	23.7	23.6	86.2	86.2	6.0	6.0	11.0	11.0	3	3	82	82					4.0	4.0						
					Bottom	9.1	0.2	171	26.8	26.8	8.0	8.0	24.2	24.2	86.6	86.6	6.1	6.1	11.5	11.5	4	4	87	87					4.4	4.4						
						9.1	0.2	176	26.8	26.8	8.0	8.0	24.2	24.2	86.6	86.6	6.1	6.1	11.5	11.5	4	4	87	87					4.0	4.0						
C3	Cloudy	Moderate	07:32	12.3	Surface	1.0	0.2	301	26.6	26.6	8.1	8.1	25.4	25.4	92.5	92.5	6.4	6.4	10.4	10.4	6	6	75	75	822118	817808	<0.2	<0.2	4.3	4.3						
						1.0	0.2	305	26.6	26.6	8.1	8.1	25.4	25.4	92.4	92.5	6.4	6.4	10.4	10.4	6	6	75	75					4.2	4.2						
					Middle	6.2	0.2	277	26.6	26.6	8.1	8.1	25.8	25.8	91.8	91.8	6.4	6.4	9.6	9.6	8	8	82	82					4.1	4.1						
						6.2	0.2	292	26.6	26.6	8.1	8.1	25.8	25.8	91.7	91.8	6.4	6.4	9.6	9.6	8	8	83	83					4.2	4.2						
					Bottom	11.3	0.2	263	26.6	26.6	8.1	8.1	26.2	26.2	91.9	91.9	6.4	6.4	9.6	9.6	8	8	88	88					4.4	4.4						
						11.3	0.2	281	26.6	26.6	8.1	8.1	26.2	26.2	91.9	91.9	6.4	6.4	9.6	9.6	8	8	87	87					4.3	4.3						
IM1	Fine	Moderate	08:09	5.0	Surface	1.0	0.1	90	26.8	26.8	8.0	8.0	24.6	24.6	91.7	91.7	6.4	6.4	7.2	7.2	9	9	87	87	817947	807120	<0.2	<0.2	1.5	1.5						
						1.0	0.1	90	26.8	26.8	8.0	8.0	24.6	24.6	91.7	91.7	6.4	6.4	7.2	7.2	9	9	87	87					1.4	1.4						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-
					Bottom	4.0	0.1	45	26.7	26.7	8.0	8.0	25.7	25.7	89.5	89.5	6.2	6.2	11.7	11.7	9	9	90	90					1.4	1.4						
						4.0	0.1	45	26.7	26.7	8.0	8.0	25.7	25.7	89.5	89.5	6.2	6.2	11.8	11.8	8	8	90	90					1.3	1.3						
IM2	Fine	Moderate	08:16	7.2	Surface	1.0	0.3	200	26.8	26.8	8.0	8.0	24.2	24.2	91.5	91.6	6.4	6.4	5.6	5.6	6	6	83	83	818178	806175	<0.2	<0.2	1.6	1.6						
						1.0	0.3	216	26.8	26.8	8.0	8.0	24.2	24.2	91.6	91.6	6.4	6.4	5.6	5.6	6	6	83	83					1.5	1.5						
					Middle	3.6	0.1	314	26.7	26.7	8.0	8.0	25.0	25.0	89.5	89.5	6.2	6.2	8.5	8.5	8	8	86	86					1.5	1.5						
						3.6	0.1	342	26.7	26.7	8.0	8.0	24.9	25.0	89.4	89.5	6.2	6.2	8.5	8.5	8	8	86	86					1.6	1.6						
					Bottom	6.2	0.2	343	26.6	26.6	8.0	8.0	26.7	26.7	87.7	87.7	6.1	6.1	15.7	15.7	8	8	91	91					1.5	1.5						
						6.2	0.2	353	26.6	26.6	8.0	8.0	26.7	26.7	87.7	87.7	6.1	6.1	15.8	15.8	7	7	90	90					1.6	1.6						
IM3	Fine	Moderate	08:24	7.4	Surface	1.0	0.5	228	26.9	26.9	8.0	8.0	23.3	23.3	92.1	92.1	6.5	6.5	6.3	6.3	9	9	81	81	818764	805594	<0.2	<0.2	1.7	1.7						
						1.0	0.5	232	26.9	26.9	8.0	8.0	23.3	23.3	92.1	92.1	6.5	6.5	6.4	6.4	8	8	81	81					1.6	1.6						
					Middle	3.7	0.3	227	26.8	26.8	8.0	8.0	24.2	24.2	90.1	90.1	6.3	6.3	8.4	8.4	9	9	85	85					1.7	1.7						
						3.7	0.3	235	26.8	26.8	8.0	8.0	24.2	24.2	90.1	90.1	6.3	6.3	8.4	8.4	9	9	85	85					1.5	1.5						
					Bottom	6.4	0.1	320	26.7	26.7	8.0	8.0	25.5	25.6	88.6	88.6	6.2	6.2	15.2	15.2	9	9	90	90					1.5	1.5						
						6.4	0.1	322	26.7	26.7	8.0	8.0	25.6	25.6	88.6	88.6	6.2	6.2	15.4	15.4	8	8	89	89					1.5	1.5						
IM4	Fine	Moderate	08:35	7.5	Surface	1.0	0.5	223	27.5	27.5	7.9	7.9	14.1	14.1	92.5	92.5	6.8	6.8	4.8	4.8	5	5	78	78	819697	804612	<0.2	<0.2	3.5	3.5						
						1.0	0.5	243	27.5	27.5	7.9	7.9	14.1	14.1	92.5	92.5	6.8	6.8	4.9	4.9	5	5	78	78					3.5	3.5						
					Middle	3.8	0.4	206	26.9	26.9	7.9	7.9	21.0	21.0	92.0	92.0	6.5	6.5	7.2	7.2	5	5	82	82					3.5	3.5						
						3.8	0.4	216	26.9	26.9	7.9	7.9	21.0	21.0	92.0	92.0	6.5	6.5	7.3	7.3	6	6	81	81					3.6	3.6						
					Bottom	6.5	0.2	230	26.7	26.7	8.0	8.0	24.2	24.2	87.4	87.4	6.1	6.1	13.1	13.1	7	7	86	86					3.8	3.8						
						6.5	0.2	230	26.7	26.7	8.0	8.0	24.3	24.2	87.4	87.4	6.1	6.1	13.2	13.2	6	6	87	87					3.8	3.8						
IM5	Fine	Moderate	08:47	6.4	Surface	1.0	0.7	244	27.7	27.7	7.9	7.9	13.5	13.5	91.3	91.3	6.7	6.7	4.5	4.5	5	5	77	77	820725	804852	<0.2	<0.2	2.8	2.8						
						1.0	0.7	248	27.7	27.7	7.9	7.9	13.5	13.5	91.3	91.3	6.7	6.7	4.6	4.6	6	6	78	78					2.9	2.9						
					Middle	3.2	0.6	237	26.9	26.9	7.9	7.9	21.7	21.7	91.1	91.1	6.4	6.4	6.9	6.9	5	5	84	84					2.6	2.6						
						3.2	0.6	249	26.9	26.9	7.9	7.9	21.7	21.7	91.1	91.1	6.4	6.4	6.9	6.9	5	5	84	84					2.8	2.8						
					Bottom	5.4	0.6	235	26.8	26.8	8.0	8.0	23.6	23.6	88.3	88.3	6.2	6.2	12.7	12.7	5	5	87	87					3.2	3.2						
						5.4	0.6	253	26.8	26.8	8.0	8.0	23.6	23.6	88.3	88.3	6.2	6.2	12.7	12.7	6	6	87	87					2.8	2.8						
IM6	Fine	Moderate	08:59	6.7	Surface	1.0	0.7	259	27.3	27.3	7.9	7.9	18.3	18.3	92.6	92.6	6.6	6.6	3.8	3.8	3	3	79	79	821053	805812	<0.2	<0.2	2.4	2.4						
						1.0	0.8	277	27.3	27.3	7.9	7.9	18.3	18.3	92.6	92.6	6.6	6.6	3.8	3.8	3	3	80	80					2.3	2.3						
					Middle	3.4	0.6	248	27.0	27.0	7.9	7.9	20.5	20.5	91.0	91.0	6.5	6.5	5.1	5.1	4	4	82	82					2.1	2.1						
						3.4	0.6	253	27.0	27.0	7.9	7.9	20.5	20.5	91.0	91.0	6.5	6.5	5.1	5.1	4	4	82	82					2.1	2.1						
					Bottom	5.7	0.5	239	26.8	26.8	8.0	8.0	22.0	22.0	90.2	90.2	6.4	6.4	9.8	9.8	8	8	85	85					2.1	2.1						

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 18 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)	Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA		Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value		Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value	Value	Value
IM9	Fine	Rough	08:44	7.0	Surface	1.0	0.5	196	27.2	7.9	7.9	15.7	15.4	91.8	91.8	6.7	6.6	9.6	9.9	4	5	78	84	822080	808812	<0.2	<0.2	3.8	4.4					
						1.0	0.5	197	27.2	7.9	7.9	15.1	15.4	91.8	91.8	6.7	6.6	9.6	9.9	4	5	79	84	<0.2	<0.2	4.7	4.4							
					Middle	3.5	0.2	191	26.9	26.9	8.0	8.0	20.7	20.7	91.5	91.5	6.5	6.5	10.1	10.0	4	5	84	84	<0.2	<0.2	4.3	4.4						
						3.5	0.2	198	26.9	26.9	8.0	8.0	20.8	20.7	91.5	91.5	6.5	6.5	10.0	10.0	5	5	84	84	<0.2	<0.2	4.6	4.4						
					Bottom	6.0	0.2	207	26.9	26.9	8.0	8.0	21.1	21.1	91.7	91.8	6.5	6.5	10.0	10.0	5	6	88	89	<0.2	<0.2	4.3	4.4						
						6.0	0.2	208	26.9	26.9	8.0	8.0	21.1	21.1	91.8	91.8	6.5	6.5	10.0	10.0	6	6	89	89	<0.2	<0.2	4.4	4.4						
IM10	Fine	Rough	08:38	7.6	Surface	1.0	0.4	150	27.0	27.0	8.0	8.0	17.4	17.9	90.5	90.6	6.5	6.5	10.6	14.1	6	6	76	82	822378	809792	<0.2	<0.2	4.7	4.2				
						1.0	0.4	154	27.0	27.0	8.0	8.0	18.3	17.9	90.7	90.6	6.5	6.5	10.8	13.3	5	6	76	81	<0.2	<0.2	4.5	4.2						
					Middle	3.8	0.3	128	26.9	26.9	8.0	8.0	22.1	22.1	91.0	91.0	6.4	6.4	13.3	13.5	6	7	81	81	<0.2	<0.2	3.8	4.2						
						3.8	0.3	128	26.9	26.9	8.0	8.0	22.1	22.1	91.0	91.0	6.4	6.4	13.5	13.5	7	7	81	81	<0.2	<0.2	4.9	4.2						
					Bottom	6.6	0.2	137	26.8	26.8	8.0	8.0	23.1	23.1	91.0	91.0	6.4	6.4	18.4	18.4	7	7	88	88	<0.2	<0.2	3.6	4.2						
						6.6	0.2	143	26.8	26.8	8.0	8.0	23.1	23.1	91.1	91.1	6.4	6.4	18.2	18.2	7	7	88	88	<0.2	<0.2	3.7	4.2						
IM11	Fine	Rough	08:28	8.0	Surface	1.0	0.2	101	26.9	26.9	8.0	8.0	20.7	20.7	91.4	91.4	6.5	6.5	11.2	16.9	6	8	76	81	822028	811458	<0.2	<0.2	3.9	4.2				
						1.0	0.2	103	26.9	26.9	8.0	8.0	20.7	20.7	91.4	91.4	6.5	6.5	11.5	16.9	6	8	76	81	<0.2	<0.2	4.0	4.2						
					Middle	4.0	0.1	108	26.9	26.9	8.0	8.0	22.6	22.6	91.8	91.8	6.5	6.5	19.2	19.2	8	8	81	81	<0.2	<0.2	3.8	4.2						
						4.0	0.1	111	26.9	26.9	8.0	8.0	22.7	22.6	91.8	91.8	6.5	6.5	19.6	19.6	9	8	82	84	<0.2	<0.2	4.3	4.2						
					Bottom	7.0	0.1	133	26.9	26.9	8.0	8.0	24.0	24.0	92.2	92.3	6.4	6.4	20.2	19.9	9	8	84	85	<0.2	<0.2	4.6	4.8						
						7.0	0.1	141	26.9	26.9	8.0	8.0	24.0	24.0	92.3	92.3	6.4	6.4	19.9	19.9	8	8	85	85	<0.2	<0.2	4.8	4.8						
IM12	Fine	Rough	08:20	8.1	Surface	1.0	0.2	116	26.8	26.8	8.0	8.0	22.5	22.6	93.2	93.1	6.6	6.6	11.3	13.3	5	6	76	82	821460	812055	<0.2	<0.2	3.9	4.1				
						1.0	0.2	110	26.8	26.8	8.0	8.0	22.6	22.6	93.0	93.1	6.6	6.6	11.5	13.3	5	6	76	82	<0.2	<0.2	3.9	4.1						
					Middle	4.1	0.2	117	26.8	26.8	8.0	8.0	23.1	23.1	92.0	91.9	6.5	6.5	13.8	14.1	6	6	82	82	<0.2	<0.2	4.1	4.1						
						4.1	0.2	127	26.8	26.8	8.0	8.0	23.0	23.1	91.8	91.9	6.5	6.5	14.1	14.1	6	6	82	82	<0.2	<0.2	4.4	4.1						
					Bottom	7.1	0.1	303	26.8	26.8	8.0	8.0	24.3	24.3	90.5	90.5	6.3	6.3	14.4	14.6	8	8	87	87	<0.2	<0.2	4.3	4.2						
						7.1	0.1	323	26.8	26.8	8.0	8.0	24.3	24.3	90.5	90.5	6.3	6.3	14.6	14.6	8	8	87	87	<0.2	<0.2	4.2	4.2						
SR2	Cloudy	Moderate	07:53	5.0	Surface	1.0	0.2	90	26.8	26.8	8.0	8.0	23.7	23.7	90.3	90.3	6.3	6.3	14.9	16.6	4	5	77	81	821443	814167	<0.2	<0.2	4.0	4.0				
						1.0	0.2	90	26.8	26.8	8.0	8.0	23.7	23.7	90.2	90.3	6.3	6.3	15.0	15.0	5	5	78	84	<0.2	<0.2	4.1	4.0						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.0	0.1	66	26.7	26.7	8.0	8.0	24.6	24.6	90.7	90.8	6.3	6.3	18.3	18.0	5	6	84	84	<0.2	<0.2	4.0	4.0						
						4.0	0.1	72	26.7	26.7	8.0	8.0	24.6	24.6	90.9	90.8	6.3	6.3	18.0	18.0	6	6	84	84	<0.2	<0.2	4.0	4.0						
SR3	Fine	Rough	08:56	8.7	Surface	1.0	0.7	193	27.2	27.2	8.0	8.0	15.1	14.9	91.9	91.9	6.7	6.5	9.5	11.5	4	4	-	-	822151	807569	-	-	-	-				
						1.0	0.7	201	27.2	27.2	8.0	8.0	14.8	14.8	91.8	91.8	6.7	6.5	9.5	11.5	3	4	-	-	-	-	-	-	-	-	-	-		
					Middle	4.4	0.5	217	26.8	26.8	8.0	8.0	22.7	22.7	90.2	90.1	6.4	6.3	10.6	10.7	4	4	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.5	237	26.8	26.8	8.0	8.0	22.7	22.7	89.9	89.9	6.3	6.3	10.7	10.7	4	4	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.7	0.4	228	26.8	26.8	8.0	8.0	24.5	24.5	89.1	89.2	6.2	6.2	14.5	14.3	4	4	-	-	-	-	-	-	-	-	-	-	-	-
						7.7	0.4	237	26.8	26.8	8.0	8.0	24.5	24.5	89.3	89.3	6.2	6.2	14.3	14.3	4	4	-	-	-	-	-	-	-	-	-	-	-	-
SR4A	Cloudy	Calm	07:22	9.3	Surface	1.0	0.4	252	26.7	26.7	8.0	8.0	25.1	25.1	90.2	90.2	6.3	6.3	6.2	9.6	8	8	-	-	817190	807799	-	-	-	-				
						1.0	0.4	274	26.7	26.7	8.0	8.0	25.1	25.1	90.2	90.2	6.3	6.3	6.2	9.6	8	8	-	-	-	-	-	-	-	-	-			
					Middle	4.7	0.4	247	26.7	26.7	8.0	8.0	26.1	26.1	88.8	88.8	6.2	6.2	9.5	9.5	8	8	-	-	-	-	-	-	-	-	-	-	-	
						4.7	0.4	259	26.7	26.7	8.0	8.0	26.1	26.1	88.8	88.8	6.2	6.2	9.5	9.5	7	8	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	8.3	0.3	249	26.7	26.7	8.0	8.0	26.2	26.2	88.6	88.6	6.1	6.1	13.1	13.1	8	8	-	-	-	-	-	-	-	-	-	-	-	
						8.3	0.3	268	26.7	26.7	8.0	8.0	26.2	26.2	88.6	88.6	6.1	6.1	13.1	13.1	8	8	-	-	-	-	-	-	-	-	-	-	-	
SR5A	Cloudy	Calm	07:04	3.8	Surface	1.0	0.2	284	26.7	26.7	8.0	8.0	24.1	24.1	85.4	85.4	6.0	6.0	8.1	7.4	8	10	-	-	816599	810678	-	-	-	-				
						1.0	0.2	291	26.7	26.7	8.0	8.0	24.1	24.1	85.4	85.4	6.0	6.0	8.2	7.4	9	10	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	2.8	0.2	285	26.7	26.7	8.0	8.0	24.5	24.5	86.0	86.0	6.0	6.0	6.6	6.6	11	11	-	-	-	-	-	-	-	-	-	-	-	
						2.8	0.3	290	26.7	26.7	8.0	8.0	24.5	24.5	86.3	86.2	6.0	6.0	6.6	6.6	11	11	-	-	-	-	-	-	-	-	-	-	-	
SR6	Cloudy	Calm	06:37	4.4	Surface	1.0	0.1	241	26.7	26.7	8.0	8.0	24.9	24.9	87.7	87.7	6.1	6.1	5.4	6.3	6	8	-	-	817888	814648	-	-	-	-				
						1.0	0																											

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 18 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	19:52	8.2	Surface	1.0	0.4	203	27.7	8.0	8.0	19.9	19.9	95.0	95.0	6.7	6.6	3.9	8.8	5	6	81	86	815601	804271	<0.2	2.2	2.2		
						1.0	0.5	204	27.7	27.7	8.0	8.0	19.9	19.9	94.9	95.0	6.7	6.6	4.1	8.8	6	6	81	86	<0.2	2.0				
						4.1	0.5	196	27.0	27.0	8.0	8.0	22.4	22.4	92.1	92.1	6.5	6.5	5.6	8.8	6	6	86	86	<0.2	2.2				
					4.1	0.5	202	27.0	27.0	8.0	8.0	22.4	22.4	92.0	92.1	6.5	6.5	5.7	8.8	7	6	86	86	<0.2	2.2					
					7.2	0.4	226	26.6	26.6	8.1	8.0	26.8	26.6	86.6	87.3	6.0	6.1	16.8	16.7	6	7	86	91	<0.2	2.2					
					7.2	0.4	244	26.7	26.7	8.0	8.0	26.4	26.6	87.9	87.3	6.1	6.1	16.7	16.7	7	7	91	91	<0.2	2.3					
C2	Fine	Rough	18:46	10.2	Surface	1.0	1.0	170	27.9	8.0	8.0	10.4	10.4	86.5	86.4	6.4	6.2	11.8	15.8	4	5	78	84	825693	806957	<0.2	4.6	4.6		
						1.0	1.1	171	27.7	27.8	8.0	8.0	10.5	10.4	86.3	86.4	6.4	6.2	12.3	15.8	5	5	79	84	<0.2	4.9				
						5.1	0.6	153	26.9	26.9	8.0	8.0	21.5	21.5	85.1	85.2	6.0	6.0	16.5	17.2	5	5	84	87	<0.2	5.0				
					5.1	0.6	155	26.9	26.9	8.0	8.0	21.6	21.5	85.2	85.2	6.0	6.0	17.2	17.2	5	5	84	87	<0.2	4.4					
					9.2	0.4	140	26.9	26.9	8.0	8.0	23.0	23.0	85.3	85.4	6.0	6.0	18.6	18.4	6	5	87	88	<0.2	4.9					
					9.2	0.4	152	26.9	26.9	8.0	8.0	23.0	23.0	85.4	85.4	6.0	6.0	18.4	18.4	5	5	88	88	<0.2	4.9					
C3	Fine	Moderate	20:33	11.0	Surface	1.0	0.1	51	27.0	8.1	8.1	23.4	23.4	89.8	89.5	6.3	6.2	11.3	12.1	6	5	80	85	822132	817788	<0.2	5.1	5.3		
						1.0	0.2	51	26.9	27.0	8.1	8.1	23.4	23.4	89.2	89.5	6.2	6.2	11.4	12.1	5	5	81	85	<0.2	5.3				
						5.5	0.2	105	26.7	26.7	8.1	8.1	24.8	24.8	87.7	87.7	6.1	6.1	12.2	12.2	9	8	85	89	<0.2	5.6				
					5.5	0.2	107	26.7	26.7	8.1	8.1	24.8	24.8	87.7	87.7	6.1	6.1	12.2	12.2	9	8	86	89	<0.2	4.9					
					10.0	0.2	79	26.7	26.7	8.1	8.1	26.1	26.1	88.1	88.2	6.1	6.1	12.7	12.7	8	8	89	90	<0.2	5.7					
					10.0	0.2	82	26.7	26.7	8.1	8.1	26.1	26.1	88.3	88.2	6.1	6.1	12.7	12.7	9	8	90	90	<0.2	5.0					
IM1	Fine	Moderate	19:33	4.4	Surface	1.0	0.1	234	27.2	8.0	8.0	25.7	25.7	90.1	90.1	6.2	6.2	7.3	9.0	10	11	87	88	817948	807126	<0.2	1.5	1.4		
						1.0	0.2	245	27.2	27.2	8.0	8.0	25.7	25.7	90.0	90.1	6.2	6.2	7.3	9.0	11	11	88	88	<0.2	1.4				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	<0.2
					3.4	0.1	201	26.8	26.7	8.0	8.0	26.2	26.2	87.0	86.9	6.0	6.0	10.6	10.8	10	11	91	91	<0.2	1.3					
					3.4	0.1	205	26.7	26.7	8.0	8.0	26.2	26.2	86.8	86.9	6.0	6.0	10.8	10.8	11	11	91	91	<0.2	1.3					
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
IM2	Fine	Moderate	19:22	6.7	Surface	1.0	0.6	214	27.4	8.0	8.0	20.8	20.8	92.2	92.2	6.5	6.4	17.0	13.8	18	19	81	87	818152	806161	<0.2	2.2	2.2		
						1.0	0.6	221	27.4	27.4	8.0	8.0	20.8	20.8	92.2	92.2	6.5	6.4	17.0	13.8	17	19	81	87	<0.2	2.3				
						3.4	0.4	211	26.9	26.9	8.0	8.0	24.6	24.7	90.0	90.0	6.3	6.3	13.1	13.0	20	18	87	86	<0.2	2.4				
					3.4	0.4	213	26.9	26.9	8.0	8.0	24.7	24.7	90.0	90.0	6.3	6.3	13.0	13.0	18	18	86	86	<0.2	2.1					
					5.7	0.3	214	27.0	26.9	8.0	8.0	25.2	25.2	90.2	90.2	6.3	6.3	11.1	11.3	19	19	89	89	<0.2	2.1					
					5.7	0.4	222	26.9	26.9	8.0	8.0	25.2	25.2	90.1	90.2	6.2	6.2	11.3	11.3	20	20	90	90	<0.2	2.2					
IM3	Fine	Moderate	19:14	6.8	Surface	1.0	0.7	227	27.5	7.9	7.9	19.1	19.1	92.1	92.1	6.5	6.5	8.2	8.4	11	11	80	86	818777	805584	<0.2	2.8	3.0		
						1.0	0.8	243	27.5	27.5	7.9	7.9	19.1	19.1	92.1	92.1	6.5	6.5	8.2	8.4	11	11	80	86	<0.2	2.9				
						3.4	0.5	216	27.0	27.0	8.0	8.0	21.1	21.1	91.2	91.2	6.5	6.5	8.2	8.3	11	11	86	86	<0.2	3.3				
					3.4	0.5	217	27.0	27.0	8.0	8.0	21.1	21.1	91.2	91.2	6.5	6.5	8.3	8.3	12	12	86	86	<0.2	3.0					
					5.8	0.4	206	26.8	26.8	8.0	8.0	23.7	23.7	90.3	90.3	6.3	6.3	8.5	8.9	12	11	88	89	<0.2	3.0					
					5.8	0.4	221	26.8	26.8	8.0	8.0	23.8	23.8	90.2	90.2	6.3	6.3	8.9	8.9	11	11	89	89	<0.2	3.1					
IM4	Fine	Moderate	19:03	7.0	Surface	1.0	0.8	203	27.8	7.9	7.9	14.8	14.8	91.5	91.6	6.6	6.6	7.0	12.1	10	13	78	80	819695	804597	<0.2	3.5	3.4		
						1.0	0.8	217	27.8	27.8	7.9	7.9	14.9	14.8	91.6	91.6	6.6	6.6	7.2	12.1	10	13	78	80	<0.2	3.8				
						3.5	0.7	208	27.2	27.2	7.9	7.9	18.8	18.8	91.1	91.1	6.5	6.5	9.9	9.8	12	13	80	81	<0.2	3.4				
					3.5	0.7	213	27.2	27.2	7.9	7.9	18.8	18.8	91.0	91.1	6.5	6.5	9.8	9.8	13	13	81	81	<0.2	3.2					
					6.0	0.5	204	27.0	27.0	8.0	8.0	21.8	21.8	89.5	89.5	6.3	6.3	19.2	19.3	15	16	87	87	<0.2	3.4					
					6.0	0.5	206	27.0	27.0	8.0	8.0	21.8	21.8	89.5	89.5	6.3	6.3	19.3	19.3	16	16	87	87	<0.2	3.2					
IM5	Fine	Moderate	18:54	6.5	Surface	1.0	0.9	192	27.7	7.9	7.9	13.9	13.9	91.3	91.4	6.7	6.7	3.8	4.5	5	7	78	81	820724	804837	<0.2	3.9	3.7		
						1.0	1.0	197	27.6	27.7	7.9	7.9	13.8	13.9	91.5	91.4	6.7	6.7	3.8	4.5	6	7	77	81	<0.2	3.6				
						3.3	0.5	214	27.5	27.5	7.9	7.9	16.8	16.8	92.1	92.1	6.6	6.6	3.8	3.8	7	7	81	81	<0.2	3.8				
					3.3	0.6	218	27.5	27.5	7.9	7.9	16.8	16.8	92.0	92.1	6.6	6.6	3.8	3.8	7	7	81	81	<0.2	3.6					
					5.5	0.5	226	27.3	27.3	7.9	7.9	18.4	18.4	90.7	90.7	6.5	6.5	5.7	5.8	8	9	84	84	<0.2	3.7					
					5.5	0.6	229	27.2	27.2	7.9	7.9	18.5	18.5	90.7	90.7	6.5	6.5	5.8	5.8	9	9	84	84	<0.2	3.7					
IM6	Fine	Moderate	18:46	6.3	Surface	1.0	0.6	220	27.7	7.9	7.9	14.6	14.6	90.3	90.3	6.6	6.5	4.2	7.6	5	8	78	81	821065	805849	<0.2	3.5	3.7		
						1.0	0.6	236	27.7	27.7	7.9	7.9	14.7	14.6	90.2	90.3	6.6	6.5	4.3	7.6	6	8	78	81	<0.2	3.8				
						3.2	0.5	212	27.1	27.1	7.9	7.9	19.1	19.1	88.4	88.4	6.3	6.3	7.8	7.8	9	8	81	82	<0.2	3.7				
					3.2	0.5	212	27.1	27.1	7.9	7.9	19.2	19.1	88.3	88.4	6.3	6.3	7.8	7.8	8	8	81	82	<0.2	3.7					
					5.3	0.4	229	27.0	27.0	7.9	7.9	20.2	20.2	88.8	88.8	6.3	6.3	10.5	10.8	8	8	85	85	<0.2	3.8					
					5.3	0.4	250	27.0	27.0	7.9	7.9	20.2	20.2	88.7	88.8	6.3	6.3	10.8	10.8	9	8	84	85	<0.2	3.4					
IM7	Fine	Moderate	18:37	7.8	Surface	1.0	0																							



Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 20 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)														
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA													
C1	Fine	Moderate	10:22	8.9	Surface	1.0	0.4	225	28.6	28.6	8.0	8.0	12.0	12.0	90.3	90.3	6.5	6.5	5.2	6.5	3	86	86	89	89	815639	804274	<0.2	<0.2	3.6	4.0												
						1.0	0.4	234	28.6	28.6	8.0	8.0	12.0	12.0	90.2	90.3	6.5	6.5	5.3	6.5	4	85	85	89	89																		
					Middle	4.5	0.4	230	28.4	28.4	8.0	8.0	13.6	13.6	89.0	89.0	6.4	6.4	6.2	6.2	4	89	89	4	89							89	89	89	89	89	89	89	89				
						4.5	0.5	250	28.4	28.4	8.0	8.0	13.6	13.6	88.9	89.0	6.4	6.4	6.2	6.2	4	89	89	4	89							89	89	89	89	89	89	89	89				
					Bottom	7.9	0.4	229	28.3	28.3	8.0	8.0	16.4	16.0	88.6	88.6	6.3	6.3	12.7	12.7	4	93	93	4	93							93	93	93	93	93	93	93	93	93	93	93	
						7.9	0.4	234	28.3	28.3	8.0	8.0	15.6	16.0	88.6	88.6	6.3	6.3	12.7	12.7	4	93	93	4	93							93	93	93	93	93	93	93	93	93	93	93	93
C2	Cloudy	Moderate	11:44	11.8	Surface	1.0	1.1	165	28.5	28.5	7.8	7.8	8.5	8.5	83.0	83.1	6.2	6.2	10.8	6.0	4	86	86	89	89	825711	806963	<0.2	<0.2	4.4	4.4												
						1.0	1.2	176	28.5	28.5	7.8	7.8	8.5	8.5	83.1	83.1	6.2	6.2	10.7	6.0	5	87	87	6	90							90	90	90									
					Middle	5.9	0.7	164	27.2	27.2	8.0	8.0	24.5	24.5	83.5	83.5	5.8	5.8	9.9	5.8	7	89	89	6	90							90	90	90	90	90	90	90	90	90	90		
						5.9	0.8	177	27.2	27.2	8.0	8.0	24.5	24.5	83.4	83.5	5.8	5.8	10.0	5.8	6	90	90	6	94							94	94	94	94	94	94	94	94	94	94		
					Bottom	10.8	0.3	162	27.4	27.4	8.0	8.0	25.7	25.7	84.5	84.5	5.8	5.8	11.1	5.8	6	94	94	7	95							95	95	95	95	95	95	95	95	95	95	95	
						10.8	0.3	168	27.4	27.4	8.0	8.0	25.7	25.7	84.5	84.5	5.8	5.8	11.1	5.8	7	95	95	7	95							95	95	95	95	95	95	95	95	95	95	95	95
C3	Fine	Moderate	09:41	12.8	Surface	1.0	0.2	94	28.2	28.2	8.0	8.0	17.6	17.6	91.5	91.5	6.5	6.5	7.2	6.2	2	86	86	89	89	822097	817808	<0.2	<0.2	4.1	4.3												
						1.0	0.2	95	28.2	28.2	8.0	8.0	17.6	17.6	91.5	91.5	6.5	6.5	7.3	6.2	2	86	86	3	89							89	89	89									
					Middle	6.4	0.2	50	27.4	27.4	8.0	8.0	23.6	23.6	84.1	84.1	5.8	5.8	8.9	5.8	3	89	89	3	90							90	90	90	90	90	90	90	90	90	90		
						6.4	0.2	51	27.4	27.4	8.0	8.0	23.6	23.6	84.1	84.1	5.8	5.8	9.0	5.8	3	89	89	3	90							90	90	90	90	90	90	90	90	90	90		
					Bottom	11.8	0.3	109	27.1	27.1	8.0	8.0	27.2	27.2	85.4	85.4	5.8	5.8	10.5	5.8	4	92	92	4	93							93	93	93	93	93	93	93	93	93	93	93	93
						11.8	0.3	113	27.1	27.1	8.0	8.0	27.2	27.2	85.5	85.5	5.8	5.8	10.4	5.8	4	92	92	4	93							93	93	93	93	93	93	93	93	93	93	93	93
IM1	Cloudy	Moderate	10:41	5.4	Surface	1.0	0.1	189	28.6	28.6	8.0	8.0	10.0	10.0	88.6	88.6	6.5	6.5	4.8	6.5	5	85	85	89	89	817954	807125	<0.2	<0.2	4.4	4.7												
						1.0	0.1	192	28.6	28.6	8.0	8.0	10.0	10.0	88.5	88.6	6.5	6.5	4.7	6.5	4	85	85	4	88							88	88	88									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		
					Bottom	4.4	0.1	192	27.8	27.8	7.9	7.9	19.5	19.5	87.4	87.4	6.2	6.2	4.0	6.2	4	88	88	4	88							88	88	88	88	88	88	88	88	88	88	88	
						4.4	0.2	210	27.8	27.8	7.9	7.9	19.5	19.5	87.4	87.4	6.2	6.2	4.0	6.2	4	88	88	4	88							88	88	88	88	88	88	88	88	88	88	88	88
IM2	Cloudy	Moderate	10:47	7.9	Surface	1.0	0.4	237	28.5	28.5	7.9	7.9	11.7	11.7	87.3	87.3	6.4	6.4	5.3	6.2	4	86	86	89	89	818143	806150	<0.2	<0.2	4.4	4.1												
						1.0	0.4	238	28.5	28.5	7.9	7.9	11.7	11.7	87.3	87.3	6.4	6.4	5.3	6.2	4	86	86	4	86							86	89	89									
					Middle	4.0	0.2	225	27.7	27.7	8.0	8.0	20.2	20.2	84.9	84.9	6.0	6.0	5.6	6.0	5	89	89	5	93							93	93	93	93	93	93	93	93	93	93		
						4.0	0.2	226	27.7	27.7	8.0	8.0	20.2	20.2	84.9	84.9	6.0	6.0	5.7	6.0	4	89	89	5	93							93	93	93	93	93	93	93	93	93	93		
					Bottom	6.9	0.2	177	27.2	27.2	7.9	7.9	24.1	24.1	85.8	85.9	6.0	6.0	7.5	6.0	5	93	93	5	94							94	94	94	94	94	94	94	94	94	94	94	
						6.9	0.2	191	27.2	27.2	7.9	7.9	24.1	24.1	86.0	85.9	6.0	6.0	7.5	6.0	5	94	94	5	94							94	94	94	94	94	94	94	94	94	94	94	
IM3	Cloudy	Moderate	10:52	8.2	Surface	1.0	0.6	187	29.3	29.3	8.0	8.0	6.0	6.0	88.4	88.4	6.5	6.5	5.3	6.3	5	82	82	86	86	818769	805569	<0.2	<0.2	3.4	4.0												
						1.0	0.6	189	29.3	29.3	8.0	8.0	6.0	6.0	88.3	88.4	6.5	6.5	5.3	6.3	6	82	82	6	85							85	85	85									
					Middle	4.1	0.4	192	27.8	27.8	8.0	8.0	18.6	18.7	84.8	84.8	6.0	6.0	4.6	6.0	6	85	85	6	85							85	85	85	85	85	85	85	85	85			
						4.1	0.5	196	27.8	27.8	8.0	8.0	18.8	18.7	84.6	84.7	6.0	6.0	4.6	6.0	6	85	85	6	85							85	85	85	85	85	85	85	85	85			
					Bottom	7.2	0.2	183	27.6	27.6	7.9	7.9	22.5	22.5	87.0	87.1	6.1	6.1	3.7	6.1	6	90	90	6	90							90	90	90	90	90	90	90	90	90	90		
						7.2	0.2	197	27.6	27.6	7.9	7.9	22.5	22.5	87.2	87.1	6.1	6.1	3.7	6.1	6	90	90	6	90							90	90	90	90	90	90	90	90	90	90	90	
IM4	Cloudy	Moderate	11:00	8.3	Surface	1.0	0.6	199	28.3	28.3	7.9	7.9	12.7	12.6	86.4	86.4	6.3	6.3	4.5	6.3	4	83	83	86	86	819751	804594	<0.2	<0.2	3.7	3.7												
						1.0	0.7	204	28.3	28.3	7.9	7.9	12.5	12.6	86.4	86.4	6.3	6.3	4.4	6.3	4	83	83	4	83							83	86	86									
					Middle	4.2	0.6	175	28.1	28.1	7.9	7.9	15.7	15.7	86.4	86.4	6.2	6.2	3.9	6.2	4	86	86	4	86							86	86	86	86	86	86	86	86	86			
						4.2	0.6	181	28.1	28.1	7.9	7.9	15.7	15.7	86.4	86.4	6.2	6.2	3.9	6.2	4	86	86	4	86							86	86	86	86	86	86	86	86				
					Bottom	7.3	0.4	170	28.1	28.1	7.9	7.9	16.1	16.1	87.6	87.6	6.3	6.3	3.9	6.3	5	89	89	5	91							91	91	91	91	91	91	91	91	91	91		
						7.3	0.5	171	28.1	28.1	7.9	7.9	16.1	16.1	87.6	87.6	6.3	6.3	3.9	6.3	5	91	91	5	91							91	91	91	91	91	91	91	91	91	91		
IM5	Cloudy	Moderate	11:12	7.5	Surface	1.0	0.8	185	28.4	28.3	7.9	7.9	9.2	9.2	85.9	85.9	6.4	6.4	4.8	6.4	4	82	82	86	86	820713	804839	<0.2	<0.2	3.6	3.7												
						1.0	0.8	192	28.3	28.3	7.9	7.9	9.2	9.2	85.9	85.9	6.4	6.4	4.8	6.4	5																						

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 20 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Cloudy	Moderate	11:15	7.0	Surface	1.0	0.4	152	28.5	28.5	7.9	7.9	9.2	9.2	87.0	87.0	6.4	6.4	9.5	4	82	86	<0.2	3.8	822074	808804	<0.2	3.8								
						1.0	0.4	152	28.5	28.5	7.9	7.9	9.3	9.2	87.0	87.0	6.4	6.4	9.4	4	82	86	<0.2	3.8												
					Middle	3.5	0.2	126	28.1	28.1	7.9	7.9	16.2	16.2	86.4	86.4	6.2	6.2	8.4	5	87	86	<0.2	3.7												
						3.5	0.2	128	28.1	28.1	7.9	7.9	16.2	16.2	86.4	86.4	6.2	6.2	8.4	5	87	86	<0.2	3.7												
					Bottom	6.0	0.1	78	27.9	27.9	7.9	7.9	17.3	17.4	86.4	86.4	6.2	6.2	8.3	6	89	89	<0.2	3.8												
						6.0	0.1	83	27.9	27.9	7.9	7.9	17.4	17.4	86.3	86.4	6.1	6.2	8.3	7	90	90	<0.2	3.9												
IM10	Cloudy	Moderate	10:56	6.5	Surface	1.0	0.4	122	28.2	28.2	7.9	7.9	14.6	14.6	86.1	86.2	6.2	6.2	9.3	3	88	88	<0.2	4.1	822367	809790	<0.2	3.9								
						1.0	0.4	126	28.2	28.2	7.9	7.9	14.6	14.6	86.2	86.2	6.2	6.1	9.3	4	88	88	<0.2	3.9												
					Middle	3.3	0.4	92	27.9	27.9	7.9	7.9	17.8	17.8	84.1	84.1	6.0	6.0	10.9	4	91	91	<0.2	3.5												
						3.3	0.4	96	27.9	27.9	7.9	7.9	17.8	17.8	84.0	84.1	6.0	6.0	11.0	4	92	92	<0.2	4.2												
					Bottom	5.5	0.2	112	27.2	27.2	7.9	7.9	23.4	23.4	82.5	82.5	5.7	5.7	15.1	5	94	94	<0.2	3.9												
						5.5	0.3	121	27.2	27.2	7.9	7.9	23.5	23.4	82.6	82.6	5.8	5.8	15.3	5	95	95	<0.2	3.7												
IM11	Cloudy	Moderate	10:38	6.7	Surface	1.0	0.6	103	28.4	28.4	7.9	7.9	12.2	12.2	87.0	87.0	6.3	6.3	9.8	3	86	86	<0.2	4.0	822035	811442	<0.2	3.9								
						1.0	0.6	108	28.4	28.4	7.9	7.9	12.2	12.2	87.0	87.0	6.3	6.2	9.8	4	87	87	<0.2	3.9												
					Middle	3.4	0.5	102	27.7	27.7	7.9	7.9	20.5	20.5	85.4	85.4	6.0	6.0	10.0	4	89	89	<0.2	3.7												
						3.4	0.5	106	27.7	27.7	7.9	7.9	20.5	20.5	85.4	85.4	6.0	6.0	10.0	3	91	91	<0.2	3.8												
					Bottom	5.7	0.3	107	27.3	27.3	7.9	7.9	24.1	24.1	87.5	87.5	6.1	6.1	10.8	4	94	94	<0.2	3.8												
						5.7	0.3	116	27.3	27.3	7.9	7.9	24.1	24.1	87.8	87.7	6.1	6.1	10.8	4	95	95	<0.2	3.9												
IM12	Cloudy	Moderate	10:28	7.8	Surface	1.0	0.6	90	28.5	28.5	7.9	7.9	11.7	11.7	87.7	87.7	6.4	6.4	10.3	3	86	86	<0.2	4.2	821483	812018	<0.2	3.9								
						1.0	0.6	98	28.5	28.5	7.9	7.9	11.7	11.7	87.7	87.7	6.4	6.2	10.3	4	87	87	<0.2	4.0												
					Middle	3.9	0.4	86	27.8	27.8	8.0	8.0	17.3	17.3	84.6	84.6	6.0	6.0	12.2	3	89	89	<0.2	3.8												
						3.9	0.4	89	27.8	27.8	8.0	8.0	17.3	17.3	84.5	84.6	6.0	6.0	12.3	4	90	90	<0.2	3.9												
					Bottom	6.8	0.2	112	27.2	27.2	7.9	7.9	23.7	23.7	85.2	85.3	5.9	5.9	14.8	4	94	94	<0.2	3.7												
						6.8	0.2	122	27.2	27.2	7.9	7.9	23.7	23.7	85.3	85.3	5.9	5.9	14.8	5	95	95	<0.2	4.0												
SR2	Fine	Moderate	10:05	4.2	Surface	1.0	0.3	77	28.2	28.2	8.0	8.0	14.7	14.8	90.1	90.1	6.5	6.5	8.4	4	84	84	<0.2	3.5	821460	814148	<0.2	3.6								
						1.0	0.3	83	28.2	28.2	8.0	8.0	14.9	14.8	90.1	90.1	6.5	6.5	8.4	4	84	84	<0.2	3.6												
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-		
					Bottom	3.2	0.2	73	27.8	27.8	7.9	7.9	19.5	19.5	92.8	92.8	6.6	6.6	8.0	4	90	90	<0.2	3.6												
						3.2	0.2	74	27.8	27.8	7.9	7.9	19.5	19.5	93.1	93.0	6.6	6.6	8.0	4	91	91	<0.2	3.8												
SR3	Cloudy	Moderate	11:27	12.6	Surface	1.0	0.7	176	28.4	28.4	7.9	7.9	12.2	12.2	84.4	84.4	6.1	6.1	10.0	5	-	-	-	-	-	-	-	-								
						1.0	0.7	187	28.4	28.4	7.9	7.9	12.2	12.2	84.3	84.4	6.1	6.1	10.1	5	-	-	-	-	-	-	-	-	-							
					Middle	6.3	0.6	179	27.1	27.1	8.0	8.0	24.0	24.0	81.4	81.5	5.7	5.7	11.1	5	-	-	-	-	-	-	-	-	-	-						
						6.3	0.7	195	27.1	27.1	8.0	8.0	24.0	24.0	81.5	81.5	5.7	5.7	11.2	5	-	-	-	-	-	-	-	-	-	-						
					Bottom	11.6	0.3	182	27.1	27.1	8.0	8.0	24.6	24.6	83.8	83.9	5.8	5.8	13.6	6	-	-	-	-	-	-	-	-	-	-						
						11.6	0.3	186	27.1	27.1	8.0	8.0	24.6	24.6	84.0	84.0	5.8	5.8	13.8	5	-	-	-	-	-	-	-	-	-	-						
SR4A	Fine	Moderate	10:03	8.6	Surface	1.0	0.1	308	28.4	28.4	8.0	8.0	14.8	14.8	87.6	87.6	6.3	6.3	4.2	4	-	-	-	-	-	-	-	-								
						1.0	0.1	318	28.4	28.4	8.0	8.0	14.8	14.8	87.5	87.5	6.3	6.2	4.2	4	-	-	-	-	-	-	-	-	-							
					Middle	4.3	0.1	99	27.7	27.7	7.9	7.9	19.1	19.1	86.2	86.3	6.1	6.1	6.8	4	-	-	-	-	-	-	-	-	-	-						
						4.3	0.1	104	27.7	27.7	7.9	7.9	19.1	19.1	86.3	86.3	6.1	6.1	6.8	5	-	-	-	-	-	-	-	-	-	-						
					Bottom	7.6	0.1	64	27.7	27.7	7.9	7.9	19.3	19.3	89.1	89.3	6.3	6.3	8.1	6	-	-	-	-	-	-	-	-	-	-	-					
						7.6	0.1	65	27.7	27.7	7.9	7.9	19.3	19.3	89.4	89.3	6.3	6.3	8.1	6	-	-	-	-	-	-	-	-	-	-	-					
SR5A	Fine	Moderate	09:36	5.2	Surface	1.0	0.0	90	28.2	28.2	8.0	8.0	17.6	17.6	93.9	93.9	6.6	6.6	5.8	2	-	-	-	-	-	-	-	-								
						1.0	0.0	92	28.2	28.2	8.0	8.0	17.6	17.6	93.9	93.9	6.7	6.7	5.6	2	-	-	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	4.2	0.1	349	28.1	28.1	8.0	8.0	19.5	19.5	95.0	95.0	6.7	6.7	6.8	4	-	-	-	-	-	-	-	-	-	-						
						4.2	0.1	349	28.1	28.1	8.0	8.0	19.5	19.5	95.1	95.1	6.7	6.7	6.9	4	-	-	-	-	-	-	-	-	-	-						
SR6	Fine	Calm	09:06	4.4	Surface	1.0	0.0	331	28.1	28.1	7.9	7.9	18.5	18.5	95.1	95.1	6.7	6.7	5.6	4	-	-	-	-	-	-	-	-								
						1.0	0.0	353	28.1	28.1	7.9	7.9	18.5	18.5	95.1	95.1	6.7	6.7	5.4	4	-	-	-	-	-	-	-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Bottom	3.4	0.1	262	28.1	28.1	7.8	7.8	18.7	18.7	96.1	96.2	6.8	6.8	7.3	4	-	-	-	-	-	-	-	-	-							
						3.4	0.1	279	28.1	28.1	7.8	7.8	18.7	18.7	96.2	96.2	6.8	6.8	7.4	4	-	-	-	-	-	-	-	-	-							
SR7	Fine	Moderate	09:04	16.3	Surface	1.0	0.3	80	28.1	28.1	7.9	7.9	18.8	18.8	91.6	91.6	6.5	6.5	7.2	2	-	-	-	-	-	-	-									
						1.0	0.4	81	28.1	28.1	7.9	7.9	18.8	18.8	91.6	91.6	6.5	6.2	7.2	2	-															

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 20 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
C1	Cloudy	Moderate	17:20	8.8	Surface	1.0	0.2	90	28.6	28.6	8.0	8.0	17.5	17.5	93.6	93.5	6.6	6.3	8.3	11.4	8	8	87	91	815631	804229	<0.2	3.9	3.9				
						1.0	0.2	94	28.6		8.0	8.0	17.5	17.5	93.4	93.5	6.6		8.3		7		88				<0.2	4.1					
						4.4	0.2	77	27.7		8.0	8.0	21.7	21.7	85.9	85.9	6.0		13.2		8		91				<0.2	4.4					
					Middle	4.4	0.2	82	27.7	8.0	8.0	21.7	21.7	85.8	85.9	6.0	13.3	8	92	<0.2	3.9												
						7.8	0.2	53	27.3	8.0	8.0	25.4	25.4	86.2	86.3	5.9	12.7	8	94	<0.2	3.3												
						7.8	0.2	56	27.3	8.0	8.0	25.4	25.4	86.3	86.3	5.9	12.7	9	94	<0.2	3.9												
C2	Cloudy	Moderate	15:57	11.2	Surface	1.0	0.9	174	28.9	28.9	7.9	7.9	8.2	8.2	84.3	84.3	6.2	6.0	11.1	10.6	9	11	86	90	825675	806928	<0.2	3.4	3.7				
						1.0	0.9	190	28.9		7.9	7.9	8.2	8.2	84.3	84.3	6.2		11.0		10		87				<0.2	3.5					
						5.6	0.3	189	27.2		8.0	8.0	22.6	22.6	82.1	82.1	5.7		10.1		11		90				<0.2	4.1					
					Middle	5.6	0.3	193	27.2	8.0	8.0	22.5	22.6	82.1	82.1	5.8	10.1	10	91	<0.2	3.7												
						10.2	0.0	9	27.1	8.0	8.0	25.0	25.0	83.0	83.0	5.7	10.5	11	93	<0.2	3.4												
						10.2	0.0	9	27.1	8.0	8.0	25.0	25.0	83.0	83.0	5.7	10.5	12	93	<0.2	3.9												
C3	Cloudy	Moderate	17:56	10.7	Surface	1.0	0.3	245	28.6	28.6	8.0	8.0	17.5	17.5	92.4	92.3	6.5	6.2	7.8	10.6	4	4	83	87	822099	817806	<0.2	4.0	4.0				
						1.0	0.3	286	28.6		8.0	8.0	17.5	17.5	92.2	92.3	6.5		7.8		4		83				<0.2	3.7					
						5.4	0.4	273	27.5		8.0	8.0	22.4	22.4	83.6	83.6	5.8		8.9		4		86				<0.2	4.2					
					Middle	5.4	0.5	281	27.5	8.0	8.0	22.4	22.4	83.5	83.6	5.8	9.0	5	87	<0.2	4.0												
						9.7	0.2	256	27.3	8.0	8.0	25.8	25.8	84.0	84.2	5.8	15.0	5	89	<0.2	3.8												
						9.7	0.2	280	27.3	8.0	8.0	25.8	25.8	84.3	84.2	5.8	14.9	4	91	<0.2	4.2												
IM1	Cloudy	Calm	16:59	5.3	Surface	1.0	0.2	246	28.9	28.9	8.0	8.0	9.2	9.2	88.9	88.9	6.5	6.5	5.1	6.7	8	8	83	84	817978	807125	<0.2	3.8	3.7				
						1.0	0.2	260	28.9		8.0	8.0	9.2	9.2	88.8	88.9	6.5		5.0		7		82				<0.2	3.8					
						-	-	-	-		-	-	-	-	-	-	-		-		-		-				-	-		-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
						4.3	0.0	73	27.9	7.9	7.9	18.0	18.2	88.5	88.6	6.3	6.3	8	85	<0.2	3.4												
						4.3	0.0	75	27.9	7.9	7.9	18.3	18.2	88.7	88.6	6.3	6.3	8	86	<0.2	3.8												
IM2	Cloudy	Moderate	16:51	7.4	Surface	1.0	0.1	322	29.2	29.2	8.0	8.0	9.4	9.4	86.5	86.4	6.3	6.0	6.1	8.0	7	7	86	87	818136	806169	<0.2	3.6	3.8				
						1.0	0.2	353	29.2		8.0	8.0	9.5	9.4	86.3	86.4	6.3		6.1		7		87				<0.2	3.8					
						3.7	0.1	297	27.7		7.9	7.9	21.3	21.2	80.9	80.9	5.7		7.3		7		83				<0.2	4.0					
					Middle	3.7	0.1	321	27.7	7.9	7.9	21.1	21.2	80.8	80.9	5.7	7.4	6	84	<0.2	3.8												
						6.4	0.1	340	27.1	8.0	7.9	24.3	24.3	80.4	80.5	5.6	10.4	8	90	<0.2	4.0												
						6.4	0.1	313	27.1	7.9	7.9	24.3	24.3	80.5	80.5	5.6	10.4	8	91	<0.2	3.6												
IM3	Cloudy	Moderate	16:45	7.3	Surface	1.0	0.3	241	29.3	29.3	7.9	7.9	9.5	9.5	88.4	88.3	6.4	6.2	6.2	10.0	5	7	83	87	818794	805602	<0.2	4.0	3.6				
						1.0	0.4	250	29.3		7.9	7.9	9.4	9.4	88.2	88.3	6.4		6.2		6		84				<0.2	3.7					
						3.7	0.1	317	28.3		7.9	7.9	14.2	14.2	83.0	83.0	6.0		10.3		8		87				<0.2	3.6					
					Middle	3.7	0.1	339	28.3	7.9	7.9	14.2	14.2	82.9	83.0	6.0	10.4	7	87	<0.2	3.5												
						6.3	0.3	34	27.4	7.9	7.9	22.7	22.7	82.5	82.6	5.8	13.4	9	89	<0.2	3.5												
						6.3	0.4	35	27.4	7.9	7.9	22.8	22.7	82.7	82.6	5.8	13.2	8	89	<0.2	3.5												
IM4	Cloudy	Moderate	16:36	8.1	Surface	1.0	0.3	239	29.3	29.3	7.9	7.9	8.4	8.4	88.3	88.3	6.5	6.3	10.9	11.9	7	7	83	88	819705	804627	<0.2	3.5	3.7				
						1.0	0.3	258	29.3		7.9	7.9	8.4	8.4	88.3	88.3	6.4		10.9		7		84				<0.2	3.6					
						4.1	0.1	255	28.4		7.9	7.9	13.3	13.3	84.5	84.5	6.1		11.1		7		86				<0.2	4.0					
					Middle	4.1	0.1	267	28.4	7.9	7.9	13.3	13.3	84.5	84.5	6.1	11.1	8	87	<0.2	3.5												
						7.1	0.0	65	27.8	7.9	7.9	19.0	19.0	84.6	84.6	6.0	13.6	7	94	<0.2	4.0												
						7.1	0.0	67	27.8	7.9	7.9	19.0	19.0	84.7	84.7	6.0	13.7	7	94	<0.2	4.2												
IM5	Cloudy	Moderate	16:26	7.6	Surface	1.0	0.6	262	29.2	29.2	7.8	7.8	8.1	8.1	89.0	89.0	6.5	6.4	12.2	10.9	8	8	85	89	820731	804868	<0.2	3.8	3.8				
						1.0	0.7	284	29.3		7.8	7.8	8.1	8.1	89.0	89.0	6.5		12.2		8		85				<0.2	3.6					
						3.8	0.6	250	28.8		7.9	7.9	9.9	9.9	86.1	86.1	6.3		11.1		7		89				<0.2	4.0					
					Middle	3.8	0.6	260	28.8	7.9	7.9	9.9	9.9	86.1	86.1	6.3	11.1	8	90	<0.2	3.6												
						6.6	0.4	259	28.0	7.9	7.9	15.3	15.4	84.4	84.4	6.1	9.4	8	92	<0.2	3.8												
						6.6	0.4	284	28.0	7.9	7.9	15.5	15.4	84.5	84.5	6.1	9.4	8	93	<0.2	3.9												
IM6	Cloudy	Moderate	16:19	7.5	Surface	1.0	0.7	285	29.1	29.1	7.9	7.9	7.3	7.3	87.1	87.1	6.4	6.2	8.8	9.4	6	7	82	86	821049	805853	<0.2	3.9	3.8				
						1.0	0.7	299	29.1		7.9	7.9	7.3	7.3	87.1	87.1	6.4		8.8		7		83				<0.2	3.8					
						3.8	0.5	277	28.0		7.9	7.9	15.7	15.7	82.8	82.8	5.9		9.4		7		86				<0.2	4.0					
					Middle	3.8	0.5	290	28.0	7.9	7.9	15.7	15.7	82.8	82.8	5.9	9.4	8	87	<0.2	3.5												
						6.5	0.2	260	27.8	7.9	7.9	17.7	17.7	82.2	82.3	5.9	9.8	8	89	<0.2	3.6												
						6.5	0.2	281	27.8	7.9	7.9	17.7	17.7	82.3	82.3	5.9	9.9	8	90	<0.2	4.0												
IM7	Cloudy	Moderate	15:57	7.4	Surface	1.0	0.7	269	28.7	28.7	7.9	7.9	9.0	8.9	83.8	83.8	6.2	6.0	10.2	8.8	7	8	84	86	821359	806808	<0.2	4.0	3.9				
						1.0	0.7	294	28.7		7.9	7.9	8.9	8.9	83.8	83.8	6.2		10.1		7		84				<0.2	4.1					
						3.7	0.6	270	27.3		8.0	8.0	22.1	22.1	81.5	81.5	5.7		7.1		8		85				<0.2	3.9					
					Middle	3.7	0.7	271	27.3	8.0	8.0	22.1	22.1	81.5	81.5	5.7	7.1	8	85	<0.2	3.6												
						6.4	0.5	253	27.2	8.0	8.0	24.9	24.9	81.7	81.7	5.6	9.2	9	90	<0.2	3.7												
						6.4	0.5	264	27.2	8.0	8.0	24.9	24.9	81.6	81.6	5.6	9.2	10	90	<0.2	3.8												
IM8	Cloudy	Moderate	16:28	7.2	Surface	1.0	0.3	199	29.7	29.7	7.9	7.9	5.7	5.7	89.5	89.5	6.6	6.5	11.7	10.0	8	8	82	86	821801	808160	<0.2	3.7	3.8				
						1.0	0.3	211	29.7		7.9	7.9	5.7	5.7	89.4	89.5	6.6		11.7		7		83				<0.2	3.6					
						3.6	0.2	231	2																								

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 20 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
					Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
IM9	Cloudy	Moderate	16:38	6.7	Surface	1.0	0.0	356	29.1	7.9	7.9	9.2	9.2	86.8	86.8	6.3	6.3	12.7	6.2	7	7	82	82	822107	808792	<0.2	<0.2	3.8	3.8				
						1.0	0.0	328	29.1	7.9	7.9	9.2	9.2	86.8	86.8	6.3	6.3	12.8	6.2	7	7	83	83	86	86	<0.2	<0.2	3.7	3.7				
					Middle	3.4	0.1	26	28.4	28.4	7.9	7.9	12.3	12.3	84.5	84.6	6.1	6.1	13.5	6.0	8	8	86	86	85	85	<0.2	<0.2	4.0	4.0			
						3.4	0.1	26	28.4	28.4	7.9	7.9	12.3	12.3	84.6	84.6	6.1	6.1	13.4	6.0	8	8	86	86	89	89	<0.2	<0.2	3.8	3.8			
					Bottom	5.7	0.2	167	27.8	27.8	7.9	7.9	19.0	19.0	84.5	84.6	6.0	6.0	12.7	6.0	8	8	86	86	90	90	86	86	<0.2	<0.2	4.3	4.3	
						5.7	0.2	178	27.8	27.8	7.9	7.9	19.0	19.0	84.7	84.6	6.0	6.0	12.9	6.0	8	8	86	86	90	90	86	86	<0.2	<0.2	3.9	3.9	
IM10	Cloudy	Moderate	16:47	6.4	Surface	1.0	0.1	86	29.4	29.4	7.9	7.9	9.7	9.7	89.5	89.5	6.5	6.3	10.9	6.3	8	8	85	85	822393	809766	<0.2	<0.2	3.7	3.9			
						1.0	0.1	91	29.4	29.4	7.9	7.9	9.7	9.7	89.4	89.5	6.5	6.0	10.9	6.3	7	7	86	86	85	85	<0.2	<0.2	4.0	4.0			
					Middle	3.2	0.2	93	28.3	28.3	7.9	7.9	15.1	15.1	83.9	83.8	6.0	6.0	11.7	6.0	8	8	82	82	86	86	<0.2	<0.2	3.6	3.6			
						3.2	0.2	95	28.2	28.3	7.9	7.9	15.1	15.1	83.7	83.8	6.0	6.0	11.8	6.0	8	8	83	83	86	86	<0.2	<0.2	3.6	3.6			
					Bottom	5.4	0.1	265	27.4	27.4	7.9	7.9	22.2	22.2	83.9	83.9	5.9	5.9	17.4	5.9	9	9	86	86	87	87	86	86	<0.2	<0.2	4.3	4.3	
						5.4	0.1	271	27.4	27.4	7.9	7.9	22.1	22.2	84.0	84.0	5.9	5.9	17.8	5.9	8	8	87	87	86	86	86	86	<0.2	<0.2	3.9	3.9	
IM11	Cloudy	Moderate	16:58	8.0	Surface	1.0	0.1	36	29.3	29.3	8.0	8.0	9.8	9.8	86.5	86.4	6.3	6.0	11.0	6.0	5	5	86	86	822043	811444	<0.2	<0.2	3.7	4.0			
						1.0	0.1	37	29.3	29.3	8.0	8.0	9.8	9.8	86.3	86.4	6.3	6.0	11.0	6.0	6	6	87	87	85	85	<0.2	<0.2	3.8	3.8			
					Middle	4.0	0.2	321	27.5	27.5	7.9	7.9	21.2	21.1	81.2	81.2	5.7	5.7	12.5	5.6	6	6	84	84	86	86	<0.2	<0.2	4.3	4.3			
						4.0	0.2	352	27.5	27.5	7.9	7.9	21.0	21.1	81.1	81.2	5.7	5.7	12.6	5.6	6	6	83	83	85	85	<0.2	<0.2	4.0	4.0			
					Bottom	7.0	0.3	300	27.2	27.2	7.9	7.9	24.2	24.2	81.0	81.2	5.6	5.6	16.0	5.6	6	6	85	85	86	86	86	86	<0.2	<0.2	4.3	4.3	
						7.0	0.3	328	27.2	27.2	7.9	7.9	24.2	24.2	81.3	81.2	5.6	5.6	16.1	5.6	7	7	86	86	86	86	86	86	<0.2	<0.2	4.3	4.3	
IM12	Cloudy	Moderate	17:06	7.5	Surface	1.0	0.1	93	29.3	29.3	8.0	8.0	9.0	9.1	87.0	86.9	6.3	6.2	10.6	6.2	5	5	86	86	821456	812019	<0.2	<0.2	3.7	3.7			
						1.0	0.1	100	29.3	29.3	8.0	8.0	9.2	9.1	86.7	86.9	6.3	6.0	10.6	6.0	6	6	86	86	90	90	<0.2	<0.2	3.5	3.5			
					Middle	3.8	0.1	334	27.8	27.8	8.0	8.0	16.9	16.9	84.5	84.5	6.0	6.0	11.0	6.0	6	6	89	89	86	86	<0.2	<0.2	3.5	3.5			
						3.8	0.1	307	27.8	27.8	8.0	8.0	16.9	16.9	84.4	84.5	6.0	6.0	11.1	6.0	6	6	90	90	86	86	<0.2	<0.2	4.0	4.0			
					Bottom	6.5	0.3	314	27.2	27.2	7.9	7.9	24.0	24.0	85.9	86.0	6.0	6.0	14.7	6.0	6	6	94	94	86	86	86	86	<0.2	<0.2	3.7	3.7	
						6.5	0.3	325	27.2	27.2	7.9	7.9	24.0	24.0	86.1	86.0	6.0	6.0	14.8	6.0	7	7	94	94	86	86	86	86	<0.2	<0.2	3.5	3.5	
SR2	Cloudy	Moderate	17:33	3.1	Surface	1.0	0.1	327	29.4	29.3	8.0	8.0	10.1	10.2	97.1	97.2	7.0	7.0	10.1	7.0	6	6	82	82	821448	814173	<0.2	<0.2	3.5	3.6			
						1.0	0.1	348	29.3	29.3	8.0	8.0	10.3	10.2	97.2	97.2	7.0	7.0	10.0	7.0	5	5	83	83	86	86	<0.2	<0.2	3.5	3.5			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	2.1	0.2	336	28.8	28.8	8.0	8.0	18.6	18.6	96.5	96.5	6.7	6.7	10.5	6.7	6	6	85	85	86	86	86	86	<0.2	<0.2	3.5	3.5	
						2.1	0.2	344	28.8	28.8	8.0	8.0	18.6	18.6	96.5	96.5	6.7	6.7	10.6	6.7	5	5	86	86	86	86	86	86	<0.2	<0.2	3.5	3.5	
SR3	Cloudy	Moderate	16:23	8.4	Surface	1.0	0.5	189	28.9	28.9	7.9	7.9	7.8	7.8	86.5	86.5	6.4	6.3	10.7	6.3	7	7	-	-	822174	807588	-	-	-	-			
						1.0	0.6	204	28.9	28.9	7.9	7.9	7.8	7.8	86.5	86.5	6.4	6.0	10.7	6.0	7	7	-	-	-	-	-	-	-	-	-		
					Middle	4.2	0.2	211	28.2	28.2	7.9	7.9	15.1	15.2	84.2	84.3	6.1	6.1	9.0	6.0	7	7	-	-	-	-	-	-	-	-	-	-	
						4.2	0.2	213	28.2	28.2	7.9	7.9	15.3	15.2	84.3	84.3	6.1	6.1	9.0	6.0	7	7	-	-	-	-	-	-	-	-	-		
					Bottom	7.4	0.3	219	27.8	27.8	7.9	7.9	17.3	17.3	84.5	84.6	6.0	6.0	8.5	6.0	8	8	-	-	-	-	-	-	-	-	-		
						7.4	0.3	225	27.8	27.8	7.9	7.9	17.4	17.4	84.7	84.6	6.0	6.0	8.5	6.0	8	8	-	-	-	-	-	-	-	-	-		
SR4A	Cloudy	Moderate	17:42	8.4	Surface	1.0	0.4	251	28.5	28.5	8.0	8.0	17.2	17.2	93.2	93.1	6.6	6.4	6.2	6.4	4	4	-	-	817166	807835	-	-	-	-			
						1.0	0.4	266	28.5	28.5	8.0	8.0	17.2	17.2	92.9	93.1	6.6	6.2	6.2	6.4	5	5	-	-	-	-	-	-	-				
					Middle	4.2	0.2	259	27.9	27.8	8.0	8.0	19.9	20.0	88.2	87.9	6.2	6.2	11.2	6.2	6	6	-	-	-	-	-	-	-	-			
						4.2	0.3	277	27.8	27.8	8.0	8.0	20.0	20.0	87.6	87.9	6.2	6.2	11.1	6.2	6	6	-	-	-	-	-	-	-				
					Bottom	7.4	0.0	233	27.4	27.4	8.0	8.0	24.8	24.8	88.7	88.8	6.1	6.1	12.5	6.1	7	7	-	-	-	-	-	-	-	-			
						7.4	0.0	246	27.4	27.4	8.0	8.0	24.8	24.8	88.9	88.8	6.1	6.1	12.5	6.1	8	8	-	-	-	-	-	-	-				
SR5A	Cloudy	Calm	17:59	3.5	Surface	1.0	0.4	346	28.7	28.7	8.0	8.0	17.1	17.1	98.0	97.9	6.9	6.9	5.2	6.9	5	5	-	-	816574	810666	-	-	-	-			
						1.0	0.4	347	28.7	28.7	8.0	8.0	17.1	17.1	97.8	97.9	6.9	6.9	5.1	6.9	5	5	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	2.5	0.3	326	28.2	28.2	8.0	8.0	19.0	19.0	95.7	95.7	6.7	6.7	7.8	6.7	7	7	-	-	-	-	-	-	-				
						2.5	0.3	350	28.2	28.2	8.0	8.0	19.0	19.0	95.7	95.7	6.7	6.7	7.8	6.7	6	6	-	-	-	-	-	-					
SR6	Cloudy	Calm	18:30	4.5	Surface	1.0	0.1																										

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 22 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA				
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
C1	Sunny	Moderate	10:51	8.9	Surface	1.0	0.5	231	28.8	28.8	8.2	8.2	17.0	17.0	94.9	94.9	6.7	6.6	7.6	7.5	2	4	83	88	815617	804266	<0.2	<0.2	3.8	3.7				
						1.0	0.5	240	28.8	28.8	8.2	8.2	17.0	17.0	94.8	94.9	6.7	6.6	7.6	7.5	3	4	84	88			<0.2	<0.2	3.8	3.7				
						4.5	0.5	238	28.4	28.4	8.2	8.2	19.5	19.5	91.9	91.9	6.4	6.2	7.3	7.3	4	4	88	88			<0.2	<0.2	3.6	3.7				
					4.5	0.6	239	28.4	28.4	8.2	8.2	19.5	19.5	91.9	91.9	6.4	6.2	7.3	7.3	4	4	88	88	<0.2			<0.2	3.6	3.7					
					7.9	0.4	205	28.1	28.1	8.2	8.2	22.1	22.1	89.4	89.4	6.2	6.2	7.7	7.7	4	4	92	92	<0.2			<0.2	3.8	3.7					
					7.9	0.4	208	28.1	28.1	8.2	8.2	22.1	22.1	89.4	89.4	6.2	6.2	7.7	7.7	4	4	93	93	<0.2			<0.2	3.4	3.7					
C2	Sunny	Moderate	13:13	10.7	Surface	1.0	1.2	173	29.2	29.2	8.0	8.0	11.7	11.7	90.3	90.2	6.5	6.0	9.2	12.3	4	5	84	88	825696	806966	<0.2	<0.2	3.2	3.0				
						1.0	1.3	180	29.2	29.2	8.0	8.0	11.7	11.7	90.1	90.2	6.5	6.0	9.2	12.3	5	5	84	88			<0.2	<0.2	3.5	3.0				
						5.4	0.6	177	27.8	27.8	8.0	8.0	22.0	22.0	77.6	77.6	5.4	5.4	12.6	12.6	6	5	88	88			<0.2	<0.2	3.2	3.0				
					5.4	0.7	189	27.8	27.8	8.0	8.0	22.0	22.0	77.6	77.6	5.4	5.4	12.6	12.6	5	5	88	88	<0.2			<0.2	2.5	3.0					
					9.7	0.3	143	27.7	27.7	8.0	8.0	23.5	23.5	77.5	77.5	5.3	5.3	15.0	15.0	6	6	92	92	<0.2			<0.2	2.9	3.0					
					9.7	0.3	146	27.7	27.7	8.0	8.0	23.5	23.5	77.6	77.6	5.4	5.4	15.0	15.0	6	6	92	92	<0.2			<0.2	2.6	3.0					
C3	Sunny	Moderate	10:44	8.9	Surface	1.0	0.3	132	28.7	28.7	8.2	8.2	17.1	17.1	95.7	95.7	6.7	6.6	7.4	7.9	2	3	84	88	822081	817799	<0.2	<0.2	3.4	3.3				
						1.0	0.3	134	28.7	28.7	8.2	8.2	17.1	17.1	95.7	95.7	6.7	6.6	7.4	7.9	3	3	85	88			<0.2	<0.2	3.6	3.3				
						4.5	0.1	76	28.4	28.4	8.2	8.2	19.0	19.0	92.1	92.2	6.5	6.5	7.5	7.5	3	3	88	89			<0.2	<0.2	3.0	3.3				
					4.5	0.1	82	28.4	28.4	8.2	8.2	19.0	19.0	92.2	92.2	6.5	6.5	7.5	7.5	3	3	89	93	<0.2			<0.2	3.2	3.3					
					7.9	0.0	25	27.8	27.8	8.2	8.2	24.3	24.3	83.9	83.8	5.8	5.8	8.7	8.7	3	3	93	93	<0.2			<0.2	3.4	3.3					
					7.9	0.0	26	27.8	27.8	8.2	8.2	24.3	24.3	83.7	83.8	5.7	5.8	8.7	8.7	3	3	92	92	<0.2			<0.2	3.4	3.3					
IM1	Sunny	Moderate	11:16	5.1	Surface	1.0	0.2	346	28.8	28.8	8.2	8.2	16.0	16.0	95.7	95.6	6.8	6.8	8.3	10.2	3	4	84	84	817967	807137	<0.2	<0.2	3.5	3.3				
						1.0	0.2	318	28.8	28.8	8.2	8.2	16.0	16.0	95.5	95.6	6.8	6.8	8.4	10.2	4	4	84	84			<0.2	<0.2	3.5	3.3				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
					4.1	0.0	24	28.2	28.2	8.1	8.1	19.4	19.4	85.9	85.9	6.0	6.0	12.1	12.1	3	4	91	92	<0.2			<0.2	3.0	3.3					
					4.1	0.0	25	28.2	28.2	8.1	8.1	19.4	19.4	85.9	85.9	6.0	6.0	12.1	12.1	4	4	92	92	<0.2			<0.2	3.0	3.3					
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
IM2	Sunny	Moderate	11:25	7.2	Surface	1.0	0.6	209	29.2	29.2	8.1	8.1	14.9	14.9	92.2	92.1	6.5	6.2	8.2	8.9	3	4	86	86	818148	806192	<0.2	<0.2	3.4	3.3				
						1.0	0.6	228	29.2	29.2	8.1	8.1	14.9	14.9	92.0	92.1	6.5	6.2	8.2	8.9	4	4	86	88			<0.2	<0.2	3.3	3.3				
						3.6	0.4	200	28.4	28.4	8.1	8.1	18.0	18.0	84.3	84.3	5.9	5.9	8.5	8.6	4	4	88	88			<0.2	<0.2	3.2	3.3				
					3.6	0.5	200	28.4	28.4	8.1	8.1	18.0	18.0	84.2	84.3	5.9	5.9	8.6	8.6	5	4	88	88	<0.2			<0.2	3.0	3.3					
					6.2	0.3	205	28.0	28.0	8.1	8.1	20.7	20.7	82.4	82.5	5.7	5.8	10.1	10.1	4	4	91	91	<0.2			<0.2	3.5	3.3					
					6.2	0.3	208	28.0	28.0	8.1	8.1	20.7	20.7	82.6	82.5	5.8	5.8	10.0	10.0	5	4	92	92	<0.2			<0.2	3.2	3.3					
IM3	Sunny	Moderate	11:34	7.3	Surface	1.0	0.6	211	29.1	29.1	8.1	8.1	14.7	14.7	95.1	95.1	6.7	6.0	8.8	13.6	3	5	86	87	818791	805617	<0.2	<0.2	3.3	3.2				
						1.0	0.6	214	29.1	29.1	8.1	8.1	14.7	14.7	95.0	95.1	6.7	6.0	8.8	13.6	4	5	87	87			<0.2	<0.2	3.2	3.2				
						3.7	0.6	215	27.9	27.9	8.0	8.0	21.7	21.7	75.6	75.6	5.3	5.3	15.2	15.2	5	5	91	92			<0.2	<0.2	2.9	3.2				
					3.7	0.6	231	27.9	27.9	8.0	8.0	21.7	21.7	75.6	75.6	5.3	5.3	15.2	15.2	6	6	92	92	<0.2			<0.2	2.8	3.2					
					6.3	0.4	210	27.7	27.7	8.0	8.0	22.4	22.4	77.4	77.4	5.4	5.4	16.9	16.9	6	6	94	95	<0.2			<0.2	3.2	3.2					
					6.3	0.4	217	27.7	27.7	8.0	8.0	22.4	22.4	77.4	77.4	5.4	5.4	16.9	16.9	6	6	95	95	<0.2			<0.2	3.5	3.2					
IM4	Sunny	Moderate	11:45	7.4	Surface	1.0	0.6	198	29.0	29.0	8.1	8.1	15.9	15.9	85.8	85.6	6.1	5.8	10.5	15.0	4	5	86	86	819698	804616	<0.2	<0.2	3.2	3.1				
						1.0	0.6	198	29.0	29.0	8.1	8.1	15.9	15.9	85.4	85.6	6.0	5.8	10.5	15.0	4	5	86	86			<0.2	<0.2	3.2	3.1				
						3.7	0.6	190	28.2	28.2	8.0	8.0	19.8	19.8	78.1	78.1	5.5	5.5	13.8	14.0	4	5	89	89			<0.2	<0.2	3.3	3.1				
					3.7	0.6	206	28.1	28.1	8.0	8.0	19.8	19.8	78.0	78.0	5.5	5.5	14.0	14.0	5	5	89	89	<0.2			<0.2	3.0	3.1					
					6.4	0.5	204	27.7	27.7	8.0	8.0	22.7	22.7	75.5	75.5	5.2	5.2	20.5	20.5	5	5	92	92	<0.2			<0.2	2.8	3.1					
					6.4	0.5	211	27.7	27.7	8.0	8.0	22.7	22.7	75.5	75.5	5.2	5.2	20.5	20.5	5	5	92	92	<0.2			<0.2	2.9	3.1					
IM5	Sunny	Moderate	11:59	7.0	Surface	1.0	0.7	209	29.0	29.0	8.1	8.1	14.1	14.1	92.3	92.2	6.6	6.2	8.9	12.1	5	5	87	88	820762	804858	<0.2	<0.2	3.4	3.4				
						1.0	0.7	229	29.0	29.0	8.1	8.1	14.1	14.1	92.1	92.2	6.6	6.2	8.9	12.1	4	5	88	88			<0.2	<0.2	3.7	3.4				
						3.5	0.5	211	28.3	28.3	8.1	8.1	19.8	19.8	81.5	81.5	5.7	5.7	10.2	10.2	5	5	92	93			<0.2	<0.2	3.5	3.4				
					3.5	0.6	218	28.3	28.3	8.1	8.1	19.8	19.8	81.5	81.5	5.7	5.7	10.2	10.2	5	5	93	95	<0.2			<0.2	3.2	3.4					
					6.0	0.4	223	27.9	27.9	8.0	8.0	21.7	21.7	79.0	79.0	5.5	5.5	17.1	17.1	6	6	95	95	<0.2			<0.2	3.1	3.4					
					6.0	0.4	224	27.9	27.9	8.0	8.0	21.7	21.7	79.0	79.0	5.5	5.5	17.1	17.1	6	6	96	96	<0.2			<0.2	3.4	3.4					
IM6	Sunny	Moderate	12:10	6.7	Surface	1.0	0.5	202	29.0	29.0	8.1	8.1	14.0	14.1	94.6	94.6	6.7	6.2	8.5	10.6	4	5	88	88	821069	805843	<0.2	<0.2	3.4	3.3				
						1.0	0.5	206	29.0	29.0	8.1	8.1	14.1	14.1	94.5	94.6																		

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 22 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA		
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
IM9	Sunny	Moderate	12:27	6.9	Surface	1.0	0.3	159	29.0	8.2	8.2	14.7	14.7	93.1	93.0	6.6	6.6	8.6	8.6	5	84	89	822118	808787	<0.2	<0.2	2.7	2.9				
						1.0	0.4	160	29.0	8.2	8.2	14.7	14.7	92.9	93.0	6.6	6.6	8.6	8.6	5	85	88	<0.2	<0.2	2.6	3.1						
					Middle	3.5	0.2	160	28.1	8.1	8.1	20.4	20.4	78.8	78.8	5.5	5.5	10.9	10.9	6	88	89	<0.2	<0.2	3.0	3.1						
						3.5	0.2	171	28.1	8.1	8.1	20.5	20.4	78.7	78.8	5.5	5.5	10.9	10.9	6	89	93	<0.2	<0.2	2.5	3.1						
					Bottom	5.9	0.1	105	27.8	8.1	8.1	22.2	22.2	77.0	77.0	5.3	5.3	14.5	14.5	7	92	93	<0.2	<0.2	3.1	3.1						
						5.9	0.1	105	27.8	8.1	8.1	22.1	22.2	77.0	77.0	5.3	5.3	14.5	14.5	7	92	93	<0.2	<0.2	3.1	3.1						
IM10	Sunny	Moderate	12:13	7.0	Surface	1.0	0.7	135	28.9	8.1	8.1	16.1	16.1	86.4	86.3	6.1	6.1	10.2	10.2	6	84	88	822405	809807	<0.2	<0.2	3.4	3.1				
						1.0	0.8	140	28.9	8.1	8.1	16.1	16.1	86.2	86.3	6.1	6.1	10.2	10.2	6	84	88	<0.2	<0.2	3.2	3.1						
					Middle	3.5	0.5	121	28.1	8.0	8.0	20.1	20.1	78.2	78.3	5.5	5.5	13.3	13.3	6	89	88	<0.2	<0.2	2.9	3.1						
						3.5	0.6	129	28.1	8.0	8.0	20.1	20.1	78.3	78.3	5.5	5.5	13.5	13.5	6	88	92	<0.2	<0.2	2.9	3.1						
					Bottom	6.0	0.3	94	27.8	8.0	8.0	22.5	22.5	75.9	75.9	5.3	5.3	20.1	20.1	6	92	93	<0.2	<0.2	3.1	3.1						
						6.0	0.3	95	27.8	8.0	8.0	22.4	22.4	76.0	76.0	5.3	5.3	20.1	20.1	6	93	93	<0.2	<0.2	3.5	3.1						
IM11	Sunny	Moderate	11:55	8.5	Surface	1.0	0.8	116	29.0	8.1	8.1	15.0	15.0	90.6	90.4	6.4	6.4	9.3	9.3	4	84	89	822057	811457	<0.2	<0.2	3.5	3.2				
						1.0	0.8	116	29.0	8.1	8.1	15.0	15.0	90.2	90.4	6.4	6.4	9.4	9.4	4	84	89	<0.2	<0.2	3.2	3.1						
					Middle	4.3	0.4	86	27.9	8.1	8.1	21.3	21.3	76.1	76.1	5.3	5.3	14.8	14.8	6	89	89	<0.2	<0.2	3.1	3.1						
						4.3	0.4	91	27.9	8.1	8.1	21.3	21.3	76.1	76.1	5.3	5.3	14.8	14.8	6	89	93	<0.2	<0.2	3.2	3.1						
					Bottom	7.5	0.3	78	27.7	8.0	8.0	22.5	22.5	75.3	75.4	5.2	5.2	18.6	18.6	7	93	93	<0.2	<0.2	2.9	2.9						
						7.5	0.3	82	27.7	8.1	8.0	22.5	22.5	75.4	75.4	5.2	5.2	18.6	18.6	8	93	93	<0.2	<0.2	2.9	2.9						
IM12	Sunny	Moderate	11:46	9.9	Surface	1.0	0.4	88	29.1	8.1	8.1	15.3	15.3	91.3	91.3	6.5	6.5	8.3	8.3	4	84	88	821468	812040	<0.2	<0.2	3.0	2.9				
						1.0	0.4	89	29.1	8.1	8.1	15.3	15.3	91.3	91.3	6.5	6.5	8.3	8.3	3	88	89	<0.2	<0.2	2.6	3.1						
					Middle	5.0	0.6	97	28.4	8.1	8.1	18.0	18.0	81.8	81.8	5.8	5.8	9.9	9.9	5	89	88	<0.2	<0.2	3.1	2.9						
						5.0	0.6	104	28.4	8.1	8.1	18.0	18.0	81.7	81.8	5.8	5.8	10.0	10.0	5	88	93	<0.2	<0.2	2.9	2.8						
					Bottom	8.9	0.4	118	27.9	8.1	8.1	21.4	21.4	81.2	81.3	5.7	5.7	13.4	13.4	6	93	92	<0.2	<0.2	2.8	2.9						
						8.9	0.4	129	28.0	8.1	8.1	21.4	21.4	81.3	81.3	5.7	5.7	13.4	13.4	6	92	93	<0.2	<0.2	2.9	2.9						
SR2	Sunny	Moderate	11:06	5.0	Surface	1.0	0.5	66	28.8	8.2	8.2	16.3	16.3	93.8	93.7	6.6	6.6	8.3	8.3	2	84	84	821479	814153	<0.2	<0.2	2.8	2.9				
						1.0	0.5	72	28.8	8.2	8.2	16.3	16.3	93.5	93.7	6.6	6.6	8.3	8.3	2	84	84	<0.2	<0.2	2.9	2.9						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.0	0.4	67	28.1	8.1	8.1	19.6	19.6	83.1	83.2	5.8	5.8	10.5	10.5	4	89	88	<0.2	<0.2	3.0	3.2						
						4.0	0.4	71	28.1	8.1	8.1	19.6	19.6	83.2	83.2	5.8	5.8	10.9	10.9	4	88	88	<0.2	<0.2	3.0	3.2						
SR3	Sunny	Moderate	12:45	8.1	Surface	1.0	0.8	192	28.8	8.0	8.0	14.6	14.6	86.5	86.5	6.2	6.2	9.0	9.1	4	-	-	822130	807554	-	-	-	-				
						1.0	0.8	194	28.8	8.0	8.0	14.6	14.6	86.4	86.5	6.2	6.2	9.1	9.1	3	-	-	-	-	-	-	-	-				
					Middle	4.1	0.3	211	28.0	8.0	8.0	21.5	21.4	76.8	76.8	5.3	5.3	11.5	11.5	5	-	-	-	-	-	-	-	-	-	-		
						4.1	0.3	215	28.0	8.0	8.0	21.4	21.4	76.7	76.8	5.3	5.3	11.5	11.5	5	-	-	-	-	-	-	-	-	-	-		
					Bottom	7.1	0.2	243	27.7	8.0	8.0	22.9	22.9	74.4	74.5	5.2	5.2	14.1	14.1	8	-	-	-	-	-	-	-	-	-	-		
						7.1	0.2	255	27.7	8.0	8.0	22.9	22.9	74.5	74.5	5.2	5.2	14.1	14.1	7	-	-	-	-	-	-	-	-	-	-		
SR4A	Sunny	Moderate	10:31	9.0	Surface	1.0	0.2	90	28.8	8.2	8.2	16.9	16.9	96.3	96.4	6.8	6.8	7.5	7.5	4	-	-	817184	807810	-	-	-	-				
						1.0	0.2	95	28.8	8.2	8.2	17.0	17.0	96.4	96.4	6.8	6.8	7.6	7.6	4	-	-	-	-	-	-	-					
					Middle	4.5	0.2	62	28.4	8.2	8.2	19.0	19.0	92.8	92.8	6.5	6.5	7.5	7.5	6	-	-	-	-	-	-	-	-				
						4.5	0.2	65	28.4	8.2	8.2	19.0	19.0	92.8	92.8	6.5	6.5	7.5	7.5	5	-	-	-	-	-	-	-	-				
					Bottom	8.0	0.2	90	28.4	8.2	8.2	19.7	19.7	92.6	92.6	6.5	6.5	7.4	7.4	6	-	-	-	-	-	-	-	-				
						8.0	0.2	97	28.4	8.2	8.2	19.7	19.7	92.6	92.6	6.5	6.5	7.4	7.4	6	-	-	-	-	-	-	-	-				
SR5A	Sunny	Calm	10:14	5.3	Surface	1.0	0.1	33	28.5	8.2	8.2	18.9	18.9	95.5	95.5	6.7	6.7	7.4	7.4	3	-	-	816572	810717	-	-	-	-				
						1.0	0.1	33	28.5	8.2	8.2	18.9	18.9	95.4	95.4	6.7	6.7	7.4	7.4	3	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	4.3	0.0	221	28.3	8.2	8.2	20.1	20.1	94.3	94.4	6.6	6.6	7.6	7.6	3	-	-	-	-	-	-	-	-				
						4.3	0.0	222	28.3	8.2	8.2	20.1	20.1	94.4	94.4	6.6	6.6	7.6	7.6	4	-	-	-	-	-	-	-	-				
SR6	Sunny	Calm	09:48	4.6	Surface	1.0	0.1	70	28.3	8.2	8.2	20.0	20.0	92.9	93.0	6.5	6.5	7.7	7.7	2	-	-	817872	814645	-	-	-	-				
						1.0	0.1	71	28.3	8.2	8.2	20.0	20.0	93.0	93.0	6.5	6.5	7.7	7.7	2	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.6	0.0	157	28.2	8.2	8.2	21.0	21.0	92.3	92.3	6.4	6.4	7.6	7.6	3	-	-	-	-	-	-	-	-				
						3.6	0.0	167	28.2	8.2	8.2	21.0	21.0	92.3	92.3	6.4	6.4	7.6	7.6	3	-	-	-	-	-	-	-	-				
SR7	Sunny	Moderate	09:54	15.9	Surface	1.0	0.4	79	28.3	8.2	8.2	19.8	19.8	93.2	93.2	6.5	6.5	7.6														

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 22 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
C1	Fine	Moderate	17:59	7.7	Surface	1.0	0.1	90	29.3	8.3	8.3	18.4	18.4	99.6	99.4	6.9	6.3	8.9	10.8	4	5	90	93	815644	804258	<0.2	<0.2	3.3	3.3							
						1.0	0.1	92	29.3	8.3	8.3	18.4	18.4	99.1	99.4	6.9	6.3	8.9	10.8	4	5	90	93	815644	804258	<0.2	<0.2	3.3	3.3							
						3.9	0.1	42	28.3	8.1	8.1	20.7	20.7	82.7	82.7	5.7	5.7	10.1	10.1	4	5	94	94	815644	804258	<0.2	<0.2	3.2	3.2							
					Middle	3.9	0.1	15	28.3	8.1	8.1	20.7	20.7	82.6	82.7	5.7	5.7	10.1	10.1	4	5	94	94	815644	804258	<0.2	<0.2	3.2	3.2							
						6.7	0.1	73	27.8	8.1	8.1	23.5	23.5	82.1	82.1	5.7	5.7	13.2	13.2	6	5	96	96	815644	804258	<0.2	<0.2	3.2	3.2							
						6.7	0.1	89	27.8	8.1	8.1	23.5	23.5	82.3	82.2	5.7	5.7	13.4	13.4	5	5	96	96	815644	804258	<0.2	<0.2	3.2	3.2							
C2	Fine	Moderate	16:47	10.2	Surface	1.0	1.2	73	29.2	8.0	8.0	11.7	11.7	87.3	87.2	6.3	5.8	10.1	11.8	4	4	87	91	825653	806916	<0.2	<0.2	3.5	3.2							
						1.0	1.3	85	29.2	8.0	8.0	11.7	11.7	87.1	87.2	6.3	5.8	10.1	11.8	4	4	87	91	825653	806916	<0.2	<0.2	3.4	3.0							
						5.1	0.6	79	28.0	8.0	8.0	19.5	19.5	75.4	75.4	5.3	5.3	11.7	11.7	4	4	90	91	825653	806916	<0.2	<0.2	2.8	2.8							
					Middle	5.1	0.6	80	28.0	8.0	8.0	19.6	19.6	75.4	75.4	5.3	5.3	11.7	11.7	4	4	91	91	825653	806916	<0.2	<0.2	3.0	3.0							
						9.2	0.2	24	27.8	8.1	8.0	22.0	22.1	75.8	75.9	5.3	5.3	13.7	13.7	4	4	95	95	825653	806916	<0.2	<0.2	3.0	3.0							
						9.2	0.2	30	27.8	8.0	8.0	22.1	22.1	75.9	75.9	5.3	5.3	13.6	13.6	5	5	95	95	825653	806916	<0.2	<0.2	3.4	3.4							
C3	Fine	Moderate	18:33	9.0	Surface	1.0	0.4	275	29.5	8.3	8.3	18.5	18.5	105.9	105.7	7.3	6.4	8.4	10.1	5	5	87	91	822135	817819	<0.2	<0.2	3.1	3.1							
						1.0	0.4	286	29.5	8.3	8.3	18.5	18.5	105.5	105.7	7.3	6.4	8.4	10.1	4	5	87	91	822135	817819	<0.2	<0.2	3.1	3.1							
						4.5	0.3	281	28.0	8.1	8.1	22.3	22.3	79.4	79.4	5.5	5.5	10.5	10.5	5	5	91	91	822135	817819	<0.2	<0.2	2.9	2.9							
					Middle	4.5	0.3	298	28.0	8.1	8.1	22.3	22.3	79.3	79.3	5.5	5.5	10.5	10.5	5	5	90	91	822135	817819	<0.2	<0.2	3.2	3.2							
						8.0	0.1	261	27.8	8.1	8.1	24.3	24.3	79.5	79.5	5.5	5.5	11.3	11.3	5	5	95	95	822135	817819	<0.2	<0.2	3.2	3.2							
						8.0	0.1	285	27.8	8.1	8.1	24.3	24.3	79.5	79.5	5.5	5.5	11.2	11.2	4	4	94	94	822135	817819	<0.2	<0.2	3.2	3.2							
IM1	Fine	Moderate	17:38	4.6	Surface	1.0	0.2	56	29.6	8.1	8.1	12.6	12.6	98.2	98.1	7.0	7.0	8.6	8.5	4	4	86	90	817949	807119	<0.2	<0.2	3.1	3.1							
						1.0	0.2	59	29.6	8.1	8.1	12.6	12.6	98.0	98.1	7.0	7.0	8.6	8.5	3	4	86	90	817949	807119	<0.2	<0.2	3.4	3.4							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	817949	807119	<0.2	<0.2	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	817949	807119	<0.2	<0.2	-	-					
						3.6	0.1	11	28.7	8.0	8.0	16.7	16.7	92.6	92.7	6.5	6.5	8.3	8.3	4	4	93	93	817949	807119	<0.2	<0.2	3.4	3.4							
						3.6	0.1	11	28.7	8.0	8.0	16.7	16.7	92.7	92.7	6.5	6.5	8.3	8.3	3	4	93	93	817949	807119	<0.2	<0.2	3.4	3.4							
IM2	Fine	Moderate	17:29	6.7	Surface	1.0	0.4	11	29.7	8.1	8.1	12.4	12.4	99.2	99.2	7.1	6.6	8.7	8.6	3	3	86	90	818173	806174	<0.2	<0.2	4.2	4.0							
						1.0	0.4	15	29.7	8.1	8.1	12.4	12.4	99.1	99.2	7.0	6.6	8.7	8.6	2	3	87	89	818173	806174	<0.2	<0.2	3.9	3.9							
						3.4	0.1	19	28.6	8.1	8.1	16.8	16.8	88.4	88.4	6.2	6.2	8.4	8.4	3	3	89	89	818173	806174	<0.2	<0.2	3.6	3.6							
					Middle	3.4	0.1	22	28.6	8.1	8.1	16.8	16.8	88.3	88.4	6.2	6.2	8.4	8.4	3	3	89	89	818173	806174	<0.2	<0.2	3.9	3.9							
						5.7	0.1	42	28.4	8.0	8.0	18.4	18.4	87.7	87.7	6.2	6.2	8.8	8.8	4	4	94	94	818173	806174	<0.2	<0.2	4.1	4.1							
						5.7	0.1	45	28.4	8.0	8.0	18.4	18.4	87.7	87.7	6.2	6.2	8.8	8.8	5	5	95	95	818173	806174	<0.2	<0.2	4.0	4.0							
IM3	Fine	Moderate	17:20	6.8	Surface	1.0	0.5	40	28.9	8.0	8.0	14.5	14.5	87.8	87.8	6.3	6.0	8.4	9.1	4	5	86	90	818773	805605	<0.2	<0.2	3.0	3.5							
						1.0	0.5	57	28.9	8.0	8.0	14.6	14.6	87.7	87.7	6.2	6.0	8.4	9.1	4	5	87	90	818773	805605	<0.2	<0.2	3.5	3.5							
						3.4	0.2	17	28.3	8.0	8.0	18.7	18.7	82.6	82.6	5.8	5.8	8.8	8.8	5	5	90	90	818773	805605	<0.2	<0.2	3.6	3.7							
					Middle	3.4	0.2	21	28.3	8.0	8.0	18.7	18.7	82.6	82.6	5.8	5.8	8.8	8.8	6	6	90	90	818773	805605	<0.2	<0.2	3.7	3.7							
						5.8	0.3	20	28.2	8.0	8.0	19.6	19.6	84.3	84.3	5.9	5.9	10.1	10.1	6	6	93	93	818773	805605	<0.2	<0.2	3.6	3.6							
						5.8	0.3	20	28.2	8.0	8.0	19.6	19.6	84.2	84.2	5.9	5.9	10.1	10.1	6	6	94	94	818773	805605	<0.2	<0.2	3.8	3.8							
IM4	Fine	Moderate	17:10	7.0	Surface	1.0	0.2	71	29.3	8.1	8.1	12.1	12.3	91.1	91.0	6.5	6.3	9.2	9.3	4	5	87	90	819737	804585	<0.2	<0.2	3.8	3.0							
						1.0	0.2	75	29.3	8.1	8.1	12.5	12.3	90.9	91.0	6.5	6.3	9.2	9.3	5	5	86	90	819737	804585	<0.2	<0.2	2.7	2.7							
						3.5	0.3	33	28.5	8.1	8.1	16.7	16.7	85.0	85.0	6.0	6.0	9.0	9.0	4	5	89	90	819737	804585	<0.2	<0.2	3.8	3.8							
					Middle	3.5	0.4	35	28.5	8.1	8.1	16.7	16.7	85.0	85.0	6.0	6.0	9.0	9.0	5	5	90	90	819737	804585	<0.2	<0.2	3.0	3.0							
						6.0	0.3	39	28.3	8.0	8.0	18.5	18.5	84.5	84.5	5.9	5.9	9.6	9.6	6	6	93	93	819737	804585	<0.2	<0.2	2.8	2.8							
						6.0	0.3	49	28.3	8.0	8.0	18.5	18.5	84.6	84.6	5.9	5.9	9.6	9.6	6	6	94	94	819737	804585	<0.2	<0.2	2.9	2.9							
IM5	Fine	Moderate	17:01	6.5	Surface	1.0	0.5	37	29.1	8.1	8.1	12.3	12.3	89.3	89.2	6.4	6.2	8.8	8.7	6	6	85	90	820759	804852	<0.2	<0.2	3.0	3.1							
						1.0	0.5	45	29.0	8.1	8.1	12.3	12.3	89.1	89.2	6.4	6.2	8.8	8.7	5	6	86	90	820759	804852	<0.2	<0.2	2.9	2.9							
						3.3	0.5	55	28.6	8.1	8.1	16.7	16.6	85.1	85.1	6.0	6.0	8.7	8.6	6	6	89	90	820759	804852	<0.2	<0.2	3.0	3.1							
					Middle	3.3	0.5	69	28.5	8.1	8.1	16.6	16.6	85.1	85.1	6.0	6.0	8.6	8.5	6	6	90	90	820759	804852	<0.2	<0.2	3.1	3.1							
						5.5	0.4	51	28.3	8.0	8.0	18.5	18.5	85.1	85.1	6.0	6.0	8.5	8.5	6	6	95	95	820759	804852	<0.2	<0.2	2.8	2.8							
						5.5	0.4	67	28.3	8.0	8.0	18.5	18.5	85.1	85.1	6.0	6.0	8.5	8.5	6																

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 22 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Fine	Moderate	17:17	7.3	Surface	1.0	0.3	253	28.6	28.6	8.1	8.1	15.7	15.6	86.4	86.4	6.1	6.1	8.5	8.5	6	7	87	87	822082	808819	<0.2	<0.2	3.6	3.6						
						1.0	0.3	253	28.6	8.1	8.1	15.4	15.6	86.3	86.4	6.1	6.1	8.5	8.5	5	7	87	87	<0.2	<0.2	3.5	3.5									
					Middle	3.7	0.1	221	28.5	28.5	8.1	8.1	17.0	17.0	85.0	85.0	6.0	6.0	8.7	8.7	7	7	91	91	91	91	822082	808819	<0.2	<0.2	3.7	3.7				
						3.7	0.1	224	28.5	28.5	8.1	8.1	17.0	17.0	85.0	85.0	6.0	6.0	8.7	8.7	8	7	91	91	<0.2	<0.2	3.7	3.7								
					Bottom	6.3	0.1	184	28.4	28.4	8.1	8.1	18.7	18.6	83.7	83.7	5.9	5.9	9.2	9.2	8	7	95	95	<0.2	<0.2	3.3	3.3								
						6.3	0.1	190	28.4	28.4	8.1	8.1	18.6	18.6	83.7	83.7	5.9	5.9	9.3	9.3	9	7	95	95	<0.2	<0.2	3.3	3.3								
IM10	Fine	Moderate	17:27	7.6	Surface	1.0	0.6	238	29.8	29.8	8.1	8.1	11.2	11.3	99.0	99.0	7.1	7.1	9.4	9.4	6	7	87	87	822378	809800	<0.2	<0.2	3.4	3.4						
						1.0	0.6	242	29.8	29.8	8.1	8.1	11.5	11.3	99.0	99.0	7.1	7.1	9.4	9.4	7	7	87	87	<0.2	<0.2	3.2	3.2								
					Middle	3.8	0.4	208	28.2	28.2	8.0	8.0	19.3	19.2	81.5	81.5	5.7	5.7	9.9	9.9	7	7	91	91	91	91	822378	809800	<0.2	<0.2	3.4	3.4				
						3.8	0.4	213	28.2	28.2	8.0	8.0	19.2	19.2	81.5	81.5	5.7	5.7	9.9	9.9	7	7	91	91	<0.2	<0.2	3.4	3.4								
					Bottom	6.6	0.3	196	28.2	28.2	8.0	8.0	19.7	19.7	81.6	81.6	5.7	5.7	11.7	11.7	7	7	95	95	<0.2	<0.2	3.6	3.6								
						6.6	0.3	201	28.2	28.2	8.0	8.0	19.7	19.7	81.6	81.6	5.7	5.7	11.7	11.7	8	7	95	95	<0.2	<0.2	3.6	3.6								
IM11	Fine	Moderate	17:38	8.2	Surface	1.0	0.5	223	29.7	29.7	8.2	8.2	12.2	12.2	97.1	97.0	6.9	6.9	9.0	9.0	5	6	86	86	822052	811447	<0.2	<0.2	3.6	3.6						
						1.0	0.6	227	29.7	29.7	8.2	8.2	12.1	12.2	96.9	97.0	6.9	6.9	9.0	9.0	6	6	87	87	<0.2	<0.2	3.4	3.4								
					Middle	4.1	0.5	202	28.5	28.5	8.1	8.1	17.8	17.8	83.9	83.9	5.9	5.9	10.0	10.0	5	6	91	91	91	91	822052	811447	<0.2	<0.2	3.7	3.7				
						4.1	0.6	203	28.5	28.5	8.1	8.1	17.9	17.8	83.9	83.9	5.9	5.9	10.1	10.1	6	6	91	91	<0.2	<0.2	3.6	3.6								
					Bottom	7.2	0.2	180	28.2	28.2	8.1	8.1	20.1	20.1	81.9	82.0	5.7	5.7	18.3	18.3	7	7	95	95	<0.2	<0.2	3.7	3.7								
						7.2	0.2	186	28.2	28.2	8.1	8.1	20.1	20.1	82.0	82.0	5.7	5.7	18.6	18.6	7	7	95	95	<0.2	<0.2	3.5	3.5								
IM12	Fine	Moderate	17:44	7.5	Surface	1.0	0.5	209	29.9	29.9	8.2	8.2	11.2	11.2	99.5	99.4	7.1	7.1	8.8	8.8	6	6	87	87	821483	812037	<0.2	<0.2	3.5	3.5						
						1.0	0.6	210	29.9	29.9	8.2	8.2	11.2	11.2	99.3	99.4	7.1	7.1	8.8	8.8	5	6	87	87	<0.2	<0.2	3.7	3.7								
					Middle	3.8	0.5	184	28.6	28.6	8.1	8.1	16.8	16.8	87.5	87.6	6.2	6.2	8.1	8.1	6	6	91	91	91	91	821483	812037	<0.2	<0.2	3.9	3.9				
						3.8	0.5	192	28.6	28.6	8.1	8.1	16.8	16.8	87.6	87.6	6.2	6.2	8.1	8.1	6	6	91	91	<0.2	<0.2	3.5	3.5								
					Bottom	6.5	0.3	172	28.3	28.3	8.1	8.1	18.7	18.7	85.6	85.7	6.0	6.0	8.8	8.8	7	7	95	95	<0.2	<0.2	3.9	3.9								
						6.5	0.4	176	28.4	28.3	8.1	8.1	18.7	18.7	85.7	85.7	6.0	6.0	8.8	8.8	7	7	95	95	<0.2	<0.2	3.8	3.8								
SR2	Fine	Moderate	18:11	4.8	Surface	1.0	0.2	227	29.6	29.6	8.1	8.1	13.5	13.5	101.9	101.9	7.2	7.2	10.1	10.1	4	6	87	87	821448	814136	<0.2	<0.2	3.3	3.3						
						1.0	0.3	229	29.6	29.6	8.1	8.1	13.5	13.5	101.9	101.9	7.2	7.2	10.2	10.2	5	6	87	87	<0.2	<0.2	3.3	3.3								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.8	0.3	290	29.4	29.4	8.1	8.1	14.0	14.0	99.3	99.3	7.0	7.0	18.0	18.0	7	7	90	90	<0.2	<0.2	3.1	3.1								
						3.8	0.3	297	29.4	29.4	8.1	8.1	14.0	14.0	99.2	99.3	7.0	7.0	18.4	18.4	7	7	90	90	<0.2	<0.2	3.1	3.1								
SR3	Fine	Moderate	17:01	7.8	Surface	1.0	0.9	86	29.1	29.1	8.1	8.1	12.2	12.2	92.2	92.1	6.6	6.6	9.2	9.2	6	6	-	-	822132	807568	-	-	-	-						
						1.0	1.0	96	29.1	29.1	8.1	8.1	12.2	12.2	91.9	92.1	6.6	6.6	9.2	9.2	6	6	-	-	-	-	-	-	-	-						
					Middle	3.9	0.6	11	28.1	28.1	8.0	8.0	19.8	19.8	77.1	77.1	5.4	5.4	11.1	11.1	6	6	-	-	-	-	-	-	-	-	-	-				
						3.9	0.6	15	28.1	28.1	8.0	8.0	19.8	19.8	77.1	77.1	5.4	5.4	11.1	11.1	5	6	-	-	-	-	-	-	-	-	-					
					Bottom	6.8	0.4	30	28.0	28.0	8.1	8.1	20.9	20.9	77.3	77.3	5.4	5.4	13.8	13.8	7	7	-	-	-	-	-	-	-	-	-	-				
						6.8	0.4	33	28.0	28.0	8.1	8.1	21.0	20.9	77.2	77.2	5.4	5.4	13.9	13.9	6	6	-	-	-	-	-	-	-	-	-	-				
SR4A	Fine	Moderate	18:18	8.0	Surface	1.0	0.5	265	29.6	29.6	8.3	8.3	18.4	18.4	113.3	113.1	7.8	7.8	8.1	8.1	4	6	-	-	817217	807819	-	-	-	-						
						1.0	0.6	274	29.6	29.6	8.3	8.3	18.4	18.4	112.9	113.1	7.8	7.8	8.1	8.1	5	6	-	-	-	-	-	-	-	-						
					Middle	4.0	0.5	239	28.1	28.1	8.1	8.1	21.2	21.2	83.2	83.2	5.8	5.8	9.6	9.6	6	6	-	-	-	-	-	-	-	-	-					
						4.0	0.5	259	28.1	28.1	8.1	8.1	21.3	21.2	83.2	83.2	5.8	5.8	9.6	9.6	6	6	-	-	-	-	-	-	-	-	-					
					Bottom	7.0	0.5	244	27.8	27.8	8.1	8.1	23.9	23.8	85.6	85.7	5.9	5.9	10.6	10.6	7	7	-	-	-	-	-	-	-	-	-					
						7.0	0.5	250	27.8	27.8	8.1	8.1	23.8	23.8	85.8	85.7	5.9	5.9	10.6	10.6	7	7	-	-	-	-	-	-	-	-	-					
SR5A	Fine	Calm	18:38	4.8	Surface	1.0	0.4	322	29.5	29.5	8.3	8.3	18.4	18.4	116.6	116.5	8.0	8.0	7.9	7.9	4	4	-	-	816612	810699	-	-	-	-						
						1.0	0.4	324	29.5	29.5	8.3	8.3	18.4	18.4	116.4	116.4	8.0	8.0	7.9	7.9	4	4	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	3.8	0.3	329	28.4	28.4	8.1	8.1	20.5	20.5	95.1	95.3	6.6	6.6	9.0	9.0	4	4	-	-	-	-	-	-	-	-						
						3.8	0.4	342	28.4	28.4	8.1	8.1	20.5	20.5	95.5	95.3	6.6	6.6	9.0	9.0	5	4	-	-	-	-	-	-	-	-						
SR6	Fine	Calm	19:21	3.9	Surface	1.0	0.1	215	29.4	29.4	8.3	8.3	18.4	18.4	107.5	107.3	7.4	7.4	8.4	8.4	4	5	-	-	817898	814683	-	-	-	-						
						1.0																														

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 25 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA				
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
C1	Fine	Moderate	12:27	8.4	Surface	1.0	0.6	233	28.8	28.7	8.1	8.1	20.2	20.2	86.9	86.9	6.0	5.9	6.2	10.6	5	7	83	86	815643	804231	<0.2	2.6	2.3							
						1.0	0.6	239	28.7		8.1	8.1	20.2	20.2	86.8	86.9	6.0		6.3		6		83				<0.2	2.2								
					Middle	4.2	0.5	219	28.5	28.5	8.1	8.1	21.9	21.9	84.4	84.4	5.8	5.8	11.4	5.8	5	86	<0.2	2.2												
						4.2	0.6	240	28.5		8.1	8.1	21.9	21.9	84.4	84.4	5.8		11.3		6	85	<0.2	2.1												
					Bottom	7.4	0.5	211	28.4	28.4	8.1	8.1	22.5	22.5	84.3	84.3	5.8	5.8	14.2	5.8	9	88	<0.2	2.2												
						7.4	0.5	218	28.4		8.1	8.1	22.5	22.5	84.3	84.3	5.8		14.2		8	89	<0.2	2.2												
C2	Fine	Moderate	11:29	12.7	Surface	1.0	0.2	105	28.6	28.6	8.0	8.0	18.1	18.1	79.8	79.7	5.6	5.5	8.4	13.5	5	7	81	86	825655	806957	<0.2	2.1	2.1							
						1.0	0.2	112	28.6		8.0	8.0	18.1	18.1	79.6	79.7	5.6		8.6		5		81				<0.2	2.1								
					Middle	6.4	0.4	84	28.2	28.2	8.1	8.1	21.9	21.9	76.0	76.1	5.3	5.3	14.4	5.3	6	86	<0.2	2.1												
						6.4	0.4	91	28.3		8.1	8.1	21.9	21.9	76.1	76.1	5.3		14.5		6	86	<0.2	2.1												
					Bottom	11.7	0.3	120	28.0	28.0	8.1	8.1	25.0	25.0	76.8	76.8	5.2	5.2	17.4	5.2	9	90	<0.2	2.1												
						11.7	0.3	126	28.0		8.1	8.1	25.0	25.0	76.8	76.8	5.2		17.4		10	91	<0.2	1.9												
C3	Fine	Moderate	13:18	12.3	Surface	1.0	0.3	209	28.4	28.4	8.1	8.1	23.2	23.2	84.3	84.3	5.8	5.7	6.1	9.3	8	9	84	87	822099	817810	<0.2	2.0	2.0							
						1.0	0.3	226	28.4		8.1	8.1	23.2	23.2	84.2	84.3	5.8		6.2		8		84				<0.2	2.0								
					Middle	6.2	0.4	254	28.2	28.2	8.1	8.1	24.0	24.0	80.7	80.7	5.5	5.5	9.9	5.5	9	86	<0.2	2.0												
						6.2	0.4	264	28.2		8.1	8.1	24.0	24.0	80.6	80.7	5.5		9.8		9	87	<0.2	2.0												
					Bottom	11.3	0.2	258	27.9	27.9	8.1	8.1	25.2	25.2	80.1	80.2	5.5	5.5	11.9	5.5	10	91	<0.2	2.1												
						11.3	0.2	272	27.9		8.1	8.1	25.2	25.2	80.2	80.2	5.5		12.0		8	91	<0.2	1.9												
IM1	Fine	Moderate	12:08	4.7	Surface	1.0	0.2	212	28.7	28.7	8.1	8.1	20.0	20.0	82.7	82.7	5.7	5.7	7.4	9.3	4	4	82	84	817967	807145	<0.2	2.1	2.1							
						1.0	0.2	228	28.7		8.1	8.1	20.0	20.0	82.6	82.7	5.7		7.5		4		82				<0.2	2.1								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		-	-	-	-	-	-	-
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		-	-	-	-	-	-	-
					Bottom	3.7	0.2	189	28.2	28.2	8.1	8.1	21.8	21.8	80.4	80.5	5.6	5.6	11.0	5.6	3	87	<0.2	2.1												
						3.7	0.2	203	28.2		8.1	8.1	21.8	21.8	80.5	80.5	5.6		11.1		4	86	<0.2	2.1												
IM2	Fine	Moderate	12:01	6.8	Surface	1.0	0.3	218	28.5	28.5	8.1	8.1	19.8	19.8	82.5	82.5	5.7	5.6	8.9	11.6	4	4	81	85	818192	806151	<0.2	2.1	2.1							
						1.0	0.4	237	28.5		8.1	8.1	19.8	19.8	82.4	82.5	5.7		9.1		4		82				<0.2	2.0								
					Middle	3.4	0.3	197	28.3	28.3	8.1	8.1	20.7	20.7	79.2	79.2	5.5	5.5	10.8	5.5	4	85	<0.2	2.0												
						3.4	0.3	204	28.3		8.1	8.1	20.7	20.7	79.1	79.2	5.5		11.4		4	85	<0.2	2.1												
					Bottom	5.8	0.2	166	28.0	28.0	8.1	8.1	23.0	23.0	78.6	78.6	5.4	5.4	14.7	5.4	5	89	<0.2	2.0												
						5.8	0.3	175	28.0		8.1	8.1	23.0	23.0	78.6	78.6	5.4		14.7		5	89	<0.2	2.1												
IM3	Fine	Moderate	11:54	7.1	Surface	1.0	0.3	214	28.6	28.6	8.1	8.1	19.9	19.9	81.5	81.5	5.7	5.6	12.1	16.5	3	4	81	86	818778	805600	<0.2	2.0	2.0							
						1.0	0.3	215	28.6		8.1	8.1	19.9	19.9	81.4	81.5	5.7		12.5		3		82				<0.2	2.1								
					Middle	3.6	0.3	188	28.3	28.3	8.1	8.1	21.1	21.1	78.7	78.7	5.5	5.5	16.8	5.5	3	86	<0.2	2.0												
						3.6	0.3	204	28.2		8.1	8.1	21.1	21.1	78.6	78.7	5.5		16.6		4	87	<0.2	2.1												
					Bottom	6.1	0.2	170	28.0	28.0	8.1	8.1	23.2	23.2	78.3	78.5	5.4	5.4	20.6	5.4	5	89	<0.2	2.0												
						6.1	0.2	178	28.0		8.1	8.1	23.2	23.2	78.6	78.6	5.4		20.2		4	89	<0.2	2.0												
IM4	Fine	Moderate	11:46	6.9	Surface	1.0	1.0	222	28.6	28.6	8.1	8.1	20.5	20.5	80.6	80.6	5.6	5.5	7.0	11.0	4	4	82	86	819731	804624	<0.2	2.1	2.1							
						1.0	1.1	237	28.6		8.1	8.1	20.5	20.5	80.5	80.6	5.6		7.1		4		82				<0.2	2.1								
					Middle	3.5	0.8	230	28.2	28.2	8.1	8.1	21.9	21.9	78.0	78.0	5.4	5.4	11.0	5.4	4	87	<0.2	1.9												
						3.5	0.9	242	28.2		8.1	8.1	21.9	21.9	78.0	78.0	5.4		11.2		4	87	<0.2	2.2												
					Bottom	5.9	0.6	226	28.0	28.0	8.1	8.1	23.2	23.2	77.7	77.8	5.4	5.4	14.8	5.4	5	89	<0.2	2.1												
						5.9	0.6	228	28.0		8.1	8.1	23.2	23.2	77.8	77.8	5.4		14.8		5	89	<0.2	2.0												
IM5	Fine	Moderate	11:39	6.6	Surface	1.0	0.3	219	28.5	28.5	8.1	8.1	21.1	21.1	79.6	79.6	5.5	5.5	7.8	8.5	4	5	83	86	820755	804854	<0.2	2.0	2.0							
						1.0	0.3	223	28.5		8.1	8.1	21.1	21.1	79.6	79.6	5.5		7.9		5		83				<0.2	2.1								
					Middle	3.3	0.3	199	28.1	28.1	8.1	8.1	22.3	22.3	78.9	78.9	5.4	5.4	8.9	5.4	4	86	<0.2	2.1												
						3.3	0.3	201	28.1		8.1	8.1	22.3	22.3	78.8	78.9	5.4		8.9		4	86	<0.2	2.1												
					Bottom	5.6	0.3	190	27.9	27.9	8.1	8.1	23.1	23.1	78.5	78.6	5.4	5.4	8.6	5.4	5	89	<0.2	2.0												
						5.6	0.3	200	27.9		8.1	8.1	23.1	23.1	78.6	78.6	5.4		8.6		6	90	<0.2	2.0												
IM6	Fine	Moderate	11:32	6.7	Surface	1.0	0.3	177	28.5	28.5	8.1	8.1	21.0	21.0	77.5	77.5	5.4	5.4	8.6	10.1	4	5	82	86	821046	805829	<0.2	2.0	2.0							
						1.0	0.3	194	28.5		8.1	8.1	21.0	21.0	77.5	77.5	5.4		8.7		4		82				<0.2	2.1								
					Middle	3.4	0.2	150	28.3	28.3	8.1	8.1	21.6	21.6	76.9	76.9	5.3	5.3	10.5	5.3	4	85	<0.2	2.0												
						3.4	0.2	152	28.3		8.1	8.1	21.6	21.6	76.9	76.9	5.3		10.5		5	86	<0.2	2.0												
					Bottom	5.7	0.3	162	28.2	28.2	8.1	8.1	22.2	22.2	77.3	77.3	5.3	5.3	11.1	5.3	6	89	<0.2	2.1												
						5.7	0.3	169	28.2		8.1	8.1	22.2	22.2	77.3	77.3	5.3		11.0		5	89	<0.2	2.0												
IM7	Fine	Moderate	11:26	7.9	Surface	1.0	0.3	160	28.6	28.6	8.0	8.0	18.7	18.7	80.5	80.5	5.6	5.5	6.6	10.6	4	5	80	84	821339	806825	<0.2	1.9	2.0							
						1.0	0.3	162	28.6		8.0	8.0	18.7	18.7	80.4	80.5	5.6		6.6		4		81				<0.2	2.1								
					Middle	4.0	0.2	98	28.4	28.4	8.0	8.0	19.9	19.9	76.6	76.6	5.3	5.3	11.7	5.3	6	84	<0.2	2.0												
						4.0	0.2	104	28.4		8.0	8.0	19.9	19.9	76.5	76.6	5.3		11.8		5	84														

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 25 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)										
					Value	Average			Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA							
					Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			
IM9	Fine	Moderate	12:04	8.2	Surface	1.0	0.1	56	28.6	28.6	8.1	8.1	20.4	20.4	80.0	80.0	5.5	5.5	8.6	8.6	9	9	84	84	822087	808831	<0.2	<0.2	1.8	1.9									
						1.0	0.1	56	28.6	28.6	8.1	8.1	20.4	20.4	79.9	79.9	5.5	5.5	8.8	8.8	10	10	84	84															
					Middle	4.1	0.3	61	28.2	28.2	8.1	8.1	22.3	22.3	78.3	78.4	5.4	5.4	15.8	15.8	10	10	86	86															
						4.1	0.4	64	28.2	28.2	8.1	8.1	22.3	22.3	78.4	78.4	5.4	5.4	16.0	16.0	10	10	87	87															
					Bottom	7.2	0.4	70	27.8	27.8	8.1	8.1	23.9	23.9	78.8	78.9	5.4	5.4	18.8	18.8	12	12	89	89															
						7.2	0.4	70	27.8	27.8	8.1	8.1	23.9	23.9	78.9	78.9	5.4	5.4	18.9	18.9	11	11	90	90															
IM10	Fine	Moderate	12:13	7.7	Surface	1.0	0.3	106	28.5	28.5	8.1	8.1	19.7	19.7	79.8	79.7	5.6	5.6	16.1	16.1	6	6	84	84	822399	809775	<0.2	<0.2	1.9	1.9									
						1.0	0.3	111	28.5	28.5	8.1	8.1	19.7	19.7	79.6	79.7	5.5	5.5	16.7	16.7	7	7	84	84															
					Middle	3.9	0.2	139	28.2	28.2	8.1	8.1	22.4	22.4	78.2	78.2	5.4	5.4	18.0	18.0	8	8	87	87															
						3.9	0.2	150	28.2	28.2	8.1	8.1	22.3	22.4	78.2	78.2	5.4	5.4	18.6	18.6	9	9	88	88															
					Bottom	6.7	0.1	152	28.0	28.0	8.1	8.1	23.3	23.3	78.2	78.2	5.4	5.4	19.9	19.9	14	14	90	90															
						6.7	0.1	161	28.0	28.0	8.1	8.1	23.3	23.3	78.2	78.2	5.4	5.4	20.1	20.1	14	14	90	90															
IM11	Fine	Moderate	12:24	8.8	Surface	1.0	0.2	52	28.5	28.5	8.1	8.1	19.8	19.8	81.3	81.2	5.7	5.7	18.3	18.3	9	9	82	82	822064	811454	<0.2	<0.2	2.7	2.1									
						1.0	0.2	55	28.5	28.5	8.1	8.1	19.8	19.8	81.1	81.2	5.6	5.6	18.1	18.1	9	9	82	82															
					Middle	4.4	0.1	357	28.0	28.0	8.1	8.1	22.9	22.9	78.3	78.3	5.4	5.4	20.0	20.0	10	10	87	87															
						4.4	0.1	328	28.0	28.0	8.1	8.1	23.0	22.9	78.3	78.3	5.4	5.4	19.8	19.8	9	9	87	87															
					Bottom	7.8	0.1	130	28.0	28.0	8.1	8.1	23.3	23.3	79.3	79.4	5.5	5.5	22.1	22.1	11	11	89	89															
						7.8	0.1	140	28.0	28.0	8.1	8.1	23.3	23.3	79.4	79.4	5.5	5.5	22.5	22.5	11	11	89	89															
IM12	Fine	Moderate	12:32	10.3	Surface	1.0	0.4	81	28.7	28.7	8.1	8.1	20.0	20.0	83.6	83.6	5.8	5.8	10.0	10.0	7	7	81	81	821450	812069	<0.2	<0.2	2.0	2.0									
						1.0	0.4	81	28.7	28.7	8.1	8.1	20.0	20.0	83.5	83.5	5.8	5.8	10.2	10.2	6	6	82	82															
					Middle	5.2	0.2	68	28.0	28.0	8.2	8.2	22.9	22.9	80.3	80.3	5.5	5.5	16.1	16.1	8	8	87	87															
						5.2	0.2	68	28.0	28.0	8.2	8.2	22.9	22.9	80.3	80.3	5.5	5.5	16.6	16.6	8	8	87	87															
					Bottom	9.3	0.0	130	28.0	28.0	8.2	8.2	23.3	23.3	80.7	80.8	5.6	5.6	19.6	19.6	8	8	89	89															
						9.3	0.0	133	28.0	28.0	8.2	8.2	23.3	23.3	80.8	80.8	5.6	5.6	19.5	19.5	9	9	89	89															
SR2	Fine	Moderate	12:59	4.9	Surface	1.0	0.1	333	28.2	28.2	8.1	8.1	22.4	22.4	81.2	81.2	5.6	5.6	18.6	18.6	19	19	84	84	821448	814190	<0.2	<0.2	1.9	1.9									
						1.0	0.1	334	28.2	28.2	8.1	8.1	22.4	22.4	81.2	81.2	5.6	5.6	18.6	18.6	18	18	84	84															
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-
					Bottom	3.9	0.1	120	28.1	28.1	8.1	8.1	22.7	22.7	81.8	81.8	5.6	5.6	20.3	20.3	20	20	85	85															
						3.9	0.1	131	28.1	28.1	8.1	8.1	22.7	22.7	81.8	81.8	5.6	5.6	20.3	20.3	20	20	86	86															
SR3	Fine	Moderate	11:49	10.0	Surface	1.0	0.3	144	28.5	28.5	8.1	8.1	21.0	21.0	78.2	78.2	5.4	5.4	9.0	9.0	10	10	-	-	822160	807598	-	-	-	-									
						1.0	0.3	146	28.5	28.5	8.1	8.1	21.0	21.0	78.2	78.2	5.4	5.4	9.0	9.0	9	9	-	-															
					Middle	5.0	0.3	60	28.2	28.2	8.1	8.1	22.2	22.2	77.5	77.5	5.4	5.4	13.7	13.7	9	9	-	-															
						5.0	0.3	61	28.2	28.2	8.1	8.1	22.2	22.2	77.5	77.5	5.4	5.4	13.8	13.8	10	10	-	-															
					Bottom	9.0	0.4	79	27.8	27.8	8.1	8.1	24.3	24.3	77.9	77.9	5.3	5.3	18.8	18.8	10	10	-	-															
						9.0	0.4	79	27.8	27.8	8.1	8.1	24.3	24.3	77.9	77.9	5.3	5.3	18.7	18.7	8	8	-	-															
SR4A	Fine	Calm	12:49	9.2	Surface	1.0	0.1	311	28.2	28.2	8.1	8.1	22.1	22.2	80.6	80.6	5.6	5.6	17.3	17.3	4	4	-	-	817213	807789	-	-	-	-									
						1.0	0.1	331	28.2	28.2	8.1	8.1	22.2	22.2	80.5	80.5	5.6	5.6	17.5	17.5	5	5	-	-															
					Middle	4.6	0.2	88	28.2	28.2	8.1	8.1	22.4	22.4	80.3	80.3	5.5	5.5	18.8	18.8	7	7	-	-															
						4.6	0.2	89	28.2	28.2	8.1	8.1	22.4	22.4	80.3	80.3	5.5	5.5	18.8	18.8	6	6	-	-															
					Bottom	8.2	0.2	71	28.1	28.1	8.1	8.1	22.7	22.7	80.2	80.2	5.5	5.5	21.6	21.6	7	7	-	-															
						8.2	0.2	71	28.1	28.1	8.1	8.1	22.7	22.7	80.2	80.2	5.5	5.5	21.5	21.5	7	7	-	-															
SR5A	Fine	Calm	13:07	5.1	Surface	1.0	0.0	255	28.4	28.4	8.1	8.1	23.2	23.2	84.8	84.8	5.8	5.8	5.5	5.5	5	5	-	-	816613	810680	-	-	-	-									
						1.0	0.0	259	28.4	28.4	8.1	8.1	23.2	23.2	84.7	84.7	5.8	5.8	5.5	5.5	5	5	-	-															
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-
					Bottom	4.1	0.1	250	28.3	28.3	8.1	8.1	23.4	23.4	84.0	84.0	5.7	5.7	6.0	6.0	4	4	-	-															
						4.1	0.1	263	28.3	28.3	8.1	8.1	23.4	23.4	83.9	84.0	5.7	5.7	6.0	6.0	6	6	-	-															
SR6	Fine	Calm	13:30	4.8	Surface	1.0	0.1	90	28.5	28.5	8.1	8.1	22.8	22.7	87.1	87.1	6.0	6.0	3.6	3.6	5	5	-	-	817905	814687	-	-	-	-									
						1.0	0.1	98	28.5	28.5	8.1	8.1	22.7	22.7	87.1	87.1	6.0	6.0	3.5	3.5	4	4	-	-															
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	
					Bottom	3.8	0.1	99	28.2	28.2	8.1	8.1	24.0	24.0	86.0	86.1	5.9	5.9	3.9	3.9	6	6	-	-															
						3.8	0.1	107	28.2	28.2	8.1	8.1	24.0	24.0	86.1	86.1	5.9	5.9	3.9	3.9	7	7	-	-															
SR7	Fine	Moderate	13:46	16.4	Surface	1.0	0.1	7	28.5	28.5	8.1	8.1	22.5	22.5	86.0	85.9	5.9	5.9	4.1	4.1	7	7	-	-	823665	823719	-	-	-	-									
						1.0	0.1	7	28.5	28.5	8.1	8.1	22.5	22.5	85.8	85.9	5.9	5.9	4.1	4.1	8	8	-	-															
					Middle	8.2	0.2	67	2																														



Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 25 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)	Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA		Value	DA	Value	DA			Value	DA	Value	DA						
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value		Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
IM9	Cloudy	Moderate	20:00	8.4	Surface	1.0	0.5	129	28.6	28.6	8.0	8.0	19.3	19.3	82.1	82.1	5.7	5.6	5.7	5.6	10.6	4	4	81	85	822071	808808	<0.2	2.5	-	2.2				
						1.0	0.5	141	28.6		8.0	8.0	19.3	19.3	82.1	82.1	5.7	5.6						81				<0.2	2.4						
					Middle	4.2	0.4	125	28.2	28.2	8.1	8.1	20.7	20.7	80.5	80.5	5.6	7.2	5.5	7.3	5.5	5.5	5.5	5.5	4	4	84	85	822071	808808	<0.2	2.1	-	2.2	
						4.2	0.4	136	28.2		8.1	8.1	20.7	20.7	80.5	80.5	5.6	7.3									84				<0.2	2.1			
					Bottom	7.4	0.4	92	27.9	27.9	8.1	8.1	23.4	23.4	79.1	79.1	5.5	18.9	5.5	18.9	5.5	5.5	5.5	5.5	4	4	89	85	822071	808808	<0.2	1.8	-	2.2	
						7.4	0.4	95	27.9		8.1	8.1	23.4	23.4	79.1	79.1	5.5	18.8									89				<0.2	2.0			
IM10	Cloudy	Moderate	19:51	8.7	Surface	1.0	0.7	120	28.4	28.4	8.1	8.1	20.1	20.1	81.3	81.3	5.7	8.9	5.5	8.9	14.1	4	4	82	86	822376	809794	<0.2	2.0	-	1.7				
						1.0	0.7	126	28.4		8.1	8.1	20.1	20.1	81.2	81.3	5.6	8.9						82				<0.2	1.6						
					Middle	4.4	0.6	115	28.1	28.1	8.1	8.1	21.9	21.9	78.5	78.5	5.4	15.1	5.4	15.1	5.4	5.4	5.4	5.4	5	5	86	86	822376	809794	<0.2	1.7	-	1.7	
						4.4	0.6	125	28.1		8.1	8.1	21.9	21.9	78.5	78.5	5.4	15.1									86				<0.2	1.5			
					Bottom	7.7	0.5	99	28.2	28.2	8.1	8.1	22.1	22.1	78.5	78.5	5.4	18.0	5.4	18.0	5.4	5.4	5.4	5.4	5	5	88	86	822376	809794	<0.2	1.6	-	1.7	
						7.7	0.5	104	28.2		8.1	8.1	22.1	22.1	78.5	78.5	5.4	18.5									88				<0.2	1.7			
IM11	Cloudy	Moderate	19:37	9.1	Surface	1.0	0.8	113	28.4	28.4	8.1	8.1	20.1	20.1	81.8	81.8	5.7	7.0	5.6	7.1	10.6	4	4	82	86	822083	811477	<0.2	1.6	-	1.6				
						1.0	0.9	119	28.4		8.1	8.1	20.1	20.1	81.7	81.8	5.7	7.1						82				<0.2	1.6						
					Middle	4.6	0.7	105	28.2	28.2	8.1	8.1	22.2	22.2	79.5	79.5	5.5	9.0	5.5	9.1	5.5	5.5	5.5	5.5	6	6	86	86	822083	811477	<0.2	1.4	-	1.6	
						4.6	0.7	113	28.2		8.1	8.1	22.2	22.2	79.5	79.5	5.5	9.1									86				<0.2	1.6			
					Bottom	8.1	0.5	100	28.1	28.1	8.1	8.1	24.0	24.0	77.5	77.5	5.3	15.8	5.3	15.7	5.3	5.3	5.3	5.3	6	6	89	86	822083	811477	<0.2	1.7	-	1.7	
						8.1	0.6	100	28.1		8.1	8.1	24.0	24.0	77.5	77.5	5.3	15.7									89				<0.2	1.7			
IM12	Cloudy	Moderate	19:28	10.9	Surface	1.0	0.8	108	28.4	28.4	8.1	8.1	19.3	19.3	83.6	83.6	5.8	5.5	5.7	5.6	9.1	4	4	81	86	821460	812018	<0.2	1.6	-	1.7				
						1.0	0.8	109	28.4		8.1	8.1	19.3	19.3	83.5	83.6	5.8	5.6						81				<0.2	1.6						
					Middle	5.5	0.6	96	28.2	28.2	8.1	8.1	22.3	22.3	79.4	79.4	5.5	9.4	5.5	9.5	5.5	5.5	5.5	5.5	6	6	87	86	821460	812018	<0.2	1.7	-	1.7	
						5.5	0.7	102	28.2		8.1	8.1	22.3	22.3	79.4	79.4	5.5	9.5									87				<0.2	1.6			
					Bottom	9.9	0.4	89	28.1	28.1	8.1	8.1	23.5	23.5	78.8	78.8	5.4	12.4	5.4	12.4	5.4	5.4	5.4	5.4	6	6	89	86	821460	812018	<0.2	1.7	-	1.7	
						9.9	0.4	97	28.1		8.1	8.1	23.5	23.5	78.8	78.8	5.4	12.4									89				<0.2	1.7			
SR2	Cloudy	Moderate	18:43	5.6	Surface	1.0	0.5	73	28.3	28.3	8.1	8.1	21.1	21.1	80.6	80.6	5.6	7.6	5.6	7.7	12.8	4	4	83	85	821465	814149	<0.2	1.7	-	1.7				
						1.0	0.5	77	28.3		8.1	8.1	21.1	21.1	80.5	80.6	5.6	7.7						83				<0.2	1.6						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-		-	-	-	-	-	-	-	-																	
					Bottom	4.6	0.3	66	28.0	28.0	8.1	8.1	24.2	24.2	77.2	77.3	5.3	18.0	5.3	17.9	5.3	5.3	5.3	5.3	6	6	87	85	821465	814149	<0.2	1.7	-	1.7	
						4.6	0.3	70	28.0		8.1	8.1	24.2	24.2	77.3	77.3	5.3	17.9									87				<0.2	1.7			
SR3	Cloudy	Moderate	20:16	10.2	Surface	1.0	0.2	192	28.4	28.4	8.1	8.1	20.7	20.7	80.5	80.5	5.6	7.5	5.6	7.5	10.9	4	4	-	-	822146	807595	-	-	-	-				
						1.0	0.2	203	28.4		8.1	8.1	20.7	20.7	80.5	80.5	5.6	7.5						-				-	-			-			
					Middle	5.1	0.2	181	28.0	28.0	8.1	8.1	22.0	22.0	79.6	79.6	5.5	9.0	5.5	9.0	5.5	5.5	5.5	5.5	6	6	-	-	822146	807595	-	-	-	-	
						5.1	0.2	189	28.0		8.1	8.1	22.0	22.0	79.6	79.6	5.5	9.0									-				-	-			-
					Bottom	9.2	0.1	105	27.8	27.8	8.1	8.1	23.7	23.7	77.5	77.5	5.3	16.3	5.3	16.3	5.3	5.3	5.3	5.3	8	8	-	-	822146	807595	-	-	-	-	
						9.2	0.1	105	27.8		8.1	8.1	23.7	23.7	77.5	77.5	5.3	16.3									-				-	-			-
SR4A	Cloudy	Calm	18:27	8.4	Surface	1.0	0.4	87	28.3	28.3	8.1	8.1	20.9	20.8	80.9	80.9	5.6	8.2	5.5	8.4	14.9	7	7	-	-	817195	807823	-	-	-	-				
						1.0	0.4	92	28.3		8.1	8.1	20.8	20.8	80.8	80.9	5.6	8.4						-				-	-			-			
					Middle	4.2	0.4	76	28.1	28.1	8.1	8.1	22.1	22.1	76.5	76.5	5.3	15.4	5.3	15.9	5.3	5.3	5.3	5.3	8	8	-	-	817195	807823	-	-	-	-	
						4.2	0.4	81	28.1		8.1	8.1	22.1	22.1	76.4	76.5	5.3	15.9									-				-	-			-
					Bottom	7.4	0.3	70	28.0	28.0	8.1	8.1	24.7	24.7	75.9	75.9	5.2	21.0	5.2	20.6	5.2	5.2	5.2	5.2	8	8	-	-	817195	807823	-	-	-	-	
						7.4	0.3	72	28.0		8.1	8.1	24.7	24.7	75.9	75.9	5.2	20.6									-				-	-			-
SR5A	Cloudy	Calm	18:13	3.8	Surface	1.0	0.1	97	27.9	27.9	8.1	8.1	24.8	24.8	80.4	80.4	5.5	4.6	5.5	4.7	5.3	4	4	-	-	816600	810671	-	-	-	-				
						1.0	0.1	105	27.9		8.1	8.1	24.8	24.8	80.4	80.4	5.5	4.7						-				-	-			-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-		-	-	-	-	-	-	-	-																	
					Bottom	2.8	0.1	64	27.8	27.8	8.1	8.1	25.7	25.7	79.8	79.8	5.4	6.0	5.4	5.8	5.4	5.4	5.4	5.4	5.4	4	4	-	-	816600	810671	-	-	-	-
						2.8	0.1	69	27.8		8.1	8.1	25.7	25.7	79.8	79.8	5.4	5.8										-				-	-		
SR6	Cloudy	Calm	17:49	4.3	Surface	1.0	0.1	277	27.9	27.9	8.1	8.1	25.1	25.1	77.9	77.9	5.3	5.2	5.3	5.3	5.7	4	4	-	-	817898	814683								

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 27 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA						
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA				
C1	Cloudy	Moderate	13:37	9.6	Surface	1.0	0.0	304	28.2	28.2	8.1	8.1	18.8	18.8	82.5	82.5	5.8	5.8	7.5	7.5	7	7	80	80	815590	804230	<0.2	<0.2	1.7	1.7						
						1.0	0.0	304	28.2	8.1	8.1	18.8	18.8	82.5	82.5	5.8	5.8	7.6	7.6	7	7	81	81	1.8					1.8							
					Middle	4.8	0.1	222	27.5	27.5	8.1	8.1	26.3	26.3	78.3	78.4	5.3	5.3	12.6	12.6	6	7	85	86					1.8	1.8						
						4.8	0.1	233	27.5	27.5	8.1	8.1	26.3	26.3	78.4	78.4	5.4	5.4	12.9	12.9	7	7	86	86					1.7	1.7						
					Bottom	8.6	0.1	227	27.5	27.5	8.1	8.1	27.8	27.8	83.2	83.4	5.6	5.6	18.9	18.9	8	8	91	91					1.9	1.9						
						8.6	0.1	249	27.5	27.5	8.1	8.1	27.8	27.8	83.6	83.4	5.7	5.7	18.5	18.5	7	7	92	92					1.9	1.9						
C2	Fine	Moderate	12:35	13.2	Surface	1.0	0.2	50	28.7	28.7	8.1	8.1	18.2	18.2	78.3	78.3	5.5	5.5	13.6	13.6	6	7	87	87	825680	806940	<0.2	<0.2	2.4	2.4						
						1.0	0.2	53	28.7	28.7	8.1	8.1	18.2	18.2	78.3	78.3	5.5	5.5	13.7	13.7	6	7	86	86					2.4	2.4						
					Middle	6.6	0.1	314	28.4	28.4	8.1	8.1	20.5	20.5	75.0	75.0	5.2	5.2	17.4	17.4	7	7	90	90					2.5	2.5						
						6.6	0.1	342	28.4	28.4	8.1	8.1	20.5	20.5	74.9	75.0	5.2	5.2	17.0	17.0	8	8	91	91					2.6	2.6						
					Bottom	12.2	0.0	268	28.1	28.1	8.1	8.1	23.3	23.3	74.3	74.3	5.1	5.1	25.6	25.6	8	8	94	94					2.9	2.9						
						12.2	0.0	284	28.1	28.1	8.1	8.1	23.3	23.3	74.3	74.3	5.1	5.1	25.5	25.5	8	8	94	94					2.7	2.7						
C3	Fine	Moderate	14:17	11.1	Surface	1.0	0.4	62	28.6	28.6	8.1	8.1	22.3	22.3	80.1	80.1	5.5	5.5	9.0	9.0	7	7	86	86	822087	817792	<0.2	<0.2	2.8	2.8						
						1.0	0.5	63	28.6	28.6	8.1	8.1	22.3	22.3	80.0	80.1	5.5	5.5	9.0	9.0	7	7	86	86					3.0	3.0						
					Middle	5.6	0.4	103	28.2	28.2	8.1	8.1	23.5	23.5	76.2	76.2	5.2	5.2	9.1	9.1	9	9	90	90					3.2	3.2						
						5.6	0.4	103	28.2	28.2	8.1	8.1	23.5	23.5	76.2	76.2	5.2	5.2	9.1	9.1	9	9	90	90					2.8	2.8						
					Bottom	10.1	0.3	68	28.0	28.0	8.2	8.2	25.1	25.1	75.5	75.6	5.1	5.1	9.4	9.4	15	15	93	93					2.7	2.7						
						10.1	0.4	68	28.0	28.0	8.2	8.2	25.1	25.1	75.6	75.6	5.2	5.2	9.4	9.4	14	14	93	93					2.7	2.7						
IM1	Cloudy	Moderate	13:17	5.7	Surface	1.0	0.0	18	28.5	28.5	8.1	8.1	18.9	18.9	85.3	85.3	6.0	6.0	9.0	9.0	8	8	78	78	817958	807160	<0.2	<0.2	1.9	1.9						
						1.0	0.0	19	28.5	28.5	8.1	8.1	18.9	18.9	85.3	85.3	6.0	6.0	9.2	9.2	9	9	80	80					2.0	2.0						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-
					Bottom	4.7	0.1	203	28.2	28.2	8.1	8.1	21.8	21.8	86.9	87.1	6.0	6.0	10.8	10.8	8	8	82	82					1.8	1.8						
						4.7	0.1	204	28.2	28.2	8.1	8.1	21.8	21.8	87.3	87.1	6.0	6.0	10.7	10.7	9	9	85	85					2.0	2.0						
IM2	Cloudy	Moderate	13:10	8.4	Surface	1.0	0.2	30	28.4	28.4	8.1	8.1	19.9	19.9	81.4	81.4	5.7	5.7	9.4	9.4	9	9	86	86	818134	806179	<0.2	<0.2	1.8	1.8						
						1.0	0.2	31	28.4	28.4	8.1	8.1	19.9	19.9	81.4	81.4	5.7	5.7	9.5	9.5	8	8	86	86					1.8	1.8						
					Middle	4.2	0.2	49	28.1	28.1	8.1	8.1	21.4	21.4	80.2	80.3	5.6	5.6	12.9	12.9	9	9	89	89					1.7	1.7						
						4.2	0.2	51	28.1	28.1	8.1	8.1	21.4	21.4	80.3	80.3	5.6	5.6	13.0	13.0	9	9	89	89					1.8	1.8						
					Bottom	7.4	0.3	55	27.7	27.7	8.1	8.1	24.6	24.6	83.6	83.7	5.7	5.7	12.6	12.6	13	13	93	93					1.8	1.8						
						7.4	0.3	57	27.8	27.8	8.1	8.1	24.6	24.6	83.8	83.7	5.8	5.8	12.5	12.5	12	12	93	93					1.8	1.8						
IM3	Cloudy	Moderate	13:03	8.6	Surface	1.0	0.3	33	28.4	28.4	8.1	8.1	17.4	17.4	80.8	80.8	5.7	5.7	7.2	7.2	7	7	83	83	818808	805620	<0.2	<0.2	1.9	1.9						
						1.0	0.3	35	28.4	28.4	8.1	8.1	17.4	17.4	80.8	80.8	5.7	5.7	7.2	7.2	7	7	85	85					1.9	1.9						
					Middle	4.3	0.3	57	27.7	27.7	8.1	8.1	25.1	25.1	76.4	76.4	5.2	5.2	10.1	10.1	7	7	89	89					1.9	1.9						
						4.3	0.4	59	27.7	27.7	8.1	8.1	25.2	25.1	76.4	76.4	5.2	5.2	10.2	10.2	7	7	90	90					1.9	1.9						
					Bottom	7.6	0.2	60	27.7	27.7	8.1	8.1	25.6	25.6	77.4	77.5	5.3	5.3	11.9	11.9	9	9	91	91					1.9	1.9						
						7.6	0.2	60	27.7	27.7	8.1	8.1	25.6	25.6	77.5	77.5	5.3	5.3	11.8	11.8	8	8	92	92					1.8	1.8						
IM4	Cloudy	Moderate	12:54	8.8	Surface	1.0	0.2	25	28.5	28.5	8.1	8.1	20.7	20.7	79.8	79.8	5.5	5.5	10.6	10.6	6	6	86	86	819750	804632	<0.2	<0.2	2.1	2.1						
						1.0	0.2	26	28.5	28.5	8.1	8.1	20.7	20.7	79.8	79.8	5.5	5.5	10.9	10.9	6	6	86	86					2.0	2.0						
					Middle	4.4	0.2	3	27.9	27.9	8.1	8.1	23.5	23.5	78.5	78.6	5.4	5.4	13.1	13.1	8	8	87	87					2.1	2.1						
						4.4	0.2	3	27.9	27.9	8.1	8.1	23.5	23.5	78.6	78.6	5.4	5.4	13.1	13.1	8	8	88	88					2.1	2.1						
					Bottom	7.8	0.2	25	27.8	27.8	8.1	8.1	25.1	25.1	84.1	84.5	5.8	5.8	14.3	14.3	9	9	89	89					2.1	2.1						
						7.8	0.3	26	27.8	27.8	8.1	8.1	25.1	25.1	84.9	84.5	5.8	5.8	14.2	14.2	9	9	89	89					2.2	2.2						
IM5	Cloudy	Moderate	12:47	8.2	Surface	1.0	0.5	20	28.5	28.5	8.1	8.1	19.6	19.6	80.2	80.2	5.6	5.6	11.4	11.4	8	8	81	81	820712	804872	<0.2	<0.2	2.2	2.2						
						1.0	0.5	20	28.5	28.5	8.1	8.1	19.6	19.6	80.1	80.2	5.6	5.6	11.6	11.6	6	6	81	81					2.1	2.1						
					Middle	4.1	0.3	19	27.9	27.9	8.1	8.1	23.1	23.1	78.6	78.6	5.4	5.4	12.4	12.4	9	9	87	87					2.9	2.9						
						4.1	0.3	20	27.9	27.9	8.1	8.1	23.1	23.1	78.6	78.6	5.4	5.4	12.9	12.9	8	8	87	87					2.2	2.2						
					Bottom	7.2	0.3	37	27.9	27.9	8.1	8.1	23.4	23.4	84.2	84.4	5.8	5.8	14.9	14.9	11	11	89	89					2.1	2.1						
						7.2	0.3	39	27.9	27.9	8.1	8.1	23.4	23.4	84.6	84.4	5.8	5.8	14.5	14.5	10	10	90	90					2.2	2.2						
IM6	Cloudy	Moderate	12:39	8.1	Surface	1.0	0.1	356	28.4	28.4	8.1	8.1	20.5	20.6	79.4	79.3	5.5	5.5	9.9	9.9	8	8	81	81	821057	805817	<0.2	<0.2	2.2	2.2						
						1.0	0.1	328	28.4	28.4	8.1	8.1	20.6	20.6	79.1	79.3	5.5	5.5	9.9	9.9	9	9	82	82					2.3	2.3						
					Middle	4.1	0.1	60	28.2	28.2	8.1	8.1	21.6	21.6	79.8	79.9	5.5	5.5	10.3	10.3	12	12	84	84					2.3	2.3						
						4.1	0.1	60	28.2	28.2	8.1	8.1	21.6	21.6	79.9	79.9	5.5	5.5	10.4	10.4	11	11	86	86					2.2	2.2						
					Bottom	7.1	0.1	69	28.2	28.2	8.0	8.0	21.7	21.7	85.2	85.4	5.9	5.9	14.3	14.3</																

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 27 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA			
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
IM9	Fine	Moderate	13:08	8.3	Surface	1.0	0.5	106	28.6	28.6	8.1	8.1	17.1	17.1	78.7	78.7	5.5	5.5	9.8	9.8	5	6	86	91	822067	808791	<0.2	<0.2	2.3	2.3			
						1.0	0.5	111	28.6	28.6	8.1	8.1	17.1	17.1	78.7	78.7	5.5	5.5	9.8	9.8	5	6	87	91	822067	808791	<0.2	<0.2	2.3	2.3			
					Middle	4.2	0.4	83	28.5	28.5	8.1	8.1	19.2	19.2	78.3	78.3	5.5	5.5	12.8	12.8	6	6	92	91	822067	808791	<0.2	<0.2	2.3	2.3			
						4.2	0.5	83	28.5	28.5	8.1	8.1	19.2	19.2	78.3	78.3	5.5	5.5	12.9	12.9	5	6	91	91	822067	808791	<0.2	<0.2	2.3	2.3			
					Bottom	7.3	0.4	86	28.3	28.3	8.1	8.1	20.9	20.9	76.7	76.7	5.3	5.3	25.9	25.9	6	6	95	91	822067	808791	<0.2	<0.2	2.4	2.4			
						7.3	0.4	92	28.3	28.3	8.1	8.1	20.9	20.9	76.7	76.7	5.3	5.3	25.8	25.8	7	6	95	91	822067	808791	<0.2	<0.2	2.4	2.4			
IM10	Fine	Moderate	13:15	8.2	Surface	1.0	0.6	96	28.7	28.7	8.1	8.1	17.4	17.3	81.1	81.1	5.7	5.7	9.3	9.3	4	6	87	91	822372	809815	<0.2	<0.2	2.5	2.4			
						1.0	0.7	98	28.7	28.7	8.1	8.1	17.3	17.3	81.1	81.1	5.7	5.7	9.3	9.3	5	6	87	91	822372	809815	<0.2	<0.2	2.5	2.5			
					Middle	4.1	0.5	97	28.4	28.4	8.1	8.1	20.5	20.5	77.5	77.5	5.4	5.4	16.9	16.9	6	6	92	91	822372	809815	<0.2	<0.2	2.3	2.4			
						4.1	0.5	102	28.4	28.4	8.1	8.1	20.5	20.5	77.5	77.5	5.4	5.4	16.9	16.9	6	6	91	91	822372	809815	<0.2	<0.2	2.4	2.4			
					Bottom	7.2	0.3	92	28.3	28.3	8.2	8.2	21.1	21.1	76.6	76.6	5.3	5.3	27.4	27.4	7	6	95	91	822372	809815	<0.2	<0.2	2.4	2.4			
						7.2	0.3	100	28.3	28.3	8.2	8.2	21.1	21.1	76.6	76.6	5.3	5.3	27.4	27.4	8	6	95	91	822372	809815	<0.2	<0.2	2.4	2.4			
IM11	Fine	Moderate	13:25	7.4	Surface	1.0	0.6	109	28.6	28.6	8.1	8.1	18.2	18.2	79.0	79.0	5.5	5.5	9.6	9.6	4	6	88	91	822081	811434	<0.2	<0.2	2.9	2.5			
						1.0	0.7	118	28.6	28.6	8.1	8.1	18.2	18.2	79.0	79.0	5.5	5.5	9.6	9.6	5	6	87	91	822081	811434	<0.2	<0.2	2.5	2.4			
					Middle	3.7	0.5	87	28.4	28.4	8.2	8.2	20.3	20.3	76.6	76.6	5.3	5.3	11.9	11.9	6	6	91	91	822081	811434	<0.2	<0.2	2.4	2.4			
						3.7	0.5	91	28.4	28.4	8.2	8.2	20.3	20.3	76.7	76.7	5.3	5.3	11.9	11.9	6	6	91	91	822081	811434	<0.2	<0.2	2.4	2.5			
					Bottom	6.4	0.5	114	28.3	28.3	8.2	8.2	21.6	21.6	76.1	76.1	5.3	5.3	13.1	13.1	9	6	96	91	822081	811434	<0.2	<0.2	2.5	2.4			
						6.4	0.5	123	28.3	28.3	8.2	8.2	21.6	21.6	76.1	76.1	5.3	5.3	13.1	13.1	8	6	95	91	822081	811434	<0.2	<0.2	2.4	2.4			
IM12	Fine	Moderate	13:32	10.0	Surface	1.0	0.6	111	28.5	28.5	8.1	8.1	19.1	19.1	79.1	79.2	5.5	5.5	10.9	10.9	7	8	87	91	821483	812060	<0.2	<0.2	2.7	2.6			
						1.0	0.6	114	28.5	28.5	8.1	8.1	19.1	19.1	79.2	79.2	5.5	5.5	10.9	10.9	7	8	87	91	821483	812060	<0.2	<0.2	2.6	2.6			
					Middle	5.0	0.5	91	28.5	28.5	8.3	8.3	20.3	20.3	78.0	78.1	5.4	5.4	13.0	13.0	7	8	92	91	821483	812060	<0.2	<0.2	2.6	2.5			
						5.0	0.6	97	28.5	28.5	8.3	8.3	20.3	20.3	78.1	78.1	5.4	5.4	13.1	13.1	8	8	91	91	821483	812060	<0.2	<0.2	2.5	2.5			
					Bottom	9.0	0.3	100	28.4	28.4	8.3	8.3	21.0	20.9	78.0	78.1	5.4	5.4	16.8	16.8	8	8	95	91	821483	812060	<0.2	<0.2	2.5	2.5			
						9.0	0.3	107	28.4	28.4	8.3	8.3	20.9	20.9	78.1	78.1	5.4	5.4	16.8	16.8	8	8	94	91	821483	812060	<0.2	<0.2	2.5	2.5			
SR2	Fine	Moderate	13:58	4.5	Surface	1.0	0.5	94	28.6	28.6	8.2	8.2	19.3	19.3	79.7	79.7	5.6	5.6	10.8	10.8	8	8	87	89	821472	814149	<0.2	<0.2	2.7	2.8			
						1.0	0.5	97	28.6	28.6	8.2	8.2	19.3	19.3	79.7	79.7	5.6	5.6	10.8	10.8	7	8	87	89	821472	814149	<0.2	<0.2	2.8	2.6			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	821472	814149	<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	821472	814149	<0.2	<0.2	-
					Bottom	3.5	0.3	81	28.3	28.3	8.2	8.2	21.8	21.8	75.5	75.5	5.2	5.2	14.0	14.0	9	8	92	91	821472	814149	<0.2	<0.2	2.5	2.6			
						3.5	0.3	83	28.3	28.3	8.2	8.2	21.8	21.8	75.5	75.5	5.2	5.2	14.0	14.0	9	8	91	91	821472	814149	<0.2	<0.2	2.5	2.6			
SR3	Fine	Moderate	12:56	8.9	Surface	1.0	0.4	113	28.6	28.6	8.1	8.1	18.8	18.8	80.8	80.8	5.6	5.6	10.2	10.2	5	7	-	-	822157	807591	-	-	-	-			
						1.0	0.4	120	28.6	28.6	8.1	8.1	18.8	18.8	80.7	80.7	5.6	5.6	10.3	10.3	5	7	-	7	-	-	822157	807591	-	-	-	-	
					Middle	4.5	0.4	92	28.4	28.4	8.1	8.1	20.0	20.0	78.3	78.4	5.5	5.5	11.4	11.4	7	7	-	-	-	-	822157	807591	-	-	-	-	
						4.5	0.4	99	28.4	28.4	8.1	8.1	20.0	20.0	78.4	78.4	5.5	5.5	11.4	11.4	7	7	-	-	-	-	822157	807591	-	-	-	-	
					Bottom	7.9	0.3	78	28.4	28.4	8.1	8.1	20.3	20.3	78.7	78.8	5.5	5.5	12.0	12.0	7	7	-	-	-	-	822157	807591	-	-	-	-	
						7.9	0.3	81	28.4	28.4	8.1	8.1	20.3	20.3	78.8	78.8	5.5	5.5	12.0	12.0	8	7	-	-	-	-	822157	807591	-	-	-	-	
SR4A	Cloudy	Calm	13:57	10.1	Surface	1.0	0.4	67	28.2	28.2	8.1	8.1	20.7	20.7	78.2	78.2	5.4	5.4	10.2	10.2	7	9	-	-	817187	807827	-	-	-	-			
						1.0	0.4	70	28.2	28.2	8.1	8.1	20.7	20.7	78.1	78.1	5.4	5.4	10.1	10.1	8	9	-	-	817187	807827	-	-	-	-			
					Middle	5.1	0.4	78	27.9	27.9	8.1	8.1	23.5	23.5	76.7	76.7	5.3	5.3	14.6	14.6	8	8	-	-	-	-	817187	807827	-	-	-	-	
						5.1	0.4	82	27.9	27.9	8.1	8.1	23.5	23.5	76.7	76.7	5.3	5.3	14.3	14.3	9	8	-	-	-	-	817187	807827	-	-	-	-	
					Bottom	9.1	0.4	69	27.8	27.8	8.1	8.1	24.6	24.6	80.2	80.3	5.5	5.5	19.7	19.7	11	9	-	-	-	-	817187	807827	-	-	-	-	
						9.1	0.4	70	27.8	27.8	8.1	8.1	24.6	24.6	80.4	80.4	5.5	5.5	20.1	20.1	11	9	-	-	-	-	817187	807827	-	-	-	-	
SR5A	Cloudy	Calm	14:12	5.0	Surface	1.0	0.0	72	28.6	28.6	8.0	8.0	21.0	21.0	83.5	83.5	5.8	5.8	5.7	5.7	8	9	-	-	816581	810712	-	-	-	-			
						1.0	0.0	73	28.6	28.6	8.0	8.0	21.0	21.0	83.4	83.4	5.8	5.8	5.8	5.8	8	9	-	-	816581	810712	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	4.0	0.1	90	28.4	28.4	8.0	8.0	21.4	21.4	83.6	83.7	5.8	5.8	10.0	10.0	10												

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 27 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA			
									Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
C1	Cloudy	Moderate	19:34	9.4	Surface	1.0	0.6	33	28.1	28.1	8.0	8.0	16.7	16.7	81.6	81.6	5.8	5.8	9.1	9.1	7	7	81	81	815595	804248	<0.2	<0.2	2.3	2.3			
						1.0	0.7	33	28.1	28.1	8.0	8.0	16.7	16.7	81.6	81.6	5.8	5.8	9.2	9.2	6	6	83	83			<0.2	<0.2	2.3	2.3			
						4.7	0.5	41	27.5	27.5	8.1	8.1	26.6	26.6	75.7	75.7	5.2	5.2	9.8	9.8	8	8	86	86			<0.2	<0.2	2.1	2.1			
					4.7	0.6	41	27.5	27.5	8.1	8.1	26.6	26.6	75.7	75.7	5.2	5.2	9.9	9.9	7	7	87	87			<0.2	<0.2	2.1	2.1				
					8.4	0.4	34	27.5	27.5	8.1	8.1	27.4	27.4	79.2	79.2	5.4	5.4	10.5	10.5	9	9	89	89			<0.2	<0.2	2.1	2.1				
					8.4	0.4	36	27.5	27.5	8.1	8.1	27.4	27.4	79.4	79.3	5.4	5.4	10.2	10.2	8	8	90	90			<0.2	<0.2	2.1	2.1				
C2	Cloudy	Moderate	21:01	11.8	Surface	1.0	0.3	55	28.6	28.6	8.0	8.0	17.2	17.2	76.4	76.4	5.4	5.4	12.2	12.2	5	5	85	85	825698	806967	<0.2	<0.2	2.5	2.5			
						1.0	0.4	60	28.6	28.6	8.0	8.0	17.2	17.2	76.3	76.4	5.4	5.4	12.3	12.3	5	5	84	84			<0.2	<0.2	2.4	2.4			
						5.9	0.3	32	28.4	28.4	8.1	8.1	19.1	19.1	73.8	73.8	5.2	5.2	16.8	16.8	6	6	89	89			<0.2	<0.2	3.0	3.0			
					5.9	0.3	33	28.4	28.4	8.1	8.1	19.1	19.1	73.8	73.8	5.2	5.2	16.9	16.9	6	6	88	88			<0.2	<0.2	2.2	2.2				
					10.8	0.4	315	28.3	28.3	8.1	8.1	22.0	22.0	73.9	73.9	5.1	5.1	24.7	24.7	6	6	92	92			<0.2	<0.2	3.3	3.3				
					10.8	0.4	328	28.3	28.3	8.1	8.1	22.1	22.0	73.9	73.9	5.1	5.1	24.7	24.7	6	6	92	92			<0.2	<0.2	3.3	3.3				
C3	Cloudy	Moderate	19:09	11.8	Surface	1.0	0.7	250	28.1	28.1	8.1	8.1	22.8	22.8	76.2	76.2	5.2	5.2	10.6	10.6	6	6	85	85	822090	817782	<0.2	<0.2	1.6	1.6			
						1.0	0.7	270	28.1	28.1	8.1	8.1	22.8	22.8	76.1	76.2	5.2	5.2	10.7	10.7	7	7	85	85			<0.2	<0.2	1.5	1.5			
						5.9	0.5	256	27.8	27.8	8.2	8.2	25.4	25.4	72.4	72.4	4.9	4.9	14.1	14.1	8	8	89	89			<0.2	<0.2	1.6	1.6			
					5.9	0.6	273	27.8	27.8	8.2	8.2	25.4	25.4	72.4	72.4	4.9	4.9	14.0	14.0	8	8	89	89			<0.2	<0.2	1.6	1.6				
					10.8	0.4	260	27.8	27.8	8.2	8.2	25.6	25.6	74.4	74.5	5.1	5.1	17.4	17.4	8	8	93	93			<0.2	<0.2	1.6	1.6				
					10.8	0.4	267	27.8	27.8	8.2	8.2	25.6	25.6	74.6	74.5	5.1	5.1	17.5	17.5	9	9	92	92			<0.2	<0.2	1.8	1.8				
IM1	Cloudy	Moderate	19:51	5.9	Surface	1.0	0.1	357	28.3	28.3	8.1	8.1	20.5	20.5	85.6	85.7	6.0	6.0	10.6	10.6	7	7	82	82	817957	807123	<0.2	<0.2	2.0	2.0			
						1.0	0.1	328	28.3	28.3	8.1	8.1	20.5	20.5	85.8	85.7	6.0	6.0	10.7	10.7	8	8	83	83			<0.2	<0.2	2.1	2.1			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					4.9	0.1	312	28.3	28.3	8.1	8.1	20.9	20.9	91.3	91.5	6.3	6.3	11.3	11.3	9	9	86	86			<0.2	<0.2	2.1	2.1				
					4.9	0.2	341	28.3	28.3	8.1	8.1	20.9	20.9	91.7	91.5	6.4	6.4	11.3	11.3	9	9	87	87			<0.2	<0.2	2.0	2.0				
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Cloudy	Moderate	19:58	8.4	Surface	1.0	0.3	358	28.2	28.2	8.0	8.0	19.2	19.2	82.1	82.1	5.8	5.8	8.5	8.5	6	6	82	82	818170	806176	<0.2	<0.2	2.4	2.4			
						1.0	0.4	329	28.2	28.2	8.0	8.0	19.2	19.2	82.1	82.1	5.8	5.8	8.5	8.5	5	5	82	82			<0.2	<0.2	2.4	2.4			
						4.2	0.4	1	28.3	28.3	8.1	8.1	21.5	21.5	80.2	80.3	5.6	5.6	15.3	15.3	7	7	86	86			<0.2	<0.2	2.3	2.3			
					4.2	0.4	1	28.3	28.3	8.1	8.1	21.5	21.5	80.3	80.3	5.6	5.6	15.3	15.3	6	6	87	87			<0.2	<0.2	2.1	2.1				
					7.4	0.4	26	28.1	28.1	8.1	8.1	22.0	22.0	83.2	83.3	5.8	5.8	14.3	14.3	6	6	89	89			<0.2	<0.2	2.0	2.0				
					7.4	0.4	26	28.1	28.1	8.1	8.1	22.0	22.0	83.4	83.3	5.8	5.8	14.2	14.2	7	7	90	90			<0.2	<0.2	2.2	2.2				
IM3	Cloudy	Moderate	20:04	8.5	Surface	1.0	0.5	15	28.1	28.1	8.1	8.1	19.0	19.0	80.3	80.3	5.7	5.7	8.9	8.9	6	6	81	81	818756	805600	<0.2	<0.2	2.2	2.2			
						1.0	0.6	15	28.1	28.1	8.1	8.1	19.0	19.0	80.3	80.3	5.7	5.7	8.9	8.9	7	7	82	82			<0.2	<0.2	2.2	2.2			
						4.3	0.6	36	27.9	27.9	8.1	8.1	22.0	22.0	79.1	79.2	5.5	5.5	10.4	10.4	7	7	85	85			<0.2	<0.2	2.2	2.2			
					4.3	0.6	38	27.9	27.9	8.1	8.1	22.0	22.0	79.2	79.2	5.5	5.5	10.2	10.2	7	7	86	86			<0.2	<0.2	2.1	2.1				
					7.5	0.4	26	27.8	27.8	8.1	8.1	23.7	23.7	81.0	81.1	5.6	5.6	13.2	13.2	8	8	90	90			<0.2	<0.2	2.2	2.2				
					7.5	0.4	27	27.8	27.8	8.1	8.1	23.7	23.7	81.2	81.1	5.6	5.6	13.4	13.4	8	8	91	91			<0.2	<0.2	2.2	2.2				
IM4	Cloudy	Moderate	20:12	8.7	Surface	1.0	0.5	14	28.3	28.3	8.1	8.1	19.4	19.4	79.5	79.5	5.6	5.6	10.3	10.3	7	7	86	86	819749	804616	<0.2	<0.2	2.2	2.2			
						1.0	0.5	14	28.3	28.3	8.1	8.1	19.4	19.4	79.5	79.5	5.6	5.6	10.7	10.7	6	6	86	86			<0.2	<0.2	2.2	2.2			
						4.4	0.4	1	27.9	27.9	8.1	8.1	23.6	23.6	77.6	77.7	5.3	5.3	13.3	13.3	7	7	89	89			<0.2	<0.2	2.2	2.2			
					4.4	0.4	1	27.9	27.9	8.1	8.1	23.6	23.6	77.7	77.7	5.3	5.3	13.3	13.3	7	7	90	90			<0.2	<0.2	2.2	2.2				
					7.7	0.2	357	27.9	27.9	8.1	8.1	24.1	24.1	79.6	79.7	5.5	5.5	13.7	13.7	8	8	92	92			<0.2	<0.2	2.2	2.2				
					7.7	0.2	328	27.9	27.9	8.1	8.1	24.1	24.1	79.8	79.7	5.5	5.5	13.8	13.8	8	8	94	94			<0.2	<0.2	2.2	2.2				
IM5	Cloudy	Moderate	20:21	8.1	Surface	1.0	0.6	354	28.3	28.3	8.1	8.1	20.8	20.8	80.6	80.6	5.6	5.6	10.1	10.1	8	8	85	85	820745	804873	<0.2	<0.2	2.2	2.2			
						1.0	0.6	354	28.3	28.3	8.1	8.1	20.8	20.8	80.6	80.6	5.6	5.6	10.1	10.1	9	9	85	85			<0.2	<0.2	2.4	2.4			
						4.1	0.4	0	28.0	28.0	8.1	8.1	22.8	22.8	78.5	78.6	5.4	5.4	14.8	14.8	9	9	87	87			<0.2	<0.2	2.3	2.3			
					4.1	0.5	0	28.0	28.0	8.1	8.1	22.8	22.8	78.6	78.6	5.4	5.4	14.9	14.9	9	9	86	86			<0.2	<0.2	2.1	2.1				
					7.1	0.4	10	28.0	28.0	8.1	8.1	22.9	22.9	83.2	83.4	5.7	5.7	13.8	13.8	9	9	90	90			<0.2	<0.2	2.2	2.2				
					7.1	0.4	10	28.0	28.0	8.1	8.1	22.9	22.9	83.5	83.4	5.8	5.8	13.8	13.8	10	10	92	92			<0.2	<0.2	2.2	2.2				
IM6	Cloudy	Moderate	20:28	8.3	Surface	1																											

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 27 September 18 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
									Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value			Value	Value	Value	Value	Value	Value	Value
IM9	Cloudy	Moderate	20:32	8.3	Surface	1.0	0.1	55	28.4	8.1	8.1	17.7	17.7	77.1	77.1	5.4	5.4	14.7	5	86	90	822095	808796	<0.2	2.7	<0.2	2.7						
						1.0	0.2	59	28.4	28.4	8.1	8.1	17.7	17.7	77.0	77.0	5.4	5.4	14.8	5	85	90	822095	808796	<0.2			2.8					
					Middle	4.2	0.3	46	28.3	28.3	8.2	8.2	19.4	19.4	76.9	76.9	5.4	5.4	23.1	5	90	90	822095	808796	<0.2			2.8					
						4.2	0.3	50	28.3	28.3	8.2	8.2	19.4	19.4	76.9	76.9	5.4	5.4	23.1	6	89	90	822095	808796	<0.2			2.6					
					Bottom	7.3	0.2	20	28.3	28.3	8.2	8.2	20.0	20.0	77.5	77.5	5.4	5.4	23.3	6	94	90	822095	808796	<0.2			2.7					
						7.3	0.2	21	28.3	28.3	8.2	8.2	20.0	20.0	77.4	77.5	5.4	5.4	23.2	7	93	90	822095	808796	<0.2			2.8					
IM10	Cloudy	Moderate	20:23	8.4	Surface	1.0	0.2	51	28.6	8.1	8.1	17.5	17.5	79.0	79.0	5.6	5.6	10.4	6	85	89	822363	809802	<0.2	2.8	<0.2	2.6						
						1.0	0.2	53	28.6	28.6	8.1	8.1	17.5	17.5	78.9	79.0	5.6	5.6	10.4	7	85	89	822363	809802	<0.2			2.7					
					Middle	4.2	0.3	0	28.4	28.4	8.2	8.2	19.1	19.1	78.3	78.4	5.5	5.5	13.5	8	89	90	822363	809802	<0.2			2.6					
						4.2	0.3	0	28.4	28.4	8.2	8.2	19.1	19.1	78.4	78.4	5.5	5.5	13.5	8	90	90	822363	809802	<0.2			2.5					
					Bottom	7.4	0.4	307	28.4	28.4	8.2	8.2	20.1	20.1	78.3	78.3	5.4	5.4	14.8	11	93	90	822363	809802	<0.2			2.5					
						7.4	0.4	323	28.4	28.4	8.2	8.2	20.1	20.1	78.2	78.3	5.4	5.4	15.0	12	93	90	822363	809802	<0.2			2.4					
IM11	Cloudy	Moderate	20:12	9.1	Surface	1.0	0.4	298	28.4	8.2	8.2	20.7	20.7	76.7	76.8	5.3	5.3	13.1	10	85	90	822047	811442	<0.2	2.4	<0.2	2.5						
						1.0	0.4	319	28.4	28.4	8.2	8.2	20.7	20.7	76.7	76.8	5.3	5.3	13.2	10	85	90	822047	811442	<0.2			2.2					
					Middle	4.6	0.2	269	28.1	28.1	8.2	8.2	22.7	22.7	74.0	74.0	5.1	5.1	19.5	10	90	90	822047	811442	<0.2			2.4					
						4.6	0.2	288	28.1	28.1	8.2	8.2	22.7	22.7	73.9	74.0	5.1	5.1	19.5	10	90	90	822047	811442	<0.2			2.6					
					Bottom	8.1	0.2	249	28.1	28.1	8.2	8.2	22.9	22.9	74.7	74.7	5.1	5.1	22.3	10	93	90	822047	811442	<0.2			2.4					
						8.1	0.2	267	28.1	28.1	8.2	8.2	22.9	22.9	74.7	74.7	5.1	5.1	22.3	11	94	90	822047	811442	<0.2			2.6					
IM12	Cloudy	Moderate	20:04	8.4	Surface	1.0	0.3	261	28.3	8.2	8.2	21.3	21.3	76.5	76.5	5.3	5.3	13.5	8	85	89	821457	812063	<0.2	2.1	<0.2	2.0						
						1.0	0.4	262	28.3	28.3	8.2	8.2	21.3	21.3	76.4	76.4	5.3	5.3	13.5	9	86	90	821457	812063	<0.2			2.2					
					Middle	4.2	0.2	259	28.2	28.2	8.2	8.2	21.9	21.9	74.7	74.7	5.2	5.2	18.2	14	90	90	821457	812063	<0.2			2.2					
						4.2	0.2	268	28.2	28.2	8.2	8.2	21.9	21.9	74.7	74.7	5.2	5.2	18.4	14	89	90	821457	812063	<0.2			1.9					
					Bottom	7.4	0.2	294	28.2	28.2	8.2	8.2	22.7	22.7	75.1	75.2	5.2	5.2	24.1	16	93	90	821457	812063	<0.2			1.9					
						7.4	0.2	318	28.2	28.2	8.2	8.2	22.7	22.7	75.3	75.2	5.2	5.2	24.1	17	93	90	821457	812063	<0.2			1.9					
SR2	Cloudy	Moderate	19:28	5.6	Surface	1.0	0.5	309	28.4	8.1	8.1	20.3	20.3	79.2	79.2	5.5	5.5	17.0	6	85	87	821481	814157	<0.2	1.7	<0.2	1.7						
						1.0	0.5	328	28.4	28.4	8.1	8.1	20.3	20.3	79.1	79.1	5.5	5.5	17.0	7	86	87	821481	814157	<0.2			1.7					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-
					Bottom	4.6	0.2	330	28.3	28.3	8.1	8.1	21.1	21.1	78.4	78.4	5.4	5.4	20.3	9	89	90	821481	814157	<0.2			1.8					
						4.6	0.2	342	28.3	28.3	8.1	8.1	21.1	21.1	78.4	78.4	5.4	5.4	20.3	10	89	90	821481	814157	<0.2			1.7					
SR3	Rainy	Moderate	20:46	10.0	Surface	1.0	0.2	84	28.7	8.0	8.0	15.1	15.1	78.4	78.4	5.6	5.6	9.6	5	-	-	822149	807590	-	-	-	-						
						1.0	0.2	90	28.7	28.7	8.0	8.0	15.1	15.1	78.4	78.4	5.6	5.6	9.6	5	-	-	822149	807590	-			-					
					Middle	5.0	0.4	63	28.5	28.5	8.1	8.1	17.9	17.9	76.2	76.2	5.4	5.4	13.6	6	-	-	822149	807590	-			-					
						5.0	0.4	64	28.5	28.5	8.1	8.1	17.9	17.9	76.2	76.2	5.4	5.4	13.7	6	-	-	822149	807590	-			-					
					Bottom	9.0	0.4	47	28.4	28.4	8.1	8.1	19.2	19.2	74.8	74.8	5.2	5.2	20.3	6	-	-	822149	807590	-			-					
						9.0	0.4	48	28.4	28.4	8.1	8.1	19.2	19.2	74.8	74.8	5.2	5.2	20.3	6	-	-	822149	807590	-			-					
SR4A	Cloudy	Calm	19:12	10.1	Surface	1.0	0.5	88	28.3	8.0	8.0	20.4	20.4	81.9	81.9	5.7	5.7	11.7	10	-	-	817160	807802	-	-	-	-						
						1.0	0.5	95	28.3	28.3	8.0	8.0	20.4	20.4	81.9	81.9	5.7	5.7	11.6	10	-	-	817160	807802	-			-					
					Middle	5.1	0.4	75	28.3	28.3	8.0	8.0	20.8	20.8	80.7	80.7	5.6	5.6	17.1	14	-	-	817160	807802	-			-					
						5.1	0.4	80	28.3	28.3	8.0	8.0	20.9	20.9	80.7	80.7	5.6	5.6	17.1	14	-	-	817160	807802	-			-					
					Bottom	9.1	0.2	59	28.3	28.3	8.0	8.0	21.1	21.1	81.6	81.7	5.7	5.7	19.1	18	-	-	817160	807802	-			-					
						9.1	0.2	60	28.3	28.3	8.0	8.0	21.1	21.1	81.7	81.7	5.7	5.7	18.8	19	-	-	817160	807802	-			-					
SR5A	Cloudy	Calm	18:55	4.8	Surface	1.0	0.0	318	28.3	8.0	8.0	21.5	21.5	79.3	79.4	5.5	5.5	11.1	7	-	-	816621	810701	-	-	-	-						
						1.0	0.0	328	28.3	28.3	8.0	8.0	21.5	21.5	79.4	79.4	5.5	5.5	11.1	7	-	-	816621	810701	-			-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	
					Bottom	3.8	0.1	19	28.2	28.2	8.0	8.0	21.5	21.5	80.0	80.0	5.5	5.5	12.2	9	-	-	816621	810701	-			-					
						3.8	0.1	20	28.2	28.2	8.0	8.0	21.5	21.5	80.0	80.0	5.5	5.5	12.4	8	-	-	816621	810701	-			-					
SR6	Cloudy	Calm	18:32	4.9	Surface	1.0	0.1	290	28.4	7.9	7.9	19.7	19.7	81.6	81.6	5.7	5.7	8.8	8	-	-	817871	814682	-	-	-	-						
						1.0	0.2	314	28.4	28.4	7.9	7.9	19.7	19.7	81.6	81.6	5.7	5.7	8.8	9	-	-	817871	814682	-			-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-		
					Bottom	3.9	0.1	323	28.3	28.3	7.8	7.8	20.6	20.6	84.9	85.1	5.9	5.9	8.8	10	-	-	817871	814682	-			-					
						3.9	0.1	342	28.3	28.3	7.8	7.8	20.6	20.6	85.2	85.1	5.9	5.9	8.7	10	-	-	817871	814682	-			-					
SR7	Cloudy	Moderate	1																														

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 29 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA			
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
C1	Fine	Moderate	14:54	9.0	Surface	1.0	0.0	311	28.2	8.2	8.2	23.2	23.2	83.3	83.3	5.7	5.7	14.4	14.4	10	10	79	79	83	815622	804273	<0.2	<0.2	2.3	2.3			
						1.0	0.0	329	28.2	8.2	8.2	23.2	23.2	83.3	83.3	5.7	5.7	14.4	14.4	10	10	78	78	80	80	<0.2	<0.2	2.2	2.2				
					Middle	4.5	0.1	230	28.0	28.0	8.2	8.2	23.9	23.9	82.9	82.9	5.7	5.7	20.7	20.7	11	11	82	82	83	815622	804273	<0.2	<0.2	2.1	2.1		
						4.5	0.1	252	28.0	28.0	8.2	8.2	23.9	23.9	82.9	82.9	5.7	5.7	20.7	20.7	12	12	84	84	83	815622	804273	<0.2	<0.2	1.9	1.9		
					Bottom	8.0	0.1	239	28.0	28.0	8.2	8.2	24.0	24.0	85.0	85.0	5.8	5.8	17.1	17.1	12	12	87	87	85	85	83	815622	804273	<0.2	<0.2	1.7	1.7
						8.0	0.1	248	28.0	28.0	8.2	8.2	24.0	24.0	85.0	85.0	5.8	5.8	17.1	17.1	13	13	85	85	85	85	83	815622	804273	<0.2	<0.2	2.0	2.0
C2	Fine	Moderate	13:48	11.7	Surface	1.0	0.3	69	28.2	8.0	8.0	21.6	21.6	84.1	84.1	5.8	5.8	14.2	14.2	11	11	80	80	85	825705	806930	<0.2	<0.2	1.5	1.5			
						1.0	0.3	73	28.2	8.0	8.0	21.6	21.6	84.1	84.1	5.8	5.8	14.2	14.2	11	11	80	80	80	80	85	825705	806930	<0.2	<0.2	1.6	1.6	
					Middle	5.9	0.1	52	27.8	27.8	8.0	8.0	24.2	24.2	79.4	79.4	5.5	5.5	12.2	12.2	12	12	85	85	86	825705	806930	<0.2	<0.2	1.5	1.5		
						5.9	0.1	53	27.8	27.8	8.0	8.0	24.2	24.2	79.4	79.4	5.5	5.5	12.2	12.2	14	14	85	85	86	825705	806930	<0.2	<0.2	1.5	1.5		
					Bottom	10.7	0.2	112	27.8	27.8	7.8	7.8	24.9	24.9	85.6	85.6	5.9	5.9	22.0	22.0	15	15	89	89	89	89	85	825705	806930	<0.2	<0.2	1.6	1.6
						10.7	0.2	117	27.8	27.8	7.8	7.8	24.9	24.9	85.6	85.6	5.9	5.9	22.0	22.0	16	16	89	89	89	89	85	825705	806930	<0.2	<0.2	1.3	1.3
C3	Fine	Moderate	15:47	11.5	Surface	1.0	0.1	41	28.2	8.1	8.1	24.5	24.5	81.2	81.2	5.5	5.5	3.7	3.7	11	11	82	82	86	822098	817797	<0.2	<0.2	1.4	1.4			
						1.0	0.1	43	28.2	8.1	8.1	24.5	24.5	81.2	81.2	5.5	5.5	3.7	3.7	10	10	81	81	81	81	86	822098	817797	<0.2	<0.2	1.6	1.6	
					Middle	5.8	0.2	98	27.8	27.8	8.1	8.1	25.7	25.8	79.8	79.8	5.4	5.4	4.9	4.9	12	12	87	87	86	822098	817797	<0.2	<0.2	1.5	1.5		
						5.8	0.2	105	27.8	27.8	8.1	8.1	25.8	25.8	79.8	79.8	5.4	5.4	5.0	5.0	13	13	86	86	86	822098	817797	<0.2	<0.2	1.5	1.5		
					Bottom	10.5	0.2	68	27.9	27.9	8.1	8.1	26.6	26.6	85.5	85.5	5.8	5.8	4.1	4.1	15	15	89	89	89	89	86	822098	817797	<0.2	<0.2	1.5	1.5
						10.5	0.3	73	27.9	27.9	8.1	8.1	26.6	26.6	85.5	85.5	5.8	5.8	4.1	4.1	15	15	91	91	89	89	86	822098	817797	<0.2	<0.2	1.9	1.9
IM1	Fine	Moderate	14:27	5.4	Surface	1.0	0.0	27	28.1	8.1	8.1	22.1	22.1	83.4	83.4	5.8	5.8	9.2	9.2	6	6	80	80	83	817947	807137	<0.2	<0.2	1.8	1.8			
						1.0	0.0	27	28.1	8.1	8.1	22.1	22.1	83.4	83.4	5.8	5.8	9.2	9.2	6	6	81	81	81	81	83	817947	807137	<0.2	<0.2	2.2	2.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	817947	807137	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	817947	807137	-	-	-	-
					Bottom	4.4	0.1	210	27.9	27.9	8.2	8.2	23.7	23.7	82.9	82.9	5.7	5.7	17.8	17.8	8	8	85	85	84	84	83	817947	807137	<0.2	<0.2	2.5	2.5
						4.4	0.2	228	27.9	27.9	8.2	8.2	23.7	23.7	82.9	82.9	5.7	5.7	17.8	17.8	8	8	84	84	84	84	83	817947	807137	<0.2	<0.2	2.7	2.7
IM2	Fine	Moderate	14:21	7.7	Surface	1.0	0.2	44	28.3	8.1	8.1	20.9	20.9	84.9	84.9	5.9	5.9	6.6	6.6	9	9	81	81	85	818143	806157	<0.2	<0.2	2.5	2.5			
						1.0	0.2	48	28.3	28.3	8.1	8.1	20.9	20.9	84.9	84.9	5.9	5.9	6.6	6.6	10	10	82	82	85	818143	806157	<0.2	<0.2	2.1	2.1		
					Middle	3.9	0.3	59	28.1	28.1	8.1	8.1	21.9	21.9	84.5	84.5	5.9	5.9	9.5	9.5	10	10	84	84	85	818143	806157	<0.2	<0.2	2.5	2.5		
						3.9	0.4	62	28.1	28.1	8.1	8.1	21.9	21.9	84.5	84.5	5.9	5.9	9.5	9.5	10	10	87	87	85	818143	806157	<0.2	<0.2	2.2	2.2		
					Bottom	6.7	0.3	60	28.1	28.1	8.1	8.1	23.6	23.6	85.5	85.5	5.9	5.9	9.5	9.5	11	11	87	87	87	87	85	818143	806157	<0.2	<0.2	1.8	1.8
						6.7	0.3	62	28.1	28.1	8.1	8.1	23.6	23.6	85.5	85.5	5.9	5.9	9.5	9.5	11	11	87	87	87	87	85	818143	806157	<0.2	<0.2	2.0	2.0
IM3	Fine	Moderate	14:13	7.3	Surface	1.0	0.3	49	28.1	8.1	8.1	21.5	21.5	80.6	80.6	5.6	5.6	8.9	8.9	9	9	79	79	83	818768	805568	<0.2	<0.2	1.8	1.8			
						1.0	0.3	51	28.1	28.1	8.1	8.1	21.5	21.5	80.6	80.6	5.6	5.6	8.9	8.9	9	9	79	79	83	818768	805568	<0.2	<0.2	2.1	2.1		
					Middle	3.7	0.3	66	27.9	27.9	8.1	8.1	22.9	22.9	79.4	79.4	5.5	5.5	11.2	11.2	9	9	82	82	83	818768	805568	<0.2	<0.2	2.2	2.2		
						3.7	0.4	67	27.9	27.9	8.1	8.1	22.9	22.9	79.4	79.4	5.5	5.5	11.2	11.2	9	9	83	83	83	818768	805568	<0.2	<0.2	1.9	1.9		
					Bottom	6.3	0.2	70	27.9	27.9	8.1	8.1	23.3	23.3	82.6	82.6	5.7	5.7	10.5	10.5	11	11	87	87	86	86	83	818768	805568	<0.2	<0.2	1.7	1.7
						6.3	0.3	70	27.9	27.9	8.1	8.1	23.3	23.3	82.6	82.6	5.7	5.7	10.5	10.5	11	11	86	86	86	86	83	818768	805568	<0.2	<0.2	1.6	1.6
IM4	Fine	Moderate	14:06	7.2	Surface	1.0	0.2	30	28.2	8.1	8.1	21.1	21.1	86.0	86.0	6.0	6.0	9.2	9.2	6	6	82	82	84	819698	804618	<0.2	<0.2	2.2	2.2			
						1.0	0.2	32	28.2	28.2	8.1	8.1	21.1	21.1	86.0	86.0	6.0	6.0	9.2	9.2	6	6	81	81	84	819698	804618	<0.2	<0.2	2.0	2.0		
					Middle	3.6	0.2	16	27.9	27.9	8.1	8.1	21.7	21.7	85.5	85.5	5.9	5.9	16.0	16.0	7	7	85	85	85	819698	804618	<0.2	<0.2	2.0	2.0		
						3.6	0.2	16	27.9	27.9	8.1	8.1	21.7	21.7	85.5	85.5	5.9	5.9	16.0	16.0	7	7	85	85	85	819698	804618	<0.2	<0.2	2.0	2.0		
					Bottom	6.2	0.3	33	28.1	28.1	8.1	8.1	23.5	23.5	87.1	87.1	6.0	6.0	11.2	11.2	8	8	87	87	86	86	84	819698	804618	<0.2	<0.2	2.1	2.1
						6.2	0.3	36	28.1	28.1	8.1	8.1	23.5	23.5	87.1	87.1	6.0	6.0	11.2	11.2	7	7	86	86	86	86	84	819698	804618	<0.2	<0.2	2.3	2.3
IM5	Fine	Moderate	13:58	7.6	Surface	1.0	0.4	35	28.4	8.0	8.0	20.4	20.4	85.8	85.8	6.0	6.0	5.9	5.9	6	6	82	82	85	820730	804884	<0.2	<0.2	2.2	2.2			
						1.0	0.5	35	28.4	28.4	8.0	8.0	20.4	20.4	85.8	85.8	6.0	6.0															

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

Water Quality Monitoring Results on 29 September 18 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA					
IM9	Fine	Moderate	14:26	7.4	Surface	1.0	0.7	98	28.3	28.3	8.1	8.1	21.0	21.0	88.3	88.3	6.1	6.1	7.9	7.9	9	9	82	82	86	822105	808835	<0.2	<0.2	1.6	1.6				
						1.0	0.7	105	28.3	8.1	8.1	21.0	21.0	88.3	88.3	6.1	6.1	7.9	7.9	9	9	81	81	<0.2				<0.2	1.8	1.8					
					Middle	3.7	0.5	95	27.9	27.9	8.1	8.1	21.5	21.5	89.4	89.4	6.2	6.2	16.8	16.8	9	9	86	86				<0.2	<0.2	1.3	1.3				
						3.7	0.6	100	27.9	27.9	8.1	8.1	21.5	21.5	89.4	89.4	6.2	6.2	16.8	16.8	9	9	86	86				<0.2	<0.2	1.6	1.6				
					Bottom	6.4	0.4	85	27.9	27.9	8.1	8.1	23.8	23.8	93.3	93.3	6.4	6.4	13.1	13.1	10	10	89	89				<0.2	<0.2	2.0	2.0				
						6.4	0.4	89	27.9	27.9	8.1	8.1	23.8	23.8	93.3	93.3	6.4	6.4	13.1	13.1	11	11	89	89				<0.2	<0.2	1.7	1.7				
IM10	Fine	Moderate	14:37	6.9	Surface	1.0	0.7	94	28.1	28.1	8.1	8.1	21.6	21.6	84.1	84.1	5.8	5.8	7.5	7.5	10	10	81	81	86	822380	809782	<0.2	<0.2	1.8	1.8				
						1.0	0.7	99	28.1	28.1	8.1	8.1	21.6	21.6	84.1	84.1	5.8	5.8	7.5	7.5	9	9	81	81				<0.2	<0.2	1.5	1.5				
					Middle	3.5	0.5	91	27.9	27.9	8.1	8.1	23.2	23.2	86.9	86.9	6.0	6.0	9.9	9.9	10	10	87	87				<0.2	<0.2	1.5	1.5				
						3.5	0.5	94	27.9	27.9	8.1	8.1	23.2	23.2	86.9	86.9	6.0	6.0	9.9	9.9	10	10	87	87				<0.2	<0.2	1.7	1.7				
					Bottom	5.9	0.4	96	27.9	27.9	8.1	8.1	23.3	23.3	95.2	95.2	6.6	6.6	6.8	6.8	10	10	89	89				<0.2	<0.2	1.5	1.5				
						5.9	0.4	96	27.9	27.9	8.1	8.1	23.3	23.3	95.2	95.2	6.6	6.6	6.8	6.8	10	10	90	90				<0.2	<0.2	1.8	1.8				
IM11	Fine	Moderate	14:50	7.6	Surface	1.0	0.7	99	28.3	28.3	8.1	8.1	21.1	21.1	86.6	86.6	6.0	6.0	8.2	8.2	7	7	82	82	86	822065	811445	<0.2	<0.2	1.7	1.7				
						1.0	0.7	106	28.3	28.3	8.1	8.1	21.1	21.1	86.5	86.5	6.0	6.0	8.4	8.4	8	8	82	82				<0.2	<0.2	1.5	1.5				
					Middle	3.8	0.6	85	27.9	27.9	8.1	8.1	22.2	22.2	87.9	87.9	6.1	6.1	12.8	12.8	8	8	87	87				<0.2	<0.2	1.7	1.7				
						3.8	0.7	85	27.9	27.9	8.1	8.1	22.2	22.2	87.9	87.9	6.1	6.1	12.8	12.8	7	7	87	87				<0.2	<0.2	1.6	1.6				
					Bottom	6.6	0.4	89	27.8	27.8	8.1	8.1	24.1	24.1	92.0	92.0	6.3	6.3	15.7	15.7	9	9	89	89				<0.2	<0.2	1.7	1.7				
						6.6	0.4	93	27.8	27.8	8.1	8.1	24.1	24.1	92.0	92.0	6.3	6.3	15.7	15.7	9	9	89	89				<0.2	<0.2	1.8	1.8				
IM12	Fine	Moderate	15:02	8.6	Surface	1.0	0.6	95	28.0	28.0	8.1	8.1	22.2	22.2	83.6	83.6	5.8	5.8	14.6	14.6	5	5	83	83	87	821448	812036	<0.2	<0.2	1.9	1.9				
						1.0	0.6	104	28.0	28.0	8.1	8.1	22.2	22.2	83.6	83.6	5.8	5.8	14.6	14.6	5	5	83	83				<0.2	<0.2	1.8	1.8				
					Middle	4.3	0.5	81	27.9	27.9	8.3	8.3	23.7	23.7	83.8	83.8	5.8	5.8	16.6	16.6	6	6	87	87				<0.2	<0.2	1.9	1.9				
						4.3	0.5	82	27.9	27.9	8.3	8.3	23.7	23.7	83.8	83.8	5.8	5.8	16.6	16.6	6	6	88	88				<0.2	<0.2	1.7	1.7				
					Bottom	7.6	0.2	68	27.9	27.9	8.2	8.2	24.1	24.1	85.4	85.4	5.9	5.9	18.4	18.4	6	6	90	90				<0.2	<0.2	1.6	1.6				
						7.6	0.2	73	27.9	27.9	8.2	8.2	24.1	24.1	85.6	85.6	5.9	5.9	18.4	18.4	6	6	89	89				<0.2	<0.2	1.8	1.8				
SR2	Fine	Moderate	15:29	4.6	Surface	1.0	0.5	107	28.1	28.1	8.1	8.1	22.4	22.4	87.2	87.2	6.0	6.0	6.3	6.3	10	10	85	85	88	821439	814180	<0.2	<0.2	2.2	2.2				
						1.0	0.5	114	28.1	28.1	8.1	8.1	22.4	22.4	87.2	87.2	6.0	6.0	6.3	6.3	11	11	85	85				<0.2	<0.2	1.9	1.9				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
					Bottom	3.6	0.1	149	28.1	28.1	8.1	8.1	22.8	22.8	93.3	93.3	6.4	6.4	6.8	6.8	12	12	90	90				<0.2	<0.2	1.7	1.7				
						3.6	0.1	157	28.1	28.1	8.1	8.1	22.8	22.8	93.3	93.3	6.4	6.4	6.8	6.8	14	14	91	91				<0.2	<0.2	1.7	1.7				
SR3	Fine	Moderate	14:11	8.8	Surface	1.0	0.3	127	28.0	28.0	8.1	8.1	22.0	22.0	82.0	82.0	5.7	5.7	10.0	10.0	7	7	-	-	-	822166	807578	-	-	-	-				
						1.0	0.4	130	28.0	28.0	8.1	8.1	22.0	22.0	82.0	82.0	5.7	5.7	10.0	10.0	6	6	-	-				-	-						
					Middle	4.4	0.3	114	27.9	27.9	8.1	8.1	22.6	22.6	83.9	83.9	5.8	5.8	13.0	13.0	7	7	-	-				-	-						
						4.4	0.3	117	27.9	27.9	8.1	8.1	22.6	22.6	83.9	83.9	5.8	5.8	13.0	13.0	7	7	-	-				-	-						
					Bottom	7.8	0.4	88	27.8	27.8	8.1	8.1	24.6	24.6	88.4	88.4	6.1	6.1	17.2	17.2	7	7	-	-				-	-						
						7.8	0.4	96	27.8	27.8	8.1	8.1	24.6	24.6	88.4	88.4	6.1	6.1	17.2	17.2	7	7	-	-				-	-						
SR4A	Fine	Moderate	15:12	9.2	Surface	1.0	0.4	70	28.2	28.2	8.1	8.1	22.4	22.4	84.4	84.4	5.8	5.8	6.2	6.2	11	11	-	-	-	817170	807792	-	-	-	-				
						1.0	0.4	71	28.2	28.2	8.1	8.1	22.4	22.4	84.4	84.4	5.8	5.8	6.2	6.2	12	12	-	-											
					Middle	4.6	0.4	83	28.1	28.1	8.1	8.1	22.6	22.6	84.7	84.7	5.8	5.8	7.2	7.2	13	13	-	-											
						4.6	0.4	89	28.1	28.1	8.1	8.1	22.6	22.6	84.7	84.7	5.8	5.8	7.2	7.2	12	12	-	-											
					Bottom	8.2	0.4	72	28.1	28.1	8.1	8.1	22.6	22.6	85.9	85.9	5.9	5.9	6.5	6.5	13	13	-	-											
						8.2	0.4	73	28.1	28.1	8.1	8.1	22.6	22.6	85.9	85.9	5.9	5.9	6.5	6.5	12	12	-	-											
SR5A	Fine	Moderate	15:40	4.6	Surface	1.0	0.0	88	28.2	28.2	8.1	8.1	24.6	24.6	79.6	79.6	5.4	5.4	3.9	3.9	8	8	-	-	-	816574	810678	-	-	-	-				
						1.0	0.0	93	28.2	28.2	8.1	8.1	24.6	24.6	79.6	79.6	5.4	5.4	3.9	3.9	7	7	-	-											
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-		
					Bottom	3.6	0.1	102	28.0	28.0	8.1	8.1	26.5	26.5	80.0	80.0	5.4	5.4	4.0	4.0	9	9	-	-											
						3.6	0.1	102	28.0	28.0	8.1	8.1	26.5	26.5	80.0	80.0	5.4	5.4	4.0	4.0	8	8	-	-											
SR6	Fine	Moderate	16:12	4.4	Surface	1.0	0.1	330	28.2	28.2	8.1	8.1	23.9	23.9	77.5	77.5	5.3	5.3	3.4	3.4	5	5	-	-	-	817918	814668	-	-	-	-				
						1.0	0.1	345	28.2	28.2	8.1	8.1	23.9	23.9	77.5	77.5	5.3	5.3	3.4	3.4	6	6	-	-											
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-			
					Bottom	3.4	0.1	336	27.9	27.9	8.1	8.1	25.5	25.5	75.6	75.6	5.1																		

Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

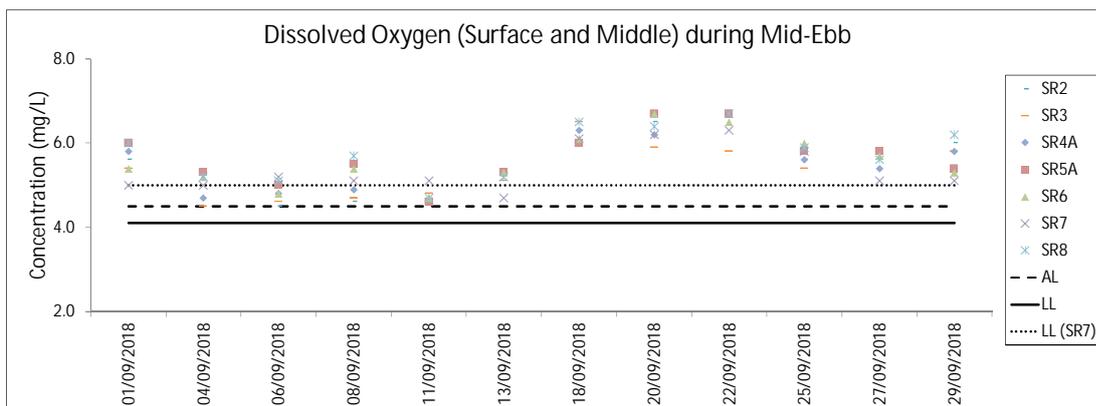
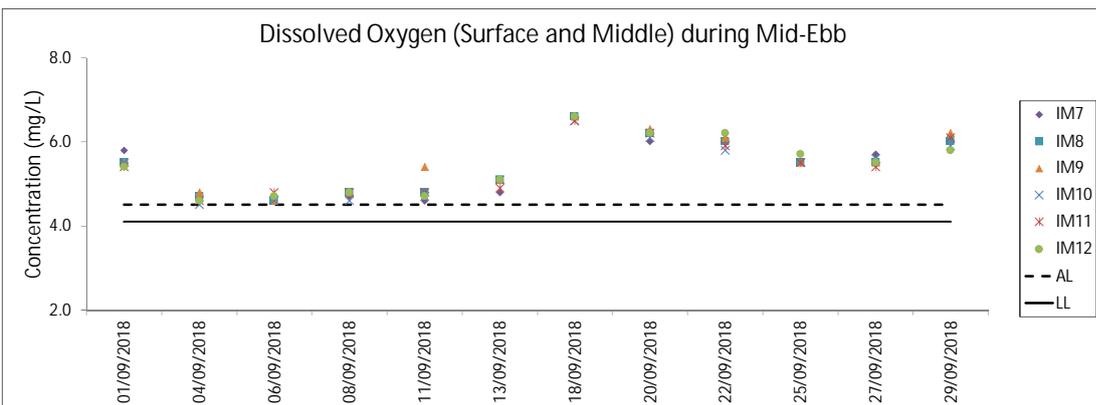
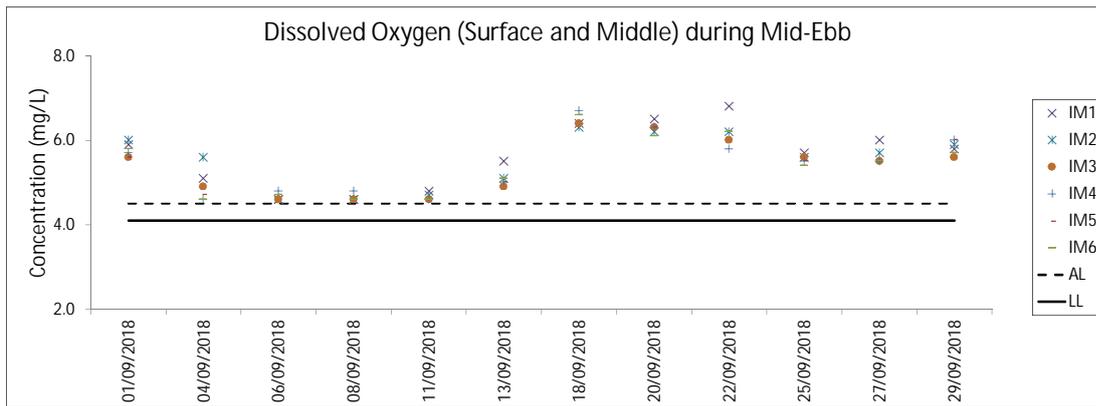
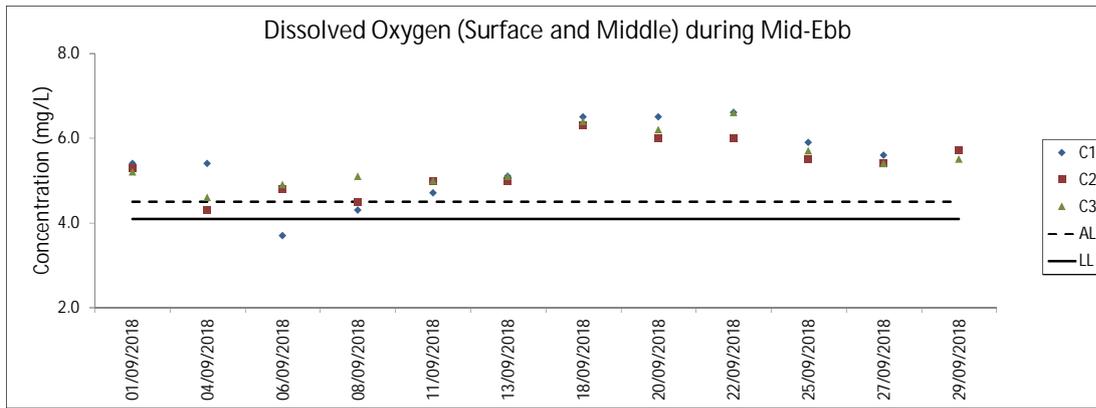
Water Quality Monitoring Results on 29 September 18 during Mid-Flood Tide

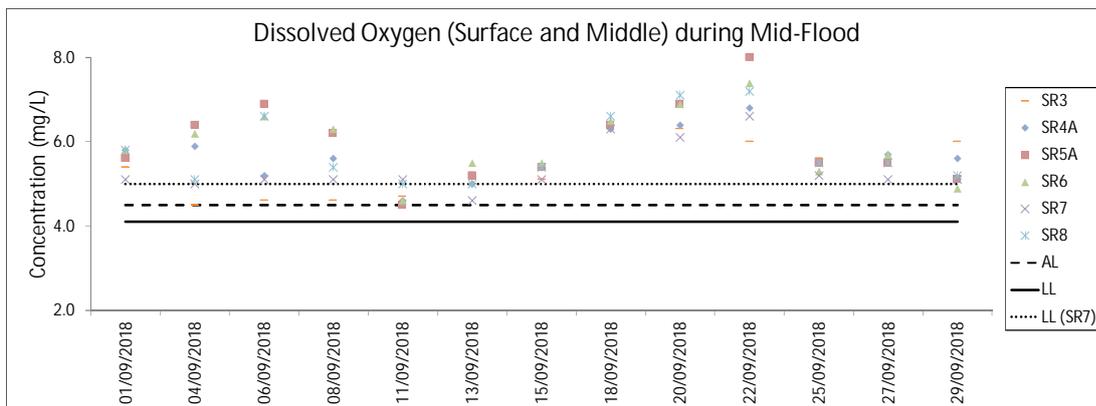
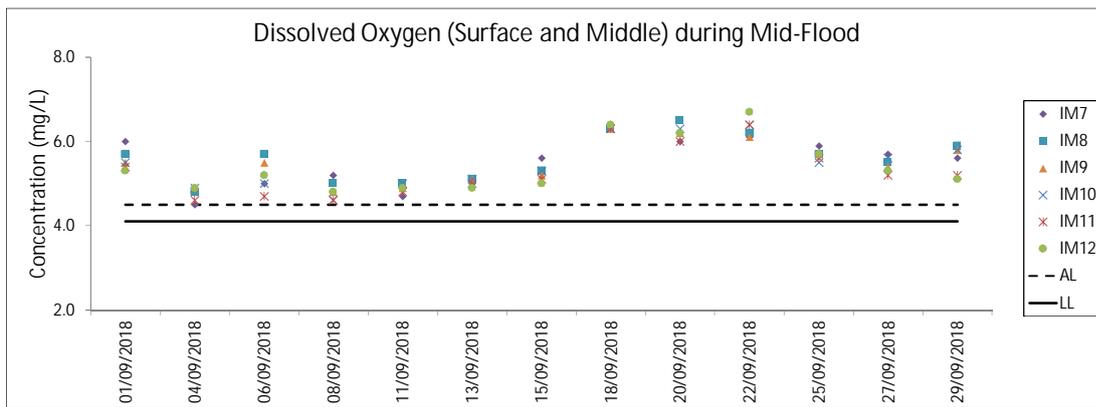
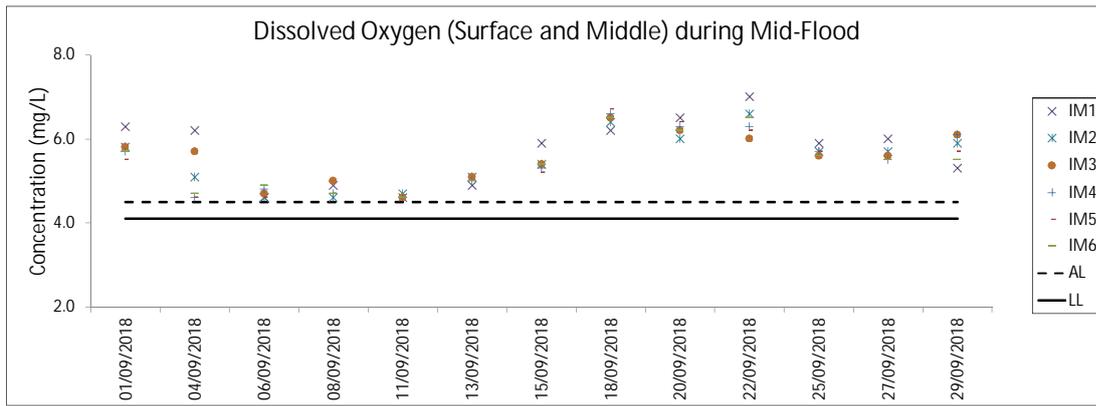
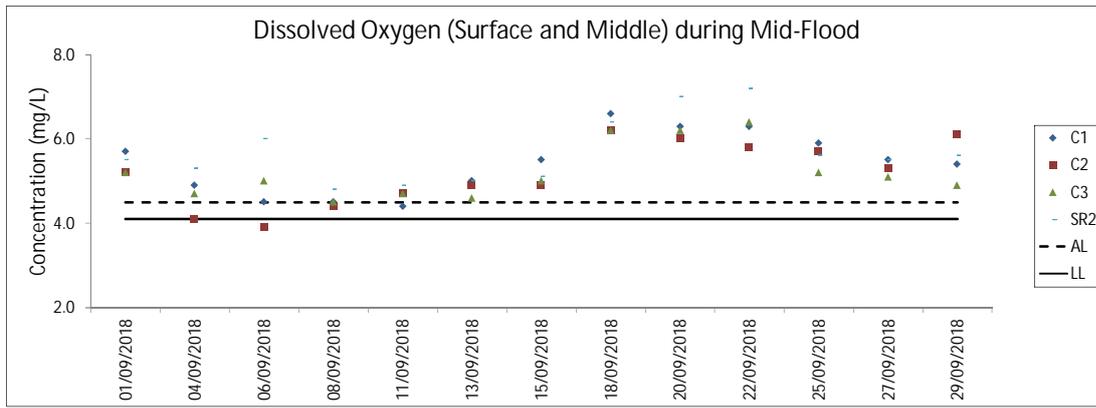
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA			
C1	Fine	Moderate	10:17	9.2	Surface	1.0	0.6	44	<u>27.8</u>			7.9		23.1		76.1	76.1	5.3		12.3		7		80		815647	804240	<0.2		1.8			
						1.0	0.7	44	<u>27.8</u>	27.8	7.9	7.9	23.1	23.1	76.1	76.1	5.3	5.4	12.3	12.3	7	7	81	81									
					Middle	4.6	0.5	50	<u>27.8</u>	27.8	7.7	7.7	23.2	23.2	80.0	80.0	5.5	5.4	16.2	16.2	9	9	83	83									
						4.6	0.6	53	<u>27.8</u>	27.8	7.7	7.7	23.2	23.2	80.0	80.0	5.5	5.4	16.2	16.2	10	10	85	85									
					Bottom	8.2	0.4	42	<u>27.8</u>	27.8	7.5	7.5	23.2	23.2	85.4	85.4	5.9	5.9	19.2	19.2	10	10	88	88									
						8.2	0.4	45	<u>27.8</u>	27.8	7.5	7.5	23.2	23.2	85.4	85.4	5.9	5.9	19.2	19.2	10	10	89	89									
C2	Fine	Moderate	11:20	12.2	Surface	1.0	0.3	60	<u>28.2</u>	28.2	8.1	8.1	20.1	20.1	88.8	88.8	6.2		11.6		8		79		825681	806940	<0.2		1.9				
						1.0	0.4	61	<u>28.2</u>	28.2	8.1	8.1	20.1	20.1	88.8	88.8	6.2	6.1	11.6	11.6	9	9	77	77									
					Middle	6.1	0.3	42	<u>27.9</u>	27.9	8.1	8.1	21.4	21.4	86.0	86.0	6.0	6.0	14.4	14.4	11	11	82	82									
						6.1	0.4	44	<u>27.9</u>	27.9	8.1	8.1	21.4	21.4	86.0	86.0	6.0	6.0	14.4	14.4	10	10	83	83									
					Bottom	11.2	0.4	321	<u>27.6</u>	27.6	8.1	8.1	21.8	21.8	84.4	84.4	5.9	5.9	16.2	16.2	11	11	85	85									
						11.2	0.4	323	<u>27.6</u>	27.6	8.1	8.1	21.8	21.8	84.4	84.4	5.9	5.9	16.2	16.2	11	11	86	86									
C3	Fine	Moderate	09:37	12.2	Surface	1.0	0.4	203	<u>27.5</u>	27.5	8.1	8.1	25.8	25.8	72.0	72.0	4.9		7.5		11		81		822089	817782	<0.2		1.7				
						1.0	0.4	210	<u>27.5</u>	27.5	8.1	8.1	25.8	25.8	72.0	72.0	4.9	4.9	7.5	7.5	10	10	82	82									
					Middle	6.1	0.4	242	<u>27.3</u>	27.3	8.1	8.1	27.9	27.9	70.7	70.7	4.8	4.9	14.8	14.8	11	11	87	87									
						6.1	0.5	243	<u>27.3</u>	27.3	8.1	8.1	27.9	27.9	70.7	70.7	4.8	4.8	14.8	14.8	11	11	86	86									
					Bottom	11.2	0.3	258	<u>27.3</u>	27.3	8.1	8.1	28.1	28.1	73.1	73.1	5.0	5.0	19.4	19.4	12	12	89	89									
						11.2	0.3	277	<u>27.3</u>	27.3	8.1	8.1	28.1	28.1	73.1	73.1	5.0	5.0	19.4	19.4	12	12	88	88									
IM1	Fine	Moderate	10:28	5.2	Surface	1.0	0.1	336	<u>27.8</u>	27.8	8.0	8.0	23.4	23.4	77.0	77.0	5.3		13.5		12		82		817974	807135	<0.2		1.9				
						1.0	0.1	337	<u>27.8</u>	27.8	8.0	8.0	23.4	23.4	77.0	77.0	5.3	5.3	13.5	13.5	13	13	83	83									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.2	0.2	329	<u>27.8</u>	27.8	7.9	7.9	23.7	23.7	78.5	78.5	5.4	5.4	16.5	16.5	18	18	84	84									
						4.2	0.2	344	<u>27.8</u>	27.8	7.9	7.9	23.7	23.7	78.5	78.5	5.4	5.4	16.5	16.5	18	18	85	85									
IM2	Fine	Moderate	10:37	7.6	Surface	1.0	0.3	340	<u>28.0</u>	28.0	8.0	8.0	20.9	20.9	84.0	84.0	5.9		8.2		11		81		818159	806177	<0.2		1.9				
						1.0	0.4	313	<u>28.0</u>	28.0	8.0	8.0	20.9	20.9	84.0	84.0	5.9	5.9	8.2	8.2	10	10	82	82									
					Middle	3.8	0.4	11	<u>27.9</u>	27.9	7.9	7.9	21.1	21.1	84.5	84.5	5.9	5.9	10.9	10.9	12	12	85	85									
						3.8	0.4	11	<u>27.9</u>	27.9	7.9	7.9	21.1	21.1	84.5	84.5	5.9	5.9	10.9	10.9	13	13	87	87									
					Bottom	6.6	0.4	32	<u>27.9</u>	27.9	7.7	7.7	22.2	22.2	88.6	88.6	6.1	6.1	11.1	11.1	14	14	90	90									
						6.6	0.4	33	<u>27.9</u>	27.9	7.7	7.7	22.2	22.2	88.6	88.6	6.1	6.1	11.1	11.1	14	14	89	89									
IM3	Fine	Moderate	10:44	7.1	Surface	1.0	0.5	22	<u>27.9</u>	27.9	7.9	7.9	21.5	21.5	85.0	85.0	5.9		8.0		8		82		818780	805607	<0.2		1.8				
						1.0	0.5	23	<u>27.9</u>	27.9	7.9	7.9	21.5	21.5	85.0	85.0	5.9	6.1	8.0	8.0	8	8	84	84									
					Middle	3.6	0.6	43	<u>27.8</u>	27.8	7.8	7.8	21.7	21.7	88.8	88.8	6.2	6.1	9.3	9.3	9	9	85	85									
						3.6	0.6	44	<u>27.8</u>	27.8	7.8	7.8	21.7	21.7	88.8	88.8	6.2	6.1	9.3	9.3	10	10	87	87									
					Bottom	6.1	0.4	37	<u>27.8</u>	27.8	7.5	7.5	22.3	22.3	95.4	95.4	6.6	6.6	7.3	7.3	11	11	88	88									
						6.1	0.4	37	<u>27.8</u>	27.8	7.5	7.5	22.3	22.3	95.4	95.4	6.6	6.6	7.3	7.3	12	12	87	87									
IM4	Fine	Moderate	10:56	7.8	Surface	1.0	0.5	25	<u>28.1</u>	28.1	8.0	8.0	20.9	20.9	85.9	85.9	6.0		8.0		9		81		819723	804630	<0.2		1.8				
						1.0	0.5	26	<u>28.1</u>	28.1	8.0	8.0	20.9	20.9	85.9	85.9	6.0	6.1	8.0	8.0	8	8	81	81									
					Middle	3.9	0.4	19	<u>27.8</u>	27.8	7.9	7.9	22.3	22.3	87.2	87.2	6.1	6.1	11.1	11.1	10	10	86	86									
						3.9	0.4	19	<u>27.8</u>	27.8	7.9	7.9	22.3	22.3	87.2	87.2	6.1	6.1	11.1	11.1	8	8	84	84									
					Bottom	6.8	0.2	344	<u>27.8</u>	27.8	7.8	7.8	23.7	23.7	90.4	90.4	6.2	6.2	10.1	10.1	12	12	86	86									
						6.8	0.3	316	<u>27.8</u>	27.8	7.8	7.8	23.7	23.7	90.4	90.4	6.2	6.2	10.1	10.1	11	11	88	88									
IM5	Fine	Moderate	11:07	7.6	Surface	1.0	0.6	341	<u>27.8</u>	27.8	7.9	7.9	20.2	20.2	82.2	82.2	5.8		14.4		7		80		820756	804874	<0.2		1.7				
						1.0	0.6	355	<u>27.8</u>	27.8	7.9	7.9	20.2	20.2	82.2	82.2	5.8	5.7	14.4	14.4	8	8	82	82									
					Middle	3.8	0.4	10	<u>27.7</u>	27.7	7.9	7.9	22.4	22.4	78.9	78.9	5.5	5.5	13.6	13.6	9	9	87	87									
						3.8	0.5	10	<u>27.7</u>	27.7	7.9	7.9	22.4	22.4	78.9	78.9	5.5	5.5	13.6	13.6	9	9	86	86									
					Bottom	6.6	0.4	27	<u>27.7</u>	27.7	7.9	7.9	23.3	23.3	76.6	76.6	5.3	5.3	14.9	14.9	12	12	86	86									
						6.6	0.4	29	<u>27.7</u>	27.7	7.9	7.9	23.3	23.3	76.6	76.6	5.3	5.3	14.9	14.9	12	12	87	87									
IM6	Fine	Moderate	11:14	8.2	Surface	1.0	0.3	23	<u>28.2</u>	28.2	7.9	7.9	20.4	20.4	83.0	83.0	5.8		14.3		10		79		821063	805850	<0.2		1.8				
						1.0	0.3	25	<u>28.2</u>	28.2	7.9	7.9	20.4	20.4	83.0	83.0	5.8	5.5	14.3	14.3	9	9	79	79									
					Middle	4.1	0.3	29	<u>27.9</u>	27.9	7.9	7.9	22.6	22.6	73.7	73.7	5.1	5.1	12.2	12.2	10	10	81	81									
						4.1	0.3	29	<u>27.9</u>	27.9	7.9	7.9	22.6	22.6	73.7	73.7	5.1	5.1	12.2	12.2	11	11	83	83									
					Bottom	7.2	0.3	320	<u>27.7</u>	27.7	7.9	7.9	24.1	24.1	70.1	70.1	4.8	4.8	15.1	15.1	12	12	85	85									
						7.2	0.3	341	<u>27.7</u>	27.7	7.9	7.9	24.1	24.1	70.1	70.1	4.8	4.8	15.1	15.1	13	13	86	86									
IM7	Fine	Moderate	11:22	7.9	Surface	1.0	0.2	67	<u>28.0</u>	28.0	8.0	8.0	20.1	20.1	80.6	80.6	5.6		8.1		7		79		821347	806842	<0.2		1.6				
						1.0	0.2	73	<u>28.0</u>	28.0	8.0	8.0	20.1	20.1	80.6	80.6	5.6	5.6	8.1	8.1	7	7	78	78									
					Middle	4.0	0.1	41	<u>27.9</u>	27.9	7.9	7.9	22.3	22.3																			

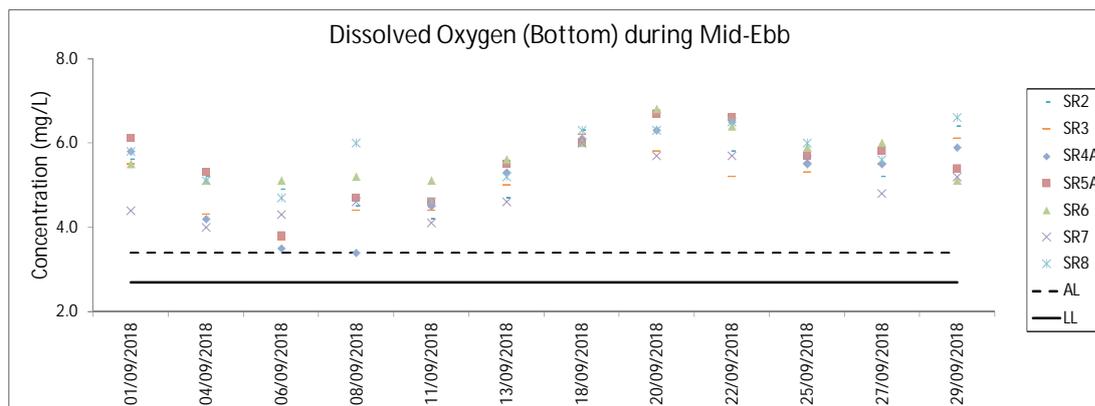
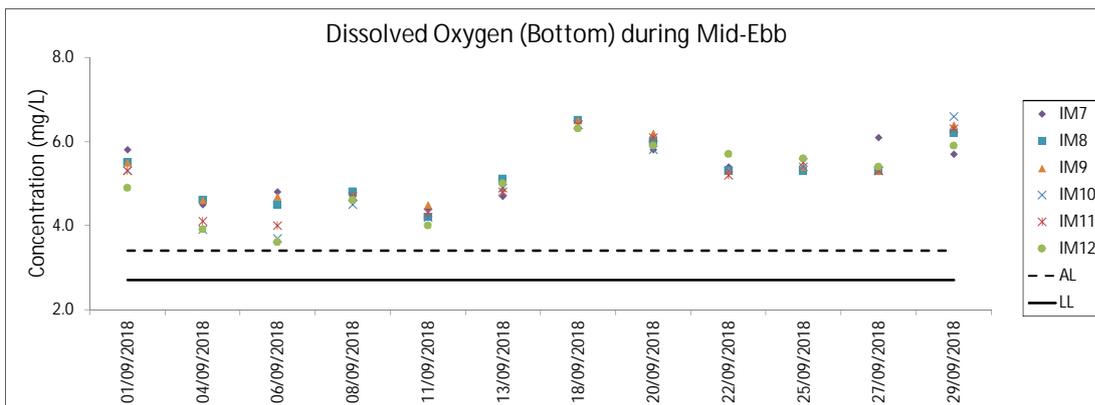
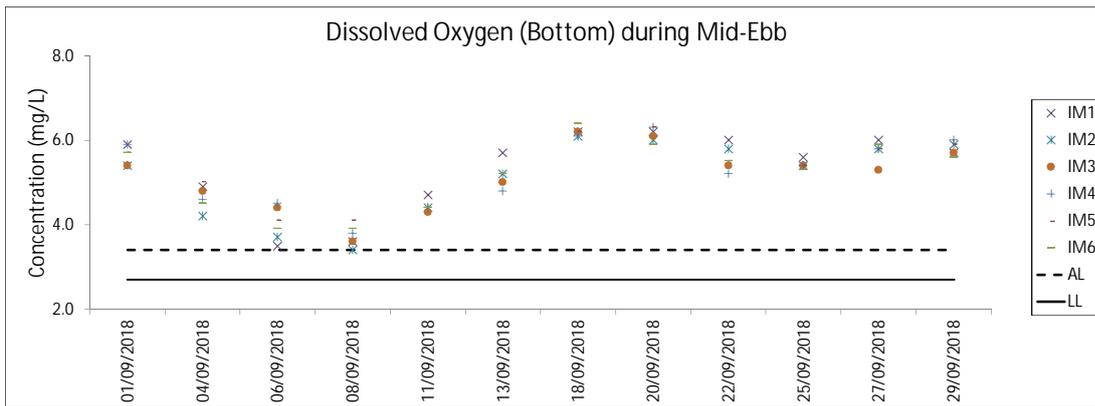
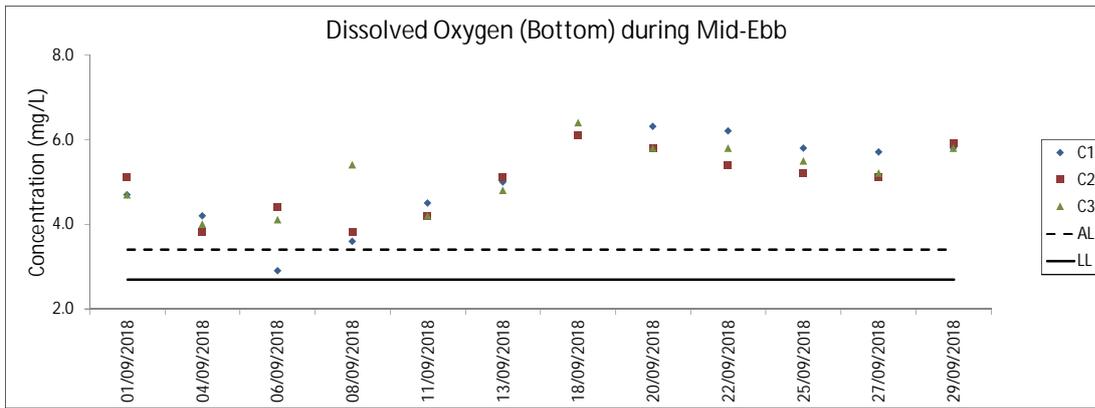
Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

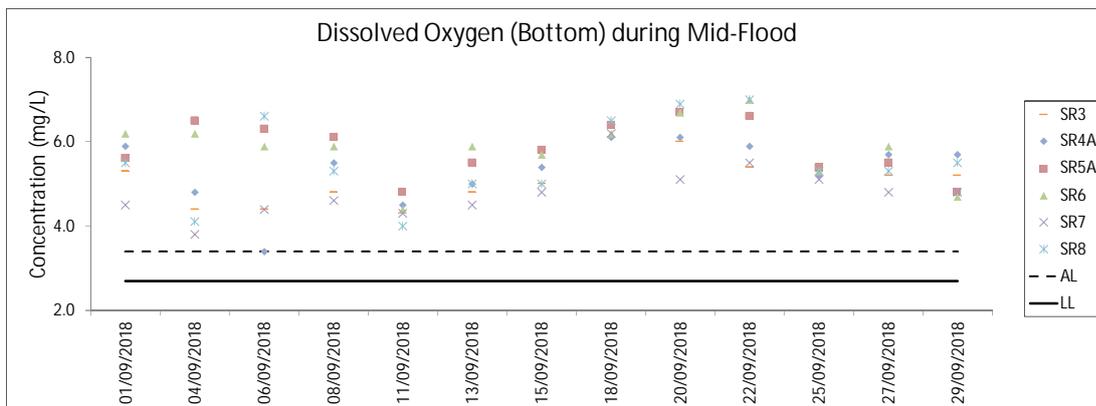
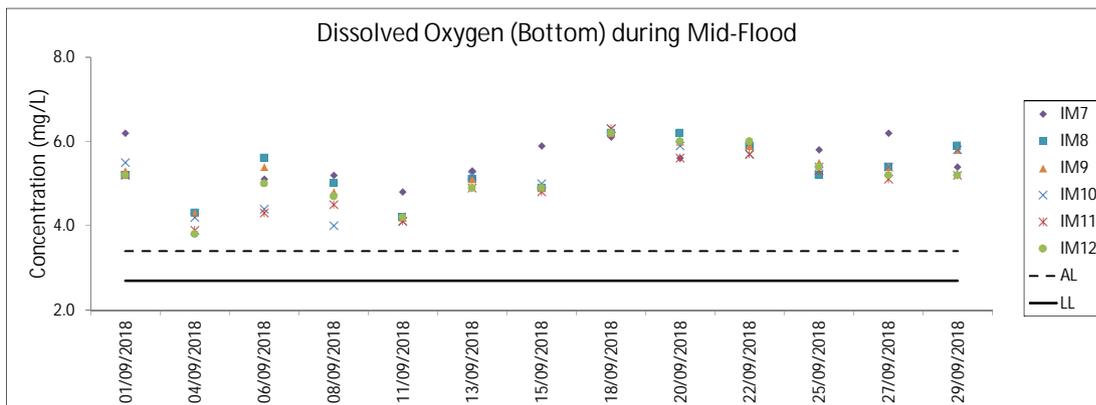
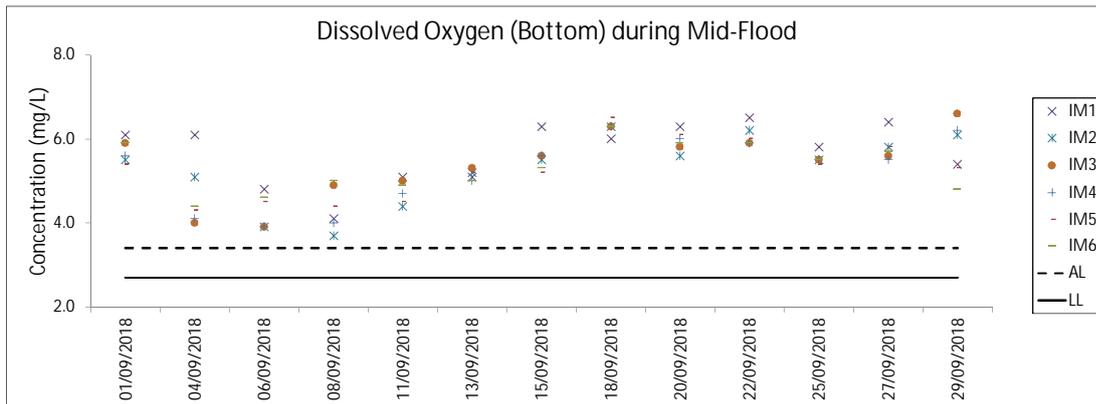
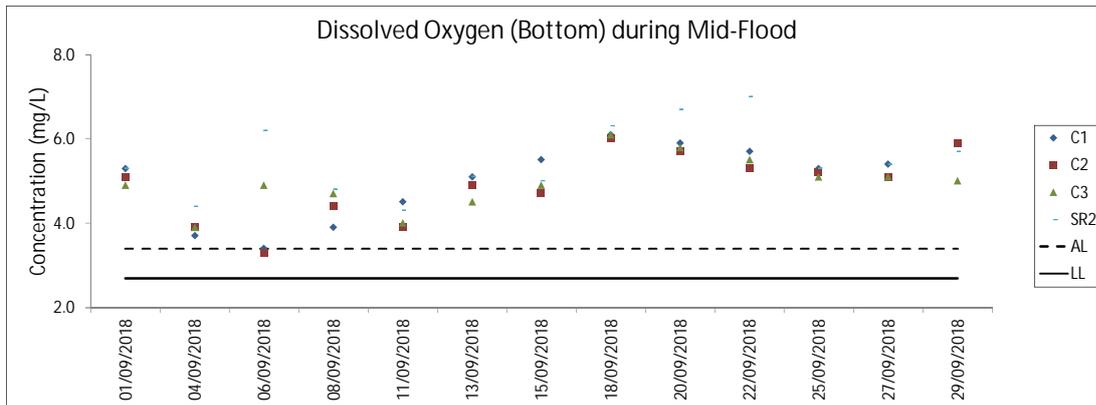
Water Quality Monitoring Results on 29 September 18 during Mid-Flood Tide

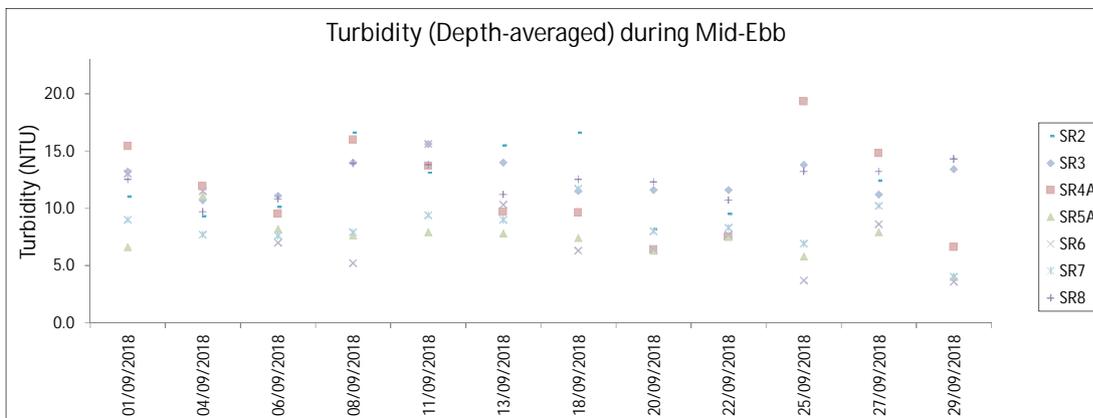
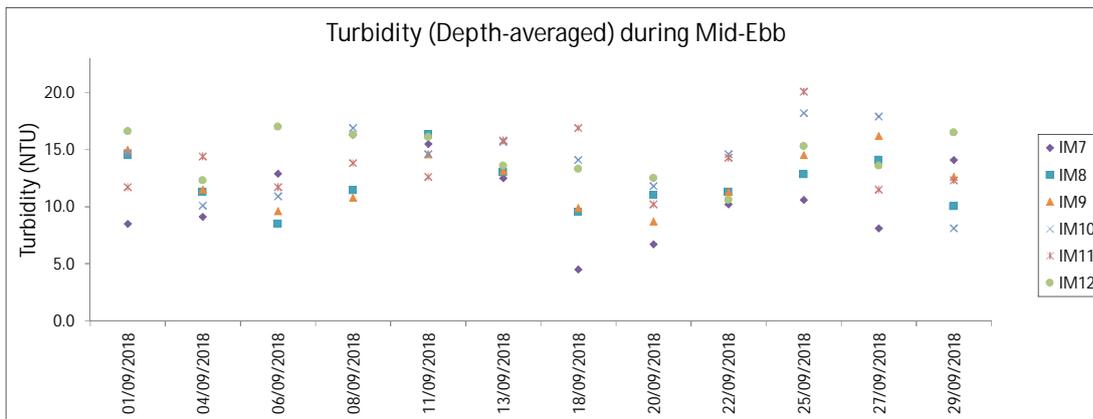
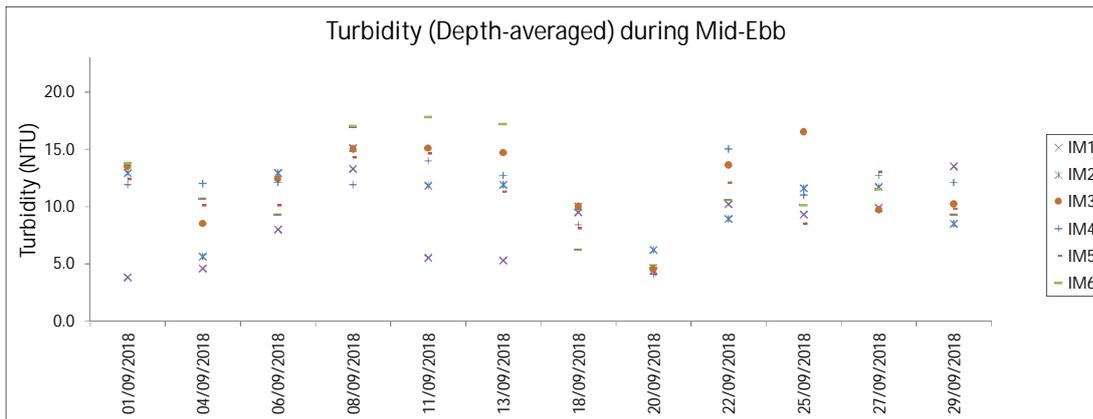
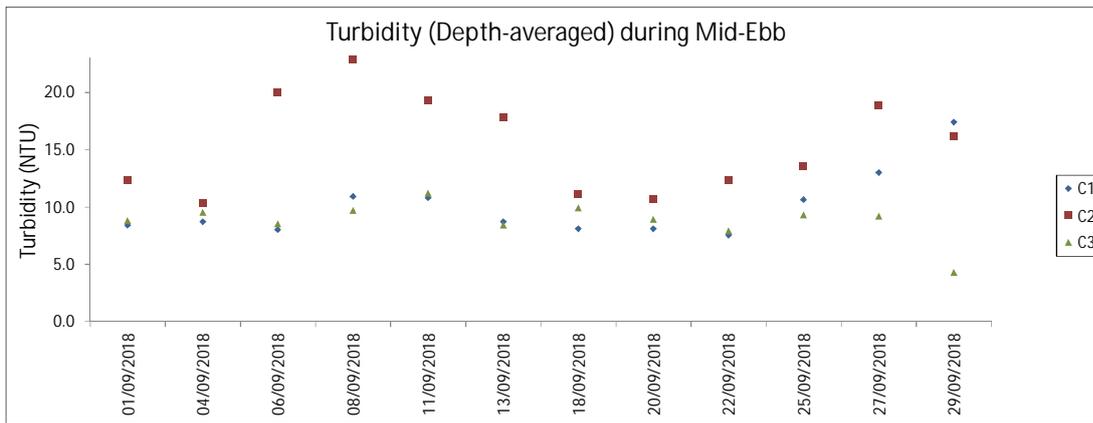
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA								
IM9	Fine	Moderate	10:52	7.4	Surface	1.0	0.2	57	27.9	27.9	8.0	8.0	21.5	21.5	82.9	82.9	5.8	5.8	8.5	8.5	8	8	79	79	83	822100	808787	<0.2	<0.2	1.6	1.6					
						1.0	0.2	58	27.9	27.9	8.0	8.0	21.5	21.5	82.9	82.9	5.8	5.8	8.5	8.5	8	8	77	77	83	83	81	81	88	88	<0.2	<0.2	1.7	1.7		
					Middle	3.7	0.1	72	27.8	27.8	8.0	8.0	21.8	21.8	82.8	82.8	5.8	5.8	9.5	9.5	10	10	10	10	81	81	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
						3.7	0.1	72	27.8	27.8	8.0	8.0	21.8	21.8	82.8	82.8	5.8	5.8	9.5	9.5	10	10	10	10	81	81	88	88	81	81	88	88	<0.2	<0.2	1.4	1.4
					Bottom	6.4	0.2	51	27.8	27.8	8.0	8.0	21.8	21.8	83.6	83.6	5.8	5.8	8.7	8.7	10	10	10	10	88	88	88	88	81	81	88	88	<0.2	<0.2	1.7	1.7
						6.4	0.2	55	27.8	27.8	8.0	8.0	21.8	21.8	83.6	83.6	5.8	5.8	8.7	8.7	10	10	10	10	88	88	88	88	81	81	88	88	<0.2	<0.2	1.4	1.4
IM10	Fine	Moderate	10:44	8.1	Surface	1.0	0.2	78	28.0	28.0	8.1	8.1	20.9	20.9	82.9	82.9	5.8	5.8	7.2	7.2	13	13	81	81	85	822365	809778	<0.2	<0.2	1.6	1.6					
						1.0	0.2	79	28.0	28.0	8.1	8.1	20.9	20.9	82.9	82.9	5.8	5.8	7.2	7.2	12	12	83	83	87	87	83	83	89	89	<0.2	<0.2	1.5	1.5		
					Middle	4.1	0.1	358	27.9	27.9	8.1	8.1	21.3	21.3	81.2	81.2	5.7	5.7	11.4	11.4	13	13	83	83	87	87	83	83	89	89	<0.2	<0.2	1.6	1.6		
						4.1	0.1	329	27.9	27.9	8.1	8.1	21.3	21.3	81.2	81.2	5.7	5.7	11.4	11.4	13	13	83	83	87	87	83	83	89	89	<0.2	<0.2	1.6	1.6		
					Bottom	7.1	0.2	307	27.9	27.9	8.0	8.0	22.6	22.6	83.3	83.3	5.8	5.8	8.5	8.5	14	14	89	89	88	88	88	88	81	81	88	88	<0.2	<0.2	1.7	1.7
						7.1	0.2	315	27.9	27.9	8.0	8.0	22.5	22.5	83.4	83.4	5.8	5.8	8.1	8.1	15	15	88	88	88	88	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
IM11	Fine	Moderate	10:33	7.2	Surface	1.0	0.3	293	27.9	27.9	8.0	8.0	23.3	23.3	75.7	75.7	5.2	5.2	13.1	13.1	8	8	81	81	85	822072	811447	<0.2	<0.2	1.6	1.6					
						1.0	0.3	300	27.9	27.9	8.0	8.0	23.3	23.3	75.7	75.7	5.2	5.2	13.1	13.1	7	7	82	82	86	86	87	87	88	88	<0.2	<0.2	1.8	1.8		
					Middle	3.6	0.1	315	27.8	27.8	8.0	8.0	23.7	23.7	75.4	75.4	5.2	5.2	15.0	15.0	6	6	86	86	87	87	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
						3.6	0.1	327	27.8	27.8	8.0	8.0	23.7	23.7	75.4	75.4	5.2	5.2	15.0	15.0	8	8	87	87	88	88	81	81	88	88	<0.2	<0.2	2.0	2.0		
					Bottom	6.2	0.0	254	27.8	27.8	8.0	8.0	23.7	23.7	76.1	76.1	5.2	5.2	14.0	14.0	10	10	88	88	88	88	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
						6.2	0.0	254	27.8	27.8	8.0	8.0	23.7	23.7	76.1	76.1	5.2	5.2	14.0	14.0	11	11	88	88	88	88	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
IM12	Fine	Moderate	10:26	9.8	Surface	1.0	0.4	294	27.9	27.9	8.0	8.0	23.0	23.0	74.7	74.7	5.2	5.2	8.4	8.4	8	8	81	81	84	821476	812052	<0.2	<0.2	1.5	1.5					
						1.0	0.4	321	27.9	27.9	8.0	8.0	23.0	23.0	74.7	74.7	5.2	5.2	8.4	8.4	8	8	82	82	86	86	81	81	88	88	<0.2	<0.2	1.7	1.7		
					Middle	4.9	0.2	265	27.7	27.7	8.0	8.0	24.6	24.6	72.9	72.9	5.0	5.0	16.6	16.6	9	9	86	86	81	81	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
						4.9	0.2	266	27.7	27.7	8.0	8.0	24.6	24.6	72.9	72.9	5.0	5.0	16.6	16.6	9	9	86	86	81	81	88	88	81	81	88	88	<0.2	<0.2	1.6	1.6
					Bottom	8.8	0.1	232	27.7	27.7	7.9	7.9	24.9	24.9	76.3	76.4	5.2	5.2	10.2	10.2	9	9	88	88	87	87	88	88	81	81	88	88	<0.2	<0.2	1.7	1.7
						8.8	0.1	252	27.7	27.7	7.9	7.9	24.9	24.9	76.5	76.4	5.2	5.2	10.2	10.2	10	10	87	87	88	88	87	87	88	88	81	81	88	88	<0.2	<0.2
SR2	Fine	Moderate	09:57	5.4	Surface	1.0	0.3	323	27.9	27.9	7.9	7.9	22.2	22.2	80.9	80.9	5.6	5.6	11.0	11.0	6	6	82	82	84	821481	814147	<0.2	<0.2	1.7	1.7					
						1.0	0.3	331	27.9	27.9	7.9	7.9	22.2	22.2	80.9	80.9	5.6	5.6	11.2	11.2	7	7	83	83	85	85	84	84	88	88	<0.2	<0.2	1.7	1.7		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.4	0.0	285	27.8	27.8	7.5	7.5	23.6	23.6	82.6	82.6	5.7	5.7	11.2	11.2	6	6	85	85	84	84	88	88	81	81	88	88	<0.2	<0.2	1.8	1.8
						4.4	0.0	310	27.8	27.8	7.5	7.5	23.6	23.6	82.6	82.6	5.7	5.7	11.2	11.2	7	7	84	84	88	88	81	81	88	88	<0.2	<0.2	1.7	1.7		
SR3	Fine	Moderate	11:05	8.3	Surface	1.0	0.2	99	28.0	28.0	8.0	8.0	21.1	21.1	88.2	88.2	6.1	6.1	14.6	14.6	10	10	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	103	28.0	28.0	8.0	8.0	21.1	21.1	88.2	88.2	6.1	6.1	14.6	14.6	11	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.2	0.4	70	27.8	27.8	8.0	8.0	22.0	22.0	83.9	83.9	5.8	5.8	15.1	15.1	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.2	0.4	70	27.8	27.8	8.0	8.0	22.0	22.0	83.9	83.9	5.8	5.8	15.1	15.1	11	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.3	0.4	55	27.8	27.8	8.0	8.0	22.1	22.1	75.6	75.6	5.2	5.2	15.3	15.3	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.3	0.5	55	27.8	27.8	8.0	8.0	22.1	22.1	75.6	75.6	5.2	5.2	15.3	15.3	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR4A	Fine	Moderate	09:54	8.8	Surface	1.0	0.5	90	27.9	27.9	8.0	8.0	21.8	21.8	80.9	80.9	5.6	5.6	14.8	14.8	8	8	-	-	-	-	-	-	-	-	-	-				
						1.0	0.5	91	27.9	27.9	8.0	8.0	21.8	21.8	80.8	80.8	5.6	5.6	14.9	14.9	7	7	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.4	0.4	87	27.8	27.8	7.7	7.7	22.3	22.3	79.2	79.2	5.5	5.5	15.1	15.1	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.4	88	27.8	27.8	7.7	7.7	22.3	22.3	79.2	79.2	5.5	5.5	15.1	15.1	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.8	0.2	62	27.8	27.8	7.5	7.5	23.2	23.2	82.6	82.6	5.7	5.7	17.2	17.2	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.2	66	27.8	27.8	7.5	7.5	23.2	23.2	82.6	82.6	5.7	5.7	17.2	17.2	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR5A	Fine	Moderate	09:35	4.6	Surface	1.0	0.0	325	27.7	27.7	8.1																									



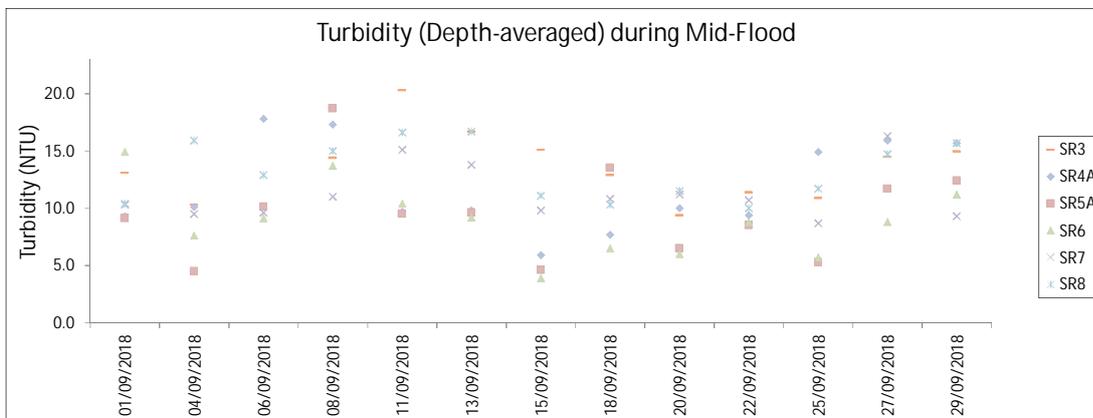
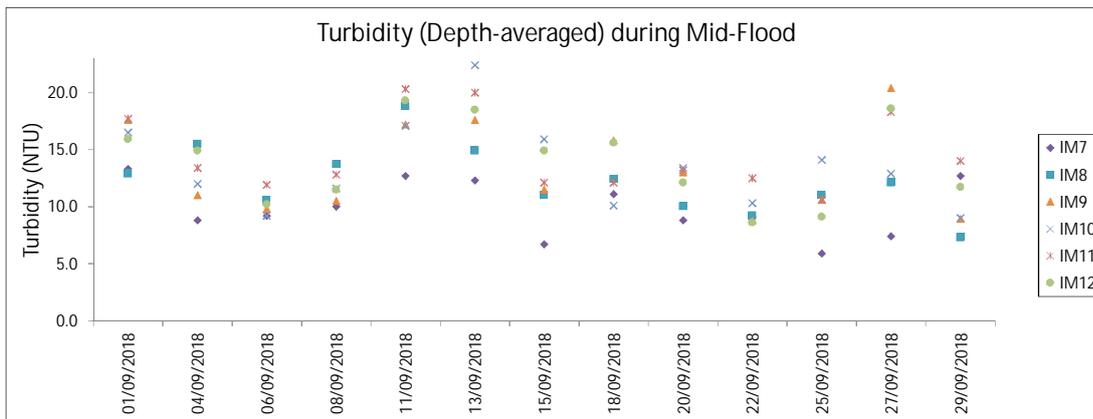
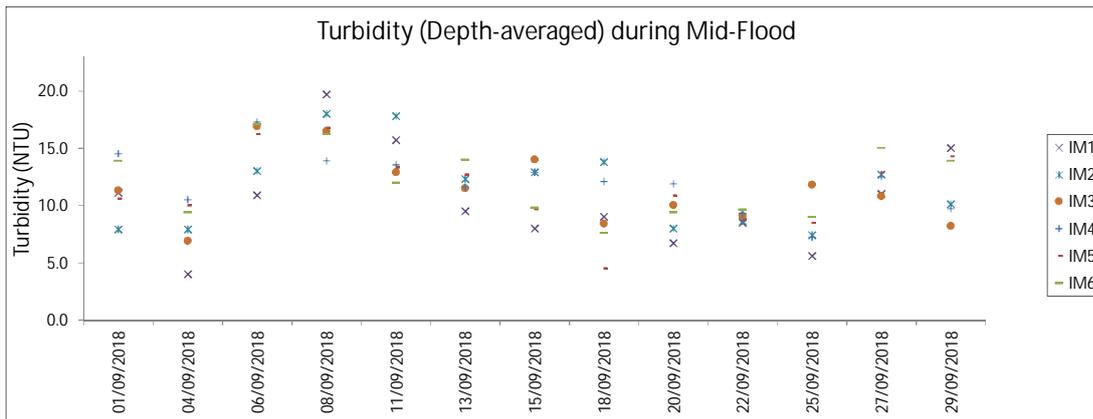
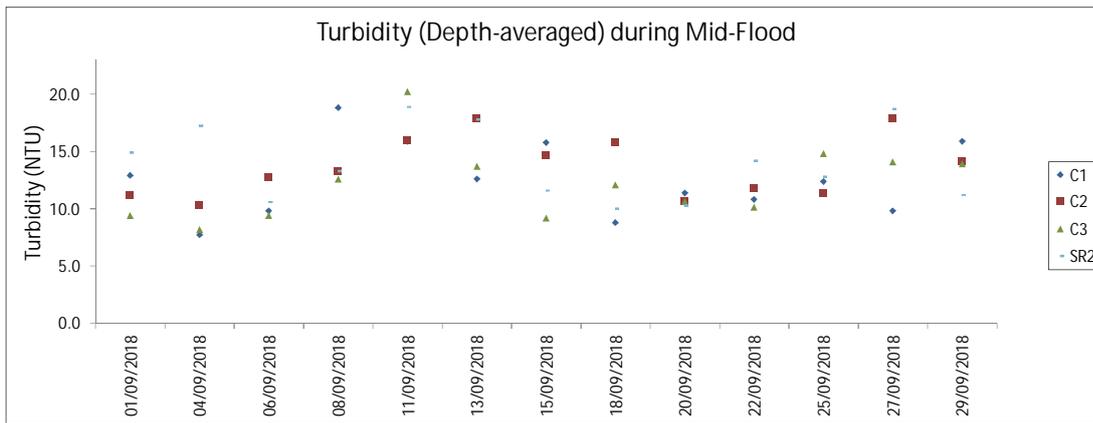




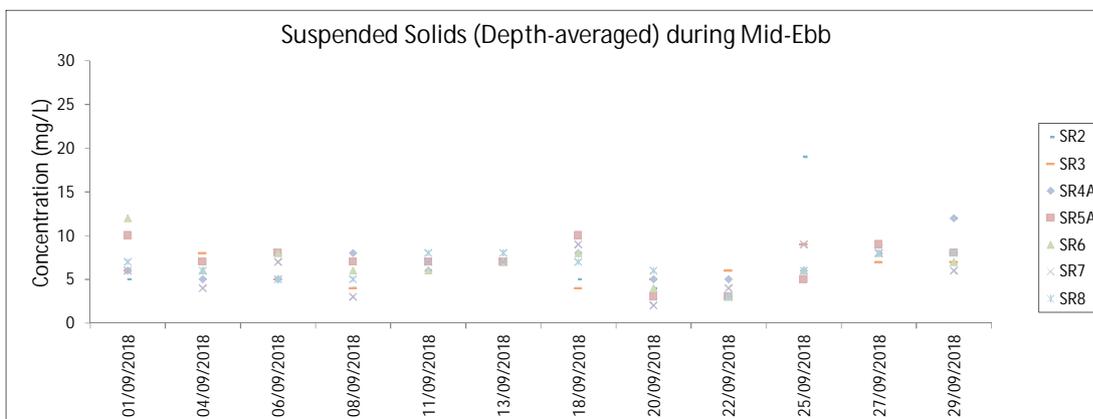
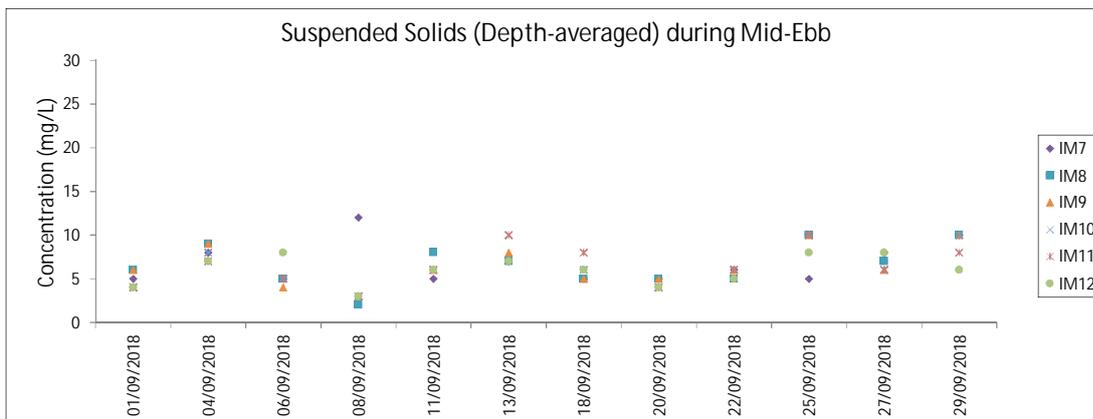
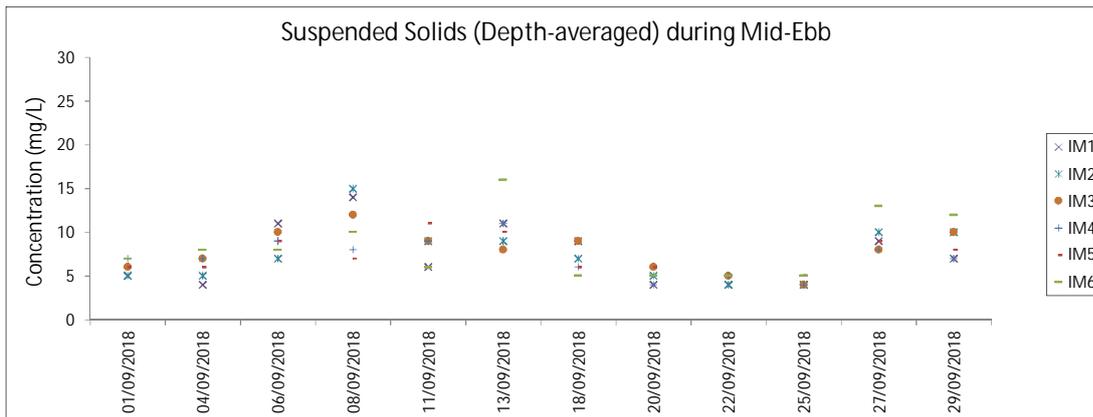
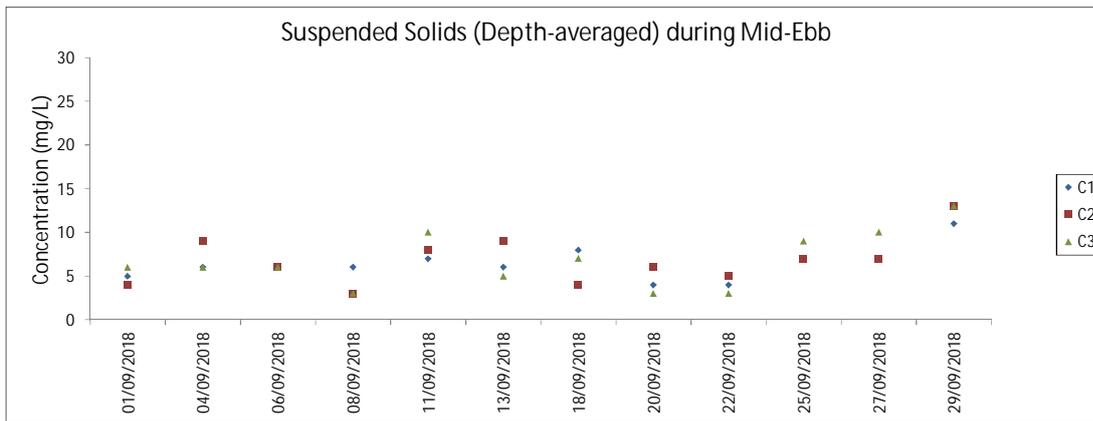




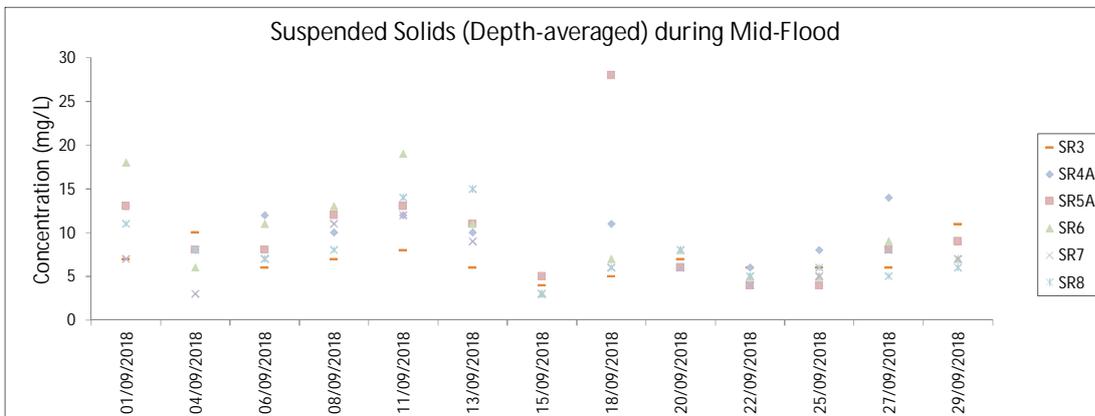
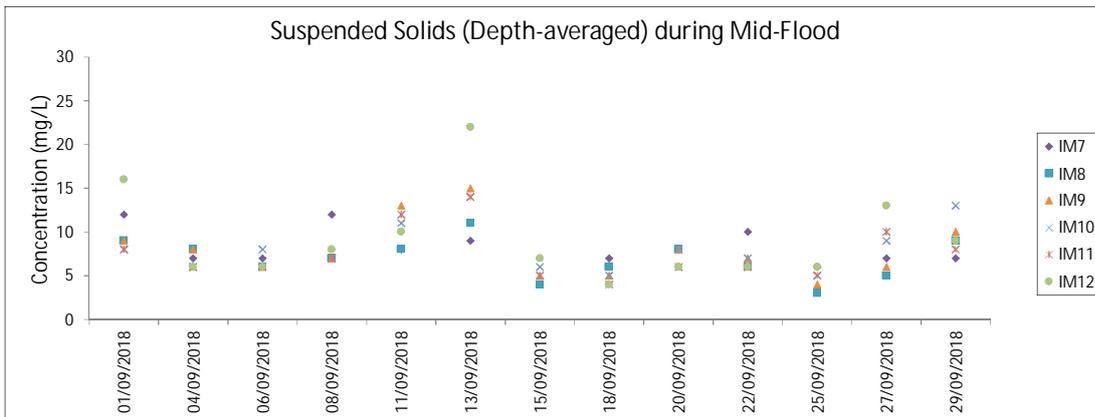
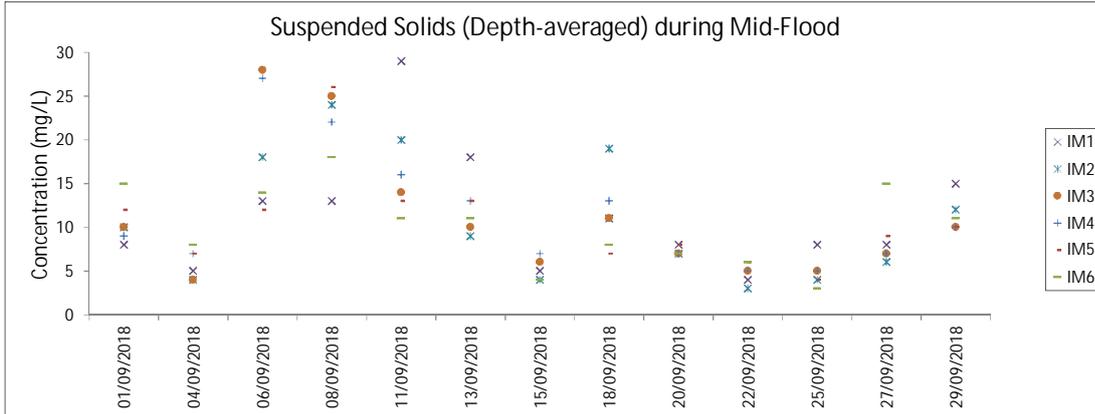
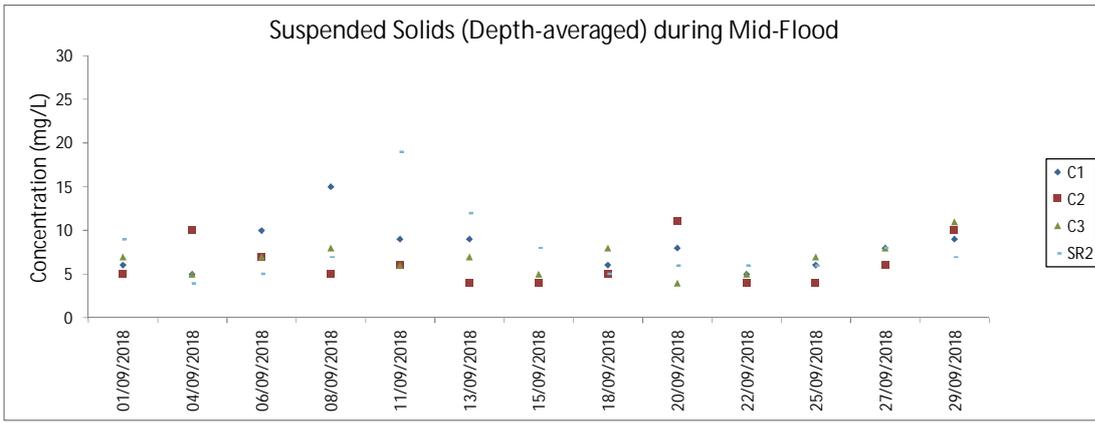
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



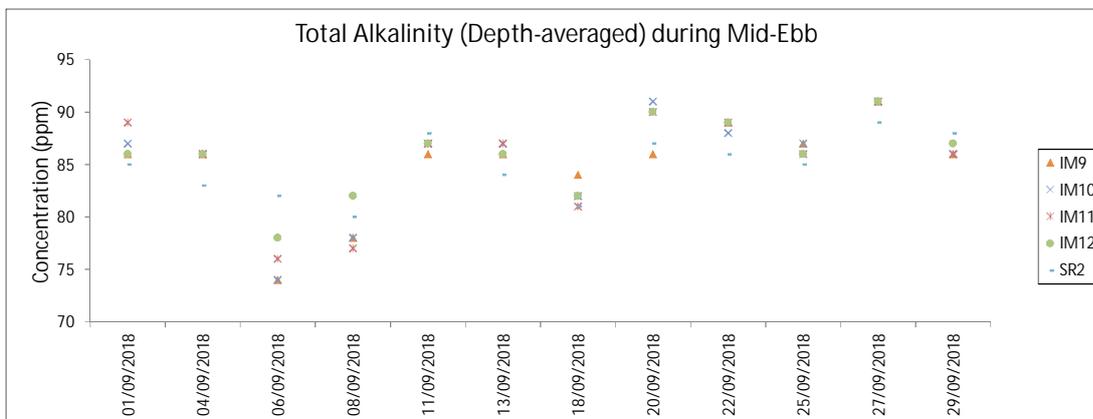
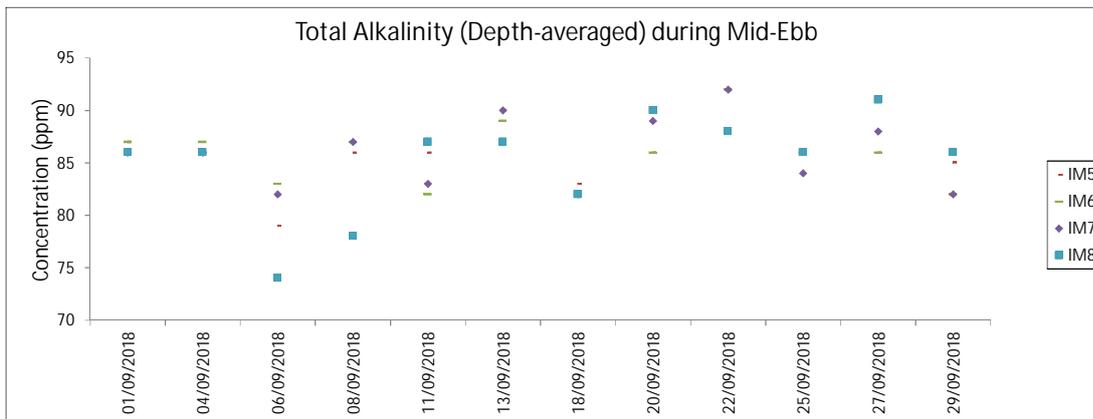
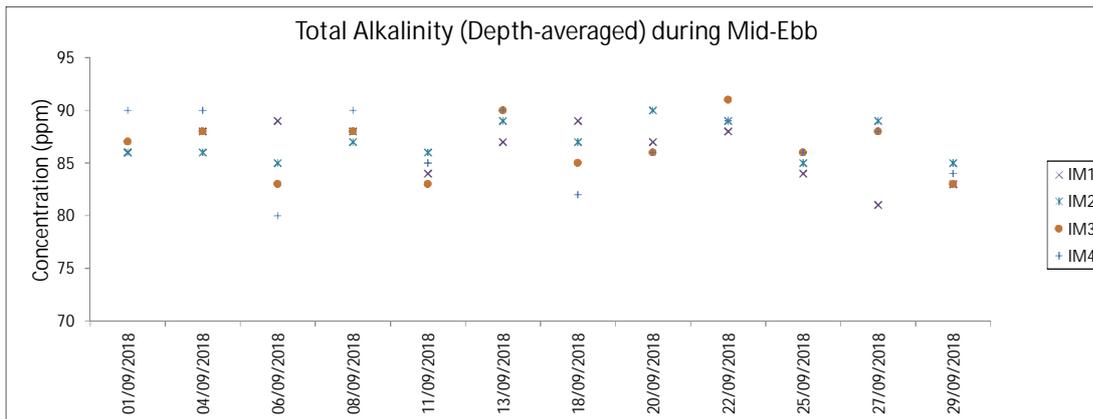
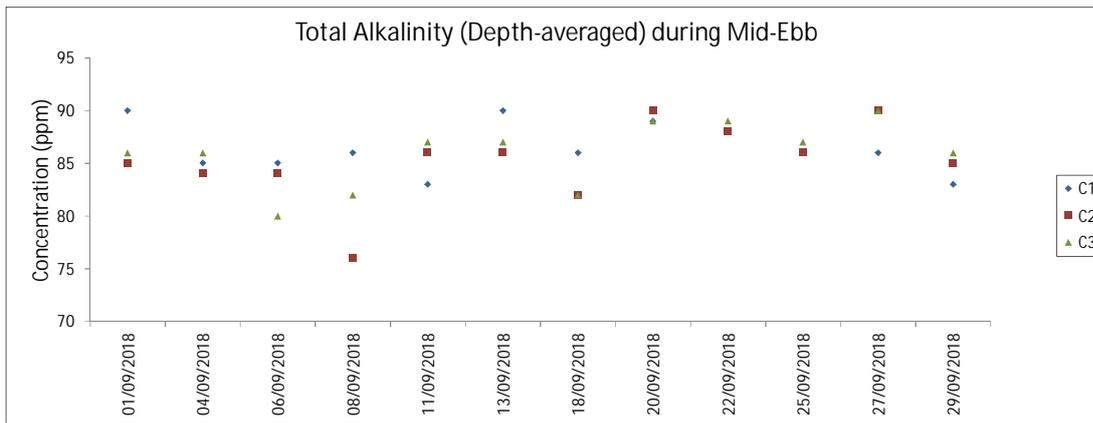
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



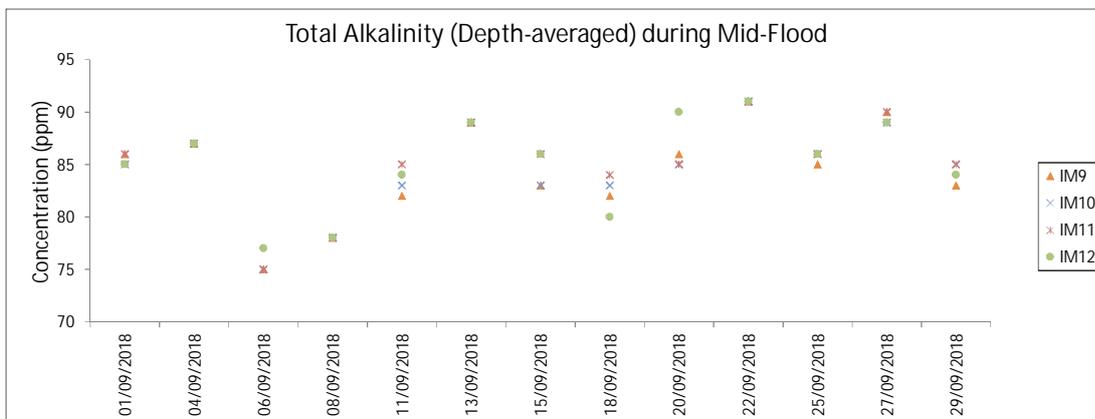
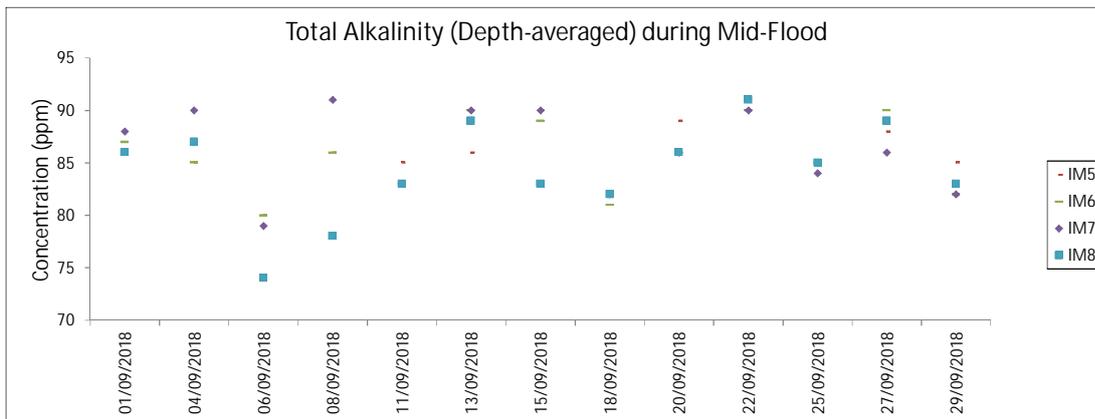
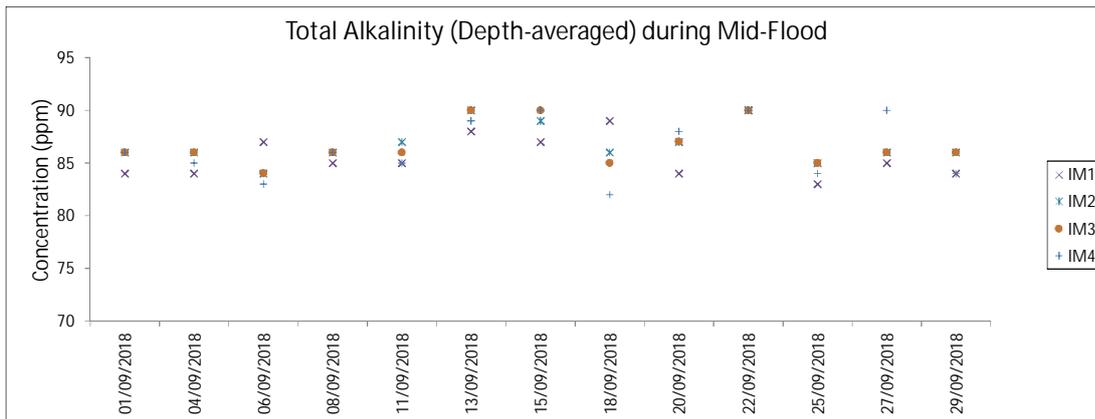
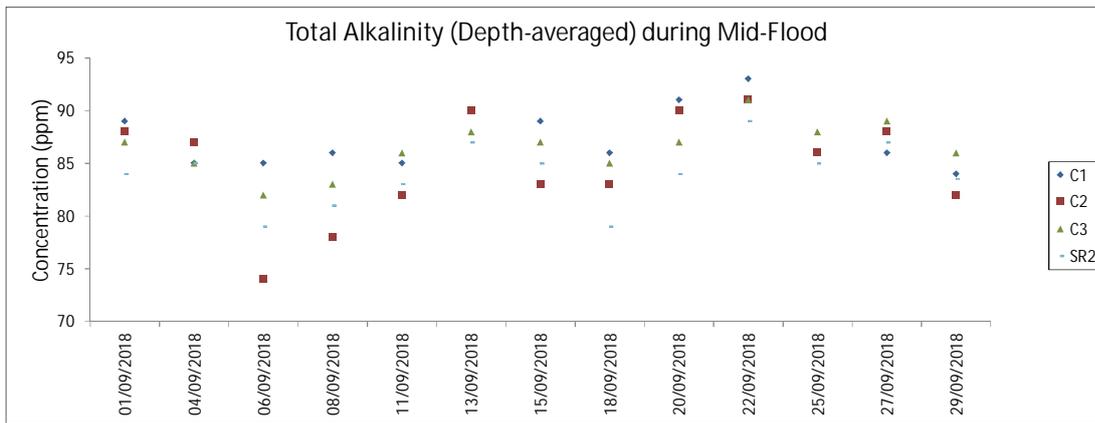
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



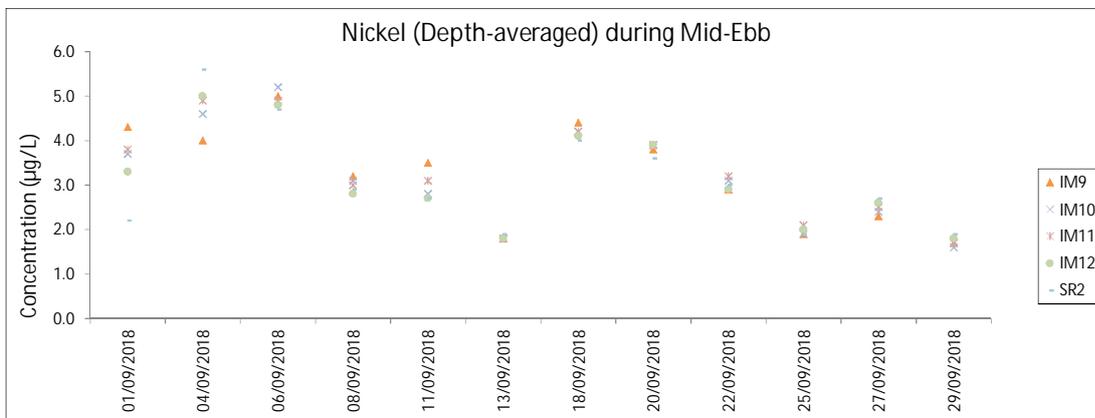
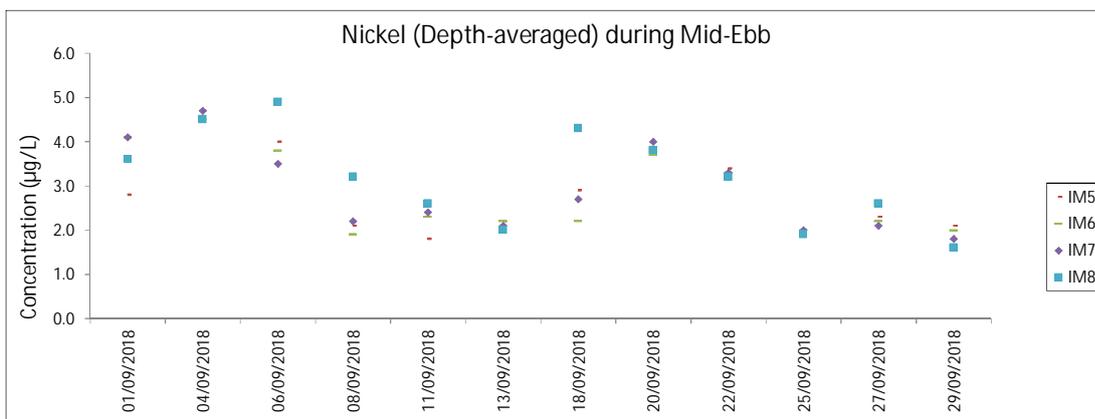
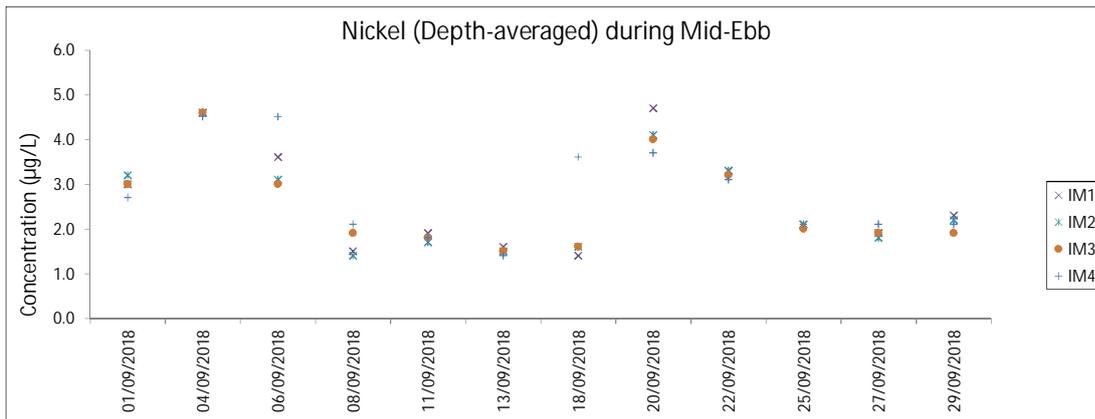
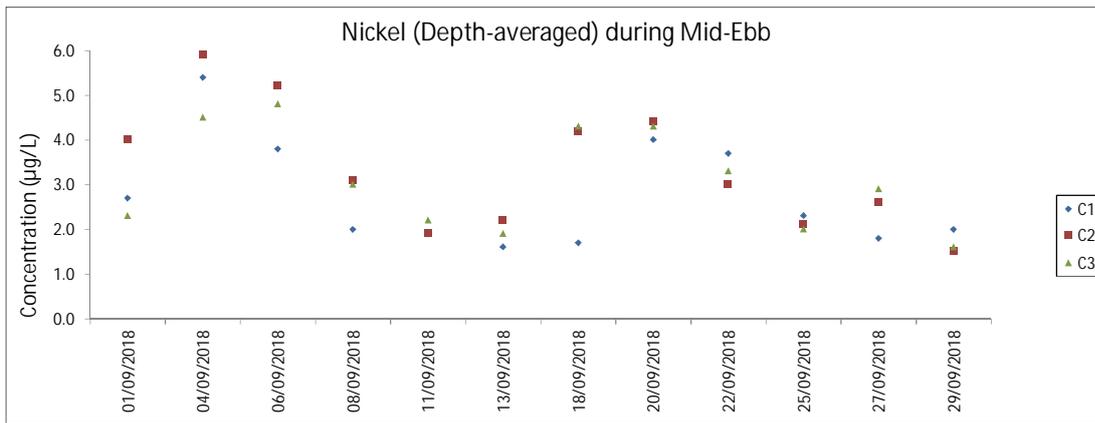
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



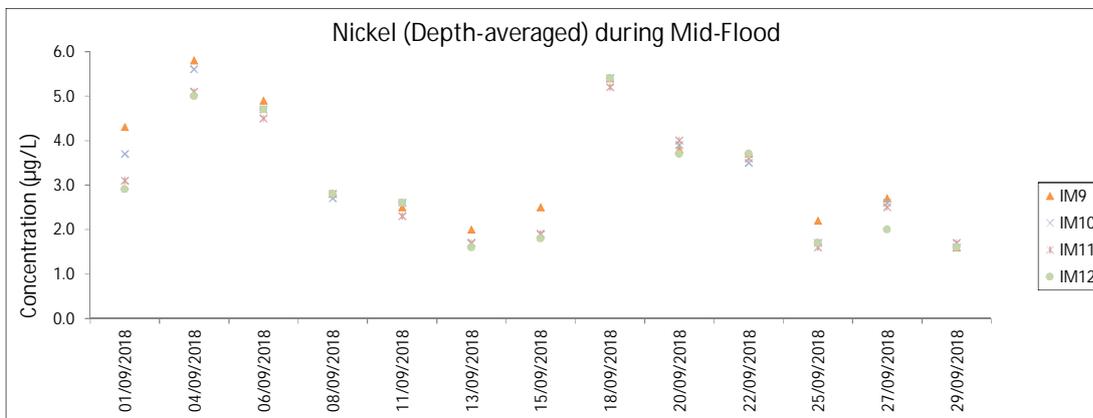
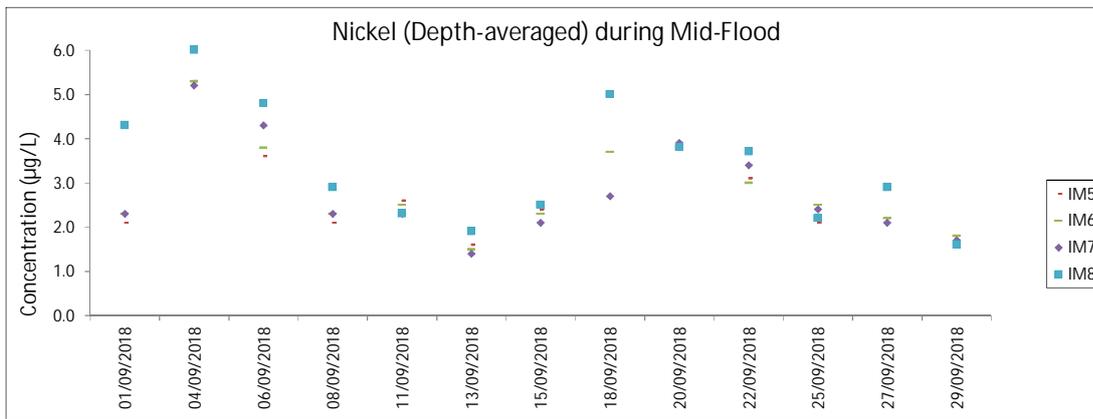
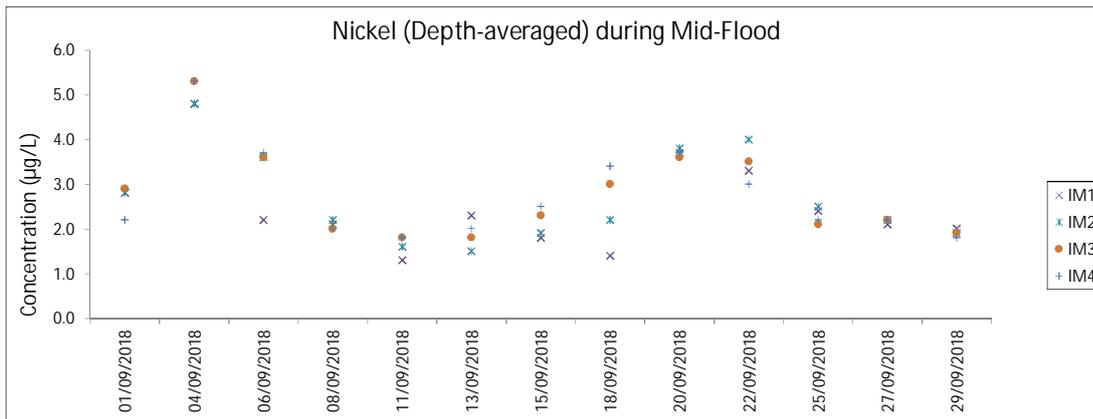
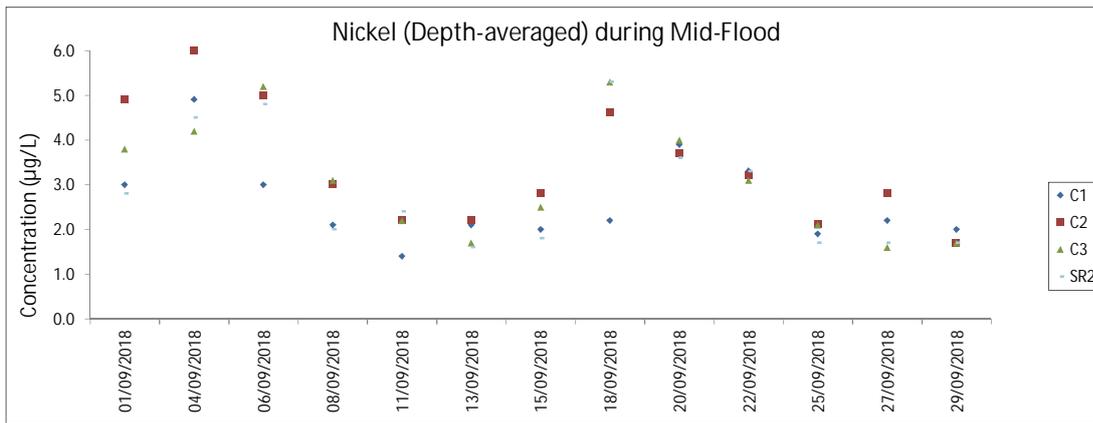
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



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Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.  
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.



Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.  
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.

## **Chinese White Dolphin Monitoring Results**

## CWD Small Vessel Line-transect Survey

## Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
05-Jul-18	NWL	2	4.400	SUMMER	32166	3RS ET	P
05-Jul-18	NWL	3	20.570	SUMMER	32166	3RS ET	P
05-Jul-18	NWL	4	37.860	SUMMER	32166	3RS ET	P
05-Jul-18	NWL	2	1.900	SUMMER	32166	3RS ET	S
05-Jul-18	NWL	3	4.170	SUMMER	32166	3RS ET	S
05-Jul-18	NWL	4	5.600	SUMMER	32166	3RS ET	S
09-Jul-18	NEL	2	7.900	SUMMER	32166	3RS ET	P
09-Jul-18	NEL	3	21.800	SUMMER	32166	3RS ET	P
09-Jul-18	NEL	4	7.500	SUMMER	32166	3RS ET	P
09-Jul-18	NEL	2	2.400	SUMMER	32166	3RS ET	S
09-Jul-18	NEL	3	7.700	SUMMER	32166	3RS ET	S
11-Jul-18	AW	1	2.230	SUMMER	32166	3RS ET	P
11-Jul-18	AW	2	2.610	SUMMER	32166	3RS ET	P
11-Jul-18	WL	1	0.935	SUMMER	32166	3RS ET	P
11-Jul-18	WL	2	5.562	SUMMER	32166	3RS ET	P
11-Jul-18	WL	3	9.521	SUMMER	32166	3RS ET	P
11-Jul-18	WL	4	2.406	SUMMER	32166	3RS ET	P
11-Jul-18	WL	2	3.839	SUMMER	32166	3RS ET	S
11-Jul-18	WL	3	4.997	SUMMER	32166	3RS ET	S
11-Jul-18	WL	4	1.230	SUMMER	32166	3RS ET	S
17-Jul-18	AW	2	4.530	SUMMER	32166	3RS ET	P
17-Jul-18	WL	1	1.730	SUMMER	32166	3RS ET	P
17-Jul-18	WL	2	9.190	SUMMER	32166	3RS ET	P
17-Jul-18	WL	3	6.564	SUMMER	32166	3RS ET	P
17-Jul-18	WL	4	0.430	SUMMER	32166	3RS ET	P
17-Jul-18	WL	1	1.070	SUMMER	32166	3RS ET	S
17-Jul-18	WL	2	5.640	SUMMER	32166	3RS ET	S
17-Jul-18	WL	3	4.746	SUMMER	32166	3RS ET	S
19-Jul-18	NEL	2	20.870	SUMMER	32166	3RS ET	P
19-Jul-18	NEL	3	16.680	SUMMER	32166	3RS ET	P
19-Jul-18	NEL	2	8.630	SUMMER	32166	3RS ET	S
19-Jul-18	NEL	3	1.050	SUMMER	32166	3RS ET	S
20-Jul-18	NWL	1	9.440	SUMMER	32166	3RS ET	P
20-Jul-18	NWL	2	19.567	SUMMER	32166	3RS ET	P
20-Jul-18	NWL	3	33.930	SUMMER	32166	3RS ET	P
20-Jul-18	NWL	2	3.400	SUMMER	32166	3RS ET	S
20-Jul-18	NWL	3	8.660	SUMMER	32166	3RS ET	S
26-Jul-18	SWL	2	32.460	SUMMER	32166	3RS ET	P
26-Jul-18	SWL	3	22.153	SUMMER	32166	3RS ET	P
26-Jul-18	SWL	4	0.487	SUMMER	32166	3RS ET	P
26-Jul-18	SWL	2	8.040	SUMMER	32166	3RS ET	S
26-Jul-18	SWL	3	6.770	SUMMER	32166	3RS ET	S
26-Jul-18	SWL	4	0.580	SUMMER	32166	3RS ET	S
30-Jul-18	SWL	2	37.816	SUMMER	32166	3RS ET	P
30-Jul-18	SWL	3	17.730	SUMMER	32166	3RS ET	P
30-Jul-18	SWL	2	12.124	SUMMER	32166	3RS ET	S
30-Jul-18	SWL	3	3.490	SUMMER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
2-Aug-18	NWL	2	9.284	SUMMER	32166	3RS ET	P
2-Aug-18	NWL	3	46.887	SUMMER	32166	3RS ET	P
2-Aug-18	NWL	4	6.300	SUMMER	32166	3RS ET	P
2-Aug-18	NWL	2	2.029	SUMMER	32166	3RS ET	S
2-Aug-18	NWL	3	9.770	SUMMER	32166	3RS ET	S
2-Aug-18	NWL	4	0.400	SUMMER	32166	3RS ET	S
7-Aug-18	AW	2	4.960	SUMMER	32166	3RS ET	P
7-Aug-18	WL	1	2.480	SUMMER	32166	3RS ET	P
7-Aug-18	WL	2	8.859	SUMMER	32166	3RS ET	P
7-Aug-18	WL	3	4.158	SUMMER	32166	3RS ET	P
7-Aug-18	WL	4	3.370	SUMMER	32166	3RS ET	P
7-Aug-18	WL	2	3.270	SUMMER	32166	3RS ET	S
7-Aug-18	WL	3	4.142	SUMMER	32166	3RS ET	S
7-Aug-18	WL	4	1.120	SUMMER	32166	3RS ET	S
16-Aug-18	NEL	1	0.900	SUMMER	32166	3RS ET	P
16-Aug-18	NEL	2	29.510	SUMMER	32166	3RS ET	P
16-Aug-18	NEL	3	7.200	SUMMER	32166	3RS ET	P
16-Aug-18	NEL	1	0.400	SUMMER	32166	3RS ET	S
16-Aug-18	NEL	2	9.690	SUMMER	32166	3RS ET	S
17-Aug-18	NEL	2	35.410	SUMMER	32166	3RS ET	P
17-Aug-18	NEL	3	1.100	SUMMER	32166	3RS ET	P
17-Aug-18	NEL	2	9.880	SUMMER	32166	3RS ET	S
17-Aug-18	NEL	3	0.200	SUMMER	32166	3RS ET	S
20-Aug-18	NWL	1	9.500	SUMMER	32166	3RS ET	P
20-Aug-18	NWL	2	51.800	SUMMER	32166	3RS ET	P
20-Aug-18	NWL	3	1.300	SUMMER	32166	3RS ET	P
20-Aug-18	NWL	1	1.000	SUMMER	32166	3RS ET	S
20-Aug-18	NWL	2	11.000	SUMMER	32166	3RS ET	S
21-Aug-18	AW	1	4.700	SUMMER	32166	3RS ET	P
21-Aug-18	WL	2	24.554	SUMMER	32166	3RS ET	P
21-Aug-18	WL	3	3.309	SUMMER	32166	3RS ET	P
21-Aug-18	WL	2	7.939	SUMMER	32166	3RS ET	S
21-Aug-18	WL	3	0.572	SUMMER	32166	3RS ET	S
22-Aug-18	SWL	2	50.350	SUMMER	32166	3RS ET	P
22-Aug-18	SWL	3	4.900	SUMMER	32166	3RS ET	P
22-Aug-18	SWL	2	13.170	SUMMER	32166	3RS ET	S
22-Aug-18	SWL	3	2.400	SUMMER	32166	3RS ET	S
23-Aug-18	SWL	2	51.850	SUMMER	32166	3RS ET	P
23-Aug-18	SWL	3	2.905	SUMMER	32166	3RS ET	P
23-Aug-18	SWL	2	11.220	SUMMER	32166	3RS ET	S
23-Aug-18	SWL	3	4.000	SUMMER	32166	3RS ET	S
7-Sep-18	SWL	1	0.800	AUTUMN	32166	3RS ET	P
7-Sep-18	SWL	2	43.560	AUTUMN	32166	3RS ET	P
7-Sep-18	SWL	3	11.660	AUTUMN	32166	3RS ET	P
7-Sep-18	SWL	1	1.500	AUTUMN	32166	3RS ET	S
7-Sep-18	SWL	2	8.130	AUTUMN	32166	3RS ET	S
7-Sep-18	SWL	3	4.900	AUTUMN	32166	3RS ET	S
10-Sep-18	NEL	2	37.280	AUTUMN	32166	3RS ET	P
10-Sep-18	NEL	2	8.640	AUTUMN	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
10-Sep-18	NEL	3	1.080	AUTUMN	32166	3RS ET	S
14-Sep-18	NWL	1	1.400	AUTUMN	32166	3RS ET	P
14-Sep-18	NWL	2	58.520	AUTUMN	32166	3RS ET	P
14-Sep-18	NWL	3	3.600	AUTUMN	32166	3RS ET	P
14-Sep-18	NWL	2	11.780	AUTUMN	32166	3RS ET	S
18-Sep-18	NEL	2	4.900	AUTUMN	32166	3RS ET	P
18-Sep-18	NEL	3	28.270	AUTUMN	32166	3RS ET	P
18-Sep-18	NEL	4	4.070	AUTUMN	32166	3RS ET	P
18-Sep-18	NEL	2	1.000	AUTUMN	32166	3RS ET	S
18-Sep-18	NEL	3	8.260	AUTUMN	32166	3RS ET	S
18-Sep-18	NEL	4	1.000	AUTUMN	32166	3RS ET	S
19-Sep-18	SWL	2	42.334	AUTUMN	32166	3RS ET	P
19-Sep-18	SWL	3	12.170	AUTUMN	32166	3RS ET	P
19-Sep-18	SWL	2	13.810	AUTUMN	32166	3RS ET	S
19-Sep-18	SWL	3	0.900	AUTUMN	32166	3RS ET	S
20-Sep-18	AW	2	4.940	AUTUMN	32166	3RS ET	P
20-Sep-18	WL	2	6.421	AUTUMN	32166	3RS ET	P
20-Sep-18	WL	3	11.471	AUTUMN	32166	3RS ET	P
20-Sep-18	WL	2	5.212	AUTUMN	32166	3RS ET	S
20-Sep-18	WL	3	6.235	AUTUMN	32166	3RS ET	S
21-Sep-18	AW	2	4.690	AUTUMN	32166	3RS ET	P
21-Sep-18	WL	2	4.136	AUTUMN	32166	3RS ET	P
21-Sep-18	WL	3	13.589	AUTUMN	32166	3RS ET	P
21-Sep-18	WL	2	2.288	AUTUMN	32166	3RS ET	S
21-Sep-18	WL	3	7.393	AUTUMN	32166	3RS ET	S
26-Sep-18	NWL	2	40.190	AUTUMN	32166	3RS ET	P
26-Sep-18	NWL	3	21.690	AUTUMN	32166	3RS ET	P
26-Sep-18	NWL	2	6.418	AUTUMN	32166	3RS ET	S
26-Sep-18	NWL	3	3.520	AUTUMN	32166	3RS ET	S

Notes: CWD monitoring survey data of the two preceding survey months (i.e. July and August 2018) are presented for reference only.

## CWD Small Vessel Line-transect Survey

## Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
11-Jul-18	1	1007	CWD	2	WL	2	569	ON	3RS ET	22.2873	113.8608	SUMMER	NONE	P
11-Jul-18	2	1027	CWD	1	WL	2	151	ON	3RS ET	22.2731	113.8471	SUMMER	NONE	S
11-Jul-18	3	1045	CWD	1	WL	2	247	ON	3RS ET	22.2692	113.8602	SUMMER	NONE	P
11-Jul-18	4	1108	CWD	1	WL	3	470	ON	3RS ET	22.2601	113.8498	SUMMER	NONE	P
11-Jul-18	5	1212	CWD	1	WL	3	303	ON	3RS ET	22.2232	113.8315	SUMMER	NONE	P
11-Jul-18	6	1237	CWD	3	WL	3	201	ON	3RS ET	22.2132	113.8211	SUMMER	NONE	P
11-Jul-18	7	1308	CWD	12	WL	3	159	ON	3RS ET	22.2050	113.8345	SUMMER	NONE	P
11-Jul-18	8	1403	CWD	10	WL	3	163	ON	3RS ET	22.1950	113.8422	SUMMER	NONE	S
17-Jul-18	1	1033	CWD	3	WL	2	696	ON	3RS ET	22.2607	113.8455	SUMMER	NONE	P
17-Jul-18	2	1100	CWD	1	WL	2	83	ON	3RS ET	22.2504	113.8371	SUMMER	NONE	P
17-Jul-18	3	1122	CWD	3	WL	3	501	ON	3RS ET	22.2415	113.8447	SUMMER	NONE	P
17-Jul-18	4	1201	CWD	1	WL	3	90	ON	3RS ET	22.2148	113.8195	SUMMER	NONE	S
17-Jul-18	5	1232	CWD	3	WL	3	46	ON	3RS ET	22.2009	113.8247	SUMMER	NONE	S
20-Jul-18	1	1040	CWD	1	NWL	3	680	ON	3RS ET	22.2720	113.8702	SUMMER	NONE	P
20-Jul-18	2	1233	CWD	2	NWL	2	N/A	OFF	3RS ET	22.3495	113.8832	SUMMER	NONE	P
20-Jul-18	3	1251	CWD	2	NWL	2	N/A	OFF	3RS ET	22.3446	113.8860	SUMMER	NONE	P
26-Jul-18	1	1152	CWD	2	SWL	2	30	ON	3RS ET	22.1924	113.8878	SUMMER	NONE	P
26-Jul-18	2	1255	CWD	1	SWL	2	28	ON	3RS ET	22.1821	113.8982	SUMMER	NONE	P
26-Jul-18	3	1412	FP	2	SWL	3	52	ON	3RS ET	22.1540	113.9177	SUMMER	NONE	P
30-Jul-18	1	1244	CWD	1	SWL	3	252	ON	3RS ET	22.1949	113.8973	SUMMER	NONE	P
30-Jul-18	2	1317	CWD	2	SWL	2	85	ON	3RS ET	22.1986	113.9080	SUMMER	NONE	P
30-Jul-18	3	1345	CWD	3	SWL	3	401	ON	3RS ET	22.1717	113.9079	SUMMER	NONE	P
30-Jul-18	4	1611	CWD	3	SWL	2	219	ON	3RS ET	22.2085	113.9363	SUMMER	NONE	P
2-Aug-18	1	1029	CWD	15	NWL	2	999	ON	3RS ET	22.2945	113.8705	SUMMER	NONE	P
2-Aug-18	2	1122	CWD	1	NWL	3	12	ON	3RS ET	22.2741	113.8705	SUMMER	NONE	P
2-Aug-18	3	1156	CWD	2	NWL	2	17	ON	3RS ET	22.2901	113.8786	SUMMER	NONE	P
7-Aug-18	1	1008	CWD	2	WL	1	250	ON	3RS ET	22.2920	113.8613	SUMMER	NONE	P
7-Aug-18	2	1043	CWD	5	WL	2	69	ON	3RS ET	22.2642	113.8578	SUMMER	NONE	S
7-Aug-18	3	1328	CWD	2	WL	2	524	ON	3RS ET	22.2027	113.8233	SUMMER	NONE	S
7-Aug-18	4	1344	CWD	5	WL	2	352	ON	3RS ET	22.1966	113.8411	SUMMER	NONE	P
17-Aug-18	1	1149	CWD	1	NEL	2	8	ON	3RS ET	22.3387	113.9562	SUMMER	NONE	P
21-Aug-18	1	1025	CWD	2	WL	2	22	ON	3RS ET	22.2688	113.8601	SUMMER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
21-Aug-18	2	1052	CWD	5	WL	2	267	ON	3RS ET	22.2526	113.8343	SUMMER	NONE	S
21-Aug-18	3	1133	CWD	1	WL	2	380	ON	3RS ET	22.2417	113.8352	SUMMER	NONE	P
21-Aug-18	4	1149	CWD	1	WL	2	181	ON	3RS ET	22.2357	113.8253	SUMMER	NONE	S
21-Aug-18	5	1209	CWD	8	WL	2	93	ON	3RS ET	22.2226	113.8359	SUMMER	NONE	P
21-Aug-18	6	1241	CWD	2	WL	2	26	ON	3RS ET	22.2140	113.8291	SUMMER	NONE	P
21-Aug-18	7	1304	CWD	2	WL	2	26	ON	3RS ET	22.2055	113.8303	SUMMER	NONE	P
21-Aug-18	8	1320	CWD	5	WL	2	160	ON	3RS ET	22.2039	113.8222	SUMMER	NONE	S
21-Aug-18	9	1340	CWD	2	WL	3	162	ON	3RS ET	22.1963	113.8415	SUMMER	NONE	P
22-Aug-18	1	1439	CWD	3	SWL	2	17	ON	3RS ET	22.1860	113.8689	SUMMER	NONE	P
23-Aug-18	1	1457	CWD	1	SWL	2	161	ON	3RS ET	22.1881	113.8592	SUMMER	NONE	P
23-Aug-18	2	1522	CWD	5	SWL	2	263	ON	3RS ET	22.1842	113.8491	SUMMER	NONE	P
7-Sep-18	1	1408	FP	1	SWL	2	244	ON	3RS ET	22.1951	113.9275	AUTUMN	NONE	P
7-Sep-18	2	1425	FP	5	SWL	2	147	ON	3RS ET	22.1751	113.9282	AUTUMN	NONE	P
14-Sep-18	1	1326	CWD	1	NWL	2	38	ON	3RS ET	22.3994	113.8982	AUTUMN	NONE	P
19-Sep-18	1	1041	CWD	9	SWL	2	808	ON	3RS ET	22.1925	113.8590	AUTUMN	NONE	P
19-Sep-18	2	1112	CWD	3	SWL	2	208	ON	3RS ET	22.1937	113.8589	AUTUMN	NONE	P
19-Sep-18	3	1303	CWD	1	SWL	3	49	ON	3RS ET	22.1726	113.8970	AUTUMN	NONE	P
20-Sep-18	1	1025	CWD	5	WL	3	38	ON	3RS ET	22.2686	113.8478	AUTUMN	NONE	P
20-Sep-18	2	1047	CWD	10	WL	2	18	ON	3RS ET	22.2686	113.8526	AUTUMN	NONE	P
20-Sep-18	3	1108	CWD	1	WL	2	72	ON	3RS ET	22.2600	113.8497	AUTUMN	NONE	P
20-Sep-18	4	1135	CWD	3	WL	3	66	ON	3RS ET	22.2416	113.8462	AUTUMN	NONE	P
20-Sep-18	5	1145	CWD	2	WL	3	8	ON	3RS ET	22.2415	113.8406	AUTUMN	NONE	P
20-Sep-18	6	1250	CWD	7	WL	3	77	ON	3RS ET	22.1964	113.8414	AUTUMN	NONE	P
20-Sep-18	7	1317	CWD	1	WL	3	83	ON	3RS ET	22.1871	113.8399	AUTUMN	NONE	P
20-Sep-18	8	1327	CWD	2	WL	3	81	ON	3RS ET	22.1870	113.8312	AUTUMN	NONE	P
21-Sep-18	1	1026	CWD	6	WL	3	44	ON	3RS ET	22.2688	113.8523	AUTUMN	NONE	P
21-Sep-18	2	1105	CWD	2	WL	3	520	ON	3RS ET	22.2499	113.8394	AUTUMN	NONE	P
21-Sep-18	3	1142	CWD	3	WL	3	4	ON	3RS ET	22.2285	113.8377	AUTUMN	NONE	S
21-Sep-18	4	1208	CWD	6	WL	3	279	ON	3RS ET	22.2143	113.8313	AUTUMN	NONE	P
21-Sep-18	5	1237	CWD	1	WL	2	2	ON	3RS ET	22.2135	113.8351	AUTUMN	NONE	P
21-Sep-18	6	1306	CWD	4	WL	3	57	ON	3RS ET	22.1957	113.8348	AUTUMN	NONE	P
26-Sep-18	1	1030	CWD	2	NWL	2	77	ON	3RS ET	22.2832	113.8697	AUTUMN	NONE	P
26-Sep-18	2	1050	CWD	1	NWL	2	125	ON	3RS ET	22.2713	113.8721	AUTUMN	NONE	S

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
26-Sep-18	3	1221	CWD	1	NWL	3	387	ON	3RS ET	22.3863	113.8878	AUTUMN	NONE	P
26-Sep-18	4	1426	CWD	1	NWL	2	131	ON	3RS ET	22.3659	113.9188	AUTUMN	NONE	S

Abbreviations: STG# = Sighting Number; GP SZ = Dolphin Group Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance (in metres); N/A = Not Applicable; DEC LAT = Latitude (WGS84 in Decimal), DEC LON = Longitude (WGS84 in Decimal); BOAT ASSOC. = Fishing Boat Association; P/S = Primary Transect / Secondary Transect

Notes:

CWD monitoring survey data of the two preceding survey months (i.e. July and August 2018) are presented for reference only. No relevant figure or text will be mentioned in the monthly EM&A report.

Sighting data of finless porpoise (FP) are presented for reference only. No relevant figure or text will be mentioned in the monthly EM&A report. All FP sightings are excluded in calculation.

Calculation of the September 2018 encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 442.687 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 22 on-effort sightings and total number of 72 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in September 2018 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in September 2018

$$STG = \frac{22}{442.687} \times 100 = 4.97$$

Encounter Rate by Number of Dolphins (ANI) in September 2018

$$ANI = \frac{72}{442.687} \times 100 = 16.26$$

Calculation of the running quarterly STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 1286.099 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 62 on-effort sightings and total number of 197 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

Running Quarterly Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{62}{1286.099} \times 100 = 4.82$$

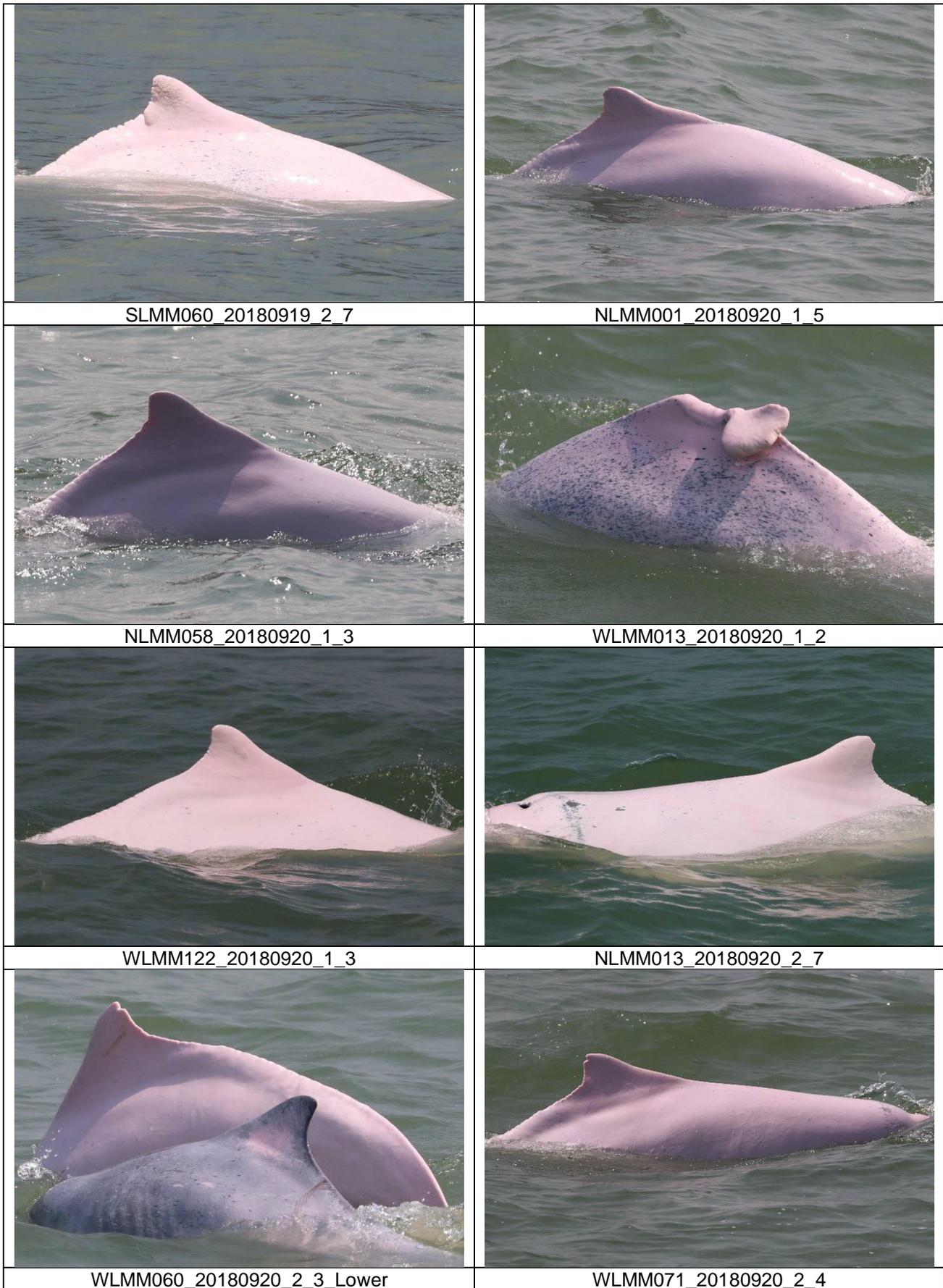
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

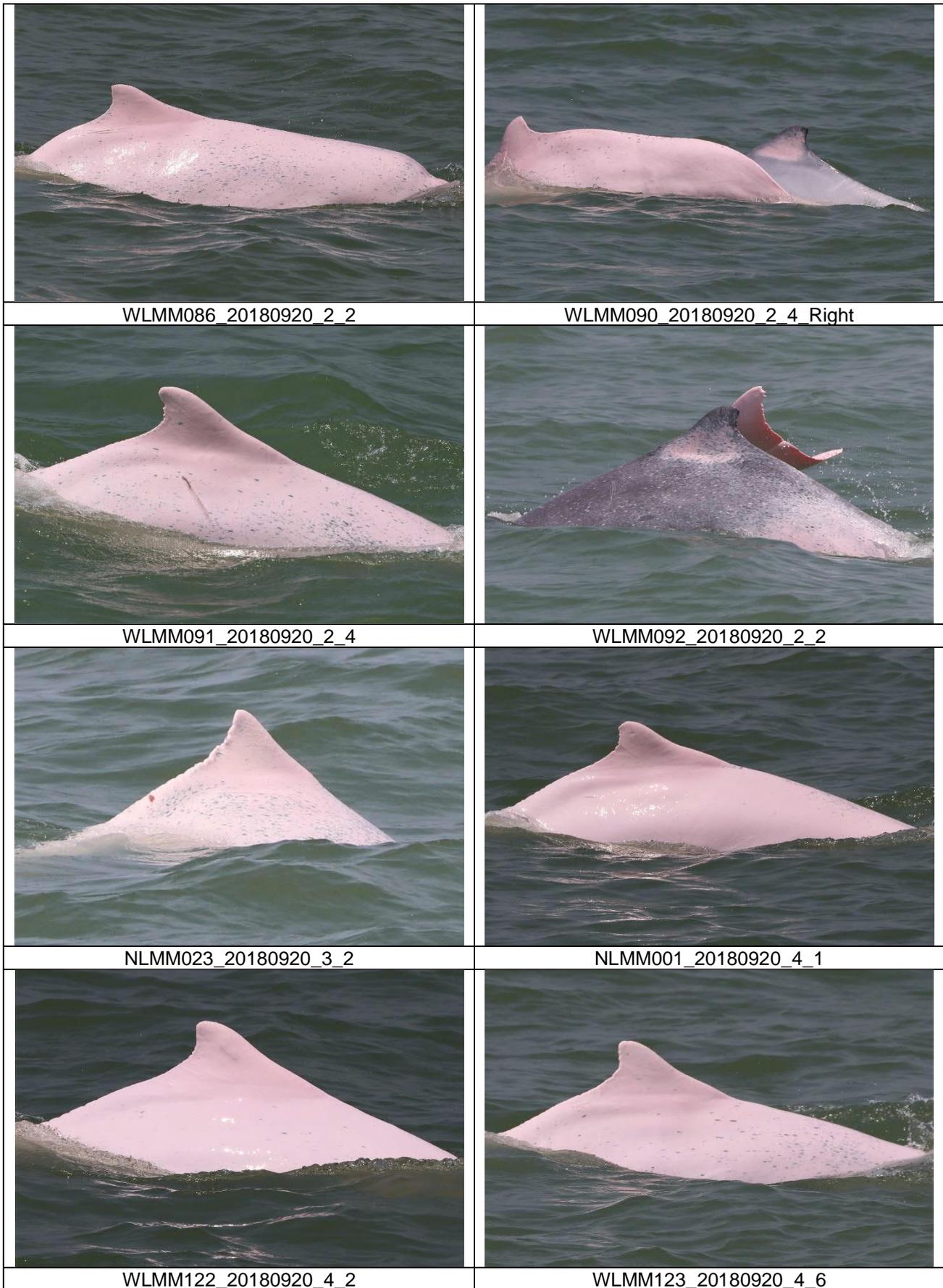
$$ANI = \frac{197}{1286.099} \times 100 = 15.32$$

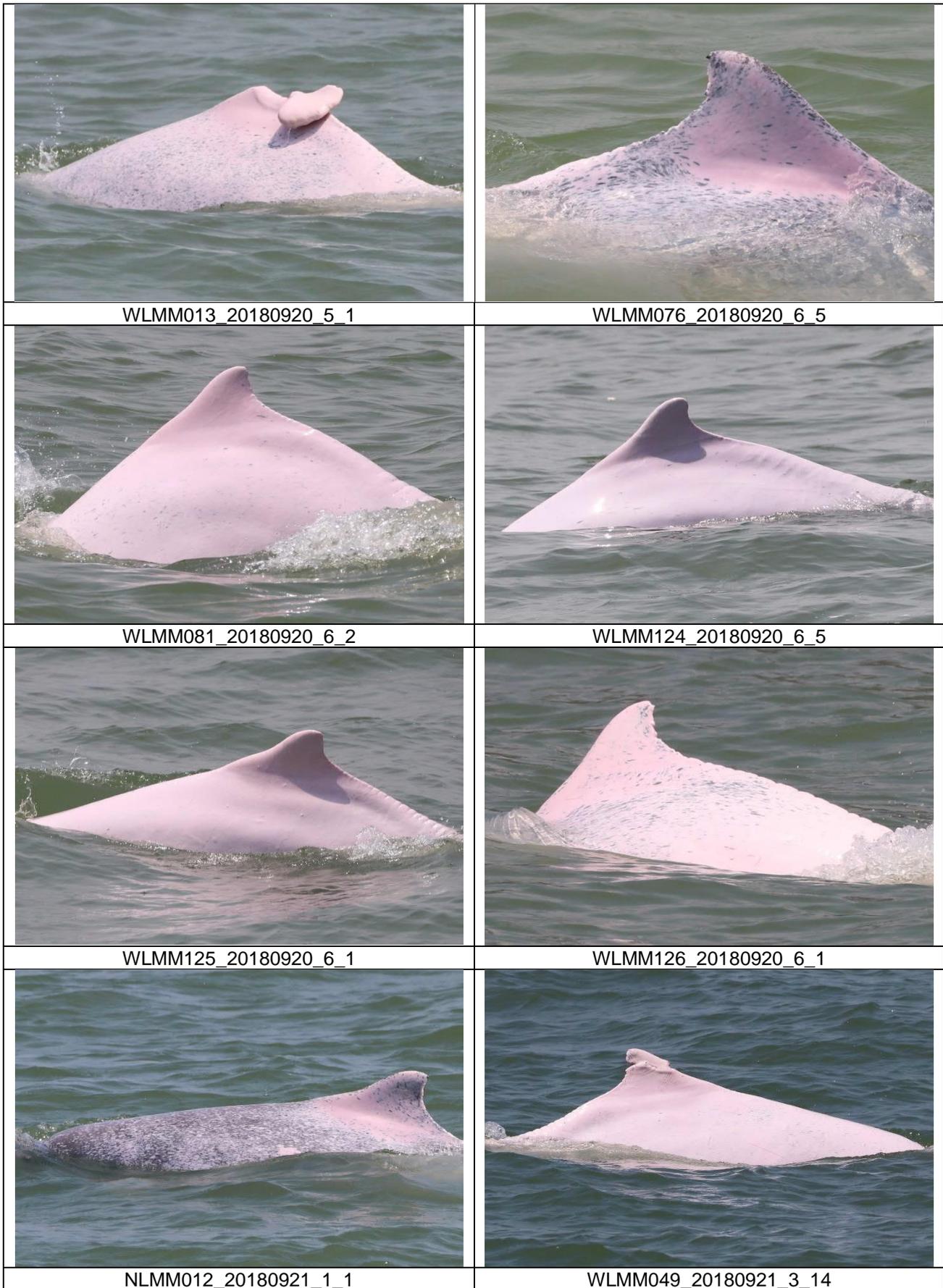
CWD Small Vessel Line-transect Survey

Photo Identification

	
NLMM013_20180914_1_3	NLMM020_20180919_1_2
	
SLMM034_20180919_1_3	SLMM049_20180919_1_1
	
SLMM060_20180919_1_3	WLMM007_20190919_1_2
	
WLMM056_20180919_1_5	WLMM114_20180919_1_9







	
WLMM127_20180921_3_3	WLMM128_20180921_3_2_Left
	
NLMM005_20180921_4_5	WLMM043_20180921_4_10
	
WLMM129_20180921_6_3	NLMM040_20180926_1_3
	
NLMM041_20180926_1_4	SLMM045_20180926_2_2



NLMM006\_20180926\_3\_4



NLMM052\_20180926\_4\_4

**CWD Land-based Theodolite Tracking Survey****CWD Groups by Survey Date**

<b>Date</b>	<b>Station</b>	<b>Start Time</b>	<b>End Time</b>	<b>Duration</b>	<b>Beaufort Range</b>	<b>Visibility</b>	<b>No. of Focal Follow Dolphin Groups Tracked</b>	<b>Dolphin Group Size Range</b>
4/Sep/18	Lung Kwu Chau	8:42	14:42	6:00	2	2	2	1-3
5/Sep/18	Sha Chau	8:31	14:31	6:00	2	2	0	N/A
14/Sep/18	Lung Kwu Chau	8:42	14:42	6:00	2	2-4	4	2-3
18/Sep/18	Sha Chau	9:00	15:00	6:00	3	2	0	N/A
26/Sep/18	Lung Kwu Chau	9:03	15:03	6:00	2-3	3	5	1-4

Visibility: 1=Excellent, 2=Good, 3=Fair, 4=Poor

## **Terrestrial Ecological Monitoring**

**Ecological Monitoring – location map and site photos regarding the monthly ecological monitoring for the egret area on Sheung Sha Chau and the HDD works**



Photo record of View 1



Photo record of View 2



## **Appendix D. Calibration Certificates**

## EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor  
 Manufacturer / Brand : SIBATA  
 Model No.: LD-3B  
 Equipment No.: LD-3B-002  
 Serial No.: 974350  
 Sensitivity Adjustment Scale Setting : 622 CPM

### Standard Equipment

Equipment : MFC High Volume Air Sampler  
 Venue : Tung Chung Pier  
 Model No.: TE-5170 Total Suspended Particulate  
 Serial No.: S/N3641  
 Previous Calibration Date: 12/Jul/2018

### Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration) : 624 CPM  
 Sensitivity Adjustment Scale Setting (After Calibration) : 624 CPM

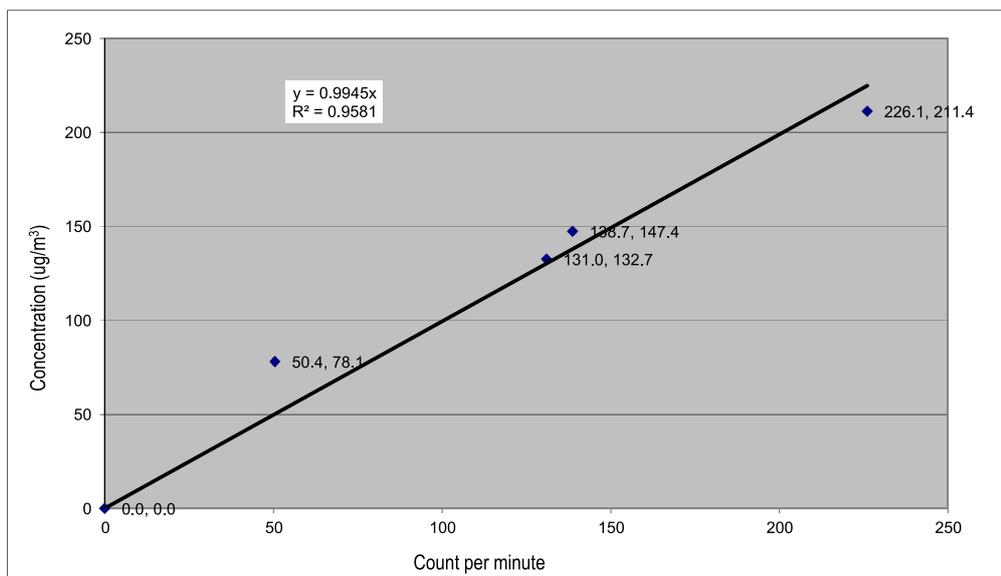
Hour	Date (dd-mm-yyyy)	Time		Ambient Condition		Concentration (ug/m <sup>3</sup> ) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	24-Aug-18	09:07	09:37	29.4	80%	78.1	1513	50.4
2	24-Aug-18	10:00	11:00	30.5	76%	132.7	7857	131.0
3	24-Aug-18	11:12	12:42	30.6	76%	147.4	12486	138.7
4	24-Aug-18	13:21	15:21	31.0	71%	211.4	27133	226.1

Be Linear Regression of Y or X

Slope (K-factor): 0.9945

Correlation coefficient (R): 0.9788

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



Recorded by: Shing Mak

Signature: *Shing*

Date: 07/Sep/2018

Checked by: Eva Keung

Signature: *Eva*

Date: 07/Sep/2018

## EQUIPMENT CALIBRATION RECORD

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

### Standard Equipment

Equipment : MFC High Volume Air Sampler  
 Venue : Tung Chung Pier  
 Model No.: TE-5170 Total Suspended Particulate  
 Serial No.: S/N3641  
 Previous Calibration Date: 12/Jul/2018

### Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration) : 701 CPM  
 Sensitivity Adjustment Scale Setting (After Calibration) : 701 CPM

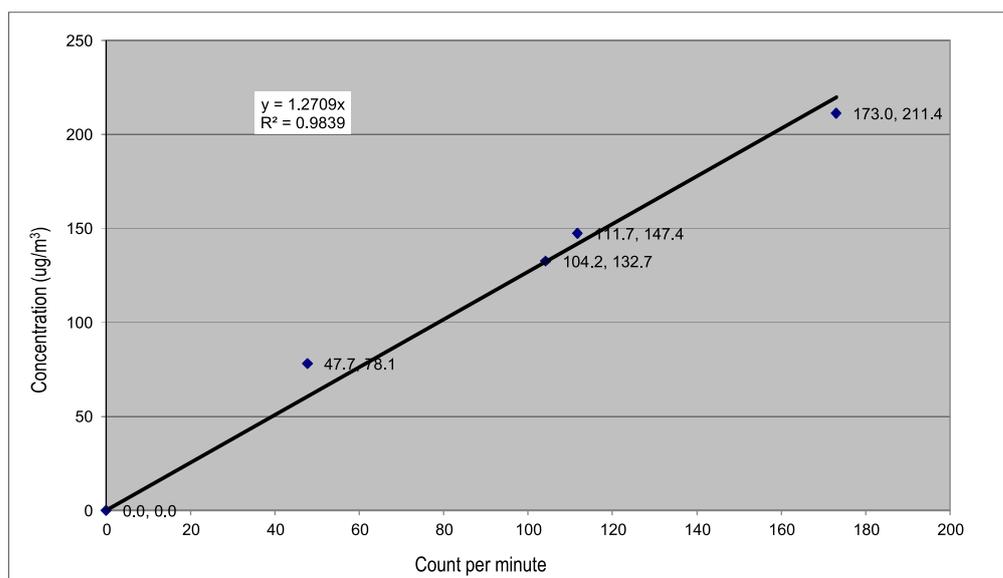
Hour	Date (dd-mm-yyyy)	Time		Ambient Condition		Concentration (ug/m <sup>3</sup> ) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	24-Aug-18	09:07	09:37	29.4	80%	78.1	1432	47.7
2	24-Aug-18	10:00	11:00	30.5	76%	132.7	6251	104.2
3	24-Aug-18	11:12	12:42	30.6	76%	147.4	10055	111.7
4	24-Aug-18	13:21	15:21	31.0	71%	211.4	20762	173.0

Be Linear Regression of Y or X

Slope (K-factor): 1.2709

Correlation coefficient (R): 0.9919

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



Recorded by: Icy Chan

Signature: *Icy Chan*

Date: 07/Sep/2018

Checked by: Eva Keung

Signature: *Eva Keung*

Date: 07/Sep/2018

ENVIROTECH SERVICES CO.

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

Location : AMS2(Tung Chung Development Pier)  
Calibrated by : P. F. Yeung  
Date : 12/07/2018

**Sampler**

Model : TE-5170  
Serial Number : S/N3641

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 2454  
Service Date : 19 Mar 2018  
Slope (m) : 2.05242  
Intercept (b) : -0.01383  
Correlation Coefficient(r) : 0.99994

**Standard Condition**

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

**Calibration Condition**

Pa (hpa) : 1003  
Ta(K) : 304

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	12.8	3.525	1.724	56	55.17
2   13 holes	10.2	3.146	1.540	50	49.26
3   10 holes	7.8	2.751	1.347	46	45.32
4   7 holes	4.8	2.158	1.058	38	37.44
5   5 holes	3.2	1.762	0.865	30	29.56

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

**Sampler Calibration Relationship**

Slope(m): 28.663      Intercept(b): 5.886      Correlation Coefficient(r): 0.9950

Checked by: Magnum Fan

Date: 16/07/2018



專業化驗有限公司

**QUALITY PRO TEST-CONSULT LIMITED**

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

## CALIBRATION REPORT

Test Report No. : AG090183  
Date of Issue : 19 September, 2018  
Page No. : 1 of 2

### PART A – CUSTOMER INFORMATION

Enovative Environmental Service Ltd.  
Rm 811, Hin Pui House,  
Hin Keng Estate, Tai Wai  
New Territories, Hong Kong  
Attn: Mr. Thomas Wong

### PART B – SAMPLE INFORMATION

Description of Samples : Titrette® bottle-top burette, 50mL  
Brand Name : BRAND  
Model Number : 6761161  
Manufacturer number : 4760161  
Serial Number : 10N64701  
Date of Received : Sep 15, 2018  
Date of Calibration : Sep 18, 2018  
Date of Next Calibration<sup>(a)</sup> : Dec 18, 2018

### PART C – CALIBRATION REQUESTED

<u>Parameter</u>	<u>Reference Method</u>
Accuracy Test	In-house Method (Gravimetric Method)

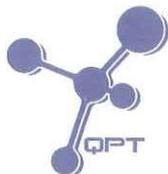
~ Continued On Next Page ~

Remark(s): -

<sup>(a)</sup> The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.

APPROVED SIGNATORY :

FUNG Yuen-ching Aries  
Laboratory Manager



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

## CALIBRATION REPORT

Test Report No. : AG090183  
Date of Issue : 19 September, 2018  
Page No. : 2 of 2

### PART D – RESULT<sup>(b),(c)</sup>

Water temperature: 22.4 °C

Relative humidity: 51%

z-Factor: 1.0034

Trial	Nominal volume (mL) at interval				
	3	3	3	3	3
	Range: (1-4)	Range: (16-19)	Range: (23-26)	Range: (34-37)	Range: (42-45)
1	2.9816	2.9866	2.9815	2.9821	2.9814
2	2.9850	2.9852	2.9814	2.9833	2.9881
3	2.9912	2.9830	2.9885	2.9867	2.9889
4	2.9855	2.9867	2.9877	2.9914	2.9808
5	2.9882	2.9843	2.9793	2.9921	2.9883
6	2.9895	2.9908	2.9850	2.9878	2.9878
7	2.9941	2.9909	2.9873	2.9890	2.9822
8	2.9921	2.9891	2.9852	2.9862	2.9892
9	2.9888	2.9902	2.9878	2.9883	2.9858
10	2.9931	2.9921	2.9855	2.9938	2.9818
Average	2.9889	2.9879	2.9849	2.9881	2.9854
Standard deviation	0.0040	0.0031	0.0032	0.0037	0.0035
Calculated volume (mL)	2.9991	2.9980	2.9951	2.9982	2.9956
Error (%)	-0.0309	-0.0650	-0.1644	-0.0590	-0.1473
RSD (%)	0.1320	0.1050	0.1059	0.1243	0.1160

### Acceptance Criteria<sup>(d)</sup>

Accuracy (%Error)	< ±1%	< ±1%	< ±1%	< ±1%	< ±1%
Precision (%RSD)	< 1%	< 1%	< 1%	< 1%	< 1%

~ END OF REPORT ~

#### Remark(s): -

<sup>(b)</sup> The results relate only to the tested sample as received

<sup>(c)</sup> The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

<sup>(d)</sup> The "acceptance criteria" is applicable for similar equipment used by QPT or quoted from relevant international standards.

## Appendix E. Status of Environmental Permits and Licences

	Description		Permit/ Reference No.	Status	
EIAO	Environmental Permit		EP-489/2014	Approved on 7 Nov 2014	
Contract No.	Description	Location	Permit/ Reference No.	Status	
P560 (R)	Notification of Construction Work under APCO	Launching Site	423880	Receipt acknowledged by EPD on 1 Dec 2017	
		Site Office	397151	Receipt acknowledged by EPD on 15 Jan 2016	
		Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016	
		Sheung Sha Chau	405860	Receipt acknowledged by EPD on 5 Aug 2016	
	Construction Noise Permit (General Works)	Launching Site	GW-RS0326-18	Valid until 23 Oct 2018	
		Stockpiling Area	GW-RS0683-18	Valid until 3 Feb 2019	
	Discharge License under WPCO	Launching Site	WT00024249-2016	Valid from to 25 Apr 2016 to 30 Apr 2021	
		Stockpiling Area	WT00024250-2016	Approved on 25 Apr 2016 to 30 Apr 2021	
	Registration as Chemical Waste Producer	Launching Site	WPN 5213-951-L2902-01	Registration was updated on 29 Sep 2017	
		Sheung Sha Chau	WPN 5111-434-L2902-03	Registration was updated on 6 Oct 2017	
		Stockpiling Area	WPN 5213-951-L2902-02	Registration was updated on 3 Oct 2016	
		Bill Account for disposal		A/C 7023982	Approval granted from EPD on 14 Dec 2015
	3201	Notification of Construction Work under APCO	Works area of 3201	406004	Receipt acknowledged by EPD on 10 Aug 2016
Construction Noise Permit (General Works)		Works area of 3201	GW-RS0761-18	Valid until 28 Feb 2019	
Registration as Chemical Waste Producer		Works area of 3201	WPN 5213-951-P3231-01	Completion of Registration on 9 Sep 2016	
Bill Account for disposal			A/C 7025760	Approval granted from EPD on 31 Aug 2016	
3202	Notification of Construction Work under APCO	Works area of 3202	437501	Receipt acknowledged by EPD on 17 Sep 2018	
	Construction Noise Permit (General Works)	Works area of 3202	GW-RS0429-18	Valid until 24 Nov 2018	
	Registration as Chemical Waste Producer	Works area of 3202	WPN 5213-951-S3967-01	Registration was updated on 23 May 2017	

Contract No.	Description	Location	Permit/ Reference No.	Status
3203	Discharge License under WPCO	Works area of 3202	WT00028293-2017	Valid from 12 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025739	Approval granted from EPD on 31 August 2016
	Notification of Construction Work under APCO	Works area of 3203	407053	Receipt acknowledged by EPD on 2 Sep 2016
	Construction Noise Permit (General Works)	Works area of 3203	GW-RS0575-18	Superseded by GW-RS0819-18 on 13 Sep 2018
			GW-RS0819-18	Valid until 12 Mar 2019
	Registration as Chemical Waste Producer	Works area of 3203	WPN 5213-951-S3954-01	Registration was updated on 12 Dec 2016
	Discharge License under WPCO	Works area of 3203	WT00028251-2017	Valid from 9 Jun 2017 to 30 Jun 2022
Bill Account for disposal		A/C 7025846	Approval granted from EPD on 9 Sep 2016	
3204	Notification of Construction Work under APCO	Works area of 3204	406446	Receipt acknowledged by EPD on 19 Aug 2016
	Construction Noise Permit (General Works)	Works Area of 3204	GW-RS0431-18	Valid until 24 Nov 2018
	Registration as Chemical Waste Producer	Works Area of 3204	WPN 5213-951-C4102-01	Completion of Registration on 15 Sep 2016
		Site Office of 3204	WPN 5213-951-C4102-02	Completion of Registration on 17 Mar 2017
	Discharge License under WPCO	Works area of 3204	WT00028245-2017	Valid from 5 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025969	Approval granted from EPD on 21 Sep 2016
3205	Notification of Construction Work under APCO	Works area of 3205	409041	Receipt acknowledged by EPD on 19 Oct 2016
	Registration as Chemical Waste Producer	Works Area of 3205	WPN 5213-951-B2502-01	Registration was updated on 25 Sep 2017
		Works Area of 3205	WPN 5111-421-B2509-01	Registration was updated on 25 Sep 2017
	Construction Noise Permit (General Works)	Works Area of 3205	GW-RS0576-18	Superseded by GW-RS0820-18 on 13 Sep 2018
			GW-RS0820-18	Valid until 12 Mar 2019
	Discharge License under WPCO	Works area of 3205	WT00028370-2017	Valid from 21 Jun 2017 to 30 Jun 2022
Bill Account for disposal	Works area of 3205	A/C 7026295	Approval granted from EPD on 9 Nov 2016	
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016
	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951-Z4035-01	Completion of Registration on 18 Nov 2016
		Works area of 3206	WPN 5213-951-Z4035-02	Completion of Registration on 18 Nov 2016

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0668-18	Superseded by GW-RS0821-18 on 13 Sep 2018
			GW-RS0596-18	Valid until 10 Jan 2019
			GW-RS0821-18	Valid until 6 Feb 2019
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951-F2718-02	Completion of Registration on 9 Jun 2017
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
	Construction Noise Permit (General Works)	Works area of 3301 (Cable ducting works)	GW-RS0270-18	Valid until 5 Oct 2018
		Works area of 3301	GW-RS0288-17	Valid until 5 Oct 2018
3501	Notification of Construction Work under APCO	Works area of 3501	434640	Receipt acknowledged by EPD on 13 Jun 2018
	Registration as Chemical Waste Producer	Works area of 3501	WPN 5213-951-B2520-02	Completion of Registration on 25 Jul 2017
	Discharge License under WPCO	Works area of 3501	WT00031400-2018	Valid from 30 Aug 2018 to 31 Aug 2023
	Bill Account for disposal	Works area of 3501	A/C 7028144	Approval granted from EPD on 23 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3501	GW-RS0541-18	Valid until 31 Oct 2018
3502	Notification of Construction Work under APCO	Works area of 3502	417511	Receipt acknowledged by EPD on 2 Jun 2017
	Registration as Chemical Waste Producer	Works area of 3502	WPN 5213-951-B2520-01	Completion of Registration on 3 Jul 2017
	Bill Account for disposal	Works area of 3502	A/C 7028050	Approval granted from EPD on 21 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3502	GW-RS0845-18	Valid until 10 Mar 2019
3503	Notification of Construction Work under APCO	Works area of 3503	435180	Receipt acknowledged by EPD on 29 Jun 2018
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951-L2845-02	Completion of Registration on 8 Jan 2018
	Discharge License under WPCO	Works area of 3503	WT00031258-2018	Valid from 7 Jun 2018 to 30 Jun 2023
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3503	GW-RS0629-18	Superseded by GW-RS0822-18 on 10 Sep 2018
			GW-RS0822-18	Valid until 9 Mar 2019
		Stockpiling area of 3503	GW-RS0384-18	Valid until 13 Nov 2018
3505	Bill Account for disposal	Works area of 3505	A/C 7030321	Approval granted from EPD on 16 Mar 2018
	Construction Noise Permit (General Works)	Works area of 3505	GW-RS0497-18	Valid until 31 Oct 2018
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951-N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Works area of 3603	WPN 5296-951-S4069-01	Completion of Registration on 22 Jan 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0771-18	Valid until 23 Feb 2019
3801	Notification of Construction Work under APCO	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
			430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535-2017	Valid from 24 Nov 2017 to 30 Nov 2022
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works and stockpiling area of 3801	GW-RS0684-18	Superseded by GW-RS0783-18 on 4 Sep 2018
			GW-RS0783-18	Valid until 28 Feb 2019
		Works area of 3801	GW-RS0552-18	Superseded by GW-RS0781-18 on 4 Sep 2018
			GW-RS0781-18	Valid until 31 Oct 2018

## Appendix F. Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecution

### Statistics for Exceedances for 1-hour TSP, Noise, Water, Waste, CWD Monitoring

		Total no. recorded in the reporting period	Total no. recorded since the project commenced
1-hr TSP	Action	0	0
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water	Action	0	0
	Limit	0	0
Waste	Action	0	0
	Limit	0	0
CWD	Action	0	0
	Limit	0	0

Remark: Exceedances, which are not project related, are not shown in this table.

### Statistics for Complaints, Notifications of Summons and Prosecution

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Prosecutions
This reporting period	1	0	0
From 28 December 2015 to end of the reporting period	15	1	1

## **Appendix G. Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 September 2018)**

**Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 September 2018)**

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
01-Sep	08:16	3A061	YFT	Arrival	13	-	-
01-Sep	08:25	8S210	XZM	Arrival	12	-	-
01-Sep	10:00	3A062	YFT	Arrival	11.9	-	-
01-Sep	10:17	3A163	YFT	Departure	12.1	-	-
01-Sep	10:33	8S212	XZM	Arrival	12.4	-	-
01-Sep	10:33	3A081	ZUI	Arrival	12.7	-	-
01-Sep	11:01	8S121	XZM	Departure	12.9	-	-
01-Sep	11:15	3A063	YFT	Arrival	12.8	-	-
01-Sep	12:19	3A168	YFT	Departure	13.4	-	-
01-Sep	12:21	3A181	ZUI	Departure	11.4	-	-
01-Sep	12:42	8S215	XZM	Arrival	12.9	-	-
01-Sep	13:10	3A064	YFT	Arrival	12.2	-	-
01-Sep	13:47	8S123	XZM	Departure	13.2	-	-
01-Sep	13:58	3A082	ZUI	Arrival	13.2	-	-
01-Sep	14:26	3A164	YFT	Departure	12.3	-	-
01-Sep	14:27	3A182	ZUI	Departure	12.6	-	-
01-Sep	14:53	3A065	YFT	Arrival	12.7	-	-
01-Sep	16:26	3A167	YFT	Departure	13.4	-	-
01-Sep	16:30	3A083	ZUI	Arrival	12.6	-	-
01-Sep	16:35	8S218	XZM	Arrival	11.8	-	-
01-Sep	17:11	3A067	YFT	Arrival	12.2	-	-
01-Sep	17:25	3A183	ZUI	Departure	11.6	-	-
01-Sep	17:30	8S126	XZM	Departure	13.2	<= 5	< 1min
01-Sep	19:29	3A166	YFT	Departure	11.7	-	-
01-Sep	19:54	3A084	ZUI	Arrival	12.7	-	-
01-Sep	20:20	3A185	ZUI	Departure	12.6	-	-
01-Sep	20:59	8S2113	XZM	Arrival	11.6	-	-
01-Sep	21:14	3A169	YFT	Departure	12.9	-	-
01-Sep	22:01	8S522	XZM	Departure	12.5	-	-
02-Sep	08:24	3A061	YFT	Arrival	12.1	-	-
02-Sep	08:28	8S210	XZM	Arrival	11.9	-	-
02-Sep	09:54	3A062	YFT	Arrival	12.4	-	-
02-Sep	10:17	3A163	YFT	Departure	12.9	-	-
02-Sep	10:40	8S212	XZM	Arrival	12.3	-	-
02-Sep	10:52	3A081	ZUI	Arrival	12.7	-	-
02-Sep	11:11	8S121	XZM	Departure	11	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
02-Sep	11:22	3A063	YFT	Arrival	11.6	-	-
02-Sep	12:21	3A181	ZUI	Departure	12.8	-	-
02-Sep	12:22	3A168	YFT	Departure	12.8	-	-
02-Sep	12:38	8S215	XZM	Arrival	12.2	-	-
02-Sep	12:55	3A064	YFT	Arrival	13.1	-	-
02-Sep	13:28	8S123	XZM	Departure	12.2	-	-
02-Sep	13:50	3A082	ZUI	Arrival	11.4	-	-
02-Sep	14:27	3A164	YFT	Departure	13	-	-
02-Sep	14:29	3A182	ZUI	Departure	12	-	-
02-Sep	14:54	3A065	YFT	Arrival	12.7	-	-
02-Sep	16:28	3A167	YFT	Departure	13	-	-
02-Sep	16:43	3A083	ZUI	Arrival	12.9	-	-
02-Sep	16:46	8S218	XZM	Arrival	13	-	-
02-Sep	16:57	3A067	YFT	Arrival	13.2	-	-
02-Sep	17:22	3A183	ZUI	Departure	12.4	-	-
02-Sep	17:22	8S126	XZM	Departure	13.2	-	-
02-Sep	19:38	3A166	YFT	Departure	13.6	-	-
02-Sep	19:40	3A084	ZUI	Arrival	12.1	-	-
02-Sep	20:29	3A185	ZUI	Departure	12.7	-	-
02-Sep	20:59	8S2113	XZM	Arrival	11.6	-	-
02-Sep	21:02	3A169	YFT	Departure	11.4	-	-
02-Sep	22:06	8S522	XZM	Departure	12.3	-	-
03-Sep	08:17	3A061	YFT	Arrival	12.2	-	-
03-Sep	08:22	8S210	XZM	Arrival	12.6	-	-
03-Sep	10:04	3A062	YFT	Arrival	10.8	-	-
03-Sep	10:28	3A163	YFT	Departure	12.2	-	-
03-Sep	10:35	8S212	XZM	Arrival	12.3	-	-
03-Sep	10:56	3A081	ZUI	Arrival	12.4	-	-
03-Sep	11:10	8S121	XZM	Departure	13	-	-
03-Sep	11:17	3A063	YFT	Arrival	12.6	-	-
03-Sep	12:21	3A168	YFT	Departure	11.4	-	-
03-Sep	12:23	3A181	ZUI	Departure	13.2	-	-
03-Sep	12:38	8S215	XZM	Arrival	11.2	-	-
03-Sep	12:58	3A064	YFT	Arrival	11.7	-	-
03-Sep	13:42	8S123	XZM	Departure	12	-	-
03-Sep	13:46	3A082	ZUI	Arrival	11.8	-	-
03-Sep	14:28	3A164	YFT	Departure	12.5	-	-
03-Sep	14:33	3A182	ZUI	Departure	12.5	-	-
03-Sep	14:55	3A065	YFT	Arrival	11.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
03-Sep	16:21	3A167	YFT	Departure	11.9	-	-
03-Sep	16:49	8S218	XZM	Arrival	11.2	-	-
03-Sep	16:55	3A067	YFT	Arrival	12.3	-	-
03-Sep	16:56	3A083	ZUI	Arrival	12.9	-	-
03-Sep	17:11	8S126	XZM	Departure	12.9	-	-
03-Sep	17:12	3A183	ZUI	Departure	12.6	-	-
03-Sep	19:12	3A166	YFT	Departure	13.5	-	-
03-Sep	19:57	3A084	ZUI	Arrival	12.9	-	-
03-Sep	20:18	3A185	ZUI	Departure	12.6	-	-
03-Sep	20:59	8S2113	XZM	Arrival	12.3	-	-
03-Sep	21:01	3A169	YFT	Departure	11.8	-	-
03-Sep	22:01	8S522	XZM	Departure	11.5	-	-
04-Sep	08:21	3A061	YFT	Arrival	12.6	-	-
04-Sep	08:22	8S210	XZM	Arrival	12.3	-	-
04-Sep	09:58	3A062	YFT	Arrival	11.1	-	-
04-Sep	10:19	3A163	YFT	Departure	11.6	-	-
04-Sep	10:35	8S212	XZM	Arrival	12.4	-	-
04-Sep	10:48	3A081	ZUI	Arrival	13.2	-	-
04-Sep	11:13	8S121	XZM	Departure	12.1	-	-
04-Sep	11:19	3A063	YFT	Arrival	12.6	<= 5	< 1min
04-Sep	12:20	3A168	YFT	Departure	12.4	<= 5	< 2min
04-Sep	12:24	3A181	ZUI	Departure	12.1	-	-
04-Sep	12:37	8S215	XZM	Arrival	12.1	-	-
04-Sep	13:01	3A064	YFT	Arrival	10.6	-	-
04-Sep	13:29	8S123	XZM	Departure	13.2	-	-
04-Sep	13:46	3A082	ZUI	Arrival	11.5	-	-
04-Sep	14:13	3A164	YFT	Departure	11.5	-	-
04-Sep	14:18	3A182	ZUI	Departure	12.7	-	-
04-Sep	14:52	3A065	YFT	Arrival	11.7	-	-
04-Sep	16:22	3A167	YFT	Departure	13.6	<= 15	< 1min
04-Sep	16:40	8S218	XZM	Arrival	11.2	-	-
04-Sep	16:52	3A083	ZUI	Arrival	12.8	-	-
04-Sep	17:03	3A067	YFT	Arrival	11.1	-	-
04-Sep	17:10	3A183	ZUI	Departure	13.4	-	-
04-Sep	17:13	8S126	XZM	Departure	13.1	-	-
04-Sep	19:07	3A166	YFT	Departure	12.6	-	-
04-Sep	19:56	3A084	ZUI	Arrival	12.5	-	-
04-Sep	20:22	3A185	ZUI	Departure	12.9	-	-
04-Sep	20:54	8S2113	XZM	Arrival	11.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
04-Sep	21:06	3A169	YFT	Departure	12.3	-	-
04-Sep	22:02	8S522	XZM	Departure	12.4	-	-
05-Sep	08:13	3A061	YFT	Arrival	12.9	-	-
05-Sep	08:15	8S210	XZM	Arrival	12.7	-	-
05-Sep	10:04	3A062	YFT	Arrival	12	-	-
05-Sep	10:16	3A163	YFT	Departure	12.3	-	-
05-Sep	10:33	8S212	XZM	Arrival	11.9	-	-
05-Sep	10:50	3A081	ZUI	Arrival	12.5	-	-
05-Sep	11:02	8S121	XZM	Departure	12	-	-
05-Sep	11:19	3A063	YFT	Arrival	11.9	-	-
05-Sep	12:27	3A168	YFT	Departure	12.2	-	-
05-Sep	12:29	3A181	ZUI	Departure	11.8	-	-
05-Sep	12:37	8S215	XZM	Arrival	11.8	-	-
05-Sep	12:54	3A064	YFT	Arrival	11.7	-	-
05-Sep	13:24	8S123	XZM	Departure	13	-	-
05-Sep	13:44	3A082	ZUI	Arrival	12.8	-	-
05-Sep	14:16	3A182	ZUI	Departure	12.6	-	-
05-Sep	14:18	3A164	YFT	Departure	11.8	-	-
05-Sep	14:58	3A065	YFT	Arrival	11.6	-	-
05-Sep	16:17	3A167	YFT	Departure	12.3	-	-
05-Sep	16:26	8S218	XZM	Arrival	11.7	-	-
05-Sep	16:43	3A083	ZUI	Arrival	11	-	-
05-Sep	16:56	3A067	YFT	Arrival	11.7	-	-
05-Sep	17:11	3A183	ZUI	Departure	13.6	-	-
05-Sep	17:13	8S126	XZM	Departure	12.7	-	-
05-Sep	19:13	3A166	YFT	Departure	12.2	-	-
05-Sep	19:58	3A084	ZUI	Arrival	11.7	-	-
05-Sep	20:10	3A185	ZUI	Departure	13.3	-	-
05-Sep	20:48	8S2113	XZM	Arrival	12.5	-	-
05-Sep	20:58	3A169	YFT	Departure	12	-	-
05-Sep	21:56	8S522	XZM	Departure	13.1	-	-
06-Sep	08:08	3A061	YFT	Arrival	13.4	-	-
06-Sep	08:18	8S210	XZM	Arrival	12.8	-	-
06-Sep	10:08	3A062	YFT	Arrival	12.4	-	-
06-Sep	10:20	3A163	YFT	Departure	12.3	-	-
06-Sep	10:37	8S212	XZM	Arrival	12.5	-	-
06-Sep	11:02	3A081	ZUI	Arrival	13.4	-	-
06-Sep	11:02	8S121	XZM	Departure	12.3	-	-
06-Sep	11:18	3A063	YFT	Arrival	12.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
06-Sep	12:30	3A181	ZUI	Departure	11.3	-	-
06-Sep	12:34	3A168	YFT	Departure	12.6	-	-
06-Sep	12:50	8S215	XZM	Arrival	12.1	-	-
06-Sep	12:56	3A064	YFT	Arrival	13	-	-
06-Sep	13:26	8S123	XZM	Departure	12.3	-	-
06-Sep	13:50	3A082	ZUI	Arrival	12.3	-	-
06-Sep	14:23	3A182	ZUI	Departure	12.5	-	-
06-Sep	14:27	3A164	YFT	Departure	13.2	-	-
06-Sep	15:06	3A065	YFT	Arrival	12.5	-	-
06-Sep	16:15	3A167	YFT	Departure	12.1	-	-
06-Sep	16:40	8S218	XZM	Arrival	12.1	-	-
06-Sep	16:46	3A083	ZUI	Arrival	12	-	-
06-Sep	16:58	3A067	YFT	Arrival	12.3	-	-
06-Sep	17:07	8S126	XZM	Departure	12.7	-	-
06-Sep	17:08	3A183	ZUI	Departure	13.3	-	-
06-Sep	18:58	3A166	YFT	Departure	12.2	-	-
06-Sep	19:50	3A084	ZUI	Arrival	12.9	-	-
06-Sep	20:11	3A185	ZUI	Departure	13.3	-	-
06-Sep	20:48	8S2113	XZM	Arrival	11.8	-	-
06-Sep	21:02	3A169	YFT	Departure	12.2	-	-
06-Sep	21:53	8S522	XZM	Departure	12.3	-	-
07-Sep	08:14	3A061	YFT	Arrival	12.4	-	-
07-Sep	08:20	8S210	XZM	Arrival	13	-	-
07-Sep	09:56	3A062	YFT	Arrival	12.8	-	-
07-Sep	10:30	3A163	YFT	Departure	13.4	-	-
07-Sep	10:35	8S212	XZM	Arrival	12.9	-	-
07-Sep	10:54	3A081	ZUI	Arrival	13.3	-	-
07-Sep	11:05	8S121	XZM	Departure	12.3	-	-
07-Sep	11:14	3A063	YFT	Arrival	12.4	-	-
07-Sep	12:32	3A168	YFT	Departure	13	-	-
07-Sep	12:35	3A181	ZUI	Departure	11.3	-	-
07-Sep	12:49	8S215	XZM	Arrival	13.1	-	-
07-Sep	13:00	3A064	YFT	Arrival	12.7	-	-
07-Sep	13:23	8S123	XZM	Departure	12.2	-	-
07-Sep	13:47	3A082	ZUI	Arrival	12	-	-
07-Sep	14:25	3A164	YFT	Departure	12.6	-	-
07-Sep	14:32	3A182	ZUI	Departure	11.5	-	-
07-Sep	14:57	3A065	YFT	Arrival	12.4	-	-
07-Sep	16:16	3A167	YFT	Departure	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
07-Sep	16:35	8S218	XZM	Arrival	11.7	-	-
07-Sep	16:58	3A067	YFT	Arrival	12.1	-	-
07-Sep	17:05	3A083	ZUI	Arrival	12.2	-	-
07-Sep	17:07	8S126	XZM	Departure	12.5	-	-
07-Sep	17:18	3A183	ZUI	Departure	12.5	-	-
07-Sep	19:01	3A166	YFT	Departure	12.9	-	-
07-Sep	19:51	3A084	ZUI	Arrival	12.5	-	-
07-Sep	20:13	3A185	ZUI	Departure	13.4	-	-
07-Sep	21:01	3A169	YFT	Departure	12.9	-	-
07-Sep	21:13	8S2113	XZM	Arrival	12.7	-	-
07-Sep	22:00	8S522	XZM	Departure	13.5	-	-
08-Sep	08:12	3A061	YFT	Arrival	11.7	-	-
08-Sep	08:23	8S210	XZM	Arrival	12.2	-	-
08-Sep	09:51	3A062	YFT	Arrival	12.4	-	-
08-Sep	10:17	3A163	YFT	Departure	13	-	-
08-Sep	10:35	8S212	XZM	Arrival	11.5	-	-
08-Sep	10:48	3A081	ZUI	Arrival	13.3	-	-
08-Sep	11:02	8S121	XZM	Departure	10.8	-	-
08-Sep	11:16	3A063	YFT	Arrival	11.2	-	-
08-Sep	12:19	3A168	YFT	Departure	11.4	-	-
08-Sep	12:23	3A181	ZUI	Departure	11.7	-	-
08-Sep	12:47	8S215	XZM	Arrival	13	-	-
08-Sep	12:52	3A064	YFT	Arrival	12.5	-	-
08-Sep	13:14	8S123	XZM	Departure	12.4	-	-
08-Sep	13:43	3A082	ZUI	Arrival	12.3	-	-
08-Sep	14:18	3A182	ZUI	Departure	12.2	-	-
08-Sep	14:22	3A164	YFT	Departure	12.8	-	-
08-Sep	15:01	3A065	YFT	Arrival	11.3	-	-
08-Sep	16:26	3A167	YFT	Departure	12.1	-	-
08-Sep	16:46	8S218	XZM	Arrival	11.7	-	-
08-Sep	16:48	3A083	ZUI	Arrival	11.8	-	-
08-Sep	17:00	3A067	YFT	Arrival	11.8	-	-
08-Sep	17:17	8S126	XZM	Departure	13	-	-
08-Sep	17:19	3A183	ZUI	Departure	13	-	-
08-Sep	19:15	3A166	YFT	Departure	11.8	-	-
08-Sep	19:53	3A084	ZUI	Arrival	12.5	-	-
08-Sep	20:09	3A185	ZUI	Departure	13.4	-	-
08-Sep	20:58	3A169	YFT	Departure	13.2	-	-
08-Sep	21:04	8S2113	XZM	Arrival	11.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
08-Sep	21:57	8S522	XZM	Departure	12.4	-	-
09-Sep	08:15	3A061	YFT	Arrival	12.8	-	-
09-Sep	08:18	8S210	XZM	Arrival	13.2	-	-
09-Sep	10:07	3A062	YFT	Arrival	11.7	-	-
09-Sep	10:25	3A163	YFT	Departure	13.1	-	-
09-Sep	10:35	8S212	XZM	Arrival	11.3	-	-
09-Sep	10:49	3A081	ZUI	Arrival	12.9	-	-
09-Sep	11:21	8S121	XZM	Departure	12.6	-	-
09-Sep	11:27	3A063	YFT	Arrival	11.2	-	-
09-Sep	12:19	3A168	YFT	Departure	11.3	-	-
09-Sep	12:21	3A181	ZUI	Departure	11.9	-	-
09-Sep	12:45	8S215	XZM	Arrival	12.1	-	-
09-Sep	12:55	3A064	YFT	Arrival	13	-	-
09-Sep	13:25	8S123	XZM	Departure	12.3	-	-
09-Sep	13:53	3A082	ZUI	Arrival	11.7	-	-
09-Sep	14:16	3A182	ZUI	Departure	11.5	-	-
09-Sep	14:17	3A164	YFT	Departure	13.3	-	-
09-Sep	15:04	3A065	YFT	Arrival	11.5	-	-
09-Sep	16:15	3A167	YFT	Departure	11.1	-	-
09-Sep	16:43	8S218	XZM	Arrival	11.5	-	-
09-Sep	16:48	3A083	ZUI	Arrival	12.9	-	-
09-Sep	16:56	3A067	YFT	Arrival	12.9	-	-
09-Sep	17:06	3A183	ZUI	Departure	12.5	-	-
09-Sep	17:10	8S126	XZM	Departure	12.9	-	-
09-Sep	19:14	3A166	YFT	Departure	12	-	-
09-Sep	19:54	3A084	ZUI	Arrival	12.3	-	-
09-Sep	20:12	3A185	ZUI	Departure	13.3	-	-
09-Sep	20:55	8S2113	XZM	Arrival	12.7	-	-
09-Sep	21:04	3A169	YFT	Departure	12.6	-	-
09-Sep	21:54	8S522	XZM	Departure	12.9	-	-
10-Sep	08:12	3A061	YFT	Arrival	11.3	-	-
10-Sep	08:27	8S210	XZM	Arrival	12.9	-	-
10-Sep	09:57	3A062	YFT	Arrival	12.4	-	-
10-Sep	10:17	3A163	YFT	Departure	12.6	-	-
10-Sep	10:29	8S212	XZM	Arrival	12.6	-	-
10-Sep	10:57	3A081	ZUI	Arrival	11.3	-	-
10-Sep	11:10	8S121	XZM	Departure	13.2	-	-
10-Sep	11:11	3A063	YFT	Arrival	12.4	-	-
10-Sep	12:20	3A168	YFT	Departure	12.4	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
10-Sep	12:21	3A181	ZUI	Departure	11.1	-	-
10-Sep	12:52	8S215	XZM	Arrival	12.5	-	-
10-Sep	12:55	3A064	YFT	Arrival	12.6	-	-
10-Sep	13:17	8S123	XZM	Departure	12.5	-	-
10-Sep	13:41	3A082	ZUI	Arrival	11.5	-	-
10-Sep	14:14	3A164	YFT	Departure	11.8	-	-
10-Sep	14:16	3A182	ZUI	Departure	12.3	-	-
10-Sep	14:54	3A065	YFT	Arrival	12.7	-	-
10-Sep	16:24	3A167	YFT	Departure	12.3	-	-
10-Sep	16:42	8S218	XZM	Arrival	11.7	-	-
10-Sep	16:47	3A083	ZUI	Arrival	12.9	-	-
10-Sep	17:02	8S126	XZM	Departure	12.1	-	-
10-Sep	17:03	3A067	YFT	Arrival	12.4	-	-
10-Sep	17:05	3A183	ZUI	Departure	12.7	-	-
10-Sep	19:02	3A166	YFT	Departure	12.7	-	-
10-Sep	19:50	3A084	ZUI	Arrival	11.9	-	-
10-Sep	20:12	3A185	ZUI	Departure	12.9	-	-
10-Sep	20:57	8S2113	XZM	Arrival	12.2	-	-
10-Sep	21:01	3A169	YFT	Departure	12.7	<= 5	< 1min
10-Sep	21:57	8S522	XZM	Departure	12.7	-	-
11-Sep	08:13	3A061	YFT	Arrival	12.1	-	-
11-Sep	08:21	8S210	XZM	Arrival	11.2	-	-
11-Sep	10:02	3A062	YFT	Arrival	12.1	-	-
11-Sep	10:15	3A163	YFT	Departure	12	-	-
11-Sep	10:45	8S212	XZM	Arrival	11.1	-	-
11-Sep	10:47	3A081	ZUI	Arrival	13.1	-	-
11-Sep	11:15	8S121	XZM	Departure	11.2	-	-
11-Sep	11:23	3A063	YFT	Arrival	12.6	-	-
11-Sep	12:19	3A181	ZUI	Departure	12.4	-	-
11-Sep	12:20	3A168	YFT	Departure	12.7	-	-
11-Sep	12:46	8S215	XZM	Arrival	12.2	-	-
11-Sep	12:51	3A064	YFT	Arrival	12.9	-	-
11-Sep	13:23	8S123	XZM	Departure	12.2	-	-
11-Sep	13:40	3A082	ZUI	Arrival	12.5	-	-
11-Sep	14:28	3A164	YFT	Departure	12.7	-	-
11-Sep	14:31	3A182	ZUI	Departure	12.1	-	-
11-Sep	14:56	3A065	YFT	Arrival	12.6	-	-
11-Sep	16:19	3A167	YFT	Departure	13.4	-	-
11-Sep	16:37	8S218	XZM	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
11-Sep	16:47	3A083	ZUI	Arrival	13	-	-
11-Sep	16:54	3A067	YFT	Arrival	12.5	-	-
11-Sep	17:05	8S126	XZM	Departure	12.3	-	-
11-Sep	17:07	3A183	ZUI	Departure	11.8	-	-
11-Sep	19:06	3A166	YFT	Departure	11.7	-	-
11-Sep	19:53	3A084	ZUI	Arrival	12.6	-	-
11-Sep	20:13	3A185	ZUI	Departure	13.5	-	-
11-Sep	21:07	3A169	YFT	Departure	12	-	-
11-Sep	21:07	8S2113	XZM	Arrival	12.8	-	-
11-Sep	21:56	8S522	XZM	Departure	13	-	-
12-Sep	08:12	3A061	YFT	Arrival	11.7	-	-
12-Sep	08:21	8S210	XZM	Arrival	12.2	-	-
12-Sep	09:59	3A062	YFT	Arrival	12.8	-	-
12-Sep	10:18	3A163	YFT	Departure	13.2	-	-
12-Sep	10:41	8S212	XZM	Arrival	10.8	-	-
12-Sep	10:47	3A081	ZUI	Arrival	12.9	-	-
12-Sep	11:02	8S121	XZM	Departure	10.9	-	-
12-Sep	11:17	3A063	YFT	Arrival	13	-	-
12-Sep	12:18	3A168	YFT	Departure	13.3	-	-
12-Sep	12:19	3A181	ZUI	Departure	13.1	-	-
12-Sep	12:46	8S215	XZM	Arrival	11.8	-	-
12-Sep	12:53	3A064	YFT	Arrival	13.1	-	-
12-Sep	13:20	8S123	XZM	Departure	12.8	-	-
12-Sep	13:40	3A082	ZUI	Arrival	12.1	-	-
12-Sep	14:17	3A164	YFT	Departure	13.1	-	-
12-Sep	14:21	3A182	ZUI	Departure	12.8	-	-
12-Sep	14:55	3A065	YFT	Arrival	12.9	-	-
12-Sep	16:26	3A167	YFT	Departure	13	-	-
12-Sep	16:45	8S218	XZM	Arrival	12.4	-	-
12-Sep	16:45	3A083	ZUI	Arrival	13.1	-	-
12-Sep	16:57	3A067	YFT	Arrival	12.6	-	-
12-Sep	17:04	3A183	ZUI	Departure	12.2	-	-
12-Sep	17:07	8S126	XZM	Departure	12.6	-	-
12-Sep	19:09	3A166	YFT	Departure	12.2	-	-
12-Sep	19:40	3A084	ZUI	Arrival	11.6	-	-
12-Sep	20:19	3A185	ZUI	Departure	12.1	-	-
12-Sep	20:54	8S2113	XZM	Arrival	11	-	-
12-Sep	21:02	3A169	YFT	Departure	12.6	-	-
12-Sep	21:54	8S522	XZM	Departure	11.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
13-Sep	08:19	3A061	YFT	Arrival	12.2	-	-
13-Sep	08:22	8S210	XZM	Arrival	11.2	-	-
13-Sep	09:54	3A062	YFT	Arrival	11.8	-	-
13-Sep	10:11	3A163	YFT	Departure	12.4	-	-
13-Sep	10:34	3A081	ZUI	Arrival	12.6	-	-
13-Sep	10:36	8S212	XZM	Arrival	12.2	-	-
13-Sep	11:02	8S121	XZM	Departure	11.9	-	-
13-Sep	11:14	3A063	YFT	Arrival	12.6	-	-
13-Sep	12:16	3A181	ZUI	Departure	11.5	-	-
13-Sep	12:21	3A168	YFT	Departure	12.5	-	-
13-Sep	12:50	8S215	XZM	Arrival	12.1	-	-
13-Sep	12:52	3A064	YFT	Arrival	12.2	-	-
13-Sep	13:19	8S123	XZM	Departure	12.1	-	-
13-Sep	14:04	3A082	ZUI	Arrival	12.9	-	-
13-Sep	14:13	3A164	YFT	Departure	11.9	-	-
13-Sep	14:18	3A182	ZUI	Departure	12.6	-	-
13-Sep	14:53	3A065	YFT	Arrival	12.9	-	-
13-Sep	16:16	3A167	YFT	Departure	13.2	-	-
13-Sep	16:40	3A083	ZUI	Arrival	12.3	-	-
13-Sep	16:42	8S218	XZM	Arrival	11.7	-	-
13-Sep	17:02	3A067	YFT	Arrival	12.8	-	-
13-Sep	17:07	8S126	XZM	Departure	12.3	-	-
13-Sep	17:14	3A183	ZUI	Departure	11.4	-	-
13-Sep	19:05	3A166	YFT	Departure	11.4	-	-
13-Sep	19:53	3A084	ZUI	Arrival	12.1	-	-
13-Sep	20:19	3A185	ZUI	Departure	13.5	-	-
13-Sep	21:02	8S2113	XZM	Arrival	11.6	-	-
13-Sep	21:02	3A169	YFT	Departure	12.8	-	-
14-Sep	08:18	3A061	YFT	Arrival	11.8	-	-
14-Sep	08:26	8S210	XZM	Arrival	12.7	-	-
14-Sep	10:19	3A062	YFT	Arrival	11.8	-	-
14-Sep	10:43	3A081	ZUI	Arrival	12.8	-	-
14-Sep	10:46	3A163	YFT	Departure	13	-	-
14-Sep	10:46	8S212	XZM	Arrival	12.6	-	-
14-Sep	11:11	8S121	XZM	Departure	13.2	-	-
14-Sep	11:15	3A063	YFT	Arrival	12.1	-	-
14-Sep	12:21	3A168	YFT	Departure	13.1	-	-
14-Sep	12:25	3A181	ZUI	Departure	11.9	-	-
14-Sep	12:50	8S215	XZM	Arrival	11.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
14-Sep	13:05	3A064	YFT	Arrival	12.7	-	-
14-Sep	13:22	8S123	XZM	Departure	10.6	-	-
14-Sep	13:44	3A082	ZUI	Arrival	13.1	-	-
14-Sep	14:13	3A182	ZUI	Departure	12.5	-	-
14-Sep	14:14	3A164	YFT	Departure	12.9	<= 5	< 1min
14-Sep	14:49	3A065	YFT	Arrival	13.1	-	-
14-Sep	16:18	3A167	YFT	Departure	13.5	-	-
14-Sep	16:36	8S218	XZM	Arrival	11.8	-	-
14-Sep	16:40	3A083	ZUI	Arrival	12.2	<= 5	< 2min
14-Sep	16:58	3A067	YFT	Arrival	12.6	-	-
14-Sep	17:08	3A183	ZUI	Departure	11.9	-	-
14-Sep	17:13	8S126	XZM	Departure	11.2	-	-
14-Sep	19:02	3A166	YFT	Departure	11.5	-	-
14-Sep	19:47	3A084	ZUI	Arrival	12	-	-
14-Sep	20:20	3A185	ZUI	Departure	12.2	-	-
14-Sep	20:57	8S2113	XZM	Arrival	11.7	-	-
14-Sep	20:58	3A169	YFT	Departure	12.4	-	-
15-Sep	08:13	3A061	YFT	Arrival	11.6	-	-
15-Sep	08:24	8S210	XZM	Arrival	13.2	-	-
15-Sep	09:52	3A062	YFT	Arrival	11.9	-	-
15-Sep	10:09	3A163	YFT	Departure	12.1	-	-
15-Sep	10:37	8S212	XZM	Arrival	12.4	-	-
15-Sep	10:46	3A081	ZUI	Arrival	11.4	-	-
15-Sep	10:58	8S121	XZM	Departure	11.9	-	-
15-Sep	11:17	3A063	YFT	Arrival	11.7	-	-
15-Sep	12:15	3A168	YFT	Departure	12.2	-	-
15-Sep	12:23	3A181	ZUI	Departure	12.4	-	-
15-Sep	12:45	8S215	XZM	Arrival	11.9	-	-
15-Sep	12:54	3A064	YFT	Arrival	11.9	-	-
15-Sep	13:15	8S123	XZM	Departure	12.9	-	-
15-Sep	13:40	3A082	ZUI	Arrival	13.2	-	-
15-Sep	14:26	3A164	YFT	Departure	12.5	-	-
15-Sep	14:30	3A182	ZUI	Departure	12.1	-	-
15-Sep	14:54	3A065	YFT	Arrival	11.9	-	-
15-Sep	16:16	8S218	XZM	Arrival	12.8	<= 5	< 1min
15-Sep	16:18	3A167	YFT	Departure	12.6	-	-
15-Sep	16:55	3A067	YFT	Arrival	12.2	-	-
15-Sep	17:04	8S126	XZM	Departure	13.1	-	-
15-Sep	20:53	8S2113	XZM	Arrival	12	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
17-Sep	16:18	8S218	XZM	Arrival	11	-	-
17-Sep	17:13	8S126	XZM	Departure	12.5	-	-
17-Sep	18:59	3A166	YFT	Departure	11.6	-	-
17-Sep	19:37	3A084	ZUI	Arrival	12.1	-	-
17-Sep	20:14	3A185	ZUI	Departure	13	-	-
17-Sep	20:59	8S2113	XZM	Arrival	11.5	-	-
17-Sep	21:15	3A169	YFT	Departure	12.3	-	-
18-Sep	08:11	3A061	YFT	Arrival	13	-	-
18-Sep	08:20	8S210	XZM	Arrival	12.6	-	-
18-Sep	09:59	3A062	YFT	Arrival	10.9	-	-
18-Sep	10:19	3A163	YFT	Departure	11.8	-	-
18-Sep	10:36	3A081	ZUI	Arrival	11.8	-	-
18-Sep	10:39	8S212	XZM	Arrival	12	-	-
18-Sep	11:02	8S121	XZM	Departure	12.9	-	-
18-Sep	11:19	3A063	YFT	Arrival	12.4	-	-
18-Sep	12:24	3A181	ZUI	Departure	11.6	-	-
18-Sep	12:26	3A168	YFT	Departure	10.9	-	-
18-Sep	12:40	8S215	XZM	Arrival	12	-	-
18-Sep	13:00	3A064	YFT	Arrival	11	-	-
18-Sep	13:20	8S123	XZM	Departure	12.6	-	-
18-Sep	13:53	3A082	ZUI	Arrival	11.5	-	-
18-Sep	14:23	3A182	ZUI	Departure	12.6	-	-
18-Sep	14:24	3A164	YFT	Departure	12.5	-	-
18-Sep	15:00	3A065	YFT	Arrival	11.6	-	-
18-Sep	16:14	3A167	YFT	Departure	12.3	-	-
18-Sep	16:48	8S218	XZM	Arrival	11.6	-	-
18-Sep	16:52	3A083	ZUI	Arrival	12.1	-	-
18-Sep	16:58	3A067	YFT	Arrival	11.3	-	-
18-Sep	17:22	8S126	XZM	Departure	12.5	-	-
18-Sep	17:24	3A183	ZUI	Departure	12.2	-	-
18-Sep	19:21	3A166	YFT	Departure	12.6	-	-
18-Sep	19:35	3A084	ZUI	Arrival	12.2	-	-
18-Sep	20:24	3A185	ZUI	Departure	12.5	-	-
18-Sep	20:54	8S2113	XZM	Arrival	12.9	-	-
18-Sep	21:20	3A169	YFT	Departure	11	-	-
19-Sep	08:16	3A061	YFT	Arrival	13.1	-	-
19-Sep	08:18	8S210	XZM	Arrival	12.7	-	-
19-Sep	10:00	3A062	YFT	Arrival	11.7	-	-
19-Sep	10:19	3A163	YFT	Departure	11	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
19-Sep	10:42	8S212	XZM	Arrival	12.3	-	-
19-Sep	10:54	3A081	ZUI	Arrival	13.2	-	-
19-Sep	11:16	8S121	XZM	Departure	12.5	-	-
19-Sep	11:20	3A063	YFT	Arrival	12.7	-	-
19-Sep	12:23	3A168	YFT	Departure	12.7	-	-
19-Sep	12:25	3A181	ZUI	Departure	12	-	-
19-Sep	12:52	8S215	XZM	Arrival	12.4	-	-
19-Sep	13:06	3A064	YFT	Arrival	11.1	-	-
19-Sep	13:31	8S123	XZM	Departure	12.7	-	-
19-Sep	13:53	3A082	ZUI	Arrival	12.6	-	-
19-Sep	14:24	3A182	ZUI	Departure	12.9	-	-
19-Sep	14:26	3A164	YFT	Departure	11.1	-	-
19-Sep	14:55	3A065	YFT	Arrival	12.1	-	-
19-Sep	16:16	3A167	YFT	Departure	12.3	<= 5	< 1min
19-Sep	16:47	3A083	ZUI	Arrival	12.6	-	-
19-Sep	17:06	3A183	ZUI	Departure	13.2	-	-
19-Sep	17:07	3A067	YFT	Arrival	11.2	-	-
19-Sep	17:31	8S218	XZM	Arrival	12.1	-	-
19-Sep	17:57	8S126	XZM	Departure	13.4	-	-
19-Sep	19:01	3A166	YFT	Departure	11.7	-	-
19-Sep	19:53	3A084	ZUI	Arrival	12.6	-	-
19-Sep	20:08	3A185	ZUI	Departure	13.1	-	-
19-Sep	20:58	3A169	YFT	Departure	12	-	-
19-Sep	21:07	8S2113	XZM	Arrival	11.9	-	-
20-Sep	08:10	3A061	YFT	Arrival	12.9	-	-
20-Sep	08:22	8S210	XZM	Arrival	11.7	-	-
20-Sep	10:00	3A062	YFT	Arrival	11.4	-	-
20-Sep	10:22	3A163	YFT	Departure	12.7	-	-
20-Sep	10:33	8S212	XZM	Arrival	12.9	-	-
20-Sep	10:49	3A081	ZUI	Arrival	13.4	-	-
20-Sep	11:13	8S121	XZM	Departure	12.2	-	-
20-Sep	11:17	3A063	YFT	Arrival	11.7	-	-
20-Sep	12:18	3A181	ZUI	Departure	11.8	-	-
20-Sep	12:19	3A168	YFT	Departure	12.5	-	-
20-Sep	12:47	8S215	XZM	Arrival	12	-	-
20-Sep	12:51	3A064	YFT	Arrival	13	-	-
20-Sep	13:20	8S123	XZM	Departure	12.2	-	-
20-Sep	13:42	3A082	ZUI	Arrival	12.3	-	-
20-Sep	14:14	3A182	ZUI	Departure	13	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
20-Sep	14:14	3A164	YFT	Departure	13.7	-	-
20-Sep	14:58	3A065	YFT	Arrival	11.9	-	-
20-Sep	16:33	3A167	YFT	Departure	12.8	-	-
20-Sep	16:44	3A083	ZUI	Arrival	12.5	-	-
20-Sep	16:45	8S218	XZM	Arrival	11	-	-
20-Sep	16:54	3A067	YFT	Arrival	12.2	-	-
20-Sep	17:11	3A183	ZUI	Departure	13.3	-	-
20-Sep	17:18	8S126	XZM	Departure	12.8	-	-
20-Sep	19:13	3A166	YFT	Departure	12.3	-	-
20-Sep	19:50	3A084	ZUI	Arrival	12.8	-	-
20-Sep	20:16	3A185	ZUI	Departure	12.8	-	-
20-Sep	20:58	8S2113	XZM	Arrival	13	-	-
20-Sep	21:05	3A169	YFT	Departure	11.7	-	-
21-Sep	08:07	3A061	YFT	Arrival	12.5	-	-
21-Sep	08:20	8S210	XZM	Arrival	12.1	-	-
21-Sep	10:05	3A062	YFT	Arrival	13.2	-	-
21-Sep	10:22	3A163	YFT	Departure	12.6	-	-
21-Sep	10:34	8S212	XZM	Arrival	12.5	-	-
21-Sep	10:59	3A081	ZUI	Arrival	13.1	-	-
21-Sep	11:18	3A063	YFT	Arrival	12.4	-	-
21-Sep	11:22	8S121	XZM	Departure	12.1	-	-
21-Sep	12:23	3A168	YFT	Departure	12.3	-	-
21-Sep	12:54	8S215	XZM	Arrival	12.5	-	-
21-Sep	13:00	3A064	YFT	Arrival	12.4	-	-
21-Sep	13:40	8S123	XZM	Departure	12.5	-	-
21-Sep	13:52	3A082	ZUI	Arrival	11.8	-	-
21-Sep	14:24	3A164	YFT	Departure	12.7	-	-
21-Sep	14:27	3A182	ZUI	Departure	12.6	-	-
21-Sep	14:59	3A065	YFT	Arrival	11.9	-	-
21-Sep	16:21	3A167	YFT	Departure	11.1	-	-
21-Sep	16:40	8S218	XZM	Arrival	11.8	-	-
21-Sep	16:57	3A083	ZUI	Arrival	10.7	-	-
21-Sep	16:58	3A067	YFT	Arrival	11.8	-	-
21-Sep	17:12	8S126	XZM	Departure	12.3	-	-
21-Sep	17:13	3A183	ZUI	Departure	12.3	-	-
21-Sep	19:13	3A166	YFT	Departure	13.1	-	-
21-Sep	19:58	3A084	ZUI	Arrival	12.2	-	-
21-Sep	20:14	3A185	ZUI	Departure	12.7	-	-
21-Sep	21:00	8S2113	XZM	Arrival	12	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
21-Sep	21:00	3A169	YFT	Departure	13.8	-	-
21-Sep	21:57	8S522	XZM	Departure	12.6	-	-
22-Sep	08:13	3A061	YFT	Arrival	11.5	-	-
22-Sep	08:20	8S210	XZM	Arrival	12	-	-
22-Sep	09:58	3A062	YFT	Arrival	12.9	-	-
22-Sep	10:14	3A163	YFT	Departure	13.2	-	-
22-Sep	10:38	8S212	XZM	Arrival	13.2	-	-
22-Sep	10:52	3A081	ZUI	Arrival	13.2	-	-
22-Sep	11:11	8S121	XZM	Departure	12.9	-	-
22-Sep	11:17	3A063	YFT	Arrival	13.1	-	-
22-Sep	12:21	3A168	YFT	Departure	12.9	-	-
22-Sep	12:21	3A181	ZUI	Departure	12	-	-
22-Sep	12:45	8S215	XZM	Arrival	12.5	-	-
22-Sep	13:00	3A064	YFT	Arrival	12.7	-	-
22-Sep	13:24	8S123	XZM	Departure	11.8	-	-
22-Sep	13:41	3A082	ZUI	Arrival	12.8	-	-
22-Sep	14:16	3A164	YFT	Departure	13.1	-	-
22-Sep	14:20	3A182	ZUI	Departure	11.5	-	-
22-Sep	15:01	3A065	YFT	Arrival	12.3	-	-
22-Sep	16:21	3A167	YFT	Departure	13.4	-	-
22-Sep	16:43	8S218	XZM	Arrival	12.2	-	-
22-Sep	16:49	3A083	ZUI	Arrival	12.4	-	-
22-Sep	17:03	3A067	YFT	Arrival	12.2	-	-
22-Sep	17:09	3A183	ZUI	Departure	13.1	-	-
22-Sep	17:27	8S126	XZM	Departure	13.7	-	-
22-Sep	19:05	3A166	YFT	Departure	11.5	-	-
22-Sep	19:53	3A084	ZUI	Arrival	12.7	-	-
22-Sep	20:11	3A185	ZUI	Departure	13.2	-	-
22-Sep	20:51	8S2113	XZM	Arrival	11.9	-	-
22-Sep	21:01	3A169	YFT	Departure	12.6	-	-
22-Sep	21:55	8S522	XZM	Departure	12.9	-	-
23-Sep	08:12	3A061	YFT	Arrival	12.6	-	-
23-Sep	08:17	8S210	XZM	Arrival	12.4	-	-
23-Sep	09:52	3A062	YFT	Arrival	11.4	-	-
23-Sep	10:20	3A163	YFT	Departure	13.1	-	-
23-Sep	10:34	8S212	XZM	Arrival	13.1	-	-
23-Sep	10:47	3A081	ZUI	Arrival	13.5	-	-
23-Sep	11:01	8S121	XZM	Departure	12.8	-	-
23-Sep	11:11	3A063	YFT	Arrival	12.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
23-Sep	12:28	3A168	YFT	Departure	12.6	-	-
23-Sep	12:28	3A181	ZUI	Departure	11.8	-	-
23-Sep	12:41	8S215	XZM	Arrival	11.9	-	-
23-Sep	12:56	3A064	YFT	Arrival	13	-	-
23-Sep	13:17	8S123	XZM	Departure	11.1	-	-
23-Sep	13:50	3A082	ZUI	Arrival	11.9	-	-
23-Sep	14:22	3A182	ZUI	Departure	12.4	-	-
23-Sep	14:31	3A164	YFT	Departure	13.1	-	-
23-Sep	15:00	3A065	YFT	Arrival	11.8	-	-
23-Sep	16:10	3A167	YFT	Departure	12.2	-	-
23-Sep	16:43	8S218	XZM	Arrival	12	-	-
23-Sep	16:46	3A083	ZUI	Arrival	12.7	-	-
23-Sep	16:51	3A067	YFT	Arrival	12.5	<= 5	< 1min
23-Sep	17:05	3A183	ZUI	Departure	12.8	-	-
23-Sep	17:20	8S126	XZM	Departure	12.1	-	-
23-Sep	19:02	3A166	YFT	Departure	12.7	-	-
23-Sep	19:51	3A084	ZUI	Arrival	12.5	-	-
23-Sep	20:12	3A185	ZUI	Departure	13.4	-	-
23-Sep	20:56	8S2113	XZM	Arrival	12.9	-	-
23-Sep	21:05	3A169	YFT	Departure	12.9	-	-
24-Sep	08:18	8S210	XZM	Arrival	12.7	<= 5	< 1min
24-Sep	08:31	3A061	YFT	Arrival	11.8	-	-
24-Sep	09:58	3A062	YFT	Arrival	11.9	-	-
24-Sep	10:21	3A163	YFT	Departure	13.3	-	-
24-Sep	10:33	8S212	XZM	Arrival	13.1	-	-
24-Sep	10:45	3A081	ZUI	Arrival	13.1	-	-
24-Sep	11:06	8S121	XZM	Departure	13.4	-	-
24-Sep	11:19	3A063	YFT	Arrival	11.5	-	-
24-Sep	12:18	3A168	YFT	Departure	11.6	-	-
24-Sep	12:20	3A181	ZUI	Departure	12.3	-	-
24-Sep	12:43	8S215	XZM	Arrival	12.5	-	-
24-Sep	12:51	3A064	YFT	Arrival	13.2	-	-
24-Sep	13:30	8S123	XZM	Departure	12.8	-	-
24-Sep	13:43	3A082	ZUI	Arrival	12	<= 5	< 1min
24-Sep	14:17	3A164	YFT	Departure	13.6	-	-
24-Sep	14:18	3A182	ZUI	Departure	11.2	-	-
24-Sep	15:00	3A065	YFT	Arrival	11.3	-	-
24-Sep	16:30	3A167	YFT	Departure	10.6	-	-
24-Sep	16:57	8S218	XZM	Arrival	11.9	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
24-Sep	17:02	3A083	ZUI	Arrival	13	-	-
24-Sep	17:16	3A067	YFT	Arrival	12.5	<= 5	< 1min
24-Sep	17:30	3A183	ZUI	Departure	12.8	-	-
24-Sep	17:38	8S126	XZM	Departure	12.7	-	-
24-Sep	19:17	3A166	YFT	Departure	12.7	-	-
24-Sep	19:37	3A084	ZUI	Arrival	12	-	-
24-Sep	20:20	3A185	ZUI	Departure	11.4	-	-
24-Sep	21:07	8S2113	XZM	Arrival	11.6	-	-
24-Sep	21:08	3A169	YFT	Departure	13.7	-	-
25-Sep	08:13	3A061	YFT	Arrival	12	-	-
25-Sep	08:20	8S210	XZM	Arrival	12.1	-	-
25-Sep	09:56	3A062	YFT	Arrival	12.2	-	-
25-Sep	10:13	3A163	YFT	Departure	12.3	-	-
25-Sep	10:53	3A081	ZUI	Arrival	12.5	-	-
25-Sep	11:11	3A063	YFT	Arrival	13.3	-	-
25-Sep	11:16	8S212	XZM	Arrival	12.8	-	-
25-Sep	11:38	8S121	XZM	Departure	13	-	-
25-Sep	12:17	3A168	YFT	Departure	12.1	-	-
25-Sep	12:29	3A181	ZUI	Departure	12.3	-	-
25-Sep	12:47	8S215	XZM	Arrival	12.7	-	-
25-Sep	12:58	3A064	YFT	Arrival	12.2	-	-
25-Sep	13:25	8S123	XZM	Departure	12.4	-	-
25-Sep	13:47	3A082	ZUI	Arrival	11.9	-	-
25-Sep	14:18	3A164	YFT	Departure	12	-	-
25-Sep	14:19	3A182	ZUI	Departure	12.4	-	-
25-Sep	14:53	3A065	YFT	Arrival	12.1	-	-
25-Sep	16:22	3A167	YFT	Departure	13.1	-	-
25-Sep	16:41	8S218	XZM	Arrival	12.2	-	-
25-Sep	16:43	3A083	ZUI	Arrival	12.8	-	-
25-Sep	17:02	3A067	YFT	Arrival	12	-	-
25-Sep	17:22	8S126	XZM	Departure	13.3	-	-
25-Sep	17:26	3A183	ZUI	Departure	12.9	-	-
25-Sep	19:03	3A166	YFT	Departure	11.6	-	-
25-Sep	20:09	3A084	ZUI	Arrival	12.3	-	-
25-Sep	20:25	3A185	ZUI	Departure	13.5	-	-
25-Sep	21:00	8S2113	XZM	Arrival	12.3	-	-
25-Sep	21:01	3A169	YFT	Departure	12.4	-	-
26-Sep	08:10	3A061	YFT	Arrival	12.6	-	-
26-Sep	08:18	8S210	XZM	Arrival	12	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
26-Sep	10:05	3A062	YFT	Arrival	11.7	-	-
26-Sep	10:27	3A163	YFT	Departure	12.1	-	-
26-Sep	10:46	3A081	ZUI	Arrival	12.9	-	-
26-Sep	10:48	8S212	XZM	Arrival	12.1	-	-
26-Sep	11:15	8S121	XZM	Departure	12.7	-	-
26-Sep	11:20	3A063	YFT	Arrival	11.9	-	-
26-Sep	12:15	3A181	ZUI	Departure	12.4	-	-
26-Sep	12:28	3A168	YFT	Departure	13	-	-
26-Sep	12:48	8S215	XZM	Arrival	11.5	-	-
26-Sep	12:53	3A064	YFT	Arrival	13.1	-	-
26-Sep	13:22	8S123	XZM	Departure	12.1	-	-
26-Sep	13:45	3A082	ZUI	Arrival	11.6	-	-
26-Sep	14:16	3A164	YFT	Departure	13.3	-	-
26-Sep	14:19	3A182	ZUI	Departure	12.9	-	-
26-Sep	14:57	3A065	YFT	Arrival	13	-	-
26-Sep	16:17	3A167	YFT	Departure	13	-	-
26-Sep	16:38	8S218	XZM	Arrival	12.1	-	-
26-Sep	16:42	3A083	ZUI	Arrival	13.2	-	-
26-Sep	16:50	3A067	YFT	Arrival	12.8	-	-
26-Sep	17:12	3A183	ZUI	Departure	12.2	-	-
26-Sep	17:14	8S126	XZM	Departure	12.3	-	-
26-Sep	19:03	3A166	YFT	Departure	12.2	-	-
26-Sep	19:53	3A084	ZUI	Arrival	12.2	-	-
26-Sep	20:11	3A185	ZUI	Departure	13.3	-	-
26-Sep	21:01	3A169	YFT	Departure	13.4	-	-
26-Sep	21:06	8S2113	XZM	Arrival	11.1	-	-
27-Sep	08:14	3A061	YFT	Arrival	12	-	-
27-Sep	08:17	8S210	XZM	Arrival	13	-	-
27-Sep	09:59	3A062	YFT	Arrival	12.9	-	-
27-Sep	10:26	3A163	YFT	Departure	13	-	-
27-Sep	10:37	8S212	XZM	Arrival	12.3	-	-
27-Sep	10:53	3A081	ZUI	Arrival	12.7	-	-
27-Sep	11:19	8S121	XZM	Departure	11.7	-	-
27-Sep	11:26	3A063	YFT	Arrival	13	-	-
27-Sep	12:12	3A168	YFT	Departure	12.8	-	-
27-Sep	12:19	3A181	ZUI	Departure	12.9	-	-
27-Sep	12:56	3A064	YFT	Arrival	12.8	-	-
27-Sep	13:00	8S215	XZM	Arrival	11.7	-	-
27-Sep	13:27	8S123	XZM	Departure	13.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
27-Sep	13:49	3A082	ZUI	Arrival	12.5	-	-
27-Sep	14:14	3A164	YFT	Departure	12.7	-	-
27-Sep	14:20	3A182	ZUI	Departure	12.3	-	-
27-Sep	15:04	3A065	YFT	Arrival	13.1	-	-
27-Sep	16:15	3A167	YFT	Departure	11.4	-	-
27-Sep	16:44	8S218	XZM	Arrival	12.2	-	-
27-Sep	16:50	3A083	ZUI	Arrival	12.9	-	-
27-Sep	16:54	3A067	YFT	Arrival	12.8	-	-
27-Sep	17:07	3A183	ZUI	Departure	12.4	-	-
27-Sep	17:20	8S126	XZM	Departure	13.3	-	-
27-Sep	19:03	3A166	YFT	Departure	12	-	-
27-Sep	19:54	3A084	ZUI	Arrival	11.9	-	-
27-Sep	20:14	3A185	ZUI	Departure	13.6	-	-
27-Sep	21:02	8S2113	XZM	Arrival	11.4	-	-
27-Sep	21:02	3A169	YFT	Departure	13	-	-
27-Sep	21:58	8S522	XZM	Departure	11.9	-	-
28-Sep	08:18	3A061	YFT	Arrival	11.7	-	-
28-Sep	08:52	8S210	XZM	Arrival	12.9	-	-
28-Sep	09:57	3A062	YFT	Arrival	12.4	-	-
28-Sep	10:14	3A163	YFT	Departure	12.1	-	-
28-Sep	10:32	8S212	XZM	Arrival	12.6	-	-
28-Sep	10:42	3A081	ZUI	Arrival	11.6	-	-
28-Sep	11:15	8S121	XZM	Departure	13.3	-	-
28-Sep	11:21	3A063	YFT	Arrival	12.7	-	-
28-Sep	12:16	3A168	YFT	Departure	13.2	-	-
28-Sep	12:17	3A181	ZUI	Departure	12.6	-	-
28-Sep	12:48	8S215	XZM	Arrival	11.7	-	-
28-Sep	12:58	3A064	YFT	Arrival	12.4	-	-
28-Sep	13:14	8S123	XZM	Departure	11.1	-	-
28-Sep	13:46	3A082	ZUI	Arrival	10.9	-	-
28-Sep	14:10	3A182	ZUI	Departure	13	-	-
28-Sep	14:15	3A164	YFT	Departure	11.9	-	-
28-Sep	14:54	3A065	YFT	Arrival	12.3	-	-
28-Sep	16:13	3A167	YFT	Departure	12.4	-	-
28-Sep	16:38	8S218	XZM	Arrival	11.8	-	-
28-Sep	16:50	3A083	ZUI	Arrival	13.3	-	-
28-Sep	17:02	3A067	YFT	Arrival	11.2	-	-
28-Sep	17:04	3A183	ZUI	Departure	12.2	-	-
28-Sep	17:10	8S126	XZM	Departure	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
28-Sep	19:04	3A166	YFT	Departure	11.7	-	-
28-Sep	19:57	3A084	ZUI	Arrival	11.8	-	-
28-Sep	20:16	3A185	ZUI	Departure	12.8	-	-
28-Sep	20:59	8S2113	XZM	Arrival	11.3	-	-
28-Sep	21:00	3A169	YFT	Departure	13.2	-	-
29-Sep	08:15	3A061	YFT	Arrival	11.9	-	-
29-Sep	08:19	8S210	XZM	Arrival	11.7	-	-
29-Sep	10:03	3A062	YFT	Arrival	12.7	-	-
29-Sep	10:24	3A163	YFT	Departure	13.1	-	-
29-Sep	10:30	8S212	XZM	Arrival	12.7	-	-
29-Sep	10:51	3A081	ZUI	Arrival	12.2	-	-
29-Sep	11:15	3A063	YFT	Arrival	12.8	-	-
29-Sep	11:25	8S121	XZM	Departure	13.5	-	-
29-Sep	12:22	3A168	YFT	Departure	12.9	-	-
29-Sep	12:39	3A181	ZUI	Departure	12.8	-	-
29-Sep	12:45	8S215	XZM	Arrival	11.4	-	-
29-Sep	12:53	3A064	YFT	Arrival	12.2	-	-
29-Sep	13:18	8S123	XZM	Departure	12.4	-	-
29-Sep	13:44	3A082	ZUI	Arrival	12	-	-
29-Sep	14:16	3A164	YFT	Departure	12.3	-	-
29-Sep	14:18	3A182	ZUI	Departure	11.5	-	-
29-Sep	14:58	3A065	YFT	Arrival	12.9	-	-
29-Sep	16:18	3A167	YFT	Departure	12.1	-	-
29-Sep	16:39	8S218	XZM	Arrival	12.3	-	-
29-Sep	16:43	3A083	ZUI	Arrival	13.1	-	-
29-Sep	16:55	3A067	YFT	Arrival	12.7	<= 5	< 1min
29-Sep	17:10	3A183	ZUI	Departure	12.2	-	-
29-Sep	17:10	8S126	XZM	Departure	11.6	-	-
29-Sep	18:56	3A166	YFT	Departure	12.1	-	-
29-Sep	19:57	3A084	ZUI	Arrival	12.5	-	-
29-Sep	20:15	3A185	ZUI	Departure	13.6	-	-
29-Sep	20:55	8S2113	XZM	Arrival	11.9	-	-
29-Sep	20:56	3A169	YFT	Departure	13.2	-	-
29-Sep	21:55	8S522	XZM	Departure	12.1	-	-
30-Sep	08:14	3A061	YFT	Arrival	11.2	-	-
30-Sep	08:18	8S210	XZM	Arrival	12	-	-
30-Sep	09:55	3A062	YFT	Arrival	11.3	-	-
30-Sep	10:17	3A163	YFT	Departure	12	-	-
30-Sep	10:30	3A081	ZUI	Arrival	12.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
30-Sep	10:32	8S212	XZM	Arrival	13.2	-	-
30-Sep	11:03	8S121	XZM	Departure	13	-	-
30-Sep	11:13	3A063	YFT	Arrival	12	-	-
30-Sep	12:15	3A168	YFT	Departure	12.1	-	-
30-Sep	12:17	3A181	ZUI	Departure	13.4	-	-
30-Sep	12:43	8S215	XZM	Arrival	11.7	-	-
30-Sep	12:55	3A064	YFT	Arrival	12	-	-
30-Sep	13:22	8S123	XZM	Departure	12.4	-	-
30-Sep	13:45	3A082	ZUI	Arrival	12.2	-	-
30-Sep	14:18	3A182	ZUI	Departure	11.9	-	-
30-Sep	14:19	3A164	YFT	Departure	12.4	-	-
30-Sep	14:53	3A065	YFT	Arrival	12.3	-	-
30-Sep	16:21	3A167	YFT	Departure	12.4	-	-
30-Sep	16:49	8S218	XZM	Arrival	12.4	-	-
30-Sep	16:52	3A083	ZUI	Arrival	11.5	-	-
30-Sep	17:02	3A067	YFT	Arrival	12.3	-	-
30-Sep	17:09	3A183	ZUI	Departure	12.9	-	-
30-Sep	17:12	8S126	XZM	Departure	12	-	-
30-Sep	19:00	3A166	YFT	Departure	12.5	-	-
30-Sep	20:02	3A084	ZUI	Arrival	12.2	-	-
30-Sep	20:17	3A185	ZUI	Departure	13.3	-	-
30-Sep	20:49	8S2113	XZM	Arrival	13.5	-	-
30-Sep	21:02	3A169	YFT	Departure	13	-	-
30-Sep	21:57	8S522	XZM	Departure	12.9	-	-

\*\* Insufficient or no AIS data for speed calculation.

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in September 2018, instantaneous speeding (i.e. a sudden change in speed at over 15 knots for a short period of time) within the SCZ was recorded from 14 HSF movements of which the durations of all instantaneous speeding cases were less than two minutes. The AIS data and ferry operators' responses showed the cases were due to local strong water currents, giving way to vessels, and residual speed. The captains had reduced speed and maintained the speed at less than 15 knots after the incidents.

One HSFs with insufficient transmission of AIS data was received in September 2018. Vessel captain was requested to provide the AIS plots to indicate the vessel entered the SCZ though the gate access points with no speeding in the SCZ.