MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No.9 (For September 2016)

October 2016

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This Monthly EM&A Report No. 9 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:

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

Date 14 October 2016

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By Email

Airport Authority Hong Kong
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Attn: Mr. Lawrence Tsui, Senior Manager

14 October 2016

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Monthly EM&A Report No.9 (September 2016)

Reference is made to the Environmental Team's submission of Monthly EM&A Report No.9 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 October 2016.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore 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 our Roy Man at 3922 9365 or the undersigned at 3922 9376.

Yours faithfully,
AECOM Asia Co. Ltd.

Jackel Law
Independent Environmental Checker

Contents

Executive summary 1

1 Introduction 4
1.1 Background 4
1.2 Scope of this Report 4
1.3 Project Organisation 4
1.4 Summary of Construction Works 6
1.5 Summary of EM&A Programme Requirements 6

2 Air Quality Monitoring 8
2.1 Monitoring Stations 8
2.2 Monitoring Requirements and Schedule 8
2.3 Monitoring Equipment 8
2.4 Monitoring Methodology 8
2.4.1 Measuring Procedure 8
2.4.2 Maintenance and Calibration 9
2.5 Analysis and Interpretation of Monitoring Results 9

3 Noise Monitoring 10
3.1 Monitoring Stations 10
3.2 Monitoring Requirements and Schedule 10
3.3 Monitoring Equipment 10
3.4 Monitoring Methodology 11
3.4.1 Monitoring Procedure 11
3.4.2 Maintenance and Calibration 11
3.5 Analysis and Interpretation of Monitoring Results 11

4 Water Quality Monitoring 13
4.1 Monitoring Stations 13
4.2 Monitoring Requirements and Schedule 14
4.2.1 Action and Limit Levels for Water Quality Monitoring 14
4.3 Monitoring Equipment 15
4.4 Monitoring Methodology 15
4.4.1 Measuring Procedure 15
4.4.2 Maintenance and Calibration 16
4.4.3 Laboratory Measurement / Analysis 16

4.5 Analysis and Interpretation of Monitoring Results 16

5 Waste Management 17
5.1 Monitoring Requirements 17
5.2 Waste Management Status 17

6 Chinese White Dolphin Monitoring 18
6.1 CWD Monitoring Requirements 18
6.2 CWD Monitoring Transects and Stations 18
6.2.1 Small Vessel Line-transect Survey 18
6.2.2 Land-based Theodolite Tracking 20
6.3 CWD Monitoring Methodology 20
6.3.1 Small Vessel Line-transect Survey 20
6.3.2 Photo Identification 21
6.3.3 Land-based Theodolite Tracking 21
6.4 Monitoring Results and Observations 22
6.4.1 Small Vessel Line-transect Survey 22
6.4.2 Photo Identification 25
6.4.3 Land-based Theodolite Tracking 25
6.5 Progress Update on Passive Acoustic Monitoring 26
6.6 Site Audit for CWD-related Mitigation Measures 27
6.7 Timing of Reporting CWD Monitoring Results 27
6.8 Summary of CWD Monitoring 27

7 Environmental Site Inspection and Audit 28
7.1 Environmental Site Inspection 28
7.2 Audit of Route Diversion and Speed Control of the SkyPier High Speed Ferries 28
7.3 Audit of Construction and Associated Vessels 30
7.4 Ecological Monitoring 30
7.5 Status of Submissions under Environmental Permits 30
7.6 Compliance with Other Statutory Environmental Requirements 31
7.7 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions 31
7.7.1 Complaints 31
7.7.2 Notifications of Summons or Status of Prosecution 31
7.7.3 Cumulative Statistics 31

8 Future Key Issues and Other EIA & EM&A Issues 32
8.1 Construction Programme for the Coming Reporting Period 32
8.2 Key Environmental Issues for the Coming Reporting Period 32
8.3 Monitoring Schedule for the Coming Reporting Period 33

9 Conclusion and Recommendation 34

Tables

Table 1.1: Contact Information of Key Personnel 4
Table 1.2: Summary of status for all environmental aspects under the Updated EM&A Manual 6
Table 2.1: Locations of Impact Air Quality Monitoring Stations 8
Table 2.2: Action and Limit Levels for 1-hour TSP 8
Table 2.3: Air Quality Monitoring Equipment 8
Table 2.4: Summary of 1-hour TSP Monitoring Results 9
Table 3.1: Locations of Impact Noise Monitoring Stations 10
Table 3.2: Action and Limit Levels for Construction Noise 10
Table 3.3: Noise Monitoring Equipment 11
Table 3.4: Summary of Construction Noise Monitoring Results 12
Table 4.1: Monitoring Locations and Parameters for Impact Water Quality Monitoring 13
Table 4.2: Action and Limit Levels for general water quality monitoring and regular DCM monitoring 14
Table 4.3: The Control and Impact stations during flood tide and ebb tide for general water quality monitoring and regular DCM monitoring 15
Table 4.4: Water Quality Monitoring Equipment 15
Table 4.5: Laboratory measurement/ analysis of SS and heavy metals 16
Table 5.1: Action and Limit Levels for Construction Waste 17
Table 6.1: Derived Values of Action Level (AL) and Limit Level (LL) for Chinese White Dolphin Monitoring 18
Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas 19
Table 6.3: Land-based Survey Station Details 20
Table 6.4: STG and ANI of Chinese White Dolphin of the Whole Survey Area in September 2016 and Running Quarterly STG and ANI 24
Table 6.5: Summary of Photo Identification 25
Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking 26
Table 7.1: Summary of Key Audit Findings against the SkyPier Plan 29
Table 7.2: Status of Submissions under Environmental Permit 30

Figures

Figure 1.1- 1.2 Locations of Key Construction Activities in this reporting period
Figure 2.1 Locations of Air and Noise Monitoring Stations and Chek Lap Kok Wind Station
Figure 3.1 Locations of Water Quality Monitoring Stations
Figure 6.1 Vessel based Dolphin Monitoring Transects in Baseline Monitoring
Figure 6.2 Land based Dolphin Monitoring in Baseline and Construction Phases

Figure 6.3	Sightings Distribution of Chinese White Dolphins
Figure 6.4	Plots of First Sightings of All CWD Groups obtained from Land-based Stations
Figure 6.5	Location for Autonomous Passive Acoustic Monitoring in Baseline and Construction Phases
Figure 7.1	Duration of the SkyPier HSFs travelled through the SCZ for 1 – 30 September 2016

Appendices

Appendix A	Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase
Appendix B	Calibration Certificates
Appendix C	Monitoring Schedule
Appendix D	Monitoring Results
Appendix E	Status of Environmental Permits and Licences
Appendix F	Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions
Appendix G	Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 September 2016)

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 commencement of initial reclamation works was announced on 1 August 2016. This is the 9th 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 September 2016 to 30 September 2016.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting month were related to Contract P560(R) Aviation Fuel Pipeline Diversion Works (Contract P560(R)) which involved pilot hole drilling using Horizontal Directional Drilling (HDD) method at launching site, stockpiling of excavated materials from HDD operation at stockpiling area, site preparation works and construction of containment pit at Sheung Sha Chau. CLP cable diversion enabling work contract involved site preparation works at the western part of the airport. The four DCM contracts involved site survey and investigation works. No marine construction works was carried out during the reporting period.

EM&A Activities Conducted in the Reporting Period

The monthly EM&A programme was undertaken in accordance with the Updated EM&A Manual of the Project. During the reporting period, the ET conducted thirty-three sets of air quality measurements, twenty sets of construction noise measurements, thirteen events of water quality measurements, one ecological monitoring on Sheung Sha Chau Island, two complete sets of small vessel line-transect surveys and five days of land-based theodolite tracking survey effort for Chinese White Dolphin (CWD) monitoring as well as environmental site inspections, landscape & visual and waste monitoring.

On the implementation of the SkyPier Plan, the daily movements of all SkyPier High Speed Ferries (HSFs) in September 2016 were 87 to 95 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 814 HSF movements under SkyPier Plan were recorded. All HSFs had travelled through the SCZ with prevailing speed under 15 knots (7.8 to 14.4 knots) in compliance with the SkyPier Plan. One ferry movement had minor deviation from the diverted route which is related to safety / emergency situation. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigation or actions accordingly.

On the implementation of the Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV), ET has conducted weekly audit of relevant information, including AIS data, vessel tracks and other relevant records to ensure the Contractors are fully compliance with the requirements of the MTRMP-CAV. Trainings have been held with the Contractor senior management staff and concerned skippers to facilitating them in familiarise with the requirements of the MTRMP-CAV and strengthen the communication between senior management staff and the sub-contractors.

Results of Impact Monitoring

All 1-hour total suspended particulate (TSP) monitoring was conducted as scheduled in the reporting period. Three exceedance cases of action level were recorded on 27 September 2016. The investigation results indicated that the exceedances were likely related to the background air quality level but not project-related.

All construction noise and waste monitoring were conducted as scheduled in the reporting period. No exceedance of the Action/ Limit Levels was recorded. Monthly ecological monitoring on Sheung Sha Chau Island observed that site preparation work was conducted at Sheung Sha Chau and there was no encroachment or disturbance to the egretry area at Sheung Sha Chau by the works.

Water quality monitoring and CWD monitoirng were conducted as scheduled although no marine construction works was carried out during the reporting period.

Summary of Upcoming Key Issues

Key activities anticipated in the next reporting period for the Project will be under the following contracts including:

Advanced works Contract:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- HDD pilot hole drilling;
- Stockpiling of excavated materials from HDD operation;
- Construction of containment pit at Sheung Sha Chau.

DCM Contracts:

Contract 3201 to 3204 Deep Cement Mixing Works

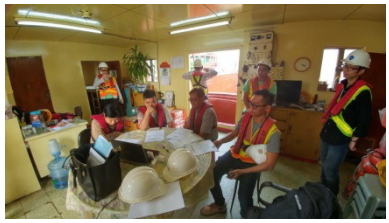
- Laying of geotextile and sand blanket

Other Contracts:

Contract 3213 CLP Cable Diversion Enabling Works

- Installation of silt curtain; and
- Removal of existing armour rocks.

Other site investigation works will continue. The key environmental issues will be associated with dust, noise generation, water quality, construction waste management, CWD and ecology on Sheung Sha Chau. The implementation of required mitigation measures by the Contractor will be monitored by the ET.

Vessel-based CWD Monitoring	Overview of the site of CLP cable diversion enabling works	 Construction Vessel Skipper Training

Summary Table

The following table summarizes the key findings of the EM&A programme during the reporting period from 1 to 30 September 2016:

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breaches of Limit Level^		✓	No exceedance of project-related limit level was recorded.	Nil
Breaches of Action Level^		✓	No exceedance of project-related action level was recorded.	Nil
Complaints Received		✓	No construction activities related complaints were received.	Nil
Notification of any summons and status of prosecutions		✓	Neither notifications of summons nor prosecution were received.	Nil
Changes that affect the EM&A		✓	There were no changes to the construction works that may affect the EM&A	Nil

Remarks: ^ only exceedance of action/ limit level related to Project works will be highlighted.

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. The Manual is available on the Project's dedicated website (accessible at: http://env.threerunwaysystem.com/en/index.html). 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 commencement of initial reclamation works was announced on 1 August 2016. 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.8.

1.2 Scope of this Report

This is the 9th 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 2016.

1.3 Project Organisation

The Project's organization structure remained unchanged during the reporting month. The Project's organization structure can be referred to Appendix B of the Construction Phase Monthly EM&A Report No.1. Contact details of the key personnel have been updated and is presented in **Table 1.1**.

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative	Senior Manager, Environment	Lawrence Tsui	2183 2734

(Airport Authority Hong Kong)			
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	Keith Chau	2972 1721
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Joanne Tsoi	3922 9423
Advanced Works Contract:			
Contract P560(R) Aviation Fuel Pipeline Diversion Works (Langfang Huayuan Mechanical and Electrical Engineering Co., Ltd.)	Project Manager	Shih Wei	2117 0566
	Environmental Officer	Lyn Lau	5172 6543
DCM Works Contracts:			
Contract 3201 DCM (Package 1) (Penta-Ocean-China State-Dong-Ah Joint Venture)	Project Director	Mr. Tsugunari SUZUKI	9178 9689
	Environmental Officer	Mr. Kanny CHO	9019 1962
Contract 3202 DCM (Package 2) (Samsung-BuildKing Joint Venture)	Project Manager	Mr. Ilkwon Nam	9643 3117
	Environmental Officer	Mr. Dickson Mak	9525 8408
Contract 3203 DCM (Package 3) (Sambo E&C Co.,Ltd)	Deputy Project Manager	Mr. Park Seong Jae	9683 8693
	Environmental Officer	Mr. Leung Min Pong	9203 5820
Contract 3204 DCM (Package 4) (CRBC-SAMBO Joint Venture)	Project Manager	Mr. Yoo Kyung-Sik	9683 8697
	Environmental Officer	Mr. David Man	6421 3238
Other Works contract:			
Contract 3213 CLP Cable Diversion Enabling Works (Wing Hing Construction Company)	Environmental Officer	Mr. Kan Yun Tai, Michael	9206 0550

	Environmental Officer	Ms Ivy Tam	2151 2090

1.4 Summary of Construction Works

During the reporting period, no marine construction work was carried out. Key activities of the Project were related to the Contract P560(R) Aviation Fuel Pipeline Diversion Works (Contract P560(R)) which involved pilot hole drilling at the HDD launching site located at the west part of the airport, site preparation works and construction of containment pit at Sheung Sha Chau. CLP cable diversion enabling work contract involved site preparation works. The four DCM contracts involved site survey and investigation works.

The active construction site is around 3 km and 900m away from the nearest air and noise sensitive receivers in Tung Chung and the villages in North Lantau. The locations of the works areas are presented in **Figure 1.1** to **Figure 1.2.** Some site investigation works were carried out during the reporting period.

1.5 Summary of EM&A Programme Requirements

As presented in the Updated EM&A Manual, the environmental aspects of interest for the Project include air quality, noise, water quality, waste management, land contamination, terrestrial ecology, marine ecology, fisheries, landscape & visual, sewage and sewerage, and hazard to human life.

The status for all environmental aspects is presented **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
Air Quality	
Baseline Monitoring	The baseline air quality monitoring result has been reported in Baseline Monitoring Report (Version 1) and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report (Version 1) and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Water Quality	
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	The baseline water quality monitoring result has been reported in Water Quality Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	The general water quality monitoring is on-going, although there were no marine construction works.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	To be commenced according to the detailed plan on DCM
Early/ Regular DCM Water Quality Monitoring	The early regular DCM water quality monitoring is on-going, although there were no marine construction works.
Waste Management	
Waste Monitoring	On-going
Land Contamination	
Supplementary Contamination	To be submitted with the relevant construction works

Assessment Plan (CAP)	
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.
Terrestrial Ecology	
Pre-construction Egretry Survey Egretry Survey Plan	The revised Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	On-going
Marine Ecology	
Pre-Contruction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	On-going
Chinese White Dolphins (CWD)	
Vessel survey, land-based theodolite track and passive acoustic monitoring (PAM)	
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	Monitoring of CWDs is on-going, although there were no marine construction works.
Landscape & Visual	
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report (Version 1) and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Environmental Auditing	
Regular site inspection	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 month, impact monitoring of air quality, noise, waste management, ecology and landscape & visual were carried out in the reporting month. Water quality monitoring and CWD monitoring were conducted as scheduled although there were no marine construction works during the reporting period. The EM&A programme also involved weekly site inspections and related auditings conducted by the ET for checking the implementation of the required environmental mitigation measures recommended in the approved EIA Report.

The EM&A programme has been following the recommendations presented in the approved EIA Report and the Updated EM&A 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

2.1 Monitoring Stations

Air quality monitoring was conducted at two representative monitoring stations in the vicinity of air sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Updated EM&A 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

2.2 Monitoring Requirements and Schedule

In accordance with the Updated EM&A Manual, baseline 1-hour total suspended particulate (TSP) levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report (Version 1 dated December 2015). Impact 1-hour TSP monitoring was conducted for three times every 6 days. The Action and Limit Levels of the air quality monitoring are provided in **Table 2.2**. The air quality monitoring schedule involved in the reporting period is provided in **Appendix C**.

Table 2.2: Action and Limit Levels for 1-hour TSP

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

2.3 Monitoring Equipment

Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. Details of equipment are given in **Table 2.3**.

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date
Portable direct reading dust meter (Laser dust monitor)	SIBTA LD-3B-002 (Serial No. 974350)	5 Oct 2015

2.4 Monitoring Methodology

2.4.1 Measuring Procedure

The measurement procedures involved in the impact 1-hr TSP 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.

2.4.2 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 certificates of the portable direct reading dust meter and calibration record of the HVS provided in Appendix B of the Construction Phase Monthly EM&A Report No.8 are still valid. Any updates of calibration certificates will be reported in the Monthly EM&A report if necessary.

2.5 Analysis and Interpretation of Monitoring Results

The monitoring results for 1-hour TSP are summarized in **Table 2.4**. Detailed impact monitoring results are presented in **Appendix D**.

Table 2.4: Summary of 1-hour TSP Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
AR1A	29 - 404	306	500
AR2	25 - 179	298	

Three exceedance cases of action level of air quality monitoring were recorded at AR1A on 27 September 2016 in the 1-hour TSP monitoring that started at 08:52am, 09:52am and 10:52am. Actions were taken accordingly based on the established Event and Action Plan as presented in the Updated EM&A Manual. IEC and AAHK were informed of the exceedances.

According to on-site observation by monitoring team, haze weather was observed during monitoring. No major construction dust emission source was observed during monitoring. Based on the information from Hong Kong Observatory, tropical cyclone Megi was approaching Taiwan, its subsidence airstream create unfavourable conditions for the dispersion of pollutants and lead to low visibility to Hong Kong. According to EPD's pollutant concentration summary at Tung Chung from 08:00 to 12:00 on 27 September 2016, relatively high PM_{10} ranging from 104 -159 μg/m^3 was recorded.

Relevant contractors were informed of the exceedances. As informed by the contractors, no major dusty activities were conducted during monitoring. The major land works were related to P560(R) HDD pilot hole drill, stockpiling of excavated materials and site preparation works at Sha Chau.

The exceedances of 1-hr TSP may possibly due to the air quality impact induced by tropical cyclone Megi. Considered that no major project-related dusty construction work was conducted during monitoring, the exceedance was considered not due to 3RS project construction works and therefore, no repeat measurement is requirement.

3 Noise Monitoring

3.1 Monitoring Stations

Noise monitoring was conducted at five representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Updated EM&A Manual. **Figure 2.1** shows the locations of the monitoring stations and these are described in **Table 3.1** below. As described in Section 4.3.3 of the Updated EM&A Manual, monitoring at NM2 will commence when the future residential buildings in Tung Chung West Development become occupied.

Table 3.1: Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Type of measurement
NM1A	Man Tung Road Park	Free field
NM2(1)	Tung Chung West Development	To be determined
NM3A	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 Updated EM&A Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.

3.2 Monitoring Requirements and Schedule

In accordance with the Updated EM&A Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report (Version 1 dated December 2015). Impact noise monitoring was conducted once per week in the form of 30-minute measurements of L_{eq}, L_{10} and L_{90} levels recorded at each monitoring station between 0700 and 1900 on normal weekdays. The Action and Limit levels of the noise monitoring are provided in **Table 3.2**. The construction noise monitoring schedule involved in the reporting period is provided in **Appendix C**.

Table 3.2: Action and Limit Levels for Construction Noise

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)(i)

Note: (i) reduce to 70dB(A) for school and 65dB(A) during school examination periods.

3.3 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 are given in **Table 3.3**.

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date
Integrated Sound Level Meter	B&K 2238 (Serial No. 2800932)	19 Jul 2016
	B&K 2238 (Serial No. 2381580)	8 Sep 2016
	B&K 2238 (Serial No. 2808432)	10 Nov 2015
Acoustic Calibrator	B&K 4231 (Serial No. 3003246)	16 May 2016
	B&K 4231 (Serial No. 3004068)	19 Jul 2016

3.4 Monitoring Methodology

3.4.1 Monitoring Procedure

The monitoring procedures involved in the noise impact 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.

3.4.2 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 provided in Appendix B of the Construction Phase Monthly EM&A Report No.8 are still valid. The sound level meter calibrated in September 2016 is provided in **Appendix B**.

3.5 Analysis and Interpretation of Monitoring Results

The construction noise monitoring results are summarized in **Table 3.4** and the detailed monitoring data are provided in **Appendix D**.

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A) $L_{eq\ (30\ mins)}$	Limit Level, dB(A) $L_{eq\ (30\ mins)}$
NM1A[(i)]	71 - 73	75
NM3A	61 - 62	75
NM4[(i)]	64 - 66	70[(ii)]
NM5[(i)]	53 - 58	75
NM6[(i)]	65 - 73	75

Note: (i) +3 dB(A) Façade correction included;
(ii) Reduced to 65 dB(A) during school examination periods.

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 aircraft noise at NM3A and NM5, aircraft noise and helicopter noise at NM6, road traffic noise at NM1A and school activities at NM4 in this reporting month.

No exceedance of the Action/ Limit Level was recorded at all monitoring stations in the reporting period.

4 Water Quality Monitoring

4.1 Monitoring Stations

Water quality monitoring was conducted at a total of 22 water quality monitoring stations, comprising 12 impact stations, seven sensitive receiver stations and three control stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Updated EM&A Manual. **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 for Impact Water Quality Monitoring

Monitoring Stations	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control	804247	815620	DO, pH, Temperature, Salinity, Turbidity, SS, Total Alkalinity, Heavy Metals[2]
C2	Control	806945	825682	
C3[3]	Control	817803	822109	
IM1	Impact	806458	818351	
IM2	Impact	806193	818852	
IM3	Impact	806019	819411	
IM4	Impact	805039	819570	
IM5	Impact	804924	820564	
IM6	Impact	805828	821060	
IM7	Impact	806835	821349	
IM8	Impact	807838	821695	
IM9	Impact	808811	822094	
IM10	Impact	809838	822240	
IM11	Impact	810545	821501	
IM12	Impact	811519	821162	
SR1[1]	Future Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812586	820069	DO, pH, Temperature, Salinity, Turbidity, SS
SR2[3]	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	
SR4A	Sha Lo Wan	807810	817189	
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	Seawater Intake for cooling at Hong Kong International Airport (East)	811593	820417	

Notes:
[1] the seawater intakes of SR1 for the future HKBCF is not yet in operation, the future permanent location for SR1 during impact monitoring is subject to finalisation after the HKBCF seawater is commissioned.

(2) According to the Baseline Water Quality Monitoring Report, Chromium and Nickel are the representative heavy metals for early regular DCM monitoring. DCM specific water quality monitoring parameters (total alkalinity and heavy metals) were only conducted at C1 to C3, 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. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.

4.2 Monitoring Requirements and Schedule

In accordance with the Updated EM&A Manual, baseline water quality levels at the abovementioned representative water quality monitoring stations were established as presented in the Baseline Water Quality Monitoring Report.

General and early regular DCM water quality monitoring was conducted three days per week, at mid-flood and mid-ebb tides, at the 22 water quality monitoring stations during the reporting period, although there were no marine construction works. The sea condition varied from clam to rough, and the weather varied from fine to rainy during the monitoring period.

The water quality monitoring schedule for the reporting period is provided in **Appendix C**.

4.2.1 Action and Limit Levels for Water Quality Monitoring

The Action and Limit Levels levels for general water quality monitoring and regular DCM monitoring are presented in **Table 4.2**. The control and impact stations during flood tide and ebb 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)	
Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1& SR8)				
DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 4.8 mg/L		Surface and Middle 4.1 mg/L 5 mg/L for Fish Culture Zone (SR7) only	
	Bottom 3.1 mg/L		Bottom 2.3 mg/L	
Suspended Solids (SS) in mg/L	25	or 120% of upstream control station at the same tide of the same day, whichever is higher	36	or 130% of upstream control station at the same tide of the same day, whichever is higher
Turbidity in NTU	26.0		41.4	
Total Alkalinity in ppm	95		98	
Representative Heavy Metals for early regular DCM monitoring (Chromium)	0.2		0.2	
Representative Heavy Metals for early regular DCM monitoring (Nickel)	3.2		3.4	
Action and Limit Levels SR1				
SS (mg/l)	To be determined prior to its commissioning		To be determined prior to its commissioning	
Action and Limit Levels SR8				
SS (mg/l)	52		60	

Note:

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 early 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
Flood Tide	
C1	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, SR3
SR2^1	IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR3, SR4A, SR5A, SR6, SR8
Ebb Tide	
C1	SR4A, SR5A, SR6
C2	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR2, SR3, SR7, SR8

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

4.3 Monitoring Equipment

Table 4.4 summarises the equipment used in the impact water quality monitoring programme.

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	
Water Sampler	Van Dorn Water Sampler	
Positioning Device (measurement of GPS)	Garmin eTrex Vista HCx	
Water Depth Detector (measurement of water depth)	Lowrance Mark 5x	
Current Meter (measurement of current speed and direction)	Sontek HydroSurveyor	
Equipment	**Brand and Model**	**Last Calibration Date**
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI 6920 V2 (serial no. 000109DF)	16 Jul 2016
	YSI 6920 V2 (serial no. 00019CB2)	16 Jul 2016
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (serial no.10N64701)	15 Jul 2016
	Titrette Digital Burette 50ml Class A (serial no. 10N60623)	15 Jul 2016

4.4 Monitoring Methodology

4.4.1 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 surface depth was taken. Duplicate water samples were taken and analysed.

The water samples for all monitoring parameters were collected, stored, preserved and analysis according to the Standard Methods, APHA 22nd ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including temperature, pH, DO, turbidity, salinity and water depth were collected by equipment listed in **Table 4.4**. 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 ºC without being frozen), delivered to the laboratory within 24 hours of collection.

4.4.2 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 should then be 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 suspended solids (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 monitoring provided in Appendix B of the Construction Phase Monthly EM&A Report No.8 are still valid. Any updates of calibration certificates will be reported in the Monthly EM&A report if necessary.

4.4.3 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 4.5.** The QA/QC procedures for laboratory measurement/ analysis of SS and heavy metals was presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

Table 4.5: Laboratory measurement/ analysis of SS and heavy metals

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

4.5 Analysis and Interpretation of Monitoring Results

No marine construction works was conducted during the reporting period and hence no adverse water quality impact arised from the project was observed. The general water quality monitoring was completed as scheduled. Water quality monitoring results and graphical presentations are provided in **Appendix D**.

5 Waste Management

5.1 Monitoring Requirements

In accordance with the Updated EM&A 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. 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.

Recommendation was provided for P560(R) Aviation Fuel Pipeline Diversion Works during monitoring including review of the capacity of chemical waste storage area on 26 September 2016. The contractor had followed up with implementation of mitigation measures.

Based on the updated information, about 127m^3 excavated materials were produced from the HDD launching site under P560(R) in September 2016. The generated excavated materials were temporarily stored at storage and stockpiling area. The excavated material will be reused in the Project.

In addition, metals and paper were recycled during the reporting month. 4.2 tonnes of general refuse were disposed of to the West New Territories (WENT) Landfill in September 2016. No Construction and Demolition (C&D) material was disposed off-site during the reporting month.

No waste was generated from other contracts during the reporting period.

No exceedances of the Action and Limit Levels were recorded in the reporting period.

6 Chinese White Dolphin Monitoring

6.1 CWD Monitoring Requirements

In accordance with the Updated EM&A Manual, CWD monitoring by small vessel line-transect survey supplemented by land-based theodolite tracking should be conducted during construction phase. The monitoring was completed in the reporting period, although there were no marine construction works.

The small vessel line-transect survey as proposed in the Updated EM&A Manual should be conducted at a frequency of two full survey per month while land-based theodolite tracking 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 required for impact monitoring as stipulated in the EM&A Manual, some supplemental theodolite tracking have also been conducted during the initial implementation period 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.

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

Table 6.1: Derived Values of Action Level (AL) and Limit Level (LL) for Chinese White Dolphin Monitoring

	NEL, NWL, AW, WL and SWL as a Whole
Action Level	Running quarterly* STG < 1.86 & ANI < 9.35
Limit Level	Two consecutive running quarterly^ (3-month) STG < 1.86 & ANI < 9.35

[Notes for Table 6.1 (referring to the baseline monitoring report):
*Action Level – running quarterly STG & ANI will be calculated from the three preceding survey months. For CWD monitoring for September 2016, data from 1 July to 30 September 2016 will be used to calculate the quarterly encounter rates STG & ANI;

^Limit Level – two consecutive running quarters mean since works commenced on 1 August 2016, the first running quarter for reporting will be 18 May to 17 June 2016, July 2016 to August 2016, and the second running quarter will be July 2016 to September 2016.

AL and/or LL will be exceeded 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 conduct along the transects covering Northeast Lantau (NEL), Northwest Lantau (NWL), Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL), as proposed in the Updated EM&A Manual and being consistent with the AFCD long-term monitoring programme (except AW). The AW transect has not been previously surveyed in the AFCD programme due to the restrictions of HKIA Exclusion Zone, nevertheless, this transect was established during the EIA of the 3RS project 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 provided a larger sample size for estimating the densities and patterns of movements in the broader study area of the project.

For the NWL area, there was no physical demarcation of the 3RS works area yet during CWD monitoring survey in the reporting period, therefore the works area of the 3RS project was still accessible and the transect lines followed the waypoints and lengths conducted for baseline monitoring. These transect lines were depicted in **Figure 6.1** while the coordinates of all transect lines are shown in **Table 6.2**.

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

Waypoint	Easting	Northing	Waypoint	Easting	Northing
NEL					
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
NWL					
1S	804671	814577	5N	808504	828602
1N	804671	831404	6S	809490	820590
2S	805475	815457	6N	809490	825352
2N	805476	830562	7S	810499	820950
3S	806464	819550	7N	810499	824613
3N	806464	829598	8S	811508	821250
4S	807518	819900	8N	811508	824254
4N	807518	829230	9S	812516	821250
5S	808504	820250	9N	812516	824254
AW					
1W	804730	818220	2W	805051	817156
1E	806519	818271	2E	806913	817076
WL					
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			
SWL					

Waypoint	Easting	Northing	Waypoint	Easting	Northing
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	7S	808553	800329
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

Land-based theodolite tracking 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. 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 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 Agriculture, Fisheries and Conservation Department (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 Northeast Lantau (NEL), Northwest Lantau (NWL) covering the Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL) as proposed in the Updated EM&A 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 crossing islands.

All on-effort data collected under conditions of Beaufort 0-3 and visibility of approximately 1200 m or beyond, on both primary and secondary transect lines, were used for analysis.

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 left the study area or were lost. At that point, the boat returned (off effort) to the next survey line and began to survey on effort again.

Focal follows of dolphins were conducted 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 involved 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

Chinese White Dolphins 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

Land-based monitoring 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 amount 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 the monitoring month of September 2016, two complete sets of small vessel line-transect surveys were conducted on the 5th, 6th, 8th, 19th, 20th, 22nd, 26th and 27th September 2016, covering all transects in NEL, NWL, AW, WL and SWL survey area for twice.

A total of 470.09 km of survey effort was collected from these surveys, with around 97.3% 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 may refer to **Appendix D**.

Sighting Distribution

In September 2016, 18 groups of CWD with 73 individuals were sighted. Amongst the sightings of CWD, 16 groups with 67 individuals were made during on-effort search under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix D**.

Distribution of CWD sightings recorded in September 2016 is illustrated in **Figure 6.3**. The sightings were mainly located east and southwest off Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) in NWL, near Tai O, Peaked Hill and Fan Tau in WL and along the coast from Fan Lau to Lo Kei Wan in SWL. One sighting was recorded in AW near to the existing Hong Kong International Airport, whilst no sightings of CWDs were recorded within the 3RS land-formation footprint.

Figure 6.3: Sightings Distribution of Chinese White Dolphins

[Pink circle: Sighting locations of CWD, White line: Vessel survey transects, Blue polygon: Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP), Red polygon: 3RS land-formation footprint]

Note: Only on-effort sightings under Beaufort 3 or below were presented in the figure.

Encounter Rate

Two types of dolphin encounter rates were calculated based on the data from September 2016. They included the number of dolphin sightings per 100km survey effort (STG) and total number of dolphins per 100km 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. Formulations of the encounter rates are shown as below:

Encounter Rate of Number of Dolphin Sightings (STG)

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

Encounter Rate of Number of Dolphins (ANI)

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

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

In September 2016, a total of 457.32 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility, whilst total number of 16 on-effort sightings and total number of 67 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in September 2016 are shown as below:

Encounter Rate of Number of Dolphin Sightings (STG) in September 2016

$$STG = \frac{16}{457.32}\ x\ 100 = 3.50$$

Encounter Rate of Number of Dolphins (ANI) in September 2016

$$ANI = \frac{67}{457.32}\ x\ 100 = 14.65$$

For the reporting month, in the running quarter a total of 1282.77 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility, whilst total number of 55 on-effort sightings and total number of 235 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 of Number of Dolphin Sightings (STG)

$$STG = \frac{55}{1282.77}\ x\ 100 = 4.29$$

Running Quarterly Encounter Rate of Number of Dolphins (ANI)

$$ANI = \frac{235}{1282.77}\ x\ 100 = 18.32$$

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) of September 2016 and the running quarterly STG and ANI calculated from the three preceding survey months are presented in **Table 6.4** below.

Table 6.4: STG and ANI of Chinese White Dolphin of the Whole Survey Area in September 2016 and Running Quarterly STG and ANI

	Encounter Rate (STG)	Encounter Rate (ANI)
September 2016	3.50	14.65
Running Quarterly*	4.29	18.32

*Running quarterly encounter rates STG & ANI for reporting were calculated from the three preceding survey months, i.e. the data in July 2016, August 2016 and September 2016 containing six sets of transect surveys for all monitoring areas.

Group Size

In September 2016, the average group size of CWDs was 4.2 individuals per group. The number of CWD sightings with small group size (i.e. 1-2 individuals) and that with medium group size (3-9 individuals) were similar. One large CWD groups with 10 individuals was sighted in WL.

Activities and Association with Fishing Boats

A group of four CWDs was sighted in association with operating purse seiner near Tai O in September 2016.

Mother-calf Pair

No mother-calf pairs were sighted in September 2016.

6.4.2 Photo Identification

In September 2016, a total number of 37 different CWD individuals were identified. Amongst these 37 identified individuals, eight (NLMM005, NLMM010, WLMM007, WLMM025, WLMM027, WLMM054, SLMM022 and SLMM030) were sighted twice and one (SLMM002) was sighted three times in September. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals may refer to **Appendix D**.

Table 6.5: Summary of Photo Identification

Individual ID	No. of times sighted	Date of sighting (yyyymmdd)	Individual ID	No. of times sighted	Date of sighting (yyyymmdd)
NLMM002	1	20160922	SLMM051	1	20160926
NLMM005	2	20160922	WLMM007	2	20160919
NLMM006	1	20160922	WLMM015	1	20160919
NLMM010	2	20160906 20160922	WLMM020	1	20160919
NLMM012	1	20160908	WLMM024	1	20160919
NLMM013	1	20160922	WLMM025	2	20160919
NLMM017	1	20160908	WLMM027	2	20160908 20160927
NLMM021	1	20160927	WLMM043	1	20160908
NLMM027	1	20160922	WLMM050	1	20160908
NLMM028	1	20160922	WLMM051	1	20160908
SLMM002	3	20160919 20160926	WLMM052	1	20160908
SLMM010	1	20160919	WLMM053	1	20160908
SLMM015	1	20160927	WLMM054	2	20160908 20160927
SLMM017	1	20160926	WLMM055	1	20160919
SLMM022	2	20160919	WLMM056	1	20160919
SLMM030	2	20160919	WLMM057	1	20160919
SLMM032	1	20160919	WLMM058	1	20160919
SLMM034	1	20160919	WLMM059	1	20160919
SLMM050	1	20160926			

6.4.3 Land-based Theodolite Tracking

Survey Effort

Land-based theodolite tracking surveys at Lung Kwu Chau were conducted on 1st , 7th and 26th September 2016 and at Sha Chau on 13th and 23rd September 2016, with a total of 5 days of land-based theodolite tracking survey effort have been accomplished in September 2016. In total, nine CWD groups were tracked 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 D**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking

surveys in September 2016 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	# of Survey Sessions	Survey Effort (hh:mm)	# CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau	3	18:00	9	0.5
Sha Chau	2	12:00	0	0
TOTAL	**5**	**30:00**	**9**	**0.3**

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

[Green triangle: LKC station; Green square: CWD group off LKC; Blue line: SCLKCMP boundary]

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should also be undertaken within the whole duration for land formation related construction works. An Ecological Acoustic Recorder (EAR) has been deployed and positioned at south of Sha Chau Island with 20% duty cycle (**Figure 6.5**). The EAR deployment is generally last for 4-6 weeks

prior to data retrieval as one batch of data collection for analysis. Acoustic data will be gathered to listen for CWDs occurrence patterns and to obtain anthropogenic noise information simultaneously. Analysis (by a specialized team of acousticians) involved manually browsing through every acoustic recording and logging the occurrence of dolphin signals. All data will be re-played by computer and listened to by human ears for accurate assessment of dolphin group presence. As the period of data collection and analysis takes more than two months, PAM results could not be reported in monthly intervals.

6.6 Site Audit for CWD-related Mitigation Measures

No marine construction works was carried out during the reporting period. Audits of acoustic decoupling for construction vessels were carried out. Marine mammal watching and dolphin exclusion zone implementation were not applicable during this reporting period.

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

For indication, 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 and PAM will be provided in future yearly reports when a larger sample size of data has been collected.

6.8 Summary of CWD Monitoring

CWD monitoring was conducted as scheduled. As no marine construction works was carried out during the reporting period, no adverse impact arised from the project was observed.

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

Weekly site inspection of the construction works for P560(R) and CLP cable diversion enabling works were carried out by the ET 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 C**. Bi-weekly site inspections were also conducted by the Project's Independent Environmental Checker (IEC). Observations have been recorded in the site inspection checklists and passed to the Contractor together with the appropriate recommended mitigation measures where necessary.

The key observations from site inspection and associated recommendations were related to the review of the capacity of chemical waste storage area, better maintenance of drip tray for chemical containers, display of Environmental Permit at site entrance, erection of site hoarding, provision of sandbags around the gully to prevent surface runoff and improvement of dust 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**.

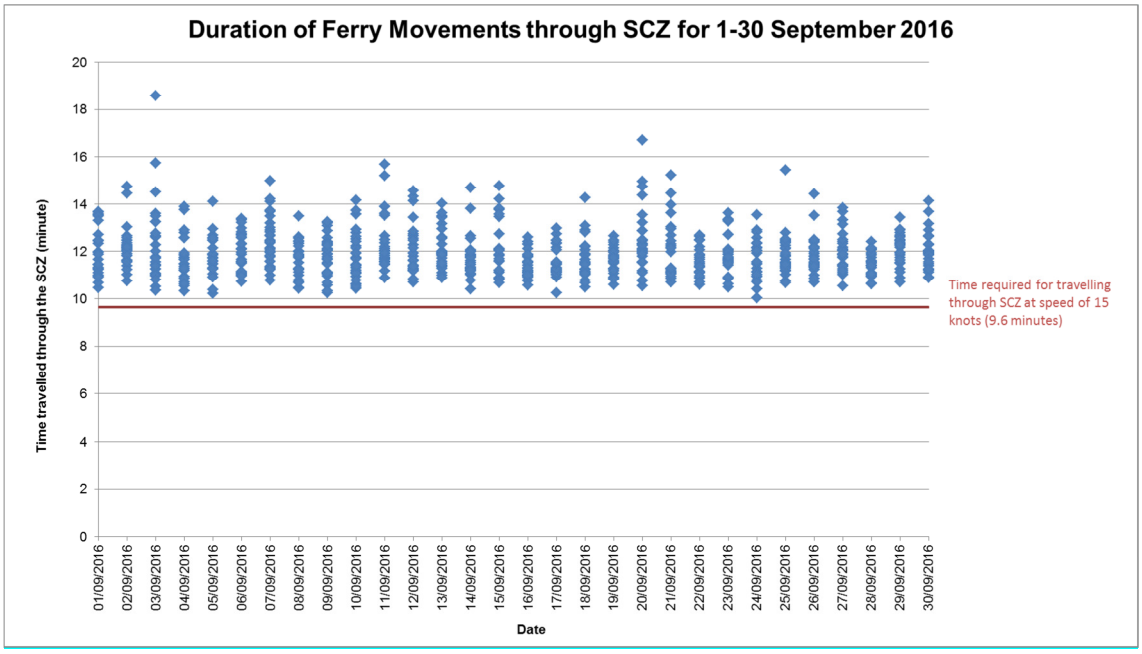
7.2 Audit of Route Diversion and Speed Control of the SkyPier High Speed Ferries

The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) has been submitted to the Advisory Council on the Environment (ACE) 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 committed to implementing the mitigation measure of requiring high speed ferries (HSFs) of SkyPier travelling between HKIA and Zhuhai / Macau to start diverting the route with an associated speed control across an area (i.e. Speed Control Zone (SCZ)) with high Chinese White Dolphin (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 September 2016 were within the maximum daily cap number (i.e. 87 to 95 daily movements, which are within maximum daily cap of 125 daily movements). Status of compliance with annual daily average of 99 movements will be further reviewed in the annual EM&A Report.

In total, 814 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in September 2016 and the data are presented in **Appendix G**. The time spent for the SkyPier HSFs travelled through the SCZ in September were presented in **Figure 7-1**. It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowed speed of 15-knot within the SCZ. **Figure 7-1** shows that all the SkyPier HSFs spent more than 9.6 minutes to travel through the SCZ.

Figure 7-1 Duration of the SkyPier HSFs travelled through the SCZ for 1 – 30 September 2016



One ferry movement was recorded with minor deviation of diverted route on 5 September 2016. Notice was sent to the ferry operators and the investigation results revealed that the case is related to safety / emergency situation presented as follow:

- Case on 5 September 2016: HSF captain reported that he had to give way to other vessels for safety reason which causes the minor route deviation. Then the HSF returned to the normal route following the SkyPier Plan.

Cases of minor route deviation on 14, 26 and 28 August 2016 have been followed up. For the case on 14 August 2016, the Ferry Operator reported that it was the first time the concerned HSF travelled through the diverted route, and they discovered some inaccuracy of the plot of Speed Control Zone in the radar graph. After that, they have checked and corrected the coordinates of Speed Control Zone in both the radar graph and electronic marine chart.

For the cases on 26 and 28 August 2016, investigation found that the vessel captain was required to give way to other vessels for safety reason, which causes the minor route deviation within the Speed Control Zone. After that, the HSF returned to the normal route following the SkyPier Plan.

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

Requirements in the SkyPier Plan	1 September to 30 September 2016
Total number of ferry movements recorded and audited	814
Use diverted route and enter / leave SCZ through Gate Access Points	1 deviation , which is related to safety / emergency situation
Speed control in speed control zone	The prevailing speed (the average speed taken within the SCZ) of all HSFs were within 15 knots (7.8 knots to 14.4knots), which complied with the SkyPier Plan. The time used by HSF to travel through SCZ is presented in **Figure 7-1**.
Daily Cap (including all SkyPier HSFs)	87 to 95 daily movements (within maximum daily cap - 125 daily movements)

7.3 Audit of Construction and Associated Vessels

The Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV) has been submitted and approved in December 2015 by EPD under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET has carried out the following actions during the reporting month:

- 7 skipper trainings have been held with 4 DCM and P560(R) contractors' concerned skippers of construction vessels associated with construction works to familiarise 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.
- Trainings have also been held with the 4 DCM and P560(R) contractor senior management staff to strengthen the commiunication between senior management and the sub-contractor and facilitating them in familiarise with the requirements of the MTRMP-CAV.
- A Marine Management Liaison Group (MMLG) has been set up and provided a forum to assist and resolve any marine issues which may be encountered under 3RS project. ET has participated in the 2nd MMLG meeting which was held on 26 September 2016.

The ET worked with the new contractors in mobilising for the 3RS works on reviewing and facilitating them in familiarise with the requirements of the MTRMP-CAV.

In September, ET has conducted weekly audit of relevant information, including AIS data, vessel tracks and other relevant records to ensure sufficient information has been provided by the contractors to the Marine Traffic Control Center (MTCC) and the contractors are fully complied with the requirements of the MTRMP-CAV. The contactors have been reminded to submit the endorsed vessel 3-month programme to MTCC for the review of keeping the number of construction vessels to a practicable minimum. The IEC of the Project has also performed audit on the compliance of the requirements as part of the EM&A programme.

7.4 Ecological Monitoring

In accordance with the Updated EM&A Manual, ecological monitoring shall 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. Monthly ecological monitoring on Sheung Sha Chau Island observed that site preparation work was conducted at Sheung Sha Chau and there was no encroachment or disturbance to the egretry area at Sheung Sha Chau by the works.

7.5 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	Accepted / approved by EPD
2.4	Management Organizations	
2.5	Construction Works Schedule and Location Plans	

EP Condition	Submission	Status
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	
2.13	Fisheries Management Plan	
2.14	Egretry Survey Plan	
2.15	Silt Curtain Deployment Plan	
2.17	Detailed Plan on Deep Cement Mixing	
2.16	Spill Response Plan	
2.19	Waste Management Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

7.6 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 month are presented in **Appendix E**.

7.7 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions

7.7.1 Complaints

During the reporting period, no construction activities related complaints were received.

7.7.2 Notifications of Summons or Status of Prosecution

During the reporting period, neither notifications of summons nor prosecution were received.

7.7.3 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 be under the following contracts including:

Advance works Contract:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- HDD pilot hole drilling;
- Stockpiling of excavated materials from HDD operation; and
- Construction of containment pit at Sheung Sha Chau.

DCM Contracts:

Contract 3201 to 3204 Deep Cement Mixing Works

- Laying of geotextile and sand blanket.

Other Contracts:

Contract 3213 CLP Cable Diversion Enabling Works

- Installation of silt curtain; and
- Removal of existing armour rocks.

8.2 Key Environmental Issues for the Coming Reporting Period

The key environmental issues for the Project in the coming reporting period are 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 blankets
- 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 vessel.

The implementation of required mitigation measures by the Contractor 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 C**.

9 Conclusion and Recommendation

Key activities of the Project carried out in the reporting month were related to Contract P560(R) which involved drilling of HDD pilot hole at launching site, stockpiling of excavated materials from HDD operation at stockpiling area, site preparation works and construction of containment pit at Sheung Sha Chau. Works under the four DCM contracts involved site survey and investigation works, and CLP cable diversion enabling work involved site preparation works. Some other site investigation works were also carried out during the reporting period.

Construction dust, noise, waste and ecological monitoring were carried out in the reporting period.

The water quality monitoring and CWD monitoring were completed as scheduled although no marine construction works was carried out during the reporting period.

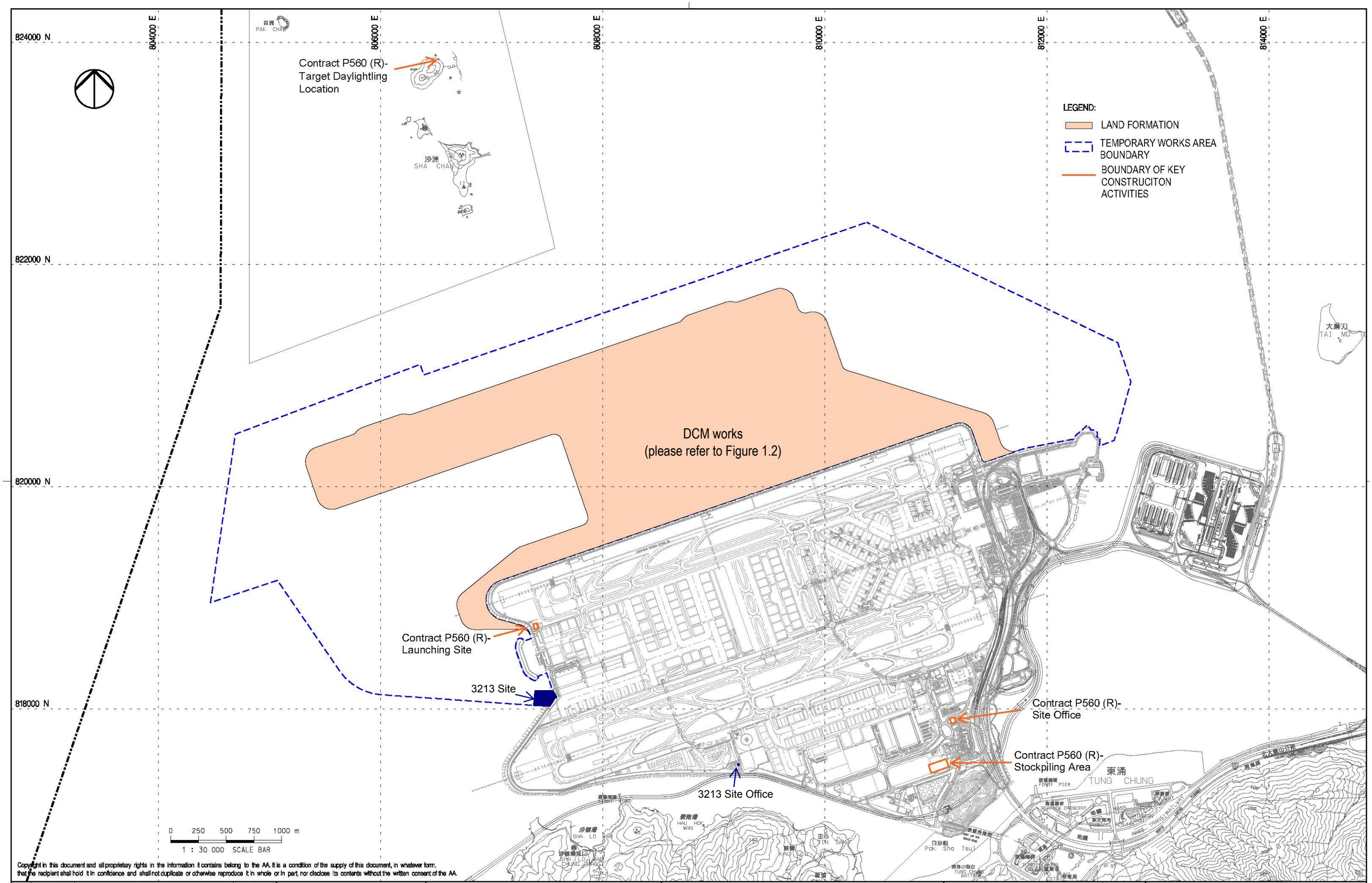
Three exceedance cases involving Action Level of 1-hour TSP monitoring were recorded during the reporting period. The investigation results indicated that the exceedances were likely related to background air quality level but not project-related.

No breach of the Action or Limit Levels in relation to the construction noise, waste, ecological monitoring were recorded in the reporting month. All site observations made by the ET were recorded in the site inspection checklists and passed to the Contractor together with the recommended follow-up actions.

On the implementation of the SkyPier Plan, the daily movements of all SkyPier High Speed Ferries (HSFs) in September 2016 were 87 to 95 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 814 HSF movements under SkyPier Plan were recorded. All HSFs had travelled through the SCZ with prevailing speed under 15 knots (7.8 to 14.4 knots) in compliance with the SkyPier Plan. One ferry movement had minor deviation from the diverted route which is related to safety / emergency situation. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigation or actions accordingly.

On the implementation of the Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV), ET has conducted weekly audit of relevant information, including AIS data, vessel tracks and other relevant records to ensure full compliance with the requirements of the MTRMP-CAV. Trainings have been held with the Contractor senior management staff and concerned skippers to facilitating them in familiarise with the requirements of the MTRMP-CAV and strengthen the communication between senior management staff and the sub-contractors. The ET is also working with contractors to familiarise with the requirements of the MTRMP-CAV.

Figures



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A	31AUG15	FIRST ISSUE	DC

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Mott MacDonald

Title

LOCATIONS OF KEY CONSTRUCITON ACTIVITIES IN THIS REPORTING PERIOD

Consultant's Signatures for Approval		Date
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

Drawing No.

FIGURE 1.1

Scale at A3 1 : 30000

Rev. A

Filename: J:\355482\REPORT\ENV\CWSLP\FIG 1.dgn

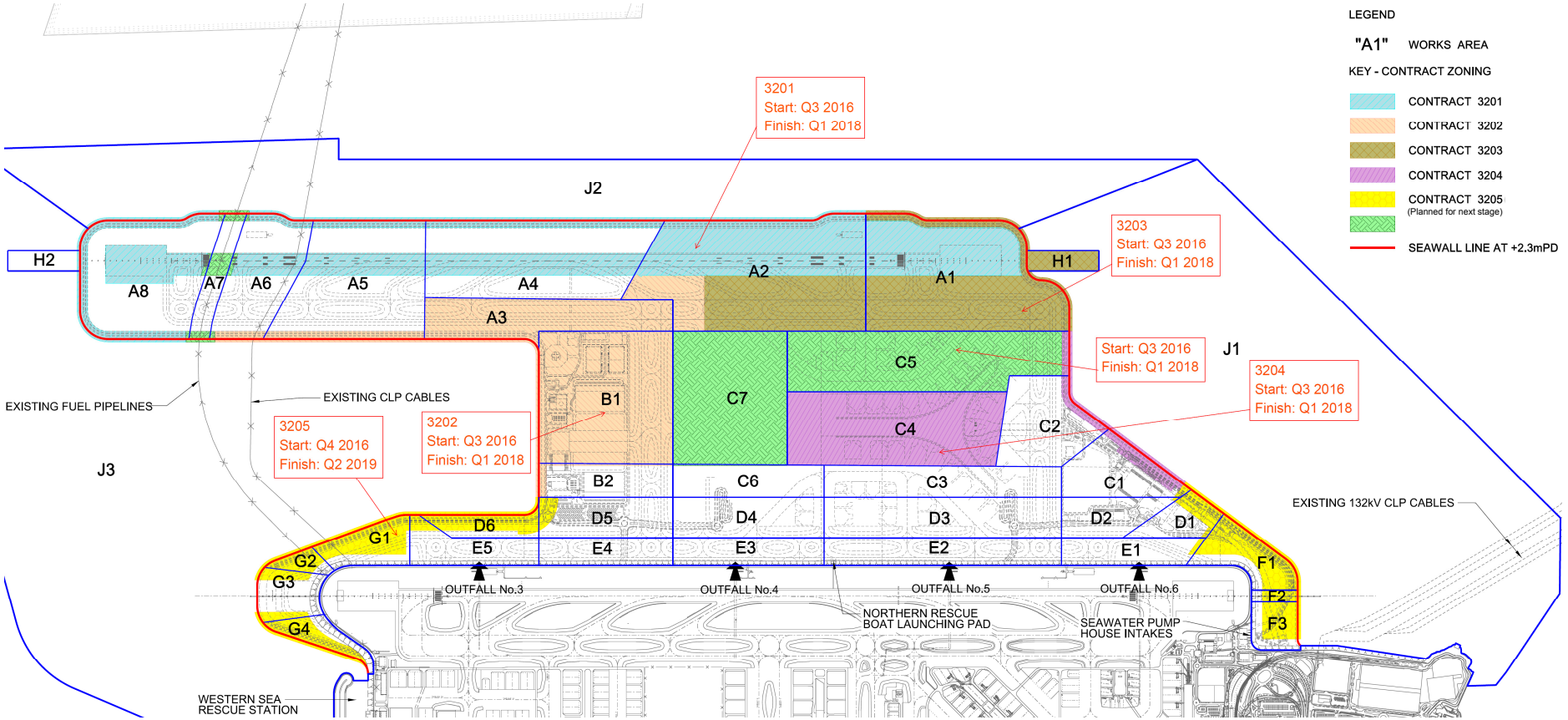

Figure 1.2 -Locations of Deep Cement Mixing Works Area

LEGEND:

- PROPOSED RECLAMATION AREA
- NOISE MONITORING STATION (UPDATED EM&A MANUAL)
- AIR QUALITY MONITORING STATION (UPDATED EM&A MANUAL)
- CHEK LAP KOK WIND STATION

806000 E
808000 E
810000 E
812000 E
814000 E
820000 N
818000 N

NM1A AR1A
NM2
NM3A
NM4
NM5 AR2
NM6

0 200 400 600 800 1000 m
1 : 22 500 SCALE BAR

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

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

Consultant's Signatures for Approval		Date
Design	AM	11FEB16
Checkers	AM / TK	11FEB16
Approver	EC	11FEB16

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. C

Filename: J:\355482\REPORT\ENV\EMA\160211\FIG 2.1.dgn

805000 E
810000 E
815000 E
820000 E
825000 N
820000 N
815000 N

HKSAR BOUNDARY

C1
C2
C3

IM1
IM2
IM3
IM4
IM5
IM6
IM7
IM8
IM9
IM10
IM11
IM12

SR2
SR3
SR4A
SR5A
SR6
SR7
SR8

LEGEND:

- PROPOSED LAND FORMATION FOOTPRINT
- 500m ENVELOPE
- IMPACT STATION
- SENSITIVE RECEIVER
- CONTROL STATION

0 500 1000 1500 2000 m
1 : 60 000 SCALE BAR

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C	06JUN16	GENERAL REVISION	LC

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WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
Design	DC	06JUN16
Checkers	DC / TK	06JUN16
Approver	EC	06JUN16

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 3.1

Scale at A3 1 : 60000

Rev. C

Filename: J:\355482\REPORT\ENV\EMA\160606\MCL-P132-EMA-5-002.dgn

800000 E
805000 E
810000 E
815000 E
820000 E
825000 E
830000 E
835000 E
840000 E
845000 E
830000 N
825000 N
820000 N
815000 N
810000 N
805000 N

NORTHWEST LANTAU
NORTHEAST LANTAU
SOUTHWEST LANTAU
WEST LANTAU

LEGEND:
- HKSAR BOUNDARY
- PROPOSED LAND FORMATION FOOTPRINT
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE

0 1 2 3 4 km
1 : 125 000 SCALE BAR

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VESSEL BASED DOLPHIN MONITORING TRANSECTS IN BASELINE MONITORING

Consultant's Signatures for Approval		Date
Design	JC	02DEC15
Checkers	JC / TK	02DEC15
Approver	EC	02DEC15

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 6.1

Scale at A3 1 : 125000

Rev. A

Filename: J:\355482\REPORT\ENV\EMA\151202\MCL-P132-EMA-10-002.dgn

804000 E
806000 E
808000 E
810000 E
812000 E
814000 E
816000 E
818000 E
820000 N
822000 N
824000 N
826000 N
E
D
HKSAR BOUNDARY
沙洲及龍鼓洲海岸公園
SHA CHAU AND LUNG KWU CHAU MARINE PARK
LEGEND:
PROPOSED LAND FORMATION FOOTPRINT
HONG KONG INTERNATIONAL AIRPORT
LAND BASED SURVEY LOCATION
0 500 1000 1500 2000 m
1 : 45,000 SCALE BAR

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Title

LAND BASED DOLPHIN MONITORING IN BASELINE AND CONSTRUCTION PHASES

Consultant's Signatures for Approval		Date
Design	JC	02DEC15
Checkers	JC / TK	02DEC15
Approver	EC	02DEC15

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 6.2

Scale at A3 1 : 45000

Rev. A

Filename: J:\355482\REPORT\ENV\EMA\151202\MCL-P132-EMA-10-004.dgn

804000 E
806000 E
808000 E
810000 E
812000 E
814000 E
816000 E
818000 E
820000 E

828000 N
826000 N
824000 N
822000 N
820000 N
818000 N

沙洲及龍鼓洲海岸公園
SHA CHAU AND LUNG KWU CHAU MARINE PARK

龍鼓洲
LUNG KWU CHAU

沙洲
SHA CHAU

A5

HKSAR BOUNDARY

LEGEND:

PROPOSED LAND FORMATION FOOTPRINT

HONG KONG INTERNATIONAL AIRPORT

AUTONOMOUS PASSIVE ACOUSTIC MONITORING LOCATION

0 500 1000 1500 2000 m
1 : 45 000 SCALE BAR

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Mott MacDonald

Title

LOCATIONS FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING IN BASELINE AND CONSTRUCTION PHASES

Consultant's Signatures for Approval		Date
Design	JC	02DEC15
Checkers	JC / TK	02DEC15
Approver	EC	02DEC15

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 6.5

Scale at A3
1 : 45000

Rev. A

Filename: J:\355482\REPORT\ENV\EMA\151202\MCL-P132-EMA-10-005.dgn

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 ?^
			Air Quality Impact – Construction Phase		
5.2.6.2	2.1	-	**Dust Control Measures** ▪ Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	▪ 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.	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 ▪ 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. Disturbed Parts of the Roads ▪ Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or ▪ Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. Exposed Earth ▪ Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	Within construction site / Duration of the construction phase	I
		-	Loading, Unloading or Transfer of Dusty Materials ▪ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. Debris Handling		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			▪ 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 ▪ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. Transport of Dusty Materials ▪ Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. Wheel washing ▪ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. Use of vehicles ▪ The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site; ▪ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and ▪ Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. Site hoarding ▪ Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.		
5.2.6.5	2.1	-	**Best Practices for Concrete Batching Plant** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 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: Cement and other dusty materials ▪ 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; ▪ 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	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 ?^
			operate, and after 1 minute or less the material filling line will be closed; ▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit; ▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and ▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery. Other raw materials ▪ 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; ▪ 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; ▪ 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; ▪ 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; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; ▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; ▪ 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; ▪ 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; ▪ The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side; ▪ 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 ▪ The opening between the storage bin and weighing scale of the materials shall be fully enclosed. Loading of materials for batching		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: (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 (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. ▪ The loading bay shall be totally enclosed during the loading process. Vehicles ▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and ▪ All access and route roads within the premises shall be paved and adequately wetted.		
		-	Housekeeping ▪ 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.		
5.2.6.6	2.1	-	**Best Practices for Asphaltic Concrete Plant** 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: Design of Chimney ▪ The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater; ▪ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition; ▪ The flue gas exit temperature shall not be less than the acid dew point; and ▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected. Cold feed side ▪ 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; ▪ 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	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 ?^
			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; ▪ 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; - ▪ 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; ▪ 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; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and ▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures. Hot feed side ▪ 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; ▪ 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; ▪ 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; ▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages; ▪ 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 ▪ 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). Material transportation ▪ 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; ▪ Roadways from the entrance of the plant to the product loading points and/or any other working areas		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			where there are regular movements of vehicles shall be paved or hard surfaced; and ▪ Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers. Control of emissions from bitumen decanting ▪ 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; ▪ 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; ▪ Proper chimney for the discharge of bitumen fumes shall be provided at high level; ▪ The emission of bitumen fumes shall not exceed the required emission limit; and ▪ 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. Liquid fuel ▪ 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. Housekeeping ▪ 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.		
5.2.6.7	2.1	-	**Best Practices for Rock Crushing Plants** 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: Crushers ▪ 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; ▪ 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; ▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and ▪ 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. Vibratory screens and grizzlies	Within Crushing 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 ?^
			▪ 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 ▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas. Belt conveyors ▪ 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; ▪ 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 ▪ 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.		
		-	Storage piles and bins ▪ 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. ▪ The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; ▪ All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or ▪ 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. ▪ Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly. Rock drilling equipment • Appropriate dust control equipment such as a dust extraction and collection system shall be used during		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			rock drilling activities.		
			Hazard to Human Life – Construction Phase		
Table 6.40	3.2	-	▪ Precautionary measures should be established to request barges to move away during typhoons.	Construction Site / Construction Period	N/A
Table 6.40	3.2	-	▪ An appropriate marine traffic management system should be established to minimize risk of ship collision.	Construction Site / Construction Period	N/A
Table 6.40	3.2	-	▪ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	N/A
			Noise Impact – Construction Phase		
7.5.6	4.3	-	**Good Site Practice** Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: ▪ only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; ▪ machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; ▪ plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; ▪ mobile plant should be sited as far away from NSRs as possible; and ▪ material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Adoption of QPME** ▪ QPME should be adopted as far as applicable.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Use of Movable Noise Barriers** ▪ 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.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Use of Noise Enclosure/ Acoustic Shed** ▪ Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.	Within the Project site / During construction phase / Prior to	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
				commencement of operation	
			Water Quality Impact – Construction Phase		
8.8.1.2 and 8.8.1.3	5.1	2.26	**Marine Construction Activities** <u>General Measures to be Applied to All Works Areas</u> ▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; ▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited; ▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; ▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; ▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; ▪ All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; ▪ 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 ▪ 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. <u>Specific Measures to be Applied to All Works Areas</u> ▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; ▪ 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; ▪ 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; ▪ Closed grab dredger shall be used to excavate marine sediment; ▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and ▪ The Silt Curtain Deployment Plan shall be implemented.	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 ?^
			<u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u> ▪ 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; ▪ 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 ▪ The silt curtains and silt screens should be regularly checked and maintained. <u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u> ▪ 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; ▪ Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities; ▪ 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 ▪ The silt curtains and silt screens should be regularly checked and maintained. <u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u> ▪ 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 ▪ Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.		
8.8.1.4	5.1	-	**Modification of the Existing Seawall** ▪ 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.	At the existing northern seawall / Duration of the construction phase	N/A
8.8.1.5	5.1	-	**Construction of New Stormwater Outfalls and Modifications to Existing Outfalls** ▪ 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.	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 ?^
8.8.1.6 8.8.1.7	5.1	2.27	**Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons** 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. <u>For construction of the eastern approach lights at the CMPs</u> ▪ Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; ▪ Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; ▪ The excavated materials shall be removed using a closed grab within the steel casings; ▪ No discharge of the cement mixed materials into the marine environment will be allowed; and ▪ Excavated materials shall be treated and reused on-site.	Within construction site / Duration of the construction phase	N/A
8.8.1.8	5.1	-	**Construction Site Runoff and Drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended: ▪ 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 drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform); ▪ Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction; ▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly; ▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities; ▪ In the event that contaminated groundwater is identified at excavation areas, this should be treated on-site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for	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 ?^
			proper disposal off-site. No direct discharge of contaminated groundwater is permitted; ▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge;		
		-	▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the construction materials, soil, silt or debris from washing away into the drainage system; ▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and to prevent stormwater runoff being directed into foul sewers; and ▪ Precautionary measures should be taken at any time of the year when rainstorms are likely. Actions to be taken when a rainstorm is imminent or forecasted are summarized in Appendix A2 of ProPECC Note PN 1/94. This includes actions to be taken during and/or after rainstorms. Particular attention should be paid to the control of silty surface runoff during storm events.		
8.8.1.9	5.1	-	**Sewage Effluent from Construction Workforce** ▪ Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Within construction site / During construction phase	I
8.8.1.10 8.8.1.11	5.1		**General Construction Activities** ▪ Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used; and ▪ 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.	Within construction site / During construction phase	I
8.8.1.12 8.8.1.13	5.1	2.28	**Drilling Activities for the Submarine Aviation Fuel Pipelines** To prevent potential water quality impacts at Sha Chau, the following measures shall be applied: ▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; ▪ No bulk storage of chemicals shall be permitted; and	Within construction site / During 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 ?^
			▪ 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. At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater: ▪ 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 ▪ 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.		
			Waste Management Implication – Construction Phase		
10.5.1.1	7.1	-	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:		
		-	▪ 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&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&D materials; ▪ Priority should be given to collect and reuse suitable inert C&D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works; ▪ 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; ▪ 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 ▪ For the marine sediments expected to be excavated from the piling works of TRC, APM & 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.	Project Site Area / During design and construction phase	I
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include: ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; ▪ Training of site personnel in proper waste management and chemical waste handling procedures;	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 ?^
			▪ Provision of sufficient waste disposal points and regular collection for disposal; ▪ 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; ▪ Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; ▪ All dusty materials including C&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; ▪ C&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; ▪ The speed of the trucks including dump trucks carrying C&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 ▪ To avoid or minimise dust emission during transport of C&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.		
10.5.1.3	7.1	-	The following practices should be performed to achieve waste reduction include: ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; ▪ Adoption of repetitive design to allow reuse of formworks as far as practicable; ▪ 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; ▪ 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; ▪ Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable; ▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and ▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	Project Site Area / Construction Phase	I
10.5.1.5	7.1		▪ Inert and non-inert C&D materials should be handled and stored separately to avoid mixing the two types of materials.	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	▪ Any recyclable materials should be segregated from the non-inert C&D materials for collection by	Project Site Area /	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.	Construction Phase	
10.5.1.6	7.1	-	▪ A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	▪ The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.	Construction Phase	I
10.5.1.16	7.1	-	The following mitigation measures are recommended during excavation and treatment of the sediments: ▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions; ▪ 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; ▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; ▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; ▪ Treated and untreated sediment should be clearly separated and stored separately; and ▪ 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.	Project Site Area / Construction Phase	N/A
10.5.1.18	7.1	-	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 followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal: ▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; ▪ 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 ▪ 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.	Project Site Area / Construction Phase	N/A
10.5.1.19	7.1	-	Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented: ▪ Good quality containers compatible with the chemical wastes should be used; ▪ Incompatible chemicals should be stored separately; ▪ 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	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 ?^
			▪ 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.		
10.5.1.20	7.1	-	▪ General refuse should be stored in enclosed bins or compaction units separated from inert C&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.	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	▪ 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.	Project Site Area / Construction Phase	N/A
			Land Contamination – Construction Phase		
11.10.1.2 to 11.10.1.3	8.1	2.32	For areas inaccessible during site reconnaissance survey ▪ Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas. ▪ 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. ▪ 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. ▪ 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.	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	N/A
11.8.1.2	8.1	-	If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any): ▪ To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; ▪ 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; ▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible; ▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; ▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or	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 ?^
			release of contaminated wastewater; ▪ Truck bodies and tailgates should be sealed to prevent any discharge; ▪ 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; ▪ Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit; ▪ 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 ▪ Maintain records of waste generation and disposal quantities and disposal arrangements.		
			Terrestrial Ecological Impact – Construction Phase		
12.10.1.1	9.2	2.14	**Pre-construction Egretry Survey** ▪ Conduct ecological survey for Sha Chau egretry to update the latest boundary of the egretry.	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	I
12.7.2.3 and 12.7.2.6	9.1	2.30	**Avoidance and Minimisation of Direct Impact to Egretry** ▪ The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretry. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretry; ▪ 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 ▪ The containment pit at the daylighting location shall be covered or camouflaged.	During construction phase at Sheung Sha Chau Island	I
12.7.2.5	9.1	2.30	**Preservation of Nesting Vegetation** ▪ 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.	During construction phase at Sheung Sha Chau Island	I
12.7.2.4 and 12.7.2.6	9.1	2.30	**Timing the Pipe Connection Works outside Ardeid's Breeding Season** ▪ 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.	During construction phase at Sheung Sha Chau Island	I
12.10.1.1	9.3	-	**Ecological Monitoring** ▪ 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.	at Sheung Sha Chau Island	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	▪ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	I
			Marine Ecological Impact – Construction Phase		
13.11.1.3 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ 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.	Land formation footprint / during detailed design phase to completion of construction	N/A
13.11.1.7 to 13.11.1.10	-	2.31	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; ▪ 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; ▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; ▪ Avoid bored piling during CWD peak calving season (Mar to Jun); ▪ Prohibition of underwater percussive piling; and ▪ 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.	During construction phase at marine works area	N/A
13.11.2.1 to 13.11.2.7	-	-	**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; ▪ 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); ▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and ▪ 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.	All works area during the construction phase	N/A
13.11.1.12	-	-	**Strict Enforcement of No-Dumping Policy** ▪ A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would	All works area during 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 ?^
			potentially be harmful to dolphins and/or their habitat in the work area; ▪ Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; ▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.		
13.11.1.13	-	-	**Good Construction Site Practices** ▪ Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; ▪ Keep the number of working or stationary vessels present on-site to the minimum anytime; and ▪ 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.	All works area during the construction phase	N/A
13.11.5.4 to 13.11.5.13	10.3.1	-	**SkyPier High Speed Ferries' Speed Restrictions and Route Diversions** ▪ 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 **Drawing No. MCL/P132/EIA/13-023** 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&A data and taking reference to changes in total SkyPier HSF numbers; and ▪ A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times. **Other mitigation measures** ▪ 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 ▪ The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.	Area between the footprint and SCLKC Marine Park during construction phase	I
13.11.5.14 to 13.11.5.18	10.3.1	2.31	**Dolphin Exclusion Zone** ▪ Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas; ▪ 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 ▪ A DEZ would also be implemented during bored piling work but as a precautionary measure only.	Marine waters around land formation works area during construction phase	N/A
13.11.5.19	10.4	2.31	**Acoustic Decoupling of Construction Equipment** ▪ 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	Around coastal works area during 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 ?^
			▪ Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.		
13.11.5.20	10.6.1	2.29	**Spill Response Plan** ▪ 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.	Construction phase	I
13.11.5.21 to 13.11.5.23	10.6.1	-	**Construction Vessel Speed Limits and Skipper Training** ▪ A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and ▪ 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.	All areas north and west of Lantau Island during construction phase	I
			Fisheries Impact – Construction Phase		
14.9.1.2 to 14.9.1.5	-	-	**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.	Land formation footprint / during detailed design phase to completion of construction	N/A
14.9.1.6	-	-	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; ▪ 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; ▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and ▪ 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.	During construction phase at marine works area	N/A
14.9.1.11	-		**Strict Enforcement of No-Dumping Policy** ▪ 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; ▪ Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works;	All works area during 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 ?^
			▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.		
14.9.1.12	-		**Good Construction Site Practices** ▪ Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; ▪ Keep the number of working or stationary vessels present on-site to the minimum anytime; and ▪ 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.	All works area during the construction phase	N/A
14.9.1.13 to 14.9.1.18	-		**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; ▪ 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); ▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and ▪ 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.	All works area during the construction phase	N/A
			Landscape and Visual Impact – Construction Phase		
Table 15.6	12.3	-	**CM1 -** 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.	I
Table 15.6	12.3	-	**CM2 -** Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	N/A
Table 15.6	12.3	-	**CM3 -** 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.	N/A
Table 15.6	12.3	-	**CM4 -** 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	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
				completion of works.	
Table 15.6	12.3	-	**CM5 -** 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. – may be disassembled in phases	N/A
Table 15.6	12.3	-	**CM6 -** 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	-	**CM7** - 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	N/A
Table 15.6	12.3	-	**CM8 -** 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	-	**CM9 -** 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.	N/A
Table 15.6	12.3	-	**CM10 -** 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;	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented ?^
				Upon handover and completion of works.	
			Cultural Heritage Impact – Construction Phase		
		-	Not applicable.		
			Health Impact – Aircraft Emissions		
		-	Not applicable.		
			Health Impact – Aircraft Noise		
		-	Not applicable.		

Notes:

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

^ Checked by ET during site inspection

Appendix B. Calibration Certificates

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C165055
證書編號

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

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

TEST CONDITIONS / 測試條件

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

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 8 September 2016

TEST RESULTS / 測試結果

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

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Technical Officer

Certified By 核證 : K C Lee, Project Engineer

Date of Issue 簽發日期 : 9 September 2016

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C165055
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.3.2.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

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

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level :

6.1.1 Reference Sound Pressure Level

6.1.1.1 Before Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	94.1

6.1.1.2 After Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.0	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		113.9

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Certificate of Calibration
校正證書

Certificate No. : C165055
證書編號

6.2 Time Weighting

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

6.3 Frequency Weighting

6.3.1 A-Weighting

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

6.3.2 C-Weighting

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

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

Certificate No. : C165055
證書編號

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

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

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

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

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

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Appendix C. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Sep-16

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 CWD Land-based Survey WQ General & Regular DCM mid- ebb: 13:06 mid- flood: 06:27	**2**	**3** WQ General & Regular DCM mid- ebb: 14:15 mid- flood: 07:46
4	**5** AR1A NM6 CWD Vessel Survey	**6** NM4 NM1A NM5/AR2 NM3A CWD Vessel Survey WQ General & Regular DCM mid- ebb: 15:47 mid- flood: 09:42	**7** CWD Land-based Survey	**8** Site Inspection CWD Vessel Survey WQ General & Regular DCM mid- ebb: 17:05 mid- flood: 11:24	**9** AR1A	**10** WQ General & Regular DCM mid- ebb: 07:00 mid- flood: 14:58
11	**12** Site Inspection NM5/AR2 NM3A NM6	**13** CWD Land-based Survey WQ General & Regular DCM mid- ebb: 10:21 mid- flood: 17:40	**14** Site Inspection	**15** NM1A/AR1A NM4 AR2 WQ General & Regular DCM mid- ebb: 11:51 mid- flood: 18:40	**16**	**17** WQ General & Regular DCM mid- ebb: 13:12 mid- flood: 06:50
18	**19** Site Inspection NM5/AR2 CWD Vessel Survey	**20** CWD Vessel Survey WQ General & Regular DCM mid- ebb: 15:20 mid- flood: 09:22	**21** Site Inspection NM1A/AR1A NM4 NM3A	**22** NM6 CWD Vessel Survey WQ General & Regular DCM mid- ebb: 17:07 mid- flood: 11:35	**23** AR2 CWD Land-based Survey	**24** WQ General & Regular DCM mid- ebb: 06:51 mid- flood: 14:46
25	**26** Site Inspection NM6 CWD Vessel Survey CWD Land-based Survey	**27** NM1A/AR1A NM4 NM3A CWD Vessel Survey WQ General & Regular DCM mid- ebb: 10:38 mid- flood: 17:39	**28**	**29** NM5/AR2 WQ General & Regular DCM mid- ebb: 12:05 mid- flood: 18:33	**30** Site Inspection Ecological Monitoring	

Notes:

Air quality and Noise montiorng Station

NM1A/AR1A - Man Tung Road Park
NM3A - Site Office
NM4 - Ching Chung Hau Po Woon Primary School
NM5/AR2 - Village House, Tin Sum
NM6 - House No. 1, Sha Lo Wan

CWD - Chinese White Dolphin
WQ - Water Quality
DCM - Deep Cemenet Mixing

Tentative Monitoring Schedule of Next Reporting Period

OCTOBER 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 WQ General & Regular DCM mid- ebb: 13:16 mid- flood: 07:01
2	**3** Site Inspection NM1A/AR1A NM4 NM3A	**4** CWD Land-based Survey WQ General & Regular DCM mid- ebb: 14:49 mid- flood: 08:52	**5** Site Inspection NM5/AR2 CWD Vessel Survey	**6** Site Inspection NM6 CWD Land-based Survey WQ General & Regular DCM mid- ebb: 10:30 mid- flood: 17:24	**7** Site Inspection AR1A CWD Vessel Survey	**8** WQ General & Regular DCM mid- ebb: 17:44 mid- flood: 12:40
9	**10**	**11** Site Inspection NM5/AR2 CWD Vessel Survey CWD Land-based Survey WQ General & Regular DCM mid- ebb: 08:32 mid- flood: 16:18	**12** Site Inspection CWD Vessel Survey CWD Land-based Survey	**13** Site Inspection NM1A/AR1A NM4 NM3A NM6 WQ General & Regular DCM mid- ebb: 10:30 mid- flood: 17:24	**14** Site Inspection	**15** WQ General & Regular DCM mid- ebb: 12:04 mid- flood: 18:22
16	**17** Site Inspection NM5/AR2	**18** NM6 CWD Vessel Survey WQ General & Regular DCM mid- ebb: 14:21 mid- flood: 08:29	**19** Site Inspection Ecological Monitoring NM1A/AR1A NM4 NM3A CWD Vessel Survey	**20** Site Inspection CWD Land-based Survey WQ General & Regular DCM mid- ebb: 16:02 mid- flood: 10:30	**21** Site Inspection AR2	**22** WQ General & Regular DCM mid- ebb: 18:05 mid- flood: 12:51
23	**24** Site Inspection NM6	**25** NM1A/AR1A NM4 NM3A CWD Vessel Survey WQ General & Regular DCM mid- ebb: 09:10 mid- flood: 16:25	**26** Site Inspection CWD Vessel Survey	**27** Site Inspection NM5/AR2 WQ General & Regular DCM mid- ebb: 10:57 mid- flood: 17:25	**28** Site Inspection	**29** WQ General & Regular DCM mid- ebb: 12:16 mid- flood: 18:12
30	**31** Site Inspection	**Notes:** Air quality and Noise montiorng Station CWD - Chinese White Dolphin WQ - Water Quality DCM - Deep Cemenet Mixing	NM1A/AR1A - Man Tung Road Park NM3A - Site Office NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan			

Appendix D. Monitoring Results

Air Quality Monitoring Results

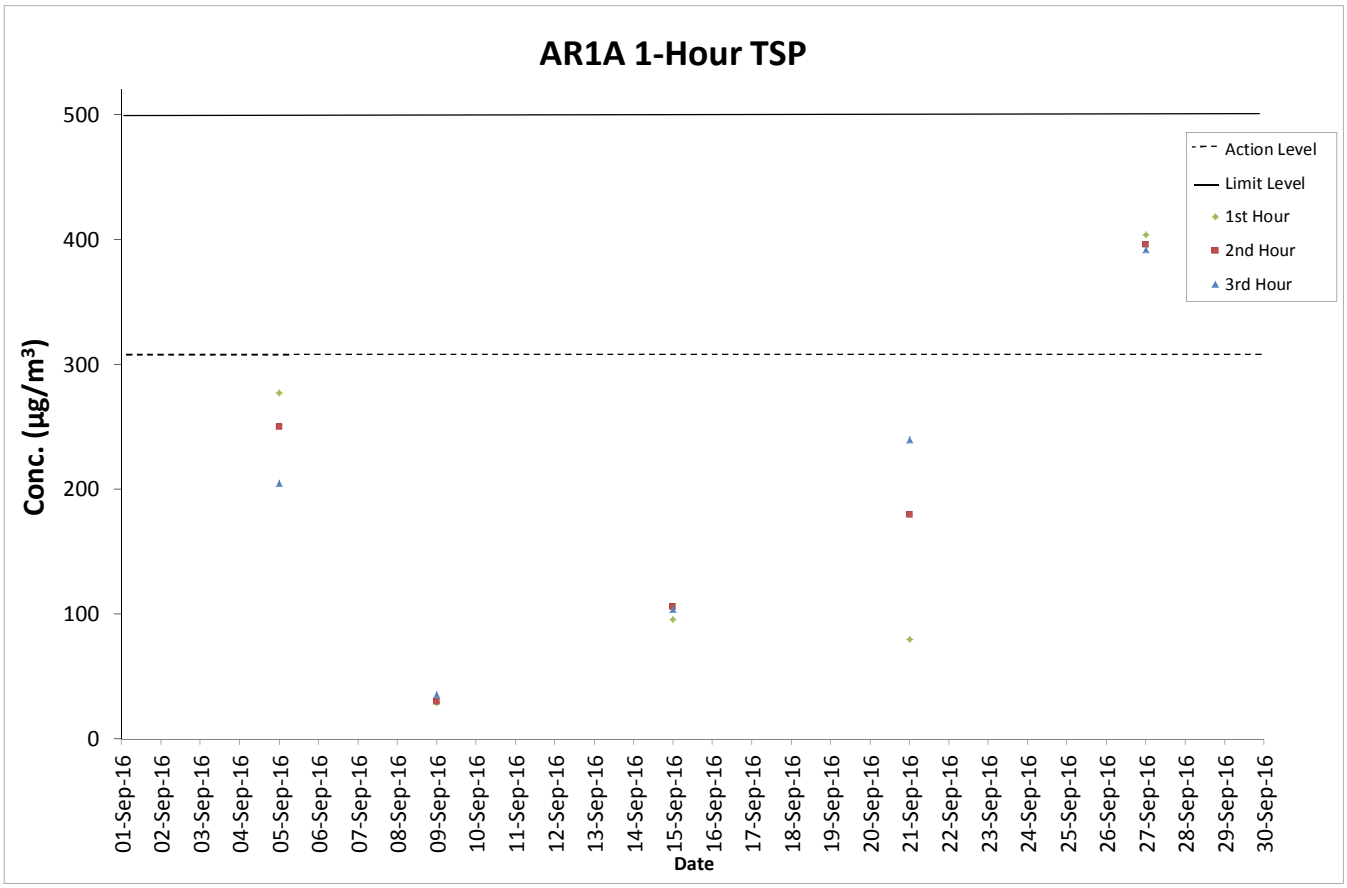
1-hour TSP Results
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
05-Sep-16	13:37	Rainy	2.7	101	277	306	500
05-Sep-16	14:37	Rainy	2.6	110	250	306	500
05-Sep-16	15:37	Rainy	6.8	89	205	306	500
09-Sep-16	13:30	Rainy	7.3	90	29	306	500
09-Sep-16	14:30	Rainy	7.2	83	30	306	500
09-Sep-16	15:30	Rainy	7.5	84	36	306	500
15-Sep-16	13:00	Sunny	4.4	327	96	306	500
15-Sep-16	14:00	Sunny	3.9	318	106	306	500
15-Sep-16	15:00	Sunny	3.5	310	104	306	500
21-Sep-16	08:50	Sunny	5.3	50	80	306	500
21-Sep-16	09:50	Sunny	5.1	68	180	306	500
21-Sep-16	10:50	Sunny	3.2	94	240	306	500
27-Sep-16	08:52	Haze	3.7	319	**404**	306	500
27-Sep-16	09:52	Haze	4.6	312	**396**	306	500
27-Sep-16	10:52	Haze	4.9	305	**392**	306	500

Action Level - Value presented in bold

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

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
06-Sep-16	08:55	Cloudy	2.6	81	179	298	500
06-Sep-16	09:55	Cloudy	3.0	80	154	298	500
06-Sep-16	10:55	Cloudy	3.7	92	113	298	500
12-Sep-16	09:00	Sunny	3.9	57	57	298	500
12-Sep-16	10:00	Sunny	3.0	46	61	298	500
12-Sep-16	11:00	Sunny	2.4	57	63	298	500
15-Sep-16	09:00	Sunny	4.5	310	88	298	500
15-Sep-16	10:00	Sunny	6.4	320	94	298	500
15-Sep-16	11:00	Sunny	5.5	321	99	298	500
19-Sep-16	08:50	Sunny	5.1	55	48	298	500
19-Sep-16	09:50	Sunny	4.2	58	60	298	500
19-Sep-16	10:50	Sunny	2.8	21	50	298	500
23-Sep-16	08:55	Sunny	6.0	60	58	298	500
23-Sep-16	09:55	Sunny	6.1	80	50	298	500
23-Sep-16	10:55	Sunny	5.7	96	53	298	500
29-Sep-16	8:55	Cloudy	6.7	339	25	298	500
29-Sep-16	9:55	Cloudy	5.4	335	31	298	500
29-Sep-16	10:55	Cloudy	6.6	332	34	298	500


AR1A 1-Hour TSP
Conc. (µg/m³)
500
400
300
200
100
0
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
11-Sep-16
12-Sep-16
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19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
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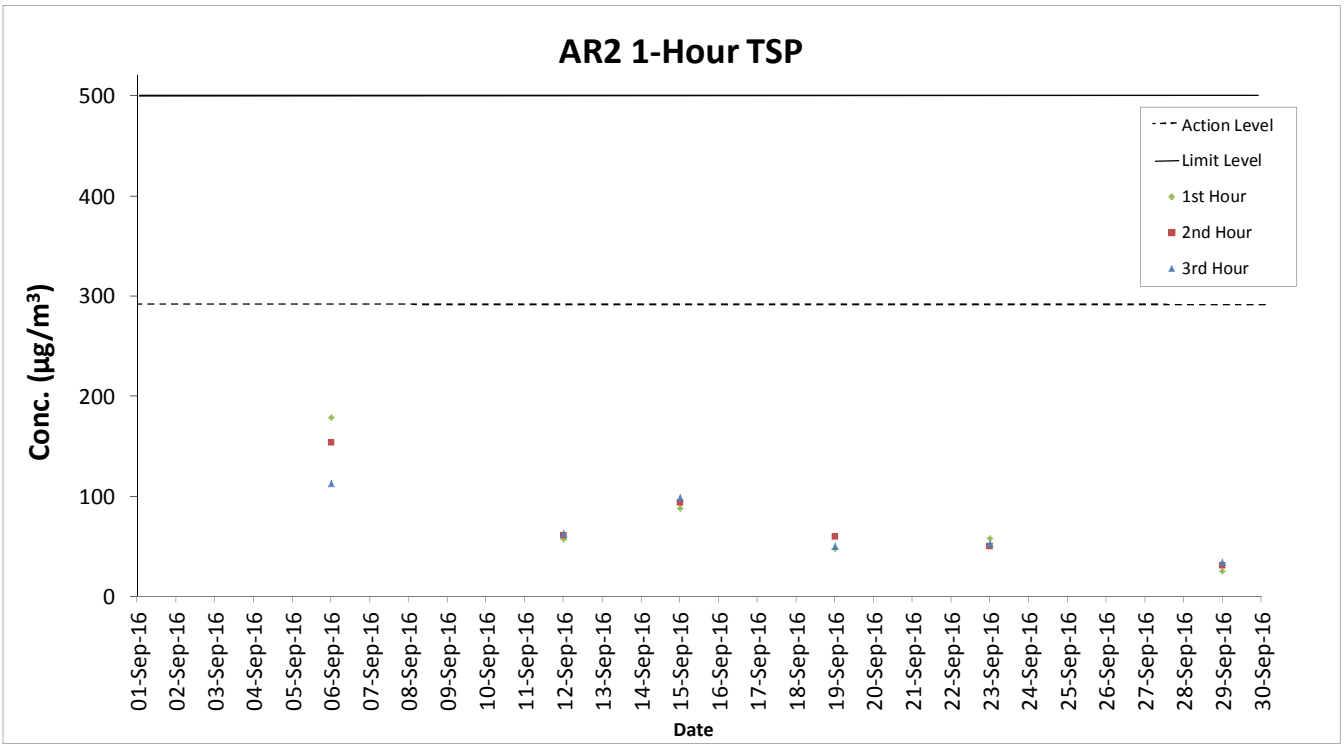
30-Sep-16
Date


AR2 1-Hour TSP
Conc. (µg/m³)
500
400
300
200
100
0
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
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18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date

Noise Monitoring Results

Noise Measurement Results
Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Sep-16	Cloudy	15:14	72.5	55.0	72
06-Sep-16	Cloudy	15:19	73.5	55.5	
06-Sep-16	Cloudy	15:24	72.0	56.0	
06-Sep-16	Cloudy	15:29	70.0	54.0	
06-Sep-16	Cloudy	15:34	73.5	54.5	
06-Sep-16	Cloudy	15:39	70.5	55.0	
15-Sep-16	Sunny	10:05	72.5	56.0	73
15-Sep-16	Sunny	10:10	70.5	54.5	
15-Sep-16	Sunny	10:15	69.5	54.5	
15-Sep-16	Sunny	10:20	72.5	55.0	
15-Sep-16	Sunny	10:25	70.5	54.5	
15-Sep-16	Sunny	10:30	70.0	54.5	
21-Sep-16	Sunny	10:07	72.0	54.5	71
21-Sep-16	Sunny	10:12	70.5	55.5	
21-Sep-16	Sunny	10:17	72.0	54.5	
21-Sep-16	Sunny	10:22	71.5	55.0	
21-Sep-16	Sunny	10:27	70.5	54.0	
21-Sep-16	Sunny	10:32	72.5	54.5	
27-Sep-16	Haze	10:30	71.0	57.5	71
27-Sep-16	Haze	10:35	70.5	56.0	
27-Sep-16	Haze	10:40	72.5	57.0	
27-Sep-16	Haze	10:45	71.5	57.0	
27-Sep-16	Haze	10:50	70.5	57.0	
27-Sep-16	Haze	10:55	72.5	57.0	

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

Noise Measurement Results
Station: NM3A- Site Office

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Sep-16	Cloudy	14:03	61.5	59.0	62
06-Sep-16	Cloudy	14:08	62.0	59.5	
06-Sep-16	Cloudy	14:13	62.5	60.0	
06-Sep-16	Cloudy	14:18	64.5	61.0	
06-Sep-16	Cloudy	14:23	62.0	60.0	
06-Sep-16	Cloudy	14:28	62.0	60.0	
12-Sep-16	Sunny	16:39	62.0	60.5	62
12-Sep-16	Sunny	16:44	62.5	61.0	
12-Sep-16	Sunny	16:49	62.0	61.0	
12-Sep-16	Sunny	16:54	64.5	61.0	
12-Sep-16	Sunny	16:59	63.5	61.5	
12-Sep-16	Sunny	17:04	64.5	61.0	
21-Sep-16	Sunny	14:02	66.5	61.0	61
21-Sep-16	Sunny	14:07	66.5	60.5	
21-Sep-16	Sunny	14:12	68.0	60.5	
21-Sep-16	Sunny	14:17	69.5	61.0	
21-Sep-16	Sunny	14:22	66.5	61.0	
21-Sep-16	Sunny	14:27	70.0	61.5	
27-Sep-16	Haze	14:31	66.0	62.5	61
27-Sep-16	Haze	14:36	67.0	63.0	
27-Sep-16	Haze	14:41	65.5	62.0	
27-Sep-16	Haze	14:46	65.5	62.0	
27-Sep-16	Haze	14:51	65.5	64.0	
27-Sep-16	Haze	14:56	67.5	63.0	

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Won Primary School

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Sep-16	Cloudy	13:14	63.5	58.5	64
06-Sep-16	Cloudy	13:19	63.5	59.0	
06-Sep-16	Cloudy	13:24	62.5	59.0	
06-Sep-16	Cloudy	13:29	61.5	58.5	
06-Sep-16	Cloudy	13:34	61.5	58.5	
06-Sep-16	Cloudy	13:39	62.0	58.5	
15-Sep-16	Sunny	11:06	61.5	58.0	64
15-Sep-16	Sunny	11:11	62.0	58.5	
15-Sep-16	Sunny	11:16	61.5	58.0	
15-Sep-16	Sunny	11:21	62.0	58.0	
15-Sep-16	Sunny	11:26	62.5	59.0	
15-Sep-16	Sunny	11:31	62.0	58.5	
21-Sep-16	Sunny	13:58	63.5	59.5	66
21-Sep-16	Sunny	14:03	63.5	59.5	
21-Sep-16	Sunny	14:08	63.5	59.0	
21-Sep-16	Sunny	14:13	64.0	59.5	
21-Sep-16	Sunny	14:18	66.0	63.5	
21-Sep-16	Sunny	14:23	65.5	62.0	
27-Sep-16	Haze	13:49	64.5	60.5	66
27-Sep-16	Haze	13:54	64.5	60.5	
27-Sep-16	Haze	13:59	64.5	60.0	
27-Sep-16	Haze	14:04	64.0	59.5	
27-Sep-16	Haze	14:09	65.0	60.5	
27-Sep-16	Haze	14:14	67.5	61.0	

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Sep-16	Cloudy	09:15	60.0	47.5	58
06-Sep-16	Cloudy	09:20	58.5	48.5	
06-Sep-16	Cloudy	09:25	57.5	47.0	
06-Sep-16	Cloudy	09:30	59.5	47.5	
06-Sep-16	Cloudy	09:35	58.5	50.0	
06-Sep-16	Cloudy	09:40	58.5	49.0	
12-Sep-16	Sunny	11:30	52.0	44.0	53
12-Sep-16	Sunny	11:35	54.0	45.5	
12-Sep-16	Sunny	11:40	52.5	45.0	
12-Sep-16	Sunny	11:45	53.0	46.0	
12-Sep-16	Sunny	11:50	53.5	46.5	
12-Sep-16	Sunny	11:55	54.0	46.5	
19-Sep-16	Sunny	09:10	55.5	47.0	58
19-Sep-16	Sunny	09:15	57.5	48.0	
19-Sep-16	Sunny	09:20	60.5	50.0	
19-Sep-16	Sunny	09:25	57.0	50.0	
19-Sep-16	Sunny	09:30	57.5	50.5	
19-Sep-16	Sunny	09:35	57.0	50.5	
29-Sep-16	Cloudy	9:05	61.5	54.0	57
29-Sep-16	Cloudy	09:10	61.0	53.5	
29-Sep-16	Cloudy	09:15	58.5	53.0	
29-Sep-16	Cloudy	09:20	58.5	52.5	
29-Sep-16	Cloudy	09:25	61.0	52.0	
29-Sep-16	Cloudy	09:30	61.0	53.0	

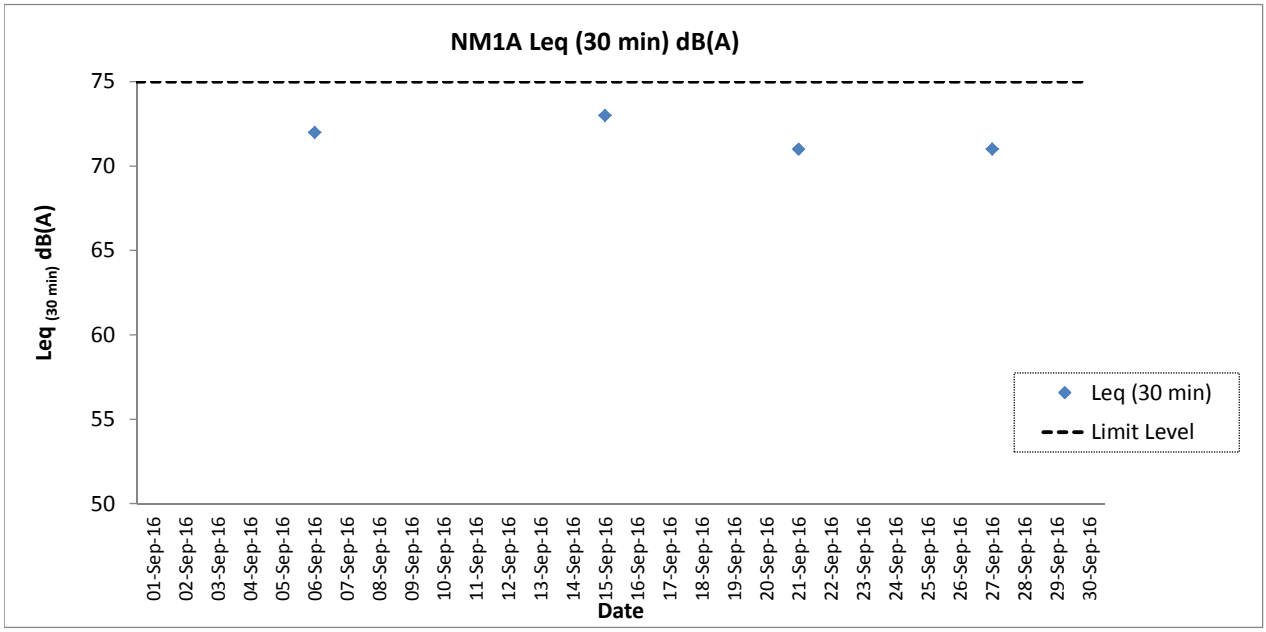
Remarks:
+3dB (A) correction was applied to free-field measurement.

Noise Measurement Results

Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
05-Sep-16	Cloudy	09:38	69.0	54.5	68
05-Sep-16	Cloudy	09:43	66.0	54.0	
05-Sep-16	Cloudy	09:48	69.0	54.0	
05-Sep-16	Cloudy	09:53	65.0	53.5	
05-Sep-16	Cloudy	09:58	65.0	56.0	
05-Sep-16	Cloudy	10:03	68.5	56.5	
12-Sep-16	Sunny	10:00	68.5	54.5	68
12-Sep-16	Sunny	10:05	69.0	54.0	
12-Sep-16	Sunny	10:10	69.5	53.5	
12-Sep-16	Sunny	10:15	62.5	54.0	
12-Sep-16	Sunny	10:20	69.5	53.5	
12-Sep-16	Sunny	10:25	68.0	52.5	
22-Sep-16	Sunny	09:42	65.5	53.5	65
22-Sep-16	Sunny	09:47	64.5	53.0	
22-Sep-16	Sunny	09:52	64.5	52.0	
22-Sep-16	Sunny	09:57	62.5	51.5	
22-Sep-16	Sunny	10:02	64.5	54.5	
22-Sep-16	Sunny	10:07	66.0	52.0	
26-Sep-16	Sunny	09:43	75.5	58.5	73
26-Sep-16	Sunny	09:48	74.5	56.5	
26-Sep-16	Sunny	09:53	77.5	56.0	
26-Sep-16	Sunny	09:58	76.5	53.5	
26-Sep-16	Sunny	10:03	75.5	53.5	
26-Sep-16	Sunny	10:08	75.0	50.5	

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


NM1A Leq (30 min) dB(A)
Leq (30 min) dB(A)
75
70
65
60
55
50
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
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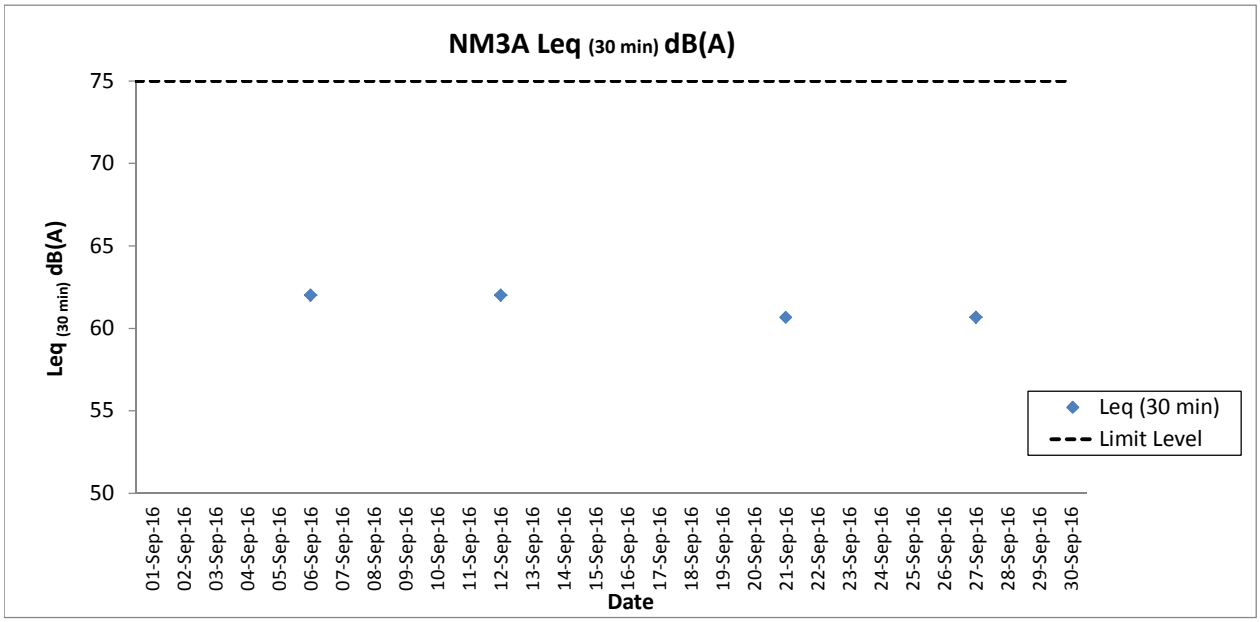
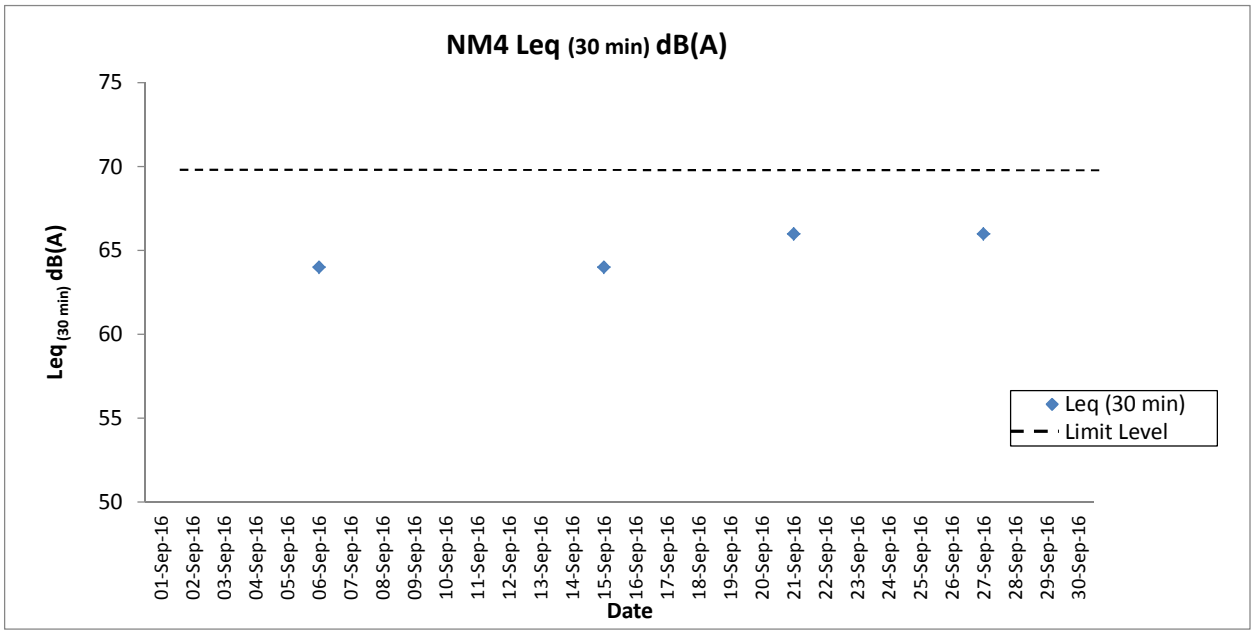
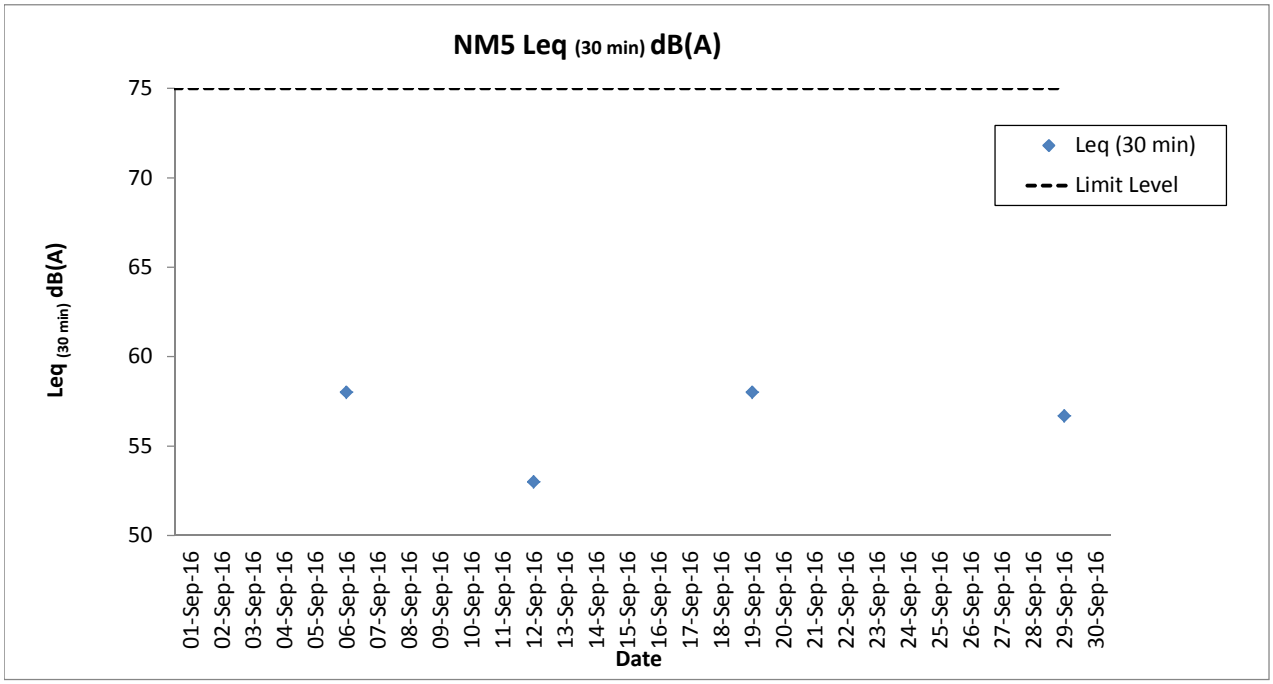
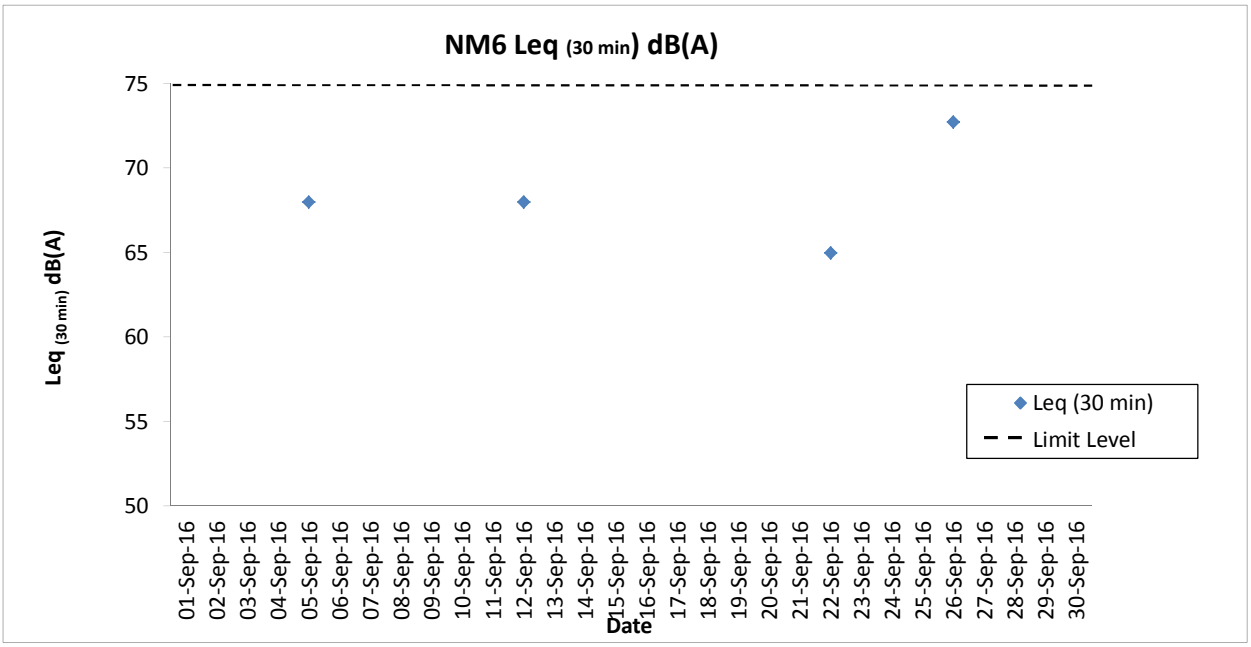
18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date
Leq (30 min)
Limit Level


NM3A Leq (30 min) dB(A)
Leq (30 min) dB(A)
75
70
65
60
55
50
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
11-Sep-16
12-Sep-16
13-Sep-16
14-Sep-16
15-Sep-16
16-Sep-16
17-Sep-16
18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date
Leq (30 min)
Limit Level


NM4 Leq (30 min) dB(A)
Leq (30 min) dB(A)
75
70
65
60
55
50
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
11-Sep-16
12-Sep-16
13-Sep-16
14-Sep-16
15-Sep-16
16-Sep-16
17-Sep-16
18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date
Leq (30 min)
Limit Level


NM5 Leq (30 min) dB(A)
Leq (30 min) dB(A)
75
70
65
60
55
50
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
11-Sep-16
12-Sep-16
13-Sep-16
14-Sep-16
15-Sep-16
16-Sep-16
17-Sep-16
18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date
Leq (30 min)
Limit Level


NM6 Leq (30 min) dB(A)
Leq (30 min) dB(A)
75
70
65
60
55
50
01-Sep-16
02-Sep-16
03-Sep-16
04-Sep-16
05-Sep-16
06-Sep-16
07-Sep-16
08-Sep-16
09-Sep-16
10-Sep-16
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12-Sep-16
13-Sep-16
14-Sep-16
15-Sep-16
16-Sep-16
17-Sep-16
18-Sep-16
19-Sep-16
20-Sep-16
21-Sep-16
22-Sep-16
23-Sep-16
24-Sep-16
25-Sep-16
26-Sep-16
27-Sep-16
28-Sep-16
29-Sep-16
30-Sep-16
Date
Leq (30 min)
Limit Level

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 16 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 (mg/L)		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
C1	Cloudy	Moderate	06:26	8.3	Surface	1.0	0.5	40	27.6	27.6	7.9	7.9	27.4	27.4	70.9	70.8	4.8	4.7	11.5	31.9	5	28	74	81	815629	804252	<0.2	<0.2	1.5	1.1
						1.0	0.5	42	27.6		7.9		27.3		70.7		4.8		12.6		3		77				<0.2		1.4	
					Middle	4.2	0.6	42	27.5	27.5	7.9	7.9	28.7	28.7	69.1	69.2	4.6		26.7		25		80				<0.2		1.0	
						4.2	0.6	43	27.5		7.9		28.7		69.2		4.6		27.0		26		82				<0.2		0.9	
					Bottom	7.3	0.6	46	27.5	27.5	7.9	7.9	28.9	28.9	69.3	69.4	4.6	4.7	58.3		55		85				<0.2		0.8	
						7.3	0.6	47	27.5		7.9		28.9		69.5		4.7		55.2		53		89				<0.2		0.8	
C2	Rainy	Moderate	07:05	13.2	Surface	1.0	0.5	254	26.5	26.5	7.8	7.8	20.1	20.1	70.0	70.0	5.0	4.7	4.7	10.6	3	5	83	89	825680	806957	<0.2	<0.2	1.4	1.9
						1.0	0.5	255	26.5		7.8		20.1		70.0		5.0		4.8		3		85				<0.2		2.5	
					Middle	6.6	1.0	284	26.2	26.2	7.8	7.8	24.6	24.6	62.8	62.9	4.4		9.5		5		92				<0.2		2.2	
						6.6	1.0	307	26.2		7.8		24.6		62.9		4.4		9.6		4		90				<0.2		2.0	
					Bottom	12.2	0.5	279	26.1	26.1	7.8	7.8	25.4	25.4	65.9	66.0	4.6	4.6	17.4		6		93				<0.2		1.6	
						12.2	0.6	292	26.1		7.8		25.4		66.1		4.6		17.4		8		92				<0.2		1.4	
C3	Rainy	Moderate	05:09	12.3	Surface	1.0	0.5	275	26.0	26.0	7.9	7.9	24.3	24.3	69.4	69.4	4.9	4.7	5.7	8.8	5	6	83	87	822125	817800	<0.2	<0.2	1.8	1.8
						1.0	0.5	292	26.0		7.9		24.3		69.3		4.9		5.8		3		82				<0.2		1.7	
					Middle	6.2	0.5	254	25.6	25.6	7.9	7.9	27.2	27.2	64.0	64.0	4.5		10.7		4		85				<0.2		2.3	
						6.2	0.5	278	25.6		7.9		27.2		64.0		4.5		10.8		4		87				<0.2		2.0	
					Bottom	11.3	0.4	178	25.6	25.6	7.9	7.9	27.3	27.3	65.4	65.4	4.6	4.6	10.0		9		91				<0.2		1.7	
						11.3	0.4	186	25.6		7.9		27.3		65.4		4.6		10.0		8		92				<0.2		1.4	
IM1	Cloudy	Moderate	06:45	7.6	Surface	1.0	0.7	45	27.9	27.9	7.8	7.8	24.1	24.1	71.9	72.0	4.9	5.0	3.1	8.1	4	9	80	82	818366	806438	<0.2	<0.2	1.8	1.6
						1.0	0.7	48	27.9		7.8		24.0		72.0		4.9		3.5		4		77				<0.2		1.6	
					Middle	3.8	0.6	20	27.8	27.8	7.8	7.8	26.1	26.1	73.4	73.5	5.0		7.4		5		78				<0.2		2.0	
						3.8	0.6	20	27.8		7.8		26.1		73.5		5.0		8.3		6		82				<0.2		1.2	
					Bottom	6.6	0.5	115	27.8	27.8	7.9	7.9	27.3	27.3	77.1	78.8	5.2	5.3	13.2		18		87				<0.2		1.2	
						6.6	0.5	116	27.8		7.9		27.3		80.4		5.4		12.9		16		88				<0.2		1.9	
IM2	Cloudy	Moderate	06:56	8.3	Surface	1.0	0.7	31	27.9	27.9	7.8	7.8	23.9	24.0	69.4	69.3	4.8	4.8	4.9	14.2	3	12	72	80	818871	806207	<0.2	<0.2	2.0	1.8
						1.0	0.7	32	27.9		7.8		24.0		69.2		4.8		5.2		4		74				<0.2		2.1	
					Middle	4.2	0.7	38	27.9	27.9	7.8	7.8	25.4	25.4	69.7	70.0	4.8		13.5		5		80				<0.2		1.4	
						4.2	0.7	40	27.9		7.8		25.3		70.3		4.8		14.6		5		81				<0.2		2.4	
					Bottom	7.3	0.5	79	27.7	27.7	7.9	7.9	27.7	27.7	73.0	73.1	4.9	4.9	23.7		28		84				<0.2		1.2	
						7.3	0.6	86	27.7		7.9		27.7		73.1		4.9		23.5		27		86				<0.2		1.4	
IM3	Cloudy	Moderate	07:05	8.1	Surface	1.0	0.7	58	27.9	27.9	7.8	7.8	23.7	23.7	69.8	69.8	4.8	4.8	2.8	9.5	5	7	75	79	819407	806010	<0.2	<0.2	0.8	1.5
						1.0	0.8	59	27.9		7.8		23.7		69.8		4.8		3.0		4		75				<0.2		0.7	
					Middle	4.1	0.7	47	27.9	27.9	7.8	7.8	24.9	24.9	68.4	68.5	4.7		8.9		5		77				<0.2		2.3	
						4.1	0.7	47	27.8		7.8		24.8		68.5		4.7		9.9		4		79				<0.2		2.0	
					Bottom	7.1	0.6	48	27.6	27.7	7.9	7.9	27.9	27.9	69.5	69.9	4.7	4.7	17.1		11		82				<0.2		1.8	
						7.1	0.6	48	27.7		7.9		27.8		70.2		4.7		15.4		10		84				<0.2		1.6	
IM4	Fine	Moderate	07:15	8.4	Surface	1.0	0.6	24	27.8	27.8	7.8	7.8	23.7	23.7	73.2	73.2	5.0	4.9	6.4	25.3	5	16	78	81	819550	805052	<0.2	<0.2	1.7	1.6
						1.0	0.7	24	27.8		7.8		23.6		73.1		5.0		6.6		4		76				<0.2		2.0	
					Middle	4.2	0.7	30	27.8	27.8	7.8	7.8	26.0	25.9	70.5	70.7	4.8		18.2		5		79				<0.2		1.7	
						4.2	0.8	32	27.8		7.8		25.8		70.8		4.8		20.4		6		81				<0.2		1.6	
					Bottom	7.4	0.5	31	27.6	27.6	7.9	7.9	28.3	28.3	69.4	70.0	4.7	4.8	50.3		37		84				<0.2		1.2	
						7.4	0.5	31	27.6		7.9		28.3		70.5		4.8		49.7		37		87				<0.2		1.2	
IM5	Fine	Moderate	07:23	7.2	Surface	1.0	0.6	70	27.7	27.7	7.8	7.8	22.6	22.6	75.5	75.2	5.2	5.0	5.0	21.8	5	6	75	80	820579	804937	<0.2	<0.2	2.4	2.0
						1.0	0.7	71	27.7		7.8		22.6		74.8		5.2		5.3		6		78				<0.2		2.7	
					Middle	3.6	0.7	24	27.7	27.7	7.8	7.8	26.5	26.5	69.5	69.7	4.7		12.9		7		81				<0.2		1.9	
						3.6	0.7	24	27.7		7.8		26.5		69.8		4.7		13.5		6		79				<0.2		2.1	
					Bottom	6.2	0.5	47	27.6	27.6	7.9	7.9	27.6	27.6	68.8	69.1	4.6	4.7	48.4		5		82				<0.2		1.4	
						6.2	0.5	49	27.6		7.9		27.6		69.3		4.7		45.6		5		83				<0.2		1.5	
IM6	Fine	Moderate	07:38	7.2	Surface	1.0	0.6	25	27.9	27.9	7.8	7.8	24.2	24.2	67.5	67.5	4.6	4.6	3.5	14.5	5	10	73	79	821079	805809	<0.2	<0.2	1.5	1.6
						1.0	0.6	25	27.9		7.8		24.1		67.5		4.6		3.7		4		74				<0.2		1.5	
					Middle	3.6	0.5	46	27.9	27.9	7.8	7.8	25.3	25.3	66.5	66.6	4.5		10.5		4		78				<0.2		1.8	
						3.6	0.5	50	27.9		7.8		25.2		66.6		4.5		12.0		5		80				<0.2		2.0	
					Bottom	6.2	0.3	46	27.6	27.6	7.8	7.8	27.3	27.3	67.4	67.7	4.6	4.6	28.4		21		84				<0.2		1.4	
						6.2	0.4	49	27.6		7.8		27.3		68.0		4.6		28.7		22		87				<0.2		1.6	
IM7	Fine	Moderate	07:46	8.3	Surface	1.0	0.7	36	27.9	27.9	7.8	7.8	24.4	24.4	70.7	70.6	4.8	4.8	2.2	3.8	4	6	76	81	821349	806854	<0.2	<0.2	2.1	1.7
						1.0	0.8	37	27.9		7.8		24.4		70.5		4.8		2.4		3		73				<0.2		2.3	
					Middle	4.2	0.5	33	27.8	27.8	7.8	7.8	26.3	26.3	69.2	69.3	4.7		4.1		7		80				<0.2		1.7	
						4.2	0.5	35	27.8		7.8		26.2		69.3		4.7		4.3		6		83				<0.2		1.2	
					Bottom	7.3	0.4	42	27.8	27.8	7.8	7.8	26.3	26.3	71.0	71.3	4.8	4.8	4.9		8		88				<0.2		1.2	
						7.3	0.4	43	27.8		7.8		26.3		71.6		4.8		5.1		8		87				<0.2		1.4	
IM8	Cloudy	Moderate	06:26	8.9	Surface	1.0	0.3	203	26.4	26.4	7.8	7.8	21.7	21.7	65.5	65.5	4.7	4.6	5.4	6.8	3	4	83	89	821703	807844	<0.2	<0.2	2.4	2.3
						1.0	0.3	218	26.4		7.8		21.7		65.4		4.7		5.4		3		85				<0.2		2.9	
					Middle	4.5	0.5	225	26.3	26.4	7.8	7.8	23.6	23.6	64.0	64.1	4.5		6.6		4		90				<0.2		2.0	
						4.5	0.6	240	26.4		7.8		23.6		64.1		4.5		6.9		4		90				<0.2		2.1	
					Bottom	7.9	0.9	226	26.4	26.4	7.8	7.8	24.0	24.0	65.0	65.0	4.6	4.6	8.1		6		93				<0.2		2.4	
						7.9	0.9	231	26.4		7.8		24.0		65.0		4.6		8.2		5		92				<0.2		2.0	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 01 September 16 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
IM9	Cloudy	Moderate	06:17	7.7	Surface	1.0	0.3	224	26.5	26.5	7.8	7.8	20.3	20.3	69.3	69.3	5.0	4.8	5.2	9.4	4	4	82	88	822109	808791	<0.2	<0.2	2.9	2.2
						1.0	0.4	242	26.5		7.8		20.3		69.3		5.0		5.2		3		83				<0.2		3.0	
					Middle	3.9	0.6	238	26.4	26.4	7.8	7.8	23.5	23.5	64.4	64.4	4.6		9.6		5		89				<0.2		1.2	
						3.9	0.6	261	26.4		7.8		23.5		64.4		4.6		9.8		3		90				<0.2		1.8	
					Bottom	6.7	0.5	248	26.4	26.4	7.8	7.8	24.4	24.4	64.5	64.5	4.5	4.5	13.3		4		91				<0.2		2.1	
						6.7	0.5	249	26.4		7.8		24.4		64.5		4.5		13.3		4		92				<0.2		2.1	
IM10	Cloudy	Moderate	06:10	8.7	Surface	1.0	0.3	236	26.4	26.4	7.8	7.8	22.0	22.0	67.4	67.4	4.8	4.7	5.8	9.4	3	4	83	89	822234	809846	<0.2	<0.2	2.6	2.4
						1.0	0.4	249	26.4		7.8		22.0		67.3		4.8		6.0		4		87				<0.2		2.7	
					Middle	4.4	0.5	277	26.3	26.3	7.8	7.8	23.9	23.9	65.9	65.9	4.6		9.1		4		89				<0.2		2.0	
						4.4	0.6	292	26.3		7.8		23.9		65.9		4.7		9.3		3		90				<0.2		2.1	
					Bottom	7.7	0.5	285	26.3	26.3	7.9	7.9	24.4	24.4	67.4	67.4	4.7	4.7	13.2		4		92				<0.2		2.4	
						7.7	0.6	306	26.3		7.9		24.4		67.4		4.7		13.2		5		92				<0.2		2.3	
IM11	Cloudy	Moderate	06:03	7.7	Surface	1.0	0.5	263	26.3	26.3	7.8	7.8	22.5	22.5	68.4	68.4	4.9	4.9	5.1	6.9	4	5	84	89	821489	810557	<0.2	<0.2	2.1	2.2
						1.0	0.5	276	26.3		7.8		22.4		68.4		4.9		5.2		5		85				<0.2		2.2	
					Middle	3.9	0.5	282	26.3	26.3	7.9	7.9	23.0	23.0	68.9	68.9	4.9		6.2		6		90				<0.2		2.0	
						3.9	0.6	282	26.3		7.9		23.0		68.9		4.9		6.3		5		89				<0.2		2.8	
					Bottom	6.7	0.5	288	26.3	26.3	7.9	7.9	23.9	23.9	72.6	72.6	5.1	5.1	9.2		5		93				<0.2		1.9	
						6.7	0.5	291	26.3		7.9		23.9		72.6		5.1		9.2		6		92				<0.2		2.1	
IM12	Cloudy	Moderate	05:55	7.6	Surface	1.0	0.6	287	26.3	26.3	7.9	7.9	22.7	22.7	69.3	69.3	4.9	4.9	6.4	11.6	3	5	83	88	821148	811517	<0.2	<0.2	2.5	2.1
						1.0	0.6	296	26.3		7.9		22.7		69.3		4.9		6.4		4		83				<0.2		2.3	
					Middle	3.8	0.7	285	26.3	26.3	7.9	7.9	23.0	23.0	69.6	69.6	4.9		9.1		4		90				<0.2		2.4	
						3.8	0.7	289	26.3		7.9		23.0		69.6		4.9		9.1		4		89				<0.2		1.8	
					Bottom	6.6	0.7	285	26.2	26.2	7.9	7.9	25.1	25.1	69.7	69.7	4.9	4.9	19.3		8		91				<0.2		1.8	
						6.6	0.8	298	26.2		7.9		25.1		69.7		4.9		19.3		8		92				<0.2		1.8	
SR2	Cloudy	Moderate	05:32	4.7	Surface	1.0	0.2	218	26.3	26.3	7.8	7.8	21.5	21.5	72.0	72.0	5.2	5.2	6.0	11.6	2	7	83	86	821466	814169	<0.2	<0.2	2.8	2.5
						1.0	0.2	227	26.3		7.8		21.5		71.9		5.1		6.1		2		83				<0.2		3.1	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.3	134	26.0	26.0	7.9	7.9	26.3	26.3	68.5	68.5	4.8	4.8	17.1		12		90				<0.2		2.0	
						3.7	0.3	146	26.0		7.9		26.3		68.5		4.8		17.2		12		89				<0.2		1.9	
SR3	Cloudy	Moderate	06:32	9.3	Surface	1.0	0.4	206	26.5	26.5	7.8	7.8	21.9	21.9	64.0	64.0	4.6	4.5	6.4	9.9	4	7	-	-	822128	807562	-	-	-	-
						1.0	0.4	214	26.5		7.8		21.9		64.0		4.6		6.5		4		-				-		-	
					Middle	4.7	0.4	216	26.3	26.3	7.8	7.8	24.2	24.2	63.0	63.0	4.4		11.5		6		-				-		-	
						4.7	0.5	227	26.3		7.8		24.2		63.0		4.4		11.6		6		-				-		-	
					Bottom	8.3	0.7	218	26.3	26.3	7.8	7.8	24.3	24.3	64.8	64.9	4.6	4.6	11.8		11		-				-		-	
						8.3	0.8	224	26.3		7.8		24.3		64.9		4.6		11.8		10		-				-		-	
SR4A	Cloudy	Calm	06:00	9.1	Surface	1.0	0.4	247	27.9	27.9	7.8	7.8	26.8	26.8	73.8	73.7	5.0	5.0	7.3	7.8	9	11	-	-	817207	807792	-	-	-	-
						1.0	0.4	265	27.9		7.8		26.8		73.6		5.0		6.7		8		-				-		-	
					Middle	4.6	0.4	248	27.9	27.9	7.8	7.8	27.1	27.1	72.5	72.5	4.9		7.2		10		-				-		-	
						4.6	0.4	248	27.9		7.8		27.1		72.5		4.9		7.9		10		-				-		-	
					Bottom	8.1	0.3	252	27.8	27.8	7.8	7.8	27.3	27.3	74.4	75.1	5.0	5.1	8.9		15		-				-		-	
						8.1	0.3	255	27.8		7.8		27.3		75.7		5.1		8.5		15		-				-		-	
SR5A	Cloudy	Calm	05:40	4.9	Surface	1.0	0.2	285	28.1	28.1	7.8	7.8	27.0	27.0	77.3	77.3	5.2	5.2	6.2	8.0	7	9	-	-	816611	810699	-	-	-	-
						1.0	0.2	285	28.0		7.8		27.0		77.3		5.2		6.4		8		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.2	285	28.1	28.1	7.8	7.8	27.5	27.5	79.0	79.8	5.3	5.4	10.1		10		-				-		-	
						3.9	0.2	299	28.1		7.8		27.4		80.6		5.4		9.4		9		-				-		-	
SR6	Cloudy	Calm	05:12	4.2	Surface	1.0	0.2	252	27.9	27.9	7.8	7.8	26.5	26.5	71.1	71.3	4.8	4.8	3.4	4.7	5	5	-	-	817893	814682	-	-	-	-
						1.0	0.2	274	27.9		7.8		26.5		71.4		4.8		3.7		5		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.2	227	28.0	28.0	7.8	7.8	27.9	27.9	73.1	73.3	4.9	4.9	6.0		4		-				-		-	
						3.2	0.2	240	28.0		7.8		27.8		73.5		4.9		5.5		4		-				-		-	
SR7	Cloudy	Moderate	04:42	16.9	Surface	1.0	0.4	215	26.0	26.0	7.9	7.9	25.2	25.2	70.2	70.2	4.9	4.9	5.3	5.7	5	6	-	-	823634	823760	-	-	-	-
						1.0	0.4	219	26.0		7.9		25.2		70.1		4.9		5.3		4		-				-		-	
					Middle	8.5	0.9	197	25.8	25.8	7.9	7.9	26.6	26.6	68.6	68.6	4.8		5.8		6		-				-		-	
						8.5	0.9	197	25.8		7.9		26.6		68.6		4.8		5.8		7		-				-		-	
					Bottom	15.9	2.9	210	25.7	25.7	7.9	7.9	27.1	27.1	69.1	69.1	4.8	4.8	5.9		7		-				-		-	
						15.9	2.9	225	25.7		7.9		27.1		69.1		4.8		5.9		6		-				-		-	
SR8	Cloudy	Moderate	05:48	5.2	Surface	1.0	0.5	280	26.5	26.5	7.8	7.8	21.6	21.6	73.5	73.5	5.2	5.2	6.1	7.0	5	6	-	-	820397	811601	-	-	-	-
						1.0	0.5	304	26.5		7.8		21.6		73.5		5.2		6.2		6		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	292	26.3	26.3	7.8	7.8	22.5	22.5	75.1	75.1	5.3	5.3	7.8		5		-				-		-	
						4.2	0.3	306	26.3		7.8		22.5		75.1		5.3		7.8		6		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 01 September 16 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
C1	Fine	Calm	12:53	8.0	Surface	1.0	0.5	229	27.7	27.7	8.0	8.0	27.7	27.7	85.7	85.3	5.8	5.5	2.7	16.3	4	5	88	93	815627	804227	<0.2	<0.2	0.9	1.0
						1.0	0.5	239	27.7		8.0		27.7		84.8		5.7		2.6		4		90				<0.2		1.0	
					Middle	4.0	0.7	221	27.6	27.6	7.9	7.9	28.4	28.4	78.3	78.2	5.3		7.5		5		92				<0.2		1.0	
						4.0	0.7	225	27.6		7.9		28.4		78.0		5.3		7.7		5		94				<0.2		0.9	
					Bottom	7.0	0.6	214	27.4	27.4	7.9	7.9	29.3	29.3	71.6	71.7	4.8	4.8	38.2		6		96				<0.2		1.0	
						7.0	0.7	222	27.4		7.9		29.3		71.8		4.8		39.1		6		96				<0.2		1.0	
C2	Cloudy	Moderate	11:24	13.3	Surface	1.0	0.4	132	26.2	26.2	7.8	7.8	22.5	22.5	70.5	70.5	5.0	4.9	7.0	8.4	7	7	85	89	825671	806962	<0.2	<0.2	1.4	1.3
						1.0	0.4	133	26.2		7.8		22.5		70.4		5.0		7.1		7		85				<0.2		1.1	
					Middle	6.7	0.6	172	26.1	26.1	7.8	7.8	22.7	22.7	67.6	67.6	4.8		8.8		6		90				<0.2		1.3	
						6.7	0.6	175	26.1		7.8		22.7		67.6		4.8		8.8		6		90				<0.2		1.4	
					Bottom	12.3	0.4	156	26.0	26.0	7.8	7.8	24.6	24.6	70.3	70.3	5.0	5.0	9.4		8		93				<0.2		1.1	
						12.3	0.5	161	26.0		7.8		24.6		70.3		5.0		9.4		8		92				<0.2		1.2	
C3	Cloudy	Moderate	13:13	12.3	Surface	1.0	0.7	111	26.3	26.3	7.9	7.9	25.3	25.3	72.1	72.1	5.0	5.0	9.3	9.3	10	12	83	88	822112	817800	<0.2	<0.2	0.9	0.9
						1.0	0.7	115	26.3		7.9		25.3		72.1		5.1		9.3		9		82				<0.2		0.8	
					Middle	6.2	0.4	103	26.1	26.1	7.9	7.9	26.2	26.2	71.0	71.0	5.0		9.6		13		90				<0.2		0.9	
						6.2	0.4	103	26.1		7.9		26.2		71.0		5.0		9.5		13		90				<0.2		0.9	
					Bottom	11.3	0.4	103	26.1	26.1	7.9	7.9	26.3	26.3	71.5	71.5	5.0	5.0	9.1		14		93				<0.2		0.8	
						11.3	0.5	103	26.1		7.9		26.3		71.5		5.0		9.0		13		92				<0.2		1.0	
IM1	Cloudy	Moderate	12:30	7.3	Surface	1.0	0.4	176	27.7	27.7	7.9	7.9	27.8	27.8	82.5	82.5	5.6	5.5	2.9	3.5	8	8	87	90	818363	806445	<0.2	<0.2	0.9	1.0
						1.0	0.4	181	27.7		7.9		27.8		82.4		5.5		2.9		8		87				<0.2		1.0	
					Middle	3.7	0.4	176	27.7	27.7	7.9	7.9	27.8	27.8	81.8	81.8	5.5		3.5		8		90				<0.2		0.8	
						3.7	0.4	185	27.7		7.9		27.8		81.8		5.5		3.8		7		92				<0.2		1.1	
					Bottom	6.3	0.4	194	27.7	27.7	7.9	7.9	27.8	27.8	81.6	81.8	5.5	5.5	3.9		7		94				<0.2		1.0	
						6.3	0.4	204	27.7		7.9		27.8		81.9		5.5		4.2		8		92				<0.2		1.1	
IM2	Rainy	Moderate	12:22	8.1	Surface	1.0	0.4	159	27.7	27.7	7.9	7.9	27.2	27.3	81.3	81.2	5.5	5.4	3.9	5.8	5	6	79	86	818857	806183	<0.2	<0.2	0.6	0.8
						1.0	0.5	162	27.7		7.9		27.3		81.0		5.5		4.1		6		83				<0.2		0.7	
					Middle	4.1	0.5	204	27.6	27.6	7.9	7.9	27.7	27.7	77.2	76.9	5.2		4.9		6		86				<0.2		0.8	
						4.1	0.5	219	27.6		7.9		27.6		76.6		5.2		5.4		6		85				<0.2		0.8	
					Bottom	7.1	0.5	192	27.5	27.5	7.9	7.9	28.7	28.7	74.6	75.2	5.0	5.1	8.8		6		90				<0.2		0.9	
						7.1	0.6	210	27.5		7.9		28.6		75.7		5.1		7.8		7		92				<0.2		0.9	
IM3	Rainy	Moderate	12:10	7.2	Surface	1.0	0.5	182	27.7	27.7	7.9	7.9	27.6	27.7	74.3	73.7	5.0	4.9	5.4	5.8	8	8	84	89	819425	805999	<0.2	<0.2	1.2	1.0
						1.0	0.5	187	27.6		7.9		27.8		73.0		4.9		5.3		6		86				<0.2		1.2	
					Middle	3.6	0.5	196	27.6	27.6	7.9	7.9	27.6	27.6	72.1	72.0	4.9		5.8		8		90				<0.2		1.0	
						3.6	0.5	200	27.6		7.9		27.6		71.9		4.9		5.7		9		90				<0.2		0.9	
					Bottom	6.2	0.4	199	27.5	27.5	7.9	7.9	28.7	28.7	71.2	71.4	4.8	4.8	6.3		10		93				<0.2		0.8	
						6.2	0.5	200	27.5		7.9		28.7		71.5		4.8		6.0		9		92				<0.2		1.0	
IM4	Fine	Moderate	12:01	7.8	Surface	1.0	0.6	171	27.7	27.7	7.9	7.9	28.1	28.1	76.0	75.9	5.1	5.1	5.7	7.6	9	10	83	86	819580	805036	<0.2	<0.2	1.1	1.1
						1.0	0.6	183	27.7		7.9		28.1		75.8		5.1		5.9		9		83				<0.2		1.0	
					Middle	3.9	0.6	188	27.6	27.6	7.9	7.9	28.2	28.2	74.0	74.0	5.0		7.5		10		86				<0.2		1.3	
						3.9	0.6	195	27.6		7.9		28.2		74.0		5.0		7.6		10		84				<0.2		1.3	
					Bottom	6.8	0.5	199	27.5	27.5	7.9	7.9	28.4	28.4	71.2	71.2	4.8	4.8	9.3		11		90				<0.2		0.9	
						6.8	0.6	203	27.5		7.9		28.4		71.2		4.8		9.4		10		91				<0.2		1.1	
IM5	Fine	Moderate	11:48	7.1	Surface	1.0	0.5	165	27.7	27.7	7.9	7.9	28.0	28.0	75.4	75.4	5.1	5.0	6.0	10.0	9	12	80	86	820575	804909	<0.2	<0.2	1.1	1.1
						1.0	0.5	177	27.7		7.9		28.0		75.3		5.1		6.1		9		81				<0.2		1.0	
					Middle	3.6	0.5	170	27.5	27.6	7.9	7.9	28.1	28.1	72.9	73.0	4.9		7.9		10		86				<0.2		1.0	
						3.6	0.5	186	27.6		7.9		28.1		73.0		4.9		8.1		11		89				<0.2		1.2	
					Bottom	6.1	0.5	183	27.5	27.5	7.9	7.9	28.3	28.3	69.3	69.5	4.7	4.7	16.1		16		90				<0.2		1.2	
						6.1	0.5	198	27.5		7.9		28.3		69.6		4.7		15.9		16		92				<0.2		1.2	
IM6	Fine	Calm	11:37	7.3	Surface	1.0	0.5	150	27.8	27.8	7.9	7.9	27.5	27.5	75.5	75.5	5.1	5.1	6.2	8.3	12	11	80	85	821043	805845	<0.2	<0.2	1.2	1.7
						1.0	0.6	160	27.8		7.9		27.5		75.5		5.1		6.2		11		81				<0.2		1.6	
					Middle	3.7	0.5	158	27.7	27.7	7.9	7.9	27.7	27.7	74.7	74.7	5.0		6.2		11		84				<0.2		1.8	
						3.7	0.6	171	27.7		7.9		27.7		74.6		5.0		6.3		11		86				<0.2		1.7	
					Bottom	6.3	0.4	167	27.5	27.5	7.9	7.9	28.3	28.3	69.3	69.4	4.7	4.7	12.5		10		90				<0.2		1.7	
						6.3	0.4	176	27.5		7.9		28.3		69.4		4.7		12.5		11		88				<0.2		2.0	
IM7	Fine	Calm	11:24	8.4	Surface	1.0	0.5	116	27.8	27.8	7.9	7.9	26.7	26.7	78.3	78.3	5.3	5.1	4.4	7.6	5	8	83	89	821351	806827	<0.2	<0.2	1.8	1.5
						1.0	0.5	117	27.8		7.9		26.7		78.2		5.3		4.5		6		88				<0.2		1.5	
					Middle	4.2	0.4	134	27.6	27.6	7.9	7.9	27.9	27.9	71.4	71.4	4.8		8.3		9		90				<0.2		1.3	
						4.2	0.4	136	27.6		7.9		27.8		71.3		4.8		8.4		9		88				<0.2		1.3	
					Bottom	7.4	0.3	150	27.5	27.5	7.9	7.9	28.4	28.4	73.2	73.2	4.9	4.9	10.1		9		92				<0.2		1.6	
						7.4	0.3	152	27.5		7.9		28.3		73.2		4.9		10.1		10		94				<0.2		1.6	
IM8	Cloudy	Moderate	11:59	9.0	Surface	1.0	0.4	166	26.6	26.6	7.9	7.9	24.0	24.0	72.4	72.4	5.1	5.0	8.2	14.3	6	9	83	88	821709	807829	<0.2	<0.2	1.8	1.7
						1.0	0.4	167	26.6		7.9		23.9		72.3		5.1		8.2		6		85				<0.2		1.8	
					Middle	4.5	0.4	172	26.2	26.2	7.9	7.9	25.2	25.2	69.9	69.9	4.9		13.8		9		89				<0.2		1.8	
						4.5	0.4	174	26.2		7.9		25.2		69.9		4.9		13.9		8		89				<0.2		1.8	
					Bottom	8.0	0.4	157	26.0	26.0	8.0	8.0	26.8	26.8	72.1	72.1	5.0	5.0	20.7		14		92				<0.2		1.5	
						8.0	0.4	159	26.0		8.0		26.8		72.1		5.0		20.7		12		92				<0.2		1.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 01 September 16 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
IM9	Cloudy	Moderate	12:06	7.9	Surface	1.0	0.5	109	26.6	26.6	7.9	7.9	23.9	23.9	72.8	72.8	5.1	5.1	6.5	10.2	6	8	82	88	822086	808792	<0.2	<0.2	1.7	1.9
						1.0	0.6	118	26.6		7.9		23.9		72.7		5.1		6.6		6		84				<0.2		1.7	
					Middle	4.0	0.4	137	26.2	26.2	7.9	7.9	25.2	25.2	71.2	71.2	5.0		10.3		8		89				<0.2		1.8	
						4.0	0.4	139	26.2		7.9		25.2		71.2		5.0		10.4		9		90				<0.2		2.1	
					Bottom	6.9	0.4	141	26.0	26.0	8.0	8.0	26.1	26.1	74.2	74.2	5.2	5.2	13.7		8		92				<0.2		2.0	
						6.9	0.4	146	26.0		7.9		26.1		74.2		5.2		13.7		10		93				<0.2		2.1	
IM10	Cloudy	Moderate	12:13	8.0	Surface	1.0	0.7	101	26.6	26.6	7.9	7.9	23.9	23.9	73.5	73.4	5.2	5.0	5.8	10.1	5	5	85	89	822242	809819	<0.2	<0.2	3.1	2.0
						1.0	0.8	109	26.6		7.9		23.9		73.2		5.1		5.9		4		87				<0.2		2.4	
					Middle	4.0	0.6	107	26.2	26.2	7.9	7.9	24.9	25.0	68.7	68.8	4.8		10.0		4		88				<0.2		2.2	
						4.0	0.6	108	26.2		7.9		25.0		68.8		4.8		10.1		4		89				<0.2		1.8	
					Bottom	7.0	0.5	104	26.1	26.1	7.9	7.9	25.3	25.3	73.2	73.3	5.1	5.2	14.2		5		91				<0.2		1.4	
						7.0	0.6	105	26.1		7.9		25.3		73.3		5.2		14.3		6		92				<0.2		1.3	
IM11	Rainy	Moderate	12:19	9.2	Surface	1.0	0.9	84	26.3	26.3	8.0	8.0	25.4	25.4	79.2	79.2	5.5	5.6	9.1	12.4	8	8	85	89	821486	810530	<0.2	<0.2	1.7	1.8
						1.0	1.0	84	26.3		8.0		25.4		79.2		5.5		9.1		8		86				<0.2		1.8	
					Middle	4.6	0.8	97	26.3	26.3	8.0	8.0	25.4	25.4	79.3	79.3	5.6		10.9		8		90				<0.2		2.0	
						4.6	0.8	101	26.3		8.0		25.4		79.3		5.6		11.0		8		89				<0.2		2.0	
					Bottom	8.2	0.6	99	26.2	26.2	8.0	8.0	25.7	25.7	79.8	79.9	5.6	5.6	17.1		8		92				<0.2		1.6	
						8.2	0.6	99	26.2		8.0		25.7		79.9		5.6		17.3		9		92				<0.2		1.5	
IM12	Rainy	Moderate	12:28	9.5	Surface	1.0	0.9	94	26.3	26.3	8.0	8.0	25.4	25.4	79.0	79.0	5.5	5.5	8.0	8.6	8	8	84	89	821175	811518	<0.2	<0.2	1.0	1.2
						1.0	0.9	96	26.3		8.0		25.4		79.0		5.5		8.0		8		85				<0.2		1.1	
					Middle	4.8	0.8	92	26.3	26.3	8.0	8.0	25.4	25.4	78.9	78.9	5.5		8.4		7		90				<0.2		1.1	
						4.8	0.9	99	26.3		8.0		25.4		78.9		5.5		8.4		8		89				<0.2		1.4	
					Bottom	8.5	0.6	94	26.3	26.3	8.0	8.0	25.4	25.4	78.9	79.0	5.5	5.5	9.4		7		93				<0.2		1.5	
						8.5	0.7	95	26.3		8.0		25.4		79.0		5.5		9.5		7		92				<0.2		1.3	
SR2	Cloudy	Moderate	12:53	4.8	Surface	1.0	0.6	81	26.5	26.5	7.9	7.9	24.4	24.4	78.1	78.1	5.5	5.5	14.9	19.9	5	10	83	86	821479	814170	<0.2	<0.2	1.5	1.3
						1.0	0.6	83	26.5		7.9		24.4		78.1		5.5		14.9		5		83				<0.2		1.6	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	77	26.3	26.3	7.9	7.9	25.0	25.0	76.3	76.3	5.4	5.4	24.8		14		90				<0.2		1.1	
						3.8	0.4	81	26.3		7.9		25.0		76.3		5.4		24.8		15		89				<0.2		1.0	
SR3	Cloudy	Moderate	11:53	9.9	Surface	1.0	0.4	177	26.5	26.5	7.9	7.9	23.4	23.4	71.2	71.2	5.0	5.0	9.3	14.3	6	12	-	-	822130	807554	-	-	-	-
						1.0	0.5	193	26.5		7.9		23.4		71.1		5.0		9.5		5		-				-		-	
					Middle	5.0	0.4	189	26.1	26.1	7.9	7.9	25.3	25.3	70.2	70.2	4.9		16.2		12		-				-		-	
						5.0	0.4	189	26.1		7.9		25.3		70.2		4.9		16.3		13		-				-		-	
					Bottom	8.9	0.4	169	26.0	26.0	7.9	7.9	26.0	26.0	72.0	72.1	5.0	5.1	17.3		18		-				-		-	
						8.9	0.4	177	26.0		7.9		26.0		72.1		5.1		17.4		18		-				-		-	
SR4A	Fine	Calm	13:16	8.3	Surface	1.0	0.3	101	27.7	27.7	7.9	7.9	27.3	27.3	77.4	77.4	5.2	5.2	6.8	10.6	13	15	-	-	817188	807809	-	-	-	-
						1.0	0.3	109	27.7		7.9		27.3		77.3		5.2		6.9		13		-				-		-	
					Middle	4.2	0.2	105	27.6	27.6	7.9	7.9	27.5	27.5	75.5	75.6	5.1		11.0		13		-				-		-	
						4.2	0.2	107	27.6		7.9		27.5		75.6		5.1		10.9		13		-				-		-	
					Bottom	7.3	0.1	150	27.6	27.6	7.9	7.9	27.6	27.6	75.9	76.1	5.1	5.1	14.1		18		-				-		-	
						7.3	0.1	157	27.6		7.9		27.6		76.2		5.1		14.0		20		-				-		-	
SR5A	Fine	Calm	13:33	4.4	Surface	1.0	0.2	125	28.0	28.0	7.9	7.9	26.5	26.5	80.9	80.9	5.5	5.5	6.7	10.3	9	11	-	-	816605	810691	-	-	-	-
						1.0	0.2	132	28.0		7.9		26.5		80.8		5.4		6.7		10		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	108	27.9	27.9	7.9	7.9	27.2	27.2	77.4	77.8	5.2	5.3	14.1		13		-				-		-	
						3.4	0.2	111	27.9		7.9		27.2		78.2		5.3		13.5		12		-				-		-	
SR6	Rainy	Calm	14:00	4.2	Surface	1.0	0.3	152	28.2	28.2	7.8	7.8	24.3	24.3	81.0	81.1	5.5	5.5	4.1	6.7	6	6	-	-	817883	814673	-	-	-	-
						1.0	0.3	163	28.2		7.8		24.3		81.1		5.5		4.2		6		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.4	143	28.2	28.2	7.8	7.8	25.1	25.1	80.8	80.6	5.5	5.5	9.1		5		-				-		-	
						3.2	0.4	147	28.2		7.8		25.0		80.4		5.5		9.5		6		-				-		-	
SR7	Cloudy	Moderate	13:39	17.4	Surface	1.0	0.8	59	26.6	26.6	7.9	7.9	25.7	25.7	78.2	78.1	5.4	5.2	3.1	4.6	2	3	-	-	823617	823742	-	-	-	-
						1.0	0.8	63	26.6		7.9		25.7		78.0		5.4		3.1		3		-				-		-	
					Middle	8.7	0.7	61	26.3	26.3	7.9	7.9	26.2	26.2	72.4	72.3	5.0		4.7		3		-				-		-	
						8.7	0.7	63	26.3		7.9		26.2		72.2		5.0		4.8		2		-				-		-	
					Bottom	16.4	2.1	157	26.0	26.0	7.9	7.9	27.1	27.1	71.9	71.9	5.0	5.0	5.9		3		-				-		-	
						16.4	2.2	170	26.0		7.9		27.1		71.9		5.0		5.9		2		-				-		-	
SR8	Rainy	Moderate	12:38	5.5	Surface	1.0	0.3	172	26.7	26.7	7.9	7.9	25.5	25.5	71.7	71.7	5.0	5.0	11.2	11.9	9	10	-	-	820415	811609	-	-	-	-
						1.0	0.3	176	26.7		7.9		25.5		71.7		5.0		11.2		7		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.3	197	26.2	26.2	7.9	7.9	26.0	26.0	73.7	73.8	5.1	5.2	12.6		12		-				-		-	
						4.5	0.3	211	26.2		7.9		26.0		73.9		5.2		12.5		11		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Cloudy	Calm	07:36	8.6	Surface	1.0	0.6	52	28.0	28.0	7.8	7.8	25.7	25.7	74.6	74.6	5.1	5.0	8.9	44.8	8	58	95	99	815639	804252	<0.2	<0.2	1.8	1.3
						1.0	0.6	56	28.0		7.8		25.7		74.6		5.1		8.9		9		92				<0.2		1.8	
					Middle	4.3	0.6	44	27.9	27.9	7.9	7.9	27.6	27.6	72.6	72.6	4.9		44.0		39		96				<0.2		1.1	
						4.3	0.7	45	27.9		7.9		27.6		72.6		4.9		43.7		41		96				<0.2		1.0	
					Bottom	7.6	0.7	46	27.9	27.9	7.9	7.9	28.0	28.0	73.1	73.3	4.9	4.9	81.6		124		108				<0.2		0.9	
						7.6	0.7	49	27.9		7.9		28.0		73.4		4.9		81.7		126		107				<0.2		0.9	
C2	Cloudy	Moderate	08:21	13.2	Surface	1.0	0.6	260	26.9	26.9	7.7	7.7	19.3	19.3	70.4	70.4	5.0	4.9	4.5	8.0	5	5	84	89	825665	806933	<0.2	<0.2	2.6	2.5
						1.0	0.7	261	26.9		7.7		19.3		70.3		5.0		4.5		5		85				<0.2		2.9	
					Middle	6.6	0.6	258	26.8	26.8	7.7	7.7	21.5	21.5	67.2	67.2	4.8		5.8		5		88				<0.2		2.5	
						6.6	0.6	271	26.8		7.7		21.5		67.2		4.8		5.8		4		90				<0.2		2.7	
					Bottom	12.2	0.5	255	26.6	26.6	7.8	7.8	23.4	23.4	67.2	67.2	4.7	4.7	13.6		6		92				<0.2		2.2	
						12.2	0.6	268	26.6		7.8		23.4		67.2		4.7		13.9		5		92				<0.2		2.3	
C3	Cloudy	Calm	06:36	11.5	Surface	1.0	0.4	160	26.4	26.4	7.8	7.8	23.2	23.2	75.1	75.1	5.3	5.2	6.3	6.8	5	6	83	89	822128	817813	<0.2	<0.2	1.7	1.7
						1.0	0.4	164	26.4		7.8		23.2		75.0		5.3		6.3		4		84				<0.2		1.8	
					Middle	5.8	0.6	302	26.4	26.4	7.8	7.8	23.8	23.8	72.0	72.0	5.1		7.2		6		90				<0.2		1.5	
						5.8	0.6	329	26.4		7.8		23.8		72.0		5.1		7.2		7		90				<0.2		1.6	
					Bottom	10.5	0.5	310	26.2	26.2	7.8	7.8	25.7	25.7	74.0	74.1	5.2	5.2	7.0		8		92				<0.2		1.8	
						10.5	0.6	335	26.2		7.8		25.7		74.2		5.2		7.0		7		92				<0.2		1.8	
IM1	Cloudy	Calm	07:56	7.8	Surface	1.0	0.8	106	28.2	28.2	7.8	7.8	23.9	23.9	75.8	75.8	5.2	5.1	5.7	28.5	6	37	96	98	818356	806460	<0.2	<0.2	1.6	1.4
						1.0	0.8	112	28.2		7.8		23.9		75.8		5.2		5.7		6		93				<0.2		1.8	
					Middle	3.9	0.7	139	28.0	28.0	7.8	7.8	25.9	25.9	74.6	74.6	5.0		29.3		26		94				<0.2		1.3	
						3.9	0.7	143	28.0		7.8		25.8		74.6		5.1		28.9		26		95				<0.2		1.4	
					Bottom	6.8	0.6	89	28.0	28.0	7.8	7.8	25.9	25.9	75.5	75.7	5.1	5.1	50.9		81		106				<0.2		1.3	
						6.8	0.6	89	28.0		7.8		25.9		75.8		5.1		50.7		79		105				<0.2		1.2	
IM2	Cloudy	Moderate	08:03	8.6	Surface	1.0	0.7	99	28.2	28.2	7.8	7.8	23.9	23.9	74.9	74.9	5.1	5.1	4.4	27.6	7	12	94	96	818851	806193	<0.2	<0.2	2.0	1.6
						1.0	0.7	100	28.2		7.8		23.9		74.9		5.1		4.6		7		94				<0.2		2.0	
					Middle	4.3	0.7	68	28.0	28.0	7.9	7.9	26.1	26.1	74.7	74.7	5.1		21.3		13		94				<0.2		1.5	
						4.3	0.7	72	28.0		7.9		26.1		74.7		5.1		21.4		13		94				<0.2		1.6	
					Bottom	7.6	0.5	89	28.0	28.0	7.9	7.9	26.4	26.4	74.7	74.7	5.0	5.0	56.8		15		98				<0.2		1.5	
						7.6	0.5	93	28.0		7.9		26.4		74.7		5.0		57.1		16		99				<0.2		1.2	
IM3	Cloudy	Moderate	08:10	9.0	Surface	1.0	0.7	116	28.2	28.2	7.8	7.8	23.7	23.7	75.3	75.3	5.1	5.0	3.8	21.7	5	21	103	100	819396	806023	<0.2	<0.2	1.9	1.7
						1.0	0.7	124	28.2		7.8		23.7		75.2		5.1		4.2		6		99				<0.2		2.1	
					Middle	4.5	0.6	68	28.0	28.0	7.9	7.9	26.5	26.5	72.7	72.7	4.9		18.6		7		91				<0.2		1.8	
						4.5	0.7	72	28.0		7.9		26.5		72.7		4.9		19.9		7		93				<0.2		1.8	
					Bottom	8.0	0.5	94	28.0	28.0	7.9	7.9	26.7	26.7	72.9	73.0	4.9	4.9	41.7		51		106				<0.2		1.3	
						8.0	0.5	102	28.0		7.9		26.7		73.0		4.9		42.2		48		109				<0.2		1.2	
IM4	Cloudy	Moderate	08:18	8.4	Surface	1.0	0.7	177	28.2	28.2	7.8	7.8	23.3	23.3	74.6	74.6	5.1	5.1	3.6	19.7	6	21	88	95	819587	805046	<0.2	<0.2	2.0	1.8
						1.0	0.7	189	28.2		7.8		23.3		74.6		5.1		3.4		6		90				<0.2		2.1	
					Middle	4.2	0.8	88	28.1	28.1	7.8	7.8	24.4	24.4	74.0	74.0	5.0		6.1		9		88				<0.2		2.0	
						4.2	0.8	92	28.1		7.8		24.4		74.0		5.0		6.4		7		90				<0.2		1.9	
					Bottom	7.4	0.6	83	28.0	28.0	7.9	7.9	26.7	26.7	74.5	74.6	5.0	5.0	49.1		49		108				<0.2		1.3	
						7.4	0.6	90	28.0		7.9		26.7		74.6		5.0		49.5		51		106				<0.2		1.2	
IM5	Cloudy	Moderate	08:27	7.3	Surface	1.0	0.7	217	28.3	28.3	7.8	7.8	23.0	23.0	73.8	73.8	5.1	5.1	3.0	30.9	3	35	89	92	820558	804921	<0.2	<0.2	2.5	2.0
						1.0	0.8	233	28.3		7.8		23.0		73.8		5.1		3.1		4		87				<0.2		2.9	
					Middle	3.7	0.8	106	28.2	28.2	7.8	7.8	24.2	24.3	73.4	73.5	5.0		5.2		11		93				<0.2		1.9	
						3.7	0.8	106	28.2		7.8		24.3		73.5		5.0		5.5		12		91				<0.2		2.0	
					Bottom	6.3	0.7	93	28.0	28.0	7.9	7.9	26.5	26.5	73.9	74.0	5.0	5.0	85.7		92		96				<0.2		1.2	
						6.3	0.7	99	28.0		7.9		26.5		74.0		5.0		82.7		87		96				<0.2		1.3	
IM6	Cloudy	Moderate	08:35	7.2	Surface	1.0	0.6	139	28.4	28.4	7.7	7.7	21.3	21.4	73.1	73.1	5.0	5.0	2.7	23.5	5	22	95	93	821078	805828	<0.2	<0.2	2.4	1.9
						1.0	0.7	145	28.4		7.7		21.4		73.1		5.0		2.9		5		92				<0.2		2.4	
					Middle	3.6	0.6	71	28.0	28.0	7.8	7.8	25.8	25.8	72.8	72.8	4.9		20.6		8		93				<0.2		1.8	
						3.6	0.7	74	28.0		7.8		25.8		72.8		4.9		20.7		9		93				<0.2		1.9	
					Bottom	6.2	0.6	88	28.0	28.0	7.8	7.8	26.2	26.2	73.1	73.2	4.9	4.9	46.6		52		93				<0.2		1.2	
						6.2	0.6	88	28.0		7.8		26.2		73.2		4.9		47.2		52		94				<0.2		1.6	
IM7	Cloudy	Moderate	08:44	8.7	Surface	1.0	0.5	144	28.5	28.5	7.7	7.7	20.2	20.2	73.4	73.4	5.1	5.1	4.0	23.0	4	16	89	90	821342	806851	<0.2	<0.2	1.3	1.9
						1.0	0.5	147	28.5		7.7		20.2		73.4		5.1		4.0		4		87				<0.2		1.4	
					Middle	4.4	0.7	85	28.1	28.1	7.8	7.8	25.3	25.3	74.3	74.3	5.0		26.3		8		81				<0.2		1.9	
						4.4	0.8	93	28.1		7.8		25.3		74.3		5.0		26.4		8		87				<0.2		1.9	
					Bottom	7.7	0.6	91	28.1	28.1	7.8	7.8	25.5	25.5	75.3	75.4	5.1	5.1	38.6		36		98				<0.2		2.5	
						7.7	0.6	94	28.1		7.8		25.5		75.4		5.1		38.6		37		96				<0.2		2.6	
IM8	Cloudy	Moderate	07:45	8.7	Surface	1.0	0.3	218	26.9	26.9	7.7	7.7	20.8	20.8	71.8	71.8	5.1	5.1	5.4	6.8	3	4	85	88	821682	807836	<0.2	<0.2	2.8	2.7
						1.0	0.3	227	26.9		7.7		20.8		71.8		5.1		5.4		3		83				<0.2		2.9	
					Middle	4.4	0.3	238	26.8	26.8	7.8	7.8	21.9	21.9	72.0	72.1	5.1		6.7		4		90				<0.2		2.5	
						4.4	0.4	240	26.8		7.8		21.9		72.1		5.1		6.8		4		89				<0.2		2.4	
					Bottom	7.7	0.3	224	26.8	26.8	7.8	7.8	22.5	22.5	73.5	73.6	5.2	5.2	8.2		4		92				<0.2		2.6	
						7.7	0.3	226	26.8		7.8		22.5		73.6		5.2		8.1		4		91				<0.2		2.7	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 September 16 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
IM9	Cloudy	Moderate	07:38	7.6	Surface	1.0	0.3	218	26.7	26.7	7.8	7.8	21.1	21.1	75.0	75.0	5.3	5.3	5.6	7.5	3	4	83	88	822101	808824	<0.2	<0.2	2.7	2.5
						1.0	0.4	224	26.7		7.8		21.0		75.0		5.3		5.6		4		84				<0.2		2.7	
					Middle	3.8	0.3	238	26.7	26.7	7.8	7.8	20.8	20.8	73.5	73.5	5.2		7.2		3		89				<0.2		2.7	
						3.8	0.4	258	26.7		7.8		20.7		73.5		5.2		7.4		4		90				<0.2		2.3	
					Bottom	6.6	0.3	224	26.8	26.8	7.8	7.8	22.9	22.9	74.2	74.2	5.2	5.2	9.7		6		92				<0.2		2.2	
						6.6	0.3	233	26.8		7.8		22.9		74.2		5.2		9.7		5		92				<0.2		2.2	
IM10	Cloudy	Moderate	07:30	7.2	Surface	1.0	0.4	200	26.8	26.8	7.8	7.8	22.3	22.3	71.6	71.7	5.1	5.1	7.4	16.4	4	11	83	88	822252	809853	<0.2	<0.2	2.2	2.2
						1.0	0.4	217	26.8		7.8		22.3		71.7		5.1		7.5		4		83				<0.2		2.3	
					Middle	3.6	0.4	200	26.7	26.7	7.8	7.8	23.0	23.0	71.8	71.8	5.1		17.3		12		91				<0.2		2.3	
						3.6	0.4	213	26.7		7.8		23.0		71.8		5.1		17.0		14		89				<0.2		2.2	
					Bottom	6.2	0.4	204	26.7	26.7	7.8	7.8	23.0	23.0	74.7	74.8	5.3	5.3	24.7		16		92				<0.2		2.1	
						6.2	0.4	220	26.7		7.8		23.0		74.8		5.3		24.6		18		92				<0.2		2.3	
IM11	Cloudy	Moderate	07:22	7.9	Surface	1.0	0.3	183	26.7	26.7	7.8	7.8	22.2	22.2	75.0	75.0	5.3	5.3	8.9	17.9	7	8	83	89	821512	810526	<0.2	<0.2	2.5	2.3
						1.0	0.3	183	26.7		7.8		22.2		75.0		5.3		8.9		8		86				<0.2		2.4	
					Middle	4.0	0.3	181	26.7	26.7	7.8	7.8	22.3	22.3	74.4	74.4	5.3		13.0		8		90				<0.2		2.5	
						4.0	0.3	183	26.7		7.8		22.3		74.3		5.3		13.3		8		89				<0.2		2.5	
					Bottom	6.9	0.3	203	26.6	26.6	7.8	7.8	23.3	23.3	74.5	74.5	5.3	5.3	31.5		7		92				<0.2		2.0	
						6.9	0.3	205	26.6		7.8		23.3		74.5		5.3		31.5		7		92				<0.2		2.0	
IM12	Cloudy	Moderate	07:15	8.4	Surface	1.0	0.7	268	26.7	26.7	7.8	7.8	22.4	22.4	74.9	74.9	5.3	5.3	7.3	17.8	5	9	83	88	821150	811532	<0.2	<0.2	2.1	2.0
						1.0	0.7	290	26.7		7.8		22.4		74.8		5.3		7.4		5		82				<0.2		2.1	
					Middle	4.2	0.7	269	26.7	26.7	7.8	7.8	22.5	22.5	74.3	74.3	5.3		10.2		10		89				<0.2		2.0	
						4.2	0.7	284	26.7		7.8		22.5		74.3		5.3		10.4		10		90				<0.2		1.8	
					Bottom	7.4	0.5	266	26.5	26.5	7.8	7.8	24.3	24.3	74.0	74.1	5.2	5.2	35.9		10		91				<0.2		1.8	
						7.4	0.6	276	26.5		7.8		24.3		74.1		5.2		35.5		11		92				<0.2		1.9	
SR2	Cloudy	Moderate	06:54	4.6	Surface	1.0	0.2	84	26.5	26.5	7.8	7.8	24.0	24.0	74.4	74.5	5.2	5.2	19.9	21.5	21	23	82	88	821470	814166	<0.2	<0.2	1.6	1.7
						1.0	0.2	87	26.5		7.8		24.0		74.5		5.2		20.1		22		84				<0.2		1.7	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-	<0.2	-	1.7
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	112	26.5	26.5	7.8	7.8	24.0	24.0	80.3	80.4	5.6	5.7	23.0		24		93				<0.2		1.8	
						3.6	0.3	113	26.5		7.8		24.0		80.5		5.7		22.9		23		91				<0.2		1.6	
SR3	Cloudy	Moderate	07:51	9.5	Surface	1.0	0.3	199	26.8	26.8	7.7	7.7	19.4	19.4	71.3	71.3	5.1	5.0	4.5	6.0	3	4	-	-	822165	807574	-	-	-	-
						1.0	0.3	202	26.8		7.7		19.4		71.2		5.1		4.5		3		-				-		-	
					Middle	4.8	0.4	250	26.8	26.8	7.7	7.7	22.1	22.1	69.6	69.6	4.9		4.9		4		-				-		-	
						4.8	0.4	274	26.8		7.7		22.1		69.6		4.9		4.9		3		-				-		-	
					Bottom	8.5	0.4	223	26.7	26.7	7.8	7.8	22.8	22.8	74.2	74.2	5.2	5.2	8.6		5		-				-		-	
						8.5	0.4	238	26.7		7.8		22.8		74.2		5.2		8.6		4		-				-		-	
SR4A	Cloudy	Calm	07:12	8.7	Surface	1.0	0.6	235	28.0	28.0	7.8	7.8	24.7	24.7	74.7	74.8	5.1	5.1	11.8	14.1	13	20	-	-	817208	807798	-	-	-	-
						1.0	0.6	237	28.0		7.8		24.7		74.8		5.1		11.8		14		-				-		-	
					Middle	4.4	0.6	253	28.1	28.1	7.8	7.8	24.7	24.7	74.8	74.8	5.1		12.6		22		-				-		-	
						4.4	0.6	275	28.1		7.8		24.7		74.8		5.1		12.7		23		-				-		-	
					Bottom	7.7	0.4	242	28.0	28.0	7.8	7.8	24.8	24.8	75.3	75.3	5.1	5.1	17.7		24		-				-		-	
						7.7	0.5	265	28.0		7.8		24.8		75.3		5.1		17.8		24		-				-		-	
SR5A	Cloudy	Calm	06:56	4.2	Surface	1.0	0.3	282	28.1	28.1	7.8	7.8	24.9	24.9	73.7	73.7	5.0	5.0	10.4	11.3	17	19	-	-	816612	810704	-	-	-	-
						1.0	0.3	302	28.1		7.8		24.9		73.7		5.0		10.5		19		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-	-	-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	284	28.1	28.1	7.8	7.8	24.9	24.9	74.3	74.4	5.1	5.1	12.3		20		-				-		-	
						3.2	0.3	286	28.1		7.8		24.9		74.5		5.1		12.0		19		-				-		-	
SR6	Cloudy	Calm	06:35	3.8	Surface	1.0	0.2	223	28.0	28.0	7.7	7.7	24.8	24.8	70.9	70.9	4.8	4.8	3.7	4.9	6	6	-	-	817893	814670	-	-	-	-
						1.0	0.3	228	28.0		7.7		24.8		70.8		4.8		3.9		6		-				-		-	
					Middle	1.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-	-	-	
						1.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.3	223	28.1	28.1	7.7	7.7	25.1	25.1	69.8	69.9	4.8	4.8	6.0		6		-				-		-	
						2.8	0.3	228	28.1		7.7		25.1		69.9		4.8		6.0		5		-				-		-	
SR7	Cloudy	Calm	06:03	17.0	Surface	1.0	0.2	203	26.4	26.4	7.8	7.8	23.3	23.3	73.9	73.9	5.2	5.1	5.3	5.8	4	5	-	-	823636	823731	-	-	-	-
						1.0	0.2	208	26.4		7.8		23.3		73.9		5.2		5.4		5		-				-		-	
					Middle	8.5	0.3	199	26.3	26.3	7.8	7.8	24.4	24.4	70.1	70.1	4.9		5.8		4		-				-		-	
						8.5	0.3	200	26.3		7.8		24.4		70.0		4.9		5.8		5		-				-		-	
					Bottom	16.0	0.2	172	26.1	26.1	7.8	7.8	25.9	25.9	67.4	67.4	4.7	4.7	6.3		6		-				-		-	
						16.0	0.2	188	26.1		7.8		25.9		67.4		4.7		6.3		7		-				-		-	
SR8	Cloudy	Moderate	07:09	5.3	Surface	1.0	0.2	195	26.9	26.9	7.7	7.7	22.1	22.1	78.4	78.4	5.5	5.5	9.0	8.1	12	12	-	-	820429	811574	-	-	-	-
						1.0	0.2	201	26.9		7.7		22.1		78.4		5.5		9.0		12		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-	-	-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	204	26.7	26.7	7.7	7.7	22.1	22.1	81.2	81.3	5.7	5.8	7.2		11		-				-		-	
						4.3	0.2	223	26.7		7.7		22.1		81.4		5.8		7.2		11		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 September 16 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
C1	Cloudy	Moderate	13:37	8.8	Surface	1.0	0.7	233	28.9	28.9	7.9	7.9	25.5	25.5	84.2	84.2	5.6	5.3	3.3	17.8	6	28	94	105	815609	804260	<0.2	<0.2	1.4	1.2
						1.0	0.7	245	28.9		7.9		25.5		84.1		5.6		3.4		6		96				<0.2		1.3	
					Middle	4.4	0.7	209	27.9	27.9	7.9	7.9	28.4	28.4	74.1	74.0	5.0		8.7		7		105				<0.2		1.0	
						4.4	0.8	222	27.9		7.9		28.4		73.9		4.9		9.6		8		104				<0.2		1.2	
					Bottom	7.8	0.6	204	27.7	27.7	7.9	7.9	29.5	29.5	71.1	71.1	4.7	4.7	40.9		70		112				<0.2		1.1	
						7.8	0.7	219	27.7		7.9		29.5		71.1		4.7		40.9		68		117				<0.2		0.9	
C2	Cloudy	Moderate	12:32	12.9	Surface	1.0	0.2	133	26.5	26.5	7.8	7.8	27.7	27.7	69.7	69.7	4.8	4.8	10.6	10.0	10	12	81	88	825686	806963	<0.2	<0.2	2.0	1.9
						1.0	0.2	135	26.5		7.8		27.7		69.7		4.8		10.6		11		83				<0.2		2.1	
					Middle	6.5	0.4	84	26.4	26.4	7.8	7.8	28.1	28.1	70.5	70.5	4.8		10.1		13		89				<0.2		1.9	
						6.5	0.4	92	26.4		7.8		28.1		70.5		4.9		10.0		12		90				<0.2		1.8	
					Bottom	11.9	0.4	53	26.3	26.3	7.8	7.8	29.7	29.7	72.7	72.7	5.0	5.0	9.4		14		92				<0.2		1.9	
						11.9	0.4	58	26.3		7.8		29.7		72.7		5.0		9.4		13		92				<0.2		1.8	
C3	Cloudy	Moderate	14:23	10.9	Surface	1.0	0.4	176	26.8	26.8	7.9	7.9	26.8	26.8	73.5	73.5	5.1	5.0	6.5	10.3	8	10	85	90	822124	817803	<0.2	<0.2	1.8	1.6
						1.0	0.5	181	26.8		7.9		26.8		73.5		5.1		6.5		8		87				<0.2		1.6	
					Middle	5.5	0.3	177	26.5	26.5	7.9	7.9	27.4	27.4	69.5	69.5	4.8		9.9		10		90				<0.2		1.6	
						5.5	0.4	183	26.5		7.9		27.4		69.5		4.8		10.0		10		90				<0.2		1.6	
					Bottom	9.9	0.3	163	26.2	26.2	7.9	7.9	28.0	28.0	69.4	69.4	4.8	4.8	14.4		12		93				<0.2		1.6	
						9.9	0.3	163	26.2		7.9		28.0		69.4		4.8		14.4		13		93				<0.2		1.6	
IM1	Cloudy	Moderate	13:17	7.8	Surface	1.0	0.6	174	28.4	28.4	7.9	7.9	26.0	26.0	78.6	78.6	5.3	5.1	3.6	7.0	6	10	101	100	818354	806460	<0.2	<0.2	1.4	1.3
						1.0	0.6	183	28.4		7.9		26.0		78.5		5.3		3.5		7		100				<0.2		1.4	
					Middle	3.9	0.5	182	27.8	27.8	7.9	7.9	28.4	28.4	72.0	72.0	4.8		7.3		8		100				<0.2		1.2	
						3.9	0.5	183	27.8		7.9		28.4		72.0		4.8		7.4		8		100				<0.2		1.2	
					Bottom	6.8	0.5	183	27.8	27.8	7.9	7.9	28.8	28.8	72.7	72.8	4.9	4.9	10.1		14		99				<0.2		1.2	
						6.8	0.5	198	27.8		7.9		28.8		72.8		4.9		10.2		15		98				<0.2		1.2	
IM2	Cloudy	Moderate	13:11	8.9	Surface	1.0	0.5	216	28.5	28.5	7.9	7.9	25.4	25.4	81.0	81.0	5.4	5.2	3.6	7.4	6	11	97	97	818844	806187	<0.2	<0.2	1.5	1.4
						1.0	0.5	237	28.5		7.9		25.4		81.0		5.4		3.4		6		96				<0.2		1.8	
					Middle	4.5	0.5	196	28.0	28.0	7.9	7.9	27.4	27.4	73.1	73.1	4.9		7.5		10		98				<0.2		1.5	
						4.5	0.5	201	28.0		7.9		27.4		73.1		4.9		7.6		10		98				<0.2		1.3	
					Bottom	7.9	0.6	189	27.8	27.8	7.9	7.9	29.1	29.1	72.1	72.3	4.8	4.8	11.4		18		97				<0.2		1.1	
						7.9	0.6	207	27.8		7.9		29.1		72.5		4.8		11.0		18		98				<0.2		1.1	
IM3	Cloudy	Moderate	13:03	8.9	Surface	1.0	0.4	190	29.2	29.2	7.8	7.8	23.3	23.3	81.5	81.4	5.5	5.4	2.8	7.9	6	12	91	94	819396	806025	<0.2	<0.2	1.3	1.4
						1.0	0.4	197	29.2		7.8		23.3		81.3		5.5		2.7		6		87				<0.2		1.8	
					Middle	4.5	0.5	183	28.6	28.6	7.9	7.9	26.2	26.2	77.3	77.3	5.2		5.6		9		96				<0.2		1.4	
						4.5	0.5	183	28.6		7.9		26.2		77.3		5.2		5.5		9		95				<0.2		1.5	
					Bottom	7.9	0.4	162	27.8	27.8	7.9	7.9	29.2	29.2	72.3	72.4	4.8	4.8	15.2		21		98				<0.2		1.1	
						7.9	0.4	175	27.8		7.9		29.2		72.4		4.8		15.3		20		98				<0.2		1.2	
IM4	Cloudy	Moderate	12:54	8.8	Surface	1.0	0.5	174	28.2	28.2	7.9	7.9	27.5	27.5	73.0	73.0	4.9	4.8	11.3	13.2	15	21	101	103	819584	805047	<0.2	<0.2	1.8	1.2
						1.0	0.5	177	28.2		7.9		27.5		73.0		4.9		11.4		14		99				<0.2		1.4	
					Middle	4.4	0.5	162	27.8	27.8	7.9	7.9	28.8	28.8	70.4	70.4	4.7		14.8		24		103				<0.2		1.2	
						4.4	0.5	173	27.8		7.9		28.8		70.3		4.7		14.5		24		102				<0.2		1.0	
					Bottom	7.8	0.4	169	27.7	27.7	7.9	7.9	29.9	29.9	70.2	70.3	4.7	4.7	13.4		24		106				<0.2		1.0	
						7.8	0.4	178	27.7		7.9		29.9		70.4		4.7		13.7		24		104				<0.2		0.9	
IM5	Cloudy	Moderate	12:46	7.2	Surface	1.0	0.5	176	28.1	28.2	7.9	7.9	27.2	27.2	73.0	73.0	4.9	4.9	11.8	16.3	17	28	103	102	820547	804916	<0.2	<0.2	1.3	1.2
						1.0	0.5	188	28.2		7.9		27.1		72.9		4.9		12.2		18		102				<0.2		1.2	
					Middle	3.6	0.4	162	27.8	27.8	7.9	7.9	28.4	28.4	72.0	72.1	4.8		17.3		30		101				<0.2		1.1	
						3.6	0.5	162	27.8		7.9		28.4		72.1		4.8		17.6		29		103				<0.2		1.3	
					Bottom	6.2	0.4	159	27.8	27.8	7.9	7.9	28.7	28.8	73.7	74.2	4.9	5.0	19.7		38		100				<0.2		1.0	
						6.2	0.4	166	27.8		7.9		28.8		74.6		5.0		19.2		38		100				<0.2		1.1	
IM6	Fine	Moderate	12:38	7.3	Surface	1.0	0.6	176	28.2	28.2	7.8	7.8	25.8	25.8	74.0	74.0	5.0	5.0	8.6	11.5	14	19	93	98	821043	805818	<0.2	<0.2	1.6	1.4
						1.0	0.6	182	28.2		7.8		25.8		74.0		5.0		8.6		14		91				<0.2		1.3	
					Middle	3.7	0.5	174	28.0	28.0	7.9	7.9	27.4	27.4	73.2	73.2	4.9		10.4		16		103				<0.2		1.4	
						3.7	0.5	174	28.0		7.9		27.4		73.2		4.9		10.5		17		104				<0.2		1.4	
					Bottom	6.3	0.4	175	27.8	27.8	7.9	7.9	28.5	28.5	73.6	73.6	4.9	4.9	15.6		27		97				<0.2		1.4	
						6.3	0.4	186	27.8		7.9		28.5		73.6		4.9		15.5		26		100				<0.2		1.2	
IM7	Fine	Moderate	12:59	9.1	Surface	1.0	0.3	180	29.3	29.3	7.8	7.8	24.0	24.0	86.2	86.2	5.8	5.8	2.9	7.4	4	16	92	100	821339	806834	<0.2	<0.2	2.1	1.7
						1.0	0.4	186	29.3		7.8		24.0		86.2		5.8		2.7		3		90				<0.2		1.9	
					Middle	4.6	0.3	162	29.1	29.1	7.9	7.9	25.1	25.1	86.0	86.0	5.7		2.9		8		106				<0.2		1.8	
						4.6	0.3	166	29.1		7.9		25.1		85.9		5.7		3.0		6		102				<0.2		1.8	
					Bottom	8.1	0.3	131	28.0	28.0	7.9	7.9	27.3	27.4	74.4	74.5	5.0	5.0	15.4		36		105				<0.2		1.3	
						8.1	0.3	142	28.0		7.9		27.4		74.6		5.0		17.5		36		104				<0.2		1.2	
IM8	Cloudy	Moderate	13:12	8.5	Surface	1.0	0.5	174	27.1	27.2	7.8	7.8	25.6	25.6	77.9	78.0	5.4	5.5	8.2	8.3	5	9	84	89	821692	807846	<0.2	<0.2	2.7	2.3
						1.0	0.5	184	27.2		7.8		25.6		78.0		5.4		8.2		6		88				<0.2		2.6	
					Middle	4.3	0.3	130	26.9	26.9	7.9	7.9	26.8	26.8	80.2	80.2	5.5		8.9		10		89				<0.2		2.4	
						4.3	0.4	139	26.9		7.9		26.8		80.2		5.5		8.9		10		91				<0.2		2.4	
					Bottom	7.5	0.4	119	26.9	26.9	7.9	7.9	29.0	29.0	82.5	82.5	5.6	5.6	7.7		11		91				<0.2		1.9	
						7.5	0.4	123	26.9		7.9		29.0		82.5		5.6		7.7		11		91				<0.2		1.9	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 September 16 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
IM9	Cloudy	Moderate	13:20	7.8	Surface	1.0	0.6	148	28.1	28.1	7.8	7.8	24.0	24.0	77.9	77.9	5.3	5.3	8.7	15.9	3	14	83	89	822108	808818	<0.2	<0.2	2.3	2.2
						1.0	0.6	150	28.1		7.8		24.0		77.8		5.3		8.9		3		84				<0.2		2.7	
					Middle	3.9	0.5	138	26.5	26.5	7.9	7.9	27.5	27.5	75.3	75.4	5.2		19.1		18		90				<0.2		2.2	
						3.9	0.5	145	26.5		7.9		27.5		75.4		5.2		19.2		19		89				<0.2		2.3	
					Bottom	6.8	0.4	120	26.6	26.6	7.9	7.9	27.7	27.7	76.7	76.8	5.3	5.3	19.7		19		93				<0.2		1.7	
						6.8	0.4	127	26.6		7.9		27.7		76.8		5.3		19.7		20		92				<0.2		2.0	
IM10	Cloudy	Moderate	13:28	8.4	Surface	1.0	0.7	134	27.1	27.1	7.8	7.8	24.3	24.3	74.9	75.0	5.2	5.2	8.6	24.6	6	7	84	89	822233	809842	<0.2	<0.2	2.0	2.0
						1.0	0.8	137	27.1		7.8		24.3		75.0		5.2		8.7		6		84				<0.2		1.7	
					Middle	4.2	0.5	120	26.6	26.6	7.9	7.9	26.1	26.1	74.9	74.9	5.2		19.8		8		91				<0.2		1.8	
						4.2	0.6	126	26.6		7.9		26.1		74.9		5.2		19.9		8		90				<0.2		2.0	
					Bottom	7.4	0.4	108	26.5	26.5	7.9	7.9	27.8	27.8	77.2	77.2	5.3	5.3	45.4		8		93				<0.2		2.3	
						7.4	0.4	109	26.5		7.9		27.8		77.2		5.3		45.4		8		93				<0.2		2.1	
IM11	Cloudy	Moderate	13:34	6.8	Surface	1.0	0.8	128	27.4	27.4	7.8	7.8	24.4	24.4	77.0	77.0	5.3	5.3	7.4	15.3	7	8	83	88	821496	810546	<0.2	<0.2	2.1	1.9
						1.0	0.9	136	27.4		7.8		24.4		77.0		5.3		7.5		6		84				<0.2		2.2	
					Middle	3.4	0.8	117	26.8	26.8	7.9	7.9	26.3	26.3	76.6	76.6	5.3		14.9		7		89				<0.2		1.8	
						3.4	0.8	122	26.8		7.9		26.3		76.6		5.3		15.2		8		89				<0.2		1.8	
					Bottom	5.8	0.6	103	26.7	26.7	7.9	7.9	27.6	27.6	78.7	78.8	5.4	5.4	23.6		10		91				<0.2		1.6	
						5.8	0.7	108	26.7		7.9		27.6		78.8		5.4		23.3		10		91				<0.2		1.8	
IM12	Cloudy	Moderate	13:41	9.3	Surface	1.0	0.9	111	27.4	27.4	7.9	7.9	24.3	24.3	82.8	82.8	5.7	5.5	6.2	19.6	4	4	83	89	821173	811509	<0.2	<0.2	2.5	2.1
						1.0	0.9	114	27.4		7.9		24.3		82.7		5.7		6.2		4		84				<0.2		2.4	
					Middle	4.7	0.7	98	26.7	26.7	7.9	7.9	26.7	26.7	76.6	76.6	5.3		22.5		5		89				<0.2		1.9	
						4.7	0.7	106	26.7		7.9		26.7		76.6		5.3		22.4		4		90				<0.2		1.9	
					Bottom	8.3	0.6	93	26.6	26.6	7.9	7.9	27.4	27.4	77.8	77.8	5.4	5.4	30.2		4		93				<0.2		1.9	
						8.3	0.6	102	26.6		7.9		27.4		77.8		5.4		30.2		5		92				<0.2		1.8	
SR2	Cloudy	Moderate	14:03	5.3	Surface	1.0	0.3	199	27.1	27.1	7.8	7.8	24.8	24.8	79.9	79.9	5.5	5.5	11.6	19.2	9	18	84	87	821469	814167	<0.2	<0.2	1.9	1.7
						1.0	0.3	217	27.1		7.8		24.8		79.9		5.5		11.6		8		85				<0.2		1.8	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.3	225	26.7	26.7	7.9	7.9	26.1	26.1	76.4	76.4	5.3	5.3	26.8		28		90				<0.2		1.5	
						4.3	0.3	241	26.7		7.9		26.1		76.4		5.3		26.8		27		89				<0.2		1.6	
SR3	Cloudy	Moderate	13:06	9.7	Surface	1.0	0.4	187	27.7	27.7	7.8	7.8	24.0	24.0	75.5	75.5	5.2	5.2	8.6	13.6	5	9	-	-	822151	807554	-	-	-	-
						1.0	0.4	191	27.7		7.8		24.0		75.5		5.2		8.6		4		-				-		-	
					Middle	4.9	0.3	171	26.6	26.6	7.8	7.8	26.4	26.4	74.3	74.4	5.1		14.5		5		-				-		-	
						4.9	0.3	187	26.6		7.8		26.4		74.4		5.2		14.6		5		-				-		-	
					Bottom	8.7	0.4	97	26.6	26.6	7.9	7.9	27.7	27.7	76.3	76.3	5.2	5.2	17.7		16		-				-		-	
						8.7	0.4	98	26.6		7.9		27.7		76.3		5.2		17.7		16		-				-		-	
SR4A	Cloudy	Calm	14:01	8.3	Surface	1.0	0.4	113	28.4	28.4	7.9	7.9	26.7	26.7	76.2	76.2	5.1	5.1	13.4	16.8	21	29	-	-	817187	807820	-	-	-	-
						1.0	0.4	118	28.4		7.9		26.7		76.2		5.1		13.1		22		-				-		-	
					Middle	4.2	0.4	97	28.3	28.3	7.9	7.9	26.8	26.8	75.0	75.0	5.0		14.6		24		-				-		-	
						4.2	0.4	105	28.3		7.9		26.8		74.9		5.0		14.5		25		-				-		-	
					Bottom	7.3	0.3	108	27.9	27.9	7.9	7.9	27.7	27.7	72.7	72.7	4.9	4.9	22.7		42		-				-		-	
						7.3	0.3	117	27.9		7.9		27.7		72.7		4.9		22.7		42		-				-		-	
SR5A	Cloudy	Calm	14:21	4.7	Surface	1.0	0.1	120	28.8	28.8	7.8	7.8	24.4	24.5	78.5	78.5	5.3	5.3	5.8	7.8	11	13	-	-	816579	810713	-	-	-	-
						1.0	0.1	130	28.8		7.8		24.5		78.4		5.3		6.0		11		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	120	28.3	28.3	7.8	7.8	24.9	24.9	75.0	75.2	5.1	5.1	9.7		14		-				-		-	
						3.7	0.1	122	28.3		7.8		24.9		75.3		5.1		9.7		15		-				-		-	
SR6	Cloudy	Calm	14:43	4.0	Surface	1.0	0.2	150	29.0	29.0	7.8	7.8	21.6	21.7	82.8	82.8	5.6	5.6	5.4	11.6	7	14	-	-	817893	814671	-	-	-	-
						1.0	0.2	160	29.0		7.8		21.7		82.7		5.6		5.5		7		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.2	146	28.8	28.8	7.8	7.8	23.8	23.9	80.8	81.1	5.5	5.5	16.8		19		-				-		-	
						3.0	0.2	154	28.8		7.8		23.9		81.4		5.5		18.7		21		-				-		-	
SR7	Cloudy	Calm	14:52	17.4	Surface	1.0	0.7	81	26.6	26.6	7.8	7.8	26.6	26.6	71.8	71.8	5.0	4.9	5.3	6.3	6	7	-	-	823646	823759	-	-	-	-
						1.0	0.7	81	26.6		7.8		26.6		71.7		5.0		5.3		5		-				-		-	
					Middle	8.7	0.4	106	26.3	26.3	7.8	7.8	27.3	27.3	69.5	69.5	4.8		6.7		8		-				-		-	
						8.7	0.4	113	26.3		7.8		27.3		69.5		4.8		6.7		6		-				-		-	
					Bottom	16.4	0.7	106	26.3	26.3	7.8	7.8	27.5	27.5	69.4	69.4	4.8	4.8	6.9		9		-				-		-	
						16.4	0.8	110	26.3		7.8		27.5		69.4		4.8		7.0		8		-				-		-	
SR8	Cloudy	Moderate	13:47	5.5	Surface	1.0	0.3	194	27.4	27.4	7.8	7.8	26.1	26.1	74.9	74.8	5.1	5.1	22.3	22.4	21	24	-	-	820423	811580	-	-	-	-
						1.0	0.3	197	27.3		7.8		26.1		74.7		5.1		22.5		20		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.3	225	26.5	26.5	7.8	7.8	26.3	26.3	73.8	73.8	5.1	5.1	22.4		26		-				-		-	
						4.5	0.3	230	26.5		7.8		26.3		73.8		5.1		22.4		28		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 06 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Cloudy	Moderate	09:51	8.7	Surface	1.0	0.6	46	28.0	28.0	7.8	7.8	26.0	26.0	71.9	71.9	4.9	4.8	4.4	21.6	6	25	97	102	815604	804248	<0.2	<0.2	1.8	1.5
						1.0	0.6	46	28.0		7.8		26.0		71.9		4.9		4.6		7		99				<0.2		1.8	
					Middle	4.4	0.6	49	27.8	27.8	7.9	7.9	28.9	29.0	68.6	68.6	4.6		18.5		22		104				<0.2		1.8	
						4.4	0.7	52	27.8		7.9		29.0		68.6		4.6		18.7		23		106				<0.2		1.2	
					Bottom	7.7	0.6	50	27.8	27.8	7.9	7.9	29.5	29.5	69.0	69.1	4.6	4.6	41.7		47		102				<0.2		1.3	
						7.7	0.6	52	27.8		7.9		29.5		69.1		4.6		41.6		47		103				<0.2		1.1	
C2	Cloudy	Moderate	10:26	12.6	Surface	1.0	0.3	147	26.3	26.3	7.9	7.9	24.3	24.3	67.9	67.9	4.8	4.8	10.1	19.0	5	6	85	89	825687	806945	<0.2	<0.2	3.3	2.5
						1.0	0.4	147	26.3		7.9		24.3		67.9		4.8		10.1		7		86				<0.2		3.3	
					Middle	6.3	0.5	176	26.2	26.2	7.9	7.9	26.0	26.0	69.2	69.3	4.8		17.0		5		89				<0.2		2.2	
						6.3	0.5	189	26.2		7.9		26.0		69.3		4.8		17.5		5		90				<0.2		2.2	
					Bottom	11.6	0.4	219	26.2	26.2	7.9	7.9	26.6	26.6	72.6	72.6	5.1	5.1	29.6		7		92				<0.2		2.0	
						11.6	0.4	219	26.2		7.9		26.6		72.6		5.1		29.6		8		93				<0.2		1.8	
C3	Cloudy	Moderate	08:44	12.2	Surface	1.0	0.5	266	26.0	26.0	7.9	7.9	26.7	26.7	69.6	69.6	4.9	4.7	5.1	7.6	6	6	82	88	822089	817822	<0.2	<0.2	1.8	1.7
						1.0	0.5	267	26.0		7.9		26.7		69.6		4.9		5.0		6		83				<0.2		1.5	
					Middle	6.1	0.6	263	25.8	25.8	7.9	7.9	28.3	28.3	64.1	64.1	4.5		6.8		6		90				<0.2		1.6	
						6.1	0.7	286	25.8		7.9		28.3		64.1		4.5		6.9		8		89				<0.2		2.0	
					Bottom	11.2	0.4	267	25.6	25.6	7.9	7.9	29.7	29.7	65.2	65.3	4.5	4.5	11.2		7		92				<0.2		1.6	
						11.2	0.4	292	25.6		7.9		29.7		65.3		4.5		10.4		5		91				<0.2		1.6	
IM1	Rainy	Moderate	10:14	7.6	Surface	1.0	0.6	122	28.0	28.0	7.8	7.8	25.9	25.9	72.2	72.2	4.9	4.8	3.7	20.5	5	24	89	93	818369	806452	<0.2	<0.2	1.8	1.4
						1.0	0.7	124	28.0		7.8		25.9		72.2		4.9		3.9		4		90				<0.2		1.8	
					Middle	3.8	0.5	141	27.9	27.9	7.9	7.9	27.9	27.9	69.5	69.5	4.7		19.3		18		92				<0.2		1.3	
						3.8	0.5	151	27.9		7.9		27.9		69.5		4.7		19.4		17		94				<0.2		1.2	
					Bottom	6.6	0.5	172	27.9	27.9	7.9	7.9	28.1	28.1	70.6	70.8	4.7	4.8	37.4		50		95				<0.2		1.2	
						6.6	0.5	181	27.9		7.9		28.1		70.9		4.8		39.5		50		96				<0.2		1.2	
IM2	Rainy	Moderate	10:20	8.5	Surface	1.0	0.6	120	28.1	28.1	7.8	7.8	25.8	25.8	71.3	71.3	4.8	4.7	2.7	11.6	4	14	92	96	818860	806212	<0.2	<0.2	1.6	1.3
						1.0	0.6	127	28.1		7.8		25.8		71.2		4.8		2.6		6		96				<0.2		1.4	
					Middle	4.3	0.6	86	28.0	28.0	7.8	7.8	26.6	26.6	68.7	68.7	4.6		5.8		5		96				<0.2		1.3	
						4.3	0.6	87	28.0		7.8		26.6		68.7		4.6		5.9		6		96				<0.2		1.2	
					Bottom	7.5	0.4	173	27.9	27.9	7.9	7.9	28.3	28.3	67.9	68.0	4.5	4.6	26.1		31		96				<0.2		1.2	
						7.5	0.4	185	27.9		7.9		28.3		68.1		4.6		26.2		30		99				<0.2		1.1	
IM3	Rainy	Moderate	10:28	8.8	Surface	1.0	0.4	219	28.0	28.0	7.8	7.8	25.3	25.3	72.6	72.7	4.9	4.8	2.5	12.3	7	15	94	94	819410	806014	<0.2	<0.2	1.6	1.3
						1.0	0.5	233	28.0		7.8		25.3		72.7		4.9		2.5		5		95				<0.2		1.3	
					Middle	4.4	0.6	125	28.0	28.0	7.8	7.8	26.2	26.2	68.9	68.9	4.7		5.1		6		90				<0.2		1.3	
						4.4	0.6	136	28.0		7.8		26.2		68.9		4.7		5.3		6		93				<0.2		1.4	
					Bottom	7.8	0.4	133	27.9	27.9	7.9	7.9	28.6	28.6	68.4	68.4	4.6	4.6	29.2		32		92				<0.2		0.9	
						7.8	0.5	139	27.9		7.9		28.6		68.4		4.6		29.4		32		97				<0.2		1.1	
IM4	Rainy	Moderate	10:36	8.2	Surface	1.0	0.5	174	28.1	28.1	7.8	7.8	24.6	24.6	71.2	71.2	4.8	4.8	2.8	19.3	6	19	87	88	819580	805053	<0.2	<0.2	1.7	1.4
						1.0	0.5	187	28.1		7.8		24.6		71.2		4.8		2.9		5		85				<0.2		1.8	
					Middle	4.1	0.5	117	27.9	27.9	7.9	7.9	26.7	26.5	71.0	71.0	4.8		7.3		10		85				<0.2		1.3	
						4.1	0.5	123	27.9		7.9		26.2		71.0		4.8		7.5		8		85				<0.2		1.5	
					Bottom	7.2	0.5	140	27.9	27.9	7.9	7.9	28.6	28.6	68.7	68.8	4.6	4.6	47.5		40		93				<0.2		1.3	
						7.2	0.5	151	27.9		7.9		28.6		68.8		4.6		47.7		43		94				<0.2		1.0	
IM5	Rainy	Moderate	10:45	7.2	Surface	1.0	0.5	207	28.2	28.2	7.8	7.8	24.1	24.1	71.1	71.1	4.9	4.8	3.9	17.7	3	15	90	91	820577	804922	<0.2	<0.2	1.7	1.7
						1.0	0.6	213	28.2		7.8		24.1		71.1		4.8		3.7		5		87				<0.2		1.8	
					Middle	3.6	0.6	88	28.1	28.1	7.8	7.8	24.9	24.9	69.4	69.4	4.7		7.3		7		93				<0.2		1.7	
						3.6	0.6	96	28.1		7.8		24.9		69.4		4.7		7.5		6		91				<0.2		1.6	
					Bottom	6.2	0.5	109	27.9	27.9	7.9	7.9	28.3	28.3	69.5	69.8	4.7	4.7	42.6		35		91				<0.2		1.8	
						6.2	0.5	117	27.9		7.9		28.3		70.0		4.7		41.0		36		93				<0.2		1.6	
IM6	Rainy	Moderate	10:53	7.0	Surface	1.0	0.5	160	28.3	28.3	7.7	7.7	22.6	22.6	71.4	71.4	4.9	4.8	1.8	13.6	4	6	87	91	821057	805822	<0.2	<0.2	2.2	1.8
						1.0	0.6	164	28.3		7.7		22.6		71.4		4.9		1.7		3		84				<0.2		2.3	
					Middle	3.5	0.6	67	28.1	28.1	7.8	7.8	26.0	26.0	68.3	68.3	4.6		4.7		7		94				<0.2		1.6	
						3.5	0.6	72	28.1		7.8		26.0		68.3		4.6		4.8		6		92				<0.2		1.7	
					Bottom	6.0	0.4	90	28.0	28.0	7.9	7.9	27.4	27.5	68.6	68.9	4.6	4.6	33.8		7		92				<0.2		1.4	
						6.0	0.4	90	28.0		7.9		27.5		69.2		4.6		34.5		7		95				<0.2		1.7	
IM7	Rainy	Moderate	11:03	8.5	Surface	1.0	0.4	159	28.4	28.4	7.7	7.7	21.8	21.8	71.2	71.2	4.9	4.9	1.5	15.3	4	6	86	89	821338	806841	<0.2	<0.2	2.4	1.9
						1.0	0.4	163	28.4		7.7		21.8		71.2		4.9		1.5		4		84				<0.2		2.4	
					Middle	4.3	0.5	98	28.0	28.0	7.8	7.8	25.2	25.2	70.5	70.5	4.8		4.7		5		89				<0.2		1.9	
						4.3	0.6	102	28.0		7.8		25.1		70.5		4.8		5.1		6		90				<0.2		2.0	
					Bottom	7.5	0.5	60	27.9	27.9	7.9	7.9	28.0	28.0	68.0	68.2	4.6	4.6	39.7		8		90				<0.2		1.4	
						7.5	0.5	60	27.9		7.9		28.0		68.4		4.6		39.0		8		92				<0.2		1.4	
IM8	Cloudy	Moderate	09:52	8.6	Surface	1.0	0.3	213	26.4	26.4	7.8	7.8	23.2	23.2	68.4	68.4	4.8	4.8	5.1	7.2	2	5	85	88	821697	807853	<0.2	<0.2	2.6	2.2
						1.0	0.3	216	26.4		7.8		23.2		68.4		4.8		5.1		3		83				<0.2		2.5	
					Middle	4.3	0.3	212	26.4	26.4	7.9	7.9	24.0	24.0	68.7	68.7	4.8		6.4		5		90				<0.2		2.0	
						4.3	0.3	219	26.4		7.9		24.0		68.7		4.8		6.5		5		89				<0.2		2.0	
					Bottom	7.6	0.3	197	26.3	26.3	7.9	7.9	24.6	24.6	70.9	71.0	5.0	5.0	9.9		6		92				<0.2		2.1	
						7.6	0.3	206	26.3		7.9		24.6		71.0		5.0		9.9		6		91				<0.2		2.1	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 06 September 16 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
IM9	Cloudy	Moderate	09:45	7.6	Surface	1.0	0.3	289	26.5	26.5	7.8	7.8	21.7	21.8	69.1	69.1	4.9	4.9	4.2	6.4	4	4	81	87	822074	808816	<0.2	<0.2	2.8	2.3
						1.0	0.3	306	26.5		7.8		21.8		69.0		4.9		4.2		2		83				<0.2		2.5	
					Middle	3.8	0.4	306	26.4	26.4	7.9	7.9	24.3	24.3	68.3	68.4	4.8		5.4		4		89				<0.2		2.0	
						3.8	0.4	330	26.4		7.9		24.3		68.4		4.8		5.4		4		90				<0.2		2.2	
					Bottom	6.6	0.3	310	26.3	26.3	7.9	7.9	25.3	25.3	68.1	68.1	4.8	4.8	9.7		5		91				<0.2		1.9	
						6.6	0.3	336	26.3		7.9		25.3		68.1		4.8		9.7		4		90				<0.2		2.2	
IM10	Cloudy	Moderate	09:38	7.5	Surface	1.0	0.6	290	26.4	26.4	7.9	7.9	24.1	24.1	71.7	71.8	5.0	5.1	5.7	10.5	4	5	85	89	822240	809857	<0.2	<0.2	2.1	2.0
						1.0	0.6	293	26.4		7.9		24.1		71.8		5.1		5.8		5		84				<0.2		2.2	
					Middle	3.8	0.6	292	26.2	26.2	7.9	7.9	24.8	24.8	72.4	72.4	5.1		9.9		4		89				<0.2		1.9	
						3.8	0.6	312	26.2		7.9		24.8		72.3		5.1		10.1		5		90				<0.2		2.0	
					Bottom	6.5	0.4	282	26.1	26.1	7.9	7.9	26.0	26.0	74.0	74.0	5.2	5.2	15.6		7		92				<0.2		1.9	
						6.5	0.5	295	26.1		7.9		26.0		74.0		5.2		15.6		6		93				<0.2		1.9	
IM11	Cloudy	Moderate	09:31	8.1	Surface	1.0	0.5	248	26.4	26.4	7.8	7.8	24.3	24.3	71.7	71.7	5.1	5.0	4.3	14.1	4	5	83	88	821489	810555	<0.2	<0.2	1.9	2.0
						1.0	0.6	271	26.4		7.8		24.3		71.7		5.0		4.3		6		82				<0.2		1.8	
					Middle	4.1	0.6	263	26.3	26.3	7.9	7.9	24.4	24.4	70.8	70.8	5.0		6.2		4		91				<0.2		1.9	
						4.1	0.7	280	26.3		7.8		24.4		70.8		5.0		6.3		5		89				<0.2		1.9	
					Bottom	7.1	0.5	250	26.1	26.1	7.9	7.9	26.6	26.6	70.8	70.8	4.9	4.9	31.6		5		93				<0.2		2.2	
						7.1	0.6	251	26.1		7.9		26.6		70.8		4.9		31.6		6		92				<0.2		2.1	
IM12	Cloudy	Moderate	09:25	7.4	Surface	1.0	0.7	289	26.3	26.3	7.9	7.9	24.4	24.4	71.0	71.0	5.0	4.9	5.3	17.4	4	8	83	89	821159	811526	<0.2	<0.2	2.5	2.4
						1.0	0.8	299	26.3		7.9		24.4		71.0		5.0		5.4		4		85				<0.2		2.0	
					Middle	3.7	0.7	272	26.0	26.0	7.9	7.9	27.0	27.0	67.6	67.6	4.7		17.1		4		90				<0.2		2.0	
						3.7	0.8	295	26.0		7.9		27.0		67.6		4.7		17.2		4		90				<0.2		2.5	
					Bottom	6.4	0.6	276	26.0	26.0	7.9	7.9	27.2	27.2	67.4	67.4	4.7	4.7	29.7		15		92				<0.2		2.9	
						6.4	0.6	279	26.0		7.9		27.2		67.4		4.7		29.7		14		92				<0.2		2.3	
SR2	Cloudy	Moderate	09:04	4.7	Surface	1.0	0.2	239	26.0	26.0	7.9	7.9	26.8	26.8	70.7	70.7	4.9	4.9	17.1	17.8	20	21	83	86	821462	814164	<0.2	<0.2	2.0	2.1
						1.0	0.2	254	26.0		7.9		26.8		70.7		4.9		17.2		20		81				<0.2		2.1	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	121	26.0	26.0	7.9	7.9	27.2	27.2	72.0	72.1	5.0	5.0	18.6		22		89				<0.2		2.2	
						3.7	0.2	125	26.0		7.9		27.2		72.1		5.0		18.4		20		90				<0.2		1.9	
SR3	Cloudy	Moderate	09:08	9.3	Surface	1.0	0.4	215	26.5	26.5	7.8	7.8	20.5	20.5	67.5	67.5	4.8	4.8	4.0	4.8	2	5	-	-	822138	807589	-	-	-	-
						1.0	0.4	231	26.5		7.8		20.5		67.5		4.8		4.0		3		-				-		-	
					Middle	4.7	0.3	250	26.4	26.4	7.9	7.9	24.4	24.4	67.6	67.6	4.8		5.0		5		-				-		-	
						4.7	0.3	264	26.4		7.9		24.4		67.6		4.8		5.0		5		-				-		-	
					Bottom	8.3	0.3	185	26.3	26.3	7.9	7.9	24.6	24.6	68.5	68.5	4.8	4.8	5.3		7		-				-		-	
						8.3	0.3	199	26.3		7.9		24.6		68.5		4.8		5.3		8		-				-		-	
SR4A	Cloudy	Calm	09:29	8.2	Surface	1.0	0.5	244	27.8	27.8	7.8	7.8	25.5	25.5	73.0	73.0	5.0	4.9	5.1	7.0	11	14	-	-	817203	807820	-	-	-	-
						1.0	0.6	263	27.8		7.8		25.5		72.9		5.0		5.1		12		-				-		-	
					Middle	4.1	0.5	246	27.8	27.8	7.8	7.8	26.0	26.0	71.3	71.2	4.8		6.3		12		-				-		-	
						4.1	0.5	261	27.8		7.8		26.0		71.1		4.8		6.5		13		-				-		-	
					Bottom	7.2	0.4	243	27.9	27.9	7.9	7.9	27.9	27.9	69.2	69.2	4.6	4.6	9.6		16		-				-		-	
						7.2	0.4	254	27.9		7.9		27.9		69.2		4.6		9.6		18		-				-		-	
SR5A	Cloudy	Calm	09:14	3.7	Surface	1.0	0.3	308	27.9	27.9	7.8	7.8	25.2	25.2	73.9	73.9	5.0	5.0	6.7	6.7	9	12	-	-	816597	810682	-	-	-	-
						1.0	0.4	329	27.9		7.8		25.2		73.9		5.0		6.6		10		-				-		-	
					Middle	1.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.3	313	27.9	27.9	7.8	7.8	25.3	25.3	74.8	75.0	5.1	5.1	6.6		15		-				-		-	
						2.7	0.3	323	27.9		7.8		25.3		75.1		5.1		6.9		13		-				-		-	
SR6	Cloudy	Moderate	08:49	4.0	Surface	1.0	0.2	253	27.9	27.9	7.7	7.7	25.3	25.3	70.7	70.7	4.8	4.8	3.7	4.9	7	9	-	-	817911	814655	-	-	-	-
						1.0	0.2	276	27.9		7.7		25.3		70.7		4.8		3.7		6		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.2	254	27.9	27.9	7.7	7.7	25.6	25.6	69.9	70.0	4.8	4.8	6.0		10		-				-		-	
						3.0	0.2	257	27.9		7.7		25.6		70.0		4.8		6.1		12		-				-		-	
SR7	Cloudy	Moderate	08:12	17.1	Surface	1.0	0.2	154	26.0	26.0	7.8	7.8	27.2	27.2	69.2	69.2	4.8	4.8	8.5	6.1	6	6	-	-	823653	823739	-	-	-	-
						1.0	0.2	159	26.0		7.8		27.2		69.2		4.8		8.7		7		-				-		-	
					Middle	8.6	0.2	150	25.9	25.9	7.8	7.8	27.6	27.6	67.1	67.1	4.7		4.4		7		-				-		-	
						8.6	0.2	154	25.9		7.8		27.6		67.1		4.7		4.4		6		-				-		-	
					Bottom	16.1	0.1	129	25.6	25.6	7.8	7.8	29.2	29.2	65.2	65.3	4.5	4.5	5.3		5		-				-		-	
						16.1	0.1	137	25.6		7.8		29.2		65.3		4.5		5.3		7		-				-		-	
SR8	Cloudy	Moderate	09:18	5.2	Surface	1.0	0.2	272	26.5	26.5	7.8	7.8	23.4	23.4	74.1	74.1	5.2	5.2	7.2	7.7	10	11	-	-	820421	811603	-	-	-	-
						1.0	0.2	286	26.5		7.8		23.4		74.1		5.2		7.2		12		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	263	26.2	26.2	7.8	7.8	24.5	24.5	74.6	74.7	5.3	5.3	8.3		10		-				-		-	
						4.2	0.3	282	26.2		7.8		24.5		74.7		5.3		8.2		10		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 06 September 16 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
C1	Rainy	Moderate	15:15	8.8	Surface	1.0	0.3	201	28.1	28.1	7.9	7.9	26.1	26.1	80.5	80.5	5.4	5.1	2.1	4.9	3	5	100	98	815613	804261	<0.2	<0.2	1.2	1.2
						1.0	0.3	213	28.1		7.9		26.1		80.5		5.4		2.0		4		97				<0.2		1.4	
					Middle	4.4	0.4	191	27.8	27.8	7.9	7.9	29.5	29.5	72.7	72.7	4.8		4.5		4		99				<0.2		0.8	
						4.4	0.4	208	27.8		7.9		29.5		72.6		4.8		4.5		5		98				<0.2		1.0	
					Bottom	7.8	0.4	220	27.8	27.8	7.9	7.9	30.2	30.2	71.7	71.7	4.8	4.8	8.2		8		96				<0.2		1.5	
						7.8	0.4	229	27.8		7.9		30.2		71.7		4.8		8.1		7		96				<0.2		1.5	
C2	Cloudy	Moderate	14:08	12.8	Surface	1.0	0.3	181	26.8	26.8	7.7	7.7	20.8	20.8	72.3	72.3	5.2	5.0	3.8	8.3	3	9	82	88	825673	806936	<0.2	<0.2	2.4	1.9
						1.0	0.3	195	26.8		7.7		20.8		72.3		5.2		3.8		2		84				<0.2		2.4	
					Middle	6.4	0.3	159	26.4	26.4	7.7	7.7	24.3	24.3	67.5	67.6	4.7		11.5		9		90				<0.2		2.0	
						6.4	0.3	163	26.4		7.7		24.3		67.6		4.8		11.4		8		90				<0.2		1.8	
					Bottom	11.8	0.2	190	26.2	26.2	7.8	7.8	26.0	26.0	70.0	70.0	4.9	4.9	9.6		14		92				<0.2		1.6	
						11.8	0.2	190	26.2		7.8		26.0		70.0		4.9		9.6		15		92				<0.2		1.3	
C3	Cloudy	Moderate	15:53	15.6	Surface	1.0	0.3	86	26.1	26.1	7.8	7.8	27.7	27.7	66.4	66.5	4.6	4.6	4.7	4.1	5	5	86	89	822120	817813	<0.2	<0.2	1.4	1.2
						1.0	0.3	90	26.1		7.8		27.7		66.5		4.6		4.7		5		85				<0.2		1.6	
					Middle	7.8	0.3	109	25.9	25.9	7.8	7.8	28.8	28.8	66.9	66.9	4.6		3.5		6		91				<0.2		1.1	
						7.8	0.3	113	25.9		7.8		28.8		66.9		4.6		3.5		4		89				<0.2		1.1	
					Bottom	14.6	0.2	117	25.9	25.9	7.8	7.8	28.8	28.8	69.4	69.4	4.8	4.8	4.0		6		93				<0.2		1.0	
						14.6	0.2	121	25.9		7.8		28.8		69.4		4.8		4.0		5		92				<0.2		1.0	
IM1	Rainy	Moderate	14:53	7.5	Surface	1.0	0.3	186	28.1	28.1	7.9	7.9	26.7	26.7	77.7	77.7	5.2	5.0	3.0	5.4	6	13	94	94	818355	806453	<0.2	<0.2	1.2	1.1
						1.0	0.4	189	28.1		7.9		26.7		77.7		5.2		3.1		5		94				<0.2		1.2	
					Middle	3.8	0.3	164	27.9	27.9	7.9	7.9	28.6	28.7	72.3	72.2	4.8		3.9		14		93				<0.2		1.3	
						3.8	0.3	174	27.9		7.9		28.7		72.1		4.8		4.4		16		92				<0.2		1.0	
					Bottom	6.5	0.3	180	27.8	27.8	7.9	7.9	29.5	29.5	70.9	71.1	4.7	4.7	9.1		20		97				<0.2		0.8	
						6.5	0.3	188	27.8		7.9		29.5		71.2		4.7		8.9		18		96				<0.2		1.0	
IM2	Rainy	Moderate	14:47	8.4	Surface	1.0	0.4	178	28.1	28.1	7.9	7.9	26.6	26.6	76.8	76.8	5.2	5.1	3.0	6.3	9	13	99	97	818833	806175	<0.2	<0.2	1.4	1.1
						1.0	0.4	189	28.1		7.9		26.6		76.8		5.2		3.1		10		97				<0.2		1.2	
					Middle	4.2	0.3	155	28.0	28.0	7.9	7.9	28.3	28.3	73.8	73.8	4.9		4.0		15		92				<0.2		1.3	
						4.2	0.4	170	28.0		7.9		28.3		73.8		4.9		4.0		13		95				<0.2		1.2	
					Bottom	7.4	0.3	178	27.8	27.8	7.9	7.9	29.4	29.4	69.7	69.8	4.6	4.7	12.0		14		99				<0.2		0.8	
						7.4	0.3	187	27.8		7.9		29.4		69.9		4.7		11.6		16		98				<0.2		0.8	
IM3	Rainy	Moderate	14:39	8.7	Surface	1.0	0.3	173	28.3	28.3	7.9	7.9	25.9	25.9	76.9	76.9	5.2	5.0	2.4	8.4	4	8	88	92	819414	806034	<0.2	<0.2	1.4	1.1
						1.0	0.3	184	28.3		7.9		25.9		76.8		5.2		2.1		4		87				<0.2		1.5	
					Middle	4.4	0.3	164	27.9	27.9	7.9	7.9	28.8	28.8	70.1	70.1	4.7		6.7		8		96				<0.2		1.0	
						4.4	0.3	165	27.9		7.9		28.8		70.1		4.7		6.8		6		94				<0.2		1.0	
					Bottom	7.7	0.3	169	27.8	27.8	7.9	7.9	29.3	29.3	69.2	69.3	4.6	4.6	16.1		12		91				<0.2		0.9	
						7.7	0.3	177	27.8		7.9		29.3		69.3		4.6		16.0		11		93				<0.2		1.0	
IM4	Cloudy	Moderate	14:31	8.2	Surface	1.0	0.3	174	28.3	28.3	7.8	7.8	24.3	24.3	80.7	80.3	5.5	5.1	1.4	6.7	6	12	86	94	819583	805044	<0.2	<0.2	1.6	1.2
						1.0	0.4	178	28.3		7.8		24.2		79.9		5.4		1.5		4		84				<0.2		1.7	
					Middle	4.1	0.3	168	27.9	27.9	7.9	7.9	29.0	29.0	69.9	69.9	4.7		7.5		11		100				<0.2		0.9	
						4.1	0.3	172	27.9		7.9		29.0		69.9		4.7		7.4		11		97				<0.2		0.9	
					Bottom	7.2	0.3	177	27.8	27.8	7.9	7.9	29.5	29.5	70.7	70.9	4.7	4.7	11.3		19		99				<0.2		1.2	
						7.2	0.3	192	27.8		7.9		29.5		71.0		4.7		11.2		20		100				<0.2		1.1	
IM5	Cloudy	Moderate	14:23	7.2	Surface	1.0	0.4	150	28.2	28.2	7.8	7.8	24.7	24.7	76.5	76.5	5.2	5.0	3.5	8.0	8	13	96	95	820562	804904	<0.2	<0.2	1.5	1.2
						1.0	0.5	150	28.2		7.8		24.7		76.5		5.2		3.7		6		92				<0.2		1.1	
					Middle	3.6	0.4	157	27.9	27.9	7.9	7.9	28.2	28.2	70.6	70.6	4.7		9.6		13		95				<0.2		1.7	
						3.6	0.4	165	27.9		7.9		28.2		70.6		4.7		9.9		12		96				<0.2		1.1	
					Bottom	6.2	0.3	162	27.9	27.9	7.9	7.9	28.8	28.8	69.7	69.7	4.7	4.7	10.8		18		95				<0.2		1.0	
						6.2	0.3	176	27.9		7.9		28.8		69.7		4.7		10.7		18		95				<0.2		0.8	
IM6	Cloudy	Moderate	14:12	7.7	Surface	1.0	0.4	158	28.3	28.3	7.8	7.8	24.5	24.5	77.6	77.6	5.3	5.1	1.5	6.1	3	12	88	91	821072	805816	<0.2	<0.2	1.8	1.3
						1.0	0.4	170	28.3		7.8		24.5		77.6		5.3		1.4		3		87				<0.2		1.7	
					Middle	3.9	0.4	152	28.1	28.1	7.8	7.8	25.4	25.5	72.9	72.9	4.9		2.7		10		92				<0.2		1.1	
						3.9	0.4	155	28.1		7.8		25.5		72.9		4.9		2.8		10		89				<0.2		1.1	
					Bottom	6.7	0.3	128	27.9	27.9	7.9	7.9	28.7	28.7	68.9	69.0	4.6	4.6	14.1		22		96				<0.2		1.0	
						6.7	0.3	135	27.9		7.9		28.7		69.0		4.6		14.1		21		96				<0.2		1.0	
IM7	Cloudy	Moderate	14:03	6.3	Surface	1.0	0.3	130	28.3	28.3	7.8	7.8	23.3	23.3	77.9	77.9	5.3	5.3	1.8	2.3	4	4	87	93	821365	806835	<0.2	<0.2	1.8	1.5
						1.0	0.3	138	28.3		7.8		23.3		77.9		5.3		1.9		3		87				<0.2		1.8	
					Middle	3.2	0.3	121	28.3	28.3	7.8	7.8	24.7	24.7	77.3	77.3	5.3		1.8		4		95				<0.2		1.8	
						3.2	0.3	122	28.3		7.8		24.7		77.3		5.3		1.9		2		96				<0.2		1.6	
					Bottom	5.3	0.3	108	28.1	28.1	7.9	7.9	26.3	26.3	74.4	74.5	5.0	5.0	3.2		6		93				<0.2		1.2	
						5.3	0.4	108	28.1		7.9		26.3		74.5		5.0		3.2		7		97				<0.2		1.0	
IM8	Cloudy	Moderate	14:44	8.6	Surface	1.0	0.4	131	26.8	26.8	7.7	7.7	22.2	22.3	72.5	72.4	5.1	5.0	5.7	8.9	11	10	83	88	821684	807823	<0.2	<0.2	2.4	1.9
						1.0	0.4	136	26.8		7.7		22.3		72.3		5.1		5.8		10		82				<0.2		2.1	
					Middle	4.3	0.4	146	26.5	26.5	7.8	7.8	25.1	25.1	69.6	69.7	4.9		10.3		9		89				<0.2		1.8	
						4.3	0.4	155	26.4		7.8		25.0		69.8		4.9		10.3		10		90				<0.2		1.7	
					Bottom	7.6	0.4	73	26.4	26.4	7.8	7.8	25.9	25.9	71.4	71.4	5.0	5.0	10.6		9		92				<0.2		1.7	
						7.6	0.5	78	26.4		7.8		25.9		71.4		5.0		10.6		10		93				<0.2		1.8	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 06 September 16 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
IM9	Cloudy	Moderate	14:52	7.6	Surface	1.0	0.5	137	26.7	26.7	7.7	7.7	23.3	23.3	71.1	71.1	5.0	5.0	7.6	17.8	7	10	81	89	822092	808797	<0.2	<0.2	2.0	1.7
						1.0	0.5	137	26.7		7.7		23.2		71.1		5.0		7.7		8		85				<0.2		2.1	
					Middle	3.8	0.5	122	26.4	26.4	7.8	7.8	26.0	26.1	70.3	70.4	4.9		19.6		10		90				<0.2		1.4	
						3.8	0.5	129	26.4		7.8		26.1		70.4		4.9		20.0		11		91				<0.2		1.7	
					Bottom	6.6	0.4	92	26.3	26.3	7.9	7.9	28.5	28.5	71.8	71.8	4.9	4.9	26.0		12		92				<0.2		1.4	
						6.6	0.5	94	26.3		7.9		28.5		71.8		4.9		26.0		12		92				<0.2		1.4	
IM10	Cloudy	Moderate	14:59	8.2	Surface	1.0	0.6	106	26.7	26.7	7.8	7.8	23.2	23.2	73.6	73.6	5.2	5.1	4.5	11.7	4	6	84	89	822251	809835	<0.2	<0.2	2.0	1.8
						1.0	0.6	114	26.7		7.8		23.2		73.5		5.2		4.6		4		83				<0.2		2.1	
					Middle	4.1	0.6	102	26.6	26.6	7.8	7.8	24.0	24.0	71.7	71.8	5.0		9.0		6		91				<0.2		1.8	
						4.1	0.7	102	26.6		7.8		24.0		71.8		5.0		9.2		7		90				<0.2		2.0	
					Bottom	7.2	0.5	97	26.3	26.3	7.9	7.9	28.1	28.1	72.3	72.4	5.0	5.0	21.3		8		93				<0.2		1.4	
						7.2	0.5	97	26.3		7.9		28.1		72.4		5.0		21.4		9		92				<0.2		1.3	
IM11	Cloudy	Moderate	15:06	7.1	Surface	1.0	0.6	140	26.7	26.7	7.8	7.8	23.5	23.5	73.8	73.8	5.2	5.1	7.8	16.4	5	15	83	89	821520	810549	<0.2	<0.2	2.0	1.7
						1.0	0.6	150	26.7		7.8		23.5		73.8		5.2		7.8		4		85				<0.2		2.0	
					Middle	3.6	0.6	159	26.4	26.4	7.9	7.9	27.4	27.4	71.9	72.0	5.0		14.9		4		90				<0.2		2.0	
						3.6	0.6	162	26.4		7.9		27.3		72.0		5.0		14.9		5		90				<0.2		2.1	
					Bottom	6.1	0.6	139	26.3	26.3	7.9	7.9	27.8	27.8	72.2	72.2	5.0	5.0	26.6		36		92				<0.2		1.0	
						6.1	0.6	144	26.3		7.9		27.8		72.2		5.0		26.6		37		91				<0.2		1.3	
IM12	Cloudy	Moderate	15:12	9.4	Surface	1.0	0.7	110	26.7	26.7	7.8	7.8	23.3	23.3	76.7	76.7	5.4	5.3	3.0	6.9	4	5	85	89	821148	811505	<0.2	<0.2	1.9	1.9
						1.0	0.8	115	26.7		7.8		23.3		76.6		5.4		3.0		4		85				<0.2		2.1	
					Middle	4.7	0.7	107	26.5	26.5	7.8	7.8	24.9	24.9	73.7	73.7	5.2		4.2		4		90				<0.2		1.8	
						4.7	0.8	116	26.5		7.8		24.9		73.7		5.2		4.2		4		90				<0.2		1.7	
					Bottom	8.4	0.5	98	26.3	26.3	7.8	7.8	26.7	26.7	71.2	71.2	4.9	4.9	13.3		8		92				<0.2		1.7	
						8.4	0.5	106	26.3		7.8		26.7		71.2		4.9		13.5		8		92				<0.2		1.9	
SR2	Cloudy	Moderate	15:34	4.3	Surface	1.0	0.5	89	26.5	26.5	7.8	7.8	25.2	25.3	70.7	70.7	4.9	4.9	8.4	9.5	6	8	85	87	821454	814161	<0.2	<0.2	1.9	1.9
						1.0	0.6	91	26.5		7.8		25.3		70.6		4.9		8.5		6		83				<0.2		2.0	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.3	111	26.3	26.3	7.8	7.8	26.7	26.7	71.5	71.6	5.0	5.0	10.6		9		91				<0.2		1.7	
						3.3	0.4	111	26.3		7.8		26.7		71.6		5.0		10.5		11		90				<0.2		1.9	
SR3	Cloudy	Moderate	14:38	9.5	Surface	1.0	0.4	156	26.6	26.6	7.7	7.7	23.6	23.6	67.9	67.9	4.8	4.8	9.5	13.4	4	8	-	-	822159	807563	-	-	-	-
						1.0	0.4	163	26.6		7.7		23.6		67.9		4.8		9.6		4		-				-		-	
					Middle	4.8	0.4	167	26.4	26.4	7.8	7.8	25.9	25.9	69.4	69.4	4.8		14.0		6		-				-		-	
						4.8	0.4	173	26.4		7.8		25.9		69.4		4.8		14.0		6		-				-		-	
					Bottom	8.5	0.3	130	26.4	26.4	7.8	7.8	26.3	26.3	74.4	74.6	5.2	5.2	16.5		15		-				-		-	
						8.5	0.3	132	26.4		7.8		26.3		74.7		5.2		16.5		15		-				-		-	
SR4A	Cloudy	Moderate	15:37	7.6	Surface	1.0	0.4	101	28.0	28.0	7.9	7.9	28.0	28.0	72.3	72.3	4.8	4.8	6.0	7.3	10	13	-	-	817199	807813	-	-	-	-
						1.0	0.4	101	28.0		7.9		28.0		72.3		4.8		5.9		10		-				-		-	
					Middle	3.8	0.4	98	27.9	27.9	7.9	7.9	28.4	28.4	70.7	70.7	4.7		7.3		12		-				-		-	
						3.8	0.4	101	27.9		7.9		28.4		70.7		4.7		7.5		10		-				-		-	
					Bottom	6.6	0.4	107	27.9	27.9	7.9	7.9	28.8	28.8	71.0	71.2	4.7	4.8	8.5		19		-				-		-	
						6.6	0.4	111	27.9		7.9		28.8		71.4		4.8		8.5		19		-				-		-	
SR5A	Cloudy	Calm	15:57	4.9	Surface	1.0	0.1	128	28.1	28.1	7.8	7.8	25.3	25.3	74.4	74.3	5.0	5.0	6.2	7.9	12	15	-	-	816576	810711	-	-	-	-
						1.0	0.1	128	28.1		7.8		25.3		74.2		5.0		6.5		12		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	148	28.0	28.0	7.8	7.8	25.6	25.6	73.5	73.5	5.0	5.0	9.5		17		-				-		-	
						3.9	0.2	151	28.0		7.8		25.6		73.5		5.0		9.5		18		-				-		-	
SR6	Cloudy	Calm	16:19	3.1	Surface	1.0	0.2	109	28.2	28.2	7.8	7.8	24.5	24.5	81.4	81.4	5.5	5.5	1.9	2.6	7	7	-	-	817906	814662	-	-	-	-
						1.0	0.2	116	28.2		7.8		24.5		81.4		5.5		1.8		5		-				-		-	
					Middle	1.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.1	0.2	111	28.1	28.1	7.8	7.8	25.1	25.1	79.2	80.1	5.4	5.5	3.3		8		-				-		-	
						2.1	0.2	121	28.1		7.8		25.1		81.0		5.5		3.4		7		-				-		-	
SR7	Cloudy	Calm	16:21	17.4	Surface	1.0	0.6	62	26.3	26.3	7.8	7.8	27.4	27.4	76.0	76.0	5.3	5.0	2.2	3.1	3	5	-	-	823635	823759	-	-	-	-
						1.0	0.6	63	26.3		7.8		27.4		76.0		5.3		2.2		3		-				-		-	
					Middle	8.7	0.5	63	26.0	26.0	7.8	7.8	28.5	28.5	68.6	68.6	4.7		3.5		4		-				-		-	
						8.7	0.5	64	26.0		7.8		28.5		68.6		4.7		3.4		4		-				-		-	
					Bottom	16.4	0.5	59	25.9	25.9	7.8	7.8	28.8	28.8	69.6	69.7	4.8	4.8	3.6		7		-				-		-	
						16.4	0.5	64	25.9		7.8		28.8		69.7		4.8		3.5		6		-				-		-	
SR8	Cloudy	Moderate	15:20	5.6	Surface	1.0	0.3	219	26.8	26.8	7.8	7.8	25.4	25.4	75.7	75.7	5.3	5.3	7.2	9.7	7	7	-	-	820401	811612	-	-	-	-
						1.0	0.3	228	26.8		7.8		25.4		75.6		5.3		7.3		7		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.3	217	26.8	26.8	7.8	7.8	25.4	25.4	74.6	74.6	5.2	5.2	12.0		7		-				-		-	
						4.6	0.3	232	26.8		7.8		25.4		74.6		5.2		12.2		7		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 08 September 16 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 (mg/L)		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
C1	Cloudy	Calm	11:16	8.4	Surface	1.0	0.3	53	28.2	28.2	7.8	7.8	17.0	17.0	83.5	83.5	5.9	5.3	1.2	9.1	4	11	84	91	815622	804255	<0.2	<0.2	2.4	2.0
						1.0	0.3	54	28.2		7.8		17.0		83.4		5.9		1.2		5		86				<0.2		2.6	
					Middle	4.2	0.4	43	27.9	27.9	7.9	7.9	29.1	29.0	70.4	70.7	4.7		6.7		6		87				<0.2		2.3	
						4.2	0.4	46	27.9		7.9		28.8		70.9		4.7		7.1		5		92				<0.2		2.6	
					Bottom	7.4	0.5	48	27.8	27.8	7.9	7.9	30.3	30.3	71.0	71.4	4.7	4.8	20.3		23		97				<0.2		1.0	
						7.4	0.5	48	27.8		7.9		30.2		71.8		4.8		18.3		25		98				<0.2		1.1	
C2	Cloudy	Moderate	12:42	12.3	Surface	1.0	0.4	192	27.3	27.3	7.7	7.7	13.8	13.8	72.4	72.4	5.3	5.0	3.5	3.3	5	5	83	88	825697	806933	<0.2	<0.2	3.7	3.1
						1.0	0.5	192	27.3		7.7		13.8		72.3		5.3		3.6		5		83				<0.2		3.8	
					Middle	6.2	0.5	210	26.5	26.5	7.8	7.8	21.5	21.5	64.1	64.1	4.6		3.3		4		89				<0.2		3.5	
						6.2	0.5	222	26.5		7.8		21.5		64.1		4.6		3.3		5		91				<0.2		3.1	
					Bottom	11.3	0.4	224	26.3	26.3	7.8	7.8	23.8	23.8	63.2	63.2	4.5	4.5	3.1		4		92				<0.2		2.1	
						11.3	0.5	241	26.3		7.8		23.8		63.2		4.5		3.1		6		92				<0.2		2.2	
C3	Cloudy	Moderate	10:56	11.4	Surface	1.0	0.3	132	26.3	26.3	7.8	7.8	21.8	21.8	73.0	73.0	5.2	5.0	2.5	2.9	3	4	85	89	822126	817805	<0.2	<0.2	2.7	2.2
						1.0	0.3	135	26.3		7.8		21.8		72.9		5.2		2.5		3		84				<0.2		2.7	
					Middle	5.7	0.3	199	26.1	26.1	7.8	7.8	24.7	24.7	66.8	66.8	4.7		2.8		4		90				<0.2		2.0	
						5.7	0.3	216	26.1		7.8		24.7		66.7		4.7		2.8		3		89				<0.2		2.0	
					Bottom	10.4	0.3	215	25.8	25.8	7.8	7.8	27.5	27.5	66.5	66.6	4.6	4.6	3.4		4		92				<0.2		1.8	
						10.4	0.3	219	25.8		7.8		27.5		66.6		4.6		3.4		5		92				<0.2		1.8	
IM1	Cloudy	Calm	11:37	7.1	Surface	1.0	0.7	278	28.1	28.1	7.8	7.8	21.9	21.8	75.4	75.4	5.2	5.0	8.2	11.4	9	15	80	87	818362	806472	<0.2	<0.2	2.2	2.3
						1.0	0.7	298	28.1		7.8		21.7		75.3		5.2		7.9		7		81				<0.2		2.2	
					Middle	3.6	0.6	44	28.1	28.1	7.8	7.8	23.4	23.4	70.8	70.8	4.8		4.8		6		86				<0.2		2.4	
						3.6	0.7	44	28.1		7.8		23.4		70.7		4.8		4.9		8		88				<0.2		2.8	
					Bottom	6.1	0.5	98	28.0	28.0	7.8	7.8	26.2	26.1	69.0	69.3	4.7	4.7	22.4		29		93				<0.2		2.1	
						6.1	0.5	106	28.0		7.8		26.0		69.5		4.7		20.1		31		95				<0.2		2.3	
IM2	Cloudy	Calm	11:43	7.3	Surface	1.0	0.7	124	28.1	28.1	7.9	7.9	21.8	21.8	79.3	79.2	5.5	5.2	2.1	4.4	5	8	77	83	818836	806200	<0.2	<0.2	3.0	1.8
						1.0	0.7	132	28.1		7.9		21.8		79.0		5.5		2.2		5		78				<0.2		3.1	
					Middle	3.7	0.7	96	28.1	28.1	7.8	7.8	23.9	23.8	71.8	72.0	4.9		3.1		6		83				<0.2		1.5	
						3.7	0.7	99	28.1		7.8		23.6		72.1		4.9		3.1		6		85				<0.2		1.4	
					Bottom	6.3	0.6	49	27.9	27.9	7.9	7.9	28.4	28.4	68.2	68.5	4.6	4.6	8.2		11		85				<0.2		1.0	
						6.3	0.6	50	27.9		7.9		28.3		68.7		4.6		7.9		12		87				<0.2		0.9	
IM3	Cloudy	Calm	11:51	7.4	Surface	1.0	0.6	212	28.2	28.2	7.9	7.9	24.2	24.3	76.9	76.8	5.2	5.1	4.6	7.1	6	16	80	83	819428	806001	<0.2	<0.2	1.7	1.0
						1.0	0.6	215	28.2		7.9		24.4		76.6		5.2		4.3		6		76				<0.2		1.8	
					Middle	3.7	0.4	79	28.0	28.1	7.9	7.9	28.6	28.6	74.1	74.1	4.9		6.1		19		81				<0.2		0.6	
						3.7	0.4	81	28.1		7.9		28.5		74.0		4.9		5.9		18		84				<0.2		0.5	
					Bottom	6.4	0.3	123	27.9	27.9	7.9	7.9	29.0	29.0	70.8	70.9	4.7	4.7	11.0		23		87				<0.2		0.6	
						6.4	0.3	123	27.9		7.9		29.0		70.9		4.7		10.9		24		90				<0.2		0.7	
IM4	Cloudy	Calm	12:00	7.6	Surface	1.0	0.1	150	28.3	28.3	7.8	7.8	19.6	19.6	83.1	83.0	5.8	5.5	2.5	5.5	4	9	77	84	819564	805026	<0.2	<0.2	2.2	1.4
						1.0	0.1	161	28.3		7.8		19.6		82.8		5.8		2.2		4		79				<0.2		2.1	
					Middle	3.8	0.2	59	28.1	28.1	7.9	7.9	22.1	22.2	76.0	75.7	5.3		3.8		6		84				<0.2		1.5	
						3.8	0.2	61	28.1		7.8		22.2		75.4		5.2		3.7		7		86				<0.2		1.4	
					Bottom	6.6	0.3	50	27.8	27.8	7.9	7.9	30.3	30.3	68.2	68.5	4.5	4.6	10.3		15		89				<0.2		0.6	
						6.6	0.3	50	27.8		7.9		30.3		68.7		4.6		10.4		17		90				<0.2		0.6	
IM5	Cloudy	Calm	12:08	6.6	Surface	1.0	0.3	297	28.3	28.3	7.8	7.8	18.3	18.3	82.3	82.3	5.8	5.7	2.1	3.2	3	6	78	84	820552	804927	<0.2	<0.2	2.0	1.9
						1.0	0.3	302	28.3		7.8		18.3		82.2		5.8		1.9		3		79				<0.2		1.9	
					Middle	3.3	0.5	312	28.3	28.3	7.8	7.8	19.7	19.8	80.0	79.7	5.6		3.5		5		82				<0.2		2.0	
						3.3	0.6	340	28.3		7.8		19.8		79.4		5.5		3.3		5		83				<0.2		2.4	
					Bottom	5.6	0.4	303	28.0	28.0	7.8	7.8	25.1	25.1	69.9	70.1	4.8	4.8	4.4		9		89				<0.2		1.6	
						5.6	0.4	331	28.0		7.8		25.1		70.3		4.8		4.2		9		90				<0.2		1.5	
IM6	Cloudy	Calm	12:16	6.3	Surface	1.0	0.3	274	28.5	28.5	7.7	7.7	17.4	17.4	79.9	80.1	5.6	5.5	2.8	8.1	3	9	77	83	821055	805830	<0.2	<0.2	2.7	2.0
						1.0	0.3	281	28.5		7.7		17.3		80.2		5.6		2.8		4		79				<0.2		2.9	
					Middle	3.2	0.5	295	28.3	28.3	7.8	7.8	19.3	19.3	77.6	77.5	5.4		5.6		6		83				<0.2		2.1	
						3.2	0.5	299	28.3		7.8		19.3		77.4		5.4		5.7		6		84				<0.2		2.1	
					Bottom	5.3	0.4	99	27.9	27.9	7.9	7.9	28.4	28.4	67.8	68.0	4.5	4.6	16.1		18		87				<0.2		1.0	
						5.3	0.4	99	27.9		7.9		28.4		68.2		4.6		15.6		18		87				<0.2		1.1	
IM7	Cloudy	Calm	12:25	8.2	Surface	1.0	0.2	204	28.4	28.5	7.7	7.7	18.8	18.8	74.2	74.3	5.2	5.2	2.0	7.4	2	13	79	83	821339	806823	<0.2	<0.2	3.3	2.2
						1.0	0.2	221	28.5		7.7		18.8		74.3		5.2		2.2		3		77				<0.2		3.6	
					Middle	4.1	0.3	95	28.3	28.3	7.7	7.7	19.4	19.5	74.3	74.2	5.2		3.8		3		82				<0.2		2.4	
						4.1	0.3	96	28.3		7.7		19.5		74.0		5.2		4.2		4		83				<0.2		2.3	
					Bottom	7.2	0.5	45	27.9	27.9	7.9	7.9	28.1	28.1	69.2	69.4	4.6	4.7	15.8		32		87				<0.2		0.9	
						7.2	0.5	45	27.9		7.9		28.1		69.5		4.7		16.3		34		88				<0.2		0.8	
IM8	Cloudy	Moderate	12:08	8.6	Surface	1.0	0.3	202	26.8	26.8	7.8	7.8	15.0	14.8	79.5	79.5	5.8	5.4	4.3	8.4	2	4	83	88	821701	807829	<0.2	<0.2	4.2	2.8
						1.0	0.3	221	26.8		7.8		14.6		79.4		5.9		4.3		2		83				<0.2		4.1	
					Middle	4.3	0.3	183	26.5	26.5	7.8	7.8	21.0	21.0	68.2	68.2	4.9		10.7		3		90				<0.2		1.8	
						4.3	0.3	186	26.5		7.8		21.0		68.1		4.9		10.7		4		90				<0.2		1.8	
					Bottom	7.6	0.4	116	26.3	26.3	7.9	7.9	26.3	26.3	70.2	70.2	4.9	4.9	10.2		7		92				<0.2		2.3	
						7.6	0.4	123	26.3		7.9		26.3		70.2		4.9		10.2		7		92				<0.2		2.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 08 September 16 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
IM9	Cloudy	Moderate	12:00	8.9	Surface	1.0	0.3	151	26.7	26.7	7.8	7.8	15.2	15.2	78.5	78.5	5.8	5.5	4.5	10.5	<2	9	82	89	822097	808830	<0.2	<0.2	3.9	2.8
						1.0	0.3	161	26.7		7.8		15.2		78.4		5.8		4.6		2		83				<0.2		3.7	
					Middle	4.5	0.4	225	26.5	26.5	7.8	7.8	19.8	19.8	72.0	72.0	5.2		10.3		5		89				<0.2		2.5	
						4.5	0.4	225	26.5		7.8		19.8		72.0		5.2		10.2		4		90				<0.2		2.6	
					Bottom	7.9	0.3	232	26.3	26.3	7.8	7.8	24.1	24.1	69.5	69.5	4.9	4.9	16.6		18		91				<0.2		2.1	
						7.9	0.3	240	26.3		7.8		24.1		69.5		4.9		16.6		20		100				<0.2		2.0	
IM10	Cloudy	Moderate	11:52	7.0	Surface	1.0	0.5	269	26.7	26.7	7.9	7.9	15.9	15.9	79.3	79.3	5.8	5.5	3.9	12.4	2	8	85	89	822256	809823	<0.2	<0.2	3.0	2.5
						1.0	0.5	285	26.7		7.9		15.8		79.2		5.8		3.9		2		84				<0.2		3.1	
					Middle	3.5	0.4	292	26.3	26.3	7.9	7.9	21.3	21.2	72.1	71.9	5.2		7.2		4		89				<0.2		2.3	
						3.5	0.4	316	26.3		7.9		21.1		71.6		5.1		8.2		3		89				<0.2		2.5	
					Bottom	6.0	0.3	211	26.1	26.1	7.8	7.8	24.8	24.8	67.6	67.6	4.8	4.8	25.5		18		92				<0.2		1.9	
						6.0	0.3	221	26.1		7.8		24.8		67.6		4.8		25.5		17		92				<0.2		2.0	
IM11	Cloudy	Moderate	11:44	8.6	Surface	1.0	0.4	235	26.3	26.3	7.9	7.9	20.4	20.4	75.3	75.3	5.4	5.1	4.0	9.9	3	6	83	88	821482	810546	<0.2	<0.2	2.4	2.2
						1.0	0.4	244	26.3		7.9		20.4		75.3		5.4		4.1		3		83				<0.2		2.5	
					Middle	4.3	0.3	230	26.0	26.0	7.9	7.9	24.3	24.3	66.9	66.9	4.7		11.2		3		89				<0.2		2.6	
						4.3	0.4	242	26.0		7.9		24.3		66.8		4.7		11.2		3		89				<0.2		2.3	
					Bottom	7.6	0.3	223	26.0	26.0	7.9	7.9	25.6	25.6	66.6	66.6	4.7	4.7	14.4		11		93				<0.2		1.8	
						7.6	0.3	242	26.0		7.9		25.6		66.6		4.7		14.4		11		92				<0.2		1.7	
IM12	Cloudy	Moderate	11:36	7.2	Surface	1.0	0.5	285	26.4	26.4	7.9	7.9	18.8	18.8	78.7	78.7	5.7	5.3	3.2	11.2	2	6	83	88	821180	811527	<0.2	<0.2	2.8	2.2
						1.0	0.6	290	26.4		7.9		18.8		78.7		5.7		3.2		2		84				<0.2		2.5	
					Middle	3.6	0.6	278	26.1	26.1	7.9	7.9	22.6	22.6	67.6	67.6	4.8		9.6		4		89				<0.2		2.0	
						3.6	0.6	283	26.1		7.9		22.6		67.6		4.8		9.6		4		90				<0.2		2.4	
					Bottom	6.2	0.4	257	25.8	25.8	7.9	7.9	27.1	27.1	66.0	66.0	4.6	4.6	20.9		13		91				<0.2		1.6	
						6.2	0.4	282	25.8		7.9		27.1		66.0		4.6		20.9		13		93				<0.2		1.9	
SR2	Cloudy	Moderate	11:16	4.2	Surface	1.0	0.2	141	26.3	26.3	7.9	7.9	19.9	19.9	76.9	76.9	5.6	5.6	5.5	8.1	3	7	84	87	821449	814164	<0.2	<0.2	2.8	2.6
						1.0	0.3	146	26.3		7.9		19.9		76.9		5.5		5.5		3		83				<0.2		3.0	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.2	136	25.9	25.9	7.8	7.8	25.1	25.1	73.9	73.9	5.2	5.2	10.6		10		90				<0.2		2.3	
						3.2	0.2	143	25.9		7.8		25.1		73.9		5.2		10.6		10		90				<0.2		2.3	
SR3	Cloudy	Moderate	12:13	9.3	Surface	1.0	0.3	203	26.8	26.8	7.8	7.8	18.0	18.0	74.0	74.0	5.4	5.1	4.2	7.8	2	3	-	-	822154	807566	-	-	-	-
						1.0	0.3	208	26.8		7.8		18.0		74.0		5.4		4.2		3		-				-		-	
					Middle	4.7	0.4	84	26.5	26.5	7.8	7.8	22.0	22.0	67.2	67.2	4.8		6.8		2		-				-		-	
						4.7	0.4	90	26.5		7.8		22.0		67.2		4.8		6.9		3		-				-		-	
					Bottom	8.3	0.4	103	26.3	26.3	7.9	7.9	24.6	24.6	68.8	68.8	4.8	4.8	12.3		4		-				-		-	
						8.3	0.4	110	26.3		7.9		24.6		68.8		4.8		12.3		3		-				-		-	
SR4A	Cloudy	Calm	10:53	7.6	Surface	1.0	0.4	253	27.9	27.9	7.8	7.8	23.0	23.0	73.8	73.8	5.1	5.1	14.7	15.5	23	25	-	-	817169	807827	-	-	-	-
						1.0	0.4	273	27.9		7.8		23.0		73.7		5.1		15.0		22		-				-		-	
					Middle	3.8	0.4	254	27.9	27.9	7.8	7.8	23.2	23.2	72.5	72.4	5.0		14.5		25		-				-		-	
						3.8	0.4	269	27.9		7.8		23.2		72.2		5.0		14.4		26		-				-		-	
					Bottom	6.6	0.3	251	27.9	27.9	7.8	7.8	26.3	26.3	68.9	69.0	4.7	4.7	17.1		27		-				-		-	
						6.6	0.4	270	27.9		7.8		26.3		69.0		4.7		17.0		28		-				-		-	
SR5A	Cloudy	Calm	10:36	4.0	Surface	1.0	0.4	290	27.9	27.9	7.8	7.8	23.3	23.3	73.6	73.6	5.1	5.1	5.0	8.9	6	8	-	-	816581	810697	-	-	-	-
						1.0	0.4	315	27.9		7.8		23.3		73.6		5.1		5.1		8		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.3	294	27.9	27.9	7.8	7.8	23.4	23.4	73.6	73.7	5.1	5.1	12.8		7		-				-		-	
						3.0	0.4	312	27.9		7.8		23.4		73.7		5.1		12.5		9		-				-		-	
SR6	Cloudy	Calm	10:12	4.1	Surface	1.0	0.2	238	28.1	28.1	7.7	7.7	20.2	20.2	78.0	77.9	5.4	5.4	15.4	14.3	28	28	-	-	817918	814668	-	-	-	-
						1.0	0.3	245	28.1		7.7		20.1		77.7		5.4		15.5		28		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.3	239	28.1	28.1	7.7	7.7	20.6	20.6	76.3	76.3	5.3	5.3	13.1		28		-				-		-	
						3.1	0.3	248	28.1		7.7		20.6		76.3		5.3		13.1		29		-				-		-	
SR7	Cloudy	Calm	09:40	15.2	Surface	1.0	0.2	219	26.2	26.2	7.8	7.8	21.6	21.6	77.1	77.1	5.5	5.1	2.1	2.5	2	3	-	-	823618	823735	-	-	-	-
						1.0	0.2	231	26.2		7.8		21.6		77.1		5.5		2.2		<2		-				-		-	
					Middle	7.6	0.2	206	26.0	26.0	7.8	7.8	25.8	25.8	66.2	66.2	4.6		2.5		4		-				-		-	
						7.6	0.2	216	26.0		7.8		25.8		66.2		4.6		2.5		2		-				-		-	
					Bottom	14.2	0.1	163	25.5	25.5	7.9	7.9	29.3	29.3	61.9	61.9	4.3	4.3	2.9		4		-				-		-	
						14.2	0.2	167	25.5		7.9		29.3		61.9		4.3		2.9		4		-				-		-	
SR8	Cloudy	Moderate	11:30	5.2	Surface	1.0	0.1	218	26.6	26.6	7.8	7.8	18.4	18.4	81.8	81.8	5.9	5.9	6.9	8.9	5	5	-	-	820430	811580	-	-	-	-
						1.0	0.1	221	26.6		7.8		18.4		81.8		5.9		7.0		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	221	26.1	26.1	7.8	7.8	23.2	23.2	75.1	75.2	5.3	5.4	10.8		6		-				-		-	
						4.2	0.1	239	26.1		7.8		23.2		75.3		5.4		10.8		5		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 08 September 16 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
C1	Cloudy	Calm	16:36	8.3	Surface	1.0	0.4	227	28.8	28.8	7.9	7.9	16.7	16.7	94.5	93.7	6.6	6.0	2.8	4.5	2	6	86	93	815625	804259	<0.2	<0.2	2.6	1.4
						1.0	0.4	229	28.8		7.9		16.7		92.8		6.5		2.6		2		90				<0.2		2.2	
					Middle	4.2	0.3	184	27.8	27.8	8.0	8.0	27.6	27.5	79.7	79.7	5.4		4.0		7		92				<0.2		1.3	
						4.2	0.3	200	27.8		8.0		27.4		79.6		5.4		4.2		5		95				<0.2		1.3	
					Bottom	7.3	0.3	192	27.7	27.7	8.0	8.0	31.8	31.8	74.2	74.4	4.9	4.9	6.6		10		97				<0.2		0.6	
						7.3	0.3	201	27.7		8.0		31.8		74.5		4.9		6.7		10		99				<0.2		0.6	
C2	Cloudy	Moderate	15:23	13.1	Surface	1.0	0.3	138	27.0	27.0	7.8	7.8	15.4	15.4	76.3	76.3	5.6	5.2	3.0	3.5	4	4	81	88	825695	806931	<0.2	<0.2	2.9	2.7
						1.0	0.3	148	27.0		7.8		15.4		76.3		5.6		3.0		3		84				<0.2		3.0	
					Middle	6.6	0.3	107	26.4	26.4	7.7	7.7	22.1	22.1	66.3	66.3	4.7		3.7		4		89				<0.2		2.8	
						6.6	0.3	113	26.4		7.7		22.1		66.3		4.7		3.7		2		90				<0.2		2.5	
					Bottom	12.1	0.3	148	26.3	26.3	7.7	7.7	23.4	23.4	68.5	68.5	4.9	4.9	3.9		4		92				<0.2		2.4	
						12.1	0.3	151	26.3		7.7		23.4		68.5		4.9		3.9		5		93				<0.2		2.4	
C3	Cloudy	Moderate	17:10	12.1	Surface	1.0	0.4	101	26.7	26.7	7.9	7.9	20.9	20.9	83.8	83.8	6.0	5.6	2.1	2.1	3	3	84	89	822109	817801	<0.2	<0.2	2.7	2.3
						1.0	0.4	105	26.7		7.9		20.9		83.7		6.0		2.1		4		85				<0.2		2.4	
					Middle	6.1	0.2	222	26.3	26.3	7.9	7.9	21.9	21.9	73.5	73.5	5.3		2.1		2		90				<0.2		2.2	
						6.1	0.3	226	26.3		7.9		21.8		73.4		5.2		2.1		3		90				<0.2		2.4	
					Bottom	11.1	0.3	149	25.8	25.8	7.9	7.9	27.0	27.0	73.0	73.0	5.1	5.1	2.0		4		93				<0.2		1.9	
						11.1	0.3	152	25.8		7.9		27.0		73.0		5.1		2.0		4		92				<0.2		2.0	
IM1	Cloudy	Calm	16:13	7.3	Surface	1.0	0.3	182	28.3	28.3	7.8	7.8	22.0	21.8	80.0	80.0	5.5	5.3	2.8	5.0	3	7	82	86	818357	806442	<0.2	<0.2	2.4	1.7
						1.0	0.3	184	28.3		7.8		21.5		80.0		5.5		2.6		5		80				<0.2		2.5	
					Middle	3.7	0.3	134	28.0	28.0	7.9	7.9	24.5	24.5	74.5	74.5	5.1		3.2		6		84				<0.2		1.5	
						3.7	0.3	136	28.0		7.9		24.5		74.5		5.1		3.2		7		86				<0.2		1.4	
					Bottom	6.3	0.3	144	27.8	27.8	7.9	7.9	29.7	29.7	70.3	70.6	4.7	4.7	9.0		12		90				<0.2		1.1	
						6.3	0.3	147	27.8		7.9		29.7		70.8		4.7		9.0		11		92				<0.2		1.0	
IM2	Cloudy	Calm	16:06	7.1	Surface	1.0	0.3	191	28.8	28.8	7.9	7.9	15.9	15.9	83.5	83.2	5.9	5.4	2.2	5.3	4	8	80	86	818856	806178	<0.2	<0.2	2.7	2.1
						1.0	0.3	199	28.8		7.9		15.9		82.8		5.9		2.3		2		82				<0.2		3.0	
					Middle	3.6	0.3	170	28.1	28.1	7.8	7.8	27.1	26.6	73.1	73.2	4.9		3.9		6		86				<0.2		2.2	
						3.6	0.3	186	28.1		7.8		26.0		73.3		4.9		4.0		5		83				<0.2		2.1	
					Bottom	6.1	0.3	191	27.9	27.9	7.9	7.9	29.4	29.6	69.8	70.3	4.6	4.7	9.2		14		92				<0.2		1.2	
						6.1	0.3	197	27.8		7.9		29.7		70.7		4.7		10.0		15		92				<0.2		1.1	
IM3	Cloudy	Calm	15:58	7.0	Surface	1.0	0.3	192	28.6	28.6	7.8	7.8	17.5	17.5	83.7	83.0	5.9	5.5	1.8	4.0	6	7	83	86	819413	805999	<0.2	<0.2	2.8	2.3
						1.0	0.3	204	28.6		7.8		17.4		82.2		5.8		1.9		5		80				<0.2		2.9	
					Middle	3.5	0.3	179	28.1	28.1	7.8	7.8	21.3	21.4	74.0	74.1	5.1		3.2		5		84				<0.2		2.4	
						3.5	0.3	192	28.1		7.8		21.5		74.1		5.1		3.4		7		85				<0.2		2.4	
					Bottom	6.0	0.3	163	27.9	27.9	7.9	7.9	29.2	29.2	68.2	68.2	4.5	4.5	6.8		10		91				<0.2		1.5	
						6.0	0.3	178	27.9		7.9		29.2		68.2		4.5		6.7		10		92				<0.2		1.7	
IM4	Cloudy	Calm	15:49	7.3	Surface	1.0	0.3	187	28.7	28.7	7.8	7.8	16.0	16.0	87.4	87.3	6.2	5.6	2.3	6.3	<2	8	80	85	819561	805037	<0.2	<0.2	3.5	2.5
						1.0	0.3	187	28.7		7.8		15.9		87.2		6.2		2.5		<2		81				<0.2		3.5	
					Middle	3.7	0.4	139	28.3	28.3	7.8	7.8	26.8	26.6	75.2	75.2	5.0		4.0		2		84				<0.2		3.3	
						3.7	0.4	151	28.3		7.8		26.3		75.1		5.1		3.5		4		86				<0.2		2.2	
					Bottom	6.3	0.3	164	27.8	27.8	7.9	7.9	29.8	29.8	68.3	68.5	4.5	4.6	12.9		18		87				<0.2		1.2	
						6.3	0.3	169	27.8		7.9		29.8		68.7		4.6		12.8		18		90				<0.2		1.5	
IM5	Cloudy	Calm	15:41	6.3	Surface	1.0	0.3	191	28.7	28.7	7.9	7.9	15.4	15.5	88.9	88.3	6.3	5.7	1.3	4.6	<2	4	76	84	820582	804939	<0.2	<0.2	3.5	2.7
						1.0	0.3	208	28.7		7.9		15.5		87.6		6.2		1.2		<2		78				<0.2		3.6	
					Middle	3.2	0.3	136	28.4	28.4	7.8	7.8	20.0	20.0	73.1	73.1	5.1		2.7		3		86				<0.2		2.7	
						3.2	0.3	144	28.4		7.8		20.0		73.0		5.1		2.8		4		84				<0.2		2.7	
					Bottom	5.3	0.3	159	27.9	27.9	7.9	7.9	29.3	29.3	66.4	66.6	4.4	4.4	9.6		7		89				<0.2		2.0	
						5.3	0.3	171	27.9		7.9		29.2		66.7		4.4		10.0		5		90				<0.2		1.9	
IM6	Cloudy	Calm	15:31	6.5	Surface	1.0	0.3	202	28.9	28.9	7.8	7.8	14.5	14.5	88.9	88.8	6.3	5.6	1.5	3.0	3	3	80	86	821066	805838	<0.2	<0.2	3.9	2.9
						1.0	0.3	214	28.9		7.8		14.5		88.6		6.3		1.6		2		83				<0.2		3.9	
					Middle	3.3	0.3	117	28.3	28.3	7.8	7.8	22.4	22.4	71.6	71.6	4.9		2.9		2		85				<0.2		2.5	
						3.3	0.3	117	28.3		7.8		22.4		71.6		4.9		2.9		4		88				<0.2		2.5	
					Bottom	5.5	0.3	119	27.9	27.9	7.9	7.9	28.4	28.4	68.9	69.5	4.6	4.7	4.7		4		90				<0.2		2.1	
						5.5	0.3	121	27.9		7.9		28.4		70.0		4.7		4.6		4		92				<0.2		2.2	
IM7	Cloudy	Calm	15:21	8.1	Surface	1.0	0.3	134	28.6	28.6	7.8	7.8	20.1	20.1	83.1	83.0	5.8	5.4	2.1	6.0	3	8	87	91	821354	806853	<0.2	<0.2	3.3	2.5
						1.0	0.3	143	28.6		7.8		20.0		82.9		5.7		2.3		4		87				<0.2		3.2	
					Middle	4.1	0.4	111	28.3	28.3	7.8	7.8	21.7	21.7	73.9	73.6	5.1		3.2		3		90				<0.2		2.8	
						4.1	0.4	113	28.3		7.8		21.7		73.2		5.0		3.4		5		90				<0.2		2.7	
					Bottom	7.1	0.3	134	27.9	27.9	7.9	7.9	28.4	28.5	67.4	67.6	4.5	4.5	11.9		14		95				<0.2		1.3	
						7.1	0.3	144	27.9		7.9		28.5		67.8		4.5		12.9		16		97				<0.2		1.4	
IM8	Cloudy	Moderate	15:58	8.2	Surface	1.0	0.3	162	26.9	26.9	8.0	8.0	16.6	16.6	88.2	88.1	6.4	5.8	3.5	6.2	3	3	83	89	821692	807829	<0.2	<0.2	2.7	2.3
						1.0	0.4	163	26.9		8.0		16.6		88.0		6.4		3.5		4		83				<0.2		2.5	
					Middle	4.1	0.3	91	26.3	26.3	7.9	7.9	21.8	21.8	72.1	72.1	5.2		6.4		3		90				<0.2		2.3	
						4.1	0.3	94	26.3		7.9		21.7		72.0		5.1		6.5		2		91				<0.2		2.3	
					Bottom	7.2	0.3	164	26.0	26.0	8.0	8.0	27.4	27.4	71.7	71.8	5.0	5.0	8.5		4		92				<0.2		2.0	
						7.2	0.3	176	26.0		8.0		27.4		71.8		5.0		8.6		4		92				<0.2		2.0	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 08 September 16 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
IM9	Cloudy	Moderate	16:06	7.5	Surface	1.0	0.3	139	27.0	27.0	7.9	7.9	17.0	17.1	84.1	84.1	6.1	5.6	3.3	6.9	3	5	83	88	822080	808828	<0.2	<0.2	2.8	2.4
						1.0	0.4	143	27.0		7.9		17.1		84.1		6.1		3.3		4		83				<0.2		2.9	
					Middle	3.8	0.3	184	26.4	26.4	7.9	7.9	22.4	22.4	70.8	70.8	5.0		6.8		5		89				<0.2		2.3	
						3.8	0.4	201	26.4		7.9		22.3		70.8		5.0		6.9		5		91				<0.2		2.5	
					Bottom	6.5	0.3	140	26.2	26.2	7.9	7.9	23.7	23.7	71.7	71.7	5.1	5.1	10.5		6		90				<0.2		1.9	
						6.5	0.4	140	26.2		7.9		23.7		71.7		5.1		10.5		4		91				<0.2		1.9	
IM10	Cloudy	Moderate	16:13	6.7	Surface	1.0	0.4	136	26.9	26.9	7.8	7.8	18.4	18.4	81.2	81.3	5.9	5.8	2.8	3.1	3	3	83	88	822236	809827	<0.2	<0.2	3.8	2.9
						1.0	0.4	139	26.9		7.8		18.4		81.3		5.9		2.8		3		83				<0.2		3.6	
					Middle	3.4	0.3	152	26.4	26.4	7.9	7.9	20.5	20.5	77.6	77.6	5.6		3.0		4		90				<0.2		2.9	
						3.4	0.3	164	26.4		7.9		20.5		77.5		5.6		3.0		2		88				<0.2		2.7	
					Bottom	5.7	0.3	137	26.3	26.3	7.9	7.9	22.5	22.5	77.5	77.5	5.5	5.5	3.3		3		92				<0.2		2.2	
						5.7	0.3	149	26.3		7.9		22.5		77.5		5.5		3.4		3		92				<0.2		2.4	
IM11	Cloudy	Moderate	16:19	8.0	Surface	1.0	0.3	144	27.1	27.1	7.9	7.9	16.5	16.5	85.0	85.0	6.2	5.9	2.9	4.1	2	2	85	89	821488	810552	<0.2	<0.2	3.6	3.1
						1.0	0.4	154	27.1		7.9		16.5		84.9		6.2		2.9		3		84				<0.2		3.7	
					Middle	4.0	0.4	153	26.5	26.5	7.9	7.9	20.6	20.6	78.8	78.7	5.6		3.0		2		89				<0.2		3.3	
						4.0	0.4	161	26.5		7.9		20.6		78.6		5.6		3.1		<2		90				<0.2		3.2	
					Bottom	7.0	0.3	130	26.1	26.1	7.8	7.8	23.8	23.8	71.3	71.3	5.1	5.1	6.4		2		91				<0.2		2.4	
						7.0	0.3	139	26.1		7.8		23.8		71.3		5.1		6.4		2		93				<0.2		2.3	
IM12	Cloudy	Moderate	16:26	8.6	Surface	1.0	0.4	116	27.1	27.1	8.0	8.0	16.2	16.2	85.5	85.5	6.2	5.5	2.9	5.6	2	2	86	90	821143	811525	<0.2	<0.2	3.4	2.9
						1.0	0.5	121	27.1		8.0		16.2		85.5		6.2		2.9		<2		85				<0.2		3.4	
					Middle	4.3	0.3	131	26.1	26.1	7.9	7.9	24.0	24.0	67.7	67.7	4.8		4.2		<2		91				<0.2		2.8	
						4.3	0.3	135	26.1		7.9		24.0		67.7		4.8		4.1		2		90				<0.2		2.9	
					Bottom	7.6	0.3	152	25.9	25.9	7.9	7.9	25.8	25.8	62.0	62.1	4.4	4.4	9.7		2		93				<0.2		2.1	
						7.6	0.3	157	25.9		7.9		25.8		62.1		4.4		9.7		2		92				<0.2		2.5	
SR2	Cloudy	Moderate	16:51	4.4	Surface	1.0	0.3	126	27.2	27.2	7.9	7.9	16.2	16.2	89.0	89.0	6.5	6.5	2.5	2.5	2	2	84	87	821468	814181	<0.2	<0.2	3.5	3.1
						1.0	0.3	126	27.2		7.9		16.1		88.9		6.5		2.5		<2		83				<0.2		3.5	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	120	26.7	26.7	7.9	7.9	20.1	20.1	88.3	88.4	6.3	6.3	2.4		2		90				<0.2		2.7	
						3.4	0.3	127	26.7		7.9		20.1		88.4		6.3		2.4		3		91				<0.2		2.7	
SR3	Cloudy	Moderate	15:52	9.1	Surface	1.0	0.3	177	27.0	27.0	8.0	8.0	16.0	16.0	90.1	90.0	6.6	6.0	3.4	5.1	2	3	-	-	822129	807563	-	-	-	-
						1.0	0.4	187	27.0		8.0		16.0		89.9		6.6		3.4		3		-				-		-	
					Middle	4.6	0.3	107	26.4	26.4	7.9	7.9	21.0	21.0	73.8	73.8	5.3		4.9		3		-				-		-	
						4.6	0.4	114	26.4		7.9		21.0		73.8		5.3		4.9		3		-				-		-	
					Bottom	8.1	0.3	123	26.1	26.1	8.0	8.0	26.5	26.5	70.6	70.6	4.9	4.9	6.9		3		-				-		-	
						8.1	0.4	125	26.1		8.0		26.5		70.6		4.9		6.9		3		-				-		-	
SR4A	Cloudy	Moderate	16:59	7.8	Surface	1.0	0.3	172	28.4	28.4	7.8	7.8	20.5	20.6	84.0	83.9	5.8	5.3	9.1	19.4	11	22	-	-	817195	807804	-	-	-	-
						1.0	0.3	178	28.4		7.8		20.7		83.7		5.8		9.2		10		-				-		-	
					Middle	3.9	0.4	80	28.0	28.0	7.9	7.9	26.1	26.1	70.3	70.3	4.8		24.0		28		-				-		-	
						3.9	0.5	85	28.0		7.9		26.1		70.2		4.8		24.3		28		-				-		-	
					Bottom	6.8	0.3	105	27.9	27.9	7.9	7.9	28.5	28.5	69.8	70.2	4.7	4.7	25.1		26		-				-		-	
						6.8	0.3	109	27.9		7.9		28.5		70.6		4.7		24.5		28		-				-		-	
SR5A	Cloudy	Moderate	17:17	4.4	Surface	1.0	0.1	176	29.0	29.0	7.8	7.8	20.9	20.9	90.9	90.9	6.2	6.2	4.1	5.1	6	7	-	-	816603	810699	-	-	-	-
						1.0	0.1	181	29.0		7.8		20.9		90.9		6.2		4.1		5		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	166	28.4	28.4	7.8	7.8	22.8	22.8	84.0	84.0	5.8	5.8	6.1		7		-				-		-	
						3.4	0.2	178	28.4		7.8		22.8		84.0		5.8		6.0		8		-				-		-	
SR6	Cloudy	Moderate	17:43	4.2	Surface	1.0	0.1	92	28.2	28.2	7.7	7.7	21.5	21.5	75.1	75.1	5.2	5.2	8.9	12.2	18	19	-	-	817886	814649	-	-	-	-
						1.0	0.2	94	28.2		7.7		21.5		75.1		5.2		8.8		19		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	125	28.0	28.0	7.7	7.7	22.2	22.2	77.0	77.3	5.3	5.4	14.6		20		-				-		-	
						3.2	0.1	131	28.0		7.7		22.2		77.5		5.4		16.6		20		-				-		-	
SR7	Cloudy	Moderate	17:38	17.6	Surface	1.0	0.2	180	26.2	26.2	7.9	7.9	23.6	23.6	78.6	78.6	5.6	5.2	1.5	2.6	3	4	-	-	823643	823740	-	-	-	-
						1.0	0.2	194	26.2		7.9		23.6		78.5		5.6		1.5		4		-				-		-	
					Middle	8.8	0.3	77	25.9	25.9	7.9	7.9	25.5	25.5	68.7	68.7	4.8		2.7		3		-				-		-	
						8.8	0.3	79	25.9		7.9		25.5		68.6		4.8		2.7		3		-				-		-	
					Bottom	16.6	0.4	150	25.5	25.5	7.9	7.9	28.5	28.5	68.2	68.2	4.8	4.8	3.5		5		-				-		-	
						16.6	0.4	150	25.5		7.9		28.5		68.2		4.8		3.5		7		-				-		-	
SR8	Cloudy	Moderate	16:36	5.0	Surface	1.0	0.3	208	26.9	26.9	7.9	7.9	18.5	18.5	82.8	82.7	6.0	6.0	6.0	10.8	4	5	-	-	820416	811573	-	-	-	-
						1.0	0.3	210	26.9		7.9		18.5		82.5		5.9		6.1		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.3	215	26.2	26.2	7.8	7.8	23.6	23.6	71.0	71.1	5.0	5.0	15.4		5		-				-		-	
						4.0	0.3	224	26.2		7.8		23.6		71.1		5.0		15.5		5		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 September 16 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 (mg/L)		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
C1	Rainy	Moderate	15:02	8.2	Surface	1.0	0.3	140	28.1	28.1	7.8	7.8	12.1	12.1	89.5	89.5	6.5	5.9	1.1	4.5	4	8	76	85	815631	804259	<0.2	<0.2	3.6	2.3
						1.0	0.3	141	28.1		7.8		12.1		89.4		6.5		1.2		3		75				<0.2		3.3	
					Middle	4.1	0.3	134	28.3	28.3	7.7	7.7	20.3	20.3	74.4	74.5	5.2		1.3		3		80				<0.2		2.5	
						4.1	0.3	142	28.3		7.7		20.3		74.6		5.2		1.3		2		77				<0.2		3.0	
					Bottom	7.2	0.3	147	27.7	27.7	8.0	8.0	31.6	31.6	70.9	71.0	4.7	4.7	11.2		18		99				<0.2		0.7	
						7.2	0.3	147	27.7		8.0		31.6		71.0		4.7		11.0		18		101				<0.2		0.7	
C2	Rainy	Moderate	13:26	11.7	Surface	1.0	0.7	176	26.8	26.8	7.7	7.7	14.0	14.0	76.4	76.4	5.7	5.2	4.8	4.0	5	5	80	88	825681	806954	<0.2	<0.2	3.6	3.6
						1.0	0.8	179	26.8		7.7		14.0		76.4		5.7		4.8		4		81				<0.2		4.0	
					Middle	5.9	0.4	174	26.4	26.4	7.8	7.8	19.5	19.5	63.7	63.7	4.6		4.0		4		90				<0.2		3.0	
						5.9	0.4	180	26.4		7.8		19.5		63.7		4.6		4.0		6		91				<0.2		3.2	
					Bottom	10.7	0.3	186	26.0	26.0	7.8	7.8	25.6	25.6	57.2	57.2	4.0	4.0	3.1		4		91				<0.2		4.0	
						10.7	0.3	202	26.0		7.8		25.6		57.2		4.0		3.1		5		92				<0.2		4.0	
C3	Cloudy	Calm	15:35	12.6	Surface	1.0	0.3	245	26.0	26.0	8.0	8.0	18.3	18.3	75.1	75.1	5.5	5.2	2.2	2.6	2	3	84	89	822122	817803	<0.2	<0.2	3.1	2.9
						1.0	0.4	255	26.0		8.0		18.3		75.1		5.5		2.2		3		84				<0.2		3.0	
					Middle	6.3	0.2	216	25.9	25.9	7.9	7.9	22.4	22.4	67.2	67.2	4.8		2.6		3		89				<0.2		3.0	
						6.3	0.2	235	25.9		7.9		22.4		67.2		4.8		2.6		4		90				<0.2		2.9	
					Bottom	11.6	0.3	95	25.5	25.5	8.0	8.0	29.2	29.2	69.0	69.0	4.8	4.8	3.1		3		93				<0.2		2.7	
						11.6	0.3	96	25.5		8.0		29.2		69.0		4.8		3.1		3		92				<0.2		2.7	
IM1	Rainy	Moderate	14:38	7.1	Surface	1.0	0.6	240	28.0	28.0	7.8	7.8	12.5	12.5	91.1	91.1	6.6	6.5	2.8	6.8	4	10	74	80	818335	806456	<0.2	<0.2	3.9	2.9
						1.0	0.7	260	28.0		7.8		12.5		91.0		6.6		2.8		3		74				<0.2		3.7	
					Middle	3.6	0.5	274	28.0	28.0	7.8	7.8	13.9	13.9	88.4	88.4	6.4		3.3		6		70				<0.2		3.8	
						3.6	0.5	297	28.0		7.8		13.9		88.4		6.4		3.4		6		73				<0.2		3.4	
					Bottom	6.1	0.4	187	27.8	27.8	8.0	8.0	28.2	28.7	69.2	69.3	4.6	4.6	14.3		20		92				<0.2		1.2	
						6.1	0.4	197	27.7		8.0		29.1		69.3		4.6		14.3		19		96				<0.2		1.3	
IM2	Rainy	Moderate	14:25	7.9	Surface	1.0	0.5	266	28.0	28.0	7.8	7.8	13.3	13.3	89.7	89.7	6.5	6.3	2.3	4.5	4	7	73	79	818867	806190	<0.2	<0.2	3.3	2.4
						1.0	0.6	276	28.0		7.8		13.3		89.7		6.5		2.5		3		74				<0.2		3.5	
					Middle	4.0	0.5	257	28.0	28.0	7.9	7.9	14.3	14.3	85.4	85.0	6.2		3.0		4		73				<0.2		3.2	
						4.0	0.5	262	28.0		7.9		14.3		84.6		6.1		3.2		4		74				<0.2		2.9	
					Bottom	6.9	0.4	156	27.7	27.7	8.0	8.0	30.9	31.0	69.1	69.5	4.6	4.6	8.2		13		90				<0.2		0.7	
						6.9	0.4	170	27.7		8.0		31.1		69.9		4.6		8.0		15		90				<0.2		0.7	
IM3	Rainy	Moderate	14:12	8.2	Surface	1.0	0.3	279	28.1	28.1	7.8	7.8	11.7	11.7	89.8	89.8	6.6	6.0	1.5	6.4	3	5	69	79	819417	806015	<0.2	<0.2	3.9	2.7
						1.0	0.3	292	28.1		7.8		11.7		89.7		6.6		1.4		4		65				<0.2		3.8	
					Middle	4.1	0.2	273	28.4	28.4	7.7	7.7	17.0	17.0	75.1	75.1	5.3		2.6		4		74				<0.2		3.3	
						4.1	0.2	276	28.4		7.7		17.0		75.1		5.3		2.8		3		75				<0.2		3.2	
					Bottom	7.2	0.1	163	27.7	27.7	7.9	7.9	31.3	31.3	66.6	66.7	4.4	4.4	15.1		8		97				<0.2		1.0	
						7.2	0.2	168	27.7		7.9		31.3		66.7		4.4		15.1		8		96				<0.2		1.0	
IM4	Rainy	Moderate	13:57	7.8	Surface	1.0	0.3	256	28.4	28.4	7.8	7.8	9.3	9.5	86.4	86.2	6.4	5.7	1.9	5.7	3	8	64	79	819564	805020	<0.2	<0.2	4.2	2.9
						1.0	0.4	262	28.4		7.8		9.7		86.0		6.3		1.8		3		63				<0.2		4.2	
					Middle	3.9	0.4	281	28.6	28.6	7.7	7.7	16.3	16.3	71.6	71.6	5.1		2.6		3		74				<0.2		3.6	
						3.9	0.4	299	28.6		7.7		16.3		71.6		5.1		2.6		2		74				<0.2		3.7	
					Bottom	6.8	0.3	174	27.7	27.7	8.0	8.0	31.7	31.7	67.7	68.0	4.5	4.5	12.5		17		101				<0.2		0.8	
						6.8	0.3	179	27.7		8.0		31.7		68.2		4.5		12.5		18		98				<0.2		0.8	
IM5	Rainy	Moderate	13:43	6.3	Surface	1.0	0.3	184	28.4	28.4	7.7	7.7	7.6	7.6	83.5	83.4	6.2	5.5	2.2	4.4	4	4	58	73	820581	804923	<0.2	<0.2	4.0	3.5
						1.0	0.4	194	28.4		7.7		7.6		83.3		6.2		2.2		4		60				<0.2		4.0	
					Middle	3.2	0.4	275	28.5	28.5	7.6	7.6	18.3	18.3	68.2	68.2	4.8		1.5		4		76				<0.2		3.6	
						3.2	0.4	299	28.5		7.6		18.3		68.2		4.8		1.6		3		75				<0.2		3.4	
					Bottom	5.3	0.3	215	27.9	27.9	7.8	7.8	25.5	24.8	62.1	62.2	4.2	4.3	9.3		3		83				<0.2		3.1	
						5.3	0.3	234	27.9		7.8		24.1		62.2		4.3		9.5		4		84				<0.2		3.0	
IM6	Rainy	Moderate	13:28	6.4	Surface	1.0	0.4	176	28.3	28.3	7.7	7.7	10.0	10.0	85.9	85.9	6.3	5.8	1.7	4.3	3	3	64	76	821065	805818	<0.2	<0.2	3.9	3.4
						1.0	0.4	183	28.3		7.7		10.0		85.8		6.3		1.8		3		65				<0.2		4.1	
					Middle	3.2	0.4	263	28.4	28.4	7.7	7.7	15.2	15.2	74.8	74.8	5.3		3.1		3		76				<0.2		3.7	
						3.2	0.5	273	28.4		7.7		15.1		74.7		5.3		3.2		2		76				<0.2		3.7	
					Bottom	5.4	0.3	248	27.9	27.9	7.8	7.8	26.9	26.9	63.4	64.5	4.3	4.4	8.0		3		88				<0.2		2.7	
						5.4	0.3	262	27.9		7.8		26.8		65.5		4.4		7.9		2		86				<0.2		2.5	
IM7	Rainy	Moderate	13:13	7.7	Surface	1.0	0.3	219	28.2	28.2	7.7	7.7	17.2	17.2	76.5	76.5	5.4	4.9	1.1	1.8	2	4	78	83	821331	806834	<0.2	<0.2	3.4	2.6
						1.0	0.3	238	28.2		7.7		17.2		76.5		5.4		1.1		<2		75				<0.2		3.2	
					Middle	3.9	0.3	248	28.3	28.3	7.7	7.7	22.0	22.0	62.2	62.2	4.3		1.5		4		87				<0.2		2.9	
						3.9	0.3	256	28.3		7.7		22.0		62.2		4.3		1.6		4		83				<0.2		2.8	
					Bottom	6.7	0.2	208	28.0	28.0	7.8	7.8	26.8	26.8	66.2	66.3	4.5	4.5	2.7		8		90				<0.2		1.8	
						6.7	0.3	218	28.0		7.8		26.7		66.3		4.5		2.8		6		87				<0.2		1.7	
IM8	Rainy	Moderate	14:18	8.1	Surface	1.0	0.6	194	26.5	26.5	7.8	7.8	14.0	14.0	80.6	80.6	6.0	5.4	4.0	5.4	2	4	82	88	821706	807848	<0.2	<0.2	4.1	3.6
						1.0	0.6	207	26.5		7.8		14.0		80.5		6.0		3.9		2		83				<0.2		4.0	
					Middle	4.1	0.3	244	26.4	26.4	7.8	7.8	19.6	19.6	65.9	65.9	4.8		5.5		5		90				<0.2		3.0	
						4.1	0.3	244	26.4		7.8		19.6		65.9		4.8		5.6		4		89				<0.2		3.0	
					Bottom	7.1	0.3	217	26.3	26.3	7.8	7.8	22.7	22.7	68.2	68.2	4.9	4.9	6.7		4		92				<0.2		3.4	
						7.1	0.3	225	26.3		7.8		22.7		68.2		4.9		6.7		4		92				<0.2		3.8	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

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Water Quality Monitoring
Water Quality Monitoring Results on 10 September 16 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
IM9	Rainy	Moderate	14:27	6.9	Surface	1.0	0.5	170	26.4	26.4	7.9	7.9	10.4	10.4	75.9	75.9	5.8	5.3	4.4	4.7	3	4	82	88	822076	808829	<0.2	<0.2	3.9	3.5
						1.0	0.5	173	26.4		7.9		10.4		75.9		5.8		4.4		4		83				<0.2		3.8	
					Middle	3.5	0.3	178	26.5	26.5	7.8	7.8	19.6	19.6	66.9	66.8	4.8		4.8		3		89				<0.2		3.9	
						3.5	0.3	187	26.5		7.8		19.6		66.7		4.8		4.8		4		89				<0.2		4.0	
					Bottom	5.9	0.3	177	26.1	26.1	7.9	7.9	26.3	26.3	68.2	68.2	4.8	4.8	4.9		4		91				<0.2		2.6	
						5.9	0.4	178	26.1		7.9		26.3		68.2		4.8		4.9		3		92				<0.2		2.7	
IM10	Rainy	Moderate	14:35	7.0	Surface	1.0	0.4	142	26.5	26.5	7.8	7.8	13.0	13.0	77.6	77.5	5.8	5.3	4.2	5.3	4	4	83	89	822258	809830	<0.2	<0.2	4.2	3.8
						1.0	0.5	144	26.5		7.8		13.0		77.3		5.8		4.3		3		85				<0.2		4.2	
					Middle	3.5	0.3	139	26.5	26.5	7.8	7.8	17.3	17.3	66.2	66.2	4.8		5.0		3		88				<0.2		4.1	
						3.5	0.4	151	26.5		7.8		17.3		66.2		4.8		5.0		3		90				<0.2		4.1	
					Bottom	6.0	0.3	171	26.0	26.0	7.9	7.9	25.5	25.5	64.3	64.3	4.5	4.5	6.7		4		92				<0.2		3.2	
						6.0	0.3	176	26.0		7.9		25.5		64.3		4.5		6.7		6		93				<0.2		3.2	
IM11	Rainy	Moderate	14:43	8.5	Surface	1.0	0.5	144	26.3	26.3	7.9	7.9	10.7	10.7	80.3	80.3	6.1	5.4	4.2	5.1	3	4	83	89	821519	810559	<0.2	<0.2	4.0	3.7
						1.0	0.5	144	26.3		7.9		10.7		80.3		6.1		4.2		4		83				<0.2		4.3	
					Middle	4.3	0.4	129	26.3	26.3	7.9	7.9	19.1	19.1	65.4	65.3	4.7		5.0		4		90				<0.2		3.8	
						4.3	0.4	132	26.2		7.9		19.1		65.2		4.7		5.1		4		90				<0.2		3.5	
					Bottom	7.5	0.3	134	26.0	26.0	7.9	7.9	24.9	24.9	65.9	66.0	4.7	4.7	5.9		3		92				<0.2		3.3	
						7.5	0.3	135	26.0		7.9		24.8		66.0		4.7		5.9		4		93				<0.2		3.5	
IM12	Rainy	Moderate	14:51	8.6	Surface	1.0	0.4	121	26.4	26.4	7.9	7.9	11.7	11.8	84.1	84.1	6.4	5.7	3.6	3.9	3	3	81	88	821177	811500	<0.2	<0.2	4.2	3.4
						1.0	0.4	126	26.4		7.9		11.8		84.0		6.3		3.6		2		83				<0.2		4.0	
					Middle	4.3	0.4	122	26.4	26.4	7.9	7.9	17.5	17.5	70.2	70.2	5.1		3.6		3		90				<0.2		3.2	
						4.3	0.4	130	26.4		7.9		17.5		70.2		5.1		3.6		3		89				<0.2		3.1	
					Bottom	7.6	0.3	115	26.0	26.0	7.9	7.9	23.2	23.2	66.6	66.6	4.7	4.7	4.4		4		94				<0.2		2.9	
						7.6	0.4	117	26.0		7.9		23.2		66.6		4.7		4.4		3		92				<0.2		2.9	
SR2	Cloudy	Moderate	15:13	4.7	Surface	1.0	0.3	150	26.2	26.2	7.9	7.9	12.6	12.7	88.9	88.8	6.7	6.7	3.7	4.7	2	3	83	86	821449	814182	<0.2	<0.2	3.6	3.6
						1.0	0.3	161	26.2		7.9		12.7		88.7		6.7		3.7		3		83				<0.2		3.7	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	132	26.2	26.2	7.9	7.9	19.3	19.3	82.8	82.8	6.0	6.0	5.6		3		90				<0.2		3.5	
						3.7	0.2	132	26.2		7.9		19.3		82.8		6.0		5.6		2		88				<0.2		3.5	
SR3	Rainy	Moderate	14:12	8.7	Surface	1.0	0.8	181	26.4	26.4	7.8	7.8	11.8	11.8	77.6	77.6	5.9	5.4	3.9	4.6	<2	2	-	-	822137	807570	-	-	-	-
						1.0	0.8	195	26.4		7.8		11.8		77.6		5.9		3.9		2		-				-		-	
					Middle	4.4	0.3	206	26.4	26.4	7.8	7.8	18.7	18.7	65.5	65.5	4.8		4.5		3		-				-		-	
						4.4	0.3	216	26.4		7.8		18.7		65.5		4.8		4.5		2		-				-		-	
					Bottom	7.7	0.3	206	26.0	26.0	7.8	7.8	26.8	26.8	70.6	70.6	4.9	4.9	5.5		2		-				-		-	
						7.7	0.3	219	26.0		7.8		26.8		70.6		4.9		5.5		3		-				-		-	
SR4A	Rainy	Calm	15:33	8.7	Surface	1.0	0.3	168	27.9	27.9	7.8	7.8	13.8	13.8	89.8	89.7	6.5	6.3	5.6	7.2	8	10	-	-	817183	807804	-	-	-	-
						1.0	0.3	169	27.9		7.8		13.8		89.6		6.5		5.5		8		-				-		-	
					Middle	4.4	0.2	191	27.9	27.9	7.8	7.8	16.4	16.4	85.6	85.6	6.1		6.2		11		-				-		-	
						4.4	0.2	198	27.9		7.8		16.4		85.5		6.1		6.2		9		-				-		-	
					Bottom	7.7	0.4	251	27.8	27.8	7.9	7.9	28.9	29.0	67.2	67.9	4.5	4.6	10.0		11		-				-		-	
						7.7	0.5	262	27.8		7.9		29.0		68.6		4.6		9.4		10		-				-		-	
SR5A	Rainy	Calm	15:58	4.2	Surface	1.0	0.2	308	27.7	27.7	7.8	7.8	16.3	16.3	87.0	87.0	6.3	6.3	5.3	6.7	8	8	-	-	816595	810677	-	-	-	-
						1.0	0.2	330	27.7		7.8		16.3		86.9		6.3		5.1		7		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.2	287	28.1	28.1	7.8	7.8	21.3	21.3	77.9	78.0	5.4	5.4	8.2		8		-				-		-	
						3.2	0.2	291	28.1		7.8		21.3		78.1		5.4		8.1		10		-				-		-	
SR6	Rainy	Calm	16:29	4.0	Surface	1.0	0.1	159	27.9	27.9	7.8	7.8	17.3	17.3	86.8	86.8	6.2	6.2	4.7	4.7	8	9	-	-	817892	814645	-	-	-	-
						1.0	0.1	164	27.9		7.8		17.3		86.8		6.2		4.7		9		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.2	138	28.0	28.0	7.8	7.8	18.3	18.3	87.3	87.4	6.2	6.2	4.7		8		-				-		-	
						3.0	0.2	145	28.0		7.8		18.3		87.4		6.2		4.8		9		-				-		-	
SR7	Cloudy	Calm	16:07	18.9	Surface	1.0	0.3	95	26.0	26.0	7.9	7.9	20.5	20.5	76.9	76.9	5.6	5.1	1.7	4.1	4	3	-	-	823632	823739	-	-	-	-
						1.0	0.3	102	26.0		7.9		20.5		76.8		5.6		1.7		4		-				-		-	
					Middle	9.5	0.3	90	25.7	25.8	7.9	7.9	26.6	26.6	65.4	65.4	4.6		2.4		3		-				-		-	
						9.5	0.3	92	25.8		7.9		26.6		65.4		4.6		2.4		2		-				-		-	
					Bottom	17.9	0.6	136	25.1	25.1	8.0	8.0	31.5	31.5	64.4	64.4	4.5	4.5	8.3		3		-				-		-	
						17.9	0.6	145	25.1		8.0		31.5		64.4		4.5		8.3		3		-				-		-	
SR8	Rainy	Moderate	14:57	5.2	Surface	1.0	0.4	270	26.3	26.3	7.9	7.9	11.9	11.9	88.2	88.1	6.7	6.7	4.6	6.0	4	4	-	-	820408	811604	-	-	-	-
						1.0	0.4	290	26.3		7.9		11.9		88.0		6.6		4.6		2		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.4	283	26.6	26.6	7.8	7.8	17.6	17.6	84.0	84.1	6.1	6.1	7.3		5		-				-		-	
						4.2	0.4	310	26.6		7.8		17.6		84.1		6.1		7.4		4		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 September 16 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
C1	Rainy	Moderate	06:39	8.0	Surface	1.0	0.4	189	28.0	28.0	7.8	7.8	10.8	10.8	87.2	87.2	6.4	5.9	1.0	1.4	6	27	68	79	815625	804247	<0.2	<0.2	3.4	2.4
						1.0	0.4	206	28.0		7.8		10.8		87.1		6.4		1.0		5		65				<0.2		3.3	
					Middle	4.0	0.5	198	28.4	28.4	7.7	7.7	16.8	16.8	75.2	75.0	5.3		1.0		4		80				<0.2		2.9	
						4.0	0.5	199	28.4		7.7		16.7		74.7		5.3		1.0		6		77				<0.2		3.0	
					Bottom	7.0	0.5	223	28.0	28.0	7.9	7.9	27.4	27.4	71.4	71.9	4.8	4.9	2.2		68		92				<0.2		0.9	
						7.0	0.5	242	28.0		7.9		27.4		72.4		4.9		2.4		72		94				<0.2		1.1	
C2	Rainy	Moderate	08:13	10.4	Surface	1.0	0.3	161	26.7	26.7	7.7	7.7	11.9	11.9	73.9	73.8	5.5	5.1	4.3	3.9	3	4	85	89	825690	806949	<0.2	<0.2	3.0	2.3
						1.0	0.3	171	26.7		7.7		11.9		73.7		5.5		4.3		5		83				<0.2		2.7	
					Middle	5.2	0.2	220	26.3	26.3	7.8	7.8	20.4	20.4	63.8	63.8	4.6		3.7		4		90				<0.2		2.4	
						5.2	0.2	224	26.3		7.8		20.4		63.8		4.6		3.7		4		90				<0.2		2.3	
					Bottom	9.4	0.3	211	26.1	26.1	7.8	7.8	25.0	25.0	66.6	66.6	4.7	4.7	3.6		4		93				<0.2		1.8	
						9.4	0.3	230	26.1		7.8		25.0		66.6		4.7		3.6		4		92				<0.2		1.6	
C3	Cloudy	Calm	06:07	13.5	Surface	1.0	0.2	223	26.2	26.2	7.9	7.9	17.2	17.2	70.9	70.9	5.2	5.0	2.8	3.7	<2	3	81	88	822103	817785	<0.2	0	3.0	2.5
						1.0	0.2	228	26.2		7.9		17.2		70.9		5.2		2.8		2		83				<0.2		3.1	
					Middle	6.8	0.3	222	25.9	25.9	7.9	7.9	24.4	24.4	68.1	68.1	4.8		3.5		3		89				<0.2		2.3	
						6.8	0.3	228	25.9		7.9		24.4		68.0		4.8		3.5		5		89				<0.2		2.3	
					Bottom	12.5	0.4	284	25.9	25.9	7.9	7.9	25.4	25.4	70.4	70.4	5.0	5.0	4.9		5		92				<0.2		2.0	
						12.5	0.4	292	25.9		7.9		25.4		70.4		5.0		4.9		3		91				0.4		2.1	
IM1	Rainy	Moderate	07:04	6.7	Surface	1.0	0.3	229	28.1	28.1	7.8	7.8	15.4	15.4	81.7	81.6	5.9	5.7	1.3	2.0	2	7	79	92	818351	806440	<0.2	<0.2	3.1	1.8
						1.0	0.3	251	28.1		7.8		15.4		81.5		5.8		1.2		4		79				<0.2		2.8	
					Middle	3.4	0.2	197	28.1	28.1	7.8	7.8	21.2	20.7	78.2	78.2	5.4		1.2		6		94				<0.2		1.6	
						3.4	0.2	215	28.1		7.8		20.1		78.2		5.5		1.2		8		93				<0.2		1.6	
					Bottom	5.7	0.2	183	27.7	27.7	8.0	8.0	31.5	31.5	72.6	73.0	4.8	4.8	3.5		12		105				<0.2		0.8	
						5.7	0.2	190	27.7		8.0		31.5		73.3		4.8		3.8		10		104				<0.2		0.8	
IM2	Rainy	Moderate	07:10	7.5	Surface	1.0	0.8	229	28.2	28.2	7.8	7.8	12.9	12.9	85.2	85.1	6.2	5.3	1.1	2.3	3	4	76	83	818868	806212	<0.2	<0.2	3.2	2.7
						1.0	0.9	248	28.1		7.8		12.8		85.0		6.2		1.2		3		75				<0.2		3.3	
					Middle	3.8	0.5	213	28.0	28.0	7.8	7.8	25.8	26.0	64.4	64.5	4.4		1.8		3		78				<0.2		3.4	
						3.8	0.5	222	28.0		7.8		26.2		64.5		4.4		1.9		3		76				<0.2		3.3	
					Bottom	6.5	0.3	219	27.7	27.7	8.0	8.0	31.2	31.2	72.3	72.4	4.8	4.8	4.0		5		99				<0.2		1.7	
						6.5	0.3	230	27.7		8.0		31.2		72.5		4.8		4.0		4		96				<0.2		1.2	
IM3	Rainy	Moderate	07:19	7.8	Surface	1.0	0.8	238	28.3	28.3	7.8	7.8	11.8	11.8	83.9	83.8	6.1	5.6	1.0	2.4	<2	6	74	85	819395	806034	<0.2	<0.2	3.7	2.5
						1.0	0.9	240	28.3		7.8		11.7		83.7		6.1		1.1		2		74				<0.2		3.4	
					Middle	3.9	0.6	231	28.3	28.3	7.8	7.8	19.6	19.6	71.8	71.8	5.0		1.1		4		83				<0.2		3.3	
						3.9	0.6	243	28.3		7.8		19.6		71.7		5.0		1.1		3		82				<0.2		3.0	
					Bottom	6.8	0.3	211	27.8	27.8	7.9	7.9	30.5	30.5	67.9	68.0	4.5	4.5	5.2		12		98				<0.2		0.7	
						6.8	0.3	228	27.8		7.9		30.5		68.0		4.5		5.1		10		101				<0.2		0.8	
IM4	Rainy	Moderate	07:27	7.4	Surface	1.0	0.4	221	28.2	28.2	7.8	7.8	11.8	11.9	81.7	81.6	6.0	5.6	1.2	2.2	2	4	77	90	819562	805040	<0.2	<0.2	3.7	2.7
						1.0	0.4	230	28.2		7.8		12.0		81.4		5.9		1.1		3		75				<0.2		4.0	
					Middle	3.7	0.4	222	28.4	28.4	7.7	7.7	18.9	19.0	74.2	74.1	5.2		1.0		3		100				<0.2		2.7	
						3.7	0.5	238	28.4		7.7		19.0		74.0		5.2		1.1		5		98				<0.2		2.8	
					Bottom	6.4	0.3	206	27.8	27.8	7.9	7.9	29.6	29.6	65.7	65.8	4.4	4.4	4.5		7		92				<0.2		1.4	
						6.4	0.3	218	27.8		7.9		29.6		65.9		4.4		4.5		5		97				<0.2		1.4	
IM5	Rainy	Moderate	07:36	6.3	Surface	1.0	0.4	195	28.3	28.3	7.8	7.8	10.7	10.7	80.9	80.8	5.9	5.4	1.3	3.3	3	3	71	79	820555	804928	<0.2	<0.2	3.8	3.4
						1.0	0.4	198	28.3		7.8		10.7		80.6		5.9		1.3		3		68				<0.2		3.8	
					Middle	3.2	0.4	235	28.4	28.4	7.7	7.7	19.3	19.3	68.4	68.4	4.8		2.2		3		83				<0.2		3.5	
						3.2	0.4	235	28.4		7.7		19.3		68.3		4.8		2.1		2		82				<0.2		3.3	
					Bottom	5.3	0.3	234	27.9	27.9	7.8	7.8	28.3	28.3	62.6	62.8	4.2	4.2	6.6		3		84				<0.2		2.6	
						5.3	0.3	252	27.9		7.8		28.3		62.9		4.2		6.5		4		85				<0.2		3.1	
IM6	Rainy	Moderate	07:44	6.3	Surface	1.0	0.2	166	28.4	28.4	7.7	7.7	15.6	15.6	77.1	77.1	5.5	5.2	1.7	1.5	3	3	73	83	821044	805820	<0.2	<0.2	3.9	2.9
						1.0	0.2	177	28.4		7.7		15.5		77.0		5.5		1.8		2		71				<0.2		3.8	
					Middle	3.2	0.2	230	28.3	28.3	7.7	7.7	18.9	18.9	69.9	69.9	4.9		0.9		2		83				<0.2		3.0	
						3.2	0.3	240	28.3		7.7		18.9		69.8		4.9		1.0		2		80				<0.2		2.9	
					Bottom	5.3	0.2	254	28.0	28.0	7.8	7.8	26.5	26.6	60.9	61.0	4.1	4.1	1.9		3		94				<0.2		1.8	
						5.3	0.2	260	28.0		7.8		26.6		61.1		4.1		1.9		3		96				<0.2		2.1	
IM7	Rainy	Moderate	07:52	7.7	Surface	1.0	0.3	207	28.4	28.4	7.7	7.7	13.4	13.4	80.7	80.6	5.8	5.1	1.5	1.9	2	3	74	82	821337	806818	<0.2	<0.2	3.6	2.7
						1.0	0.4	219	28.4		7.7		13.3		80.5		5.8		1.6		<2		72				<0.2		3.8	
					Middle	3.9	0.3	210	28.2	28.2	7.7	7.7	22.4	22.4	63.1	63.1	4.3		1.9		3		83				<0.2		2.6	
						3.9	0.3	228	28.2		7.7		22.4		63.1		4.3		1.8		3		82				<0.2		2.3	
					Bottom	6.7	0.3	146	27.9	27.9	7.9	7.9	28.4	28.4	64.8	64.9	4.3	4.3	2.4		3		90				<0.2		2.2	
						6.7	0.3	158	27.9		7.9		28.4		64.9		4.3		2.3		2		90				<0.2		1.9	
IM8	Rainy	Moderate	07:32	8.0	Surface	1.0	0.4	194	26.5	26.5	7.9	7.9	10.9	10.9	71.5	71.5	5.4	5.1	3.5	3.5	2	######	84	89	821691	807837	<0.2	<0.2	4.0	3.2
						1.0	0.5	204	26.5		7.9		10.9		71.5		5.4		3.5		<2		83				<0.2		4.0	
					Middle	4.0	0.3	228	26.3	26.3	7.9	7.9	19.4	19.4	65.8	65.8	4.8		3.4		2		90				<0.2		3.2	
						4.0	0.3	233	26.2		7.9		19.4		65.7		4.8		3.4		3		89				<0.2		3.3	
					Bottom	7.0	0.3	123	26.0	26.0	7.9	7.9	26.9	26.9	68.1	68.1	4.7	4.7	3.7		3		92				<0.2		2.3	
						7.0	0.3	126	26.0		7.9		26.9		68.1		4.7		3.7		3		93				<0.2		2.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 September 16 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
IM9	Rainy	Moderate	07:23	6.6	Surface	1.0	0.3	161	26.7	26.7	7.8	7.8	15.8	15.8	72.5	72.4	5.3	5.0	3.7	3.2	2	3	83	88	822113	808820	<0.2	<0.2	4.1	3.1
						1.0	0.3	167	26.7		7.8		15.8		72.3		5.3		3.6		<2		82				<0.2		3.9	
					Middle	3.3	0.2	156	26.3	26.3	7.9	7.9	23.0	23.0	66.9	66.9	4.7		2.9		2		90				<0.2		2.9	
						3.3	0.2	161	26.3		7.9		22.9		66.9		4.7		2.9		4		89				<0.2		3.0	
					Bottom	5.6	0.3	208	26.1	26.1	7.9	7.9	25.5	25.5	68.2	68.2	4.8	4.8	3.0		3		91				<0.2		2.4	
						5.6	0.3	223	26.1		7.9		25.5		68.2		4.8		3.0		3		90				<0.2		2.4	
IM10	Rainy	Moderate	07:15	7.7	Surface	1.0	0.4	153	26.5	26.5	7.8	7.8	18.2	18.2	71.7	71.7	5.2	5.0	3.2	3.7	3	3	85	89	822258	809857	<0.2	<0.2	3.9	3.1
						1.0	0.4	165	26.5		7.8		18.1		71.6		5.2		3.2		3		86				<0.2		3.8	
					Middle	3.9	0.4	182	26.2	26.2	7.9	7.9	23.4	23.4	66.2	66.2	4.7		3.3		2		89				<0.2		3.0	
						3.9	0.4	193	26.2		7.9		23.3		66.2		4.7		3.3		4		90				<0.2		3.2	
					Bottom	6.7	0.5	237	26.0	26.0	7.9	7.9	26.7	26.7	68.2	68.2	4.8	4.8	4.5		3		92				<0.2		2.4	
						6.7	0.5	252	26.0		7.9		26.7		68.2		4.8		4.5		2		92				<0.2		2.1	
IM11	Rainy	Moderate	07:06	7.7	Surface	1.0	0.3	140	26.5	26.5	7.9	7.9	18.1	18.2	74.1	74.1	5.4	5.3	2.9	3.1	3	3	86	89	821512	810531	<0.2	<0.2	3.8	3.1
						1.0	0.3	147	26.5		7.9		18.2		74.1		5.4		2.9		2		86				<0.2		3.5	
					Middle	3.9	0.3	240	26.4	26.4	7.9	7.9	19.5	19.5	71.3	71.3	5.2		2.9		3		89				<0.2		2.8	
						3.9	0.3	251	26.4		7.9		19.5		71.2		5.1		2.8		2		91				<0.2		2.8	
					Bottom	6.7	0.3	161	26.1	26.1	7.9	7.9	25.5	25.5	70.4	70.6	4.9	5.0	3.4		3		92				<0.2		2.8	
						6.7	0.3	171	26.1		7.9		25.5		70.7		5.0		3.4		4		92				<0.2		2.8	
IM12	Rainy	Moderate	06:59	8.3	Surface	1.0	0.4	132	26.3	26.3	7.9	7.9	12.9	12.9	77.5	77.5	5.8	5.5	3.2	3.2	3	3	85	89	821165	811521	<0.2	<0.2	3.2	3.1
						1.0	0.4	138	26.3		7.9		12.9		77.5		5.8		3.2		2		83				<0.2		3.3	
					Middle	4.2	0.4	252	26.3	26.3	7.9	7.9	18.5	18.5	71.0	71.0	5.2		3.1		2		89				<0.2		3.2	
						4.2	0.4	276	26.3		7.9		18.5		70.9		5.2		3.1		3		90				<0.2		3.0	
					Bottom	7.3	0.3	197	26.2	26.2	7.9	7.9	23.6	23.6	71.8	71.9	5.1	5.1	3.2		4		92				<0.2		3.0	
						7.3	0.3	197	26.2		7.9		23.5		71.9		5.1		3.2		3		93				<0.2		3.1	
SR2	Cloudy	Calm	06:36	4.1	Surface	1.0	0.2	169	26.3	26.3	7.9	7.9	19.2	19.2	78.6	78.6	5.7	5.7	11.3	11.4	2	5	83	87	821462	814169	<0.2	<0.2	3.6	3.3
						1.0	0.2	182	26.3		7.9		19.2		78.6		5.7		11.3		3		82				<0.2		3.6	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.2	249	26.3	26.3	7.9	7.9	21.6	21.6	81.2	81.2	5.8	5.8	11.5		6		91				<0.2		3.0	
						3.1	0.2	263	26.3		7.9		21.6		81.2		5.8		11.5		8		91				<0.2		3.0	
SR3	Rainy	Moderate	07:37	8.7	Surface	1.0	0.5	156	26.8	26.8	7.8	7.8	11.7	11.7	71.1	71.1	5.3	5.1	3.4	3.7	2	3	-	-	822151	807576	-	-	-	-
						1.0	0.5	156	26.8		7.8		11.7		71.1		5.3		3.4		2		-				-		-	
					Middle	4.4	0.3	183	26.5	26.5	7.8	7.8	19.7	19.8	67.0	67.0	4.8		3.1		2		-				-		-	
						4.4	0.3	191	26.5		7.8		19.8		66.9		4.8		3.1		<2		-				-		-	
					Bottom	7.7	0.3	129	25.9	25.9	7.9	7.9	28.1	28.1	64.6	64.7	4.5	4.5	4.7		4		-				-		-	
						7.7	0.4	135	25.9		7.9		28.1		64.8		4.5		4.7		6		-				-		-	
SR4A	Rainy	Calm	06:17	8.6	Surface	1.0	0.6	224	28.1	28.1	7.8	7.8	18.0	18.1	75.3	75.2	5.3	5.0	4.1	5.9	3	8	-	-	817180	807792	-	-	-	-
						1.0	0.6	243	28.1		7.8		18.2		75.1		5.3		4.2		4		-				-		-	
					Middle	4.3	0.6	210	27.8	27.8	8.0	8.0	30.5	30.5	69.8	69.8	4.6		6.4		6		-				-		-	
						4.3	0.6	226	27.8		8.0		30.5		69.8		4.6		6.5		8		-				-		-	
					Bottom	7.6	0.6	185	27.7	27.7	8.0	8.0	31.7	31.7	71.4	71.8	4.7	4.8	6.9		12		-				-		-	
						7.6	0.6	192	27.7		8.0		31.7		72.1		4.8		7.1		14		-				-		-	
SR5A	Rainy	Calm	05:59	3.7	Surface	1.0	0.2	281	27.8	27.8	7.8	7.8	17.0	17.0	81.7	81.7	5.8	5.8	3.4	3.8	6	6	-	-	816594	810704	-	-	-	-
						1.0	0.2	296	27.8		7.8		17.0		81.6		5.8		3.3		6		-				-		-	
					Middle	1.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	299	28.1	28.1	7.8	7.8	21.7	21.7	82.3	82.8	5.7	5.8	4.3		5		-				-		-	
						2.7	0.2	311	28.1		7.8		21.6		83.2		5.8		4.2		5		-				-		-	
SR6	Rainy	Calm	05:36	3.9	Surface	1.0	0.1	171	28.3	28.3	7.7	7.7	18.3	18.3	76.0	76.0	5.3	5.3	1.6	2.1	5	7	-	-	817905	814679	-	-	-	-
						1.0	0.1	179	28.3		7.7		18.3		75.9		5.3		1.7		4		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	0.2	190	28.5	28.5	7.7	7.7	20.4	20.4	73.7	73.6	5.1	5.1	2.5		8		-				-		-	
						2.9	0.2	199	28.5		7.7		20.4		73.4		5.1		2.4		9		-				-		-	
SR7	Cloudy	Calm	05:26	17.9	Surface	1.0	0.2	171	26.3	26.3	7.9	7.9	17.6	17.6	80.9	80.8	5.9	5.5	1.5	2.0	3	3	-	-	823646	823747	-	-	-	-
						1.0	0.2	174	26.3		7.9		17.6		80.7		5.9		1.5		2		-				-		-	
					Middle	9.0	0.3	143	26.2	26.2	7.9	7.9	20.9	20.9	70.4	70.3	5.1		1.9		4		-				-		-	
						9.0	0.3	145	26.2		7.9		20.9		70.2		5.1		1.9		3		-				-		-	
					Bottom	16.9	0.3	145	25.4	25.4	7.9	7.9	29.3	29.4	67.1	67.2	4.7	4.7	2.5		3		-				-		-	
						16.9	0.3	153	25.4		7.9		29.4		67.2		4.7		2.5		4		-				-		-	
SR8	Cloudy	Moderate	06:52	5.2	Surface	1.0	0.2	214	26.5	26.5	7.9	7.9	17.3	17.3	84.1	84.2	6.1	6.1	3.5	4.2	<2	3	-	-	820420	811611	-	-	-	-
						1.0	0.2	225	26.5		7.9		17.3		84.2		6.1		3.6		<2		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	184	26.5	26.5	7.8	7.8	19.2	19.2	89.2	89.2	6.4	6.4	4.8		4		-				-		-	
						4.2	0.2	195	26.5		7.8		19.2		89.2		6.4		4.8		3		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 13 September 16 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 (mg/L)		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
C1	Cloudy	Moderate	17:19	8.8	Surface	1.0	0.6	192	29.9	29.9	8.1	8.1	19.1	19.1	107.1	106.9	7.3	6.8	3.0	6.1	4	6	73	83	815630	804239	<0.2	<0.2	3.5	2.8
						1.0	0.6	198	29.9		8.1		19.1		106.6		7.3		3.0		5		76				<0.2		3.5	
					Middle	4.4	0.5	214	28.8	28.8	8.0	8.0	22.8	22.8	91.8	91.3	6.2		2.8		6		82				<0.2		2.9	
						4.4	0.6	220	28.8		8.0		22.8		90.7		6.2		3.0		7		86				<0.2		2.9	
					Bottom	7.8	0.6	216	28.1	28.1	8.0	8.0	28.6	29.2	66.4	66.6	4.4	4.4	11.8		7		92				<0.2		1.9	
						7.8	0.6	236	28.0		7.9		29.7		66.7		4.4		12.7		6		91				<0.2		1.8	
C2	Cloudy	Moderate	16:07	10.2	Surface	1.0	0.4	73	27.2	27.2	7.9	7.9	19.6	19.6	77.9	77.9	5.5	5.1	4.2	4.4	6	7	82	88	825673	806941	<0.2	<0.2	5.5	4.0
						1.0	0.4	76	27.2		7.9		19.6		77.9		5.5		4.2		6		81				<0.2		5.4	
					Middle	5.1	0.2	96	26.7	26.7	7.9	7.9	25.5	25.5	67.6	67.6	4.7		3.3		6		89				<0.2		4.1	
						5.1	0.3	96	26.7		7.9		25.5		67.6		4.7		3.3		6		89				<0.2		4.3	
					Bottom	9.2	0.3	115	26.0	26.0	7.9	7.9	29.4	29.4	58.2	58.2	4.0	4.0	5.8		8		93				<0.2		2.4	
						9.2	0.3	122	26.0		7.9		29.4		58.2		4.0		5.8		8		92				<0.2		2.4	
C3	Cloudy	Calm	18:09	12.1	Surface	1.0	1.1	167	27.0	27.0	8.1	8.1	24.7	24.7	94.4	93.7	6.6	5.2	1.8	2.7	4	4	83	89	822103	817810	<0.2	<0.2	2.5	1.9
						1.0	1.2	168	26.9		8.1		24.7		92.9		6.5		1.9		5		84				<0.2		2.1	
					Middle	6.1	0.5	168	25.7	25.8	8.0	8.0	30.3	30.2	55.9	55.9	3.8		3.1		3		91				<0.2		2.0	
						6.1	0.5	181	25.8		8.0		30.1		55.8		3.8		3.0		4		92				<0.2		2.1	
					Bottom	11.1	0.4	150	25.4	25.4	7.9	7.9	31.5	31.5	59.3	60.1	4.1	4.2	3.2		4		93				<0.2		1.4	
						11.1	0.4	163	25.4		7.9		31.5		60.9		4.2		3.1		4		93				<0.2		1.4	
IM1	Cloudy	Moderate	16:55	6.8	Surface	1.0	0.6	180	29.3	29.3	8.1	8.1	21.8	21.8	104.3	103.9	7.1	6.7	3.2	5.8	8	7	70	79	818370	806462	<0.2	<0.2	2.6	2.4
						1.0	0.6	197	29.3		8.1		21.8		103.4		7.0		3.3		7		73				<0.2		2.7	
					Middle	3.4	0.5	171	29.1	29.1	8.0	8.0	23.8	23.9	94.2	93.8	6.3		5.4		7		78				<0.2		2.6	
						3.4	0.5	185	29.1		8.0		23.9		93.4		6.3		5.5		7		79				<0.2		2.7	
					Bottom	5.8	0.3	206	28.6	28.7	8.0	8.0	26.2	26.1	89.8	90.7	6.0	6.1	8.8		8		86				<0.2		2.0	
						5.8	0.3	206	28.8		8.0		26.0		91.6		6.1		8.6		7		87				<0.2		1.8	
IM2	Cloudy	Moderate	16:47	7.3	Surface	1.0	0.6	193	29.0	29.1	8.0	8.0	21.2	21.2	98.4	98.0	6.7	6.2	2.8	4.9	6	8	73	79	818839	806212	<0.2	<0.2	3.6	2.6
						1.0	0.6	194	29.1		8.0		21.1		97.6		6.7		2.8		6		71				<0.2		3.3	
					Middle	3.7	0.5	186	28.6	28.6	8.0	8.0	24.7	24.8	84.9	84.8	5.7		3.8		8		78				<0.2		2.6	
						3.7	0.5	187	28.6		8.0		24.8		84.7		5.7		3.9		8		80				<0.2		2.4	
					Bottom	6.3	0.3	197	28.2	28.2	7.9	7.9	27.4	27.5	68.1	68.2	4.6	4.6	7.9		8		85				<0.2		2.0	
						6.3	0.3	211	28.2		7.9		27.5		68.2		4.6		8.1		9		85				<0.2		1.9	
IM3	Cloudy	Moderate	16:38	7.5	Surface	1.0	0.5	208	28.9	28.9	7.9	7.9	21.0	21.0	90.1	90.1	6.2	5.9	5.9	10.2	8	15	71	80	819402	806021	<0.2	<0.2	3.1	2.6
						1.0	0.5	209	28.9		7.9		21.0		90.1		6.2		6.0		7		73				<0.2		2.9	
					Middle	3.8	0.5	186	28.7	28.7	7.9	7.9	22.6	22.6	81.3	80.9	5.5		9.5		15		83				<0.2		3.0	
						3.8	0.5	203	28.7		7.9		22.6		80.4		5.5		9.5		16		79				<0.2		2.8	
					Bottom	6.5	0.5	200	28.2	28.2	7.9	7.9	27.3	27.4	69.1	69.6	4.6	4.7	14.9		23		85				<0.2		2.0	
						6.5	0.5	206	28.2		7.9		27.4		70.1		4.7		15.2		22		86				<0.2		1.8	
IM4	Cloudy	Moderate	16:31	7.6	Surface	1.0	0.5	213	28.7	28.7	7.8	7.8	22.7	22.7	78.7	78.7	5.4	5.3	3.7	5.3	6	7	73	80	819563	805055	<0.2	<0.2	2.9	2.8
						1.0	0.6	213	28.7		7.8		22.7		78.7		5.4		3.8		5		74				<0.2		3.0	
					Middle	3.8	0.5	206	28.6	28.6	7.8	7.8	22.9	22.9	75.1	75.1	5.1		5.2		7		80				<0.2		2.6	
						3.8	0.5	214	28.6		7.8		22.9		75.0		5.1		5.2		7		80				<0.2		2.8	
					Bottom	6.6	0.4	198	28.4	28.4	7.8	7.8	25.3	25.2	70.0	70.3	4.7	4.8	7.0		8		85				<0.2		2.7	
						6.6	0.5	202	28.4		7.8		25.1		70.5		4.8		7.0		8		86				<0.2		2.6	
IM5	Cloudy	Moderate	16:21	6.6	Surface	1.0	0.6	204	29.3	29.3	8.0	8.0	20.6	20.6	97.4	96.8	6.7	5.9	2.0	4.4	5	7	70	77	820557	804930	<0.2	<0.2	3.3	2.6
						1.0	0.6	214	29.3		8.0		20.6		96.1		6.6		2.1		6		73				<0.2		3.6	
					Middle	3.3	0.5	196	28.6	28.6	7.9	7.9	24.3	24.3	75.3	75.3	5.1		2.8		5		75				<0.2		3.0	
						3.3	0.5	214	28.6		7.9		24.3		75.3		5.1		2.9		5		78				<0.2		2.6	
					Bottom	5.6	0.5	188	28.0	28.1	7.9	7.9	28.3	28.3	61.0	61.4	4.1	4.1	7.8		11		83				<0.2		1.4	
						5.6	0.5	191	28.1		7.8		28.2		61.8		4.1		8.8		11		84				<0.2		1.5	
IM6	Cloudy	Moderate	16:13	6.5	Surface	1.0	0.5	190	29.0	29.1	7.9	7.9	22.4	22.4	86.3	85.8	5.9	5.3	3.4	4.4	6	7	69	77	821045	805812	<0.2	<0.2	2.7	2.1
						1.0	0.6	199	29.1		7.9		22.3		85.2		5.8		3.2		7		71				<0.2		2.6	
					Middle	3.3	0.5	197	28.3	28.3	7.8	7.8	27.1	27.1	71.9	72.1	4.8		3.4		6		76				<0.2		1.7	
						3.3	0.5	216	28.3		7.8		27.1		72.3		4.8		3.2		7		77				<0.2		2.0	
					Bottom	5.5	0.3	205	28.0	28.0	7.8	7.8	27.9	27.9	63.2	64.0	4.2	4.3	6.6		9		84				<0.2		1.5	
						5.5	0.4	206	28.0		7.8		27.9		64.7		4.3		6.8		7		86				<0.2		1.8	
IM7	Cloudy	Moderate	16:05	7.9	Surface	1.0	0.5	227	28.6	28.8	7.8	7.9	23.8	23.8	81.0	82.0	5.5	5.2	2.2	4.9	6	7	69	76	821333	806850	<0.2	<0.2	2.5	2.2
						1.0	0.5	232	28.9		7.9		23.7		82.9		5.6		2.1		6		70				<0.2		2.6	
					Middle	4.0	0.4	220	28.3	28.3	7.8	7.8	25.3	25.3	72.2	72.4	4.9		4.0		6		76				<0.2		2.2	
						4.0	0.4	221	28.3		7.8		25.3		72.5		4.9		4.0		6		76				<0.2		2.0	
					Bottom	6.9	0.4	219	28.0	28.1	7.8	7.8	28.2	28.2	61.9	62.5	4.1	4.2	9.1		8		81				<0.2		1.8	
						6.9	0.4	231	28.1		7.8		28.2		63.0		4.2		8.2		8		83				<0.2		2.0	
IM8	Cloudy	Moderate	16:44	7.7	Surface	1.0	0.3	148	27.2	27.2	8.0	8.0	21.1	21.1	92.0	92.0	6.5	5.5	2.7	3.4	4	3	83	88	821684	807826	<0.2	<0.2	3.7	3.2
						1.0	0.3	157	27.2		8.0		21.1		91.9		6.5		2.7		3		85				<0.2		3.8	
					Middle	3.9	0.5	177	26.5	26.5	7.9	7.9	25.8	25.8	64.7	64.7	4.5		3.4		2		89				<0.2		3.3	
						3.9	0.5	186	26.5		7.9		25.8		64.7		4.5		3.4		2		90				<0.2		3.4	
					Bottom	6.7	0.3	198	26.4	26.4	7.9	7.9	26.9	26.9	67.0	67.0	4.6	4.6	4.2		3		91				<0.2		2.4	
						6.7	0.3	202	26.4		7.9		26.9		67.0		4.6		4.2		4		91				<0.2		2.6	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 13 September 16 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
IM9	Cloudy	Moderate	16:53	7.0	Surface	1.0	0.4	142	27.3	27.3	8.1	8.1	20.9	20.9	95.4	95.3	6.7	6.0	3.4	14.4	4	5	85	90	822083	808801	<0.2	<0.2	4.4	3.2
						1.0	0.4	155	27.3		8.1		20.9		95.2		6.7		3.4		4		86				<0.2		4.2	
					Middle	3.5	0.5	161	26.8	26.8	8.0	8.0	24.7	24.7	76.8	76.7	5.4		5.9		5		90				<0.2		3.2	
						3.5	0.5	174	26.8		8.0		24.7		76.6		5.3		6.1		3		91				<0.2		2.9	
					Bottom	6.0	0.4	146	26.4	26.4	7.9	7.9	27.9	27.9	69.1	69.2	4.8	4.8	34.3		6		93				<0.2		2.0	
						6.0	0.4	148	26.4		7.9		27.9		69.3		4.8		33.2		5		93				<0.2		2.2	
IM10	Cloudy	Moderate	17:02	7.2	Surface	1.0	0.5	122	27.5	27.5	8.1	8.1	22.2	22.2	107.0	107.0	7.5	6.6	2.9	4.4	4	5	85	89	822248	809828	<0.2	<0.2	4.1	3.6
						1.0	0.6	126	27.5		8.1		22.1		106.9		7.5		2.9		4		86				<0.2		4.0	
					Middle	3.6	0.5	113	27.0	27.0	8.0	8.0	24.0	24.0	80.4	80.3	5.6		3.9		3		90				<0.2		3.2	
						3.6	0.6	122	27.0		8.0		24.0		80.1		5.6		3.9		4		89				<0.2		3.4	
					Bottom	6.2	0.4	124	26.6	26.6	8.0	8.0	25.7	25.7	70.3	70.3	4.9	4.9	6.3		7		93				<0.2		3.5	
						6.2	0.4	132	26.6		8.0		25.7		70.3		4.9		6.3		8		92				<0.2		3.1	
IM11	Cloudy	Moderate	17:11	8.1	Surface	1.0	0.5	108	27.6	27.6	8.2	8.2	21.2	21.2	113.1	113.0	7.9	7.3	3.1	6.0	3	4	84	88	821500	810533	<0.2	<0.2	2.6	2.6
						1.0	0.5	110	27.6		8.2		21.2		112.8		7.9		3.1		3		83				<0.2		2.7	
					Middle	4.1	0.5	88	27.0	27.0	8.1	8.1	24.3	24.5	95.7	95.7	6.7		4.4		3		89				<0.2		2.5	
						4.1	0.5	93	27.0		8.1		24.6		95.7		6.7		4.5		5		89				<0.2		2.7	
					Bottom	7.1	0.6	106	26.5	26.5	8.0	8.0	27.1	27.1	76.3	76.4	5.3	5.3	10.4		4		92				<0.2		2.6	
						7.1	0.6	107	26.5		8.0		27.1		76.4		5.3		10.2		4		91				<0.2		2.5	
IM12	Cloudy	Moderate	17:20	8.7	Surface	1.0	0.6	109	27.1	27.1	8.1	8.1	22.6	22.6	83.3	83.0	5.8	5.2	3.7	7.9	<2	3	84	89	821163	811528	<0.2	<0.2	2.6	2.1
						1.0	0.6	114	27.1		8.1		22.6		82.6		5.8		3.8		2		84				<0.2		2.4	
					Middle	4.4	0.5	87	26.3	26.4	8.0	8.0	26.8	26.8	66.1	66.1	4.6		6.8		4		90				<0.2		2.0	
						4.4	0.5	90	26.4		8.0		26.7		66.1		4.6		6.7		4		89				<0.2		1.8	
					Bottom	7.7	0.4	94	25.7	25.7	8.0	8.0	30.7	30.7	55.3	55.4	4.1	4.0	13.3		4		93				<0.2		1.7	
						7.7	0.5	101	25.7		8.0		30.7		55.5		3.8		13.3		4		91				<0.2		1.9	
SR2	Cloudy	Moderate	17:43	5.2	Surface	1.0	0.4	93	27.0	27.0	8.1	8.1	24.5	24.5	92.6	92.4	6.4	6.4	4.3	4.9	4	5	84	88	821464	814158	<0.2	<0.2	2.1	1.9
						1.0	0.5	100	27.0		8.0		24.5		92.1		6.4		4.3		4		85				<0.2		1.7	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	114	26.8	26.7	8.0	8.0	25.4	25.6	84.4	84.4	5.9	5.9	5.4		5		91				<0.2		1.9	
						4.2	0.3	123	26.6		8.0		25.8		84.4		5.9		5.5		5		91				<0.2		1.8	
SR3	Cloudy	Moderate	16:38	8.4	Surface	1.0	0.6	182	27.8	27.8	8.1	8.1	17.0	17.0	108.3	108.2	7.7	6.2	5.0	3.9	6	5	-	-	822130	807571	-	-	-	-
						1.0	0.7	195	27.8		8.1		17.0		108.0		7.7		4.9		6		-				-		-	
					Middle	4.2	0.5	180	26.5	26.5	7.9	7.9	26.2	26.2	66.7	66.8	4.6		3.1		4		-				-		-	
						4.2	0.5	189	26.5		7.9		26.2		66.8		4.6		3.1		5		-				-		-	
					Bottom	7.4	0.2	197	26.1	26.1	7.9	7.9	28.2	28.2	62.6	62.6	4.3	4.3	3.6		4		-				-		-	
						7.4	0.3	203	26.1		7.9		28.2		62.6		4.3		3.6		4		-				-		-	
SR4A	Cloudy	Moderate	17:39	7.9	Surface	1.0	0.4	107	29.0	29.0	7.9	7.9	23.7	23.7	85.6	85.4	5.8	5.6	5.5	8.8	9	11	-	-	817193	807812	-	-	-	-
						1.0	0.4	114	29.0		7.9		23.7		85.2		5.8		5.4		10		-				-		-	
					Middle	4.0	0.5	97	28.8	28.8	7.9	7.9	24.4	24.4	79.3	79.0	5.3		7.8		10		-				-		-	
						4.0	0.5	101	28.8		7.9		24.3		78.6		5.3		8.0		10		-				-		-	
					Bottom	6.9	0.4	91	28.1	28.1	7.9	7.9	28.3	28.3	65.2	65.3	4.4	4.4	13.1		12		-				-		-	
						6.9	0.5	91	28.1		7.9		28.3		65.4		4.4		12.9		12		-				-		-	
SR5A	Cloudy	Moderate	17:57	5.3	Surface	1.0	0.1	127	28.8	28.8	7.9	7.9	24.5	24.5	77.1	77.9	5.2	5.3	8.9	10.8	13	17	-	-	816576	810693	-	-	-	-
						1.0	0.1	139	28.8		7.9		24.5		78.6		5.3		8.5		12		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	142	28.4	28.5	7.8	7.9	25.9	25.9	74.3	75.2	5.0	5.1	12.9		21		-				-		-	
						4.3	0.2	151	28.5		7.9		25.9		76.1		5.1		12.8		23		-				-		-	
SR6	Cloudy	Moderate	18:22	5.0	Surface	1.0	0.2	184	28.7	28.7	7.9	7.9	24.3	24.4	78.6	77.7	5.3	5.3	13.7	16.0	23	22	-	-	817890	814653	-	-	-	-
						1.0	0.2	185	28.7		7.9		24.4		76.7		5.2		14.7		21		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	207	28.2	28.3	7.8	7.8	26.7	26.7	67.2	69.6	4.5	4.7	17.4		22		-				-		-	
						4.0	0.2	226	28.3		7.8		26.7		71.9		4.8		18.1		20		-				-		-	
SR7	Cloudy	Calm	18:42	17.8	Surface	1.0	0.3	141	25.6	25.6	8.0	8.0	29.2	29.2	91.3	91.3	6.3	5.4	2.5	3.5	4	4	-	-	823644	823733	-	-	-	-
						1.0	0.3	148	25.6		8.0		29.2		91.3		6.3		2.5		4		-				-		-	
					Middle	8.9	0.2	178	25.5	25.5	7.9	7.9	30.2	30.2	63.5	63.5	4.4		3.8		4		-				-		-	
						8.9	0.2	193	25.5		7.9		30.2		63.5		4.4		3.7		5		-				-		-	
					Bottom	16.8	0.3	124	25.3	25.3	7.9	7.9	30.8	30.8	62.9	62.9	4.3	4.3	4.1		3		-				-		-	
						16.8	0.3	131	25.3		7.9		30.8		62.9		4.3		4.1		4		-				-		-	
SR8	Cloudy	Moderate	17:26	5.1	Surface	1.0	0.3	158	27.1	27.1	8.1	8.1	23.2	23.2	100.6	100.6	7.0	7.0	3.0	3.3	3	4	-	-	820424	811574	-	-	-	-
						1.0	0.3	161	27.1		8.1		23.2		100.6		7.0		3.2		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.3	213	27.0	27.0	8.1	8.1	23.7	23.7	100.6	100.6	7.0	7.0	3.4		4		-				-		-	
						4.1	0.3	231	27.0		8.1		23.6		100.6		7.0		3.4		4		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 13 September 16 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
C1	Cloudy	Moderate	09:38	8.7	Surface	1.0	0.3	163	28.9	28.9	8.0	8.0	21.0	21.0	90.5	89.8	6.2	5.7	1.1	4.2	4	6	71	80	815626	804266	<0.2	<0.2	3.2	2.1
						1.0	0.3	176	28.9		8.0		21.0		89.0		6.1		1.0		4		68				<0.2		2.7	
					Middle	4.4	0.3	117	28.6	28.6	8.0	8.0	23.9	23.8	77.7	77.0	5.3		3.0		4		73				<0.2		2.1	
						4.4	0.4	123	28.6		8.0		23.6		76.3		5.2		3.2		5		74				<0.2		2.1	
					Bottom	7.7	0.4	88	27.9	27.9	7.9	7.9	31.0	31.0	68.0	68.1	4.5	4.5	8.4		9		94				<0.2		1.3	
						7.7	0.5	91	27.9		7.9		31.0		68.1		4.5		8.5		8		97				<0.2		0.9	
C2	Cloudy	Moderate	11:30	12.3	Surface	1.0	0.4	255	26.9	26.9	8.0	8.0	20.4	20.4	76.7	76.5	5.5	5.0	2.2	2.5	3	4	82	88	825698	806964	<0.2	<0.2	3.8	2.6
						1.0	0.4	273	26.9		8.0		20.4		76.2		5.4		2.2		4		82				<0.2		3.6	
					Middle	6.2	0.4	272	26.8	26.8	7.9	7.9	21.9	22.2	64.5	64.3	4.6		2.4		3		90				<0.2		2.1	
						6.2	0.5	280	26.8		7.9		22.4		64.0		4.5		2.5		5		89				<0.2		2.0	
					Bottom	11.3	0.4	284	25.6	25.6	7.9	7.9	30.6	30.6	61.8	61.8	4.3	4.3	2.9		4		93				<0.2		2.0	
						11.3	0.4	311	25.6		7.9		30.6		61.8		4.3		2.9		4		92				<0.2		1.9	
C3	Cloudy	Calm	09:16	13.5	Surface	1.0	0.7	180	26.4	26.4	8.0	8.0	24.2	24.2	75.2	75.0	5.3	5.1	2.1	1.8	3	3	85	89	822113	817817	<0.2	<0.2	2.3	2.0
						1.0	0.8	181	26.4		8.0		24.2		74.8		5.3		2.1		3		86				<0.2		2.3	
					Middle	6.8	0.3	163	26.0	26.0	8.0	8.0	28.4	28.4	68.8	68.8	4.8		1.6		2		89				<0.2		2.0	
						6.8	0.3	172	26.0		8.0		28.4		68.8		4.8		1.6		3		90				<0.2		2.0	
					Bottom	12.5	0.3	176	25.3	25.3	7.9	7.9	31.6	31.6	65.0	65.1	4.5	4.5	1.7		3		93				<0.2		1.5	
						12.5	0.4	183	25.3		7.9		31.6		65.2		4.5		1.7		3		93				<0.2		1.7	
IM1	Cloudy	Moderate	10:05	7.2	Surface	1.0	0.2	260	28.7	28.7	8.0	8.0	23.1	23.2	86.7	86.6	5.9	5.5	1.6	3.6	3	5	73	80	818361	806443	<0.2	<0.2	2.6	1.8
						1.0	0.2	263	28.7		8.0		23.2		86.5		5.9		1.7		3		74				<0.2		2.6	
					Middle	3.6	0.3	236	28.1	28.1	8.0	8.0	29.0	29.0	75.1	75.0	5.0		3.8		4		76				<0.2		1.7	
						3.6	0.4	236	28.1		8.0		29.0		74.9		5.0		4.0		4		80				<0.2		1.6	
					Bottom	6.2	0.4	208	27.8	27.8	7.9	7.9	30.5	30.5	64.2	64.3	4.3	4.3	5.1		7		85				<0.2		1.1	
						6.2	0.4	213	27.8		7.9		30.5		64.4		4.3		5.2		7		89				<0.2		1.2	
IM2	Cloudy	Moderate	10:16	7.4	Surface	1.0	0.6	239	28.8	28.8	8.0	8.0	22.6	22.2	90.2	90.1	6.1	5.9	1.1	2.4	3	3	75	83	818853	806173	<0.2	<0.2	3.1	1.9
						1.0	0.6	257	28.8		8.0		21.8		90.0		6.2		1.2		3		78				<0.2		2.7	
					Middle	3.7	0.4	283	28.6	28.6	8.0	8.1	25.3	25.3	83.5	82.4	5.6		1.9		3		83				<0.2		1.6	
						3.7	0.4	288	28.6		8.1		25.3		81.2		5.5		2.0		3		83				<0.2		1.2	
					Bottom	6.4	0.4	171	28.0	28.0	7.9	7.9	29.3	29.3	69.3	69.4	4.6	4.6	3.9		4		87				<0.2		1.3	
						6.4	0.4	174	28.0		7.9		29.3		69.4		4.6		4.1		4		90				<0.2		1.3	
IM3	Cloudy	Moderate	10:25	7.1	Surface	1.0	0.7	254	28.6	28.6	7.9	8.0	21.4	21.5	91.3	91.2	6.3	6.1	0.9	1.9	2	4	73	80	819407	806000	<0.2	<0.2	2.8	2.1
						1.0	0.7	274	28.6		8.0		21.5		91.1		6.3		0.9		3		70				<0.2		3.0	
					Middle	3.6	0.5	256	28.6	28.6	8.0	8.0	26.4	26.3	88.0	87.6	5.9		1.4		3		80				<0.2		2.1	
						3.6	0.5	275	28.6		8.0		26.2		87.2		5.8		1.5		3		77				<0.2		1.9	
					Bottom	6.1	0.3	228	28.3	28.3	8.0	8.0	27.6	27.6	83.0	83.1	5.5	5.5	3.2		6		87				<0.2		1.3	
						6.1	0.4	242	28.3		8.0		27.6		83.1		5.5		3.4		5		90				<0.2		1.6	
IM4	Cloudy	Moderate	10:33	7.7	Surface	1.0	0.7	253	28.8	28.8	7.9	7.9	20.3	20.3	93.2	93.0	6.4	6.1	0.7	2.7	2	3	75	83	819582	805019	<0.2	<0.2	3.1	2.4
						1.0	0.7	267	28.8		7.9		20.3		92.7		6.4		0.7		3		78				<0.2		3.4	
					Middle	3.9	0.6	260	28.7	28.7	8.0	8.0	23.1	23.1	85.5	84.9	5.8		2.3		3		82				<0.2		2.4	
						3.9	0.6	262	28.7		8.0		23.0		84.3		5.7		2.2		4		83				<0.2		2.8	
					Bottom	6.7	0.5	238	27.9	27.9	7.9	7.9	29.7	29.8	66.7	67.3	4.4	4.5	5.3		2		87				<0.2		1.5	
						6.7	0.6	255	27.9		7.9		29.8		67.8		4.5		5.1		3		90				<0.2		1.4	
IM5	Cloudy	Moderate	10:42	6.4	Surface	1.0	0.2	257	28.7	28.8	7.9	7.9	21.8	21.7	84.6	84.4	5.8	5.5	0.5	3.7	3	6	68	75	820566	804908	<0.2	<0.2	3.0	2.2
						1.0	0.3	267	28.8		7.9		21.5		84.2		5.8		0.5		4		67				<0.2		3.2	
					Middle	3.2	0.5	277	28.4	28.5	8.0	8.0	27.3	27.2	77.5	77.1	5.2		1.5		3		72				<0.2		2.1	
						3.2	0.5	282	28.5		7.9		27.0		76.6		5.1		1.6		4		75				<0.2		2.0	
					Bottom	5.4	0.4	288	27.9	27.9	7.9	7.9	30.1	30.1	63.4	64.1	4.2	4.3	9.2		10		83				<0.2		1.4	
						5.4	0.4	307	27.9		7.9		30.1		64.7		4.3		9.0		10		87				<0.2		1.5	
IM6	Cloudy	Moderate	10:51	6.3	Surface	1.0	0.3	240	28.9	28.9	7.9	7.9	20.8	20.8	86.8	86.7	6.0	5.5	1.6	4.3	5	8	71	79	821046	805835	<0.2	<0.2	3.1	2.4
						1.0	0.3	252	28.9		7.9		20.8		86.5		5.9		1.8		4		73				<0.2		3.4	
					Middle	3.2	0.3	277	28.7	28.7	7.9	7.9	26.1	26.0	76.1	76.0	5.1		2.9		4		77				<0.2		2.5	
						3.2	0.3	281	28.7		7.9		25.8		75.9		5.1		3.0		3		80				<0.2		2.4	
					Bottom	5.3	0.3	276	28.0	28.0	7.9	7.9	29.3	29.4	66.8	67.7	4.4	4.5	8.1		14		84				<0.2		1.2	
						5.3	0.3	296	28.0		7.9		29.4		68.6		4.6		8.2		15		87				<0.2		1.5	
IM7	Cloudy	Moderate	11:01	7.8	Surface	1.0	0.5	235	28.9	28.9	7.9	7.9	21.7	21.7	88.7	88.5	6.1	5.5	1.5	2.3	4	4	75	82	821348	806819	<0.2	<0.2	2.0	2.2
						1.0	0.6	254	28.9		7.9		21.7		88.2		6.0		1.4		3		77				<0.2		2.4	
					Middle	3.9	0.4	257	28.5	28.5	7.9	7.9	24.5	24.5	73.3	73.3	5.0		0.8		3		81				<0.2		2.4	
						3.9	0.4	262	28.5		7.9		24.5		73.3		5.0		0.8		3		84				<0.2		2.2	
					Bottom	6.8	0.3	256	27.9	27.9	7.9	7.9	29.5	29.5	64.0	64.1	4.3	4.3	4.6		5		86				<0.2		1.9	
						6.8	0.4	271	27.9		7.9		29.5		64.2		4.3		4.7		4		89				<0.2		2.3	
IM8	Cloudy	Moderate	10:45	8.3	Surface	1.0	0.6	189	26.7	26.7	8.0	8.0	24.3	24.3	75.4	75.4	5.3	4.9	1.8	3.7	4	3	81	87	821707	807842	<0.2	<0.2	2.5	2.2
						1.0	0.6	190	26.7		8.0		24.3		75.3		5.3		1.8		2		83				<0.2		2.7	
					Middle	4.2	0.5	218	26.3	26.3	8.0	8.0	27.1	27.1	63.5	63.5	4.4		3.9		2		89				<0.2		2.5	
						4.2	0.5	226	26.3		8.0		27.1		63.5		4.4		4.0		3		88				<0.2		2.4	
					Bottom	7.3	0.4	222	26.0	26.0	8.0	8.0	30.1	30.1	66.6	66.6	4.6	4.6	5.2		5		92				<0.2		1.6	
						7.3	0.4	224	26.0		8.0		30.1		66.6		4.6		5.2		4		91				<0.2		1.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 13 September 16 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
IM9	Cloudy	Moderate	10:35	7.3	Surface	1.0	0.3	194	26.8	26.8	8.0	8.0	22.7	22.7	81.5	81.5	5.7	5.1	1.7	4.0	3	4	83	88	822093	808830	<0.2	<0.2	2.5	2.1
						1.0	0.3	204	26.8		8.0		22.7		81.5		5.7		1.7		4		83				<0.2		2.8	
					Middle	3.7	0.3	224	26.2	26.2	8.0	8.0	27.7	27.7	63.2	63.2	4.4		4.3		4		90				<0.2		2.1	
						3.7	0.3	242	26.2		8.0		27.7		63.2		4.4		4.4		4		89				<0.2		2.2	
					Bottom	6.3	0.4	232	26.0	26.0	8.0	8.0	30.5	30.5	67.6	67.6	4.6	4.6	6.0		3		93				<0.2		1.6	
						6.3	0.4	249	26.0		8.0		30.5		67.6		4.6		6.0		3		92				<0.2		1.6	
IM10	Cloudy	Moderate	10:26	7.7	Surface	1.0	0.4	229	26.7	26.7	8.0	8.0	22.4	22.4	83.1	83.1	5.9	5.3	2.1	5.1	2	3	84	88	822223	809831	<0.2	<0.2	2.8	2.3
						1.0	0.4	249	26.7		8.0		22.4		83.1		5.9		2.1		<2		82				<0.2		2.6	
					Middle	3.9	0.4	228	26.3	26.3	8.1	8.1	27.7	27.7	67.2	67.2	4.6		3.5		<2		90				<0.2		2.3	
						3.9	0.4	246	26.3		8.1		27.7		67.2		4.6		3.5		2		89				<0.2		2.3	
					Bottom	6.7	0.4	219	26.0	26.0	8.1	8.1	30.8	30.8	62.6	62.6	4.3	4.3	9.7		5		92				<0.2		1.6	
						6.7	0.4	239	26.0		8.1		30.8		62.6		4.3		9.7		4		93				<0.2		2.0	
IM11	Cloudy	Moderate	10:14	8.2	Surface	1.0	0.3	205	26.7	26.7	8.1	8.1	22.6	22.6	85.7	85.6	6.1	5.4	2.1	4.1	2	2	83	88	821483	810526	<0.2	<0.2	2.6	2.4
						1.0	0.3	225	26.7		8.1		22.6		85.4		6.0		2.2		2		85				<0.2		2.4	
					Middle	4.1	0.3	211	26.6	26.6	8.0	8.0	24.5	24.5	69.2	69.1	4.8		3.2		<2		89				<0.2		2.6	
						4.1	0.3	214	26.6		8.0		24.5		69.0		4.8		3.2		<2		90				<0.2		2.4	
					Bottom	7.2	0.4	241	26.0	26.0	8.0	8.0	29.6	29.6	59.1	59.1	4.1	4.1	6.9		2		92				<0.2		2.2	
						7.2	0.4	259	26.0		8.0		29.6		59.1		4.1		6.9		<2		91				<0.2		2.4	
IM12	Cloudy	Moderate	10:05	9.5	Surface	1.0	0.5	284	26.5	26.5	8.1	8.1	23.4	23.4	85.8	85.8	6.1	5.9	1.8	1.9	<2	2	85	89	821149	811508	<0.2	<0.2	2.5	2.4
						1.0	0.5	300	26.5		8.1		23.4		85.7		6.0		1.8		<2		83				<0.2		2.5	
					Middle	4.8	0.6	280	26.4	26.4	8.0	8.0	24.6	24.6	81.8	81.8	5.7		1.9		<2		89				<0.2		2.5	
						4.8	0.7	281	26.4		8.0		24.6		81.8		5.7		1.9		<2		90				<0.2		2.3	
					Bottom	8.5	0.4	257	26.3	26.3	8.0	8.0	25.6	25.6	83.0	83.0	5.8	5.8	2.0		3		93				<0.2		2.2	
						8.5	0.4	265	26.3		8.0		25.6		83.0		5.8		2.0		2		92				<0.2		2.2	
SR2	Cloudy	Calm	09:41	5.1	Surface	1.0	0.3	66	26.3	26.3	8.0	8.0	25.6	25.6	81.4	81.4	5.7	5.7	2.0	2.2	2	2	85	87	821474	814183	<0.2	<0.2	2.0	2.0
						1.0	0.4	72	26.3		8.0		25.6		81.4		5.7		2.0		2		83				<0.2		2.2	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.2	189	26.1	26.1	7.9	7.9	26.0	26.0	82.1	82.1	5.7	5.7	2.4		2		90				<0.2		1.9	
						4.1	0.2	196	26.1		7.9		26.0		82.1		5.7		2.4		2		91				<0.2		2.0	
SR3	Cloudy	Moderate	10:54	9.0	Surface	1.0	0.8	177	26.9	26.9	8.0	8.0	20.8	20.8	86.9	86.9	6.2	5.4	2.1	6.1	4	3	-	-	822147	807577	-	-	-	-
						1.0	0.8	190	26.9		8.0		20.8		86.9		6.2		2.1		4		-				-		-	
					Middle	4.5	0.4	200	26.4	26.4	8.0	8.0	26.1	26.1	66.2	66.2	4.6		3.8		2		-				-		-	
						4.5	0.5	216	26.4		8.0		26.0		66.1		4.6		3.9		2		-				-		-	
					Bottom	8.0	0.3	221	26.0	26.0	8.0	8.0	30.3	30.3	61.5	61.5	4.2	4.2	12.4		2		-				-		-	
						8.0	0.3	235	26.0		8.0		30.3		61.5		4.2		12.4		4		-				-		-	
SR4A	Cloudy	Moderate	09:18	8.4	Surface	1.0	0.3	242	28.4	28.4	7.9	7.9	24.1	24.1	78.2	77.9	5.3	5.2	1.4	4.5	4	10	-	-	817182	807820	-	-	-	-
						1.0	0.3	251	28.4		7.9		24.0		77.6		5.3		1.5		5		-				-		-	
					Middle	4.2	0.4	244	28.3	28.3	7.9	7.9	27.1	27.1	74.2	74.3	5.0		1.7		7		-				-		-	
						4.2	0.4	244	28.3		7.9		27.0		74.3		5.0		1.6		9		-				-		-	
					Bottom	7.4	0.2	250	27.9	27.9	7.9	7.9	29.9	29.9	64.4	65.2	4.3	4.4	10.6		18		-				-		-	
						7.4	0.2	261	27.9		7.9		29.9		65.9		4.4		10.3		18		-				-		-	
SR5A	Cloudy	Moderate	09:00	4.7	Surface	1.0	0.3	290	28.9	28.9	7.8	7.8	21.9	21.9	78.0	78.1	5.3	5.3	3.0	3.1	6	7	-	-	816577	810695	-	-	-	-
						1.0	0.3	315	28.9		7.8		21.8		78.1		5.3		3.1		6		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.3	300	28.5	28.5	7.8	7.8	24.1	24.1	75.5	75.6	5.1	5.1	3.0		8		-				-		-	
						3.7	0.3	318	28.5		7.8		24.0		75.6		5.1		3.1		6		-				-		-	
SR6	Cloudy	Moderate	08:39	4.3	Surface	1.0	0.3	177	28.5	28.5	7.8	7.8	22.2	22.2	73.1	73.1	5.0	5.0	2.0	2.2	4	4	-	-	817879	814643	-	-	-	-
						1.0	0.3	177	28.5		7.8		22.2		73.1		5.0		2.0		4		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.3	158	28.2	28.2	7.7	7.7	24.8	24.8	67.3	67.4	4.6	4.6	2.5		5		-				-		-	
						3.3	0.3	173	28.2		7.7		24.8		67.5		4.6		2.2		4		-				-		-	
SR7	Cloudy	Calm	08:39	17.6	Surface	1.0	0.2	164	26.0	26.0	8.0	8.0	27.3	27.3	89.7	89.9	6.2	5.4	6.1	3.6	<2	3	-	-	823640	823730	-	-	-	-
						1.0	0.2	176	26.0		8.0		27.2		90.1		6.3		6.1		<2		-				-		-	
					Middle	8.8	0.2	190	25.7	25.7	8.0	8.0	29.8	29.8	66.6	66.6	4.6		1.8		2		-				-		-	
						8.8	0.2	197	25.7		8.0		29.8		66.6		4.6		1.8		4		-				-		-	
					Bottom	16.6	0.2	139	24.2	24.2	7.9	7.9	35.0	35.0	58.4	58.4	4.0	4.0	3.0		3		-				-		-	
						16.6	0.2	143	24.2		7.9		35.0		58.4		4.0		3.0		3		-				-		-	
SR8	Cloudy	Calm	09:08	5.6	Surface	1.0	0.2	257.0	26.4	26.4	8.0	8.0	23.9	23.9	81.7	81.7	5.8	5.8	4.2	5.6	3	4	-	-	820412	811578	-	-	-	-
						1.0	0.2	266.0	26.4		8.0		23.9		81.6		5.7		4.2		4		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.2	265.0	26.2	26.2	7.9	7.9	27.0	27.0	79.8	79.8	5.5	5.5	7.0		4		-				-		-	
						4.6	0.2	285.0	26.2		7.9		27.0		79.8		5.5		7.0		3		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 15 September 16 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 (mg/L)		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
C1	Fine	Rough	18:11	8.9	Surface	1.0	1.0	217	28.8	28.8	8.0	8.0	24.3	24.3	92.0	91.9	6.2	5.9	14.5	15.5	21	23	71	80	815628	804237	<0.2	<0.2	1.4	1.4
						1.0	1.0	226	28.8		8.0		24.3		91.8		6.2		14.5		22		72				<0.2		1.6	
					Middle	4.5	0.9	221	28.5	28.5	7.9	7.9	25.7	25.7	83.0	82.9	5.6		17.0		22		78				<0.2		1.5	
						4.5	0.9	224	28.5		7.9		25.6		82.8		5.6		16.9		22		81				<0.2		1.4	
					Bottom	7.9	0.7	219	28.3	28.3	7.9	7.9	27.7	27.7	77.2	77.3	5.2	5.2	15.1		25		87				<0.2		1.2	
						7.9	0.7	230	28.3		7.9		27.7		77.3		5.2		15.1		26		90				<0.2		1.4	
C2	Cloudy	Moderate	17:00	11.2	Surface	1.0	1.3	132	27.1	27.1	8.0	8.0	19.4	19.4	89.5	89.5	6.4	6.0	3.4	6.8	3	4	81	88	825694	806946	<0.2	<0.2	2.2	2.3
						1.0	1.3	137	27.1		8.0		19.4		89.5		6.4		3.5		4		82				<0.2		1.9	
					Middle	5.6	0.7	132	26.5	26.5	8.0	8.0	22.5	22.5	78.1	78.1	5.5		7.2		3		89				<0.2		2.1	
						5.6	0.7	138	26.5		8.0		22.5		78.1		5.5		7.2		4		90				<0.2		2.0	
					Bottom	10.2	0.6	118	26.1	26.1	7.9	7.9	24.9	24.9	77.8	77.8	5.5	5.5	9.6		6		93				<0.2		2.7	
						10.2	0.7	124	26.1		7.9		24.9		77.8		5.5		9.6		5		92				<0.2		3.1	
C3	Cloudy	Moderate	18:48	12.5	Surface	1.0	1.3	177	26.7	26.7	8.2	8.2	24.3	24.3	89.5	89.3	6.3	5.6	8.0	8.6	8	10	82	89	822102	817793	<0.2	<0.2	1.5	1.2
						1.0	1.4	188	26.7		8.2		24.3		89.0		6.2		8.0		8		84				<0.2		1.3	
					Middle	6.3	1.0	175	25.8	25.8	8.0	8.0	27.2	27.2	71.8	71.8	5.0		9.0		11		90				<0.2		1.1	
						6.3	1.0	185	25.8		8.0		27.2		71.8		5.0		9.0		12		91				<0.2		1.2	
					Bottom	11.5	0.8	174	25.6	25.6	8.0	8.0	27.7	27.7	71.4	71.4	5.0	5.0	8.9		11		93				<0.2		0.8	
						11.5	0.8	183	25.6		8.0		27.7		71.4		5.0		8.9		12		93				<0.2		1.1	
IM1	Fine	Rough	17:51	6.9	Surface	1.0	0.9	195	28.8	28.8	8.0	8.0	24.2	24.2	90.7	90.6	6.1	5.8	12.5	15.2	17	20	73	80	818357	806453	<0.2	0.3	2.6	2.0
						1.0	0.9	203	28.8		8.0		24.1		90.4		6.1		12.9		16		75				<0.2		2.0	
					Middle	3.5	0.5	181	28.5	28.5	8.0	8.0	26.3	26.3	81.4	81.4	5.5		13.9		18		80				0.5		1.8	
						3.5	0.5	196	28.5		8.0		26.2		81.3		5.5		14.0		20		82				<0.2		1.9	
					Bottom	5.9	0.5	179	28.4	28.4	7.9	7.9	26.8	26.9	78.0	77.9	5.2	5.2	19.1		23		85				0.2		1.7	
						5.9	0.5	181	28.4		7.9		27.0		77.8		5.2		18.8		25		87				0.2		1.7	
IM2	Fine	Rough	17:43	7.4	Surface	1.0	1.1	221	28.9	28.9	7.9	7.9	21.8	21.8	96.5	96.5	6.6	6.6	10.2	15.2	28	34	73	78	818842	806174	0.3	0.3	2.7	3.1
						1.0	1.2	236	28.9		7.9		21.8		96.5		6.6		10.5		28		71				<0.2		2.4	
					Middle	3.7	0.9	215	28.9	28.9	7.9	7.9	21.9	21.9	96.4	96.4	6.6		13.9		37		78				0.6		3.8	
						3.7	1.0	221	28.9		7.9		21.9		96.4		6.6		12.4		37		77				<0.2		3.8	
					Bottom	6.4	0.6	190	28.9	28.9	7.9	7.9	21.9	21.9	96.4	96.5	6.6	6.6	22.3		37		85				<0.2		2.8	
						6.4	0.6	198	28.9		7.9		21.9		96.6		6.6		22.0		39		83				<0.2		3.0	
IM3	Fine	Rough	17:42	7.6	Surface	1.0	0.9	219	28.9	28.9	7.9	7.9	21.7	21.7	96.6	96.6	6.6	6.6	10.5	17.4	22	25	68	77	819426	806012	<0.2	<0.2	2.1	2.3
						1.0	1.0	236	28.9		7.9		21.7		96.6		6.6		11.6		21		70				<0.2		2.2	
					Middle	3.8	0.8	231	28.9	28.9	7.9	7.9	21.8	21.8	96.6	96.7	6.6		16.4		23		76				<0.2		2.7	
						3.8	0.8	253	28.9		7.9		21.8		96.7		6.6		16.1		24		77				<0.2		2.6	
					Bottom	6.6	0.5	215	28.9	28.9	7.9	7.9	21.9	21.9	97.6	98.2	6.7	6.7	26.0		30		85				<0.2		2.1	
						6.6	0.6	220	28.9		7.9		21.9		98.7		6.7		23.9		28		86				<0.2		2.1	
IM4	Fine	Rough	17:27	7.8	Surface	1.0	1.1	209	28.7	28.7	7.9	7.9	24.2	24.2	82.6	82.6	5.6	5.4	6.7	14.2	12	13	72	77	819582	805048	<0.2	<0.2	1.5	1.7
						1.0	1.1	214	28.7		7.9		24.2		82.5		5.6		6.6		11		70				<0.2		1.9	
					Middle	3.9	0.9	215	28.4	28.4	7.9	7.9	25.2	25.2	77.3	77.3	5.2		10.4		11		78				<0.2		1.4	
						3.9	0.9	215	28.4		7.9		25.2		77.2		5.2		10.6		12		76				<0.2		2.0	
					Bottom	6.8	0.5	214	28.1	28.1	7.9	7.9	27.1	27.1	71.9	72.0	4.8	4.8	25.9		16		83				<0.2		1.7	
						6.8	0.5	218	28.1		7.9		27.0		72.1		4.8		25.1		15		84				<0.2		1.5	
IM5	Fine	Rough	17:21	6.9	Surface	1.0	1.0	198	28.7	28.7	7.9	7.9	23.4	23.6	81.3	80.9	5.5	5.2	11.9	18.2	20	20	75	79	820570	804937	<0.2	<0.2	2.2	1.7
						1.0	1.1	217	28.7		7.9		23.7		80.4		5.4		11.8		19		72				<0.2		1.7	
					Middle	3.5	0.8	213	28.1	28.2	7.9	7.9	27.6	27.6	72.1	72.9	4.8		16.2		19		78				<0.2		1.9	
						3.5	0.8	222	28.3		7.9		27.5		73.6		4.9		16.4		19		80				<0.2		1.5	
					Bottom	5.9	0.7	217	28.0	28.1	7.9	7.9	28.1	28.1	67.6	68.4	4.5	4.6	27.1		20		83				<0.2		1.4	
						5.9	0.8	225	28.1		7.9		28.0		69.1		4.6		25.8		20		86				<0.2		1.2	
IM6	Fine	Rough	17:13	6.8	Surface	1.0	0.7	210	28.8	28.8	7.9	7.9	24.3	24.3	80.5	79.9	5.4	5.1	8.4	14.3	14	15	75	80	821045	805816	<0.2	<0.2	1.7	1.9
						1.0	0.8	212	28.7		7.9		24.3		79.3		5.3		8.5		14		74				<0.2		2.0	
					Middle	3.4	0.7	239	28.2	28.2	7.9	7.9	26.0	26.0	72.6	72.6	4.9		11.0		13		79				<0.2		2.1	
						3.4	0.7	257	28.2		7.9		26.0		72.6		4.9		11.1		15		81				<0.2		2.3	
					Bottom	5.8	0.5	248	27.8	27.8	7.9	7.9	28.1	28.2	67.2	68.1	4.5	4.6	22.5		17		86				<0.2		1.6	
						5.8	0.6	271	27.8		7.9		28.2		69.0		4.6		24.0		19		85				<0.2		1.9	
IM7	Fine	Rough	17:00	7.8	Surface	1.0	0.8	224	28.1	28.1	7.9	7.9	25.4	25.4	73.1	73.1	5.0	4.9	9.6	17.4	14	19	73	78	821346	806837	<0.2	<0.2	2.9	3.1
						1.0	0.9	242	28.1		7.9		25.4		73.0		5.1		10.1		14		73				<0.2		3.0	
					Middle	3.9	0.7	237	28.0	28.0	7.9	7.9	26.2	26.2	71.6	71.6	4.8		19.4		16		75				<0.2		3.7	
						3.9	0.7	258	28.0		7.9		26.2		71.6		4.8		18.2		16		77				<0.2		3.3	
					Bottom	6.8	0.5	243	28.0	28.0	7.9	7.9	26.4	26.4	71.2	71.3	4.6	4.6	24.1		28		84				<0.2		2.8	
						6.8	0.6	247	28.0		7.9		26.4		71.4		4.6		22.7		27		87				<0.2		3.0	
IM8	Cloudy	Moderate	17:34	7.9	Surface	1.0	1.0	189	27.1	27.1	8.1	8.1	20.5	20.5	91.3	91.3	6.5	6.1	3.7	7.4	6	5	83	88	821709	807829	<0.2	<0.2	3.6	3.1
						1.0	1.1	200	27.1		8.1		20.5		91.2		6.5		3.7		5		83				<0.2		3.5	
					Middle	4.0	0.9	186	26.1	26.1	8.0	8.0	25.6	25.6	80.1	80.1	5.6		8.6		4		90				<0.2		3.2	
						4.0	0.9	199	26.1		8.0		25.6		80.1		5.6		8.6		6		90				<0.2		2.8	
					Bottom	6.9	0.7	211	26.1	26.1	8.0	8.0	25.8	25.8	81.3	81.3	5.7	5.7	10.0		5		92				<0.2		2.9	
						6.9	0.7	228	26.1		8.0		25.8		81.3		5.7		10.0		6		92				<0.2		2.6	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 15 September 16 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
IM9	Cloudy	Moderate	17:44	6.9	Surface	1.0	0.8	170	27.0	27.0	8.1	8.1	21.1	21.1	90.3	90.2	6.4	6.1	5.2	8.6	6	7	83	88	822108	808818	<0.2	<0.2	3.2	2.5
						1.0	0.9	183	27.0		8.1		21.1		90.0		6.4		5.3		4		82				<0.2		2.8	
					Middle	3.5	0.6	160	26.3	26.3	8.0	8.0	24.8	24.8	81.3	81.3	5.7		9.4		7		88				<0.2		2.4	
						3.5	0.7	161	26.3		8.0		24.8		81.2		5.7		9.4		7		90				<0.2		2.4	
					Bottom	5.9	0.4	158	26.2	26.2	8.0	8.0	25.7	25.7	82.5	82.6	5.8	5.8	11.1		10		91				<0.2		2.1	
						5.9	0.4	164	26.2		8.0		25.7		82.7		5.8		11.1		10		93				<0.2		2.1	
IM10	Cloudy	Moderate	17:52	7.8	Surface	1.0	0.8	159	27.1	27.1	8.1	8.1	21.4	21.4	94.9	94.8	6.7	6.2	3.9	8.4	4	6	84	89	822226	809822	<0.2	<0.2	2.4	2.3
						1.0	0.8	163	27.1		8.1		21.4		94.7		6.7		3.9		4		85				<0.2		2.5	
					Middle	3.9	0.6	133	26.3	26.4	8.1	8.1	25.2	25.2	80.4	80.4	5.6		8.0		6		90				<0.2		2.2	
						3.9	0.7	133	26.4		8.1		25.1		80.4		5.6		8.1		6		89				<0.2		2.2	
					Bottom	6.8	0.5	135	26.2	26.2	8.1	8.1	26.2	26.2	73.9	73.9	5.2	5.2	13.2		8		93				<0.2		2.2	
						6.8	0.5	146	26.2		8.1		26.2		73.9		5.2		13.2		8		92				<0.2		2.2	
IM11	Cloudy	Moderate	17:58	6.9	Surface	1.0	0.6	121	26.8	26.8	8.1	8.1	22.7	22.7	99.0	99.0	7.0	7.0	5.1	5.3	5	7	83	89	821483	810529	<0.2	<0.2	2.7	2.4
						1.0	0.7	127	26.8		8.1		22.7		99.0		7.0		5.1		6		85				<0.2		2.9	
					Middle	3.5	0.6	106	26.8	26.8	8.1	8.1	22.9	22.9	98.0	98.0	6.9		5.2		7		89				<0.2		2.5	
						3.5	0.6	107	26.8		8.1		22.9		97.9		6.9		5.2		8		90				<0.2		2.3	
					Bottom	5.9	0.4	96	26.8	26.8	8.1	8.1	23.1	23.1	97.4	97.4	6.9	6.9	5.7		6		92				<0.2		1.7	
						5.9	0.5	99	26.8		8.1		23.1		97.4		6.9		5.7		7		93				<0.2		2.0	
IM12	Cloudy	Moderate	18:05	8.8	Surface	1.0	0.8	107	26.9	26.9	8.1	8.1	22.8	22.8	100.9	100.9	7.1	7.1	5.0	5.4	6	6	84	89	821163	811511	<0.2	<0.2	2.2	1.9
						1.0	0.9	115	26.9		8.1		22.8		100.8		7.1		5.0		5		83				<0.2		1.9	
					Middle	4.4	0.6	106	26.8	26.8	8.1	8.1	22.9	22.9	99.6	99.6	7.0		5.3		6		90				<0.2		2.0	
						4.4	0.6	112	26.8		8.1		22.9		99.6		7.0		5.3		6		89				<0.2		2.0	
					Bottom	7.8	0.6	93	26.7	26.7	8.0	8.0	23.3	23.3	98.2	98.2	6.9	6.9	6.0		7		93				<0.2		1.5	
						7.8	0.6	93	26.7		8.0		23.3		98.2		6.9		6.0		8		92				<0.2		1.8	
SR2	Cloudy	Moderate	18:27	4.4	Surface	1.0	0.7	102	26.8	26.8	8.0	8.0	23.7	23.7	97.9	97.9	6.9	6.9	8.0	9.1	11	11	83	87	821473	814167	<0.2	<0.2	2.1	2.2
						1.0	0.7	102	26.8		8.0		23.7		97.8		6.9		8.0		11		84				<0.2		2.1	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.4	114	26.7	26.7	8.0	8.0	23.7	23.7	98.0	98.0	6.9	6.9	10.1		11		89				<0.2		2.4	
						3.4	0.4	121	26.7		8.0		23.7		98.0		6.9		10.1		11		91				<0.2		2.0	
SR3	Cloudy	Moderate	17:29	9.2	Surface	1.0	0.9	184	26.8	26.8	8.0	8.0	21.8	21.8	88.7	88.7	6.3	5.7	4.2	7.5	4	7	-	-	822138	807579	-	-	-	-
						1.0	0.9	195	26.8		8.0		21.8		88.7		6.3		4.2		3		-				-		-	
					Middle	4.6	0.8	187	26.0	26.0	7.9	7.9	25.8	25.8	72.1	72.1	5.1		9.0		8		-				-		-	
						4.6	0.8	196	26.0		7.9		25.8		72.1		5.1		9.0		9		-				-		-	
					Bottom	8.2	0.6	197	25.9	25.9	7.9	7.9	26.7	26.7	75.1	75.1	5.3	5.3	9.3		9		-				-		-	
						8.2	0.6	208	25.9		7.9		26.7		75.1		5.3		9.3		9		-				-		-	
SR4A	Fine	Rough	18:35	8.6	Surface	1.0	0.2	115	29.0	29.0	8.0	8.0	24.8	24.8	96.4	96.4	6.5	6.3	8.5	14.9	19	22	-	-	817195	807811	-	-	-	-
						1.0	0.2	123	29.0		8.0		24.8		96.4		6.5		8.7		19		-				-		-	
					Middle	4.3	0.3	78	29.0	29.0	8.0	8.0	24.9	25.0	91.6	91.6	6.1		12.7		21		-				-		-	
						4.3	0.3	84	29.0		8.0		25.0		91.5		6.1		13.0		22		-				-		-	
					Bottom	7.6	0.3	87	28.5	28.5	8.0	8.0	26.9	26.9	86.4	88.0	5.8	5.9	24.0		23		-				-		-	
						7.6	0.3	89	28.5		8.0		26.9		89.5		6.0		22.3		25		-				-		-	
SR5A	Fine	Rough	18:55	4.8	Surface	1.0	0.3	183	29.1	29.1	8.0	8.0	24.3	24.3	99.4	99.4	6.7	6.7	8.1	10.7	10	11	-	-	816590	810691	-	-	-	-
						1.0	0.3	185	29.1		8.0		24.2		99.3		6.7		8.1		12		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	173	28.9	28.9	8.0	8.0	24.8	24.8	95.1	95.3	6.4	6.4	13.8		11		-				-		-	
						3.8	0.3	173	28.9		8.0		24.8		95.4		6.4		12.8		12		-				-		-	
SR6	Fine	Rough	19:21	4.6	Surface	1.0	0.2	110	29.1	29.1	8.2	8.2	22.7	22.7	107.7	107.3	7.3	7.3	10.3	12.0	18	18	-	-	817895	814654	-	-	-	-
						1.0	0.2	116	29.1		8.2		22.7		106.8		7.2		10.3		18		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	92	28.2	28.3	7.9	7.9	25.8	25.7	89.7	91.3	6.1	6.2	14.0		19		-				-		-	
						3.6	0.3	93	28.3		7.9		25.6		92.9		6.3		13.3		18		-				-		-	
SR7	Cloudy	Moderate	19:22	17.5	Surface	1.0	0.7	81	26.6	26.6	8.2	8.2	24.9	24.9	102.8	102.7	7.2	6.6	5.0	9.2	3	5	-	-	823647	823724	-	-	-	-
						1.0	0.8	83	26.6		8.2		24.9		102.6		7.2		5.0		4		-				-		-	
					Middle	8.8	0.4	123	26.2	26.2	8.1	8.1	26.6	26.6	85.5	85.4	6.0		7.5		7		-				-		-	
						8.8	0.4	130	26.2		8.1		26.5		85.3		5.9		7.6		6		-				-		-	
					Bottom	16.5	0.5	59	25.8	25.8	8.0	8.0	27.4	27.4	73.4	73.4	5.1	5.1	15.0		6		-				-		-	
						16.5	0.5	63	25.8		8.0		27.4		73.4		5.1		15.0		6		-				-		-	
SR8	Cloudy	Moderate	18:13	4.5	Surface	1.0	0.3	156	27.6	27.6	8.1	8.1	23.0	23.0	102.6	102.6	7.1	7.1	15.1	18.0	10	10	-	-	820416	811584	-	-	-	-
						1.0	0.3	158	27.6		8.1		23.0		102.6		7.1		15.4		11		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	214	27.2	27.2	8.1	8.1	23.1	23.1	100.5	100.5	7.0	7.0	20.7		10		-				-		-	
						3.5	0.3	225	27.2		8.1		23.1		100.5		7.0		20.7		10		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 15 September 16 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
C1	Fine	Rough	11:10	8.3	Surface	1.0	0.5	213	28.8	28.8	8.1	8.1	22.7	22.7	104.4	104.2	7.1	6.2	2.1	11.5	5	16	73	82	815634	804255	<0.2	<0.2	1.8	1.3
						1.0	0.5	220	28.8		8.1		22.7		104.0		7.1		2.2		5		71				<0.2		1.6	
					Middle	4.2	0.3	197	28.3	28.3	8.0	8.0	26.9	26.9	78.5	78.3	5.3		7.7		8		80				<0.2		1.4	
						4.2	0.3	202	28.3		8.0		26.8		78.1		5.2		7.9		6		83				<0.2		1.2	
					Bottom	7.3	0.3	235	27.7	27.7	7.9	7.9	31.6	31.6	65.8	66.0	4.3	4.4	24.4		37		92				<0.2		0.8	
						7.3	0.3	240	27.7		7.9		31.6		66.2		4.4		24.4		35		95				<0.2		0.8	
C2	Cloudy	Rough	13:29	10.8	Surface	1.0	0.4	279	27.4	27.4	8.0	8.0	18.5	18.5	91.0	91.0	6.5	6.4	2.8	2.4	4	4	83	89	825668	806963	<0.2	<0.2	3.1	2.6
						1.0	0.4	280	27.4		8.0		18.5		91.0		6.5		2.8		4		85				<0.2		3.0	
					Middle	5.4	0.5	269	26.6	26.6	8.0	8.0	23.5	23.5	89.3	89.4	6.3		2.3		4		91				<0.2		2.5	
						5.4	0.6	285	26.6		8.0		23.5		89.4		6.3		2.3		4		89				<0.2		2.2	
					Bottom	9.8	0.3	229	26.4	26.4	8.0	8.0	23.9	23.9	87.7	87.7	6.2	6.2	2.2		5		93				<0.2		2.2	
						9.8	0.3	238	26.4		8.0		23.9		87.7		6.2		2.2		4		92				<0.2		2.3	
C3	Fine	Moderate	12:12	12.3	Surface	1.0	1.4	176	26.0	26.0	8.1	8.1	27.4	27.4	88.3	88.3	6.1	6.0	3.7	3.2	6	5	84	89	822108	817821	<0.2	<0.2	1.6	1.4
						1.0	1.5	180	26.0		8.1		27.4		88.3		6.1		3.7		4		83				<0.2		1.6	
					Middle	6.2	1.2	173	25.8	25.8	8.0	8.0	27.8	27.8	85.3	85.3	5.9		3.1		5		89				<0.2		1.4	
						6.2	1.3	188	25.8		8.0		27.8		85.2		5.9		3.0		5		90				<0.2		1.3	
					Bottom	11.3	0.7	187	25.5	25.5	8.0	8.0	29.1	29.1	84.6	84.6	5.9	5.9	2.9		5		93				<0.2		1.2	
						11.3	0.7	203	25.5		8.0		29.1		84.6		5.9		2.9		5		92				<0.2		1.4	
IM1	Fine	Rough	11:39	6.8	Surface	1.0	0.8	201	28.8	28.8	8.0	8.0	23.7	23.7	89.4	89.1	6.0	5.5	6.5	14.1	4	16	76	82	818361	806473	<0.2	<0.2	2.0	1.5
						1.0	0.8	213	28.8		8.0		23.7		88.8		6.0		6.6		4		78				<0.2		2.1	
					Middle	3.4	0.4	219	28.2	28.2	7.9	8.0	28.7	28.7	75.6	75.7	5.0		10.8		11		81				<0.2		1.6	
						3.4	0.5	232	28.2		8.0		28.7		75.8		5.0		10.8		12		82				<0.2		1.6	
					Bottom	5.8	0.3	241	27.9	27.9	7.9	7.9	30.3	30.3	66.3	66.4	4.4	4.4	25.1		32		85				<0.2		0.8	
						5.8	0.4	246	27.9		7.9		30.2		66.5		4.4		25.0		32		88				<0.2		0.8	
IM2	Fine	Rough	11:48	7.3	Surface	1.0	0.9	217	28.9	28.9	8.0	8.0	23.7	23.7	94.5	94.4	6.4	5.9	3.3	10.9	4	10	75	80	818865	806211	<0.2	<0.2	2.0	1.6
						1.0	1.0	224	28.9		8.0		23.7		94.3		6.4		3.4		5		73				<0.2		1.8	
					Middle	3.7	0.9	218	28.7	28.7	8.0	8.0	23.9	23.9	81.9	80.2	5.5		8.7		6		78				<0.2		2.0	
						3.7	1.0	239	28.7		8.0		23.9		78.5		5.3		9.9		5		81				<0.2		1.9	
					Bottom	6.3	0.8	222	28.0	28.0	7.9	7.9	29.4	29.4	71.9	72.0	4.8	4.8	19.9		20		88				<0.2		1.1	
						6.3	0.8	227	28.0		7.9		29.4		72.1		4.8		20.0		19		87				<0.2		1.0	
IM3	Fine	Rough	11:57	7.6	Surface	1.0	1.0	228	28.6	28.6	8.0	8.0	24.8	24.8	86.4	86.4	5.8	5.5	3.3	7.9	7	9	71	79	819402	806014	<0.2	<0.2	1.8	1.6
						1.0	1.0	250	28.6		8.0		24.8		86.3		5.8		3.5		6		73				<0.2		1.9	
					Middle	3.8	0.9	227	28.4	28.4	7.9	7.9	25.8	25.8	77.2	77.2	5.2		5.1		8		78				<0.2		1.8	
						3.8	1.0	235	28.4		7.9		25.8		77.1		5.2		5.1		8		79				<0.2		1.6	
					Bottom	6.6	0.8	231	27.9	28.0	7.9	8.0	29.9	29.8	69.4	69.1	4.6	4.7	15.7		13		85				<0.2		1.0	
						6.6	0.8	232	28.1		8.0		29.7		68.7		4.7		14.8		12		87				<0.2		1.2	
IM4	Fine	Rough	12:06	7.3	Surface	1.0	0.9	219	28.8	28.8	8.0	8.0	23.7	23.7	91.4	91.3	6.2	5.8	4.7	15.0	6	7	72	81	819587	805042	<0.2	<0.2	2.0	2.0
						1.0	1.0	232	28.8		8.0		23.7		91.2		6.2		4.7		5		75				<0.2		2.1	
					Middle	3.7	1.0	233	28.6	28.6	8.0	8.0	24.7	24.7	78.8	78.6	5.3		10.4		8		80				<0.2		1.8	
						3.7	1.0	237	28.6		8.0		24.7		78.3		5.3		10.6		8		83				<0.2		1.8	
					Bottom	6.3	0.7	240	28.0	28.0	7.9	7.9	29.4	29.4	65.6	66.0	4.4	4.4	30.0		8		88				<0.2		2.2	
						6.3	0.8	262	28.0		7.9		29.4		66.4		4.4		29.8		7		89				<0.2		2.0	
IM5	Fine	Rough	12:16	6.6	Surface	1.0	0.8	219	29.0	29.0	7.9	7.9	20.3	20.5	85.2	85.0	5.9	5.4	6.1	13.1	10	15	78	85	820549	804913	<0.2	<0.2	2.5	1.7
						1.0	0.8	233	28.9		7.9		20.7		84.8		5.8		6.2		11		80				<0.2		2.4	
					Middle	3.3	0.6	245	28.3	28.3	7.9	7.9	27.4	27.5	74.1	74.2	5.0		9.6		15		84				<0.2		1.7	
						3.3	0.6	247	28.3		7.9		27.5		74.3		5.0		9.6		13		87				<0.2		1.7	
					Bottom	5.6	0.5	247	27.9	27.9	7.9	7.9	29.7	29.7	64.6	65.3	4.3	4.4	23.4		19		89				<0.2		1.0	
						5.6	0.5	257	27.9		7.9		29.7		65.9		4.4		23.7		21		90				<0.2		0.9	
IM6	Fine	Rough	12:26	6.3	Surface	1.0	0.6	224	28.8	28.8	7.9	7.9	23.4	23.4	86.3	86.2	5.8	5.4	6.1	10.8	10	13	78	84	821073	805817	<0.2	<0.2	2.4	2.1
						1.0	0.6	243	28.8		7.9		23.3		86.1		5.8		6.3		10		79				<0.2		2.2	
					Middle	3.2	0.7	240	28.3	28.3	7.9	7.9	26.8	26.9	72.7	72.7	4.9		9.3		13		85				<0.2		2.1	
						3.2	0.7	258	28.3		7.9		26.9		72.7		4.9		9.4		13		83				<0.2		2.6	
					Bottom	5.3	0.6	248	28.0	28.0	7.9	7.9	29.3	29.3	67.4	68.1	4.5	4.6	16.9		16		88				<0.2		1.6	
						5.3	0.7	270	28.0		7.9		29.3		68.7		4.6		16.7		16		91				<0.2		1.6	
IM7	Fine	Rough	12:37	7.4	Surface	1.0	0.9	222	28.4	28.4	7.9	7.9	24.4	24.4	78.5	78.5	5.3	5.2	4.7	12.5	11	14	76	83	821352	806821	<0.2	<0.2	2.1	1.9
						1.0	0.9	222	28.4		7.9		24.4		78.4		5.3		4.8		12		78				<0.2		2.4	
					Middle	3.7	0.7	238	28.1	28.1	7.9	7.9	26.7	26.6	74.4	75.1	5.0		6.2		14		82				<0.2		1.8	
						3.7	0.7	253	28.1		7.9		26.5		75.7		5.1		6.0		13		84				<0.2		2.1	
					Bottom	6.4	0.6	242	27.9	27.9	7.9	7.9	28.3	28.4	66.7	66.8	4.5	4.5	26.5		17		88				<0.2		1.6	
						6.4	0.6	249	27.9		7.9		28.4		66.9		4.5		26.5		16		91				<0.2		1.5	
IM8	Cloudy	Rough	12:39	8.0	Surface	1.0	1.1	192	27.1	27.1	8.1	8.1	23.6	23.6	93.7	93.7	6.5	6.0	3.7	9.5	4	5	83	88	821701	807844	<0.2	<0.2	1.7	1.5
						1.0	1.2	193	27.1		8.1		23.6		93.7		6.5		3.7		3		82				<0.2		1.6	
					Middle	4.0	0.7	219	26.8	26.8	8.0	8.0	24.6	24.6	79.6	79.5	5.6		7.5		3		89				<0.2		1.3	
						4.0	0.8	226	26.8		8.0		24.6		79.4		5.5		7.5		3		90				<0.2		1.7	
					Bottom	7.0	0.6	223	26.3	26.3	8.0	8.0	28.1	28.1	71.2	71.2	4.9	4.9	17.4		8		92				<0.2		1.2	
						7.0	0.6	224	26.3		8.0		28.1		71.2		4.9		17.4		8		91				<0.2		1.2	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 15 September 16 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
IM9	Cloudy	Rough	12:30	6.7	Surface	1.0	1.1	180	27.0	27.0	8.1	8.1	24.1	24.1	90.6	90.6	6.3	6.0	7.3	11.8	2	3	83	88	822097	808815	<0.2	<0.2	1.7	1.4
						1.0	1.1	186	27.0		8.1		24.1		90.6		6.3		7.3		3		82				<0.2		1.6	
					Middle	3.4	0.6	195	26.7	26.7	8.0	8.0	24.9	24.9	80.7	80.7	5.6		8.0		3		90				<0.2		1.3	
						3.4	0.7	197	26.7		8.0		24.9		80.7		5.6		8.0		2		89				<0.2		1.3	
					Bottom	5.7	0.6	203	26.3	26.3	8.0	8.0	28.8	28.8	77.6	77.6	5.3	5.3	20.0		3		93				<0.2		1.4	
						5.7	0.6	207	26.3		8.0		28.8		77.6		5.3		20.0		4		92				<0.2		1.3	
IM10	Cloudy	Rough	12:19	7.8	Surface	1.0	0.7	162	26.8	26.8	8.1	8.1	23.5	23.5	91.8	91.8	6.4	5.6	3.4	10.3	2	4	82	88	822259	809837	<0.2	<0.2	1.4	1.3
						1.0	0.7	175	26.8		8.1		23.5		91.8		6.4		3.4		3		82				<0.2		1.7	
					Middle	3.9	0.5	165	26.3	26.3	8.0	8.0	27.4	27.3	69.2	69.2	4.8		10.8		4		89				<0.2		1.4	
						3.9	0.5	168	26.3		8.0		27.1		69.1		4.8		10.8		2		90				<0.2		1.2	
					Bottom	6.8	0.3	190	26.2	26.2	8.0	8.0	28.6	28.6	65.4	65.4	4.5	4.5	16.8		7		92				<0.2		1.1	
						6.8	0.3	208	26.2		8.0		28.6		65.4		4.5		16.8		8		93				<0.2		1.1	
IM11	Cloudy	Moderate	12:07	7.6	Surface	1.0	0.4	156	27.0	27.0	8.1	8.1	24.0	24.0	88.0	87.9	6.1	5.9	4.4	9.2	3	5	85	88	821493	810548	<0.2	<0.2	1.6	1.4
						1.0	0.4	157	26.9		8.1		24.0		87.7		6.1		4.5		3		83				<0.2		1.5	
					Middle	3.8	0.4	145	26.6	26.6	8.0	8.0	25.7	25.7	80.0	80.0	5.6		8.3		4		90				<0.2		1.4	
						3.8	0.4	154	26.6		8.0		25.7		80.0		5.6		8.3		6		90				<0.2		1.4	
					Bottom	6.6	0.5	141	26.5	26.5	8.0	8.0	27.1	27.1	78.0	78.0	5.4	5.4	14.7		6		92				<0.2		1.2	
						6.6	0.5	146	26.5		8.0		27.1		78.0		5.4		14.7		5		90				<0.2		1.3	
IM12	Fine	Moderate	13:11	9.5	Surface	1.0	0.4	96	27.0	27.0	8.1	8.1	24.4	24.4	90.8	90.6	6.3	6.2	4.5	12.1	3	4	83	88	821156	811511	<0.2	<0.2	1.3	1.5
						1.0	0.4	100	27.0		8.1		24.4		90.3		6.3		4.6		5		83				<0.2		1.7	
					Middle	4.8	0.4	117	26.8	26.8	8.1	8.1	25.3	25.3	86.1	86.1	6.0		6.6		4		89				<0.2		1.7	
						4.8	0.4	124	26.8		8.1		25.3		86.0		6.0		6.6		5		91				<0.2		1.4	
					Bottom	8.5	0.4	130	26.5	26.5	8.0	8.0	27.6	27.6	75.2	75.2	5.2	5.2	25.0		4		92				<0.2		1.6	
						8.5	0.4	141	26.5		8.0		27.6		75.2		5.2		25.0		4		92				<0.2		1.5	
SR2	Fine	Moderate	12:42	4.8	Surface	1.0	0.3	130	26.6	26.6	8.1	8.1	24.9	24.9	87.5	87.4	6.1	6.1	5.0	6.0	4	4	86	88	821449	814166	<0.2	<0.2	1.8	1.6
						1.0	0.3	135	26.6		8.1		24.9		87.2		6.1		5.0		4		86				<0.2		1.6	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	101	25.9	25.9	8.0	8.0	27.4	27.4	82.7	82.7	5.8	5.8	6.9		4		91				<0.2		1.4	
						3.8	0.3	106	25.9		8.0		27.4		82.7		5.8		6.9		5		89				<0.2		1.7	
SR3	Cloudy	Rough	12:47	8.1	Surface	1.0	1.1	188	26.8	26.8	8.1	8.1	24.4	24.4	86.7	86.6	6.1	5.5	5.4	16.1	6	10	-	-	822148	807552	-	-	-	-
						1.0	1.2	202	26.8		8.1		24.4		86.5		6.0		5.5		5		-				-		-	
					Middle	4.1	0.7	207	26.4	26.4	8.0	8.0	25.8	25.8	72.0	72.0	5.0		14.3		11		-				-		-	
						4.1	0.7	221	26.4		8.0		25.8		72.0		5.0		14.3		13		-				-		-	
					Bottom	7.1	0.6	232	26.3	26.3	8.0	8.0	26.4	26.4	69.3	69.3	4.8	4.8	28.6		13		-				-		-	
						7.1	0.6	236	26.3		8.0		26.4		69.3		4.8		28.6		13		-				-		-	
SR4A	Fine	Calm	10:47	8.6	Surface	1.0	0.7	255	28.8	28.8	8.0	8.0	24.9	24.9	84.9	84.3	5.7	5.2	7.5	15.0	12	15	-	-	817178	807800	-	-	-	-
						1.0	0.8	256	28.8		8.0		24.8		83.6		5.6		7.7		10		-				-		-	
					Middle	4.3	0.7	253	27.9	28.0	7.9	7.9	30.4	30.4	72.8	73.1	4.8		13.4		15		-				-		-	
						4.3	0.7	259	28.0		7.9		30.4		73.3		4.8		13.3		15		-				-		-	
					Bottom	7.6	0.6	249	27.7	27.7	7.9	7.9	31.0	31.0	62.0	62.6	4.1	4.2	24.2		20		-				-		-	
						7.6	0.6	254	27.7		7.9		31.0		63.2		4.2		24.1		18		-				-		-	
SR5A	Fine	Calm	10:29	4.1	Surface	1.0	0.4	302	29.0	29.0	8.0	8.0	22.8	22.8	94.4	94.2	6.4	6.4	4.3	6.7	6	7	-	-	816574	810681	-	-	-	-
						1.0	0.4	307	29.0		8.0		22.8		94.0		6.4		4.5		6		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.3	299	28.8	28.8	7.9	7.9	23.9	23.9	82.4	82.4	5.6	5.6	9.0		7		-				-		-	
						3.1	0.3	322	28.8		7.9		23.9		82.3		5.6		9.0		7		-				-		-	
SR6	Fine	Moderate	10:36	4.2	Surface	1.0	0.3	259	29.2	29.2	8.1	8.1	21.7	21.7	120.6	120.7	7.2	7.2	2.6	2.6	5	7	-	-	817912	814649	-	-	-	-
						1.0	0.3	259	29.2		8.1		21.7		120.7		7.2		2.7		5		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.2	239	29.1	29.1	8.1	8.1	22.1	22.1	122.1	121.7	6.3	6.3	2.4		8		-				-		-	
						3.2	0.2	257	29.1		8.1		22.1		121.2		6.2		2.5		9		-				-		-	
SR7	Fine	Moderate	11:30	17.9	Surface	1.0	0.3	177	25.9	25.9	8.1	8.1	27.4	27.4	82.3	81.9	5.7	5.3	2.6	3.5	4	5	-	-	823651	823725	-	-	-	-
						1.0	0.3	192	25.9		8.1		27.4		81.5		5.7		2.5		4		-				-		-	
					Middle	9.0	0.3	168	25.1	25.1	8.0	8.0	31.6	31.6	69.6	69.6	4.8		3.5		5		-				-		-	
						9.0	0.3	178	25.1		8.0		31.6		69.6		4.8		3.5		6		-				-		-	
					Bottom	16.9	0.2	179	24.6	24.6	8.0	8.0	33.6	33.6	67.4	67.4	4.6	4.6	4.5		7		-				-		-	
						16.9	0.2	186	24.6		8.0		33.6		67.4		4.6		4.5		6		-				-		-	
SR8	Fine	Moderate	13:02	5.2	Surface	1.0	0.3	262.0	27.1	27.1	8.0	8.0	24.5	24.5	94.0	94.0	6.5	6.5	7.9	8.1	10	10	-	-	820414	811583	-	-	-	-
						1.0	0.3	262.0	27.1		8.0		24.5		94.0		6.5		7.9		10		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	260.0	27.0	27.0	8.0	8.0	24.7	24.7	93.3	93.3	6.5	6.5	8.3		10		-				-		-	
						4.2	0.3	260.0	27.0		8.0		24.7		93.3		6.5		8.3		10		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Sunny	Rough	06:18	9.0	Surface	1.0	0.7	82	28.3	28.3	7.9	7.9	25.0	25.0	71.1	71.1	4.8	4.4	4.4	11.5	7	20	86	97	815610	804245	<0.2	<0.2	1.4	1.0
						1.0	0.7	87	28.3		7.9		25.0		71.1		4.8		4.7		6		86				<0.2		1.3	
					Middle	4.5	0.6	102	27.7	27.7	7.9	7.9	30.7	30.7	59.4	59.4	3.9		10.7		18		102				<0.2		0.8	
						4.5	0.6	108	27.7		7.9		30.7		59.4		3.9		10.8		18		101				<0.2		0.9	
					Bottom	8.0	0.4	112	27.6	27.6	7.9	7.9	31.6	31.6	60.2	60.3	4.0	4.0	19.2		34		104				<0.2		0.8	
						8.0	0.5	121	27.6		7.9		31.6		60.3		4.0		19.1		34		104				<0.2		0.7	
C2	Fine	Moderate	07:55	12.0	Surface	1.0	0.3	116	27.0	27.0	7.7	7.8	24.8	24.9	74.9	74.9	5.2	5.2	5.3	8.1	6	8	82	88	825662	806926	<0.2	<0.2	2.0	1.9
						1.0	0.3	118	27.0		7.8		24.9		74.9		5.2		5.3		5		82				<0.2		2.0	
					Middle	6.0	0.3	74	26.9	26.9	7.8	7.8	25.3	25.3	74.9	74.9	5.2		5.9		7		88				<0.2		2.0	
						6.0	0.3	75	26.9		7.8		25.3		74.8		5.2		6.2		8		90				<0.2		2.0	
					Bottom	11.0	0.3	97	26.8	26.8	7.8	7.8	26.0	26.0	72.8	73.1	5.0	5.1	13.1		9		91				<0.2		1.7	
						11.0	0.3	103	26.8		7.8		26.0		73.4		5.1		12.7		10		93				<0.2		1.7	
C3	Fine	Moderate	06:03	12.3	Surface	1.0	0.3	282	25.8	25.8	7.8	7.8	29.9	29.9	79.8	79.8	5.5	5.0	7.6	12.1	4	8	82	88	822105	817798	<0.2	<0.2	1.2	1.1
						1.0	0.3	295	25.8		7.8		29.9		79.8		5.5		7.6		4		83				<0.2		1.2	
					Middle	6.2	0.3	275	25.7	25.7	7.8	7.8	29.8	29.8	63.4	63.4	4.4		7.6		8		90				<0.2		1.0	
						6.2	0.3	295	25.7		7.8		29.8		63.4		4.4		7.7		7		88				<0.2		0.9	
					Bottom	11.3	0.3	263	25.6	25.6	7.8	7.8	30.2	30.2	63.6	63.6	4.4	4.4	20.9		11		94				<0.2		1.0	
						11.3	0.3	272	25.6		7.8		30.2		63.6		4.4		20.9		11		92				<0.2		1.0	
IM1	Sunny	Rough	06:41	7.5	Surface	1.0	0.3	138	28.5	28.5	7.9	7.9	24.6	24.6	74.9	74.9	5.1	4.9	4.5	12.3	6	17	94	92	818331	806467	<0.2	<0.2	1.6	1.4
						1.0	0.3	141	28.5		7.9		24.6		74.8		5.1		4.6		6		94				<0.2		1.6	
					Middle	3.8	0.2	226	28.2	28.2	7.9	7.9	27.7	27.7	69.8	69.8	4.7		10.2		21		91				<0.2		1.4	
						3.8	0.3	236	28.2		7.9		27.7		69.8		4.7		10.2		20		91				<0.2		1.3	
					Bottom	6.5	0.3	83	28.1	28.1	7.9	7.9	29.1	29.1	66.5	66.8	4.4	4.4	21.6		23		90				<0.2		1.1	
						6.5	0.3	90	28.1		7.9		29.1		67.0		4.4		22.4		23		90				<0.2		1.2	
IM2	Sunny	Rough	06:48	8.1	Surface	1.0	0.5	55	28.5	28.5	7.9	7.9	24.5	24.5	75.2	75.2	5.1	5.0	2.7	7.7	6	15	80	87	818833	806196	<0.2	<0.2	1.8	1.4
						1.0	0.5	57	28.5		7.9		24.5		75.2		5.1		2.6		8		80				<0.2		1.7	
					Middle	4.1	0.4	47	28.2	28.3	7.9	7.9	26.9	26.9	70.7	70.8	4.8		3.8		14		91				<0.2		1.4	
						4.1	0.4	50	28.3		7.9		26.8		70.8		4.8		3.8		12		91				<0.2		1.2	
					Bottom	7.1	0.3	58	27.9	27.9	7.9	7.9	29.8	29.8	65.7	66.1	4.4	4.4	16.4		26		90				<0.2		1.0	
						7.1	0.3	61	27.9		7.9		29.8		66.5		4.4		16.6		24		90				<0.2		1.1	
IM3	Sunny	Rough	06:06	8.4	Surface	1.0	0.6	80	28.5	28.5	7.9	7.9	25.9	25.9	73.4	73.4	4.9	4.9	3.6	9.3	12	19	84	91	819412	806006	<0.2	<0.2	1.3	1.1
						1.0	0.6	86	28.5		7.9		25.9		73.3		4.9		3.5		11		83				<0.2		1.3	
					Middle	4.2	0.5	114	28.0	28.0	7.9	7.9	28.3	28.3	70.2	70.2	4.8		5.8		22		96				<0.2		1.0	
						4.2	0.5	118	28.0		7.9		28.3		70.2		4.8		5.9		23		95				<0.2		1.0	
					Bottom	7.4	0.5	139	27.9	27.9	7.9	7.9	29.8	29.8	65.3	65.3	4.3	4.3	18.6		21		92				<0.2		0.9	
						7.4	0.5	148	27.9		7.9		29.8		65.3		4.3		18.6		24		93				<0.2		1.1	
IM4	Sunny	Rough	07:09	8.6	Surface	1.0	0.2	120	28.6	28.6	7.9	7.9	27.2	27.2	76.4	76.4	5.1	4.9	3.2	10.7	8	15	86	94	819552	805048	<0.2	<0.2	1.9	1.3
						1.0	0.2	123	28.6		7.9		27.2		76.4		5.1		3.2		9		86				<0.2		1.7	
					Middle	4.3	0.3	106	28.0	28.0	7.9	7.9	29.7	29.7	68.8	68.6	4.7		13.8		16		100				<0.2		0.9	
						4.3	0.3	107	28.0		7.9		29.7		68.3		4.8		13.8		17		100				<0.2		1.0	
					Bottom	7.6	0.2	73	27.9	27.9	7.9	7.9	30.2	30.3	63.5	63.5	4.2	4.2	15.0		18		96				<0.2		1.1	
						7.6	0.2	77	27.9		7.9		30.3		63.5		4.2		15.1		19		95				<0.2		1.0	
IM5	Sunny	Rough	07:18	6.9	Surface	1.0	0.4	133	28.6	28.7	7.9	7.9	27.3	27.3	76.2	76.2	5.1	4.9	3.7	12.1	14	18	84	87	820550	804927	<0.2	<0.2	1.1	1.4
						1.0	0.4	145	28.7		7.9		27.3		76.2		5.1		3.6		15		84				<0.2		1.2	
					Middle	3.5	0.4	106	28.0	28.0	7.9	7.9	29.4	29.4	68.3	68.3	4.6		13.8		17		89				<0.2		1.2	
						3.5	0.4	110	28.0		7.9		29.4		68.2		4.6		13.8		18		89				<0.2		1.6	
					Bottom	5.9	0.4	125	27.9	27.9	7.9	7.9	30.2	30.2	64.6	64.6	4.3	4.3	18.7		23		88				<0.2		1.6	
						5.9	0.4	130	27.9		7.9		30.2		64.6		4.3		18.7		22		88				<0.2		1.6	
IM6	Sunny	Rough	07:26	6.6	Surface	1.0	0.4	106	28.5	28.5	7.9	7.9	27.3	27.3	75.4	75.4	5.0	4.8	4.2	8.3	8	15	83	85	821047	805817	<0.2	<0.2	1.5	1.3
						1.0	0.4	114	28.5		7.9		27.3		75.3		5.0		4.1		7		83				<0.2		1.3	
					Middle	3.3	0.3	94	28.1	28.1	7.9	7.9	29.0	29.0	68.2	68.3	4.6		8.7		15		85				<0.2		1.3	
						3.3	0.3	100	28.1		7.9		29.0		68.3		4.6		8.8		13		85				<0.2		1.4	
					Bottom	5.6	0.2	87	28.0	28.0	7.9	7.9	30.0	30.0	64.4	64.4	4.3	4.3	12.0		22		88				<0.2		1.3	
						5.6	0.3	92	28.0		7.9		30.0		64.4		4.3		12.1		24		87				<0.2		1.0	
IM7	Sunny	Rough	07:36	8.2	Surface	1.0	0.4	79	28.3	28.3	7.9	7.9	28.4	28.4	72.0	72.2	5.0	4.9	6.0	11.8	13	17	84	87	821364	806825	<0.2	<0.2	1.0	1.2
						1.0	0.4	85	28.3		7.9		28.4		72.3		5.0		5.9		13		84				<0.2		1.0	
					Middle	4.1	0.4	85	28.0	28.0	7.9	7.9	29.1	29.1	68.9	68.9	4.7		12.2		18		90				<0.2		1.0	
						4.1	0.4	85	28.0		7.9		29.1		68.8		4.7		12.3		19		90				<0.2		1.0	
					Bottom	7.2	0.4	88	28.0	28.0	7.9	7.9	29.3	29.3	65.5	65.5	4.4	4.4	17.4		18		87				<0.2		1.7	
						7.2	0.5	95	28.0		7.9		29.3		65.5		4.4		17.2		19		87				<0.2		1.2	
IM8	Fine	Moderate	07:20	8.5	Surface	1.0	0.6	78	26.9	26.9	7.8	7.8	26.8	26.8	74.0	73.7	5.1	4.9	13.9	21.4	8	11	83	89	821711	807819	<0.2	<0.2	1.6	1.7
						1.0	0.7	83	26.9		7.8		26.8		73.3		5.0		15.3		9		83				<0.2		1.7	
					Middle	4.3	0.5	88	26.7	26.7	7.8	7.8	28.4	28.4	68.6	68.7	4.7		20.5		11		90				<0.2		1.5	
						4.3	0.5	88	26.7		7.8		28.4		68.7		4.7		23.0		11		90				<0.2		1.5	
					Bottom	7.5	0.4	88	26.7	26.7	7.8	7.8	28.5	28.5	69.8	70.1	4.8	4.8	28.0		13		92				<0.2		1.7	
						7.5	0.4	93	26.7		7.8		28.5		70.3		4.8		27.9		12		93				<0.2		2.0	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 September 16 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
IM9	Fine	Moderate	07:12	8.8	Surface	1.0	0.4	105	26.9	26.9	7.8	7.8	25.3	25.3	72.4	72.4	5.0	5.0	14.4	22.4	7	15	84	88	822100	808798	<0.2	<0.2	2.2	1.9
						1.0	0.4	113	26.9		7.8		25.3		72.4		5.0		14.7		7		83				<0.2		2.1	
					Middle	4.4	0.5	109	26.7	26.7	7.8	7.8	27.5	27.5	71.0	70.9	4.9		26.1		8		89				<0.2		2.0	
						4.4	0.6	109	26.7		7.8		27.5		70.7		4.9		26.2		7		90				<0.2		2.0	
					Bottom	7.8	0.4	98	26.7	26.7	7.8	7.8	28.1	28.1	70.1	70.3	4.8	4.8	26.2		30		91				<0.2		1.7	
						7.8	0.5	107	26.7		7.8		28.0		70.4		4.8		26.5		29		93				<0.2		1.5	
IM10	Fine	Moderate	07:03	7.3	Surface	1.0	0.4	110	26.8	26.8	7.8	7.8	25.7	25.7	72.4	72.4	5.0	5.0	12.5	20.8	8	14	82	88	822235	809846	<0.2	<0.2	1.7	1.8
						1.0	0.4	111	26.8		7.8		25.7		72.4		5.0		12.8		9		84				<0.2		1.9	
					Middle	3.7	0.4	144	26.7	26.7	7.8	7.8	26.4	26.4	71.4	71.4	4.9		22.2		16		90				<0.2		1.8	
						3.7	0.4	150	26.7		7.8		26.4		71.3		4.9		24.0		15		90				<0.2		1.9	
					Bottom	6.3	0.4	169	26.6	26.6	7.8	7.8	27.0	27.0	70.9	71.1	4.9	4.9	26.9		17		91				<0.2		1.7	
						6.3	0.4	174	26.6		7.8		27.0		71.2		4.9		26.2		18		92				<0.2		1.7	
IM11	Fine	Moderate	06:56	8.5	Surface	1.0	0.3	133	26.8	26.8	7.8	7.8	26.0	26.1	73.9	73.8	5.1	5.0	9.9	16.8	11	14	82	89	821490	810534	<0.2	<0.2	1.6	1.9
						1.0	0.4	145	26.8		7.8		26.1		73.6		5.1		10.5		10		83				<0.2		2.3	
					Middle	4.3	0.3	154	26.7	26.7	7.8	7.8	26.4	26.4	71.5	71.5	4.9		16.5		13		90				<0.2		2.3	
						4.3	0.3	164	26.7		7.8		26.4		71.4		4.9		16.9		14		90				<0.2		2.1	
					Bottom	7.5	0.3	198	26.6	26.6	7.8	7.8	27.0	27.0	71.9	72.4	5.0	5.0	23.0		18		92				<0.2		1.5	
						7.5	0.3	212	26.6		7.8		27.0		72.9		5.0		24.2		18		97				<0.2		1.6	
IM12	Fine	Moderate	06:47	7.8	Surface	1.0	0.3	188	26.4	26.4	7.8	7.8	27.3	27.3	69.9	69.9	4.8	4.8	18.2	22.6	18	18	81	88	821162	811517	<0.2	<0.2	1.4	1.4
						1.0	0.3	193	26.4		7.8		27.3		69.8		4.8		19.2		17		84				<0.2		1.5	
					Middle	3.9	0.3	173	26.4	26.4	7.8	7.8	27.4	27.4	69.8	69.8	4.8		23.2		18		89				<0.2		1.5	
						3.9	0.3	188	26.4		7.8		27.4		69.8		4.8		23.6		20		90				<0.2		1.5	
					Bottom	6.8	0.3	201	26.3	26.3	7.8	7.8	27.5	27.5	73.3	74.3	5.1	5.2	26.2		19		92				<0.2		1.4	
						6.8	0.3	208	26.3		7.8		27.5		75.2		5.2		25.4		18		92				<0.2		1.3	
SR2	Fine	Moderate	06:26	5.5	Surface	1.0	0.3	175	26.6	26.6	7.8	7.8	26.4	26.5	74.1	74.0	5.1	5.1	7.2	8.6	6	9	81	86	821472	814174	<0.2	<0.2	1.4	1.5
						1.0	0.3	187	26.6		7.8		26.5		73.9		5.1		7.4		7		81				<0.2		1.5	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.3	195	26.5	26.5	7.8	7.8	26.9	26.9	73.9	74.4	5.1	5.2	10.1		12		92				<0.2		1.6	
						4.5	0.3	202	26.5		7.8		26.9		74.8		5.2		9.8		10		90				<0.2		1.6	
SR3	Fine	Moderate	07:25	9.3	Surface	1.0	0.4	195	26.8	26.8	7.8	7.8	28.0	28.0	83.1	83.3	5.7	5.2	11.6	17.4	9	19	-	-	822166	807560	-	-	-	-
						1.0	0.4	202	26.8		7.8		28.0		83.5		5.7		11.8		10		-				-		-	
					Middle	4.7	0.3	133	26.7	26.7	7.8	7.8	28.4	28.4	68.0	68.0	4.7		14.8		22		-				-		-	
						4.7	0.3	133	26.7		7.8		28.4		68.0		4.7		14.9		23		-				-		-	
					Bottom	8.3	0.3	101	26.7	26.7	7.8	7.8	28.6	28.6	69.2	69.6	4.7	4.8	26.4		25		-				-		-	
						8.3	0.3	107	26.7		7.8		28.6		70.0		4.8		24.6		23		-				-		-	
SR4A	Sunny	Rough	05:55	9.6	Surface	1.0	0.4	97	28.3	28.3	7.9	7.9	26.6	26.6	75.0	75.0	5.0	5.0	11.7	19.7	14	19	-	-	817185	807823	-	-	-	-
						1.0	0.5	105	28.3		7.9		26.6		75.0		5.0		11.7		12		-				-		-	
					Middle	4.8	0.5	95	28.2	28.2	7.9	7.9	26.6	26.6	74.6	74.6	5.0		12.4		17		-				-		-	
						4.8	0.5	103	28.2		7.9		26.6		74.6		5.0		12.5		19		-				-		-	
					Bottom	8.6	0.4	86	28.2	28.2	7.9	7.9	27.1	27.1	73.3	73.3	4.9	4.9	35.1		24		-				-		-	
						8.6	0.4	87	28.2		7.9		27.1		73.3		4.9		34.6		25		-				-		-	
SR5A	Fine	Moderate	05:34	5.0	Surface	1.0	0.2	138	28.5	28.5	7.9	7.9	26.5	26.5	82.9	82.9	5.5	5.5	5.4	5.6	11	12	-	-	816599	810676	-	-	-	-
						1.0	0.2	149	28.5		7.9		26.5		82.9		5.5		5.1		12		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	119	28.5	28.5	7.9	7.9	26.5	26.5	82.8	82.9	5.5	5.6	6.1		12		-				-		-	
						4.0	0.2	128	28.5		7.9		26.5		82.9		5.6		5.9		12		-				-		-	
SR6	Fine	Calm	05:09	5.0	Surface	1.0	0.2	192	28.3	28.3	7.8	7.8	25.8	25.8	76.1	76.1	5.1	5.1	4.4	5.0	10	10	-	-	817881	814668	-	-	-	-
						1.0	0.2	195	28.3		7.8		25.8		76.1		5.1		4.3		10		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	166	28.2	28.2	7.8	7.8	26.0	26.0	76.7	76.8	5.2	5.2	5.4		9		-				-		-	
						4.0	0.1	176	28.2		7.8		26.0		76.9		5.2		5.8		9		-				-		-	
SR7	Fine	Calm	05:31	17.1	Surface	1.0	0.3	282	25.7	25.7	7.8	7.8	30.7	30.7	80.0	80.0	5.5	5.5	11.5	12.0	9	16	-	-	823638	823723	-	-	-	-
						1.0	0.3	290	25.7		7.8		30.7		80.0		5.5		11.5		8		-				-		-	
					Middle	8.6	0.2	151	25.5	25.5	7.8	7.8	30.9	30.9	78.2	78.2	5.4		10.0		12		-				-		-	
						8.6	0.2	152	25.5		7.8		30.9		78.2		5.4		10.0		13		-				-		-	
					Bottom	16.1	0.2	118	25.3	25.3	7.9	7.9	31.6	31.6	69.1	69.1	4.8	4.8	14.5		28		-				-		-	
						16.1	0.2	123	25.3		7.9		31.6		69.1		4.8		14.5		27		-				-		-	
SR8	Fine	Moderate	06:41	5.4	Surface	1.0	0.4	132	26.5	26.5	7.8	7.8	26.5	26.5	70.4	70.4	4.9	4.9	20.4	24.9	16	19	-	-	820428	811592	-	-	-	-
						1.0	0.4	134	26.5		7.8		26.5		70.4		4.9		21.1		18		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.3	148	26.4	26.4	7.8	7.8	26.9	27.0	71.6	72.7	5.0	5.1	29.9		21		-				-		-	
						4.4	0.3	148	26.4		7.8		27.0		73.8		5.1		28.3		19		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 September 16 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
C1	Sunny	Rough	12:39	9.0	Surface	1.0	0.6	236	29.0	29.0	7.9	7.9	25.3	25.3	77.7	77.7	5.2	4.8	2.6	10.2	7	10	86	94	815619	804234	<0.2	<0.2	1.5	1.2
						1.0	0.6	252	29.0		7.9		25.3		77.7		5.2		2.6		7		86				<0.2		1.4	
					Middle	4.5	0.4	214	28.0	28.0	8.0	8.0	28.9	28.9	66.5	66.5	4.4		5.6		8		97				<0.2		1.6	
						4.5	0.4	216	28.0		8.0		28.9		66.5		4.4		5.8		7		97				<0.2		1.3	
					Bottom	8.0	0.4	215	27.7	27.7	8.0	8.0	31.2	31.2	59.3	59.3	3.9	3.9	22.1		14		100				<0.2		0.6	
						8.0	0.4	230	27.7		8.0		31.2		59.3		3.9		22.2		16		99				<0.2		0.8	
C2	Fine	Moderate	11:27	12.9	Surface	1.0	0.3	143	27.0	27.0	7.8	7.8	24.4	24.4	73.3	73.3	5.1	5.0	6.5	16.0	6	16	80	88	825699	806953	<0.2	<0.2	2.2	2.0
						1.0	0.3	156	27.0		7.8		24.4		73.2		5.1		6.6		5		82				<0.2		2.5	
					Middle	6.5	0.3	160	26.4	26.4	7.8	7.8	25.3	25.3	68.1	68.1	4.8		13.8		10		89				<0.2		2.1	
						6.5	0.3	168	26.4		7.8		25.3		68.1		4.8		13.9		10		90				<0.2		1.9	
					Bottom	11.9	0.3	183	25.8	25.8	7.9	7.9	27.9	27.9	65.5	65.7	4.6	4.6	27.9		31		92				<0.2		1.5	
						11.9	0.3	187	25.7		7.9		27.9		65.8		4.6		27.2		32		94				<0.2		1.5	
C3	Fine	Moderate	12:28	12.9	Surface	1.0	0.6	93	26.9	26.9	7.8	7.8	27.0	27.0	73.7	73.6	5.1	4.8	7.4	9.9	6	11	85	90	822103	817783	<0.2	<0.2	1.5	1.5
						1.0	0.6	100	26.8		7.8		27.0		73.4		5.0		7.6		8		86				<0.2		1.9	
					Middle	6.5	0.3	116	25.9	25.9	7.8	7.8	29.1	29.1	66.1	66.1	4.6		11.1		12		90				<0.2		1.7	
						6.5	0.3	116	25.9		7.8		29.1		66.1		4.6		11.1		11		91				<0.2		1.4	
					Bottom	11.9	0.3	121	25.8	25.8	7.8	7.8	29.4	29.4	65.7	66.0	4.5	4.6	11.4		12		92				<0.2		1.1	
						11.9	0.3	126	25.8		7.8		29.4		66.2		4.6		11.0		14		94				<0.2		1.3	
IM1	Sunny	Rough	12:19	7.8	Surface	1.0	0.2	179	28.8	28.8	7.9	7.9	26.0	26.0	75.0	75.0	5.0	4.8	2.3	6.8	5	10	92	92	818331	806459	<0.2	<0.2	1.4	1.1
						1.0	0.2	191	28.8		7.9		26.0		75.0		5.0		2.4		6		93				<0.2		1.2	
					Middle	3.9	0.3	164	28.0	28.0	7.9	7.9	28.7	28.7	67.2	67.7	4.6		4.6		9		92				<0.2		1.0	
						3.9	0.3	172	28.0		7.9		28.7		68.1		4.6		4.6		10		91				<0.2		1.1	
					Bottom	6.8	0.3	176	27.8	27.8	7.9	7.9	30.1	30.1	61.5	61.5	4.1	4.1	13.5		16		92				<0.2		0.8	
						6.8	0.4	190	27.8		7.9		30.1		61.5		4.1		13.5		16		92				<0.2		0.8	
IM2	Sunny	Rough	12:12	8.7	Surface	1.0	0.4	217	28.7	28.7	7.9	7.9	26.8	26.8	74.6	74.6	5.0	4.8	2.6	6.4	5	11	81	86	818860	806178	<0.2	<0.2	2.3	1.4
						1.0	0.4	224	28.7		7.9		26.8		74.6		5.0		2.7		6		82				<0.2		2.3	
					Middle	4.4	0.4	181	27.9	27.9	7.9	7.9	29.8	29.8	67.7	68.0	4.5		7.2		9		86				<0.2		1.0	
						4.4	0.4	184	27.9		7.9		29.8		68.2		4.7		7.2		10		86				<0.2		0.9	
					Bottom	7.7	0.3	183	27.8	27.8	7.9	7.9	30.1	30.1	62.0	62.0	4.1	4.1	9.3		17		89				<0.2		0.8	
						7.7	0.4	200	27.8		7.9		30.1		62.0		4.1		9.3		18		89				<0.2		0.9	
IM3	Sunny	Rough	12:04	9.1	Surface	1.0	0.3	151	29.0	29.0	7.9	7.9	27.7	27.7	78.4	78.4	5.2	5.0	2.6	5.6	6	11	83	89	819399	806013	<0.2	<0.2	1.2	1.1
						1.0	0.4	153	29.0		7.9		27.7		78.4		5.2		2.5		6		83				<0.2		1.2	
					Middle	4.6	0.3	161	28.1	28.1	8.0	8.0	29.7	29.7	70.2	70.3	4.9		5.1		9		91				<0.2		0.8	
						4.6	0.4	169	28.1		8.0		29.7		70.3		4.8		5.1		10		91				<0.2		1.4	
					Bottom	8.1	0.2	157	27.9	27.9	8.0	8.0	30.2	30.2	64.6	64.7	4.3	4.3	9.1		18		93				<0.2		1.3	
						8.1	0.2	162	27.9		8.0		30.2		64.7		4.3		9.2		16		93				<0.2		0.8	
IM4	Sunny	Rough	11:56	8.4	Surface	1.0	0.4	153	28.9	28.9	7.9	7.9	27.6	27.6	79.2	79.2	5.2	4.8	3.3	6.2	6	11	86	94	819585	805036	<0.2	<0.2	1.3	1.0
						1.0	0.4	156	28.9		7.9		27.6		79.2		5.2		3.4		6		87				<0.2		1.4	
					Middle	4.2	0.4	165	28.1	28.1	8.0	8.0	29.4	29.4	65.8	65.8	4.4		4.8		10		97				<0.2		0.8	
						4.2	0.5	167	28.1		8.0		29.4		65.8		4.4		4.9		8		96				<0.2		0.8	
					Bottom	7.4	0.4	162	27.9	27.9	8.0	8.0	30.5	30.5	64.1	64.2	4.2	4.3	10.3		17		99				<0.2		0.8	
						7.4	0.4	163	27.9		8.0		30.5		64.2		4.3		10.3		16		97				<0.2		0.9	
IM5	Sunny	Rough	11:49	7.5	Surface	1.0	0.4	140	28.9	28.9	7.9	7.9	27.8	27.8	79.0	79.0	5.2	4.8	3.1	5.3	5	12	86	88	820571	804937	<0.2	<0.2	1.1	0.9
						1.0	0.5	152	28.9		7.9		27.8		79.0		5.2		3.2		6		86				<0.2		1.2	
					Middle	3.8	0.4	143	28.0	28.0	8.0	8.0	30.0	30.0	66.2	66.2	4.4		4.3		8		88				<0.2		0.7	
						3.8	0.5	154	28.0		8.0		30.0		66.1		4.4		4.3		10		88				<0.2		1.0	
					Bottom	6.5	0.4	138	27.9	27.9	8.0	8.0	30.4	30.4	64.4	64.4	4.3	4.3	8.4		19		90				<0.2		0.8	
						6.5	0.4	145	27.9		8.0		30.4		64.4		4.3		8.4		21		90				<0.2		0.7	
IM6	Sunny	Rough	11:39	7.8	Surface	1.0	0.4	133	28.9	28.9	7.9	7.9	27.0	27.0	78.9	78.9	5.2	4.9	3.0	10.1	6	17	86	86	821075	805837	<0.2	<0.2	1.4	1.4
						1.0	0.4	136	28.9		7.9		27.0		78.8		5.2		3.0		4		85				<0.2		1.4	
					Middle	3.9	0.4	138	28.0	28.0	7.9	7.9	29.4	29.4	70.1	70.1	4.7		12.9		23		82				<0.2		1.0	
						3.9	0.4	150	28.0		7.9		29.4		70.0		4.6		12.9		24		82				<0.2		1.1	
					Bottom	6.8	0.2	125	27.9	27.9	7.9	7.9	30.0	30.0	64.6	64.7	4.3	4.3	14.2		22		90				<0.2		1.6	
						6.8	0.3	131	27.9		7.9		30.0		64.7		4.3		14.3		23		90				<0.2		1.6	
IM7	Sunny	Rough	11:28	9.0	Surface	1.0	0.4	131	28.7	28.7	7.9	7.9	27.4	27.4	79.0	79.0	5.3	4.9	2.8	5.8	6	10	91	91	821340	806843	<0.2	<0.2	1.5	1.1
						1.0	0.4	139	28.7		7.9		27.4		79.0		5.3		2.7		7		91				<0.2		1.2	
					Middle	4.5	0.4	123	28.1	28.1	7.9	7.9	29.4	29.4	66.6	66.6	4.4		7.0		9		84				<0.2		1.0	
						4.5	0.4	128	28.1		7.9		29.4		66.6		4.4		7.1		10		85				<0.2		1.0	
					Bottom	8.0	0.4	118	28.0	28.0	7.9	7.9	29.5	29.5	66.3	66.3	4.4	4.4	7.7		14		96				<0.2		0.9	
						8.0	0.5	120	28.0		7.9		29.5		66.3		4.4		7.7		13		97				<0.2		1.0	
IM8	Fine	Moderate	11:42	8.0	Surface	1.0	0.6	113	27.2	27.2	7.9	7.9	25.0	25.0	77.4	77.2	5.4	5.2	5.2	6.5	5	5	82	88	821675	807819	<0.2	<0.2	1.5	1.4
						1.0	0.6	113	27.2		7.9		25.0		76.9		5.3		5.3		5		81				<0.2		1.4	
					Middle	4.0	0.6	117	26.8	26.8	7.9	7.9	25.6	25.6	74.3	74.2	5.1		6.1		4		90				<0.2		1.4	
						4.0	0.7	123	26.8		7.9		25.6		74.0		5.1		6.2		5		89				<0.2		1.4	
					Bottom	7.0	0.6	117	26.6	26.6	7.9	7.9	27.2	27.3	72.0	72.2	5.0	5.0	7.8		6		91				<0.2		1.3	
						7.0	0.6	121	26.6		7.9		27.4		72.4		5.0		8.3		6		93				<0.2		1.2	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 September 16 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
IM9	Fine	Moderate	11:49	7.0	Surface	1.0	0.6	122	27.2	27.2	7.8	7.8	25.0	25.0	72.8	72.8	5.0	5.1	6.3	7.5	5	7	84	88	822110	808824	<0.2	<0.2	2.1	1.8
						1.0	0.6	126	27.1		7.8		25.0		72.8		5.0		6.4		6		83				<0.2		1.9	
					Middle	3.5	0.5	104	27.0	27.0	7.8	7.8	25.5	25.5	73.6	73.8	5.1		7.6		7		89				<0.2		1.8	
						3.5	0.6	111	27.0		7.8		25.5		73.9		5.1		7.8		7		89				<0.2		1.7	
					Bottom	6.0	0.5	97	26.9	26.9	7.8	7.8	26.1	26.1	77.0	77.1	5.3	5.3	8.4		9		93				<0.2		1.6	
						6.0	0.5	103	26.9		7.8		26.1		77.1		5.3		8.4		9		92				<0.2		1.6	
IM10	Fine	Moderate	11:56	6.8	Surface	1.0	0.4	159	26.9	27.0	7.8	7.8	26.2	26.2	73.2	73.2	5.0	5.0	10.3	17.6	12	19	85	90	822247	809822	<0.2	<0.2	1.5	1.5
						1.0	0.4	160	27.0		7.8		26.1		73.2		5.0		9.8		13		84				<0.2		1.7	
					Middle	3.4	0.4	155	27.0	27.0	7.8	7.8	26.1	26.1	73.0	73.0	5.0		10.3		13		92				<0.2		1.7	
						3.4	0.5	165	27.0		7.8		26.1		72.9		5.0		10.4		12		90				<0.2		1.6	
					Bottom	5.8	0.4	155	26.7	26.7	7.8	7.8	27.4	27.4	70.1	70.2	4.8	4.8	32.6		32		94				<0.2		1.3	
						5.8	0.4	157	26.7		7.8		27.4		70.2		4.8		32.4		34		93				<0.2		1.3	
IM11	Fine	Moderate	12:03	8.0	Surface	1.0	0.6	76	27.3	27.3	7.8	7.8	25.8	25.8	72.5	72.4	5.0	4.9	9.0	16.7	6	11	83	89	821518	810543	<0.2	<0.2	1.9	1.6
						1.0	0.7	83	27.3		7.8		25.8		72.3		5.0		9.2		6		82				<0.2		1.9	
					Middle	4.0	0.7	91	26.7	26.7	7.8	7.8	27.8	27.8	69.2	69.2	4.7		14.9		7		90				<0.2		1.4	
						4.0	0.7	94	26.7		7.8		27.8		69.1		4.7		15.6		8		91				<0.2		1.5	
					Bottom	7.0	0.6	95	26.6	26.6	7.8	7.8	28.2	28.2	68.6	68.7	4.7	4.7	24.8		21		93				<0.2		1.3	
						7.0	0.7	96	26.6		7.8		28.2		68.8		4.7		26.6		20		93				<0.2		1.4	
IM12	Fine	Moderate	12:08	8.5	Surface	1.0	0.6	129	27.2	27.2	7.8	7.8	25.9	25.9	76.3	76.3	5.2	5.2	6.1	7.8	6	8	83	88	821158	811518	<0.2	<0.2	1.6	1.6
						1.0	0.6	137	27.2		7.8		25.9		76.2		5.2		6.1		6		81				<0.2		1.6	
					Middle	4.3	0.6	123	27.1	27.1	7.8	7.8	26.1	26.1	75.0	75.0	5.2		7.6		6		90				<0.2		1.7	
						4.3	0.6	130	27.1		7.8		26.1		74.9		5.2		7.7		6		89				<0.2		1.6	
					Bottom	7.5	0.5	132	26.8	26.8	7.8	7.8	27.3	27.4	76.4	76.9	5.3	5.3	9.5		12		93				<0.2		1.5	
						7.5	0.6	135	26.8		7.8		27.4		77.4		5.3		9.6		12		93				<0.2		1.5	
SR2	Fine	Moderate	12:00	5.1	Surface	1.0	0.5	104	26.6	26.6	7.8	7.8	27.1	27.1	72.8	72.8	5.0	5.0	12.9	13.2	7	11	84	87	821449	814181	<0.2	<0.2	1.5	1.4
						1.0	0.5	107	26.6		7.8		27.0		72.8		5.0		12.9		5		85				<0.2		1.4	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.4	124	26.5	26.5	7.8	7.8	27.2	27.2	74.8	75.7	5.2	5.3	13.6		15		89				<0.2		1.4	
						4.1	0.4	131	26.5		7.8		27.1		76.6		5.3		13.2		15		90				<0.2		1.4	
SR3	Fine	Moderate	11:37	9.4	Surface	1.0	0.3	175	27.0	27.0	7.8	7.8	24.9	24.9	74.5	74.5	5.2	5.2	7.7	10.1	5	8	-	-	822157	807586	-	-	-	-
						1.0	0.4	186	27.0		7.8		24.9		74.5		5.2		7.7		4		-				-		-	
					Middle	4.7	0.4	103	26.8	26.8	7.9	7.9	25.6	25.6	73.5	73.5	5.1		9.0		9		-				-		-	
						4.7	0.4	113	26.8		7.9		25.5		73.5		5.1		9.0		9		-				-		-	
					Bottom	8.4	0.4	81	26.4	26.4	7.9	7.9	27.5	27.5	71.0	71.0	4.9	4.9	13.5		10		-				-		-	
						8.4	0.4	84	26.4		7.9		27.5		71.0		4.9		13.6		12		-				-		-	
SR4A	Sunny	Moderate	13:02	9.1	Surface	1.0	0.3	88	28.8	28.8	7.9	7.9	26.2	26.2	76.3	76.3	5.1	4.8	6.3	17.5	10	25	-	-	817194	807815	-	-	-	-
						1.0	0.3	93	28.8		7.9		26.2		76.3		5.1		6.3		10		-				-		-	
					Middle	4.6	0.3	85	28.1	28.1	7.9	7.9	29.1	29.1	66.1	66.1	4.5		19.1		29		-				-		-	
						4.6	0.4	87	28.1		7.9		29.1		66.0		4.5		19.1		30		-				-		-	
					Bottom	8.1	0.3	85	28.0	28.0	7.9	7.9	29.4	29.4	64.6	64.6	4.3	4.3	27.2		37		-				-		-	
						8.1	0.3	85	28.0		7.9		29.4		64.6		4.3		27.1		35		-				-		-	
SR5A	Sunny	Calm	13:19	5.1	Surface	1.0	0.1	210	29.2	29.2	8.0	8.0	26.5	26.5	98.7	98.7	6.5	6.5	4.5	5.1	10	11	-	-	816573	810707	-	-	-	-
						1.0	0.1	215	29.2		8.0		26.5		98.7		6.5		4.5		8		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	202	28.8	28.8	8.0	8.0	26.8	26.8	86.6	86.7	5.8	5.8	5.7		13		-				-		-	
						4.1	0.1	221	28.8		8.0		26.8		86.7		5.8		5.8		12		-				-		-	
SR6	Sunny	Calm	13:40	5.0	Surface	1.0	0.3	92	29.8	29.8	8.0	8.0	26.2	26.2	100.2	100.2	6.6	6.6	2.7	4.6	5	6	-	-	817882	814655	-	-	-	-
						1.0	0.3	96	29.8		8.0		26.2		100.2		6.6		2.6		6		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	95	28.6	28.6	8.0	8.0	26.7	26.7	85.5	85.5	5.7	5.7	6.5		8		-				-		-	
						4.0	0.2	101	28.6		8.0		26.7		85.5		5.7		6.6		6		-				-		-	
SR7	Fine	Moderate	13:12	17.8	Surface	1.0	0.8	66	26.7	26.7	7.8	7.8	27.9	27.9	77.5	77.5	5.3	5.1	3.5	4.8	4	7	-	-	823626	823730	-	-	-	-
						1.0	0.8	70	26.7		7.8		27.9		77.4		5.3		3.5		6		-				-		-	
					Middle	8.9	0.8	71	26.1	26.1	7.8	7.8	28.5	28.5	69.7	69.7	4.8		5.0		6		-				-		-	
						8.9	0.8	73	26.1		7.8		28.5		69.6		4.8		5.1		8		-				-		-	
					Bottom	16.8	0.5	103	25.8	25.8	7.8	7.8	29.1	29.1	69.4	69.4	4.8	4.8	5.9		8		-				-		-	
						16.8	0.5	103	25.8		7.8		29.1		69.4		4.8		5.9		8		-				-		-	
SR8	Fine	Moderate	12:15	4.9	Surface	1.0	0.4	181	26.9	26.9	7.8	7.8	26.5	26.6	74.3	74.3	5.1	5.1	16.8	17.7	9	12	-	-	820411	811598	-	-	-	-
						1.0	0.4	195	26.8		7.8		26.6		74.3		5.1		17.0		9		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.5	162	26.6	26.7	7.8	7.8	27.0	27.0	78.5	80.3	5.4	5.6	19.1		13		-				-		-	
						3.9	0.5	174	26.7		7.8		27.0		82.1		5.7		18.0		15		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 20 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Rainy	Moderate	08:59	9.1	Surface	1.0	0.7	48	28.0	28.0	8.1	8.1	31.4	31.4	85.1	85.1	5.6	5.6	9.6	14.0	10	14	79	86	815612	804256	<0.2	<0.2	1.1	1.1
						1.0	0.8	50	28.0		8.1		31.4		85.1		5.6		9.3		8		77				<0.2		1.1	
					Middle	4.6	0.8	51	28.0	28.0	8.1	8.1	31.4	31.4	85.0	85.1	5.6		14.0		9		84				<0.2		1.2	
						4.6	0.8	52	28.0		8.1		31.3		85.1		5.6		13.6		9		85				<0.2		1.2	
					Bottom	8.1	0.7	51	28.0	28.0	8.1	8.1	31.9	31.9	84.9	85.0	5.6	5.6	18.2		23		94				<0.2		1.0	
						8.1	0.7	54	28.0		8.1		31.9		85.0		5.6		19.5		25		96				<0.2		1.1	
C2	Cloudy	Rough	10:56	13.2	Surface	1.0	0.5	88	26.1	26.1	8.0	8.0	24.9	24.9	77.7	77.8	5.5	5.5	10.0	13.7	7	12	82	88	825666	806947	<0.2	<0.2	2.6	2.7
						1.0	0.5	91	26.1		8.0		24.9		77.8		5.5		10.2		7		85				<0.2		2.9	
					Middle	6.6	0.5	65	26.1	26.1	8.0	8.0	25.6	25.6	78.0	78.0	5.5		15.1		10		90				<0.2		2.6	
						6.6	0.5	65	26.1		8.0		25.6		78.0		5.5		15.2		9		89				<0.2		2.5	
					Bottom	12.2	0.5	234	26.1	26.1	8.0	8.0	25.8	25.8	80.4	81.5	5.6	5.7	16.1		18		92				<0.2		2.9	
						12.2	0.6	248	26.1		8.0		25.8		82.5		5.8		15.4		19		92				<0.2		2.6	
C3	Cloudy	Rough	09:13	11.5	Surface	1.0	0.7	272	26.2	26.2	7.9	7.9	29.3	29.3	74.4	74.4	5.1	5.0	6.9	13.7	7	11	83	88	822089	817785	<0.2	<0.2	2.0	1.7
						1.0	0.8	295	26.2		7.9		29.3		74.4		5.1		7.0		6		83				<0.2		1.8	
					Middle	5.8	0.8	267	26.1	26.1	7.9	7.9	29.8	29.8	72.3	72.3	5.0		13.3		7		89				<0.2		1.6	
						5.8	0.8	269	26.1		7.9		29.8		72.2		4.9		13.6		7		90				<0.2		1.7	
					Bottom	10.5	0.5	274	26.0	26.1	7.9	7.9	30.4	30.4	73.7	74.2	5.0	5.1	21.4		21		92				<0.2		1.5	
						10.5	0.6	295	26.1		7.9		30.4		74.6		5.1		20.1		20		93				<0.2		1.6	
IM1	Rainy	Moderate	09:20	7.4	Surface	1.0	0.6	38	28.0	28.0	8.0	8.0	28.7	28.7	82.8	82.8	5.5	5.5	9.7	15.8	9	17	75	80	818344	806462	<0.2	<0.2	1.5	1.6
						1.0	0.6	40	28.0		8.0		28.7		82.8		5.5		9.7		11		76				<0.2		1.7	
					Middle	3.7	0.6	32	28.1	28.1	8.0	8.0	29.5	29.5	82.2	82.2	5.4		17.0		20		79				<0.2		1.7	
						3.7	0.6	33	28.1		8.0		29.5		82.2		5.4		16.3		20		70				<0.2		1.7	
					Bottom	6.4	0.5	44	28.1	28.1	8.0	8.0	29.7	29.7	82.2	82.2	5.4	5.4	21.7		22		87				<0.2		1.5	
						6.4	0.5	44	28.1		8.0		29.7		82.2		5.4		20.3		22		90				<0.2		1.5	
IM2	Rainy	Moderate	09:26	8.4	Surface	1.0	0.7	35	28.0	28.0	8.0	8.0	29.4	29.4	84.1	84.0	5.6	5.5	8.9	15.9	13	19	78	83	818851	806203	<0.2	<0.2	1.4	1.4
						1.0	0.7	36	28.0		8.0		29.4		83.9		5.6		10.0		12		75				<0.2		1.5	
					Middle	4.2	0.6	38	28.1	28.1	8.0	8.0	29.8	29.8	82.0	82.0	5.4		15.3		20		83				<0.2		1.7	
						4.2	0.6	40	28.1		8.0		29.8		82.0		5.4		17.3		21		84				<0.2		1.5	
					Bottom	7.4	0.5	47	28.1	28.1	8.0	8.0	29.8	29.8	83.0	83.1	5.5	5.5	21.7		23		87				<0.2		1.0	
						7.4	0.5	47	28.1		8.0		29.8		83.1		5.5		22.3		25		89				<0.2		1.5	
IM3	Rainy	Moderate	09:34	8.6	Surface	1.0	0.6	63	28.1	28.1	8.0	8.0	29.8	29.8	82.5	82.5	5.5	5.5	9.3	15.6	11	22	76	81	819420	806008	<0.2	<0.2	1.3	1.3
						1.0	0.7	65	28.1		8.0		29.8		82.4		5.5		8.3		11		76				<0.2		1.5	
					Middle	4.3	0.6	55	28.1	28.1	8.0	8.0	29.9	29.9	81.9	81.9	5.4		14.3		27		80				<0.2		1.4	
						4.3	0.6	56	28.1		8.0		29.9		81.8		5.4		13.2		26		81				<0.2		1.3	
					Bottom	7.6	0.5	64	28.1	28.1	8.0	8.0	29.9	29.9	83.0	83.3	5.5	5.5	23.3		29		85				<0.2		1.2	
						7.6	0.5	67	28.1		8.0		29.9		83.5		5.5		25.0		29		86				<0.2		1.3	
IM4	Rainy	Moderate	09:44	7.9	Surface	1.0	0.7	39	27.9	27.9	8.0	8.0	29.7	29.7	84.7	84.6	5.6	5.6	9.9	14.4	9	19	79	84	819573	805022	<0.2	<0.2	1.0	1.2
						1.0	0.7	42	27.9		8.0		29.7		84.5		5.6		9.6		9		81				<0.2		1.1	
					Middle	4.0	0.6	39	28.1	28.1	8.0	8.0	30.2	30.2	82.8	82.8	5.5		13.3		17		84				<0.2		1.2	
						4.0	0.7	41	28.1		8.0		30.2		82.8		5.5		12.3		18		83				<0.2		1.5	
					Bottom	6.9	0.5	41	28.1	28.1	8.0	8.0	30.3	30.3	83.8	84.2	5.5	5.6	21.3		30		88				<0.2		1.2	
						6.9	0.6	41	28.1		8.0		30.3		84.6		5.6		20.0		28		90				<0.2		1.2	
IM5	Rainy	Moderate	09:52	7.2	Surface	1.0	0.7	59	27.9	27.9	8.0	8.0	29.5	29.6	83.5	83.3	5.5	5.5	9.7	16.1	10	12	78	81	820574	804914	<0.2	<0.2	1.1	1.3
						1.0	0.7	59	27.9		8.0		29.6		83.0		5.5		10.2		10		75				<0.2		1.4	
					Middle	3.6	0.6	63	28.1	28.1	8.0	8.0	30.0	30.0	82.2	82.2	5.4		15.2		10		80				<0.2		1.5	
						3.6	0.7	69	28.1		8.0		30.0		82.2		5.4		16.3		10		81				<0.2		1.3	
					Bottom	6.2	0.5	65	28.1	28.1	8.0	8.0	30.0	30.0	83.0	83.5	5.5	5.5	23.2		15		86				<0.2		1.2	
						6.2	0.5	71	28.1		8.0		30.0		84.0		5.5		22.2		14		87				<0.2		1.2	
IM6	Rainy	Moderate	09:59	7.4	Surface	1.0	0.7	44	28.0	28.0	8.0	8.0	29.8	29.8	84.1	84.1	5.6	5.6	9.3	14.6	18	17	73	80	821068	805827	<0.2	<0.2	1.4	1.4
						1.0	0.7	46	28.0		8.0		29.8		84.1		5.6		8.2		16		75				<0.2		1.5	
					Middle	3.7	0.6	42	28.1	28.1	8.0	8.0	29.8	29.8	82.7	82.7	5.5		12.3		17		78				<0.2		1.5	
						3.7	0.6	45	28.0		8.0		29.8		82.6		5.5		13.3		18		80				<0.2		1.5	
					Bottom	6.4	0.6	58	28.1	28.1	8.0	8.0	29.8	29.8	82.3	82.5	5.4	5.5	22.0		16		87				<0.2		1.3	
						6.4	0.6	62	28.1		8.0		29.8		82.7		5.5		22.3		17		88				<0.2		1.4	
IM7	Rainy	Moderate	10:11	7.9	Surface	1.0	0.7	80	28.1	28.1	8.0	8.0	29.3	29.3	81.5	81.5	5.6	5.5	11.2	18.2	18	22	75	81	821366	806820	<0.2	<0.2	1.5	1.4
						1.0	0.7	83	28.1		8.0		29.3		81.5		5.7		12.3		18		73				<0.2		1.4	
					Middle	4.0	0.7	67	28.1	28.1	8.0	8.0	29.3	29.3	81.9	82.1	5.4		18.7		24		80				<0.2		1.4	
						4.0	0.8	67	28.1		8.0		29.3		82.2		5.4		19.3		23		82				<0.2		1.3	
					Bottom	6.9	0.6	71	28.1	28.1	8.0	8.0	29.4	29.4	85.2	85.8	5.3	5.3	24.0		26		86				<0.2		1.5	
						6.9	0.7	72	28.1		8.0		29.4		86.4		5.3		23.7		25		87				<0.2		1.3	
IM8	Cloudy	Rough	10:23	8.6	Surface	1.0	0.4	86	26.1	26.1	8.0	8.0	26.2	26.2	78.1	78.1	5.5	5.5	6.8	12.3	6	14	84	89	821697	807833	<0.2	<0.2	2.4	2.3
						1.0	0.5	86	26.1		8.0		26.2		78.1		5.5		7.2		5		85				<0.2		2.3	
					Middle	4.3	0.7	57	26.1	26.1	8.0	8.0	26.4	26.4	79.1	79.1	5.5		10.8		7		89				<0.2		2.6	
						4.3	0.7	59	26.1		8.0		26.4		79.1		5.5		10.9		6		90				<0.2		2.5	
					Bottom	7.6	0.6	67	26.1	26.1	8.0	8.0	27.8	27.8	80.1	80.1	5.5	5.5	18.8		30		92				<0.2		1.8	
						7.6	0.6	69	26.1		8.0		27.8		80.1		5.5		19.0		32		93				<0.2		2.0	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 20 September 16 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
IM9	Cloudy	Rough	10:15	7.9	Surface	1.0	0.4	177	26.3	26.3	8.0	8.0	27.6	27.6	78.3	78.3	5.4	5.4	13.0	16.3	7	9	85	89	822093	808791	<0.2	<0.2	1.9	2.0
						1.0	0.5	192	26.3		8.0		27.6		78.3		5.4		13.2		7		84				<0.2		2.1	
					Middle	4.0	0.5	243	26.2	26.2	8.0	8.0	27.8	27.8	78.8	79.0	5.4		16.5		10		90				<0.2		2.0	
						4.0	0.5	256	26.2		8.0		27.8		79.1		5.5		17.3		9		89				<0.2		2.1	
					Bottom	6.9	0.4	221	26.2	26.2	8.0	8.0	28.0	28.0	80.4	81.4	5.6	5.7	20.0		10		92				<0.2		2.0	
						6.9	0.4	227	26.2		8.0		28.0		82.4		5.7		17.5		11		91				<0.2		2.1	
IM10	Cloudy	Rough	10:07	7.8	Surface	1.0	0.5	279	26.2	26.2	8.1	8.1	28.4	28.4	79.2	79.2	5.5	5.5	11.2	23.8	9	18	85	89	822253	809840	<0.2	<0.2	1.8	1.6
						1.0	0.6	301	26.2		8.1		28.4		79.2		5.5		11.2		10		83				<0.2		1.7	
					Middle	3.9	0.5	271	26.2	26.2	8.0	8.0	28.7	28.7	78.5	78.5	5.4		25.5		16		89				<0.2		1.3	
						3.9	0.5	273	26.2		8.0		28.7		78.5		5.4		25.8		14		90				<0.2		1.7	
					Bottom	6.8	0.4	253	26.2	26.2	8.0	8.0	28.8	28.8	80.5	81.0	5.5	5.6	33.7		30		92				<0.2		1.8	
						6.8	0.5	263	26.2		8.0		28.8		81.4		5.6		35.3		31		92				<0.2		1.5	
IM11	Cloudy	Rough	10:00	8.1	Surface	1.0	0.6	275	25.0	25.0	8.0	8.0	28.3	28.3	96.6	96.6	6.8	6.1	8.0	22.2	16	17	84	89	821513	810542	<0.2	<0.2	2.0	1.9
						1.0	0.6	296	25.0		8.0		28.3		96.6		6.8		8.0		15		87				<0.2		1.8	
					Middle	4.1	0.5	276	26.2	26.2	8.0	8.0	28.7	28.7	77.6	77.6	5.3		25.6		16		90				<0.2		1.8	
						4.1	0.5	298	26.2		8.0		28.7		77.6		5.3		25.6		17		89				<0.2		1.9	
					Bottom	7.1	0.5	271	26.2	26.2	8.0	8.0	28.8	28.8	77.5	77.5	5.3	5.3	32.8		19		92				<0.2		2.0	
						7.1	0.5	275	26.2		8.0		28.8		77.5		5.3		33.1		20		91				<0.2		1.8	
IM12	Cloudy	Rough	09:52	9.2	Surface	1.0	0.7	264	26.2	26.2	8.1	8.1	28.8	28.8	76.8	76.8	5.3	5.3	23.1	24.4	20	22	82	88	821153	811505	<0.2	<0.2	1.8	1.8
						1.0	0.7	269	26.2		8.1		28.8		76.8		5.3		23.1		19		83				<0.2		1.9	
					Middle	4.6	0.7	266	26.2	26.2	8.0	8.0	28.8	28.8	77.2	77.2	5.3		24.2		24		89				<0.2		1.6	
						4.6	0.7	266	26.2		8.0		28.8		77.2		5.3		24.3		23		90				<0.2		1.8	
					Bottom	8.2	0.5	270	26.2	26.2	8.0	8.0	28.8	28.8	79.1	79.2	5.4	5.4	25.8		24		91				<0.2		1.7	
						8.2	0.6	292	26.2		8.0		28.8		79.2		5.4		25.9		24		92				<0.2		1.8	
SR2	Cloudy	Rough	09:32	5.2	Surface	1.0	0.3	263	26.2	26.2	8.0	8.0	28.6	28.7	78.3	78.3	5.4	5.4	18.2	20.4	13	15	83	87	821478	814174	<0.2	<0.2	2.0	2.1
						1.0	0.3	275	26.2		8.0		28.7		78.3		5.4		18.6		13		83				<0.2		2.1	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	265	26.2	26.2	8.0	8.0	28.7	28.7	83.6	83.7	5.8	5.8	22.3		18		90				<0.2		2.2	
						4.2	0.2	270	26.2		8.0		28.7		83.8		5.8		22.3		17		91				<0.2		1.9	
SR3	Cloudy	Rough	10:28	9.4	Surface	1.0	0.5	169	26.1	26.1	8.0	8.0	25.7	25.7	78.0	78.1	5.5	5.6	5.9	7.1	4	6	-	-	822160	807564	-	-	-	-
						1.0	0.5	169	26.1		8.0		25.7		78.1		5.5		6.1		5		-				-		-	
					Middle	4.7	0.7	68	26.1	26.1	8.0	8.0	26.3	26.3	80.2	80.3	5.6		7.3		6		-				-		-	
						4.7	0.7	69	26.1		8.0		26.3		80.3		5.6		7.4		7		-				-		-	
					Bottom	8.4	0.5	101	26.1	26.1	8.0	8.0	26.9	27.0	81.9	82.4	5.7	5.8	8.0		7		-				-		-	
						8.4	0.5	105	26.1		8.0		27.0		82.9		5.8		8.1		7		-				-		-	
SR4A	Rainy	Calm	08:35	9.4	Surface	1.0	0.1	174	28.3	28.3	7.9	7.9	28.4	28.4	79.8	79.8	5.3	5.3	8.7	9.6	17	18	-	-	817184	807807	-	-	-	-
						1.0	0.1	190	28.3		7.9		28.4		79.7		5.3		8.7		17		-				-		-	
					Middle	4.7	0.1	143	28.3	28.3	7.9	7.9	28.4	28.4	79.1	79.1	5.3		10.2		18		-				-		-	
						4.7	0.1	150	28.3		7.9		28.4		79.0		5.3		10.0		17		-				-		-	
					Bottom	8.4	0.1	125	28.3	28.3	7.9	7.9	28.5	28.5	78.8	78.9	5.2	5.3	9.9		18		-				-		-	
						8.4	0.1	126	28.3		7.9		28.5		79.0		5.3		9.8		18		-				-		-	
SR5A	Rainy	Calm	08:17	4.6	Surface	1.0	0.3	263	28.3	28.3	7.9	7.9	28.0	28.1	81.7	81.8	5.4	5.5	7.9	7.4	14	15	-	-	816574	810687	-	-	-	-
						1.0	0.3	271	28.2		7.9		28.1		81.9		5.5		7.9		14		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.3	274	28.3	28.3	7.9	7.9	28.0	28.0	79.2	79.5	5.3	5.3	6.8		15		-				-		-	
						3.6	0.3	275	28.3		7.9		28.0		79.8		5.3		7.0		15		-				-		-	
SR6	Rainy	Calm	07:50	4.8	Surface	1.0	0.2	225	28.1	28.1	7.9	7.9	28.2	28.2	74.4	74.5	5.0	5.0	7.9	11.0	10	19	-	-	817904	814659	-	-	-	-
						1.0	0.2	241	28.1		7.9		28.2		74.5		5.0		8.1		11		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	217	28.2	28.2	7.9	7.9	28.3	28.3	71.6	71.8	4.8	4.8	13.9		27		-				-		-	
						3.8	0.2	232	28.2		7.9		28.3		72.0		4.8		13.9		29		-				-		-	
SR7	Cloudy	Rough	08:45	15.9	Surface	1.0	0.3	138	26.0	26.0	7.9	7.9	30.4	30.4	81.0	81.1	5.5	5.2	6.1	9.1	11	13	-	-	823642	823733	-	-	-	-
						1.0	0.3	150	26.0		7.9		30.4		81.2		5.6		6.2		9		-				-		-	
					Middle	8.0	0.4	77	26.0	26.0	7.9	7.9	30.9	30.9	70.7	70.7	4.8		9.9		14		-				-		-	
						8.0	0.4	78	26.0		7.9		30.9		70.7		4.8		10.1		15		-				-		-	
					Bottom	14.9	0.3	84	26.0	26.0	7.9	7.9	31.0	31.0	71.8	72.0	4.9	4.9	11.0		16		-				-		-	
						14.9	0.3	88	26.0		7.9		31.0		72.1		4.9		11.1		15		-				-		-	
SR8	Cloudy	Rough	09:46	5.6	Surface	1.0	0.3	200	26.2	26.2	8.0	8.0	27.9	27.9	77.2	77.2	5.3	5.3	15.1	16.4	13	14	-	-	820426	811577	-	-	-	-
						1.0	0.3	204	26.2		8.0		27.9		77.2		5.3		15.4		14		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.3	217	26.3	26.3	8.0	8.0	28.3	28.3	77.4	77.6	5.3	5.4	17.2		15		-				-		-	
						4.6	0.3	224	26.3		8.0		28.3		77.7		5.4		17.7		14		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 20 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Fine	Moderate	14:48	8.7	Surface	1.0	0.2	186	28.1	28.1	8.1	8.1	31.7	31.7	89.9	89.9	5.9	5.9	2.6	3.8	5	6	82	90	815637	804227	<0.2	<0.2	0.8	0.8
						1.0	0.2	188	28.1		8.1		31.7		89.9		5.9		2.8		5		84				<0.2		0.9	
					Middle	4.4	0.2	195	28.0	28.0	8.1	8.1	31.9	31.9	89.2	89.2	5.8		3.7		5		91				<0.2		0.8	
						4.4	0.2	203	28.0		8.1		31.9		89.2		5.8		4.0		6		89				<0.2		0.7	
					Bottom	7.7	0.2	244	28.0	28.0	8.1	8.1	32.1	32.1	89.4	89.5	5.8	5.9	4.8		8		98				<0.2		0.9	
						7.7	0.2	265	28.0		8.1		32.1		89.6		5.9		4.9		7		98				<0.2		0.8	
C2	Cloudy	Calm	13:29	12.8	Surface	1.0	0.3	117	26.2	26.2	7.9	7.9	25.3	25.3	77.0	77.0	5.4	5.4	8.7	18.2	8	18	81	88	825682	806937	<0.2	<0.2	2.6	2.3
						1.0	0.3	122	26.2		7.9		25.3		77.0		5.4		8.7		10		82				<0.2		2.7	
					Middle	6.4	0.3	96	26.2	26.2	7.9	7.9	26.0	26.0	76.8	76.9	5.4		15.1		14		90				<0.2		2.3	
						6.4	0.3	105	26.2		7.9		26.0		76.9		5.4		15.1		13		89				<0.2		2.2	
					Bottom	11.8	0.2	101	26.2	26.2	7.9	7.9	26.6	26.6	78.0	78.1	5.4	5.4	30.7		32		92				<0.2		1.7	
						11.8	0.2	108	26.2		7.9		26.6		78.1		5.4		30.8		30		92				<0.2		2.1	
C3	Cloudy	Calm	15:08	13.6	Surface	1.0	0.6	76	26.1	26.1	8.1	8.1	29.7	29.8	70.6	70.6	4.8	4.8	5.4	5.5	6	8	84	89	822095	817784	<0.2	<0.2	1.8	1.4
						1.0	0.6	82	26.1		8.1		29.8		70.5		4.8		5.4		8		84				<0.2		1.4	
					Middle	6.8	0.5	80	25.9	25.9	8.1	8.1	30.3	30.3	70.6	70.6	4.8		5.4		7		90				<0.2		1.4	
						6.8	0.5	83	25.9		8.1		30.3		70.6		4.8		5.4		6		90				<0.2		1.4	
					Bottom	12.6	0.4	102	25.9	25.9	8.1	8.1	30.5	30.5	71.3	71.3	4.9	4.9	5.8		9		93				<0.2		1.5	
						12.6	0.4	108	25.9		8.1		30.5		71.3		4.9		5.8		10		92				<0.2		1.1	
IM1	Fine	Moderate	14:26	7.2	Surface	1.0	0.1	142	28.0	28.0	8.1	8.1	30.1	30.1	87.1	87.2	5.8	5.8	4.1	6.4	9	10	77	84	818358	806466	<0.2	0	1.0	1.1
						1.0	0.1	151	28.0		8.1		30.1		87.2		5.8		4.0		9		79				<0.2		1.2	
					Middle	3.6	0.2	84	28.0	28.0	8.1	8.1	31.2	31.2	87.4	87.4	5.8		5.6		9		84				0.2		1.1	
						3.6	0.2	89	28.0		8.1		31.1		87.4		5.8		5.4		9		85				<0.2		1.0	
					Bottom	6.2	0.1	114	28.0	28.0	8.1	8.1	31.8	31.8	87.2	87.3	5.7	5.7	9.6		12		90				<0.2		1.0	
						6.2	0.1	124	28.0		8.1		31.8		87.3		5.7		9.7		13		90				<0.2		1.0	
IM2	Fine	Moderate	14:20	8.0	Surface	1.0	0.2	166	28.1	28.1	8.0	8.0	29.5	29.5	86.6	86.7	5.7	5.8	4.3	6.5	9	9	76	84	818846	806195	<0.2	<0.2	1.4	1.3
						1.0	0.2	170	28.1		8.0		29.5		86.7		5.8		4.4		9		78				<0.2		1.4	
					Middle	4.0	0.2	102	28.0	28.0	8.1	8.1	30.6	30.6	87.3	87.3	5.8		5.6		8		85				<0.2		1.0	
						4.0	0.2	102	28.0		8.1		30.6		87.3		5.8		5.8		8		86				<0.2		1.1	
					Bottom	7.0	0.2	77	28.0	28.0	8.1	8.1	31.9	31.9	87.3	87.3	5.7	5.7	9.5		10		90				<0.2		1.3	
						7.0	0.2	77	28.0		8.1		31.9		87.3		5.7		9.6		12		91				<0.2		1.8	
IM3	Fine	Moderate	14:12	8.2	Surface	1.0	0.3	258	28.2	28.2	8.0	8.0	29.3	29.3	86.0	86.1	5.7	5.7	5.0	8.1	8	9	78	84	819419	806010	<0.2	<0.2	1.6	1.7
						1.0	0.3	269	28.2		8.0		29.3		86.1		5.7		5.2		8		79				<0.2		1.8	
					Middle	4.1	0.3	59	28.0	28.0	8.1	8.1	30.2	30.2	86.5	86.5	5.7		6.5		9		84				<0.2		1.6	
						4.1	0.3	61	28.0		8.1		30.1		86.4		5.7		7.2		8		86				<0.2		2.3	
					Bottom	7.2	0.3	78	28.0	28.0	8.1	8.1	31.9	31.9	86.6	86.7	5.7	5.7	12.8		10		88				<0.2		1.3	
						7.2	0.3	85	28.0		8.1		31.9		86.8		5.7		12.1		9		90				<0.2		1.3	
IM4	Fine	Moderate	14:05	7.3	Surface	1.0	0.4	126	28.0	28.0	8.1	8.1	30.1	30.1	85.2	85.2	5.6	5.6	5.6	7.9	10	11	81	86	819566	805032	<0.2	<0.2	1.7	1.4
						1.0	0.4	127	28.0		8.1		30.1		85.2		5.6		5.3		10		83				<0.2		1.8	
					Middle	3.7	0.3	120	28.0	28.0	8.1	8.1	31.6	31.6	85.3	85.3	5.6		6.7		10		85				<0.2		1.4	
						3.7	0.3	128	28.0		8.1		31.6		85.3		5.6		6.4		10		86				<0.2		1.3	
					Bottom	6.3	0.3	178	28.0	28.0	8.1	8.1	31.9	31.9	86.0	86.1	5.6	5.6	11.7		11		90				<0.2		1.0	
						6.3	0.3	182	28.0		8.1		31.9		86.2		5.6		11.6		12		92				<0.2		1.2	
IM5	Fine	Moderate	13:55	6.9	Surface	1.0	0.3	84	28.0	28.0	8.0	8.0	29.8	29.8	83.8	83.8	5.5	5.5	8.4	14.7	14	18	81	83	820553	804925	<0.2	<0.2	1.4	1.5
						1.0	0.3	84	28.0		8.0		29.8		83.8		5.5		8.5		12		77				<0.2		1.8	
					Middle	3.5	0.3	62	28.0	28.0	8.1	8.1	31.0	31.0	83.3	83.3	5.5		13.6		17		82				<0.2		1.4	
						3.5	0.3	64	28.0		8.1		31.0		83.3		5.5		13.9		17		84				<0.2		1.4	
					Bottom	5.9	0.3	90	28.0	28.0	8.1	8.1	31.6	31.6	83.7	84.3	5.5	5.6	21.3		23		87				<0.2		1.3	
						5.9	0.3	92	28.0		8.1		31.5		84.9		5.6		22.3		24		86				<0.2		1.6	
IM6	Fine	Moderate	03:46	7.1	Surface	1.0	0.3	79	28.0	28.0	8.0	8.0	30.1	30.2	83.2	83.2	5.5	5.5	7.4	13.1	10	17	76	82	821062	805833	<0.2	0	1.8	2.0
						1.0	0.4	85	28.0		8.0		30.3		83.1		5.5		7.3		9		78				<0.2		1.8	
					Middle	3.6	0.3	72	28.0	28.0	8.1	8.1	31.0	31.0	82.4	82.4	5.4		11.2		18		79				<0.2		1.8	
						3.6	0.3	73	28.0		8.1		31.0		82.4		5.4		12.3		16		81				<0.2		2.6	
					Bottom	6.1	0.3	68	28.0	28.0	8.1	8.1	31.0	31.0	82.8	82.9	5.4	5.5	19.3		25		91				0.2		1.8	
						6.1	0.3	71	28.0		8.1		31.0		82.9		5.5		21.3		26		89				<0.2		2.0	
IM7	Fine	Moderate	13:37	7.4	Surface	1.0	0.4	47	28.1	28.1	8.0	8.0	27.9	27.8	84.4	84.7	5.6	5.7	4.3	10.4	7	7	78	83	821363	806820	<0.2	<0.2	2.5	2.2
						1.0	0.4	47	28.1		8.0		27.6		84.9		5.7		4.8		8		78				<0.2		2.4	
					Middle	3.7	0.5	66	28.0	28.0	8.0	8.0	29.8	29.8	85.3	85.3	5.7		9.3		8		82				<0.2		2.1	
						3.7	0.5	68	28.0		8.0		29.8		85.2		5.6		9.7		6		82				<0.2		2.0	
					Bottom	6.4	0.4	77	28.0	28.0	8.0	8.0	30.4	30.4	84.3	84.4	5.6	5.6	16.3		7		87				<0.2		2.0	
						6.4	0.4	84	28.0		8.0		30.4		84.5		5.6		18.2		6		90				<0.2		1.9	
IM8	Cloudy	Calm	14:01	8.9	Surface	1.0	0.5	80	26.1	26.1	8.1	8.1	28.4	28.4	85.0	85.0	5.9	5.9	7.3	14.8	7	11	85	88	821695	807855	<0.2	<0.2	1.6	1.6
						1.0	0.5	81	26.1		8.1		28.4		85.0		5.9		7.4		6		83				<0.2		1.5	
					Middle	4.5	0.5	91	26.0	26.0	8.2	8.2	29.7	29.7	85.2	85.2	5.8		13.0		7		89				<0.2		1.6	
						4.5	0.5	92	26.0		8.2		29.7		85.2		5.8		14.1		9		90				<0.2		1.8	
					Bottom	7.9	0.4	109	26.0	26.0	8.2	8.2	30.0	30.0	86.5	86.6	5.9	5.9	23.4		20		91				<0.2		1.4	
						7.9	0.4	117	26.0		8.2		30.0		86.6		5.9		23.4		18		92				<0.2		1.6	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 20 September 16 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
IM9	Cloudy	Calm	14:09	7.8	Surface	1.0	0.6	94	26.3	26.3	8.1	8.1	27.2	27.2	83.7	83.7	5.8	5.8	6.0	7.1	5	6	86	89	822084	808822	<0.2	<0.2	2.1	1.6
						1.0	0.7	96	26.3		8.1		27.2		83.7		5.8		6.1		6		84				<0.2		1.7	
					Middle	3.9	0.7	96	26.3	26.3	8.1	8.1	27.3	27.3	84.5	84.5	5.8		6.7		6		90				<0.2		1.3	
						3.9	0.8	104	26.3		8.1		27.2		84.5		5.9		6.7		8		89				<0.2		1.6	
					Bottom	6.8	0.5	101	26.1	26.1	8.1	8.1	29.4	29.4	85.6	85.7	5.9	5.9	8.4		6		92				<0.2		1.7	
						6.8	0.5	102	26.1		8.1		29.4		85.7		5.9		8.5		6		92				<0.2		1.4	
IM10	Cloudy	Calm	14:16	8.5	Surface	1.0	0.5	105	26.5	26.5	8.1	8.1	28.0	28.0	82.5	82.5	5.7	5.7	8.2	15.8	7	12	83	89	822239	809851	<0.2	<0.2	1.6	1.7
						1.0	0.5	114	26.5		8.1		28.0		82.4		5.7		8.5		9		84				<0.2		1.7	
					Middle	4.3	0.5	87	26.3	26.3	8.1	8.1	28.1	28.1	82.4	82.4	5.7		13.3		8		91				<0.2		1.6	
						4.3	0.5	94	26.3		8.1		28.1		82.4		5.7		13.6		9		89				<0.2		2.1	
					Bottom	7.5	0.5	96	26.1	26.1	8.1	8.1	29.6	29.6	82.7	82.8	5.7	5.7	25.5		21		92				<0.2		1.6	
						7.5	0.5	99	26.1		8.1		29.6		82.9		5.7		25.7		20		92				<0.2		1.6	
IM11	Cloudy	Calm	14:22	8.9	Surface	1.0	0.5	108	26.5	26.5	8.1	8.1	28.2	28.3	79.8	79.8	5.5	5.6	9.4	13.6	5	13	84	88	821499	810561	<0.2	<0.2	2.0	1.7
						1.0	0.5	109	26.5		8.1		28.3		79.8		5.5		9.5		5		83				<0.2		1.8	
					Middle	4.5	0.5	114	26.2	26.2	8.1	8.1	28.6	28.6	82.5	82.6	5.7		14.4		11		89				<0.2		1.5	
						4.5	0.5	116	26.2		8.1		28.6		82.7		5.7		14.6		10		90				<0.2		1.6	
					Bottom	7.9	0.5	114	26.2	26.2	8.1	8.1	29.1	29.1	89.0	89.0	6.1	6.1	16.9		22		91				<0.2		1.7	
						7.9	0.5	125	26.2		8.1		29.1		89.0		6.1		16.6		22		92				<0.2		1.3	
IM12	Cloudy	Calm	14:29	9.9	Surface	1.0	0.6	94	26.5	26.5	8.0	8.0	27.6	27.6	78.6	78.6	5.4	5.4	6.8	8.3	7	8	83	89	821158	811499	<0.2	<0.2	2.1	1.9
						1.0	0.7	96	26.5		8.0		27.6		78.5		5.4		6.7		7		85				<0.2		1.9	
					Middle	5.0	0.7	97	26.3	26.3	8.0	8.0	28.1	28.1	77.7	77.8	5.4		7.8		9		91				<0.2		1.8	
						5.0	0.7	99	26.3		8.0		28.1		77.8		5.4		8.1		7		90				<0.2		1.7	
					Bottom	8.9	0.5	101	26.2	26.2	8.1	8.1	28.8	28.8	79.1	79.5	5.4	5.5	10.1		8		93				<0.2		2.0	
						8.9	0.5	107	26.2		8.0		28.8		79.8		5.5		10.2		8		92				<0.2		1.9	
SR2	Cloudy	Calm	14:49	4.6	Surface	1.0	0.5	89	26.3	26.3	8.0	8.0	28.7	28.7	77.7	77.7	5.3	5.3	7.8	9.1	6	8	84	87	821447	814172	<0.2	<0.2	2.0	1.9
						1.0	0.6	94	26.3		8.0		28.6		77.7		5.3		8.1		5		83				<0.2		1.8	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.4	100	26.2	26.2	8.0	8.0	29.1	29.1	79.9	80.0	5.5	5.5	10.2		10		89				<0.2		1.8	
						3.6	0.4	101	26.2		8.0		29.1		80.0		5.5		10.3		10		91				<0.2		1.8	
SR3	Cloudy	Calm	13:56	9.7	Surface	1.0	0.4	165	26.3	26.3	8.0	8.0	25.3	25.3	82.1	82.2	5.7	5.8	5.2	5.4	6	7	-	-	822149	807570	-	-	-	-
						1.0	0.4	166	26.3		8.0		25.3		82.2		5.8		5.2		6		-				-		-	
					Middle	4.9	0.4	103	26.3	26.3	8.1	8.1	26.7	26.7	84.9	84.9	5.9		5.1		6		-				-		-	
						4.9	0.4	113	26.3		8.1		26.7		84.9		5.9		5.2		7		-				-		-	
					Bottom	8.7	0.5	79	26.1	26.1	8.1	8.1	28.4	28.4	85.7	85.8	5.9	5.9	5.9		7		-				-		-	
						8.7	0.5	84	26.1		8.1		28.4		85.8		5.9		5.9		8		-				-		-	
SR4A	Fine	Calm	15:11	8.3	Surface	1.0	0.4	84	28.1	28.1	8.0	8.0	30.5	30.5	86.7	86.7	5.7	5.7	6.7	11.4	8	11	-	-	817170	807829	-	-	-	-
						1.0	0.4	89	28.1		8.0		30.5		86.7		5.7		7.1		10		-				-		-	
					Middle	4.2	0.4	83	28.1	28.1	8.1	8.1	30.5	30.5	86.2	86.2	5.7		9.8		12		-				-		-	
						4.2	0.4	84	28.1		8.1		30.5		86.2		5.7		10.0		10		-				-		-	
					Bottom	7.3	0.4	91	28.0	28.0	8.1	8.1	31.6	31.6	86.2	86.2	5.7	5.7	17.5		13		-				-		-	
						7.3	0.4	95	28.0		8.1		31.6		86.2		5.7		17.2		12		-				-		-	
SR5A	Fine	Calm	15:27	4.3	Surface	1.0	0.1	146	28.5	28.5	7.9	7.9	28.0	28.0	79.9	80.0	5.3	5.3	5.6	5.9	6	7	-	-	816579	810687	-	-	-	-
						1.0	0.1	152	28.5		7.9		28.0		80.1		5.3		5.6		6		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	144	28.4	28.4	7.9	7.9	28.1	28.1	81.5	81.8	5.1	5.2	6.0		7		-				-		-	
						3.3	0.2	157	28.4		7.9		28.1		82.1		5.2		6.3		9		-				-		-	
SR6	Fine	Calm	15:51	4.5	Surface	1.0	0.4	136	28.8	28.9	7.9	7.9	28.0	28.0	76.9	76.9	5.1	5.1	4.5	5.4	9	9	-	-	817881	814654	-	-	-	-
						1.0	0.4	136	28.9		7.9		28.0		76.9		5.1		4.6		9		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	134	28.5	28.5	7.9	7.9	28.3	28.3	76.4	76.5	4.7	4.7	6.1		8		-				-		-	
						3.5	0.3	146	28.5		7.9		28.3		76.5		4.7		6.2		8		-				-		-	
SR7	Cloudy	Calm	15:33	18.8	Surface	1.0	0.6	74	26.3	26.3	8.1	8.1	29.6	29.6	75.4	75.4	5.2	5.1	4.0	4.5	5	6	-	-	823645	823730	-	-	-	-
						1.0	0.7	76	26.3		8.1		29.6		75.3		5.1		4.1		4		-				-		-	
					Middle	9.4	0.6	66	26.0	26.0	8.1	8.1	30.5	30.5	74.9	74.9	5.1		4.6		6		-				-		-	
						9.4	0.7	70	26.0		8.1		30.5		74.9		5.1		4.6		6		-				-		-	
					Bottom	17.8	0.3	95	26.0	26.0	8.1	8.1	30.5	30.5	76.9	77.0	5.3	5.3	4.7		8		-				-		-	
						17.8	0.4	99	26.0		8.1		30.5		77.0		5.3		4.7		8		-				-		-	
SR8	Cloudy	Calm	14:36	5.8	Surface	1.0	0.3	183	26.4	26.4	8.0	8.0	28.2	28.2	75.0	75.0	5.2	5.2	13.0	16.7	10	13	-	-	820402	811595	-	-	-	-
						1.0	0.3	191	26.4		8.0		28.2		74.9		5.2		13.1		9		-				-		-	
					Middle	2.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.3	197	26.2	26.2	8.0	8.0	28.7	28.7	73.0	73.0	5.0	5.0	20.3		16		-				-		-	
						4.8	0.3	200	26.2		8.0		28.7		73.0		5.0		20.5		18		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 22 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Fine	Calm	10:56	8.3	Surface	1.0	0.5	43	28.3	28.3	8.0	8.0	29.8	29.8	87.7	87.7	5.8	5.8	3.5	13.8	6	9	80	87	815600	804258	<0.2	<0.2	1.8	1.8
						1.0	0.6	44	28.3		8.0		29.7		87.7		5.8		3.6		6		80				<0.2		1.7	
					Middle	4.2	0.6	44	28.2	28.2	8.0	8.0	30.1	30.1	87.7	87.7	5.8		10.3		6		87				<0.2		2.0	
						4.2	0.6	47	28.2		8.0		30.1		87.7		5.8		10.3		8		88				<0.2		1.8	
					Bottom	7.3	0.5	51	28.2	28.2	8.0	8.0	30.5	30.5	87.7	87.7	5.8	5.8	27.3		13		93				<0.2		1.5	
						7.3	0.5	53	28.2		8.0		30.5		87.7		5.8		27.5		14		94				<0.2		1.7	
C2	Cloudy	Moderate	12:26	12.2	Surface	1.0	0.5	259	26.7	26.7	7.8	7.8	24.0	24.0	77.8	77.8	5.5	5.2	4.0	17.6	6	17	85	90	825669	806938	<0.2	<0.2	2.9	2.4
						1.0	0.6	266	26.7		7.8		24.0		77.7		5.4		4.0		7		86				<0.2		2.6	
					Middle	6.1	0.6	265	26.2	26.2	7.9	7.9	28.0	28.0	72.0	72.0	5.0		12.5		9		90				<0.2		2.4	
						6.1	0.6	287	26.2		7.9		28.0		72.0		5.0		12.6		10		89				<0.2		2.2	
					Bottom	11.2	0.5	270	26.2	26.2	7.9	7.9	29.7	29.7	71.7	71.8	4.9	4.9	36.2		37		94				<0.2		2.2	
						11.2	0.5	275	26.2		7.9		29.7		71.8		4.9		36.0		35		93				<0.2		2.0	
C3	Cloudy	Calm	10:33	11.5	Surface	1.0	0.4	254	26.3	26.3	7.9	7.9	29.3	29.3	80.9	80.9	5.5	5.4	4.1	9.9	7	12	88	91	822128	817795	<0.2	<0.2	1.5	1.7
						1.0	0.4	257	26.3		7.9		29.3		80.8		5.5		4.2		8		87				<0.2		1.9	
					Middle	5.8	0.3	165	26.1	26.1	7.9	7.9	29.8	29.8	75.4	75.4	5.2		7.2		7		93				<0.2		1.8	
						5.8	0.3	176	26.1		7.9		29.8		75.4		5.2		7.3		7		92				<0.2		1.6	
					Bottom	10.5	0.3	214	26.0	26.0	7.9	7.9	30.4	30.4	74.8	74.8	5.1	5.1	18.2		22		93				<0.2		1.5	
						10.5	0.3	217	26.0		7.9		30.4		74.8		5.1		18.2		20		93				<0.2		1.6	
IM1	Fine	Calm	11:18	7.8	Surface	1.0	0.4	104	28.5	28.5	7.9	7.9	27.1	27.1	84.4	84.4	5.6	5.6	3.5	14.0	4	9	73	79	818354	806451	<0.2	<0.2	2.2	2.2
						1.0	0.4	104	28.5		7.9		27.1		84.4		5.6		3.5		5		75				<0.2		1.9	
					Middle	3.9	0.5	29	28.3	28.3	8.0	8.0	29.8	29.8	85.3	85.3	5.6		14.7		7		80				<0.2		2.5	
						3.9	0.5	29	28.3		8.0		29.8		85.3		5.6		14.7		6		78				<0.2		1.7	
					Bottom	6.8	0.4	90	28.3	28.3	8.0	8.0	30.2	30.2	84.9	84.9	5.6	5.6	24.3		16		82				<0.2		2.5	
						6.8	0.4	95	28.3		8.0		30.2		84.9		5.6		23.0		15		85				<0.2		2.6	
IM2	Fine	Calm	11:24	7.6	Surface	1.0	0.4	34	28.4	28.4	7.9	7.9	27.5	27.5	83.9	83.9	5.6	5.6	3.8	12.8	7	11	76	80	818855	806197	<0.2	<0.2	2.4	2.3
						1.0	0.4	36	28.4		7.9		27.5		83.9		5.6		3.8		6		73				<0.2		2.6	
					Middle	3.8	0.4	37	28.3	28.3	8.0	8.0	28.5	28.5	84.0	84.1	5.6		7.9		7		80				<0.2		1.9	
						3.8	0.4	38	28.3		8.0		28.5		84.1		5.6		8.8		6		81				<0.2		1.9	
					Bottom	6.6	0.3	46	28.3	28.3	8.0	8.0	29.8	29.8	84.2	84.3	5.6	5.6	27.3		20		87				<0.2		2.4	
						6.6	0.3	46	28.3		8.0		29.8		84.3		5.6		25.0		20		84				<0.2		2.7	
IM3	Fine	Calm	11:32	7.4	Surface	1.0	0.5	38	28.5	28.5	7.9	7.9	27.2	27.2	83.8	83.8	5.6	5.6	2.7	8.1	5	10	73	80	819395	806000	<0.2	<0.2	1.8	1.7
						1.0	0.5	41	28.5		7.9		27.2		83.7		5.6		2.8		6		75				<0.2		1.9	
					Middle	3.7	0.5	34	28.3	28.3	8.0	8.0	28.5	28.5	82.6	82.7	5.5		6.6		7		77				<0.2		1.8	
						3.7	0.5	34	28.3		8.0		28.4		82.7		5.5		6.9		6		80				<0.2		1.7	
					Bottom	6.4	0.3	81	28.3	28.3	8.0	8.0	29.5	29.5	85.6	85.7	5.6	5.7	14.8		20		87				<0.2		1.5	
						6.4	0.4	83	28.3		8.0		29.5		85.7		5.7		14.8		18		87				<0.2		1.4	
IM4	Fine	Calm	11:39	7.9	Surface	1.0	0.4	160	28.4	28.4	7.9	7.9	27.4	27.4	83.1	83.1	5.5	5.5	3.4	9.8	7	10	71	78	819575	805020	<0.2	<0.2	1.8	1.6
						1.0	0.4	167	28.4		7.9		27.4		83.1		5.5		3.5		7		73				<0.2		1.8	
					Middle	4.0	0.4	45	28.4	28.4	7.9	7.9	27.6	27.6	82.6	82.6	5.5		7.6		6		76				<0.2		1.6	
						4.0	0.4	46	28.4		7.9		27.6		82.6		5.5		8.0		6		77				<0.2		1.8	
					Bottom	6.9	0.3	62	28.3	28.3	8.0	8.0	29.1	29.1	82.8	82.9	5.5	5.5	17.9		15		85				<0.2		1.3	
						6.9	0.4	65	28.3		8.0		29.1		82.9		5.5		18.2		16		86				<0.2		1.4	
IM5	Fine	Calm	11:47	6.9	Surface	1.0	0.4	142	28.5	28.5	7.9	7.9	26.8	26.8	81.7	81.7	5.5	5.4	4.4	17.2	5	17	74	81	820572	804935	<0.2	<0.2	1.8	1.8
						1.0	0.5	152	28.5		7.9		26.8		81.7		5.5		4.5		6		76				<0.2		1.8	
					Middle	3.5	0.4	85	28.3	28.3	8.0	8.0	28.7	28.7	80.1	80.1	5.3		16.7		6		80				<0.2		1.8	
						3.5	0.4	92	28.3		8.0		28.7		80.1		5.3		16.8		6		83				<0.2		2.0	
					Bottom	5.9	0.4	80	28.3	28.3	8.0	8.0	28.7	28.7	79.9	79.9	5.3	5.3	30.3		38		86				<0.2		1.5	
						5.9	0.4	85	28.3		8.0		28.7		79.9		5.3		30.7		42		88				<0.2		1.7	
IM6	Fine	Calm	11:55	6.7	Surface	1.0	0.3	248	28.6	28.6	7.9	7.9	25.4	25.4	83.0	83.0	5.6	5.7	1.8	6.8	4	5	75	80	821066	805815	<0.2	<0.2	2.5	2.3
						1.0	0.3	272	28.6		7.9		25.4		83.0		5.6		1.9		5		73				<0.2		2.3	
					Middle	3.4	0.5	83	28.4	28.4	8.0	8.0	28.1	28.1	85.6	85.6	5.7		6.0		5		78				<0.2		2.2	
						3.4	0.5	88	28.4		8.0		28.1		85.6		5.7		6.2		4		79				<0.2		2.2	
					Bottom	5.7	0.4	72	28.3	28.3	8.0	8.0	29.8	29.8	87.1	87.3	5.8	5.8	12.7		6		87				<0.2		2.3	
						5.7	0.4	78	28.3		8.0		29.8		87.5		5.8		12.2		6		89				<0.2		2.2	
IM7	Fine	Calm	12:03	7.3	Surface	1.0	0.2	241	28.6	28.6	7.9	7.9	25.5	25.5	82.2	82.2	5.5	5.6	2.1	4.5	5	5	73	81	821353	806851	<0.2	<0.2	2.6	2.5
						1.0	0.2	261	28.6		7.9		25.5		82.2		5.5		2.0		4		76				<0.2		2.5	
					Middle	3.7	0.4	45	28.4	28.4	7.9	7.9	26.0	26.0	85.3	85.4	5.7		4.9		6		80				<0.2		2.4	
						3.7	0.4	48	28.4		7.9		26.0		85.4		5.7		5.1		5		82				<0.2		2.6	
					Bottom	6.3	0.3	44	28.3	28.3	8.0	8.0	29.0	29.0	87.3	87.4	5.8	5.8	6.4		6		87				<0.2		2.5	
						6.3	0.3	45	28.3		8.0		28.9		87.4		5.8		6.4		5		87				<0.2		2.2	
IM8	Cloudy	Moderate	11:49	8.2	Surface	1.0	0.4	194	26.5	26.5	7.8	7.8	25.3	25.3	79.0	79.0	5.5	5.4	3.0	5.7	4	5	85	89	821680	807833	<0.2	<0.2	2.7	2.5
						1.0	0.4	203	26.5		7.8		25.3		79.0		5.5		2.9		5		84				<0.2		2.9	
					Middle	4.1	0.3	197	26.4	26.4	7.9	7.9	26.6	26.7	76.9	76.9	5.3		4.0		4		89				<0.2		2.6	
						4.1	0.3	200	26.4		7.9		26.7		76.9		5.3		4.1		4		90				<0.2		2.2	
					Bottom	7.2	0.3	182	26.3	26.3	7.9	7.9	27.5	27.5	78.0	78.0	5.4	5.4	10.0		6		93				<0.2		2.3	
						7.2	0.3	185	26.3		7.9		27.5		78.0		5.4		10.0		4		93				<0.2		2.0	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 22 September 16 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
IM9	Cloudy	Moderate	11:41	7.1	Surface	1.0	0.5	259	26.5	26.5	7.9	7.9	26.5	26.5	81.1	81.1	5.6	5.6	3.1	4.8	4	4	86	89	822078	808791	<0.2	<0.2	2.0	2.0
						1.0	0.5	262	26.5		7.9		26.5		81.0		5.6		3.1		3		86				<0.2		2.2	
					Middle	3.6	0.4	275	26.5	26.5	7.9	7.9	26.5	26.5	79.7	79.7	5.5		3.6		2		89				<0.2		2.0	
						3.6	0.4	301	26.5		7.9		26.5		79.7		5.5		3.6		3		90				<0.2		2.2	
					Bottom	6.1	0.4	233	26.3	26.3	7.9	7.9	27.6	27.6	80.8	80.9	5.6	5.6	7.7		5		92				<0.2		1.7	
						6.1	0.4	255	26.3		7.9		27.6		80.9		5.6		7.8		6		92				<0.2		2.0	
IM10	Cloudy	Moderate	11:32	7.6	Surface	1.0	0.6	286	26.5	26.5	7.9	7.9	27.5	27.5	82.4	82.4	5.7	5.7	4.2	11.0	3	9	86	90	822248	809849	<0.2	<0.2	1.8	1.7
						1.0	0.6	305	26.5		7.9		27.5		82.3		5.7		4.8		4		87				<0.2		1.7	
					Middle	3.8	0.6	293	26.3	26.3	7.9	7.9	28.4	28.4	81.6	81.7	5.6		10.2		4		89				<0.2		1.7	
						3.8	0.6	312	26.3		7.9		28.3		81.7		5.6		10.7		5		90				<0.2		1.7	
					Bottom	6.6	0.5	294	26.2	26.2	8.0	8.0	28.6	28.6	82.6	82.8	5.7	5.7	18.3		17		93				<0.2		1.5	
						6.6	0.6	315	26.2		8.0		28.6		82.9		5.7		17.8		18		92				<0.2		1.5	
IM11	Cloudy	Moderate	11:24	8.2	Surface	1.0	0.5	282	26.5	26.5	7.9	7.9	27.6	27.6	82.6	82.6	5.7	5.7	3.9	9.6	4	8	86	90	821484	810552	<0.2	<0.2	1.7	1.7
						1.0	0.5	282	26.5		7.9		27.6		82.6		5.7		4.1		3		86				<0.2		1.6	
					Middle	4.1	0.4	277	26.2	26.2	8.0	8.0	28.5	28.5	82.6	82.6	5.7		8.6		7		90				<0.2		1.7	
						4.1	0.4	283	26.2		8.0		28.5		82.6		5.7		8.9		6		91				<0.2		1.8	
					Bottom	7.2	0.4	271	26.2	26.2	8.0	8.0	29.2	29.2	84.6	84.6	5.8	5.8	16.0		13		92				<0.2		1.6	
						7.2	0.4	284	26.2		8.0		29.2		84.6		5.8		15.9		13		93				<0.2		1.7	
IM12	Cloudy	Moderate	11:17	8.0	Surface	1.0	0.6	275	26.5	26.5	7.9	7.9	27.7	27.7	84.0	84.0	5.8	5.7	3.0	14.2	3	6	86	90	821160	811532	<0.2	<0.2	1.8	1.6
						1.0	0.6	294	26.5		7.9		27.7		84.0		5.8		3.0		4		85				<0.2		1.7	
					Middle	4.0	0.6	275	26.2	26.2	7.9	7.9	28.7	28.7	82.0	82.0	5.6		8.2		6		91				<0.2		1.4	
						4.0	0.7	292	26.2		7.9		28.7		81.9		5.6		8.5		4		91				<0.2		1.7	
					Bottom	7.0	0.5	279	26.1	26.1	7.9	7.9	29.3	29.3	80.6	80.7	5.5	5.5	31.6		10		93				<0.2		1.6	
						7.0	0.5	297	26.1		7.9		29.3		80.7		5.5		31.1		11		93				<0.2		1.5	
SR2	Cloudy	Moderate	10:56	4.2	Surface	1.0	0.3	253	26.2	26.2	7.9	7.9	28.8	28.8	83.8	83.9	5.8	5.8	12.3	12.1	14	15	89	89	821474	814162	<0.2	<0.2	1.4	1.5
						1.0	0.3	273	26.2		7.9		28.8		83.9		5.8		11.6		15		88				<0.2		1.4	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	234	26.2	26.2	7.9	7.9	28.8	28.8	84.8	84.9	5.8	5.8	12.2		15		89				<0.2		1.7	
						3.2	0.3	236	26.2		7.9		28.8		84.9		5.8		12.3		15		91				<0.2		1.4	
SR3	Cloudy	Moderate	11:56	9.3	Surface	1.0	0.4	229	26.5	26.5	7.8	7.8	24.8	24.8	78.0	78.0	5.5	5.4	3.7	6.8	8	8	-	-	822138	807555	-	-	-	-
						1.0	0.4	238	26.5		7.8		24.8		77.9		5.5		3.5		7		-				-		-	
					Middle	4.7	0.4	226	26.3	26.3	7.9	7.9	26.8	26.8	76.0	76.0	5.3		5.2		8		-				-		-	
						4.7	0.4	236	26.3		7.9		26.8		76.0		5.3		5.4		7		-				-		-	
					Bottom	8.3	0.3	201	26.3	26.3	7.9	7.9	27.4	27.4	77.6	77.6	5.4	5.4	11.5		10		-				-		-	
						8.3	0.4	213	26.3		7.9		27.4		77.6		5.4		11.5		9		-				-		-	
SR4A	Fine	Calm	10:34	8.7	Surface	1.0	0.3	233	28.4	28.4	8.0	8.0	29.1	29.1	84.4	84.4	5.6	5.6	7.1	9.8	13	16	-	-	817172	807796	-	-	-	-
						1.0	0.3	249	28.4		8.0		29.1		84.4		5.6		7.4		13		-				-		-	
					Middle	4.4	0.2	248	28.4	28.4	8.0	8.0	29.2	29.2	84.1	84.2	5.6		9.8		15		-				-		-	
						4.4	0.2	254	28.4		8.0		29.2		84.2		5.6		10.3		15		-				-		-	
					Bottom	7.7	0.2	247	28.4	28.4	8.0	8.0	29.3	29.3	84.0	84.0	5.5	5.5	12.1		18		-				-		-	
						7.7	0.2	251	28.4		8.0		29.3		84.0		5.5		12.0		19		-				-		-	
SR5A	Fine	Calm	10:16	4.5	Surface	1.0	0.2	288	28.3	28.3	7.9	7.9	28.7	28.7	82.9	83.0	5.5	5.5	4.5	5.6	11	11	-	-	816603	810710	-	-	-	-
						1.0	0.3	296	28.3		7.9		28.7		83.0		5.5		4.7		11		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.2	277	28.3	28.3	7.9	7.9	28.7	28.7	82.9	83.0	5.5	5.5	6.5		11		-				-		-	
						3.5	0.2	284	28.3		7.9		28.7		83.0		5.5		6.5		11		-				-		-	
SR6	Fine	Calm	09:50	4.4	Surface	1.0	0.3	198	28.2	28.2	7.8	7.8	28.5	28.5	77.7	77.8	5.2	5.2	20.0	24.6	41	41	-	-	817911	814670	-	-	-	-
						1.0	0.3	200	28.2		7.8		28.5		77.8		5.2		20.1		41		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.3	212	28.2	28.2	7.8	7.8	28.5	28.5	80.9	82.3	5.4	5.5	28.1		41		-				-		-	
						3.4	0.3	221	28.2		7.8		28.5		83.6		5.6		30.3		41		-				-		-	
SR7	Cloudy	Calm	10:01	15.3	Surface	1.0	0.2	180	26.2	26.2	7.9	7.9	29.2	29.2	77.8	77.8	5.3	5.3	4.1	8.0	4	5	-	-	823653	823725	-	-	-	-
						1.0	0.2	185	26.2		7.9		29.2		77.7		5.3		4.1		6		-				-		-	
					Middle	7.7	0.2	118	26.1	26.1	7.9	7.9	29.5	29.5	75.4	75.4	5.2		5.6		5		-				-		-	
						7.7	0.2	128	26.1		7.9		29.5		75.4		5.2		5.7		5		-				-		-	
					Bottom	14.3	0.3	91	26.1	26.1	7.9	7.9	30.1	30.1	73.0	73.1	5.0	5.0	14.2		5		-				-		-	
						14.3	0.3	95	26.1		7.9		30.1		73.1		5.0		14.3		6		-				-		-	
SR8	Cloudy	Moderate	11:09	5.0	Surface	1.0	0.3	265	26.7	26.7	7.9	7.9	27.5	27.5	86.9	86.9	6.0	6.0	6.6	6.2	4	7	-	-	820409	811573	-	-	-	-
						1.0	0.4	278	26.7		7.9		27.5		86.9		6.0		6.5		5		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.3	257	26.8	26.8	7.9	7.9	27.6	27.6	87.7	87.8	6.0	6.0	5.7		8		-				-		-	
						4.0	0.3	257	26.7		7.9		27.6		87.9		6.0		5.8		10		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 22 September 16 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
C1	Fine	Calm	16:32	8.1	Surface	1.0	0.2	158	28.4	28.4	8.0	8.0	28.9	28.9	94.4	94.4	6.2	6.1	1.8	4.2	6	6	82	89	815608	804255	<0.2	<0.2	1.3	1.1
						1.0	0.2	166	28.4		8.0		28.9		94.3		6.2		1.9		5		80				<0.2		1.2	
					Middle	4.1	0.2	110	28.3	28.3	8.1	8.1	29.6	29.6	91.2	91.2	6.0		3.8		5		88				<0.2		1.0	
						4.1	0.2	114	28.3		8.1		29.5		91.1		6.0		3.9		6		91				<0.2		1.0	
					Bottom	7.1	0.2	114	28.1	28.1	8.1	8.1	31.5	31.5	90.2	90.5	5.9	5.9	7.1		8		94				<0.2		1.0	
						7.1	0.2	118	28.1		8.1		31.4		90.7		5.9		6.9		6		96				<0.2		1.0	
C2	Cloudy	Moderate	15:22	12.7	Surface	1.0	0.4	76	26.7	26.7	7.8	7.8	25.0	25.0	77.1	77.1	5.4	5.3	5.0	10.9	5	12	83	87	825692	806929	<0.2	<0.2	2.0	1.9
						1.0	0.4	83	26.7		7.8		25.0		77.0		5.4		5.1		5		83				<0.2		2.0	
					Middle	6.4	0.4	106	26.2	26.2	7.8	7.8	27.3	27.3	74.5	74.6	5.2		8.7		8		85				<0.2		1.7	
						6.4	0.4	114	26.2		7.8		27.3		74.6		5.2		8.7		8		87				<0.2		1.9	
					Bottom	11.7	0.3	108	26.2	26.2	7.8	7.8	28.1	28.1	74.3	74.5	5.1	5.2	19.2		25		93				<0.2		2.1	
						11.7	0.3	117	26.2		7.8		28.1		74.7		5.2		18.6		23		93				<0.2		1.6	
C3	Cloudy	Moderate	17:15	12.8	Surface	1.0	0.3	217	26.2	26.2	8.0	8.0	30.3	30.3	79.3	79.3	5.4	5.3	4.3	5.8	6	8	88	91	822089	817819	<0.2	<0.2	1.2	0.9
						1.0	0.3	217	26.2		8.0		30.3		79.2		5.4		4.3		6		88				<0.2		0.8	
					Middle	6.4	0.3	153	26.1	26.1	8.0	8.0	30.8	30.8	76.9	76.9	5.2		7.0		8		92				<0.2		0.9	
						6.4	0.3	164	26.1		8.0		30.8		76.9		5.2		7.1		7		92				<0.2		0.9	
					Bottom	11.8	0.4	273	25.9	25.9	7.9	7.9	31.3	31.3	76.0	76.6	5.2	5.3	5.9		9		94				<0.2		0.8	
						11.8	0.4	292	25.9		7.9		31.3		77.1		5.3		5.9		10		94				<0.2		0.9	
IM1	Fine	Calm	16:10	7.6	Surface	1.0	0.2	232	28.5	28.5	8.0	8.0	29.4	29.4	92.3	92.3	6.1	6.0	3.0	5.7	6	6	75	80	818346	806446	<0.2	<0.2	1.4	1.3
						1.0	0.2	237	28.5		8.0		29.4		92.2		6.1		2.8		8		75				<0.2		1.4	
					Middle	3.8	0.2	91	28.4	28.4	8.0	8.0	29.7	29.7	89.4	89.4	5.9		5.3		6		78				<0.2		1.1	
						3.8	0.2	96	28.4		8.0		29.7		89.3		5.9		5.3		6		78				<0.2		1.2	
					Bottom	6.6	0.2	86	28.3	28.3	8.0	8.0	30.3	30.3	87.7	87.7	5.8	5.8	9.0		6		86				<0.2		1.4	
						6.6	0.2	89	28.3		8.0		30.3		87.7		5.8		9.0		6		87				<0.2		1.3	
IM2	Fine	Calm	16:04	7.2	Surface	1.0	0.2	200	28.6	28.6	8.0	8.0	29.4	29.4	90.7	90.7	6.0	5.9	2.0	3.9	4	5	77	82	818870	806199	<0.2	<0.2	1.4	1.6
						1.0	0.2	213	28.6		8.0		29.4		90.6		6.0		2.1		5		75				<0.2		1.9	
					Middle	3.6	0.3	62	28.5	28.5	8.0	8.0	29.5	29.5	88.4	88.4	5.8		3.4		6		82				<0.2		1.1	
						3.6	0.3	63	28.5		8.0		29.5		88.3		5.8		3.5		5		85				<0.2		1.6	
					Bottom	6.2	0.2	59	28.3	28.3	8.0	8.0	30.3	30.3	83.4	83.1	5.5	5.5	6.3		4		87				<0.2		2.0	
						6.2	0.2	62	28.3		8.0		30.3		82.7		5.4		6.1		4		87				<0.2		1.6	
IM3	Fine	Calm	15:56	7.1	Surface	1.0	0.4	117	28.6	28.6	8.0	8.0	29.3	29.3	90.7	90.7	6.0	5.8	3.0	8.2	4	5	75	83	819430	806003	<0.2	<0.2	1.2	1.3
						1.0	0.4	121	28.6		8.0		29.3		90.7		6.0		3.2		5		77				<0.2		1.2	
					Middle	3.6	0.3	82	28.4	28.4	8.0	8.0	29.6	29.6	83.3	83.1	5.5		8.8		3		82				<0.2		1.7	
						3.6	0.3	83	28.4		8.0		29.6		82.9		5.5		9.0		4		83				<0.2		1.4	
					Bottom	6.1	0.3	86	28.3	28.3	8.0	8.0	30.2	30.2	77.2	77.1	5.1	5.1	12.9		6		87				<0.2		1.0	
						6.1	0.3	87	28.3		8.0		30.2		77.0		5.1		12.4		7		91				<0.2		1.1	
IM4	Fine	Calm	15:48	7.6	Surface	1.0	0.3	98	28.5	28.5	8.0	8.0	29.0	29.0	89.6	89.6	5.9	5.8	3.5	8.4	4	5	75	82	819583	805058	<0.2	<0.2	1.4	1.4
						1.0	0.4	99	28.5		8.0		29.0		89.5		5.9		3.3		4		78				<0.2		1.4	
					Middle	3.8	0.3	56	28.5	28.5	8.0	8.0	29.0	29.1	86.7	86.7	5.7		6.8		4		80				<0.2		1.3	
						3.8	0.3	57	28.5		8.0		29.1		86.6		5.7		7.0		4		82				<0.2		1.6	
					Bottom	6.6	0.3	88	28.2	28.2	8.0	8.0	30.4	30.4	80.7	80.1	5.3	5.3	15.5		5		87				<0.2		1.2	
						6.6	0.3	91	28.2		8.0		30.4		79.4		5.2		14.2		7		87				<0.2		1.3	
IM5	Fine	Calm	15:39	6.4	Surface	1.0	0.3	144	28.6	28.6	8.0	8.0	28.2	28.2	89.0	89.0	5.9	5.8	3.8	12.1	4	5	78	85	820557	804929	<0.2	<0.2	1.3	1.6
						1.0	0.4	145	28.6		8.0		28.2		89.0		5.9		3.7		4		80				<0.2		1.7	
					Middle	3.2	0.3	58	28.4	28.4	8.0	8.0	29.5	29.5	86.7	86.7	5.7		9.0		3		86				<0.2		1.8	
						3.2	0.3	60	28.4		8.0		29.5		86.6		5.7		9.3		3		84				<0.2		1.6	
					Bottom	5.4	0.3	59	28.2	28.2	8.0	8.0	29.9	29.9	83.9	83.8	5.5	5.5	22.6		8		89				<0.2		1.5	
						5.4	0.3	60	28.2		8.0		29.9		83.7		5.5		24.2		9		90				<0.2		1.4	
IM6	Fine	Calm	15:30	6.5	Surface	1.0	0.3	111	28.7	28.7	8.0	8.0	27.6	27.6	85.7	85.7	5.7	5.6	4.5	11.5	3	4	78	84	821050	805817	<0.2	<0.2	1.9	1.8
						1.0	0.3	114	28.7		8.0		27.6		85.6		5.7		4.7		3		79				<0.2		1.9	
					Middle	3.3	0.3	50	28.6	28.6	8.0	8.0	27.9	27.9	81.6	81.5	5.4		10.8		5		83				<0.2		1.6	
						3.3	0.3	51	28.5		8.0		27.9		81.4		5.4		11.3		3		86				<0.2		1.8	
					Bottom	5.5	0.3	70	28.3	28.4	8.0	8.0	29.3	29.3	78.1	77.5	5.2	5.2	19.4		6		88				<0.2		1.6	
						5.5	0.3	76	28.4		8.0		29.2		76.9		5.1		18.5		6		90				<0.2		1.9	
IM7	Fine	Calm	15:22	7.1	Surface	1.0	0.3	95	28.7	28.7	7.9	7.9	26.8	26.8	85.5	85.3	5.7	5.6	4.8	8.2	4	4	77	82	821333	806843	<0.2	<0.2	1.8	2.0
						1.0	0.3	97	28.7		7.9		26.8		85.1		5.7		5.1		4		75				<0.2		1.9	
					Middle	3.6	0.4	44	28.6	28.6	8.0	8.0	27.5	27.5	81.7	81.7	5.4		7.8		4		82				<0.2		2.5	
						3.6	0.4	46	28.5		8.0		27.5		81.6		5.4		8.2		4		82				<0.2		2.3	
					Bottom	6.1	0.3	50	28.3	28.3	8.0	8.0	29.4	29.4	79.8	79.7	5.3	5.3	11.6		4		86				<0.2		1.7	
						6.1	0.3	54	28.3		8.0		29.4		79.6		5.3		11.7		4		89				<0.2		1.6	
IM8	Cloudy	Moderate	16:00	8.8	Surface	1.0	0.3	174	26.6	26.6	7.9	7.9	27.0	27.0	89.2	89.2	6.2	6.2	2.9	4.5	4	4	83	89	821692	807837	<0.2	<0.2	2.3	2.2
						1.0	0.3	183	26.6		7.9		27.0		89.2		6.2		2.9		4		84				<0.2		2.4	
					Middle	4.4	0.3	181	26.6	26.6	7.9	7.9	27.4	27.4	89.0	89.0	6.1		3.4		3		90				<0.2		2.4	
						4.4	0.3	192	26.6		7.9		27.4		88.9		6.1		3.5		3		90				<0.2		2.1	
					Bottom	7.8	0.3	157	26.3	26.4	7.9	7.9	29.3	29.3	87.8	88.1	6.0	6.0	7.4		5		93				<0.2		2.1	
						7.8	0.3	169	26.4		7.9		29.2		88.3		6.0		7.1		6		93				<0.2		1.9	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 22 September 16 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
IM9	Cloudy	Moderate	16:08	7.8	Surface	1.0	0.4	120	26.4	26.4	7.9	7.9	27.6	27.6	83.9	83.9	5.8	5.8	6.9	8.7	6	8	85	90	822093	808829	<0.2	<0.2	2.1	1.9
						1.0	0.4	122	26.4		7.9		27.6		83.8		5.8		6.9		7		86				<0.2		2.0	
					Middle	3.9	0.3	144	26.3	26.3	7.9	7.9	28.5	28.5	83.8	83.8	5.8		8.3		8		91				<0.2		2.1	
						3.9	0.3	150	26.3		7.9		28.5		83.8		5.8		8.4		8		90				<0.2		1.8	
					Bottom	6.8	0.3	125	26.3	26.3	7.9	7.9	29.2	29.2	85.8	86.2	5.9	5.9	10.6		10		93				<0.2		1.8	
						6.8	0.4	125	26.3		7.9		29.2		86.5		5.9		10.8		11		93				<0.2		1.8	
IM10	Cloudy	Moderate	16:17	8.0	Surface	1.0	0.4	144	26.6	26.6	8.0	8.0	28.2	28.2	89.8	89.8	6.2	6.0	3.9	5.8	4	6	85	89	822252	809833	<0.2	<0.2	2.2	1.9
						1.0	0.4	150	26.6		8.0		28.2		89.8		6.2		3.9		4		84				<0.2		1.5	
					Middle	4.0	0.3	174	26.3	26.4	8.0	8.0	29.4	29.4	83.9	84.0	5.7		5.8		6		90				<0.2		1.5	
						4.0	0.3	189	26.4		8.0		29.3		84.1		5.8		5.7		7		89				<0.2		2.1	
					Bottom	7.0	0.3	166	26.3	26.3	8.0	8.0	29.5	29.5	81.6	81.8	5.6	5.6	7.7		8		92				<0.2		1.8	
						7.0	0.3	169	26.3		8.0		29.5		81.9		5.6		7.9		8		92				<0.2		2.3	
IM11	Cloudy	Moderate	16:25	8.6	Surface	1.0	0.4	130	26.6	26.6	7.9	7.9	27.0	27.0	86.3	86.3	6.0	5.8	3.8	6.5	7	7	84	90	821519	810548	<0.2	<0.2	2.1	1.9
						1.0	0.4	136	26.6		7.9		27.0		86.2		5.9		3.9		5		86				<0.2		2.3	
					Middle	4.3	0.3	145	26.3	26.3	7.9	7.9	29.2	29.2	81.8	81.8	5.6		6.4		6		90				<0.2		1.5	
						4.3	0.4	150	26.3		7.9		29.2		81.8		5.6		6.5		5		91				<0.2		1.7	
					Bottom	7.6	0.3	163	26.2	26.2	7.9	7.9	29.6	29.6	82.1	82.2	5.6	5.6	9.2		10		93				<0.2		1.8	
						7.6	0.3	164	26.2		7.9		29.6		82.2		5.6		9.3		10		94				<0.2		1.7	
IM12	Cloudy	Moderate	16:33	8.7	Surface	1.0	0.4	111	26.5	26.5	7.9	7.9	27.4	27.4	87.3	87.3	6.0	5.8	4.1	5.7	6	7	86	90	821145	811519	<0.2	<0.2	2.1	2.0
						1.0	0.4	120	26.5		7.9		27.4		87.2		6.0		4.2		7		85				<0.2		2.1	
					Middle	4.4	0.4	114	26.3	26.3	8.0	8.0	29.6	29.6	80.7	80.6	5.5		5.8		7		92				<0.2		2.1	
						4.4	0.4	114	26.3		8.0		29.6		80.5		5.5		5.9		6		90				<0.2		2.1	
					Bottom	7.7	0.4	135	26.2	26.2	8.0	8.0	29.9	29.9	79.8	79.8	5.5	5.5	7.2		9		93				<0.2		1.8	
						7.7	0.4	142	26.2		8.0		29.9		79.8		5.5		7.2		9		93				<0.2		1.7	
SR2	Cloudy	Moderate	16:54	5.4	Surface	1.0	0.3	76	26.4	26.4	8.0	8.0	29.1	29.1	86.4	86.4	5.9	5.9	5.3	6.6	8	8	85	87	821446	814162	<0.2	<0.2	1.9	1.9
						1.0	0.3	82	26.4		8.0		29.1		86.3		5.9		5.3		7		85				<0.2		1.8	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.2	97	26.3	26.3	8.0	8.0	29.5	29.5	82.5	82.9	5.7	5.7	7.8		8		89				<0.2		2.0	
						4.4	0.2	99	26.3		8.0		29.5		83.2		5.7		7.8		7		90				<0.2		1.7	
SR3	Cloudy	Moderate	15:54	10.0	Surface	1.0	0.4	160	26.7	26.7	7.8	7.8	26.6	26.6	88.1	88.1	6.1	6.0	2.9	12.4	3	9	-	-	822134	807567	-	-	-	-
						1.0	0.4	172	26.7		7.8		26.6		88.0		6.1		3.1		3		-				-		-	
					Middle	5.0	0.5	76	26.3	26.3	7.9	7.9	29.0	29.0	84.5	84.5	5.8		10.9		7		-				-		-	
						5.0	0.5	76	26.3		7.9		29.0		84.4		5.8		10.9		6		-				-		-	
					Bottom	9.0	0.4	93	26.3	26.3	7.9	7.9	29.6	29.6	84.7	84.9	5.8	5.8	23.3		18		-				-		-	
						9.0	0.4	94	26.3		7.9		29.6		85.1		5.8		23.2		18		-				-		-	
SR4A	Fine	Calm	16:53	8.2	Surface	1.0	0.3	111	28.5	28.5	8.0	8.0	29.3	29.3	94.4	94.4	6.2	6.2	4.4	6.0	9	8	-	-	817192	807825	-	-	-	-
						1.0	0.3	118	28.5		8.0		29.3		94.3		6.2		4.4		7		-				-		-	
					Middle	4.1	0.3	106	28.5	28.5	8.0	8.0	29.4	29.4	93.1	93.1	6.1		6.1		8		-				-		-	
						4.1	0.3	111	28.5		8.0		29.4		93.0		6.1		6.3		8		-				-		-	
					Bottom	7.2	0.3	100	28.4	28.4	8.0	8.0	29.6	29.6	94.6	95.2	6.2	6.3	7.7		8		-				-		-	
						7.2	0.3	107	28.4		8.0		29.6		95.8		6.3		7.3		9		-				-		-	
SR5A	Fine	Calm	17:09	4.1	Surface	1.0	0.1	201	28.6	28.6	8.0	8.0	28.7	28.7	89.0	89.0	5.9	5.9	3.5	4.3	10	10	-	-	816588	810703	-	-	-	-
						1.0	0.1	217	28.6		8.0		28.7		88.9		5.9		3.6		9		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	187	28.6	28.6	8.0	8.0	28.7	28.7	88.2	88.3	5.8	5.8	5.0		10		-				-		-	
						3.1	0.1	190	28.6		7.9		28.7		88.3		5.8		5.2		10		-				-		-	
SR6	Fine	Calm	17:32	4.0	Surface	1.0	0.3	143	28.5	28.5	7.9	7.9	27.8	27.8	86.0	86.0	5.7	5.7	4.4	4.6	11	11	-	-	817904	814665	-	-	-	-
						1.0	0.4	146	28.5		7.9		27.8		86.0		5.7		4.5		10		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.3	140	28.5	28.5	7.9	7.9	28.4	28.4	78.4	77.6	5.2	5.2	4.9		12		-				-		-	
						3.0	0.4	148	28.5		7.9		28.3		76.7		5.1		4.4		11		-				-		-	
SR7	Cloudy	Moderate	17:42	17.0	Surface	1.0	0.5	112	26.0	26.0	8.0	8.0	31.4	31.4	75.6	75.6	5.1	5.1	3.8	4.7	7	7	-	-	823638	823757	-	-	-	-
						1.0	0.5	121	26.0		8.0		31.4		75.5		5.1		3.8		6		-				-		-	
					Middle	8.5	0.4	84	26.0	26.0	8.0	8.0	31.6	31.6	74.5	74.5	5.1		4.3		8		-				-		-	
						8.5	0.4	89	26.0		8.0		31.6		74.5		5.1		4.4		8		-				-		-	
					Bottom	16.0	0.4	136	26.0	26.0	8.0	8.0	31.7	31.7	75.7	76.2	5.1	5.2	5.9		7		-				-		-	
						16.0	0.4	136	26.0		8.0		31.7		76.6		5.2		5.8		7		-				-		-	
SR8	Cloudy	Moderate	16:40	5.2	Surface	1.0	0.3	154	26.4	26.4	7.9	7.9	28.2	28.2	84.5	84.5	5.8	5.8	6.4	8.8	9	10	-	-	820435	811600	-	-	-	-
						1.0	0.3	159	26.4		7.9		28.2		84.4		5.8		6.4		10		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	137	26.2	26.2	8.0	8.0	29.6	29.6	80.9	81.1	5.5	5.6	10.5		10		-				-		-	
						4.2	0.3	138	26.2		8.0		29.6		81.3		5.6		11.7		10		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 September 16 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 (mg/L)		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
C1	Fine	Calm	14:02	7.8	Surface	1.0	0.5	89	28.4	28.4	8.0	8.0	28.5	28.5	91.8	91.8	6.1	6.1	1.7	2.7	4	6	75	85	815620	804253	<0.2	<0.2	1.5	1.4
						1.0	0.5	89	28.4		8.0		28.5		91.8		6.1		1.7		6		77				<0.2		1.6	
					Middle	3.9	0.6	59	28.2	28.2	8.1	8.1	29.6	29.6	91.3	91.3	6.0		2.8		6		78				<0.2		1.5	
						3.9	0.7	61	28.2		8.1		29.6		91.3		6.1		3.0		8		80				<0.2		1.5	
					Bottom	6.8	0.6	55	28.1	28.1	8.1	8.1	30.6	30.6	93.8	93.9	6.2	6.2	3.5		6		99				<0.2		1.0	
						6.8	0.6	59	28.1		8.1		30.6		93.9		6.2		3.6		7		102				<0.2		1.1	
C2	Cloudy	Moderate	13:06	11.5	Surface	1.0	0.4	255	26.7	26.7	7.8	7.8	22.1	22.1	77.3	77.3	5.5	5.3	3.8	7.5	5	8	82	88	825686	806927	<0.2	<0.2	3.1	2.6
						1.0	0.5	267	26.7		7.8		22.1		77.3		5.5		3.9		5		83				<0.2		3.0	
					Middle	5.8	0.5	260	26.3	26.3	7.9	7.9	28.3	28.3	74.5	74.5	5.1		7.0		6		89				<0.2		2.6	
						5.8	0.5	268	26.3		7.9		28.3		74.5		5.1		7.0		6		90				<0.2		2.6	
					Bottom	10.5	0.4	245	26.2	26.2	7.9	7.9	30.0	30.0	73.5	73.6	5.0	5.0	11.5		13		93				<0.2		2.0	
						10.5	0.4	260	26.2		7.9		30.0		73.7		5.0		11.5		12		92				<0.2		2.3	
C3	Cloudy	Moderate	15:07	11.8	Surface	1.0	0.8	179	26.5	26.5	7.9	7.9	29.7	29.7	89.3	89.3	6.1	5.9	2.0	4.0	3	5	88	90	822117	817801	<0.2	<0.2	1.6	1.4
						1.0	0.8	194	26.5		7.9		29.7		89.2		6.1		2.0		3		89				<0.2		1.3	
					Middle	5.9	0.3	199	26.0	26.0	7.9	7.9	30.2	30.2	81.0	81.0	5.6		3.2		7		90				<0.2		1.4	
						5.9	0.4	212	26.0		7.9		30.2		81.0		5.6		3.2		5		90				<0.2		1.4	
					Bottom	10.8	0.4	240	26.0	26.0	7.9	7.9	30.9	30.9	79.2	79.2	5.4	5.4	6.9		5		93				<0.2		1.3	
						10.8	0.4	257	26.0		7.9		30.9		79.2		5.4		6.8		4		92				<0.2		1.3	
IM1	Fine	Calm	13:54	6.2	Surface	1.0	0.6	191	28.3	28.3	8.0	8.0	30.3	30.4	90.6	90.6	6.0	6.0	9.1	9.2	25	16	73	80	818349	806451	<0.2	<0.2	1.1	1.1
						1.0	0.6	207	28.3		8.0		30.4		90.6		6.0		8.9		23		73				<0.2		1.0	
					Middle	3.1	0.6	77	28.3	28.3	8.0	8.0	30.4	30.4	90.6	90.6	6.0		8.9		9		72				<0.2		1.0	
						3.1	0.7	82	28.3		8.0		30.4		90.6		6.0		9.0		8		73				<0.2		1.1	
					Bottom	5.2	0.5	171	28.3	28.3	8.1	8.1	30.6	30.6	91.0	91.1	6.0	6.0	9.0		14		93				<0.2		1.1	
						5.2	0.5	187	28.2		8.1		30.6		91.2		6.0		10.0		15		95				<0.2		1.2	
IM2	Fine	Calm	13:47	7.0	Surface	1.0	0.5	216	28.6	28.6	8.0	8.0	26.6	26.6	91.1	91.1	6.1	6.1	2.1	5.4	14	12	73	82	818864	806206	<0.2	<0.2	2.2	1.5
						1.0	0.5	228	28.6		8.0		26.6		91.0		6.1		2.2		15		76				<0.2		2.2	
					Middle	3.5	0.6	109	28.3	28.3	8.0	8.0	28.6	28.6	89.7	89.7	6.0		5.7		15		75				<0.2		1.2	
						3.5	0.6	111	28.3		8.0		28.6		89.7		6.0		5.6		15		75				<0.2		1.0	
					Bottom	6.0	0.4	108	28.2	28.2	8.0	8.0	29.8	29.8	89.6	89.7	5.9	5.9	8.5		7		96				<0.2		1.3	
						6.0	0.5	112	28.2		8.0		29.8		89.7		5.9		8.5		8		97				<0.2		1.2	
IM3	Fine	Calm	13:39	7.5	Surface	1.0	0.6	231	28.7	28.7	7.9	7.9	25.2	25.2	89.6	89.6	6.0	6.0	1.7	2.8	3	6	68	80	819429	806020	<0.2	<0.2	1.6	1.7
						1.0	0.6	247	28.7		7.9		25.2		89.6		6.0		1.9		3		70				<0.2		1.6	
					Middle	3.8	0.7	70	28.4	28.4	8.0	8.0	27.2	27.2	88.6	88.6	5.9		2.9		7		73				<0.2		2.0	
						3.8	0.8	74	28.4		8.0		27.2		88.6		5.9		2.8		6		75				<0.2		1.8	
					Bottom	6.5	0.4	108	28.3	28.3	8.0	8.0	29.1	29.1	88.7	88.7	5.9	5.9	3.7		8		97				<0.2		1.7	
						6.5	0.5	112	28.3		8.0		29.0		88.7		5.9		3.8		7		94				<0.2		1.3	
IM4	Fine	Calm	13:35	7.2	Surface	1.0	0.6	151	28.8	28.8	7.9	7.9	24.0	24.0	87.2	87.2	5.9	5.9	0.9	2.3	5	4	68	80	819588	805021	<0.2	<0.2	2.1	2.1
						1.0	0.6	154	28.8		7.9		24.0		87.2		5.9		0.8		4		71				<0.2		2.0	
					Middle	3.6	0.7	87	28.4	28.4	7.9	7.9	26.2	26.3	87.3	87.3	5.9		2.5		5		75				<0.2		2.5	
						3.6	0.7	92	28.4		7.9		26.3		87.3		5.9		2.5		4		79				<0.2		2.1	
					Bottom	6.2	0.6	97	28.3	28.3	8.0	8.0	28.0	28.1	86.9	87.0	5.8	5.8	3.5		4		93				<0.2		1.9	
						6.2	0.6	103	28.3		8.0		28.2		87.0		5.8		3.5		4		95				<0.2		2.1	
IM5	Fine	Calm	13:27	6.8	Surface	1.0	0.7	171	28.6	28.6	7.9	7.9	26.1	26.1	85.6	85.6	5.7	5.8	2.0	3.2	6	7	74	83	820576	804907	<0.2	<0.2	2.5	2.3
						1.0	0.8	177	28.6		7.9		26.1		85.6		5.7		2.0		7		77				<0.2		2.5	
					Middle	3.4	0.8	50	28.4	28.4	7.9	7.9	26.7	26.7	85.7	85.8	5.8		3.8		6		84				<0.2		3.1	
						3.4	0.9	52	28.4		7.9		26.7		85.8		5.8		3.8		6		84				<0.2		3.1	
					Bottom	5.8	0.6	105	28.3	28.3	8.0	8.0	28.1	28.1	87.7	87.8	5.8	5.9	3.6		7		88				<0.2		1.2	
						5.8	0.6	107	28.3		8.0		28.1		87.8		5.9		3.7		8		90				<0.2		1.1	
IM6	Fine	Calm	13:18	6.3	Surface	1.0	0.7	133	28.6	28.6	7.9	7.9	26.4	26.4	87.0	87.0	5.8	5.8	2.0	2.0	6	4	77	84	821040	805811	<0.2	<0.2	1.4	1.5
						1.0	0.8	133	28.6		7.9		26.4		87.0		5.8		2.1		4		79				<0.2		1.4	
					Middle	3.2	0.8	74	28.4	28.4	8.0	8.0	27.1	27.1	86.0	86.0	5.8		1.6		5		80				<0.2		1.5	
						3.2	0.9	79	28.4		8.0		27.1		85.9		5.8		1.6		3		81				<0.2		1.6	
					Bottom	5.3	0.6	46	28.2	28.2	8.0	8.0	28.9	28.9	85.1	85.1	5.7	5.7	2.3		3		90				<0.2		1.2	
						5.3	0.6	47	28.2		8.0		28.8		85.1		5.7		2.2		3		96				<0.2		1.7	
IM7	Fine	Calm	13:08	7.5	Surface	1.0	0.5	187	28.6	28.6	7.9	7.9	25.7	25.6	82.3	82.3	5.5	5.5	2.9	5.2	6	10	73	78	821366	806837	<0.2	<0.2	1.6	1.8
						1.0	0.5	204	28.6		7.9		25.4		82.3		5.5		3.2		7		73				<0.2		2.0	
					Middle	3.8	0.7	63	28.3	28.3	7.9	7.9	27.9	27.9	82.6	82.7	5.5		6.1		11		74				<0.2		1.8	
						3.8	0.7	63	28.3		7.9		27.9		82.7		5.5		6.0		13		77				<0.2		1.4	
					Bottom	6.5	0.6	69	28.2	28.2	8.0	8.0	29.2	29.2	84.1	84.2	5.6	5.6	6.4		11		85				<0.2		2.0	
						6.5	0.6	75	28.2		8.0		29.2		84.2		5.6		6.5		11		86				<0.2		2.0	
IM8	Cloudy	Moderate	13:43	7.6	Surface	1.0	0.7	191	27.0	27.0	7.8	7.8	22.6	22.6	83.8	83.8	5.9	5.8	2.4	3.2	4	5	83	89	821703	807857	<0.2	<0.2	3.4	2.3
						1.0	0.7	209	27.0		7.8		22.6		83.7		5.9		2.5		4		85				<0.2		3.3	
					Middle	3.8	0.5	202	26.3	26.3	7.9	7.9	27.3	27.3	81.2	81.2	5.6		3.0		2		89				<0.2		1.9	
						3.8	0.6	218	26.3		7.9		27.3		81.2		5.6		3.1		4		90				<0.2		2.1	
					Bottom	6.6	0.5	237	26.3	26.3	7.9	7.9	28.4	28.4	82.8	82.8	5.7	5.7	4.0		6		92				<0.2		1.3	
						6.6	0.5	242	26.3		7.9		28.4		82.8		5.7		4.0		8		92				<0.2		1.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
IM9	Cloudy	Moderate	13:53	6.8	Surface	1.0	0.4	204	26.8	26.8	7.8	7.8	24.1	24.1	87.2	87.2	6.1	5.9	2.5	2.8	4	4	84	90	822082	808813	<0.2	<0.2	2.0	1.6
						1.0	0.5	222	26.8		7.8		24.1		87.1		6.1		2.5		3		86				<0.2		2.0	
					Middle	3.4	0.4	212	26.4	26.4	7.9	7.9	27.5	27.5	82.1	82.1	5.7		2.7		4		90				<0.2		1.3	
						3.4	0.4	216	26.4		7.9		27.5		82.1		5.7		2.7		2		91				<0.2		1.4	
					Bottom	5.8	0.4	256	26.3	26.3	7.9	7.9	28.0	28.0	84.2	84.3	5.8	5.8	3.2		4		93				<0.2		1.5	
						5.8	0.4	256	26.3		7.9		28.0		84.4		5.8		3.3		5		93				<0.2		1.3	
IM10	Cloudy	Moderate	14:02	7.3	Surface	1.0	0.4	239	26.6	26.6	7.8	7.8	25.2	25.2	88.3	88.3	6.2	6.0	2.5	4.2	2	6	83	89	822241	809835	<0.2	<0.2	1.7	1.6
						1.0	0.4	256	26.6		7.8		25.2		88.2		6.1		2.4		2		84				<0.2		2.0	
					Middle	3.7	0.4	271	26.4	26.4	7.9	7.9	28.5	28.5	84.3	84.4	5.8		3.8		5		91				<0.2		1.6	
						3.7	0.4	276	26.4		7.9		28.4		84.4		5.8		3.9		5		90				<0.2		1.5	
					Bottom	6.3	0.4	277	26.3	26.3	7.9	7.9	29.3	29.3	86.0	86.0	5.9	5.9	6.4		11		92				<0.2		1.4	
						6.3	0.4	294	26.3		7.9		29.3		86.0		5.9		6.4		9		92				<0.2		1.1	
IM11	Cloudy	Moderate	14:10	8.0	Surface	1.0	0.5	248	26.8	26.8	7.8	7.8	26.2	26.2	91.0	91.0	6.3	6.2	2.0	3.1	3	4	84	89	821483	810531	<0.2	<0.2	1.5	1.5
						1.0	0.5	271	26.8		7.8		26.2		90.9		6.3		1.9		4		85				<0.2		1.5	
					Middle	4.0	0.4	254	26.5	26.5	7.9	7.9	27.6	27.6	87.2	87.2	6.0		2.6		4		90				<0.2		1.7	
						4.0	0.4	267	26.5		7.9		27.6		87.1		6.0		2.7		3		90				<0.2		1.6	
					Bottom	7.0	0.5	250	26.3	26.4	7.9	7.9	28.1	28.1	87.7	88.2	6.0	6.1	4.9		5		92				<0.2		1.5	
						7.0	0.5	269	26.4		7.9		28.1		88.7		6.1		4.4		7		93				<0.2		1.4	
IM12	Cloudy	Moderate	14:19	8.4	Surface	1.0	0.5	265	26.7	26.7	7.9	7.9	27.7	27.7	90.8	90.8	6.2	6.2	2.2	8.2	3	8	86	89	821150	811513	<0.2	<0.2	1.2	1.2
						1.0	0.6	284	26.7		7.9		27.7		90.8		6.2		2.3		4		84				<0.2		1.2	
					Middle	4.2	0.5	264	26.2	26.2	7.9	7.9	28.3	28.3	88.5	88.5	6.1		3.5		4		90				<0.2		1.2	
						4.2	0.5	271	26.2		7.9		28.3		88.5		6.1		3.6		4		90				<0.2		1.4	
					Bottom	7.4	0.5	261	26.0	26.0	7.9	7.9	30.6	30.6	87.4	87.5	6.0	6.0	18.7		15		92				<0.2		1.1	
						7.4	0.5	274	26.0		7.9		30.6		87.5		6.0		18.6		16		92				<0.2		1.1	
SR2	Cloudy	Moderate	14:43	4.7	Surface	1.0	0.2	187	26.4	26.4	7.9	7.9	28.8	28.8	88.3	88.3	6.1	6.1	4.9	9.5	7	10	87	88	821473	814153	<0.2	<0.2	1.2	1.2
						1.0	0.2	202	26.4		7.9		28.8		88.3		6.1		5.0		6		87				<0.2		1.1	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.3	195	26.1	26.1	7.9	7.9	30.0	30.0	85.6	85.7	5.9	5.9	14.0		14		89				<0.2		1.2	
						3.7	0.3	206	26.1		7.9		30.0		85.7		5.9		13.9		14		89				<0.2		1.2	
SR3	Cloudy	Moderate	13:39	8.6	Surface	1.0	0.7	186	26.8	26.8	7.8	7.8	23.0	23.0	80.5	80.5	5.7	5.6	2.8	5.1	4	4	-	-	822164	807574	-	-	-	-
						1.0	0.7	197	26.8		7.8		23.0		80.5		5.7		2.8		3		-				-		-	
					Middle	4.3	0.4	207	26.3	26.3	7.8	7.8	28.0	28.0	78.9	78.9	5.4		4.0		4		-				-		-	
						4.3	0.4	223	26.3		7.8		27.9		78.9		5.4		4.0		5		-				-		-	
					Bottom	7.6	0.5	236	26.3	26.3	7.9	7.9	29.0	29.1	78.7	78.8	5.4	5.4	8.0		4		-				-		-	
						7.6	0.5	252	26.3		7.8		29.1		78.8		5.4		8.9		5		-				-		-	
SR4A	Fine	Calm	14:21	8.2	Surface	1.0	0.3	240	28.3	28.3	8.0	8.0	29.8	29.8	89.8	89.8	5.9	5.9	6.3	7.0	12	13	-	-	817181	807827	-	-	-	-
						1.0	0.4	245	28.3		8.0		29.8		89.8		5.9		6.3		11		-				-		-	
					Middle	4.1	0.3	239	28.3	28.3	8.0	8.0	29.9	29.9	89.4	89.4	5.9		6.8		12		-				-		-	
						4.1	0.3	262	28.3		8.0		29.9		89.4		5.9		6.7		11		-				-		-	
					Bottom	7.2	0.2	217	28.2	28.2	8.0	8.0	29.9	29.9	89.1	89.1	5.9	5.9	7.9		14		-				-		-	
						7.2	0.3	219	28.2		8.0		29.9		89.1		5.9		7.8		16		-				-		-	
SR5A	Fine	Calm	14:41	4.8	Surface	1.0	0.3	298	28.5	28.5	8.0	8.0	29.3	29.3	95.9	95.9	6.3	6.3	4.0	3.9	7	7	-	-	816584	810685	-	-	-	-
						1.0	0.3	315	28.5		8.0		29.3		95.9		6.3		3.9		6		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	291	28.5	28.5	8.0	8.0	29.3	29.3	98.9	99.0	6.5	6.5	3.8		6		-				-		-	
						3.8	0.3	295	28.5		8.0		29.3		99.1		6.5		3.9		7		-				-		-	
SR6	Fine	Calm	15:00	4.6	Surface	1.0	0.2	275	28.7	28.7	8.0	8.0	29.1	29.1	89.6	89.6	5.9	5.9	5.4	9.6	6	17	-	-	817895	814681	-	-	-	-
						1.0	0.3	291	28.7		8.0		29.1		89.6		5.9		5.6		8		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	262	28.6	28.6	8.0	8.0	29.1	29.1	88.8	88.8	5.9	5.9	13.4		26		-				-		-	
						3.6	0.1	265	28.6		8.0		29.1		88.8		5.9		13.9		28		-				-		-	
SR7	Cloudy	Calm	15:45	17.6	Surface	1.0	0.3	231	26.2	26.2	7.9	7.9	30.1	30.1	83.1	83.0	5.7	5.6	2.5	4.2	5	5	-	-	823626	823750	-	-	-	-
						1.0	0.3	236	26.2		7.9		30.1		82.9		5.7		2.6		5		-				-		-	
					Middle	8.8	0.2	171	26.0	26.0	7.9	7.9	30.7	30.7	79.4	79.4	5.4		3.8		5		-				-		-	
						8.8	0.2	175	26.0		7.9		30.7		79.4		5.4		3.9		3		-				-		-	
					Bottom	16.6	0.5	135	26.0	26.0	7.9	7.9	31.0	31.0	77.7	77.8	5.2	5.3	6.2		5		-				-		-	
						16.6	0.5	137	26.0		7.9		31.0		77.8		5.3		6.2		4		-				-		-	
SR8	Cloudy	Moderate	14:26	5.2	Surface	1.0	0.4	255	26.6	26.6	7.9	7.9	27.8	27.8	94.1	94.1	6.5	6.5	1.4	2.1	2	3	-	-	820421	811593	-	-	-	-
						1.0	0.4	262	26.6		7.9		27.8		94.1		6.5		1.4		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	238	26.5	26.5	7.9	7.9	27.8	27.8	94.6	94.6	6.5	6.5	2.8		3		-				-		-	
						4.2	0.3	253	26.5		7.9		27.8		94.6		6.5		2.9		2		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 September 16 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
C1	Fine	Calm	06:14	8.1	Surface	1.0	0.3	214	28.2	28.2	8.0	8.0	27.9	27.9	90.3	90.3	6.0	6.0	1.9	2.8	4	6	73	80	815639	804248	<0.2	<0.2	1.5	1.2
						1.0	0.3	215	28.2		8.0		27.9		90.3		6.0		2.1		3		70				<0.2		1.7	
					Middle	4.1	0.4	200	28.1	28.1	8.1	8.1	30.2	30.2	89.6	89.6	5.9		3.2		7		72				<0.2		1.0	
						4.1	0.4	219	28.1		8.1		30.2		89.6		5.9		3.1		8		80				<0.2		1.0	
					Bottom	7.1	0.4	198	28.1	28.1	8.1	8.1	31.2	31.2	89.4	89.4	5.9	5.9	3.2		5		90				<0.2		0.9	
						7.1	0.4	199	28.1		8.1		31.2		89.4		5.9		3.2		6		92				<0.2		0.9	
C2	Fine	Moderate	07:40	11.3	Surface	1.0	0.7	183	26.5	26.5	7.8	7.8	25.8	25.8	76.1	76.1	5.3	5.3	3.6	7.3	3	5	85	89	825682	806926	<0.2	<0.2	3.8	2.9
						1.0	0.7	191	26.5		7.8		25.8		76.1		5.3		3.6		5		84				<0.2		4.0	
					Middle	5.7	0.7	177	26.3	26.3	7.9	7.9	29.3	29.3	76.0	76.0	5.2		5.3		4		89				<0.2		2.8	
						5.7	0.7	183	26.3		7.9		29.3		76.0		5.2		5.3		4		91				<0.2		2.8	
					Bottom	10.3	0.4	161	26.3	26.3	7.8	7.8	29.9	30.0	75.3	75.5	5.1	5.2	12.7		7		93				<0.2		2.2	
						10.3	0.5	175	26.2		7.8		30.0		75.6		5.2		13.0		9		92				<0.2		1.9	
C3	Cloudy	Calm	05:40	11.3	Surface	1.0	0.4	122	26.1	26.1	7.8	7.8	30.5	30.5	83.8	83.8	5.7	5.7	3.8	4.1	5	5	89	91	822098	817812	<0.2	<0.2	1.3	1.4
						1.0	0.4	130	26.1		7.8		30.5		83.7		5.7		3.7		4		88				<0.2		1.3	
					Middle	5.7	0.3	111	26.0	26.0	7.8	7.8	31.0	31.0	83.1	83.1	5.7		4.1		5		90				<0.2		1.5	
						5.7	0.4	116	26.0		7.8		31.0		83.1		5.7		4.1		4		90				<0.2		1.6	
					Bottom	10.3	1.0	115	26.0	26.0	7.8	7.8	31.2	31.2	83.4	83.5	5.7	5.7	4.4		5		93				<0.2		1.5	
						10.3	1.0	115	26.0		7.8		31.2		83.6		5.7		4.2		5		93				<0.2		1.4	
IM1	Fine	Calm	06:39	7.7	Surface	1.0	0.4	149	28.4	28.4	7.9	7.9	26.7	26.7	88.5	88.5	5.9	5.9	3.4	5.6	6	9	75	81	818361	806465	<0.2	<0.2	2.1	1.7
						1.0	0.5	160	28.4		7.9		26.7		88.5		5.9		3.3		6		76				<0.2		2.1	
					Middle	3.9	0.4	145	28.2	28.2	8.0	8.0	28.9	28.9	87.2	87.2	5.8		5.9		9		78				<0.2		1.5	
						3.9	0.4	151	28.2		8.0		28.8		87.2		5.8		6.1		10		79				<0.2		1.5	
					Bottom	6.7	0.3	173	28.1	28.1	8.0	8.0	29.9	30.0	87.5	87.5	5.8	5.8	7.4		10		88				<0.2		1.4	
						6.7	0.3	184	28.1		8.0		30.0		87.5		5.8		7.5		10		90				<0.2		1.3	
IM2	Fine	Calm	06:45	7.8	Surface	1.0	0.6	158	28.5	28.5	7.9	7.9	25.3	25.3	88.7	88.7	6.0	6.0	2.7	6.3	5	10	76	81	818835	806188	<0.2	<0.2	2.5	2.3
						1.0	0.6	171	28.5		7.9		25.3		88.7		6.0		2.8		4		74				<0.2		2.8	
					Middle	3.9	0.5	116	28.4	28.4	7.9	7.9	26.6	26.6	88.2	88.2	5.9		6.5		10		77				<0.2		2.4	
						3.9	0.5	117	28.4		7.9		26.6		88.2		5.9		6.6		12		79				<0.2		2.1	
					Bottom	6.8	0.4	142	28.3	28.3	7.9	7.9	27.1	27.1	89.2	89.2	6.0	6.0	9.7		13		90				<0.2		2.0	
						6.8	0.4	147	28.3		7.9		27.1		89.2		6.0		9.7		15		88				<0.2		1.9	
IM3	Fine	Calm	06:59	7.9	Surface	1.0	0.4	215	28.5	28.5	7.9	7.9	25.1	25.1	88.7	88.7	6.0	6.0	4.2	8.5	5	12	73	80	819405	806036	<0.2	<0.2	2.3	2.3
						1.0	0.5	227	28.5		7.9		25.1		88.7		6.0		4.2		5		75				<0.2		2.2	
					Middle	4.0	0.4	134	28.4	28.4	7.9	7.9	26.6	26.6	87.9	87.9	5.9		9.5		24		79				<0.2		2.0	
						4.0	0.4	145	28.4		7.9		26.6		87.9		5.9		9.6		25		78				<0.2		2.2	
					Bottom	6.9	0.4	124	28.3	28.3	7.9	7.9	27.0	27.0	87.8	87.9	5.9	5.9	12.0		5		85				<0.2		2.6	
						6.9	0.4	127	28.3		7.9		27.0		87.9		5.9		11.7		6		87				<0.2		2.2	
IM4	Fine	Calm	07:08	7.8	Surface	1.0	0.5	154	28.5	28.5	7.9	7.9	25.0	25.0	86.5	86.5	5.8	5.8	2.2	5.2	8	7	71	78	819555	805046	<0.2	<0.2	2.6	2.4
						1.0	0.6	162	28.5		7.9		25.0		86.5		5.8		2.1		8		68				<0.2		2.8	
					Middle	3.9	0.5	155	28.4	28.4	7.9	7.9	26.5	26.5	85.8	85.8	5.8		5.4		9		76				<0.2		2.0	
						3.9	0.5	163	28.4		7.9		26.5		85.8		5.8		5.6		6		78				<0.2		2.0	
					Bottom	6.8	0.5	154	28.3	28.3	7.9	7.9	27.3	27.4	85.9	85.9	5.8	5.8	7.9		7		86				<0.2		2.5	
						6.8	0.5	165	28.3		7.9		27.4		85.9		5.8		7.9		6		88				<0.2		2.3	
IM5	Fine	Calm	07:15	6.8	Surface	1.0	0.3	151	28.4	28.4	7.9	7.9	26.1	26.1	87.1	87.1	5.9	5.9	1.7	2.4	7	5	76	83	820553	804917	<0.2	<0.2	2.4	2.0
						1.0	0.3	151	28.4		7.9		26.1		87.1		5.9		1.7		7		78				<0.2		2.3	
					Middle	3.4	0.3	151	28.4	28.4	7.9	8.0	26.4	26.4	86.5	86.5	5.8		2.4		4		82				<0.2		2.2	
						3.4	0.3	165	28.4		8.0		26.3		86.5		5.8		2.3		4		83				<0.2		2.3	
					Bottom	5.8	0.3	167	28.2	28.2	8.0	8.0	28.4	28.4	87.1	87.2	5.8	5.8	3.0		5		90				<0.2		1.6	
						5.8	0.3	171	28.2		8.0		28.4		87.2		5.8		3.2		4		90				<0.2		1.4	
IM6	Fine	Calm	07:24	6.4	Surface	1.0	0.5	156	28.5	28.5	7.9	7.9	26.2	26.2	89.5	89.5	6.0	6.0	1.4	3.9	8	7	80	85	821051	805846	<0.2	<0.2	2.0	1.9
						1.0	0.5	163	28.5		7.9		26.2		89.5		6.0		1.4		9		77				<0.2		2.3	
					Middle	3.2	0.4	85	28.4	28.4	8.0	8.0	26.8	26.9	88.6	88.6	5.9		3.4		7		85				<0.2		2.0	
						3.2	0.4	89	28.4		8.0		26.9		88.6		5.9		3.6		6		83				<0.2		2.0	
					Bottom	5.4	0.3	117	28.2	28.2	8.0	8.0	29.9	29.9	91.8	92.0	6.1	6.1	6.7		7		91				<0.2		1.4	
						5.4	0.3	127	28.2		8.0		29.9		92.1		6.1		6.6		5		91				<0.2		1.4	
IM7	Fine	Calm	07:34	7.2	Surface	1.0	0.5	102	28.6	28.6	7.9	7.9	25.4	25.4	83.0	83.0	5.6	5.6	4.1	5.7	11	10	78	83	821358	806834	<0.2	<0.2	2.7	2.3
						1.0	0.6	108	28.6		7.9		25.4		83.0		5.6		4.1		10		78				<0.2		2.8	
					Middle	3.6	0.5	79	28.3	28.3	7.9	8.0	28.0	28.0	82.7	82.7	5.5		6.2		11		80				<0.2		2.0	
						3.6	0.5	86	28.3		8.0		28.0		82.7		5.5		6.3		9		83				<0.2		1.8	
					Bottom	6.2	0.6	91	28.2	28.2	8.0	8.0	28.9	29.0	83.4	83.4	5.5	5.5	6.6		8		90				<0.2		2.2	
						6.2	0.6	93	28.2		8.0		29.0		83.4		5.5		6.8		9		88				<0.2		2.5	
IM8	Fine	Moderate	06:56	8.0	Surface	1.0	0.9	189	26.4	26.4	7.8	7.8	24.9	24.9	85.8	85.7	6.0	5.8	2.6	4.3	4	5	84	89	821713	807850	<0.2	<0.2	2.6	2.3
						1.0	1.0	189	26.4		7.8		24.9		85.6		6.0		2.6		4		83				<0.2		2.6	
					Middle	4.0	0.7	198	26.2	26.2	7.9	7.9	28.3	28.3	81.6	81.6	5.6		4.0		2		91				<0.2		2.2	
						4.0	0.7	202	26.2		7.9		28.3		81.6		5.6		4.0		3		90				<0.2		2.6	
					Bottom	7.0	0.8	211	26.2	26.2	7.9	7.9	28.9	29.0	81.8	82.1	5.6	5.7	5.8		7		93				<0.2		2.0	
						7.0	0.8	221	26.2		7.9		29.1		82.4		5.7		6.6		7		92				<0.2		1.8	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
IM9	Fine	Moderate	06:49	6.9	Surface	1.0	0.9	191	26.3	26.3	7.9	7.9	25.3	25.3	82.9	82.9	5.8	5.8	2.7	3.5	3	3	84	89	822097	808793	<0.2	<0.2	2.4	1.9
						1.0	1.0	205	26.3		7.9		25.3		82.8		5.8		2.7		2		85				<0.2		2.4	
					Middle	3.5	0.8	200	26.3	26.3	7.9	7.9	29.0	29.0	82.6	82.7	5.7		3.2		4		90				<0.2		2.2	
						3.5	0.8	200	26.3		7.9		28.9		82.7		5.7		3.3		4		90				<0.2		2.1	
					Bottom	5.9	0.7	212	26.2	26.2	7.9	7.9	30.0	30.0	84.6	84.7	5.8	5.8	4.5		4		92				<0.2		1.2	
						5.9	0.8	226	26.2		7.9		30.0		84.7		5.8		4.5		3		92				<0.2		1.2	
IM10	Fine	Moderate	06:43	7.7	Surface	1.0	0.7	185	26.4	26.4	7.9	7.9	26.2	26.2	85.4	85.4	5.9	5.9	2.7	4.9	2	5	83	88	822250	809822	<0.2	<0.2	2.0	2.0
						1.0	0.8	195	26.4		7.9		26.2		85.3		5.9		2.7		<2		85				<0.2		2.1	
					Middle	3.9	0.7	188	26.4	26.4	7.9	7.9	28.9	28.9	85.1	85.1	5.8		3.7		3		89				<0.2		2.2	
						3.9	0.7	199	26.4		7.9		28.9		85.1		5.8		3.8		2		90				<0.2		2.1	
					Bottom	6.7	0.6	181	26.0	26.0	8.0	8.0	31.7	31.7	87.4	87.5	5.9	5.9	8.3		9		91				<0.2		1.8	
						6.7	0.7	197	26.0		8.0		31.7		87.5		5.9		8.2		11		92				<0.2		1.6	
IM11	Fine	Moderate	06:33	7.2	Surface	1.0	0.6	166	26.7	26.7	7.9	7.9	27.5	27.5	87.0	87.0	6.0	5.9	1.8	2.5	4	5	85	89	821517	810559	<0.2	<0.2	2.2	2.0
						1.0	0.7	182	26.7		7.9		27.5		87.0		6.0		1.8		5		84				<0.2		2.0	
					Middle	3.6	0.5	181	26.4	26.4	7.9	7.9	28.8	28.8	85.1	85.1	5.8		2.4		4		90				<0.2		2.1	
						3.6	0.5	184	26.4		7.9		28.8		85.1		5.8		2.4		3		89				<0.2		2.0	
					Bottom	6.2	0.6	190	26.2	26.2	7.9	7.9	29.5	29.5	89.8	91.3	6.1	6.3	3.6		6		92				<0.2		2.0	
						6.2	0.6	194	26.2		7.9		29.5		92.8		6.4		3.2		8		92				<0.2		1.7	
IM12	Fine	Moderate	06:25	8.7	Surface	1.0	0.5	159	26.4	26.4	7.9	7.9	28.0	28.0	87.9	87.9	6.0	6.0	2.2	2.8	3	4	87	89	821167	811527	<0.2	<0.2	1.7	1.9
						1.0	0.5	162	26.4		7.9		28.0		87.9		6.0		2.2		5		85				<0.2		2.0	
					Middle	4.4	0.4	152	26.4	26.4	7.9	7.9	28.2	28.3	87.7	87.8	6.0		2.8		3		89				<0.2		1.8	
						4.4	0.4	155	26.4		7.9		28.3		87.8		6.0		2.9		4		89				<0.2		1.8	
					Bottom	7.7	0.6	185	26.1	26.1	7.9	7.9	29.3	29.4	87.8	89.6	6.0	6.2	3.4		5		92				<0.2		1.9	
						7.7	0.7	199	26.1		7.9		29.4		91.4		6.3		3.3		5		92				<0.2		2.1	
SR2	Fine	Calm	06:04	4.5	Surface	1.0	0.5	87	26.3	26.3	7.8	7.8	29.3	29.3	88.0	87.9	6.0	6.0	4.4	6.8	5	6	88	89	821465	814152	<0.2	<0.2	1.7	1.6
						1.0	0.5	91	26.3		7.8		29.2		87.8		6.0		4.6		4		87				<0.2		1.5	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.5	80	26.1	26.1	7.8	7.8	30.6	30.6	87.5	87.6	6.0	6.0	9.5		7		90				<0.2		1.7	
						3.5	0.5	83	26.1		7.8		30.6		87.7		6.0		8.6		6		89				<0.2		1.5	
SR3	Fine	Moderate	07:03	8.5	Surface	1.0	0.6	184	26.5	26.5	7.8	7.8	24.7	24.7	83.5	83.5	5.9	5.8	2.7	5.0	4	6	-	-	822131	807577	-	-	-	-
						1.0	0.6	196	26.5		7.8		24.7		83.5		5.9		2.7		5		-				-		-	
					Middle	4.3	0.4	201	26.2	26.2	7.9	7.9	27.6	27.6	81.7	81.7	5.7		4.5		5		-				-		-	
						4.3	0.4	211	26.2		7.9		27.6		81.7		5.7		4.4		4		-				-		-	
					Bottom	7.5	0.4	226	26.2	26.2	7.9	7.9	29.0	29.0	83.4	83.9	5.7	5.8	7.9		9		-				-		-	
						7.5	0.4	242	26.2		7.9		29.0		84.3		5.8		7.9		7		-				-		-	
SR4A	Fine	Calm	05:57	7.8	Surface	1.0	0.3	135	28.0	28.0	8.0	8.0	30.7	30.7	88.4	88.4	5.8	5.8	3.9	6.5	9	12	-	-	817207	807800	-	-	-	-
						1.0	0.3	145	28.0		8.0		30.7		88.4		5.8		4.0		8		-				-		-	
					Middle	3.9	0.4	99	28.0	28.0	8.0	8.0	31.0	31.0	87.4	87.4	5.8		7.8		14		-				-		-	
						3.9	0.4	106	28.0		8.0		31.0		87.4		5.8		7.5		13		-				-		-	
					Bottom	6.8	0.3	123	28.0	28.0	8.0	8.0	31.2	31.2	89.9	90.0	5.9	5.9	7.9		14		-				-		-	
						6.8	0.3	124	28.0		8.0		31.2		90.0		5.9		7.8		16		-				-		-	
SR5A	Fine	Calm	05:38	3.7	Surface	1.0	0.1	98	28.4	28.4	7.9	7.9	29.3	29.3	84.8	84.8	5.6	5.6	3.5	4.5	6	10	-	-	816605	810703	-	-	-	-
						1.0	0.1	98	28.4		7.9		29.3		84.8		5.6		3.6		8		-				-		-	
					Middle	1.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.2	154	28.2	28.2	8.0	8.0	29.8	29.8	84.3	84.3	5.6	5.6	5.5		13		-				-		-	
						2.7	0.2	161	28.2		8.0		29.8		84.3		5.6		5.4		12		-				-		-	
SR6	Fine	Calm	05:15	3.9	Surface	1.0	0.2	86	28.3	28.3	7.9	7.9	28.8	28.8	88.6	88.6	5.9	5.9	5.1	6.3	9	11	-	-	817883	814675	-	-	-	-
						1.0	0.2	93	28.3		7.9		28.8		88.6		5.9		5.3		10		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	0.2	96	28.2	28.2	7.9	7.9	29.1	29.1	90.3	90.7	6.0	6.0	7.0		12		-				-		-	
						2.9	0.2	100	28.2		7.9		29.1		91.1		6.0		7.9		14		-				-		-	
SR7	Cloudy	Calm	05:10	17.9	Surface	1.0	0.5	95	25.9	25.9	7.9	7.9	32.1	32.1	85.3	85.3	5.8	5.8	1.8	2.4	5	4	-	-	823625	823722	-	-	-	-
						1.0	0.5	101	25.9		7.9		32.1		85.3		5.8		1.8		4		-				-		-	
					Middle	9.0	0.5	106	25.9	25.9	7.9	7.9	32.3	32.3	83.8	83.8	5.7		2.1		4		-				-		-	
						9.0	0.5	110	25.9		7.9		32.3		83.8		5.7		2.1		3		-				-		-	
					Bottom	16.9	0.3	-	25.9	25.9	7.8	7.8	32.6	32.6	82.6	82.7	5.6	5.6	3.2		4		-				-		-	
						16.9	0.3	-	25.9		7.8		32.6		82.7		5.6		3.2		4		-				-		-	
SR8	Fine	Calm	06:19	5.2	Surface	1.0	0.3	162	26.2	26.2	7.9	7.9	28.8	28.8	89.7	89.7	6.2	6.2	3.9	5.0	6	5	-	-	820420	811606	-	-	-	-
						1.0	0.3	175	26.2		7.9		28.8		89.7		6.2		4.0		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.4	137	26.1	26.1	7.9	7.9	29.3	29.4	90.4	92.3	6.2	6.4	5.8		4		-				-		-	
						4.2	0.4	138	26.1		7.8		29.5		94.1		6.5		6.3		4		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 27 September 16 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 (mg/L)		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
C1	Fine	Calm	17:22	8.6	Surface	1.0	0.9	223	29.5	29.5	8.0	8.0	23.1	23.2	95.9	95.7	6.4	6.2	1.1	6.6	3	3	80	88	815601	804242	<0.2	<0.2	2.3	2.0
						1.0	0.9	232	29.5		8.0		23.2		95.5		6.4		1.0		4		82				<0.2		2.4	
					Middle	4.3	0.8	215	29.0	29.0	8.0	8.0	27.3	27.3	91.1	91.1	6.0		3.8		2		85				<0.2		1.8	
						4.3	0.8	223	29.0		8.0		27.3		91.0		6.0		3.7		3		88				<0.2		1.8	
					Bottom	7.6	0.8	205	28.7	28.7	8.0	8.0	29.9	29.9	88.9	88.9	5.8	5.8	15.0		3		96				<0.2		1.7	
						7.6	0.9	213	28.7		8.0		29.9		88.9		5.8		15.2		3		96				<0.2		1.8	
C2	Fine	Moderate	15:54	11.2	Surface	1.0	0.5	95	27.8	27.8	7.8	7.8	20.8	20.8	87.1	87.1	6.1	5.8	3.4	7.8	2	3	81	88	825697	806961	<0.2	<0.2	3.0	2.9
						1.0	0.5	98	27.8		7.8		20.8		87.1		6.1		3.4		4		82				<0.2		2.8	
					Middle	5.6	0.6	75	26.8	26.8	7.8	7.8	29.0	29.0	79.8	79.8	5.4		9.0		3		89				<0.2		3.0	
						5.6	0.7	76	26.8		7.8		29.0		79.8		5.4		9.0		3		90				<0.2		2.9	
					Bottom	10.2	0.9	63	26.5	26.5	7.8	7.8	29.9	29.9	80.2	80.2	5.5	5.5	11.0		4		92				<0.2		2.8	
						10.2	0.9	67	26.5		7.8		29.9		80.2		5.5		11.0		3		92				<0.2		3.0	
C3	Cloudy	Moderate	18:08	12.4	Surface	1.0	1.2	171	27.5	27.5	7.9	7.9	25.1	25.1	93.5	93.5	6.4	6.1	0.8	2.2	3	3	87	90	822126	817799	<0.2	<0.2	2.2	2.2
						1.0	1.2	177	27.5		7.9		25.1		93.5		6.4		0.8		3		88				<0.2		2.2	
					Middle	6.2	0.9	172	26.8	26.8	7.9	7.9	27.9	27.9	83.0	83.1	5.7		3.1		3		90				<0.2		2.3	
						6.2	0.9	177	26.8		7.9		27.8		83.1		5.7		3.1		<2		89				<0.2		2.2	
					Bottom	11.4	0.4	172	26.6	26.6	7.9	7.9	29.4	29.4	82.5	82.6	5.6	5.6	2.8		3		93				<0.2		2.1	
						11.4	0.5	176	26.6		7.9		29.3		82.6		5.6		2.8		4		92				<0.2		2.2	
IM1	Fine	Calm	16:56	7.4	Surface	1.0	0.7	191	29.3	29.3	7.9	7.9	24.3	24.4	84.5	84.0	5.6	5.5	2.8	6.0	<2	2	71	76	818331	806477	<0.2	<0.2	2.5	2.6
						1.0	0.7	205	29.2		7.9		24.4		83.4		5.6		2.9		<2		68				<0.2		2.6	
					Middle	3.7	0.4	183	28.8	28.8	7.9	7.9	28.1	28.1	81.6	81.7	5.4		6.4		2		73				<0.2		2.6	
						3.7	0.5	193	28.8		7.9		28.0		81.7		5.4		6.4		2		75				<0.2		2.6	
					Bottom	6.4	0.5	180	28.6	28.6	8.0	8.0	29.3	29.3	82.8	82.9	5.4	5.5	8.8		2		83				<0.2		2.5	
						6.4	0.5	181	28.6		8.0		29.3		82.9		5.5		8.8		2		84				<0.2		2.8	
IM2	Fine	Calm	16:44	7.7	Surface	1.0	0.9	216	29.4	29.4	7.9	7.9	24.3	24.3	85.5	85.0	5.7	5.6	2.2	5.6	3	3	73	81	818834	806204	<0.2	<0.2	2.7	2.2
						1.0	0.9	216	29.3		7.9		24.3		84.5		5.7		2.3		2		75				<0.2		2.4	
					Middle	3.9	0.6	207	28.8	28.8	7.9	7.9	27.5	27.5	81.4	81.4	5.4		6.1		2		80				<0.2		1.9	
						3.9	0.6	208	28.8		7.9		27.4		81.4		5.4		6.3		2		82				<0.2		1.9	
					Bottom	6.7	0.5	189	28.6	28.6	8.0	8.0	29.2	29.2	82.0	82.3	5.4	5.4	8.6		5		87				<0.2		2.1	
						6.7	0.5	207	28.6		8.0		29.2		82.5		5.4		8.2		3		89				<0.2		2.0	
IM3	Fine	Calm	16:38	7.6	Surface	1.0	0.8	211	29.4	29.4	7.9	7.9	24.3	24.4	86.1	85.8	5.8	5.6	1.8	5.1	4	3	74	81	819423	806001	<0.2	<0.2	1.6	1.7
						1.0	0.8	220	29.3		7.9		24.4		85.4		5.7		2.0		2		73				<0.2		1.6	
					Middle	3.8	0.7	217	28.8	28.8	7.9	7.9	27.9	27.8	80.7	80.8	5.3		5.7		3		79				<0.2		1.9	
						3.8	0.7	233	28.8		7.9		27.7		80.8		5.4		6.0		2		82				<0.2		1.9	
					Bottom	6.6	0.5	203	28.6	28.6	8.0	8.0	29.3	29.3	80.8	81.1	5.3	5.3	7.9		3		88				<0.2		1.7	
						6.6	0.6	208	28.6		8.0		29.2		81.3		5.3		7.3		4		87				<0.2		1.5	
IM4	Fine	Calm	16:30	7.9	Surface	1.0	0.8	205	29.2	29.3	7.9	7.9	25.8	25.2	83.6	83.2	5.5	5.4	2.1	4.2	4	4	73	81	819570	805058	<0.2	<0.2	2.5	1.8
						1.0	0.9	220	29.3		7.9		24.5		82.7		5.5		2.0		5		76				<0.2		2.1	
					Middle	4.0	0.6	210	28.8	28.8	7.9	7.9	27.5	27.5	80.1	80.1	5.3		4.6		3		80				<0.2		1.8	
						4.0	0.7	212	28.8		7.9		27.5		80.1		5.3		4.8		5		81				<0.2		1.3	
					Bottom	6.9	0.4	216	28.6	28.7	7.9	7.9	29.1	28.9	79.2	79.2	5.2	5.2	6.0		4		86				<0.2		1.6	
						6.9	0.4	225	28.7		7.9		28.7		79.1		5.2		5.5		3		87				<0.2		1.6	
IM5	Fine	Calm	16:23	6.6	Surface	1.0	0.9	201	29.4	29.4	7.9	7.9	24.7	24.7	87.5	87.2	5.8	5.7	0.9	3.4	<2	3	73	81	820571	804936	<0.2	<0.2	2.3	2.0
						1.0	1.0	208	29.4		7.9		24.7		86.8		5.8		1.0		2		75				<0.2		2.0	
					Middle	3.3	0.5	216	28.7	28.7	7.9	7.9	28.1	28.1	79.6	79.6	5.5		4.2		<2		80				<0.2		2.0	
						3.3	0.6	234	28.7		7.9		28.1		79.6		5.5		4.1		2		82				<0.2		1.9	
					Bottom	5.6	0.5	230	28.6	28.6	7.9	7.9	28.8	28.9	80.0	80.0	5.3	5.3	5.3		3		87				<0.2		2.0	
						5.6	0.5	237	28.6		7.9		28.9		80.0		5.3		5.1		4		87				<0.2		1.8	
IM6	Fine	Calm	16:11	6.9	Surface	1.0	0.7	207	29.1	29.1	7.9	7.9	26.1	26.1	84.3	84.3	5.6	5.6	2.2	3.9	<2	2	74	81	821053	805815	<0.2	<0.2	3.1	2.6
						1.0	0.7	212	29.1		7.9		26.1		84.3		5.6		2.3		2		72				<0.2		3.1	
					Middle	3.5	0.5	240	28.7	28.7	7.9	7.9	28.4	28.4	79.5	79.5	5.5		4.6		<2		80				<0.2		2.3	
						3.5	0.5	246	28.7		7.9		28.4		79.5		5.5		4.7		<2		83				<0.2		2.2	
					Bottom	5.9	0.4	242	28.6	28.6	7.9	7.9	28.8	28.8	80.2	80.3	5.3	5.3	4.7		<2		88				<0.2		2.4	
						5.9	0.4	242	28.6		7.9		28.8		80.3		5.3		4.8		<2		87				<0.2		2.3	
IM7	Fine	Calm	16:00	7.8	Surface	1.0	0.6	216	29.2	29.2	7.9	7.9	25.5	25.5	86.0	86.0	5.7	5.6	1.7	4.1	<2	3	72	80	821354	806822	<0.2	<0.2	2.3	2.4
						1.0	0.6	231	29.2		7.9		25.5		86.0		5.7		1.8		<2		75				<0.2		2.1	
					Middle	3.9	0.4	236	28.7	28.7	7.9	7.9	28.3	28.3	82.3	82.4	5.5		4.9		2		80				<0.2		2.4	
						3.9	0.4	252	28.7		7.9		28.2		82.4		5.5		4.9		<2		82				<0.2		2.7	
					Bottom	6.8	0.4	244	28.6	28.6	8.0	8.0	29.7	29.7	85.3	85.4	5.5	5.5	5.6		3		86				<0.2		2.3	
						6.8	0.5	247	28.6		8.0		29.7		85.4		5.4		5.7		4		84				<0.2		2.3	
IM8	Fine	Moderate	16:27	7.6	Surface	1.0	0.7	178	27.7	27.7	7.9	7.9	22.3	22.3	92.1	92.1	6.4	6.2	1.5	2.3	2	4	83	89	821675	807849	<0.2	<0.2	2.0	2.2
						1.0	0.7	188	27.7		7.9		22.3		92.1		6.4		1.5		2		85				<0.2		1.8	
					Middle	3.8	0.5	182	27.1	27.1	7.9	7.9	25.7	25.8	87.6	87.6	6.0		1.1		3		90				<0.2		2.7	
						3.8	0.5	182	27.1		7.9		25.9		87.5		6.0		1.1		4		90				<0.2		2.7	
					Bottom	6.6	0.3	171	26.9	26.9	7.8	7.8	27.5	27.6	88.1	88.2	6.0	6.0	4.2		5		92				<0.2		1.9	
						6.6	0.4	171	26.9		7.8		27.6		88.3		6.0		4.2		6		91				<0.2		1.9	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 27 September 16 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
IM9	Fine	Moderate	16:38	6.9	Surface	1.0	0.6	156	27.7	27.7	7.9	7.9	22.1	22.1	92.4	92.4	6.4	6.1	1.4	3.5	3	4	83	89	822075	808812	<0.2	<0.2	2.4	2.8
						1.0	0.7	162	27.7		7.9		22.0		92.3		6.4		1.4		4		84				<0.2		2.6	
					Middle	3.5	0.5	153	27.0	27.0	7.9	7.9	26.5	26.5	84.8	84.8	5.8		3.1		3		89				<0.2		2.8	
						3.5	0.6	163	27.0		7.9		26.4		84.8		5.8		3.1		4		90				<0.2		2.8	
					Bottom	5.9	0.5	144	26.9	26.9	7.9	7.9	27.6	27.6	83.4	83.4	5.7	5.7	5.7		4		93				<0.2		2.9	
						5.9	0.5	154	26.9		7.9		27.6		83.4		5.7		6.0		3		92				<0.2		3.0	
IM10	Fine	Moderate	16:50	7.3	Surface	1.0	0.7	127	27.3	27.3	7.9	7.9	25.3	25.3	86.8	86.8	6.0	5.9	2.3	4.8	4	5	85	89	822239	809836	<0.2	<0.2	3.1	2.4
						1.0	0.7	127	27.3		7.9		25.3		86.8		6.0		2.4		4		86				<0.2		3.1	
					Middle	3.7	0.5	117	27.0	27.0	7.9	7.9	27.2	27.2	84.2	84.3	5.8		4.2		5		91				<0.2		2.8	
						3.7	0.6	124	27.0		7.9		27.2		84.3		5.8		4.2		4		90				<0.2		2.0	
					Bottom	6.3	0.6	107	26.6	26.6	7.9	7.9	29.1	29.1	85.2	85.3	5.8	5.8	7.8		8		92				<0.2		1.7	
						6.3	0.6	110	26.6		7.9		29.0		85.3		5.8		7.7		6		92				<0.2		1.5	
IM11	Fine	Moderate	16:59	7.4	Surface	1.0	0.6	112	27.6	27.6	7.9	7.9	23.5	23.5	93.1	93.1	6.4	6.4	1.7	1.9	5	5	85	89	821514	810564	<0.2	<0.2	2.7	2.4
						1.0	0.6	119	27.6		7.9		23.5		93.1		6.4		1.7		4		86				<0.2		2.6	
					Middle	3.7	0.6	90	27.4	27.4	7.9	7.9	24.6	24.6	91.0	91.0	6.3		2.0		4		90				<0.2		2.0	
						3.7	0.7	96	27.4		7.9		24.6		91.0		6.3		2.0		4		89				<0.2		1.8	
					Bottom	6.4	0.6	96	27.3	27.3	7.8	7.8	24.8	24.8	92.9	93.0	6.4	6.4	2.1		5		92				<0.2		2.6	
						6.4	0.7	96	27.3		7.8		24.8		93.0		6.4		2.1		5		92				<0.2		2.4	
IM12	Fine	Moderate	17:10	8.4	Surface	1.0	0.7	107	27.5	27.5	7.9	7.9	24.0	24.0	93.3	93.3	6.4	6.4	3.2	5.3	4	4	86	89	821181	811527	<0.2	<0.2	3.1	2.7
						1.0	0.7	111	27.5		7.9		24.0		93.3		6.4		3.3		3		85				<0.2		2.9	
					Middle	4.2	0.7	102	27.5	27.5	7.9	7.9	24.1	24.1	92.7	92.7	6.4		6.0		5		89				<0.2		2.5	
						4.2	0.7	107	27.5		7.9		24.1		92.7		6.4		6.0		3		89				<0.2		2.2	
					Bottom	7.4	0.7	94	27.5	27.5	7.9	7.9	24.1	24.1	92.7	92.7	6.4	6.4	6.6		4		92				<0.2		2.8	
						7.4	0.8	95	27.5		7.9		24.1		92.7		6.4		6.7		4		92				<0.2		2.4	
SR2	Fine	Moderate	17:41	4.6	Surface	1.0	0.5	85	27.6	27.6	7.9	7.9	23.8	23.8	97.5	97.5	6.7	6.7	-	3.1	<2	2	87	89	821480	814161	<0.2	<0.2	2.6	2.3
						1.0	0.5	87	27.6		7.9		23.8		97.4		6.7		0.1		<2		86				<0.2		2.3	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.4	103	27.4	27.4	7.9	7.9	24.6	24.6	94.0	94.1	6.5	6.5	4.5		2		91				<0.2		2.2	
						3.6	0.4	105	27.4		7.9		24.6		94.1		6.5		4.6		<2		90				<0.2		2.0	
SR3	Fine	Moderate	16:16	8.0	Surface	1.0	0.7	177	27.5	27.5	7.8	7.8	24.0	24.0	90.9	91.0	6.3	6.2	1.6	1.4	<2	3	-	-	822156	807564	-	-	-	-
						1.0	0.8	184	27.5		7.8		24.0		91.0		6.3		1.6		<2		-				-		-	
					Middle	4.0	0.4	189	27.1	27.1	7.8	7.8	26.2	26.2	87.0	87.0	6.0		1.2		<2		-				-		-	
						4.0	0.5	205	27.1		7.8		26.1		87.0		6.0		1.2		3		-				-		-	
					Bottom	7.0	0.3	197	27.0	27.0	7.8	7.8	27.2	27.2	88.8	88.8	6.1	6.1	1.3		4		-				-		-	
						7.0	0.3	212	27.0		7.8		27.2		88.8		6.1		1.3		2		-				-		-	
SR4A	Fine	Calm	17:46	8.3	Surface	1.0	0.2	94	29.5	29.5	8.0	8.0	26.6	26.6	93.7	93.7	6.2	6.2	10.4	14.9	11	17	-	-	817177	807818	-	-	-	-
						1.0	0.3	95	29.5		8.0		26.6		93.7		6.2		10.4		13		-				-		-	
					Middle	4.2	0.3	75	29.4	29.4	8.0	8.0	26.6	26.7	92.7	92.6	6.1		9.1		21		-				-		-	
						4.2	0.3	75	29.4		8.0		26.7		92.4		6.1		10.1		21		-				-		-	
					Bottom	7.3	0.3	78	28.8	28.8	8.0	8.0	29.1	29.1	85.4	85.5	5.6	5.6	24.3		18		-				-		-	
						7.3	0.3	83	28.8		8.0		29.1		85.5		5.6		25.3		20		-				-		-	
SR5A	Fine	Calm	18:06	4.4	Surface	1.0	0.2	219	29.7	29.7	8.0	8.0	26.1	26.1	98.5	98.5	6.5	6.5	3.4	5.4	3	4	-	-	816601	810708	-	-	-	-
						1.0	0.2	225	29.7		8.0		26.1		98.5		6.5		3.5		4		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	215	29.4	29.4	8.0	8.0	27.4	27.4	95.9	96.0	6.3	6.3	7.2		3		-				-		-	
						3.4	0.2	216	29.4		8.0		27.4		96.0		6.3		7.4		5		-				-		-	
SR6	Fine	Calm	18:32	4.6	Surface	1.0	0.3	164	29.7	29.7	7.9	7.9	25.1	25.1	97.4	97.2	6.4	6.4	7.3	9.6	7	6	-	-	817900	814673	-	-	-	-
						1.0	0.3	165	29.7		7.9		25.0		97.0		6.4		8.1		6		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.3	156	29.7	29.7	7.9	7.9	26.0	26.0	96.5	96.5	6.4	6.4	11.5		5		-				-		-	
						3.6	0.3	170	29.7		7.9		25.9		96.5		6.3		11.4		6		-				-		-	
SR7	Cloudy	Calm	18:41	17.9	Surface	1.0	0.5	68	27.4	27.4	7.9	7.9	25.4	25.4	95.7	95.5	6.6	6.3	-	1.9	<2	3	-	-	823637	823756	-	-	-	-
						1.0	0.6	70	27.4		7.9		25.3		95.3		6.6		-		<2		-				-		-	
					Middle	9.0	0.5	134	27.0	27.0	7.9	7.9	27.1	27.2	88.0	88.0	6.0		0.9		3		-				-		-	
						9.0	0.5	139	27.0		7.9		27.2		88.0		6.0		0.8		3		-				-		-	
					Bottom	16.9	0.9	152	26.6	26.7	7.9	7.9	29.5	29.4	83.1	83.4	5.7	5.7	3.1		3		-				-		-	
						16.9	0.9	157	26.7		7.9		29.3		83.6		5.7		2.8		3		-				-		-	
SR8	Fine	Moderate	17:22	4.9	Surface	1.0	0.3	231	27.5	27.5	7.9	7.9	23.5	23.5	97.5	97.5	6.8	6.8	1.9	2.0	3	4	-	-	820433	811580	-	-	-	-
						1.0	0.3	249	27.5		7.9		23.5		97.4		6.8		1.9		5		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.4	228	27.5	27.5	7.9	7.9	23.7	23.7	97.1	97.1	6.7	6.7	2.1		4		-				-		-	
						3.9	0.4	236	27.5		7.9		23.7		97.1		6.7		2.2		4		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 27 September 16 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
C1	Fine	Calm	10:05	8.4	Surface	1.0	0.9	214	29.3	29.3	8.0	8.0	23.7	23.7	96.0	96.0	6.4	6.1	1.0	7.1	<2	4	82	92	815625	804266	<0.2	<0.2	2.4	1.5
						1.0	0.9	215	29.3		8.0		23.7		95.9		6.4		1.1		<2		84				<0.2		2.4	
					Middle	4.2	0.6	249	28.5	28.5	8.0	8.0	31.5	31.5	88.5	88.5	5.8		6.8		<2		90				<0.2		1.3	
						4.2	0.6	252	28.5		8.0		31.5		88.5		5.8		6.9		<2		92				<0.2		1.3	
					Bottom	7.4	0.4	256	28.4	28.4	8.0	8.0	31.8	31.8	88.7	88.8	5.7	5.7	13.3		8		101				<0.2		0.6	
						7.4	0.4	271	28.4		8.0		31.8		88.8		5.7		13.2		8		100				<0.2		0.8	
C2	Fine	Moderate	12:16	11.7	Surface	1.0	0.4	283	27.5	27.5	7.9	7.9	22.0	22.0	91.6	91.6	6.4	6.3	1.2	4.0	<2	<2	81	88	825662	806952	<0.2	<0.2	2.9	2.8
						1.0	0.4	289	27.5		7.9		22.0		91.5		6.4		1.2		<2		82				<0.2		2.7	
					Middle	5.9	0.4	268	27.2	27.2	7.8	7.8	23.9	23.9	87.6	87.6	6.1		2.1		<2		90				<0.2		2.7	
						5.9	0.4	276	27.2		7.8		23.9		87.6		6.1		2.1		<2		89				<0.2		2.6	
					Bottom	10.7	0.4	235	26.7	26.7	7.8	7.8	28.6	28.6	78.8	78.9	5.4	5.4	8.8		<2		92				<0.2		2.8	
						10.7	0.4	238	26.7		7.8		28.6		78.9		5.4		8.8		<2		92				<0.2		2.8	
C3	Fine	Moderate	09:52	12.9	Surface	1.0	1.1	172	26.9	26.9	7.9	7.9	25.9	25.9	90.6	90.6	6.3	6.2	0.8	0.8	<2	2	88	90	822101	817793	<0.2	<0.2	1.7	1.7
						1.0	1.2	182	26.9		7.9		25.9		90.6		6.3		0.8		2		87				<0.2		1.8	
					Middle	6.5	0.5	171	26.7	26.7	7.8	7.8	28.0	28.0	87.8	87.8	6.0		0.8		2		91				<0.2		1.7	
						6.5	0.6	178	26.7		7.8		28.0		87.8		6.0		0.8		<2		90				<0.2		1.7	
					Bottom	11.9	0.4	185	26.7	26.7	7.8	7.8	28.5	28.6	89.5	89.6	6.1	6.1	0.8		<2		93				<0.2		1.4	
						11.9	0.4	185	26.7		7.8		28.6		89.6		6.1		0.8		<2		92				<0.2		1.6	
IM1	Fine	Calm	10:31	7.2	Surface	1.0	0.9	224	29.1	29.1	8.0	8.0	26.6	25.9	89.8	89.7	5.9	5.9	2.6	5.1	2	8	73	82	818333	806455	<0.2	<0.2	2.4	1.4
						1.0	0.9	230	29.1		8.0		25.2		89.6		5.9		2.8		4		76				<0.2		2.1	
					Middle	3.6	0.8	237	28.5	28.5	8.0	8.0	30.3	30.3	87.5	87.5	5.8		5.4		8		80				<0.2		1.0	
						3.6	0.8	252	28.5		8.0		30.3		87.5		5.8		5.5		8		82				<0.2		1.0	
					Bottom	6.2	0.7	237	28.5	28.5	8.0	8.0	30.6	30.6	88.4	88.4	5.8	5.8	6.9		11		88				<0.2		0.8	
						6.2	0.7	250	28.5		8.0		30.6		88.4		5.8		7.1		12		90				<0.2		0.8	
IM2	Fine	Calm	10:38	7.6	Surface	1.0	0.9	217	29.3	29.3	8.0	8.0	22.4	22.4	93.0	92.5	6.3	6.0	3.4	9.6	<2	7	75	84	818837	806185	<0.2	<0.2	2.4	1.6
						1.0	1.0	235	29.3		8.0		22.3		91.9		6.2		3.6		2		78				<0.2		2.3	
					Middle	3.8	0.6	236	28.7	28.7	8.0	8.0	29.0	29.0	88.1	88.1	5.8		8.7		6		86				<0.2		1.5	
						3.8	0.7	249	28.7		8.0		29.0		88.1		5.8		8.8		7		84				<0.2		1.4	
					Bottom	6.6	0.6	243	28.6	28.6	8.0	8.0	29.9	29.9	87.9	88.0	5.8	5.8	16.3		10		90				<0.2		1.2	
						6.6	0.7	255	28.6		8.0		29.9		88.0		5.8		16.6		13		91				<0.2		1.0	
IM3	Fine	Calm	10:47	7.4	Surface	1.0	0.9	208	29.3	29.3	7.9	7.9	24.0	24.0	88.7	88.6	5.9	5.9	1.0	5.3	4	4	73	82	819417	806023	<0.2	<0.2	2.2	1.9
						1.0	1.0	223	29.3		7.9		23.9		88.5		5.9		1.1		3		73				<0.2		2.1	
					Middle	3.7	0.7	233	29.2	29.2	7.9	7.9	26.9	26.7	87.6	87.7	5.8		1.3		4		82				<0.2		2.0	
						3.7	0.7	248	29.2		7.9		26.4		87.7		5.8		1.2		4		84				<0.2		1.8	
					Bottom	6.4	0.6	241	28.4	28.4	8.0	8.0	30.4	30.4	84.9	85.1	5.6	5.6	13.2		5		90				<0.2		1.5	
						6.4	0.6	242	28.4		8.0		30.4		85.3		5.6		13.9		4		91				<0.2		1.5	
IM4	Fine	Calm	10:56	7.8	Surface	1.0	0.9	217	29.5	29.5	8.0	8.0	21.4	21.4	97.6	97.6	6.6	6.3	0.5	6.0	5	4	73	83	819565	805046	<0.2	<0.2	2.5	2.4
						1.0	0.9	225	29.5		8.0		21.4		97.5		6.6		0.5		3		78				<0.2		2.6	
					Middle	3.9	0.6	234	29.0	29.0	8.0	8.0	25.0	25.0	91.2	90.7	6.1		4.1		3		82				<0.2		2.3	
						3.9	0.7	239	29.0		8.0		25.0		90.2		6.0		4.2		3		84				<0.2		2.2	
					Bottom	6.8	0.5	245	28.5	28.5	8.0	8.0	30.1	30.1	87.2	87.3	5.7	5.7	13.3		3		91				<0.2		2.2	
						6.8	0.6	250	28.5		8.0		30.1		87.4		5.7		13.3		4		89				<0.2		2.3	
IM5	Fine	Calm	11:08	6.3	Surface	1.0	0.8	214	29.1	29.1	8.0	8.0	21.2	21.0	89.6	89.5	6.1	6.0	10.2	14.2	4	5	73	83	820557	804909	<0.2	<0.2	2.6	2.1
						1.0	0.8	217	29.1		8.0		20.7		89.4		6.1		10.7		4		76				<0.2		2.7	
					Middle	3.2	0.6	235	28.8	28.8	8.0	8.0	27.6	27.5	89.5	89.6	5.9		9.7		3		82				<0.2		2.1	
						3.2	0.6	250	28.8		8.0		27.4		89.6		5.9		9.2		3		85				<0.2		2.0	
					Bottom	5.3	0.5	245	28.5	28.5	8.0	8.0	29.5	29.4	81.2	81.2	5.3	5.3	23.5		6		93				<0.2		1.6	
						5.3	0.5	266	28.5		8.0		29.3		81.2		5.3		22.0		7		90				<0.2		1.5	
IM6	Fine	Calm	11:19	6.5	Surface	1.0	0.8	213	29.2	29.2	7.9	7.9	23.5	23.5	88.7	88.7	6.0	5.9	3.0	8.5	5	6	72	81	821050	805838	<0.2	<0.2	2.3	2.0
						1.0	0.8	213	29.2		7.9		23.5		88.6		6.0		3.1		3		75				<0.2		2.4	
					Middle	3.3	0.5	233	28.7	28.7	7.9	7.9	28.8	28.8	83.1	83.1	5.7		8.9		6		83				<0.2		2.0	
						3.3	0.5	234	28.7		7.9		28.8		83.1		5.7		8.7		6		80				<0.2		1.9	
					Bottom	5.5	0.5	249	28.6	28.6	8.0	8.0	29.1	29.1	83.6	84.0	5.5	5.6	13.5		8		89				<0.2		1.7	
						5.5	0.5	259	28.6		8.0		29.1		84.4		5.6		13.6		7		87				<0.2		1.8	
IM7	Fine	Calm	11:28	7.5	Surface	1.0	0.8	210	29.0	29.0	7.9	7.9	26.6	26.6	81.9	81.7	5.6	5.6	3.6	4.8	3	7	76	82	821343	806845	<0.2	<0.2	2.1	1.6
						1.0	0.9	225	29.0		7.9		26.5		81.4		5.6		3.9		2		77				<0.2		2.0	
					Middle	3.8	0.6	234	28.7	28.7	7.9	7.9	28.4	28.4	80.1	80.1	5.5		4.9		9		80				<0.2		1.4	
						3.8	0.6	244	28.7		7.9		28.4		80.1		5.5		4.7		9		82				<0.2		1.3	
					Bottom	6.5	0.6	243	28.5	28.5	8.0	8.0	29.9	29.9	81.4	81.4	5.3	5.3	5.8		10		91				<0.2		1.3	
						6.5	0.6	253	28.5		8.0		29.9		81.4		5.3		5.8		9		88				<0.2		1.4	
IM8	Fine	Moderate	11:29	8.0	Surface	1.0	0.9	191	27.4	27.4	7.9	7.9	23.8	23.8	91.8	91.8	6.4	6.0	0.8	4.8	3	5	83	88	821701	807851	<0.2	<0.2	2.4	2.0
						1.0	0.9	197	27.4		7.9		23.8		91.7		6.4		0.8		3		83				<0.2		2.4	
					Middle	4.0	0.6	206	26.7	26.7	7.9	7.9	28.3	28.3	79.9	79.9	5.5		5.8		3		89				<0.2		2.3	
						4.0	0.6	218	26.7		7.9		28.2		79.9		5.5		5.8		3		90				<0.2		2.2	
					Bottom	7.0	0.6	228	26.6	26.6	7.9	7.9	28.9	28.9	81.5	81.5	5.6	5.6	7.8		8		91				<0.2		1.5	
						7.0	0.6	230	26.6		7.9		28.9		81.5		5.6		7.9		10		92				<0.2		1.4	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 27 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
IM9	Fine	Moderate	11:20	6.8	Surface	1.0	1.0	186	27.3	27.3	7.9	7.9	23.9	23.9	93.2	93.2	6.5	6.0	0.8	5.6	2	3	83	89	822106	808801	<0.2	<0.2	2.4	2.3
						1.0	1.0	195	27.3		7.9		23.9		93.2		6.5		0.8		2		84				<0.2		2.3	
					Middle	3.4	0.7	191	26.6	26.7	7.9	7.9	28.6	28.6	79.5	79.5	5.4		6.5		3		91				<0.2		2.5	
						3.4	0.7	206	26.7		7.9		28.6		79.5		5.4		6.5		2		90				<0.2		2.5	
					Bottom	5.8	0.7	199	26.4	26.4	7.9	7.9	29.7	29.7	84.4	84.5	5.8	5.8	9.4		4		92				<0.2		2.1	
						5.8	0.7	207	26.4		7.9		29.7		84.5		5.8		9.4		2		92				<0.2		2.1	
IM10	Fine	Moderate	11:09	7.5	Surface	1.0	0.7	164	27.3	27.3	7.9	7.9	24.7	24.7	89.1	89.1	6.2	5.9	1.2	4.5	2	3	84	89	822222	809855	<0.2	<0.2	2.2	2.0
						1.0	0.7	167	27.3		7.9		24.7		89.0		6.2		1.3		3		85				<0.2		2.1	
					Middle	3.8	0.3	169	26.6	26.7	7.9	7.9	28.5	28.0	79.9	80.4	5.5		4.6		2		89				<0.2		1.8	
						3.8	0.4	169	26.7		7.9		27.5		80.9		5.6		4.3		4		90				<0.2		1.9	
					Bottom	6.5	0.4	194	26.5	26.5	7.9	7.9	29.4	29.5	82.1	82.3	5.6	5.6	7.6		2		92				<0.2		2.0	
						6.5	0.4	213	26.5		7.9		29.5		82.4		5.6		7.7		4		92				<0.2		1.8	
IM11	Fine	Moderate	10:58	8.2	Surface	1.0	0.6	152	27.3	27.3	7.9	7.9	23.7	23.7	90.2	90.2	6.3	6.2	1.1	3.8	2	2	83	87	821511	810534	<0.2	<0.2	2.5	2.4
						1.0	0.6	163	27.3		7.9		23.7		90.2		6.3		1.2		<2		75				<0.2		2.5	
					Middle	4.1	0.5	153	26.9	26.9	7.9	7.9	26.6	26.6	88.1	88.1	6.1		2.3		3		90				<0.2		2.3	
						4.1	0.6	166	26.9		7.9		26.6		88.0		6.1		2.3		2		89				<0.2		2.4	
					Bottom	7.2	0.4	149	26.5	26.5	7.9	7.9	29.3	29.3	85.7	85.8	5.8	5.8	7.9		<2		93				<0.2		2.3	
						7.2	0.5	156	26.5		7.9		29.3		85.8		5.8		7.8		<2		92				<0.2		2.4	
IM12	Fine	Moderate	10:47	9.0	Surface	1.0	0.4	124	27.3	27.3	7.9	7.9	23.1	23.1	92.3	92.3	6.4	6.4	0.9	2.7	<2	2	85	89	821149	811538	<0.2	<0.2	2.6	2.5
						1.0	0.5	127	27.3		7.9		23.1		92.3		6.4		0.9		<2		84				<0.2		2.4	
					Middle	4.5	-	-	27.1	27.1	7.9	7.9	23.7	23.7	91.2	91.2	6.4		1.3		<2		90				<0.2		2.4	
						4.5	-	-	27.1		7.9		23.7		91.2		6.4		1.3		<2		90				<0.2		2.5	
					Bottom	8.0	0.3	131	26.9	26.9	7.8	7.8	25.6	25.6	88.4	88.4	6.1	6.1	5.9		2		92				<0.2		2.7	
						8.0	0.3	136	26.9		7.8		25.6		88.4		6.1		6.0		3		92				<0.2		2.4	
SR2	Fine	Moderate	10:21	4.3	Surface	1.0	0.3	163	27.2	27.2	7.8	7.8	22.6	22.6	96.6	96.6	6.8	6.8	0.8	1.3	<2	<2	87	88	821444	814148	<0.2	<0.2	2.6	2.5
						1.0	0.3	179	27.2		7.8		22.5		96.6		6.8		0.8		<2		85				<0.2		2.4	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.3	195	27.0	27.0	7.8	7.8	24.5	24.6	99.2	99.9	6.9	7.0	1.8		<2		90				<0.2		2.5	
						3.3	0.3	208	27.0		7.8		24.6		100.5		7.0		1.8		<2		90				<0.2		2.5	
SR3	Fine	Moderate	11:37	8.4	Surface	1.0	0.9	182	27.5	27.5	7.9	7.9	23.2	23.2	90.6	90.5	6.3	5.9	1.0	6.7	<2	2	-	-	822141	807561	-	-	-	-
						1.0	1.0	195	27.5		7.9		23.2		90.4		6.3		1.0		2		-				-		-	
					Middle	4.2	0.6	197	26.8	26.8	7.9	7.9	27.6	27.6	80.8	80.8	5.5		4.2		<2		-				-		-	
						4.2	0.6	210	26.8		7.9		27.5		80.7		5.5		4.2		2		-				-		-	
					Bottom	7.4	0.5	222	26.5	26.5	7.9	7.9	29.3	29.3	80.8	80.9	5.5	5.5	14.8		2		-				-		-	
						7.4	0.5	233	26.5		7.9		29.3		80.9		5.5		14.8		2		-				-		-	
SR4A	Fine	Calm	09:44	7.9	Surface	1.0	0.4	253	28.9	28.9	8.0	8.0	27.4	27.4	88.7	88.7	5.5	5.6	3.6	6.3	7	10	-	-	817190	807795	-	-	-	-
						1.0	0.4	260	28.9		8.0		27.4		88.6		5.5		3.6		6		-				-		-	
					Middle	4.0	0.5	246	28.6	28.6	8.0	8.0	29.9	29.9	85.2	85.3	5.6		7.0		11		-				-		-	
						4.0	0.5	251	28.6		8.0		29.9		85.3		5.6		6.9		11		-				-		-	
					Bottom	6.9	0.4	244	28.5	28.5	8.0	8.0	30.3	30.3	86.4	86.6	5.5	5.5	8.4		13		-				-		-	
						6.9	0.4	245	28.5		8.0		30.3		86.8		5.5		8.4		13		-				-		-	
SR5A	Fine	Calm	09:27	4.0	Surface	1.0	0.3	293	29.2	29.2	8.0	8.0	26.2	26.2	97.3	97.3	6.4	6.4	3.0	4.4	7	7	-	-	816605	810694	-	-	-	-
						1.0	0.3	294	29.2		8.0		26.2		97.3		6.4		3.2		6		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.3	299	29.3	29.3	7.9	7.9	27.8	27.8	98.2	98.4	6.4	6.5	6.0		6		-				-		-	
						3.0	0.4	299	29.3		7.9		27.8		98.6		6.5		5.5		7		-				-		-	
SR6	Fine	Calm	08:59	4.2	Surface	1.0	0.3	245	29.2	29.2	7.9	7.9	26.2	26.2	90.5	90.5	6.0	6.0	0.9	1.5	3	4	-	-	817883	814678	-	-	-	-
						1.0	0.3	262	29.2		7.9		26.2		90.5		6.0		1.0		4		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	238	29.2	29.2	7.9	7.9	27.0	27.0	89.8	89.8	5.9	5.9	2.1		4		-				-		-	
						3.2	0.3	238	29.2		7.9		26.9		89.8		5.9		2.1		3		-				-		-	
SR7	Fine	Calm	09:14	17.7	Surface	1.0	0.3	197	26.7	26.7	7.8	7.8	26.7	26.7	87.2	87.2	6.0	5.9	0.5	0.8	<2	3	-	-	823628	823735	-	-	-	-
						1.0	0.3	211	26.7		7.8		26.7		87.1		6.0		0.5		<2		-				-		-	
					Middle	8.9	0.2	161	26.5	26.5	7.8	7.8	28.9	28.9	82.7	82.7	5.7		0.9		3		-				-		-	
						8.9	0.2	163	26.5		7.8		28.9		82.7		5.7		0.9		2		-				-		-	
					Bottom	16.7	0.3	125	26.4	26.4	7.8	7.8	30.4	30.4	82.6	83.2	5.6	5.7	1.1		3		-				-		-	
						16.7	0.3	135	26.4		7.8		30.4		83.8		5.7		1.0		3		-				-		-	
SR8	Fine	Moderate	10:40	5.2	Surface	1.0	0.4	232	27.2	27.2	8.0	8.0	19.5	19.5	100.3	100.3	7.1	7.1	1.6	1.5	3	3	-	-	820418	811592	-	-	-	-
						1.0	0.4	255	27.2		8.0		19.5		100.3		7.1		1.6		3		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.6	276	27.1	27.1	7.9	7.9	24.1	23.6	95.2	95.8	6.6	6.7	1.5		2		-				-		-	
						4.2	0.6	293	27.1		7.9		23.1		96.3		6.7		1.3		2		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 29 September 16 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) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen (mg/L) Value	Dissolved Oxygen (mg/L) DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Fine	Rough	18:02	8.9	Surface	1.0	0.6	184	28.4	28.4	8.0	8.0	28.9	28.9	94.4	94.4	6.2	6.1	1.8	4.2	6	8	80	86	815621	804244	<0.2	<0.2	1.9	2.0
						1.0	0.6	185	28.4		8.0		28.9		94.3		6.2		1.9		6		78				<0.2		2.2	
					Middle	4.5	0.5	205	28.3	28.3	8.1	8.1	29.6	29.6	91.2	91.2	6.0		3.8		8		86				<0.2		2.0	
						4.5	0.6	223	28.3		8.1		29.5		91.1		6.0		3.9		8		87				<0.2		1.9	
					Bottom	7.9	0.5	214	28.1	28.1	8.1	8.1	31.5	31.5	90.2	90.5	5.9	5.9	7.1		9		92				<0.2		2.0	
						7.9	0.5	218	28.1		8.1		31.4		90.7		5.9		6.9		8		94				<0.2		1.8	
C2	Cloudy	Rough	16:53	11.2	Surface	1.0	0.5	119	26.3	26.3	7.9	7.9	24.9	24.9	90.9	90.9	6.4	6.2	4.4	7.0	6	7	81	87	825673	806954	<0.2	<0.2	2.4	2.4
						1.0	0.5	129	26.3		7.9		24.9		90.8		6.4		4.5		5		81				<0.2		2.6	
					Middle	5.6	0.4	102	26.4	26.4	7.9	7.9	27.2	27.2	86.6	86.6	6.0		7.8		8		89				<0.2		2.4	
						5.6	0.4	108	26.4		7.9		27.1		86.5		6.0		7.8		8		90				<0.2		2.5	
					Bottom	10.2	0.8	87	26.5	26.5	7.9	7.9	29.0	29.0	88.1	88.1	6.0	6.0	8.8		7		91				<0.2		2.1	
						10.2	0.9	89	26.5		7.9		29.0		88.1		6.0		8.8		7		91				<0.2		2.1	
C3	Cloudy	Moderate	18:38	11.8	Surface	1.0	0.8	172	26.2	26.2	7.9	7.9	28.0	28.0	91.6	91.6	6.3	6.3	6.0	7.0	7	7	87	90	822128	817803	<0.2	<0.2	1.6	1.7
						1.0	0.9	183	26.2		7.9		28.0		91.6		6.3		6.0		7		88				<0.2		1.7	
					Middle	5.9	0.3	180	26.2	26.2	7.9	7.9	28.2	28.2	91.1	91.1	6.3		6.1		7		90				<0.2		1.5	
						5.9	0.4	191	26.2		7.9		28.2		91.1		6.3		6.1		8		90				<0.2		1.6	
					Bottom	10.8	0.4	130	26.3	26.3	7.9	7.9	28.4	28.4	93.6	93.7	6.4	6.5	8.7		7		92				<0.2		1.8	
						10.8	0.4	142	26.3		7.9		28.4		93.7		6.5		8.9		8		92				<0.2		1.7	
IM1	Fine	Rough	17:40	7.3	Surface	1.0	0.9	169	28.5	28.5	8.0	8.0	29.4	29.4	92.3	92.3	6.4	6.1	3.0	5.7	11	17	73	80	818349	806450	<0.2	<0.2	1.9	1.9
						1.0	0.9	180	28.5		8.0		29.4		92.2		6.3		2.8		13		76				<0.2		1.9	
					Middle	3.7	0.9	181	28.4	28.4	8.0	8.0	29.7	29.7	89.4	89.4	5.9		5.3		16		79				<0.2		2.0	
						3.7	0.9	194	28.4		8.0		29.7		89.3		5.9		5.3		16		81				<0.2		1.8	
					Bottom	6.3	0.9	186	28.3	28.3	8.0	8.0	30.3	30.3	87.7	87.7	5.8	5.8	9.0		22		86				<0.2		1.7	
						6.3	0.9	190	28.3		8.0		30.3		87.7		5.8		9.0		21		83				<0.2		1.8	
IM2	Fine	Rough	17:33	7.4	Surface	1.0	0.9	170	28.2	28.2	8.0	8.0	26.7	26.7	95.0	95.0	6.4	6.4	6.8	9.9	8	11	73	80	818855	806199	<0.2	<0.2	1.8	1.6
						1.0	0.9	185	28.2		8.0		26.7		94.9		6.4		7.5		9		75				<0.2		1.9	
					Middle	3.7	0.7	180	28.2	28.2	8.0	8.0	27.0	27.0	95.3	95.3	6.4		12.0		10		79				<0.2		1.5	
						3.7	0.8	183	28.2		8.0		27.0		95.3		6.4		12.0		9		82				<0.2		1.6	
					Bottom	6.4	0.5	172	28.2	28.2	8.0	8.0	27.3	27.3	99.2	99.5	6.6	6.7	10.8		15		87				<0.2		1.6	
						6.4	0.6	172	28.2		8.0		27.3		99.7		6.7		10.4		15		84				<0.2		1.3	
IM3	Fine	Rough	17:26	7.6	Surface	1.0	0.9	153	28.2	28.2	8.0	8.0	26.3	26.3	95.2	95.2	6.4	6.4	2.3	4.8	4	5	68	76	819429	806032	<0.2	<0.2	1.8	1.8
						1.0	0.9	167	28.2		8.0		26.3		95.2		6.4		2.3		6		71				<0.2		2.0	
					Middle	3.8	0.8	166	28.2	28.2	8.0	8.0	26.4	26.4	94.9	94.9	6.4		3.9		4		77				<0.2		1.9	
						3.8	0.8	176	28.2		8.0		26.3		94.8		6.4		4.1		4		75				<0.2		1.6	
					Bottom	6.6	0.6	181	28.2	28.2	8.0	8.0	27.9	28.1	95.2	95.7	6.4	6.4	7.7		5		83				<0.2		1.7	
						6.6	0.6	192	28.2		8.0		28.2		96.2		6.4		8.5		5		84				<0.2		1.5	
IM4	Fine	Rough	17:17	7.7	Surface	1.0	0.9	169	28.1	28.1	8.0	8.0	26.4	26.4	96.2	96.2	6.5	6.4	3.0	6.6	6	8	72	78	819566	805053	<0.2	<0.2	1.5	1.5
						1.0	0.9	181	28.1		8.0		26.4		96.1		6.5		3.0		8		71				<0.2		1.5	
					Middle	3.9	0.7	184	28.3	28.3	8.0	8.0	27.4	27.4	93.3	93.3	6.2		6.2		7		77				<0.2		1.5	
						3.9	0.7	187	28.3		8.0		27.4		93.3		6.2		6.3		9		79				<0.2		1.6	
					Bottom	6.7	0.5	185	28.3	28.3	8.0	8.0	29.7	29.7	93.3	93.3	6.2	6.2	10.5		9		83				<0.2		1.4	
						6.7	0.5	190	28.3		8.0		29.7		93.3		6.2		10.4		10		85				<0.2		1.4	
IM5	Fine	Rough	17:10	6.7	Surface	1.0	0.9	184	28.1	28.1	8.0	8.0	26.4	26.4	95.1	95.1	6.4	6.3	7.1	12.3	8	10	70	78	820555	804914	<0.2	<0.2	1.6	1.8
						1.0	1.0	201	28.1		8.0		26.3		95.0		6.4		7.2		8		72				<0.2		1.8	
					Middle	3.4	0.6	186	28.2	28.2	8.0	8.0	26.8	26.8	91.5	91.5	6.1		12.8		11		79				<0.2		1.6	
						3.4	0.7	193	28.2		8.0		26.8		91.4		6.1		12.9		11		78				<0.2		1.6	
					Bottom	5.7	0.5	192	28.3	28.3	8.0	8.0	30.1	30.1	90.4	90.5	5.9	6.0	16.9		10		81				<0.2		2.1	
						5.7	0.6	199	28.3		8.0		30.1		90.5		6.0		16.9		12		85				<0.2		1.8	
IM6	Fine	Rough	17:01	6.8	Surface	1.0	1.2	169	28.2	28.2	8.0	8.0	26.5	26.5	94.2	94.2	6.3	6.3	8.2	10.2	14	17	73	80	821078	805837	<0.2	<0.2	1.6	1.6
						1.0	1.3	185	28.2		8.0		26.5		94.1		6.3		8.1		14		75				<0.2		1.7	
					Middle	3.4	1.0	161	28.3	28.3	8.0	8.0	27.2	27.2	92.2	92.2	6.2		10.6		17		80				<0.2		1.7	
						3.4	1.0	167	28.3		8.0		27.2		92.1		6.2		10.6		17		80				<0.2		1.4	
					Bottom	5.8	1.0	163	28.3	28.3	8.0	8.0	28.3	28.3	92.3	92.4	6.1	6.1	11.8		18		87				<0.2		1.6	
						5.8	1.1	176	28.3		8.0		28.3		92.4		6.1		11.7		19		84				<0.2		1.4	
IM7	Fine	Rough	16:50	7.9	Surface	1.0	0.7	188	28.2	28.2	8.0	8.0	26.2	26.2	93.1	93.1	6.3	6.2	4.0	5.5	6	7	74	81	821355	806820	<0.2	<0.2	1.6	1.7
						1.0	0.7	198	28.2		8.0		26.2		93.1		6.3		4.1		6		73				<0.2		1.6	
					Middle	4.0	0.5	198	28.3	28.3	8.0	8.0	26.7	26.7	91.7	91.7	6.1		6.2		6		81				<0.2		1.8	
						4.0	0.5	199	28.3		8.0		26.7		91.6		6.1		6.3		7		82				<0.2		1.7	
					Bottom	6.9	0.4	183	28.4	28.4	8.0	8.0	28.6	28.2	92.4	92.5	6.1	6.2	6.3		7		87				<0.2		1.7	
						6.9	0.4	193	28.4		8.0		27.8		92.5		6.2		6.3		8		89				<0.2		1.7	
IM8	Cloudy	Rough	17:28	8.1	Surface	1.0	0.5	148	26.1	26.1	7.9	7.9	26.1	26.1	93.7	93.7	6.6	6.6	4.2	7.1	5	8	83	88	821706	807844	<0.2	<0.2	1.6	1.7
						1.0	0.5	158	26.1		7.9		26.1		93.7		6.6		4.3		5		84				<0.2		1.7	
					Middle	4.1	0.6	100	26.2	26.2	7.9	7.9	26.3	26.3	92.9	92.9	6.5		6.0		5		90				<0.2		1.8	
						4.1	0.6	101	26.2		7.9		26.3		92.9		6.5		6.0		6		90				<0.2		1.8	
					Bottom	7.1	0.6	86	26.2	26.2	8.0	8.0	27.9	27.9	93.7	93.8	6.5	6.5	11.1		12		92				<0.2		1.6	
						7.1	0.6	88	26.2		8.0		27.9		93.8		6.5		11.1		12		91				<0.2		1.5	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 29 September 16 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
IM9	Cloudy	Rough	17:36	7.2	Surface	1.0	0.6	124	26.2	26.2	7.9	7.9	26.0	26.0	93.6	93.6	6.5	6.5	3.7	6.7	4	6	84	88	822086	808798	<0.2	<0.2	1.9	1.7
						1.0	0.6	131	26.2		7.9		26.0		93.6		6.5		3.8		3		83				<0.2		1.9	
					Middle	3.6	0.6	84	26.2	26.2	7.9	7.9	26.2	26.2	93.0	93.0	6.5		4.7		2		91				<0.2		1.8	
						3.6	0.6	87	26.2		7.9		26.2		93.0		6.5		4.8		4		89				<0.2		1.7	
					Bottom	6.2	0.6	80	26.3	26.3	7.9	7.9	27.4	27.6	92.7	94.5	6.4	6.6	11.4		11		92				<0.2		1.6	
						6.2	0.6	83	26.3		7.9		27.7		96.2		6.7		11.9		13		91				<0.2		1.4	
IM10	Cloudy	Rough	17:45	7.9	Surface	1.0	0.5	120	26.2	26.2	7.9	7.9	26.4	26.4	94.0	94.1	6.6	6.6	3.5	6.4	2	4	83	88	822225	809836	<0.2	<0.2	1.7	1.8
						1.0	0.5	124	26.2		7.9		26.4		94.1		6.6		3.6		2		84				<0.2		2.0	
					Middle	4.0	0.5	110	26.3	26.3	7.9	7.9	26.6	26.6	93.3	93.4	6.5		5.6		4		89				<0.2		1.9	
						4.0	0.5	114	26.3		7.9		26.6		93.4		6.5		5.7		4		89				<0.2		1.9	
					Bottom	6.9	0.5	108	26.3	26.3	7.9	7.9	27.4	27.4	94.2	94.3	6.5	6.5	9.9		6		91				<0.2		1.6	
						6.9	0.5	118	26.3		7.9		27.4		94.4		6.5		9.8		7		92				<0.2		1.7	
IM11	Cloudy	Rough	17:51	7.2	Surface	1.0	0.5	120	26.2	26.2	7.9	7.9	26.6	26.6	94.7	94.7	6.6	6.6	5.3	6.1	6	8	84	89	821520	810528	<0.2	<0.2	1.6	1.7
						1.0	0.5	127	26.2		7.9		26.6		94.7		6.6		5.3		8		85				<0.2		1.8	
					Middle	3.6	0.5	113	26.2	26.2	7.9	7.9	26.7	26.7	95.3	95.3	6.6		6.0		6		90				<0.2		1.9	
						3.6	0.5	121	26.2		7.9		26.7		95.3		6.6		6.0		7		91				<0.2		1.8	
					Bottom	6.2	0.5	108	26.2	26.2	7.9	7.9	26.8	26.8	98.1	98.2	6.8	6.8	7.0		9		92				<0.2		1.6	
						6.2	0.5	110	26.2		7.9		26.8		98.2		6.8		7.0		10		93				<0.2		1.7	
IM12	Cloudy	Rough	17:57	9.1	Surface	1.0	0.6	97	26.1	26.1	7.9	7.9	26.6	26.7	94.8	94.9	6.6	6.7	9.9	8.9	9	11	86	89	821175	811512	<0.2	<0.2	1.4	1.6
						1.0	0.6	102	26.1		7.9		26.7		95.0		6.6		9.0		10		85				<0.2		1.7	
					Middle	4.6	0.5	97	26.2	26.2	7.9	7.9	26.7	26.7	96.4	96.4	6.7		8.7		11		90				<0.2		1.5	
						4.6	0.6	101	26.2		7.9		26.7		96.4		6.7		8.7		11		90				<0.2		1.6	
					Bottom	8.1	0.7	102	26.2	26.2	7.9	7.9	26.8	26.8	98.8	99.5	6.9	7.0	8.4		14		93				<0.2		1.7	
						8.1	0.7	110	26.2		7.9		26.8		100.2		7.0		8.6		12		91				<0.2		1.7	
SR2	Cloudy	Moderate	18:18	4.1	Surface	1.0	0.4	122	26.0	26.0	8.0	8.0	27.0	27.0	95.3	95.3	6.6	6.6	17.9	21.0	20	23	85	88	821453	814162	<0.2	<0.2	1.6	1.5
						1.0	0.5	126	26.0		8.0		27.0		95.3		6.6		18.7		19		86				<0.2		1.6	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.4	86	26.0	26.0	8.0	8.0	27.1	27.1	95.3	95.3	6.6	6.6	23.6		27		90				<0.2		1.4	
						3.1	0.4	94	26.0		8.0		27.1		95.3		6.6		23.6		27		89				<0.2		1.5	
SR3	Cloudy	Rough	17:24	8.7	Surface	1.0	0.6	158	26.1	26.1	7.9	7.9	25.8	25.8	93.9	93.9	6.6	6.6	4.3	8.1	4	5	-	-	822165	807568	-	-	-	-
						1.0	0.6	165	26.1		7.9		25.8		93.9		6.6		4.4		4		-				-		-	
					Middle	4.4	0.6	107	26.2	26.2	7.9	7.9	26.0	26.0	92.8	92.8	6.5		5.5		7		-				-		-	
						4.4	0.6	109	26.2		7.9		26.0		92.7		6.5		5.5		5		-				-		-	
					Bottom	7.7	0.5	103	26.2	26.2	7.9	7.9	27.5	27.5	92.1	92.2	6.4	6.4	14.4		6		-				-		-	
						7.7	0.5	113	26.2		7.9		27.5		92.2		6.4		14.4		6		-				-		-	
SR4A	Fine	Calm	18:29	8.4	Surface	1.0	0.3	89	28.5	28.5	8.0	8.0	29.3	29.3	94.4	94.4	6.2	6.2	4.4	6.0	7	9	-	-	817184	807812	-	-	-	-
						1.0	0.3	89	28.5		8.0		29.3		94.3		6.2		4.4		7		-				-		-	
					Middle	4.2	0.2	84	28.5	28.5	8.0	8.0	29.4	29.4	93.1	93.1	6.1		6.1		6		-				-		-	
						4.2	0.2	90	28.5		8.0		29.4		93.0		6.1		6.3		7		-				-		-	
					Bottom	7.4	0.2	88	28.4	28.4	8.0	8.0	29.6	29.6	94.6	95.2	6.2	6.3	7.7		12		-				-		-	
						7.4	0.2	89	28.4		8.0		29.6		95.8		6.3		7.3		14		-				-		-	
SR5A	Fine	Calm	18:42	4.6	Surface	1.0	0.2	144	28.6	28.6	8.0	8.0	28.7	28.7	89.0	89.0	6.4	6.4	3.5	4.3	9	12	-	-	816609	810692	-	-	-	-
						1.0	0.2	150	28.6		8.0		28.7		88.9		6.4		3.6		8		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	141	28.6	28.6	8.0	8.0	28.7	28.7	88.2	88.3	6.4	6.4	4.9		14		-				-		-	
						3.6	0.1	151	28.6		7.9		28.7		88.3		6.3		5.2		15		-				-		-	
SR6	Fine	Calm	18:58	4.8	Surface	1.0	0.2	116	28.5	28.5	7.9	7.9	27.8	27.8	86.0	86.0	6.5	6.5	4.4	4.6	8	8	-	-	817881	814680	-	-	-	-
						1.0	0.2	121	28.5		7.9		27.8		86.0		6.5		4.5		6		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	88	28.5	28.5	7.9	7.9	28.4	28.4	78.4	77.6	6.2	6.2	4.9		8		-				-		-	
						3.8	0.2	95	28.5		7.9		28.3		76.7		6.2		4.4		8		-				-		-	
SR7	Cloudy	Moderate	19:08	17.2	Surface	1.0	0.3	96	26.3	26.3	7.9	7.9	27.4	27.4	93.9	93.9	6.5	6.5	3.0	3.1	4	4	-	-	823616	823750	-	-	-	-
						1.0	0.4	97	26.3		7.9		27.4		93.9		6.5		3.1		4		-				-		-	
					Middle	8.6	1.9	148	26.3	26.3	7.9	7.9	27.6	27.6	93.1	93.1	6.4		3.1		4		-				-		-	
						8.6	1.9	149	26.3		7.9		27.6		93.1		6.4		3.1		4		-				-		-	
					Bottom	16.2	2.5	96	26.3	26.3	7.9	7.9	27.6	27.6	93.0	93.0	6.4	6.4	3.1		4		-				-		-	
						16.2	2.6	105	26.3		7.9		27.6		93.0		6.4		3.2		3		-				-		-	
SR8	Cloudy	Moderate	18:03	4.8	Surface	1.0	0.4	213	26.7	26.7	7.9	7.9	26.8	26.8	96.6	96.6	6.7	6.7	12.3	14.3	13	15	-	-	820427	811610	-	-	-	-
						1.0	0.4	224	26.7		7.9		26.8		96.6		6.7		12.3		14		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	173	26.2	26.2	7.9	7.9	27.1	27.1	96.5	96.6	6.7	6.7	16.3		16		-				-		-	
						3.8	0.3	180	26.2		7.9		27.1		96.6		6.7		16.3		17		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 29 September 16 during Mid-Ebb tide

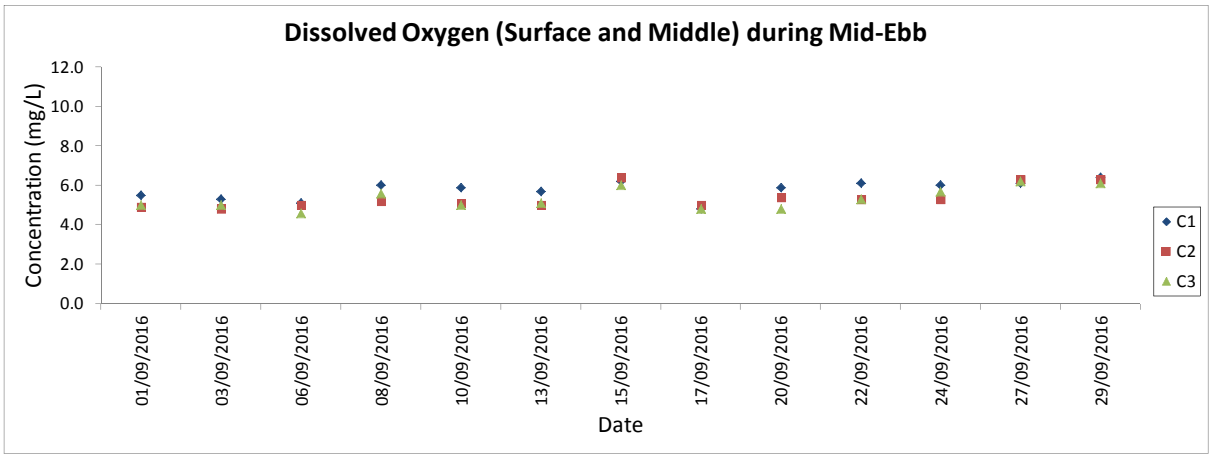
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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
C1	Fine	Rough	11:56	8.7	Surface	1.0	1.3	171	28.0	28.0	8.0	8.0	27.9	27.9	96.9	96.6	6.5	6.4	2.3	5.7	5	6	79	87	815619	804240	<0.2	<0.2	1.4	1.3
						1.0	1.4	178	28.0		8.0		27.9		96.3		6.5		2.1		6		78				<0.2		1.2	
					Middle	4.4	1.2	186	28.1	28.1	8.0	8.0	28.1	28.1	93.4	93.4	6.2		2.7		5		85				<0.2		1.4	
						4.4	1.3	191	28.1		8.0		28.1		93.3		6.2		2.7		6		88				<0.2		1.4	
					Bottom	7.7	1.0	180	28.3	28.3	8.0	8.0	32.4	32.4	93.5	94.3	6.1	6.2	12.6		6		95				<0.2		1.2	
						7.7	1.1	196	28.3		8.0		32.4		95.0		6.2		11.5		6		96				<0.2		1.4	
C2	Cloudy	Moderate	13:12	11.9	Surface	1.0	0.4	134	26.1	26.2	7.9	7.9	26.1	26.1	91.1	91.1	6.4	6.3	4.8	4.8	5	6	83	88	825698	806954	<0.2	<0.2	2.0	2.0
						1.0	0.4	144	26.2		7.9		26.1		91.1		6.4		4.8		4		83				<0.2		2.5	
					Middle	6.0	0.3	140	26.3	26.3	7.9	7.9	27.2	27.2	87.7	87.7	6.1		4.2		6		90				<0.2		1.9	
						6.0	0.3	149	26.3		7.9		27.2		87.6		6.1		4.3		6		90				<0.2		2.1	
					Bottom	10.9	0.3	168	26.5	26.5	7.9	7.9	29.2	29.2	85.4	85.7	5.8	5.9	5.3		8		92				<0.2		1.6	
						10.9	0.3	180	26.5		7.9		29.2		85.9		5.9		5.5		9		92				<0.2		1.9	
C3	Cloudy	Moderate	11:02	12.6	Surface	1.0	1.0	174	26.1	26.1	7.9	7.9	29.1	29.1	91.2	91.2	6.3	6.1	1.9	3.5	4	4	87	90	822103	817807	<0.2	<0.2	1.3	1.2
						1.0	1.0	182	26.1		7.9		29.1		91.2		6.3		1.9		4		87				<0.2		1.2	
					Middle	6.3	0.8	167	26.2	26.2	7.9	7.9	30.9	30.9	86.6	86.6	5.9		2.9		4		90				<0.2		1.2	
						6.3	0.8	180	26.2		7.9		30.9		86.6		5.9		2.9		3		89				<0.2		1.3	
					Bottom	11.6	0.5	153	26.3	26.3	7.9	7.9	32.8	32.8	84.7	84.8	5.7	5.7	5.8		4		92				<0.2		1.0	
						11.6	0.6	153	26.3		7.9		32.8		84.8		5.7		5.7		6		92				<0.2		1.0	
IM1	Fine	Rough	12:29	7.1	Surface	1.0	0.8	179	28.1	28.1	8.0	8.0	26.5	26.5	96.7	96.7	6.5	6.4	1.9	4.2	4	5	75	82	818341	806455	<0.2	<0.2	2.2	1.7
						1.0	0.9	182	28.1		8.0		26.4		96.6		6.5		2.1		5		78				<0.2		1.8	
					Middle	3.6	0.7	174	28.1	28.1	8.0	8.0	27.8	27.8	93.3	93.3	6.2		4.3		4		82				<0.2		1.5	
						3.6	0.7	186	28.1		8.0		27.8		93.2		6.2		4.5		6		84				<0.2		1.6	
					Bottom	6.1	0.5	179	28.3	28.3	8.1	8.1	31.1	31.1	94.1	94.8	6.2	6.3	6.8		5		86				<0.2		1.5	
						6.1	0.6	193	28.3		8.1		31.1		95.4		6.3		5.7		5		88				<0.2		1.4	
IM2	Fine	Rough	12:39	7.3	Surface	1.0	0.8	190	27.9	27.9	8.0	8.0	27.2	27.2	98.5	98.5	6.6	6.5	2.5	2.9	3	4	77	84	818859	806193	<0.2	<0.2	2.0	1.8
						1.0	0.9	194	27.9		8.0		27.2		98.5		6.6		2.6		4		79				<0.2		2.0	
					Middle	3.7	0.7	189	28.0	28.0	8.0	8.0	27.3	27.3	95.9	95.9	6.4		2.4		4		83				<0.2		1.6	
						3.7	0.7	193	28.0		8.0		27.3		95.8		6.4		2.3		4		84				<0.2		2.0	
					Bottom	6.3	0.6	191	28.1	28.1	8.0	8.0	29.1	29.1	95.6	95.7	6.3	6.3	3.8		4		88				<0.2		1.5	
						6.3	0.6	199	28.1		8.0		29.1		95.7		6.3		3.8		5		90				<0.2		1.6	
IM3	Fine	Rough	12:50	7.4	Surface	1.0	0.9	201	28.0	28.0	8.0	8.0	26.7	26.6	99.2	99.2	6.7	6.7	1.8	1.8	5	5	75	81	819424	806004	<0.2	<0.2	1.8	1.7
						1.0	0.9	215	28.0		8.0		26.5		99.2		6.7		1.9		4		72				<0.2		1.6	
					Middle	3.7	0.8	214	28.0	28.0	8.0	8.0	27.0	27.0	99.4	99.4	6.7		1.7		5		79				<0.2		1.7	
						3.7	0.8	225	28.0		8.0		27.0		99.4		6.7		1.7		5		82				<0.2		1.6	
					Bottom	6.4	0.6	210	28.0	28.0	8.0	8.0	27.2	27.2	101.5	102.2	6.8	6.9	1.7		6		88				<0.2		1.7	
						6.4	0.7	229	28.0		8.0		27.2		102.8		6.9		1.8		6		92				<0.2		1.8	
IM4	Fine	Rough	13:02	7.5	Surface	1.0	1.0	195	28.1	28.1	8.0	8.0	27.2	27.2	96.5	96.5	6.5	6.4	3.1	4.7	5	7	75	81	819587	805042	<0.2	<0.2	1.8	1.6
						1.0	1.0	207	28.1		8.0		27.2		96.5		6.5		3.2		6		72				<0.2		1.5	
					Middle	3.8	0.9	211	28.2	28.2	8.0	8.0	27.8	27.8	94.6	94.6	6.3		4.7		6		80				<0.2		1.5	
						3.8	0.9	222	28.2		8.0		27.7		94.5		6.3		4.8		6		81				<0.2		1.7	
					Bottom	6.5	0.8	216	28.3	28.3	8.1	8.1	29.4	29.4	93.7	93.7	6.2	6.2	6.2		11		87				<0.2		1.2	
						6.5	0.8	219	28.3		8.1		29.4		93.7		6.2		6.3		10		89				<0.2		1.6	
IM5	Fine	Rough	13:18	6.3	Surface	1.0	1.0	190	28.1	28.1	8.0	8.0	26.6	26.7	96.6	96.6	6.5	6.4	2.3	5.4	4	8	73	81	820558	804918	<0.2	<0.2	1.7	1.6
						1.0	1.1	204	28.1		8.0		26.7		96.5		6.5		2.3		5		74				<0.2		1.7	
					Middle	3.2	0.7	211	28.2	28.2	8.0	8.0	27.2	27.2	94.5	94.4	6.3		5.2		6		79				<0.2		1.8	
						3.2	0.7	229	28.2		8.0		27.1		94.2		6.3		5.8		5		81				<0.2		1.8	
					Bottom	5.3	0.8	202	28.3	28.3	8.0	8.0	29.0	29.1	96.5	96.6	6.4	6.4	8.3		12		89				<0.2		1.2	
						5.3	0.8	216	28.3		8.0		29.1		96.7		6.4		8.4		13		90				<0.2		1.4	
IM6	Fine	Rough	13:30	6.5	Surface	1.0	0.9	189	28.1	28.1	8.0	8.0	26.2	26.2	94.9	94.9	6.4	6.3	4.1	7.5	4	9	74	83	821050	805815	<0.2	<0.2	1.9	1.6
						1.0	0.9	203	28.1		8.0		26.2		94.8		6.4		3.9		5		76				<0.2		2.2	
					Middle	3.3	0.7	201	28.3	28.3	8.0	8.0	28.6	28.6	92.4	92.5	6.1		9.9		9		82				<0.2		1.4	
						3.3	0.7	207	28.3		8.0		28.6		92.6		6.1		9.8		10		85				<0.2		1.5	
					Bottom	5.5	0.7	213	28.3	28.3	8.0	8.0	29.4	29.5	98.2	98.4	6.5	6.5	8.6		13		90				<0.2		1.3	
						5.5	0.7	217	28.3		8.0		29.5		98.5		6.5		8.4		13		92				<0.2		1.3	
IM7	Fine	Rough	13:41	7.6	Surface	1.0	0.9	193	28.2	28.2	8.0	8.0	25.8	25.8	92.8	92.8	6.3	6.2	4.2	6.7	6	7	78	84	821351	806850	<0.2	<0.2	1.9	1.8
						1.0	1.0	204	28.2		8.0		25.8		92.8		6.3		4.3		6		75				<0.2		1.9	
					Middle	3.8	0.8	196	28.4	28.4	8.0	8.0	27.2	27.2	91.3	91.4	6.1		6.7		5		81				<0.2		1.9	
						3.8	0.9	196	28.4		8.0		27.2		91.4		6.1		6.7		5		84				<0.2		1.6	
					Bottom	6.6	0.6	191	28.3	28.3	8.0	8.0	29.0	29.1	91.9	92.0	6.1	6.1	9.1		9		91				<0.2		1.7	
						6.6	0.7	192	28.3		8.0		29.1		92.1		6.1		8.9		8		92				<0.2		1.6	
IM8	Cloudy	Moderate	12:29	8.2	Surface	1.0	0.8	171	26.1	26.1	7.9	7.9	26.0	26.0	94.6	94.7	6.6	6.7	3.7	4.6	5	6	84	89	821680	807852	<0.2	<0.2	2.1	2.0
						1.0	0.8	179	26.1		7.9		26.0		94.7		6.6		3.8		6		84				<0.2		2.2	
					Middle	4.1	0.5	173	26.1	26.1	7.9	7.9	26.8	26.8	95.9	95.9	6.7		4.3		5		90				<0.2		2.1	
						4.1	0.5	183	26.1		7.9		26.8		95.9		6.7		4.3		6		90				<0.2		2.1	
					Bottom	7.2	0.4	173	26.0	26.0	7.9	7.9	28.0	28.1	97.8	97.8	6.8	6.8	5.7		7		92				<0.2		1.7	
						7.2	0.4	188	26.0		7.9		28.1		97.8		6.8		5.6		9		92				<0.2		1.9	

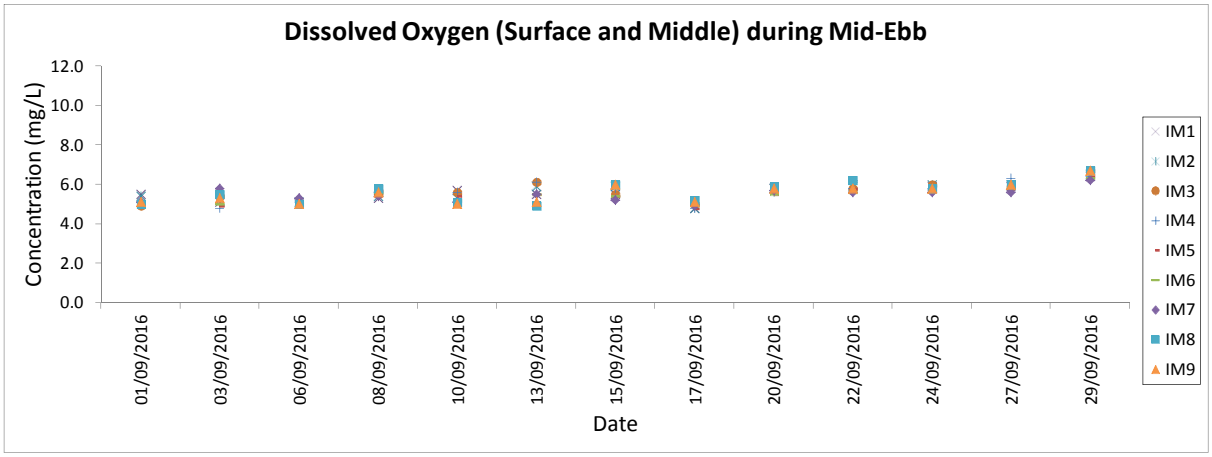
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

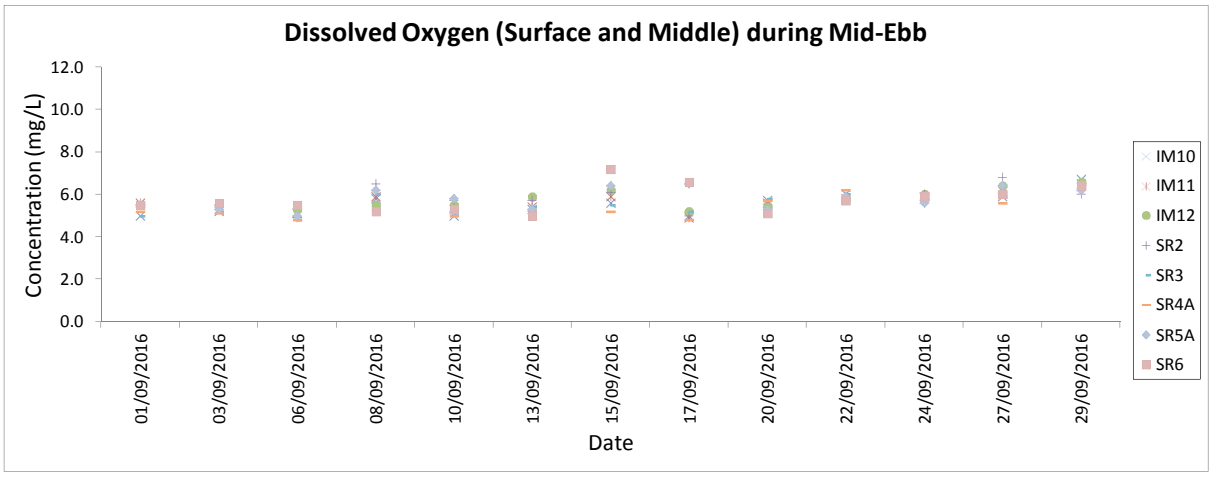
Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 29 September 16 during Mid-Ebb tide

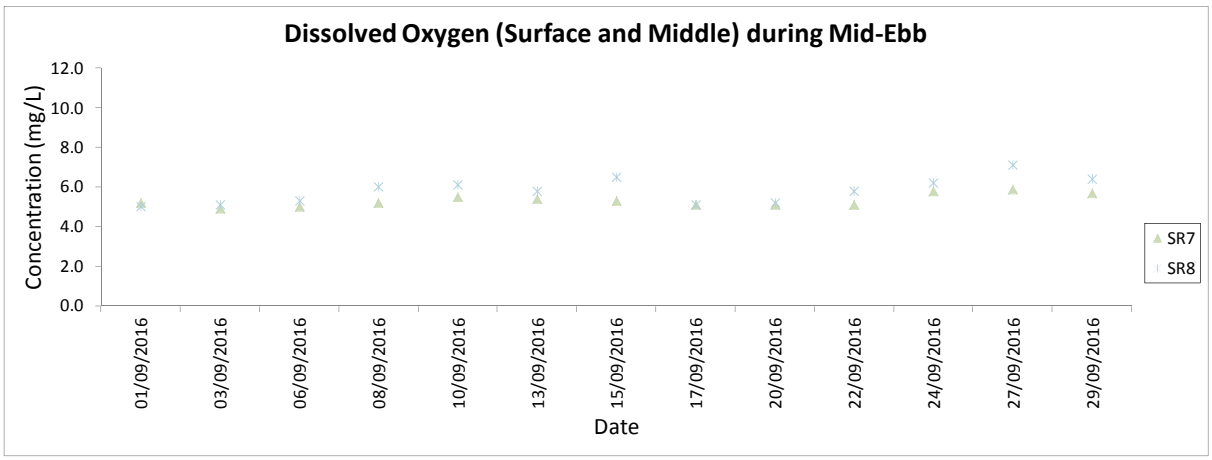
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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
IM9	Cloudy	Moderate	12:19	7.6	Surface	1.0	0.8	165	26.0	26.0	7.9	7.9	26.7	26.7	96.5	96.5	6.7	6.7	3.3	5.4	4	4	83	89	822107	808793	<0.2	<0.2	2.0	2.0
						1.0	0.8	167	26.0		7.9		26.7		96.4		6.7		3.3		4		82				<0.2		2.0	
					Middle	3.8	0.8	158	26.0	26.0	7.9	7.9	26.8	26.8	95.8	95.8	6.7		4.3		3		91				<0.2		2.1	
						3.8	0.8	164	26.0		7.9		26.8		95.8		6.7		4.3		4		90				<0.2		1.9	
					Bottom	6.6	0.6	153	26.1	26.1	7.9	7.9	28.2	28.3	96.5	96.5	6.7	6.7	8.7		6		94				<0.2		2.0	
						6.6	0.6	159	26.1		7.9		28.3		96.5		6.7		8.7		5		92				<0.2		2.2	
IM10	Cloudy	Moderate	12:10	8.3	Surface	1.0	0.8	150	26.0	26.0	7.9	7.9	26.8	26.8	96.0	96.0	6.7	6.7	3.7	7.4	5	6	85	89	822229	809820	<0.2	<0.2	2.0	2.0
						1.0	0.8	151	26.0		7.9		26.8		96.0		6.7		3.8		5		86				<0.2		2.0	
					Middle	4.2	0.6	137	26.1	26.1	8.0	8.0	27.6	27.6	95.3	95.4	6.6		7.4		5		89				<0.2		2.2	
						4.2	0.6	142	26.1		8.0		27.6		95.4		6.6		7.4		5		89				<0.2		2.0	
					Bottom	7.3	0.5	131	26.1	26.1	7.9	7.9	27.7	27.7	96.8	96.9	6.7	6.7	11.1		8		91				<0.2		1.7	
						7.3	0.5	131	26.1		7.9		27.7		96.9		6.7		11.1		9		92				<0.2		1.9	
IM11	Cloudy	Moderate	12:01	7.3	Surface	1.0	0.7	124	26.1	26.1	7.9	7.9	26.6	26.6	94.9	94.9	6.6	6.5	3.8	7.5	3	6	84	89	821506	810532	<0.2	<0.2	2.0	2.0
						1.0	0.7	126	26.1		7.9		26.6		94.9		6.6		3.8		3		85				<0.2		1.9	
					Middle	3.7	0.7	124	26.1	26.1	7.9	7.9	27.3	27.3	92.7	92.7	6.4		7.7		6		90				<0.2		2.2	
						3.7	0.7	133	26.1		7.9		27.3		92.7		6.4		7.8		4		89				<0.2		2.0	
					Bottom	6.3	0.6	111	26.3	26.3	7.9	7.9	27.7	27.7	92.6	92.7	6.4	6.4	10.8		9		92				<0.2		1.9	
						6.3	0.7	118	26.3		7.9		27.7		92.7		6.4		10.8		10		92				<0.2		1.8	
IM12	Cloudy	Moderate	11:51	9.6	Surface	1.0	0.8	108	26.2	26.2	7.9	7.9	26.4	26.4	94.6	94.6	6.6	6.6	3.7	4.8	4	5	85	89	821166	811526	<0.2	<0.2	1.8	1.9
						1.0	0.8	114	26.2		7.9		26.4		94.6		6.6		3.6		4		85				<0.2		2.0	
					Middle	4.8	0.6	110	26.2	26.2	7.9	7.9	26.5	26.5	93.6	93.6	6.5		4.6		6		90				<0.2		1.9	
						4.8	0.6	118	26.2		7.9		26.5		93.5		6.5		4.6		5		90				<0.2		1.8	
					Bottom	8.6	0.6	117	26.2	26.2	7.9	7.9	27.5	27.5	94.4	94.4	6.5	6.5	6.0		6		92				<0.2		2.0	
						8.6	0.6	126	26.2		7.9		27.5		94.4		6.5		6.1		4		92				<0.2		1.8	
SR2	Cloudy	Moderate	11:28	5.1	Surface	1.0	0.5	92	26.4	26.4	7.9	7.9	28.6	28.6	87.4	87.4	6.0	6.0	7.6	8.9	10	11	87	89	821469	814175	<0.2	<0.2	1.5	1.6
						1.0	0.5	100	26.4		7.9		28.6		87.4		6.0		7.6		11		88				<0.2		1.6	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.4	99	26.4	26.4	7.8	7.8	28.8	28.8	89.7	89.7	6.1	6.2	10.2		12		89				<0.2		1.7	
						4.1	0.4	105	26.4		7.8		28.8		89.7		6.2		10.3		12		90				<0.2		1.7	
SR3	Cloudy	Moderate	12:36	9.2	Surface	1.0	0.8	169	26.1	26.1	7.9	7.9	25.7	25.7	93.4	93.4	6.5	6.5	3.7	8.8	6	8	-	-	822141	807577	-	-	-	-
						1.0	0.8	171	26.1		7.9		25.7		93.3		6.5		3.7		4		-				-		-	
					Middle	4.6	0.6	177	26.2	26.2	7.9	7.9	27.2	27.2	92.8	92.8	6.4		7.3		8		-				-		-	
						4.6	0.6	177	26.2		7.9		27.2		92.8		6.4		7.2		8		-				-		-	
					Bottom	8.2	0.3	205	26.2	26.2	8.0	8.0	29.5	29.6	93.6	93.6	6.4	6.4	15.3		9		-				-		-	
						8.2	0.4	207	26.2		8.0		29.6		93.6		6.4		15.4		10		-				-		-	
SR4A	Fine	Calm	11:34	8.2	Surface	1.0	0.5	248	28.1	28.1	8.0	8.0	27.5	27.5	95.9	95.9	6.4	6.4	7.6	7.6	14	14	-	-	817207	807814	-	-	-	-
						1.0	0.5	253	28.1		8.0		27.5		95.9		6.4		7.6		14		-				-		-	
					Middle	4.1	0.5	251	28.1	28.1	8.0	8.0	27.7	27.7	95.1	95.1	6.4		6.9		13		-				-		-	
						4.1	0.5	275	28.1		8.0		27.7		95.1		6.4		7.1		13		-				-		-	
					Bottom	7.2	0.5	249	28.1	28.1	8.0	8.0	27.8	27.8	94.9	94.9	6.3	6.3	8.1		15		-				-		-	
						7.2	0.5	272	28.1		8.0		27.8		94.9		6.3		8.2		16		-				-		-	
SR5A	Fine	Calm	11:15	4.3	Surface	1.0	0.3	304	28.2	28.2	8.0	8.0	27.1	27.1	92.8	92.9	6.2	6.2	4.6	5.1	9	10	-	-	816606	810681	-	-	-	-
						1.0	0.3	305	28.2		8.0		27.1		92.9		6.2		4.5		9		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.3	304	28.1	28.1	8.0	8.0	27.1	27.1	96.8	96.9	6.5	6.5	5.5		10		-				-		-	
						3.3	0.3	322	28.1		8.0		27.1		96.9		6.5		5.6		12		-				-		-	
SR6	Fine	Calm	10:51	4.2	Surface	1.0	0.3	257	28.1	28.1	7.9	7.9	26.5	26.5	94.7	94.7	6.4	6.4	3.7	4.4	9	10	-	-	817883	814657	-	-	-	-
						1.0	0.3	259	28.1		7.9		26.5		94.7		6.4		3.6		9		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	265	28.2	28.2	7.9	7.9	26.5	26.5	95.3	95.8	6.4	6.5	4.8		10		-				-		-	
						3.2	0.3	276	28.2		7.9		26.5		96.3		6.5		5.5		10		-				-		-	
SR7	Cloudy	Calm	10:26	17.9	Surface	1.0	0.4	108	26.1	26.1	7.9	7.9	31.9	31.9	85.5	85.5	5.8	5.7	2.7	4.0	6	6	-	-	823634	823733	-	-	-	-
						1.0	0.4	115	26.1		7.9		31.9		85.4		5.8		2.7		5		-				-		-	
					Middle	9.0	0.2	148	26.3	26.3	7.9	7.9	34.0	34.0	84.1	84.1	5.6		4.3		6		-				-		-	
						9.0	0.3	152	26.3		7.9		34.0		84.1		5.6		4.3		6		-				-		-	
					Bottom	16.9	0.6	129	26.2	26.2	7.9	7.9	34.4	34.5	84.8	84.8	5.6	5.7	5.0		6		-				-		-	
						16.9	0.7	135	26.2		7.9		34.5		84.8		5.7		5.0		6		-				-		-	
SR8	Cloudy	Moderate	11:45	5.7	Surface	1.0	0.3	188.0	26.8	26.8	7.9	7.9	27.1	27.1	93.3	93.2	6.4	6.4	7.1	7.9	9	10	-	-	820423	811606	-	-	-	-
						1.0	0.3	203.0	26.8		7.9		27.1		93.1		6.4		7.2		9		-				-		-	
					Middle	2.9	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.3	174.0	26.3	26.3	7.9	7.9	27.5	27.5	91.5	93.3	6.3	6.5	8.9		11		-				-		-	
						4.7	0.3	186.0	26.3		7.9		27.5		95.1		6.6		8.4		11		-				-		-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

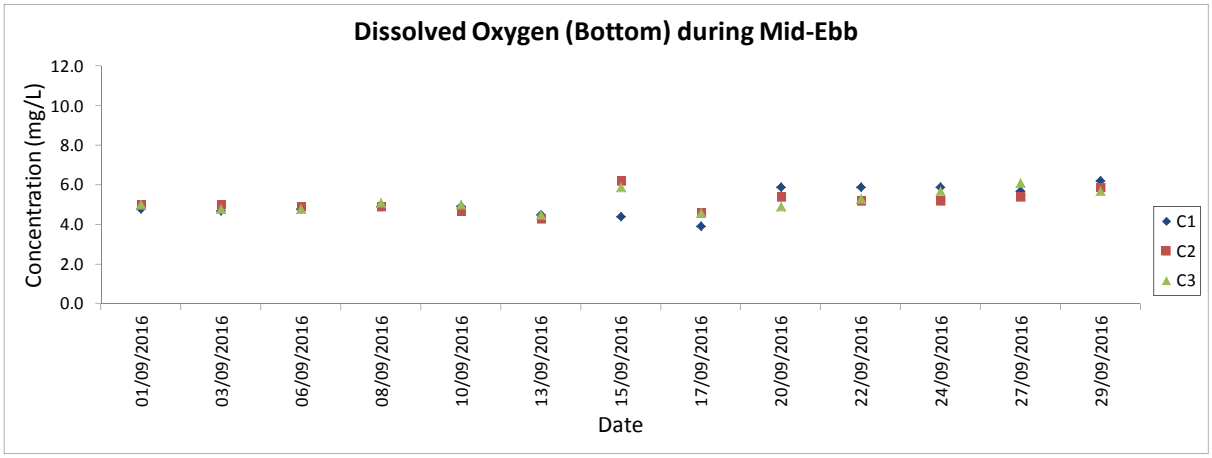


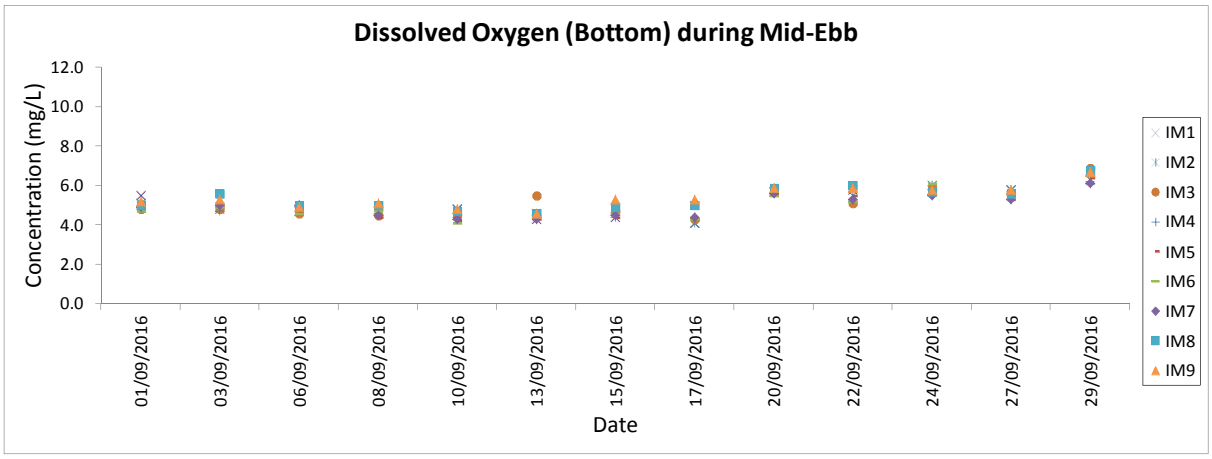


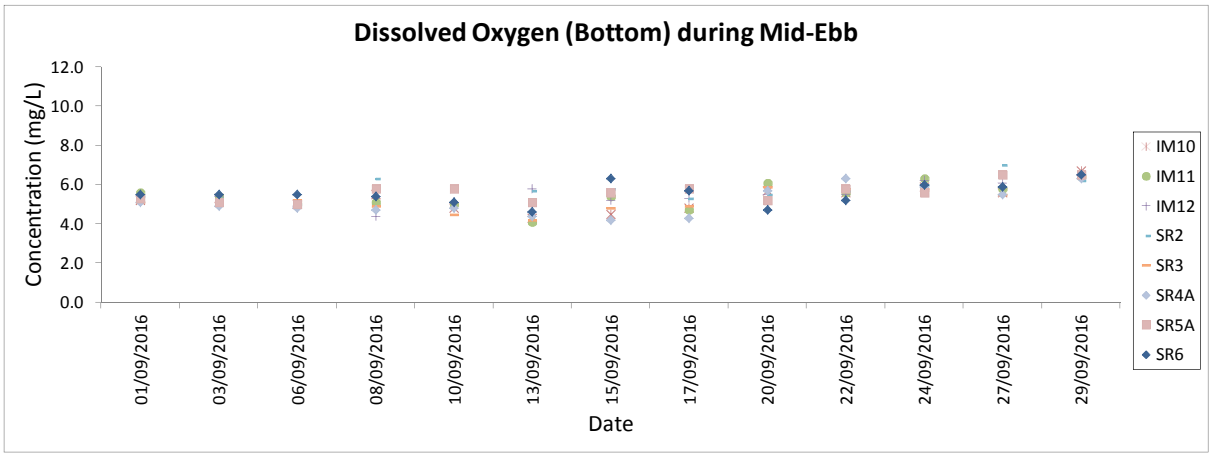


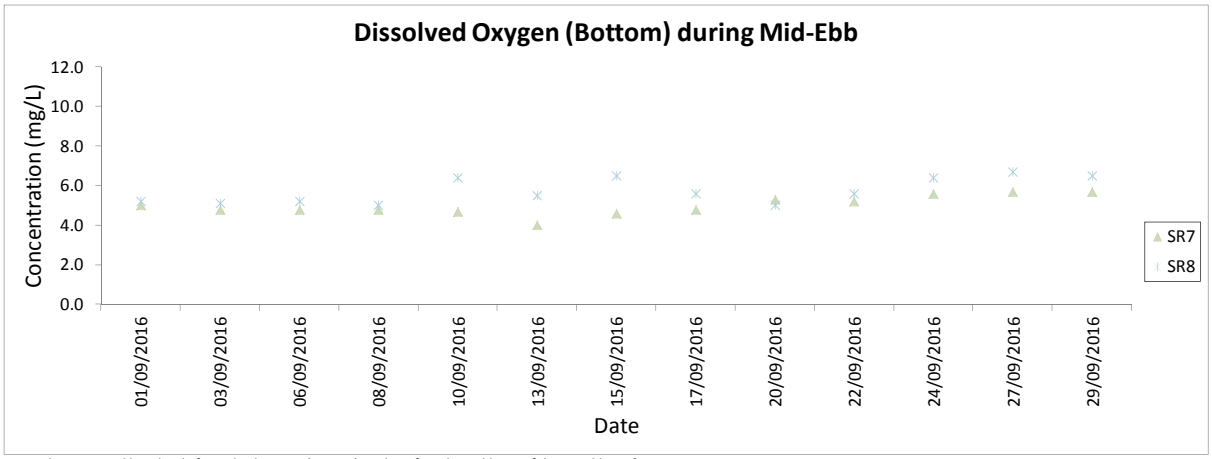


Note: The action and limit level of Dissolved Oxygen (Surface and Middle) can be referred to Table 4.2 of the monthly EM&A report.

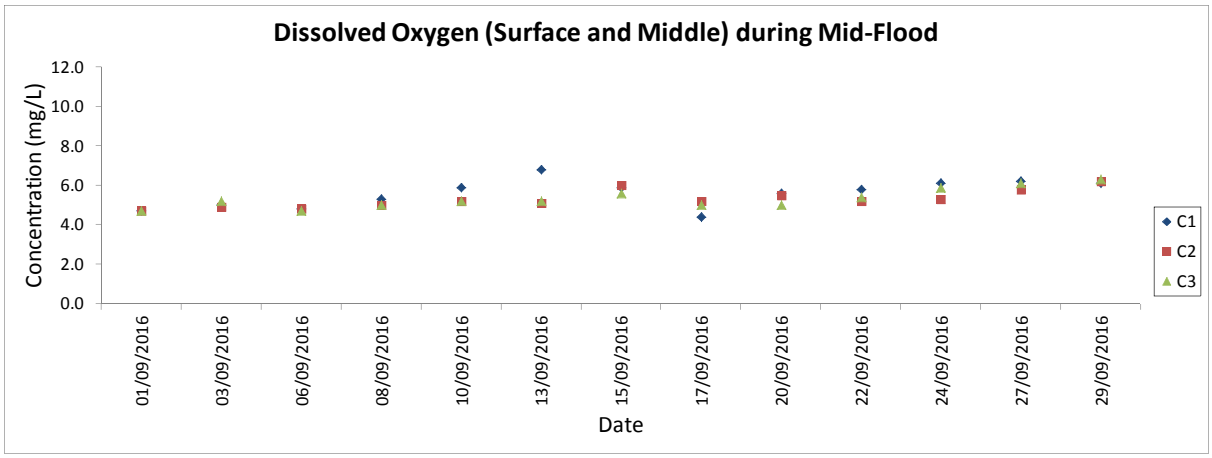


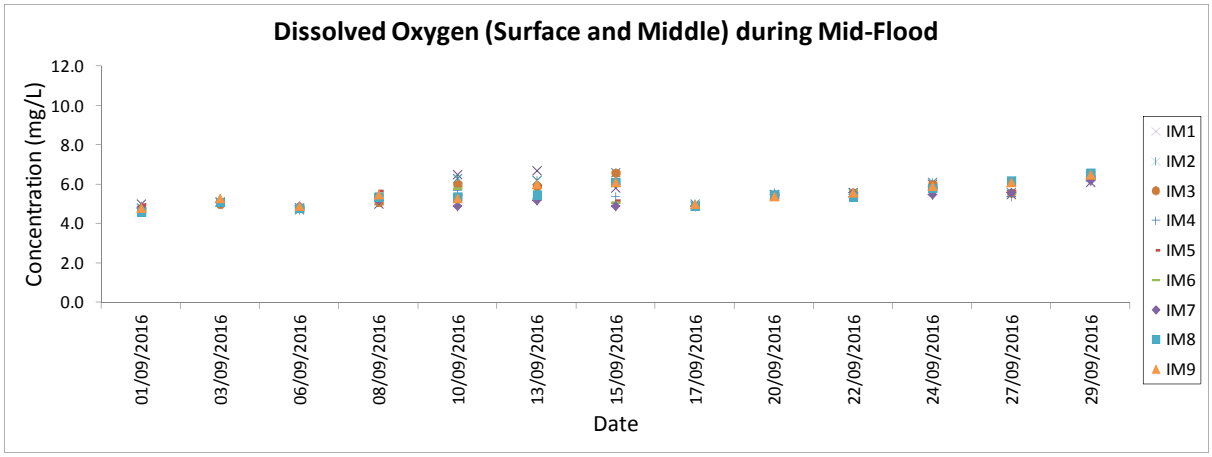


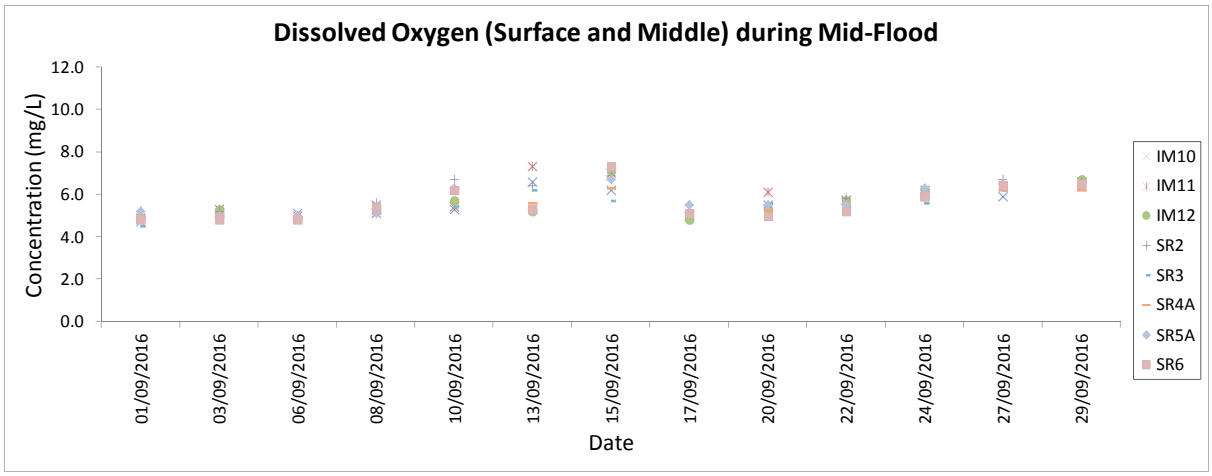


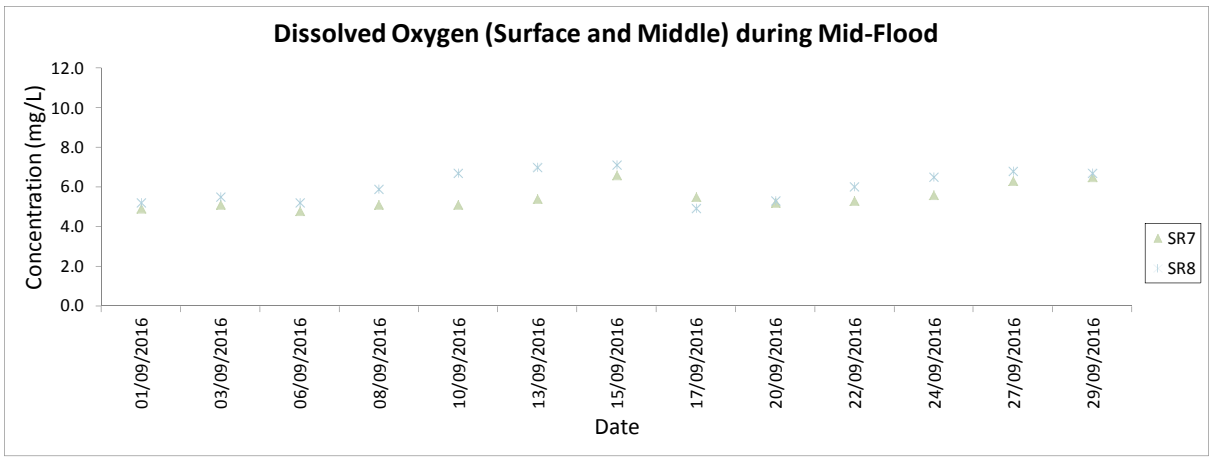


Note: The action and limit level of Dissolved Oxygen (Bottom) can be referred to Table 4.2 of the monthly EM&A report.

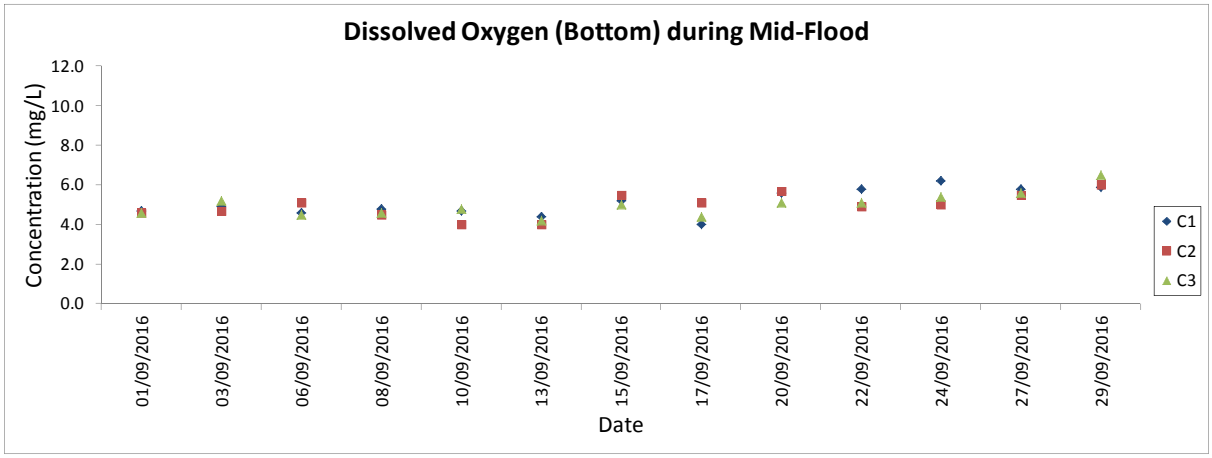


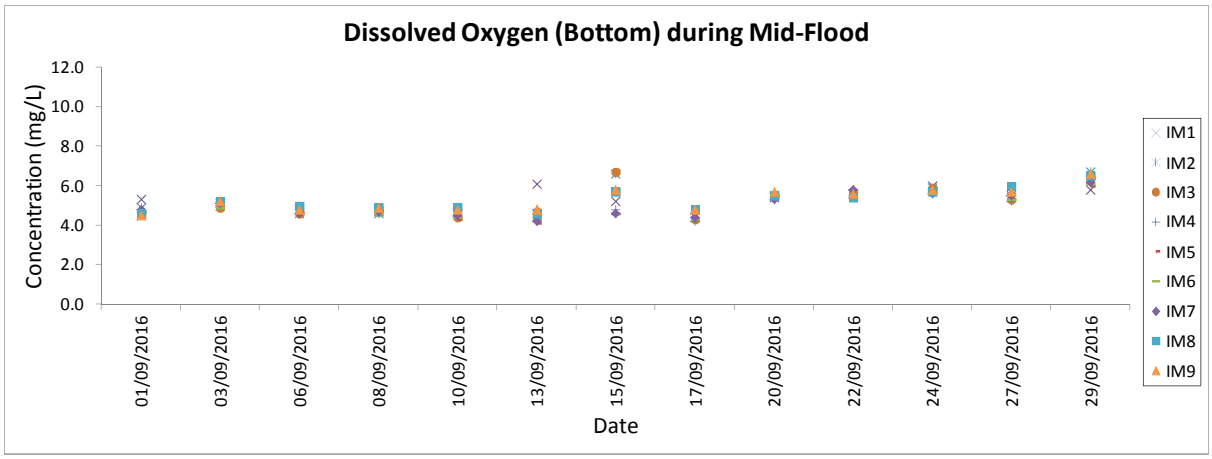


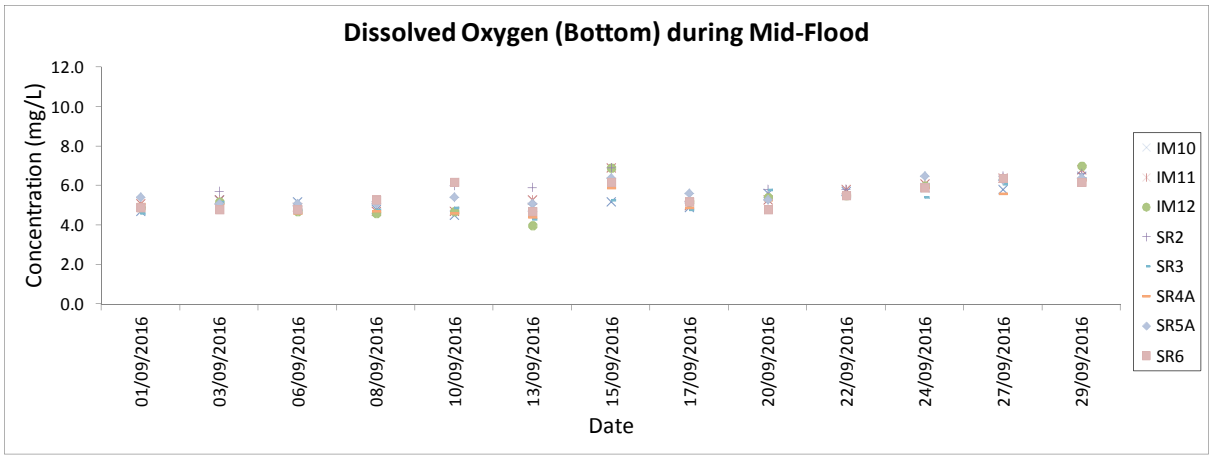


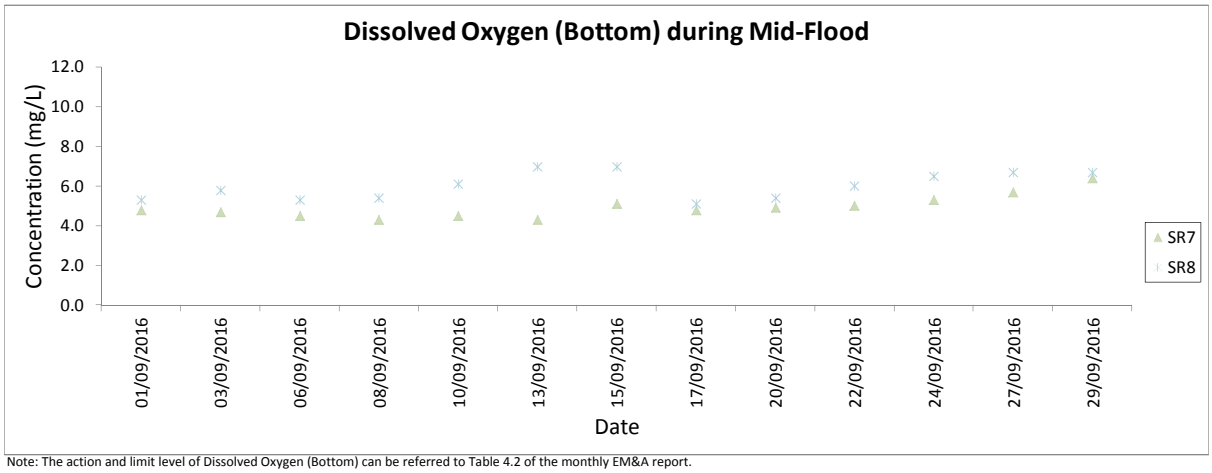


Note: The action and limit level of Dissolved Oxygen (Surface and Middle) can be referred to Table 4.2 of the monthly EM&A report.

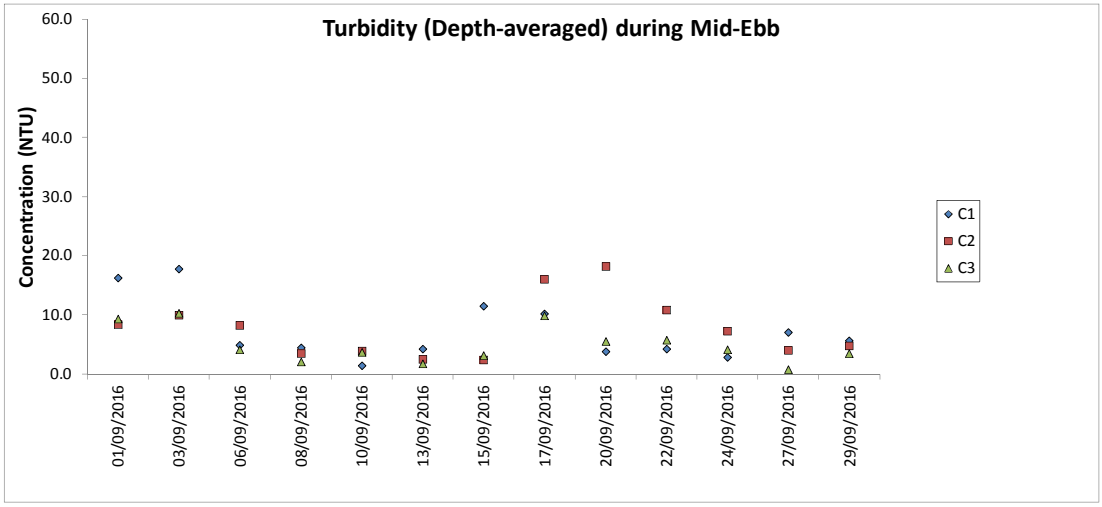


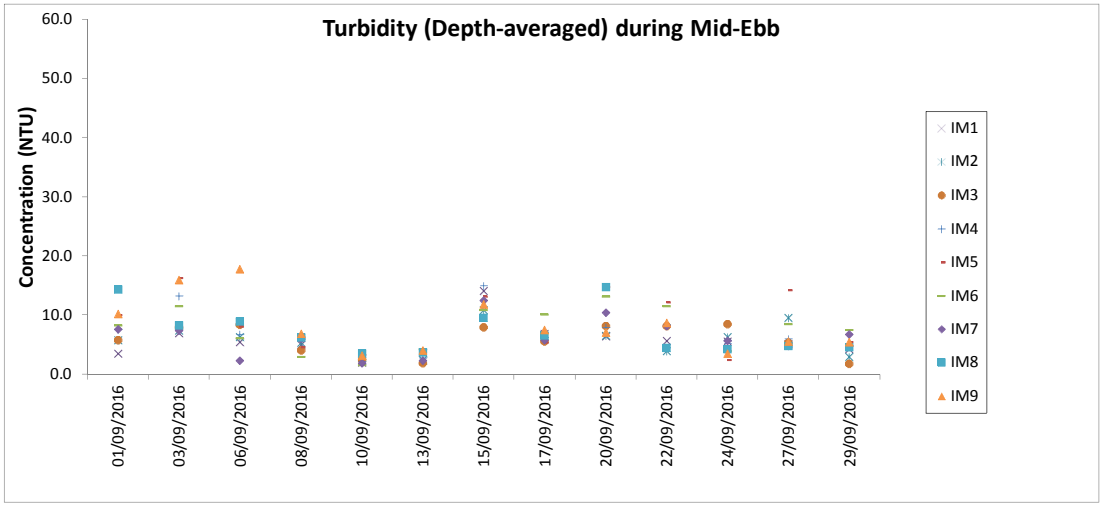


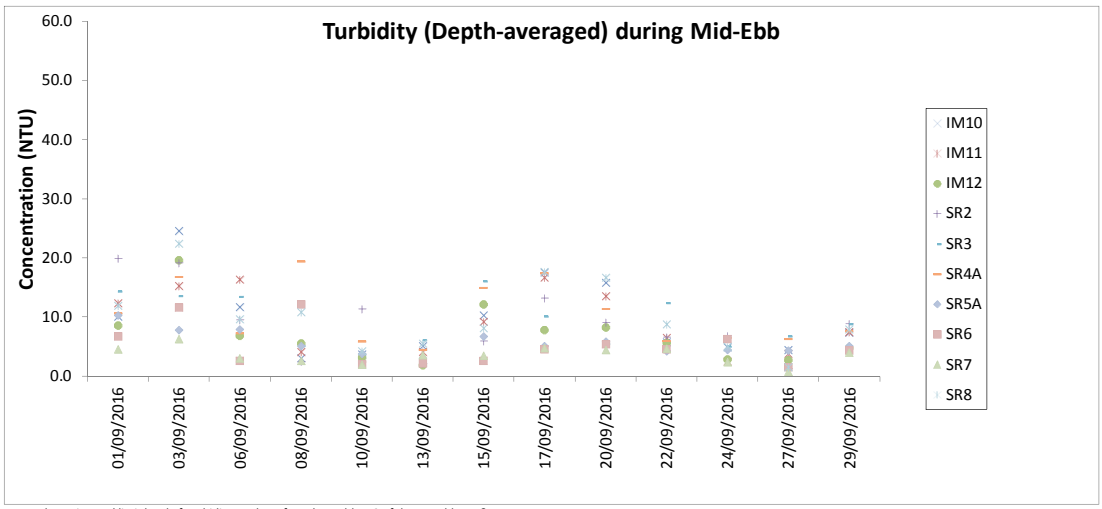




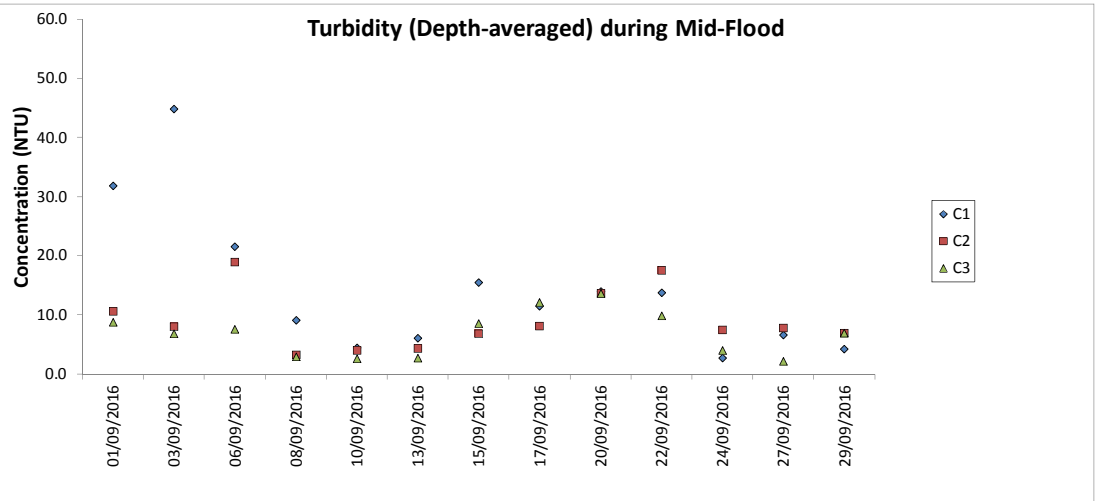
Note: The action and limit level of Dissolved Oxygen (Bottom) can be referred to Table 4.2 of the monthly EM&A report.

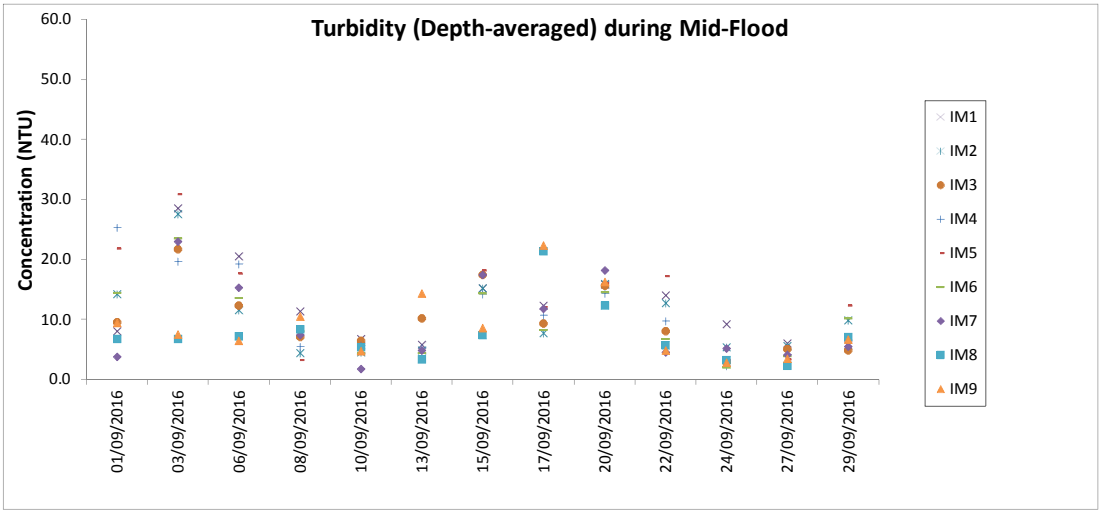


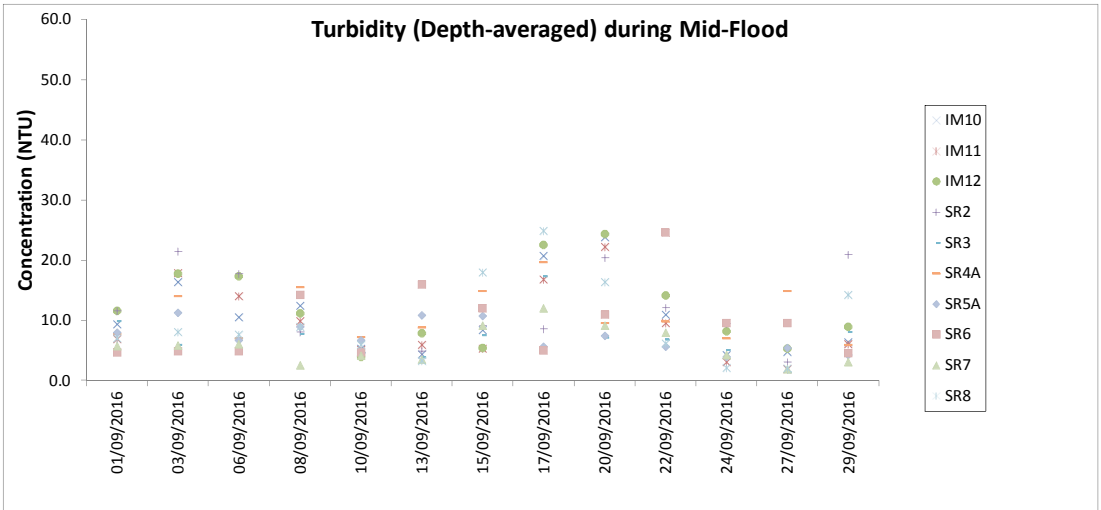




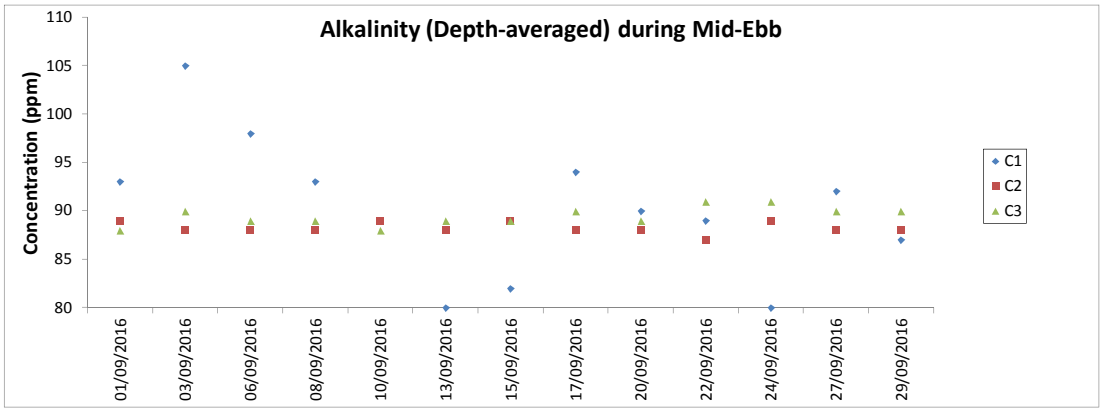
Note: The action and limit level of Turbidity can be referred to Table 4.2 of the monthly EM&A report.

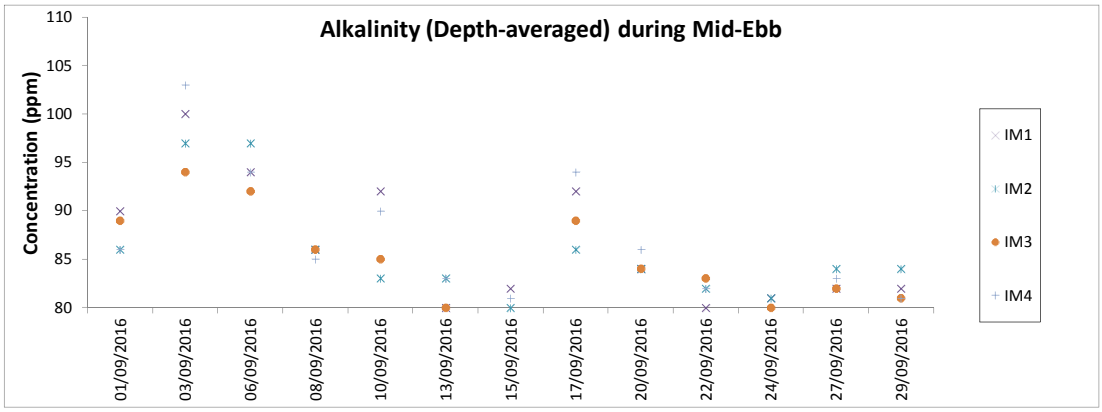


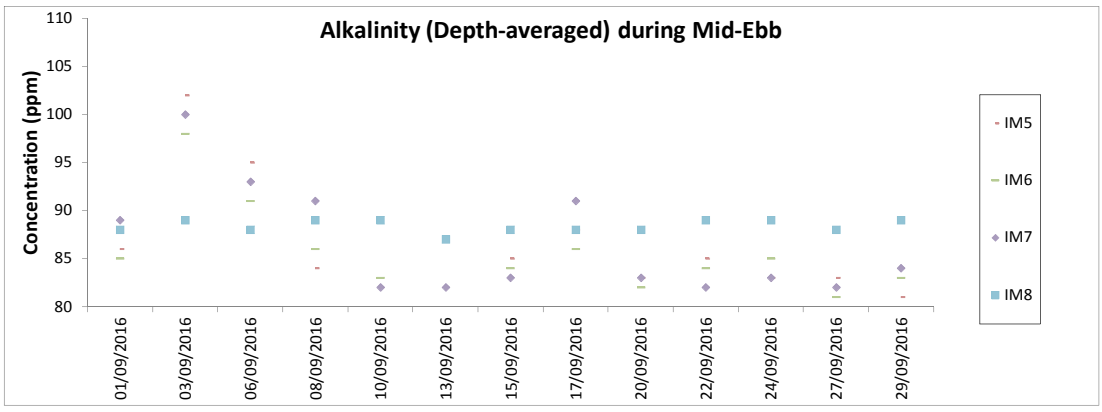


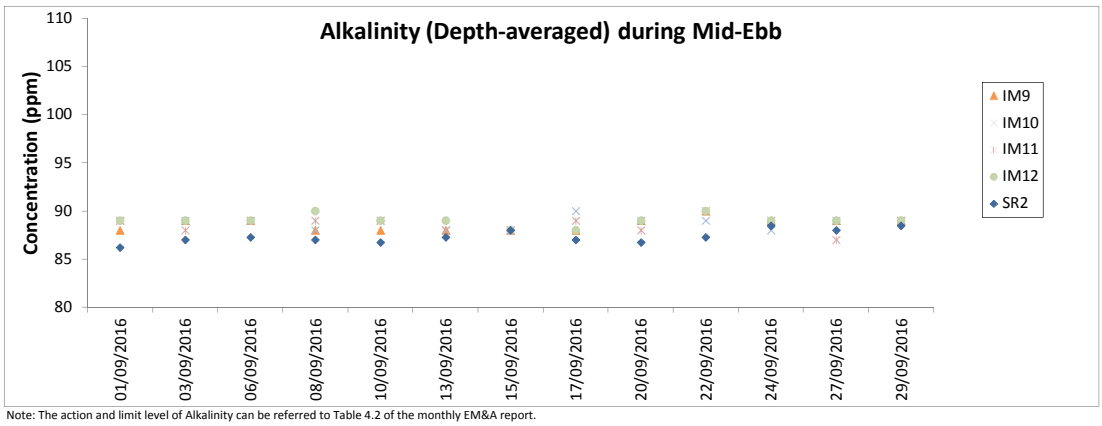


Note: The action and limit level of Turbidity can be referred to Table 4.2 of the monthly EM&A report.

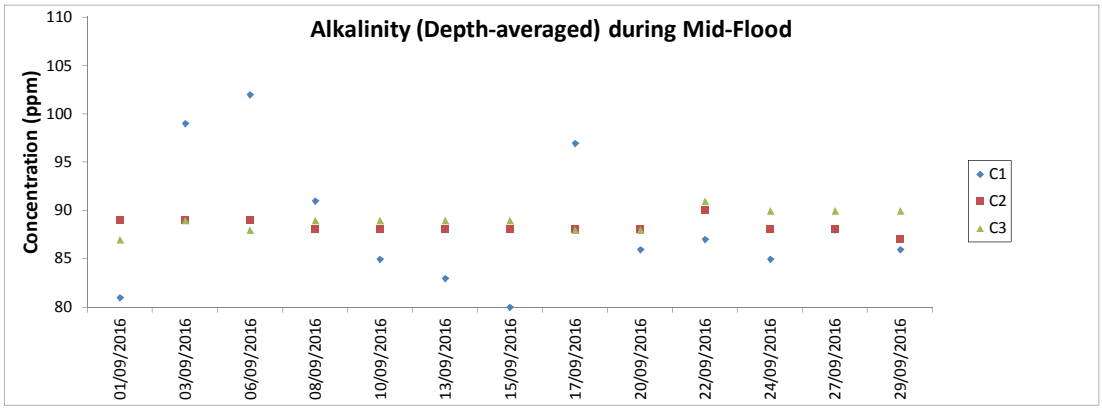


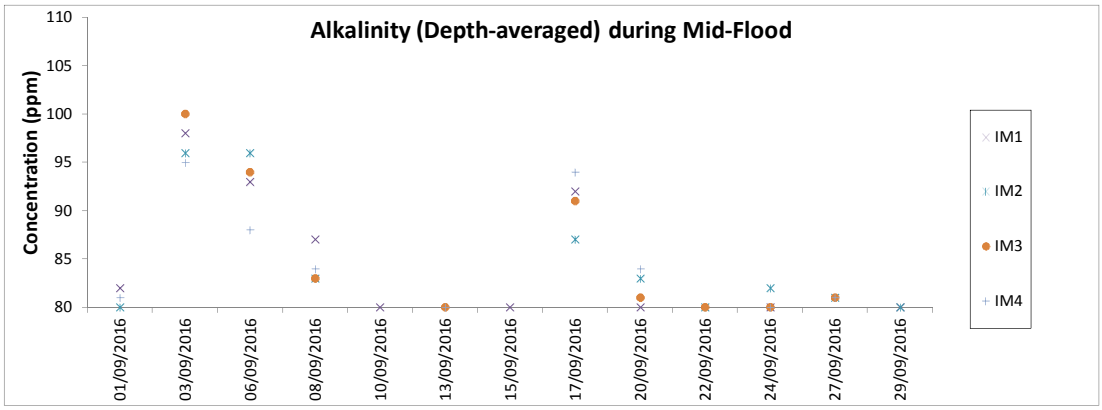


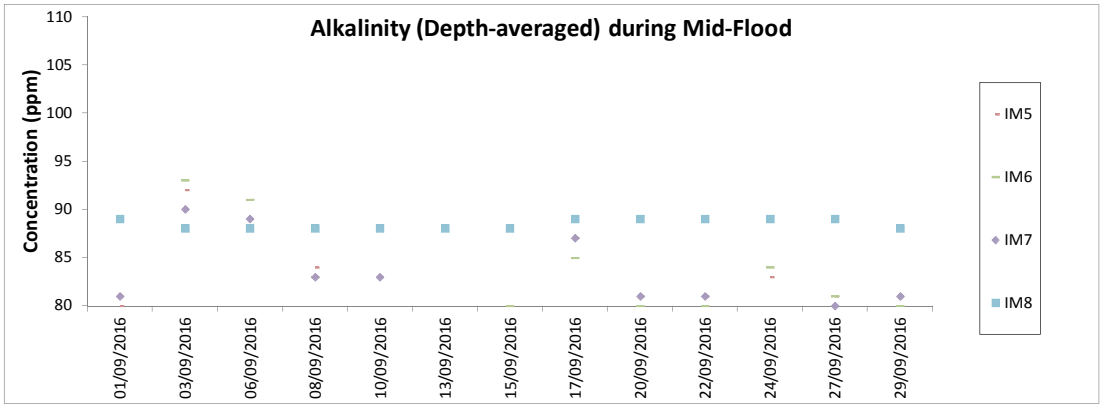


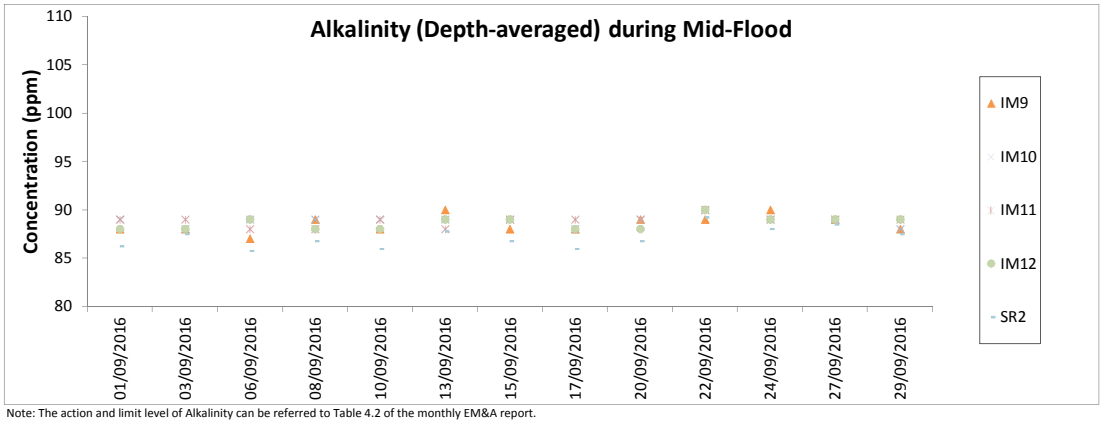


Note: The action and limit level of Alkalinity can be referred to Table 4.2 of the monthly EM&A report.

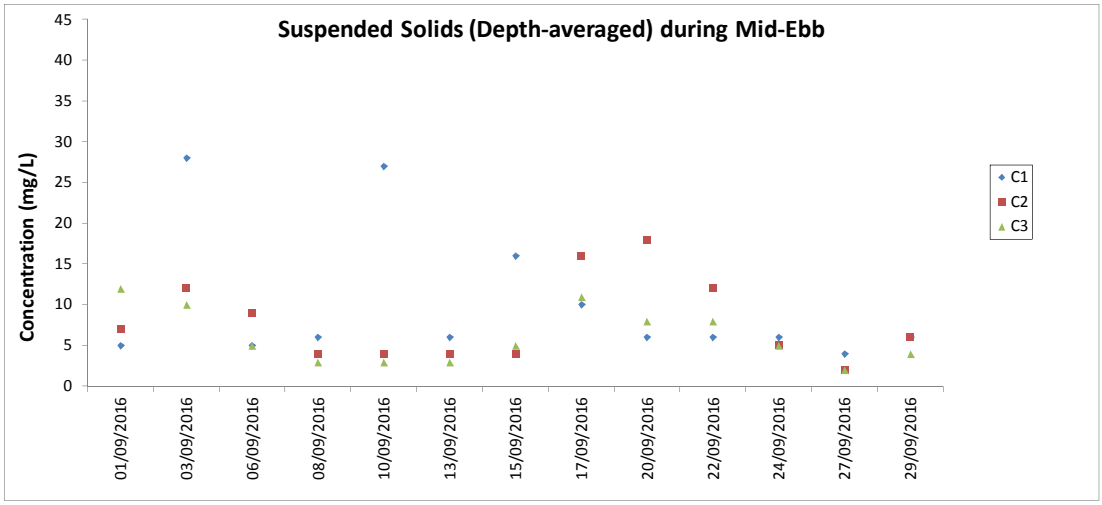


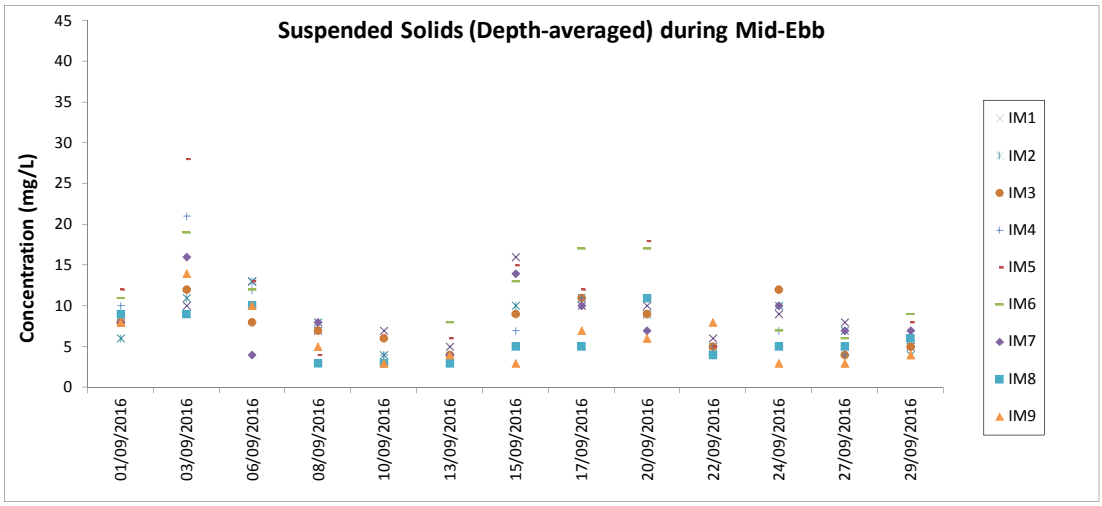


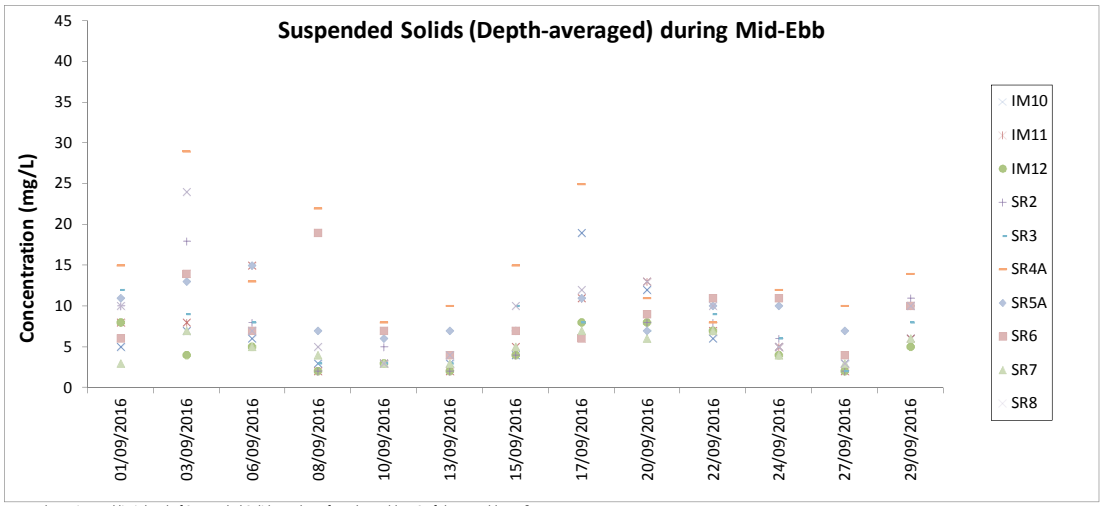




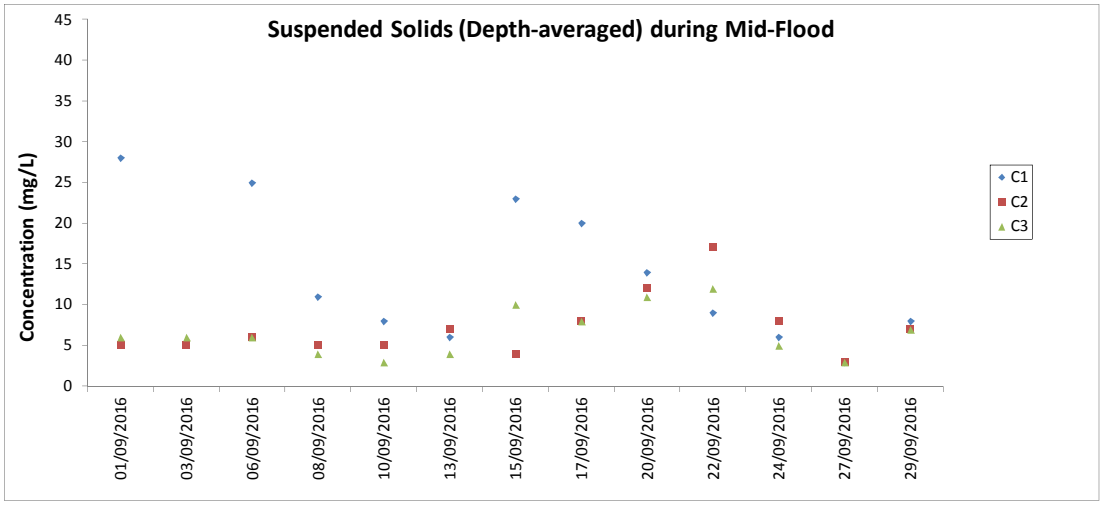
Note: The action and limit level of Alkalinity can be referred to Table 4.2 of the monthly EM&A report.

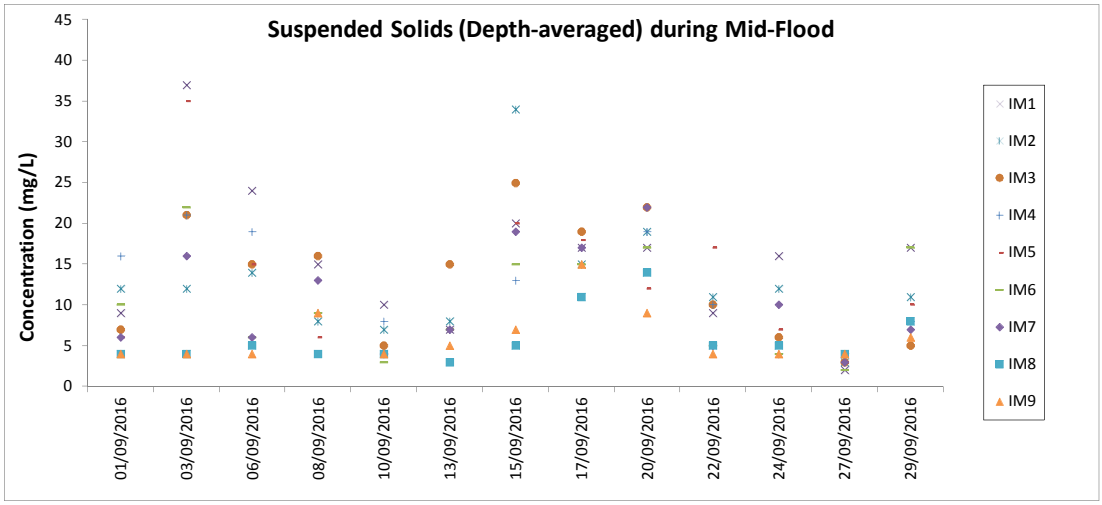


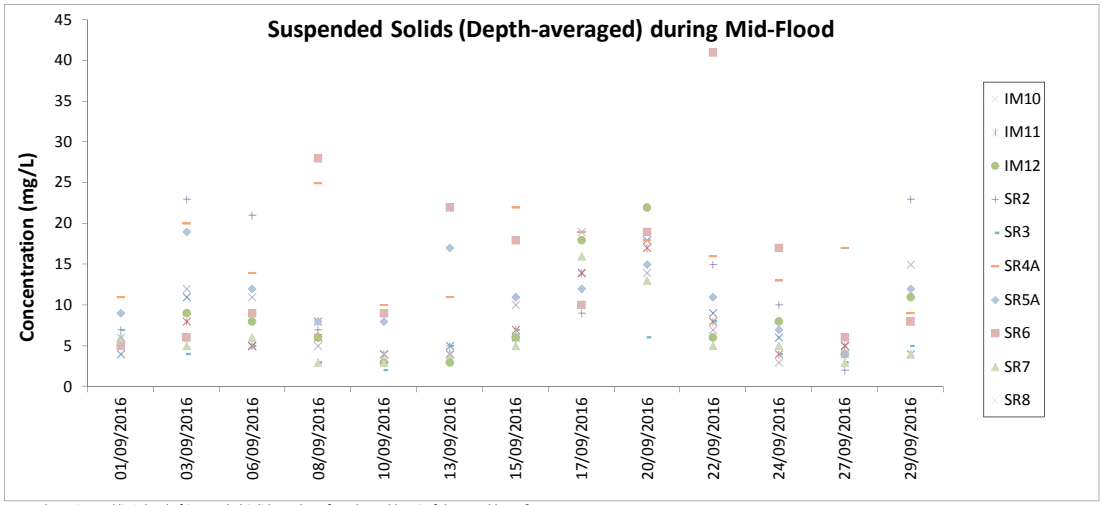




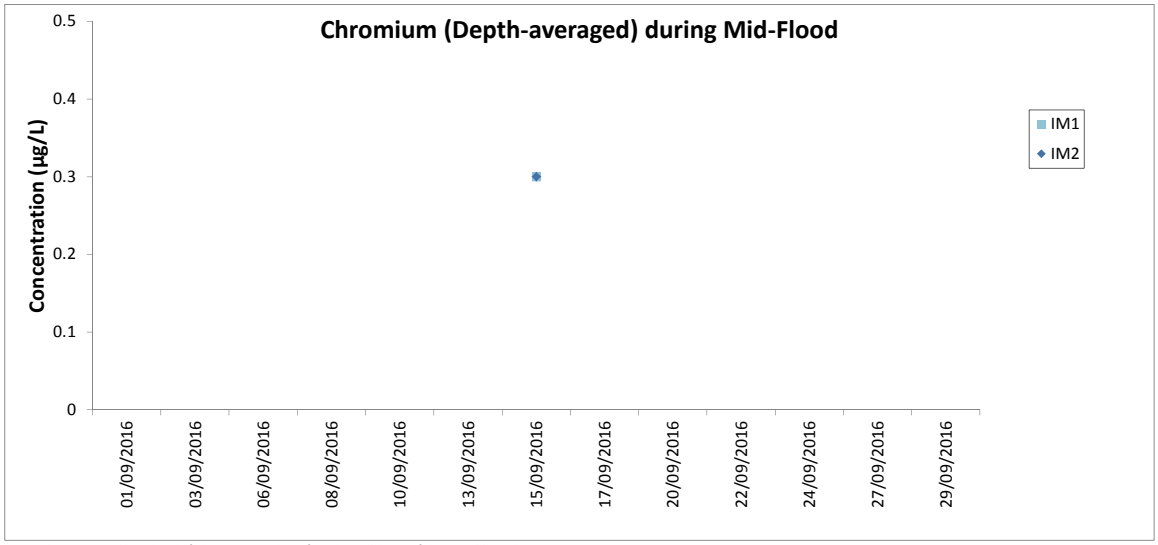
Note: The action and limit level of Suspended Solids can be referred to Table 4.2 of the monthly EM&A report.



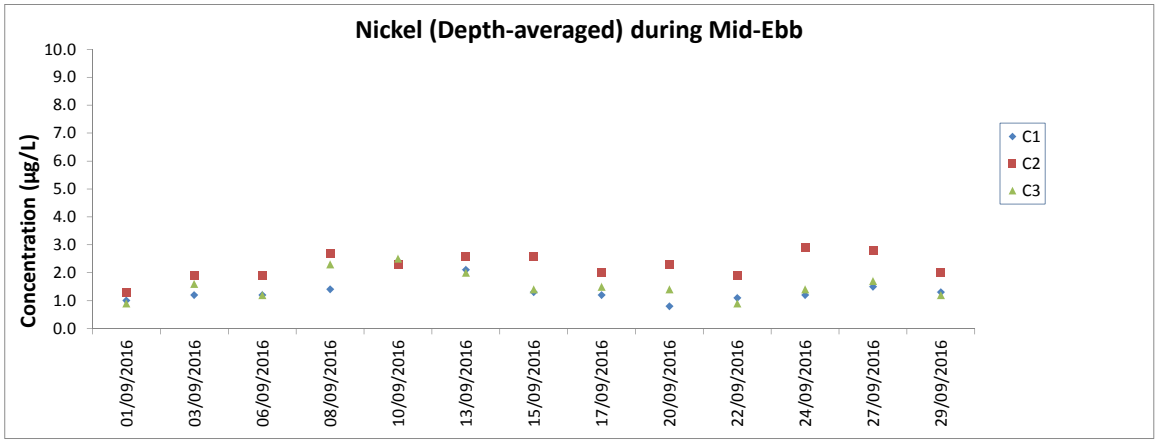


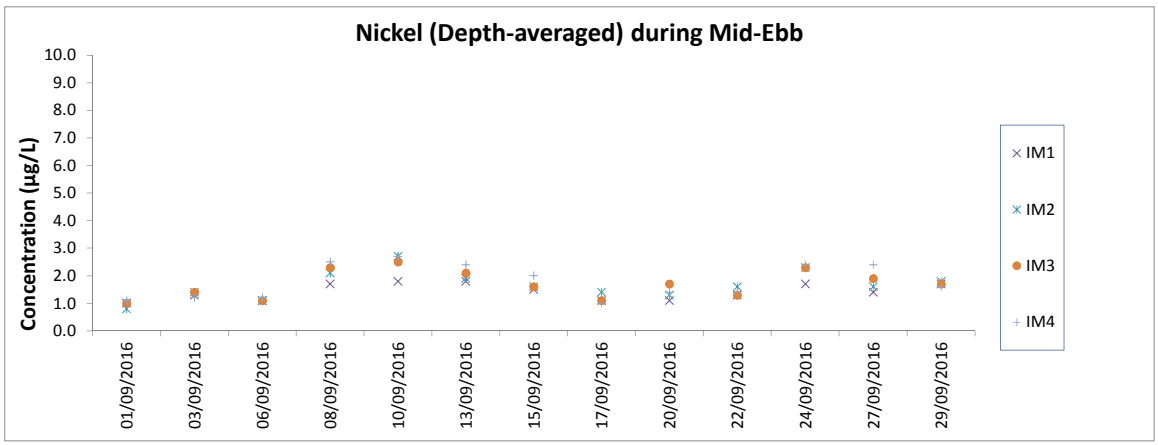


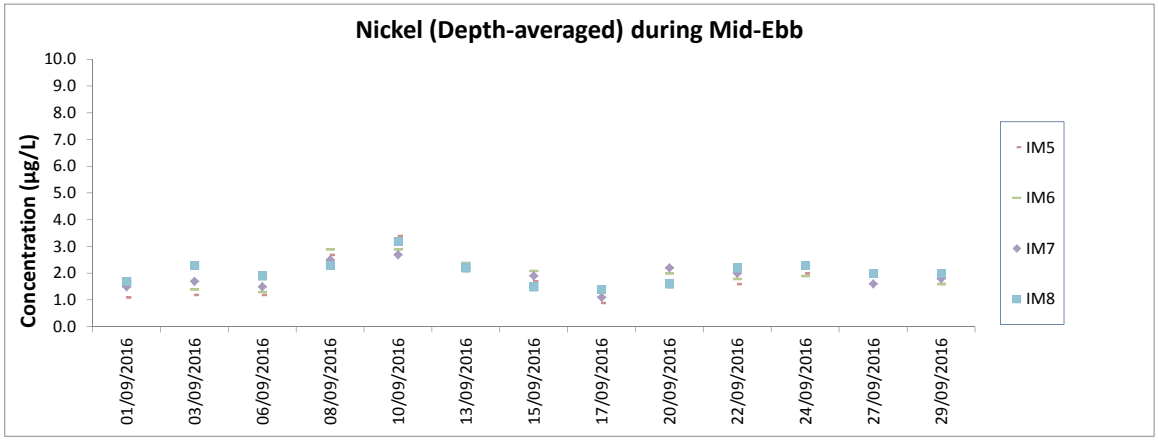
Note: The action and limit level of Suspended Solids can be referred to Table 4.2 of the monthly EM&A report.

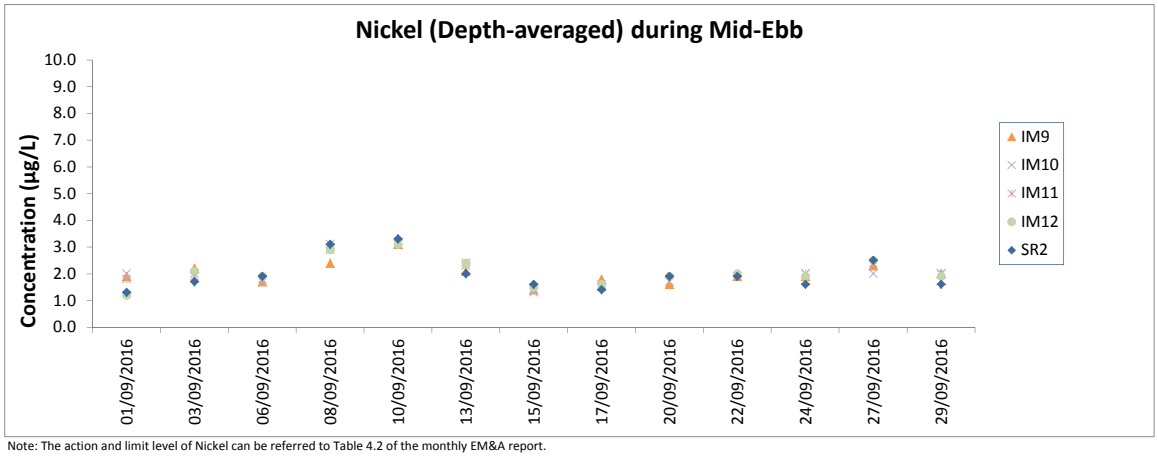


Note: The action and limit level of Chromium can be referred to Table 4.2 of the monthly EM&A report.
The monitoring results of Chromium at all other monitoring stations during mid-flood and mid-ebb tides were below the reporting limit <0.2 µg/L

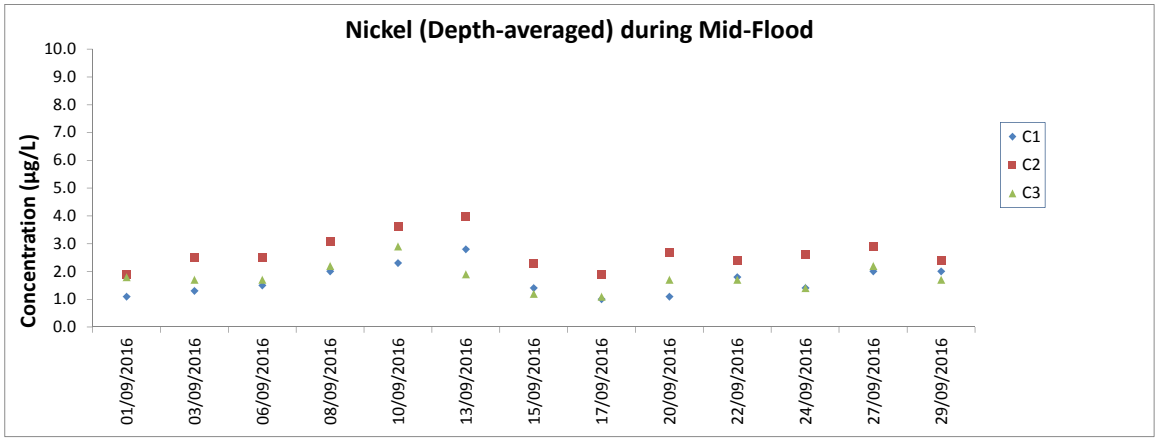


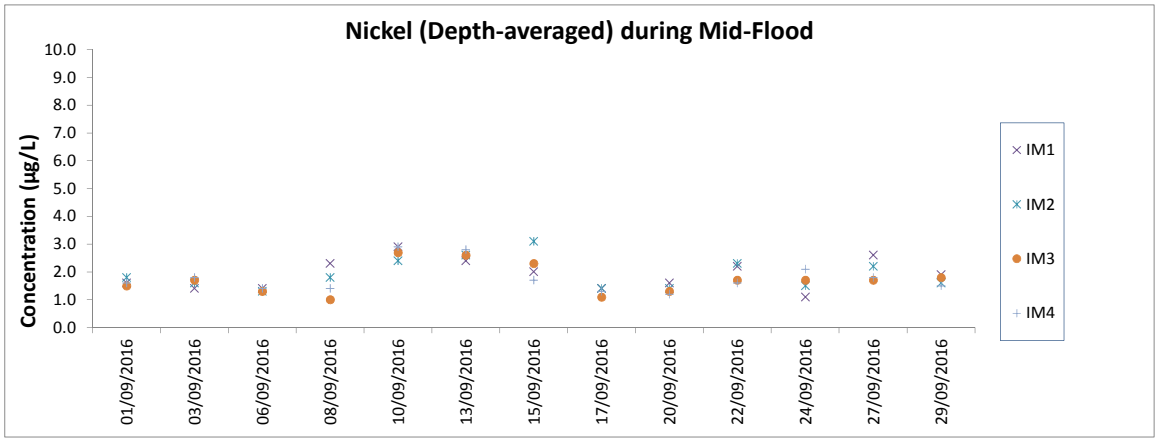


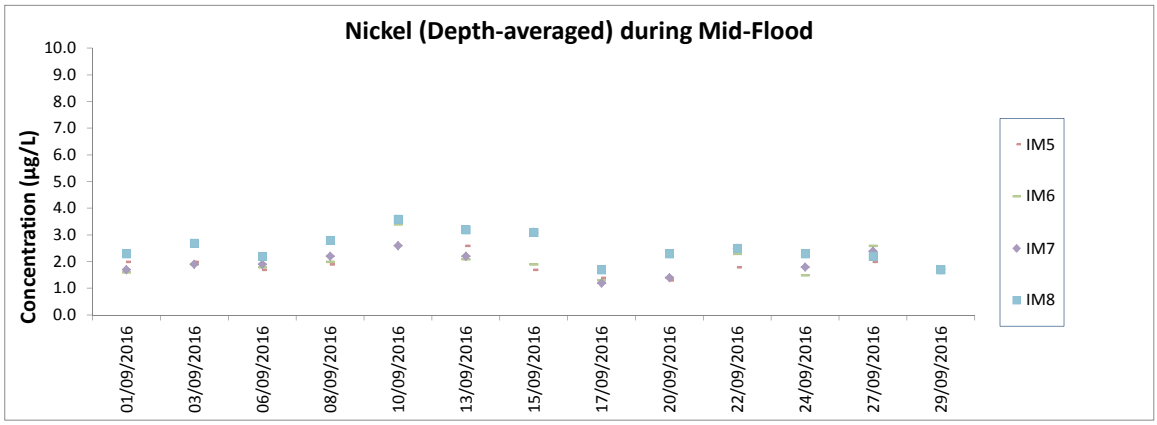


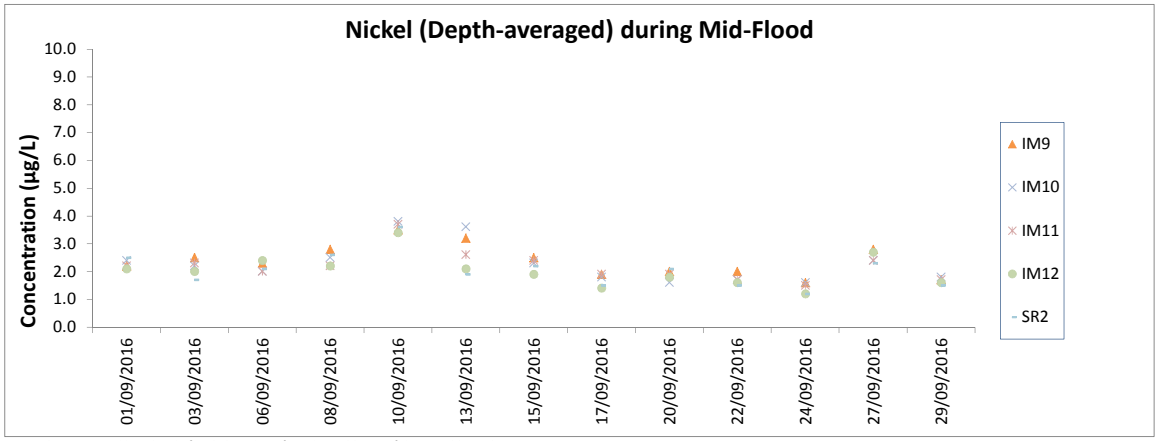


Note: The action and limit level of Nickel can be referred to Table 4.2 of the monthly EM&A report.









Note: The action and limit level of Nickel can be referred to Table 4.2 of the monthly EM&A report.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
4-Jul-16	NEL	2	3.40	SUMMER	32166	3RS ET
4-Jul-16	NEL	3	23.21	SUMMER	32166	3RS ET
4-Jul-16	NEL	4	19.39	SUMMER	32166	3RS ET
6-Jul-16	NEL	1	13.60	SUMMER	32166	3RS ET
6-Jul-16	NEL	2	14.68	SUMMER	32166	3RS ET
6-Jul-16	NEL	3	18.72	SUMMER	32166	3RS ET
7-Jul-16	AW	3	5.13	SUMMER	32166	3RS ET
7-Jul-16	WL	2	11.09	SUMMER	32166	3RS ET
7-Jul-16	WL	3	17.57	SUMMER	32166	3RS ET
7-Jul-16	SWL	2	5.16	SUMMER	32166	3RS ET
13-Jul-16	NWL	1	12.00	SUMMER	32166	3RS ET
13-Jul-16	NWL	2	66.80	SUMMER	32166	3RS ET
13-Jul-16	NWL	3	5.10	SUMMER	32166	3RS ET
14-Jul-16	AW	2	4.96	SUMMER	32166	3RS ET
14-Jul-16	WL	1	2.60	SUMMER	32166	3RS ET
14-Jul-16	WL	2	2.92	SUMMER	32166	3RS ET
14-Jul-16	WL	3	21.30	SUMMER	32166	3RS ET
14-Jul-16	WL	4	6.38	SUMMER	32166	3RS ET
14-Jul-16	SWL	3	7.09	SUMMER	32166	3RS ET
18-Jul-16	SWL	2	10.21	SUMMER	32166	3RS ET
18-Jul-16	SWL	3	38.54	SUMMER	32166	3RS ET
18-Jul-16	SWL	4	7.57	SUMMER	32166	3RS ET
18-Jul-16	SWL	5	2.02	SUMMER	32166	3RS ET
22-Jul-16	NWL	1	6.55	SUMMER	32166	3RS ET
22-Jul-16	NWL	2	11.58	SUMMER	32166	3RS ET
22-Jul-16	NWL	3	45.96	SUMMER	32166	3RS ET
22-Jul-16	NWL	4	13.28	SUMMER	32166	3RS ET
25-Jul-16	SWL	1	31.32	SUMMER	32166	3RS ET
25-Jul-16	SWL	2	15.35	SUMMER	32166	3RS ET
5-Aug-16	NEL	2	44.36	SUMMER	32166	3RS ET
5-Aug-16	NEL	3	2.64	SUMMER	32166	3RS ET
9-Aug-16	AW	2	4.76	SUMMER	32166	3RS ET
9-Aug-16	WL	1	8.07	SUMMER	32166	3RS ET
9-Aug-16	WL	2	16.14	SUMMER	32166	3RS ET
9-Aug-16	WL	3	3.70	SUMMER	32166	3RS ET
9-Aug-16	WL	4	1.80	SUMMER	32166	3RS ET
9-Aug-16	SWL	3	1.41	SUMMER	32166	3RS ET
9-Aug-16	SWL	4	0.77	SUMMER	32166	3RS ET
9-Aug-16	SWL	5	4.79	SUMMER	32166	3RS ET
10-Aug-16	SWL	1	14.30	SUMMER	32166	3RS ET
10-Aug-16	SWL	2	37.70	SUMMER	32166	3RS ET
10-Aug-16	SWL	3	11.10	SUMMER	32166	3RS ET
15-Aug-16	NEL	1	21.10	SUMMER	32166	3RS ET
15-Aug-16	NEL	2	26.00	SUMMER	32166	3RS ET
19-Aug-16	NWL	3	68.90	SUMMER	32166	3RS ET
19-Aug-16	NWL	4	12.60	SUMMER	32166	3RS ET
19-Aug-16	NWL	5	0.40	SUMMER	32166	3RS ET

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
22-Aug-16	AW	2	1.58	SUMMER	32166	3RS ET
22-Aug-16	AW	3	3.20	SUMMER	32166	3RS ET
22-Aug-16	WL	2	11.83	SUMMER	32166	3RS ET
22-Aug-16	WL	3	6.71	SUMMER	32166	3RS ET
22-Aug-16	WL	4	11.94	SUMMER	32166	3RS ET
22-Aug-16	SWL	3	0.83	SUMMER	32166	3RS ET
22-Aug-16	SWL	4	6.17	SUMMER	32166	3RS ET
24-Aug-16	NWL	1	34.84	SUMMER	32166	3RS ET
24-Aug-16	NWL	2	48.06	SUMMER	32166	3RS ET
25-Aug-16	SWL	1	11.89	SUMMER	32166	3RS ET
25-Aug-16	SWL	2	38.89	SUMMER	32166	3RS ET
25-Aug-16	SWL	3	12.60	SUMMER	32166	3RS ET
05-Sep-16	NEL	2	41.6	AUTUMN	32166	3RS ET
05-Sep-16	NEL	3	5.4	AUTUMN	32166	3RS ET
06-Sep-16	NWL	1	8.62	AUTUMN	32166	3RS ET
06-Sep-16	NWL	2	47.1	AUTUMN	32166	3RS ET
06-Sep-16	NWL	3	27.38	AUTUMN	32166	3RS ET
08-Sep-16	AW	2	2.65	AUTUMN	32166	3RS ET
08-Sep-16	AW	3	2.43	AUTUMN	32166	3RS ET
08-Sep-16	WL	1	5.25	AUTUMN	32166	3RS ET
08-Sep-16	WL	2	23.16	AUTUMN	32166	3RS ET
08-Sep-16	WL	3	2.67	AUTUMN	32166	3RS ET
08-Sep-16	SWL	1	2.15	AUTUMN	32166	3RS ET
08-Sep-16	SWL	2	10.15	AUTUMN	32166	3RS ET
19-Sep-16	AW	3	4.81	AUTUMN	32166	3RS ET
19-Sep-16	WL	2	5.1	AUTUMN	32166	3RS ET
19-Sep-16	WL	3	25.61	AUTUMN	32166	3RS ET
19-Sep-16	SWL	2	6.81	AUTUMN	32166	3RS ET
20-Sep-16	NEL	1	1.1	AUTUMN	32166	3RS ET
20-Sep-16	NEL	2	45.7	AUTUMN	32166	3RS ET
22-Sep-16	NWL	2	33.84	AUTUMN	32166	3RS ET
22-Sep-16	NWL	3	43.92	AUTUMN	32166	3RS ET
22-Sep-16	NWL	4	3.4	AUTUMN	32166	3RS ET
26-Sep-16	SWL	1	5.61	AUTUMN	32166	3RS ET
26-Sep-16	SWL	2	18.67	AUTUMN	32166	3RS ET
26-Sep-16	SWL	3	35.9	AUTUMN	32166	3RS ET
26-Sep-16	SWL	4	1.64	AUTUMN	32166	3RS ET
27-Sep-16	SWL	2	15.86	AUTUMN	32166	3RS ET
27-Sep-16	SWL	3	35.83	AUTUMN	32166	3RS ET
27-Sep-16	SWL	4	7.73	AUTUMN	32166	3RS ET

Notes:

CWD baseline monitoring surveys were conducted in July 2016 with two sets of transect surveys for all monitoring areas. The data collected was used to derive the running quarterly STG and ANI.

CWD monitoring survey data of the two preceding survey months (i.e. July 2016 and August 2016) 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.
07-Jul-16	1	1052	CWD	1	WL	2	957	ON	3RS ET	22.2504	113.8411	SUMMER	NONE
07-Jul-16	2	1113	CWD	5	WL	3	181	ON	3RS ET	22.2415	113.8463	SUMMER	NONE
07-Jul-16	3	1144	CWD	1	WL	3	91	ON	3RS ET	22.2412	113.8364	SUMMER	NONE
07-Jul-16	4	1202	CWD	4	WL	3	318	ON	3RS ET	22.2336	113.8237	SUMMER	NONE
07-Jul-16	5	1230	CWD	3	WL	2	161	ON	3RS ET	22.2324	113.8364	SUMMER	NONE
07-Jul-16	6	1311	CWD	1	WL	2	95	ON	3RS ET	22.2140	113.8301	SUMMER	NONE
07-Jul-16	7	1318	CWD	5	WL	2	19	ON	3RS ET	22.2144	113.8330	SUMMER	NONE
07-Jul-16	8	1341	CWD	4	WL	2	55	ON	3RS ET	22.2079	113.8398	SUMMER	NONE
07-Jul-16	9	1358	CWD	1	WL	2	100	ON	3RS ET	22.2053	113.8350	SUMMER	NONE
07-Jul-16	10	1423	CWD	1	WL	3	57	ON	3RS ET	22.1962	113.8314	SUMMER	NONE
07-Jul-16	11	1438	CWD	7	WL	3	265	ON	3RS ET	22.1959	113.8426	SUMMER	NONE
07-Jul-16	12	1535	CWD	1	SWL	2	555	ON	3RS ET	22.1825	113.8498	SUMMER	NONE
07-Jul-16	13	1601	CWD	4	SWL	2	151	ON	3RS ET	22.1909	113.8590	SUMMER	PURSE SEINE
14-Jul-16	1	1101	CWD	2	WL	4	N/A	OFF	3RS ET	22.2413	113.8425	SUMMER	NONE
14-Jul-16	2	1235	CWD	3	WL	4	186	ON	3RS ET	22.1873	113.8306	SUMMER	NONE
14-Jul-16	3	1316	CWD	1	SWL	3	N/A	OFF	3RS ET	22.1812	113.8589	SUMMER	NONE
18-Jul-16	1	1145	CWD	8	SWL	2	269	ON	3RS ET	22.1974	113.9184	SUMMER	NONE
18-Jul-16	2	1312	CWD	2	SWL	3	77	ON	3RS ET	22.1657	113.9027	SUMMER	NONE
18-Jul-16	3	1355	CWD	14	SWL	2	N/A	OFF	3RS ET	22.1988	113.8971	SUMMER	PURSE SEINE
18-Jul-16	4	1425	CWD	6	SWL	3	572	ON	3RS ET	22.1894	113.8982	SUMMER	NONE
18-Jul-16	5	1528	CWD	2	SWL	3	653	ON	3RS ET	22.2018	113.8877	SUMMER	NONE
22-Jul-16	1	0959	CWD	3	NWL	1	118	ON	3RS ET	22.3686	113.8683	SUMMER	NONE
22-Jul-16	2	1053	CWD	3	NWL	1	47	ON	3RS ET	22.3086	113.8689	SUMMER	NONE
22-Jul-16	3	1142	CWD	5	NWL	3	151	ON	3RS ET	22.2722	113.8725	SUMMER	NONE
22-Jul-16	4	1244	CWD	2	NWL	3	65	ON	3RS ET	22.3378	113.8782	SUMMER	NONE
22-Jul-16	5	1342	CWD	7	NWL	4	15	ON	3RS ET	22.3939	113.8726	SUMMER	NONE
25-Jul-16	1	1057	FP	6	SWL	1	73	ON	3RS ET	22.1659	113.9363	SUMMER	NONE
25-Jul-16	2	1109	FP	3	SWL	1	19	ON	3RS ET	22.1597	113.9357	SUMMER	NONE
25-Jul-16	3	1128	FP	1	SWL	1	72	ON	3RS ET	22.1460	113.9272	SUMMER	NONE
25-Jul-16	4	1137	FP	3	SWL	1	132	ON	3RS ET	22.1540	113.9273	SUMMER	NONE
25-Jul-16	5	1149	FP	3	SWL	1	255	ON	3RS ET	22.1686	113.9274	SUMMER	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
25-Jul-16	6	1347	CWD	8	SWL	2	644	ON	3RS ET	22.1845	113.8977	SUMMER	NONE
25-Jul-16	7	1441	CWD	6	SWL	1	1247	ON	3RS ET	22.2029	113.8783	SUMMER	NONE
25-Jul-16	8	1531	CWD	24	SWL	2	908	ON	3RS ET	22.1605	113.8705	SUMMER	NONE
09-Aug-16	1	1037	CWD	2	WL	1	8	ON	3RS ET	22.2625	113.8563	SUMMER	NONE
09-Aug-16	2	1047	CWD	1	WL	2	85	ON	3RS ET	22.2609	113.8515	SUMMER	NONE
09-Aug-16	3	1114	CWD	5	WL	2	98	ON	3RS ET	22.2504	113.8413	SUMMER	NONE
09-Aug-16	4	1146	CWD	3	WL	2	5	ON	3RS ET	22.2394	113.8278	SUMMER	NONE
09-Aug-16	5	1325	CWD	1	SWL	4	N/A	OFF	3RS ET	22.1936	113.8473	SUMMER	NONE
10-Aug-16	1	1059	FP	1	SWL	2	130	ON	3RS ET	22.1715	113.9353	SUMMER	NONE
10-Aug-16	2	1107	FP	6	SWL	2	396	ON	3RS ET	22.1624	113.9359	SUMMER	NONE
10-Aug-16	3	1116	FP	5	SWL	2	256	ON	3RS ET	22.1524	113.9356	SUMMER	NONE
19-Aug-16	1	1201	CWD	5	NWL	3	56	ON	3RS ET	22.3869	113.8890	SUMMER	NONE
19-Aug-16	2	1358	CWD	7	NWL	3	59	ON	3RS ET	22.3749	113.9066	SUMMER	NONE
22-Aug-16	1	0950	CWD	2	WL	2	N/A	OFF	3RS ET	22.3003	113.8665	SUMMER	NONE
22-Aug-16	2	1001	CWD	5	WL	3	197	ON	3RS ET	22.3023	113.8616	SUMMER	NONE
22-Aug-16	3	1046	CWD	5	WL	2	47	ON	3RS ET	22.2661	113.8592	SUMMER	NONE
22-Aug-16	4	1116	CWD	1	WL	2	213	ON	3RS ET	22.2503	113.8345	SUMMER	NONE
22-Aug-16	5	1145	CWD	1	WL	2	390	ON	3RS ET	22.2414	113.8408	SUMMER	NONE
22-Aug-16	6	1209	CWD	5	WL	2	183	ON	3RS ET	22.2367	113.8265	SUMMER	NONE
22-Aug-16	7	1237	CWD	7	WL	2	124	ON	3RS ET	22.2236	113.8369	SUMMER	NONE
22-Aug-16	8	1318	CWD	4	WL	4	245	ON	3RS ET	22.2143	113.8209	SUMMER	NONE
24-Aug-16	1	1216	CWD	6	NWL	1	32	ON	3RS ET	22.3785	113.8888	SUMMER	NONE
24-Aug-16	2	1336	CWD	1	NWL	2	27	ON	3RS ET	22.3797	113.8976	SUMMER	NONE
25-Aug-16	1	1013	CWD	1	SWL	2	N/A	OFF	3RS ET	22.1997	113.8684	SUMMER	NONE
25-Aug-16	2	1142	CWD	7	SWL	1	1303	ON	3RS ET	22.1498	113.8887	SUMMER	NONE
06-Sep-16	1	1127	CWD	3	NWL	3	48	ON	3RS ET	22.3379	113.8784	AUTUMN	NONE
08-Sep-16	1	1020	CWD	4	WL	1	221	ON	3RS ET	22.2504	113.8387	AUTUMN	PURSE SEINE
08-Sep-16	2	1044	CWD	9	WL	1	36	ON	3RS ET	22.2416	113.8409	AUTUMN	NONE
08-Sep-16	3	1233	CWD	2	WL	2	100	ON	3RS ET	22.1871	113.8365	AUTUMN	NONE
19-Sep-16	1	945	CWD	2	AW	3	13	ON	3RS ET	22.3009	113.8895	AUTUMN	NONE
19-Sep-16	2	1147	CWD	10	WL	3	27	ON	3RS ET	22.2319	113.8282	AUTUMN	NONE
19-Sep-16	3	1230	CWD	1	WL	3	135	ON	3RS ET	22.2138	113.8202	AUTUMN	NONE
19-Sep-16	4	1244	CWD	8	WL	3	25	ON	3RS ET	22.2142	113.8331	AUTUMN	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
19-Sep-16	5	1334	CWD	5	WL	3	149	ON	3RS ET	22.1963	113.8397	AUTUMN	NONE
19-Sep-16	6	1411	CWD	1	SWL	2	124	ON	3RS ET	22.191	113.8508	AUTUMN	NONE
19-Sep-16	7	1427	CWD	5	SWL	2	N/A	OFF	3RS ET	22.1838	113.8499	AUTUMN	NONE
19-Sep-16	8	1506	CWD	1	SWL	2	N/A	OFF	3RS ET	22.1942	113.8543	AUTUMN	PURSE SEINE
22-Sep-16	1	1007	CWD	6	NWL	2	238	ON	3RS ET	22.3373	113.8684	AUTUMN	NONE
22-Sep-16	2	1315	CWD	7	NWL	3	153	ON	3RS ET	22.3636	113.8981	AUTUMN	NONE
26-Sep-16	1	1109	FP	5	SWL	2	347	ON	3RS ET	22.1688	113.928	AUTUMN	NONE
26-Sep-16	2	1157	FP	2	SWL	3	308	ON	3RS ET	22.1728	113.9195	AUTUMN	NONE
26-Sep-16	3	1456	CWD	5	SWL	2	15	ON	3RS ET	22.1997	113.869	AUTUMN	NONE
27-Sep-16	1	1100	FP	2	SWL	3	48	ON	3RS ET	22.1627	113.936	AUTUMN	NONE
27-Sep-16	2	1130	FP	1	SWL	3	34	ON	3RS ET	22.1723	113.928	AUTUMN	NONE
27-Sep-16	3	1214	FP	4	SWL	3	62	ON	3RS ET	22.1601	113.9179	AUTUMN	NONE
27-Sep-16	4	1309	CWD	1	SWL	2	204	ON	3RS ET	22.2024	113.9078	AUTUMN	NONE
27-Sep-16	5	1412	CWD	2	SWL	2	182	ON	3RS ET	22.1851	113.8879	AUTUMN	NONE
27-Sep-16	6	1434	CWD	1	SWL	3	64	ON	3RS ET	22.2062	113.8874	AUTUMN	NONE

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

Notes:

CWD baseline monitoring surveys were conducted in July 2016 with two sets of transect surveys for all monitoring areas. The data collected was used to derive the running quarterly STG and ANI.

CWD monitoring survey data of the two preceding survey months (i.e. July 2016 and August 2016) 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 running quarterly STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 1195.86 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 59 on-effort sightings and total number of 246 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 of Number of Dolphin Sightings (STG)

$$STG = \frac{55}{1282.77}\ x\ 100 = 4.29$$

Running Quarterly Encounter Rate of Number of Dolphins (ANI)

$$ANI = \frac{235}{1282.77}\ x\ 100 = 18.32$$

CWD Small Vessel Line-transect Survey **Photo Identification**

NLMM010_20160906_1_2	WLMM043_20160908_1_2
NLMM012_20160908_2_4	NLMM017_20160908_2_2
WLMM050_20160908_2_2	WLMM051_20160908_2_6

WLMM052_20160908_2_10	WLMM053_20160908_2_10
WLMM027_20160908_3_4	WLMM054_20160908_3_9
WLMM024_20160919_1_2	SLMM002_20160919_2_6
SLMM022_20160919_2_1 (Bottom One)	SLMM034_20160919_2_7

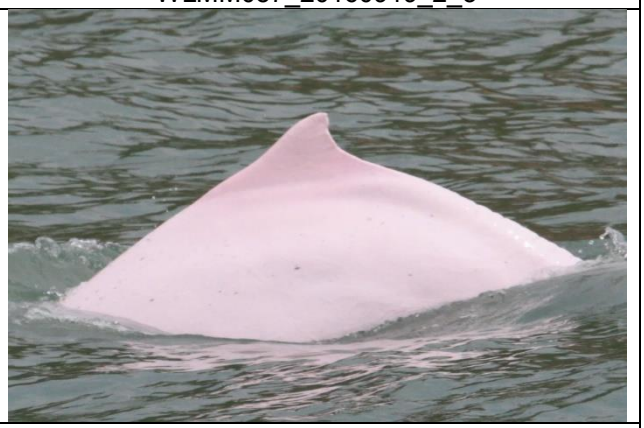
WLMM025_20160919_2_1

WLMM055_20160919_2_2

WLMM056_20160919_2_10

WLMM057_20160919_2_3

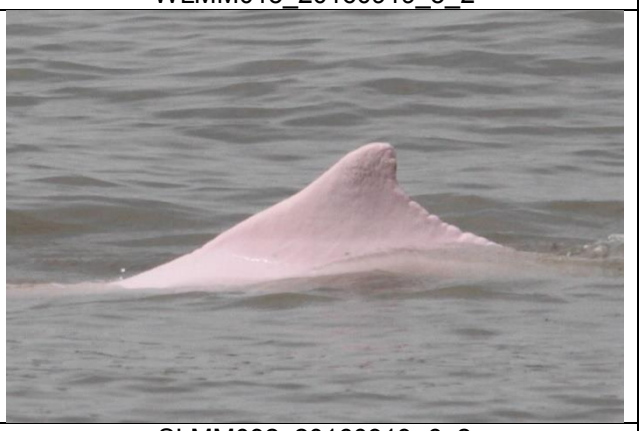
WLMM058_20160919_2_2



SLMM022_20160919_4_4

SLMM030_20160919_4_1

SLMM030_20160919_5_1

WLMM007_20160919_5_1	WLMM015_20160919_5_2
	
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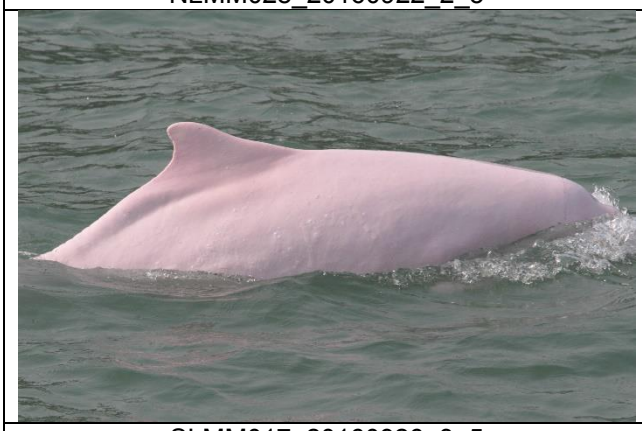
SLMM002_20160919_7_1	SLMM010_20160919_7_1
WLMM007_20160919_7_1	WLMM020_20160919_7_2

WLMM025_20160919_7_3	NLMM005_20160922_1_1
NLMM002_20160922_2_2	NLMM005_20160922_2_1
NLMM006_20160922_2_2	NLMM010_20160922_2_1
NLMM013_20160922_2_2	NLMM027_20160922_2_3

NLMM028_20160922_2_5	SLMM002_20160926_3_3
	
SLMM017_20160926_3_5	SLMM050_20160926_3_2
SLMM051_20160926_3_3	SLMM015_20160927_4_4
WLMM027_20160927_5_5	WLMM054_20160927_5_6

NLMM021_20160927_6_1	

CWD Land-based Theodolite Tracking

CWD Groups by Survey Date

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility	No. of Focal Follow Dolphin Groups Tracked	Dolphin Group Size Range
1-Sep-16	Lung Kwu Chau	9:42	14:52	5:10	1-2	2-3	1	4
7-Sep-16	Lung Kwu Chau	9:19	15:09	5:50	1-3	2-3	7	2-4
13-Sep-16	Sha Chau	8:43	14:43	6:00	2	2	0	N/A
23-Sep-16	Sha Chau	8:40	14:40	6:00	2-3	2	0	N/A
26-Sep-16	Lung Kwu Chau	9:02	16:02	7:00	2-3	3	1	2

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

Appendix E. Status of Environmental Permits and Licences

Statutory Reference	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	397150	Receipt acknowledged by EPD on 15 Jan 2016
		Site Office	397151	
		Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016
	Construction Noise Permit (General Works)	Launching Site	GW-RS0968-16	Valid from 21 Sep 2016 to 20 Mar 2017
		CAD Antenna Farm and North Runway	GW-RS0500-16	Valid from 18 May to 17 Nov 2016
		Site Office	GW-RS0421-16	Valid from 3 May to 2 Nov 2016
		Stockpiling Area	GW-RS0974-16	Valid from 23 Sep 2016 to 22 Mar 2017
	Discharge License under WPCO	Launching Site	WT00024249-2016	Approved on 25 Apr 2016
		Stockpiling Area	WT00024250-2016	Approved on 25 Apr 2016
	Registration as Chemical Waste Producer	Launching Site	WPN 5213-951-L2902-01	Completion of Registration on 11 Jan 2016
		Stockpiling Area	WPN 5213-951-L2902-02	Completion of Registration on 24 Mar 2016
	Bill Account for disposal		A/C 7023982	Approval granted from EPD on 14 Dec 2015
3201	Notification of Construction Work under APCO	Whole site	406004	Receipt acknowledged by EPD on 10 Aug 2016
	Bill Account for disposal		A/C 7025760	Approval granted from EPD on 31 Aug 2016
3202	Notification of Construction Work under APCO	Whole site	407624	Receipt acknowledged by EPD on 15 Sep 2016

Statutory Reference	Description		Permit/ Reference No.	Status
	Bill Account for disposal		A/C 7025739	Approval granted from EPD on 31 Aug 2016
3203	Notification of Construction Work under APCO	North of HKIA	407053	Receipt acknowledged by EPD on 2 Sep 2016
	Registration as Chemical Waste Producer		WPN 5213-951-S3954-01	Completion of Registration on 15 Sep 2016
	Bill Account for disposal		7025846	Approval granted from EPD on 9 Sep 2016
3204	Notification of Construction Work under APCO	Site near Sky Pier	406446	Receipt acknowledged by EPD on 19 Aug 2016
		Site Office	407726	Receipt acknowledged by EPD on 19 Sep 2016
	Registration as Chemical Waste Producer		WPN 5213-951-C4102-01	Completion of Registration on 15 Sep 2016
	Bill Account for disposal		7025969	Approval granted from EPD on 21 Sep 2016

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

Statistics for Exceedances for 1-hour TSP, Noise and Waste Monitoring

		Total no. recorded in the reporting month	Total no. recorded since the project commenced
1-hr TSP	Action	0	0
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Waste	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 month	0	0	0
From 28 December 2015 to end of the reporting month	0	0	0

Appendix G. Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 September 2016)

Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 September 2016)

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing 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	10.7	-	-
01-Sep	08:38	8S210	MFM	Arrival	12.6	-	-
01-Sep	09:56	3A071	MFM	Arrival	12.6	-	-
01-Sep	10:42	3A081	ZUI	Arrival	13.2	-	-
01-Sep	10:50	8S212	MFM	Arrival	10.6	-	-
01-Sep	11:13	8S121	MFM	Departure	10.6	-	-
01-Sep	11:21	3A063	YFT	Arrival	11.6	-	-
01-Sep	11:44	3A168	YFT	Departure	12.0	-	-
01-Sep	12:24	3A181	ZUI	Departure	13.8	-	-
01-Sep	12:58	8S215	MFM	Arrival	11.4	-	-
01-Sep	13:01	3A064	YFT	Arrival	12.8	-	-
01-Sep	13:23	8S123	MFM	Departure	10.7	-	-
01-Sep	13:45	3A164	YFT	Departure	12.8	-	-
01-Sep	14:00	3A082	ZUI	Arrival	13.5	-	-
01-Sep	14:18	3A182	ZUI	Departure	12.4	-	-
01-Sep	15:00	3A065	YFT	Arrival	12.1	-	-
01-Sep	16:31	3A167	YFT	Departure	12.2	-	-
01-Sep	16:37	3A083	ZUI	Arrival	12.9	-	-
01-Sep	16:39	8S218	MFM	Arrival	10.7	-	-
01-Sep	16:55	3A067	YFT	Arrival	12.8	≤5	<1
01-Sep	17:01	8S126	MFM	Departure	13.0	-	-
01-Sep	17:04	3A183	ZUI	Departure	13.1	-	-
01-Sep	19:48	3A084	ZUI	Arrival	11.7	-	-
01-Sep	20:09	3A185	ZUI	Departure	12.6	-	-
01-Sep	21:04	3A169	YFT	Departure	13.3	-	-
01-Sep	21:05	8S2113	MFM	Arrival	10.9	-	-
01-Sep	21:58	8S128	MFM	Departure	11.6	-	-
02-Sep	08:27	8S210	MFM	Arrival	13.4	-	-
02-Sep	08:36	3A061	YFT	Arrival	11.8	-	-
02-Sep	09:54	3A071	MFM	Arrival	12.2	-	-
02-Sep	10:48	3A081	ZUI	Arrival	12.7	-	-
02-Sep	10:49	8S212	MFM	Arrival	11.9	-	-
02-Sep	11:10	8S121	MFM	Departure	10.0	-	-
02-Sep	11:32	3A063	YFT	Arrival	12.0	-	-
02-Sep	11:53	3A168	YFT	Departure	12.4	-	-
02-Sep	12:17	3A181	ZUI	Departure	13.1	-	-
02-Sep	12:42	8S215	MFM	Arrival	11.4	-	-
02-Sep	13:04	3A064	YFT	Arrival	12.1	-	-
02-Sep	13:16	8S123	MFM	Departure	11.6	-	-
02-Sep	13:26	3A164	YFT	Departure	11.6	-	-
02-Sep	13:45	3A082	ZUI	Arrival	11.5	≤5	<2
02-Sep	14:12	3A182	ZUI	Departure	11.7	-	-
02-Sep	15:06	3A065	YFT	Arrival	12.0	-	-
02-Sep	16:20	3A167	YFT	Departure	12.0	-	-
02-Sep	16:26	3A083	ZUI	Arrival	11.9	-	-
02-Sep	16:42	8S218	MFM	Arrival	11.1	-	-
02-Sep	17:02	3A067	YFT	Arrival	12.4	-	-
02-Sep	17:02	8S126	MFM	Departure	12.0	-	-
02-Sep	17:04	3A183	ZUI	Departure	9.8	-	-
02-Sep	19:52	3A084	ZUI	Arrival	11.8	-	-
02-Sep	20:07	3A185	ZUI	Departure	12.8	-	-
02-Sep	20:48	8S2113	MFM	Arrival	11.9	-	-
02-Sep	21:00	3A169	YFT	Departure	12.2	-	-
02-Sep	22:00	8S128	MFM	Departure	12.5	-	-
03-Sep	08:23	3A061	YFT	Arrival	10.9	-	-
03-Sep	08:26	8S210	MFM	Arrival	10.9	-	-
03-Sep	09:54	3A071	MFM	Arrival	12.3	-	-
03-Sep	10:47	3A081	ZUI	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
03-Sep	10:49	8S212	MFM	Arrival	11.8	-	-
03-Sep	11:08	8S121	MFM	Departure	12.6	-	-
03-Sep	11:37	3A063	YFT	Arrival	10.6	-	-
03-Sep	11:49	3A168	YFT	Departure	10.0	-	-
03-Sep	12:17	3A181	ZUI	Departure	13.1	-	-
03-Sep	12:46	8S215	MFM	Arrival	13.2	-	-
03-Sep	13:00	3A064	YFT	Arrival	12.5	-	-
03-Sep	13:24	8S123	MFM	Departure	13.8	-	-
03-Sep	13:30	3A164	YFT	Departure	11.5	-	-
03-Sep	13:46	3A082	ZUI	Arrival	13.0	-	-
03-Sep	14:18	3A182	ZUI	Departure	12.8	-	-
03-Sep	15:12	3A065	YFT	Arrival	10.7	-	-
03-Sep	16:20	3A167	YFT	Departure	9.2	-	-
03-Sep	16:37	8S218	MFM	Arrival	13.0	-	-
03-Sep	16:45	3A083	ZUI	Arrival	13.1	-	-
03-Sep	16:59	3A067	YFT	Arrival	11.4	-	-
03-Sep	17:15	8S126	MFM	Departure	14.0	-	-
03-Sep	17:17	3A183	ZUI	Departure	12.3	-	-
03-Sep	19:57	3A084	ZUI	Arrival	12.0	-	-
03-Sep	20:10	3A185	ZUI	Departure	13.4	-	-
03-Sep	20:56	3A169	YFT	Departure	12.7	-	-
03-Sep	21:01	8S2113	MFM	Arrival	7.8	-	-
03-Sep	22:01	8S128	MFM	Departure	11.3	-	-
04-Sep	08:19	3A061	YFT	Arrival	12.4	-	-
04-Sep	08:24	8S210	MFM	Arrival	13.5	-	-
04-Sep	09:54	3A071	MFM	Arrival	12.6	-	-
04-Sep	10:42	3A081	ZUI	Arrival	13.2	-	-
04-Sep	10:46	8S212	MFM	Arrival	11.3	-	-
04-Sep	11:08	8S121	MFM	Departure	10.5	-	-
04-Sep	11:23	3A063	YFT	Arrival	11.5	-	-
04-Sep	11:48	3A168	YFT	Departure	12.6	-	-
04-Sep	12:13	3A181	ZUI	Departure	14.0	-	-
04-Sep	12:54	8S215	MFM	Arrival	12.3	-	-
04-Sep	12:58	3A064	YFT	Arrival	11.2	-	-
04-Sep	13:22	8S123	MFM	Departure	12.6	-	-
04-Sep	13:31	3A164	YFT	Departure	10.4	-	-
04-Sep	13:50	3A082	ZUI	Arrival	12.3	-	-
04-Sep	14:14	3A182	ZUI	Departure	13.3	-	-
04-Sep	14:56	3A065	YFT	Arrival	12.9	-	-
04-Sep	16:26	3A167	YFT	Departure	12.4	-	-
04-Sep	16:44	3A083	ZUI	Arrival	12.9	-	-
04-Sep	16:45	8S218	MFM	Arrival	11.5	-	-
04-Sep	16:53	3A067	YFT	Arrival	12.2	-	-
04-Sep	17:06	3A183	ZUI	Departure	12.7	-	-
04-Sep	17:06	8S126	MFM	Departure	12.2	-	-
04-Sep	19:55	3A084	ZUI	Arrival	13.7	-	-
04-Sep	20:11	3A185	ZUI	Departure	12.9	-	-
04-Sep	20:56	8S2113	MFM	Arrival	12.1	-	-
04-Sep	21:00	3A169	YFT	Departure	12.8	-	-
04-Sep	22:03	8S128	MFM	Departure	13.6	-	-
05-Sep	08:19	3A061	YFT	Arrival	13.2	-	-
05-Sep	08:30	8S210	MFM	Arrival	11.4	-	-
05-Sep	09:58	3A071	MFM	Arrival	12.8	-	-
05-Sep	10:32	3A081	ZUI	Arrival	11.6	-	-
05-Sep	10:38	8S212	MFM	Arrival	10.3	-	-
05-Sep	11:03	8S121	MFM	Departure	12.5	-	-
05-Sep	11:29	3A063	YFT	Arrival	11.6	-	-
05-Sep	11:56	3A168	YFT	Departure	12.2	-	-
05-Sep	12:21	3A181	ZUI	Departure	12.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
05-Sep	12:46	8S215	MFM	Arrival	12.2	-	-
05-Sep	13:03	3A064	YFT	Arrival	12.3	-	-
05-Sep	13:15	8S123	MFM	Departure	12.1	-	-
05-Sep	13:34	3A164	YFT	Departure	12.6	-	-
05-Sep	13:53	3A082	ZUI	Arrival	12.6	-	-
05-Sep	14:18	3A182	ZUI	Departure	12.8	-	-
05-Sep	15:01	3A065	YFT	Arrival	11.6	-	-
05-Sep	16:24	3A167	YFT	Departure	11.9	-	-
05-Sep	16:33	3A083	ZUI	Arrival	14.2	-	-
05-Sep	16:41	8S218	MFM	Arrival	11.2	-	-
05-Sep	17:02	3A067	YFT	Arrival	13.1	≤5	<1
05-Sep	17:03	3A183	ZUI	Departure	12.6	-	-
05-Sep	17:07	8S126	MFM	Departure	11.5	-	-
05-Sep	19:48	3A084	ZUI	Arrival	13.2	-	-
05-Sep	20:19	3A185	ZUI	Departure	13.9	-	-
05-Sep	20:54	3A169	YFT	Departure	12.8	-	-
05-Sep	21:02	8S2113	MFM	Arrival	11.5	-	-
05-Sep	21:53	8S128	MFM	Departure	12.5	-	-
06-Sep	08:22	3A061	YFT	Arrival	11.4	-	-
06-Sep	08:31	8S210	MFM	Arrival	11.4	-	-
06-Sep	10:01	3A071	MFM	Arrival	11.9	-	-
06-Sep	10:39	3A081	ZUI	Arrival	12.5	≤5	<1
06-Sep	10:39	8S212	MFM	Arrival	12.4	-	-
06-Sep	11:21	8S121	MFM	Departure	12.2	-	-
06-Sep	11:27	3A063	YFT	Arrival	11.3	-	-
06-Sep	11:55	3A168	YFT	Departure	11.7	-	-
06-Sep	12:19	3A181	ZUI	Departure	13.1	-	-
06-Sep	12:47	8S215	MFM	Arrival	10.8	-	-
06-Sep	12:56	3A064	YFT	Arrival	11.9	-	-
06-Sep	13:22	8S123	MFM	Departure	11.4	-	-
06-Sep	13:31	3A164	YFT	Departure	12.1	-	-
06-Sep	14:04	3A082	ZUI	Arrival	13.0	-	-
06-Sep	14:28	3A182	ZUI	Departure	13.0	-	-
06-Sep	14:59	3A065	YFT	Arrival	11.5	-	-
06-Sep	16:24	3A167	YFT	Departure	11.1	-	-
06-Sep	16:42	8S218	MFM	Arrival	11.5	-	-
06-Sep	16:50	3A083	ZUI	Arrival	13.2	-	-
06-Sep	17:06	3A067	YFT	Arrival	12.6	≤5	<1
06-Sep	17:06	8S126	MFM	Departure	10.8	-	-
06-Sep	17:09	3A183	ZUI	Departure	13.0	-	-
06-Sep	20:00	3A084	ZUI	Arrival	13.5	-	-
06-Sep	20:20	3A185	ZUI	Departure	13.2	-	-
06-Sep	20:50	8S2113	MFM	Arrival	10.9	-	-
06-Sep	21:07	3A169	YFT	Departure	11.7	-	-
06-Sep	21:59	8S128	MFM	Departure	12.5	-	-
07-Sep	08:11	3A061	YFT	Arrival	11.7	-	-
07-Sep	08:38	8S210	MFM	Arrival	11.0	-	-
07-Sep	09:56	3A071	MFM	Arrival	11.4	-	-
07-Sep	10:35	3A081	ZUI	Arrival	11.2	-	-
07-Sep	10:53	8S212	MFM	Arrival	11.1	-	-
07-Sep	11:21	3A063	YFT	Arrival	12.3	-	-
07-Sep	11:21	8S121	MFM	Departure	10.7	-	-
07-Sep	11:47	3A168	YFT	Departure	12.7	-	-
07-Sep	12:16	3A181	ZUI	Departure	13.4	-	-
07-Sep	12:45	8S215	MFM	Arrival	11.3	-	-
07-Sep	12:59	3A064	YFT	Arrival	12.5	-	-
07-Sep	13:13	8S123	MFM	Departure	11.6	-	-
07-Sep	13:33	3A164	YFT	Departure	11.6	-	-
07-Sep	13:56	3A082	ZUI	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
07-Sep	13:58	3A161	YFT	Departure	12.2	-	-
07-Sep	14:19	3A182	ZUI	Departure	13.1	-	-
07-Sep	14:48	3A162	YFT	Departure	12.1	-	-
07-Sep	14:56	3A065	YFT	Arrival	12.5	-	-
07-Sep	15:27	3A163	YFT	Departure	12.8	-	-
07-Sep	16:23	3A167	YFT	Departure	11.9	-	-
07-Sep	16:40	3A083	ZUI	Arrival	10.6	≤5	<1
07-Sep	16:46	8S218	MFM	Arrival	10.5	-	-
07-Sep	16:56	3A067	YFT	Arrival	12.0	-	-
07-Sep	17:09	3A183	ZUI	Departure	9.6	-	-
07-Sep	17:10	8S126	MFM	Departure	10.2	-	-
07-Sep	19:52	3A084	ZUI	Arrival	10.2	-	-
07-Sep	20:09	3A185	ZUI	Departure	12.9	-	-
07-Sep	20:52	8S2113	MFM	Arrival	11.4	-	-
07-Sep	20:58	3A169	YFT	Departure	12.2	-	-
07-Sep	21:56	8S128	MFM	Departure	12.0	-	-
08-Sep	08:26	3A061	YFT	Arrival	11.7	-	-
08-Sep	08:32	8S210	MFM	Arrival	12.0	-	-
08-Sep	10:03	3A071	MFM	Arrival	10.7	-	-
08-Sep	10:34	8S212	MFM	Arrival	11.6	-	-
08-Sep	10:39	3A081	ZUI	Arrival	13.5	-	-
08-Sep	11:13	8S121	MFM	Departure	12.0	-	-
08-Sep	11:18	3A063	YFT	Arrival	12.8	-	-
08-Sep	12:00	3A168	YFT	Departure	12.1	-	-
08-Sep	12:14	3A181	ZUI	Departure	12.8	-	-
08-Sep	12:40	8S215	MFM	Arrival	11.5	-	-
08-Sep	12:58	3A064	YFT	Arrival	12.2	-	-
08-Sep	13:24	8S123	MFM	Departure	11.5	-	-
08-Sep	13:40	3A164	YFT	Departure	12.5	-	-
08-Sep	13:47	3A082	ZUI	Arrival	13.8	-	-
08-Sep	14:14	3A182	ZUI	Departure	13.1	-	-
08-Sep	14:52	3A065	YFT	Arrival	13.0	-	-
08-Sep	16:22	3A167	YFT	Departure	12.9	-	-
08-Sep	16:35	3A083	ZUI	Arrival	13.9	-	-
08-Sep	16:39	8S218	MFM	Arrival	11.5	-	-
08-Sep	16:54	3A067	YFT	Arrival	12.3	-	-
08-Sep	17:03	3A183	ZUI	Departure	13.4	-	-
08-Sep	17:04	8S126	MFM	Departure	11.6	-	-
08-Sep	19:46	3A084	ZUI	Arrival	13.4	-	-
08-Sep	20:19	3A185	ZUI	Departure	13.5	-	-
08-Sep	20:46	8S2113	MFM	Arrival	12.2	-	-
08-Sep	21:03	3A169	YFT	Departure	12.2	-	-
08-Sep	21:54	8S128	MFM	Departure	11.8	-	-
09-Sep	08:21	3A061	YFT	Arrival	11.6	-	-
09-Sep	08:25	8S210	MFM	Arrival	11.5	-	-
09-Sep	09:59	3A071	MFM	Arrival	12.0	≤5	<1
09-Sep	10:36	3A081	ZUI	Arrival	14.1	≤5	<1
09-Sep	10:43	8S212	MFM	Arrival	12.5	-	-
09-Sep	11:09	8S121	MFM	Departure	13.0	-	-
09-Sep	11:27	3A063	YFT	Arrival	12.1	-	-
09-Sep	12:13	3A168	YFT	Departure	11.7	-	-
09-Sep	12:33	3A181	ZUI	Departure	12.4	-	-
09-Sep	12:58	8S215	MFM	Arrival	10.9	-	-
09-Sep	13:00	3A064	YFT	Arrival	12.6	-	-
09-Sep	13:23	8S123	MFM	Departure	11.9	-	-
09-Sep	13:38	3A164	YFT	Departure	12.3	-	-
09-Sep	13:47	3A082	ZUI	Arrival	13.7	-	-
09-Sep	14:04	3A062	YFT	Arrival	13.0	-	-
09-Sep	14:17	3A182	ZUI	Departure	12.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
09-Sep	15:02	3A065	YFT	Arrival	11.7	-	-
09-Sep	16:31	3A167	YFT	Departure	12.4	-	-
09-Sep	16:35	3A083	ZUI	Arrival	13.2	-	-
09-Sep	16:43	8S218	MFM	Arrival	12.0	-	-
09-Sep	16:48	3A067	YFT	Arrival	11.8	-	-
09-Sep	17:00	3A183	ZUI	Departure	13.5	-	-
09-Sep	17:11	8S126	MFM	Departure	13.1	-	-
09-Sep	18:20	3A066	YFT	Arrival	11.0	-	-
09-Sep	19:31	3A068	YFT	Arrival	11.2	-	-
09-Sep	19:49	3A084	ZUI	Arrival	13.0	-	-
09-Sep	20:07	3A185	ZUI	Departure	14.0	-	-
09-Sep	21:02	8S2113	MFM	Arrival	11.8	-	-
09-Sep	21:03	3A169	YFT	Departure	10.9	-	-
09-Sep	22:00	8S128	MFM	Departure	12.4	-	-
10-Sep	08:16	3A061	YFT	Arrival	12.3	-	-
10-Sep	08:26	8S210	MFM	Arrival	10.2	-	-
10-Sep	09:54	3A071	MFM	Arrival	11.8	-	-
10-Sep	10:25	3A081	ZUI	Arrival	12.1	-	-
10-Sep	10:42	8S212	MFM	Arrival	12.8	-	-
10-Sep	11:01	8S121	MFM	Departure	13.6	-	-
10-Sep	11:22	3A063	YFT	Arrival	11.3	-	-
10-Sep	11:46	3A168	YFT	Departure	12.4	-	-
10-Sep	12:19	3A181	ZUI	Departure	13.2	-	-
10-Sep	12:47	8S215	MFM	Arrival	12.1	≤5	<1
10-Sep	13:01	3A064	YFT	Arrival	11.5	-	-
10-Sep	13:14	8S123	MFM	Departure	12.6	-	-
10-Sep	13:32	3A164	YFT	Departure	11.9	-	-
10-Sep	14:03	3A082	ZUI	Arrival	10.7	-	-
10-Sep	14:21	3A182	ZUI	Departure	12.9	-	-
10-Sep	14:55	3A065	YFT	Arrival	11.4	-	-
10-Sep	16:19	3A167	YFT	Departure	13.0	-	-
10-Sep	16:42	3A083	ZUI	Arrival	13.9	-	-
10-Sep	16:43	8S218	MFM	Arrival	11.2	-	-
10-Sep	16:50	3A067	YFT	Arrival	11.6	-	-
10-Sep	17:10	8S126	MFM	Departure	10.5	-	-
10-Sep	17:18	3A183	ZUI	Departure	13.6	-	-
10-Sep	19:52	3A084	ZUI	Arrival	13.0	-	-
10-Sep	20:10	3A185	ZUI	Departure	13.7	-	-
10-Sep	20:47	8S2113	MFM	Arrival	12.1	-	-
10-Sep	21:03	3A169	YFT	Departure	13.4	-	-
10-Sep	21:57	8S128	MFM	Departure	12.7	-	-
11-Sep	08:17	3A061	YFT	Arrival	12.5	-	-
11-Sep	08:26	8S210	MFM	Arrival	11.4	-	-
11-Sep	09:54	3A071	MFM	Arrival	11.7	-	-
11-Sep	10:39	8S212	MFM	Arrival	11.9	-	-
11-Sep	10:41	3A081	ZUI	Arrival	12.9	-	-
11-Sep	11:08	8S121	MFM	Departure	12.3	-	-
11-Sep	11:23	3A063	YFT	Arrival	11.8	-	-
11-Sep	11:56	3A168	YFT	Departure	12.0	-	-
11-Sep	12:15	3A181	ZUI	Departure	13.3	-	-
11-Sep	12:45	8S215	MFM	Arrival	11.6	-	-
11-Sep	13:07	3A064	YFT	Arrival	10.7	-	-
11-Sep	13:28	8S123	MFM	Departure	12.4	-	-
11-Sep	13:30	3A164	YFT	Departure	12.0	-	-
11-Sep	13:57	3A082	ZUI	Arrival	12.3	-	-
11-Sep	14:19	3A182	ZUI	Departure	12.6	-	-
11-Sep	15:00	3A065	YFT	Arrival	12.1	-	-
11-Sep	16:37	3A083	ZUI	Arrival	9.5	-	-
11-Sep	16:41	8S218	MFM	Arrival	9.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
11-Sep	16:45	3A167	YFT	Departure	12.2	-	-
11-Sep	17:04	8S126	MFM	Departure	10.4	-	-
11-Sep	17:09	3A067	YFT	Arrival	12.0	-	-
11-Sep	17:12	3A183	ZUI	Departure	10.4	-	-
11-Sep	19:46	3A084	ZUI	Arrival	12.5	-	-
11-Sep	20:16	3A185	ZUI	Departure	12.5	-	-
11-Sep	21:00	8S2113	MFM	Arrival	12.1	-	-
11-Sep	21:04	3A169	YFT	Departure	10.6	-	-
11-Sep	21:57	8S128	MFM	Departure	12.6	-	-
12-Sep	08:23	3A061	YFT	Arrival	11.4	-	-
12-Sep	08:25	8S210	MFM	Arrival	12.1	-	-
12-Sep	09:53	3A071	MFM	Arrival	12.9	-	-
12-Sep	10:37	8S212	MFM	Arrival	12.9	-	-
12-Sep	10:44	3A081	ZUI	Arrival	12.9	-	-
12-Sep	11:05	8S121	MFM	Departure	11.8	-	-
12-Sep	11:31	3A063	YFT	Arrival	10.8	-	-
12-Sep	12:09	3A168	YFT	Departure	11.4	-	-
12-Sep	12:16	3A181	ZUI	Departure	12.2	-	-
12-Sep	12:46	8S215	MFM	Arrival	11.5	-	-
12-Sep	13:15	3A064	YFT	Arrival	10.2	-	-
12-Sep	13:22	8S123	MFM	Departure	12.8	-	-
12-Sep	13:33	3A164	YFT	Departure	10.1	-	-
12-Sep	13:49	3A082	ZUI	Arrival	12.7	≤5	<1
12-Sep	14:20	3A182	ZUI	Departure	13.5	-	-
12-Sep	15:04	3A065	YFT	Arrival	11.3	-	-
12-Sep	16:34	3A167	YFT	Departure	13.3	-	-
12-Sep	16:44	8S218	MFM	Arrival	12.7	-	-
12-Sep	16:51	3A083	ZUI	Arrival	12.4	-	-
12-Sep	17:10	3A067	YFT	Arrival	9.9	-	-
12-Sep	17:12	3A183	ZUI	Departure	12.8	-	-
12-Sep	17:14	8S126	MFM	Departure	12.1	-	-
12-Sep	19:55	3A084	ZUI	Arrival	12.4	-	-
12-Sep	20:11	3A185	ZUI	Departure	12.9	-	-
12-Sep	20:56	8S2113	MFM	Arrival	11.6	-	-
12-Sep	21:01	3A169	YFT	Departure	11.9	-	-
12-Sep	21:52	8S128	MFM	Departure	12.7	-	-
13-Sep	08:22	3A061	YFT	Arrival	12.2	-	-
13-Sep	08:32	8S210	MFM	Arrival	11.5	-	-
13-Sep	09:50	3A071	MFM	Arrival	13.0	-	-
13-Sep	10:33	3A081	ZUI	Arrival	13.1	-	-
13-Sep	10:45	8S212	MFM	Arrival	12.7	-	-
13-Sep	11:17	8S121	MFM	Departure	12.5	-	-
13-Sep	11:18	3A063	YFT	Arrival	11.0	-	-
13-Sep	11:45	3A168	YFT	Departure	10.7	-	-
13-Sep	12:24	3A181	ZUI	Departure	12.2	-	-
13-Sep	12:47	8S215	MFM	Arrival	12.3	-	-
13-Sep	12:55	3A064	YFT	Arrival	12.1	-	-
13-Sep	13:13	8S123	MFM	Departure	12.0	-	-
13-Sep	13:33	3A164	YFT	Departure	12.7	-	-
13-Sep	14:01	3A082	ZUI	Arrival	12.8	-	-
13-Sep	14:21	3A182	ZUI	Departure	12.1	-	-
13-Sep	14:58	3A065	YFT	Arrival	11.5	-	-
13-Sep	16:16	3A167	YFT	Departure	12.1	-	-
13-Sep	16:40	8S218	MFM	Arrival	11.2	-	-
13-Sep	16:48	3A083	ZUI	Arrival	10.8	-	-
13-Sep	16:56	3A067	YFT	Arrival	12.7	-	-
13-Sep	17:00	8S126	MFM	Departure	12.0	-	-
13-Sep	17:15	3A183	ZUI	Departure	10.3	-	-
13-Sep	19:53	3A084	ZUI	Arrival	12.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
13-Sep	20:13	3A185	ZUI	Departure	13.3	-	-
13-Sep	20:53	8S2113	MFM	Arrival	10.6	-	-
13-Sep	20:59	3A169	YFT	Departure	12.6	-	-
13-Sep	21:58	8S128	MFM	Departure	11.7	-	-
14-Sep	08:19	3A061	YFT	Arrival	13.1	-	-
14-Sep	08:29	8S210	MFM	Arrival	12.6	-	-
14-Sep	09:54	3A071	MFM	Arrival	12.3	-	-
14-Sep	10:46	8S212	MFM	Arrival	12.2	-	-
14-Sep	11:09	3A081	ZUI	Arrival	12.8	-	-
14-Sep	11:10	8S121	MFM	Departure	12.2	-	-
14-Sep	11:37	3A063	YFT	Arrival	12.8	-	-
14-Sep	11:57	3A168	YFT	Departure	12.7	-	-
14-Sep	12:17	3A181	ZUI	Departure	13.0	-	-
14-Sep	12:48	8S215	MFM	Arrival	11.4	-	-
14-Sep	13:01	3A064	YFT	Arrival	12.3	-	-
14-Sep	13:15	8S123	MFM	Departure	9.8	-	-
14-Sep	13:34	3A164	YFT	Departure	12.4	-	-
14-Sep	13:49	3A082	ZUI	Arrival	13.9	-	-
14-Sep	14:14	3A182	ZUI	Departure	13.4	-	-
14-Sep	15:02	3A065	YFT	Arrival	12.0	-	-
14-Sep	16:21	3A167	YFT	Departure	12.8	-	-
14-Sep	16:36	8S218	MFM	Arrival	11.5	-	-
14-Sep	16:40	3A083	ZUI	Arrival	12.5	-	-
14-Sep	17:00	3A067	YFT	Arrival	12.0	-	-
14-Sep	17:01	3A183	ZUI	Departure	12.9	-	-
14-Sep	17:08	8S126	MFM	Departure	10.5	-	-
14-Sep	19:49	3A084	ZUI	Arrival	12.3	-	-
14-Sep	20:11	3A185	ZUI	Departure	12.8	-	-
14-Sep	20:53	8S2113	MFM	Arrival	12.6	-	-
14-Sep	20:59	3A169	YFT	Departure	12.1	-	-
14-Sep	21:56	8S128	MFM	Departure	12.9	-	-
15-Sep	08:23	3A061	YFT	Arrival	12.0	-	-
15-Sep	08:28	8S210	MFM	Arrival	10.5	-	-
15-Sep	09:54	3A071	MFM	Arrival	12.2	-	-
15-Sep	10:44	3A081	ZUI	Arrival	13.3	-	-
15-Sep	10:46	8S212	MFM	Arrival	11.9	-	-
15-Sep	11:07	8S121	MFM	Departure	13.3	-	-
15-Sep	11:25	3A063	YFT	Arrival	12.2	-	-
15-Sep	11:49	3A168	YFT	Departure	12.0	-	-
15-Sep	12:07	3A181	ZUI	Departure	12.9	-	-
15-Sep	12:50	8S215	MFM	Arrival	10.7	-	-
15-Sep	13:24	8S123	MFM	Departure	12.5	-	-
15-Sep	13:30	3A064	YFT	Arrival	10.2	-	-
15-Sep	13:55	3A082	ZUI	Arrival	13.3	-	-
15-Sep	14:08	3A182	ZUI	Departure	12.2	-	-
15-Sep	14:09	3A164	YFT	Departure	9.8	-	-
15-Sep	15:00	3A065	YFT	Arrival	12.0	-	-
15-Sep	16:17	3A167	YFT	Departure	13.4	-	-
15-Sep	16:34	8S218	MFM	Arrival	10.5	-	-
15-Sep	16:40	3A083	ZUI	Arrival	13.0	-	-
15-Sep	17:06	3A183	ZUI	Departure	13.0	-	-
15-Sep	17:06	8S126	MFM	Departure	13.5	-	-
15-Sep	17:14	3A067	YFT	Arrival	10.6	-	-
15-Sep	19:46	3A084	ZUI	Arrival	12.5	-	-
15-Sep	20:09	3A185	ZUI	Departure	12.9	-	-
15-Sep	20:54	8S2113	MFM	Arrival	12.0	-	-
15-Sep	20:57	3A169	YFT	Departure	11.3	-	-
15-Sep	21:59	8S128	MFM	Departure	12.4	-	-
16-Sep	08:14	3A061	YFT	Arrival	12.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
16-Sep	08:26	8S210	MFM	Arrival	13.4	-	-
16-Sep	09:58	3A071	MFM	Arrival	11.8	-	-
16-Sep	10:41	8S212	MFM	Arrival	12.5	-	-
16-Sep	10:48	3A081	ZUI	Arrival	12.2	-	-
16-Sep	11:04	8S121	MFM	Departure	13.2	-	-
16-Sep	11:21	3A063	YFT	Arrival	13.0	-	-
16-Sep	11:52	3A168	YFT	Departure	11.8	-	-
16-Sep	12:30	3A181	ZUI	Departure	12.9	-	-
16-Sep	12:46	8S215	MFM	Arrival	11.6	-	-
16-Sep	12:56	3A064	YFT	Arrival	12.8	-	-
16-Sep	13:18	8S123	MFM	Departure	11.9	-	-
16-Sep	13:28	3A164	YFT	Departure	12.5	-	-
16-Sep	13:57	3A082	ZUI	Arrival	13.0	-	-
16-Sep	14:15	3A182	ZUI	Departure	11.5	-	-
16-Sep	14:58	3A065	YFT	Arrival	13.2	-	-
16-Sep	16:26	3A167	YFT	Departure	13.1	-	-
16-Sep	16:34	8S218	MFM	Arrival	13.5	-	-
16-Sep	16:56	3A067	YFT	Arrival	12.2	-	-
16-Sep	16:58	3A083	ZUI	Arrival	12.7	-	-
16-Sep	17:17	3A183	ZUI	Departure	12.5	-	-
16-Sep	17:18	8S126	MFM	Departure	13.2	-	-
16-Sep	19:46	3A084	ZUI	Arrival	13.0	-	-
16-Sep	20:10	3A185	ZUI	Departure	12.8	-	-
16-Sep	20:50	8S2113	MFM	Arrival	13.4	-	-
16-Sep	20:56	3A169	YFT	Departure	13.7	-	-
16-Sep	22:01	8S128	MFM	Departure	13.1	-	-
17-Sep	08:22	3A061	YFT	Arrival	11.3	-	-
17-Sep	08:24	8S210	MFM	Arrival	11.1	-	-
17-Sep	09:53	3A071	MFM	Arrival	12.6	-	-
17-Sep	10:38	3A081	ZUI	Arrival	14.1	-	-
17-Sep	10:48	8S212	MFM	Arrival	12.9	-	-
17-Sep	11:19	8S121	MFM	Departure	13.0	-	-
17-Sep	11:28	3A063	YFT	Arrival	13.1	-	-
17-Sep	11:47	3A168	YFT	Departure	12.9	-	-
17-Sep	12:18	8S215	MFM	Arrival	11.7	-	-
17-Sep	12:18	3A181	ZUI	Departure	12.6	-	-
17-Sep	12:49	8S215	MFM	Arrival	11.7	-	-
17-Sep	12:56	3A064	YFT	Arrival	13.3	-	-
17-Sep	13:17	8S123	MFM	Departure	11.9	-	-
17-Sep	13:32	3A164	YFT	Departure	13.1	-	-
17-Sep	13:57	3A082	ZUI	Arrival	12.6	-	-
17-Sep	14:15	3A182	ZUI	Departure	12.0	-	-
17-Sep	15:01	3A065	YFT	Arrival	12.9	-	-
17-Sep	16:18	3A167	YFT	Departure	12.8	-	-
17-Sep	16:39	3A083	ZUI	Arrival	12.9	-	-
17-Sep	16:40	8S218	MFM	Arrival	11.6	-	-
17-Sep	17:04	3A067	YFT	Arrival	12.8	-	-
17-Sep	17:09	8S126	MFM	Departure	11.6	-	-
17-Sep	17:10	3A183	ZUI	Departure	12.9	-	-
17-Sep	19:49	3A084	ZUI	Arrival	13.0	-	-
17-Sep	20:13	3A185	ZUI	Departure	12.8	-	-
17-Sep	20:57	3A169	YFT	Departure	12.6	-	-
17-Sep	20:58	8S2113	MFM	Arrival	12.6	-	-
17-Sep	21:59	8S128	MFM	Departure	12.5	-	-
18-Sep	08:25	3A061	YFT	Arrival	10.1	-	-
18-Sep	08:34	8S210	MFM	Arrival	11.2	-	-
18-Sep	09:51	3A071	MFM	Arrival	11.3	-	-
18-Sep	10:34	8S212	MFM	Arrival	13.1	-	-
18-Sep	10:40	3A081	ZUI	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
18-Sep	11:03	8S121	MFM	Departure	13.0	-	-
18-Sep	11:30	3A063	YFT	Arrival	12.6	-	-
18-Sep	11:51	3A168	YFT	Departure	12.1	-	-
18-Sep	12:13	3A181	ZUI	Departure	13.8	-	-
18-Sep	12:41	8S215	MFM	Arrival	11.8	-	-
18-Sep	13:04	3A064	YFT	Arrival	13.0	-	-
18-Sep	13:21	8S123	MFM	Departure	12.2	-	-
18-Sep	13:30	3A164	YFT	Departure	13.4	-	-
18-Sep	13:58	3A082	ZUI	Arrival	13.5	-	-
18-Sep	14:18	3A182	ZUI	Departure	11.9	-	-
18-Sep	15:01	3A065	YFT	Arrival	12.2	-	-
18-Sep	16:15	3A167	YFT	Departure	12.0	-	-
18-Sep	16:44	3A083	ZUI	Arrival	12.9	-	-
18-Sep	16:50	8S218	MFM	Arrival	12.4	-	-
18-Sep	16:58	3A067	YFT	Arrival	11.8	-	-
18-Sep	17:04	3A183	ZUI	Departure	12.6	-	-
18-Sep	17:16	8S126	MFM	Departure	13.0	-	-
18-Sep	19:53	3A084	ZUI	Arrival	13.1	-	-
18-Sep	20:15	3A185	ZUI	Departure	12.5	-	-
18-Sep	20:57	3A169	YFT	Departure	12.5	-	-
18-Sep	20:57	8S2113	MFM	Arrival	11.0	-	-
18-Sep	21:55	8S128	MFM	Departure	12.6	-	-
19-Sep	08:20	3A061	YFT	Arrival	11.7	-	-
19-Sep	08:33	8S210	MFM	Arrival	12.0	-	-
19-Sep	09:54	3A071	MFM	Arrival	11.8	-	-
19-Sep	10:40	8S212	MFM	Arrival	11.4	-	-
19-Sep	10:55	3A081	ZUI	Arrival	13.3	-	-
19-Sep	11:13	8S121	MFM	Departure	13.3	-	-
19-Sep	11:24	3A063	YFT	Arrival	12.6	-	-
19-Sep	11:51	3A168	YFT	Departure	12.5	-	-
19-Sep	12:16	3A181	ZUI	Departure	13.1	-	-
19-Sep	12:54	8S215	MFM	Arrival	12.8	-	-
19-Sep	12:55	3A064	YFT	Arrival	12.2	-	-
19-Sep	13:13	8S123	MFM	Departure	11.9	-	-
19-Sep	13:31	3A164	YFT	Departure	12.4	-	-
19-Sep	13:50	3A082	ZUI	Arrival	12.2	-	-
19-Sep	14:18	3A182	ZUI	Departure	13.6	-	-
19-Sep	14:56	3A065	YFT	Arrival	12.8	-	-
19-Sep	16:22	3A167	YFT	Departure	12.5	-	-
19-Sep	16:36	3A083	ZUI	Arrival	12.8	-	-
19-Sep	16:41	8S218	MFM	Arrival	12.5	-	-
19-Sep	16:53	3A067	YFT	Arrival	12.5	≤5	<1
19-Sep	17:05	8S126	MFM	Departure	12.0	-	-
19-Sep	17:12	3A183	ZUI	Departure	12.1	-	-
19-Sep	19:48	3A084	ZUI	Arrival	12.8	-	-
19-Sep	20:08	3A185	ZUI	Departure	12.9	-	-
19-Sep	20:51	8S2113	MFM	Arrival	11.6	-	-
19-Sep	21:01	3A169	YFT	Departure	13.3	-	-
19-Sep	22:02	8S128	MFM	Departure	12.3	-	-
20-Sep	08:26	3A061	YFT	Arrival	12.0	-	-
20-Sep	08:32	8S210	MFM	Arrival	11.2	-	-
20-Sep	10:00	3A071	MFM	Arrival	8.7	-	-
20-Sep	10:43	3A081	ZUI	Arrival	12.5	-	-
20-Sep	10:43	8S212	MFM	Arrival	12.9	-	-
20-Sep	11:15	8S121	MFM	Departure	11.2	-	-
20-Sep	11:29	3A063	YFT	Arrival	11.7	-	-
20-Sep	11:50	3A168	YFT	Departure	11.9	-	-
20-Sep	12:18	3A181	ZUI	Departure	13.4	-	-
20-Sep	12:56	8S215	MFM	Arrival	10.7	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
20-Sep	13:09	3A064	YFT	Arrival	11.6	-	-
20-Sep	13:19	8S123	MFM	Departure	10.9	-	-
20-Sep	13:31	3A164	YFT	Departure	11.7	-	-
20-Sep	13:47	3A082	ZUI	Arrival	10.1	-	-
20-Sep	14:18	3A182	ZUI	Departure	12.3	-	-
20-Sep	15:04	3A065	YFT	Arrival	9.7	-	-
20-Sep	16:19	3A167	YFT	Departure	12.0	-	-
20-Sep	16:34	3A083	ZUI	Arrival	13.7	-	-
20-Sep	16:41	8S218	MFM	Arrival	11.8	-	-
20-Sep	16:59	3A183	ZUI	Departure	13.0	-	-
20-Sep	17:07	8S126	MFM	Departure	9.8	-	-
20-Sep	17:08	3A067	YFT	Arrival	12.1	-	-
20-Sep	19:53	3A084	ZUI	Arrival	12.5	-	-
20-Sep	20:11	3A185	ZUI	Departure	13.4	-	-
20-Sep	20:58	3A169	YFT	Departure	12.5	-	-
20-Sep	20:58	8S2113	MFM	Arrival	11.6	-	-
20-Sep	21:56	8S128	MFM	Departure	12.1	-	-
21-Sep	08:19	3A061	YFT	Arrival	11.8	-	-
21-Sep	08:36	8S210	MFM	Arrival	11.4	-	-
21-Sep	10:00	3A071	MFM	Arrival	12.1	-	-
21-Sep	10:41	8S212	MFM	Arrival	11.1	-	-
21-Sep	10:45	3A081	ZUI	Arrival	11.7	-	-
21-Sep	11:04	8S121	MFM	Departure	13.3	-	-
21-Sep	11:33	3A063	YFT	Arrival	10.3	-	-
21-Sep	12:04	3A168	YFT	Departure	11.2	-	-
21-Sep	12:20	3A181	ZUI	Departure	13.5	-	-
21-Sep	12:42	8S215	MFM	Arrival	11.6	-	-
21-Sep	12:57	3A064	YFT	Arrival	12.8	-	-
21-Sep	13:13	8S123	MFM	Departure	No AIS Data	-	-
21-Sep	13:30	3A164	YFT	Departure	13.2	-	-
21-Sep	14:00	3A082	ZUI	Arrival	12.8	-	-
21-Sep	14:14	3A182	ZUI	Departure	12.9	-	-
21-Sep	15:13	3A065	YFT	Arrival	10.0	-	-
21-Sep	16:21	3A167	YFT	Departure	9.5	-	-
21-Sep	16:36	3A083	ZUI	Arrival	11.9	≤5	<1
21-Sep	16:43	8S218	MFM	Arrival	12.8	-	-
21-Sep	17:04	3A067	YFT	Arrival	10.6	-	-
21-Sep	17:07	3A183	ZUI	Departure	13.0	-	-
21-Sep	17:19	8S126	MFM	Departure	12.8	-	-
21-Sep	19:52	3A084	ZUI	Arrival	13.0	-	-
21-Sep	20:12	3A185	ZUI	Departure	13.1	-	-
21-Sep	20:57	8S2113	MFM	Arrival	11.9	-	-
21-Sep	21:08	3A169	YFT	Departure	12.8	-	-
22-Sep	08:18	3A061	YFT	Arrival	11.9	-	-
22-Sep	08:27	8S210	MFM	Arrival	12.2	-	-
22-Sep	09:54	3A071	MFM	Arrival	12.7	-	-
22-Sep	10:44	3A081	ZUI	Arrival	12.3	-	-
22-Sep	10:48	8S212	MFM	Arrival	12.5	-	-
22-Sep	11:09	8S121	MFM	Departure	13.3	>15	<1
22-Sep	11:21	3A063	YFT	Arrival	11.6	-	-
22-Sep	11:48	3A168	YFT	Departure	12.4	-	-
22-Sep	12:14	3A181	ZUI	Departure	13.6	-	-
22-Sep	12:46	8S215	MFM	Arrival	11.5	-	-
22-Sep	12:58	3A064	YFT	Arrival	11.4	-	-
22-Sep	13:13	8S123	MFM	Departure	12.6	-	-
22-Sep	13:32	3A164	YFT	Departure	12.2	-	-
22-Sep	13:58	3A082	ZUI	Arrival	12.5	-	-
22-Sep	14:14	3A182	ZUI	Departure	13.3	-	-
22-Sep	14:54	3A065	YFT	Arrival	13.0	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
22-Sep	16:21	3A167	YFT	Departure	13.0	-	-
22-Sep	16:38	3A083	ZUI	Arrival	13.0	-	-
22-Sep	16:41	8S218	MFM	Arrival	12.7	-	-
22-Sep	16:57	3A067	YFT	Arrival	11.6	-	-
22-Sep	17:13	3A183	ZUI	Departure	13.0	-	-
22-Sep	17:13	8S126	MFM	Departure	13.2	-	-
22-Sep	19:47	3A084	ZUI	Arrival	13.5	-	-
22-Sep	20:08	3A185	ZUI	Departure	12.7	-	-
22-Sep	20:53	8S2113	MFM	Arrival	12.0	-	-
22-Sep	20:56	3A169	YFT	Departure	12.7	-	-
23-Sep	08:05	8S210	MFM	Arrival	12.5	≤5	<1
23-Sep	08:18	3A061	YFT	Arrival	12.5	-	-
23-Sep	09:53	3A071	MFM	Arrival	11.4	-	-
23-Sep	10:29	8S212	MFM	Arrival	12.4	-	-
23-Sep	10:38	3A081	ZUI	Arrival	12.4	-	-
23-Sep	11:02	8S121	MFM	Departure	12.6	-	-
23-Sep	11:21	3A063	YFT	Arrival	12.2	-	-
23-Sep	11:50	3A168	YFT	Departure	12.0	-	-
23-Sep	12:11	3A181	ZUI	Departure	12.7	-	-
23-Sep	12:51	8S215	MFM	Arrival	10.8	-	-
23-Sep	13:09	3A064	YFT	Arrival	10.8	-	-
23-Sep	13:19	8S123	MFM	Departure	10.9	-	-
23-Sep	13:44	3A164	YFT	Departure	12.2	-	-
23-Sep	13:58	3A082	ZUI	Arrival	12.3	-	-
23-Sep	14:15	3A182	ZUI	Departure	13.3	-	-
23-Sep	15:02	3A065	YFT	Arrival	11.9	-	-
23-Sep	16:22	3A167	YFT	Departure	12.3	-	-
23-Sep	16:35	3A083	ZUI	Arrival	13.3	-	-
23-Sep	16:40	8S218	MFM	Arrival	10.8	-	-
23-Sep	17:04	3A067	YFT	Arrival	11.4	-	-
23-Sep	17:04	3A183	ZUI	Departure	13.8	-	-
23-Sep	17:07	8S126	MFM	Departure	10.6	-	-
23-Sep	19:47	3A084	ZUI	Arrival	13.6	-	-
23-Sep	20:07	3A185	ZUI	Departure	12.6	-	-
23-Sep	20:51	8S2113	MFM	Arrival	12.1	-	-
23-Sep	20:55	3A169	YFT	Departure	13.2	-	-
23-Sep	21:59	8S128	MFM	Departure	12.3	-	-
24-Sep	08:17	3A061	YFT	Arrival	11.7	-	-
24-Sep	08:25	8S210	MFM	Arrival	10.7	-	-
24-Sep	09:57	3A071	MFM	Arrival	11.9	-	-
24-Sep	10:23	3A081	ZUI	Arrival	13.9	≤5	<1
24-Sep	10:38	8S212	MFM	Arrival	12.6	-	-
24-Sep	11:08	8S121	MFM	Departure	13.2	-	-
24-Sep	11:21	3A063	YFT	Arrival	11.2	-	-
24-Sep	11:55	3A168	YFT	Departure	11.3	-	-
24-Sep	12:19	3A181	ZUI	Departure	13.2	-	-
24-Sep	12:44	8S215	MFM	Arrival	12.1	-	-
24-Sep	12:58	3A064	YFT	Arrival	11.5	-	-
24-Sep	13:19	8S123	MFM	Departure	12.8	-	-
24-Sep	13:34	3A164	YFT	Departure	12.5	-	-
24-Sep	13:49	3A082	ZUI	Arrival	13.0	-	-
24-Sep	14:13	3A182	ZUI	Departure	12.0	-	-
24-Sep	15:01	3A065	YFT	Arrival	11.9	-	-
24-Sep	16:18	3A167	YFT	Departure	11.9	-	-
24-Sep	16:41	8S218	MFM	Arrival	13.0	-	-
24-Sep	16:43	3A083	ZUI	Arrival	14.4	-	-
24-Sep	17:02	3A067	YFT	Arrival	12.1	-	-
24-Sep	17:02	3A183	ZUI	Departure	13.4	-	-
24-Sep	17:22	8S126	MFM	Departure	13.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
24-Sep	19:46	3A084	ZUI	Arrival	13.5	-	-
24-Sep	20:10	3A185	ZUI	Departure	12.6	-	-
24-Sep	20:56	8S2113	MFM	Arrival	12.5	-	-
24-Sep	20:57	3A169	YFT	Departure	11.7	-	-
24-Sep	22:02	8S128	MFM	Departure	12.0	-	-
25-Sep	08:00	8S210	MFM	Arrival	12.9	-	-
25-Sep	08:18	3A061	YFT	Arrival	11.8	-	-
25-Sep	09:58	3A071	MFM	Arrival	11.3	-	-
25-Sep	10:41	3A081	ZUI	Arrival	12.7	-	-
25-Sep	10:43	8S212	MFM	Arrival	11.7	-	-
25-Sep	11:06	8S121	MFM	Departure	11.9	-	-
25-Sep	11:30	3A063	YFT	Arrival	12.3	-	-
25-Sep	11:57	3A168	YFT	Departure	12.2	-	-
25-Sep	12:17	3A181	ZUI	Departure	13.1	-	-
25-Sep	12:56	8S215	MFM	Arrival	11.6	-	-
25-Sep	13:03	3A064	YFT	Arrival	11.9	-	-
25-Sep	13:17	8S123	MFM	Departure	11.6	-	-
25-Sep	13:33	3A164	YFT	Departure	12.5	-	-
25-Sep	13:54	3A082	ZUI	Arrival	12.9	-	-
25-Sep	14:11	3A182	ZUI	Departure	13.4	-	-
25-Sep	14:55	3A065	YFT	Arrival	12.4	-	-
25-Sep	16:25	3A167	YFT	Departure	12.5	≤5	<1
25-Sep	16:33	3A083	ZUI	Arrival	11.7	≤5	<1
25-Sep	16:43	8S218	MFM	Arrival	9.4	-	-
25-Sep	17:01	3A067	YFT	Arrival	11.5	-	-
25-Sep	17:08	3A183	ZUI	Departure	12.8	-	-
25-Sep	17:10	8S126	MFM	Departure	12.6	-	-
25-Sep	19:49	3A084	ZUI	Arrival	12.7	-	-
25-Sep	20:06	3A185	ZUI	Departure	13.6	-	-
25-Sep	20:56	8S2113	MFM	Arrival	12.8	-	-
25-Sep	21:02	3A169	YFT	Departure	12.1	-	-
25-Sep	21:56	8S128	MFM	Departure	12.6	-	-
26-Sep	08:22	3A061	YFT	Arrival	11.9	-	-
26-Sep	08:25	8S210	MFM	Arrival	11.6	-	-
26-Sep	10:06	3A071	MFM	Arrival	10.0	-	-
26-Sep	10:35	8S212	MFM	Arrival	12.3	-	-
26-Sep	10:44	3A081	ZUI	Arrival	12.7	-	-
26-Sep	11:07	8S121	MFM	Departure	11.8	-	-
26-Sep	11:14	3A063	YFT	Arrival	12.1	-	-
26-Sep	11:50	3A168	YFT	Departure	12.3	-	-
26-Sep	12:10	3A181	ZUI	Departure	11.7	-	-
26-Sep	12:39	8S215	MFM	Arrival	11.6	-	-
26-Sep	13:00	3A064	YFT	Arrival	12.8	-	-
26-Sep	13:17	8S123	MFM	Departure	12.6	-	-
26-Sep	13:32	3A164	YFT	Departure	12.6	-	-
26-Sep	13:54	3A082	ZUI	Arrival	12.4	-	-
26-Sep	14:30	3A182	ZUI	Departure	12.6	-	-
26-Sep	14:54	3A065	YFT	Arrival	12.1	-	-
26-Sep	16:17	3A167	YFT	Departure	12.8	-	-
26-Sep	16:43	3A083	ZUI	Arrival	12.5	-	-
26-Sep	16:44	8S218	MFM	Arrival	10.7	-	-
26-Sep	17:03	3A067	YFT	Arrival	12.4	-	-
26-Sep	17:14	8S126	MFM	Departure	13.1	-	-
26-Sep	17:16	3A183	ZUI	Departure	13.5	-	-
26-Sep	20:04	3A084	ZUI	Arrival	12.7	-	-
26-Sep	20:19	3A185	ZUI	Departure	13.5	-	-
26-Sep	20:56	8S2113	MFM	Arrival	13.3	-	-
26-Sep	20:59	3A169	YFT	Departure	11.9	-	-
27-Sep	08:18	3A061	YFT	Arrival	12.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
27-Sep	08:30	8S210	MFM	Arrival	10.9	-	-
27-Sep	09:52	3A071	MFM	Arrival	12.8	-	-
27-Sep	10:34	3A081	ZUI	Arrival	11.0	-	-
27-Sep	10:40	8S212	MFM	Arrival	11.6	-	-
27-Sep	11:06	8S121	MFM	Departure	10.6	-	-
27-Sep	11:20	3A063	YFT	Arrival	12.3	-	-
27-Sep	11:42	3A168	YFT	Departure	11.9	-	-
27-Sep	12:13	3A181	ZUI	Departure	13.1	-	-
27-Sep	12:50	8S215	MFM	Arrival	12.1	-	-
27-Sep	13:03	3A064	YFT	Arrival	12.3	-	-
27-Sep	13:20	8S123	MFM	Departure	12.7	-	-
27-Sep	13:27	3A164	YFT	Departure	12.0	-	-
27-Sep	13:57	3A082	ZUI	Arrival	12.6	-	-
27-Sep	14:18	3A182	ZUI	Departure	12.7	-	-
27-Sep	15:04	3A065	YFT	Arrival	12.0	-	-
27-Sep	16:18	3A167	YFT	Departure	13.0	-	-
27-Sep	16:31	3A083	ZUI	Arrival	12.0	-	-
27-Sep	16:35	8S218	MFM	Arrival	10.4	-	-
27-Sep	16:56	3A067	YFT	Arrival	11.7	-	-
27-Sep	17:07	8S126	MFM	Departure	11.6	-	-
27-Sep	17:10	3A183	ZUI	Departure	12.2	-	-
27-Sep	19:51	3A084	ZUI	Arrival	12.7	-	-
27-Sep	20:10	3A185	ZUI	Departure	13.7	-	-
27-Sep	20:55	8S2113	MFM	Arrival	11.3	-	-
27-Sep	20:57	3A169	YFT	Departure	12.9	-	-
27-Sep	22:00	8S128	MFM	Departure	12.2	-	-
28-Sep	08:15	3A061	YFT	Arrival	12.2	-	-
28-Sep	08:32	8S210	MFM	Arrival	11.6	-	-
28-Sep	09:54	3A071	MFM	Arrival	12.0	-	-
28-Sep	10:27	3A081	ZUI	Arrival	13.6	≤5	<1
28-Sep	10:40	8S212	MFM	Arrival	13.0	-	-
28-Sep	11:05	8S121	MFM	Departure	12.5	-	-
28-Sep	11:16	3A063	YFT	Arrival	12.3	-	-
28-Sep	11:43	3A168	YFT	Departure	12.7	-	-
28-Sep	12:19	3A181	ZUI	Departure	13.2	-	-
28-Sep	12:43	8S215	MFM	Arrival	13.2	-	-
28-Sep	13:01	3A064	YFT	Arrival	12.1	-	-
28-Sep	13:13	8S123	MFM	Departure	12.0	-	-
28-Sep	13:29	3A164	YFT	Departure	12.1	-	-
28-Sep	14:00	3A082	ZUI	Arrival	12.7	-	-
28-Sep	14:20	3A182	ZUI	Departure	12.4	-	-
28-Sep	14:57	3A065	YFT	Arrival	12.5	-	-
28-Sep	16:15	3A167	YFT	Departure	12.8	-	-
28-Sep	16:43	3A083	ZUI	Arrival	13.6	-	-
28-Sep	16:44	8S218	MFM	Arrival	12.7	-	-
28-Sep	16:55	3A067	YFT	Arrival	11.9	-	-
28-Sep	17:13	8S126	MFM	Departure	11.9	-	-
28-Sep	17:17	3A183	ZUI	Departure	13.2	-	-
28-Sep	20:01	3A084	ZUI	Arrival	13.1	-	-
28-Sep	20:18	3A185	ZUI	Departure	13.1	-	-
28-Sep	20:58	8S2113	MFM	Arrival	12.5	-	-
28-Sep	21:04	3A169	YFT	Departure	12.7	-	-
28-Sep	21:59	8S128	MFM	Departure	12.7	-	-
29-Sep	08:15	3A061	YFT	Arrival	12.5	-	-
29-Sep	08:28	8S210	MFM	Arrival	12.6	-	-
29-Sep	09:58	3A071	MFM	Arrival	11.4	-	-
29-Sep	10:29	3A081	ZUI	Arrival	12.3	-	-
29-Sep	10:40	8S212	MFM	Arrival	11.9	-	-
29-Sep	11:03	8S121	MFM	Departure	11.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Prevailing Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
29-Sep	11:23	3A063	YFT	Arrival	12.2	-	-
29-Sep	11:46	3A168	YFT	Departure	11.4	-	-
29-Sep	12:18	3A181	ZUI	Departure	11.7	-	-
29-Sep	12:49	8S215	MFM	Arrival	10.8	-	-
29-Sep	13:01	3A064	YFT	Arrival	11.6	-	-
29-Sep	13:15	8S123	MFM	Departure	11.8	-	-
29-Sep	13:27	3A164	YFT	Departure	11.6	-	-
29-Sep	14:00	3A082	ZUI	Arrival	12.1	-	-
29-Sep	14:20	3A182	ZUI	Departure	12.5	-	-
29-Sep	15:08	3A065	YFT	Arrival	12.8	-	-
29-Sep	16:20	3A167	YFT	Departure	11.3	-	-
29-Sep	16:33	3A083	ZUI	Arrival	12.1	-	-
29-Sep	16:41	8S218	MFM	Arrival	11.6	-	-
29-Sep	16:59	3A067	YFT	Arrival	11.2	-	-
29-Sep	17:04	8S126	MFM	Departure	11.7	-	-
29-Sep	17:08	3A183	ZUI	Departure	11.2	-	-
29-Sep	19:53	3A084	ZUI	Arrival	13.3	-	-
29-Sep	20:13	3A185	ZUI	Departure	13.0	-	-
29-Sep	20:50	8S2113	MFM	Arrival	11.8	-	-
29-Sep	20:58	3A169	YFT	Departure	13.5	-	-
29-Sep	21:53	8S128	MFM	Departure	12.4	-	-
30-Sep	08:24	3A061	YFT	Arrival	12.0	-	-
30-Sep	08:33	8S210	MFM	Arrival	11.4	-	-
30-Sep	09:50	3A071	MFM	Arrival	11.8	-	-
30-Sep	10:38	8S212	MFM	Arrival	12.7	-	-
30-Sep	10:44	3A081	ZUI	Arrival	12.1	-	-
30-Sep	11:07	8S121	MFM	Departure	13.2	-	-
30-Sep	11:32	3A063	YFT	Arrival	12.0	-	-
30-Sep	11:45	3A168	YFT	Departure	12.2	-	-
30-Sep	12:15	3A181	ZUI	Departure	12.1	-	-
30-Sep	12:34	8S215	MFM	Arrival	12.9	-	-
30-Sep	13:13	3A064	YFT	Arrival	11.0	-	-
30-Sep	13:22	8S123	MFM	Departure	11.7	-	-
30-Sep	13:34	3A164	YFT	Departure	10.2	-	-
30-Sep	13:36	3A082	ZUI	Arrival	12.0	-	-
30-Sep	14:13	3A182	ZUI	Departure	12.6	-	-
30-Sep	15:08	3A065	YFT	Arrival	12.1	-	-
30-Sep	16:19	3A167	YFT	Departure	12.2	-	-
30-Sep	16:38	8S218	MFM	Arrival	11.2	-	-
30-Sep	16:42	3A083	ZUI	Arrival	12.4	-	-
30-Sep	17:09	8S126	MFM	Departure	12.9	-	-
30-Sep	17:11	3A183	ZUI	Departure	13.0	-	-
30-Sep	17:18	3A067	YFT	Arrival	10.6	-	-
30-Sep	19:58	3A084	ZUI	Arrival	12.5	-	-
30-Sep	20:19	3A185	ZUI	Departure	13.3	-	-
30-Sep	20:58	3A169	YFT	Departure	12.8	-	-
30-Sep	21:03	8S2113	MFM	Arrival	11.4	-	-
30-Sep	21:57	8S522	MFM	Departure	11.4	-	-

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in September 2016, 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 18 HSF movements. The duration of instantaneous speeding of all 17 movements were less than 1 minute, whilst the remaining one movement lasted for less than 2 minute. After investigation, the AIS data and ferry operators' responses from 7 cases showed the cases were due to local strong water currents, which are public safety / emergency reason. The captain had reduced speed and maintained the speed at less than 15 knots after the public safety / emergency incidents. The remaining 11 cases are pending for FO's responses and under investigation.

Nineteen HSF movements with no or insufficient transmission of AIS data received in September. AIS data was retrieved from other sources such as Marine Traffic Data and Shipxy. Vessel captain was also requested to provide the radar track photos which indicated the vessel entered the SCZ though the gate access point and no speeding in the SCZ.