MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No. 96
(For December 2023)

January 2024

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Construction Phase Monthly EM&A Report No. 96 (For December 2023)

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Mott MacDonald Hong Kong Limited
registered in Hong Kong no. 236497

Airport Authority Hong Kong

This Monthly EM&A Report No. 96 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 12 January 2024

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By Email

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

Attn: Mr. Lawrence Tsui, Principal Manager, Environmental Compliance

12 January 2024

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 96 (December 2023)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 96 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 12 January 2024.

We would like to inform you that we have no adverse comment and verify the captioned submission in accordance with the requirement stipulated in Condition 3.5 of EP-489/2014.

Should you have any query, please feel free to contact the undersigned at 37290380.

Yours faithfully,
AECOM Asia Co. Ltd.

Roy Man
Independent Environmental Checker

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Abbreviations

3RS	Three-Runway System
AAHK	Airport Authority Hong Kong
AECOM	AECOM Asia Company Limited
AFCD	Agriculture, Fisheries and Conservation Department
AIS	Automatic Information System
ANI	Encounter Rate of Number of Dolphins
APM	Automated People Mover
AW	Airport West
BHS	Baggage Handling System
C&D	Construction and Demolition
CAP	Contamination Assessment Plan
CAR	Contamination Assessment Report
CTCC	Construction Traffic Control Centre
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EP	Environmental Permit
EPD	Environmental Protection Department
EPSS	Emergency Power Supply Systems
ET	Environmental Team
FCZ	Fish Culture Zone
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HOKLAS	Hong Kong Laboratory Accreditation Scheme
HSF	High Speed Ferry
HVS	High Volume Sampler
IEC	Independent Environmental Checker
LKC	Lung Kwu Chau
MMHK	Mott MacDonald Hong Kong Limited
MMWP	Marine Mammal Watching Plan
MSS	Maritime Surveillance System
MTRMP-CAV	Marine Travel Routes and Management Plan for Construction and Associated Vessel
NEL	Northeast Lantau
NWL	Northwest Lantau
PAM	Passive Acoustic Monitoring
PM	Project Manager
SC	Sha Chau
SCZ	Speed Control Zone
SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park
SS	Suspended Solids
SSSI	Site of Special Scientific Interest
STG	Encounter Rate of Number of Dolphin Sightings

SWL	Southwest Lantau
T2	Terminal 2
The Project	The Expansion of Hong Kong International Airport into a Three-Runway System
The SkyPier Plan	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier
The Manual	The Updated EM&A Manual
TSP	Total Suspended Particulates
WL	West Lantau
WMP	Waste Management Plan

Executive summary

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

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

This is the 96th Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 31 December 2023.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included rock armour laying works, land improvement works and filling works, pavement works, concourse superstructure works, tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 expansion works, modification and tunnel work for APM and BHS, utilities works, road and drainage works, demolition, piling, excavation works, and 132kV cable laying works.

EM&A Activities Conducted in the Reporting Period

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

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	36
Noise monitoring	18
Post-construction phase water quality monitoring	4
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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

The post-construction phase water quality monitoring was conducted from 14 November 2023 to 9 December 2023. The post-construction phase water quality monitoring schedule is provided in **Appendix B**. The construction phase CWD monitoring was continued until the end of December 2023 so as to collect a full-year set of monitoring data to facilitate evaluation of CWD abundance

on an annual basis. A post-construction phase CWD monitoring includes vessels line-transect survey and passive acoustic monitoring would be carried out for 12 months. The post-construction phase CWD monitoring would be commenced in January 2024.

Snapshots of EM&A Activities in the Reporting Period

Checking of Wastewater Treatment Facility by ET	Chemical spill drill conducted by Contractor	Ad hoc inspection at West Gate was conducted by ET

Results of Impact Monitoring

The monitoring works for construction dust, construction noise, construction waste, landscape & visual, and CWD were conducted during the reporting period in accordance with the Updated EM&A Manual.

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

Summary of Upcoming Key Issues

Contract 3206 Main Reclamation Works

- Filling materials delivery;
- Backfilling works; and
- Construction of temporary platform.

Airfield Works

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Stormwater drainage diversion works;
- Defect fixing inside tunnel; and
- Underground utilities works.

Contract 3305 Airfield Ground Lighting System

- Enhanced vehicular warning light hardware installation;
- Power supply system installation; and
- Cable containment installation.

Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS

- Equipment installation; and
- Structured cabling.

Contract 3308 Foreign Object Debris Detection System

- Construction of foundation; and
- Tower modification works.

Contract 3310 North Runway Modification Works

- Architectural, builder's work and finishing works;
- Pavement works for runway;

- Construction of stormwater drainage;
- Construction of vehicular tunnel;
- Aviation fuel pipe works;
- Construction of box culvert; and
- Land improvement works (Transition layer and backfilling works).

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Electrical and mechanical works; and
- Backfilling works.

Contract 3404 Integrated Airport Control System

- System maintenance; and
- Cable laying works.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Structure works; and
- Tunnel concreting and backfilling works.

Contract 3408 Third Runway Concourse and Apron Works

- Building services and architectural, builder's work and finishing works;
- Fuel pipe installation works;
- Utilities works;
- Marine sediment treatment works;
- Erection works for concrete batching plant;
- Excavation and reinforced concrete works; and
- Cable Laying Works.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Pier and deck construction;
- Drainage construction;
- Roof works;
- Crossroad duct laying works;
- Construction of beams and columns;
- Electrical and mechanical works;
- Pump station and electrical station works; and
- Architectural, builder's work and finishing works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Guide beam installation.

Contract 3602 Existing APM System Modification Works

- Concrete plinth construction; and
- Cabling works.

Contract 3603 Baggage Handling System (BHS)

- BHS installation; and
- Steel work installation.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Backfilling works;
- Road reinstatement works;
- Retaining wall construction; and
- Drainage and underground utilities reinstatement works.

Contract 3802 APM and BHS Tunnels and Related Works

- Excavation and lateral supports;
- Box culvert construction and superstructure works; and
- APM and BHS Tunnel construction.

Contract 3804 East and Landside Fire Stations

- Site setup and formation works;
- Bored pile works;
- Raft foundation, footing and superstructure works; and
- Underground Utilities Works.

Contract 3805 New Airport District Police Operational Base

- Bored pile works.

Construction Support (Services / Licences):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3908 Quay Management Services

- Provision of services of site management and logistic control of 3RS quays; and
- Provision of flat top barge and vehicle delivery services between the launching point in Hong Kong and 3RS quays.

Contract 3913 Asphalt Batching Plant

- Operation of asphalt batching plant.

Utilities:

132kV Cable

- Cold-milling and resurfacing; and
- Cable trenching, duct installation and backfilling.

Summary Table

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

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level^		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level^		√	No breach of Action Level was recorded.	Nil
Complaint Received	√		In the previous reporting period, a complaint regarding dust nuisance at South	ET requested the relevant contractor to provide information regarding the complaints and replies indicated both the wheel washing and road washing

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
			Perimeter Road was received on 21 November 2023.	arrangements were enhanced by the contractor. During the ET's inspections, manual and automatic wheel washing, and road sweeping and washing were observed in operation at the concerned area. Having said that, the relevant contractor was reminded to ensure vehicles are properly washed before leaving works areas and ensure no sand and gravel would be deposited outside works areas. Hence, the case was considered closed.
			In the previous reporting period, another complaint regarding dust nuisance at South Perimeter Road was received on 21 November 2023.	
			In the previous reporting period, a complaint regarding sand and gravel issue at South Perimeter Road was received on 21 November 2023.	
			In the previous reporting period, a complaint regarding sand and gravel issue at South Perimeter Road was received on 27 November 2023.	
			A complaint regarding alleged environmental nuisance at Cheong Yip Road was received on 12 December 2023.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding alleged dust nuisance at South Perimeter Road was received on 18 December 2023.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
Notification of any summons and status of prosecutions		√	No notification of summons nor prosecution was received.	Nil
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note:
^ Only triggering of Action or Limit Level found related to Project works is counted as Breach of Action or Limit Level.

1 Introduction

1.1 Background

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

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1[1]. 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 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 summary of construction works programme can be referred to **Section 1.4**.

1.2 Scope of this Report

This is the 96th Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 December 2023.

1.3 Project Organisation

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

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leaders	Heidi Yu	2828 5704
		Ken Wong	2828 5817

[1] The Manual is available on the Project's dedicated website (accessible at: http://env.threerunwaysystem.com/en/index.html).

Party	Position	Name	Telephone
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Roy Man	3729 0380
	Deputy Independent Environmental Checker	Jackel Law	3856 5312

Reclamation Works:

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Alan Mong	3763 1352
	Environmental Officer	Zhang Bin Wang	3763 1525

Airfield Works:

Party	Position	Name	Telephone
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Dickey Yau	5699 4503
	Environmental Officer	Dennis Ho	5645 0563
Contract 3305 Airfield Ground Lighting System (ADB Safegate Hong Kong Limited)	Project Manager	Allam Al-Turk	2944 9725
	Environmental Officer	Ivan Ting	9222 9490
Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS (Chinney Alliance Engineering Limited)	Project Director	Dennis Yam	9551 9920
	Environmental Officer	Richard Liu	9216 8990
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Ken Tang	9640 5397
	Environmental Officer	Ferddy Leung	5585 6746
Contract 3308 Foreign Object Debris Detection System (DAS Aviation Services Group)	Project Manager	Jeffrey Yau	9873 7422
Contract 3310 North Runway Modification Works (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Federick Wong	9842 2703

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Project Manager	Wyman Lau	6112 9753
	Health Safety Environmental Manager	Mike Leung	6625 2550

Party	Position	Name	Telephone
Contract 3403 New Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Project Manager	Alice Leung	9220 3162
	Environmental Officer	Ray Cheung	9785 1566
Contract 3404 Integrated Airport Control System (Shun Hing Systems Integration Co., Ltd.)	Project Manager	Andy Ng	9102 2739
	Safety and Environmental Manager	Josephine Chang	9383 7705
Contract 3405 Third Runway Concourse Foundation and Substructure Works (China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Project Manager	Francis Choi	9423 3469
	Environmental Officer	Jacky Lai	9028 8975
Contract 3408 Third Runway Concourse and Apron Works (Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture)	Senior HSE Manager	Qian Zhang	5377 7976
	Environmental Officer	Malcolm Leung	7073 7559

Terminal 2 (T2) Expansion:

Party	Position	Name	Telephone
Contract 3508 Terminal 2 Expansion Works (Gammon Engineering & Construction Company Limited)	Project Director	Richard Ellis	6201 5637
	Environmental Officer	Endy Tse	6228 7768

Automated People Mover (APM) and Baggage Handling System (BHS):

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	H Y Yue	9185 8186
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Xia Bo	6586 4950
	Environmental Officer	Y M Tong	5316 9801
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Richard Ng	9802 9577

Construction Support (Facilities):

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction Engineering (Hong Kong) Ltd.)	Senior Project Manager	Thomas Lui	9011 5340
	Environmental Officer	John Mak	6273 8703
Contract 3728 Minor Site Works (Shun Yuen Construction Company Limited)	Contract Manager	C K Liu	9194 8739
	Environmental Officer	Dan Leung	6856 5899
Contract 3733 Emergency Repair Service (Wing Hing Construction Co., Ltd.)	Project Manager	Michael Kan	9206 0550
	Safety Health Environmental Manager	Mike Leung	6625 2550

Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Eunice Kwok	9243 1331
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Engineering & Construction Company Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Ruby Hui	6218 6408
Contract 3804 East and Landside Fire Stations (Beijing Urban Construction Group Company Limited - Beijing Urban Construction International Company Limited - Kin Shing (Leung's) General Contractors Ltd Joint Venture)	Project Manager	Mr. Zhang Xianda	4661 6818
	Environmental Officer	Ms. Kimberly Wong	5542 1669
Contract 3805 New Airport District Police Operational Base (Chinney Construction Co., Ltd.)	Project Manager	Cheuk Wing Wai	9339 8321
	Environmental Officer	Mike Li	6306 8547

Construction Support (Services / Licences):

Party	Position	Name	Telephone
Contract 3901A Concrete Batching Facility (K. Wah Concrete Company Limited)	Project Manager	Benedict Wong	9553 2806
	Environmental Officer	C P Fung	9874 2872

Party	Position	Name	Telephone
Contract 3901B Concrete Batching Facility (Gammon Construction Limited)	General Manager	Gabriel Chan	2435 3260
	Environmental Officer	Rex Wong	2695 6319
Contract 3908 Quay Management Services (Gitanes – Crown Asia Joint Venture)	Project Manager	Mr. Ian Li	9750 6438
	Environmental Officer	Mr. Tang Kai Fun	9406 3526
Contract 3913 Asphalt Batching Plant (SPR Joint Venture)	Project Manager	Xie Yi Sheng	6580 6005
	Environmental Officer	Kenneth Chan	9300 2182

Utilities:

Party	Position	Name	Telephone
132 kV Cable (CLP Power Hong Kong Limited / Kum Shing (K.F.) Construction Company Limited)	Engineer	Ken Fung	6391 9087
	Project Engineer	Ivan Shek	9822 5836

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included rock armour laying works, land improvement works and filling works, pavement works, concourse superstructure works, tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 expansion works, modification and tunnel work for APM and BHS, utilities works, road and drainage works, demolition, piling, excavation works, and 132kV cable laying.

The locations of key construction activities are presented in **Figure 1.1**.

1.5 Summary of EM&A Programme Requirements

The status for all environmental aspects are presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period.

Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual

Parameters	EM&A Requirements	Status
Air Quality		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
Noise		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.

Parameters	EM&A Requirements	Status
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result was reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides.	General impact water quality monitoring for water jetting works was completed on 23 May 2017. The impact water quality monitoring was terminated after 31 October 2023.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022 and would be resumed if there are marine-based DCM works in the coming future.
Post-construction phase water quality monitoring	Three days per week, at mid-flood and mid-ebb tides for four weeks	The four-week post-construction phase water quality monitoring exercise was completed on 9 December 2023.
Sewerage and Sewage Treatment		
Methodology for carrying out annual sewage flow monitoring for concerned gravity sewer	Methodology to be prepared and submitted to EPD one year before the scheduled commencement of operation of the proposed third runway	The proposed methodology of the annual sewage flow monitoring was approved by EPD. The annual flow monitoring was started from June 2021 and completed in 2022.
Details of the routine H_2S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The H_2S monitoring proposal was accepted by EPD in Jun 2023.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted and approved by EPD under EP Condition 2.20.
Site Re-appraisal Summary Report for Fire Training Facility	Site Re-appraisal Summary Report for Fire Training Facility	Site Re-appraisal Summary Report for Fire Training Facility was accepted by EPD in December 2023.
Contamination Assessment Report (CAR) for Golf Course	CAR to be submitted for golf course	The CAR for Golf Course was submitted and accepted by EPD.
Contamination Assessment Reports (CAR) for Terminal 2 Emergency Power Supply Systems	CAR to be submitted for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply Systems were submitted and accepted by EPD.
Terrestrial Ecology		

Parameters	EM&A Requirements	Status
Pre-construction Egretry Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Monthly monitoring during the HDD construction works period from August to March.	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology		
Pre-Construction Phase Coral Dive Survey	Prior to marine construction works	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	-	The coral translocation was completed.
Post-Translocation Coral Monitoring	As per an enhanced monitoring programme based on the Coral Translocation Plan	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
Chinese White Dolphins (CWD)		
Baseline Monitoring	6 months of baseline surveys before the commencement of land formation related construction works. Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: Two days per month at the Sha Chau station and two days per month at the Lung Kwu Chau station; and Passive Acoustic Monitoring (PAM): For the whole duration of baseline period.	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: One day per month at the Sha Chau station and one day per month at the Lung Kwu Chau station; and PAM: For the whole duration for land formation related construction works.	The construction phase CWD monitoring was continued until the end of December 2023 so as to collect a full-year set of monitoring data to facilitate evaluation of CWD abundance on an annual basis.
Post-construction Phase Monitoring	12 months of post monitoring upon the completion of marine construction works. Vessel line transect surveys: Two full surveys per month; and PAM: For the whole duration of post monitoring.	Post monitoring will be commenced from January 2024.
Landscape & Visual		
Landscape & Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Establishment Works Monitoring	Bi-monthly	On-going
Long Term Management (10 years) Monitoring	Annually	On-going
Environmental Auditing		

Parameters	EM&A Requirements	Status
Regular site inspection	Weekly	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	No Marine Mammal Watching Plan (MMWP) implementation measures during this reporting period.
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels Implementation measures	Monitor and check	On-going
Silt Curtain Deployment Plan implementation measures	Monitor and check	No Silt Curtain Deployment Plan implementation measures during this reporting period.
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

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

- Seventeen environmental management meetings for EM&A review with works contracts: 1, 6, 7, 8, 14, 18, 19, 20, 21, 22 & 27 December 2023.

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

2 Air Quality Monitoring

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

Table 2.1: Locations of Impact Air Quality Monitoring Stations

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

2.1 Action and Limit Levels

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

Table 2.2: Action and Limit Levels of Air Quality Monitoring

Monitoring Station	Action Level (mg/m^3)	Limit Level (mg/m^3)
AR1A	306	500
AR2	298	

2.2 Monitoring Equipment

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

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-2 (Serial No. 296098)	18 Sep 2023	Appendix E of Monthly EM&A Report No. 94

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

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

a. The portable direct reading dust meter was mounted on a tripod at a height of 1.2m above the ground.
b. Prior to the measurement, the equipment was set up for 1 minute span check and 6 second background check.
c. The one hour dust measurement was started. Site conditions and dust sources at the nearby area were recorded on a record sheet.

d. When the measurement completed, the “Count” reading per hour was recorded for result calculation.

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix E of the Monthly EM&A Report No. 94 and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are valid in the reporting period.

2.4 Summary of Monitoring Results

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

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

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (mg/m^3)	Action Level (mg/m^3)	Limit Level (mg/m^3)
AR1A	39 - 99	306	500
AR2	34 - 115	298	

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

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

2.5 Conclusion

No dust emission source was observed at the monitoring stations during the monitoring sessions. As the sensitive receivers were far away from the construction activities, with the implementation of dust control measures, there was no adverse impact at the sensitive receivers attributable to the works of the Project.

3 Noise Monitoring

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

Table 3.1: Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Type of measurement
NM1A	Man Tung Road Park	Free field
NM2(1)	Tung Chung West Development	To be determined
NM3A(2)	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

Notes:
(1) As described in Section 4.3.3 of the Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.

(2) According to Section 4.3.3 of the Manual, the noise monitoring at NM3A was temporarily suspended starting from 1 September 2018 and would be resumed with the completion of the Tung Chung East Development.

3.1 Action and Limit Levels

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

Table 3.2: Action and Limit Levels for Noise Monitoring

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

Note:
(1) The Limit Level for NM4 is reduced to 70dB(A) for being an educational institution. During school examination period, the Limit Level is further reduced to 65dB(A).

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 00998505)	19 Mar 2023	Appendix D of Monthly EM&A Report No.87
Integrated Sound Level Meter	Rion NL-52 (Serial No. 01287679)	22 Oct 2023	Appendix D of Monthly EM&A Report No.95
Acoustic Calibrator	Castle GA607 (Serial No. 040162)	19 Mar 2023	Appendix D of Monthly EM&A Report No.87
Acoustic Calibrator	Casella CEL-120 (Serial No. 2383737)	18 Jun 2023	Appendix D of Monthly EM&A Report No.91

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

a. The sound level meter was set on a tripod at least a height of 1.2m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3dB(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 1dB(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, when higher than the baseline monitoring levels, were corrected with reference to the baseline monitoring levels.
g. Observations were recorded when high intrusive noise (e.g. dog barking, helicopter noise) was observed during the monitoring.

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

a. The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
b. The meter and calibrator were sent to the supplier or laboratory accredited under Hong Kong Laboratory Accreditation Scheme (HOKLAS) to check and calibrate at yearly intervals.

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

3.4 Summary of Monitoring Results

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

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A) $L_{eq\ (30mins)}$	Limit Level, dB(A) $L_{eq\ (30mins)}$
NM1A[(1)]	64 - 65	75
NM4[(1) (3)]	63 - 64	70[(2)]
NM5[(1) (3)]	53 - 64	75
NM6[(1) (3)]	62 - 71	75

Notes:

(1) +3dB(A) Façade correction included;

(2) The limit level will be reduced to 65dB(A) during school examination periods at NM4. School examination took place from 6 to 13 December 2023 during this reporting period.

(3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring results.

No complaints were received from any sensitive receiver as listed in **Table 3.1** that triggered the Action Level. All monitoring results were within the corresponding Limit Levels at all monitoring stations in the reporting period.

3.5 Conclusion

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

4 Water Quality Monitoring

With the completion of land formation works in the first quarter of 2023, termination of the construction phase water quality impact monitoring was proposed to EPD with approval granted on 30 October 2023. The water quality impact monitoring was terminated after 31 October 2023. A post-construction phase water quality monitoring exercise was carried out for four weeks according to Section 5.1.10.1 of the Updated EM&A Manual, in the same manner as the impact monitoring at all monitoring stations during construction phase, from 14 November 2023 to 9 December 2023. The post-construction phase water quality monitoring schedule is provided in **Appendix B** and the detailed monitoring results are presented in **Appendix C**.

Post-construction phase water quality monitoring of DO, pH, temperature, salinity, turbidity, and suspended solids (SS), total alkalinity, Chromium, and Nickel has been conducted three days per week, at mid-ebb and mid-flood tides, at a total of 23 water quality monitoring stations, comprising 12 impact (IM) stations, 8 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. **Table 4.1** describes the details of the monitoring stations and the control and impact stations during ebb tide and flood tide for post-construction phase water quality monitoring are presented in **Table 4.2**. **Figure 4.1** shows the locations of the monitoring stations.

Table 4.1: Monitoring Locations of Post-construction Phase Water Quality Monitoring

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals
C2	Control Station	806945	825682	
C3[(2)]	Control Station	817803	822109	
IM1	Impact Station	806458	818351	
IM2	Impact Station	806193	818852	
IM3	Impact Station	806019	819411	
IM4	Impact Station	805039	819570	
IM5	Impact Station	804924	820564	
IM6	Impact Station	805828	821060	
IM7	Impact Station	806835	821349	
IM8	Impact Station	807838	821695	
IM9	Impact Station	808811	822094	
IM10	Impact Station	809838	822240	
IM11	Impact Station	810545	821501	
IM12	Impact Station	811519	821162	
SR1A[(1)]	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR2	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters

Monitoring Station	Description	Coordinates		Parameters
				Total Alkalinity, Heavy Metals
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	
SR5A	San Tau Beach SSSI	810696	816593	
SR6(4)	Tai Ho Bay, Near Tai Ho Stream SSSI	814663	817899	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8(3)	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390	

Notes:

(1) With the operation of HKBCF, water quality monitoring at SR1A station was commenced on 25 October 2018. To better reflect the water quality in the immediate vicinity of the intake, the monitoring location of SR1A was shifted closer to the intake starting from 5 January 2019.
(2) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference was changed from C3 to SR2 from 1 September 2016 onwards.
(3) Since construction activities and temporary structures for Tung Chung New Town Extension no longer exist, SR6 is adopted according to the Baseline Water Quality Monitoring Report.

Table 4.2: The Control and Impact Stations during Flood Tide and Ebb Tide for Post-construction Phase Water Quality 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

Note:

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

4.1 Monitoring Equipment

Table 4.3 summarises the equipment used in the post-construction phase water quality monitoring for specific water quality parameters under the water quality monitoring programme.

Table 4.3: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI ProDSS (Serial No. 16H104233)	15 Sep 2023	Appendix D of Monthly EM&A Report No. 93
	YSI ProDSS (Serial No. 21K101468)	15 Sep 2023	Appendix D of Monthly EM&A Report No. 93
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N60623)	7 Nov 2023	Appendix D of Monthly EM&A Report No. 95

Other equipment used as part of the post-construction phase water quality monitoring are listed in **Table 4.4**.

Table 4.4: Other Monitoring Equipment

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

4.2 Monitoring Methodology

4.2.1 Measuring Procedure

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

The water samples for all monitoring parameters were collected, stored, preserved and analysed according to the Standard Methods, APHA 22nd ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including temperature, pH, DO, turbidity, salinity, alkalinity and water depth were collected by equipment listed in **Table 4.3** and **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 4ºC without being frozen), delivered to the laboratory within 24 hours of collection.

4.2.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

Calibration certificates of the monitoring equipment used in the post-construction phase water quality monitoring are listed in **Table 4.3**.

4.2.3 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 were 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
SS	Analytical Balance	APHA 2540D	2mg/l
Heavy Metals			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2µg/l
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2µg/l

4.3 Summary of Monitoring Results

The four-week post-construction phase water quality monitoring was conducted from 14 November 2023 to 9 December 2023. The post-construction phase water quality monitoring schedule is provided in **Appendix B**. The detailed monitoring results and the summary table are presented in **Appendix C**. The comparison between the baseline, construction phase and post-construction phase monitoring results will be presented in the Annual EM&A report for 2023 and Final EM&A report.

4.4 Conclusion

With the completion of land formation works in the first quarter of 2023, the water quality impact monitoring was terminated after 31 October 2023. A post-construction phase water quality monitoring exercise would be carried out for four weeks according to Section 5.1.10.1 of the Updated EM&A Manual, in the same manner as the impact monitoring at all monitoring stations as listed in **Table 4.1** during construction phase. The post-construction phase water quality monitoring was commenced on 14 November 2023 and was completed on 9 December 2023. The detailed monitoring results are presented in **Appendix C**.

5 Waste Management

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

5.1 Action and Limit Levels

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

Table 5.1: Action and Limit Levels for Construction Waste

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

5.2 Waste Management Status

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

Recommendations made included provision and maintenance of proper chemical waste storage area, as well as handling, segregation, and regular disposal of general refuse. The contractors have taken actions to implement the recommended measures. Waste management audits were carried out by ET according to the requirement of the Waste Management Plan, Updated EM&A Manual and the implementation schedule of the waste management mitigation measures in **Appendix A**.

Based on updated contractors' information, construction waste generated in the reporting period is summarised in **Table 5.2**. The ET and IEC have carried out site audits regularly and reviewed the trip ticket system. Dedicated areas for sorting of materials are established on site. Recyclable materials such as steel bar, metal strip, aluminium, paper and plastic are sorted on-site and transported off-site for recycling during this reporting period.

Table 5.2: Construction Waste Statistics

	C&D Material Stockpiled for Reuse or Recycle[1] (m3)	C&D Material Reused in the Project (m3)	C&D Material Reused in other Projects (m3)	C&D Material Transferred to Public Fill (m3)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
Jun 2023[2]	45	9,019	718	4,750	0	0	3,216
Oct 2023[2]	0	2,440	64	6,902	0	0	3,958
Nov 2023[2]	0	4,170	0	7,731	1,200	7,200	5,029
Dec 2023[3]	0	3,498	0	4,451	400	0	4,135

Notes:

(1) C&D refers to Construction and Demolition.
(2) Updated figures were provided by contractors.
(3) The data was based on the information provided by contractors up to the submission date of this Monthly EM&A Report and might be updated in the forthcoming Monthly EM&A Report.

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

5.3 Marine Sediment Management

Marine sediment is managed according to the EIA Report, Updated EM&A Manual, Waste Management Plan and the proposal of Further Development on Treatment Level / Details and the Reuse Mode for Marine Sediment (hereinafter referred to as “Further Development Proposal”) of the Project. The sampling process, storage conditions of the excavated marine sediment, treatment process, final backfilling location as well as associated records were inspected and checked by ET and verified by IEC to ensure they were in compliance with the requirements as stipulated in the Waste Management Plan and Further Development Proposal.

Backfilling works for treated marine sediment were conducted during the reporting period.

6 Chinese White Dolphin Monitoring

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

The small vessel line-transect survey should be conducted at a frequency of two full surveys per month, while land-based theodolite tracking survey should be conducted at a frequency of one day per month per station at Sha Chau (SC) and Lung Kwu Chau (LKC) during the construction phase as stipulated in the Manual.

6.1 Action and Limit Levels

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

Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring

	NEL, NWL, AW, WL and SWL as a Whole
Action Level[3]	Running quarterly[1] STG < 1.86 & ANI < 9.35
Limit Level[3]	Two consecutive running quarterly[2] (3-month) STG < 1.86 & ANI < 9.35

Notes: (referring to the baseline monitoring report)

(1) Action Level – running quarterly encounter rates STG & ANI of this month will be calculated from the reporting period and the two preceding survey months.

(2) Limit Level – two consecutive running quarters mean both the running quarterly encounter rates of the preceding month and the running quarterly encounter rates of this month.

(3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

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

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

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

Waypoint	Easting	Northing	Waypoint	Easting	Northing
		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	5S	808504	821735
1N	804671	831404	5N	808504	828602
2Sb	805475	815457	6S	809490	822075
2Nb	805476	818571	6N	809490	825352
2Sa	805476	820770	7S	810499	822323
2Na	805476	830562	7N	810499	824613
3S	806464	821033	8S	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	9S	812516	821356
4N	807518	829230	9N	812516	824254
		AW			
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
		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			
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 Survey

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

Table 6.3: Land-based Theodolite Survey Station Details

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

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

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

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

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

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

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

A 15-20m vessel with a flying bridge observation platform about 4 to 5m above water level and unobstructed forward view, and a team of three to four observers were deployed to undertake the surveys. Two observers were on search effort at all times when following the transect lines with a constant speed of 7 to 8 knots (i.e. 13 to 15 km per hour), one using 7X handheld binoculars and the other using unaided eyes and recording data.

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

When CWDs were seen, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+

telephoto lens), then followed until they were lost from view. At that point, the boat returned (off effort) to the survey line at the closest point after obtaining photo records of the dolphin group and began to survey on effort again.

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

6.3.2 Photo Identification

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

When CWDs were observed, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+ telephoto lens). The survey team attempted to photograph 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 Project during the baseline monitoring stage.

6.3.3 Land-based Theodolite Tracking Survey

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

Three surveyors (one theodolite operator, one computer operator, and one observer) were involved in each survey. Observers searched for dolphins using unaided eyes and handheld binoculars (7X50). Theodolite tracking sessions were initiated whenever an individual CWD or group of CWDs was located. Where possible, a distinguishable individual was selected, based on colouration, within the group. The focal individual was then continuously tracked via the theodolite, with a position recorded each time the dolphin surfaced. In case an individual could not be positively distinguished from other members, the group was tracked by recording positions based on a central point within the group whenever the CWD surfaced. Tracking continued until animals were lost from view; moved beyond the range of reliable visibility (>1-3km, 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 2-3km of the station were tracked, with effort made to obtain at least two positions for each vessel.

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

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 4, 11, 13, 14, 18, 19, 27 and 28 December 2023 covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

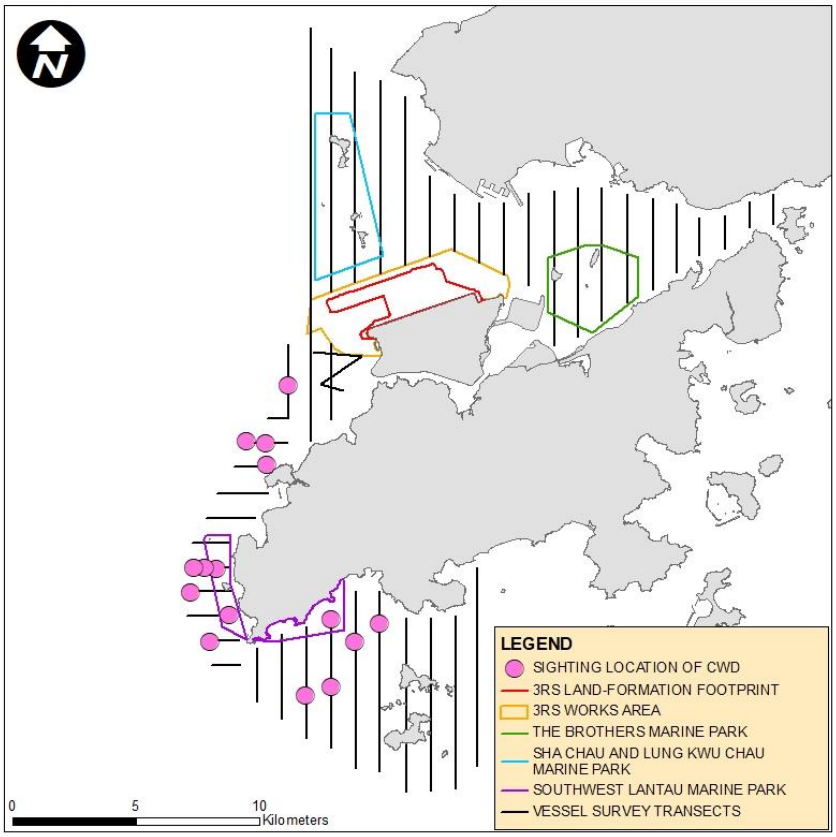
A total of around 444.27 km of survey effort was collected from these surveys and around 429.07 km survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In the current reporting period, 15 sightings with 31 dolphins were sighted. All these sightings were on-effort records under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of dolphin sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in the current reporting period is illustrated in **Figure 6.3**. In WL, most of the CWD sightings were scattered at the northern waters of Tai O and near Peaked Hill. In SWL, five CWD sightings were recorded in water between Fan Lau Tung Wan and Shek Pik. There was no CWD sighting recorded in NEL and NWL survey areas during the reporting period.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Remarks: (1) Please note that there are 15 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Encounter Rate

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

Encounter Rate by Number of Dolphin Sightings (STG)

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

Encounter Rate by 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 were used)

In this reporting period, a total of around 429.07 km of survey effort was conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 15 on-effort sightings with 31 dolphins were sighted under such condition. Calculation of the encounter rates for the month are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from October to December 2023), a total of around 1312.21 km of survey effort was conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 33 on-effort sightings and a total number of 99 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e., NEL, NWL, AW, WL and SWL) during the reporting period and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. Although the running quarterly encounter rate ANI fall below the Action Level, the Action Level is not triggered as the running quarterly STG remain above the Action Level.

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

	Encounter Rate (STG)	Encounter Rate (ANI)
December 2023	3.50	7.22
Running Quarter from October to December 2023(1)	2.51	7.54
Action Level	Running quarterly(1) STG < 1.86 & ANI < 9.35	

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

Group Size

In the current reporting period, 15 groups of 31 dolphins in total were sighted, and the average group size of CWDs was 2.1 dolphins per group. The majority of the CWD sightings was having small group size (i.e. 1-2 dolphins). There was no CWD sighting with large group size (i.e. 10 or more dolphins) recorded.

Activities and Association with Fishing Boats

There were five CWD sightings recorded engaging in foraging activities in the current reporting period in WL and SWL survey areas. One sighting with a single dolphin in SWL was observed in association with operating purse seiner.

Mother-calf Pair

In this reporting period, there was one sighting with the presence of mother-and-unspotted juvenile pair recorded in WL.

6.4.2 Photo Identification

In the current reporting period, a total number of 16 different CWD individuals were identified for totally 18 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
SLMM002	27-Dec-23	7	WL	SLMM050	27-Dec-23	7	WL
SLMM003	27-Dec-23	5	WL	SLMM058	27-Dec-23	7	WL
SLMM023	27-Dec-23	9	WL	WLMM001	27-Dec-23	7	WL
SLMM031	27-Dec-23	6	WL	WLMM068	27-Dec-23	4	WL
		8	WL	WLMM109	27-Dec-23	7	WL
SLMM034	11-Dec-23	1	SWL	WLMM112	27-Dec-23	4	WL
		2	SWL	WLMM113	27-Dec-23	4	WL
SLMM037	11-Dec-23	2	SWL	WLMM162	27-Dec-23	4	WL
SLMM044	27-Dec-23	9	WL	WLMM194	27-Dec-23	8	WL

6.4.3 Land-based Theodolite Tracking Survey

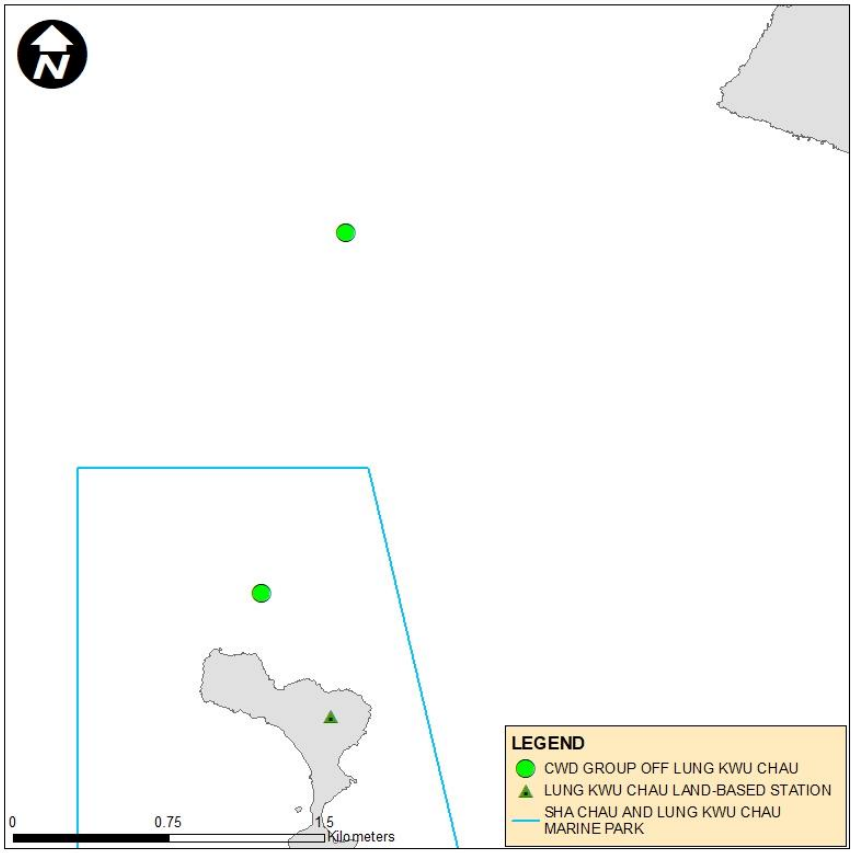
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 15 December 2023 and at SC on 27 December 2023, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. Two groups of CWDs were tracked off at LKC while no CWD were tracked off at SC stations during the reporting period. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix C**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking survey in December 2023 were depicted in 4.

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

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau (LKC)	1	6:00	2	0.33
Sha Chau (SC)	1	6:00	0	0
TOTAL	**2**	**12:00**	**2**	**0.17**

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



6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. Both C-POD and F-POD are considered as effective PAM devices in detecting CWD occurrence, and F-POD was the main PAM device deployed where feasible. During this reporting period, the F-POD was remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.4**). The F-POD was last deployed on 1 November 2023 and the next retrieval is schedule in early January 2024. Acoustic data would be reviewed to give an indication of CWD occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, four dolphin observation stations and teams of at least two dolphin observers were deployed by the contractor for continuous monitoring of the DEZ for rock armour laying works in accordance with the DEZ Plan. One training session for the proposed dolphin observers on the implementation of DEZ monitoring were provided by the ET during this reporting period, with a cumulative total of 709 individuals being trained and the training records kept by the ET. From the contractors' records, no dolphin or other marine mammals were observed during this reporting month. These contractors' records were also audited by the ET during site inspection.

Audits of SkyPier high speed ferries route diversion and speed control and construction vessel management are presented in **Section 7.4** and **Section 7.5** respectively.

6.7 Timing of reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

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

Although the 3RS land formation works were completed in the first quarter of 2023, the construction phase CWD monitoring was continued until the end of December 2023 so as to collect a full-year set of monitoring data to facilitate evaluation of CWD abundance on an annual basis. The post-construction phase CWD monitoring will be commenced in January 2024. The tentative post-construction phase CWD monitoring schedule is provided in **Appendix B**.

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

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

During site inspections, environmental situation, status of implementation of pollution control and mitigation measures were observed. Environmental documents and site records, including waste disposal record, maintenance record of environmental equipment, and relevant environmental permit and licences, were also checked on site. Observations were recorded in the site inspection checklist and passed to the contractor together with the recommended mitigation measures where necessary in order to advise contractors on environmental improvement, awareness and on-site enhancement measures. The observations were made with reference to the following information during the site inspections:

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

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

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

7.2 Landscape and Visual Mitigation Measures

Implementation of applicable landscape and visual mitigation measures (reference to the environmental protection measures CM1 – CM10 and OM7 in **Appendix A**) was monitored in accordance with the Manual. All measures undertaken by both the contractor and the landscape contractor during the construction phase and first year of the operation phase shall be audited by a landscape architect, as a member of the ET, on a regular basis to ensure compliance with the intended aims of the measures. Site inspections shall be undertaken at least once every two months during the operation phase.

The implementation status of the environmental protection measures is summarized below in **Table 7.1**. Examples of landscape and visual mitigation measures are shown in **Table 7.2**. The monitoring programme for detailed design, construction, establishment works and long term management (10 years) stages is presented in **Table 7.3**. Event and Action Plan for Landscape and Visual impacts is stated in **Table 7.4**.

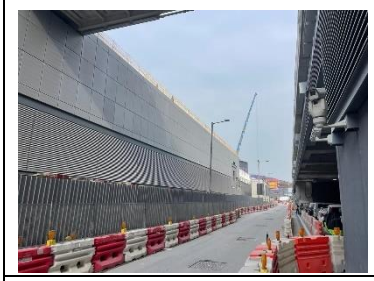
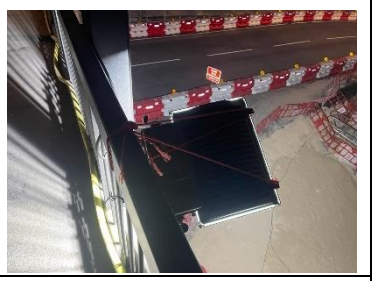
Table 7.1: Landscape and Visual – Construction Phase Audit Summary

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
CM1- The construction area and contractor's temporary works areas shall be minimised to avoid impacts on adjacent landscape.	The implementation of mitigation measures was checked by ET during weekly site inspection and reported by the Contractors during the monthly Environmental Management Meetings. Implementation of the measures CM5, CM6 and CM7 by Contractors was observed.	All works contracts
CM2 – Reduction of construction period to practical minimum		
CM3 – Phasing of the construction stage to reduce visual impacts during the construction phase.		
CM4 – Construction traffic (land and sea) including construction plants, construction vessels and barges shall be kept to a practical minimum.		
CM5 – Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.		
CM6 – Avoidance of excessive height and bulk of site buildings and structures		
CM7 – Control of night-time lighting by hooding all lights and through minimisation of night working periods		
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	Tree Protection Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project. The Contractors' performance on the implementation of the tree maintenance and protection measures were observed and checked by the ET weekly during construction period.	3508, 3801

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
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	Tree Transplanting Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees would unavoidably be affected by the construction works. The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site. The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works. Long term management of the transplanted trees was currently monitored by ET annually.	3508, 3801
CM10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical	The advanced hydroseeding works around taxiways and runways were partially completed at this stage and would resume in next phase.	To be implemented
OM7- Compensatory tree planting for all felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under the relevant technical circulars.(1)	The first batch of compensatory tree was planted and the first bi-monthly site inspection for the 12-month establishment period was undertaken in June 2023. Bi-monthly site inspection was conducted in December 2023. A photo showing the general view of compensatory planting was shown in **Table 7.2**. The next bi-monthly site inspection will be conducted in February 2024.	3RS Project contracts

Note:
(1) AAHK is the management and maintenance agency of the compensatory trees. Tree Felling Application is not required for 3RS project.

Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting Periods

		
Erection of site hoardings around works area in unobtrusive colours (CM5)	Avoidance of excessive height and bulk of site buildings (CM6)	Control of night-time lighting using light hooding and minimisation of night working period (CM7)

General view of retained tree (CM8)	General view of transplanted trees (CM9)	General view of compensatory tree planting (OM7)

In accordance with the Updated EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained trees and transplanted trees under the Project remained unchanged (i.e. 37 and 26 respectively) comparing to the previous reporting period.

Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**. Details of the retained trees are to be discussed in the Quarterly EM&A reports.

For the compensatory tree monitoring, the bi-monthly site inspection for the 12-month establishment period was conducted in December 2023. The next bi-monthly site inspection will be conducted in February 2024.

Table 7.3: Monitoring Programme for Landscape and Visual

Stage	Monitoring Task	Monitoring Report	Form of Approval	Frequency
Detailed Design	Checking of design works against the recommendations of the landscape and visual impact assessments within the EIA shall be undertaken during detailed design and tender stage, to ensure that they fulfil the intention of the mitigation measures. Any changes to the design, including design changes on site shall also be checked.	Report by AAHK / PM confirming that the design conforms to requirements of EP.	Approved by Client	At the end of the Detailed Design Phase
Construction	Checking of the contractor's operations during the construction period.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Weekly
Establishment Works	Checking of the planting works during the twelve-month Establishment Period after completion of each batch of transplanting works.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Every two months
Long Term Management (10 year)	Monitoring of the long-term management of the planting works in the period up to 10	Report on compliance by ET or	Counter signature of report by	Annually

Stage	Monitoring Task	Monitoring Report	Form of Approval	Frequency
	years after completion of each batch of transplanting works.	maintenance Agency as appropriate	Management Agency	

Table 7.4: Event and Action Plan for Landscape and Visual

Event Action Level	Action			
	ET	IEC	AAHK / PM	Contractor
Design Check	Check final design conforms to the requirements of EP and prepare report.	Check report. Recommend remedial design if necessary.	Undertake remedial design if necessary.	
Non-conformity on one occasion	Identify source. Inform IEC and AAHK / PM. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed.	Check report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise AAHK / PM on effectiveness of proposed remedial measures. Check implementation of remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.
Repeated Non-conformity	Identify source. Inform IEC and AAHK / PM. Increase monitoring frequency. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Check monitoring report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise AAHK / PM on effectiveness of proposed remedial measures. Supervise implementation of remedial measures.	Notify Contractor. Ensure remedial measures area properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.

Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period

Contract No.	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3503[(1)]	0	0	9	0
3508	34	0	12	0
3801	3	0	5	0
Grand Total	**37**	**0**	**26**	**0**

Note:
(1) Contract 3503 is completed, the 9 transplanted trees have been handed over to AAHK.

Summary of the updated transplanted trees are presented in **Table 7.6**.

Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Establishment Period was completed. Next inspection will be conducted in February 2024. Photos of the last inspection in February 2023 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 86.
CT1253	4 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. Next inspection will be conducted in February 2024. Photos of the last inspection in February 2023 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 86.
T836	13 Dec 2019	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T838	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T812	21 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	Establishment Period was completed. Next inspection will be conducted in December 2024. Photos of the last inspection in December 2023 were shown in **Table 7.7**.
T814	20 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T815	15 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T829	18 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T830	14 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T831	19 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T1493	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	Establishment Period was completed. Next inspection will be conducted in July 2024. Photos of the last inspection in July 2023 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 91.
T1494	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1495	10 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1496	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1497	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1498	29 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1499	29 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1500	30 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1501	30 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
T1502	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1503	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1504	24 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
CT1194	4 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Establishment Period was completed. Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filing Station.
CT1794	3 May 2018	Long Term Management period Jun 2019 – May 2028	AsiaWorld-Expo	Establishment Period was completed. The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	Long Term Management period Jun 2019 – May 2028	AsiaWorld-Expo	Establishment Period was completed. The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 7.7: Photos of the Existing transplanted Trees Inspection in this Reporting Month

Under 10-year Long-term Management:

<table>
<tr><td> </td><td> </td><td> </td></tr>
<tr><td>T812</td><td>T814</td><td>T815</td></tr>
<tr><td> </td><td> </td><td> </td></tr>
<tr><td>T829</td><td>T830</td><td>T831</td></tr>
</table>

7.3 Land Contamination Assessment

The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20. The CARs for Golf Course and T2 Emergency Power Supply Systems (EPSS) were submitted to EPD in accordance with EP Condition 1.9 and the Supplementary CAP in which no land contamination issues were identified. EPD issued no further comment for aforesaid CARs. No leakage was found after the removal of underground fuel pipelines of T2 EPSS and all required additional photos have been submitted to EPD.

According to the approved supplementary CAP, there are 3 remaining locations where site re-appraisal / additional site investigation are proposed. Site re-appraisal was conducted at one of the above remaining locations, fire training facilities on 22 August 2023. In view of the relevant information from government departments, facility setup and site survey observations, it is considered that the contamination potential of the kerosene tank and the associated pipes is very unlikely. The site summary re-appraisal report was accepted by EPD on 20 December 2023. The status of site re-appraisal/ additional site investigation of the 2 remaining locations shall be further updated upon latest development programme is available.

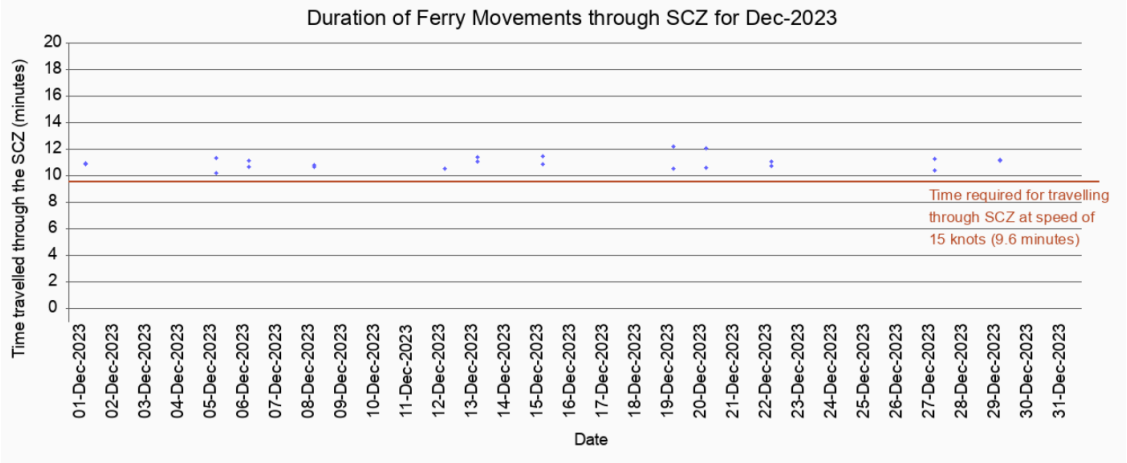
7.4 Audit of SkyPier High Speed Ferries

The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) was submitted to the Advisory Council on the Environment for comment and subsequently submitted to and approved by EPD in November 2015 under EP Condition 2.10. The approved SkyPier Plan is available on the dedicated website of the Project. In the SkyPier Plan, AAHK has committed to implement the mitigation measure of requiring HSFs of SkyPier travelling between HKIA and Zhuhai / Macau to start diverting the route with associated speed control across the area, i.e. Speed Control Zone (SCZ), with high CWD abundance. The route diversion and speed restriction at the SCZ have been implemented since 28 December 2015.

Due to the operational needs, the SkyPier HSF services to/from Zhuhai has been suspended until further notice. Key audit findings for the SkyPier HSF travelling to/from Macau against the requirements of the SkyPier Plan during the reporting period are summarised in **Table 7.8**. The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 44 to 54 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

In total, 24 ferry movements between HKIA SkyPier and Macau were recorded in December 2023 and the data are presented in **Appendix F**. The time spent by the SkyPier HSF travelling through the SCZ in December 2023 was presented in **Figure 7.1.** It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowable speed of 15 knots within the SCZ. **Figure 7.1** shows that all the SkyPier HSF spent more than 9.6 minutes to travel through the SCZ.

Figure 7.1: Duration of the SkyPier HSFs travelling through the SCZ for December 2023



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

Table 7.8: Summary of Key Audit Findings against the SkyPier Plan

Requirements in the SkyPier Plan	1 to 31 December 2023
Total number of ferry movements recorded and audited for HSF to/from Macau	24
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Speed control in speed control zone	The average speed of all HSFs travelling through the SCZ ranged from 11.2 to 13.4 knots. All HSFs had travelled through the SCZ with average speed under 15 knots in compliance with the SkyPier Plan. The time used by HSFs to travel through SCZ is presented in **Figure 7.1**.
A maximum daily cap of 125 movements for all SkyPier HSFs including those not using diverted route	44 to 54 daily movements

7.5 Audit of Construction and Associated Vessels

The updated MTRMP-CAV was approved by EPD on 31 May 2022 under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET carried out the following actions during the reporting period:

- One skipper training session was held by contractor's Environmental Officer. Competency test was subsequently conducted with the trained skipper by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, one skipper was trained by contractor's Environmental Officer. In total, 1895 skippers were trained from August 2016 to December 2023.
- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding within the works area, entering from non-designated gates and entering no entry zone were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly Construction Traffic Control Centre (CTCC) audit.

- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.6 Implementation of Dolphin Exclusion Zone

The DEZ Plan was submitted in accordance with EP Condition 3.1 (v) requirement and Section 10.3 of the Manual, and approved in April 2016 by EPD. The ET checked the contractors' dolphin sighting record and relevant records to audit the implementation of DEZ and there was no finding.

During the reporting period, there was no dolphin sighting within the DEZ.

7.7 Status of Submissions under Environmental Permits

The current status of submissions under the EP up to the reporting period is presented in **Table 7.9**.

Table 7.9: 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	
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	
2.16	Spill Response Plan	
2.17	Detailed Plan on Deep Cement Mixing	
2.18	Landscape & Visual Plan	
2.19	Waste Management Plan	
2.20	Supplementary Contamination Assessment Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

7.8 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 latest statuses of the environmental licenses and permits in the reporting period are presented in **Appendix D**.

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

7.9.1 Complaints

Complaints received in the previous reporting period

Three complaints were received on 21 November 2023 regarding dust nuisance and sand and gravel at South Perimeter Road. Another similar complaint regarding sand and gravel issue at South Perimeter Road was received on 27 November 2023. ET requested the relevant contractor to provide information regarding the complaints and replies indicated the manual and automatic wheel washing facilities, and road washing and sweeping arrangements were all enhanced by the contractor. During the ET's inspections, manual and automatic wheel washing, road washing by water trucks and road sweeping by sweeper trucks were observed in operation at the concerned area. Having said that, the relevant contractor was reminded to ensure vehicles are properly washed before leaving works areas and ensure no sand and gravel would be deposited outside works areas. Hence, the case was considered closed.

Complaints received in this reporting period

Two complaints were received during this reporting period. The cases are under investigation and findings will be reported in the next Monthly EM&A Report.

7.9.2 Notifications of Summons or Status of Prosecution

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

7.9.3 Cumulative Statistics

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

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

8.1 Construction Programme for the Coming Reporting Period

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

Contract 3206 Main Reclamation Works

- Filling materials delivery;
- Backfilling works; and
- Construction of temporary platform.

Airfield Works

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Stormwater drainage diversion works;
- Defect fixing inside tunnel; and
- Underground utilities works.

Contract 3305 Airfield Ground Lighting System

- Enhanced vehicular warning light hardware installation;
- Power supply system installation; and
- Cable containment installation.

Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS

- Equipment installation; and
- Structured cabling.

Contract 3308 Foreign Object Debris Detection System

- Construction of foundation; and
- Tower modification works.

Contract 3310 North Runway Modification Works

- Architectural, builder's work and finishing works;
- Pavement works for runway;
- Construction of stormwater drainage;
- Construction of vehicular tunnel;
- Aviation fuel pipe works;
- Construction of box culvert; and
- Land improvement works (Transition layer and backfilling works).

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Electrical and mechanical works; and
- Backfilling works.

Contract 3404 Integrated Airport Control System

- System maintenance; and
- Cable laying works.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Structure works; and
- Tunnel concreting and backfilling works.

Contract 3408 Third Runway Concourse and Apron Works

- Building services and architectural, builder's work and finishing works;
- Fuel pipe installation works;
- Utilities works;
- Marine sediment treatment works;
- Erection works for concrete batching plant;
- Excavation and reinforced concrete works; and
- Cable Laying Works.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Pier and deck construction;
- Drainage construction;
- Roof works;
- Crossroad duct laying works;
- Construction of beams and columns;
- Electrical and mechanical works;
- Pump station and electrical station works; and
- Architectural, builder's work and finishing works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Guide beam installation.

Contract 3602 Existing APM System Modification Works

- Concrete plinth construction; and
- Cabling works.

Contract 3603 Baggage Handling System (BHS)

- BHS installation; and
- Steel work installation.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Backfilling works;
- Road reinstatement works;
- Retaining wall construction; and
- Drainage and underground utilities reinstatement works.

Contract 3802 APM and BHS Tunnels and Related Works

- Excavation and lateral supports;
- Box culvert construction and superstructure works; and
- APM and BHS Tunnel construction.

Contract 3804 East and Landside Fire Stations

- Site setup and formation works;
- Bored pile works;

- Raft foundation, footing and superstructure works; and
- Underground Utilities Works.

Contract 3805 New Airport District Police Operational Base

- Bored pile works.

Construction Support (Services / Licences):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3908 Quay Management Services

- Provision of services of site management and logistic control of 3RS quays; and
- Provision of flat top barge and vehicle delivery services between the launching point in Hong Kong and 3RS quays.

Contract 3913 Asphalt Batching Plant

- Operation of asphalt batching plant.

Utilities:

132kV Cable

- Cold-milling and resurfacing; and
- Cable trenching, duct installation and backfilling.

8.2 Key Environmental Issues for the Coming Reporting Period

8.2.1 Construction Activities in the Coming Reporting Period

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

- Generation of dust from construction works and stockpiles;
- Noise from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- DEZ monitoring for rock armour laying works;
- Sorting, recycling, storage and disposal of general refuse and construction waste;
- Reuse of treated marine sediments from piling and excavation works; and
- Management of chemicals and avoidance of oil spillage on-site.

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

8.2.2 Post-construction Phase Chinese White Dolphin Monitoring

According to Section 10.2.3.2 of the Updated EM&A Manual, the post construction phase CWD monitoring shall be conducted upon the completion of marine construction works for the Project for a 12-month period. The post construction phase CWD monitoring would be commenced in January 2024.

8.3 Monitoring Schedule for the Coming Reporting Period

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

8.4 Review of the Key Assumptions Adopted in the EIA Report

With reference to Appendix E of the Manual, it is noted that the key assumptions adopted in approved EIA report for the construction phase are still valid and no major changes are involved. The environmental mitigation measures recommended in the approved EIA Report remain applicable and shall be implemented in undertaking construction works for the Project.

9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included rock armour laying works, land improvement works and filling works, pavement works, concourse superstructure works, tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 expansion works, modification and tunnel work for APM and BHS, utilities works, road and drainage works, demolition, piling, excavation works, and 132kV cable laying works.

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

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

Four weeks of post-construction phase water quality monitoring exercise was conducted from 14 November 2023 to 9 December 2023, in the same manner as the impact monitoring at all monitoring stations during construction phase.

Although the 3RS land formation works were completed in the first quarter of 2023, the construction phase CWD monitoring was continued until the end of December 2023 so as to collect a full-year set of monitoring data to facilitate evaluation of CWD abundance on an annual basis. 12 months of the post-construction phase CWD monitoring would be commenced in January 2024.

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

On the implementation of the SkyPier Plan, the daily movements of all SkyPier HSFs in the reporting period, including those not using the diverted route, were in the range of 44 to 54 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 24 HSFs movements under the SkyPier Plan were recorded in the reporting period. The average speed of all HSFs travelling through the SCZ ranged from 11.2 to 13.4 knots. All HSFs travelled through the SCZ with average speed under 15 knots in compliance with the SkyPier Plan. In summary, the ET and IEC audited the HSF movements against the SkyPier Plan and conducted follow up investigations or actions accordingly.

On the implementation of MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone and not travelling through the designated gates. ET conducted checking to ensure the MSS records all deviation cases accurately. Deviations including speeding within the works area, entering from non-designated gates and entering no entry zone were reviewed by ET. All the concerned captains were reminded by the contractor's CTCC representative to comply with the requirements of the MTRMP-CAV. The ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park and the Sha Chau & Lung Kwu Chau Marine Park. Three-month rolling programmes for construction vessel activities, which ensures the proposed vessels are necessary and minimal through good planning, were also received from contractors.

Figures

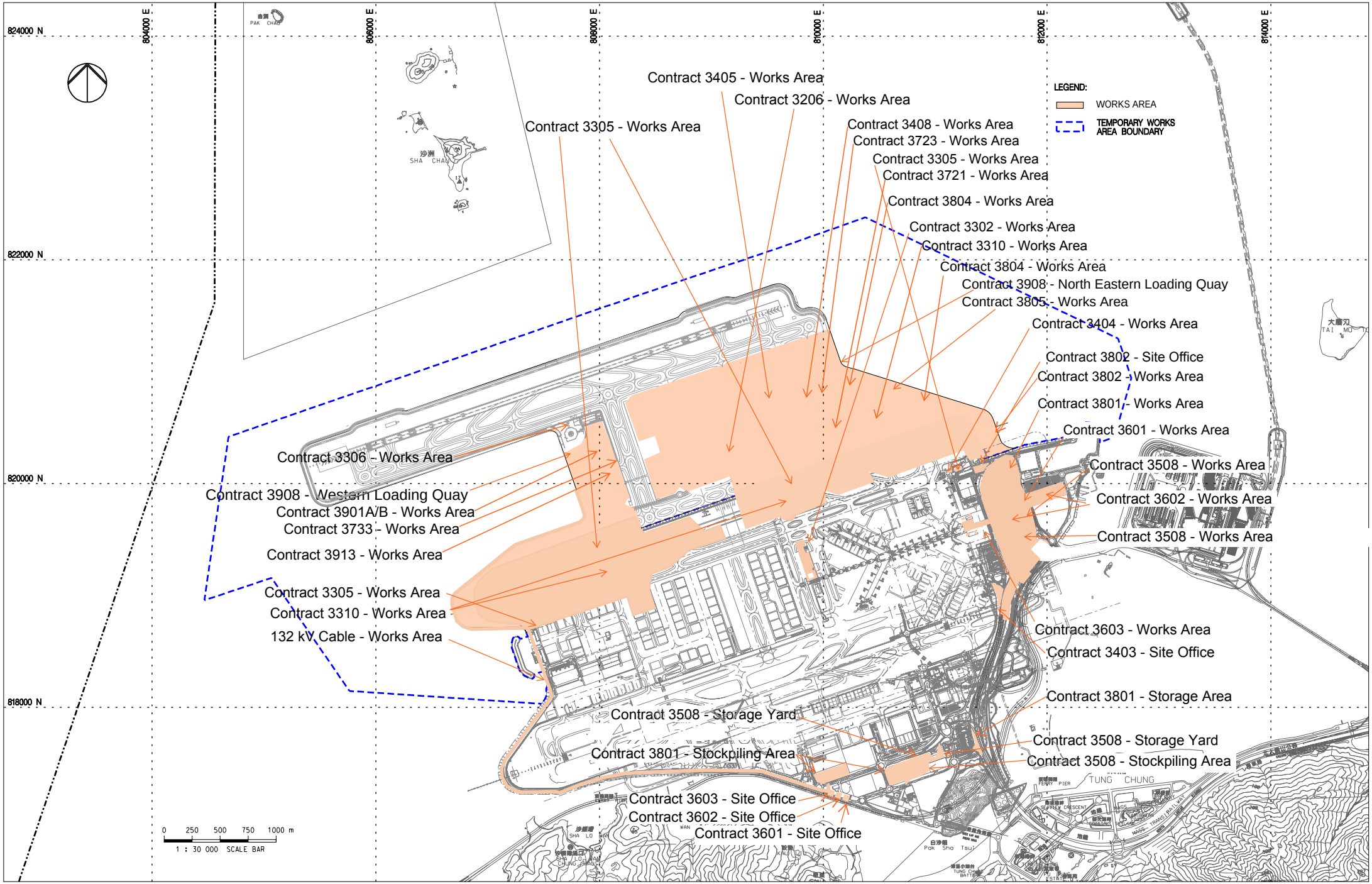
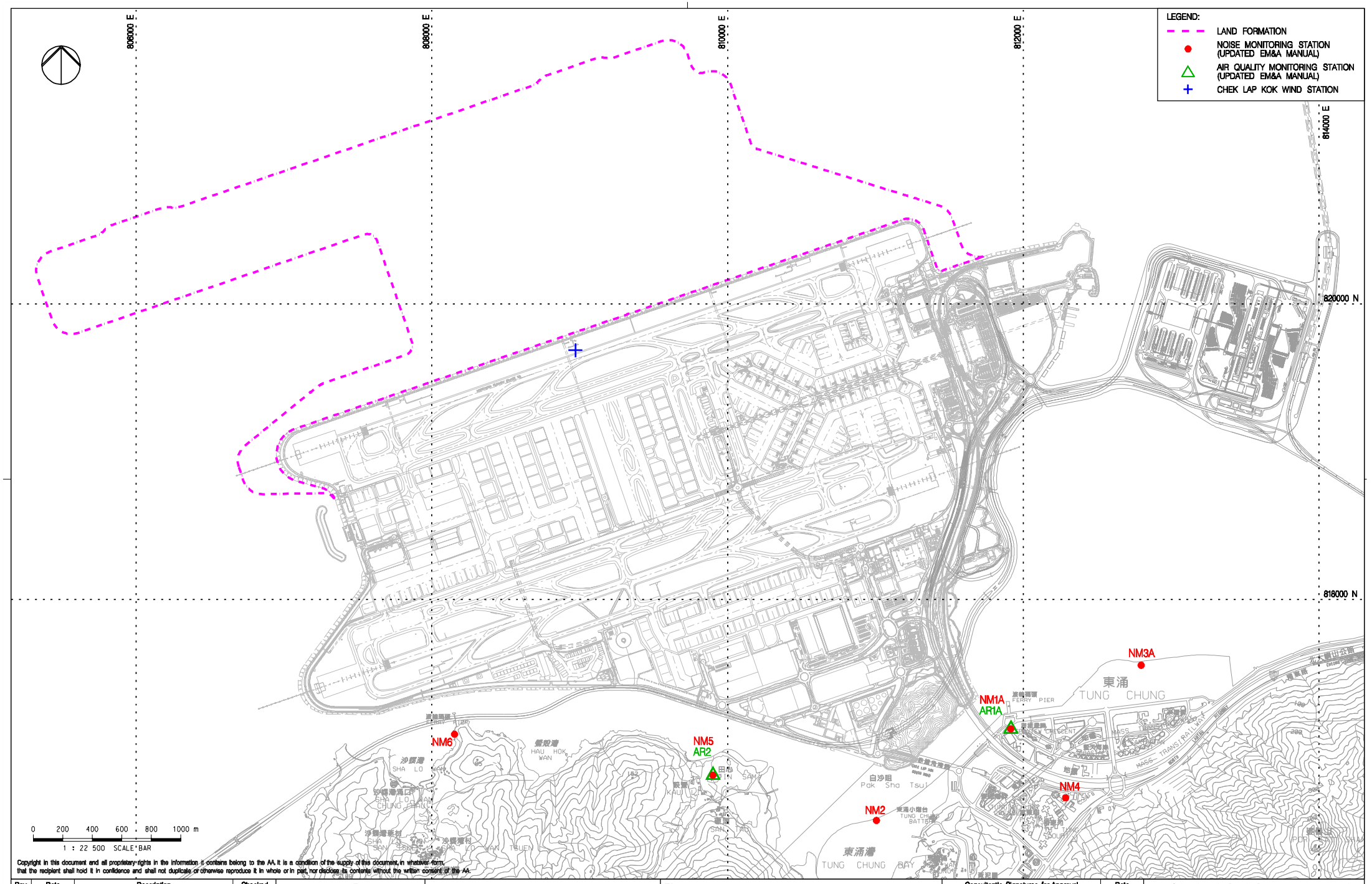


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

Note: The locations are for indicative purpose. The actual construction work locations are in accordnace with the construction work programme.



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Rev.	Date	Description	Checked
A	06JAN16	FIRST ISSUE	RO
B	29JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	29OCT18	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

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

Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

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

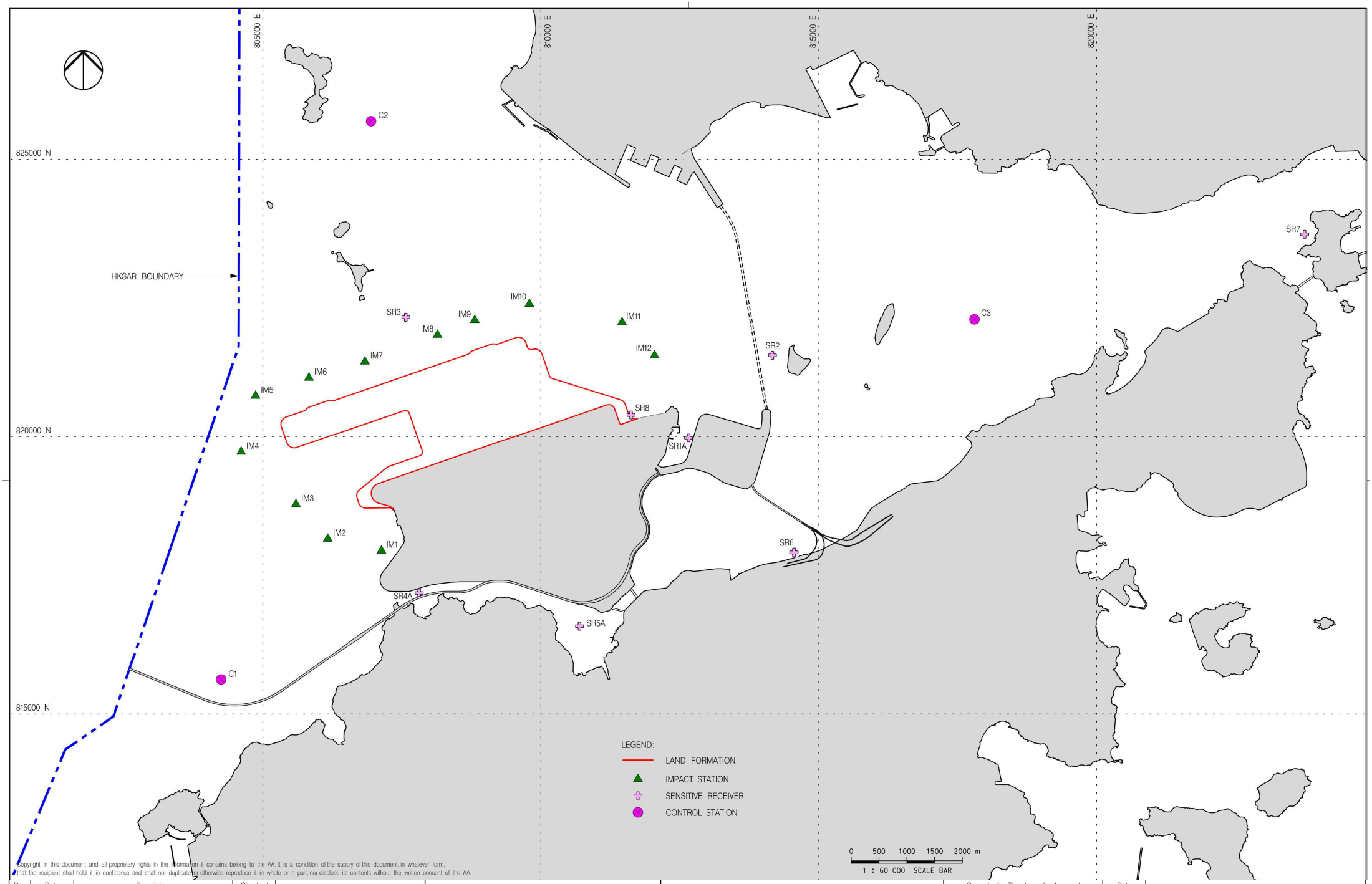
Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. D

Filename: J:\355482\REPORT\ENV\EMA\181029\FIG 2.1.dgn



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Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Airport Authority HKIA Tower, 1 Sky Plaza Road, Hong Kong International Airport, Lantau, Hong Kong
Tel : (852) 2188 7111 Fax : (852) 2824 0707

MOTT MACDONALD

Title

POST-CONSTRUCTION PHASE
WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
Design	DC	21AUG19
Checkers	DC / TK	21AUG19
Approver	EC	21AUG19

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

Drawing No.

FIGURE 4.1

Scale at A3 1 : 60000

Rev. A

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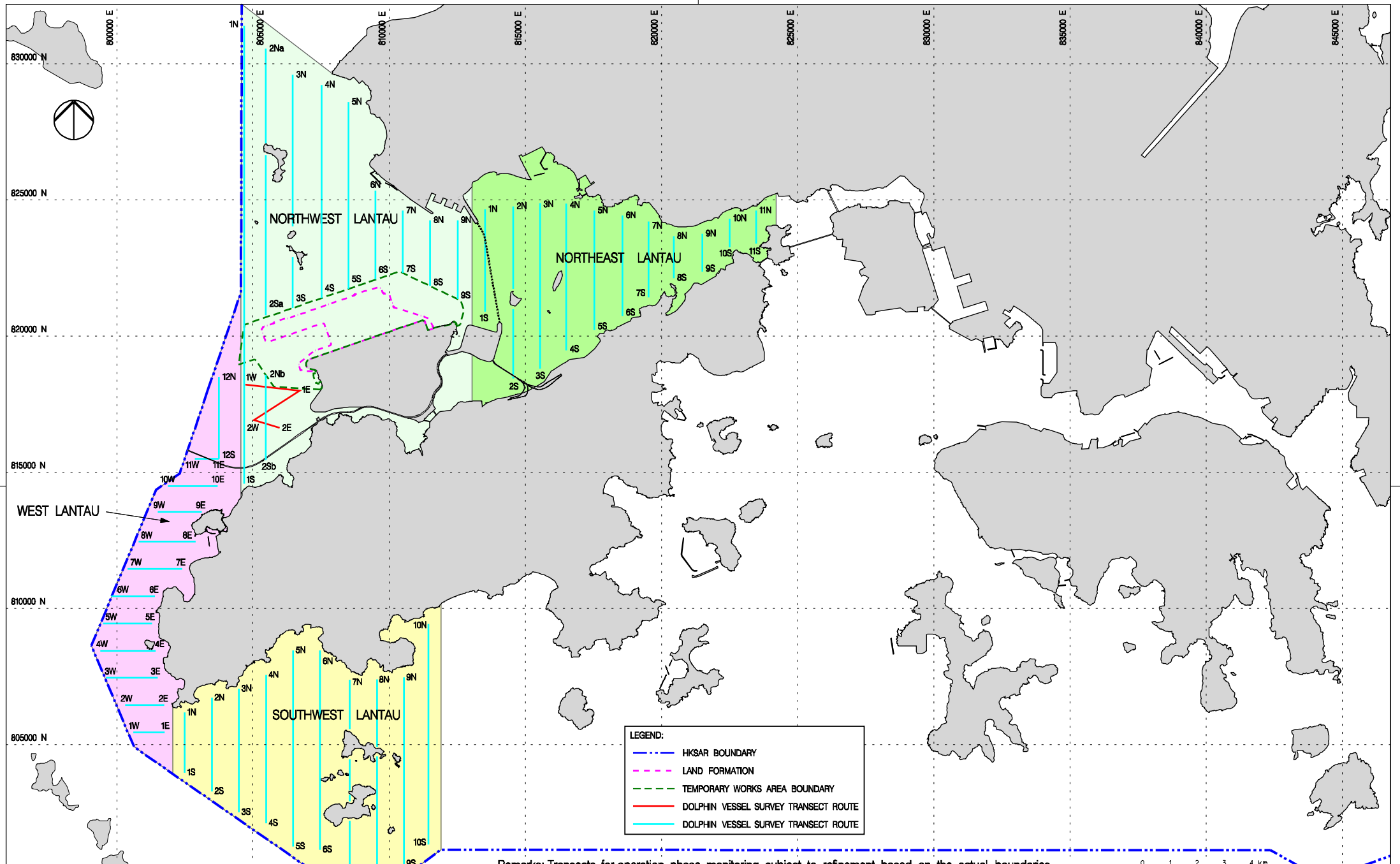

Remarks: Transects for operation phase monitoring subject to refinement based on the actual boundaries for the extension of Hong Kong International Airport Approach Areas (HKIAAA) and 3RS Marine Park

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B	27JUL16	GENERAL REVISION	JT
C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

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

Consultant's Signatures for Approval		Date
Design	JC	04APR19
Checkers	JC / TK	04APR19
Approver	EC	04APR19

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

Drawing No.

FIGURE 6.1

Scale at A3 1 : 125000

Rev. F

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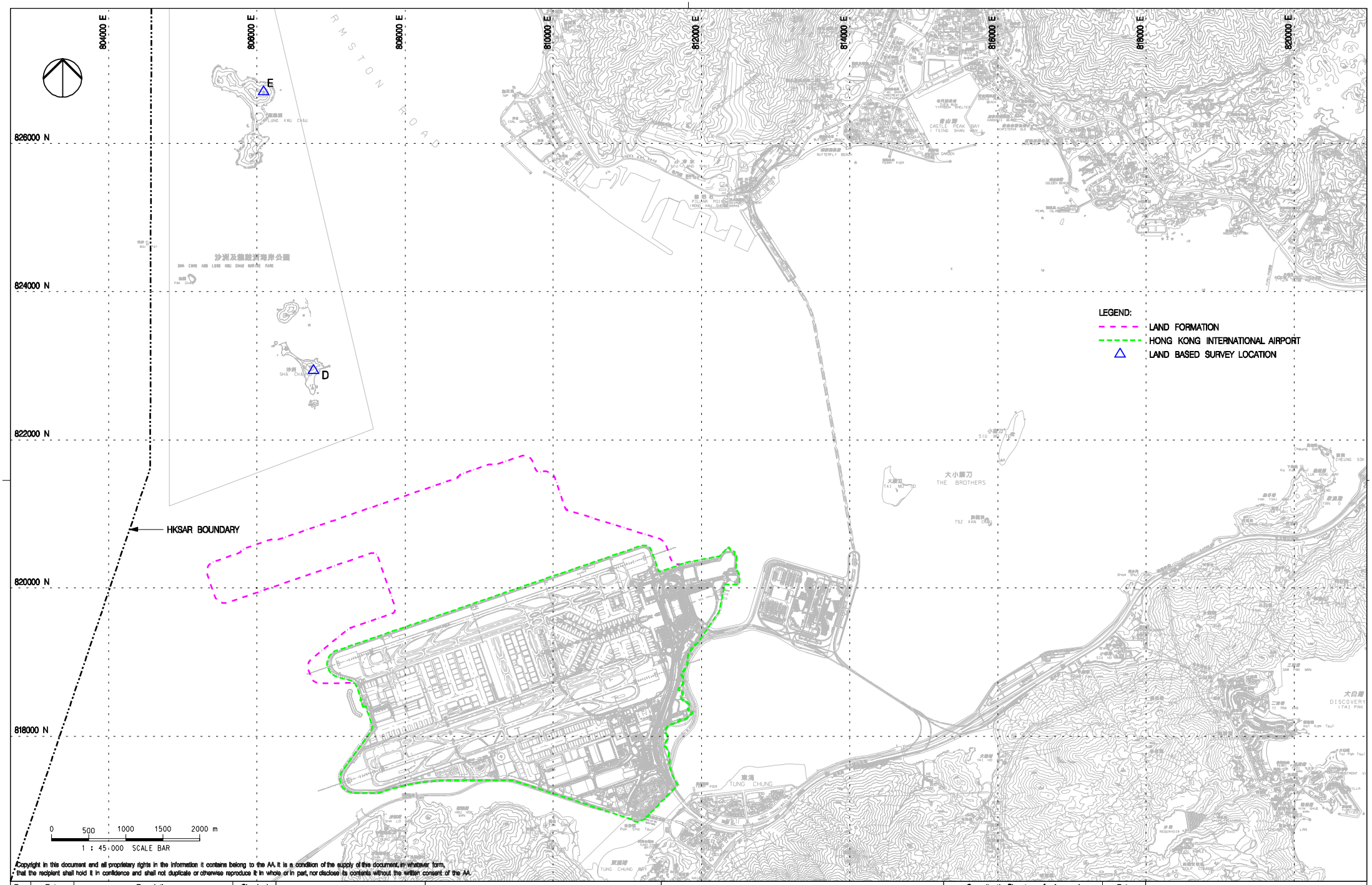

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Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	06FEB17	GENERAL REVISION	JC
C	29OCT18	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LAND BASED DOLPHIN MONITORING IN BASELINE AND CONSTRUCTION PHASES

Consultant's Signatures for Approval		Date
Design	JC	29OCT18
Checkers	JC / TK	29OCT18
Approver	EC	29OCT18

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

Drawing No. FIGURE 6.2

Scale at A3 1 : 45000

Rev. C

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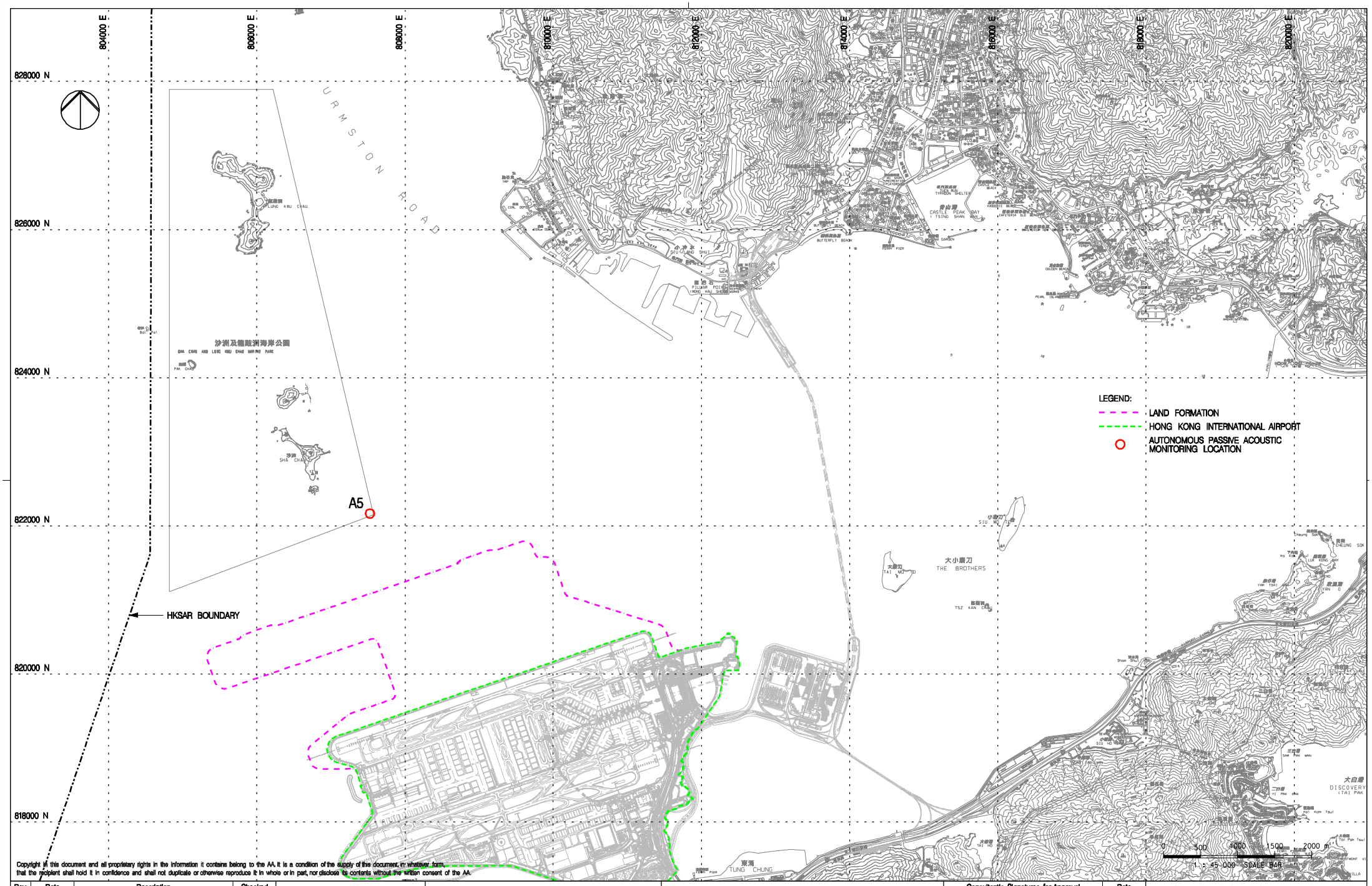

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Rev.	Date	Description	Checked
A	29AUG17	FIRST ISSUE	JT
B	10OCT17	GENERAL REVISION	PL
C	29OCT18	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

Consultant's Signatures for Approval		Date
Design	JC	29OCT18
Checkers	JC / TK	29OCT18
Approver	EC	29OCT18

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

Drawing No. FIGURE 6.4

Scale at A3 1 : 45000

Rev. C

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

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.	Within construction site / Duration of the construction phase	I
			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.	Within construction site / Duration of the construction phase	I
			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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			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.	Within construction site / Duration of the construction phase	I
			Debris Handling ▪ 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.	Within construction site / Duration of the construction phase	I
			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.	Within construction site / Duration of the construction phase	I
			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.	Within construction site / Duration of the construction phase	I
			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.	Within construction site / Duration of the construction phase	I
			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.	Within construction site / Duration of the construction phase	I
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	Within Concrete Batching Plant / 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?^
			▪ 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 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, stockpiles 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;	Within Concrete Batching Plant / 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?^
			▪ 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 ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	I
			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.	Within Concrete Batching Plant / Duration of the construction phase	I
			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.	Within Concrete Batching Plant / Duration of the construction phase	I
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;	Within Asphaltic Concrete Plant / 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?^
			▪ 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 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.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			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	Within Asphaltic Concrete Plant / 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?^
			▪ 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 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.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			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.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			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.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			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.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
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	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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 ▪ 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.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			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.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			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.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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; and ▪ 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 rock drilling activities.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			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	I
Table 6.40	3.2	-	▪ An appropriate marine traffic management system should be established to minimize risk of ship collision.	Construction Site / Construction Period	I
Table 6.40	3.2	-	▪ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	I
			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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
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 commencement of operation	I
			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 seabed 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 wastewater meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.	Within construction site / Duration of the construction phase	C – Completed in Apr 2022

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 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;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023
			▪ 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;		C – Completed in May 2018
			▪ 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		C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The Silt Curtain Deployment Plan shall be implemented.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)
			<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;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ 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		I – For C7a C – Completed in Dec 2021 for C8

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
					*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)
			<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;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;		C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ 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		I – For C7a C – Completed in Dec 2021 for C8 (The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)
			Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion ▪ 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 at Sea Ordinance (DASO) permit conditions; and ▪ Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.	Within construction site / Duration of the construction phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
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 – no marine-based seawall modification works undertaken after land formation.
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	I
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.	Within construction site / Duration of the construction phase	C – For approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			For construction of the eastern approach lights at the CMPs ▪ 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.		C – Completed in Oct 2021
8.8.1.8	5.1	-	**Construction of 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:	Within construction site / Duration of the construction phase	
			▪ 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 sandbag 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);		I
			▪ 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;		I
			▪ 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;		I
			▪ 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;		I
			▪ 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 proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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.		I
			▪ 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;		I
			▪ 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		I
			▪ 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.		I
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	C – Completed in Jan 2019

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.	Within construction site / During construction phase	C – Completed in Jan 2019
			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;	Project Site Area / During design and construction phase	I
			▪ 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;		I
			▪ 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;		I
			▪ 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		I
			▪ 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.		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;	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?^
			▪ Training of site personnel in proper waste management and chemical waste handling procedures; ▪ 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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
10.5.1.5	7.1	-	Any recyclable materials should be segregated from the non-inert C&D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.	Project Site Area / Construction Phase	I
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;	Project Site Area / Construction Phase	I
			▪ 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;		I
			▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;		I
			▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;		I
			▪ Treated and untreated sediment should be clearly separated and stored separately; and		I
			▪ 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.		I
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 – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
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;	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?^
			▪ 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 ▪ 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 'windblown' 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	I
			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.	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	I
			▪ 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.		C – Completed in Jan 2018
			▪ 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.		I *(CAR for golf course and Terminal 2 emergency power supply system nos.1, 2, 3, 4 and 5 were submitted to EPD)
			▪ 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.		N/A as no remediation was required.
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):	Project Site Area / Construction Phase	N/A as no contaminated soil was found.

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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 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 – 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	C – Completed in Jan 2019
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	C – Completed in Jan 2019

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
12.7.2.5	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	C – Completed in Jan 2019
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	C – Completed in Jan 2019
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	C – Completed in Jan 2019
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	▪ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	C – Completed in Jan 2016
			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	I
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;	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline
			▪ 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;		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;		C – Completed in Oct 2021 for new approach lights
			▪ Avoid bored piling during CWD peak calving season (Mar to Jun);		N/A for marker beacons as

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
					HKIAAA Marker Beacons would be replaced by buoys
			▪ Prohibition of underwater percussive piling; and		I
			▪ 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.		C – Completed in Jan 2019 for HDD works
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;	All works area during the construction phase	I
			▪ 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);		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights
			▪ 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.		C – Completed in Jan 2019 for HDD works
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 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.	All works area during the construction phase	I
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	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.3 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	I
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.	Area between the footprint and SCLKC Marine Park during construction phase	I
			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 C – Completed in Sep 2016
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;	Marine waters around land formation works area during construction phase	I
			▪ 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		C – Completed in Apr 2022
			▪ A DEZ would also be implemented during bored piling work but as a precautionary measure only.		C – Completed in Oct 2021 for the bored piling work of New approach lights
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 ▪ Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.	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?^
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 (as currently indicated by the 1x1km grid squares in Figure 6 of Appendix 13.2 of EIA report). ▪ 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	I
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;	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline
			▪ 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;		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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.		C – Completed in Jan 2019 for HDD works
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; ▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.	All works area during the construction phase	I
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	I
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;	All works area during the construction phase	I
			▪ 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);		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			▪ 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.		C – Completed on Jan 2019 for HDD work
			Landscape and Visual Impact – Construction Phase		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
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.	I
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.	I
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 completion of works.	I
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.	I
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.	I
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. –	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				may be disassembled in phases.	
Table 15.6	12.3	-	**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.	I
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; Upon handover and completion of works.	I
			Cultural Heritage Impact – Construction Phase		
			Not applicable to the construction stage of this project.		
			Health Impact – Aircraft Emissions		
			Not applicable to the construction stage of this project.		
			Health Impact – Aircraft Noise		
			Not applicable to the construction stage of this project.		

Notes:

" - " For items denoted as " - " provided under the columns of EM&A Ref. or EP Condition, environmental protection measures should be referred to the relevant paragraph(s) / table(s) in the approved EIA Report.

" I " Implemented and on-going where applicable.

" N/A " Not applicable to the construction works implemented during the reporting month.

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

"C" Construction works completed.

Appendix B. Monitoring Schedule

Impact Monitoring Schedule of This Reporting Period

Dec-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Site Inspection AR1A, AR2 NM1A, NM5	2
3	4 Site Inspection CWD Survey (Vessel)	5 Site Inspection NM4, NM6	6 Site Inspection	7 Site Inspection AR1A, AR2 NM1A, NM5	8 Site Inspection	9
10	11 Site Inspection CWD Survey (Vessel)	12 Site Inspection	13 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	14 Site Inspection CWD Survey (Vessel)	15 Site Inspection CWD Survey (Land-based) NM4, NM6	16
17	18 Site Inspection CWD Survey (Vessel)	19 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	20 Site Inspection	21 Site Inspection NM4, NM6	22 Site Inspection	23 AR1A, AR2
24	25	26	27 Site Inspection CWD Survey (Land-based) CWD Survey (Vessel)	28 Site Inspection CWD Survey (Vessel) NM4, NM6	29 Site Inspection AR1A, AR2 NM1A, NM5	30
24		**Notes:** CWD - Chinese White Dolphin Air quality and Noise Monitoring Station NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan				

Tentative Impact Monitoring Schedule of Next Reporting Period

Jan-24

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Site Inspection	3 Site Inspection	4 Site Inspection AR1A, AR2 NM1A, NM5	5 Site Inspection NM4, NM6	6
7	8 Site Inspection	9 Site Inspection	10 Site Inspection AR1A, AR2 NM1A, NM5	11 Site Inspection	12 Site Inspection NM4, NM6	13
14	15 Site Inspection	16 Site Inspection AR1A, AR2 NM1A, NM5	17 Site Inspection	18 Site Inspection NM4, NM6	19 Site Inspection	20
21	22 Site Inspection AR1A, AR2 NM1A, NM5	23 Site Inspection	24 Site Inspection	25 Site Inspection	26 Site Inspection NM4, NM6	27 AR1A, AR2
28	29 Site Inspection	30 Site Inspection	31 Site Inspection			

Notes:

Contract Number - Site Inspection

CWD - Chinese White Dolphin

Air quality and Noise Monitoring Station

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

Post-construction Phase Water Quality Monitoring Schedule

Nov-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14 Post-Construction Phase WQM mid-ebb: 13:38 mid-flood: 8:06	15	16 Post-Construction Phase WQM mid-ebb: 14:59 mid-flood: 9:44	17	18 Post-Construction Phase WQM mid-ebb: 3:49 mid-flood: 16:12
19	20	21 Post-Construction Phase WQM mid-ebb: 6:53 mid-flood: 15:09	22	23 Post-Construction Phase WQM mid-ebb: 9:27 mid-flood: 16:21	24	25 Post-Construction Phase WQM mid-ebb: 11:17 mid-flood: 17:15
26	27	28 Post-Construction Phase WQM mid-ebb: 13:33 mid-flood: 8:18	29	30 Post-Construction Phase WQM mid-ebb: 14:43 mid-flood: 9:52		
		Notes: Post-Construction Phase WQM C1, C2, C3, SR2, IM1, IM7, IM2, IM3, IM4, IM5, IM6, IM8, IM9, IM12, IM10, IM11, SR1A, SR3, SR4A, SR5A, SR6, SR7, SR8 Parameters (for all): DO, pH, Temperature, Salinity, Turbidity, SS Parameters (for C1-C3, SR2, IM1-IM12): Total Alkalinity, Heavy metals				

Dec-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2 Post-Construction Phase WQM mid-ebb: 3:44 mid-flood: 16:02
3	4	5 Post-Construction Phase WQM mid-ebb: 5:48 mid-flood: 18:20	6	7 Post-Construction Phase WQM mid-ebb: 8:05 mid-flood: 15:27	8	9 Post-Construction Phase WQM mid-ebb: 10:21 mid-flood: 16:14
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31		**Notes:** Post-Construction Phase WQM C1, C2, C3, SR2, IM1, IM7, IM2, IM3, IM4, IM5, IM6, IM8, IM9, IM12, IM10, IM11, SR1A, SR3, SR4A, SR5A, SR6, SR7, SR8 Parameters (for all): DO, pH, Temperature, Salinity, Turbidity, SS Parameters (for C1-C3, SR2, IM1-IM12): Total Alkalinity, Heavy metals				

Tentative Post-construction Phase CWD Monitoring Schedule of Next Reporting Period

Jan-24

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8 CWD Survey (Vessel)	9 CWD Survey (Vessel)	10 CWD Survey (Vessel)	11 CWD Survey (Vessel)	12	13
14	15 CWD Survey (Vessel)	16	17	18 CWD Survey (Vessel)	19	20
21	22 CWD Survey (Vessel)	23 CWD Survey (Vessel)	24	25	26	27
28	29	30	31			
		Notes: CWD - Chinese White Dolphin				

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

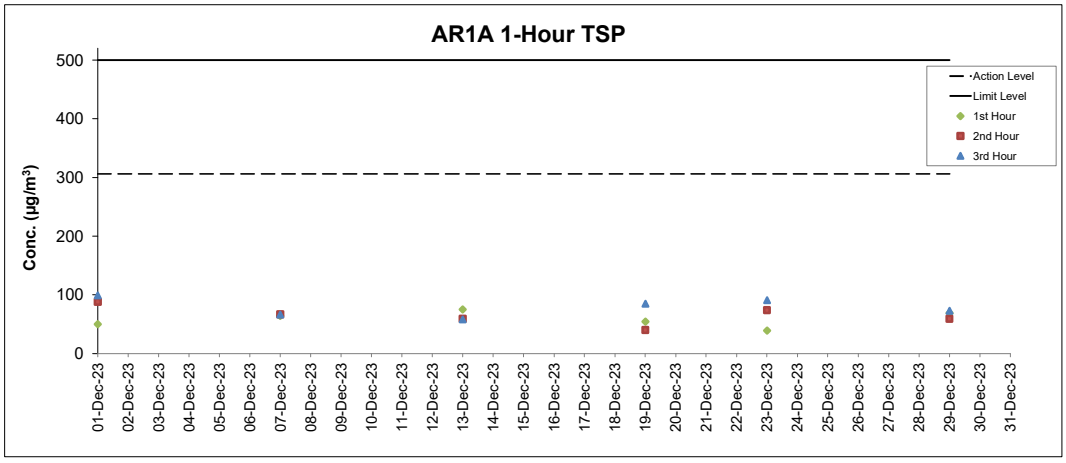
Station: AR1A- Man Tung Road Park

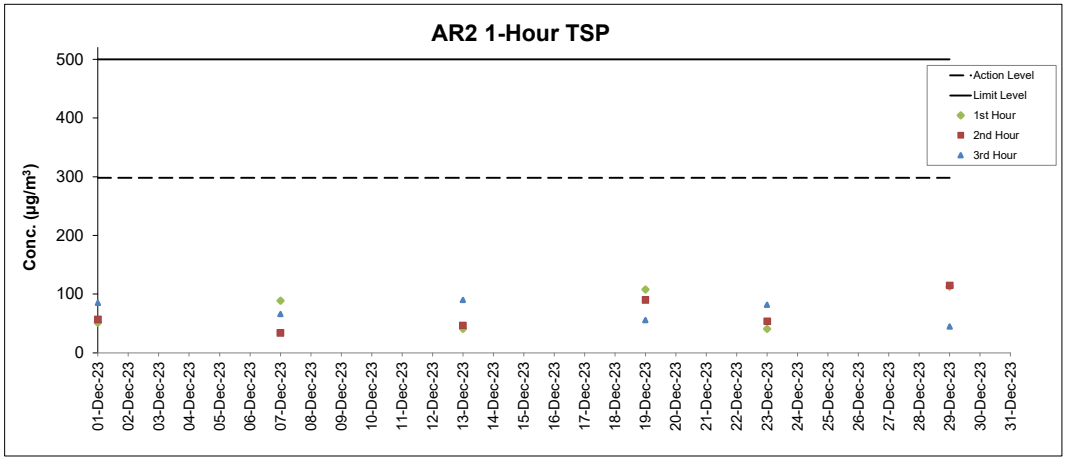
Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
1-Dec-23	8:53	Sunny	3.3	61	50	306	500
1-Dec-23	9:53	Sunny	4.7	45	88	306	500
1-Dec-23	10:53	Sunny	4.2	52	99	306	500
7-Dec-23	8:07	Sunny	1.4	Variable	64	306	500
7-Dec-23	9:07	Sunny	1.9	19	67	306	500
7-Dec-23	10:07	Sunny	4.7	51	66	306	500
13-Dec-23	8:24	Sunny	5.8	103	75	306	500
13-Dec-23	9:24	Sunny	6.9	92	59	306	500
13-Dec-23	10:24	Sunny	7.8	83	58	306	500
19-Dec-23	8:05	Sunny	4.2	339	54	306	500
19-Dec-23	9:05	Sunny	4.2	344	40	306	500
19-Dec-23	10:05	Sunny	4.4	341	85	306	500
23-Dec-23	8:19	Sunny	4.4	18	39	306	500
23-Dec-23	9:19	Sunny	3.9	31	74	306	500
23-Dec-23	10:19	Sunny	2.8	52	91	306	500
29-Dec-23	8:11	Sunny	3.9	82	69	306	500
29-Dec-23	9:11	Sunny	5.3	78	59	306	500
29-Dec-23	10:11	Sunny	5.8	95	73	306	500

1-hour TSP Results

Station: AR2- Village House, Tin Sum

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
1-Dec-23	12:39	Sunny	5.3	354	51	298	500
1-Dec-23	13:39	Sunny	4.4	47	57	298	500
1-Dec-23	14:39	Sunny	4.4	50	85	298	500
7-Dec-23	12:21	Sunny	3.9	348	89	298	500
7-Dec-23	13:21	Sunny	5.3	310	34	298	500
7-Dec-23	14:21	Sunny	3.9	321	66	298	500
13-Dec-23	12:43	Sunny	6.4	87	41	298	500
13-Dec-23	13:43	Sunny	6.7	90	47	298	500
13-Dec-23	14:43	Sunny	5.8	77	90	298	500
19-Dec-23	12:09	Sunny	4.4	350	108	298	500
19-Dec-23	13:09	Sunny	3.6	335	90	298	500
19-Dec-23	14:09	Sunny	5.0	325	56	298	500
23-Dec-23	12:49	Sunny	3.3	358	41	298	500
23-Dec-23	13:49	Sunny	4.4	358	54	298	500
23-Dec-23	14:49	Sunny	3.9	339	82	298	500
29-Dec-23	12:17	Sunny	5.0	104	113	298	500
29-Dec-23	13:17	Sunny	4.2	98	115	298	500
29-Dec-23	14:17	Sunny	3.3	246	45	298	500





Notes

1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
2. Weather conditions during monitoring are presented in the data tables above.
3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

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) ^
1-Dec-23	Sunny	8:14	63.0	58.8	64
1-Dec-23	Sunny	8:19	62.2	57.8	
1-Dec-23	Sunny	8:24	63.0	58.2	
1-Dec-23	Sunny	8:29	62.5	58.5	
1-Dec-23	Sunny	8:34	62.5	58.5	
1-Dec-23	Sunny	8:39	62.8	58.2	
7-Dec-23	Sunny	8:41	62.8	57.6	65
7-Dec-23	Sunny	8:46	63.0	58.7	
7-Dec-23	Sunny	8:51	63.5	58.7	
7-Dec-23	Sunny	8:56	62.8	58.2	
7-Dec-23	Sunny	9:01	64.5	59.0	
7-Dec-23	Sunny	9:06	63.4	58.7	
13-Dec-23	Sunny	8:39	62.7	58.7	64
13-Dec-23	Sunny	8:44	62.7	58.8	
13-Dec-23	Sunny	8:49	62.9	58.2	
13-Dec-23	Sunny	8:54	62.1	57.0	
13-Dec-23	Sunny	8:59	64.5	58.3	
13-Dec-23	Sunny	9:04	62.3	57.1	
19-Dec-23	Sunny	8:25	61.9	57.7	64
19-Dec-23	Sunny	8:30	63.3	58.1	
19-Dec-23	Sunny	8:35	63.0	58.0	
19-Dec-23	Sunny	8:40	62.9	58.5	
19-Dec-23	Sunny	8:45	62.3	58.5	
19-Dec-23	Sunny	8:50	62.3	58.3	
29-Dec-23	Sunny	8:44	62.3	58.0	64
29-Dec-23	Sunny	8:49	62.7	57.8	
29-Dec-23	Sunny	8:54	63.4	58.2	
29-Dec-23	Sunny	8:59	63.4	57.4	
29-Dec-23	Sunny	9:04	63.7	58.9	
29-Dec-23	Sunny	9:09	64.4	60.6	

Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

Noise Measurement Results
Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
5-Dec-23	Sunny	11:01	61.4	57.1	63
5-Dec-23	Sunny	11:06	63.4	57.8	
5-Dec-23	Sunny	11:11	60.6	56.1	
5-Dec-23	Sunny	11:16	62.0	56.4	
5-Dec-23	Sunny	11:21	61.6	57.0	
5-Dec-23	Sunny	11:26	63.5	57.9	
15-Dec-23	Cloudy	10:24	62.7	58.5	64
15-Dec-23	Cloudy	10:29	62.7	59.0	
15-Dec-23	Cloudy	10:34	63.2	59.4	
15-Dec-23	Cloudy	10:39	63.0	60.1	
15-Dec-23	Cloudy	10:44	63.1	60.0	
15-Dec-23	Cloudy	10:49	63.6	59.8	
21-Dec-23	Cloudy	13:17	61.4	57.2	63
21-Dec-23	Cloudy	13:22	61.7	57.1	
21-Dec-23	Cloudy	13:27	61.4	57.2	
21-Dec-23	Cloudy	13:32	61.6	57.7	
21-Dec-23	Cloudy	13:37	62.9	57.3	
21-Dec-23	Cloudy	13:42	62.5	58.0	
28-Dec-23	Sunny	11:36	62.2	55.9	64
28-Dec-23	Sunny	11:41	60.7	55.0	
28-Dec-23	Sunny	11:46	60.1	55.2	
28-Dec-23	Sunny	11:51	66.4	56.0	
28-Dec-23	Sunny	11:56	62.2	55.3	
28-Dec-23	Sunny	12:01	62.0	56.0	

Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

Noise Measurement Results
Station: NM5- Village House, Tin Sum

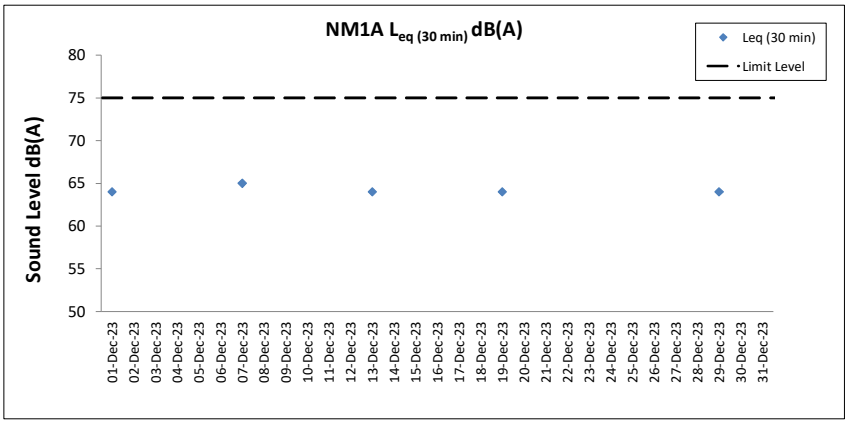
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
1-Dec-23	Sunny	12:14	54.4	49.7	53*
1-Dec-23	Sunny	12:19	53.6	50.1	
1-Dec-23	Sunny	12:24	54.2	49.6	
1-Dec-23	Sunny	12:29	54.3	49.9	
1-Dec-23	Sunny	12:34	54.5	50.7	
1-Dec-23	Sunny	12:39	55.1	50.5	
7-Dec-23	Sunny	12:40	61.9	58.0	61*
7-Dec-23	Sunny	12:45	62.4	57.7	
7-Dec-23	Sunny	12:50	62.0	57.7	
7-Dec-23	Sunny	12:55	61.8	56.9	
7-Dec-23	Sunny	13:00	62.5	57.8	
7-Dec-23	Sunny	13:05	62.9	58.2	
13-Dec-23	Sunny	12:14	62.2	54.8	64*
13-Dec-23	Sunny	12:19	61.1	54.4	
13-Dec-23	Sunny	12:24	59.7	55.9	
13-Dec-23	Sunny	12:29	64.3	55.9	
13-Dec-23	Sunny	12:34	58.6	53.3	
13-Dec-23	Sunny	12:39	67.1	53.7	
19-Dec-23	Sunny	11:26	56.2	51.5	58
19-Dec-23	Sunny	11:31	56.3	51.0	
19-Dec-23	Sunny	11:36	56.3	52.2	
19-Dec-23	Sunny	11:41	56.6	52.0	
19-Dec-23	Sunny	11:46	56.0	51.0	
19-Dec-23	Sunny	11:51	54.6	49.4	
29-Dec-23	Sunny	11:19	58.3	56.0	53*
29-Dec-23	Sunny	11:24	58.8	54.4	
29-Dec-23	Sunny	11:29	58.1	53.9	
29-Dec-23	Sunny	11:34	57.7	53.5	
29-Dec-23	Sunny	11:39	56.9	52.1	
29-Dec-23	Sunny	11:44	57.9	53.4	

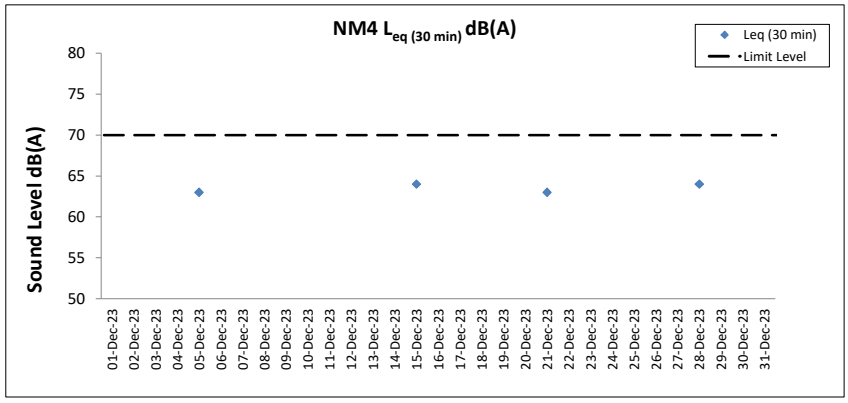
Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.
(*) The measurement result was corrected with reference to the baseline monitoring levels.

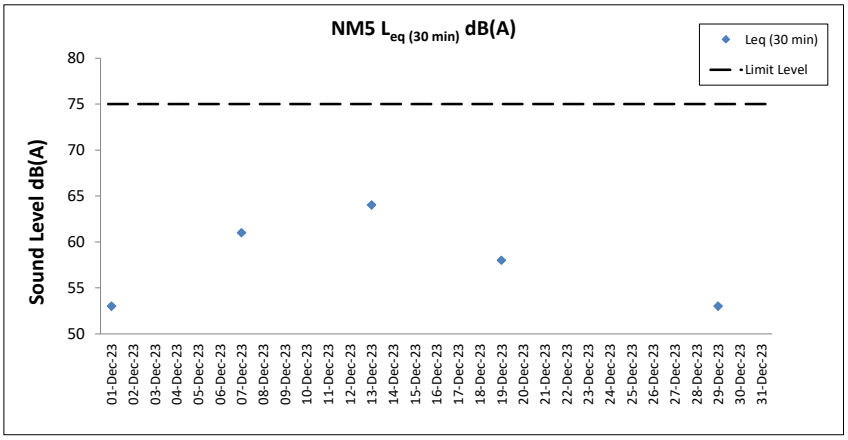
Noise Measurement Results
Station: NM6- House No.1 Sha Lo Wan

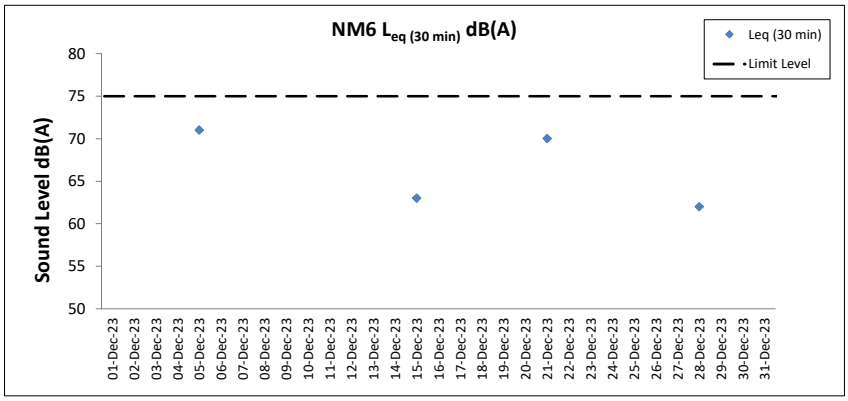
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
5-Dec-23	Sunny	9:48	72.6	58.9	71*
5-Dec-23	Sunny	9:53	77.5	57.7	
5-Dec-23	Sunny	9:58	73.1	56.5	
5-Dec-23	Sunny	10:03	73.5	57.1	
5-Dec-23	Sunny	10:08	77.1	58.7	
5-Dec-23	Sunny	10:13	71.9	58.7	
15-Dec-23	Cloudy	13:18	63.0	54.2	63
15-Dec-23	Cloudy	13:23	61.8	55.5	
15-Dec-23	Cloudy	13:28	60.6	55.0	
15-Dec-23	Cloudy	13:33	62.2	53.4	
15-Dec-23	Cloudy	13:38	59.1	50.7	
15-Dec-23	Cloudy	13:43	59.2	50.4	
21-Dec-23	Cloudy	15:48	73.1	59.9	70*
21-Dec-23	Cloudy	15:53	73.9	59.0	
21-Dec-23	Cloudy	15:58	74.2	61.1	
21-Dec-23	Cloudy	16:03	71.6	61.3	
21-Dec-23	Cloudy	16:08	75.1	59.9	
21-Dec-23	Cloudy	16:13	72.7	58.8	
28-Dec-23	Sunny	9:44	63.0	53.6	62
28-Dec-23	Sunny	9:49	61.2	52.6	
28-Dec-23	Sunny	9:54	61.3	52.5	
28-Dec-23	Sunny	9:59	58.8	52.1	
28-Dec-23	Sunny	10:04	63.1	53.1	
28-Dec-23	Sunny	10:09	61.1	52.7	

Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.
(*) The measurement result was corrected with reference to the baseline monitoring levels.









Notes

1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
2. Weather conditions during monitoring are presented in the data tables above.
3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Post-construction Phase
Water Quality Monitoring Results

Summary of the Post-construction Phase Water Quality Monitoring Results

Station	DO(Surface&Middle)(mg/L)		DO(Bottom)(mg/L)		Turbidity(NTU)		SS(mg/L)		Alkalinity(ppm)		Chromium(µg/L)		Nickel(µg/L)	
	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide	Ebb Tide	Flood Tide
C1	6.5 (6.1-7.0)	6.5 (6.1-6.9)	6.4 (6.1-6.9)	6.4 (6.1-6.6)	7.0 (1.4-13.8)	6.2 (1.0-14.3)	6 (2-19)	6 (2-13)	86 (77-91)	87 (82-91)	0.2 (0.2-0.3)	0.2 (0.2-0.2)	0.7 (0.4-1.0)	0.7 (0.4-1.1)
C2	6.5 (6.2-7.1)	6.4 (6.1-6.9)	6.6 (6.2-7.2)	6.4 (6.1-7.0)	4.1 (1.7-9.8)	4.6 (1.1-10.5)	4 (2-9)	4 (2-9)	80 (45-92)	79 (47-92)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.5-1.6)	0.8 (0.6-1.3)
C3	6.2 (5.5-6.6)	6.1 (5.9-6.4)	6.4 (5.4-6.9)	6.4 (5.9-6.9)	4.1 (1.1-9.0)	4.7 (0.6-13.4)	5 (2-9)	4 (2-8)	79 (44-91)	78 (43-90)	0.2 (0.2-0.3)	0.2 (0.2-0.2)	0.8 (0.5-1.2)	0.8 (0.4-1.2)
IM1	6.4 (6.3-7.1)	6.4 (6.1-6.8)	6.4 (6.2-6.7)	6.4 (6.1-6.7)	6.3 (2.1-13.9)	6.1 (1.0-14.9)	6 (2-18)	6 (2-25)	85 (73-91)	87 (82-93)	0.2 (0.2-0.3)	0.2 (0.2-0.3)	0.7 (0.4-0.9)	0.7 (0.4-0.9)
IM2	6.4 (6.1-6.9)	6.4 (6.2-6.8)	6.4 (6.1-6.6)	6.4 (6.1-6.7)	5.2 (1.9-11.8)	6.1 (1.7-13.0)	6 (2-16)	6 (2-22)	85 (45-94)	86 (46-92)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.7 (0.4-0.9)	0.7 (0.4-1.1)
IM3	6.4 (6.1-6.8)	6.4 (6.2-6.9)	6.4 (6.1-6.7)	6.4 (6.2-6.7)	5.7 (1.9-15.4)	6.0 (1.7-14.3)	6 (2-22)	5 (2-21)	86 (46-93)	87 (44-95)	0.2 (0.2-0.3)	0.2 (0.2-0.2)	0.7 (0.4-0.9)	0.7 (0.4-1.0)
IM4	6.5 (6.2-7.0)	6.4 (6.1-7.0)	6.5 (6.3-6.7)	6.4 (6.1-6.6)	5.6 (1.6-13.8)	5.7 (1.3-13.9)	5 (2-16)	6 (2-19)	86 (79-93)	88 (82-95)	0.2 (0.2-0.2)	0.2 (0.2-0.3)	0.7 (0.4-0.9)	0.7 (0.4-1.0)
IM5	6.5 (6.2-6.8)	6.4 (6.1-6.6)	6.5 (6.2-6.8)	6.4 (6.1-6.6)	4.8 (1.1-13.8)	5.6 (1.1-13.8)	5 (2-21)	6 (2-27)	86 (69-91)	86 (46-92)	0.2 (0.2-0.2)	0.2 (0.2-0.3)	0.7 (0.4-0.9)	0.7 (0.4-1.0)
IM6	6.4 (6.3-6.7)	6.4 (6.0-6.6)	6.5 (6.3-6.7)	6.4 (6.1-6.6)	4.9 (0.8-13.0)	4.2 (0.8-12.5)	6 (2-23)	6 (2-18)	85 (45-92)	86 (45-95)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.7 (0.4-1.0)	0.7 (0.4-1.0)
IM7	6.4 (6.1-6.6)	6.4 (6.0-6.8)	6.4 (6.1-6.5)	6.4 (6.0-6.6)	4.0 (0.6-11.7)	3.6 (0.6-10.3)	6 (2-18)	5 (2-16)	85 (43-93)	86 (47-94)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.7 (0.4-1.1)	0.7 (0.4-1.0)
IM8	6.5 (6.2-7.0)	6.5 (6.2-6.9)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	4.2 (0.9-10.9)	4.5 (0.4-13.9)	5 (2-8)	3 (2-7)	80 (44-92)	79 (44-91)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.4-1.3)	0.8 (0.6-1.2)
IM9	6.5 (6.0-6.9)	6.5 (6.1-6.8)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	3.7 (0.7-8.2)	3.8 (1.1-10.5)	5 (2-10)	4 (2-7)	81 (43-91)	80 (43-91)	0.2 (0.2-0.3)	0.2 (0.2-0.2)	0.8 (0.5-1.3)	0.8 (0.6-1.2)
IM10	6.4 (6.0-6.9)	6.4 (6.1-6.7)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	3.6 (0.5-10.8)	3.7 (1.1-10.6)	5 (2-9)	4 (2-6)	80 (48-91)	80 (48-90)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.5-1.3)	0.8 (0.6-1.2)
IM11	6.5 (6.2-6.9)	6.4 (5.9-6.7)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	3.4 (0.6-9.0)	3.8 (1.0-8.0)	4 (2-9)	4 (2-8)	80 (52-91)	80 (52-91)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.5-1.3)	0.8 (0.4-1.2)
IM12	6.4 (6.2-6.7)	6.4 (5.9-6.7)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	3.6 (1.0-8.3)	3.8 (1.0-10.8)	5 (2-11)	4 (2-7)	79 (45-91)	78 (45-90)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.4-1.2)	0.8 (0.4-1.2)
SR1A	6.5 (6.0-6.9)	6.4 (6.1-6.8)	6.7 (6.4-7.0)	6.6 (6.3-7.0)	3.1 (0.7-6.0)	4.1 (0.7-10.6)	5 (2-8)	4 (2-7)	-	-	-	-	-	-
SR2	6.6 (6.0-6.9)	6.5 (6.3-6.8)	6.7 (6.0-7.2)	6.6 (6.4-7.0)	3.6 (0.9-8.7)	4.2 (0.5-12.0)	4 (2-9)	4 (2-6)	81 (43-102)	79 (43-102)	0.2 (0.2-0.2)	0.2 (0.2-0.2)	0.8 (0.5-1.3)	0.8 (0.4-1.1)
SR3	6.5 (6.3-6.7)	6.5 (6.3-7.1)	6.6 (6.4-7.0)	6.6 (6.3-7.1)	4.0 (1.1-11.3)	3.4 (0.5-8.3)	4 (2-8)	4 (2-8)	-	-	-	-	-	-
SR4A	6.4 (5.9-7.1)	6.4 (6.0-6.8)	6.4 (5.9-6.8)	6.4 (6.0-6.6)	4.7 (1.1-13.9)	4.4 (1.1-10.5)	5 (2-15)	4 (2-9)	-	-	-	-	-	-
SR5A	6.4 (6.0-6.8)	6.4 (6.0-6.6)	6.4 (6.0-6.8)	6.4 (6.0-6.6)	5.6 (1.7-13.0)	3.9 (1.4-10.3)	6 (2-20)	5 (2-12)	-	-	-	-	-	-
SR6	6.3 (5.9-7.0)	6.4 (5.8-6.8)	6.3 (6.0-6.9)	6.3 (5.9-6.7)	4.1 (0.5-12.2)	4.2 (1.1-12.2)	6 (2-14)	4 (2-8)	-	-	-	-	-	-
SR7	6.1 (5.5-6.5)	6.1 (5.8-6.5)	6.3 (5.4-6.9)	6.3 (5.8-6.9)	3.1 (0.5-9.3)	3.3 (1.4-7.1)	4 (2-9)	4 (2-7)	-	-	-	-	-	-
SR8	6.4 (6.0-6.6)	6.4 (6.0-6.7)	6.6 (6.3-7.1)	6.6 (6.2-7.0)	4.1 (1.2-12.0)	4.4 (1.0-8.0)	4 (2-9)	4 (2-7)	-	-	-	-	-	-

Note: (1) Average value and the range of values (in bracket) are presented in each cell.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 14 November 23 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	13:17	7.9	Surface	1.0	0.2	220	24.3	24.3	8.2	8.2	30.5	30.5	88.5	88.5	6.2	6.2	5.3	6.1	5	6	82	85	815628	804260	0.2	0.2	0.7	0.7
						1.0	0.2	213	24.3		8.2		30.5		88.5		6.2		5.3		5		82							
					Middle	4.0	0.2	210	24.3	24.3	8.2	8.2	30.6	30.6	88.0	88.0	6.2		4.9		5		84							
						4.0	0.2	213	24.3		8.2		30.6		88.0		6.2		4.9		5		84							
					Bottom	6.9	0.2	216	24.3	24.3	8.2	8.2	30.8	30.8	87.4	87.5	6.1	6.2	8.0		6		88							
						6.9	0.2	218	24.3		8.2		30.8		87.5		6.2		8.1		7		88							
C2	Fine	Moderate	11:55	9.2	Surface	1.0	0.0	2	25.3	25.3	8.0	8.0	29.2	29.2	89.0	89.0	6.2	6.2	3.9	4.7	5	6	47	74	825674	806939	0.2	0.2	0.7	0.7
						1.0	0.0	9	25.3		8.0		29.2		88.9		6.2		3.9		6		47						0.8	
					Middle	4.6	0.0	11	25.2	25.2	8.0	8.0	29.2	29.2	89.0	89.1	6.2		4.9		6		82						0.7	
						4.6	0.1	12	25.2		8.0		29.2		89.1		6.2		4.8		5		83						0.8	
					Bottom	8.2	0.1	353	25.2	25.2	8.0	8.0	29.2	29.2	89.4	89.5	6.2	6.2	5.2		6		91				<0.2		0.6	
						8.2	0.1	355	25.2		8.0		29.2		89.5		6.2		5.2		7		91				<0.2		0.6	
C3	Fine	Moderate	14:33	10.0	Surface	1.0	0.2	79	25.5	25.5	8.0	8.0	30.7	30.7	91.2	91.3	6.3	6.4	1.1	1.5	5	5	51	74	822102	817780	0.3	0.3	0.8	0.7
						1.0	0.2	85	25.5		8.0		30.7		91.4		6.3		1.1		5		51				0.3		0.7	
					Middle	5.0	0.2	64	25.5	25.5	8.0	8.0	30.8	30.8	92.4	94.2	6.4		1.2		5		85				0.3		0.7	
						5.0	0.1	57	25.5		8.0		30.8		96.0		6.6		1.2		6		85				0.3		0.7	
					Bottom	9.0	0.2	53	25.5	25.5	8.0	8.0	30.8	30.8	96.9	97.2	6.7	6.7	2.3		6		87				0.3		0.7	
						9.0	0.2	46	25.5		8.0		30.8		97.5		6.7		2.3		4		87				0.3		0.6	
IM1	Fine	Rough	12:57	6.8	Surface	1.0	0.1	185	24.3	24.3	8.3	8.3	30.3	30.3	90.4	90.4	6.4	6.4	3.8	5.8	5	6	82	86	818351	806442	0.3	0.2	0.6	0.6
						1.0	0.2	192	24.3		8.3		30.3		90.4		6.4		3.9		5		83				0.3		0.7	
					Middle	3.4	0.1	196	24.3	24.3	8.3	8.3	30.4	30.4	89.2	89.2	6.3		4.5		6		86				<0.2		0.6	
						3.4	0.1	191	24.3		8.3		30.4		89.2		6.3		4.5		5		86				<0.2		0.7	
					Bottom	5.8	0.1	202	24.3	24.3	8.2	8.2	30.6	30.6	88.0	88.0	6.2	6.2	9.0		7		90				0.2		0.6	
						5.8	0.1	204	24.3		8.2		30.6		88.0		6.2		9.0		8		90				0.2		0.6	
IM2	Fine	Rough	12:51	7.2	Surface	1.0	0.1	164	24.4	24.4	8.2	8.2	30.4	30.4	87.6	87.6	6.2	6.2	4.5	4.0	6	6	85	88	818867	806196	<0.2	0.2	0.6	0.6
						1.0	0.1	156	24.4		8.2		30.4		87.5		6.2		4.6		7		85				<0.2		0.6	
					Middle	3.6	0.1	176	24.4	24.4	8.2	8.2	30.5	30.5	86.8	86.8	6.1	6.2	3.3		6		87				<0.2		0.5	
						3.6	0.1	179	24.4		8.2		30.5		86.8		6.1		3.3		7		87				<0.2		0.5	
					Bottom	6.2	0.1	165	24.4	24.4	8.2	8.2	30.6	30.6	86.8	86.8	6.1	6.1	4.1		5		91				0.2		0.6	
						6.2	0.1	168	24.4		8.2		30.6		86.8		6.1		4.1		6		91				0.2		0.5	
IM3	Fine	Rough	12:44	7.5	Surface	1.0	0.1	156	24.4	24.4	8.3	8.3	30.1	30.1	89.7	89.7	6.3	6.2	3.6	4.7	6	5	85	88	819390	805999	0.2	0.2	0.7	0.6
						1.0	0.0	161	24.4		8.3		30.1		89.7		6.3		3.6		5		85				0.3		0.6	
					Middle	3.8	0.1	183	24.5	24.5	8.3	8.3	30.6	30.7	87.6	87.7	6.1		4.2		5		87				0.2		0.6	
						3.8	0.1	186	24.5		8.3		30.7		87.7		6.1		4.2		5		87				0.2		0.6	
					Bottom	6.5	0.0	178	24.5	24.5	8.2	8.2	30.7	30.7	87.8	87.8	6.1	6.2	6.3		4		90				<0.2		0.6	
						6.5	0.0	176	24.5		8.2		30.7		87.8		6.2		6.4		5		91				<0.2		0.6	
IM4	Fine	Rough	12:38	8.4	Surface	1.0	0.1	160	24.3	24.3	8.3	8.3	29.9	29.9	90.3	90.3	6.4	6.3	4.5	7.3	5	5	84	86	819567	805062	<0.2	<0.2	0.6	0.6
						1.0	0.2	162	24.3		8.3		29.9		90.3		6.4		4.5		5		84				<0.2		0.6	
					Middle	4.2	0.1	191	24.5	24.5	8.2	8.2	30.5	30.5	88.5	88.6	6.2		8.1		5		84				<0.2		0.6	
						4.2	0.1	191	24.5		8.2		30.5		88.6		6.2		8.2		6		84				<0.2		0.6	
					Bottom	7.4	0.1	181	24.4	24.4	8.2	8.2	30.5	30.6	90.6	90.9	6.4	6.4	9.1		5		88				<0.2		0.5	
						7.4	0.1	180	24.4		8.2		30.6		91.2		6.4		9.2		6		89				<0.2		0.6	
IM5	Fine	Rough	12:26	7.1	Surface	1.0	0.1	144	24.3	24.3	8.3	8.3	30.2	30.2	89.2	89.2	6.3	6.3	5.3	7.4	5	5	84	87	820558	804913	<0.2	<0.2	0.5	0.5
						1.0	0.2	149	24.3		8.3		30.1		89.2		6.3		5.3		4		85				<0.2		0.5	
					Middle	3.6	0.1	127	24.4	24.4	8.3	8.3	30.3	30.3	88.4	88.4	6.2		7.2		4		87				<0.2		0.5	
						3.6	0.1	133	24.4		8.3		30.3		88.4		6.2		7.2		5		87				<0.2		0.6	
					Bottom	6.1	0.1	137	24.4	24.4	8.2	8.2	30.5	30.5	87.9	87.9	6.2	6.2	9.6		5		90				<0.2		0.6	
						6.1	0.1	141	24.4		8.2		30.5		87.9		6.2		9.6		5		90				<0.2		0.5	
IM6	Fine	Rough	12:13	7.3	Surface	1.0	0.1	106	24.3	24.3	8.2	8.2	30.5	30.5	89.8	89.8	6.3	6.3	5.5	7.7	5	6	85	88	821041	805810	<0.2	<0.2	0.5	0.5
						1.0	0.1	112	24.3		8.2		30.5		89.8		6.3		5.5		6		85				<0.2		0.5	
					Middle	3.7	0.1	85	24.3	24.3	8.2	8.2	30.5	30.5	89.2	89.2	6.3		7.7		5		87				<0.2		0.6	
						3.7	0.2	79	24.3		8.2		30.5		89.2		6.3		7.7		6		88				<0.2		0.5	
					Bottom	6.3	0.1	108	24.3	24.3	8.2	8.2	30.6	30.6	89.5	89.6	6.3	6.3	9.8		7		90				<0.2		0.6	
						6.3	0.1	113	24.3		8.2		30.6		89.6		6.3		9.8		6		90				<0.2		0.5	
IM7	Fine	Rough	12:02	7.8	Surface	1.0	0.1	66	24.6	24.6	8.2	8.2	29.3	29.3	86.7	86.7	6.1	6.1	2.6	4.8	4	5	85	89	821343	806847	<0.2	<0.2	0.5	0.6
						1.0	0.1	73	24.6		8.2		29.3		86.7		6.1		2.6		5		86				<0.2		0.5	
					Middle	3.9	0.2	66	24.4	24.4	8.2	8.2	29.7	29.7	86.4	86.5	6.1		4.8		4		88				<0.2		0.5	
						3.9	0.2	65	24.4		8.2		29.7		86.5		6.1		4.8		5		88				<0.2		0.5	
					Bottom	6.8	0.2	84	24.2	24.2	8.2	8.2	30.1	30.1	86.5	86.5	6.1	6.1	7.1		5		93				<0.2		0.6	
						6.8	0.2	78	24.2		8.2		30.1		86.5		6.1		7.0		5		93				<0.2		0.7	
IM8	Fine	Moderate	12:24	7.4	Surface	1.0	0.1	72	25.1	25.1	8.0	8.0	29.5	29.6	92.8	92.9	6.5	6.5	4.6	5.5	5	6	84	88	821700	807850	<0.2	<0.2	0.8	0.7
						1.0	0.1	69	25.1		8.0		29.6		92.9		6.5		4.6		6		85				<0.2		0.6	
					Middle	3.7	0.1	69	24.9	24.9	8.0	8.0	29.9	30.0	93.3	93.4	6.5		5.4		6		88				<0.2		0.7	
						3.7	0.0	67	24.9		8.0		30.0		93.5		6.5		5.4		6		88				<0.2		0.7	
					Bottom	6.4	0.1	64	24.7	24.8	8.1	8.1	30.3	30.3	97.5	97.8	6.8	6.8	6.6		7		90				<0.2		0.7	
						6.4	0.0	70	24.8		8.1		30.3		98.0		6.8		6.6		6		91				<0.2		0.7	

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 14 November 23 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	12:31	8.6	Surface	1.0	0.1	72	25.2	25.2	8.0	8.0	29.4	29.4	90.7	90.8	6.3	6.4	2.9	3.8	5	6	84	88	822102	808830	<0.2	0.2	0.8	0.7
						1.0	0.1	69	25.2		8.0		29.4		90.8		6.3		3.0		6		85				<0.2		0.6	
					Middle	4.3	0.1	94	25.1	25.1	8.0	8.0	29.7	29.7	92.1	92.2	6.4		3.3		5		88				<0.2		0.6	
						4.3	0.0	90	25.1		8.0		29.7		92.3		6.4		3.4		6		89				<0.2		0.6	
					Bottom	7.6	0.2	65	24.9	24.9	8.0	8.0	30.0	30.0	94.3	94.6	6.6	6.6	5.0		7		89				0.3		0.8	
						7.6	0.2	72	24.9		8.0		30.0		94.8		6.6		5.0		6		90				0.3		0.7	
IM10	Fine	Moderate	12:38	9.8	Surface	1.0	0.1	90	25.2	25.2	8.0	8.0	30.0	30.0	89.6	89.6	6.2	6.3	2.0	3.2	5	6	52	77	822220	809860	<0.2	<0.2	0.7	0.7
						1.0	0.2	95	25.2		8.0		30.0		89.6		6.2		2.0		6		52				<0.2		0.7	
					Middle	4.9	0.2	88	25.1	25.1	8.0	8.0	30.0	30.0	90.4	90.5	6.3		3.2		5		89				<0.2		0.6	
						4.9	0.2	81	25.1		8.0		30.0		90.6		6.3		3.2		6		89				<0.2		0.6	
					Bottom	8.8	0.2	75	25.1	25.1	8.0	8.0	30.0	30.0	98.6	98.9	6.9	6.9	4.3		7		90				<0.2		0.6	
						8.8	0.2	68	25.1		8.0		30.0		99.1		6.9		4.3		8		90				<0.2		0.8	
IM11	Fine	Moderate	12:54	10.0	Surface	1.0	0.2	82	25.2	25.2	8.0	8.0	30.1	30.2	89.4	89.5	6.2	6.3	2.1	3.3	6	5	62	75	821483	810554	<0.2	<0.2	0.6	0.7
						1.0	0.2	87	25.2		8.0		30.2		89.5		6.2		2.1		6		63				<0.2		0.7	
					Middle	5.0	0.2	82	25.3	25.3	8.0	8.0	30.2	30.2	91.2	91.4	6.3		3.2		5		78				<0.2		0.7	
						5.0	0.2	76	25.3		8.0		30.2		91.6		6.3		3.2		5		78				<0.2		0.6	
					Bottom	9.0	0.2	104	25.3	25.3	8.0	8.0	30.2	30.2	93.0	93.1	6.4	6.5	4.6		5		84				<0.2		0.6	
						9.0	0.2	102	25.3		8.0		30.2		93.2		6.5		4.5		5		85				<0.2		0.7	
IM12	Fine	Moderate	13:17	10.0	Surface	1.0	0.2	107	25.4	25.4	8.0	8.0	30.2	30.2	89.0	89.1	6.2	6.3	4.2	5.2	4	5	48	74	821162	811506	<0.2	<0.2	0.6	0.6
						1.0	0.2	102	25.4		8.0		30.2		89.1		6.2		4.2		5		48				<0.2		0.7	
					Middle	5.0	0.2	114	25.4	25.4	8.0	8.0	30.3	30.3	91.2	91.4	6.3		5.2		5		86				<0.2		0.6	
						5.0	0.2	112	25.4		8.0		30.3		91.6		6.3		5.2		5		86				<0.2		0.7	
					Bottom	9.0	0.2	94	25.3	25.3	8.0	8.0	30.3	30.3	94.3	94.7	6.5	6.6	6.1		6		88				<0.2		0.6	
						9.0	0.2	92	25.3		8.0		30.3		95.1		6.6		6.1		7		88				<0.2		0.6	
SR1A	Fine	Moderate	14:09	4.8	Surface	1.0	0.0	17	25.1	25.1	8.0	8.0	29.9	29.9	91.8	91.9	6.4	6.4	3.2	3.9	6	6	-	-	819978	812660	-	-	-	-
						1.0	0.0	19	25.1		8.0		29.9		91.9		6.4		3.2		5		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	9	25.1	25.1	8.0	8.0	30.0	30.0	99.0	99.4	6.9	6.9	4.5		7		-				-		-	
						3.8	0.0	13	25.1		8.0		30.0		99.7		6.9		4.5		6		-				-		-	
SR2	Fine	Moderate	14:16	5.0	Surface	1.0	0.2	21	25.2	25.2	8.0	8.0	30.1	30.1	92.2	93.9	6.4	6.5	2.6	3.1	6	5	74	83	821457	814188	<0.2	<0.2	0.7	0.7
						1.0	0.2	19	25.2		8.0		30.1		95.6		6.6		2.5		5		74				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.3	55	25.2	25.2	8.0	8.0	30.0	30.0	98.2	98.6	6.8	6.9	3.7		4		92				<0.2		0.7	
						4.0	0.3	54	25.2		8.0		30.0		98.9		6.9		3.7		5		92				<0.2		0.7	
SR3	Fine	Moderate	12:20	7.8	Surface	1.0	0.0	67	25.1	25.1	8.0	8.0	29.6	29.6	93.8	93.9	6.6	6.6	3.2	3.7	4	6	-	-	822157	807572	-	-	-	-
						1.0	0.1	69	25.0		8.0		29.6		93.9		6.6		3.2		6		-				-		-	
					Middle	3.9	0.1	77	24.9	24.9	8.0	8.0	30.1	30.1	94.8	94.9	6.6		3.9		5		-				-		-	
						3.9	0.1	76	24.9		8.0		30.1		94.9		6.6		3.9		6		-				-		-	
					Bottom	6.8	0.1	83	24.8	24.9	8.0	8.0	30.2	30.2	98.9	99.3	6.9	7.0	4.0		7		-				-		-	
						6.8	0.1	76	24.9		8.0		30.1		99.6		7.0		4.0		8		-				-		-	
SR4A	Fine	Moderate	13:43	9.5	Surface	1.0	0.0	358	24.2	24.2	8.2	8.2	30.6	30.6	87.4	87.4	6.2	6.2	4.5	5.5	6	6	-	-	817207	807803	-	-	-	-
						1.0	0.0	2	24.2		8.2		30.6		87.4		6.2		4.5		5		-				-		-	
					Middle	4.8	0.0	340	24.2	24.2	8.2	8.2	30.7	30.7	87.0	87.1	6.1		5.3		6		-				-		-	
						4.8	-	339	24.2		8.2		30.7		87.1		6.1		5.4		6		-				-		-	
					Bottom	8.5	0.0	21	24.2	24.2	8.2	8.2	30.7	30.7	87.4	87.5	6.2	6.2	6.7		7		-				-		-	
						8.5	0.0	18	24.2		8.2		30.7		87.5		6.2		6.8		7		-				-		-	
SR5A	Fine	Moderate	14:01	4.9	Surface	1.0	0.1	120	24.2	24.2	8.2	8.2	29.6	29.7	85.7	85.7	6.1	6.1	9.7	7.5	6	8	-	-	816593	810711	-	-	-	-
						1.0	0.1	123	24.2		8.2		29.7		85.6		6.1		9.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	88	24.1	24.1	8.2	8.2	30.3	30.3	86.7	86.7	6.1	6.1	5.2		8		-				-		-	
						3.9	0.1	82	24.1		8.2		30.3		86.7		6.1		5.2		9		-				-		-	
SR6	Fine	Moderate	14:27	5.1	Surface	1.0	0.0	56	24.7	24.7	8.2	8.2	29.6	29.6	83.3	83.4	5.9	5.9	5.9	5.6	7	7	-	-	817876	814680	-	-	-	-
						1.0	0.0	49	24.7		8.2		29.6		83.4		5.9		5.9		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.0	54	24.7	24.7	8.2	8.2	29.6	29.6	85.1	85.2	6.0	6.0	5.2		5		-				-		-	
						4.1	0.1	58	24.7		8.2		29.6		85.2		6.0		5.2		6		-				-		-	
SR7	Fine	Moderate	15:00	12.2	Surface	1.0	0.3	56	25.6	25.6	8.0	8.0	30.9	30.9	89.2	89.3	6.1	6.2	1.6	2.5	5	6	-	-	823628	823755	-	-	-	-
						1.0	0.2	50	25.6		8.0		30.9		89.3		6.1		1.5		5		-				-		-	
					Middle	6.1	0.3	75	25.5	25.5	8.0	8.0	30.9	30.9	90.8	91.0	6.2		2.8		5		-				-		-	
						6.1	0.3	67	25.5		8.0		30.9		91.2		6.3		2.8		5		-				-		-	
					Bottom	11.2	0.3	48	25.5	25.5	8.0	8.0	30.9	30.9	96.2	96.5	6.6	6.6	3.0		6		-				-		-	
						11.2	0.2	54	25.5		8.0		30.9		96.7		6.6		3.0		7		-				-		-	
SR8	Fine	Moderate	14:00	5.8	Surface	1.0	-	-	25.2	25.2	8.0	8.0	30.1	30.1	89.8	89.9	6.2	6.2	3.7	4.1	6	6	-	-	820412	811636	-	-	-	-
						1.0	-	-	25.2		8.0		30.1		89.9		6.2		3.7		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	-	25.2	25.2	8.0	8.0	30.0	30.0	99.9	100.5	6.9	7.0	4.5		6		-				-		-	
						4.8	-	-	25.2		8.0		30.0		101.0		7.0		4.4		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 14 November 23 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
C1	Fine	Rough	07:46	7.3	Surface	1.0	0.4	22	24.3	24.3	8.2	8.2	30.3	30.4	88.5	88.5	6.2	6.2	6.6	8.0	7	6	83	87	815631	804251	0.2	0.2	0.6	0.6
						1.0	0.4	20	24.3		8.2		30.4		88.5		6.2		6.6		6		83				0.2		0.5	
					Middle	3.7	0.4	38	24.3	24.3	8.2	8.2	30.5	30.5	87.8	87.8	6.2		8.3		7		88				0.2		0.6	
						3.7	0.4	34	24.3		8.2		30.5		87.8		6.2		8.2		6		88				0.2		0.6	
					Bottom	6.3	0.4	13	24.3	24.3	8.2	8.2	30.8	30.8	87.5	87.5	6.1	6.2	9.2		6		90				<0.2		0.6	
						6.3	0.4	11	24.3		8.2		30.8		87.5		6.2		9.3		6		90				<0.2		0.6	
C2	Fine	Moderate	09:24	10.4	Surface	1.0	0.5	345	25.2	25.2	8.0	8.0	29.2	29.2	90.4	90.5	6.3	6.4	4.0	5.0	4	5	52	78	825681	806965	<0.2	<0.2	0.7	0.7
						1.0	0.5	351	25.2		8.0		29.2		90.5		6.3		4.0		4		52				<0.2		0.7	
					Middle	5.2	0.5	2	25.2	25.2	8.0	8.0	29.2	29.2	91.2	91.3	6.4		4.9		5		91				<0.2		0.6	
						5.2	0.5	3	25.2		8.0		29.2		91.3		6.4		5.0		5		91				<0.2		0.6	
					Bottom	9.4	0.5	12	25.0	25.0	8.0	8.0	29.3	29.4	92.9	93.1	6.5	6.5	6.1		5		90				<0.2		0.6	
						9.4	0.5	6	24.9		8.0		29.4		93.3		6.5		6.1		6		90				<0.2		0.8	
C3	Fine	Moderate	07:42	9.8	Surface	1.0	0.4	273	25.6	25.6	8.0	8.0	30.7	30.7	85.7	85.7	5.9	5.9	1.4	2.7	6	5	44	72	822127	817809	0.2	0.2	0.7	0.7
						1.0	0.4	278	25.6		8.0		30.7		85.7		5.9		1.4		5		44				0.2		0.8	
					Middle	4.9	0.5	259	25.6	25.6	8.0	8.0	30.7	30.7	86.1	86.1	5.9		2.3		5		86				0.2		0.6	
						4.9	0.5	258	25.6		8.0		30.7		86.1		5.9		2.3		5		86				0.2		0.7	
					Bottom	8.8	0.5	276	25.6	25.6	8.0	8.0	30.7	30.7	86.6	86.7	6.0	6.0	4.3		5		86				<0.2		0.7	
						8.8	0.5	283	25.6		8.0		30.7		86.7		6.0		4.3		5		86				<0.2		0.7	
IM1	Fine	Moderate	08:13	6.5	Surface	1.0	0.3	15	24.2	24.2	8.2	8.2	30.4	30.4	86.7	86.7	6.1	6.1	4.8	5.5	5	6	82	85	818360	806461	<0.2	0.2	0.7	0.7
						1.0	0.3	13	24.2		8.2		30.4		86.7		6.1		4.7		6		82				<0.2		0.6	
					Middle	3.3	0.3	5	24.3	24.3	8.2	8.2	30.5	30.5	86.5	86.5	6.1		5.0		6		84				<0.2		0.7	
						3.3	0.3	12	24.3		8.2		30.5		86.5		6.1		5.0		6		84				<0.2		0.6	
					Bottom	5.5	0.2	14	24.3	24.3	8.2	8.2	30.6	30.6	86.3	86.3	6.1	6.1	6.8		6		90				0.2		0.6	
						5.5	0.3	16	24.3		8.2		30.6		86.3		6.1		6.9		6		90				0.3		0.7	
IM2	Fine	Moderate	08:21	7.0	Surface	1.0	0.3	9	24.3	24.3	8.2	8.2	30.2	30.2	88.0	88.0	6.2	6.2	6.6	8.2	6	7	83	88	818861	806173	0.2	0.2	0.7	0.6
						1.0	0.3	7	24.3		8.2		30.1		88.0		6.2		6.7		6		83				0.2		0.6	
					Middle	3.5	0.3	23	24.3	24.3	8.2	8.2	30.3	30.4	87.6	87.6	6.2		7.7		6		88				<0.2		0.7	
						3.5	0.3	24	24.3		8.2		30.4		87.6		6.2		7.8		7		88				<0.2		0.6	
					Bottom	6.0	0.2	1	24.3	24.3	8.2	8.2	30.7	30.7	87.0	87.1	6.1	6.1	10.1		7		91				<0.2		0.5	
						6.0	0.3	355	24.3		8.2		30.7		87.1		6.1		10.1		8		92				<0.2		0.5	
IM3	Fine	Moderate	08:35	7.3	Surface	1.0	0.3	0	24.3	24.3	8.3	8.3	30.0	30.0	88.7	88.7	6.3	6.3	6.2	6.9	6	6	85	87	819410	806040	<0.2	<0.2	0.7	0.7
						1.0	0.3	5	24.3		8.3		30.0		88.7		6.3		6.1		7		85				<0.2		0.6	
					Middle	3.7	0.3	8	24.4	24.4	8.2	8.2	30.2	30.2	87.8	87.9	6.2		6.3		7		86				<0.2		0.8	
						3.7	0.3	8	24.4		8.2		30.2		87.9		6.2		6.4		6		86				<0.2		0.7	
					Bottom	6.3	0.3	25	24.4	24.4	8.2	8.2	30.3	30.3	87.9	87.9	6.2	6.2	8.1		6		91				<0.2		0.7	
						6.3	0.3	21	24.4		8.2		30.3		87.9		6.2		8.0		5		91				<0.2		0.7	
IM4	Fine	Moderate	08:51	8.1	Surface	1.0	0.3	356	24.3	24.3	8.2	8.2	30.5	30.5	87.6	87.6	6.2	6.2	4.1	5.5	6	6	86	89	819569	805042	0.2	0.2	0.6	0.6
						1.0	0.3	2	24.3		8.2		30.4		87.6		6.2		4.1		6		87				0.3		0.7	
					Middle	4.1	0.3	18	24.3	24.3	8.2	8.2	30.6	30.6	87.7	87.8	6.2		5.8		5		88				<0.2		0.6	
						4.1	0.3	14	24.3		8.2		30.6		87.8		6.2		5.9		6		88				<0.2		0.6	
					Bottom	7.1	0.3	20	24.3	24.3	8.2	8.2	30.7	30.7	88.2	88.3	6.2	6.2	6.4		5		91				<0.2		0.6	
						7.1	0.3	27	24.3		8.2		30.7		88.3		6.2		6.4		5		91				<0.2		0.6	
IM5	Fine	Moderate	09:05	6.9	Surface	1.0	0.4	9	24.4	24.4	8.2	8.2	29.6	29.6	88.6	88.8	6.3	6.2	3.6	6.6	6	8	82	86	820583	804937	0.3	0.2	0.6	0.6
						1.0	0.4	13	24.4		8.2		29.6		89.0		6.3		3.6		6		82				0.3		0.7	
					Middle	3.5	0.4	352	24.3	24.3	8.2	8.2	30.6	30.6	87.2	87.3	6.1		8.8		8		86				<0.2		0.5	
						3.5	0.4	356	24.3		8.2		30.6		87.3		6.1		8.8		9		86				<0.2		0.6	
					Bottom	5.9	0.3	12	24.3	24.3	8.2	8.2	30.6	30.6	87.4	87.4	6.1	6.1	7.4		9		91				<0.2		0.6	
						5.9	0.4	11	24.3		8.2		30.6		87.4		6.1		7.5		10		91				<0.2		0.7	
IM6	Fine	Moderate	09:12	7.1	Surface	1.0	0.2	11	24.5	24.5	8.2	8.2	29.5	29.6	86.8	86.8	6.1	6.1	3.2	4.6	8	6	80	85	821053	805841	<0.2	<0.2	0.7	0.6
						1.0	0.3	16	24.4		8.2		29.6		86.8		6.1		3.2		7		80				<0.2		0.6	
					Middle	3.6	0.3	359	24.3	24.3	8.2	8.2	30.0	30.0	86.4	86.4	6.1		4.5		6		84				<0.2		0.6	
						3.6	0.3	352	24.3		8.2		30.0		86.4		6.1		4.5		6		84				<0.2		0.7	
					Bottom	6.1	0.2	25	24.2	24.2	8.2	8.2	30.2	30.2	86.1	86.1	6.1	6.1	6.1		5		91				<0.2		0.6	
						6.1	0.2	28	24.2		8.2		30.2		86.1		6.1		6.2		5		91				<0.2		0.6	
IM7	Fine	Moderate	09:27	7.3	Surface	1.0	0.3	29	24.6	24.6	8.2	8.2	29.1	29.0	86.3	86.4	6.1	6.1	2.8	6.0	6	5	79	84	821335	806825	<0.2	<0.2	0.5	0.6
						1.0	0.2	25	24.6		8.2		28.9		86.4		6.1		3.0		5		79				<0.2		0.5	
					Middle	3.7	0.2	35	24.4	24.4	8.2	8.2	29.8	29.8	85.9	85.9	6.1		5.1		4		82				<0.2		0.7	
						3.7	0.2	41	24.4		8.2		29.8		85.9		6.1		5.2		4		83				<0.2		0.6	
					Bottom	6.3	0.3	7	24.3	24.3	8.2	8.2	30.2	30.2	85.5	85.5	6.0	6.0	9.8		4		91				<0.2		0.6	
						6.3	0.3	4	24.3		8.2		30.2		85.5		6.0		9.8		4		91				<0.2		0.5	
IM8	Fine	Moderate	09:01	8.6	Surface	1.0	0.2	351	25.2	25.2	8.0	8.0	29.3	29.3	90.3	90.4	6.3	6.3	1.9	3.1	4	4	84	87	821716	807855	<0.2	<0.2	0.8	0.7
						1.0	0.2	346	25.2		8.0		29.3		90.4		6.3		1.9		5		85				<0.2		0.7	
					Middle	4.3	0.2	347	25.2	25.2	8.0	8.0	29.3	29.3	90.7	90.8	6.3		2.9		4		87				<0.2		0.7	
						4.3	0.2	342	25.2		8.0		29.3		90.8		6.3		3.0		4		87				<0.2		0.7	
					Bottom	7.6	0.3	346	25.1	25.1	8.0	8.0	29.6	29.6	93.1	93.3	6.5	6.5	4.4		4		90				<0.2		0.6	
						7.6	0.2	338	25.1		8.0		29.6		93.4		6.5		4.3		4		91				<0.2		0.6	

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 14 November 23 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	08:54	7.8	Surface	1.0	0.4	314	24.9	24.9	8.0	8.0	29.7	29.8	92.1	92.2	6.4	6.5	2.5	3.9	4	4	85	88	822070	808825	<0.2	<0.2	0.7	0.7
						1.0	0.4	307	24.9		8.0		29.8		92.2		6.4		2.5		4		85				<0.2		0.6	
					Middle	3.9	0.4	316	24.9	24.9	8.0	8.0	30.0	30.0	94.7	94.9	6.6		3.8		4		88				<0.2		0.7	
						3.9	0.4	321	24.9		8.0		30.0		95.1		6.6		3.7		4		88				<0.2		0.7	
					Bottom	6.8	0.3	333	24.9	24.9	8.0	8.0	30.0	30.0	98.0	98.3	6.9	6.9	5.4		4		90				<0.2		0.7	
						6.8	0.3	338	24.9		8.0		30.0		98.5		6.9		5.3		4		91				<0.2		0.7	
IM10	Fine	Moderate	08:48	8.8	Surface	1.0	0.4	305	25.2	25.2	8.0	8.0	30.0	30.0	90.1	90.3	6.3	6.4	3.7	4.5	4	4	49	75	822259	809849	0.2	0.2	0.8	0.8
						1.0	0.4	305	25.2		8.0		30.0		90.4		6.3		3.7		5		49				0.2		0.8	
					Middle	4.4	0.5	276	25.2	25.2	8.0	8.0	30.0	30.0	92.4	92.6	6.4		4.0		4		86				0.2		0.8	
						4.4	0.5	280	25.2		8.0		30.0		92.7		6.4		4.0		4		86				0.2		0.7	
					Bottom	7.8	0.4	301	25.2	25.2	8.0	8.0	30.0	30.0	94.9	95.1	6.6	6.6	5.8		4		89				<0.2		0.8	
						7.8	0.4	293	25.2		8.0		30.0		95.2		6.6		5.7		4		89				<0.2		0.9	
IM11	Fine	Moderate	08:42	8.0	Surface	1.0	0.5	287	25.2	25.2	8.0	8.0	30.0	30.0	90.0	90.1	6.3	6.4	4.9	5.6	4	5	52	76	821520	810546	<0.2	0.2	0.7	0.7
						1.0	0.5	283	25.2		8.0		30.0		90.1		6.3		4.9		5		52				<0.2		0.7	
					Middle	4.0	0.4	287	25.1	25.1	8.0	8.0	30.0	30.0	91.4	91.5	6.4		5.2		4		87				<0.2		0.7	
						4.0	0.4	288	25.1		8.0		30.0		91.6		6.4		5.2		5		87				<0.2		0.7	
					Bottom	7.0	0.4	278	25.1	25.1	8.0	8.0	30.0	30.0	93.9	94.1	6.5	6.6	6.6		5		90				0.2		0.7	
						7.0	0.4	270	25.1		8.0		30.0		94.2		6.6		6.5		5		90				0.2		0.6	
IM12	Fine	Moderate	08:36	9.4	Surface	1.0	0.5	288	25.2	25.2	8.0	8.0	30.0	30.0	89.2	89.2	6.2	6.2	2.2	3.3	4	4	45	73	821185	811538	0.2	0.2	0.6	0.7
						1.0	0.5	282	25.2		8.0		30.0		89.2		6.2		2.2		4		46				0.2		0.6	
					Middle	4.7	0.5	289	25.2	25.2	8.0	8.0	30.0	30.0	89.7	89.8	6.2		3.5		4		86				<0.2		0.7	
						4.7	0.6	282	25.2		8.0		30.0		89.8		6.2		3.5		4		86				<0.2		0.8	
					Bottom	8.4	0.5	277	25.2	25.2	8.0	8.0	30.0	30.0	90.5	90.6	6.3	6.3	4.1		4		87				0.2		0.7	
						8.4	0.5	272	25.2		8.0		30.0		90.6		6.3		4.1		4		87				0.2		0.8	
SR1A	Fine	Moderate	08:16	4.0	Surface	1.0	0.0	198	24.9	24.9	8.0	8.0	29.8	29.8	92.8	93.0	6.5	6.5	5.1	6.0	4	4	-	-	819975	812653	-	-	-	-
						1.0	0.0	199	24.9		8.0		29.8		93.2		6.5		5.1		4		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.0	218	24.9	24.9	8.0	8.0	29.7	29.7	99.6	100.1	7.0	7.0	6.8		4		-				-		-	
						3.0	0.1	221	24.9		8.0		29.7		100.5		7.0		6.9		4		-				-		-	
SR2	Fine	Moderate	08:02	4.6	Surface	1.0	0.1	232	25.1	25.1	8.0	8.0	30.1	30.1	91.8	92.0	6.4	6.4	4.3	4.8	5	4	43	65	821446	814156	0.2	0.2	0.7	0.7
						1.0	0.1	231	25.1		8.0		30.1		92.2		6.4		4.2		4		44				0.2		0.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	209	25.0	25.0	8.0	8.0	30.1	30.1	94.1	94.3	6.6	6.6	5.4		4		87				0.2		0.7	
						3.6	0.1	206	25.0		8.0		30.1		94.4		6.6		5.4		4		87				0.2		0.6	
SR3	Fine	Moderate	09:06	8.6	Surface	1.0	0.4	354	25.1	25.1	8.0	8.0	29.6	29.7	89.9	90.0	6.3	6.3	3.6	5.0	4	4	-	-	822136	807549	-	-	-	-
						1.0	0.4	348	25.1		8.0		29.7		90.0		6.3		3.6		4		-				-		-	
					Middle	4.3	0.4	327	24.9	24.9	8.0	8.0	30.1	30.1	90.0	90.0	6.3		5.3		5		-				-		-	
						4.3	0.4	327	24.9		8.0		30.1		90.0		6.3		5.2		4		-				-		-	
					Bottom	7.6	0.4	345	24.9	24.9	8.0	8.0	30.3	30.3	90.2	90.3	6.3	6.3	6.0		4		-				-		-	
						7.6	0.3	347	24.9		8.0		30.3		90.4		6.3		6.0		5		-				-		-	
SR4A	Fine	Moderate	07:21	9.2	Surface	1.0	0.0	200	24.2	24.2	8.2	8.2	30.7	30.7	85.6	85.6	6.0	6.1	4.1	4.2	5	5	-	-	817195	807825	-	-	-	-
						1.0	0.0	192	24.2		8.2		30.7		85.6		6.0		4.2		4		-				-		-	
					Middle	4.6	0.0	217	24.2	24.2	8.2	8.2	30.7	30.7	86.1	86.2	6.1		3.9		4		-				-		-	
						4.6	0.0	220	24.2		8.2		30.7		86.3		6.1		4.0		5		-				-		-	
					Bottom	8.2	0.0	212	24.1	24.1	8.2	8.2	30.7	30.7	87.3	87.4	6.2	6.2	4.4		5		-				-		-	
						8.2	0.0	205	24.1		8.2		30.7		87.5		6.2		4.4		5		-				-		-	
SR5A	Fine	Calm	07:04	4.1	Surface	1.0	0.2	287	24.3	24.3	8.2	8.2	29.4	29.4	84.5	84.5	6.0	6.0	3.5	3.4	6	5	-	-	816605	810708	-	-	-	-
						1.0	0.2	289	24.3		8.2		29.4		84.5		6.0		3.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.2	292	24.3	24.3	8.1	8.1	29.4	29.4	86.0	86.2	6.1	6.1	3.4		5		-				-		-	
						3.1	0.2	287	24.2		8.1		29.4		86.3		6.1		3.3		5		-				-		-	
SR6	Fine	Calm	06:37	4.3	Surface	1.0	0.2	233	24.6	24.6	8.1	8.1	29.7	29.7	82.8	82.8	5.8	5.8	2.7	3.1	5	4	-	-	817896	814663	-	-	-	-
						1.0	0.1	228	24.6		8.1		29.7		82.8		5.8		2.8		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	219	24.7	24.7	8.1	8.1	29.8	29.8	86.0	86.2	6.0	6.1	3.5		4		-				-		-	
						3.3	0.2	213	24.7		8.1		29.8		86.4		6.1		3.5		4		-				-		-	
SR7	Fine	Moderate	07:14	16.0	Surface	1.0	0.8	257	25.6	25.6	8.0	8.0	30.8	30.8	85.7	85.7	5.9	5.9	1.8	2.1	4	4	-	-	823619	823741	-	-	-	-
						1.0	0.8	252	25.6		8.0		30.8		85.7		5.9		1.8		4		-				-		-	
					Middle	8.0	0.8	229	25.6	25.6	8.0	8.0	30.8	30.8	86.6	86.7	5.9		2.1		4		-				-		-	
						8.0	0.8	231	25.6		8.0		30.8		86.7		6.0		2.2		4		-				-		-	
					Bottom	15.0	0.8	257	25.6	25.6	8.0	8.0	30.8	30.8	88.0	88.1	6.0	6.1	2.3		4		-				-		-	
						15.0	0.8	259	25.6		8.0		30.8		88.2		6.1		2.3		4		-				-		-	
SR8	Fine	Moderate	08:29	5.8	Surface	1.0	-	-	25.0	25.0	8.0	8.0	30.0	30.0	94.3	94.4	6.6	6.6	1.7	2.5	4	4	-	-	820412	811626	-	-	-	-
						1.0	-	-	25.0		8.0		30.0		94.5		6.6		1.6		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	-	25.0	25.0	8.0	8.0	30.0	30.0	95.9	96.6	6.7	6.8	3.4		3		-				-		-	
						4.8	-	-	25.0		8.0		30.0		97.2		6.8		3.3		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 16 November 23 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	Rough	14:40	8.1	Surface	1.0	0.1	210	23.9	23.9	8.2	8.2	29.7	29.7	87.7	87.8	6.3	6.4	10.2	12.2	8	8	84	87	815607	804242	<0.2	<0.2	0.5	0.6
						1.0	0.1	211	23.9		8.2		29.7		87.8		6.3		10.2		6		85				<0.2		0.6	
					Middle	4.1	0.1	202	23.9	23.9	8.2	8.2	29.4	29.4	88.9	89.0	6.4		13.8		7		87				<0.2		0.6	
						4.1	0.0	203	23.9		8.2		29.4		89.0		6.4		13.4		8		88				<0.2		0.5	
					Bottom	7.1	0.1	204	23.9	23.9	8.2	8.2	29.5	29.5	90.5	90.6	6.5	6.6	12.5		9		90				<0.2		0.6	
						7.1	0.2	197	23.9		8.2		29.4		90.7		6.6		12.8		10		89				<0.2		0.5	
C2	Fine	Rough	13:16	9.2	Surface	1.0	0.1	359	24.8	24.8	8.0	8.0	28.7	28.7	95.8	96.0	6.7	6.8	2.3	3.2	7	7	46	72	825704	806960	<0.2	<0.2	0.9	0.9
						1.0	0.1	3	24.8		7.9		28.7		96.1		6.8		2.3		8		45				<0.2		0.9	
					Middle	4.6	0.2	7	24.8	24.8	7.9	7.9	28.7	28.7	97.0	97.2	6.8		3.5		7		81				<0.2		0.9	
						4.6	0.1	3	24.8		7.9		28.7		97.3		6.9		3.6		8		81				<0.2		0.8	
					Bottom	8.2	0.2	327	24.8	24.8	7.9	7.9	28.8	28.8	98.3	98.6	6.9	7.0	3.8		6		90				<0.2		0.8	
						8.2	0.2	325	24.8		7.9		28.7		98.8		7.0		3.7		5		90				<0.2		0.9	
C3	Fine	Rough	14:42	8.0	Surface	1.0	0.1	81	25.3	25.3	8.0	8.0	31.0	31.0	89.5	89.6	6.2	6.2	2.1	3.1	7	7	49	72	822111	817823	<0.2	<0.2	0.8	0.9
						1.0	0.1	83	25.3		8.0		31.0		89.7		6.2		2.1		8		49				<0.2		0.8	
					Middle	4.0	0.2	65	25.3	25.3	8.0	8.0	31.0	31.0	90.5	90.7	6.2		3.2		8		83				<0.2		0.8	
						4.0	0.1	64	25.3		8.0		31.0		90.9		6.3		3.2		7		83				<0.2		0.9	
					Bottom	7.0	0.1	81	25.3	25.3	8.0	8.0	31.0	31.0	92.7	94.7	6.4	6.6	4.1		7		85				<0.2		0.9	
						7.0	0.2	83	25.3		8.0		31.0		96.7		6.7		4.1		6		85				<0.2		1.0	
IM1	Cloudy	Rough	15:01	6.3	Surface	1.0	0.1	181	24.3	24.3	8.1	8.1	29.0	29.0	86.7	86.7	6.3	6.3	10.2	12.1	8	8	85	87	818349	806443	<0.2	<0.2	0.6	0.6
						1.0	0.1	182	24.3		8.1		29.0		86.7		6.3		10.2		8		84				<0.2		0.6	
					Middle	3.2	0.1	191	24.3	24.3	8.1	8.1	29.1	29.1	87.9	88.0	6.3		13.9		8		86				<0.2		0.6	
						3.2	0.1	191	24.3		8.1		29.0		88.1		6.3		13.2		8		88				<0.2		0.5	
					Bottom	5.3	0.0	155	24.3	24.3	8.1	8.1	29.0	29.0	89.7	89.8	6.5	6.5	12.9		6		89				<0.2		0.6	
						5.3	0.1	155	24.3		8.1		29.0		89.9		6.5		12.4		7		88				<0.2		0.6	
IM2	Cloudy	Rough	15:12	6.7	Surface	1.0	0.1	171	24.2	24.2	8.1	8.1	29.3	29.3	88.2	88.2	6.4	6.4	11.6	8.9	8	8	84	87	818856	806216	<0.2	<0.2	0.5	0.6
						1.0	0.0	174	24.2		8.1		29.3		88.2		6.4		11.2		8		85				<0.2		0.5	
					Middle	3.4	0.0	192	24.2	24.2	8.1	8.1	29.4	29.4	89.0	89.1	6.4		7.5		8		86				<0.2		0.6	
						3.4	0.1	189	24.2		8.1		29.4		89.1		6.4		7.6		9		85				<0.2		0.6	
					Bottom	5.7	0.1	200	24.2	24.2	8.1	8.1	29.4	29.4	89.6	89.7	6.5	6.5	7.8		8		89				<0.2		0.6	
						5.7	0.1	195	24.2		8.1		29.3		89.7		6.5		7.6		9		90				<0.2		0.6	
IM3	Cloudy	Rough	15:21	6.9	Surface	1.0	0.1	184	24.3	24.3	8.1	8.1	29.0	29.0	87.9	88.0	6.3	6.4	11.2	9.3	7	8	84	86	819410	805995	<0.2	<0.2	0.5	0.5
						1.0	0.2	188	24.3		8.1		29.0		88.0		6.3		11.7		8		84				<0.2		0.5	
					Middle	3.5	0.1	202	24.3	24.3	8.1	8.1	29.0	29.0	88.5	88.6	6.4		5.5		9		86				<0.2		0.5	
						3.5	0.1	198	24.3		8.1		29.0		88.6		6.4		5.5		8		87				<0.2		0.6	
					Bottom	5.9	0.1	197	24.3	24.3	8.1	8.1	29.0	29.0	89.2	89.2	6.4	6.4	10.8		9		89				<0.2		0.5	
						5.9	0.2	198	24.3		8.1		29.0		89.2		6.4		11.2		9		88				<0.2		0.6	
IM4	Cloudy	Rough	15:34	7.1	Surface	1.0	0.2	170	24.4	24.4	8.1	8.1	28.8	28.8	88.9	89.0	6.4	6.4	12.9	10.6	8	8	85	87	819571	805040	<0.2	<0.2	0.5	0.6
						1.0	0.2	164	24.4		8.1		28.8		89.0		6.4		12.3		8		84				<0.2		0.6	
					Middle	3.6	0.1	201	24.4	24.4	8.1	8.1	28.8	28.8	88.7	88.7	6.4		9.2		8		87				<0.2		0.6	
						3.6	0.2	207	24.4		8.1		28.8		88.6		6.4		9.2		7		86				<0.2		0.5	
					Bottom	6.1	0.1	190	24.4	24.4	8.1	8.1	28.8	28.8	88.4	88.4	6.4	6.4	10.0		7		89				<0.2		0.6	
						6.1	0.1	191	24.4		8.1		28.8		88.4		6.4		10.1		7		90				<0.2		0.5	
IM5	Cloudy	Rough	15:46	8.5	Surface	1.0	0.2	168	24.4	24.4	8.1	8.1	29.3	29.3	90.4	90.5	6.5	6.6	13.0	13.0	7	7	84	87	820544	804906	<0.2	<0.2	0.5	0.6
						1.0	0.1	175	24.4		8.1		29.3		90.6		6.5		12.9		7		85				<0.2		0.6	
					Middle	4.3	0.1	160	24.4	24.4	8.1	8.1	29.4	29.4	91.5	91.5	6.6		12.4		7		86				<0.2		0.5	
						4.3	0.2	166	24.4		8.1		29.4		91.5		6.6		12.4		8		87				<0.2		0.6	
					Bottom	7.5	0.2	172	24.4	24.4	8.1	8.1	29.4	29.4	92.0	92.1	6.6	6.6	13.6		7		88				<0.2		0.5	
						7.5	0.1	173	24.4		8.1		29.4		92.2		6.6		13.8		8		90				<0.2		0.6	
IM6	Cloudy	Rough	15:56	7.4	Surface	1.0	0.2	166	24.3	24.3	8.1	8.1	29.9	29.9	87.7	87.7	6.3	6.3	7.4	10.9	8	8	85	87	821075	805824	<0.2	<0.2	0.5	0.5
						1.0	0.2	171	24.3		8.1		29.9		87.7		6.3		7.4		8		84				<0.2		0.5	
					Middle	3.7	0.1	162	24.3	24.3	8.1	8.1	30.0	30.0	88.2	88.3	6.3		12.4		8		87				<0.2		0.5	
						3.7	0.1	160	24.3		8.1		30.0		88.3		6.3		12.4		8		86				<0.2		0.5	
					Bottom	6.4	0.2	183	24.3	24.3	8.1	8.1	30.0	30.0	89.3	89.4	6.4	6.4	12.9		9		89				<0.2		0.6	
						6.4	0.2	182	24.3		8.1		30.0		89.5		6.4		13.0		8		90				<0.2		0.5	
IM7	Cloudy	Rough	16:09	7.9	Surface	1.0	0.2	183	24.5	24.5	8.0	8.0	28.4	28.4	87.8	87.8	6.3	6.3	7.2	7.2	8	8	84	87	821347	806838	<0.2	<0.2	0.5	0.6
						1.0	0.2	183	24.5		8.0		28.4		87.8		6.3		7.2		8		84				<0.2		0.6	
					Middle	4.0	0.2	201	24.5	24.5	8.0	8.0	28.4	28.4	87.3	87.3	6.3		7.2		8		86				<0.2		0.5	
						4.0	0.1	208	24.5		8.0		28.4		87.3		6.3		7.2		9		88				<0.2		0.6	
					Bottom	6.9	0.2	173	24.5	24.5	8.0	8.0	29.0	29.0	87.5	87.6	6.3	6.3	7.3		8		89				<0.2		0.5	
						6.9	0.2	172	24.5		8.0		29.0		87.6		6.3		7.2		9		90				<0.2		0.6	
IM8	Fine	Rough	13:25	7.2	Surface	1.0	0.1	29	24.8	24.8	8.0	8.0	28.8	28.8	94.2	94.4	6.6	6.7	5.7	6.4	6	7	84	88	821682	807861	<0.2	<0.2	0.9	0.8
						1.0	0.1	26	24.8		8.0		28.8		94.6		6.7		5.7		6		85				<0.2		0.8	
					Middle	3.6	0.2	38	24.7	24.7	8.0	8.0	29.0	29.0	96.1	96.3	6.8		6.3		7		88				<0.2		0.8	
						3.6	0.2	34	24.7		8.0		29.0		96.4		6.8		6.3		7		88				<0.2		0.8	
					Bottom	6.2	0.2	13	24.7	24.7	8.0	8.0	29.2	29.2	97.6	97.8	6.9	6.9	7.2		7		90				<0.2		0.8	
						6.2	0.2	11	24.7		8.0		29.2		98.0		6.9		7.1		8		91				<0.2		0.8	

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 16 November 23 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	Rough	13:31	8.6	Surface	1.0	0.1	6	24.7	24.7	8.0	8.0	30.1	30.1	91.5	91.6	6.4	6.6	4.2	6.1	6	7	84	88	822115	808820	<0.2	<0.2	0.9	0.8
						1.0	0.0	8	24.7		8.0		30.1		91.6		6.4		4.2		7		85				<0.2		0.8	
					Middle	4.3	0.1	36	24.7	24.7	8.0	8.0	30.3	30.3	95.7	95.9	6.7		6.3		7		88				<0.2		0.8	
						4.3	0.1	28	24.7		8.0		30.3		96.0		6.7		6.3		8		89				<0.2		0.8	
					Bottom	7.6	0.1	359	24.7	24.7	8.0	8.0	30.4	30.4	97.6	98.0	6.8	6.9	7.9		8		89				<0.2		0.8	
						7.6	0.1	5	24.7		8.0		30.4		98.4		6.9		7.9		8		90				<0.2		0.8	
IM10	Fine	Rough	13:40	7.8	Surface	1.0	0.0	5	24.8	24.8	8.0	8.0	30.3	30.3	91.9	92.0	6.4	6.5	6.1	7.1	8	8	50	75	822246	809855	<0.2	<0.2	0.9	0.9
						1.0	0.0	357	24.8		8.0		30.3		92.1		6.4		6.1		7		50				<0.2		0.9	
					Middle	3.9	0.0	6	24.8	24.8	8.0	8.0	30.3	30.3	94.7	95.1	6.6		7.1		8		87				<0.2		0.9	
						3.9	-	0	24.8		8.0		30.3		95.4		6.7		7.0		8		87				<0.2		0.9	
					Bottom	6.8	0.0	2	24.8	24.8	8.0	8.0	30.3	30.3	97.5	97.9	6.8	6.9	8.1		9		89				<0.2		0.9	
						6.8	0.0	7	24.8		8.0		30.3		98.3		6.9		8.0		9		89				<0.2		0.9	
IM11	Fine	Rough	13:45	8.2	Surface	1.0	0.0	1	24.8	24.8	8.0	8.0	30.4	30.4	91.2	91.3	6.4	6.4	3.6	4.4	8	8	61	74	821496	810525	<0.2	<0.2	0.9	0.9
						1.0	0.0	1	24.8		8.0		30.4		91.4		6.4		3.5		7		61				<0.2		0.8	
					Middle	4.1	0.1	337	24.7	24.7	8.0	8.0	30.4	30.4	92.0	92.1	6.4		4.2		8		77				<0.2		1.0	
						4.1	0.1	340	24.7		8.0		30.4		92.2		6.4		4.2		9		77				<0.2		0.9	
					Bottom	7.2	0.0	6	24.7	24.7	8.0	8.0	30.4	30.4	98.0	98.3	6.8	6.9	5.4		8		83				<0.2		0.8	
						7.2	0.0	9	24.7		8.0		30.4		98.6		6.9		5.4		9		83				<0.2		0.7	
IM12	Fine	Rough	13:51	10.0	Surface	1.0	0.1	42	24.8	24.8	8.0	8.0	30.4	30.4	91.2	91.3	6.3	6.4	6.1	7.3	8	7	46	72	821172	811512	<0.2	<0.2	0.9	0.9
						1.0	0.0	49	24.8		8.0		30.4		91.4		6.3		6.0		8		46				<0.2		0.9	
					Middle	5.0	0.0	45	24.7	24.7	8.0	8.0	30.4	30.4	92.1	92.1	6.4		7.7		6		84				<0.2		0.9	
						5.0	0.0	42	24.7		8.0		30.4		92.1		6.4		7.7		6		84				<0.2		0.8	
					Bottom	9.0	0.0	22	24.7	24.7	8.0	8.0	30.3	30.3	98.1	98.3	6.9	6.9	8.2		6		86				<0.2		0.9	
						9.0	0.0	27	24.7		8.0		30.3		98.4		6.9		8.3		7		87				<0.2		0.8	
SR1A	Fine	Rough	14:11	4.2	Surface	1.0	0.0	23	24.6	24.6	8.0	8.0	30.3	30.3	91.2	93.2	6.4	6.6	4.3	4.5	5	6	-	-	819980	812657	-	-	-	-
						1.0	-	26	24.6		8.0		30.3		95.1		6.7		4.3		6		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	35	24.6	24.6	8.0	8.0	30.3	30.3	96.6	97.0	6.8	6.8	4.6		7		-				-		-	
						3.2	0.0	38	24.6		8.0		30.3		97.3		6.8		4.6		7		-				-		-	
SR2	Fine	Rough	14:22	5.0	Surface	1.0	0.1	58	24.8	24.8	8.0	8.0	30.4	30.4	95.8	96.0	6.7	6.7	4.4	4.8	6	7	72	82	821456	814150	<0.2	<0.2	0.8	0.8
						1.0	0.2	58	24.8		8.0		30.4		96.1		6.7		4.4		6		72				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	29	24.8	24.8	8.0	8.0	30.4	30.4	98.9	99.4	6.9	7.0	5.1		9		91				<0.2		0.8	
						4.0	0.1	27	24.8		8.0		30.4		99.9		7.0		5.1		8		91				<0.2		0.9	
SR3	Fine	Rough	13:19	7.6	Surface	1.0	0.1	11	24.9	24.9	8.0	8.0	28.7	28.7	91.0	91.1	6.4	6.5	3.2	4.5	7	7	-	-	822124	807556	-	-	-	-
						1.0	0.1	14	24.9		8.0		28.7		91.1		6.4		3.2		6		-				-		-	
					Middle	3.8	0.1	351	24.9	24.9	8.0	8.0	28.7	28.7	92.2	92.5	6.5		4.6		6		-				-		-	
						3.8	0.2	344	24.9		8.0		28.7		92.8		6.5		4.5		7		-				-		-	
					Bottom	6.6	0.1	356	24.8	24.8	8.0	8.0	28.7	28.7	95.1	95.3	6.7	6.7	5.8		7		-				-		-	
						6.6	0.1	359	24.8		8.0		28.7		95.4		6.7		5.7		8		-				-		-	
SR4A	Cloudy	Rough	14:12	8.6	Surface	1.0	0.0	108	24.0	24.0	8.2	8.2	29.9	29.9	87.1	87.1	6.3	6.3	13.8	12.7	7	8	-	-	817178	807824	-	-	-	-
						1.0	0.1	100	24.0		8.2		29.9		87.1		6.3		13.9		8		-				-		-	
					Middle	4.3	0.0	113	24.0	24.0	8.2	8.2	29.9	29.9	87.3	87.3	6.3		11.2		8		-				-		-	
						4.3	0.0	116	24.0		8.2		29.9		87.3		6.3		11.3		8		-				-		-	
					Bottom	7.6	0.0	119	23.9	23.9	8.2	8.2	30.0	30.0	89.7	89.9	6.5	6.5	12.8		8		-				-		-	
						7.6	0.1	114	23.9		8.2		30.0		90.0		6.5		12.9		8		-				-		-	
SR5A	Cloudy	Rough	13:40	3.6	Surface	1.0	0.1	118	24.1	24.1	8.1	8.1	29.4	29.4	82.9	82.9	6.0	6.0	12.9	11.0	8	9	-	-	816578	810703	-	-	-	-
						1.0	0.1	117	24.1		8.1		29.4		82.9		6.0		13.0		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.1	118	24.1	24.1	8.2	8.2	29.4	29.4	83.1	83.1	6.0	6.0	9.0		8		-				-		-	
						2.6	0.0	116	24.1		8.2		29.3		83.1		6.0		9.0		9		-				-		-	
SR6	Cloudy	Rough	13:14	4.8	Surface	1.0	0.0	73	24.1	24.1	8.2	8.2	29.4	29.4	83.6	83.7	6.0	6.0	9.0	9.5	9	8	-	-	817910	814661	-	-	-	-
						1.0	0.0	77	24.1		8.2		29.4		83.7		6.0		9.1		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	95	24.1	24.1	8.2	8.2	29.4	29.4	84.9	85.0	6.1	6.1	9.9		8		-				-		-	
						3.8	0.1	88	24.1		8.2		29.4		85.1		6.1		9.9		8		-				-		-	
SR7	Fine	Rough	15:13	11.0	Surface	1.0	0.1	56	25.2	25.2	8.0	8.0	30.9	30.9	90.5	90.7	6.3	6.3	1.1	1.8	7	8	-	-	823649	823733	-	-	-	-
						1.0	0.1	57	25.2		8.0		30.9		90.8		6.3		1.1		8		-				-		-	
					Middle	5.5	0.1	65	25.2	25.2	8.0	8.0	30.9	30.9	91.4	91.6	6.3		1.6		8		-				-		-	
						5.5	0.1	57	25.2		8.0		30.9		91.7		6.3		1.5		8		-				-		-	
					Bottom	10.0	0.1	88	25.2	25.2	8.0	8.0	30.9	30.9	93.6	95.2	6.5	6.6	2.6		9		-				-		-	
						10.0	0.1	80	25.2		8.0		30.9		96.8		6.7		2.6		8		-				-		-	
SR8	Fine	Rough	14:04	4.8	Surface	1.0	-	-	24.8	24.8	8.0	8.0	30.4	30.4	92.1	92.1	6.4	6.5	4.2	4.7	8	8	-	-	820377	811620	-	-	-	-
						1.0	-	-	24.8		8.0		30.3		92.1		6.5		4.2		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	24.7	24.7	8.0	8.0	30.3	30.3	98.2	98.7	6.9	6.9	5.1		8		-				-		-	
						3.8	-	-	24.7		8.0		30.3		99.1		6.9		5.1		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 16 November 23 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
C1	Cloudy	Rough	09:57	8.2	Surface	1.0	0.4	27	24.1	24.1	8.2	8.2	30.1	30.1	87.1	87.1	6.2	6.2	8.2	10.7	8	8	83	86	815602	804229	<0.2	<0.2	1.0	0.7
						1.0	0.4	23	24.1		8.2		30.1		87.0		6.2		8.2		8		84				<0.2		1.1	
					Middle	4.1	0.5	48	24.1	24.1	8.2	8.2	30.5	30.5	86.3	86.4	6.1		9.4		8		86				<0.2		0.5	
						4.1	0.4	40	24.1		8.2		30.5		86.4		6.1		9.6		8		87				<0.2		0.5	
					Bottom	7.2	0.4	47	24.1	24.1	8.2	8.2	30.6	30.6	87.3	87.5	6.2	6.2	14.3		9		88				<0.2		0.5	
						7.2	0.4	43	24.1		8.2		30.6		87.6		6.2		14.3		9		89				<0.2		0.5	
C2	Fine	Rough	10:21	9.8	Surface	1.0	0.4	337	24.9	24.9	8.0	8.0	28.8	28.9	89.2	89.3	6.3	6.3	4.3	4.9	8	8	52	77	825693	806948	<0.2	<0.2	0.7	0.8
						1.0	0.4	331	24.9		8.0		28.9		89.3		6.3		4.3		8		52				<0.2		0.8	
					Middle	4.9	0.4	350	24.9	24.9	8.0	8.0	29.0	29.0	89.8	89.9	6.3		4.6		9		90				<0.2		0.9	
						4.9	0.4	350	24.9		8.0		29.0		90.0		6.3		4.7		8		90				<0.2		0.8	
					Bottom	8.8	0.3	357	24.9	24.9	8.0	8.0	28.9	28.9	91.2	91.4	6.4	6.4	5.7		8		89				<0.2		0.9	
						8.8	0.3	358	24.9		8.0		28.8		91.5		6.4		5.7		8		89				<0.2		0.8	
C3	Fine	Moderate	08:54	9.0	Surface	1.0	0.5	266	25.0	25.0	8.0	8.0	30.4	30.4	89.4	89.5	6.2	6.3	4.2	6.0	6	7	43	70	822127	817780	<0.2	<0.2	0.8	0.8
						1.0	0.5	272	25.0		8.0		30.4		89.5		6.2		4.1		7		43				<0.2		0.9	
					Middle	4.5	0.5	269	25.0	25.0	8.0	8.0	30.4	30.4	90.2	90.3	6.3		6.9		7		79				<0.2		0.8	
						4.5	0.5	267	25.0		8.0		30.4		90.4		6.3		6.8		7		79				<0.2		0.9	
					Bottom	8.0	0.5	252	25.0	25.0	8.0	8.0	30.5	30.5	92.6	94.5	6.4	6.6	7.1		7		87				<0.2		0.7	
						8.0	0.5	248	25.0		8.0		30.5		96.3		6.7		7.0		7		87				<0.2		0.8	
IM1	Cloudy	Rough	09:34	6.4	Surface	1.0	0.2	24	24.1	24.1	8.2	8.2	29.9	29.9	86.7	86.7	6.1	6.2	13.2	9.8	7	8	83	86	818349	806446	<0.2	<0.2	0.5	0.5
						1.0	0.2	20	24.1		8.2		29.9		86.7		6.1		13.3		8		84				<0.2		0.5	
					Middle	3.2	0.2	13	24.1	24.1	8.2	8.2	29.9	29.9	87.9	88.0	6.2		9.0		8		86				<0.2		0.5	
						3.2	0.2	20	24.1		8.2		29.9		88.1		6.2		8.3		8		87				<0.2		0.6	
					Bottom	5.4	0.2	28	24.1	24.1	8.2	8.2	29.9	29.9	89.7	89.8	6.4	6.4	7.2		9		88				<0.2		0.5	
						5.4	0.2	31	24.1		8.2		29.9		89.9		6.4		7.8		9		87				<0.2		0.4	
IM2	Cloudy	Rough	09:22	6.8	Surface	1.0	0.2	354	24.0	24.0	8.2	8.2	29.7	29.7	87.0	87.0	6.2	6.2	9.5	10.8	7	7	83	86	818855	806190	<0.2	<0.2	0.5	0.5
						1.0	0.2	356	24.0		8.2		29.7		87.0		6.2		9.5		8		83				<0.2		0.5	
					Middle	3.4	0.2	340	24.0	24.0	8.2	8.2	29.8	29.8	87.8	87.9	6.2		11.8		8		85				<0.2		0.5	
						3.4	0.1	337	24.0		8.2		29.7		87.9		6.2		11.2		7		87				<0.2		0.5	
					Bottom	5.8	0.2	336	24.0	24.0	8.2	8.2	29.7	29.7	88.4	88.5	6.3	6.3	11.6		7		88				<0.2		0.4	
						5.8	0.2	342	24.0		8.2		29.7		88.5		6.3		11.2		7		88				<0.2		0.5	
IM3	Cloudy	Rough	09:10	7.2	Surface	1.0	0.2	345	24.1	24.1	8.2	8.2	29.9	29.9	86.7	86.8	6.2	6.2	11.6	12.6	8	8	84	87	819400	806018	<0.2	<0.2	0.5	0.5
						1.0	0.2	341	24.1		8.2		29.9		86.8		6.2		11.6		7		84				<0.2		0.4	
					Middle	3.6	0.2	347	24.1	24.1	8.2	8.2	29.9	29.9	87.3	87.4	6.2		11.9		7		87				<0.2		0.5	
						3.6	0.3	343	24.1		8.2		29.9		87.4		6.2		11.6		8		87				<0.2		0.5	
					Bottom	6.2	0.2	357	24.1	24.1	8.2	8.2	29.9	29.9	88.0	88.0	6.2	6.2	14.3		9		88				<0.2		0.5	
						6.2	0.2	355	24.1		8.2		29.9		88.0		6.2		14.3		8		89				<0.2		0.5	
IM4	Cloudy	Rough	09:01	7.0	Surface	1.0	0.2	335	24.2	24.2	8.1	8.1	29.7	29.7	86.5	86.6	6.1	6.1	9.9	10.7	8	8	84	86	819582	805023	<0.2	<0.2	0.5	0.6
						1.0	0.2	333	24.2		8.1		29.7		86.6		6.1		9.3		8		84				<0.2		0.6	
					Middle	3.5	0.3	351	24.2	24.2	8.1	8.1	29.7	29.7	86.3	86.3	6.1		10.9		9		87				<0.2		0.5	
						3.5	0.3	347	24.2		8.1		29.7		86.2		6.1		11.4		8		85				<0.2		0.6	
					Bottom	6.0	0.3	354	24.2	24.2	8.1	8.1	29.7	29.7	86.0	86.0	6.1	6.1	11.6		9		88				<0.2		0.5	
						6.0	0.3	350	24.2		8.1		29.7		86.0		6.1		11.2		8		88				<0.2		0.6	
IM5	Cloudy	Rough	08:50	7.9	Surface	1.0	0.4	326	24.2	24.2	8.1	8.1	29.7	29.7	86.8	86.9	6.2	6.2	8.7	11.2	8	8	83	86	820561	804944	<0.2	<0.2	0.4	0.5
						1.0	0.4	320	24.2		8.1		29.7		87.0		6.2		8.4		8		84				<0.2		0.5	
					Middle	4.0	0.3	347	24.2	24.2	8.1	8.1	29.7	29.7	87.9	87.9	6.2		13.8		8		85				<0.2		0.4	
						4.0	0.4	346	24.2		8.1		29.7		87.9		6.2		13.8		9		86				<0.2		0.5	
					Bottom	6.9	0.3	354	24.2	24.2	8.1	8.1	29.7	29.7	88.4	88.5	6.3	6.3	11.3		8		88				<0.2		0.5	
						6.9	0.3	351	24.2		8.1		29.7		88.6		6.3		11.3		9		89				<0.2		0.5	
IM6	Cloudy	Rough	08:34	7.8	Surface	1.0	0.2	306	24.1	24.1	8.2	8.2	30.8	30.8	85.3	85.3	6.0	6.0	7.0	8.2	14	13	84	86	821081	805814	<0.2	<0.2	0.5	0.6
						1.0	0.2	300	24.1		8.2		30.8		85.3		6.0		7.1		13		84				<0.2		0.6	
					Middle	3.9	0.3	321	24.1	24.1	8.2	8.2	30.9	30.9	85.8	85.9	6.0		8.7		16		86				<0.2		0.5	
						3.9	0.3	322	24.1		8.1		30.9		85.9		6.1		8.7		14		86				<0.2		0.5	
					Bottom	6.8	0.2	314	24.1	24.1	8.1	8.1	30.9	30.9	86.9	87.0	6.1	6.1	8.7		9		88				<0.2		0.6	
						6.8	0.2	314	24.1		8.1		30.9		87.1		6.1		8.8		12		89				<0.2		0.6	
IM7	Cloudy	Rough	08:25	8.3	Surface	1.0	0.2	276	24.3	24.3	8.1	8.1	28.8	28.8	85.4	85.4	6.1	6.1	4.8	5.1	14	11	84	87	821330	806820	<0.2	<0.2	0.6	0.6
						1.0	0.2	274	24.3		8.1		28.8		85.4		6.1		4.8		11		84				<0.2		0.5	
					Middle	4.2	0.2	273	24.3	24.3	8.0	8.0	28.8	28.8	84.9	84.9	6.0		4.8		9		87				<0.2		0.7	
						4.2	0.2	267	24.3		8.0		28.8		84.9		6.0		4.9		10		87				<0.2		0.6	
					Bottom	7.3	0.2	277	24.3	24.3	8.0	8.0	28.9	28.9	85.1	85.2	6.0	6.1	5.7		10		88				<0.2		0.5	
						7.3	0.2	281	24.3		8.0		28.9		85.2		6.1		5.7		9		89				<0.2		0.4	
IM8	Fine	Rough	10:01	9.0	Surface	1.0	0.2	299	24.8	24.8	8.0	8.0	28.6	28.6	90.2	90.3	6.4	6.4	4.7	5.5	6	6	84	87	821693	807816	<0.2	<0.2	0.7	0.8
						1.0	0.2	297	24.8		8.0		28.6		90.3		6.4		4.8		7		85				<0.2		0.8	
					Middle	4.5	0.2	299	24.8	24.8	8.0	8.0	28.6	28.6	91.3	91.4	6.4		5.6		7		87				<0.2		0.7	
						4.5	0.2	296	24.8		8.0		28.6		91.4		6.4		5.6		6		87				<0.2		0.8	
					Bottom	8.0	0.1	311	24.8	24.8	8.0	8.0	28.6	28.6	96.5	96.8	6.8	6.8	6.1		6		90				<0.2		0.8	
						8.0	0.2	314	24.8		8.0		28.6		97.1		6.8		6.1		5		91				<0.2		0.7	

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 16 November 23 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	Rough	09:57	8.2	Surface	1.0	0.3	292	24.8	24.8	8.0	8.0	28.6	28.6	92.6	92.8	6.5	6.6	3.2	4.2	5	6	85	88	822081	808800	<0.2	<0.2	0.8	0.8
						1.0	0.2	295	24.8		8.0		28.6		92.9		6.5		3.2		5		85				<0.2		0.8	
					Middle	4.1	0.3	289	24.8	24.8	8.0	8.0	28.6	28.6	95.4	95.6	6.7		4.1		6		88				<0.2		0.7	
						4.1	0.4	294	24.8		8.0		28.6		95.8		6.8		4.1		6		88				<0.2		0.7	
					Bottom	7.2	0.3	319	24.8	24.8	8.0	8.0	28.6	28.6	97.4	97.7	6.9	6.9	5.4		7		90				<0.2		0.8	
						7.2	0.3	325	24.8		8.0		28.6		97.9		6.9		5.4		7		91				<0.2		0.8	
IM10	Fine	Rough	09:51	7.2	Surface	1.0	0.4	287	24.8	24.8	8.0	8.0	29.1	29.1	90.7	90.8	6.4	6.5	5.1	6.1	6	6	49	75	822223	809823	<0.2	<0.2	0.7	0.8
						1.0	0.4	280	24.8		8.0		29.1		90.8		6.4		5.1		6		49				<0.2		0.7	
					Middle	3.6	0.4	278	24.7	24.7	8.0	8.0	29.1	29.1	94.0	94.3	6.6		6.1		6		86				<0.2		0.8	
						3.6	0.4	270	24.7		8.0		29.1		94.5		6.7		6.1		6		86				<0.2		0.8	
					Bottom	6.2	0.3	277	24.7	24.7	8.0	8.0	29.1	29.1	96.8	97.2	6.8	6.9	7.1		6		89				<0.2		0.9	
						6.2	0.3	277	24.7		8.0		29.1		97.5		6.9		7.0		6		89				<0.2		0.8	
IM11	Fine	Rough	09:37	9.6	Surface	1.0	0.4	293	24.7	24.7	8.0	8.0	30.3	30.3	89.5	89.6	6.3	6.3	3.3	4.4	6	6	52	77	821516	810526	<0.2	<0.2	0.9	0.8
						1.0	0.5	292	24.7		8.0		30.3		89.6		6.3		3.3		6		53				<0.2		0.8	
					Middle	4.8	0.4	270	24.7	24.7	8.0	8.0	30.4	30.4	90.8	90.9	6.3		4.3		6		87				<0.2		0.8	
						4.8	0.4	270	24.7		8.0		30.4		90.9		6.4		4.3		6		87				<0.2		0.8	
					Bottom	8.6	0.5	287	24.7	24.7	8.0	8.0	30.4	30.4	92.9	94.8	6.5	6.7	5.7		5		90				<0.2		0.8	
						8.6	0.5	282	24.7		8.0		30.4		96.6		6.8		5.7		6		90				<0.2		0.9	
IM12	Fine	Rough	09:32	9.2	Surface	1.0	0.5	289	24.8	24.8	8.0	8.0	30.4	30.4	89.4	89.5	6.2	6.3	3.3	4.2	7	6	45	73	821142	811517	<0.2	<0.2	1.0	0.9
						1.0	0.4	288	24.8		8.0		30.4		89.5		6.3		3.3		6		46				<0.2		0.9	
					Middle	4.6	0.5	300	24.8	24.8	8.0	8.0	30.4	30.4	90.2	90.3	6.3		4.1		6		86				<0.2		0.8	
						4.6	0.5	294	24.8		8.0		30.4		90.3		6.3		4.1		5		86				<0.2		0.8	
					Bottom	8.2	0.5	304	24.8	24.8	8.0	8.0	30.4	30.4	95.6	95.9	6.7	6.7	5.1		5		87				<0.2		0.8	
						8.2	0.4	299	24.8		8.0		30.4		96.1		6.7		5.1		5		87				<0.2		0.8	
SR1A	Fine	Rough	09:22	5.2	Surface	1.0	0.0	188	24.7	24.7	8.0	8.0	30.3	30.3	91.0	91.3	6.4	6.4	2.3	2.9	6	6	-	-	819973	812656	-	-	-	-
						1.0	0.0	190	24.7		8.0		30.3		91.5		6.4		2.3		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	185	24.7	24.7	8.0	8.0	30.3	30.3	96.9	97.3	6.8	6.8	3.5		7		-				-		-	
						4.2	0.1	177	24.7		8.0		30.3		97.6		6.8		3.5		6		-				-		-	
SR2	Fine	Rough	09:12	5.0	Surface	1.0	0.2	233	24.7	24.7	8.0	8.0	30.4	30.4	96.5	96.7	6.7	6.8	3.8	4.2	6	6	45	66	821462	814179	<0.2	<0.2	1.1	1.0
						1.0	0.1	227	24.7		8.0		30.4		96.8		6.8		3.9		6		46				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	247	24.7	24.7	8.0	8.0	30.4	30.4	98.9	99.3	6.9	7.0	4.6		6		87				<0.2		0.8	
						4.0	0.2	241	24.7		8.0		30.4		99.7		7.0		4.6		5		87				<0.2		0.8	
SR3	Fine	Rough	10:11	7.8	Surface	1.0	0.2	355	24.8	24.9	8.0	8.0	28.8	28.8	94.4	94.7	6.6	6.7	2.4	3.3	7	7	-	-	822160	807579	-	-	-	-
						1.0	0.3	358	24.9		8.0		28.8		95.0		6.7		2.4		6		-				-		-	
					Middle	3.9	0.3	3	24.9	24.9	8.0	8.0	28.8	28.8	96.1	96.4	6.8		3.3		6		-				-		-	
						3.9	0.4	356	24.9		8.0		28.8		96.7		6.8		3.3		7		-				-		-	
					Bottom	6.8	0.2	342	24.9	24.9	8.0	8.0	29.0	29.0	98.7	99.2	6.9	7.0	4.3		7		-				-		-	
						6.8	0.2	344	24.9		8.0		29.0		99.7		7.0		4.3		7		-				-		-	
SR4A	Cloudy	Rough	10:15	8.0	Surface	1.0	0.0	198	24.0	24.0	8.2	8.2	30.8	30.8	86.5	86.5	6.1	6.1	8.2	8.6	7	7	-	-	817177	807809	-	-	-	-
						1.0	0.0	194	24.0		8.2		30.8		86.5		6.1		8.2		8		-				-		-	
					Middle	4.0	0.0	209	24.0	24.0	8.2	8.2	30.8	30.8	86.9	86.9	6.1		8.7		7		-				-		-	
						4.0	0.0	211	24.0		8.2		30.8		86.9		6.1		8.9		7		-				-		-	
					Bottom	7.0	0.0	197	23.9	23.9	8.2	8.2	30.8	30.8	87.7	89.1	6.2	6.3	8.8		7		-				-		-	
						7.0	0.0	204	23.9		8.2		30.8		90.4		6.4		8.7		7		-				-		-	
SR5A	Cloudy	Rough	10:30	4.8	Surface	1.0	0.2	308	24.0	24.0	8.2	8.2	30.3	30.3	84.4	84.4	6.0	6.0	3.1	3.2	7	7	-	-	816589	810685	-	-	-	-
						1.0	0.1	312	24.0		8.2		30.3		84.4		6.0		3.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	288	24.0	24.0	8.2	8.2	30.3	30.3	85.0	85.2	6.0	6.1	3.2		7		-				-		-	
						3.8	0.1	292	24.0		8.2		30.3		85.4		6.1		3.2		7		-				-		-	
SR6	Cloudy	Rough	10:55	4.8	Surface	1.0	0.1	234	24.0	24.0	8.2	8.2	30.5	30.5	83.2	83.2	5.9	5.9	3.0	3.0	7	7	-	-	817894	814675	-	-	-	-
						1.0	0.0	227	24.0		8.2		30.5		83.2		5.9		3.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	256	24.0	24.0	8.2	8.2	30.3	30.3	83.5	83.5	5.9	5.9	3.0		7		-				-		-	
						3.8	0.1	261	24.0		8.2		30.3		83.5		5.9		3.0		8		-				-		-	
SR7	Fine	Moderate	08:28	11.0	Surface	1.0	0.7	249	25.2	25.2	7.9	7.9	30.7	30.7	84.3	84.3	5.8	5.8	5.4	6.3	4	6	-	-	823632	823725	-	-	-	-
						1.0	0.7	256	25.2		7.9		30.7		84.3		5.8		5.4		5		-				-		-	
					Middle	5.5	0.7	253	25.2	25.2	7.9	7.9	30.7	30.7	84.4	84.5	5.8		6.4		4		-				-		-	
						5.5	0.7	253	25.2		7.9		30.7		84.5		5.8		6.5		6		-				-		-	
					Bottom	10.0	0.7	234	25.2	25.2	7.9	7.9	30.7	30.7	84.9	85.0	5.9	5.9	7.1		7		-				-		-	
						10.0	0.7	236	25.2		7.9		30.7		85.1		5.9		7.1		7		-				-		-	
SR8	Fine	Rough	09:28	4.6	Surface	1.0	-	-	24.7	24.7	8.0	8.0	30.3	30.3	91.3	91.5	6.4	6.4	5.7	6.0	7	7	-	-	820381	811615	-	-	-	-
						1.0	-	-	24.7		8.0		30.3		91.6		6.4		5.7		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	24.7	24.7	8.0	8.0	30.4	30.4	96.8	97.0	6.8	6.8	6.3		7		-				-		-	
						3.6	-	-	24.7		8.0		30.4		97.2		6.8		6.2		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 18 November 23 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	03:21	7.5	Surface	1.0	0.5	198	22.3	22.3	8.2	8.2	31.1	31.1	88.5	88.5	6.4	6.4	9.4	11.0	19	17	83	86	815623	804246	<0.2	<0.2	0.5	0.5
						1.0	0.5	193	22.3		8.2		31.1		88.4		6.4		9.3		18		83				<0.2		0.5	
					Middle	3.8	0.6	227	22.3	22.3	8.2	8.2	31.1	31.1	88.3	88.3	6.4		10.3		16		86				<0.2		0.5	
						3.8	0.5	219	22.3		8.2		31.1		88.3		6.4		10.3		18		86				<0.2		0.4	
					Bottom	6.5	0.5	213	22.3	22.3	8.2	8.2	31.2	31.2	87.3	87.3	6.3	6.3	13.4		16		90				<0.2		0.4	
						6.5	0.5	208	22.3		8.2		31.2		87.2		6.3		13.5		16		90				<0.2		0.5	
C2	Cloudy	Moderate	04:58	11.7	Surface	1.0	1.0	165	23.5	23.5	8.0	8.0	30.0	30.0	91.3	91.4	6.5	6.6	4.2	5.3	6	7	84	87	825694	806951	<0.2	<0.2	1.1	0.8
						1.0	0.9	169	23.5		8.0		30.0		91.5		6.6		4.2		6		85				<0.2		0.7	
					Middle	5.9	0.9	168	23.5	23.5	8.0	8.0	30.0	30.0	93.0	93.1	6.7		4.3		6		87				<0.2		1.0	
						5.9	0.9	171	23.4		8.0		30.0		93.2		6.7		4.3		7		88				<0.2		0.7	
					Bottom	10.7	0.9	192	23.4	23.4	8.0	8.0	30.0	30.0	94.8	95.3	6.8	6.9	7.2		8		91				<0.2		0.7	
						10.7	0.9	193	23.4		8.0		30.0		95.7		6.9		7.3		9		89				<0.2		0.7	
C3	Cloudy	Moderate	03:07	11.7	Surface	1.0	0.6	90	23.6	23.6	8.0	8.0	30.8	30.8	89.4	89.4	6.4	6.4	4.1	6.2	8	8	86	88	822109	817819	<0.2	<0.2	0.6	0.7
						1.0	0.6	88	23.6		8.0		30.8		89.4		6.4		4.0		9		85				<0.2		0.6	
					Middle	5.9	0.7	76	23.8	23.8	8.0	8.0	30.9	30.9	90.3	90.4	6.4		5.8		7		88				<0.2		0.6	
						5.9	0.7	75	23.8		8.0		30.9		90.4		6.4		5.8		6		89				<0.2		1.0	
					Bottom	10.7	0.6	75	23.8	23.8	7.7	7.7	30.9	30.9	93.8	94.0	6.6	6.7	8.6		7		90				<0.2		0.9	
						10.7	0.6	76	23.8		7.7		30.9		94.2		6.7		9.0		8		91				<0.2		0.7	
IM1	Fine	Rough	03:38	7.1	Surface	1.0	0.4	202	22.4	22.4	8.2	8.2	30.7	30.8	88.0	88.0	6.4	6.4	9.1	10.7	14	16	82	84	818366	806454	<0.2	<0.2	0.4	0.4
						1.0	0.4	196	22.4		8.2		30.8		88.0		6.4		9.1		14		82				<0.2		0.4	
					Middle	3.6	0.4	173	22.4	22.4	8.2	8.2	30.8	30.8	87.8	87.8	6.4		9.7		14		83				<0.2		0.5	
						3.6	0.4	166	22.4		8.2		30.8		87.8		6.4		9.8		17		83				<0.2		0.4	
					Bottom	6.1	0.5	213	22.4	22.4	8.2	8.2	30.8	30.8	87.3	87.3	6.3	6.3	13.2		18		88				<0.2		0.5	
						6.1	0.5	211	22.4		8.2		30.8		87.3		6.3		13.2		18		88				<0.2		0.4	
IM2	Fine	Rough	03:46	7.3	Surface	1.0	0.5	198	22.6	22.6	8.2	8.2	30.6	30.7	86.4	86.4	6.3	6.3	7.8	9.6	16	15	80	84	818868	806203	<0.2	<0.2	0.5	0.5
						1.0	0.5	191	22.6		8.2		30.7		86.4		6.3		7.7		14		80				<0.2		0.5	
					Middle	3.7	0.4	191	22.6	22.6	8.2	8.2	30.6	30.6	86.3	86.3	6.3		9.2		14		83				<0.2		0.5	
						3.7	0.4	185	22.6		8.2		30.6		86.3		6.3		9.2		14		83				<0.2		0.6	
					Bottom	6.3	0.5	186	22.6	22.6	8.2	8.2	30.6	30.6	86.4	86.4	6.3	6.3	11.7		14		90				<0.2		0.4	
						6.3	0.4	186	22.6		8.2		30.6		86.4		6.3		11.8		16		90				<0.2		0.5	
IM3	Fine	Rough	04:00	7.5	Surface	1.0	0.5	208	22.5	22.5	8.2	8.2	30.3	30.3	90.1	90.1	6.6	6.6	13.6	13.3	20	21	83	86	819388	806021	<0.2	<0.2	0.4	0.5
						1.0	0.5	205	22.5		8.2		30.3		90.1		6.6		13.6		20		83				<0.2		0.4	
					Middle	3.8	0.5	197	22.4	22.4	8.2	8.2	30.3	30.4	88.9	88.9	6.5		10.8		21		86				<0.2		0.4	
						3.8	0.5	191	22.4		8.2		30.4		88.9		6.5		10.8		20		86				<0.2		0.5	
					Bottom	6.5	0.5	202	22.4	22.4	8.2	8.2	30.4	30.4	87.4	87.4	6.4	6.4	15.4		22		90				<0.2		0.5	
						6.5	0.5	207	22.4		8.2		30.4		87.4		6.4		15.4		20		90				<0.2		0.5	
IM4	Fine	Rough	04:14	8.2	Surface	1.0	0.5	183	22.4	22.4	8.2	8.2	30.5	30.5	89.3	89.4	6.5	6.5	8.2	10.9	12	14	80	83	819562	805015	<0.2	<0.2	0.4	0.5
						1.0	0.5	177	22.4		8.2		30.5		89.4		6.5		8.3		13		80				<0.2		0.6	
					Middle	4.1	0.6	194	22.3	22.3	8.2	8.2	30.5	30.5	88.7	88.7	6.5		10.6		14		83				<0.2		0.4	
						4.1	0.6	197	22.3		8.2		30.5		88.7		6.5		10.8		14		83				<0.2		0.4	
					Bottom	7.2	0.6	190	22.3	22.3	8.2	8.2	30.5	30.5	88.4	88.4	6.4	6.4	13.8		14		87				<0.2		0.9	
						7.2	0.6	183	22.3		8.2		30.5		88.4		6.4		13.8		16		87				<0.2		0.5	
IM5	Fine	Rough	04:32	7.3	Surface	1.0	0.6	186	22.8	22.8	8.2	8.2	30.6	30.6	86.6	86.6	6.3	6.3	8.0	8.2	13	14	82	86	820548	804905	<0.2	<0.2	0.6	0.5
						1.0	0.5	181	22.8		8.2		30.6		86.6		6.3		8.0		13		82				<0.2		0.5	
					Middle	3.7	0.5	205	22.7	22.7	8.2	8.2	30.7	30.7	86.8	86.8	6.3		8.8		12		86				<0.2		0.4	
						3.7	0.5	198	22.7		8.2		30.7		86.8		6.3		8.8		12		86				<0.2		0.5	
					Bottom	6.3	0.5	183	22.5	22.5	8.2	8.2	30.9	30.9	87.5	87.5	6.3	6.3	7.8		14		91				<0.2		0.5	
						6.3	0.5	180	22.5		8.2		30.9		87.5		6.3		7.8		21		91				<0.2		0.5	
IM6	Fine	Rough	04:43	7.7	Surface	1.0	0.4	187	22.6	22.6	8.2	8.2	30.5	30.5	87.7	87.7	6.4	6.4	9.9	11.0	16	17	81	85	821069	805824	<0.2	<0.2	0.5	0.5
						1.0	0.4	187	22.6		8.2		30.5		87.7		6.4		9.9		14		82				<0.2		0.4	
					Middle	3.9	0.5	213	22.4	22.4	8.2	8.2	30.6	30.6	87.8	87.8	6.4		10.9		17		84				<0.2		0.4	
						3.9	0.4	218	22.4		8.2		30.6		87.8		6.4		10.9		16		85				<0.2		0.5	
					Bottom	6.7	0.5	189	22.4	22.4	8.2	8.2	30.8	31.1	87.8	87.8	6.4	6.4	12.2		23		88				<0.2		0.6	
						6.7	0.5	186	22.4		8.2		31.4		87.8		6.4		12.2		16		88				<0.2		0.5	
IM7	Fine	Rough	04:57	7.9	Surface	1.0	0.5	208	22.5	22.5	8.2	8.2	30.5	30.5	87.7	87.7	6.4	6.5	9.5	10.6	16	17	83	88	821356	806822	<0.2	<0.2	0.5	0.5
						1.0	0.4	210	22.5		8.2		30.5		87.7		6.4		9.4		17		83				<0.2		0.5	
					Middle	4.0	0.5	203	22.5	22.5	8.2	8.2	30.4	30.4	88.8	88.8	6.5		10.6		17		89				<0.2		0.5	
						4.0	0.5	196	22.5		8.2		30.4		88.8		6.5		10.5		15		90				<0.2		0.7	
					Bottom	6.9	0.4	196	22.5	22.5	8.2	8.2	30.1	30.1	89.2	89.2	6.5	6.5	11.7		16		91				<0.2		0.5	
						6.9	0.5	200	22.5		8.2		30.1		89.2		6.5		11.7		18		91				<0.2		0.4	
IM8	Cloudy	Moderate	04:24	7.5	Surface	1.0	0.5	185	23.2	23.2	8.0	8.0	30.4	30.4	90.3	90.3	6.5	6.5	6.3	6.7	7	7	86	87	821677	807828	<0.2	<0.2	1.0	0.9
						1.0	0.5	180	23.2		8.0		30.4		90.3		6.5		6.4		8		85				<0.2		0.6	
					Middle	3.8	0.5	171	23.1	23.1	8.0	8.0	30.4	30.4	90.6	90.7	6.5		6.9		6		87				<0.2		0.6	
						3.8	0.5	174	23.1		8.0		30.4		90.7		6.5		6.9		8		88				<0.2		1.0	
					Bottom	6.5	0.5	168	23.1	23.1	8.0	8.0	30.4	30.4	91.4	91.5	6.6	6.6	6.8		6		89				<0.2		0.6	
						6.5	0.5	169	23.1		8.0		30.4		91.6		6.6		6.7		7		88				<0.2		1.3	

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 18 November 23 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	04:20	7.0	Surface	1.0	0.5	156	23.3	23.3	8.0	8.0	30.6	30.6	91.6	91.7	6.6	6.6	7.3	7.8	5	8	85	88	822076	808789	<0.2	<0.2	0.9	0.9
						1.0	0.5	161	23.3		8.0		30.6		91.8		6.6		7.4		6		86				<0.2		1.0	
					Middle	3.5	0.6	142	23.2	23.2	8.0	8.0	30.6	30.6	92.7	92.8	6.6		8.1		7		87				<0.2		0.6	
						3.5	0.6	147	23.2		8.0		30.6		92.8		6.7		8.2		8		87				<0.2		0.6	
					Bottom	6.0	0.5	150	23.2	23.2	8.0	8.0	30.6	30.6	93.7	94.0	6.7	6.8	8.1		9		90				<0.2		1.0	
						6.0	0.5	142	23.2		8.0		30.6		94.3		6.8		7.9		10		91				<0.2		1.0	
IM10	Cloudy	Moderate	04:13	7.7	Surface	1.0	0.7	119	23.4	23.4	8.0	8.0	30.8	30.8	91.6	91.7	6.5	6.6	8.2	9.7	7	7	86	88	822250	809829	<0.2	<0.2	0.6	0.7
						1.0	0.7	118	23.4		8.0		30.8		91.8		6.6		8.3		7		85				<0.2		0.6	
					Middle	3.9	0.6	129	23.3	23.3	8.0	8.0	30.8	30.8	93.4	93.5	6.7		9.9		8		87				<0.2		0.6	
						3.9	0.6	121	23.3		8.0		30.8		93.6		6.7		10.1		6		89				<0.2		0.6	
					Bottom	6.7	0.6	109	23.3	23.3	8.0	8.0	30.8	30.8	95.0	95.1	6.8	6.8	10.8		7		90				<0.2		0.6	
						6.7	0.6	114	23.3		8.0		30.8		95.1		6.8		10.8		7		89				<0.2		1.1	
IM11	Cloudy	Moderate	04:06	7.6	Surface	1.0	0.7	98	22.9	22.9	8.0	8.0	30.8	30.8	94.3	94.5	6.8	6.9	7.7	8.4	6	7	86	88	821522	810565	<0.2	<0.2	0.6	0.8
						1.0	0.7	101	22.9		8.0		30.8		94.6		6.8		7.8		6		85				<0.2		0.6	
					Middle	3.8	0.8	86	22.9	22.9	8.1	8.1	30.8	30.8	95.8	95.9	6.9		8.5		7		88				<0.2		1.0	
						3.8	0.8	92	22.9		8.1		30.8		95.9		6.9		8.6		7		87				<0.2		0.6	
					Bottom	6.6	0.8	80	22.9	22.9	8.1	8.1	30.8	30.8	96.3	96.5	6.9	7.0	9.0		7		90				<0.2		0.8	
						6.6	0.8	83	22.9		8.1		30.8		96.7		7.0		9.0		7		91				<0.2		0.9	
IM12	Cloudy	Moderate	04:02	8.0	Surface	1.0	0.8	96	22.9	22.9	8.0	8.0	30.7	30.7	91.3	91.4	6.6	6.6	4.7	6.4	8	10	85	88	821147	811520	<0.2	<0.2	1.0	0.8
						1.0	0.8	98	22.9		8.0		30.7		91.4		6.6		4.8		9		86				<0.2		0.6	
					Middle	4.0	0.8	102	22.8	22.8	8.0	8.0	30.7	30.7	92.1	92.2	6.6		6.0		9		87				<0.2		0.6	
						4.0	0.8	103	22.8		8.0		30.7		92.2		6.6		6.1		11		88				<0.2		0.6	
					Bottom	7.0	0.8	125	22.8	22.8	8.0	8.0	30.7	30.7	94.1	94.2	6.8	6.8	8.3		9		90				<0.2		1.0	
						7.0	0.8	127	22.8		8.0		30.7		94.3		6.8		8.3		11		91				<0.2		1.0	
SR1A	Cloudy	Moderate	03:38	5.9	Surface	1.0	0.0	171	23.1	23.1	8.0	8.0	30.7	30.7	89.4	89.5	6.4	6.4	6.0	5.0	6	6	-	-	819978	812661	-	-	-	-
						1.0	0.0	171	23.1		8.0		30.7		89.5		6.4		5.9		6		-				-		-	
					Middle	3.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						3.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.9	-	196	23.1	23.1	8.0	8.0	30.7	30.7	91.2	91.4	6.6	6.6	4.1		7		-				-		-	
						4.9	0.0	193	23.1		8.0		30.7		91.5		6.6		4.0		6		-				-		-	
SR2	Cloudy	Moderate	03:26	4.9	Surface	1.0	0.5	58	23.1	23.1	8.0	8.0	30.8	30.8	95.5	95.6	6.9	6.9	8.6	8.4	8	7	86	88	821474	814152	<0.2	<0.2	1.0	1.0
						1.0	0.5	60	23.1		8.0		30.8		95.7		6.9		8.7		6		85				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.5	37	23.0	23.0	8.0	8.0	30.8	30.8	97.7	97.9	7.0	7.0	8.2		7		90				<0.2		0.9	
						3.9	0.4	32	23.0		8.0		30.8		98.0		7.0		8.2		6		91				<0.2		1.1	
SR3	Cloudy	Moderate	04:29	8.4	Surface	1.0	0.7	151	23.4	23.4	8.0	8.0	30.0	30.0	88.5	88.5	6.3	6.3	7.9	9.4	8	8	-	-	822159	807557	-	-	-	-
						1.0	0.7	156	23.4		8.0		30.0		88.4		6.3		9.0		6		-				-		-	
					Middle	4.2	0.7	163	23.4	23.4	8.0	8.0	30.1	30.1	88.4	88.4	6.3		11.3		7		-				-		-	
						4.2	0.7	158	23.4		8.0		30.1		88.4		6.3		11.3		8		-				-		-	
					Bottom	7.4	0.7	164	23.4	23.4	8.0	8.0	30.1	30.1	88.9	89.0	6.4	6.4	8.7		8		-				-		-	
						7.4	0.6	157	23.4		8.0		30.1		89.0		6.4		8.1		8		-				-		-	
SR4A	Fine	Rough	02:55	9.3	Surface	1.0	0.0	88	21.8	21.8	8.2	8.2	30.5	30.5	85.6	85.6	6.3	6.3	6.6	7.4	10	11	-	-	817168	807826	-	-	-	-
						1.0	0.0	86	21.8		8.2		30.5		85.6		6.3		6.7		15		-				-		-	
					Middle	4.7	0.1	107	21.8	21.8	8.2	8.2	30.4	30.5	85.4	85.4	6.3		7.6		12		-				-		-	
						4.7	0.1	101	21.8		8.2		30.5		85.4		6.3		7.5		13		-				-		-	
					Bottom	8.3	0.1	96	21.8	21.8	8.2	8.2	30.4	30.4	85.4	85.4	6.3	6.3	8.1		9		-				-		-	
						8.3	0.0	103	21.8		8.2		30.4		85.4		6.3		8.1		9		-				-		-	
SR5A	Fine	Rough	02:38	4.8	Surface	1.0	0.3	103	22.0	22.0	8.2	8.2	30.4	30.4	85.3	85.3	6.3	6.3	10.1	11.5	14	17	-	-	816576	810710	-	-	-	-
						1.0	0.3	105	22.0		8.2		30.4		85.3		6.3		10.2		16		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	106	21.9	21.9	8.2	8.2	30.4	30.4	85.3	85.3	6.3	6.3	12.8		20		-				-		-	
						3.8	0.3	104	21.9		8.2		30.4		85.3		6.3		12.8		16		-				-		-	
SR6	Fine	Rough	02:21	5.2	Surface	1.0	0.2	63	22.3	22.3	8.1	8.1	30.5	30.5	84.4	84.4	6.1	6.1	4.5	6.1	14	14	-	-	817884	814655	-	-	-	-
						1.0	0.2	62	22.3		8.1		30.5		84.3		6.1		4.5		14		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	46	22.3	22.3	8.1	8.1	30.6	30.6	84.0	84.0	6.1	6.1	7.6		14		-				-		-	
						4.2	0.1	50	22.3		8.1		30.6		84.0		6.1		7.7		14		-				-		-	
SR7	Cloudy	Moderate	02:38	16.8	Surface	1.0	1.0	66	24.1	24.1	8.0	8.0	31.1	31.1	85.9	85.9	6.0	6.1	4.2	5.0	7	8	-	-	823643	823731	-	-	-	-
						1.0	1.1	65	24.1		8.0		31.1		85.9		6.0		4.3		7		-				-		-	
					Middle	8.4	1.0	85	24.2	24.2	8.0	8.0	31.1	31.1	86.4	86.5	6.1		5.7		7		-				-		-	
						8.4	1.0	79	24.2		8.0		31.1		86.5		6.1		5.7		9		-				-		-	
					Bottom	15.8	1.1	70	24.1	24.1	8.0	8.0	31.1	31.1	88.6	88.8	6.2	6.3	5.1		9		-				-		-	
						15.8	1.1	62	24.1		8.0		31.1		88.9		6.3		5.1		8		-				-		-	
SR8	Cloudy	Moderate	03:56	5.0	Surface	1.0	-	-	23.0	23.0	8.0	8.0	30.7	30.7	91.6	91.7	6.6	6.6	5.0	5.1	7	7	-	-	820388	811602	-	-	-	-
						1.0	-	-	23.0		8.0		30.7		91.8		6.6		5.0		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	22.9	22.9	8.0	8.0	30.7	30.7	93.6	93.8	6.7	6.8	5.1		8		-				-		-	
						4.0	-	-	22.9		8.0		30.7		94.0		6.8		5.1		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 18 November 23 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
C1	Sunny	Rough	16:03	7.1	Surface	1.0	0.1	43	22.2	22.2	8.2	8.2	30.4	30.4	88.4	88.4	6.5	6.5	7.3	9.9	11	11	82	87	815612	804268	<0.2	<0.2	0.4	0.4
						1.0	0.1	50	22.2		8.2		30.4		88.4		6.5		7.2		9		82				<0.2		0.4	
					Middle	3.6	0.0	40	22.1	22.1	8.2	8.2	30.4	30.4	88.6	88.6	6.5		10.8		10		86				<0.2		0.4	
						3.6	0.0	42	22.1		8.2		30.4		88.5		6.5		10.8		12		87				<0.2		0.4	
					Bottom	6.1	0.0	58	22.2	22.2	8.2	8.2	30.4	30.4	88.3	88.3	6.5	6.5	11.7		13		91				<0.2		0.4	
						6.1	0.0	64	22.2		8.2		30.4		88.3		6.5		11.8		11		91				<0.2		0.4	
C2	Cloudy	Moderate	14:31	11.4	Surface	1.0	0.2	358	23.5	23.5	8.0	8.0	29.9	30.0	94.2	94.4	6.8	6.9	4.9	5.8	9	7	85	87	825696	806958	<0.2	<0.2	0.6	0.7
						1.0	0.1	356	23.5		8.0		30.0		94.5		6.8		4.9		7		84				<0.2		0.6	
					Middle	5.7	0.2	346	23.5	23.5	8.0	8.0	30.0	30.0	95.4	95.6	6.9		6.0		8		87				<0.2		0.6	
						5.7	0.2	352	23.5		8.0		30.0		95.7		6.9		6.1		7		88				<0.2		0.6	
					Bottom	10.4	0.1	341	23.5	23.5	8.0	8.0	30.0	30.0	96.7	97.0	7.0	7.0	6.3		5		89				<0.2		0.6	
						10.4	0.1	344	23.5		8.0		30.0		97.2		7.0		6.3		6		90				<0.2		1.3	
C3	Cloudy	Moderate	16:19	11.3	Surface	1.0	0.1	71	24.0	24.0	8.0	8.0	31.4	31.4	87.9	88.0	6.3	6.3	4.7	5.7	7	7	83	86	822103	817810	<0.2	<0.2	0.7	0.8
						1.0	0.2	76	24.0		8.0		31.4		88.1		6.3		4.7		6		84				<0.2		1.2	
					Middle	5.7	0.1	90	24.0	24.0	8.0	8.0	31.4	31.4	88.9	89.1	6.3		5.8		7		86				<0.2		0.6	
						5.7	0.1	86	24.0		8.0		31.4		89.3		6.3		5.8		6		87				<0.2		0.6	
					Bottom	10.3	0.1	86	24.0	24.0	8.0	8.0	31.4	31.4	91.1	91.1	6.5	6.5	6.7		6		90				<0.2		1.2	
						10.3	0.0	88	24.0		8.0		31.4		91.1		6.5		6.7		8		88				<0.2		0.7	
IM1	Sunny	Rough	15:43	6.2	Surface	1.0	0.0	23	22.4	22.4	8.2	8.2	31.1	31.1	88.5	88.5	6.4	6.4	8.6	11.0	17	21	83	87	818370	806462	<0.2	<0.2	0.4	0.5
						1.0	0.1	25	22.4		8.2		31.1		88.5		6.4		8.6		19		83				<0.2		0.6	
					Middle	3.1	0.0	27	22.4	22.4	8.2	8.2	31.1	31.1	88.3	88.3	6.4		9.4		23		87				<0.2		0.5	
						3.1	-	24	22.4		8.2		31.1		88.3		6.4		9.4		25		87				<0.2		0.5	
					Bottom	5.2	0.1	15	22.4	22.4	8.2	8.2	31.1	31.2	88.2	88.2	6.4	6.4	14.9		23		91				<0.2		0.5	
						5.2	0.1	9	22.4		8.2		31.2		88.2		6.4		14.9		21		91				<0.2		0.5	
IM2	Sunny	Rough	15:34	6.7	Surface	1.0	0.1	22	22.3	22.3	8.2	8.2	31.1	31.1	88.2	88.2	6.4	6.4	9.6	11.4	19	20	83	88	818853	806172	<0.2	<0.2	0.4	0.4
						1.0	0.1	19	22.3		8.2		31.1		88.2		6.4		9.6		19		83				<0.2		0.5	
					Middle	3.4	0.1	34	22.3	22.3	8.2	8.2	31.1	31.1	88.3	88.3	6.4		11.6		18		88				<0.2		0.4	
						3.4	0.1	32	22.3		8.2		31.1		88.3		6.4		11.6		19		89				<0.2		0.4	
					Bottom	5.7	0.1	26	22.3	22.3	8.2	8.2	31.1	31.1	88.1	88.1	6.4	6.4	12.9		20		91				<0.2		0.5	
						5.7	0.1	20	22.3		8.2		31.1		88.1		6.4		13.0		22		91				<0.2		0.4	
IM3	Sunny	Rough	15:24	6.9	Surface	1.0	0.1	60	22.6	22.6	8.2	8.2	30.9	30.9	88.0	88.0	6.4	6.4	6.9	9.1	13	14	85	88	819398	806019	<0.2	<0.2	0.5	0.5
						1.0	0.1	55	22.6		8.2		30.9		88.0		6.4		6.9		12		85				<0.2		0.4	
					Middle	3.5	0.1	57	22.5	22.5	8.2	8.2	30.9	30.9	88.2	88.2	6.4		7.3		12		88				<0.2		0.5	
						3.5	0.1	60	22.5		8.2		30.9		88.2		6.4		7.4		12		88				<0.2		0.5	
					Bottom	5.9	0.1	54	22.5	22.5	8.2	8.2	30.8	30.9	87.6	87.6	6.4	6.4	12.9		12		90				<0.2		0.4	
						5.9	0.1	47	22.5		8.2		30.9		87.6		6.4		12.9		21		90				<0.2		0.4	
IM4	Sunny	Rough	15:15	7.9	Surface	1.0	0.2	42	22.3	22.3	8.2	8.2	29.9	29.9	89.1	89.1	6.5	6.5	9.4	11.3	16	17	82	87	819564	805032	<0.2	<0.2	0.5	0.5
						1.0	0.2	40	22.3		8.2		29.9		89.1		6.5		9.4		17		82				<0.2		0.5	
					Middle	4.0	0.1	60	22.3	22.3	8.2	8.2	30.0	30.0	88.1	88.1	6.4		10.6		17		87				<0.2		0.4	
						4.0	0.1	62	22.3		8.2		30.0		88.1		6.4		10.7		16		87				<0.2		0.4	
					Bottom	6.9	0.1	38	22.3	22.3	8.2	8.2	29.7	30.3	88.2	88.2	6.5	6.5	13.9		17		92				<0.2		0.5	
						6.9	0.1	32	22.3		8.2		30.8		88.2		6.5		13.9		19		92				<0.2		0.5	
IM5	Sunny	Rough	15:03	7.8	Surface	1.0	0.1	35	22.6	22.6	8.2	8.2	29.8	29.9	87.4	87.4	6.4	6.4	11.6	10.7	17	19	84	87	820555	804942	<0.2	<0.2	0.4	0.4
						1.0	0.1	33	22.6		8.2		29.9		87.4		6.4		11.6		15		84				<0.2		0.4	
					Middle	3.9	0.1	15	22.6	22.6	8.2	8.2	29.9	29.9	86.9	86.9	6.3		9.0		17		87				<0.2		0.4	
						3.9	0.2	21	22.6		8.2		29.9		86.9		6.3		9.0		15		87				<0.2		0.4	
					Bottom	6.8	0.1	15	22.5	22.5	8.2	8.2	30.6	30.6	87.9	87.9	6.4	6.4	11.4		27		90				<0.2		0.4	
						6.8	0.1	10	22.5		8.2		30.6		87.9		6.4		11.5		25		90				<0.2		0.5	
IM6	Sunny	Rough	14:48	7.1	Surface	1.0	0.2	25	22.5	22.5	8.2	8.2	29.9	29.9	88.7	88.7	6.5	6.5	10.2	11.6	15	16	83	87	821050	805845	<0.2	<0.2	0.5	0.4
						1.0	0.2	18	22.5		8.2		29.9		88.7		6.5		10.1		14		83				<0.2		0.5	
					Middle	3.6	0.1	53	22.5	22.5	8.2	8.2	30.0	30.0	88.3	88.3	6.4		12.2		17		86				<0.2		0.4	
						3.6	0.1	50	22.5		8.2		30.0		88.3		6.4		12.2		15		86				<0.2		0.4	
					Bottom	6.1	0.2	43	22.4	22.4	8.2	8.2	30.0	30.0	88.7	88.7	6.5	6.5	12.5		17		91				<0.2		0.4	
						6.1	0.2	36	22.4		8.2		29.9		88.7		6.5		12.5		18		91				<0.2		0.4	
IM7	Sunny	Rough	14:31	7.4	Surface	1.0	0.2	36	22.5	22.5	8.2	8.2	29.9	29.9	87.9	87.9	6.4	6.4	9.2	9.8	16	15	83	87	821352	806852	<0.2	<0.2	0.4	0.4
						1.0	0.2	39	22.5		8.2		29.9		87.9		6.4		9.2		16		83				<0.2		0.4	
					Middle	3.7	0.2	28	22.5	22.5	8.2	8.2	29.9	29.9	87.6	87.6	6.4		9.9		14		88				<0.2		0.5	
						3.7	0.2	27	22.5		8.2		29.9		87.6		6.4		9.8		15		88				<0.2		0.5	
					Bottom	6.4	0.2	34	22.5	22.5	8.2	8.2	29.9	29.9	88.6	88.6	6.5	6.5	10.3		14		91				<0.2		0.4	
						6.4	0.2	29	22.5		8.2		29.9		88.6		6.5		10.3		15		91				<0.2		0.4	
IM8	Cloudy	Moderate	15:02	7.4	Surface	1.0	0.2	31	23.5	23.5	8.0	8.0	30.0	30.0	92.6	92.8	6.7	6.8	8.3	9.0	7	6	85	86	821709	807832	<0.2	<0.2	1.2	0.9
						1.0	0.2	26	23.5		8.0		30.0		93.0		6.7		8.2		5		84				<0.2		1.2	
					Middle	3.7	0.2	13	23.4	23.4	8.0	8.0	30.2	30.2	94.5	94.7	6.8		8.9		6		89				<0.2		0.6	
						3.7	0.1	19	23.4		8.0		30.2		94.8		6.9		8.9		5		90				<0.2		0.7	
					Bottom	6.4	0.1	41	23.4	23.4	8.0	8.0	30.4	30.5	96.0	96.2	6.9	7.0	9.7		5		84				<0.2		1.2	
						6.4	0.1	48	23.4		8.0		30.5		96.4		7.0		9.7		5		85				<0.2		0.7	

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 18 November 23 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	15:08	8.5	Surface	1.0	0.1	17	23.4	23.4	8.1	8.1	30.6	30.6	89.9	90.0	6.5	6.7	6.8	8.7	5	6	86	87	822102	808788	<0.2	<0.2	1.1	0.8
						1.0	0.1	20	23.4		8.1		30.6		90.0		6.5		6.8		6		87				<0.2		0.6	
					Middle	4.3	0.1	26	23.4	23.4	8.1	8.1	30.8	30.8	94.1	94.3	6.8		8.9		6		89				<0.2		0.6	
						4.3	0.0	19	23.4		8.1		30.8		94.4		6.8		8.9		6		90				<0.2		1.2	
					Bottom	7.5	0.1	53	23.4	23.4	8.1	8.1	30.8	30.8	96.0	96.4	6.9	7.0	10.5		5		85				<0.2		0.7	
						7.5	0.1	46	23.4		8.1		30.8		96.8		7.0		10.4		6		84				<0.2		0.6	
IM10	Cloudy	Moderate	15:17	8.1	Surface	1.0	0.1	345	23.5	23.5	8.1	8.1	30.8	30.8	90.3	90.4	6.5	6.6	8.7	9.6	6	5	87	87	822235	809855	<0.2	<0.2	0.6	0.8
						1.0	0.1	347	23.5		8.1		30.8		90.5		6.5		8.7		5		86				<0.2		0.6	
					Middle	4.1	0.0	336	23.5	23.5	8.1	8.1	30.8	30.8	93.1	93.5	6.7		9.6		6		89				<0.2		1.0	
						4.1	0.0	337	23.5		8.1		30.8		93.8		6.7		9.6		5		90				<0.2		0.9	
					Bottom	7.1	0.0	344	23.5	23.5	8.1	8.1	30.8	30.8	95.9	96.3	6.9	7.0	10.6		5		85				<0.2		1.0	
						7.1	0.1	344	23.5		8.1		30.8		96.7		7.0		10.6		5		84				<0.2		0.8	
IM11	Cloudy	Moderate	15:22	8.5	Surface	1.0	0.1	337	23.5	23.5	8.1	8.1	30.9	30.9	89.6	89.7	6.4	6.5	6.1	7.0	6	6	86	87	821487	810538	<0.2	<0.2	0.9	1.1
						1.0	0.1	336	23.5		8.1		30.9		89.8		6.5		6.1		6		88				<0.2		1.1	
					Middle	4.3	0.1	312	23.4	23.4	8.1	8.1	30.9	30.9	90.4	90.5	6.5		6.8		8		89				<0.2		1.2	
						4.3	0.1	306	23.4		8.1		30.9		90.6		6.5		6.8		6		88				<0.2		1.2	
					Bottom	7.5	0.1	309	23.4	23.4	8.1	8.1	30.9	30.9	96.4	96.7	6.9	7.0	8.0		6		84				<0.2		1.2	
						7.5	0.1	312	23.4		8.1		30.8		97.0		7.0		8.0		6		85				<0.2		1.0	
IM12	Cloudy	Moderate	15:28	8.6	Surface	1.0	0.0	349	23.5	23.5	8.1	8.1	30.9	30.9	89.6	89.7	6.4	6.5	8.6	9.9	6	6	86	87	821157	811519	<0.2	<0.2	1.1	1.0
						1.0	0.0	347	23.5		8.1		30.9		89.8		6.5		8.6		5		86				<0.2		1.1	
					Middle	4.3	0.0	328	23.4	23.4	8.1	8.1	30.9	30.9	90.5	90.5	6.5		10.2		6		89				<0.2		0.9	
						4.3	0.1	332	23.4		8.1		30.9		90.5		6.5		10.2		6		90				<0.2		1.2	
					Bottom	7.6	0.1	321	23.4	23.4	8.1	8.1	30.8	30.8	96.5	96.7	7.0	7.0	10.8		5		85				<0.2		0.9	
						7.6	0.1	314	23.4		8.1		30.8		96.8		7.0		10.8		5		84				<0.2		0.8	
SR1A	Cloudy	Moderate	15:48	5.5	Surface	1.0	0.0	1	23.3	23.3	8.0	8.0	30.8	30.8	93.5	93.5	6.8	6.8	6.8	7.0	6	6	-	-	819973	812658	-	-	-	-
						1.0	0.0	3	23.3		8.0		30.8		93.5		6.8		6.9		6		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.0	5	23.3	23.3	8.0	8.0	30.8	30.8	95.0	95.4	6.9	6.9	7.1		6		-				-		-	
						4.5	0.1	359	23.3		8.0		30.8		95.7		6.9		7.1		6		-				-		-	
SR2	Cloudy	Moderate	15:59	5.2	Surface	1.0	0.0	101	23.5	23.5	8.1	8.1	30.8	30.8	94.2	94.4	6.8	6.8	7.0	7.0	5	5	86	87	821454	814159	<0.2	<0.2	0.7	0.9
						1.0	0.0	102	23.5		8.1		30.8		94.5		6.8		7.0		5		87				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	112	23.5	23.5	8.1	8.1	30.8	30.8	91.8	91.8	6.6	6.6	6.9		6		88				<0.2		0.8	
						4.2	0.1	113	23.5		8.1		30.8		91.8		6.6		6.9		5		87				<0.2		0.9	
SR3	Cloudy	Moderate	14:56	8.4	Surface	1.0	0.1	7	23.6	23.6	8.0	8.0	29.9	29.9	89.4	89.5	6.5	6.5	5.8	7.1	6	6	-	-	822133	807560	-	-	-	-
						1.0	0.1	1	23.6		8.0		29.9		89.5		6.5		5.7		5		-				-		-	
					Middle	4.2	0.2	1	23.6	23.6	8.0	8.0	29.9	29.9	90.6	90.9	6.5		7.1		5		-				-		-	
						4.2	0.2	1	23.6		8.0		29.9		91.2		6.6		7.1		5		-				-		-	
					Bottom	7.4	0.1	6	23.5	23.5	8.0	8.0	29.9	29.9	93.5	93.7	6.8	6.8	8.3		7		-				-		-	
						7.4	0.1	7	23.5		8.0		29.9		93.8		6.8		8.3		8		-				-		-	
SR4A	Sunny	Moderate	16:26	8.9	Surface	1.0	0.0	118	22.3	22.3	8.2	8.2	30.4	30.4	89.7	89.7	6.5	6.5	5.4	5.9	9	8	-	-	817198	807817	-	-	-	-
						1.0	0.0	123	22.3		8.2		30.4		89.7		6.5		5.4		9		-				-		-	
					Middle	4.5	0.1	132	22.3	22.3	8.2	8.2	30.3	30.3	89.2	89.2	6.5		6.2		8		-				-		-	
						4.5	0.0	139	22.3		8.2		30.3		89.2		6.5		6.3		7		-				-		-	
					Bottom	7.9	0.0	110	22.3	22.3	8.2	8.2	30.4	30.4	88.8	88.9	6.5	6.5	6.1		8		-				-		-	
						7.9	0.0	103	22.3		8.2		30.3		88.9		6.5		6.2		7		-				-		-	
SR5A	Sunny	Moderate	16:44	4.3	Surface	1.0	0.1	115	22.3	22.3	8.2	8.2	30.5	30.5	88.2	88.2	6.4	6.4	5.6	5.4	7	7	-	-	816612	810715	-	-	-	-
						1.0	0.1	121	22.3		8.2		30.5		88.2		6.4		5.6		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	134	22.0	22.0	8.2	8.2	30.5	30.5	86.9	86.9	6.4	6.4	5.3		7		-				-		-	
						3.3	0.0	128	22.0		8.2		30.5		86.9		6.4		5.2		7		-				-		-	
SR6	Sunny	Moderate	17:03	4.8	Surface	1.0	0.0	74	23.6	23.6	8.2	8.2	30.9	30.9	87.1	87.1	6.4	6.4	3.3	3.6	8	8	-	-	817908	814686	-	-	-	-
						1.0	0.0	77	23.6		8.2		30.9		87.1		6.4		3.3		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	62	23.4	23.4	8.2	8.2	30.8	30.8	84.7	84.7	6.0	6.0	3.9		7		-				-		-	
						3.8	0.0	63	23.4		8.2		30.8		84.7		6.0		3.9		7		-				-		-	
SR7	Cloudy	Moderate	16:50	16.4	Surface	1.0	0.0	298	23.9	23.9	8.0	8.0	31.4	31.4	88.9	89.1	6.3	6.4	3.7	4.3	5	5	-	-	823613	823725	-	-	-	-
						1.0	0.0	291	23.9		8.0		31.4		89.2		6.4		3.7		5		-				-		-	
					Middle	8.2	0.0	284	23.9	23.9	8.0	8.0	31.4	31.4	89.8	90.0	6.4		4.1		5		-				-		-	
						8.2	0.0	290	23.9		8.0		31.4		90.1		6.4		4.1		4		-				-		-	
					Bottom	15.4	0.0	291	23.9	23.9	8.0	8.0	31.4	31.4	92.0	92.1	6.6	6.6	5.1		5		-				-		-	
						15.4	0.0	291	23.9		8.0		31.4		92.2		6.6		5.1		5		-				-		-	
SR8	Cloudy	Moderate	15:41	5.1	Surface	1.0	-	-	23.5	23.5	8.1	8.1	30.8	30.8	90.5	90.5	6.5	6.5	6.8	7.3	6	6	-	-	820371	811642	-	-	-	-
						1.0	-	-	23.5		8.1		30.8		90.5		6.5		6.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	23.4	23.4	8.1	8.1	30.8	30.8	96.6	97.1	7.0	7.0	7.7		5		-				-		-	
						4.1	-	-	23.4		8.1		30.8		97.5		7.0		7.7		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 21 November 23 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	Moderate	07:49	7.6	Surface	1.0	0.3	215	22.6	22.6	8.1	8.1	30.7	30.7	86.8	86.8	6.3	6.3	4.1	5.4	8	9	83	86	815637	804267	<0.2	<0.2	0.7	0.8
						1.0	0.2	208	22.6		8.1		30.7		86.8		6.3		4.1		10		83				<0.2		0.8	
					Middle	3.8	0.2	204	22.7	22.7	8.1	8.1	30.7	30.7	86.7	86.7	6.3		5.2		8		86				<0.2		0.8	
						3.8	0.2	198	22.7		8.1		30.7		86.7		6.3		5.2		9		86				<0.2		0.7	
					Bottom	6.6	0.2	231	22.7	22.7	8.1	8.1	30.8	30.8	87.0	87.1	6.3	6.3	6.8		8		90				<0.2		0.8	
						6.6	0.2	226	22.7		8.1		30.8		87.2		6.3		6.8		9		90				<0.2		0.8	
C2	Cloudy	Moderate	08:23	11.7	Surface	1.0	0.3	183	23.2	23.2	8.0	8.0	30.3	30.3	89.0	89.0	6.4	6.4	2.3	2.6	4	5	84	87	825669	806930	<0.2	<0.2	0.5	0.5
						1.0	0.4	187	23.2		8.0		30.3		89.0		6.4		2.4		6		85				<0.2		0.5	
					Middle	5.9	0.3	156	23.1	23.1	8.0	8.0	30.3	30.3	88.8	88.8	6.4		2.5		6		87				<0.2		0.5	
						5.9	0.4	153	23.1		8.0		30.3		88.8		6.4		2.4		5		88				<0.2		0.5	
					Bottom	10.7	0.3	192	23.1	23.1	8.0	8.0	30.3	30.3	88.9	88.9	6.4	6.4	3.0		4		91				<0.2		0.6	
						10.7	0.3	188	23.1		8.0		30.3		88.9		6.4		3.0		5		89				<0.2		0.6	
C3	Cloudy	Moderate	06:08	11.7	Surface	1.0	0.3	34	23.1	23.1	8.0	8.0	30.7	30.7	89.4	89.4	6.4	6.4	2.6	3.7	7	7	86	88	822114	817825	<0.2	<0.2	0.6	0.5
						1.0	0.3	31	23.1		8.0		30.7		89.3		6.4		2.6		6		85				<0.2		0.5	
					Middle	5.9	0.2	33	23.2	23.2	8.0	8.0	30.8	30.8	89.5	89.5	6.4		3.6		6		88				<0.2		0.6	
						5.9	0.3	34	23.2		8.0		30.8		89.5		6.4		3.6		7		89				<0.2		0.5	
					Bottom	10.7	0.2	24	23.2	23.2	8.0	8.0	30.8	30.8	90.8	90.9	6.5	6.5	5.0		7		90				<0.2		0.5	
						10.7	0.3	28	23.2		8.0		30.8		91.0		6.5		5.0		6		91				<0.2		0.5	
IM1	Fine	Moderate	07:56	7.0	Surface	1.0	0.3	197	22.3	22.3	8.1	8.1	30.5	30.6	86.8	86.8	6.3	6.3	3.4	4.6	7	8	82	84	818338	806472	<0.2	<0.2	0.7	0.8
						1.0	0.3	192	22.3		8.1		30.6		86.8		6.3		3.3		7		82				<0.2		0.7	
					Middle	3.5	0.3	207	22.3	22.3	8.1	8.1	30.6	30.6	86.8	86.8	6.3		4.9		7		83				<0.2		0.7	
						3.5	0.3	209	22.3		8.1		30.6		86.8		6.3		4.9		8		83				<0.2		0.8	
					Bottom	6.0	0.3	198	22.3	22.3	8.1	8.1	30.6	30.6	87.5	87.7	6.4	6.4	5.4		8		88				<0.2		0.9	
						6.0	0.4	200	22.3		8.1		30.6		87.8		6.4		5.4		9		88				<0.2		0.8	
IM2	Fine	Moderate	08:04	8.0	Surface	1.0	0.4	216	22.4	22.4	8.1	8.1	30.6	30.7	85.6	85.6	6.2	6.2	4.4	5.3	7	8	80	84	818869	806203	<0.2	<0.2	0.8	0.7
						1.0	0.4	216	22.4		8.1		30.7		85.5		6.2		4.5		8		80				<0.2		0.7	
					Middle	4.0	0.5	200	22.5	22.5	8.1	8.1	30.7	30.7	85.1	85.1	6.2		5.1		8		83				<0.2		0.7	
						4.0	0.5	201	22.5		8.1		30.7		85.0		6.2		5.1		8		83				<0.2		0.7	
					Bottom	7.0	0.4	201	22.5	22.5	8.1	8.1	30.8	30.8	87.2	87.4	6.3	6.3	6.2		8		90				<0.2		0.7	
						7.0	0.4	203	22.5		8.1		30.8		87.5		6.3		6.2		8		90				<0.2		0.8	
IM3	Fine	Moderate	08:13	7.6	Surface	1.0	0.3	221	22.4	22.4	8.1	8.1	29.9	29.9	86.8	86.8	6.3	6.3	2.1	3.3	9	9	83	86	819396	806006	<0.2	<0.2	0.8	0.8
						1.0	0.3	223	22.4		8.1		29.9		86.8		6.3		2.1		7		83				<0.2		0.8	
					Middle	3.8	0.3	230	22.4	22.4	8.1	8.1	30.0	30.0	86.9	86.9	6.3		3.6		8		86				<0.2		0.8	
						3.8	0.2	224	22.4		8.1		30.0		86.9		6.3		3.5		8		86				<0.2		0.7	
					Bottom	6.6	0.3	227	22.4	22.4	8.1	8.1	29.9	29.9	88.0	88.1	6.4	6.4	4.3		9		90				<0.2		0.8	
						6.6	0.2	225	22.4		8.1		29.9		88.2		6.4		4.3		10		90				<0.2		0.7	
IM4	Fine	Moderate	08:17	8.2	Surface	1.0	0.3	242	22.5	22.5	8.1	8.1	30.0	30.0	86.5	86.6	6.3	6.3	4.3	5.3	8	7	80	83	819555	805042	<0.2	<0.2	0.7	0.8
						1.0	0.3	248	22.5		8.1		30.0		86.6		6.3		4.3		8		80				<0.2		0.8	
					Middle	4.1	0.2	247	22.5	22.5	8.1	8.1	30.0	30.0	86.7	86.8	6.3		5.1		7		83				<0.2		0.7	
						4.1	0.2	240	22.5		8.1		30.0		86.8		6.3		5.1		8		83				<0.2		0.8	
					Bottom	7.2	0.2	233	22.5	22.5	8.1	8.1	30.0	30.0	86.9	86.9	6.3	6.3	6.4		6		87				<0.2		0.8	
						7.2	0.2	237	22.5		8.1		30.0		86.9		6.3		6.4		6		87				<0.2		0.8	
IM5	Fine	Moderate	08:21	8.6	Surface	1.0	0.1	248	22.6	22.6	8.1	8.1	30.1	30.1	86.9	86.9	6.3	6.3	2.4	3.4	7	7	82	86	820549	804903	<0.2	<0.2	0.6	0.7
						1.0	0.1	255	22.6		8.1		30.1		86.8		6.3		2.4		8		82				<0.2		0.7	
					Middle	4.3	0.2	266	22.6	22.6	8.1	8.1	30.1	30.1	86.9	87.0	6.3		3.3		8		86				<0.2		0.8	
						4.3	0.2	258	22.6		8.1		30.1		87.0		6.3		3.3		7		86				<0.2		0.7	
					Bottom	7.6	0.1	244	22.6	22.6	8.1	8.1	30.1	30.1	88.0	88.2	6.4	6.4	4.6		6		91				<0.2		0.7	
						7.6	0.2	240	22.6		8.1		30.1		88.4		6.4		4.5		7		91				<0.2		0.7	
IM6	Fine	Moderate	08:26	7.8	Surface	1.0	0.3	239	22.6	22.6	8.1	8.1	30.3	30.3	87.0	87.1	6.3	6.4	3.1	4.1	8	8	81	85	821071	805808	<0.2	<0.2	0.8	0.7
						1.0	0.2	241	22.6		8.1		30.3		87.1		6.3		3.1		7		82				<0.2		0.7	
					Middle	3.9	0.3	237	22.6	22.6	8.1	8.1	30.3	30.3	87.8	87.9	6.4		4.1		8		84				<0.2		0.7	
						3.9	0.2	238	22.6		8.1		30.3		88.0		6.4		4.1		8		85				<0.2		0.7	
					Bottom	6.8	0.2	229	22.5	22.5	8.1	8.1	30.3	30.4	88.9	89.0	6.5	6.5	5.1		8		88				<0.2		0.7	
						6.8	0.2	229	22.5		8.1		30.4		89.1		6.5		5.2		7		88				<0.2		0.7	
IM7	Fine	Moderate	08:36	8.0	Surface	1.0	0.3	225	22.7	22.7	8.1	8.1	30.3	30.3	87.1	87.1	6.3	6.4	3.2	4.5	8	8	83	88	821372	806849	<0.2	<0.2	0.7	0.7
						1.0	0.4	230	22.7		8.1		30.3		87.1		6.3		3.2		7		83				<0.2		0.7	
					Middle	4.0	0.3	224	22.7	22.8	8.1	8.1	30.3	30.3	87.9	88.1	6.4		4.4		9		89				<0.2		0.8	
						4.0	0.3	228	22.8		8.1		30.3		88.3		6.4		4.4		8		90				<0.2		0.7	
					Bottom	7.0	0.3	253	23.0	23.0	8.1	8.1	30.2	30.2	89.8	90.0	6.5	6.5	5.7		9		91				<0.2		0.7	
						7.0	0.3	253	23.0		8.1		30.1		90.1		6.5		5.8		9		91				<0.2		0.7	
IM8	Cloudy	Moderate	07:51	7.5	Surface	1.0	0.4	221	23.2	23.2	8.0	8.0	30.2	30.3	89.5	89.5	6.4	6.4	3.7	3.9	6	6	86	87	821697	807824	<0.2	<0.2	0.6	0.5
						1.0	0.4	219	23.2		8.0		30.3		89.4		6.4		3.7		5		85				<0.2		0.5	
					Middle	3.8	0.4	200	23.1	23.1	8.0	8.0	30.3	30.3	89.3	89.4	6.4		4.0		6		87				<0.2		0.5	
						3.8	0.4	204	23.1		8.0		30.3		89.4		6.4		4.0		5		88				<0.2		0.5	
					Bottom	6.5	0.4	188	23.1	23.1	8.0	8.0	30.3	30.3	89.5	89.5	6.4	6.4	4.0		6		89				<0.2		0.5	
						6.5	0.4	182	23.1		8.0		30.3		89.5		6.4		4.0		5		88				<0.2		0.5	

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 21 November 23 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	07:41	7.0	Surface	1.0	0.4	181	23.2	23.2	8.0	8.0	30.2	30.2	89.6	89.6	6.4	6.4	3.5	3.7	5	6	85	88	822079	808814	<0.2	<0.2	0.5	0.5
						1.0	0.4	175	23.2		8.0		30.2		89.5		6.4		3.5		5		86				<0.2		0.5	
					Middle	3.5	0.4	181	23.1	23.1	8.0	8.0	30.3	30.3	89.3	89.3	6.4		3.7		6		87				<0.2		0.5	
						3.5	0.5	184	23.1		8.0		30.3		89.2		6.4		3.7		6		87				<0.2		0.5	
					Bottom	6.0	0.4	171	23.1	23.1	8.0	8.0	30.3	30.3	89.2	89.2	6.4	6.4	3.8		6		90				<0.2		0.5	
						6.0	0.4	164	23.1		8.0		30.3		89.2		6.4		3.8		5		91				<0.2		0.5	
IM10	Cloudy	Moderate	07:35	7.7	Surface	1.0	0.4	144	23.2	23.2	8.0	8.0	30.3	30.3	90.2	90.2	6.5	6.5	3.5	2.9	5	5	86	88	822251	809834	<0.2	<0.2	0.6	0.5
						1.0	0.4	149	23.1		8.0		30.3		90.2		6.5		3.5		4		85				<0.2		0.5	
					Middle	3.9	0.4	146	23.1	23.1	8.0	8.0	30.3	30.3	90.2	90.3	6.5		2.5		4		87				<0.2		0.5	
						3.9	0.4	148	23.1		8.0		30.3		90.3		6.5		2.6		4		89				<0.2		0.6	
					Bottom	6.7	0.4	157	23.1	23.1	8.0	8.0	30.3	30.3	90.9	91.0	6.5	6.5	2.6		5		90				<0.2		0.5	
						6.7	0.4	161	23.1		8.0		30.3		91.0		6.5		2.7		5		89				<0.2		0.5	
IM11	Cloudy	Moderate	07:29	7.6	Surface	1.0	0.2	151	23.1	23.1	8.0	8.0	30.3	30.3	90.6	90.6	6.5	6.6	2.5	3.1	5	5	86	88	821489	810556	<0.2	<0.2	0.5	0.5
						1.0	0.2	152	23.1		8.0		30.3		90.6		6.5		2.5		4		85				<0.2		0.6	
					Middle	3.8	0.2	119	23.1	23.1	8.0	8.0	30.3	30.3	91.1	91.1	6.6		2.5		6		88				<0.2		0.5	
						3.8	0.2	114	23.1		8.0		30.3		91.1		6.6		2.5		5		87				<0.2		0.5	
					Bottom	6.6	0.1	133	23.1	23.1	8.0	8.0	30.3	30.3	92.3	92.4	6.6	6.7	3.7		6		90				<0.2		0.6	
						6.6	0.2	134	23.1		8.0		30.3		92.5		6.7		4.6		5		91				<0.2		0.5	
IM12	Cloudy	Moderate	07:19	8.0	Surface	1.0	0.3	128	23.0	23.0	8.0	8.0	30.2	30.2	90.3	90.3	6.5	6.5	3.4	3.5	5	5	85	88	821175	811500	<0.2	<0.2	0.5	0.5
						1.0	0.3	121	23.0		8.0		30.2		90.3		6.5		3.4		5		86				<0.2		0.5	
					Middle	4.0	0.3	119	22.9	22.9	8.0	8.0	30.2	30.2	90.3	90.3	6.5		3.6		5		87				<0.2		0.5	
						4.0	0.3	115	22.9		8.0		30.2		90.3		6.5		3.6		6		88				<0.2		0.5	
					Bottom	7.0	0.3	141	22.9	22.9	8.0	8.0	30.2	30.2	90.7	90.8	6.6	6.6	3.4		5		90				<0.2		0.4	
						7.0	0.4	146	22.9		8.0		30.2		90.8		6.6		3.4		5		91				<0.2		0.5	
SR1A	Cloudy	Moderate	06:48	5.9	Surface	1.0	0.0	101	23.0	23.0	8.0	8.0	30.5	30.5	89.6	89.7	6.4	6.4	3.2	3.4	8	7	-	-	819977	812653	-	-	-	-
						1.0	0.0	99	23.0		8.0		30.5		89.7		6.4		3.3		8		-				-		-	
					Middle	3.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						3.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.9	0.0	116	23.1	23.1	8.0	8.0	30.6	30.6	91.3	91.5	6.6	6.6	3.5		6		-				-		-	
						4.9	0.0	118	23.1		8.0		30.6		91.7		6.6		3.5		6		-				-		-	
SR2	Cloudy	Moderate	06:32	4.9	Surface	1.0	0.6	31	22.8	22.8	8.0	8.0	30.4	30.4	92.2	92.3	6.7	6.7	4.4	4.5	6	6	86	88	821456	814181	<0.2	<0.2	0.6	0.6
						1.0	0.6	24	22.8		8.0		30.4		92.3		6.7		4.5		5		85				<0.2		0.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.6	7	22.8	22.8	8.0	8.0	30.4	30.4	93.4	93.5	6.8	6.8	4.6		6		90				<0.2		0.5	
						3.9	0.6	6	22.8		8.0		30.4		93.6		6.8		4.6		6		91				<0.2		0.5	
SR3	Cloudy	Moderate	08:03	8.4	Surface	1.0	0.4	174	23.2	23.2	8.0	8.0	30.2	30.2	89.3	89.3	6.4	6.4	4.9	5.1	6	5	-	-	822145	807576	-	-	-	-
						1.0	0.3	172	23.2		8.0		30.2		89.3		6.4		5.0		5		-				-		-	
					Middle	4.2	0.3	167	23.1	23.1	8.0	8.0	30.3	30.3	89.0	89.0	6.4		5.2		5		-				-		-	
						4.2	0.3	162	23.1		8.0		30.3		89.0		6.4		5.2		6		-				-		-	
					Bottom	7.4	0.3	167	23.1	23.1	8.0	8.0	30.3	30.3	89.2	89.2	6.4	6.4	5.2		6		-				-		-	
						7.4	0.3	172	23.1		8.0		30.3		89.2		6.4		5.2		4		-				-		-	
SR4A	Fine	Moderate	07:37	9.2	Surface	1.0	0.0	297	22.4	22.4	8.1	8.1	30.5	30.5	87.3	87.3	6.4	6.4	4.3	5.4	7	8	-	-	817202	807802	-	-	-	-
						1.0	0.0	298	22.3		8.1		30.5		87.3		6.4		4.3		7		-				-		-	
					Middle	4.6	0.0	297	22.3	22.3	8.1	8.1	30.4	30.4	87.3	87.3	6.4		5.4		8		-				-		-	
						4.6	0.0	289	22.3		8.1		30.4		87.3		6.4		5.4		8		-				-		-	
					Bottom	8.2	0.0	325	22.3	22.3	8.1	8.1	30.5	30.5	87.2	87.2	6.4	6.4	6.4		8		-				-		-	
						8.2	0.0	326	22.3		8.1		30.5		87.2		6.4		6.5		7		-				-		-	
SR5A	Fine	Moderate	07:22	5.0	Surface	1.0	0.0	349	22.4	22.4	8.1	8.1	30.6	30.6	88.2	88.3	6.4	6.4	4.2	5.1	7	7	-	-	816574	810676	-	-	-	-
						1.0	0.0	343	22.4		8.1		30.6		88.4		6.4		4.2		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.0	320	22.4	22.4	8.1	8.1	30.7	30.7	89.8	90.0	6.5	6.6	5.9		7		-				-		-	
						4.0	0.0	318	22.3		8.1		30.7		90.1		6.6		6.0		8		-				-		-	
SR6	Fine	Moderate	06:58	4.0	Surface	1.0	0.0	273	22.6	22.6	8.1	8.1	30.3	30.3	82.3	82.3	6.0	6.0	3.9	4.1	9	8	-	-	817875	814648	-	-	-	-
						1.0	0.0	274	22.6		8.1		30.3		82.3		6.0		3.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.0	271	22.6	22.6	8.1	8.1	30.4	30.4	82.3	82.3	6.0	6.0	4.4		8		-				-		-	
						3.0	0.0	271	22.6		8.1		30.4		82.3		6.0		4.4		8		-				-		-	
SR7	Cloudy	Moderate	05:33	16.8	Surface	1.0	1.1	65	23.6	23.6	7.9	7.9	31.2	31.2	82.7	82.7	5.9	5.9	1.6	2.6	4	4	-	-	823644	823759	-	-	-	-
						1.0	1.2	61	23.6		7.9		31.2		82.6		5.9		1.6		4		-				-		-	
					Middle	8.4	1.1	61	24.0	24.0	7.9	7.9	31.4	31.4	83.0	83.0	5.8		3.0		4		-				-		-	
						8.4	1.1	61	24.0		7.9		31.4		83.0		5.8		3.0		4		-				-		-	
					Bottom	15.8	1.1	72	24.0	24.0	7.9	7.9	31.5	31.5	83.9	84.0	5.9	5.9	3.2		3		-				-		-	
						15.8	1.1	74	24.0		7.9		31.5		84.0		5.9		3.2		4		-				-		-	
SR8	Cloudy	Moderate	07:11	5.0	Surface	1.0	-	-	23.1	23.1	8.0	8.0	30.3	30.3	91.0	91.0	6.6	6.6	11.8	8.4	4	5	-	-	820404	811611	-	-	-	-
						1.0	-	-	23.1		8.0		30.3		91.0		6.6		12.0		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	23.0	23.0	8.0	8.0	30.5	30.5	92.3	92.6	6.6	6.7	4.5		4		-				-		-	
						4.0	-	-	23.0		8.0		30.5		92.9		6.7		5.1		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 21 November 23 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
C1	Fine	Moderate	14:57	7.0	Surface	1.0	0.2	52	22.4	22.4	8.1	8.1	30.7	30.7	87.9	88.0	6.4	6.5	4.3	5.3	6	9	82	87	815607	804260	<0.2	<0.2	0.7	0.7
						1.0	0.1	51	22.4		8.1		30.7		88.1		6.4		4.3		7		82				<0.2		0.7	
					Middle	3.5	0.1	48	22.5	22.5	8.1	8.1	30.8	30.8	89.2	89.3	6.5		5.7		10		86				<0.2		0.7	
						3.5	0.1	46	22.5		8.1		30.8		89.4		6.5		5.6		9		87				<0.2		0.6	
					Bottom	6.0	0.1	32	22.5	22.5	8.1	8.1	30.8	30.8	90.0	90.1	6.5	6.5	6.0		9		91				<0.2		0.7	
						6.0	0.2	30	22.5		8.1		30.8		90.2		6.5		6.0		10		91				<0.2		0.8	
C2	Cloudy	Moderate	13:26	11.4	Surface	1.0	0.2	334	23.3	23.3	7.9	7.9	28.9	28.9	89.1	89.1	6.4	6.3	2.2	3.6	4	5	85	87	825706	806945	<0.2	<0.2	1.0	0.9
						1.0	0.2	334	23.3		7.9		28.9		89.0		6.4		2.2		5		84				<0.2		0.9	
					Middle	5.7	0.2	349	23.3	23.3	7.9	7.9	30.0	30.0	86.5	86.5	6.2		3.4		5		87				<0.2		0.7	
						5.7	0.2	348	23.3		7.9		30.0		86.4		6.2		3.5		4		88				<0.2		0.8	
					Bottom	10.4	0.2	6	23.3	23.3	7.9	7.9	30.2	30.2	86.3	86.3	6.2	6.2	5.2		5		89				<0.2		1.0	
						10.4	0.2	12	23.3		7.9		30.2		86.3		6.2		5.2		5		90				<0.2		1.1	
C3	Cloudy	Moderate	15:29	11.4	Surface	1.0	0.0	47	23.7	23.7	8.0	8.0	31.1	31.1	84.4	84.4	6.0	6.0	2.7	6.8	6	6	83	86	822105	817783	<0.2	<0.2	0.8	0.6
						1.0	0.0	48	23.7		8.0		31.1		84.3		6.0		3.1		5		84				<0.2		0.8	
					Middle	5.7	0.0	43	23.6	23.6	7.9	7.9	31.2	31.2	83.2	83.2	5.9		7.4		6		86				<0.2		0.5	
						5.7	0.0	45	23.6		7.9		31.2		83.2		5.9		7.7		6		87				<0.2		0.5	
					Bottom	10.4	0.0	70	23.6	23.6	7.9	7.9	31.2	31.2	83.4	83.4	5.9	5.9	10.2		6		90				<0.2		0.4	
						10.4	0.0	72	23.6		7.9		31.2		83.4		5.9		9.9		7		88				<0.2		0.5	
IM1	Fine	Moderate	14:49	6.8	Surface	1.0	0.1	14	22.4	22.4	8.1	8.1	30.8	30.8	86.8	86.9	6.3	6.4	3.6	4.3	7	9	83	87	818335	806480	<0.2	<0.2	0.7	0.8
						1.0	0.1	8	22.4		8.1		30.8		86.9		6.3		3.8		8		83				<0.2		0.8	
					Middle	2.0	0.1	36	22.5	22.5	8.1	8.1	30.9	30.9	87.6	87.8	6.4		4.1		10		87				<0.2		0.7	
						3.0	0.1	33	22.5		8.1		30.9		87.9		6.4		4.1		10		87				<0.2		0.8	
					Bottom	5.8	0.1	17	22.5	22.5	8.1	8.1	31.0	31.0	89.1	89.2	6.5	6.5	5.1		10		91				<0.2		0.7	
						5.8	0.1	20	22.5		8.1		31.0		89.3		6.5		5.1		11		91				<0.2		0.8	
IM2	Fine	Moderate	14:34	6.6	Surface	1.0	0.2	14	22.5	22.5	8.1	8.1	30.7	30.8	87.0	87.0	6.3	6.3	4.0	5.1	10	10	83	88	818829	806174	<0.2	<0.2	0.8	0.8
						1.0	0.2	21	22.5		8.1		30.8		86.9		6.3		4.0		10		83				<0.2		0.7	
					Middle	3.3	0.2	41	22.4	22.4	8.1	8.1	30.8	30.8	86.8	86.9	6.3		5.1		9		88				<0.2		0.7	
						3.3	0.2	46	22.4		8.1		30.8		86.9		6.3		5.1		10		89				<0.2		0.7	
					Bottom	5.6	0.2	20	22.4	22.4	8.1	8.1	30.8	30.8	87.8	87.9	6.4	6.4	6.1		9		91				<0.2		0.9	
						5.6	0.2	15	22.4		8.1		30.8		88.0		6.4		6.0		10		91				<0.2		0.8	
IM3	Fine	Moderate	14:30	8.2	Surface	1.0	0.2	29	22.5	22.5	8.1	8.1	30.2	30.2	87.9	87.9	6.4	6.4	2.9	3.6	9	8	85	88	819419	806001	<0.2	<0.2	0.8	0.7
						1.0	0.2	26	22.5		8.1		30.2		87.9		6.4		2.8		8		85				<0.2		0.7	
					Middle	4.1	0.2	36	22.5	22.5	8.1	8.1	30.2	30.2	88.3	88.4	6.4		3.2		8		88				<0.2		0.7	
						4.1	0.2	39	22.5		8.1		30.1		88.4		6.4		3.2		9		88				<0.2		0.7	
					Bottom	7.2	0.2	22	22.6	22.6	8.1	8.1	30.0	30.0	89.6	89.8	6.5	6.5	4.6		8		90				<0.2		0.7	
						7.2	0.2	17	22.6		8.1		30.0		89.9		6.5		4.6		8		90				<0.2		0.7	
IM4	Fine	Moderate	14:23	8.0	Surface	1.0	0.2	36	22.7	22.7	8.1	8.1	30.4	30.4	87.3	87.4	6.3	6.4	3.1	4.1	9	10	82	87	819598	805046	<0.2	<0.2	0.6	0.7
						1.0	0.2	32	22.7		8.1		30.4		87.4		6.3		3.1		9		82				<0.2		0.7	
					Middle	4.0	0.2	49	22.7	22.7	8.1	8.1	30.4	30.4	88.0	88.1	6.4		4.1		10		87				<0.2		0.8	
						4.0	0.1	50	22.7		8.1		30.4		88.2		6.4		4.1		9		87				<0.2		0.7	
					Bottom	7.0	0.2	42	22.7	22.8	8.1	8.1	30.3	30.3	89.8	90.0	6.5	6.5	5.2		11		92				<0.2		0.7	
						7.0	0.2	42	22.8		8.1		30.3		90.1		6.5		5.2		10		92				<0.2		0.8	
IM5	Fine	Moderate	14:11	7.6	Surface	1.0	0.1	19	22.7	22.7	8.1	8.1	30.3	30.4	87.3	87.3	6.3	6.4	3.1	4.1	10	9	84	87	820581	804934	<0.2	<0.2	0.7	0.7
						1.0	0.1	26	22.7		8.1		30.4		87.2		6.3		3.1		9		84				<0.2		0.7	
					Middle	3.8	0.1	11	22.7	22.7	8.1	8.1	30.3	30.3	87.8	87.9	6.4		4.5		8		87				<0.2		0.7	
						3.8	0.1	11	22.7		8.1		30.3		88.0		6.4		4.4		8		87				<0.2		0.8	
					Bottom	6.6	0.2	359	22.8	22.8	8.1	8.1	30.2	30.2	89.7	89.9	6.5	6.5	4.7		9		90				<0.2		0.7	
						6.6	0.2	6	22.8		8.1		30.2		90.0		6.5		4.6		9		90				<0.2		0.6	
IM6	Fine	Moderate	14:06	7.8	Surface	1.0	0.1	31	22.7	22.7	8.1	8.1	30.4	30.4	86.5	86.5	6.3	6.3	1.0	2.4	10	9	83	87	821048	805848	<0.2	<0.2	0.7	0.7
						1.0	0.2	24	22.7		8.1		30.3		86.5		6.3		1.0		11		83				<0.2		0.6	
					Middle	3.9	0.2	44	22.7	22.7	8.1	8.1	30.3	30.3	86.5	86.5	6.3		2.1		9		86				<0.2		0.7	
						3.9	0.2	48	22.7		8.1		30.3		86.5		6.3		2.1		8		86				<0.2		0.7	
					Bottom	6.8	0.2	30	22.7	22.7	8.1	8.1	30.3	30.3	86.8	86.8	6.3	6.3	4.0		9		91				<0.2		0.7	
						6.8	0.2	35	22.7		8.1		30.3		86.8		6.3		3.9		8		91				<0.2		0.6	
IM7	Fine	Moderate	13:54	7.4	Surface	1.0	0.2	38	22.7	22.7	8.1	8.1	30.3	30.3	87.7	87.8	6.4	6.4	2.1	3.2	10	8	83	87	821329	806852	<0.2	<0.2	0.8	0.7
						1.0	0.2	31	22.7		8.1		30.3		87.8		6.4		2.1		11		83				<0.2		0.7	
					Middle	3.7	0.2	15	22.8	22.9	8.1	8.1	30.2	30.2	88.9	89.1	6.4		3.3		7		88				<0.2		0.6	
						3.7	0.1	13	22.9		8.1		30.2		89.3		6.5		3.3		7		88				<0.2		0.6	
					Bottom	6.4	0.2	21	23.1	23.1	8.1	8.1	30.0	30.0	90.3	90.4	6.5	6.5	4.1		7		91				<0.2		0.8	
						6.4	0.1	23	23.1		8.1		29.9		90.5		6.5		4.1		7		91				<0.2		0.7	
IM8	Cloudy	Moderate	13:53	7.3	Surface	1.0	0.2	27	23.9	23.9	8.0	8.0	30.0	30.0	92.1	92.1	6.5	6.5	3.1	2.5	5	5	85	86	821683	807841	<0.2	<0.2	0.7	0.6
						1.0	0.3	34	23.9		8.0		29.9		92.1		6.5		3.1		4		84				<0.2		0.6	
					Middle	3.7	0.2	9	23.3	23.3	8.0	8.0	30.1	30.1	90.6	90.6	6.5		2.3		5		89				<0.2		0.6	
						3.7	0.2	10	23.3		8.0		30.1		90.6		6.5		2.2		4		90				<0.2		0.6	
					Bottom	6.3	0.2	359	23.3	23.3	8.0	8.0	30.1	30.1	90.7	90.7	6.5	6.5	2.1		5		84				<0.2		0.6	
						6.3	0.1	1	23.3		8.0		30.1		90.7		6.5		2.1		6		85				<0.2		0.7	

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 21 November 23 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	14:01	7.0	Surface	1.0	0.2	346	23.3	23.3	8.0	8.0	30.2	30.2	91.2	91.2	6.6	6.5	2.9	3.0	4	5	86	87	822069	808798	<0.2	<0.2	0.6	0.6
						1.0	0.2	340	23.2		8.0		30.2		91.1		6.5		2.9		5		87				<0.2		0.6	
					Middle	3.5	0.1	355	23.2	23.2	8.0	8.0	30.2	30.2	91.0	91.0	6.5		3.0		5		89				<0.2		0.6	
						3.5	0.1	1	23.2		8.0		30.2		90.9		6.5		3.0		4		90				<0.2		0.6	
					Bottom	6.0	0.1	326	23.2	23.2	8.0	8.0	30.2	30.2	90.8	90.8	6.5	6.5	3.0		4		85				<0.2		0.6	
						6.0	0.1	332	23.2		8.0		30.2		90.8		6.5		2.9		5		84				<0.2		0.6	
IM10	Cloudy	Moderate	14:11	7.5	Surface	1.0	0.2	328	23.2	23.2	8.0	8.0	30.2	30.2	90.5	90.5	6.5	6.5	1.9	2.4	3	3	87	87	822257	809840	<0.2	<0.2	0.6	0.6
						1.0	0.2	330	23.2		8.0		30.2		90.4		6.5		1.9		3		86				<0.2		0.6	
					Middle	3.8	0.1	309	23.0	23.0	8.0	8.0	30.3	30.3	89.5	89.5	6.4		2.6		4		89				<0.2		0.6	
						3.8	0.1	313	23.0		8.0		30.3		89.5		6.4		2.5		3		90				<0.2		0.6	
					Bottom	6.5	0.1	315	23.0	23.0	8.0	8.0	30.3	30.3	89.4	89.4	6.4	6.4	2.8		3		85				<0.2		0.6	
						6.5	0.2	317	23.0		8.0		30.3		89.4		6.4		2.8		3		84				<0.2		0.6	
IM11	Cloudy	Moderate	13:24	7.9	Surface	1.0	0.2	304	23.5	23.5	8.0	8.0	30.1	30.1	91.5	91.5	6.5	6.6	3.8	4.3	6	5	86	87	821487	810538	<0.2	<0.2	0.4	0.5
						1.0	0.2	301	23.5		8.0		30.1		91.5		6.5		3.8		5		88				<0.2		0.4	
					Middle	4.0	0.1	284	23.5	23.5	8.0	8.0	30.1	30.1	92.0	92.0	6.6		3.8		6		89				<0.2		0.5	
						4.0	0.1	282	23.5		8.0		30.1		92.0		6.6		3.8		5		88				<0.2		0.5	
					Bottom	6.9	0.2	268	23.5	23.5	8.0	8.0	30.1	30.1	93.2	93.3	6.7	6.7	4.9		5		84				<0.2		0.4	
						6.9	0.1	265	23.5		8.0		30.1		93.4		6.7		5.9		5		85				<0.2		0.5	
IM12	Cloudy	Moderate	13:34	8.1	Surface	1.0	0.2	289	23.6	23.6	8.0	8.0	30.1	30.1	91.1	91.1	6.5	6.5	4.8	4.2	4	4	86	87	821157	811519	<0.2	<0.2	0.4	0.4
						1.0	0.2	283	23.5		8.0		30.1		91.1		6.5		4.8		4		86				<0.2		0.4	
					Middle	4.1	0.2	295	23.5	23.5	8.0	8.0	30.1	30.1	91.1	91.2	6.5		3.8		5		89				<0.2		0.4	
						4.1	0.3	293	23.5		8.0		30.1		91.2		6.5		3.9		5		90				<0.2		0.5	
					Bottom	7.1	0.3	279	23.5	23.5	8.0	8.0	30.1	30.1	91.8	91.9	6.6	6.6	3.9		4		85				<0.2		0.4	
						7.1	0.3	276	23.5		8.0		30.1		91.9		6.6		4.0		4		84				<0.2		0.4	
SR1A	Cloudy	Moderate	14:50	4.9	Surface	1.0	0.0	283	23.4	23.4	7.9	7.9	30.6	30.6	89.0	89.0	6.4	6.4	8.4	9.5	6	7	-	-	819955	812680	-	-	-	-
						1.0	0.1	290	23.4		7.9		30.6		89.0		6.4		8.8		7		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.0	300	23.4	23.4	7.9	7.9	30.6	30.6	89.0	89.0	6.4	6.4	10.3		7		-				-		-	
						3.9	0.0	305	23.4		7.9		30.6		89.0		6.4		10.6		6		-				-		-	
SR2	Cloudy	Moderate	15:05	4.9	Surface	1.0	0.1	160	23.3	23.3	8.0	8.0	30.6	30.6	89.5	89.5	6.4	6.4	3.2	4.3	3	4	86	87	821457	814147	<0.2	<0.2	0.5	0.6
						1.0	0.1	161	23.3		8.0		30.6		89.4		6.4		3.4		3		87				<0.2		0.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.0	158	23.2	23.2	8.0	8.0	30.7	30.7	88.8	88.8	6.4	6.4	5.2		4		88				<0.2		0.6	
						3.9	0.0	161	23.2		8.0		30.7		88.7		6.4		5.3		4		87				<0.2		0.6	
SR3	Cloudy	Moderate	13:46	9.6	Surface	1.0	0.2	7	23.5	23.5	7.9	7.9	29.8	29.8	89.4	89.4	6.4	6.4	2.3	2.5	4	4	-	-	822147	807574	-	-	-	-
						1.0	0.2	6	23.5		7.9		29.8		89.4		6.4		2.3		4		-				-		-	
					Middle	4.8	0.2	345	23.3	23.3	7.9	7.9	29.9	29.9	88.3	88.3	6.3		2.4		3		-				-		-	
						4.8	0.2	340	23.3		7.9		29.9		88.3		6.3		2.4		4		-				-		-	
					Bottom	8.6	0.2	7	23.3	23.3	7.9	7.9	30.1	30.1	89.0	89.1	6.4	6.4	2.9		4		-				-		-	
						8.6	0.3	10	23.3		7.9		30.1		89.1		6.4		2.9		4		-				-		-	
SR4A	Fine	Moderate	15:09	9.6	Surface	1.0	0.0	134	22.6	22.6	8.1	8.1	30.6	30.6	88.3	88.3	6.4	6.4	5.5	6.3	6	5	-	-	817190	807828	-	-	-	-
						1.0	0.0	132	22.6		8.1		30.6		88.3		6.4		5.4		5		-				-		-	
					Middle	4.8	0.0	120	22.6	22.6	8.1	8.1	30.6	30.6	88.6	88.6	6.4		6.0		5		-				-		-	
						4.8	0.1	121	22.6		8.1		30.6		88.6		6.4		6.0		6		-				-		-	
					Bottom	8.6	0.0	123	22.6	22.6	8.1	8.1	30.6	30.6	89.2	89.3	6.5	6.5	7.3		5		-				-		-	
						8.6	0.1	123	22.6		8.1		30.6		89.3		6.5		7.3		5		-				-		-	
SR5A	Fine	Moderate	15:17	4.4	Surface	1.0	0.0	92	22.7	22.7	8.1	8.1	30.7	30.8	89.7	89.7	6.5	6.5	3.6	4.1	6	6	-	-	816583	810700	-	-	-	-
						1.0	0.0	84	22.7		8.1		30.8		89.7		6.5		3.5		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	95	22.7	22.7	8.1	8.1	30.7	30.7	89.7	89.7	6.5	6.5	4.6		7		-				-		-	
						3.4	0.0	91	22.7		8.1		30.7		89.6		6.5		4.5		6		-				-		-	
SR6	Fine	Moderate	15:28	4.4	Surface	1.0	0.0	65	22.7	22.7	8.1	8.1	30.6	30.7	89.6	89.7	6.5	6.5	3.0	3.9	6	6	-	-	817885	814646	-	-	-	-
						1.0	0.0	69	22.7		8.1		30.7		89.7		6.5		3.0		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	85	22.7	22.7	8.1	8.1	30.7	30.7	89.7	89.7	6.5	6.5	4.7		6		-				-		-	
						3.4	0.0	89	22.7		8.1		30.7		89.7		6.5		4.7		6		-				-		-	
SR7	Cloudy	Moderate	16:04	17.4	Surface	1.0	0.1	240	24.0	24.0	7.9	7.9	31.4	31.4	82.5	82.5	5.8	5.8	2.5	2.9	4	4	-	-	823642	823726	-	-	-	-
						1.0	0.1	237	24.0		7.9		31.4		82.5		5.8		2.5		3		-				-		-	
					Middle	8.7	0.2	268	24.0	24.0	7.9	7.9	31.4	31.4	82.4	82.4	5.8		2.9		4		-				-		-	
						8.7	0.2	267	24.0		7.9		31.4		82.4		5.8		2.9		3		-				-		-	
					Bottom	16.4	0.2	273	24.0	24.0	7.9	7.9	31.4	31.4	82.8	82.8	5.8	5.8	3.2		3		-				-		-	
						16.4	0.2	269	24.0		7.9		31.4		82.8		5.8		3.2		4		-				-		-	
SR8	Cloudy	Moderate	13:40	4.5	Surface	1.0	-	-	23.5	23.5	8.0	8.0	30.0	30.0	92.8	92.8	6.6	6.6	7.1	6.6	4	4	-	-	820371	811642	-	-	-	-
						1.0	-	-	23.5		8.0		30.0		92.8		6.6		7.3		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	-	-	23.4	23.4	8.0	8.0	30.2	30.2	94.1	94.4	6.8	6.8	5.8		4		-				-		-	
						3.5	-	-	23.4		8.0		30.2		94.7		6.8		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 23 November 23 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	Moderate	09:51	7.8	Surface	1.0	0.2	14	23.0	23.0	8.2	8.2	30.4	30.4	87.1	87.1	6.3	6.3	1.5	2.3	4	6	78	85	815610	804264	<0.2	<0.2	0.7	0.7
						1.0	0.1	17	23.0		8.2		30.4		87.0		6.3		1.4		5		77				<0.2		0.6	
					Middle	3.9	0.1	42	22.9	22.9	8.2	8.2	30.4	30.5	87.1	87.2	6.3		2.2		5		86				<0.2		0.7	
						3.9	0.1	40	22.8		8.2		30.5		87.3		6.3		2.3		6		86				<0.2		0.7	
					Bottom	6.8	0.1	30	22.8	22.8	8.2	8.2	30.5	30.5	88.7	88.8	6.4	6.4	3.2		7		90				<0.2		0.6	
						6.8	0.1	30	22.8		8.2		30.5		88.9		6.4		3.2		7		90				<0.2		0.7	
C2	Cloudy	Moderate	10:53	11.6	Surface	1.0	0.1	354	23.6	23.6	8.0	8.0	29.1	29.1	90.8	90.8	6.5	6.5	2.5	4.1	8	6	84	88	825690	806922	<0.2	<0.2	0.5	0.6
						1.0	0.1	355	23.6		8.0		29.1		90.8		6.5		2.5		6		85				<0.2		0.6	
					Middle	5.8	0.1	325	23.5	23.5	8.0	8.0	29.3	29.3	90.2	90.3	6.5		4.6		7		88				<0.2		0.5	
						5.8	0.1	321	23.5		8.0		29.3		90.3		6.5		4.0		6		88				<0.2		0.6	
					Bottom	10.6	0.1	351	23.5	23.5	8.0	8.0	29.3	29.3	90.5	90.5	6.5	6.5	5.4		5		91				<0.2		0.6	
						10.6	0.1	348	23.5		8.0		29.3		90.5		6.5		5.5		5		89				<0.2		0.7	
C3	Cloudy	Moderate	08:40	11.5	Surface	1.0	0.3	276	23.5	23.5	7.9	7.9	30.6	30.6	84.7	84.6	6.0	6.0	3.5	4.3	5	6	85	87	822090	817802	<0.2	<0.2	0.6	0.6
						1.0	0.3	270	23.5		7.9		30.6		84.5		6.0		3.7		6		84				<0.2		0.6	
					Middle	5.8	0.2	308	23.6	23.7	7.9	7.9	30.9	30.9	83.5	83.5	5.9		5.9		5		87				<0.2		0.7	
						5.8	0.2	302	23.7		7.9		30.9		83.5		5.9		5.9		6		88				<0.2		0.6	
					Bottom	10.5	0.3	302	23.7	23.7	7.9	7.9	31.1	31.1	84.3	84.4	6.0	6.0	3.2		6		89				<0.2		0.6	
						10.5	0.3	295	23.7		7.9		31.1		84.4		6.0		3.3		7		90				<0.2		0.6	
IM1	Fine	Moderate	10:01	7.0	Surface	1.0	0.0	24	22.9	22.9	8.2	8.2	30.2	30.2	88.4	88.4	6.4	6.5	3.3	3.7	4	3	73	78	818362	806446	<0.2	<0.2	0.7	0.7
						1.0	0.0	17	22.9		8.2		30.2		88.4		6.4		3.3		5		73				<0.2		0.7	
					Middle	3.5	0.1	10	22.9	22.9	8.2	8.2	30.2	30.3	89.7	89.8	6.5		3.7		3		79				<0.2		0.6	
						3.5	0.1	15	22.9		8.2		30.3		89.8		6.5		3.7		2		79				<0.2		0.7	
					Bottom	6.0	0.0	9	22.9	22.9	8.2	8.2	30.3	30.3	91.0	91.2	6.6	6.6	4.1		2		83				<0.2		0.6	
						6.0	0.0	2	22.9		8.2		30.3		91.3		6.6		4.0		3		83				<0.2		0.6	
IM2	Fine	Moderate	10:07	8.2	Surface	1.0	0.1	268	23.0	23.0	8.2	8.2	29.9	29.9	89.3	89.4	6.4	6.5	1.9	2.0	5	4	45	74	818828	806205	<0.2	<0.2	0.6	0.7
						1.0	0.1	270	23.0		8.2		29.9		89.4		6.5		1.9		4		45				<0.2		0.6	
					Middle	4.1	0.1	249	23.1	23.1	8.2	8.2	30.1	30.1	90.6	90.7	6.5		2.0		4		87				<0.2		0.7	
						4.1	0.1	254	23.1		8.2		30.1		90.7		6.5		1.9		3		87				<0.2		0.7	
					Bottom	7.2	0.1	231	23.1	23.1	8.2	8.2	30.0	30.0	91.5	91.6	6.6	6.6	2.1		4		89				<0.2		0.7	
						7.2	0.1	235	23.1		8.2		30.0		91.7		6.6		2.0		3		89				<0.2		0.8	
IM3	Fine	Moderate	10:22	7.6	Surface	1.0	0.1	357	22.9	22.9	8.2	8.2	29.2	29.2	90.2	90.3	6.5	6.6	1.9	2.1	4	5	46	74	819391	806035	<0.2	<0.2	0.8	0.8
						1.0	0.1	350	22.9		8.2		29.2		90.3		6.6		1.9		4		46				<0.2		0.9	
					Middle	3.8	0.1	2	22.9	22.9	8.2	8.2	29.3	29.3	91.2	91.3	6.6		2.1		4		87				<0.2		0.8	
						3.8	0.1	357	22.9		8.2		29.3		91.4		6.6		2.0		5		87				<0.2		0.7	
					Bottom	6.6	0.2	339	22.9	22.9	8.2	8.2	29.3	29.3	92.2	92.3	6.7	6.7	2.3		4		90				<0.2		0.7	
						6.6	0.2	337	22.9		8.2		29.3		92.4		6.7		2.4		6		90				<0.2		0.7	
IM4	Fine	Moderate	10:36	8.0	Surface	1.0	0.2	333	22.9	22.9	8.2	8.2	29.5	29.5	89.8	89.9	6.5	6.6	2.5	3.0	3	4	82	85	819563	805028	<0.2	<0.2	0.7	0.7
						1.0	0.2	325	22.9		8.2		29.5		89.9		6.5		2.5		3		83				<0.2		0.7	
					Middle	4.0	0.1	335	22.9	22.9	8.2	8.2	29.5	29.5	91.0	91.1	6.6		3.0		4		86				<0.2		0.7	
						4.0	0.1	331	22.9		8.2		29.5		91.1		6.6		3.1		4		86				<0.2		0.8	
					Bottom	7.0	0.2	317	22.9	22.9	8.2	8.2	29.5	29.5	91.9	92.0	6.7	6.7	3.4		4		86				<0.2		0.6	
						7.0	0.2	322	22.9		8.2		29.5		92.1		6.7		3.4		5		86				<0.2		0.6	
IM5	Fine	Moderate	10:46	8.6	Surface	1.0	0.2	324	22.9	22.9	8.2	8.2	29.5	29.5	88.7	88.8	6.4	6.4	1.1	1.9	5	4	69	82	820560	804924	<0.2	<0.2	0.8	0.8
						1.0	0.3	318	22.9		8.2		29.5		88.8		6.4		1.1		4		69				<0.2		0.7	
					Middle	4.3	0.2	317	22.9	22.9	8.2	8.2	29.5	29.5	88.8	88.8	6.4		2.1		4		87				<0.2		0.7	
						4.3	0.2	322	22.9		8.2		29.5		88.8		6.4		2.1		3		87				<0.2		0.8	
					Bottom	7.6	0.2	329	22.9	22.9	8.2	8.2	29.4	29.4	89.0	89.0	6.5	6.5	2.6		3		91				<0.2		0.8	
						7.6	0.3	334	22.9		8.2		29.4		89.0		6.5		2.6		4		91				<0.2		0.8	
IM6	Fine	Moderate	10:57	7.6	Surface	1.0	0.2	306	22.9	22.9	8.2	8.2	29.8	29.8	88.5	88.6	6.4	6.4	1.1	2.2	3	4	46	75	821082	805810	<0.2	<0.2	0.6	0.7
						1.0	0.2	309	22.9		8.2		29.8		88.6		6.4		1.1		4		45				<0.2		0.7	
					Middle	3.8	0.2	298	22.9	22.9	8.2	8.2	29.8	29.9	88.9	89.0	6.4		2.2		4		87				<0.2		0.6	
						3.8	0.1	298	22.9		8.2		29.9		89.1		6.5		2.2		4		87				<0.2		0.7	
					Bottom	6.6	0.2	304	22.9	22.9	8.2	8.2	29.7	29.7	90.2	90.3	6.5	6.5	3.2		4		91				<0.2		0.7	
						6.6	0.1	303	22.9		8.2		29.7		90.3		6.5		3.2		5		91				<0.2		0.7	
IM7	Fine	Moderate	11:10	8.0	Surface	1.0	0.2	330	22.9	22.9	8.2	8.2	29.8	29.8	87.9	87.9	6.4	6.4	2.6	3.3	5	5	43	74	821331	806854	<0.2	<0.2	0.6	0.7
						1.0	0.1	336	22.9		8.2		29.8		87.9		6.4		2.6		4		43				<0.2		0.7	
					Middle	4.0	0.2	322	22.9	22.9	8.2	8.2	29.8	29.8	87.9	87.9	6.4		3.0		5		88				<0.2		0.6	
						4.0	0.2	325	22.9		8.2		29.8		87.9		6.4		3.0		4		88				<0.2		0.6	
					Bottom	7.0	0.2	322	22.9	22.9	8.2	8.2	29.8	29.8	88.3	88.4	6.4	6.4	4.4		5		90				<0.2		0.7	
						7.0	0.2	327	22.9		8.2		29.8		88.4		6.4		4.3		6		91				<0.2		0.7	
IM8	Cloudy	Moderate	10:21	7.2	Surface	1.0	0.2	270	23.6	23.6	8.0	8.0	29.1	29.1	91.6	91.6	6.6	6.6	1.6	6.6	3	5	85	87	821714	807842	<0.2	<0.2	0.6	0.6
						1.0	0.1	265	23.6		8.0		29.1		91.5		6.6		1.7		4		84				<0.2		0.6	
					Middle	3.6	0.2	261	23.6	23.6	8.0	8.0	29.2	29.2	91.1	91.1	6.5		7.2		6		87				<0.2		0.6	
						3.6	0.3	254	23.6		8.0		29.2		91.0		6.5		7.5		5		88				<0.2		0.6	
					Bottom	6.2	0.2	274	23.6	23.6	8.0	8.0	29.2	29.2	90.9	90.9	6.5	6.5	10.6		6		89				<0.2		0.5	
						6.2	0.2	270	23.6		8.0		29.2		90.9		6.5		10.9		5		88				<0.2		0.4	

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 23 November 23 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	10:16	6.8	Surface	1.0	0.2	252	23.7	23.7	8.0	8.0	29.2	29.2	91.6	91.6	6.6	6.6	1.1	2.1	5	5	85	87	822073	808792	<0.2	<0.2	0.5	0.6
						1.0	0.2	252	23.7		8.0		29.2		91.6		6.6		1.2		6		85				<0.2		0.6	
					Middle	3.4	0.2	266	23.6	23.6	8.0	8.0	29.3	29.3	91.2	91.2	6.5		2.1		5		86				<0.2		0.5	
						3.4	0.3	265	23.6		8.0		29.3		91.2		6.5		2.2		4		86				<0.2		0.6	
					Bottom	5.8	0.2	258	23.6	23.6	8.0	8.0	29.3	29.3	91.5	91.5	6.6	6.6	2.7		5		89				<0.2		0.6	
						5.8	0.3	261	23.6		8.0		29.3		91.5		6.6		3.0		4		90				<0.2		0.5	
IM10	Cloudy	Moderate	10:09	7.0	Surface	1.0	0.3	273	23.6	23.6	8.0	8.0	29.4	29.4	91.6	91.6	6.6	6.6	1.2	1.6	4	4	85	87	822218	809829	<0.2	<0.2	0.5	0.5
						1.0	0.3	269	23.6		8.0		29.4		91.6		6.6		1.3		4		84				<0.2		0.6	
					Middle	3.5	0.2	255	23.5	23.5	8.0	8.0	29.5	29.5	92.0	92.1	6.6		1.8		4		86				<0.2		0.5	
						3.5	0.2	261	23.5		8.0		29.5		92.1		6.6		1.9		4		88				<0.2		0.6	
					Bottom	6.0	0.2	289	23.5	23.6	8.0	8.0	29.5	29.5	92.8	92.9	6.7	6.7	1.7		5		89				<0.2		0.5	
						6.0	0.3	290	23.6		8.0		29.5		93.0		6.7		1.7		4		88				<0.2		0.5	
IM11	Cloudy	Moderate	10:00	7.6	Surface	1.0	0.3	264	23.5	23.5	8.0	8.0	29.6	29.6	90.0	90.0	6.5	6.5	1.8	2.0	4	4	85	87	821481	810534	<0.2	<0.2	0.6	0.5
						1.0	0.4	266	23.5		8.0		29.6		90.0		6.5		1.8		3		84				<0.2		0.5	
					Middle	3.8	0.3	281	23.5	23.5	8.0	8.0	29.6	29.6	89.8	89.8	6.4		1.9		3		88				<0.2		0.5	
						3.8	0.3	279	23.5		8.0		29.6		89.8		6.4		2.0		4		86				<0.2		0.5	
					Bottom	6.6	0.2	291	23.5	23.5	8.0	8.0	29.6	29.6	89.8	89.8	6.4	6.4	2.3		4		89				<0.2		0.5	
						6.6	0.2	287	23.5		8.0		29.6		89.8		6.4		2.4		4		90				<0.2		0.5	
IM12	Cloudy	Moderate	09:52	8.8	Surface	1.0	0.3	296	23.8	23.8	8.0	8.0	29.2	29.3	91.7	91.6	6.6	6.5	1.1	2.3	3	5	84	87	821144	811518	<0.2	<0.2	0.4	0.5
						1.0	0.3	293	23.8		8.0		29.3		91.5		6.5		1.2		4		85				<0.2		0.4	
					Middle	4.4	0.3	273	23.5	23.5	8.0	8.0	29.6	29.6	89.8	89.8	6.4		2.2		6		86				<0.2		0.5	
						4.4	0.3	273	23.4		8.0		29.6		89.7		6.4		2.2		5		87				<0.2		0.5	
					Bottom	7.8	0.3	283	23.4	23.4	8.0	8.0	29.7	29.7	89.7	89.8	6.4	6.5	3.4		6		89				<0.2		0.6	
						7.8	0.3	282	23.4		8.0		29.7		89.8		6.5		3.4		7		90				<0.2		0.5	
SR1A	Cloudy	Moderate	09:20	5.5	Surface	1.0	0.0	75	23.4	23.4	8.0	8.0	29.9	29.9	91.8	91.8	6.6	6.6	2.6	3.5	5	6	-	-	819982	812654	-	-	-	-
						1.0	0.1	80	23.4		8.0		29.9		91.8		6.6		2.6		6		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	51	23.4	23.4	8.0	8.0	30.4	30.4	95.0	95.1	6.8	6.8	4.5		6		-				-		-	
						4.5	-	50	23.4		8.0		30.4		95.2		6.8		4.2		5		-				-		-	
SR2	Cloudy	Moderate	09:04	4.3	Surface	1.0	0.2	13	23.4	23.4	8.0	8.0	29.7	29.7	92.6	92.6	6.7	6.7	2.4	2.7	6	5	85	87	821440	814177	<0.2	<0.2	0.5	0.6
						1.0	0.1	11	23.4		8.0		29.7		92.6		6.7		2.4		5		84				<0.2		0.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.1	12	23.4	23.4	8.0	8.0	29.7	29.7	93.4	93.5	6.7	6.7	3.1		4		89				<0.2		0.5	
						3.3	0.1	14	23.4		8.0		29.7		93.6		6.7		3.0		4		90				<0.2		0.6	
SR3	Cloudy	Moderate	10:30	8.3	Surface	1.0	0.0	297	23.6	23.6	8.0	8.0	29.1	29.1	91.9	91.9	6.6	6.6	1.7	5.1	3	4	-	-	822170	807558	-	-	-	-
						1.0	0.0	302	23.6		8.0		29.1		91.9		6.6		1.8		3		-				-		-	
					Middle	4.2	0.1	302	23.6	23.6	8.0	8.0	29.2	29.2	91.6	91.6	6.6		3.7		3		-				-		-	
						4.2	0.1	304	23.6		8.0		29.2		91.6		6.6		3.8		4		-				-		-	
					Bottom	7.3	0.1	305	23.6	23.6	8.0	8.0	29.2	29.2	91.5	91.5	6.6	6.6	9.4		4		-				-		-	
						7.3	0.1	298	23.6		8.0		29.2		91.5		6.6		9.9		5		-				-		-	
SR4A	Fine	Moderate	09:11	9.0	Surface	1.0	0.0	236	23.1	23.1	8.2	8.2	30.4	30.4	91.2	91.3	6.6	6.6	1.1	2.2	4	4	-	-	817203	807809	-	-	-	-
						1.0	0.0	242	23.1		8.2		30.3		91.4		6.6		1.1		3		-				-		-	
					Middle	4.5	0.1	239	23.1	23.1	8.2	8.2	30.4	30.4	89.9	90.1	6.5		2.2		4		-				-		-	
						4.5	0.1	241	23.1		8.2		30.4		90.2		6.5		2.2		3		-				-		-	
					Bottom	8.0	0.1	212	22.9	22.9	8.2	8.2	30.5	30.5	91.0	91.1	6.6	6.6	3.3		4		-				-		-	
						8.0	0.0	218	22.9		8.2		30.5		91.1		6.6		3.3		4		-				-		-	
SR5A	Fine	Moderate	08:46	4.8	Surface	1.0	0.2	307	22.8	22.8	8.1	8.1	30.3	30.4	86.9	86.9	6.3	6.3	4.3	4.7	5	4	-	-	816583	810687	-	-	-	-
						1.0	0.2	313	22.8		8.1		30.4		86.8		6.3		4.3		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	303	22.9	22.9	8.1	8.1	30.5	30.5	87.1	87.2	6.3	6.3	5.0		3		-				-		-	
						3.8	0.1	296	22.9		8.1		30.5		87.2		6.3		5.0		4		-				-		-	
SR6	Fine	Moderate	08:42	4.4	Surface	1.0	0.1	242	22.9	22.9	8.1	8.1	30.4	30.8	87.4	87.4	6.3	6.3	1.2	1.6	4	4	-	-	817883	814655	-	-	-	-
						1.0	0.1	239	22.9		8.1		31.1		87.4		6.3		1.1		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	237	22.8	22.8	8.1	8.1	30.4	30.4	87.1	87.1	6.3	6.3	2.0		3		-				-		-	
						3.4	0.1	239	22.8		8.1		30.4		87.1		6.3		2.0		4		-				-		-	
SR7	Cloudy	Moderate	08:01	16.4	Surface	1.0	0.2	53	23.4	23.4	7.9	7.9	30.6	30.6	86.4	86.3	6.2	6.1	1.1	2.1	3	3	-	-	823637	823727	-	-	-	-
						1.0	0.3	49	23.4		7.9		30.6		86.2		6.2		1.1		2		-				-		-	
					Middle	8.2	0.3	76	23.8	23.8	7.9	7.9	31.2	31.2	83.8	83.8	5.9		2.3		2		-				-		-	
						8.2	0.3	78	23.8		7.9		31.2		83.8		5.9		2.4		3		-				-		-	
					Bottom	15.4	0.3	52	23.8	23.8	7.9	7.9	31.3	31.3	84.5	84.6	6.0	6.0	2.7		4		-				-		-	
						15.4	0.3	57	23.8		7.9		31.3		84.6		6.0		2.8		5		-				-		-	
SR8	Cloudy	Moderate	09:45	4.9	Surface	1.0	-	-	23.5	23.5	8.0	8.0	29.1	29.1	91.7	91.7	6.6	6.6	1.2	1.3	4	5	-	-	820384	811602	-	-	-	-
						1.0	-	-	23.5		8.0		29.1		91.7		6.6		1.2		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	23.4	23.4	8.0	8.0	29.2	29.2	91.3	91.3	6.6	6.6	1.3		5		-				-		-	
						3.9	-	-	23.4		8.0		29.2		91.3		6.6		1.3		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 23 November 23 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
C1	Fine	Moderate	17:13	7.2	Surface	1.0	0.1	200	22.9	22.9	8.2	8.2	29.4	29.5	88.2	88.3	6.4	6.4	1.0	1.5	3	4	84	87	815634	804235	<0.2	<0.2	0.6	0.7
						1.0	0.1	192	22.9		8.2		29.5		88.3		6.4		1.1		3		84				<0.2		0.7	
					Middle	3.6	0.1	190	22.9	22.9	8.2	8.2	29.4	29.5	88.6	88.7	6.4		1.1		4		87				<0.2		0.7	
						3.6	0.1	195	22.9		8.2		29.5		88.7		6.4		1.1		4		87				<0.2		0.6	
					Bottom	6.2	0.0	187	23.0	23.0	8.2	8.2	29.4	29.4	89.1	89.1	6.5	6.5	2.3		4		91				<0.2		0.6	
						6.2	0.1	191	23.0		8.2		29.4		89.1		6.5		2.3		4		91				<0.2		0.7	
C2	Cloudy	Moderate	14:37	10.8	Surface	1.0	0.1	332	23.7	23.7	7.9	7.9	27.5	27.5	90.6	90.6	6.6	6.3	1.1	4.8	4	5	78	80	825704	806932	<0.2	<0.2	1.0	0.9
						1.0	0.1	334	23.7		7.9		27.5		90.5		6.5		1.1		4		78				<0.2		1.1	
					Middle	5.4	0.1	330	23.5	23.5	7.9	7.9	29.6	29.6	84.8	84.8	6.1		4.2		5		80				<0.2		0.9	
						5.4	0.1	330	23.5		7.9		29.6		84.8		6.1		4.4		4		81				<0.2		0.8	
					Bottom	9.8	0.1	322	23.5	23.5	7.9	7.9	29.7	29.7	84.8	84.8	6.1	6.1	9.1		5		82				<0.2		0.8	
						9.8	0.1	315	23.5		7.9		29.7		84.8		6.1		9.0		6		83				<0.2		0.8	
C3	Cloudy	Moderate	16:23	10.6	Surface	1.0	0.1	95	23.8	23.8	7.9	7.9	30.9	30.9	84.9	84.9	6.0	6.0	1.8	8.1	6	6	78	81	822125	817791	<0.2	<0.2	0.4	0.5
						1.0	0.1	88	23.8		7.9		30.9		84.8		6.0		1.8		5		78				<0.2		0.4	
					Middle	5.3	0.1	89	23.8	23.8	7.9	7.9	31.0	31.0	85.1	85.2	6.0		13.4		6		81				<0.2		0.4	
						5.3	0.1	88	23.8		7.9		31.0		85.2		6.0		13.0		6		81				<0.2		0.5	
					Bottom	9.6	0.1	72	23.8	23.8	7.9	7.9	31.0	31.0	87.1	87.3	6.2	6.2	9.1		6		84				<0.2		0.5	
						9.6	0.1	78	23.8		7.9		31.0		87.4		6.2		9.5		7		82				<0.2		0.5	
IM1	Fine	Moderate	17:04	6.6	Surface	1.0	0.0	175	22.9	22.9	8.2	8.2	29.6	29.6	89.9	90.0	6.5	6.6	1.0	1.0	5	5	82	85	818351	806473	<0.2	<0.2	0.8	0.8
						1.0	0.0	168	22.9		8.2		29.6		90.1		6.5		1.0		5		82				<0.2		0.9	
					Middle	3.3	-	169	22.9	22.9	8.2	8.2	29.6	29.6	90.7	90.8	6.6		1.0		4		86				<0.2		0.9	
						3.3	0.0	172	22.9		8.2		29.6		90.9		6.6		1.0		5		86				<0.2		0.8	
					Bottom	5.6	0.0	173	22.9	22.9	8.2	8.2	29.6	29.6	92.0	92.2	6.7	6.7	1.1		4		87				<0.2		0.6	
						5.6	0.0	167	22.9		8.2		29.6		92.4		6.7		1.1		4		87				<0.2		0.6	
IM2	Fine	Moderate	16:39	6.8	Surface	1.0	0.0	104	23.0	23.0	8.2	8.2	30.1	30.1	91.8	91.8	6.6	6.7	2.1	3.2	3	5	46	75	818840	806188	<0.2	<0.2	0.8	0.7
						1.0	0.1	105	23.0		8.2		30.1		91.8		6.6		2.1		4		46				<0.2		0.7	
					Middle	3.4	0.0	103	23.0	23.0	8.2	8.2	30.3	30.3	92.5	92.5	6.7		3.1		4		87				<0.2		0.7	
						3.4	0.0	109	23.0		8.2		30.3		92.5		6.7		3.1		5		87				<0.2		0.8	
					Bottom	5.8	0.0	108	23.0	23.0	8.2	8.2	30.3	30.3	92.7	92.8	6.7	6.7	4.2		6		91				<0.2		0.7	
						5.8	0.0	108	23.0		8.2		30.2		92.8		6.7		4.3		5		92				<0.2		0.7	
IM3	Fine	Moderate	16:31	8.4	Surface	1.0	0.1	106	23.3	23.3	8.2	8.2	30.3	30.3	88.8	88.8	6.4	6.4	2.0	3.3	5	5	44	76	819402	806038	<0.2	<0.2	0.6	0.7
						1.0	0.1	103	23.3		8.2		30.3		88.8		6.4		2.0		6		44				<0.2		0.6	
					Middle	4.2	0.0	125	23.3	23.3	8.2	8.2	30.3	30.3	88.9	88.9	6.4		3.4		5		91				<0.2		0.7	
						4.2	0.0	124	23.3		8.2		30.3		88.9		6.4		3.4		4		91				<0.2		0.6	
					Bottom	7.4	0.0	97	23.3	23.3	8.2	8.2	30.3	30.3	89.1	89.1	6.4	6.4	4.6		4		94				<0.2		0.8	
						7.4	0.1	97	23.3		8.2		30.3		89.1		6.4		4.6		5		94				<0.2		0.7	
IM4	Fine	Moderate	16:25	8.0	Surface	1.0	0.0	127	23.3	23.3	8.2	8.2	30.3	30.3	90.5	90.6	6.5	6.6	3.1	4.6	5	3	83	89	819573	805036	<0.2	<0.2	0.6	0.8
						1.0	0.1	134	23.3		8.2		30.3		90.6		6.5		3.1		4		83				<0.2		0.7	
					Middle	4.0	0.1	123	23.3	23.3	8.2	8.2	30.3	30.3	91.7	91.8	6.6		4.1		3		90				<0.2		0.6	
						4.0	0.1	122	23.3		8.2		30.3		91.9		6.6		4.1		3		90				<0.2		0.8	
					Bottom	7.0	0.0	116	23.1	23.1	8.2	8.2	30.3	30.3	87.5	87.5	6.3	6.3	6.4		3		95				<0.2		0.9	
						7.0	0.0	117	23.1		8.2		30.3		87.5		6.3		6.5		2		95				<0.2		0.9	
IM5	Fine	Moderate	16:18	8.2	Surface	1.0	0.1	136	23.1	23.1	8.2	8.2	30.4	30.4	87.4	87.4	6.3	6.3	4.3	5.5	2	4	46	75	820575	804918	<0.2	<0.2	0.7	0.8
						1.0	0.1	142	23.1		8.2		30.4		87.4		6.3		4.3		3		46				<0.2		0.6	
					Middle	4.1	0.1	119	23.1	23.1	8.2	8.2	30.4	30.4	87.4	87.5	6.3		5.7		4		88				<0.2		0.8	
						4.1	0.1	115	23.1		8.2		30.4		87.5		6.3		5.8		5		88				<0.2		0.7	
					Bottom	7.2	0.1	128	23.1	23.1	8.2	8.2	30.4	30.4	87.6	87.7	6.3	6.3	6.3		5		90				<0.2		1.0	
						7.2	0.1	120	23.1		8.2		30.4		87.7		6.3		6.3		5		90				<0.2		1.0	
IM6	Fine	Moderate	16:11	7.6	Surface	1.0	0.1	96	23.1	23.1	8.2	8.2	30.3	30.3	89.3	89.5	6.4	6.5	2.0	3.2	4	4	46	75	821066	805842	<0.2	<0.2	0.7	0.9
						1.0	0.2	92	23.1		8.2		30.3		89.6		6.4		2.0		4		45				<0.2		0.7	
					Middle	3.8	0.1	110	23.1	23.1	8.2	8.2	30.3	30.3	90.5	90.6	6.5		3.2		4		88				<0.2		0.9	
						3.8	0.1	107	23.1		8.2		30.3		90.6		6.5		3.2		4		88				<0.2		1.0	
					Bottom	6.6	0.1	108	23.1	23.1	8.2	8.2	30.3	30.3	91.6	91.8	6.6	6.6	4.3		4		91				<0.2		0.9	
						6.6	0.1	101	23.1		8.2		30.3		91.9		6.6		4.3		5		91				<0.2		0.9	
IM7	Fine	Moderate	16:05	7.6	Surface	1.0	0.2	54	22.9	22.9	8.2	8.2	29.7	29.7	88.3	88.3	6.4	6.4	3.8	4.8	4	3	47	75	821342	806834	<0.2	<0.2	0.7	0.7
						1.0	0.2	61	22.9		8.2		29.7		88.2		6.4		3.7		3		47				<0.2		0.7	
					Middle	3.8	0.1	48	22.9	22.9	8.2	8.2	29.6	29.6	88.2	88.2	6.4		5.2		4		88				<0.2		0.7	
						3.8	0.1	51	22.9		8.2		29.6		88.2		6.4		5.2		3		88				<0.2		0.8	
					Bottom	6.6	0.1	86	22.9	22.9	8.2	8.2	30.3	30.3	90.0	90.1	6.5	6.5	5.4		3		90				<0.2		0.7	
						6.6	0.1	86	22.9		8.2		30.3		90.1		6.5		5.3		2		90				<0.2		0.7	
IM8	Cloudy	Moderate	15:05	7.0	Surface	1.0	0.2	28	23.9	23.9	7.9	7.9	27.8	27.9	94.5	94.5	6.8	6.8	0.4	0.6	2	3	78	82	821686	807815	<0.2	<0.2	1.0	0.9
						1.0	0.2	20	23.9		7.9		27.9		94.4		6.8		0.4		2		78				<0.2		1.0	
					Middle	3.5	0.1	23	23.8	23.8	7.9	7.9	28.5	28.5	93.2	93.2	6.7		0.6		3		82				<0.2		0.8	
						3.5	0.2	21	23.8		7.9		28.5		93.1		6.7		<2		83				<0.2		0.9	
					Bottom	6.0	0.1	42	23.8	23.8	7.9	7.9	28.8	28.8	92.3	92.3	6.6	6.6	0.8		3		85				<0.2		0.9	
						6.0	0.1	42	23.8		7.9		28.8		92.3		6.6		0.8		3		86				<0.2		1.0	

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 23 November 23 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	15:13	6.8	Surface	1.0	0.1	30	23.7	23.7	8.0	8.0	29.2	29.2	92.6	92.6	6.6	6.6	2.6	2.7	3	4	79	81	822089	808793	<0.2	<0.2	0.8	0.8
						1.0	0.1	28	23.7		8.0		29.2		92.5		6.6		2.6		2		80				<0.2		0.9	
					Middle	3.4	0.1	25	23.6	23.6	8.0	8.0	29.2	29.2	91.9	91.9	6.6		2.7		4		82				<0.2		0.7	
						3.4	0.1	18	23.6		8.0		29.2		91.9		6.6		2.8		3		83				<0.2		0.8	
					Bottom	5.8	0.1	51	23.6	23.6	7.9	7.9	29.2	29.2	91.6	91.6	6.6	6.6	2.7		6		78				<0.2		0.8	
						5.8	0.2	45	23.6		7.9		29.2		91.6		6.6		2.7		5		83				<0.2		0.8	
IM10	Cloudy	Moderate	15:24	7.5	Surface	1.0	0.1	12	23.8	23.8	8.0	8.0	29.3	29.3	92.5	92.5	6.6	6.6	1.6	2.7	3	4	81	84	822218	809855	<0.2	<0.2	0.7	0.8
						1.0	0.1	19	23.8		8.0		29.3		92.4		6.6		1.7		3		79				<0.2		0.8	
					Middle	3.8	0.0	6	23.7	23.7	7.9	7.9	29.4	29.4	91.5	91.5	6.6		3.1		4		82				<0.2		0.8	
						3.8	-	0	23.7		7.9		29.4		91.5		6.6		3.2		3		84				<0.2		0.7	
					Bottom	6.5	0.0	17	23.6	23.7	7.9	7.9	29.4	29.4	91.2	91.2	6.5	6.5	3.3		4		88				<0.2		0.8	
						6.5	0.1	20	23.7		7.9		29.4		91.2		6.5		3.3		5		87				<0.2		0.7	
IM11	Cloudy	Moderate	15:45	8.2	Surface	1.0	0.0	72	22.7	22.7	8.1	8.1	30.4	30.4	81.2	81.3	5.9	6.0	1.0	2.1	6	5	79	83	821495	810534	<0.2	<0.2	0.5	0.5
						1.0	0.0	77	22.7		8.1		30.4		81.4		5.9		1.0		5		81				<0.2		0.5	
					Middle	4.1	0.0	81	22.6	22.6	8.1	8.1	30.4	30.4	82.0	82.1	6.0		2.1		6		82				<0.2		0.5	
						4.1	0.0	87	22.6		8.1		30.4		82.2		6.0		2.1		5		82				<0.2		0.4	
					Bottom	7.2	0.0	46	22.6	22.6	8.1	8.1	30.4	30.4	88.0	88.3	6.4	6.5	3.2		5		87				<0.2		0.5	
						7.2	0.0	52	22.6		8.1		30.4		88.6		6.5		3.2		5		87				<0.2		0.4	
IM12	Cloudy	Moderate	15:50	10.0	Surface	1.0	0.1	52	22.7	22.7	8.1	8.1	30.4	30.4	81.2	81.3	5.9	6.0	1.1	2.3	4	4	79	83	821185	811524	<0.2	<0.2	0.5	0.5
						1.0	0.0	52	22.7		8.1		30.4		81.4		5.9		1.1		5		79				<0.2		0.5	
					Middle	5.0	0.0	68	22.6	22.6	8.1	8.1	30.4	30.4	82.1	82.1	6.0		2.7		3		82				<0.2		0.5	
						5.0	0.0	69	22.6		8.1		30.4		82.1		6.0		2.7		4		83				<0.2		0.5	
					Bottom	9.0	0.0	40	22.6	22.6	8.1	8.1	30.3	30.3	88.1	88.3	6.4	6.5	3.0		3		88				<0.2		0.4	
						9.0	0.1	34	22.6		8.1		30.3		88.4		6.5		3.0		4		87				<0.2		0.5	
SR1A	Cloudy	Moderate	16:11	5.1	Surface	1.0	-	186	23.9	23.9	7.9	7.9	29.9	29.9	91.8	91.8	6.5	6.5	2.5	2.8	3	4	-	-	819973	812654	-	-	-	-
						1.0	-	182	23.9		7.9		29.9		91.8		6.5		2.7		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	193	23.9	23.9	7.9	7.9	30.0	30.0	91.8	91.8	6.5	6.5	2.9		5		-				-		-	
						4.1	0.1	187	23.8		7.9		30.0		91.7		6.5		2.9		4		-				-		-	
SR2	Cloudy	Moderate	16:18	4.9	Surface	1.0	0.1	104	23.6	23.6	8.0	8.0	30.0	30.0	90.2	90.2	6.4	6.4	5.1	8.3	3	4	80	81	821478	814174	<0.2	<0.2	0.4	0.5
						1.0	0.1	107	23.6		8.0		30.0		90.2		6.4		5.3		3		81				<0.2		0.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	75	23.6	23.6	7.9	7.9	30.0	30.0	89.9	89.9	6.4	6.4	10.7		5		82				<0.2		0.4	
						3.9	0.1	72	23.6		7.9		30.0		89.9		6.4		12.0		4		82				<0.2		0.5	
SR3	Cloudy	Moderate	14:57	8.2	Surface	1.0	0.1	9	23.9	23.9	7.9	7.9	27.5	27.6	94.1	94.1	6.8	6.7	0.5	0.6	3	3	-	-	822123	807583	-	-	-	-
						1.0	0.1	3	23.9		7.9		27.6		94.0		6.8		0.5		2		-				-		-	
					Middle	4.1	0.2	8	23.8	23.8	7.9	7.9	28.2	28.3	92.1	92.1	6.6		0.8		2		-				-		-	
						4.1	0.2	7	23.8		7.9		28.3		92.0		6.6		0.7		3		-				-		-	
					Bottom	7.2	0.1	359	23.7	23.7	7.9	7.9	28.4	28.4	91.7	91.7	6.6	6.6	0.5		3		-				-		-	
						7.2	0.1	355	23.7		7.9		28.4		91.7		6.6		0.5		3		-				-		-	
SR4A	Fine	Moderate	17:24	9.4	Surface	1.0	0.1	75	22.9	22.9	8.2	8.2	29.5	29.5	87.5	87.5	6.4	6.4	1.1	2.3	4	4	-	-	817201	807797	-	-	-	-
						1.0	0.0	73	22.9		8.2		29.5		87.5		6.4		1.1		3		-				-		-	
					Middle	4.7	0.0	96	22.9	22.9	8.2	8.2	29.6	29.6	87.7	87.8	6.4		2.1		4		-				-		-	
						4.7	0.0	96	22.9		8.2		29.6		87.8		6.4		2.1		5		-				-		-	
					Bottom	8.4	0.0	63	22.9	23.0	8.2	8.2	29.5	29.5	88.3	88.4	6.4	6.4	3.6		4		-				-		-	
						8.4	0.0	56	23.0		8.2		29.5		88.4		6.4		3.5		5		-				-		-	
SR5A	Fine	Moderate	17:43	4.0	Surface	1.0	0.0	126	22.9	22.9	8.2	8.2	29.3	29.4	88.2	88.2	6.4	6.4	3.2	3.7	2	4	-	-	816582	810696	-	-	-	-
						1.0	0.0	123	22.9		8.2		29.4		88.1		6.4		3.2		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	133	22.9	22.9	8.2	8.2	29.4	29.4	87.9	87.9	6.4	6.4	4.1		4		-				-		-	
						3.0	0.1	129	22.9		8.2		29.4		87.8		6.4		4.1		4		-				-		-	
SR6	Fine	Moderate	18:04	4.2	Surface	1.0	0.0	210	22.9	22.9	8.2	8.2	29.5	29.5	87.2	87.2	6.3	6.3	1.1	1.9	2	3	-	-	817915	814682	-	-	-	-
						1.0	0.0	212	22.9		8.2		29.5		87.1		6.3		1.1		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	241	22.9	22.9	8.2	8.2	29.7	29.7	87.0	87.1	6.3	6.3	2.7		4		-				-		-	
						3.2	0.0	245	22.9		8.2		29.7		87.1		6.3		2.7		3		-				-		-	
SR7	Cloudy	Moderate	16:32	16.5	Surface	1.0	0.1	244	24.1	24.1	7.9	7.9	31.3	31.3	82.1	82.1	5.8	5.8	5.1	5.6	5	6	-	-	823645	823757	-	-	-	-
						1.0	0.1	239	24.1		7.9		31.3		82.1		5.8		5.1		6		-				-		-	
					Middle	8.3	0.1	254	24.1	24.1	7.9	7.9	31.4	31.4	82.8	82.8	5.8		5.7		5		-				-		-	
						8.3	0.1	250	24.0		7.9		31.4		82.8		5.8		5.6		6		-				-		-	
					Bottom	15.5	0.0	245	24.0	24.0	7.9	7.9	31.4	31.4	85.0	85.2	6.0	6.0	6.0		7		-				-		-	
						15.5	0.0	241	24.0		7.9		31.4		85.3		6.0		5.9		6		-				-		-	
SR8	Cloudy	Moderate	15:58	4.8	Surface	1.0	-	-	22.7	22.7	8.1	8.1	30.3	30.3	82.1	82.1	6.0	6.0	2.9	3.1	6	6	-	-	820401	811608	-	-	-	-
						1.0	-	-	22.7		8.1		30.3		82.1		6.0		3.0		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.6	22.6	8.1	8.1	30.3	30.3	88.2	88.7	6.4	6.5	3.2		7		-				-		-	
						3.8	-	-	22.6		8.1		30.3		89.1		6.5		3.2		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 25 November 23 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	11:08	7.8	Surface	1.0	0.3	224	23.5	23.5	8.0	8.0	31.5	31.5	91.4	91.4	6.5	6.5	4.8	5.7	5	6	80	83	815623	804241	<0.2	<0.2	0.8	0.7
						1.0	0.4	224	23.5		8.0		31.5		91.4		6.5		4.8		5		80				<0.2		0.9	
					Middle	3.9	0.3	221	23.5	23.5	8.0	8.0	31.5	31.5	91.0	91.0	6.5		4.9		6		82				<0.2		0.7	
						3.9	0.2	227	23.5		8.0		31.5		91.0		6.5		4.9		7		82				<0.2		0.6	
					Bottom	6.8	0.3	234	23.4	23.4	8.0	8.0	31.8	31.8	89.5	89.6	6.4	6.4	7.4		7		88				<0.2		0.6	
						6.8	0.3	237	23.4		8.0		31.8		89.6		6.4		7.5		8		88				<0.2		0.6	
C2	Cloudy	Moderate	12:20	12.7	Surface	1.0	0.5	166	22.9	22.9	8.2	8.2	30.0	30.0	86.6	86.6	6.3	6.3	3.1	5.5	3	4	84	88	825699	806951	<0.2	<0.2	0.7	0.7
						1.0	0.5	170	22.9		8.2		30.0		86.5		6.3		3.2		4		85				<0.2		0.7	
					Middle	6.4	0.4	171	22.7	22.7	8.2	8.2	30.2	30.2	86.9	87.0	6.3		4.4		4		88				<0.2		0.8	
						6.4	0.5	177	22.7		8.2		30.2		87.0		6.3		5.0		4		88				<0.2		0.7	
					Bottom	11.7	0.4	153	22.8	22.8	8.2	8.2	30.1	30.1	89.3	89.5	6.5	6.5	8.6		5		91				<0.2		0.7	
						11.7	0.4	156	22.8		8.2		30.1		89.6		6.5		8.5		6		89				<0.2		0.8	
C3	Cloudy	Moderate	10:20	12.0	Surface	1.0	0.2	71	23.4	23.4	8.1	8.1	31.2	31.2	78.4	78.4	5.6	5.6	1.6	4.0	4	4	85	87	822109	817810	<0.2	<0.2	0.8	0.8
						1.0	0.2	65	23.4		8.1		31.2		78.4		5.6		1.6		4		84				<0.2		0.9	
					Middle	6.0	0.2	83	23.4	23.4	8.1	8.1	31.2	31.2	77.7	77.7	5.5		5.7		4		87				<0.2		0.8	
						6.0	0.1	76	23.4		8.1		31.2		77.7		5.5		5.8		5		88				<0.2		0.8	
					Bottom	11.0	0.2	101	23.4	23.4	8.1	8.1	31.2	31.2	76.8	76.6	5.5	5.5	4.2		5		89				<0.2		0.8	
						11.0	0.2	105	23.4		8.1		31.2		76.4		5.4		4.8		4		90				<0.2		0.8	
IM1	Sunny	Moderate	11:27	6.7	Surface	1.0	0.3	190	23.6	23.6	8.0	8.0	31.7	31.7	90.7	90.7	6.4	6.4	6.0	8.3	7	7	82	87	818330	806459	<0.2	<0.2	0.6	0.6
						1.0	0.3	192	23.6		8.0		31.7		90.7		6.4		6.1		6		82				<0.2		0.6	
					Middle	3.4	0.2	181	23.4	23.4	8.0	8.0	31.7	31.7	89.4	89.4	6.3		9.0		7		86				<0.2		0.6	
						3.4	0.2	179	23.4		8.0		31.7		89.4		6.3		9.0		6		87				<0.2		0.5	
					Bottom	5.7	0.3	201	23.4	23.4	8.0	8.0	31.8	31.8	89.6	89.6	6.4	6.4	9.7		7		91				<0.2		0.6	
						5.7	0.3	205	23.4		8.0		31.8		89.6		6.4		9.7		8		91				<0.2		0.5	
IM2	Sunny	Moderate	11:37	6.9	Surface	1.0	0.2	209	23.6	23.6	8.0	8.0	31.7	31.7	90.9	90.9	6.4	6.4	5.9	6.4	9	10	82	85	818838	806192	<0.2	<0.2	0.8	0.8
						1.0	0.2	205	23.6		8.0		31.7		90.9		6.4		5.9		10		82				<0.2		0.9	
					Middle	3.5	0.3	194	23.6	23.6	8.0	8.0	31.7	31.7	90.7	90.7	6.4		5.7		10		84				<0.2		0.7	
						3.5	0.3	196	23.6		8.0		31.7		90.7		6.4		5.7		10		84				<0.2		0.8	
					Bottom	5.9	0.3	196	23.4	23.4	8.0	8.0	31.7	31.7	89.7	89.7	6.4	6.4	7.7		10		88				<0.2		0.7	
						5.9	0.2	196	23.4		8.0		31.7		89.7		6.4		7.6		10		88				<0.2		0.8	
IM3	Sunny	Moderate	11:52	7.1	Surface	1.0	0.2	195	23.4	23.4	8.0	8.0	31.1	31.1	91.1	91.1	6.5	6.5	2.9	5.1	9	7	83	87	819407	806028	<0.2	<0.2	0.8	0.8
						1.0	0.3	193	23.4		8.0		31.1		91.1		6.5		2.9		8		83				<0.2		0.8	
					Middle	3.6	0.3	182	23.4	23.4	8.0	8.0	31.3	31.3	90.9	90.9	6.5		4.8		7		87				<0.2		0.8	
						3.6	0.2	180	23.4		8.0		31.2		90.9		6.5		4.8		6		87				<0.2		0.9	
					Bottom	6.1	0.3	218	23.4	23.4	8.0	8.0	31.7	31.7	90.4	90.4	6.4	6.4	7.6		7		91				<0.2		0.7	
						6.1	0.3	217	23.4		8.0		31.7		90.4		6.4		7.6		6		91				<0.2		0.8	
IM4	Sunny	Moderate	12:05	8.3	Surface	1.0	0.3	201	23.4	23.4	8.0	8.0	30.7	30.7	91.1	91.1	6.5	6.5	1.7	4.3	7	5	82	86	819551	805048	<0.2	<0.2	0.6	0.6
						1.0	0.3	199	23.4		8.0		30.7		91.1		6.5		1.6		6		82				<0.2		0.5	
					Middle	4.2	0.3	194	23.4	23.4	8.0	8.0	31.3	31.3	90.7	90.7	6.4		4.9		5		86				<0.2		0.6	
						4.2	0.3	189	23.4		8.0		31.3		90.6		6.4		4.9		6		86				<0.2		0.6	
					Bottom	7.3	0.3	210	23.5	23.5	8.0	8.0	31.6	31.6	90.5	90.5	6.4	6.4	6.4		4		91				<0.2		0.6	
						7.3	0.3	215	23.5		8.0		31.6		90.4		6.4		6.4		4		91				<0.2		0.6	
IM5	Sunny	Moderate	12:17	7.4	Surface	1.0	0.4	201	23.3	23.3	8.0	8.0	30.6	30.6	91.2	91.2	6.5	6.5	1.9	4.2	5	5	80	86	820547	804931	<0.2	<0.2	0.7	0.6
						1.0	0.4	204	23.3		8.0		30.6		91.1		6.5		1.9		4		80				<0.2		0.7	
					Middle	3.7	0.3	180	23.4	23.4	8.0	8.0	31.3	31.3	90.6	90.6	6.5		4.8		5		87				<0.2		0.6	
						3.7	0.3	175	23.4		8.0		31.2		90.6		6.5		4.9		5		87				<0.2		0.6	
					Bottom	6.4	0.3	171	23.4	23.4	8.0	8.0	31.6	31.6	90.9	91.0	6.5	6.5	5.8		5		91				<0.2		0.6	
						6.4	0.3	172	23.4		8.0		31.6		91.0		6.5		5.9		6		91				<0.2		0.6	
IM6	Sunny	Moderate	12:27	7.6	Surface	1.0	0.3	197	23.4	23.4	8.0	8.0	31.4	31.4	90.6	90.6	6.4	6.4	7.0	7.7	6	7	83	86	821063	805839	<0.2	<0.2	0.5	0.5
						1.0	0.3	195	23.4		8.0		31.4		90.6		6.4		7.0		7		83				<0.2		0.5	
					Middle	3.8	0.3	190	23.4	23.4	8.0	8.0	31.4	31.4	90.5	90.5	6.4		9.2		7		86				<0.2		0.6	
						3.8	0.3	185	23.4		8.0		31.4		90.5		6.4		9.3		7		86				<0.2		0.5	
					Bottom	6.6	0.2	200	23.4	23.4	8.0	8.0	31.5	31.5	90.6	90.7	6.4	6.5	6.8		9		90				<0.2		0.5	
						6.6	0.3	202	23.4		8.0		31.5		90.7		6.5		6.9		8		90				<0.2		0.5	
IM7	Sunny	Moderate	12:42	7.8	Surface	1.0	0.2	204	23.5	23.5	8.0	8.0	30.2	30.3	91.8	91.8	6.6	6.6	1.7	5.2	4	4	82	84	821337	806832	<0.2	<0.2	0.5	0.5
						1.0	0.2	211	23.5		8.0		30.3		91.8		6.6		1.7		4		82				<0.2		0.5	
					Middle	3.9	0.3	211	23.4	23.4	8.0	8.0	30.8	30.8	91.3	91.3	6.5		3.6		4		82				<0.2		0.5	
						3.9	0.3	211	23.4		8.0		30.8		91.3		6.5		3.7		5		83				<0.2		0.5	
					Bottom	6.8	0.2	199	23.3	23.3	8.0	8.0	31.1	31.1	90.5	90.5	6.5	6.5	10.1		4		88				<0.2		0.4	
						6.8	0.2	203	23.3		8.0		31.1		90.5		6.5		10.1		3		88				<0.2		0.5	
IM8	Cloudy	Moderate	11:45	7.7	Surface	1.0	0.2	171	22.9	22.9	8.2	8.2	29.8	29.9	88.0	88.0	6.4	6.4	0.9	1.8	4	4	85	87	821679	807846	<0.2	<0.2	0.9	0.8
						1.0	0.2	168	22.8		8.2		29.9		87.9		6.4		1.0		4		84				<0.2		0.7	
					Middle	3.9	0.2	174	22.7	22.7	8.2	8.2	30.4	30.4	87.6	87.6	6.3		2.0		4		87				<0.2		0.8	
						3.9	0.3	169	22.7		8.2		30.4		87.6		6.3		2.1		3		88				<0.2		0.9	
					Bottom	6.7	0.3	183	22.7	22.7	8.2	8.2	30.6	30.6	87.8	87.9	6.4	6.4	2.5		3		89				<0.2		0.8	
						6.7	0.3	187	22.7		8.2		30.6		87.9		6.4		2.5		4		88				<0.2		0.8	

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 25 November 23 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	11:41	6.8	Surface	1.0	0.3	147	22.8	22.8	8.2	8.2	29.8	29.8	88.3	88.3	6.4	6.4	0.7	1.3	5	4	85	87	822084	808821	<0.2	<0.2	0.6	0.7
						1.0	0.2	141	22.8		8.2		29.8		88.3		6.4		0.7		6		85				<0.2		0.7	
					Middle	3.4	0.3	161	22.8	22.8	8.2	8.2	29.9	29.9	88.2	88.2	6.4		1.2		2		86				<0.2		0.7	
						3.4	0.3	164	22.8		8.2		29.9		88.2		6.4		1.3		4		86				<0.2		0.8	
					Bottom	5.8	0.3	129	22.7	22.7	8.2	8.2	30.0	30.0	88.2	88.2	6.4	6.4	1.8		4		89				<0.2		0.7	
						5.8	0.3	134	22.7		8.2		30.0		88.2		6.4		2.0		3		90				<0.2		0.8	
IM10	Cloudy	Moderate	11:34	6.8	Surface	1.0	0.3	110	22.9	22.9	8.2	8.2	29.7	29.7	88.2	88.2	6.4	6.4	0.5	1.4	4	4	85	87	822255	809834	<0.2	<0.2	0.7	0.8
						1.0	0.3	106	22.9		8.2		29.7		88.2		6.4		0.5		4		84				<0.2		0.7	
					Middle	3.4	0.4	118	22.8	22.8	8.2	8.2	29.9	29.9	87.5	87.5	6.4		1.2		4		86				<0.2		0.8	
						3.4	0.4	124	22.7		8.2		29.9		87.5		6.3		1.3		4		88				<0.2		0.7	
					Bottom	5.8	0.3	96	22.7	22.7	8.2	8.2	30.0	30.0	87.2	87.2	6.3	6.3	2.4		4		89				<0.2		0.8	
						5.8	0.3	102	22.7		8.2		30.0		87.2		6.3		2.5		4		88				<0.2		0.8	
IM11	Cloudy	Moderate	11:29	7.6	Surface	1.0	0.3	112	22.8	22.8	8.2	8.2	29.7	29.7	88.6	88.6	6.4	6.4	0.6	1.4	6	5	85	87	821484	810556	<0.2	<0.2	0.8	0.8
						1.0	0.4	105	22.8		8.2		29.7		88.6		6.4		0.6		5		84				<0.2		0.8	
					Middle	3.8	0.4	83	22.8	22.8	8.2	8.2	29.9	29.9	88.6	88.6	6.4		1.5		5		88				<0.2		0.8	
						3.8	0.4	78	22.7		8.2		29.9		88.6		6.4		1.5		4		86				<0.2		0.9	
					Bottom	6.6	0.4	87	22.7	22.7	8.2	8.2	30.0	30.0	89.4	89.5	6.5	6.5	2.2		5		89				<0.2		0.7	
						6.6	0.3	84	22.7		8.2		30.0		89.6		6.5		2.2		4		90				<0.2		0.7	
IM12	Cloudy	Moderate	11:07	8.2	Surface	1.0	0.4	112	22.7	22.7	8.2	8.2	29.9	29.9	87.7	87.7	6.4	6.4	1.1	1.2	4	4	84	87	821177	811528	<0.2	<0.2	0.8	0.8
						1.0	0.4	115	22.7		8.2		29.9		87.7		6.4		1.2		3		85				<0.2		0.8	
					Middle	4.1	0.4	99	22.7	22.7	8.2	8.2	30.0	30.0	87.9	88.0	6.4		1.3		3		86				<0.2		0.8	
						4.1	0.4	93	22.7		8.2		30.0		88.0		6.4		1.3		4		87				<0.2		0.7	
					Bottom	7.2	0.3	100	22.7	22.7	8.2	8.2	30.0	30.0	89.5	89.7	6.5	6.5	1.2		4		89				<0.2		0.8	
						7.2	0.3	94	22.7		8.2		30.0		89.8		6.5		1.2		5		90				<0.2		0.8	
SR1A	Cloudy	Moderate	10:41	4.9	Surface	1.0	0.0	90	22.8	22.8	8.2	8.2	29.9	29.9	86.4	86.5	6.3	6.3	0.7	0.8	4	5	-	-	819983	812663	-	-	-	-
						1.0	0.0	93	22.8		8.2		29.9		86.5		6.3		0.7		3		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	111	22.7	22.7	8.2	8.2	29.9	29.9	88.1	88.3	6.4	6.4	0.9		5		-				-		-	
						3.9	0.0	107	22.7		8.2		29.9		88.4		6.4		0.9		6		-				-		-	
SR2	Cloudy	Moderate	10:26	4.7	Surface	1.0	0.2	36	23.0	23.0	8.1	8.1	30.4	30.4	83.8	83.8	6.0	6.0	0.9	1.1	4	4	85	87	821457	814177	<0.2	<0.2	0.7	0.7
						1.0	0.3	34	23.0		8.1		30.4		83.7		6.0		0.9		5		84				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	53	23.0	23.0	8.1	8.2	30.6	30.6	83.5	83.5	6.0	6.0	1.3		3		89				<0.2		0.7	
						3.7	0.2	45	23.0		8.2		30.6		83.5		6.0		1.3		4		90				<0.2		0.7	
SR3	Cloudy	Moderate	11:50	8.3	Surface	1.0	0.4	156	23.0	23.0	8.2	8.2	29.7	29.7	88.1	88.1	6.4	6.4	1.2	2.2	5	4	-	-	822142	807580	-	-	-	-
						1.0	0.3	149	22.9		8.2		29.7		88.0		6.4		1.3		4		-				-		-	
					Middle	4.2	0.3	155	22.7	22.7	8.2	8.2	30.2	30.2	87.8	87.8	6.4		2.4		4		-				-		-	
						4.2	0.3	153	22.7		8.2		30.2		87.8		6.4		2.5		4		-				-		-	
					Bottom	7.3	0.3	176	22.7	22.7	8.2	8.2	30.3	30.3	89.2	89.3	6.5	6.5	2.9		4		-				-		-	
						7.3	0.3	179	22.7		8.2		30.3		89.4		6.5		2.9		3		-				-		-	
SR4A	Sunny	Moderate	10:44	9.7	Surface	1.0	0.0	81	23.2	23.2	8.0	8.0	31.2	31.2	90.4	90.4	6.5	6.5	3.1	3.8	5	5	-	-	817184	807811	-	-	-	-
						1.0	0.0	87	23.2		8.0		31.2		90.4		6.5		3.1		5		-				-		-	
					Middle	4.9	0.0	83	23.2	23.2	8.0	8.0	31.2	31.2	90.3	90.3	6.5		3.7		6		-				-		-	
						4.9	0.0	76	23.2		8.0		31.2		90.3		6.5		3.7		5		-				-		-	
					Bottom	8.7	0.0	107	23.2	23.2	8.0	8.0	31.2	31.2	91.1	91.1	6.5	6.5	4.6		6		-				-		-	
						8.7	0.0	112	23.2		8.0		31.2		91.1		6.5		4.6		5		-				-		-	
SR5A	Sunny	Calm	10:19	4.4	Surface	1.0	0.1	124	23.2	23.2	8.0	8.0	30.5	30.5	91.2	91.3	6.5	6.5	4.9	4.2	4	4	-	-	816580	810712	-	-	-	-
						1.0	0.1	124	23.2		8.0		30.5		91.3		6.5		4.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	87	23.1	23.1	8.0	8.0	30.8	30.8	94.5	94.7	6.8	6.8	3.4		4		-				-		-	
						3.4	0.2	86	23.1		8.0		30.8		94.8		6.8		3.4		5		-				-		-	
SR6	Sunny	Calm	10:02	4.7	Surface	1.0	0.0	58	23.1	23.1	8.0	8.0	30.2	30.2	87.7	87.7	6.3	6.3	1.5	1.5	6	6	-	-	817889	814681	-	-	-	-
						1.0	0.1	56	23.1		8.0		30.2		87.6		6.3		1.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	69	23.2	23.2	8.0	8.0	30.2	30.2	87.5	87.5	6.3	6.3	1.4		6		-				-		-	
						3.7	0.1	67	23.2		8.0		30.2		87.4		6.3		1.3		6		-				-		-	
SR7	Cloudy	Moderate	09:41	16.5	Surface	1.0	0.1	98	23.4	23.4	8.1	8.1	31.2	31.3	77.5	77.5	5.5	5.5	1.6	3.8	2	3	-	-	823616	823737	-	-	-	-
						1.0	0.1	100	23.4		8.1		31.3		77.5		5.5		1.7		3		-				-		-	
					Middle	8.3	0.1	94	23.4	23.4	8.1	8.1	31.3	31.3	77.5	77.5	5.5	5.5	2.1		2		-				-		-	
						8.3	0.1	89	23.4		8.1		31.3		77.5		5.5		2.1		3		-				-		-	
					Bottom	15.5	0.1	91	23.4	23.4	8.1	8.1	31.4	31.4	75.8	75.8	5.4	5.4	7.2		4		-				-		-	
						15.5	0.1	89	23.4		8.1		31.4		75.8		5.4		8.0		3		-				-		-	
SR8	Cloudy	Moderate	11:02	5.8	Surface	1.0	-	-	22.8	22.8	8.2	8.2	30.0	30.0	87.1	87.1	6.3	6.3	1.4	1.6	5	4	-	-	820373	811605	-	-	-	-
						1.0	-	-	22.8		8.2		30.0		87.1		6.3		1.5		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	-	22.8	22.8	8.2	8.2	30.1	30.1	88.1	88.2	6.4	6.4	1.7		3		-				-		-	
						4.8	-	-	22.8		8.2		30.1		88.3		6.4		1.7		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 25 November 23 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
C1	Sunny	Moderate	17:11	7.1	Surface	1.0	0.4	17	23.6	23.6	8.0	8.0	31.0	31.0	91.9	91.9	6.5	6.5	1.4	4.3	4	4	84	87	815643	804264	<0.2	<0.2	0.4	0.4
						1.0	0.4	18	23.6		8.0		31.0		91.9		6.5		1.5		3		84						0.4	
					Middle	3.6	0.3	43	23.5	23.5	8.0	8.0	31.4	31.4	90.5	90.5	6.4		4.6		4		87						0.4	
						3.6	0.3	45	23.5		8.0		31.4		90.5		6.4		4.6		4		87						0.4	
					Bottom	6.1	0.3	43	23.5	23.5	8.0	8.0	31.7	31.7	89.3	89.3	6.3	6.3	6.9		5		90						0.4	
						6.1	0.3	48	23.5		8.0		31.7		89.3		6.3		6.9		5		90						0.4	
C2	Cloudy	Moderate	15:33	11.4	Surface	1.0	0.1	175	22.7	22.8	8.2	8.2	30.2	30.2	87.8	87.1	6.4	6.3	2.0	6.2	5	4	78	80	825658	806929	<0.2	<0.2	0.8	0.7
						1.0	0.2	169	22.8		8.2		30.1		86.4		6.3		2.1		4		78						0.7	
					Middle	5.7	0.1	200	22.8	22.8	8.2	8.2	30.2	30.2	86.0	86.0	6.2		6.1		3		80						0.7	
						5.7	0.1	199	22.8		8.2		30.2		86.0		6.2		6.4		3		81						0.7	
					Bottom	10.4	0.1	183	22.9	22.9	8.2	8.2	30.1	30.1	86.2	86.3	6.2	6.2	10.5		3		82						0.8	
						10.4	0.1	189	22.9		8.2		30.0		86.3		6.2		10.2		3		83						0.7	
C3	Cloudy	Moderate	17:37	10.2	Surface	1.0	0.4	267	23.1	23.1	8.2	8.2	30.4	30.4	85.8	85.7	6.2	6.1	0.6	3.2	3	3	78	81	822097	817790	<0.2	<0.2	0.8	0.8
						1.0	0.4	264	23.1		8.2		30.4		85.6		6.2		0.7		3		78						0.8	
					Middle	5.1	0.5	255	23.1	23.1	8.1	8.1	30.8	30.8	83.3	83.3	6.0		2.3		3		81						0.7	
						5.1	0.5	252	23.1		8.1		30.8		83.3		6.0		2.5		3		81						0.7	
					Bottom	9.2	0.5	249	23.1	23.1	8.1	8.1	30.7	30.7	84.4	84.5	6.1	6.1	6.5		3		84						0.9	
						9.2	0.5	242	23.1		8.1		30.7		84.5		6.1		6.5		3		82						0.8	
IM1	Sunny	Moderate	16:49	6.2	Surface	1.0	0.2	8	23.7	23.7	8.0	8.0	30.7	30.7	91.3	91.3	6.5	6.5	2.8	4.8	5	4	85	88	818358	806451	<0.2	<0.2	0.5	0.5
						1.0	0.1	7	23.7		8.0		30.7		91.3		6.5		2.9		4		85						0.5	
					Middle	3.1	0.1	23	23.5	23.5	8.0	8.0	30.9	30.9	90.6	90.6	6.5		5.1		4		87						0.5	
						3.1	0.1	16	23.5		8.0		30.9		90.6		6.5		5.1		4		87						0.5	
					Bottom	5.2	0.2	1	23.4	23.4	8.0	8.0	31.7	31.7	90.5	90.5	6.4	6.4	6.4		4		91						0.5	
						5.2	0.2	2	23.4		8.0		31.7		90.5		6.4		6.5		3		91						0.4	
IM2	Sunny	Moderate	16:39	6.5	Surface	1.0	0.1	322	23.5	23.5	8.0	8.0	31.0	31.0	90.5	90.5	6.4	6.4	3.3	6.1	5	5	83	86	818849	806171	<0.2	<0.2	0.5	0.5
						1.0	0.1	323	23.5		8.0		31.0		90.5		6.4		3.3		4		83						0.5	
					Middle	3.3	0.2	294	23.4	23.4	8.0	8.0	31.5	31.5	90.2	90.2	6.4		5.4		4		86						0.5	
						3.3	0.2	299	23.4		8.0		31.5		90.2		6.4		5.4		5		86						0.5	
					Bottom	5.5	0.1	328	23.4	23.4	8.0	8.0	31.7	31.7	89.8	89.8	6.4	6.4	9.5		5		90						0.4	
						5.5	0.1	329	23.4		8.0		31.7		89.8		6.4		9.5		4		90						0.5	
IM3	Sunny	Moderate	16:30	6.9	Surface	1.0	0.1	329	23.4	23.4	8.0	8.0	31.0	31.0	90.1	90.1	6.4	6.4	5.3	6.8	4	4	82	87	819424	806017	<0.2	<0.2	0.5	0.5
						1.0	0.1	322	23.4		8.0		31.0		90.1		6.4		5.3		2		82						0.4	
					Middle	3.5	0.1	349	23.4	23.4	8.0	8.0	31.3	31.3	89.6	89.6	6.4		8.4		4		86						0.4	
						3.5	0.2	354	23.4		8.0		31.3		89.6		6.4		8.3		3		87						0.5	
					Bottom	5.9	0.1	350	23.4	23.4	8.0	8.0	31.6	31.6	89.4	89.5	6.4	6.4	6.6		4		91						0.5	
						5.9	0.0	350	23.4		8.0		31.6		89.5		6.4		6.6		4		92						0.6	
IM4	Sunny	Moderate	16:21	7.9	Surface	1.0	0.1	309	23.4	23.4	8.0	8.0	30.6	30.6	90.6	90.6	6.5	6.5	3.4	6.0	3	3	83	87	819584	805026	<0.2	<0.2	0.5	0.5
						1.0	0.1	314	23.4		8.0		30.6		90.6		6.5		3.4		3		83						0.4	
					Middle	4.0	0.1	340	23.4	23.4	8.0	8.0	31.1	31.1	90.2	90.2	6.4		6.7		4		88						0.4	
						4.0	0.1	346	23.4		8.0		31.1		90.2		6.4		6.7		3		88						0.5	
					Bottom	6.9	0.1	304	23.4	23.4	8.0	8.0	31.5	31.5	89.8	89.9	6.4	6.4	8.0		4		91						0.5	
						6.9	0.1	307	23.4		8.0		31.5		89.9		6.4		8.0		3		91						0.5	
IM5	Sunny	Rough	16:09	6.8	Surface	1.0	0.2	334	23.5	23.6	8.0	8.0	30.5	30.5	92.6	92.6	6.6	6.6	2.1	6.8	5	4	84	87	820578	804916	<0.2	<0.2	0.5	0.5
						1.0	0.2	330	23.6		8.0		30.4		92.6		6.6		2.0		5		84						0.5	
					Middle	3.4	0.2	337	23.4	23.4	8.0	8.0	31.3	31.3	90.9	90.9	6.5		9.9		4		87						0.5	
						3.4	0.2	337	23.4		8.0		31.3		90.9		6.5		10.0		3		87						0.5	
					Bottom	5.8	0.2	317	23.4	23.4	8.0	8.0	31.4	31.4	89.1	89.1	6.4	6.4	8.3		3		90						0.5	
						5.8	0.2	309	23.4		8.0		31.4		89.1		6.4		8.4		2		90						0.6	
IM6	Sunny	Rough	15:53	7.1	Surface	1.0	0.2	302	23.4	23.4	8.0	8.0	31.3	31.3	90.9	90.9	6.5	6.5	7.3	8.0	9	8	83	87	821076	805825	<0.2	<0.2	0.5	0.5
						1.0	0.2	308	23.4		8.0		31.3		90.9		6.5		7.3		10		83						0.4	
					Middle	3.6	0.2	277	23.4	23.4	8.0	8.0	31.3	31.3	90.8	90.8	6.5		6.9		9		87						0.5	
						3.6	0.2	273	23.4		8.0		31.3		90.8		6.5		6.9		8		87						0.5	
					Bottom	6.1	0.1	269	23.4	23.4	8.0	8.0	31.4	31.4	90.8	90.8	6.5	6.5	9.8		6		90						0.5	
						6.1	0.1	264	23.4		8.0		31.4		90.8		6.5		9.8		6		90						0.5	
IM7	Sunny	Rough	15:38	7.5	Surface	1.0	0.2	255	23.5	23.5	8.0	8.0	30.2	30.2	95.4	95.4	6.8	6.7	1.3	3.0	3	3	82	87	821338	806824	<0.2	<0.2	0.5	0.5
						1.0	0.2	256	23.5		8.0		30.2		95.4		6.8		1.4		4		83						0.5	
					Middle	3.8	0.2	237	23.5	23.5	8.0	8.0	30.3	30.4	91.4	91.4	6.5		2.6		3		86						0.5	
						3.8	0.1	229	23.5		8.0		30.4		91.3		6.5		2.7		3		86						0.5	
					Bottom	6.5	0.1	260	23.4	23.4	8.0	8.0	31.0	31.0	90.9	90.9	6.5	6.5	5.0		3		91						0.5	
						6.5	0.2	252	23.3		8.0		31.0		90.9		6.5		5.1		2		91						0.5	
IM8	Cloudy	Moderate	16:10	7.9	Surface	1.0	0.2	266	22.8	22.8	8.2	8.2	29.9	29.9	88.3	88.3	6.4	6.4	13.8	6.2	2	2	78	82	821695	807855	<0.2	<0.2	0.7	0.8
						1.0	0.1	272	22.8		8.2		29.8		88.3		6.4		13.9		2		78						0.8	
					Middle	4.0	0.2	247	22.7	22.7	8.2	8.2	30.4	30.5	88.1	88.1	6.4		2.3		2		82						0.8	
						4.0	0.2	239	22.7		8.2		30.5		88.1		6.4		2.4		2		83						0.7	
					Bottom	6.9	0.1	231	22.7	22.7	8.2	8.2	30.5	30.5	88.7	88.8	6.4	6.4	2.4		2		85						0.7	
						6.9	0.1	228	22.7		8.2		30.5		88.8		6.4		2.4		2		86						0.8	

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 25 November 23 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	16:14	7.2	Surface	1.0	0.1	258	22.8	22.8	8.2	8.2	30.1	30.1	88.9	88.9	6.4	6.5	1.6	1.8	2	2	79	81	822100	808805	<0.2	<0.2	0.8	0.7
						1.0	0.2	260	22.8		8.2		30.1		88.9		6.4		1.6		2		80				<0.2		0.7	
					Middle	3.6	0.2	245	22.7	22.7	8.2	8.2	30.2	30.2	89.4	89.5	6.5		1.8		2		82				<0.2		0.7	
						3.6	0.2	238	22.7		8.2		30.2		89.6		6.5		1.9		2		83				<0.2		0.7	
					Bottom	6.2	0.2	243	22.7	22.7	8.2	8.2	30.3	30.3	91.5	91.6	6.6	6.6	1.9		2		78				<0.2		0.7	
						6.2	0.3	235	22.7		8.2		30.3		91.6		6.6		1.9		2		83				<0.2		0.6	
IM10	Cloudy	Moderate	16:20	6.4	Surface	1.0	0.3	250	23.0	23.0	8.2	8.2	29.6	29.7	89.6	89.6	6.5	6.5	1.3	2.6	4	3	81	84	822262	809838	<0.2	<0.2	0.7	0.7
						1.0	0.2	242	23.0		8.2		29.7		89.5		6.5		1.3		3		79				<0.2		0.7	
					Middle	3.2	0.3	268	22.7	22.7	8.2	8.2	30.3	30.3	89.1	89.2	6.5		3.1		3		82				<0.2		0.6	
						3.2	0.2	272	22.7		8.2		30.3		89.3		6.5		3.3		4		84				<0.2		0.7	
					Bottom	5.4	0.2	281	22.7	22.7	8.2	8.2	30.4	30.4	90.7	90.8	6.6	6.6	3.4		2		88				<0.2		0.7	
						5.4	0.2	280	22.7		8.2		30.4		90.9		6.6		3.3		3		87				<0.2		0.6	
IM11	Cloudy	Moderate	16:26	8.1	Surface	1.0	0.4	266	22.9	22.9	8.2	8.2	29.7	29.7	88.6	88.6	6.4	6.5	1.6	2.5	2	2	79	83	821488	810534	<0.2	<0.2	0.7	0.7
						1.0	0.4	264	22.9		8.2		29.7		88.6		6.4		1.7		2		81				<0.2		0.7	
					Middle	4.1	0.3	275	22.8	22.8	8.2	8.2	30.0	30.0	89.1	89.2	6.5		2.6		2		82				<0.2		0.7	
						4.1	0.3	272	22.8		8.2		30.0		89.2		6.5		2.7		2		82				<0.2		0.7	
					Bottom	7.1	0.4	281	22.8	22.8	8.2	8.2	30.1	30.1	91.0	91.1	6.6	6.6	3.2		3		87				<0.2		0.7	
						7.1	0.3	285	22.7		8.2		30.1		91.1		6.6		3.2		2		87				<0.2		0.7	
IM12	Cloudy	Moderate	16:32	7.6	Surface	1.0	0.3	276	22.9	22.9	8.2	8.2	30.0	30.0	88.3	88.3	6.4	6.4	1.0	1.4	2	2	79	83	821138	811526	<0.2	<0.2	0.7	0.7
						1.0	0.3	280	22.9		8.2		30.0		88.3		6.4		1.0		2		79				<0.2		0.7	
					Middle	3.8	0.3	268	22.8	22.8	8.2	8.2	30.0	30.0	88.2	88.3	6.4		1.5		2		82				<0.2		0.7	
						3.8	0.3	270	22.8		8.2		30.0		88.3		6.4		1.5		3		83				<0.2		0.7	
					Bottom	6.6	0.4	269	22.7	22.7	8.2	8.2	30.0	30.0	89.1	89.2	6.5	6.5	1.7		3		88				<0.2		0.6	
						6.6	0.4	271	22.7		8.2		30.0		89.3		6.5		1.8		2		87				<0.2		0.7	
SR1A	Cloudy	Moderate	17:05	5.4	Surface	1.0	0.1	204	22.9	22.9	8.2	8.2	30.1	30.1	87.5	87.5	6.3	6.3	1.9	1.7	2	2	-	-	819974	812660	-	-	-	-
						1.0	0.1	201	22.9		8.2		30.1		87.5		6.3		1.9		2		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.0	190	22.9	22.9	8.2	8.2	30.1	30.1	87.4	87.4	6.3	6.3	1.6		3		-				-		-	
						4.4	0.0	194	22.9		8.2		30.1		87.4		6.3		1.4		2		-				-		-	
SR2	Cloudy	Moderate	17:18	4.9	Surface	1.0	0.1	236	23.0	23.0	8.2	8.2	29.8	29.8	89.7	89.7	6.5	6.5	0.5	1.9	2	2	80	81	821465	814156	<0.2	<0.2	0.7	0.8
						1.0	0.2	231	23.0		8.2		29.8		89.7		6.5		0.6		3		81				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.2	215	22.8	22.8	8.2	8.2	29.9	29.9	91.8	91.9	6.7	6.7	3.4		2		82				<0.2		0.8	
						3.9	0.2	215	22.8		8.2		29.9		92.0		6.7		3.1		2		82				<0.2		0.9	
SR3	Cloudy	Moderate	16:06	8.3	Surface	1.0	0.1	217	22.9	22.9	8.2	8.2	29.4	29.4	88.5	88.5	6.4	6.4	1.3	2.4	<2	3	-	-	822159	807553	-	-	-	-
						1.0	0.1	221	22.9		8.2		29.4		88.4		6.4		1.4		<2		-				-		-	
					Middle	4.2	0.1	241	22.7	22.7	8.2	8.2	30.2	30.2	87.4	87.4	6.3		2.8		2		-				-		-	
						4.2	0.0	244	22.7		8.2		30.2		87.4		6.3		2.8		2		-				-		-	
					Bottom	7.3	0.1	235	22.7	22.7	8.2	8.2	30.2	30.2	87.8	87.8	6.4	6.4	3.1		3		-				-		-	
						7.3	0.1	232	22.7		8.2		30.2		87.8		6.4		3.1		4		-				-		-	
SR4A	Sunny	Moderate	17:34	9.2	Surface	1.0	0.0	176	23.5	23.5	8.0	8.0	31.1	31.1	95.4	95.4	6.8	6.7	3.3	3.0	5	4	-	-	817212	807824	-	-	-	-
						1.0	0.0	181	23.5		8.0		31.1		95.4		6.8		3.3		4		-				-		-	
					Middle	4.6	0.0	171	23.4	23.4	8.0	8.0	31.2	31.2	90.4	90.4	6.5		3.0		3		-				-		-	
						4.6	0.0	177	23.4		8.0		31.2		90.4		6.5		3.0		4		-				-		-	
					Bottom	8.2	0.0	181	23.2	23.2	8.0	8.0	31.3	31.3	88.9	88.9	6.3	6.3	2.8		4		-				-		-	
						8.2	0.0	180	23.2		8.0		31.3		88.9		6.3		2.8		3		-				-		-	
SR5A	Sunny	Calm	17:53	3.9	Surface	1.0	0.2	300	23.3	23.3	8.0	8.0	31.0	31.1	91.5	91.5	6.5	6.5	3.8	4.4	3	5	-	-	816590	810713	-	-	-	-
						1.0	0.2	296	23.3		8.0		31.1		91.5		6.5		3.8		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	0.1	291	23.2	23.2	8.0	8.0	31.2	31.2	91.1	91.1	6.5	6.5	5.0		5		-				-		-	
						2.9	0.2	290	23.2		8.0		31.2		91.1		6.5		5.1		6		-				-		-	
SR6	Sunny	Calm	18:12	4.2	Surface	1.0	0.1	258	23.5	23.5	8.0	8.0	30.2	30.2	91.8	91.8	6.6	6.6	4.2	5.4	4	4	-	-	817917	814658	-	-	-	-
						1.0	0.1	253	23.5		8.0		30.2		91.8		6.6		4.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	258	23.4	23.4	8.0	8.0	30.2	30.2	90.8	90.9	6.5	6.5	6.4		3		-				-		-	
						3.2	0.0	254	23.4		8.0		30.2		90.9		6.5		6.5		4		-				-		-	
SR7	Cloudy	Moderate	18:05	16.2	Surface	1.0	1.1	235	23.2	23.2	8.2	8.2	30.7	30.8	83.3	83.3	6.0	6.0	1.4	1.7	<2	2	-	-	823618	823751	-	-	-	-
						1.0	1.2	236	23.2		8.2		30.8		83.2		6.0		1.4		<2		-				-		-	
					Middle	8.1	1.1	262	23.2	23.2	8.2	8.2	30.8	30.9	83.8	83.9	6.0		1.9		<2		-				-		-	
						8.1	1.1	258	23.2		8.2		30.9		84.0		6.0		1.9		<2		-				-		-	
					Bottom	15.2	1.1	263	23.2	23.2	8.2	8.2	30.8	30.8	85.2	85.3	6.1	6.1	1.7		2		-				-		-	
						15.2	1.1	263	23.2		8.2		30.8		85.3		6.1		1.8		2		-				-		-	
SR8	Cloudy	Moderate	16:40	4.2	Surface	1.0	-	-	22.9	22.9	8.2	8.2	30.0	30.0	88.9	88.9	6.4	6.4	1.0	1.1	<2	2	-	-	820412	811605	-	-	-	-
						1.0	-	-	22.9		8.2		30.0		88.9		6.4		1.0		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	22.9	22.9	8.2	8.2	30.0	30.1	89.1	89.2	6.4	6.5	1.1		2		-				-		-	
						3.2	-	-	22.9		8.2		30.1		89.2		6.5		1.1		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 28 November 23 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	13:10	8.4	Surface	1.0	0.1	191	23.7	23.7	8.2	8.2	28.7	28.7	96.8	96.8	6.9	6.8	2.7	4.1	3	3	83	86	815642	804250	<0.2	<0.2	0.7	0.8
						1.0	0.1	187	23.7		8.2		28.7		96.7		6.9		2.7		4		84				<0.2		0.6	
					Middle	4.2	0.1	202	23.6	23.6	8.2	8.2	29.3	29.4	95.6	94.0	6.9		4.3		3		86				<0.2		0.7	
						4.2	0.1	197	23.6		8.2		29.4		92.3		6.6		4.5		3		87				<0.2		0.8	
					Bottom	7.4	0.1	209	23.5	23.5	8.2	8.2	29.5	29.5	91.3	91.3	6.6	6.6	5.3		3		89				<0.2		0.8	
						7.4	0.2	209	23.5		8.2		29.5		91.3		6.6		5.3		2		88				<0.2		0.9	
C2	Misty	Moderate	11:51	11.0	Surface	1.0	0.2	338	23.4	23.4	8.0	8.0	27.9	28.0	94.9	95.1	6.9	7.0	1.7	2.6	2	3	47	74	825666	806967	<0.2	<0.2	0.7	0.7
						1.0	0.2	345	23.4		7.9		28.0		95.2		7.0		1.7		2		47				<0.2		0.6	
					Middle	5.5	0.2	341	23.4	23.4	7.9	7.9	28.0	28.0	96.1	96.3	7.0		2.9		3		82				<0.2		0.6	
						5.5	0.3	343	23.4		7.9		28.0		96.4		7.1		2.9		3		83				<0.2		0.7	
					Bottom	10.0	0.2	16	23.4	23.4	7.9	7.9	28.0	28.0	97.4	97.7	7.1	7.2	3.2		3		92				<0.2		0.7	
						10.0	0.2	23	23.4		7.9		28.0		97.9		7.2		3.1		3		91				<0.2		0.7	
C3	Misty	Moderate	13:47	11.2	Surface	1.0	0.1	66	23.9	23.9	8.0	8.0	30.2	30.2	88.6	88.7	6.3	6.4	1.5	2.4	2	3	52	75	822112	817805	<0.2	<0.2	0.7	0.7
						1.0	0.1	71	23.9		8.0		30.2		88.8		6.4		1.5		2		52				<0.2		0.6	
					Middle	5.6	0.1	76	23.9	23.9	8.0	8.0	30.2	30.2	89.6	89.8	6.4		2.6		2		85				<0.2		0.7	
						5.6	0.1	82	23.9		8.0		30.2		90.0		6.4		2.6		3		85				<0.2		0.7	
					Bottom	10.2	0.2	78	23.9	23.9	8.0	8.0	30.2	30.2	91.8	93.8	6.6	6.8	3.1		4		87				<0.2		0.7	
						10.2	0.2	83	23.9		8.0		30.2		95.8		6.9		3.1		3		87				<0.2		0.6	
IM1	Cloudy	Moderate	12:42	6.6	Surface	1.0	0.0	87	23.6	23.6	8.2	8.2	28.2	28.3	97.7	97.6	7.1	6.8	2.9	5.6	3	4	85	88	818358	806450	<0.2	<0.2	0.7	0.7
						1.0	0.0	82	23.6		8.2		28.3		97.5		7.0		2.9		4		87				<0.2		0.7	
					Middle	3.3	0.0	95	23.3	23.3	8.2	8.2	28.6	28.6	91.2	91.2	6.6		3.4		4		87				<0.2		0.8	
						3.3	0.1	99	23.3		8.2		28.6		91.1		6.6		3.4		5		87				<0.2		0.7	
					Bottom	5.6	0.0	114	23.4	23.4	8.2	8.2	28.5	28.5	91.6	91.8	6.6	6.7	10.6		5		88				<0.2		0.7	
						5.6	0.0	117	23.4		8.2		28.5		92.0		6.7		10.3		5		91				<0.2		0.7	
IM2	Cloudy	Moderate	12:39	6.8	Surface	1.0	0.1	67	23.5	23.5	8.2	8.2	28.3	28.3	95.5	95.5	6.9	6.7	3.0	4.8	<2	3	85	89	818868	806201	<0.2	<0.2	0.7	0.7
						1.0	0.1	62	23.5		8.2		28.3		95.4		6.9		3.0		<2		84				<0.2		0.6	
					Middle	3.4	0.1	67	23.3	23.3	8.2	8.2	28.5	28.5	89.2	89.1	6.5		2.8		3		88				<0.2		0.7	
						3.4	0.1	64	23.3		8.2		28.5		88.9		6.4		2.9		2		89				<0.2		0.6	
					Bottom	5.8	0.1	44	23.2	23.2	8.2	8.2	28.7	28.7	87.2	87.2	6.3	6.3	8.6		3		94				<0.2		0.7	
						5.8	0.1	45	23.2		8.2		28.7		87.2		6.3		8.5		4		93				<0.2		0.8	
IM3	Cloudy	Moderate	12:36	6.8	Surface	1.0	0.1	48	23.4	23.4	8.2	8.2	28.5	28.5	91.4	91.3	6.6	6.6	3.8	4.6	4	4	85	89	819407	806003	<0.2	<0.2	0.7	0.7
						1.0	0.1	54	23.4		8.2		28.5		91.2		6.6		4.0		5		86				<0.2		0.7	
					Middle	3.4	0.1	47	23.4	23.4	8.2	8.2	28.9	28.9	90.9	91.0	6.6		5.0		3		88				<0.2		0.7	
						3.4	0.1	50	23.4		8.2		28.9		91.0		6.6		5.0		4		87				<0.2		0.6	
					Bottom	5.8	0.1	54	23.3	23.3	8.2	8.2	28.9	28.9	91.7	91.8	6.6	6.6	4.9		4		93				<0.2		0.7	
						5.8	0.1	60	23.3		8.2		28.8		91.9		6.6		4.8		3		92				<0.2		0.7	
IM4	Cloudy	Moderate	12:29	7.0	Surface	1.0	0.0	81	23.6	23.6	8.2	8.2	28.2	28.2	97.1	97.1	7.0	7.0	3.5	5.1	5	4	86	89	819566	805021	<0.2	<0.2	0.7	0.7
						1.0	0.0	86	23.6		8.2		28.1		97.0		7.0		3.4		4		85				<0.2		0.6	
					Middle	3.5	0.0	56	23.5	23.5	8.2	8.2	28.4	28.5	96.1	96.0	6.9		4.6		4		88				<0.2		0.6	
						3.5	0.1	59	23.5		8.2		28.5		95.9		6.9		4.9		3		89				<0.2		0.7	
					Bottom	6.0	0.0	80	23.4	23.4	8.2	8.2	29.1	29.1	90.1	90.2	6.5	6.5	7.0		4		93				<0.2		0.7	
						6.0	0.0	74	23.4		8.2		29.1		90.2		6.5		7.1		2		92				<0.2		0.7	
IM5	Cloudy	Moderate	12:21	7.2	Surface	1.0	0.1	53	23.6	23.6	8.2	8.2	28.0	28.0	94.2	94.3	6.8	6.8	2.0	2.5	3	3	85	87	820586	804906	<0.2	<0.2	0.7	0.7
						1.0	0.1	58	23.6		8.2		28.0		94.3		6.8		2.0		2		85				<0.2		0.8	
					Middle	3.6	0.1	35	23.5	23.5	8.2	8.2	28.2	28.3	94.0	94.0	6.8		2.5		4		87				<0.2		0.7	
						3.6	0.1	41	23.5		8.2		28.3		93.9		6.8		2.6		3		89				<0.2		0.7	
					Bottom	6.2	0.1	49	23.5	23.5	8.2	8.2	28.4	28.4	93.8	93.8	6.8	6.8	2.8		3		84				<0.2		0.7	
						6.2	0.1	51	23.5		8.2		28.4		93.8		6.8		2.8		4		89				<0.2		0.7	
IM6	Cloudy	Moderate	12:13	7.6	Surface	1.0	0.2	51	23.6	23.6	8.2	8.2	28.1	28.1	92.2	92.2	6.7	6.6	1.7	1.6	4	4	84	88	821081	805828	<0.2	<0.2	0.6	0.6
						1.0	0.1	52	23.6		8.2		28.1		92.1		6.7		1.7		3		83				<0.2		0.7	
					Middle	3.8	0.1	64	23.3	23.3	8.2	8.2	28.5	28.5	90.4	90.5	6.5		1.6		4		88				<0.2		0.6	
						3.8	0.0	63	23.3		8.2		28.5		90.5		6.6		1.6		3		89				<0.2		0.6	
					Bottom	6.6	0.1	72	23.4	23.4	8.2	8.2	28.4	28.4	91.9	92.1	6.7	6.7	1.6		4		90				<0.2		0.6	
						6.6	0.1	67	23.4		8.2		28.4		92.2		6.7		1.6		4		91				<0.2		0.7	
IM7	Cloudy	Moderate	11:52	7.7	Surface	1.0	0.2	49	23.5	23.5	8.2	8.2	28.3	28.4	90.2	90.2	6.5	6.5	1.9	4.0	2	3	83	86	821362	806827	<0.2	<0.2	0.7	0.7
						1.0	0.2	56	23.5		8.2		28.4		90.1		6.5		1.9		3		83				<0.2		0.7	
					Middle	3.9	0.1	47	23.4	23.4	8.2	8.2	28.4	28.4	89.6	89.6	6.5		2.0		2		85				<0.2		0.7	
						3.9	0.2	42	23.4		8.2		28.4		89.6		6.5		2.0		4		87				<0.2		0.7	
					Bottom	6.7	0.1	69	23.4	23.4	8.2	8.2	28.4	28.4	89.6	89.7	6.5	6.5	8.0		4		88				<0.2		0.6	
						6.7	0.2	76	23.4		8.2		28.4		89.7		6.5		8.4		3		89				<0.2		0.6	
IM8	Misty	Moderate	12:10	7.0	Surface	1.0	0.2	43	23.4	23.4	8.0	8.0	28.0	28.0	93.3	93.5	6.8	6.9	1.0	2.1	3	4	45	70	821675	807826	<0.2	<0.2	0.7	0.6
						1.0	0.2	40	23.4		8.0		28.0		93.7		6.9		1.1		4		45				<0.2		0.6	
					Middle	3.5	0.2	45	23.3	23.3	8.0	8.0	28.2	28.2	95.2	95.4	7.0		2.1		4		81				<0.2		0.6	
						3.5	0.2	51	23.3		8.0		28.2		95.5		7.0		2.1		4		81				<0.2		0.6	
					Bottom	6.0	0.2	34	23.3	23.3	8.0	8.0	28.4	28.5	96.7	96.9	7.1	7.1	3.0		4		84				<0.2		0.6	
						6.0	0.2	34	23.3		8.0		28.5		97.1		7.1		3.1		4		85				<0.2		0.6	

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 28 November 23 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	Misty	Moderate	12:16	7.2	Surface	1.0	0.1	17	23.3	23.3	8.0	8.0	29.3	29.4	90.6	90.7	6.6	6.8	1.2	2.4	3	4	56	76	822098	808802	<0.2	<0.2	0.7	0.6
						1.0	0.1	18	23.3		8.0		29.4		90.7		6.6		1.3		4		56				<0.2		0.6	
					Middle	3.6	0.1	15	23.3	23.3	8.0	8.0	29.5	29.6	94.8	95.0	6.9		2.8		4		82				<0.2		0.6	
						3.6	0.2	15	23.3		8.0		29.6		95.1		6.9		2.8		4		83				<0.2		0.7	
					Bottom	6.2	0.2	17	23.3	23.3	8.0	8.0	29.6	29.6	96.7	97.1	7.0	7.1	3.2		4		90				<0.2		0.6	
						6.2	0.1	14	23.3		8.0		29.6		97.5		7.1		3.1		4		90				<0.2		0.6	
IM10	Misty	Moderate	12:25	7.6	Surface	1.0	0.1	26	23.4	23.4	8.0	8.0	29.6	29.6	91.0	91.1	6.6	6.7	1.0	1.6	3	4	52	77	822250	809826	<0.2	<0.2	0.6	0.7
						1.0	0.1	22	23.4		8.0		29.6		91.2		6.6		1.1		4		52				<0.2		0.6	
					Middle	3.8	0.0	14	23.4	23.4	8.0	8.0	29.6	29.6	93.8	94.2	6.8		1.4		4		89				<0.2		0.8	
						3.8	0.1	8	23.4		8.0		29.6		94.5		6.9		1.5		3		89				<0.2		0.7	
					Bottom	6.6	0.1	7	23.4	23.4	8.0	8.0	29.5	29.6	96.6	97.0	7.0	7.1	2.1		4		90				<0.2		0.6	
						6.6	0.2	1	23.4		8.0		29.6		97.4		7.1		2.2		4		90				<0.2		0.6	
IM11	Misty	Moderate	12:39	8.0	Surface	1.0	0.1	69	23.4	23.4	8.0	8.0	29.6	29.6	90.3	90.4	6.6	6.6	1.1	2.4	3	3	62	75	821524	810540	<0.2	<0.2	0.8	0.8
						1.0	0.0	63	23.4		8.0		29.6		90.5		6.6		1.2		4		63				<0.2		0.7	
					Middle	4.0	0.1	65	23.3	23.3	8.0	8.0	29.6	29.6	91.1	91.2	6.6		2.7		3		78				<0.2		0.9	
						4.0	0.1	61	23.3		8.0		29.6		91.3		6.6		2.6		3		78				<0.2		0.8	
					Bottom	7.0	0.1	47	23.3	23.3	8.0	8.0	29.6	29.6	97.1	97.4	7.0	7.1	3.3		3		85				<0.2		0.8	
						7.0	0.1	44	23.3		8.0		29.6		97.7		7.1		3.3		2		85				<0.2		0.9	
IM12	Misty	Moderate	12:46	8.0	Surface	1.0	0.1	85	23.4	23.4	8.0	8.0	29.6	29.6	90.3	90.4	6.5	6.6	1.0	1.5	3	3	48	71	821182	811504	<0.2	<0.2	0.9	0.8
						1.0	0.1	88	23.4		8.0		29.6		90.5		6.6		1.1		3		48				<0.2		0.9	
					Middle	4.0	0.1	97	23.3	23.3	8.0	8.0	29.6	29.6	91.2	91.2	6.6		1.2		4		79				<0.2		0.6	
						4.0	0.0	92	23.3		8.0		29.6		91.2		6.6		1.2		3		79				<0.2		0.6	
					Bottom	7.0	0.1	114	23.3	23.3	8.0	8.0	29.6	29.6	97.2	97.4	7.1	7.1	2.1		4		87				<0.2		0.8	
						7.0	0.1	119	23.3		8.0		29.6		97.5		7.1		2.2		2		87				<0.2		0.9	
SR1A	Misty	Moderate	13:16	4.2	Surface	1.0	0.0	27	23.2	23.2	8.0	8.0	29.6	29.6	90.3	92.3	6.6	6.8	1.1	1.9	3	3	-	-	819970	812659	-	-	-	-
						1.0	0.0	24	23.2		8.0		29.6		94.2		6.9		1.2		2		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	16	23.2	23.2	8.0	8.0	29.5	29.6	95.7	96.1	7.0	7.0	2.7		4		-				-		-	
						3.2	0.0	21	23.2		8.0		29.6		96.4		7.0		2.6		3		-				-		-	
SR2	Misty	Moderate	13:27	5.0	Surface	1.0	0.1	46	23.4	23.4	8.0	8.0	29.6	29.6	94.9	95.1	6.9	6.9	2.1	2.7	3	3	72	87	821482	814145	<0.2	<0.2	0.8	0.9
						1.0	0.2	38	23.4		8.0		29.6		95.2		6.9		2.2		2		72				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	24	23.4	23.4	8.0	8.0	29.6	29.6	98.0	98.5	7.1	7.2	3.2		4		102				<0.2		0.8	
						4.0	0.2	20	23.4		8.0		29.6		99.0		7.2		3.1		4		102				<0.2		0.9	
SR3	Misty	Moderate	11:54	9.2	Surface	1.0	0.2	11	23.5	23.5	8.0	8.0	27.9	27.9	90.1	90.2	6.6	6.7	1.1	2.1	4	4	-	-	822149	807551	-	-	-	-
						1.0	0.2	13	23.5		8.0		27.9		90.2		6.6		1.2		3		-				-		-	
					Middle	4.6	0.2	3	23.5	23.5	8.0	8.0	27.9	27.9	91.3	91.6	6.7		2.1		3		-				-		-	
						4.6	0.1	357	23.5		8.0		27.9		91.9		6.7		2.2		4		-				-		-	
					Bottom	8.2	0.2	359	23.4	23.4	8.0	8.0	27.9	27.9	94.2	94.4	6.9	6.9	3.1		5		-				-		-	
						8.2	0.2	352	23.4		8.0		27.9		94.5		6.9		3.1		4		-				-		-	
SR4A	Cloudy	Moderate	13:35	8.5	Surface	1.0	0.0	30	23.7	23.7	8.2	8.2	28.3	28.3	98.3	98.3	7.1	7.0	2.4	2.3	3	3	-	-	817186	807805	-	-	-	-
						1.0	0.1	35	23.7		8.2		28.3		98.3		7.1		2.5		4		-				-		-	
					Middle	4.3	0.0	47	23.5	23.5	8.2	8.2	28.5	28.5	93.9	93.9	6.8		2.1		3		-				-		-	
						4.3	0.0	43	23.5		8.2		28.5		93.8		6.8		2.2		4		-				-		-	
					Bottom	7.5	0.1	22	23.5	23.5	8.2	8.2	28.5	28.5	93.9	94.0	6.8	6.8	2.3		2		-				-		-	
						7.5	0.0	16	23.5		8.2		28.5		94.0		6.8		2.4		4		-				-		-	
SR5A	Cloudy	Moderate	13:50	4.2	Surface	1.0	0.1	98	23.7	23.7	8.2	8.2	28.8	28.8	94.6	94.6	6.8	6.8	4.0	7.5	3	4	-	-	816601	810682	-	-	-	-
						1.0	0.1	98	23.7		8.2		28.8		94.6		6.8		3.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	103	23.7	23.7	8.2	8.2	28.8	28.8	95.0	95.1	6.8	6.8	11.0		4		-				-		-	
						3.2	0.1	109	23.7		8.2		28.8		95.1		6.8		11.1		3		-				-		-	
SR6	Cloudy	Moderate	14:14	4.4	Surface	1.0	0.0	60	23.8	23.8	8.2	8.2	28.4	28.4	97.0	97.0	7.0	7.0	12.2	10.8	3	4	-	-	817903	814681	-	-	-	-
						1.0	0.1	53	23.8		8.2		28.4		97.0		7.0		12.2		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	49	23.7	23.7	8.2	8.2	28.6	28.6	96.4	96.5	6.9	6.9	9.6		4		-				-		-	
						3.4	0.1	44	23.7		8.2		28.6		96.5		6.9		9.2		3		-				-		-	
SR7	Misty	Moderate	14:18	15.0	Surface	1.0	0.2	78	23.8	23.8	8.0	8.0	30.1	30.1	89.6	89.8	6.4	6.5	0.5	1.1	3	3	-	-	823657	823739	-	-	-	-
						1.0	0.2	83	23.8		8.0		30.1		89.9		6.5		0.5		2		-				-		-	
					Middle	7.5	0.2	69	23.8	23.8	8.0	8.0	30.1	30.1	90.5	90.7	6.5		0.9		2		-				-		-	
						7.5	0.2	67	23.8		8.0		30.1		90.8		6.5		0.9		3		-				-		-	
					Bottom	14.0	0.2	70	23.8	23.8	8.0	8.0	30.2	30.2	92.7	94.3	6.7	6.8	2.0		3		-				-		-	
						14.0	0.2	75	23.8		8.0		30.1		95.9		6.9		2.0		4		-				-		-	
SR8	Misty	Moderate	12:59	4.8	Surface	1.0	-	-	23.4	23.4	8.0	8.0	29.6	29.6	91.2	91.2	6.6	6.6	3.6	4.1	3	4	-	-	820403	811601	-	-	-	-
						1.0	-	-	23.4		8.0		29.5		91.2		6.6		3.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	23.3	23.3	8.0	8.0	29.6	29.6	97.3	97.8	7.1	7.1	4.5		5		-				-		-	
						3.8	-	-	23.3		8.0		29.5		98.2		7.1		4.5		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 28 November 23 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
C1	Cloudy	Moderate	08:43	8.3	Surface	1.0	0.4	19	23.5	23.5	8.2	8.2	28.0	28.0	95.7	95.7	6.9	6.7	10.2	8.8	3	3	85	87	815632	804269	<0.2	<0.2	0.7	0.7
						1.0	0.4	20	23.5		8.2		28.0		95.7		6.9		10.2		2		85				<0.2		0.7	
					Middle	4.2	0.5	37	23.4	23.4	8.2	8.2	29.0	29.1	90.7	90.7	6.5		7.4		3		87				<0.2		0.8	
						4.2	0.5	44	23.4		8.2		29.1		90.6		6.5		7.6		3		88				<0.2		0.8	
					Bottom	7.3	0.4	11	23.3	23.3	8.2	8.2	29.5	29.5	90.4	90.4	6.5	6.5	8.8		3		89				<0.2		0.7	
						7.3	0.4	8	23.3		8.2		29.4		90.4		6.5		8.3		3		90				<0.2		0.7	
C2	Misty	Moderate	10:00	11.0	Surface	1.0	0.4	338	23.3	23.3	8.0	8.0	29.1	29.1	92.3	92.3	6.7	6.7	1.2	1.7	3	4	53	78	825681	806926	<0.2	<0.2	0.9	0.9
						1.0	0.4	336	23.3		8.0		29.1		92.3		6.7		1.2		2		52				<0.2		1.0	
					Middle	5.5	0.4	351	23.3	23.3	8.0	8.0	29.2	29.2	92.4	92.4	6.7		1.6		3		91				<0.2		0.6	
						5.5	0.4	348	23.3		8.0		29.1		92.4		6.7		1.5		4		91				<0.2		0.7	
					Bottom	10.0	0.5	14	23.3	23.3	8.0	8.0	29.2	29.2	93.0	93.1	6.7	6.7	2.2		5		90				<0.2		1.0	
						10.0	0.5	19	23.3		8.0		29.1		93.1		6.7		2.2		4		90				<0.2		0.9	
C3	Misty	Moderate	08:07	10.2	Surface	1.0	0.5	250	23.6	23.6	7.9	7.9	30.9	30.9	84.0	84.0	6.0	6.1	2.2	3.2	4	4	44	72	822120	817820	<0.2	<0.2	0.6	0.9
						1.0	0.5	246	23.6		7.9		30.9		84.0		6.0		2.1		3		44				<0.2		0.7	
					Middle	5.1	0.5	272	23.6	23.6	7.9	7.9	30.9	30.9	85.7	85.8	6.1		3.0		3		86				<0.2		1.0	
						5.1	0.6	272	23.6		7.9		30.9		85.9		6.1		3.1		4		86				<0.2		0.9	
					Bottom	9.2	0.5	240	23.6	23.6	7.9	7.9	30.9	30.9	89.5	89.7	6.4	6.4	4.2		4		86				<0.2		0.9	
						9.2	0.5	241	23.6		7.9		30.9		89.9		6.4		4.6		5		87				<0.2		1.0	
IM1	Cloudy	Moderate	08:55	7.0	Surface	1.0	0.3	12	23.5	23.5	8.2	8.2	28.3	28.3	92.7	92.8	6.7	6.6	3.0	4.0	4	4	85	89	818370	806436	<0.2	<0.2	0.8	0.8
						1.0	0.3	6	23.5		8.2		28.3		92.8		6.7		3.0		3		85				<0.2		0.8	
					Middle	3.5	0.3	15	23.3	23.3	8.2	8.2	28.7	28.7	88.3	88.3	6.4		4.3		3		89				<0.2		0.8	
						3.5	0.3	17	23.3		8.2		28.7		88.3		6.4		4.3		4		88				<0.2		0.8	
					Bottom	6.0	0.3	21	23.3	23.3	8.2	8.2	28.7	28.7	90.9	91.0	6.6	6.6	4.8		4		92				<0.2		0.7	
						6.0	0.3	18	23.3		8.2		28.7		91.1		6.6		4.8		4		93				<0.2		0.8	
IM2	Cloudy	Moderate	09:00	6.6	Surface	1.0	0.4	16	23.5	23.5	8.2	8.2	28.3	28.4	93.4	93.4	6.8	6.6	3.7	5.2	4	4	87	88	818850	806198	<0.2	<0.2	0.7	0.7
						1.0	0.4	18	23.5		8.2		28.4		93.4		6.8		3.7		5		87				<0.2		0.6	
					Middle	3.3	0.4	31	23.3	23.3	8.2	8.2	28.6	28.6	88.8	88.8	6.4		7.8		2		89				<0.2		0.7	
						3.3	0.3	31	23.3		8.2		28.6		88.8		6.4		8.1		4		86				<0.2		0.7	
					Bottom	5.6	0.4	12	23.3	23.3	8.2	8.2	28.7	28.7	89.0	89.0	6.4	6.4	4.0		3		89				<0.2		0.8	
						5.6	0.3	13	23.3		8.2		28.7		89.0		6.4		3.9		3		90				<0.2		0.8	
IM3	Cloudy	Moderate	09:03	7.0	Surface	1.0	0.3	17	23.6	23.6	8.2	8.2	28.1	28.1	95.5	95.5	6.9	6.7	2.9	4.7	3	3	87	90	819428	806017	<0.2	<0.2	0.7	0.8
						1.0	0.3	21	23.6		8.2		28.1		95.5		6.9		2.9		3		86				<0.2		0.8	
					Middle	3.5	0.3	17	23.3	23.3	8.2	8.2	28.7	28.7	88.1	88.1	6.4		3.8		3		89				<0.2		0.7	
						3.5	0.3	12	23.3		8.2		28.7		88.1		6.4		3.9		4		90				<0.2		0.8	
					Bottom	6.0	0.3	14	23.3	23.3	8.2	8.2	28.8	28.8	90.6	90.8	6.6	6.6	7.1		3		95				<0.2		0.7	
						6.0	0.4	16	23.3		8.2		28.8		90.9		6.6		7.4		4		94				<0.2		0.8	
IM4	Cloudy	Moderate	09:10	7.8	Surface	1.0	0.3	19	23.5	23.5	8.2	8.2	28.1	28.1	96.7	96.7	7.0	6.8	3.4	5.2	3	3	85	87	819596	805027	<0.2	<0.2	0.9	0.8
						1.0	0.3	17	23.5		8.2		28.1		96.7		7.0		3.4		2		85				<0.2		0.8	
					Middle	3.9	0.3	352	23.3	23.3	8.2	8.2	28.6	28.6	90.3	90.3	6.5		5.9		3		87				<0.2		0.8	
						3.9	0.2	357	23.3		8.2		28.6		90.3		6.5		6.0		3		87				<0.2		0.7	
					Bottom	6.8	0.4	28	23.2	23.2	8.2	8.2	28.7	28.7	90.9	91.0	6.6	6.6	6.2		3		91				<0.2		0.7	
						6.8	0.4	29	23.2		8.2		28.7		91.0		6.6		6.2		4		89				<0.2		0.6	
IM5	Cloudy	Moderate	09:18	7.2	Surface	1.0	0.3	348	23.4	23.4	8.2	8.2	28.4	28.4	91.8	91.8	6.6	6.6	3.0	2.7	3	3	84	87	820555	804931	<0.2	<0.2	0.8	0.7
						1.0	0.4	347	23.4		8.2		28.4		91.7		6.6		3.0		3		85				<0.2		0.7	
					Middle	3.6	0.4	12	23.4	23.4	8.2	8.2	28.5	28.5	91.0	91.0	6.6		2.7		3		87				<0.2		0.8	
						3.6	0.4	8	23.4		8.2		28.5		91.0		6.6		2.7		3		88				<0.2		0.7	
					Bottom	6.2	0.4	6	23.3	23.3	8.2	8.2	28.5	28.5	90.7	90.8	6.6	6.6	2.4		3		87				<0.2		0.6	
						6.2	0.3	9	23.3		8.2		28.5		90.8		6.6		2.4		3		88				<0.2		0.7	
IM6	Cloudy	Moderate	09:23	7.5	Surface	1.0	0.2	5	23.4	23.4	8.2	8.2	28.2	28.2	90.1	90.1	6.5	6.5	1.9	2.2	3	3	88	91	821063	805817	<0.2	<0.2	0.7	0.7
						1.0	0.2	0	23.4		8.2		28.2		90.0		6.5		2.0		3		87				<0.2		0.7	
					Middle	3.8	0.3	2	23.3	23.3	8.2	8.2	28.5	28.5	89.2	89.2	6.5		2.0		3		89				<0.2		0.8	
						3.8	0.3	6	23.3		8.2		28.5		89.2		6.5		2.0		4		91				<0.2		0.7	
					Bottom	6.5	0.2	354	23.3	23.3	8.2	8.2	28.5	28.5	90.4	90.6	6.5	6.6	2.5		3		95				<0.2		0.7	
						6.5	0.3	359	23.3		8.2		28.5		90.7		6.6		2.5		4		94				<0.2		0.7	
IM7	Cloudy	Moderate	09:31	7.2	Surface	1.0	0.2	13	23.5	23.5	8.2	8.2	28.3	28.3	91.6	91.6	6.6	6.6	1.9	2.1	3	3	87	90	821330	806815	<0.2	<0.2	0.7	0.8
						1.0	0.1	7	23.5		8.2		28.3		91.5		6.6		1.9		4		88				<0.2		0.7	
					Middle	3.6	0.2	2	23.4	23.4	8.2	8.2	28.4	28.4	90.5	90.5	6.5		2.0		3		89				<0.2		0.8	
						3.6	0.2	4	23.4		8.2		28.4		90.4		6.5		2.0		3		89				<0.2		0.8	
					Bottom	6.2	0.2	33	23.3	23.3	8.2	8.2	28.5	28.5	91.1	91.2	6.6	6.6	2.2		2		94				<0.2		0.8	
						6.2	0.3	37	23.3		8.2		28.5		91.3		6.6		2.3		3		94				<0.2		0.7	
IM8	Misty	Moderate	09:32	7.6	Surface	1.0	0.3	354	23.3	23.3	8.0	8.0	29.6	29.6	93.4	93.4	6.7	6.7	1.7	2.1	2	2	44	68	821678	807845	<0.2	<0.2	0.8	0.9
						1.0	0.3	357	23.3		8.0		29.6		93.4		6.7		1.6		2		44				<0.2		0.7	
					Middle	3.8	0.2	334	23.3	23.3	8.0	8.0	29.7	29.7	93.5	93.6	6.7		1.9		3		78				<0.2		1.1	
						3.8	0.3	331	23.3		8.0		29.6		93.6		6.7		1.8		2		78				<0.2		1.0	
					Bottom	6.6	0.2	345	23.2	23.3	8.0	8.0	29.6	29.6	93.8	93.9	6.8	6.8	2.7		3		82				<0.2		0.8	
						6.6	0.2	346	23.3		8.0		29.6		94.0		6.8		2.7		2		82				<0.2		0.9	

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 28 November 23 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	Misty	Moderate	09:18	8.0	Surface	1.0	0.4	325	23.4	23.4	8.0	8.0	29.3	29.4	93.7	93.7	6.7	6.7	1.1	1.9	3	3	43	69	822113	808805	<0.2	<0.2	0.9	0.7
						1.0	0.4	332	23.4		8.0		29.4		93.7		6.7		1.1		3		44				<0.2		0.7	
					Middle	4.0	0.4	312	23.3	23.3	8.0	8.0	29.6	29.6	93.6	93.6	6.7		1.7		3		79				<0.2		0.6	
						4.0	0.3	304	23.3		8.0		29.6		93.6		6.7		1.6		4		79				<0.2		0.7	
					Bottom	7.0	0.3	290	23.3	23.3	8.0	8.0	29.6	29.6	93.7	93.8	6.8	6.8	2.8		4		83				<0.2		0.7	
						7.0	0.3	284	23.3		8.0		29.6		93.8		6.8		2.9		3		83				<0.2		0.6	
IM10	Misty	Moderate	09:03	7.2	Surface	1.0	0.4	304	23.3	23.3	8.0	8.0	29.2	29.2	92.0	92.0	6.6	6.7	1.1	1.5	3	3	48	74	822226	809816	<0.2	<0.2	0.9	0.8
						1.0	0.4	306	23.3		8.0		29.2		92.0		6.6		1.1		3		48				<0.2		0.8	
					Middle	3.6	0.5	277	23.3	23.3	8.0	8.0	29.4	29.4	92.6	92.7	6.7		1.6		2		86				<0.2		0.8	
						3.6	0.4	272	23.3		8.0		29.4		92.7		6.7		1.7		3		86				<0.2		0.8	
					Bottom	6.2	0.4	271	23.3	23.3	8.0	8.0	29.4	29.4	93.2	93.3	6.7	6.7	1.7		2		87				<0.2		0.9	
						6.2	0.4	276	23.3		8.0		29.3		93.4		6.7		1.8		3		87				<0.2		0.8	
IM11	Misty	Moderate	08:51	8.0	Surface	1.0	0.5	284	23.4	23.4	8.0	8.0	29.2	29.3	93.5	93.5	6.7	6.7	1.2	1.6	3	3	52	76	821484	810542	<0.2	<0.2	0.8	0.8
						1.0	0.6	287	23.4		8.0		29.3		93.5		6.7		1.2		4		52				<0.2		0.9	
					Middle	4.0	0.5	283	23.3	23.3	8.0	8.0	29.6	29.6	93.6	93.7	6.7		1.6		4		87				<0.2		0.7	
						4.0	0.4	289	23.3		8.0		29.6		93.7		6.7		1.5		3		87				<0.2		0.9	
					Bottom	7.0	0.5	295	23.3	23.3	8.0	8.0	29.7	29.7	94.2	94.3	6.8	6.8	2.0		3		90				<0.2		0.9	
						7.0	0.5	288	23.3		8.0		29.7		94.3		6.8		2.1		3		90				<0.2		0.7	
IM12	Misty	Moderate	08:44	8.2	Surface	1.0	0.5	289	23.5	23.5	8.0	8.0	29.9	29.9	93.7	93.7	6.7	6.7	1.4	1.9	4	3	45	73	821148	811500	<0.2	<0.2	0.7	0.8
						1.0	0.5	292	23.5		8.0		29.9		93.7		6.7		1.5		3		46				<0.2		0.8	
					Middle	4.1	0.5	290	23.5	23.5	8.0	8.0	29.9	29.9	93.6	93.7	6.7		1.7		2		86				<0.2		0.9	
						4.1	0.4	297	23.5		8.0		29.9		93.7		6.7		1.6		3		86				<0.2		0.8	
					Bottom	7.2	0.5	299	23.4	23.4	8.0	8.0	29.9	29.9	94.3	94.4	6.8	6.8	2.6		2		87				<0.2		0.9	
						7.2	0.4	296	23.4		8.0		29.9		94.4		6.8		2.5		3		87				<0.2		0.8	
SR1A	Misty	Moderate	08:34	5.6	Surface	1.0	0.0	181	23.3	23.3	8.0	8.0	29.9	29.9	93.2	93.3	6.7	6.7	0.7	1.4	2	2	-	-	819982	812655	-	-	-	-
						1.0	0.1	177	23.3		8.0		29.9		93.3		6.7		0.7		2		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.0	178	23.3	23.3	8.0	8.0	29.9	29.9	93.6	93.7	6.7	6.7	2.1		3		-				-		-	
						4.6	0.0	176	23.3		8.0		29.9		93.7		6.7		2.2		2		-				-		-	
SR2	Misty	Moderate	08:25	5.0	Surface	1.0	0.1	228	23.5	23.5	7.9	8.0	29.9	29.9	93.9	93.3	6.7	6.7	1.1	1.6	2	2	43	65	821460	814144	<0.2	<0.2	0.6	0.7
						1.0	0.1	228	23.5		8.0		29.9		92.7		6.6		1.1		2		43				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	219	23.5	23.5	8.0	8.0	30.0	30.0	93.3	93.4	6.7	6.7	2.1		2		87				<0.2		0.7	
						4.0	0.2	221	23.5		8.0		30.0		93.4		6.7		2.2		2		87				<0.2		0.6	
SR3	Misty	Moderate	09:46	9.2	Surface	1.0	0.3	336	23.3	23.3	8.0	8.0	29.4	29.4	96.9	97.1	7.0	7.0	1.0	1.4	3	3	-	-	822170	807583	-	-	-	-
						1.0	0.3	335	23.3		8.0		29.4		97.2		7.0		1.1		2		-				-		-	
					Middle	4.6	0.4	331	23.2	23.2	8.0	8.0	29.4	29.5	97.7	97.8	7.0		1.1		2		-				-		-	
						4.6	0.4	331	23.2		8.0		29.5		97.9		7.1		1.1		3		-				-		-	
					Bottom	8.2	0.4	5	23.2	23.2	8.0	8.0	29.5	29.5	98.5	98.6	7.1	7.1	1.9		4		-				-		-	
						8.2	0.4	9	23.2		8.0		29.5		98.7		7.1		1.9		3		-				-		-	
SR4A	Cloudy	Moderate	08:25	8.6	Surface	1.0	0.0	255	23.4	23.4	8.2	8.2	28.5	28.5	92.7	92.7	6.7	6.7	10.5	5.4	2	2	-	-	817166	807825	-	-	-	-
						1.0	0.0	251	23.4		8.2		28.5		92.6		6.7		10.5		2		-				-		-	
					Middle	4.3	0.0	271	23.4	23.4	8.2	8.2	28.7	28.7	91.5	91.5	6.6	6.7	2.8		2		-				-		-	
						4.3	0.1	267	23.4		8.2		28.7		91.5		6.6		2.8		2		-				-		-	
					Bottom	7.6	0.0	273	23.4	23.4	8.2	8.2	28.7	28.7	91.3	91.3	6.6	6.6	3.0		2		-				-		-	
						7.6	0.0	270	23.4		8.2		28.7		91.3		6.6		3.0		2		-				-		-	
SR5A	Cloudy	Moderate	08:07	4.0	Surface	1.0	0.2	296	23.4	23.4	8.2	8.2	29.0	29.0	89.7	89.8	6.5	6.5	3.1	4.5	2	3	-	-	816583	810699	-	-	-	-
						1.0	0.2	299	23.4		8.2		29.0		89.8		6.5		3.3		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.2	297	23.4	23.4	8.2	8.2	29.0	29.0	90.0	90.1	6.5	6.5	5.7		4		-				-		-	
						3.0	0.2	301	23.4		8.2		29.0		90.1		6.5		5.8		2		-				-		-	
SR6	Cloudy	Moderate	07:42	5.1	Surface	1.0	0.1	245	23.5	23.5	8.2	8.2	28.7	28.7	89.1	89.1	6.4	6.4	3.6	6.6	3	3	-	-	817886	814641	-	-	-	-
						1.0	0.0	249	23.5		8.2		28.7		89.0		6.4		4.0		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	259	23.6	23.6	8.2	8.2	28.9	28.9	88.8	88.8	6.4	6.4	9.5		2		-				-		-	
						4.1	0.1	255	23.6		8.2		28.9		88.8		6.4		9.3		2		-				-		-	
SR7	Misty	Moderate	07:40	11.0	Surface	1.0	1.0	248	23.6	23.6	7.9	7.9	30.8	30.8	84.3	84.3	6.0	6.0	1.6	1.8	3	3	-	-	823621	823749	-	-	-	-
						1.0	1.0	242	23.6		7.9		30.8		84.3		6.0		1.6		4		-				-		-	
					Middle	5.5	0.9	253	23.6	23.6	7.9	7.9	30.9	30.9	84.5	84.6	6.0		1.7		3		-				-		-	
						5.5	1.0	250	23.6		7.9		30.9		84.6		6.0		1.7		4		-				-		-	
					Bottom	10.0	1.0	267	23.7	23.7	7.9	7.9	31.0	31.0	86.8	87.1	6.2	6.2	2.1		3		-				-		-	
						10.0	1.0	262	23.7		7.9		31.0		87.4		6.2		2.2		3		-				-		-	
SR8	Misty	Moderate	08:39	4.6	Surface	1.0	-	-	23.5	23.5	8.0	8.0	29.9	29.9	93.0	93.1	6.7	6.7	1.4	2.2	4	3	-	-	820408	811636	-	-	-	-
						1.0	-	-	23.5		8.0		29.9		93.1		6.7		1.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	23.4	23.4	8.0	8.0	29.9	29.9	93.8	93.9	6.7	6.7	3.0		3		-				-		-	
						3.6	-	-	23.4		8.0		29.9		94.0		6.7		3.1		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 30 November 23 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	14:09	8.4	Surface	1.0	0.0	54	22.7	22.7	8.3	8.3	29.2	29.3	90.2	90.2	6.6	6.6	5.1	8.8	3	3	86	87	815642	804237	<0.2	<0.2	0.9	0.8
						1.0	0.1	61	22.7		8.3		29.3		90.1		6.6		5.6		3		87							
					Middle	4.2	0.0	57	22.6	22.6	8.3	8.3	29.7	29.7	89.8	89.8	6.5		8.5		3		87						0.8	
						4.2	0.0	55	22.6		8.3		29.7		89.8		6.5		8.1		4		87						0.8	
					Bottom	7.4	0.0	49	22.6	22.6	8.3	8.3	29.9	29.9	90.0	90.1	6.5	6.6	12.6		3		89						0.8	
						7.4	0.1	41	22.6		8.3		29.9		90.2		6.6		13.0		4		88						0.8	
C2	Misty	Moderate	13:16	11.0	Surface	1.0	0.1	1	23.4	23.4	8.1	8.1	27.9	28.0	86.5	86.7	6.3	6.4	2.9	3.8	4	4	47	74	825662	806966	<0.2	<0.2	0.9	0.9
						1.0	0.2	356	23.4		8.0		28.0		86.8		6.4		3.0		4		47				<0.2		0.9	
					Middle	5.5	0.2	353	23.4	23.4	8.0	8.0	28.0	28.0	87.7	87.9	6.4		4.1		3		82				<0.2		0.7	
						5.5	0.2	348	23.4		8.0		28.0		88.0		6.4		4.2		4		83				<0.2		0.8	
					Bottom	10.0	0.2	354	23.4	23.4	8.0	8.0	28.0	28.0	89.0	89.3	6.5	6.6	4.4		3		91				<0.2		0.9	
						10.0	0.2	348	23.4		8.0		28.0		89.5		6.6		4.4		4		91				<0.2		0.9	
C3	Misty	Moderate	15:12	10.8	Surface	1.0	0.1	89	23.9	23.9	8.1	8.1	28.1	28.1	84.4	84.5	6.1	6.2	2.7	3.6	4	4	52	75	822118	817819	<0.2	<0.2	0.9	0.8
						1.0	0.1	86	23.9		8.1		28.1		84.6		6.1		2.8		5		52				<0.2		0.8	
					Middle	5.4	0.2	82	23.9	23.9	8.1	8.1	28.1	28.1	85.4	85.6	6.2		3.8		5		85				<0.2		0.8	
						5.4	0.1	87	23.9		8.1		28.1		85.8		6.2		3.9		4		85				<0.2		0.9	
					Bottom	9.8	0.1	83	23.9	23.9	8.1	8.1	28.1	28.1	87.6	89.6	6.4	6.5	4.3		3		87				<0.2		0.7	
						9.8	0.1	80	23.9		8.1		28.1		91.6		6.6		4.3		4		87				<0.2		0.7	
IM1	Cloudy	Moderate	13:46	6.8	Surface	1.0	0.1	16	22.8	22.8	8.2	8.2	29.9	29.9	90.6	90.5	6.6	6.6	4.2	6.1	3	4	86	87	818361	806450	<0.2	<0.2	0.8	0.8
						1.0	0.2	9	22.7		8.2		29.9		90.4		6.6		4.3		4		87				<0.2		0.8	
					Middle	3.4	0.1	30	22.7	22.7	8.2	8.2	30.2	30.2	88.9	88.9	6.5		6.2		4		87				<0.2		0.8	
						3.4	0.1	25	22.7		8.2		30.2		88.9		6.5		6.7		4		87				<0.2		0.9	
					Bottom	5.8	0.1	47	22.7	22.7	8.2	8.2	30.1	30.1	88.9	88.9	6.5	6.5	7.6		4		88				<0.2		0.8	
						5.8	0.1	39	22.7		8.2		30.1		88.9		6.5		7.3		4		88				<0.2		0.8	
IM2	Cloudy	Moderate	13:42	7.2	Surface	1.0	0.2	24	22.7	22.7	8.2	8.2	29.7	29.7	90.4	90.4	6.6	6.6	3.9	5.6	4	5	86	87	818841	806172	<0.2	<0.2	0.8	0.8
						1.0	0.2	16	22.7		8.2		29.7		90.3		6.6		4.0		5		87				<0.2		0.8	
					Middle	3.6	0.2	26	22.7	22.7	8.2	8.2	29.8	29.9	88.8	88.8	6.5		5.4		4		88				<0.2		0.8	
						3.6	0.2	28	22.7		8.2		29.9		88.8		6.5		5.6		5		87				<0.2		0.8	
					Bottom	6.2	0.1	45	22.7	22.7	8.2	8.2	29.9	29.9	89.1	89.2	6.5	6.5	7.1		4		88				<0.2		0.8	
						6.2	0.1	38	22.7		8.2		29.9		89.2		6.5		7.7		6		88				<0.2		0.8	
IM3	Cloudy	Moderate	13:38	7.5	Surface	1.0	0.1	56	22.8	22.8	8.2	8.2	29.7	29.7	91.4	91.3	6.6	6.6	4.2	5.5	3	4	85	87	819402	806006	<0.2	<0.2	0.8	0.8
						1.0	0.1	52	22.8		8.2		29.7		91.2		6.6		4.2		4		86				<0.2		0.8	
					Middle	3.8	0.1	46	22.7	22.7	8.2	8.2	29.9	29.9	90.0	89.9	6.5		5.0		5		86				<0.2		0.8	
						3.8	0.1	45	22.7		8.2		29.9		89.8		6.5		5.2		4		87				<0.2		0.8	
					Bottom	6.5	0.1	56	22.6	22.6	8.2	8.2	30.0	30.0	89.7	89.8	6.5	6.5	7.0		5		88				<0.2		0.8	
						6.5	0.1	59	22.6		8.2		30.0		89.8		6.5		7.1		4		87				<0.2		0.7	
IM4	Cloudy	Moderate	13:31	7.4	Surface	1.0	0.2	25	22.7	22.7	8.2	8.2	30.1	30.1	90.9	90.9	6.6	6.6	5.7	8.6	5	4	86	87	819575	805033	<0.2	<0.2	0.9	0.8
						1.0	0.2	23	22.7		8.2		30.1		90.9		6.6		5.7		4		86				<0.2		0.8	
					Middle	3.7	0.1	52	22.6	22.6	8.2	8.2	30.2	30.2	90.4	90.4	6.6		8.6		4		88				<0.2		0.8	
						3.7	0.1	56	22.6		8.2		30.2		90.4		6.6		9.2		3		88				<0.2		0.8	
					Bottom	6.4	0.2	13	22.6	22.6	8.2	8.2	30.2	30.2	90.9	91.0	6.6	6.6	11.0		3		88				<0.2		0.8	
						6.4	0.1	6	22.6		8.2		30.2		91.0		6.6		11.3		3		87				<0.2		0.8	
IM5	Cloudy	Moderate	13:21	7.6	Surface	1.0	0.2	31	22.7	22.7	8.2	8.2	29.8	29.8	91.1	91.1	6.6	6.6	4.1	4.4	4	4	85	87	820573	804908	<0.2	<0.2	0.8	0.8
						1.0	0.1	27	22.7		8.2		29.8		91.1		6.6		4.1		3		86				<0.2		0.8	
					Middle	3.8	0.2	22	22.7	22.7	8.2	8.2	29.9	29.9	91.0	91.0	6.6		4.3		4		87				<0.2		0.8	
						3.8	0.2	21	22.7		8.2		29.9		91.0		6.6		4.4		4		87				<0.2		0.8	
					Bottom	6.6	0.1	43	22.7	22.7	8.2	8.2	29.8	29.8	91.4	91.5	6.6	6.7	4.6		4		88				<0.2		0.8	
						6.6	0.1	44	22.7		8.2		29.8		91.6		6.7		4.6		5		88				<0.2		0.8	
IM6	Cloudy	Moderate	13:15	7.6	Surface	1.0	0.2	43	22.8	22.8	8.2	8.2	29.2	29.3	89.8	89.8	6.5	6.6	2.3	2.6	4	4	86	87	821061	805815	<0.2	<0.2	0.8	0.8
						1.0	0.2	42	22.8		8.2		29.3		89.8		6.5		2.3		5		87				<0.2		0.8	
					Middle	3.8	0.2	18	22.7	22.7	8.2	8.2	29.7	29.7	90.5	90.6	6.6		2.7		5		88				<0.2		0.8	
						3.8	0.2	12	22.7		8.2		29.7		90.6		6.6		2.7		4		87				<0.2		0.8	
					Bottom	6.6	0.1	39	22.7	22.7	8.2	8.2	29.7	29.7	91.2	91.3	6.6	6.6	2.7		4		88				<0.2		0.8	
						6.6	0.1	32	22.7		8.2		29.7		91.4		6.6		2.8		3		88				<0.2		0.8	
IM7	Cloudy	Moderate	13:10	7.8	Surface	1.0	0.1	33	22.8	22.8	8.2	8.2	28.2	28.2	89.1	89.1	6.5	6.5	1.9	1.7	4	5	86	87	821336	806847	<0.2	<0.2	0.8	0.8
						1.0	0.2	30	22.8		8.2		28.2		89.1		6.5		1.8		5		86				<0.2		0.8	
					Middle	3.9	0.2	20	22.7	22.7	8.2	8.2	29.9	30.0	88.8	88.9	6.5		1.6		5		88				<0.2		0.8	
						3.9	0.2	21	22.7		8.2		30.0		88.9		6.5		1.6		4		88				<0.2		0.8	
					Bottom	6.8	0.2	30	22.6	22.6	8.2	8.2	30.2	30.3	90.0	90.1	6.5	6.5	1.7		5		88				<0.2		0.8	
						6.8	0.3	25	22.6		8.2		30.3		90.1		6.5		1.7		4		87				<0.2		0.8	
IM8	Misty	Moderate	13:35	7.2	Surface	1.0	0.1	35	23.4	23.4	8.1	8.1	28.0	28.0	84.9	85.1	6.2	6.3	2.3	3.3	4	4	45	70	821687	807848	<0.2	<0.2	0.9	0.9
						1.0	0.2	38	23.4		8.1		28.0		85.3		6.2		2.3		4		45				<0.2		0.8	
					Middle	3.6	0.2	24	23.3	23.3	8.1	8.1	28.2	28.2	86.8	87.0	6.4		3.3		4		81				<0.2		0.8	
						3.6	0.3	24	23.3		8.1		28.2		87.1		6.4		3.4		4		81				<0.2		0.9	
					Bottom	6.2	0.2	42	23.3	23.3	8.1	8.1	28.4	28.5	88.3	88.5	6.5	6.5	4.3		3		84				<0.2		0.9	
						6.2	0.2	48	23.3		8.1		28.5		88.7		6.5		4.3		4		84				<0.2		0.8	

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 30 November 23 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	Misty	Moderate	13:41	7.4	Surface	1.0	0.2	14	23.3	23.3	8.1	8.1	29.3	29.4	82.2	82.3	6.0	6.2	2.4	3.6	6	5	56	76	822076	808791	<0.2	<0.2	1.0	1.0
						1.0	0.2	8	23.3		8.1		29.4		82.3		6.0		2.5		5		56				<0.2		1.0	
					Middle	3.7	0.2	9	23.3	23.3	8.1	8.1	29.5	29.6	86.4	86.6	6.3		4.0		5		82				<0.2		0.9	
						3.7	0.1	11	23.3		8.1		29.6		86.7		6.3		4.0		4		82				<0.2		0.9	
					Bottom	6.4	0.2	29	23.3	23.3	8.1	8.1	29.6	29.6	88.3	88.7	6.4	6.5	4.4		4		90				<0.2		1.0	
						6.4	0.2	31	23.3		8.1		29.6		89.1		6.5		4.3		3		90				<0.2		0.9	
IM10	Misty	Moderate	13:50	7.6	Surface	1.0	0.1	350	23.4	23.4	8.1	8.1	29.6	29.6	82.6	82.7	6.0	6.1	2.2	2.8	2	3	51	77	822262	809855	<0.2	<0.2	0.9	0.9
						1.0	0.1	346	23.4		8.1		29.6		82.8		6.0		2.3		3		52				<0.2		0.8	
					Middle	3.8	0.1	335	23.4	23.4	8.1	8.1	29.6	29.6	85.4	85.8	6.2		2.7		3		89				<0.2		0.9	
						3.8	0.2	336	23.4		8.1		29.6		86.1		6.3		2.7		3		89				<0.2		0.9	
					Bottom	6.6	0.1	331	23.4	23.4	8.1	8.1	29.5	29.6	88.2	88.6	6.4	6.5	3.3		4		90				<0.2		0.9	
						6.6	0.1	330	23.4		8.1		29.6		89.0		6.5		3.4		4		90				<0.2		0.9	
IM11	Misty	Moderate	14:05	8.2	Surface	1.0	0.1	333	23.4	23.4	8.1	8.1	29.6	29.6	86.1	86.2	6.2	6.3	2.3	3.6	3	3	62	75	821487	810540	<0.2	<0.2	1.0	0.9
						1.0	0.1	330	23.4		8.1		29.6		86.3		6.3		2.4		2		62				<0.2		0.9	
					Middle	4.1	0.1	354	23.3	23.3	8.1	8.1	29.6	29.6	86.9	87.0	6.3		3.9		3		78				<0.2		0.8	
						4.1	0.1	349	23.3		8.1		29.6		87.1		6.3		3.9		3		78				<0.2		0.8	
					Bottom	7.2	0.0	359	23.3	23.3	8.1	8.1	29.6	29.6	92.9	93.2	6.8	6.8	4.5		2		84				<0.2		1.0	
						7.2	0.0	5	23.3		8.1		29.6		93.5		6.8		4.6		4		85				<0.2		0.9	
IM12	Misty	Moderate	14:11	8.4	Surface	1.0	0.0	73	23.4	23.4	8.1	8.1	29.6	29.6	86.1	86.2	6.2	6.3	2.2	2.7	3	3	48	71	821185	811500	<0.2	<0.2	0.9	0.9
						1.0	0.0	67	23.4		8.1		29.6		86.3		6.3		2.3		4		48				<0.2		0.8	
					Middle	4.2	0.0	94	23.3	23.3	8.1	8.1	29.6	29.6	87.0	87.0	6.3		2.4		2		79				<0.2		0.9	
						4.2	0.1	96	23.3		8.1		29.6		87.0		6.3		2.4		3		79				<0.2		1.0	
					Bottom	7.4	0.0	86	23.3	23.3	8.1	8.1	29.6	29.6	93.0	93.2	6.8	6.8	3.3		2		87				<0.2		0.8	
						7.4	0.1	86	23.3		8.1		29.6		93.3		6.8		3.4		3		87				<0.2		0.9	
SR1A	Misty	Moderate	14:41	5.0	Surface	1.0	-	4	23.2	23.2	8.1	8.1	29.6	29.6	81.9	83.9	6.0	6.1	2.3	3.1	4	5	-	-	819972	812657	-	-	-	-
						1.0	0.0	359	23.2		8.1		29.6		85.8		6.2		2.4		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	334	23.2	23.2	8.1	8.1	29.5	29.6	87.3	87.7	6.4	6.4	3.9		6		-				-		-	
						4.0	0.0	329	23.2		8.1		29.6		88.0		6.4		3.8		4		-				-		-	
SR2	Misty	Moderate	14:52	5.0	Surface	1.0	0.1	55	23.4	23.4	8.1	8.1	29.6	29.6	86.5	86.7	6.3	6.3	3.3	3.9	4	4	72	87	821471	814188	<0.2	<0.2	0.9	0.9
						1.0	0.1	53	23.4		8.1		29.6		86.8		6.3		3.4		4		72				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	56	23.4	23.4	8.1	8.1	29.6	29.6	89.6	90.1	6.5	6.6	4.4		4		102				<0.2		0.9	
						4.0	0.2	54	23.4		8.1		29.6		90.6		6.6		4.3		3		102				<0.2		1.0	
SR3	Misty	Moderate	13:19	9.2	Surface	1.0	0.2	3	23.5	23.5	8.1	8.1	27.9	27.9	85.9	86.0	6.3	6.4	2.3	3.4	3	3	-	-	822142	807567	-	-	-	-
						1.0	0.2	357	23.5		8.1		27.9		86.0		6.3		2.4		3		-				-		-	
					Middle	4.6	0.2	0	23.5	23.5	8.1	8.1	27.9	27.9	87.1	87.4	6.4		3.3		3		-				-		-	
						4.6	0.2	7	23.5		8.1		27.9		87.7		6.4		3.4		3		-				-		-	
					Bottom	8.2	0.2	12	23.4	23.4	8.1	8.1	27.9	27.9	90.0	90.2	6.6	6.6	4.4		3		-				-		-	
						8.2	0.1	6	23.4		8.1		27.9		90.3		6.6		4.3		4		-				-		-	
SR4A	Cloudy	Moderate	14:24	8.8	Surface	1.0	0.0	100	22.8	22.8	8.2	8.2	30.2	30.2	90.2	90.2	6.5	6.5	3.5	4.2	3	4	-	-	817194	807800	-	-	-	-
						1.0	0.1	105	22.8		8.2		30.2		90.2		6.5		3.5		4		-				-		-	
					Middle	4.4	0.0	84	22.7	22.7	8.2	8.2	30.2	30.2	90.0	90.0	6.5		3.7		3		-				-		-	
						4.4	0.0	77	22.7		8.2		30.2		90.0		6.5		3.7		4		-				-		-	
					Bottom	7.8	0.0	114	22.7	22.7	8.2	8.2	30.3	30.3	90.1	90.1	6.5	6.5	5.3		4		-				-		-	
						7.8	0.0	116	22.7		8.2		30.3		90.1		6.5		5.3		4		-				-		-	
SR5A	Cloudy	Moderate	14:37	3.4	Surface	1.0	0.1	94	22.7	22.7	8.2	8.2	30.1	30.1	89.5	89.5	6.5	6.5	1.9	2.0	3	4	-	-	816587	810676	-	-	-	-
						1.0	0.0	94	22.7		8.2		30.1		89.5		6.5		1.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.4	0.1	89	22.7	22.7	8.2	8.2	30.1	30.1	89.7	89.7	6.5	6.5	2.1		4		-				-		-	
						2.4	0.1	84	22.7		8.2		30.1		89.7		6.5		2.1		4		-				-		-	
SR6	Cloudy	Moderate	15:14	4.4	Surface	1.0	0.0	83	22.9	23.0	8.2	8.2	30.0	30.0	90.9	90.9	6.6	6.6	1.4	1.4	4	3	-	-	817911	814677	-	-	-	-
						1.0	0.1	76	23.0		8.2		30.0		90.9		6.6		1.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	90	22.9	23.0	8.2	8.2	30.0	30.0	91.0	91.1	6.6	6.6	1.4		3		-				-		-	
						3.4	0.0	84	23.0		8.2		30.0		91.1		6.6		1.3		2		-				-		-	
SR7	Misty	Moderate	15:43	15.0	Surface	1.0	0.1	52	23.8	23.8	8.1	8.1	28.0	28.0	85.4	85.6	6.2	6.3	1.7	2.4	4	4	-	-	823614	823725	-	-	-	-
						1.0	0.0	57	23.8		8.1		28.0		85.7		6.2		1.7		4		-				-		-	
					Middle	7.5	0.0	40	23.8	23.8	8.1	8.1	28.0	28.0	86.3	86.5	6.3		2.2		3		-				-		-	
						7.5	0.0	35	23.8		8.1		28.0		86.6		6.3		2.2		4		-				-		-	
					Bottom	14.0	0.0	26	23.8	23.8	8.1	8.1	28.1	28.1	88.5	90.1	6.4	6.6	3.2		3		-				-		-	
						14.0	0.0	24	23.8		8.1		28.0		91.7		6.7		3.2		4		-				-		-	
SR8	Misty	Moderate	14:25	4.8	Surface	1.0	-	-	23.4	23.4	8.1	8.1	29.6	29.6	82.8	82.8	6.0	6.0	4.8	5.3	3	4	-	-	820392	811608	-	-	-	-
						1.0	-	-	23.4		8.1		29.5		82.8		6.0		4.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	23.3	23.3	8.1	8.1	29.6	29.6	88.9	89.4	6.5	6.5	5.8		5		-				-		-	
						3.8	-	-	23.3		8.1		29.5		89.8		6.5		5.7		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 30 November 23 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
C1	Cloudy	Moderate	09:57	8.0	Surface	1.0	0.4	40	22.7	22.7	8.2	8.2	29.4	29.4	90.8	90.8	6.6	6.5	5.5	9.5	3	3	83	86	815601	804259	<0.2	<0.2	0.8	0.8
						1.0	0.4	33	22.7		8.2		29.4		90.7		6.6		5.5		3		86				<0.2		0.8	
					Middle	4.0	0.3	51	22.6	22.6	8.2	8.2	29.9	29.9	88.5	88.5	6.4		11.2		4		87				<0.2		0.8	
						4.0	0.4	44	22.6		8.2		29.9		88.4		6.4		11.8		3		86				<0.2		0.8	
					Bottom	7.0	0.4	8	22.6	22.6	8.2	8.2	30.1	30.1	87.2	87.2	6.3	6.3	11.6		4		87				<0.2		0.8	
						7.0	0.3	2	22.6		8.2		30.1		87.1		6.3		11.5		3		88				<0.2		0.8	
C2	Misty	Moderate	11:32	11.0	Surface	1.0	0.3	5	23.3	23.3	8.1	8.1	29.1	29.1	83.9	83.9	6.1	6.1	2.4	2.9	4	4	52	78	825700	806927	<0.2	<0.2	1.0	1.0
						1.0	0.3	2	23.3		8.1		29.1		83.9		6.1		2.4		5		52				<0.2		1.0	
					Middle	5.5	0.3	350	23.3	23.3	8.1	8.1	29.2	29.2	84.0	84.0	6.1		2.8		5		91				<0.2		1.1	
						5.5	0.3	347	23.3		8.1		29.1		84.0		6.1		2.7		4		91				<0.2		1.0	
					Bottom	10.0	0.3	358	23.3	23.3	8.1	8.1	29.2	29.2	84.6	84.7	6.2	6.2	3.4		4		90				<0.2		0.9	
						10.0	0.2	358	23.3		8.1		29.1		84.7		6.2		3.4		4		90				<0.2		1.0	
C3	Misty	Moderate	09:40	10.4	Surface	1.0	0.5	267	23.6	23.6	8.0	8.0	28.8	28.8	84.0	84.0	6.1	6.2	3.4	4.4	5	4	44	72	822088	817788	<0.2	<0.2	0.8	0.9
						1.0	0.6	273	23.6		8.0		28.8		84.0		6.1		3.3		4		44				<0.2		0.9	
					Middle	5.2	0.4	260	23.6	23.6	8.0	8.0	28.8	28.8	85.7	85.8	6.2		4.2		4		86				<0.2		0.9	
						5.2	0.5	259	23.6		8.0		28.8		85.9		6.2		4.3		3		86				<0.2		0.8	
					Bottom	9.4	0.5	278	23.6	23.6	8.1	8.1	28.8	28.8	89.5	89.7	6.5	6.5	5.5		3		86				<0.2		1.1	
						9.4	0.5	283	23.6		8.1		28.8		89.9		6.5		5.8		4		86				<0.2		1.0	
IM1	Cloudy	Moderate	10:20	6.7	Surface	1.0	0.2	29	22.7	22.7	8.2	8.2	30.0	30.0	89.1	89.2	6.5	6.5	7.2	9.4	4	4	85	86	818340	806464	<0.2	<0.2	0.8	0.8
						1.0	0.2	26	22.7		8.2		30.0		89.2		6.5		7.1		5		86				<0.2		0.7	
					Middle	3.4	0.2	2	22.7	22.7	8.2	8.2	30.0	30.0	89.5	89.5	6.5		10.3		4		87				<0.2		0.8	
						3.4	0.2	5	22.7		8.2		30.0		89.5		6.5		10.9		4		86				<0.2		0.8	
					Bottom	5.7	0.2	29	22.7	22.7	8.2	8.2	30.0	30.0	90.3	90.4	6.6	6.6	10.4		3		87				<0.2		0.8	
						5.7	0.2	31	22.7		8.2		30.0		90.5		6.6		10.4		3		87				<0.2		0.8	
IM2	Cloudy	Moderate	10:43	7.1	Surface	1.0	0.3	13	22.7	22.7	8.2	8.2	29.9	29.9	87.2	87.3	6.3	6.4	8.6	8.4	4	4	85	86	818830	806206	<0.2	<0.2	0.8	0.8
						1.0	0.3	17	22.7		8.2		29.9		87.4		6.4		8.9		4		86				<0.2		0.9	
					Middle	3.6	0.3	31	22.7	22.7	8.2	8.2	29.9	29.9	88.1	88.1	6.4		7.5		5		86				<0.2		0.8	
						3.6	0.3	24	22.7		8.2		29.9		88.0		6.4		7.8		4		86				<0.2		0.8	
					Bottom	6.1	0.3	16	22.7	22.7	8.2	8.2	30.0	30.0	87.3	87.3	6.3	6.3	8.8		4		87				<0.2		0.8	
						6.1	0.3	15	22.7		8.2		30.0		87.3		6.3		8.9		3		87				<0.2		0.8	
IM3	Cloudy	Moderate	10:48	8.0	Surface	1.0	0.3	5	22.7	22.7	8.2	8.2	29.8	29.8	87.7	87.7	6.4	6.4	5.7	6.1	4	4	85	87	819393	806027	<0.2	<0.2	0.9	0.8
						1.0	0.3	6	22.7		8.2		29.8		87.7		6.4		5.6		5		86				<0.2		0.8	
					Middle	4.0	0.2	26	22.7	22.7	8.2	8.2	29.7	29.8	87.3	87.3	6.3		7.1		4		87				<0.2		0.8	
						4.0	0.3	28	22.7		8.2		29.8		87.3		6.3		7.2		3		88				<0.2		0.8	
					Bottom	7.0	0.2	40	22.7	22.7	8.2	8.2	29.8	29.8	87.5	87.6	6.4	6.4	5.1		3		88				<0.2		0.8	
						7.0	0.2	41	22.7		8.2		29.8		87.6		6.4		5.8		4		87				<0.2		0.8	
IM4	Cloudy	Moderate	10:53	7.6	Surface	1.0	0.2	0	22.7	22.7	8.2	8.2	29.7	29.7	89.6	89.6	6.5	6.5	5.2	6.3	4	4	85	87	819572	805019	<0.2	<0.2	0.8	0.8
						1.0	0.3	359	22.7		8.2		29.7		89.5		6.5		5.2		5		86				<0.2		0.9	
					Middle	3.8	0.3	28	22.7	22.7	8.2	8.2	29.8	29.8	89.4	89.4	6.5		6.5		4		87				<0.2		0.8	
						3.8	0.3	31	22.7		8.2		29.8		89.4		6.5		6.5		4		87				<0.2		0.8	
					Bottom	6.6	0.3	10	22.7	22.7	8.2	8.2	29.8	29.8	89.4	89.4	6.5	6.5	7.0		3		87				<0.2		0.8	
						6.6	0.3	6	22.7		8.2		29.8		89.4		6.5		7.2		4		88				<0.2		0.8	
IM5	Cloudy	Moderate	10:59	7.2	Surface	1.0	0.3	5	22.7	22.7	8.2	8.2	29.7	29.7	87.9	87.9	6.4	6.4	6.2	8.6	4	4	85	87	820568	804938	<0.2	<0.2	0.8	0.8
						1.0	0.3	5	22.7		8.2		29.7		87.8		6.4		6.6		3		86				<0.2		0.8	
					Middle	3.6	0.3	352	22.6	22.6	8.2	8.2	29.9	29.9	87.0	87.0	6.3		9.0		4		87				<0.2		0.8	
						3.6	0.3	348	22.6		8.2		29.9		86.9		6.3		9.3		3		86				<0.2		0.8	
					Bottom	6.2	0.4	22	22.6	22.6	8.2	8.2	29.9	29.9	86.9	86.9	6.3	6.3	10.3		4		87				<0.2		0.8	
						6.2	0.3	17	22.6		8.2		29.9		86.9		6.3		10.3		5		88				<0.2		0.8	
IM6	Cloudy	Moderate	11:05	7.0	Surface	1.0	0.3	4	22.8	22.8	8.2	8.2	29.3	29.3	88.9	88.9	6.5	6.5	2.3	2.6	3	4	85	87	821051	805824	<0.2	<0.2	0.8	0.9
						1.0	0.2	5	22.8		8.2		29.3		88.9		6.5		2.3		4		86				<0.2		0.8	
					Middle	3.5	0.3	11	22.8	22.8	8.2	8.2	29.5	29.6	88.7	88.7	6.5		2.5		4		87				<0.2		0.9	
						3.5	0.2	9	22.8		8.2		29.6		88.7		6.4		2.6		4		88				<0.2		0.9	
					Bottom	6.0	0.3	25	22.7	22.7	8.2	8.2	29.8	29.8	88.5	88.5	6.4	6.4	2.8		4		88				<0.2		0.8	
						6.0	0.3	17	22.7		8.2		29.8		88.5		6.4		2.9		4		87				<0.2		0.9	
IM7	Cloudy	Moderate	11:09	7.7	Surface	1.0	0.2	4	22.8	22.8	8.2	8.2	28.9	29.0	89.0	89.0	6.5	6.5	1.9	1.9	3	4	85	86	821346	806827	<0.2	<0.2	0.9	0.8
						1.0	0.2	358	22.8		8.2		29.0		88.9		6.5		1.9		4		85				<0.2		0.8	
					Middle	3.9	0.2	27	22.7	22.7	8.2	8.2	29.8	29.9	88.5	88.5	6.4		1.6		3		86				<0.2		0.8	
						3.9	0.2	23	22.7		8.2		29.9		88.5		6.4		1.6		4		86				<0.2		0.9	
					Bottom	6.7	0.2	355	22.6	22.6	8.2	8.2	30.2	30.2	88.9	89.0	6.5	6.5	2.1		4		87				<0.2		0.8	
						6.7	0.1	354	22.6		8.2		30.2		89.1		6.5		2.0		5		87				<0.2		0.8	
IM8	Misty	Moderate	11:04	7.8	Surface	1.0	0.2	333	23.3	23.3	8.1	8.1	29.6	29.6	85.0	85.0	6.2	6.2	2.9	3.3	4	4	44	68	821680	807855	<0.2	<0.2	0.9	0.9
						1.0	0.2	335	23.3		8.1		29.6		85.0		6.2		2.9		3		44				<0.2		1.0	
					Middle	3.9	0.2	330	23.3	23.3	8.1	8.1	29.7	29.7	85.1	85.2	6.2		3.1		3		78				<0.2		0.9	
						3.9	0.2	324	23.3		8.1		29.6		85.2		6.2		3.1		4		78				<0.2		1.0	
					Bottom	6.8	0.2	340	23.2	23.3	8.1	8.1	29.6	29.6	85.4	85.5	6.2	6.2	3.9		4		82				<0.2		0.8	
						6.8	0.2	343	23.3		8.1		29.6		85.6		6.2		3.9		4		82				<0.2		0.8	

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 30 November 23 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	Misty	Moderate	10:50	8.2	Surface	1.0	0.2	321	23.4	23.4	8.1	8.1	29.3	29.4	85.3	85.3	6.2	6.2	2.3	3.1	3	4	43	68	822112	808792	<0.2	<0.2	1.0	1.0
						1.0	0.2	317	23.4		8.1		29.4		85.3		6.2		2.3		3		43				<0.2		0.9	
					Middle	4.1	0.3	302	23.3	23.3	8.1	8.1	29.6	29.6	85.2	85.2	6.2		2.9		4		79				<0.2		0.8	
						4.1	0.3	300	23.3		8.1		29.6		85.2		6.2		2.9		4		79				<0.2		0.9	
					Bottom	7.2	0.3	296	23.3	23.3	8.1	8.1	29.6	29.6	85.3	85.4	6.2	6.2	4.1		5		83				<0.2		1.1	
						7.2	0.3	303	23.3		8.1		29.6		85.4		6.2		4.1		6		83				<0.2		1.0	
IM10	Misty	Moderate	10:35	7.4	Surface	1.0	0.3	285	23.3	23.3	8.1	8.1	29.2	29.2	83.6	83.6	6.1	6.1	2.4	2.8	4	5	48	74	822234	809820	<0.2	<0.2	1.0	0.9
						1.0	0.3	282	23.3		8.1		29.2		83.6		6.1		2.3		4		48				<0.2		1.0	
					Middle	3.7	0.4	293	23.3	23.3	8.1	8.1	29.4	29.4	84.2	84.3	6.1		2.9		4		86				<0.2		0.8	
						3.7	0.4	294	23.3		8.1		29.4		84.3		6.1		2.9		5		86				<0.2		0.9	
					Bottom	6.4	0.3	311	23.3	23.3	8.1	8.1	29.4	29.4	84.8	84.9	6.2	6.2	3.0		5		87				<0.2		0.9	
						6.4	0.3	315	23.3		8.1		29.3		85.0		6.2		3.0		6		87				<0.2		1.0	
IM11	Misty	Moderate	10:23	8.0	Surface	1.0	0.3	298	23.4	23.4	8.1	8.1	29.2	29.3	85.1	85.1	6.2	6.2	2.4	2.8	5	5	52	76	821522	810556	<0.2	<0.2	0.9	0.9
						1.0	0.3	297	23.4		8.1		29.3		85.1		6.2		2.4		6		52				<0.2		0.9	
					Middle	4.0	0.3	279	23.3	23.3	8.1	8.1	29.6	29.6	85.2	85.3	6.2		2.8		5		87				<0.2		0.9	
						4.0	0.3	286	23.3		8.1		29.6		85.3		6.2		2.7		5		87				<0.2		0.9	
					Bottom	7.0	0.3	288	23.3	23.3	8.1	8.1	29.7	29.7	85.8	85.9	6.2	6.2	3.2		4		90				<0.2		1.0	
						7.0	0.4	282	23.3		8.1		29.7		85.9		6.2		3.3		5		90				<0.2		0.9	
IM12	Misty	Moderate	10:16	8.0	Surface	1.0	0.4	276	23.5	23.5	8.1	8.1	29.9	29.9	85.3	85.3	6.2	6.2	2.7	3.1	4	5	45	73	821161	811504	<0.2	<0.2	0.9	0.9
						1.0	0.4	272	23.5		8.1		29.9		85.3		6.2		2.7		4		45				<0.2		1.0	
					Middle	4.0	0.4	304	23.5	23.5	8.1	8.1	29.9	29.9	85.2	85.3	6.2		2.9		4		86				<0.2		0.9	
						4.0	0.4	298	23.5		8.1		29.9		85.3		6.2		2.9		4		86				<0.2		1.0	
					Bottom	7.0	0.4	273	23.4	23.4	8.1	8.1	29.9	29.9	85.9	86.0	6.2	6.2	3.8		6		87				<0.2		0.8	
						7.0	0.3	276	23.4		8.1		29.9		86.0		6.2		3.8		5		87				<0.2		0.8	
SR1A	Misty	Moderate	10:06	5.4	Surface	1.0	0.0	193	23.3	23.3	8.1	8.1	29.9	29.9	89.0	89.1	6.5	6.5	2.0	2.7	6	5	-	-	819974	812656	-	-	-	-
						1.0	0.1	187	23.3		8.1		29.9		89.1		6.5		1.9		5		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.0	191	23.3	23.3	8.1	8.1	29.9	29.9	89.4	89.5	6.5	6.5	3.3		5		-				-		-	
						4.4	0.0	187	23.3		8.1		29.9		89.5		6.5		3.4		4		-				-		-	
SR2	Misty	Moderate	09:57	5.2	Surface	1.0	0.1	248	23.5	23.5	8.0	8.1	29.9	29.9	89.7	89.1	6.5	6.5	2.3	2.9	4	4	43	65	821446	814170	<0.2	<0.2	1.0	0.9
						1.0	0.1	255	23.5		8.1		29.9		88.5		6.4		2.4		5		43				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	252	23.5	23.5	8.1	8.1	30.0	30.0	89.1	89.2	6.4	6.5	3.3		3		87				<0.2		0.9	
						4.2	0.1	245	23.5		8.1		30.0		89.2		6.5		3.4		4		87				<0.2		0.8	
SR3	Misty	Moderate	11:18	9.0	Surface	1.0	0.2	349	23.3	23.3	8.1	8.1	29.4	29.4	88.5	88.7	6.4	6.5	2.3	2.6	3	4	-	-	822167	807575	-	-	-	-
						1.0	0.2	341	23.3		8.1		29.4		88.8		6.5		2.3		3		-				-		-	
					Middle	4.5	0.2	345	23.2	23.2	8.1	8.1	29.4	29.5	89.3	89.4	6.5		2.3		4		-				-		-	
						4.5	0.2	350	23.2		8.1		29.5		89.5		6.5		2.3		4		-				-		-	
					Bottom	8.0	0.3	4	23.2	23.2	8.1	8.1	29.5	29.5	90.1	90.2	6.6	6.6	3.1		4		-				-		-	
						8.0	0.3	6	23.2		8.1		29.5		90.3		6.6		3.1		4		-				-		-	
SR4A	Cloudy	Moderate	09:39	8.4	Surface	1.0	0.0	222	22.6	22.6	8.2	8.2	30.4	30.4	86.4	86.4	6.3	6.3	1.9	2.2	4	4	-	-	817178	807794	-	-	-	-
						1.0	0.0	221	22.6		8.2		30.4		86.4		6.3		1.9		3		-				-		-	
					Middle	4.2	-	229	22.6	22.6	8.2	8.2	30.5	30.5	86.2	86.2	6.3		2.2		4		-				-		-	
						4.2	0.0	229	22.6		8.2		30.5		86.2		6.2		2.2		5		-				-		-	
					Bottom	7.4	0.0	216	22.6	22.6	8.2	8.2	30.5	30.5	86.1	86.2	6.2	6.3	2.6		5		-				-		-	
						7.4	0.0	215	22.6		8.2		30.5		86.2		6.3		2.4		5		-				-		-	
SR5A	Cloudy	Moderate	09:23	3.6	Surface	1.0	0.1	305	22.6	22.6	8.2	8.2	30.0	30.0	87.5	87.5	6.4	6.4	1.4	1.4	5	4	-	-	816614	810707	-	-	-	-
						1.0	0.1	304	22.6		8.2		30.0		87.5		6.4		1.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.2	284	22.6	22.6	8.2	8.2	30.1	30.1	87.6	87.6	6.4	6.4	1.4		4		-				-		-	
						2.6	0.1	278	22.6		8.2		30.1		87.6		6.4		1.4		4		-				-		-	
SR6	Cloudy	Moderate	08:56	4.2	Surface	1.0	0.1	247	22.7	22.7	8.2	8.2	30.0	30.0	85.5	85.5	6.2	6.2	6.9	4.9	3	4	-	-	817882	814641	-	-	-	-
						1.0	0.1	242	22.7		8.2		30.0		85.5		6.2		6.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	242	22.7	22.7	8.2	8.2	30.0	30.0	85.7	85.7	6.2	6.2	2.9		4		-				-		-	
						3.2	0.0	248	22.7		8.2		30.0		85.7		6.2		3.0		4		-				-		-	
SR7	Misty	Moderate	09:12	11.2	Surface	1.0	0.8	234	23.6	23.6	8.1	8.1	28.7	28.7	84.3	84.3	6.1	6.1	2.8	3.0	4	4	-	-	823630	823752	-	-	-	-
						1.0	0.9	232	23.6		8.1		28.7		84.3		6.1		2.8		5		-				-		-	
					Middle	5.6	0.9	236	23.6	23.6	8.1	8.1	28.8	28.8	84.5	84.6	6.1		2.9		4		-				-		-	
						5.6	0.9	243	23.6		8.1		28.8		84.6		6.2		2.9		4		-				-		-	
					Bottom	10.2	0.8	231	23.7	23.7	8.1	8.1	28.9	28.9	86.8	87.1	6.3	6.3	3.3		3		-				-		-	
						10.2	0.8	235	23.7		8.1		28.9		87.4		6.3		3.4		3		-				-		-	
SR8	Misty	Moderate	10:11	4.8	Surface	1.0	-	-	23.5	23.5	8.1	8.1	29.9	29.9	84.6	84.7	6.1	6.1	2.6	3.4	4	4	-	-	820406	811633	-	-	-	-
						1.0	-	-	23.5		8.1		29.9		84.7		6.1		2.6		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	23.4	23.4	8.1	8.1	29.9	29.9	85.4	85.5	6.2	6.2	4.2		4		-				-		-	
						3.8	-	-	23.4		8.1		29.9		85.6		6.2		4.3		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 02 December 23 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	03:20	7.9	Surface	1.0	0.6	218	22.1	22.1	8.2	8.2	30.3	30.3	89.4	89.4	6.6	6.6	3.4	4.5	6	6	83	87	815618	804248	<0.2	<0.2	0.8	0.7
						1.0	0.5	225	22.1		8.2		30.3		89.4		6.6		3.4		7		83				<0.2		0.7	
					Middle	4.0	0.5	229	22.1	22.1	8.2	8.2	30.4	30.4	88.4	88.4	6.5		3.6		5		87				<0.2		0.7	
						4.0	0.5	231	22.1		8.2		30.4		88.4		6.5		3.7		6		87				<0.2		0.8	
					Bottom	6.9	0.5	191	22.2	22.2	8.2	8.2	30.8	30.8	87.4	87.4	6.4	6.4	6.4		6		90				<0.2		0.7	
						6.9	0.5	186	22.2		8.2		30.8		87.4		6.4		6.4		5		90				<0.2		0.7	
C2	Cloudy	Moderate	05:27	12.4	Surface	1.0	0.9	178	22.4	22.4	8.1	8.2	28.4	28.5	88.0	88.0	6.5	6.6	4.3	6.7	3	3	86	88	825701	806954	<0.2	<0.2	1.6	1.4
						1.0	0.9	173	22.4		8.2		28.5		87.9		6.5		4.5		3		87				<0.2		1.5	
					Middle	6.2	0.9	162	22.2	22.2	8.2	8.2	28.6	28.6	88.3	88.4	6.6		5.7		3		87				<0.2		1.6	
						6.2	0.9	165	22.2		8.2		28.6		88.4		6.6		6.2		3		85				<0.2		1.6	
					Bottom	11.4	1.0	167	22.3	22.3	8.2	8.2	28.6	28.6	90.7	90.9	6.7	6.8	9.8		3		90				<0.2		1.1	
						11.4	1.0	169	22.3		8.2		28.6		91.0		6.8		9.8		3		90				<0.2		1.1	
C3	Cloudy	Moderate	03:37	12.0	Surface	1.0	0.5	69	22.9	22.9	8.1	8.1	29.6	29.6	81.8	81.8	6.0	6.0	2.8	5.2	3	3	84	87	822108	817817	<0.2	<0.2	1.1	1.1
						1.0	0.5	69	22.9		8.1		29.6		81.8		6.0		2.9		3		85				<0.2		1.1	
					Middle	6.0	0.5	66	22.9	22.9	8.1	8.1	29.7	29.7	81.1	81.1	5.9		7.0		3		86				<0.2		1.2	
						6.0	0.5	67	22.9		8.1		29.7		81.1		5.9		7.0		3		87				<0.2		1.1	
					Bottom	11.0	0.5	71	22.9	22.9	8.1	8.1	29.7	29.7	80.2	80.0	5.9	5.9	5.4		4		90				<0.2		1.1	
						11.0	0.5	74	22.9		8.1		29.7		79.8		5.9		6.0		3		91				<0.2		1.1	
IM1	Fine	Rough	03:37	7.1	Surface	1.0	0.5	201	22.2	22.2	8.2	8.2	30.2	30.2	88.9	88.9	6.5	6.5	2.3	2.6	5	4	82	86	818336	806445	<0.2	<0.2	0.7	0.7
						1.0	0.5	204	22.2		8.2		30.2		88.9		6.5		2.3		4		82				<0.2		0.7	
					Middle	3.6	0.5	196	22.2	22.2	8.2	8.2	30.2	30.2	87.3	87.3	6.4		2.6		5		86				<0.2		0.7	
						3.6	0.5	194	22.2		8.2		30.2		87.3		6.4		2.6		5		86				<0.2		0.7	
					Bottom	6.1	0.5	190	22.1	22.1	8.2	8.2	30.3	30.3	87.2	87.3	6.4	6.4	2.8		4		91				<0.2		0.7	
						6.1	0.5	195	22.1		8.2		30.3		87.3		6.4		2.9		3		91				<0.2		0.8	
IM2	Fine	Rough	03:49	7.3	Surface	1.0	0.5	204	22.2	22.2	8.2	8.2	30.1	30.1	87.3	87.3	6.4	6.4	3.1	2.7	4	4	82	86	818850	806190	<0.2	<0.2	0.8	0.8
						1.0	0.5	196	22.2		8.2		30.1		87.3		6.4		3.1		4		83				<0.2		0.8	
					Middle	3.7	0.5	206	22.2	22.2	8.2	8.2	30.2	30.2	87.2	87.2	6.4		2.4		4		86				<0.2		0.8	
						3.7	0.4	199	22.2		8.2		30.2		87.2		6.4		2.4		5		86				<0.2		0.8	
					Bottom	6.3	0.5	188	22.2	22.2	8.2	8.2	30.2	30.2	86.5	86.5	6.3	6.3	2.5		4		90				<0.2		0.8	
						6.3	0.5	194	22.2		8.2		30.2		86.5		6.3		2.5		4		90				<0.2		0.8	
IM3	Fine	Rough	04:02	7.5	Surface	1.0	0.5	211	22.2	22.2	8.2	8.2	30.0	30.0	87.3	87.3	6.4	6.4	3.1	5.0	5	5	83	87	819423	806013	<0.2	<0.2	0.8	0.8
						1.0	0.5	205	22.2		8.2		30.0		87.3		6.4		3.1		5		83				<0.2		0.8	
					Middle	3.8	0.5	204	22.2	22.2	8.2	8.2	30.0	30.0	87.1	87.2	6.4		3.8		4		88				<0.2		0.8	
						3.8	0.5	208	22.2		8.2		30.0		87.2		6.4		3.8		7		88				<0.2		0.8	
					Bottom	6.5	0.5	183	22.2	22.2	8.2	8.2	30.1	30.1	86.8	86.8	6.4	6.4	8.2		5		90				<0.2		0.8	
						6.5	0.5	190	22.2		8.2		30.1		86.8		6.4		8.2		5		91				<0.2		0.9	
IM4	Fine	Rough	04:17	7.7	Surface	1.0	0.6	186	22.2	22.2	8.2	8.2	29.8	29.8	89.4	89.4	6.5	6.5	2.8	3.0	4	5	87	87	819555	805042	<0.2	<0.2	0.9	0.8
						1.0	0.6	187	22.2		8.2		29.8		89.4		6.5		2.8		5		83				<0.2		0.8	
					Middle	3.9	0.5	184	22.2	22.2	8.2	8.2	29.8	29.8	87.2	87.2	6.4		2.9		5		86				<0.2		0.8	
						3.9	0.4	178	22.2		8.2		29.8		87.2		6.4		2.9		6		87				<0.2		0.8	
					Bottom	6.7	0.5	171	22.2	22.2	8.2	8.2	30.1	30.1	87.0	87.0	6.4	6.4	3.3		6		90				<0.2		0.6	
						6.7	0.5	177	22.2		8.2		30.1		87.0		6.4		3.3		5		91				<0.2		0.7	
IM5	Fine	Rough	04:34	7.2	Surface	1.0	0.5	199	22.2	22.2	8.2	8.2	30.3	30.3	89.5	89.5	6.6	6.5	3.8	6.1	6	6	87	88	820562	804926	<0.2	<0.2	0.7	0.7
						1.0	0.5	192	22.2		8.2		30.2		89.5		6.6		3.7		6		83				<0.2		0.7	
					Middle	3.6	0.6	174	22.2	22.2	8.2	8.2	30.3	30.4	86.4	86.4	6.3		6.3		6		87				<0.2		0.6	
						3.6	0.6	177	22.2		8.2		30.4		86.4		6.3		6.2		6		87				<0.2		0.7	
					Bottom	6.2	0.5	175	22.2	22.2	8.2	8.2	30.4	30.4	86.2	86.2	6.3	6.3	8.2		5		91				<0.2		0.8	
						6.2	0.5	168	22.2		8.2		30.4		86.2		6.3		8.3		5		91				<0.2		0.8	
IM6	Fine	Rough	04:44	7.6	Surface	1.0	0.5	188	22.3	22.3	8.2	8.2	29.2	29.2	87.8	87.8	6.4	6.4	1.6	4.0	4	4	83	87	821043	805823	<0.2	<0.2	0.9	0.9
						1.0	0.5	186	22.3		8.2		29.2		87.7		6.4		1.5		4		83				<0.2		0.9	
					Middle	3.8	0.4	212	22.3	22.3	8.2	8.2	29.2	29.2	87.4	87.4	6.4		3.5		3		87				<0.2		0.9	
						3.8	0.4	209	22.3		8.2		29.2		87.4		6.4		3.5		4		87				<0.2		1.0	
					Bottom	6.6	0.5	203	22.3	22.3	8.2	8.2	29.5	29.5	86.5	86.6	6.3	6.4	6.8		5		90				<0.2		1.0	
						6.6	0.5	201	22.3		8.2		29.5		86.6		6.4		6.8		5		91				<0.2		0.9	
IM7	Fine	Rough	04:57	8.2	Surface	1.0	0.4	202	22.2	22.2	8.2	8.2	29.0	29.0	88.4	88.4	6.5	6.5	2.3	2.4	4	4	82	87	821335	806819	<0.2	<0.2	1.1	1.0
						1.0	0.5	197	22.2		8.2		29.0		88.4		6.5		2.3		3		83				<0.2		1.0	
					Middle	4.1	0.4	226	22.2	22.2	8.2	8.2	29.0	29.0	87.6	87.6	6.4		2.2		4		86				<0.2		1.0	
						4.1	0.4	221	22.2		8.2		29.0		87.5		6.4		2.3		4		86				<0.2		1.0	
					Bottom	7.2	0.5	216	22.3	22.3	8.2	8.2	29.4	29.4	86.8	86.8	6.4	6.4	2.6		5		91				<0.2		1.0	
						7.2	0.5	211	22.3		8.2		29.4		86.8		6.4		2.6		4		91				<0.2		1.0	
IM8	Cloudy	Moderate	05:02	7.2	Surface	1.0	0.6	194	22.4	22.4	8.2	8.2	28.3	28.3	89.4	89.4	6.7	6.7	2.2	3.1	2	3	86	88	821694	807833	<0.2	<0.2	1.0	1.0
						1.0	0.5	188	22.3		8.2		28.3		89.3		6.7		2.3		3		86				<0.2		1.1	
					Middle	3.6	0.5	202	22.2	22.2	8.2	8.2	28.8	28.9	89.0	89.0	6.6		3.2		3		88				<0.2		1.0	
						3.6	0.5	201	22.2		8.2		28.9		89.0		6.6		3.4		4		88				<0.2		1.0	
					Bottom	6.2	0.6	169	22.2	22.2	8.2	8.2	29.1	29.1	89.2	89.3	6.6	6.7	3.7		3		89				<0.2		1.0	
						6.2	0.6	170	22.2		8.2		29.1		89.3		6.7		3.7		4		92				<0.2		1.0	

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 02 December 23 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	04:57	6.8	Surface	1.0	0.6	156	22.3	22.3	8.2	8.2	28.3	28.3	89.7	89.7	6.7	6.7	1.9	2.5	3	3	85	87	822075	808811	<0.2	<0.2	1.1	1.2
						1.0	0.6	155	22.3		8.2		28.3		89.7		6.7		2.0		3		86				<0.2		1.1	
					Middle	3.4	0.6	143	22.3	22.3	8.2	8.2	28.3	28.4	89.6	89.6	6.7		2.4		3		87				<0.2		1.3	
						3.4	0.6	147	22.3		8.2		28.4		89.6		6.7		2.5		3		84				<0.2		1.2	
					Bottom	5.8	0.6	158	22.2	22.2	8.2	8.2	28.5	28.5	89.6	89.6	6.7	6.7	3.0		4		90				<0.2		1.3	
						5.8	0.6	153	22.2		8.2		28.5		89.6		6.7		3.2		3		89				<0.2		1.2	
IM10	Cloudy	Moderate	04:50	6.8	Surface	1.0	0.6	125	22.4	22.4	8.2	8.2	28.1	28.1	89.6	89.6	6.7	6.7	1.7	2.7	3	3	85	87	822237	809851	<0.2	<0.2	1.3	1.2
						1.0	0.6	124	22.4		8.2		28.1		89.6		6.7		1.8		3		85				<0.2		1.2	
					Middle	3.4	0.6	122	22.3	22.3	8.2	8.2	28.3	28.4	88.9	88.9	6.6		2.4		3		87				<0.2		1.2	
						3.4	0.6	127	22.2		8.2		28.4		88.9		6.6		2.6		3		87				<0.2		1.2	
					Bottom	5.8	0.6	122	22.2	22.2	8.2	8.2	28.5	28.5	88.6	88.6	6.6	6.6	3.7		3		88				<0.2		1.3	
						5.8	0.6	115	22.2		8.2		28.5		88.6		6.6		3.7		3		91				<0.2		1.2	
IM11	Cloudy	Moderate	04:46	7.1	Surface	1.0	0.6	87	22.3	22.3	8.2	8.2	28.1	28.1	90.0	90.0	6.7	6.7	1.8	2.7	4	4	85	86	821488	810536	<0.2	<0.2	1.3	1.2
						1.0	0.6	85	22.3		8.2		28.1		90.0		6.7		1.8		3		85				<0.2		1.2	
					Middle	3.6	0.6	83	22.3	22.3	8.2	8.2	28.4	28.4	90.0	90.0	6.7		2.7		4		86				<0.2		1.1	
						3.6	0.6	84	22.2		8.2		28.4		90.0		6.7		2.8		4		84				<0.2		1.2	
					Bottom	6.1	0.6	104	22.2	22.2	8.2	8.2	28.4	28.5	90.8	90.9	6.8	6.8	3.4		4		89				<0.2		1.1	
						6.1	0.6	96	22.2		8.2		28.5		91.0		6.8		3.5		4		88				<0.2		1.0	
IM12	Cloudy	Moderate	04:23	8.2	Surface	1.0	0.7	97	22.2	22.2	8.1	8.1	28.4	28.4	89.1	89.1	6.6	6.6	2.4	2.4	4	4	84	87	821178	811532	<0.2	<0.2	1.1	1.1
						1.0	0.7	95	22.2		8.1		28.4		89.1		6.6		2.4		3		85				<0.2		1.0	
					Middle	4.1	0.7	85	22.2	22.2	8.1	8.1	28.4	28.5	89.3	89.4	6.6		2.5		4		87				<0.2		1.1	
						4.1	0.7	88	22.2		8.1		28.5		89.4		6.7		2.5		4		86				<0.2		1.2	
					Bottom	7.2	0.7	116	22.2	22.2	8.1	8.1	28.5	28.5	90.9	91.1	6.8	6.8	2.4		4		87				<0.2		1.2	
						7.2	0.7	109	22.2		8.1		28.5		91.2		6.8		2.4		3		90				<0.2		1.2	
SR1A	Cloudy	Moderate	03:57	4.9	Surface	1.0	-	-	22.3	22.3	8.1	8.1	28.3	28.3	87.8	87.9	6.5	6.5	1.9	2.0	4	4	-	-	819974	812662	-	-	-	-
						1.0	-	-	22.3		8.1		28.3		87.9		6.5		1.9		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	22.2	22.2	8.1	8.1	28.4	28.4	89.5	89.7	6.7	6.7	2.1		3		-				-		-	
						3.9	-	-	22.2		8.1		28.4		89.8		6.7		2.1		4		-				-		-	
SR2	Cloudy	Moderate	03:42	4.7	Surface	1.0	0.6	49	22.5	22.5	8.1	8.1	28.9	28.9	85.2	85.2	6.3	6.3	2.1	2.3	4	4	85	87	821440	814165	<0.2	<0.2	1.0	1.2
						1.0	0.6	46	22.5		8.1		28.9		85.1		6.3		2.1		4		87				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.6	27	22.5	22.5	8.1	8.1	29.0	29.0	84.9	84.9	6.3	6.3	2.5		4		88				<0.2		1.2	
						3.7	0.6	33	22.5		8.1		29.0		84.9		6.3		2.5		4		87				<0.2		1.3	
SR3	Cloudy	Moderate	05:06	8.2	Surface	1.0	0.7	156	22.5	22.5	8.2	8.2	28.2	28.2	89.5	89.5	6.6	6.6	2.4	3.4	4	4	-	-	822139	807547	-	-	-	-
						1.0	0.7	163	22.4		8.2		28.2		89.4		6.6		2.5		4		-				-		-	
					Middle	4.1	0.7	177	22.2	22.2	8.2	8.2	28.6	28.6	89.2	89.2	6.6		3.7		3		-				-		-	
						4.1	0.7	173	22.2		8.2		28.6		89.2		6.6		3.7		4		-				-		-	
					Bottom	7.2	0.7	149	22.2	22.2	8.2	8.2	28.7	28.8	90.6	90.7	6.7	6.7	4.1		4		-				-		-	
						7.2	0.7	153	22.2		8.2		28.8		90.8		6.7		4.1		4		-				-		-	
SR4A	Fine	Rough	02:58	10.3	Surface	1.0	0.0	86	22.1	22.1	8.2	8.2	30.1	30.1	86.1	86.1	6.3	6.3	3.3	3.4	6	6	-	-	817204	807812	-	-	-	-
						1.0	0.0	83	22.1		8.2		30.1		86.1		6.3		3.2		6		-				-		-	
					Middle	5.2	0.0	93	22.1	22.1	8.2	8.2	30.1	30.1	85.9	85.9	6.3		3.3		6		-				-		-	
						5.2	0.1	87	22.1		8.2		30.1		85.9		6.3		3.3		7		-				-		-	
					Bottom	9.3	0.0	96	22.0	22.0	8.2	8.2	30.2	30.2	86.0	86.1	6.3	6.3	3.7		6		-				-		-	
						9.3	0.0	100	22.0		8.2		30.2		86.1		6.3		3.7		6		-				-		-	
SR5A	Fine	Rough	02:43	4.8	Surface	1.0	0.2	120	22.2	22.2	8.2	8.2	30.0	30.0	86.3	86.3	6.3	6.3	2.8	3.3	7	8	-	-	816582	810684	-	-	-	-
						1.0	0.3	121	22.2		8.2		30.0		86.3		6.3		2.9		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	106	22.2	22.2	8.2	8.2	30.0	30.0	86.6	86.6	6.3	6.3	3.7		5		-				-		-	
						3.8	0.3	101	22.2		8.2		30.0		86.6		6.3		3.7		6		-				-		-	
SR6	Fine	Rough	02:19	5.2	Surface	1.0	0.2	66	22.0	22.0	8.1	8.1	29.9	29.9	87.3	87.3	6.4	6.4	2.9	3.2	7	8	-	-	817900	814684	-	-	-	-
						1.0	0.1	64	22.0		8.1		29.9		87.3		6.4		3.0		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	57	21.9	21.9	8.1	8.1	29.9	29.9	87.4	87.5	6.4	6.4	3.4		8		-				-		-	
						4.2	0.2	56	21.9		8.1		29.9		87.5		6.4		3.4		9		-				-		-	
SR7	Cloudy	Moderate	02:57	16.5	Surface	1.0	1.1	57	22.9	22.9	8.1	8.1	29.7	29.7	80.9	80.9	5.9	5.9	2.9	5.0	5	4	-	-	823643	823748	-	-	-	-
						1.0	1.1	58	22.9		8.1		29.7		80.9		5.9		2.9		4		-				-		-	
					Middle	8.3	1.0	79	22.9	22.9	8.1	8.1	29.8	29.8	80.9	80.9	5.9		3.3		4		-				-		-	
						8.3	1.0	81	22.9		8.1		29.8		80.9		5.9		3.3		5		-				-		-	
					Bottom	15.5	1.0	86	22.9	22.9	8.1	8.1	29.9	29.9	79.2	79.2	5.8	5.8	8.4		4		-				-		-	
						15.5	1.0	91	22.9		8.1		29.8		79.2		5.8		9.3		3		-				-		-	
SR8	Cloudy	Moderate	04:18	5.8	Surface	1.0	-	-	22.3	22.3	8.1	8.1	28.5	28.5	88.5	88.5	6.6	6.6	2.6	2.8	4	4	-	-	820405	811622	-	-	-	-
						1.0	-	-	22.3		8.1		28.5		88.5		6.6		2.8		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	-	22.3	22.3	8.1	8.1	28.5	28.6	89.5	89.6	6.6	6.7	2.9		5		-				-		-	
						4.8	-	-	22.3		8.1		28.6		89.7		6.7		2.9		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 02 December 23 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
C1	Fine	Rough	15:59	7.3	Surface	1.0	0.0	75	22.3	22.3	8.2	8.2	31.0	31.0	88.4	88.4	6.4	6.4	8.1	8.1	12	12	82	86	815641	804255	<0.2	<0.2	0.6	0.6
						1.0	0.0	80	22.3		8.2		31.0		88.4		6.4				13		83				<0.2		0.7	
					Middle	3.7	0.0	69	22.3	22.3	8.2	8.2	31.0	31.0	88.4	88.4	6.4		6.9		12		86				<0.2		0.6	
						3.7	0.0	62	22.3		8.2		31.0		88.4		6.4		7.0		12		86				<0.2		0.6	
					Bottom	6.3	0.1	93	22.3	22.3	8.2	8.2	31.1	31.1	87.8	87.8	6.4	6.4	9.4		12		90				<0.2		0.5	
						6.3	0.1	94	22.3		8.2		31.1		87.8		6.4		9.4		11		90				<0.2		0.6	
C2	Cloudy	Moderate	14:24	12.3	Surface	1.0	0.1	338	23.0	23.0	8.1	8.1	27.5	27.5	87.1	87.0	6.4	6.3	6.9	8.2	4	3	85	87	825702	806965	<0.2	<0.2	1.1	1.1
						1.0	0.2	344	23.0		8.1		27.5		86.9		6.4		6.9		4		85				<0.2		1.1	
					Middle	6.2	0.1	10	23.2	23.2	8.1	8.1	27.9	27.9	84.9	84.9	6.2		7.7		3		87				<0.2		1.1	
						6.2	0.2	11	23.2		8.1		27.9		84.8		6.2		7.7		3		87				<0.2		1.1	
					Bottom	11.3	0.1	327	23.2	23.2	8.1	8.1	27.9	27.9	84.6	84.6	6.2	6.2	10.0		3		88				<0.2		1.1	
						11.3	0.1	334	23.2		8.1		27.9		84.6		6.2		10.1		3		91				<0.2		1.2	
C3	Cloudy	Moderate	16:20	8.2	Surface	1.0	0.0	99	23.3	23.3	8.1	8.1	29.3	29.3	82.5	82.6	5.9	6.0	1.6	4.0	3	3	85	88	822129	817792	<0.2	<0.2	1.0	1.1
						1.0	0.0	92	23.3		8.1		29.3		82.6		6.0		1.7		3		86				<0.2		1.0	
					Middle	4.1	0.0	87	23.3	23.3	8.1	8.1	29.4	29.4	83.3	83.5	6.0		2.1		3		87				<0.2		1.1	
						4.1	0.0	81	23.3		8.1		29.4		83.6		6.0		2.2		3		88				<0.2		1.1	
					Bottom	7.2	0.1	99	23.3	23.3	8.1	8.1	29.4	29.4	85.8	86.2	6.2	6.2	8.5		3		90				<0.2		1.2	
						7.2	0.0	95	23.3		8.1		29.4		86.6		6.2		8.0		3		89				<0.2		1.2	
IM1	Fine	Rough	15:37	6.2	Surface	1.0	0.1	36	22.2	22.2	8.2	8.2	30.3	30.6	88.4	88.4	6.5	6.5	5.1	6.7	9	9	82	86	818365	806474	<0.2	<0.2	0.6	0.6
						1.0	0.1	36	22.2		8.2		30.8		88.4		6.5		5.1		10		82				<0.2		0.5	
					Middle	3.1	0.1	39	22.2	22.2	8.2	8.2	30.6	30.7	88.5	88.5	6.5		6.4		8		86				<0.2		0.6	
						3.1	0.0	35	22.2		8.2		30.7		88.5		6.5		6.4		9		86				<0.2		0.6	
					Bottom	5.2	0.0	40	22.2	22.2	8.2	8.2	30.7	30.8	88.3	88.4	6.4	6.4	8.4		9		91				<0.2		0.5	
						5.2	0.0	46	22.2		8.2		30.8		88.4		6.4		8.5		6		91				<0.2		0.5	
IM2	Fine	Rough	15:25	6.6	Surface	1.0	0.1	26	22.2	22.2	8.2	8.2	30.7	30.7	88.8	88.8	6.5	6.5	2.1	3.2	6	6	82	87	818843	806214	<0.2	<0.2	0.6	0.6
						1.0	0.1	32	22.2		8.2		30.7		88.8		6.5		2.1		6		83				<0.2		0.6	
					Middle	3.3	0.2	36	22.2	22.2	8.2	8.2	30.5	30.5	87.8	87.8	6.4		3.4		6		87				<0.2		0.5	
						3.3	0.2	30	22.2		8.2		30.5		87.8		6.4		3.5		6		87				<0.2		0.6	
					Bottom	5.6	0.2	29	22.2	22.2	8.2	8.2	30.4	30.7	87.6	87.6	6.4	6.4	4.2		7		90				<0.2		0.6	
						5.6	0.2	31	22.2		8.2		31.0		87.6		6.4		4.1		6		90				<0.2		0.5	
IM3	Fine	Rough	15:11	6.8	Surface	1.0	0.1	29	22.1	22.1	8.2	8.2	30.5	30.5	88.4	88.4	6.5	6.5	4.5	4.9	7	6	83	86	819414	806031	<0.2	<0.2	0.6	0.6
						1.0	0.1	23	22.1		8.2		30.5		88.4		6.5		4.5		6		83				<0.2		0.6	
					Middle	3.4	0.1	45	22.1	22.1	8.2	8.2	30.5	30.5	88.3	88.3	6.5		5.1		6		86				<0.2		0.6	
						3.4	0.1	51	22.1		8.2		30.5		88.2		6.5		5.1		5		86				<0.2		0.6	
					Bottom	5.8	0.1	35	22.1	22.1	8.2	8.2	30.4	30.4	88.1	88.1	6.4	6.4	5.2		5		90				<0.2		0.6	
						5.8	0.1	38	22.1		8.2		30.4		88.1		6.4		5.2		4		90				<0.2		0.6	
IM4	Fine	Rough	14:56	7.4	Surface	1.0	0.1	55	22.1	22.1	8.2	8.2	30.4	30.4	88.7	88.7	6.5	6.5	4.0	3.9	5	6	83	87	819598	805036	<0.2	<0.2	0.6	0.6
						1.0	0.1	49	22.1		8.2		30.4		88.7		6.5		4.1		6		83				<0.2		0.6	
					Middle	3.7	0.1	32	22.1	22.1	8.2	8.2	30.5	30.5	89.2	89.2	6.5		3.7		6		87				<0.2		0.6	
						3.7	0.1	29	22.1		8.2		30.5		89.2		6.5		3.6		6		87				<0.2		0.6	
					Bottom	6.4	0.1	39	22.1	22.1	8.2	8.2	30.5	30.5	89.6	89.7	6.6	6.6	3.9		7		90				<0.2		0.6	
						6.4	0.2	37	22.1		8.2		30.5		89.8		6.6		3.9		5		90				<0.2		0.6	
IM5	Fine	Rough	14:46	7.2	Surface	1.0	0.1	43	22.2	22.2	8.2	8.2	30.0	30.9	90.4	90.5	6.6	6.5	3.1	4.4	6	5	83	87	820564	804900	<0.2	<0.2	0.8	0.8
						1.0	0.2	36	22.2		8.2		31.7		90.5		6.6		3.1		5		83				<0.2		0.8	
					Middle	3.6	0.1	18	22.2	22.2	8.2	8.2	30.6	30.5	87.3	87.4	6.4		4.5		5		87				<0.2		0.7	
						3.6	0.1	20	22.2		8.2		30.4		87.4		6.4		4.4		4		87				<0.2		0.8	
					Bottom	6.2	0.1	36	22.2	22.2	8.2	8.2	30.5	30.5	86.8	86.8	6.3	6.3	5.7		5		90				<0.2		0.8	
						6.2	0.1	30	22.2		8.2		30.5		86.8		6.3		5.7		4		90				<0.2		0.8	
IM6	Fine	Rough	14:32	7.1	Surface	1.0	0.2	36	22.3	22.3	8.2	8.2	29.5	29.5	89.3	89.3	6.6	6.5	1.4	1.7	2	3	82	86	821054	805819	<0.2	<0.2	0.8	0.8
						1.0	0.1	40	22.3		8.2		29.4		89.2		6.5		1.5		3		83				<0.2		0.8	
					Middle	3.6	0.1	24	22.3	22.3	8.2	8.2	29.5	29.5	88.5	88.5	6.5		1.3		6		86				<0.2		0.8	
						3.6	0.2	24	22.3		8.2		29.5		88.5		6.5		1.3		3		87				<0.2		0.8	
					Bottom	6.1	0.1	59	22.3	22.3	8.2	8.2	30.4	30.4	87.3	87.3	6.4	6.4	2.2		3		90				<0.2		0.8	
						6.1	0.2	64	22.3		8.2		30.4		87.3		6.4		2.2		3		90				<0.2		0.8	
IM7	Fine	Rough	14:19	7.8	Surface	1.0	0.2	32	22.2	22.2	8.2	8.2	28.9	28.9	88.6	88.6	6.5	6.5	1.9	3.3	3	3	83	87	821355	806832	<0.2	<0.2	0.9	0.9
						1.0	0.2	28	22.2		8.2		28.9		88.6		6.5		1.9		4		83				<0.2		0.9	
					Middle	3.9	0.2	35	22.3	22.3	8.2	8.2	29.1	29.1	87.7	87.7	6.5		3.6		4		87				<0.2		0.9	
						3.9	0.2	36	22.3		8.2		29.1		87.7		6.5		3.6		3		87				<0.2		0.8	
					Bottom	6.8	0.1	32	22.3	22.3	8.2	8.2	29.4	29.4	87.6	87.7	6.4	6.4	4.2		2		90				<0.2		0.8	
						6.8	0.1	36	22.3		8.2		29.4		87.7		6.4		4.3		3		90				<0.2		0.8	
IM8	Cloudy	Moderate	14:57	7.2	Surface	1.0	0.1	25	22.9	22.9	8.2	8.2	28.4	28.4	87.8	87.8	6.4	6.4	10.1	10.8	2	2	85	87	821713	807838	<0.2	<0.2	1.2	1.2
						1.0	0.2	21	22.9		8.2		28.4		87.7		6.4		10.2		3		86				<0.2		1.2	
					Middle	3.6	0.1	40	22.9	22.9	8.2	8.2	28.5	28.5	86.9	86.9	6.3		12.6		2		86				<0.2		1.1	
						3.6	0.1	41	22.8		8.2		28.5		86.8		6.3		12.5		2		84				<0.2		1.1	
					Bottom	6.2	0.2	48	22.8	22.8	8.2	8.2	28.4	28.4	87.7	87.7	6.4	6.4	9.8		2		90				<0.2		1.1	
						6.2	0.2	54	22.8		8.2		28.4		87.7		6.4		9.7		2		89				<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 02 December 23 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	15:02	8.0	Surface	1.0	0.1	32	22.9	22.9	8.2	8.2	28.5	28.5	87.7	87.7	6.4	6.4	2.6	4.0	2	2	85	88	822083	808829	<0.2	<0.2	1.2	1.1
						1.0	0.1	29	22.9		8.2		28.5		87.7		6.4		2.7		2		86				<0.2		1.2	
					Middle	4.0	0.2	15	22.9	22.9	8.2	8.2	28.5	28.5	88.2	88.3	6.4		3.0		2		88				<0.2		1.1	
						4.0	0.2	14	22.9		8.2		28.5		88.3		6.5		3.1		3		87				<0.2		1.2	
					Bottom	7.0	0.1	41	22.8	22.8	8.2	8.2	28.4	28.4	89.7	89.8	6.6	6.6	6.2		2		88				<0.2		1.0	
						7.0	0.1	36	22.8		8.2		28.4		89.9		6.6		6.2		2		91				<0.2		1.1	
IM10	Cloudy	Moderate	15:07	7.7	Surface	1.0	0.1	9	22.9	22.9	8.2	8.2	28.5	28.5	87.2	87.2	6.4	6.4	2.7	3.1	3	2	86	88	822262	809820	<0.2	<0.2	1.1	1.1
						1.0	0.1	14	22.9		8.2		28.5		87.2		6.4		2.7		2		87				<0.2		1.0	
					Middle	3.9	0.1	9	22.9	22.9	8.2	8.2	28.5	28.5	87.5	87.6	6.4		3.0		2		87				<0.2		1.1	
						3.9	0.1	8	22.9		8.2		28.5		87.6		6.4		3.0		3		85				<0.2		1.0	
					Bottom	6.7	0.0	20	22.8	22.8	8.2	8.2	28.5	28.5	89.2	89.3	6.5	6.5	3.6		2		90				<0.2		1.1	
						6.7	0.0	12	22.8		8.2		28.5		89.3		6.5		3.5		2		90				<0.2		1.2	
IM11	Cloudy	Moderate	15:14	7.7	Surface	1.0	0.0	25	23.0	23.0	8.2	8.2	28.5	28.5	87.6	87.6	6.4	6.4	2.4	2.5	3	3	84	88	821500	810533	<0.2	<0.2	1.1	1.1
						1.0	0.0	20	23.0		8.2		28.5		87.6		6.4		2.4		3		86				<0.2		1.1	
					Middle	3.9	0.1	28	23.0	23.0	8.2	8.2	28.6	28.6	87.5	87.5	6.4		2.5		3		87				<0.2		1.0	
						3.9	0.1	24	23.0		8.2		28.6		87.5		6.4		2.5		2		88				<0.2		1.1	
					Bottom	6.7	0.0	48	23.0	23.0	8.2	8.2	28.6	28.6	88.3	88.4	6.4	6.4	2.7		3		91				<0.2		1.1	
						6.7	0.0	41	22.9		8.2		28.6		88.5		6.4		2.7		2		91				<0.2		1.1	
IM12	Cloudy	Moderate	15:23	8.2	Surface	1.0	0.1	66	23.0	23.0	8.1	8.1	28.5	28.5	86.9	87.0	6.3	6.4	3.1	5.0	2	3	86	87	821171	811537	<0.2	<0.2	1.0	1.1
						1.0	0.0	69	23.0		8.1		28.5		87.0		6.3		3.2		2		87				<0.2		1.0	
					Middle	4.1	0.1	83	22.9	22.9	8.2	8.2	28.5	28.5	87.7	87.9	6.4		3.4		2		88				<0.2		1.2	
						4.1	0.1	79	22.9		8.2		28.5		88.0		6.4		3.5		3		88				<0.2		1.1	
					Bottom	7.2	0.1	99	22.9	22.9	8.2	8.2	28.5	28.5	89.3	89.4	6.5	6.5	8.5		3		85				<0.2		1.2	
						7.2	0.1	100	22.9		8.2		28.5		89.5		6.5		8.4		3		85				<0.2		1.1	
SR1A	Cloudy	Moderate	15:46	5.2	Surface	1.0	-	-	22.9	22.9	8.2	8.2	28.4	28.4	86.8	86.9	6.3	6.3	3.4	3.5	4	4	-	-	819974	812654	-	-	-	-
						1.0	-	-	22.9		8.2		28.4		86.9		6.3		3.4		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	22.8	22.8	8.2	8.2	28.4	28.4	87.8	88.0	6.4	6.4	3.6		4		-				-		-	
						4.2	-	-	22.8		8.2		28.4		88.1		6.4		3.7		3		-				-		-	
SR2	Cloudy	Moderate	15:59	5.2	Surface	1.0	0.1	43	23.1	23.1	8.1	8.1	28.6	28.6	86.7	86.8	6.3	6.3	2.0	2.0	3	3	87	88	821456	814177	<0.2	<0.2	1.1	1.1
						1.0	0.1	49	23.1		8.1		28.6		86.8		6.3		2.0		3		87				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	49	23.1	23.1	8.2	8.2	28.7	28.7	87.4	87.6	6.4	6.4	2.0		3		88				<0.2		1.1	
						4.2	0.1	54	23.1		8.2		28.7		87.7		6.4		2.0		4		91				<0.2		1.1	
SR3	Cloudy	Moderate	14:50	8.4	Surface	1.0	0.2	353	23.0	23.0	8.1	8.1	27.7	27.8	88.4	88.4	6.5	6.5	3.4	4.1	4	4	-	-	822144	807570	-	-	-	-
						1.0	0.1	347	23.0		8.1		27.8		88.3		6.5		3.4		5		-				-		-	
					Middle	4.2	0.1	13	23.0	23.0	8.1	8.1	28.1	28.1	88.2	88.3	6.4		2.9		4		-				-		-	
						4.2	0.1	11	23.0		8.1		28.1		88.3		6.4		2.9		4		-				-		-	
					Bottom	7.4	0.2	29	22.8	22.8	8.1	8.1	28.3	28.3	88.9	89.1	6.5	6.5	5.9		4		-				-		-	
						7.4	0.2	24	22.8		8.1		28.3		89.2		6.5		5.8		5		-				-		-	
SR4A	Fine	Rough	16:21	9.8	Surface	1.0	0.0	97	22.2	22.2	8.2	8.2	30.4	30.4	89.3	89.3	6.5	6.4	2.5	3.9	5	5	-	-	817181	807819	-	-	-	-
						1.0	0.1	92	22.2		8.2		30.3		89.3		6.5		2.5		5		-				-		-	
					Middle	4.9	0.0	85	22.3	22.3	8.2	8.2	30.8	30.8	86.4	86.4	6.3		3.7		4		-				-		-	
						4.9	0.0	86	22.3		8.2		30.8		86.4		6.3		3.8		5		-				-		-	
					Bottom	8.8	0.0	87	22.3	22.3	8.2	8.2	30.9	30.9	85.5	85.5	6.2	6.2	5.3		5		-				-		-	
						8.8	0.1	85	22.3		8.2		30.9		85.5		6.2		5.3		6		-				-		-	
SR5A	Fine	Moderate	16:36	4.9	Surface	1.0	0.1	100	22.1	22.1	8.2	8.2	30.1	30.1	87.5	87.5	6.4	6.4	2.0	2.1	8	7	-	-	816612	810680	-	-	-	-
						1.0	0.1	95	22.1		8.2		30.1		87.5		6.4		2.0		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.0	103	22.1	22.1	8.2	8.2	30.2	30.2	86.9	86.9	6.4	6.4	2.1		4		-				-		-	
						3.9	0.0	105	22.1		8.2		30.2		86.9		6.4		2.1		4		-				-		-	
SR6	Fine	Moderate	16:57	4.4	Surface	1.0	0.0	102	22.5	22.5	8.2	8.2	30.2	30.2	87.5	87.5	6.4	6.4	1.4	1.3	4	4	-	-	817886	814646	-	-	-	-
						1.0	0.0	101	22.5		8.2		30.2		87.5		6.4		1.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	73	22.5	22.5	8.2	8.2	30.3	30.4	85.5	85.6	6.2	6.2	1.1		3		-				-		-	
						3.4	0.0	77	22.5		8.2		30.4		85.6		6.2		1.1		4		-				-		-	
SR7	Cloudy	Moderate	16:51	16.4	Surface	1.0	0.0	256	23.4	23.4	8.1	8.1	29.5	29.5	81.3	81.3	5.8	5.9	1.8	3.4	3	3	-	-	823631	823727	-	-	-	-
						1.0	0.0	262	23.4		8.1		29.5		81.3		5.8		1.8		4		-				-		-	
					Middle	8.2	0.0	244	23.4	23.4	8.1	8.1	29.5	29.6	81.5	81.6	5.9		2.2		4		-				-		-	
						8.2	0.0	242	23.4		8.1		29.6		81.6		5.9		2.2		4		-				-		-	
					Bottom	15.4	0.0	238	23.3	23.3	8.1	8.1	29.6	29.6	82.1	82.4	5.9	6.0	6.1		3		-				-		-	
						15.4	0.0	244	23.3		8.1		29.5		82.7		6.0		6.1		2		-				-		-	
SR8	Cloudy	Moderate	15:28	5.0	Surface	1.0	-	-	23.0	23.0	8.2	8.2	28.4	28.4	87.7	87.7	6.4	6.4	1.8	3.0	3	3	-	-	820395	811625	-	-	-	-
						1.0	-	-	23.0		8.2		28.4		87.7		6.4		1.9		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	23.0	23.0	8.2	8.2	28.5	28.5	89.2	89.3	6.5	6.5	4.3		3		-				-		-	
						4.0	-	-	23.0		8.2		28.5		89.3		6.5		4.1		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 05 December 23 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	06:21	8.4	Surface	1.0	0.4	218	22.0	22.0	8.2	8.2	30.4	30.4	88.8	88.8	6.5	6.5	11.7	10.3	3	2	85	88	815629	804244	<0.2	<0.2	0.8	0.9
						1.0	0.4	214	22.0		8.2		30.4		88.8		6.5		11.9		2		86				<0.2		0.9	
					Middle	4.2	0.4	220	21.9	21.9	8.2	8.2	30.8	30.8	88.5	88.5	6.5		6.5		3		88				<0.2		0.9	
						4.2	0.4	225	21.9		8.2		30.8		88.5		6.5		6.7		2		87				<0.2		0.9	
					Bottom	7.4	0.4	206	22.0	22.0	8.2	8.2	31.1	31.1	87.8	87.8	6.4	6.4	12.6		2		88				<0.2		0.9	
						7.4	0.4	208	22.0		8.2		31.1		87.8		6.4		12.6		2		91				<0.2		0.8	
C2	Misty	Moderate	07:00	11.2	Surface	1.0	0.5	170	22.4	22.4	8.1	8.1	29.1	29.1	85.7	85.7	6.3	6.3	4.6	5.1	3	2	52	78	825673	806964	<0.2	<0.2	0.8	0.8
						1.0	0.5	167	22.4		8.1		29.1		85.7		6.3		4.6		2		52				<0.2		0.8	
					Middle	5.6	0.5	153	22.4	22.4	8.1	8.1	29.2	29.2	85.8	85.8	6.3		5.0		2		91				<0.2		0.8	
						5.6	0.4	145	22.4		8.1		29.1		85.8		6.3		5.0		2		91				<0.2		0.8	
					Bottom	10.2	0.5	186	22.4	22.4	8.1	8.1	29.2	29.2	86.4	86.5	6.4	6.4	5.7		<2		90				<0.2		0.8	
						10.2	0.5	190	22.4		8.1		29.1		86.5		6.4		5.7		<2		90				<0.2		0.8	
C3	Misty	Moderate	05:07	10.6	Surface	1.0	0.3	76	22.7	22.7	8.0	8.0	28.8	28.8	85.8	85.8	6.3	6.4	5.6	6.3	3	3	44	72	822092	817805	<0.2	<0.2	0.8	0.8
						1.0	0.2	68	22.7		8.0		28.8		85.8		6.3		5.6		2		44				<0.2		0.8	
					Middle	5.3	0.3	67	22.7	22.7	8.0	8.0	28.8	28.8	87.5	87.6	6.4		6.5		3		86				<0.2		0.8	
						5.3	0.3	65	22.7		8.0		28.8		87.7		6.5		6.5		2		86				<0.2		0.8	
					Bottom	9.6	0.2	73	22.7	22.7	8.1	8.1	28.8	28.8	91.3	91.5	6.7	6.7	6.8		3		86				<0.2		0.7	
						9.6	0.2	72	22.7		8.1		28.8		91.7		6.7		6.7		3		86				<0.2		0.7	
IM1	Cloudy	Moderate	06:46	6.2	Surface	1.0	0.4	179	22.1	22.1	8.2	8.2	30.4	30.4	88.4	88.4	6.5	6.5	2.4	4.3	2	2	86	87	818361	806438	<0.2	<0.2	0.9	0.9
						1.0	0.4	185	22.1		8.2		30.4		88.3		6.5		2.5		2		86				<0.2		0.9	
					Middle	3.1	0.3	204	22.1	22.1	8.2	8.2	30.9	30.9	87.3	87.3	6.4		3.6		2		87				<0.2		0.9	
						3.1	0.3	210	22.1		8.2		30.9		87.2		6.4		3.9		2		84				<0.2		0.8	
					Bottom	5.2	0.3	196	22.1	22.1	8.1	8.1	31.3	31.3	87.4	87.4	6.4	6.4	6.8		2		90				<0.2		0.9	
						5.2	0.3	190	22.1		8.1		31.3		87.4		6.4		6.3		2		89				<0.2		0.8	
IM2	Cloudy	Moderate	06:50	6.4	Surface	1.0	0.4	193	22.1	22.1	8.2	8.2	30.3	30.2	88.1	88.1	6.5	6.4	2.1	3.7	<2	2	86	88	818873	806195	<0.2	<0.2	0.8	0.8
						1.0	0.4	194	22.1		8.2		30.1		88.1		6.5		2.1		<2		86				<0.2		0.8	
					Middle	3.2	0.4	218	22.1	22.1	8.2	8.2	31.3	31.2	86.1	86.1	6.3		4.4		2		88				<0.2		0.8	
						3.2	0.4	220	22.1		8.2		31.0		86.1		6.3		4.9		2		88				<0.2		0.8	
					Bottom	5.4	0.4	202	22.1	22.1	8.2	8.2	31.1	31.1	85.9	86.0	6.3	6.3	4.4		2		89				<0.2		0.8	
						5.4	0.4	203	22.1		8.2		31.1		86.0		6.3		4.3		2		92				<0.2		0.9	
IM3	Cloudy	Moderate	06:54	6.8	Surface	1.0	0.4	206	22.1	22.1	8.2	8.2	30.3	30.3	87.6	87.6	6.4	6.4	8.8	8.3	3	4	87	88	819401	806041	<0.2	<0.2	0.8	0.9
						1.0	0.4	210	22.1		8.2		30.2		87.5		6.4		9.1		2		87				<0.2		0.9	
					Middle	3.4	0.4	215	22.2	22.2	8.2	8.2	31.2	31.2	86.3	86.3	6.3		6.8		4		88				<0.2		0.9	
						3.4	0.4	211	22.2		8.2		31.2		86.3		6.3		6.8		3		85				<0.2		0.9	
					Bottom	5.8	0.3	213	22.2	22.2	8.2	8.2	31.3	31.3	86.9	87.0	6.3	6.3	9.0		5		91				<0.2		0.9	
						5.8	0.4	219	22.2		8.2		31.3		87.0		6.3		9.2		4		90				<0.2		0.9	
IM4	Cloudy	Moderate	06:59	7.3	Surface	1.0	0.4	197	22.2	22.2	8.2	8.2	30.5	30.5	88.3	88.2	6.5	6.4	1.6	2.9	2	2	85	88	819593	805049	<0.2	<0.2	0.8	0.8
						1.0	0.3	198	22.2		8.2		30.5		88.1		6.4		1.7		3		86				<0.2		0.8	
					Middle	3.7	0.4	205	22.1	22.1	8.2	8.2	30.8	30.8	86.5	86.5	6.3		2.5		3		87				<0.2		0.8	
						3.7	0.4	209	22.1		8.2		30.8		86.4		6.3		2.5		2		88				<0.2		0.8	
					Bottom	6.3	0.3	176	22.2	22.2	8.2	8.2	31.4	31.4	86.3	86.4	6.3	6.3	4.6		2		91				<0.2		0.8	
						6.3	0.4	183	22.2		8.2		31.4		86.4		6.3		4.6		2		92				<0.2		0.9	
IM5	Cloudy	Moderate	07:08	7.7	Surface	1.0	0.4	183	22.1	22.1	8.2	8.2	29.4	29.2	87.9	87.9	6.5	6.5	1.4	2.6	2	2	86	87	820575	804907	<0.2	<0.2	0.9	0.9
						1.0	0.4	177	22.1		8.2		29.0		87.8		6.5		1.4		2		88				<0.2		0.9	
					Middle	3.9	0.4	182	22.2	22.2	8.2	8.2	30.1	30.1	86.8	86.8	6.4		2.9		3		89				<0.2		0.9	
						3.9	0.3	178	22.2		8.2		30.1		86.8		6.4		2.9		2		88				<0.2		0.9	
					Bottom	6.7	0.3	219	22.3	22.3	8.2	8.2	31.3	31.4	87.0	87.1	6.3	6.3	3.5		3		85				<0.2		0.8	
						6.7	0.3	223	22.3		8.2		31.4		87.1		6.3		3.5		2		86				<0.2		0.8	
IM6	Cloudy	Moderate	07:15	7.0	Surface	1.0	0.3	193	22.2	22.2	8.2	8.2	29.5	28.9	89.4	89.4	6.5	6.6	0.8	0.9	3	3	85	88	821036	805813	<0.2	<0.2	0.9	0.9
						1.0	0.4	187	22.2		8.2		28.2		89.4		6.5		0.9		4		86				<0.2		0.8	
					Middle	3.5	0.3	198	22.2	22.2	8.2	8.2	29.3	29.6	89.3	89.3	6.6		0.9		3		87				<0.2		0.8	
						3.5	0.3	196	22.2		8.2		29.9		89.3		6.6		0.9		2		88				<0.2		0.9	
					Bottom	6.0	0.3	227	22.1	22.1	8.2	8.2	29.1	29.1	89.6	89.7	6.6	6.6	1.0		2		91				<0.2		0.9	
						6.0	0.3	224	22.1		8.2		29.1		89.7		6.6		1.0		2		92				<0.2		0.9	
IM7	Cloudy	Moderate	07:21	7.4	Surface	1.0	0.3	196	22.5	22.5	8.2	8.2	29.4	29.5	89.7	89.7	6.6	6.6	0.6	0.7	2	3	86	87	821332	806812	<0.2	<0.2	0.8	0.9
						1.0	0.3	191	22.5		8.2		29.5		89.6		6.6		0.7		3		88				<0.2		0.9	
					Middle	3.7	0.3	209	22.4	22.4	8.2	8.2	29.0	29.2	89.4	89.4	6.6		0.6		2		89				<0.2		0.8	
						3.7	0.4	203	22.4		8.2		29.3		89.4		6.5		0.6		3		88				<0.2		0.9	
					Bottom	6.4	0.3	210	22.4	22.4	8.2	8.2	29.3	29.3	89.2	89.2	6.5	6.5	0.7		3		85				<0.2		0.8	
						6.4	0.3	204	22.4		8.2		29.3		89.2		6.5		0.7		2		86				<0.2		0.9	
IM8	Misty	Moderate	06:32	8.0	Surface	1.0	0.3	177	22.4	22.4	8.1	8.1	29.6	29.6	86.8	86.8	6.4	6.4	4.7	5.4	3	2	44	68	821710	807830	<0.2	<0.2	0.8	0.8
						1.0	0.3	176	22.4		8.1		29.6		86.8		6.4		4.8		2		44				<0.2		0.7	
					Middle	4.0	0.3	172	22.4	22.4	8.1	8.1	29.7	29.7	86.9	87.0	6.4		5.3		2		78				<0.2		0.7	
						4.0	0.3	174	22.4		8.1		29.6		87.0		6.4		5.3		2		78				<0.2		0.7	
					Bottom	7.0	0.3	183	22.3	22.4	8.0	8.0	29.6	29.6	87.2	87.3	6.4	6.4	6.1		2		82				<0.2		0.8	
						7.0	0.4	187	22.4		8.0		29.6		87.4		6.4		6.1		2		82				<0.2		0.8	

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 05 December 23 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	Misty	Moderate	06:18	8.0	Surface	1.0	0.4	157	22.5	22.5	8.1	8.1	29.3	29.4	87.1	87.1	6.4	6.4	4.6	5.3	2	3	43	68	822100	808822	<0.2	<0.2	0.8	0.8
						1.0	0.4	162	22.5		8.1		29.4		87.1		6.4		4.5		2		43				<0.2		0.8	
					Middle	4.0	0.3	136	22.4	22.4	8.1	8.1	29.6	29.6	87.0	87.0	6.4		5.1		2		79				<0.2		0.8	
						4.0	0.3	138	22.4		8.1		29.6		87.0		6.4		5.1		3		79				<0.2		0.8	
					Bottom	7.0	0.3	153	22.4	22.4	8.1	8.1	29.6	29.6	87.1	87.2	6.4	6.4	6.3		3		83				<0.2		0.8	
						7.0	0.3	148	22.4		8.1		29.6		87.2		6.4		6.3		3		83				<0.2		0.7	
IM10	Misty	Moderate	06:03	7.2	Surface	1.0	0.3	121	22.4	22.4	8.1	8.1	29.2	29.2	85.4	85.4	6.3	6.3	4.6	5.0	2	3	48	74	822257	809821	<0.2	<0.2	0.8	0.8
						1.0	0.3	119	22.4		8.1		29.2		85.4		6.3		4.6		2		48				<0.2		0.7	
					Middle	3.6	0.4	117	22.4	22.4	8.1	8.1	29.4	29.4	86.0	86.1	6.3		5.1		2		86				<0.2		0.8	
						3.6	0.4	123	22.4		8.1		29.4		86.1		6.3		5.0		3		86				<0.2		0.8	
					Bottom	6.2	0.4	127	22.4	22.4	8.0	8.0	29.4	29.4	86.6	86.7	6.4	6.4	5.2		3		87				<0.2		0.8	
						6.2	0.3	134	22.4		8.0		29.3		86.8		6.4		5.2		4		87				<0.2		0.8	
IM11	Misty	Moderate	05:51	8.0	Surface	1.0	0.4	82	22.5	22.5	8.1	8.1	29.2	29.3	86.9	86.9	6.4	6.4	3.3	4.6	2	3	52	76	821497	810540	<0.2	<0.2	0.7	0.8
						1.0	0.4	76	22.5		8.1		29.3		86.9		6.4		3.3		3		52				<0.2		0.8	
					Middle	4.0	0.3	90	22.4	22.4	8.1	8.1	29.6	29.6	87.0	87.1	6.4		5.0		3		87				<0.2		0.7	
						4.0	0.4	93	22.4		8.1		29.6		87.1		6.4		5.0		2		87				<0.2		0.7	
					Bottom	7.0	0.4	81	22.4	22.4	8.1	8.1	29.7	29.7	87.6	87.7	6.4	6.5	5.5		3		90				<0.2		0.8	
						7.0	0.4	81	22.4		8.1		29.7		87.7		6.5		5.4		4		90				<0.2		0.8	
IM12	Misty	Moderate	05:44	8.2	Surface	1.0	0.5	116	22.6	22.6	8.1	8.1	29.9	29.9	87.1	87.1	6.4	6.4	4.9	5.3	2	2	45	73	821164	811525	<0.2	<0.2	0.7	0.8
						1.0	0.4	112	22.6		8.1		29.9		87.1		6.4		4.8		2		45				<0.2		0.8	
					Middle	4.1	0.4	122	22.6	22.6	8.1	8.1	29.9	29.9	87.0	87.1	6.4		5.1		2		86				<0.2		0.8	
						4.1	0.5	121	22.6		8.1		29.9		87.1		6.4		5.1		2		86				<0.2		0.8	
					Bottom	7.2	0.5	89	22.5	22.5	8.1	8.1	29.9	29.9	87.7	87.8	6.4	6.4	6.0		2		87				<0.2		0.8	
						7.2	0.5	83	22.5		8.1		29.9		87.8		6.4		6.0		3		87				<0.2		0.9	
SR1A	Misty	Moderate	05:34	5.0	Surface	1.0	-	-	22.4	22.4	8.1	8.1	29.9	29.9	90.8	90.9	6.7	6.7	4.2	4.3	2	2	-	-	819983	812656	-	-	-	-
						1.0	-	-	22.4		8.1		29.9		90.9		6.7		4.2		2		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	22.4	22.4	8.0	8.0	29.9	29.9	91.2	91.3	6.7	6.7	4.3		3		-				-		-	
						4.0	-	-	22.4		8.0		29.9		91.3		6.7		4.3		2		-				-		-	
SR2	Misty	Moderate	05:25	5.4	Surface	1.0	0.3	50	22.6	22.6	8.0	8.1	29.9	29.9	91.5	90.9	6.7	6.7	4.6	4.8	2	2	43	65	821484	814184	<0.2	<0.2	0.7	0.8
						1.0	0.4	54	22.6		8.1		29.9		90.3		6.6		4.6		2		43				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.4	23	22.6	22.6	8.0	8.0	30.0	30.0	90.9	91.0	6.7	6.7	5.0		2		87				<0.2		0.8	
						4.4	0.3	18	22.6		8.0		30.0		91.0		6.7		5.0		2		87				<0.2		0.8	
SR3	Misty	Moderate	06:46	9.2	Surface	1.0	0.4	154	22.4	22.4	8.1	8.1	29.4	29.4	90.3	90.5	6.7	6.7	3.0	4.3	3	3	-	-	822147	807593	-	-	-	-
						1.0	0.5	153	22.4		8.1		29.4		90.6		6.7		3.1		2		-				-		-	
					Middle	4.6	0.4	161	22.3	22.3	8.1	8.1	29.4	29.5	91.1	91.2	6.7		4.6		3		-				-		-	
						4.6	0.4	164	22.3		8.1		29.5		91.3		6.7		4.6		2		-				-		-	
					Bottom	8.2	0.4	147	22.3	22.3	8.1	8.1	29.5	29.5	91.9	92.0	6.8	6.8	5.3		3		-				-		-	
						8.2	0.4	141	22.3		8.1		29.5		92.1		6.8		5.3		3		-				-		-	
SR4A	Cloudy	Moderate	06:03	8.5	Surface	1.0	0.0	70	22.3	22.3	8.2	8.2	30.9	30.9	86.6	86.7	6.3	6.3	4.4	5.4	2	3	-	-	817181	807828	-	-	-	-
						1.0	0.0	76	22.3		8.2		30.9		86.7		6.3		4.5		3		-				-		-	
					Middle	4.3	0.0	73	22.3	22.3	8.2	8.2	31.0	31.0	86.8	86.8	6.3		5.0		2		-				-		-	
						4.3	0.0	72	22.3		8.2		31.0		86.8		6.3		5.0		3		-				-		-	
					Bottom	7.5	0.0	64	22.3	22.3	8.2	8.2	31.0	31.0	86.9	86.9	6.3	6.3	6.8		3		-				-		-	
						7.5	0.0	58	22.3		8.2		30.9		86.9		6.3		6.8		3		-				-		-	
SR5A	Cloudy	Moderate	05:49	3.7	Surface	1.0	0.1	103	22.3	22.3	8.2	8.2	30.8	30.8	87.0	87.0	6.3	6.3	3.9	5.3	<2	3	-	-	816593	810710	-	-	-	-
						1.0	0.1	98	22.3		8.2		30.8		87.0		6.3		3.9		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	133	22.3	22.3	8.2	8.2	30.8	30.9	87.4	87.5	6.4	6.4	6.3		3		-				-		-	
						2.7	0.2	130	22.3		8.2		30.9		87.5		6.4		6.9		3		-				-		-	
SR6	Cloudy	Moderate	05:27	4.6	Surface	1.0	0.1	59	22.1	22.1	8.1	8.1	30.2	30.2	87.0	87.0	6.4	6.4	0.5	0.9	<2	2	-	-	817916	814684	-	-	-	-
						1.0	0.1	52	22.1		8.1		30.2		87.0		6.4		0.5		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	61	22.1	22.1	8.1	8.1	30.4	30.4	86.8	86.8	6.4	6.4	1.3		2		-				-		-	
						3.6	0.1	68	22.1		8.1		30.4		86.8		6.4		1.3		2		-				-		-	
SR7	Misty	Moderate	04:40	14.2	Surface	1.0	0.4	65	22.7	22.7	8.1	8.1	28.7	28.7	86.1	86.1	6.3	6.4	4.1	4.9	3	3	-	-	823643	823731	-	-	-	-
						1.0	0.4	63	22.7		8.1		28.7		86.1		6.3		4.1		2		-				-		-	
					Middle	7.1	0.3	82	22.7	22.7	8.1	8.1	28.8	28.8	86.3	86.4	6.4		5.1		2		-				-		-	
						7.1	0.3	81	22.7		8.1		28.8		86.4		6.4		5.1		3		-				-		-	
					Bottom	13.2	0.4	90	22.8	22.8	8.0	8.0	28.9	28.9	88.6	88.9	6.5	6.6	5.6		2		-				-		-	
						13.2	0.3	89	22.8		8.0		28.9		89.2		6.6		5.6		3		-				-		-	
SR8	Misty	Moderate	05:39	4.6	Surface	1.0	-	-	22.6	22.6	8.1	8.1	29.9	29.9	86.4	86.5	6.3	6.3	4.9	5.7	2	2	-	-	820401	811631	-	-	-	-
						1.0	-	-	22.6		8.1		29.9		86.5		6.3		4.9		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	22.5	22.5	8.0	8.0	29.9	29.9	87.2	87.3	6.4	6.4	6.5		2		-				-		-	
						3.6	-	-	22.5		8.0		29.9		87.4		6.4		6.5		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 05 December 23 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
C1	Cloudy	Moderate	17:48	8.3	Surface	1.0	0.1	51	22.1	22.1	8.2	8.2	30.1	30.2	90.3	90.3	6.6	6.6	1.6	2.9	2	2	87	88	815609	804257	<0.2	<0.2	0.8	0.8
						1.0	0.1	57	22.1		8.2		30.3		90.2		6.6		1.7		2		88				<0.2		0.8	
					Middle	4.2	-	61	22.0	22.0	8.2	8.2	28.5	29.2	89.7	89.7	6.6		3.3		<2		89				<0.2		0.7	
						4.2	0.0	65	22.0		8.2		29.8		89.7		6.6		3.5		<2		89				<0.2		0.7	
					Bottom	7.3	0.0	55	22.0	22.0	8.2	8.2	31.7	31.0	89.8	89.8	6.5	6.6	3.5		<2		86				<0.2		0.7	
						7.3	0.0	50	22.0		8.2		30.3		89.8		6.6		3.7		<2		86				<0.2		0.8	
C2	Misty	Moderate	16:37	11.2	Surface	1.0	0.0	331	22.5	22.5	8.0	8.0	27.9	28.0	88.3	88.5	6.5	6.6	4.3	5.5	2	2	47	74	825676	806962	<0.2	<0.2	0.8	0.8
						1.0	0.0	335	22.5		8.0		28.0		88.6		6.6		4.3		2		47				<0.2		0.7	
					Middle	5.6	0.0	341	22.5	22.5	8.0	8.0	28.0	28.0	89.5	89.7	6.6		5.5		2		82				<0.2		0.8	
						5.6	0.1	338	22.5		8.0		28.0		89.8		6.7		5.4		2		83				<0.2		0.9	
					Bottom	10.2	0.0	356	22.5	22.5	8.0	8.0	28.0	28.0	90.8	91.1	6.7	6.8	6.6		2		91				<0.2		0.7	
						10.2	0.0	348	22.5		8.0		28.0		91.3		6.8		6.6		2		91				<0.2		0.7	
C3	Misty	Moderate	18:34	10.2	Surface	1.0	0.1	103	23.0	23.0	8.0	8.0	28.1	28.1	86.2	86.3	6.3	6.4	5.0	5.9	2	3	52	75	822095	817816	<0.2	<0.2	0.8	0.8
						1.0	0.1	105	23.0		8.0		28.1		86.4		6.3		5.0		3		52				<0.2		0.8	
					Middle	5.1	0.1	117	23.0	23.0	8.0	8.0	28.1	28.1	87.2	87.4	6.4		6.1		2		85				<0.2		0.7	
						5.1	0.1	122	23.0		8.0		28.1		87.6		6.4		6.1		3		85				<0.2		0.8	
					Bottom	9.2	0.1	94	23.0	23.0	8.0	8.0	28.1	28.1	89.4	91.4	6.6	6.8	6.5		3		87				<0.2		0.7	
						9.2	0.1	93	23.0		8.0		28.1		93.4		6.9		6.5		4		87				<0.2		0.7	
IM1	Cloudy	Moderate	17:27	6.4	Surface	1.0	0.1	35	22.2	22.2	8.2	8.2	30.2	30.2	89.2	89.2	6.5	6.4	1.7	6.2	2	2	85	89	818345	806448	<0.2	<0.2	0.7	0.8
						1.0	0.1	33	22.2		8.2		30.2		89.1		6.5		1.8		3		87				<0.2		0.8	
					Middle	3.2	0.1	15	22.2	22.2	8.2	8.2	31.0	31.0	86.7	86.7	6.3		6.7		2		88				<0.2		0.7	
						3.2	0.0	11	22.2		8.2		30.9		86.7		6.3		7.1		2		89				<0.2		0.9	
					Bottom	5.4	0.0	40	22.2	22.2	8.2	8.2	31.0	31.0	87.5	87.6	6.4	6.4	9.6		<2		92				<0.2		0.7	
						5.4	0.0	44	22.2		8.2		31.0		87.7		6.4		10.0		<2		92				<0.2		0.8	
IM2	Cloudy	Moderate	17:23	6.6	Surface	1.0	0.1	36	22.2	22.2	8.2	8.2	29.8	29.9	88.6	88.6	6.5	6.4	1.9	3.0	2	2	86	87	818851	806208	<0.2	<0.2	0.7	0.8
						1.0	0.1	30	22.2		8.2		30.0		88.5		6.5		2.0		2		88				<0.2		0.8	
					Middle	3.3	0.1	46	22.2	22.2	8.2	8.2	30.7	30.7	86.9	86.9	6.3		3.1		<2		89				<0.2		0.8	
						3.3	0.1	39	22.2		8.2		30.7		86.8		6.3		3.2		<2		88				<0.2		0.8	
					Bottom	5.6	0.1	44	22.1	22.1	8.2	8.2	30.8	30.8	86.9	87.0	6.3	6.3	4.0		<2		86				<0.2		0.8	
						5.6	0.1	41	22.1		8.2		30.8		87.0		6.3		4.0		<2		86				<0.2		0.7	
IM3	Cloudy	Moderate	17:20	7.2	Surface	1.0	0.1	42	22.2	22.2	8.2	8.2	29.6	29.5	87.2	87.1	6.4	6.3	2.0	5.7	3	2	85	89	819414	806021	<0.2	<0.2	0.8	0.8
						1.0	0.2	36	22.2		8.2		29.4		87.0		6.3		2.1		2		87				<0.2		0.8	
					Middle	3.6	0.1	61	22.1	22.1	8.2	8.2	30.8	30.8	85.4	85.4	6.2		8.2		2		88				<0.2		0.8	
						3.6	0.0	65	22.1		8.2		30.8		85.4		6.2		8.7		3		89				<0.2		0.8	
					Bottom	6.2	0.1	54	22.1	22.1	8.2	8.2	32.1	32.2	85.8	85.9	6.3	6.3	6.5		<2		92				<0.2		0.8	
						6.2	0.1	53	22.1		8.2		32.3		85.9		6.2		6.6		<2		92				<0.2		0.8	
IM4	Cloudy	Moderate	17:13	6.6	Surface	1.0	0.1	60	22.2	22.2	8.2	8.2	30.3	30.4	87.9	87.8	6.4	6.4	1.8	4.8	2	2	87	89	819551	805042	<0.2	<0.2	0.7	0.7
						1.0	0.1	61	22.2		8.2		30.4		87.7		6.4		1.9		2		88				<0.2		0.8	
					Middle	3.3	0.1	55	22.2	22.2	8.2	8.2	30.5	30.5	86.1	86.1	6.3		4.9		2		88				<0.2		0.6	
						3.3	0.1	61	22.2		8.2		30.5		86.1		6.3		4.9		2		86				<0.2		0.7	
					Bottom	5.6	0.1	38	22.2	22.2	8.2	8.2	31.1	31.2	86.4	86.5	6.3	6.3	7.5		<2		91				<0.2		0.8	
						5.6	0.1	37	22.2		8.2		31.2		86.5		6.3		7.6		<2		91				<0.2		0.8	
IM5	Cloudy	Moderate	17:03	7.3	Surface	1.0	0.0	24	22.2	22.2	8.2	8.2	29.9	30.2	89.6	89.6	6.6	6.5	1.1	2.4	2	2	86	89	820581	804925	<0.2	<0.2	0.7	0.7
						1.0	0.0	19	22.2		8.2		30.4		89.6		6.6		1.1		<2		87				<0.2		0.7	
					Middle	3.7	0.1	41	22.3	22.3	8.2	8.2	30.7	30.7	89.0	89.0	6.5		2.2		2		89				<0.2		0.7	
						3.7	0.1	42	22.3		8.2		30.6		88.9		6.4		2.3		2		88				<0.2		0.7	
					Bottom	6.3	0.1	47	22.3	22.3	8.2	8.2	31.3	31.3	89.0	89.1	6.5	6.5	3.8		3		89				<0.2		0.6	
						6.3	0.1	47	22.3		8.2		31.3		89.1		6.5		3.9		2		92				<0.2		0.6	
IM6	Cloudy	Moderate	16:58	6.7	Surface	1.0	0.1	56	22.2	22.2	8.2	8.2	29.2	29.2	89.3	89.3	6.6	6.6	0.8	0.8	<2	2	86	88	821048	805809	<0.2	<0.2	0.8	0.8
						1.0	0.1	62	22.2		8.2		29.2		89.3		6.6		0.8		<2		87				<0.2		0.9	
					Middle	3.4	0.1	54	22.2	22.2	8.2	8.2	29.1	29.1	89.0	89.0	6.6		0.9		2		87				<0.2		0.8	
						3.4	0.1	57	22.2		8.2		29.1		89.0		6.6		0.8		2		85				<0.2		0.8	
					Bottom	5.7	0.1	43	22.2	22.2	8.2	8.2	29.2	29.2	89.1	89.2	6.6	6.6	0.8		2		90				<0.2		0.7	
						5.7	0.1	50	22.2		8.2		29.2		89.2		6.6		0.8		3		90				<0.2		0.8	
IM7	Cloudy	Moderate	16:37	7.4	Surface	1.0	0.1	18	22.4	22.4	8.2	8.2	29.4	29.4	89.4	89.4	6.6	6.5	0.7	0.7	2	2	86	88	821372	806838	<0.2	<0.2	0.7	0.8
						1.0	0.1	18	22.4		8.2		29.4		89.4		6.5		0.7		2		86				<0.2		0.7	
					Middle	3.7	0.1	32	22.4	22.4	8.2	8.2	29.9	29.8	89.0	89.0	6.5		0.7		2		88				<0.2		0.7	
						3.7	0.2	38	22.4		8.2		29.7		89.0		6.5		0.7		3		87				<0.2		0.8	
					Bottom	6.4	0.1	12	22.4	22.4	8.2	8.2	29.4	29.5	88.9	88.9	6.5	6.5	0.6		2		88				<0.2		0.8	
						6.4	0.1	12	22.4		8.2		29.6		88.9		6.5		0.6		3		91				<0.2		0.8	
IM8	Misty	Moderate	16:56	7.4	Surface	1.0	0.1	33	22.5	22.5	8.1	8.1	28.0	28.0	86.7	86.9	6.4	6.5	3.3	4.4	<2	<2	45	70	821674	807818	<0.2	<0.2	0.8	0.8
						1.0	0.1	28	22.5		8.1		28.0		87.1		6.5		3.3		<2		45				<0.2		0.7	
					Middle	3.7	0.1	51	22.4	22.4	8.1	8.1	28.2	28.2	88.6	88.8	6.6		4.3		<2		81				<0.2		0.7	
						3.7	0.1	45	22.4		8.1		28.2		88.9		6.6		4.3		<2		81				<0.2		0.8	
					Bottom	6.4	0.1	14	22.4	22.4	8.1	8.1	28.4	28.5	90.1	90.3	6.7	6.7	5.7		<2		84				<0.2		0.7	
						6.4	0.2	8	22.4		8.1		28.5		90.5		6.7		5.7		<2		84				<0.2		0.8	

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 05 December 23 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	Misty	Moderate	17:02	7.2	Surface	1.0	0.1	32	22.4	22.4	8.1	8.1	29.3	29.4	84.0	84.1	6.2	6.4	5.0	5.9	<2	<2	56	76	822077	808822	<0.2	<0.2	0.8	0.7
						1.0	0.1	29	22.4		8.1		29.4		84.1		6.2		5.0		<2		56				<0.2		0.8	
					Middle	3.6	0.0	29	22.4	22.4	8.1	8.1	29.5	29.6	88.2	88.4	6.5		6.2		<2		82				<0.2		0.7	
						3.6	0.0	22	22.4		8.1		29.6		88.5		6.5		6.2		<2		82				<0.2		0.7	
					Bottom	6.2	0.1	33	22.4	22.4	8.1	8.1	29.6	29.6	90.1	90.5	6.6	6.7	6.6		<2		90				<0.2		0.7	
						6.2	0.1	26	22.4		8.1		29.6		90.9		6.7		6.6		<2		90				<0.2		0.7	
IM10	Misty	Moderate	17:11	7.8	Surface	1.0	0.1	65	22.5	22.5	8.1	8.1	29.6	29.6	84.4	84.5	6.2	6.3	3.2	4.6	3	2	51	77	822216	809821	<0.2	<0.2	0.7	0.7
						1.0	0.1	59	22.5		8.1		29.6		84.6		6.2		3.2		2		52				<0.2		0.7	
					Middle	3.9	0.1	56	22.5	22.5	8.1	8.1	29.6	29.6	87.2	87.6	6.4		4.9		2		89				<0.2		0.8	
						3.9	0.1	59	22.5		8.1		29.6		87.9		6.5		4.9		2		89				<0.2		0.7	
					Bottom	6.8	0.0	51	22.5	22.5	8.1	8.1	29.5	29.6	90.0	90.4	6.6	6.7	5.6		<2		90				<0.2		0.7	
						6.8	0.0	44	22.5		8.1		29.6		90.8		6.7		5.6		<2		90				<0.2		0.8	
IM11	Misty	Moderate	17:26	8.4	Surface	1.0	0.0	77	22.5	22.5	8.1	8.1	29.6	29.6	87.9	88.0	6.5	6.5	4.6	5.6	2	3	62	75	821494	810525	<0.2	<0.2	0.8	0.8
						1.0	0.0	77	22.5		8.1		29.6		88.1		6.5		4.6		2		62				<0.2		0.8	
					Middle	4.2	0.0	58	22.4	22.4	8.1	8.1	29.6	29.6	88.7	88.8	6.5		5.3		3		78				<0.2		0.8	
						4.2	0.0	55	22.4		8.1		29.6		88.9		6.5		5.3		3		78				<0.2		0.8	
					Bottom	7.4	0.0	51	22.4	22.4	8.1	8.1	29.6	29.6	94.7	95.0	7.0	7.0	6.8		3		84				<0.2		0.7	
						7.4	0.0	53	22.4		8.1		29.6		95.3		7.0		6.8		2		85				<0.2		0.8	
IM12	Misty	Moderate	17:32	8.2	Surface	1.0	0.0	64	22.5	22.5	8.1	8.1	29.6	29.6	87.9	88.0	6.5	6.5	4.5	4.9	2	2	48	71	821163	811527	<0.2	<0.2	0.7	0.8
						1.0	0.0	58	22.5		8.1		29.6		88.1		6.5		4.5		2		48				<0.2		0.7	
					Middle	4.1	0.1	69	22.4	22.4	8.1	8.1	29.6	29.6	88.8	88.8	6.5		4.6		<2		79				<0.2		0.8	
						4.1	0.1	67	22.4		8.1		29.6		88.8		6.5		4.6		<2		79				<0.2		0.7	
					Bottom	7.2	0.1	56	22.4	22.4	8.1	8.1	29.6	29.6	94.8	95.0	7.0	7.0	5.6		<2		87				<0.2		0.8	
						7.2	0.1	60	22.4		8.1		29.6		95.1		7.0		5.6		<2		87				<0.2		0.8	
SR1A	Misty	Moderate	18:02	4.4	Surface	1.0	-	-	22.3	22.3	8.0	8.1	29.6	29.6	83.7	85.7	6.2	6.4	4.6	5.4	<2	<2	-	-	819970	812659	-	-	-	-
						1.0	-	-	22.3		8.1		29.6		87.6		6.5		4.6		<2		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	-	-	22.3	22.3	8.1	8.1	29.5	29.6	89.1	89.5	6.6	6.6	6.1		<2		-				-		-	
						3.4	-	-	22.3		8.1		29.6		89.8		6.6		6.1		<2		-				-		-	
SR2	Misty	Moderate	18:14	4.2	Surface	1.0	0.1	78	22.5	22.5	8.1	8.1	29.6	29.6	88.3	88.5	6.5	6.5	5.6	6.1	2	2	72	87	821479	814154	<0.2	<0.2	0.8	0.7
						1.0	0.1	80	22.5		8.1		29.6		88.6		6.5		5.6		2		72				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	85	22.5	22.5	8.1	8.1	29.6	29.6	91.4	91.9	6.7	6.8	6.6		2		102				<0.2		0.6	
						3.2	0.0	89	22.5		8.1		29.6		92.4		6.8		6.6		3		102				<0.2		0.7	
SR3	Misty	Moderate	16:40	9.4	Surface	1.0	0.1	349	22.6	22.6	8.0	8.0	27.9	27.9	87.7	87.8	6.5	6.6	4.5	5.6	2	2	-	-	822166	807568	-	-	-	-
						1.0	0.1	347	22.6		8.0		27.9		87.8		6.5		4.6		2		-				-		-	
					Middle	4.7	0.1	17	22.6	22.6	8.0	8.0	27.9	27.9	88.9	89.2	6.6		5.6		2		-				-		-	
						4.7	0.1	18	22.6		8.0		27.9		89.5		6.6		5.6		2		-				-		-	
					Bottom	8.4	0.2	11	22.5	22.5	8.0	8.0	27.9	27.9	91.8	92.0	6.8	6.8	6.6		3		-				-		-	
						8.4	0.2	15	22.5		8.0		27.9		92.1		6.8		6.6		2		-				-		-	
SR4A	Cloudy	Moderate	18:04	8.4	Surface	1.0	0.0	320	22.5	22.5	8.2	8.2	30.7	30.7	87.3	87.3	6.3	6.3	3.0	3.0	<2	<2	-	-	817169	807792	-	-	-	-
						1.0	0.0	316	22.5		8.2		30.7		87.3		6.3		2.9		<2		-				-		-	
					Middle	4.2	0.0	323	22.5	22.5	8.2	8.2	30.7	30.7	87.4	87.4	6.3		3.0		<2		-				-		-	
						4.2	0.0	320	22.5		8.2		30.7		87.4		6.3		3.0		<2		-				-		-	
					Bottom	7.4	0.0	339	22.5	22.5	8.2	8.2	30.7	30.7	87.6	87.6	6.4	6.4	3.0		<2		-				-		-	
						7.4	0.0	331	22.5		8.2		30.7		87.6		6.4		3.0		<2		-				-		-	
SR5A	Cloudy	Moderate	18:19	3.4	Surface	1.0	0.1	97	22.5	22.5	8.2	8.2	30.6	30.6	89.3	89.3	6.5	6.5	4.6	4.7	2	2	-	-	816594	810710	-	-	-	-
						1.0	0.0	93	22.5		8.2		30.6		89.3		6.5		4.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.4	0.1	87	22.5	22.5	8.2	8.2	30.7	30.7	89.6	89.6	6.5	6.5	4.7		<2		-				-		-	
						2.4	0.0	87	22.5		8.2		30.7		89.6		6.5		4.7		<2		-				-		-	
SR6	Cloudy	Moderate	18:44	4.1	Surface	1.0	0.0	40	22.5	22.5	8.2	8.2	30.3	30.3	92.8	92.8	6.8	6.8	3.4	4.6	<2	<2	-	-	817886	814643	-	-	-	-
						1.0	0.0	45	22.5		8.2		30.3		92.8		6.8		3.8		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.0	60	22.4	22.4	8.2	8.2	30.2	30.2	92.6	92.6	6.7	6.7	5.7		<2		-				-		-	
						3.1	0.1	64	22.4		8.2		30.2		92.5		6.7		5.4		<2		-				-		-	
SR7	Misty	Moderate	19:04	15.2	Surface	1.0	0.0	103	22.9	22.9	8.1	8.1	28.0	28.0	87.2	87.4	6.4	6.5	4.0	4.6	<2	2	-	-	823644	823765	-	-	-	-
						1.0	0.0	96	22.9		8.1		28.0		87.5		6.4		4.0		<2		-				-		-	
					Middle	7.6	0.1	96	22.9	22.9	8.1	8.1	28.0	28.0	88.1	88.3	6.5		4.4		<2		-				-		-	
						7.6	0.0	101	22.9		8.1		28.0		88.4		6.5		4.4		<2		-				-		-	
					Bottom	14.2	0.0	115	22.9	22.9	8.1	8.1	28.1	28.1	90.3	91.9	6.6	6.8	5.4		3		-				-		-	
						14.2	0.0	120	22.9		8.1		28.0		93.5		6.9		5.5		2		-				-		-	
SR8	Misty	Moderate	17:46	4.8	Surface	1.0	-	-	22.5	22.5	8.1	8.1	29.6	29.6	84.6	84.6	6.2	6.2	7.1	7.6	2	2	-	-	820374	811600	-	-	-	-
						1.0	-	-	22.5		8.1		29.5		84.6		6.2		7.1		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.4	22.4	8.1	8.1	29.6	29.6	90.7	91.2	6.7	6.7	8.0		<2		-				-		-	
						3.8	-	-	22.4		8.1		29.5		91.6		6.7		8.0		<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 07 December 23 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	08:09	8.4	Surface	1.0	0.3	209	21.7	21.8	8.2	8.2	30.4	30.5	85.0	85.0	6.3	6.2	1.7	5.5	3	3	85	88	815635	804249	<0.2	<0.2	0.8	0.8
						1.0	0.3	205	21.8		8.2		30.6		84.9		6.2		1.8		2		86				<0.2		0.8	
					Middle	4.2	0.3	211	22.4	22.4	8.2	8.2	31.5	31.8	84.3	84.3	6.1		7.3		3		88				<0.2		0.9	
						4.2	0.3	205	22.4		8.2		32.1		84.3		6.1		7.4		3		87				<0.2		0.8	
					Bottom	7.4	0.3	220	22.4	22.4	8.1	8.1	32.6	32.8	84.6	84.7	6.1	6.1	7.3		4		88				<0.2		0.8	
						7.4	0.3	220	22.4		8.1		33.0		84.7		6.1		7.5		3		91				<0.2		0.9	
C2	Misty	Moderate	09:50	11.0	Surface	1.0	0.4	173	22.4	22.4	8.1	8.1	29.0	29.0	84.8	84.8	6.3	6.3	2.3	2.7	3	2	52	78	825702	806962	<0.2	<0.2	0.7	0.8
						1.0	0.4	169	22.4		8.1		29.0		84.8		6.3		2.3		3		52				<0.2		0.7	
					Middle	5.5	0.4	164	22.4	22.4	8.1	8.1	29.1	29.1	84.9	84.9	6.3		2.6		2		91				<0.2		0.8	
						5.5	0.4	163	22.4		8.1		29.1		84.9		6.3		2.6		2		91				<0.2		0.8	
					Bottom	10.0	0.4	183	22.4	22.4	8.1	8.1	29.1	29.1	85.5	85.6	6.3	6.3	3.3		<2		90				<0.2		0.8	
						10.0	0.3	181	22.4		8.1		29.1		85.6		6.3		3.3		<2		90				<0.2		0.7	
C3	Misty	Moderate	07:58	10.2	Surface	1.0	0.2	90	22.5	22.5	8.1	8.1	28.8	28.8	84.9	84.9	6.3	6.4	3.2	4.3	2	2	44	72	822087	817785	<0.2	<0.2	0.8	0.8
						1.0	0.2	97	22.5		8.1		28.8		84.9		6.3		3.2		2		44				<0.2		0.8	
					Middle	5.1	0.2	80	22.4	22.4	8.1	8.1	28.8	28.8	86.6	86.7	6.4		4.1		2		86				<0.2		0.9	
						5.1	0.3	78	22.4		8.1		28.8		86.8		6.4		4.1		2		86				<0.2		0.8	
					Bottom	9.2	0.2	99	22.4	22.4	8.1	8.1	28.8	28.8	90.4	90.6	6.7	6.7	5.3		<2		86				<0.2		0.9	
						9.2	0.2	96	22.4		8.1		28.8		90.8		6.7		5.7		<2		86				<0.2		0.8	
IM1	Cloudy	Moderate	08:27	6.6	Surface	1.0	0.3	185	21.8	21.9	8.2	8.2	30.9	30.9	86.3	86.3	6.3	6.3	5.2	6.7	<2	2	86	87	818369	806459	<0.2	<0.2	0.7	0.8
						1.0	0.2	190	21.9		8.2		30.9		86.2		6.3		5.5		<2		86				<0.2		0.8	
					Middle	3.3	0.2	183	22.3	22.3	8.2	8.2	32.2	32.2	86.8	86.9	6.3		8.4		2		87				<0.2		0.9	
						3.3	0.2	182	22.3		8.2		32.1		86.9		6.3		8.5		2		84				<0.2		0.8	
					Bottom	5.6	0.3	176	22.3	22.3	8.1	8.1	32.2	32.2	88.2	88.3	6.4	6.4	6.5		3		90				<0.2		0.8	
						5.6	0.3	176	22.3		8.1		32.2		88.3		6.4		6.3		2		89				<0.2		0.7	
IM2	Cloudy	Moderate	08:36	6.7	Surface	1.0	0.3	185	22.1	22.1	8.2	8.2	31.6	31.6	85.8	85.8	6.2	6.2	2.2	3.3	2	3	86	88	818866	806187	<0.2	<0.2	0.9	0.8
						1.0	0.4	188	22.1		8.2		31.6		85.8		6.2		2.2		2		86				<0.2		0.8	
					Middle	3.4	0.3	181	22.2	22.2	8.2	8.2	31.8	31.7	85.8	85.8	6.2		3.0		3		88				<0.2		0.9	
						3.4	0.3	179	22.2		8.2		31.6		85.8		6.2		3.1		2		88				<0.2		0.8	
					Bottom	5.7	0.3	201	22.3	22.3	8.2	8.2	32.2	32.2	86.1	86.1	6.2	6.2	4.6		4		89				<0.2		0.8	
						5.7	0.2	205	22.3		8.2		32.2		86.1		6.2		4.9		3		92				<0.2		0.7	
IM3	Cloudy	Moderate	08:46	7.8	Surface	1.0	0.3	210	21.8	21.8	8.2	8.2	30.9	30.7	85.8	85.7	6.3	6.3	2.3	3.3	<2	2	87	88	819417	806017	<0.2	<0.2	0.8	0.7
						1.0	0.3	210	21.8		8.2		30.5		85.6		6.3		2.5		<2		87				<0.2		0.7	
					Middle	3.9	0.3	185	22.1	22.1	8.2	8.2	31.5	31.5	84.9	84.9	6.2		3.6		2		88				<0.2		0.7	
						3.9	0.3	179	22.1		8.2		31.5		84.9		6.2		3.6		3		85				<0.2		0.7	
					Bottom	6.8	0.3	182	22.1	22.1	8.2	8.2	32.1	32.3	85.3	85.4	6.2	6.2	3.9		2		91				<0.2		0.7	
						6.8	0.3	180	22.1		8.2		32.4		85.4		6.2		3.9		3		90				<0.2		0.8	
IM4	Cloudy	Moderate	08:51	7.0	Surface	1.0	0.3	210	21.7	21.7	8.2	8.2	32.0	32.5	88.9	88.9	6.5	6.5	2.3	2.7	2	2	85	88	819571	805018	<0.2	<0.2	0.9	0.8
						1.0	0.2	205	21.7		8.2		33.0		88.8		6.5		2.4		3		86				<0.2		0.8	
					Middle	3.5	0.3	198	21.8	21.8	8.2	8.2	30.9	31.0	88.3	88.3	6.4		2.7		2		87				<0.2		0.8	
						3.5	0.4	201	21.8		8.2		31.0		88.3		6.5		2.8		2		88				<0.2		0.8	
					Bottom	6.0	0.3	188	21.8	21.8	8.2	8.2	31.9	31.7	88.3	88.3	6.5	6.5	2.9		<2		91				<0.2		0.8	
						6.0	0.3	188	21.8		8.2		31.5		88.3		6.4		3.0		<2		92				<0.2		0.7	
IM5	Cloudy	Moderate	08:57	7.2	Surface	1.0	0.3	180	21.7	21.7	8.2	8.2	30.5	30.5	88.6	88.6	6.5	6.5	1.2	1.9	2	3	86	87	820544	804945	<0.2	<0.2	0.7	0.8
						1.0	0.3	187	21.7		8.2		30.4		88.6		6.5		1.3		2		88				<0.2		0.8	
					Middle	3.6	0.3	201	21.6	21.6	8.2	8.2	31.1	31.1	88.3	88.3	6.6		2.1		2		89				<0.2		0.8	
						3.6	0.3	194	21.6		8.2		31.1		88.3		6.5		2.2		3		88				<0.2		0.7	
					Bottom	6.2	0.3	169	21.6	21.6	8.2	8.2	31.0	31.0	88.4	88.5	6.5	6.5	2.2		2		85				<0.2		0.8	
						6.2	0.3	171	21.6		8.2		31.0		88.5		6.5		2.3		4		86				<0.2		0.7	
IM6	Cloudy	Moderate	09:03	6.8	Surface	1.0	0.2	194	21.8	21.8	8.2	8.2	30.9	31.0	88.0	88.0	6.5	6.4	7.7	4.1	4	3	85	88	821049	805804	<0.2	<0.2	0.8	0.8
						1.0	0.3	196	21.8		8.2		31.0		87.9		6.5		7.3		3		86				<0.2		0.8	
					Middle	3.4	0.2	182	21.8	21.8	8.2	8.2	31.4	31.5	86.0	86.0	6.3		2.0		3		87				<0.2		0.8	
						3.4	0.2	185	21.8		8.2		31.5		85.9		6.3		2.1		3		88				<0.2		0.8	
					Bottom	5.8	0.2	172	21.8	21.8	8.2	8.2	31.5	31.5	85.8	85.8	6.3	6.3	2.7		2		91				<0.2		0.8	
						5.8	0.2	166	21.8		8.2		31.4		85.8		6.3		2.6		2		92				<0.2		0.8	
IM7	Cloudy	Moderate	09:11	7.9	Surface	1.0	0.2	213	21.8	21.8	8.2	8.2	30.3	30.3	88.0	88.0	6.5	6.4	0.7	1.1	4	5	86	87	821364	806851	<0.2	<0.2	0.8	0.8
						1.0	0.2	211	21.8		8.2		30.3		87.9		6.5		0.7		5		88				<0.2		0.8	
					Middle	4.0	0.2	221	21.8	21.8	8.2	8.2	30.7	30.7	86.4	86.4	6.3		1.3		6		89				<0.2		0.8	
						4.0	0.2	215	21.8		8.2		30.7		86.3		6.3		1.3		5		88				<0.2		0.7	
					Bottom	6.9	0.2	218	21.8	21.9	8.2	8.2	31.1	31.1	86.1	86.1	6.3	6.3	1.4		6		85				<0.2		0.9	
						6.9	0.3	217	21.9		8.2		31.1		86.1		6.3		1.4		6		86				<0.2		0.8	
IM8	Misty	Moderate	09:22	7.6	Surface	1.0	0.3	167	22.7	22.7	8.1	8.1	29.5	29.6	85.9	85.9	6.3	6.3	2.7	3.2	3	4	44	68	821706	807834	<0.2	<0.2	0.7	0.7
						1.0	0.4	168	22.7		8.1		29.6		85.9		6.3		2.7		2		44				<0.2		0.7	
					Middle	3.8	0.3	166	22.7	22.7	8.1	8.1	29.6	29.6	86.0	86.1	6.3		3.0		4		78				<0.2		0.8	
						3.8	0.3	169	22.7		8.1		29.6		86.1		6.3		2.9		3		78				<0.2		0.7	
					Bottom	6.6	0.3	190	22.7	22.6	8.0	8.0	29.6	29.6	86.3	86.4	6.3	6.4	3.8		5		82				<0.2		0.7	
						6.6	0.3	193	22.4		8.0		29.5		86.5		6.4		3.8		5		82				<0.2		0.8	

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 07 December 23 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	Misty	Moderate	09:08	8.0	Surface	1.0	0.3	149	22.4	22.4	8.1	8.1	29.3	29.3	86.2	86.2	6.4	6.4	2.2	2.9	4	4	43	68	822115	808800	<0.2	<0.2	0.7	0.8
						1.0	0.3	152	22.4		8.1		29.3		86.2		6.4		2.1		3		43				<0.2		0.8	
					Middle	4.0	0.3	148	22.4	22.6	8.1	8.1	29.5	29.6	86.1	86.1	6.4		2.7		4		79				<0.2		0.7	
						4.0	0.4	144	22.7		8.1		29.6		86.1		6.3		2.7		3		79				<0.2		0.7	
					Bottom	7.0	0.3	129	22.4	22.4	8.1	8.1	29.6	29.6	86.2	86.3	6.3	6.4	3.9		5		83				<0.2		0.8	
						7.0	0.3	129	22.4		8.1		29.6		86.3		6.4		4.0		5		83				<0.2		0.8	
IM10	Misty	Moderate	08:54	7.2	Surface	1.0	0.3	117	22.4	22.4	8.1	8.1	29.1	29.2	84.5	84.5	6.3	6.3	2.2	2.6	3	4	48	74	822263	809839	<0.2	<0.2	0.8	0.7
						1.0	0.3	116	22.4		8.1		29.2		84.5		6.2		2.2		4		48				<0.2		0.7	
					Middle	3.6	0.3	118	22.4	22.4	8.1	8.1	29.4	29.4	85.1	85.2	6.3		2.7		3		86				<0.2		0.8	
						3.6	0.3	113	22.4		8.1		29.4		85.2		6.3		2.7		4		86				<0.2		0.7	
					Bottom	6.2	0.3	135	22.4	22.4	8.0	8.0	29.3	29.3	85.7	85.8	6.3	6.4	2.8		4		87				<0.2		0.7	
						6.2	0.4	129	22.4		8.0		29.3		85.9		6.4		2.9		5		87				<0.2		0.7	
IM11	Misty	Moderate	08:41	8.0	Surface	1.0	0.3	99	22.5	22.5	8.1	8.1	29.1	29.2	86.0	86.0	6.4	6.4	2.2	2.6	3	4	52	76	821480	810557	<0.2	<0.2	0.7	0.7
						1.0	0.3	100	22.5		8.1		29.2		86.0		6.3		2.2		4		52				<0.2		0.7	
					Middle	4.0	0.4	111	22.4	22.4	8.1	8.1	29.5	29.6	86.1	86.2	6.3		2.6		4		87				<0.2		0.7	
						4.0	0.4	113	22.4		8.1		29.6		86.2		6.4		2.6		3		87				<0.2		0.7	
					Bottom	7.0	0.4	95	22.4	22.4	8.1	8.1	29.7	29.7	86.7	86.8	6.4	6.4	3.1		4		90				<0.2		0.8	
						7.0	0.4	89	22.4		8.1		29.7		86.8		6.4		3.1		4		90				<0.2		0.7	
IM12	Misty	Moderate	08:34	8.2	Surface	1.0	0.3	101	22.6	22.6	8.1	8.1	29.9	29.9	86.2	86.2	6.4	6.4	2.5	2.9	3	4	45	73	821152	811530	<0.2	<0.2	0.8	0.8
						1.0	0.3	93	22.6		8.1		29.9		86.2		6.4		2.5		4		45				<0.2		0.8	
					Middle	4.1	0.4	88	22.4	22.4	8.1	8.1	29.9	29.9	86.1	86.2	6.4		2.7		4		86				<0.2		0.7	
						4.1	0.4	81	22.4		8.1		29.9		86.2		6.4		2.7		3		86				<0.2		0.8	
					Bottom	7.2	0.4	118	22.4	22.4	8.1	8.1	29.9	29.9	86.8	86.9	6.4	6.4	3.6		4		87				<0.2		0.7	
						7.2	0.4	119	22.4		8.1		29.9		86.9		6.4		3.6		4		87				<0.2		0.7	
SR1A	Misty	Moderate	08:25	5.6	Surface	1.0	-	-	22.6	22.6	8.1	8.1	29.9	29.9	89.9	90.0	6.6	6.6	1.8	2.5	4	4	-	-	819971	812657	-	-	-	-
						1.0	-	-	22.6		8.1		29.9		90.0		6.6		1.8		3		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	-	-	22.6	22.6	8.0	8.0	29.9	29.9	90.3	90.4	6.7	6.7	3.2		4		-				-		-	
						4.6	-	-	22.6		8.0		29.9		90.4		6.7		3.2		4		-				-		-	
SR2	Misty	Moderate	08:15	5.0	Surface	1.0	0.3	38	22.5	22.5	8.0	8.1	29.9	29.9	90.6	90.0	6.7	6.7	2.2	2.7	2	3	43	65	821486	814149	<0.2	<0.2	0.7	0.8
						1.0	0.2	32	22.5		8.1		29.9		89.4		6.6		2.2		3		43				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.3	42	22.5	22.5	8.0	8.0	29.9	29.9	90.0	90.1	6.6	6.6	3.2		3		87				<0.2		0.7	
						4.0	0.3	45	22.5		8.0		29.9		90.1		6.6		3.2		4		87				<0.2		0.8	
SR3	Misty	Moderate	09:36	9.2	Surface	1.0	0.4	179	22.4	22.6	8.1	8.1	29.3	29.3	89.4	89.6	6.6	6.6	2.1	2.4	3	3	-	-	822139	807574	-	-	-	-
						1.0	0.4	186	22.7		8.1		29.3		89.7		6.6		2.1		2		-				-		-	
					Middle	4.6	0.4	162	22.7	22.7	8.1	8.1	29.4	29.4	90.2	90.3	6.6		2.2		2		-				-		-	
						4.6	0.4	159	22.7		8.1		29.4		90.4		6.7		2.2		3		-				-		-	
					Bottom	8.2	0.4	154	22.7	22.7	8.1	8.1	29.4	29.4	91.0	91.1	6.7	6.7	3.0		3		-				-		-	
						8.2	0.4	148	22.7		8.1		29.4		91.2		6.7		2.9		3		-				-		-	
SR4A	Cloudy	Moderate	07:46	8.3	Surface	1.0	0.0	64	21.7	21.7	8.2	8.2	30.5	30.5	84.3	84.1	6.2	6.1	1.7	2.4	2	3	-	-	817182	807828	-	-	-	-
						1.0	0.0	68	21.7		8.2		30.5		83.9		6.2		1.7		3		-				-		-	
					Middle	4.2	0.0	72	22.3	22.3	8.2	8.2	31.6	31.6	81.4	81.4	5.9		2.5		3		-				-		-	
						4.2	0.0	78	22.3		8.2		31.6		81.4		5.9		2.5		2		-				-		-	
					Bottom	7.3	0.0	50	22.3	22.3	8.2	8.2	31.9	31.9	81.9	82.0	5.9	5.9	3.1		4		-				-		-	
						7.3	0.1	43	22.3		8.1		31.9		82.0		5.9		3.1		3		-				-		-	
SR5A	Cloudy	Moderate	07:30	3.3	Surface	1.0	0.2	119	21.5	21.5	8.1	8.1	30.2	30.2	87.3	87.3	6.5	6.5	1.7	1.7	3	3	-	-	816603	810680	-	-	-	-
						1.0	0.2	120	21.5		8.1		30.2		87.3		6.5		1.7		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.3	0.1	135	21.3	21.3	8.1	8.1	30.4	30.4	87.2	87.3	6.5	6.5	1.7		3		-				-		-	
						2.3	0.2	141	21.3		8.1		30.4		87.3		6.5		1.7		3		-				-		-	
SR6	Cloudy	Moderate	07:07	4.0	Surface	1.0	0.0	58	21.4	21.4	8.1	8.1	30.2	30.2	84.0	84.1	6.2	6.2	2.2	2.9	2	2	-	-	817892	814646	-	-	-	-
						1.0	0.0	53	21.4		8.0		30.2		84.1		6.2		2.3		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	40	21.4	21.4	8.0	8.0	30.3	30.3	86.0	86.2	6.4	6.4	3.6		2		-				-		-	
						3.0	0.1	32	21.4		8.0		30.3		86.4		6.4		3.6		2		-				-		-	
SR7	Misty	Moderate	07:30	11.0	Surface	1.0	0.5	76	22.4	22.6	8.1	8.1	28.7	28.7	85.2	85.2	6.3	6.3	2.7	2.9	3	3	-	-	823658	823732	-	-	-	-
						1.0	0.4	80	22.7		8.1		28.7		85.2		6.3		2.6		4		-				-		-	
					Middle	5.5	0.4	87	22.7	22.7	8.1	8.1	28.7	28.7	85.4	85.5	6.3		2.7		3		-				-		-	
						5.5	0.4	89	22.7		8.1		28.7		85.5		6.3		2.7		2		-				-		-	
					Bottom	10.0	0.5	91	22.7	22.8	8.0	8.0	28.8	28.8	87.7	88.0	6.5	6.5	3.2		<2		-				-		-	
						10.0	0.4	95	22.8		8.0		28.8		88.3		6.5		3.2		<2		-				-		-	
SR8	Misty	Moderate	08:29	4.6	Surface	1.0	-	-	22.4	22.5	8.1	8.1	29.9	29.9	85.5	85.6	6.3	6.3	2.5	3.3	2	2	-	-	820388	811617	-	-	-	-
						1.0	-	-	22.6		8.1		29.9		85.6		6.3		2.5		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	22.6	22.6	8.0	8.0	29.9	29.9	86.3	86.4	6.4	6.4	4.1		<2		-				-		-	
						3.6	-	-	22.6		8.0		29.9		86.5		6.4		4.1		<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 07 December 23 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
C1	Cloudy	Moderate	14:54	8.3	Surface	1.0	0.3	34	22.1	22.1	8.2	8.2	31.6	30.8	88.7	88.7	6.5	6.5	1.6	2.7	2	4	87	88	815616	804235	<0.2	<0.2	0.8	0.8
						1.0	0.3	36	22.1		8.2		30.0		88.6		6.5		1.6		3		88				<0.2		0.8	
					Middle	4.2	0.3	23	22.3	22.3	8.2	8.2	32.1	32.1	88.3	88.4	6.4		3.0		3		89				<0.2		0.8	
						4.2	0.3	22	22.3		8.2		32.1		88.4		6.4		3.1		4		89				<0.2		0.8	
					Bottom	7.3	0.3	38	22.4	22.4	8.2	8.2	32.4	32.5	89.3	89.6	6.4	6.5	3.4		4		86				<0.2		0.7	
						7.3	0.3	36	22.4		8.2		32.5		89.8		6.5		3.4		5		86				<0.2		0.7	
C2	Misty	Moderate	13:43	11.0	Surface	1.0	0.1	344	22.5	22.5	8.0	8.0	28.9	28.9	87.4	87.6	6.3	6.3	2.8	3.7	3	4	47	74	825664	806939	<0.2	<0.2	0.7	0.8
						1.0	0.1	349	22.5		8.0		28.9		87.7		6.3		2.8		4		47				<0.2		0.7	
					Middle	5.5	0.2	331	22.5	22.5	8.0	8.0	28.9	28.9	88.6	88.8	6.3		4.0		3		82				<0.2		0.8	
						5.5	0.2	327	22.5		8.0		28.9		88.9		6.3		4.0		4		83				<0.2		0.8	
					Bottom	10.0	0.2	349	22.5	22.5	8.0	8.0	28.9	28.9	89.9	90.2	6.3	6.4	4.2		4		91				<0.2		0.8	
						10.0	0.2	342	22.5		8.0		28.9		90.4		6.4		4.2		5		91				<0.2		0.7	
C3	Misty	Moderate	15:39	11.2	Surface	1.0	0.3	253	22.3	22.4	8.0	8.0	28.0	28.0	85.3	85.4	6.4	6.4	2.6	3.5	2	2	52	75	822089	817820	<0.2	<0.2	0.8	0.8
						1.0	0.3	246	22.5		8.0		28.0		85.5		6.4		2.6		3		52				<0.2		0.8	
					Middle	5.6	0.3	237	22.5	22.5	8.0	8.0	28.0	28.0	86.3	86.5	6.4		3.7		3		85				<0.2		0.8	
						5.6	0.4	240	22.5		8.0		28.0		86.7		6.4		3.7		2		85				<0.2		0.8	
					Bottom	10.2	0.3	254	22.5	22.4	8.0	8.0	28.0	28.1	88.5	90.5	6.6	6.8	4.1		2		87				<0.2		0.8	
						10.2	0.4	249	22.3		8.0		28.1		92.5		6.9		4.1		2		87				<0.2		0.8	
IM1	Cloudy	Moderate	14:35	6.4	Surface	1.0	0.1	9	22.0	22.0	8.2	8.2	31.2	31.2	87.9	87.9	6.4	6.4	1.8	5.9	<2	2	85	89	818327	806459	<0.2	<0.2	0.8	0.8
						1.0	0.1	7	22.0		8.2		31.2		87.8		6.4		1.8		<2		87				<0.2		0.8	
					Middle	3.2	0.1	27	22.1	22.1	8.2	8.2	31.5	31.5	87.3	87.3	6.3		4.3		<2		88				<0.2		0.9	
						3.2	0.1	30	22.1		8.2		31.5		87.3		6.3		4.3		<2		89				<0.2		0.8	
					Bottom	5.4	0.1	22	22.1	22.1	8.2	8.2	31.7	31.7	87.6	87.7	6.4	6.4	11.9		2		92				<0.2		0.8	
						5.4	0.1	20	22.1		8.2		31.7		87.7		6.4		11.2		2		92				<0.2		0.8	
IM2	Cloudy	Moderate	14:29	6.6	Surface	1.0	0.1	332	21.8	21.8	8.2	8.2	30.8	30.8	88.2	88.2	6.5	6.5	1.7	2.0	4	3	86	87	818873	806194	<0.2	<0.2	0.9	0.8
						1.0	0.1	329	21.8		8.2		30.8		88.2		6.5		1.8		3		88				<0.2		0.8	
					Middle	3.3	0.1	340	21.8	21.8	8.2	8.2	30.9	30.9	88.2	88.2	6.5		2.1		3		89				<0.2		0.8	
						3.3	0.1	342	21.8		8.2		30.9		88.2		6.5		2.1		4		88				<0.2		0.8	
					Bottom	5.6	0.2	333	21.8	21.8	8.2	8.2	30.9	30.9	88.4	88.5	6.5	6.5	2.1		2		86				<0.2		0.8	
						5.6	0.2	327	21.8		8.2		30.9		88.5		6.5		2.2		3		86				<0.2		0.9	
IM3	Cloudy	Moderate	14:26	6.7	Surface	1.0	0.1	346	21.8	21.8	8.2	8.2	30.8	30.8	88.2	88.3	6.5	6.5	1.7	1.9	2	2	85	89	819404	806015	<0.2	<0.2	0.8	0.8
						1.0	0.1	347	21.8		8.2		30.8		88.3		6.5		1.8		3		87				<0.2		0.8	
					Middle	3.4	0.1	329	21.8	21.8	8.2	8.2	30.8	30.8	88.3	88.3	6.5		1.9		3		88				<0.2		0.8	
						3.4	0.1	323	21.8		8.2		30.8		88.3		6.5		1.9		2		89				<0.2		0.8	
					Bottom	5.7	0.1	4	21.7	21.7	8.2	8.2	30.9	30.9	89.0	89.1	6.5	6.6	2.0		2		92				<0.2		0.8	
						5.7	0.2	5	21.7		8.2		30.9		89.1		6.6		2.0		2		92				<0.2		0.8	
IM4	Cloudy	Moderate	14:19	7.0	Surface	1.0	0.1	336	21.8	21.8	8.2	8.2	30.7	30.7	88.9	88.9	6.5	6.5	1.3	2.6	2	3	87	89	819575	805049	<0.2	<0.2	0.9	0.8
						1.0	0.2	335	21.8		8.2		30.7		88.9		6.5		1.3		3		88				<0.2		0.8	
					Middle	3.5	0.1	318	21.7	21.7	8.2	8.2	30.9	30.9	88.6	88.6	6.5		2.8		3		88				<0.2		0.8	
						3.5	0.2	319	21.7		8.2		30.9		88.6		6.5		3.0		2		86				<0.2		0.8	
					Bottom	6.0	0.1	325	21.7	21.7	8.2	8.2	31.0	31.0	89.0	89.1	6.5	6.6	3.7		2		91				<0.2		0.8	
						6.0	0.0	331	21.7		8.2		31.0		89.2		6.6		3.6		3		91				<0.2		0.8	
IM5	Cloudy	Moderate	14:05	7.3	Surface	1.0	0.1	327	21.8	21.8	8.2	8.2	30.6	30.6	88.2	88.2	6.5	6.5	1.6	2.2	2	3	86	89	820546	804930	<0.2	<0.2	0.8	0.8
						1.0	0.2	322	21.7		8.2		30.6		88.2		6.5		1.7		3		87				<0.2		0.8	
					Middle	3.7	0.1	344	21.7	21.7	8.2	8.2	30.8	30.8	87.8	87.9	6.5		2.4		2		89				<0.2		0.7	
						3.7	0.2	349	21.7		8.2		30.8		87.9		6.5		2.5		2		88				<0.2		0.8	
					Bottom	6.3	0.2	352	21.7	21.7	8.2	8.2	30.8	30.8	87.9	88.0	6.5	6.5	2.6		3		89				<0.2		0.7	
						6.3	0.1	346	21.7		8.2		30.8		88.0		6.5		2.6		3		92				<0.2		0.7	
IM6	Cloudy	Moderate	13:55	7.4	Surface	1.0	0.2	308	21.8	21.8	8.2	8.2	30.6	30.6	87.4	87.4	6.4	6.4	1.2	1.6	2	2	86	88	821059	805840	<0.2	<0.2	0.8	0.8
						1.0	0.1	311	21.8		8.2		30.6		87.3		6.4		1.3		3		87				<0.2		0.9	
					Middle	3.7	0.2	326	21.8	21.8	8.2	8.2	30.9	30.9	86.9	86.9	6.4		1.7		2		87				<0.2		0.8	
						3.7	0.2	328	21.8		8.2		30.9		86.8		6.4		1.8		2		85				<0.2		0.8	
					Bottom	6.4	0.2	309	21.8	21.8	8.2	8.2	31.1	31.1	87.0	87.1	6.4	6.4	1.8		<2		90				<0.2		0.9	
						6.4	0.2	309	21.8		8.2		31.1		87.1		6.4		1.8		<2		90				<0.2		0.8	
IM7	Cloudy	Moderate	13:42	8.0	Surface	1.0	0.1	261	21.7	21.7	8.2	8.2	30.3	30.3	87.9	87.9	6.5	6.5	0.6	1.1	2	3	86	88	821360	806834	<0.2	<0.2	0.9	0.8
						1.0	0.1	267	21.7		8.2		30.3		87.8		6.5		0.6		2		86				<0.2		0.8	
					Middle	4.0	0.1	283	21.7	21.7	8.2	8.2	30.4	30.5	86.7	86.7	6.4		0.9		4		88				<0.2		0.8	
						4.0	0.1	277	21.7		8.2		30.5		86.6		6.4		1.0		3		87				<0.2		0.8	
					Bottom	7.0	0.1	292	21.9	21.9	8.2	8.2	31.0	31.0	86.2	86.3	6.3	6.3	1.8		4		88				<0.2		0.9	
						7.0	0.1	293	21.9		8.2		31.0		86.3		6.3		1.8		3		91				<0.2		0.8	
IM8	Misty	Moderate	14:02	7.0	Surface	1.0	0.2	258	22.7	22.7	8.1	8.1	27.9	28.0	85.8	86.0	6.3	6.3	2.1	3.1	4	4	45	70	821702	807814	<0.2	<0.2	0.7	0.8
						1.0	0.1	259	22.7		8.1		28.0		86.2		6.3		2.1		3		45				<0.2		0.8	
					Middle	3.5	0.1	269	22.7	22.7	8.1	8.1	28.2	28.2	87.7	87.9	6.3		3.2		3		81				<0.2		0.8	
						3.5	0.1	269	22.7		8.1		28.2		88.0		6.3		3.2		4		81				<0.2		0.8	
					Bottom	6.0	0.1	263	22.7	22.7	8.1	8.1	28.4	28.4	89.2	89.4	6.3	6.3	4.1		5		84				<0.2		0.8	
						6.0	0.2	260	22.7		8.1		28.4		89.6		6.3		4.1		5		84				<0.2		0.8	

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 07 December 23 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	Misty	Moderate	14:08	7.2	Surface	1.0	0.2	268	22.4	22.4	8.1	8.1	28.9	28.9	83.1	83.2	6.3	6.4	2.2	3.4	4	5	56	76	822106	808821	<0.2	<0.2	0.9	0.9
						1.0	0.2	263	22.4		8.1		28.9		83.2		6.3		2.2		3		56				<0.2		0.8	
					Middle	3.6	0.2	259	22.4	22.4	8.1	8.1	29.1	29.1	87.3	87.5	6.4		3.9		5		82				<0.2		0.8	
						3.6	0.3	264	22.4		8.1		29.1		87.6		6.4		3.8		6		82				<0.2		0.9	
					Bottom	6.2	0.2	288	22.4	22.4	8.1	8.1	29.2	29.2	89.2	89.6	6.6	6.6	4.2		6		90				<0.2		0.9	
						6.2	0.1	281	22.4		8.1		29.2		90.0		6.6		4.2		5		90				<0.2		0.8	
IM10	Misty	Moderate	14:17	7.6	Surface	1.0	0.2	266	22.5	22.5	8.1	8.1	29.1	29.1	83.5	83.6	6.4	6.4	2.1	2.6	6	5	51	77	822232	809861	<0.2	<0.2	0.8	0.8
						1.0	0.2	273	22.5		8.1		29.1		83.7		6.4		2.1		5		52				<0.2		0.7	
					Middle	3.8	0.3	269	22.5	22.5	8.1	8.1	29.1	29.1	86.3	86.7	6.4		2.5		5		89				<0.2		0.8	
						3.8	0.3	270	22.5		8.1		29.1		87.0		6.4		2.5		4		89				<0.2		0.8	
					Bottom	6.6	0.3	288	22.5	22.5	8.1	8.1	29.1	29.1	89.1	89.5	6.4	6.4	3.2		4		90				<0.2		0.8	
						6.6	0.3	283	22.5		8.1		29.1		89.9		6.4		3.2		5		90				<0.2		0.8	
IM11	Misty	Moderate	14:32	8.0	Surface	1.0	0.4	276	22.5	22.5	8.1	8.1	29.2	29.2	87.0	87.1	6.4	6.4	2.2	3.4	3	5	62	75	821521	810537	<0.2	<0.2	0.8	0.8
						1.0	0.4	282	22.5		8.1		29.2		87.2		6.3		2.2		4		62				<0.2		0.8	
					Middle	4.0	0.3	280	22.4	22.4	8.1	8.1	29.2	29.2	87.8	87.9	6.3		3.7		4		78				<0.2		0.7	
						4.0	0.3	275	22.4		8.1		29.2		88.0		6.4		3.7		5		78				<0.2		0.8	
					Bottom	7.0	0.4	290	22.4	22.4	8.1	8.1	29.2	29.2	93.8	94.1	6.4	6.4	4.4		6		84				<0.2		0.8	
						7.0	0.3	283	22.4		8.1		29.2		94.4		6.4		4.4		6		85				<0.2		0.9	
IM12	Misty	Moderate	14:38	8.0	Surface	1.0	0.4	275	22.5	22.5	8.1	8.1	29.2	29.2	87.0	87.1	6.3	6.3	2.1	2.5	4	5	48	71	821168	811517	<0.2	<0.2	0.8	0.8
						1.0	0.4	271	22.5		8.1		29.2		87.2		6.2		2.1		5		48				<0.2		0.8	
					Middle	4.0	0.4	286	22.4	22.4	8.1	8.1	29.2	29.2	87.9	87.9	6.3		2.2		4		79				<0.2		0.8	
						4.0	0.4	292	22.4		8.1		29.2		87.9		6.3		2.2		5		79				<0.2		0.8	
					Bottom	7.0	0.3	291	22.4	22.4	8.1	8.1	29.1	29.1	93.9	94.1	6.3	6.4	3.2		5		87				<0.2		0.8	
						7.0	0.3	292	22.4		8.1		29.1		94.2		6.4		3.2		6		87				<0.2		0.8	
SR1A	Misty	Moderate	15:08	4.2	Surface	1.0	-	-	22.3	22.3	8.0	8.1	29.1	29.1	82.8	84.8	6.1	6.3	2.2	3.0	5	5	-	-	819980	812659	-	-	-	-
						1.0	-	-	22.3		8.1		29.1		86.7		6.4		2.2		6		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	22.3	22.3	8.1	8.1	29.1	29.1	88.2	88.6	6.5	6.6	3.7		4		-				-		-	
						3.2	-	-	22.3		8.1		29.1		88.9		6.6		3.7		5		-				-		-	
SR2	Misty	Moderate	15:19	5.0	Surface	1.0	0.2	206	22.5	22.5	8.1	8.1	29.1	29.1	87.4	87.6	6.5	6.5	3.2	3.7	5	4	72	87	821456	814161	<0.2	<0.2	0.8	0.8
						1.0	0.3	207	22.5		8.1		29.1		87.7		6.5		3.2		4		72				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	244	22.5	22.5	8.1	8.1	29.1	29.1	90.5	91.0	6.7	6.8	4.2		3		102				<0.2		0.8	
						4.0	0.2	251	22.5		8.1		29.1		91.5		6.8		4.2		4		102				<0.2		0.9	
SR3	Misty	Moderate	13:46	9.2	Surface	1.0	0.1	310	22.6	22.6	8.0	8.0	28.9	28.9	86.8	86.9	6.6	6.6	2.2	3.2	3	3	-	-	822134	807589	-	-	-	-
						1.0	0.2	314	22.6		8.0		28.9		86.9		6.6		2.2		2		-				-		-	
					Middle	4.6	0.1	284	22.6	22.6	8.0	8.0	28.9	28.9	88.0	88.3	6.6		3.2		3		-				-		-	
						4.6	0.0	277	22.6		8.0		28.9		88.6		6.7		3.2		2		-				-		-	
					Bottom	8.2	0.1	320	22.5	22.5	8.0	8.0	28.9	28.9	90.9	91.1	6.7	6.7	4.2		3		-				-		-	
						8.2	0.1	323	22.5		8.0		28.9		91.2		6.7		4.2		4		-				-		-	
SR4A	Cloudy	Moderate	15:21	8.2	Surface	1.0	0.0	201	22.0	22.0	8.2	8.2	30.4	30.4	86.6	86.6	6.4	6.2	2.3	2.5	5	4	-	-	817176	807825	-	-	-	-
						1.0	0.0	199	22.0		8.2		30.4		86.5		6.3		2.3		4		-				-		-	
					Middle	4.1	0.0	226	22.3	22.3	8.2	8.2	31.6	31.6	82.2	82.2	6.0		2.7		3		-				-		-	
						4.1	0.0	227	22.3		8.2		31.6		82.2		6.0		2.7		4		-				-		-	
					Bottom	7.2	0.1	225	22.3	22.3	8.2	8.2	31.8	31.8	83.3	83.4	6.0	6.0	2.6		4		-				-		-	
						7.2	0.0	226	22.3		8.2		31.8		83.4		6.0		2.6		3		-				-		-	
SR5A	Cloudy	Moderate	15:38	4.4	Surface	1.0	0.1	283	21.7	21.7	8.2	8.2	30.4	30.4	88.3	88.3	6.5	6.5	2.4	2.9	3	4	-	-	816589	810700	-	-	-	-
						1.0	0.1	287	21.6		8.2		30.4		88.3		6.5		2.4		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	317	21.5	21.5	8.2	8.2	30.4	30.4	89.2	89.3	6.6	6.6	3.3		4		-				-		-	
						3.4	0.1	314	21.5		8.2		30.4		89.3		6.6		3.3		4		-				-		-	
SR6	Cloudy	Moderate	16:02	3.7	Surface	1.0	0.1	230	21.8	21.8	8.2	8.2	30.2	30.2	89.3	89.4	6.6	6.6	2.6	4.2	5	4	-	-	817896	814681	-	-	-	-
						1.0	0.0	225	21.7		8.2		30.2		89.5		6.6		2.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	233	21.6	21.6	8.2	8.2	30.3	30.4	90.7	90.8	6.7	6.7	5.5		4		-				-		-	
						2.7	0.1	234	21.6		8.2		30.4		90.8		6.7		5.6		3		-				-		-	
SR7	Misty	Moderate	16:10	15.0	Surface	1.0	0.8	232	22.5	22.5	8.1	8.1	28.0	28.0	86.3	86.5	6.4	6.5	1.6	2.2	4	4	-	-	823624	823728	-	-	-	-
						1.0	0.7	235	22.5		8.1		28.0		86.6		6.4		1.6		4		-				-		-	
					Middle	7.5	0.7	255	22.5	22.5	8.1	8.1	28.0	28.0	87.2	87.4	6.5		2.0		4		-				-		-	
						7.5	0.7	254	22.5		8.1		28.0		87.5		6.5		2.0		3		-				-		-	
					Bottom	14.0	0.7	238	22.5	22.5	8.1	8.1	28.0	28.0	89.4	91.0	6.7	6.8	3.1		4		-				-		-	
						14.0	0.7	240	22.5		8.1		28.0		92.6		6.9		3.1		3		-				-		-	
SR8	Misty	Moderate	14:52	4.8	Surface	1.0	-	-	22.5	22.5	8.1	8.1	29.2	29.2	83.7	83.7	6.4	6.4	4.7	5.2	4	4	-	-	820378	811620	-	-	-	-
						1.0	-	-	22.5		8.1		29.1		83.7		6.3		4.7		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.4	22.4	8.1	8.1	29.1	29.1	89.8	90.3	6.3	6.4	5.6		5		-				-		-	
						3.8	-	-	22.4		8.1		29.1		90.7		6.4		5.6		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 09 December 23 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	Cloudy	Moderate	11:01	8.5	Surface	1.0	0.3	207	22.8	22.8	8.3	8.3	30.2	30.2	97.3	97.2	7.0	7.0	7.0	6.9	8.6	3	3	80	82	815623	804270	<0.2	<0.2	1.0	0.9
						1.0	0.4	202	22.8		8.3		30.2		97.1		7.0		6.9		2			80				<0.2		0.9	
					Middle	4.3	0.3	219	22.8	22.8	8.3	8.3	30.3	30.3	95.2	95.2	6.9		10.6		3		82				<0.2		0.8	
						4.3	0.3	213	22.8		8.3		30.3		95.1		6.9		10.7		2		82				<0.2		0.8	
					Bottom	7.5	0.3	229	22.8	22.8	8.3	8.3	30.3	30.3	94.7	94.7	6.9	6.9	8.2		3		83				<0.2		0.8	
						7.5	0.3	224	22.8		8.3		30.3		94.7		6.9		8.1		4		86				<0.2		0.8	
C2	Fine	Moderate	11:53	11.0	Surface	1.0	0.3	161	22.6	22.6	8.1	8.1	28.7	28.7	84.1	84.1	6.2	6.2	2.2	2.6	2	4	53	78	825679	806949	<0.2	<0.2	0.9	0.9
						1.0	0.4	164	22.6		8.1		28.7		84.1		6.2		2.2		3		53				<0.2		0.8	
					Middle	5.5	0.3	169	22.6	22.6	8.1	8.1	28.8	28.8	84.2	84.2	6.2		2.5		3		91				<0.2		0.9	
						5.5	0.3	164	22.6		8.1		28.8		84.2		6.2		2.5		4		91				<0.2		0.9	
					Bottom	10.0	0.3	148	22.6	22.6	8.1	8.1	28.8	28.8	84.8	84.9	6.3	6.3	3.2		5		90				<0.2		0.8	
						10.0	0.3	142	22.6		8.1		28.8		84.9		6.3		3.2		5		90				<0.2		0.8	
C3	Fine	Moderate	10:01	10.4	Surface	1.0	0.3	75	22.7	22.7	8.1	8.1	28.4	28.4	84.2	84.2	6.2	6.3	3.1	4.2	3	3	44	72	822091	817785	<0.2	<0.2	0.8	0.8
						1.0	0.2	81	22.7		8.1		28.4		84.2		6.2		3.1		3		44				<0.2		0.8	
					Middle	5.2	0.2	86	22.6	22.6	8.1	8.1	28.5	28.5	85.9	86.0	6.4		4.0		3		86				<0.2		0.8	
						5.2	0.3	79	22.6		8.1		28.5		86.1		6.4		4.0		4		86				<0.2		0.8	
					Bottom	9.4	0.3	102	22.6	22.6	8.1	8.1	28.4	28.4	89.7	89.9	6.6	6.7	5.2		3		87				<0.2		0.8	
						9.4	0.2	102	22.6		8.1		28.4		90.1		6.7		5.6		4		87				<0.2		0.9	
IM1	Cloudy	Moderate	11:24	6.4	Surface	1.0	0.3	179	22.9	22.9	8.2	8.2	30.0	30.0	91.8	91.8	6.6	6.6	2.1	5.2	3	3	80	82	818328	806476	<0.2	<0.2	0.8	0.8
						1.0	0.3	174	22.9		8.2		30.0		91.8		6.6		2.2		3		81				<0.2		0.7	
					Middle	3.2	0.2	205	22.7	22.7	8.2	8.2	30.0	30.0	90.6	90.6	6.6		8.4		3		81				<0.2		0.8	
						3.2	0.2	211	22.7		8.2		30.0		90.6		6.6		8.3		3		79				<0.2		0.8	
					Bottom	5.4	0.2	191	22.7	22.7	8.2	8.2	30.0	30.0	90.4	90.4	6.6	6.6	5.4		4		85				<0.2		0.7	
						5.4	0.2	190	22.7		8.2		30.0		90.4		6.6		5.0		4		84				<0.2		0.7	
IM2	Cloudy	Moderate	11:27	6.7	Surface	1.0	0.3	196	22.9	22.9	8.2	8.2	29.9	29.9	92.3	92.3	6.7	6.7	7.9	6.5	3	3	80	83	818861	806207	<0.2	<0.2	0.7	0.8
						1.0	0.3	200	22.9		8.2		29.9		92.2		6.7		7.9		3		81				<0.2		0.8	
					Middle	3.4	0.3	201	22.8	22.8	8.2	8.2	29.9	29.9	91.1	91.1	6.6		2.0		2		83				<0.2		0.8	
						3.4	0.3	206	22.8		8.2		29.9		91.0		6.6		2.0		3		82				<0.2		0.8	
					Bottom	5.7	0.4	223	22.7	22.7	8.2	8.2	29.9	29.9	90.5	90.5	6.6	6.6	9.8		2		83				<0.2		0.8	
						5.7	0.3	217	22.7		8.2		29.9		90.5		6.6		9.1		3		86				<0.2		0.8	
IM3	Cloudy	Moderate	11:31	6.3	Surface	1.0	0.2	219	22.7	22.7	8.2	8.2	29.8	29.8	92.8	92.9	6.7	6.8	2.4	3.8	2	2	81	83	819415	806020	<0.2	<0.2	0.8	0.8
						1.0	0.2	217	22.7		8.2		29.8		92.9		6.8		2.4		2		82				<0.2		0.8	
					Middle	3.2	0.2	224	22.7	22.7	8.3	8.3	29.9	29.9	93.3	93.3	6.8		3.0		3		82				<0.2		0.8	
						3.2	0.3	222	22.7		8.3		29.9		93.2		6.8		3.0		2		80				<0.2		0.7	
					Bottom	5.3	0.2	223	22.6	22.6	8.2	8.2	29.9	29.9	91.9	91.9	6.7	6.7	5.8		2		86				<0.2		0.8	
						5.3	0.2	217	22.6		8.2		29.9		91.9		6.7		6.4		3		85				<0.2		0.7	
IM4	Cloudy	Moderate	11:36	7.3	Surface	1.0	0.2	197	22.7	22.7	8.2	8.2	29.6	29.6	91.8	91.8	6.7	6.7	2.2	3.4	3	3	79	83	819595	805033	<0.2	<0.2	0.8	0.8
						1.0	0.2	194	22.7		8.2		29.6		91.8		6.7		2.2		2		81				<0.2		0.8	
					Middle	3.7	0.3	207	22.6	22.6	8.2	8.2	29.9	29.9	91.8	91.8	6.7		3.3		3		82				<0.2		0.7	
						3.7	0.2	213	22.6		8.2		29.9		91.7		6.7		3.4		4		83				<0.2		0.8	
					Bottom	6.3	0.2	225	22.6	22.6	8.2	8.2	29.9	29.9	91.6	91.7	6.7	6.7	4.6		4		86				<0.2		0.8	
						6.3	0.2	218	22.6		8.2		29.9		91.7		6.7		4.7		4		87				<0.2		0.8	
IM5	Cloudy	Moderate	11:47	8.0	Surface	1.0	0.2	184	22.8	22.8	8.2	8.2	28.7	28.7	89.3	89.3	6.5	6.5	1.7	2.2	3	3	81	82	820569	804907	<0.2	<0.2	0.7	0.7
						1.0	0.2	181	22.8		8.2		28.7		89.3		6.5		1.7		4		82				<0.2		0.7	
					Middle	4.0	0.2	186	22.7	22.7	8.2	8.2	29.4	29.4	89.9	89.9	6.5		2.2		3		83				<0.2		0.7	
						4.0	0.2	193	22.7		8.2		29.4		89.9		6.5		2.2		4		83				<0.2		0.7	
					Bottom	7.0	0.2	214	22.7	22.7	8.2	8.2	29.4	29.4	89.9	89.9	6.5	6.5	2.6		3		80				<0.2		0.7	
						7.0	0.2	217	22.7		8.2		29.4		89.9		6.5		2.6		2		80				<0.2		0.8	
IM6	Cloudy	Moderate	11:54	6.8	Surface	1.0	0.2	213	22.9	22.9	8.2	8.2	28.7	28.8	89.0	89.0	6.5	6.5	1.9	2.2	2	4	79	83	821043	805812	<0.2	<0.2	0.8	0.8
						1.0	0.2	215	22.9		8.2		28.8		89.0		6.5		2.0		3		81				<0.2		0.7	
					Middle	3.4	0.1	226	22.8	22.8	8.2	8.2	29.5	29.5	88.4	88.4	6.4		2.5		4		82				<0.2		0.8	
						3.4	0.2	230	22.8		8.2		29.5		88.4		6.4		2.5		4		83				<0.2		0.8	
					Bottom	5.8	0.2	219	22.8	22.8	8.2	8.2	29.5	29.5	88.5	88.5	6.4	6.4	2.3		4		86				<0.2		0.8	
						5.8	0.2	221	22.8		8.2		29.5		88.5		6.4		2.2		4		86				<0.2		0.8	
IM7	Cloudy	Moderate	12:01	7.6	Surface	1.0	0.2	203	22.9	22.9	8.2	8.2	28.3	28.3	88.0	88.0	6.4	6.4	2.0	2.7	3	2	81	82	821353	806837	<0.2	<0.2	0.8	0.8
						1.0	0.2	200	22.8		8.2		28.3		87.9		6.4		2.1		3		82				<0.2		0.8	
					Middle	3.8	0.2	217	22.7	22.7	8.2	8.2	28.8	28.9	88.1	88.2	6.4		2.2		2		83				<0.2		0.8	
						3.8	0.2	213	22.7		8.2		28.9		88.2		6.4		2.2		2		83				<0.2		0.8	
					Bottom	6.6	0.2	206	22.8	22.8	8.2	8.2	29.6	29.6	88.8	88.8	6.5	6.5	3.8		2		80				<0.2		0.9	
						6.6	0.2	199	22.8		8.2		29.5		88.8		6.5		3.6		2		80				<0.2		0.8	
IM8	Fine	Moderate	11:25	7.4	Surface	1.0	0.3	180	22.9	22.9	8.1	8.1	29.2	29.2	85.2	85.2	6.2	6.2	2.7	3.1	3	4	44	68	821708	807845	<0.2	<0.2	0.8	0.8
						1.0	0.3	173	22.9		8.1		29.2		85.2		6.2		2.6		3		44				<0.2		0.8	
					Middle	3.7	0.3	191	22.9	22.9	8.1	8.1	29.3	29.3	85.3	85.4	6.2		2.9		3		78				<0.2		0.8	
						3.7	0.3	188	22.9		8.1		29.3		85.4		6.3		2.8		4		78				<0.2		0.8	
					Bottom	6.4	0.3	161	22.9	22.8	8.1	8.1	29.3	29.3	85.6	85.7	6.3	6.3	3.7		4		82				<0.2		0.8	
						6.4	0.3	164	22.6		8.1		29.2		85.8		6.3		3.7		4		83				<0.2		0.7	

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 09 December 23 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	11:11	8.0	Surface	1.0	0.3	151	22.6	22.6	8.1	8.1	29.0	29.0	85.5	85.5	6.3	6.3	2.1	2.9	4	4	44	69	822100	808803	<0.2	<0.2	0.8	0.8
						1.0	0.3	156	22.6		8.1		29.0		85.5		6.3		2.0		3		44				<0.2		0.8	
					Middle	4.0	0.3	133	22.6	22.8	8.1	8.1	29.2	29.2	85.4	85.4	6.3		2.7		3		79				<0.2		0.9	
						4.0	0.3	137	22.9		8.1		29.2		85.4		6.3		2.6		4		79				<0.2		0.8	
					Bottom	7.0	0.3	129	22.6	22.6	8.1	8.1	29.3	29.3	85.5	85.6	6.3	6.3	3.8		4		83				<0.2		0.8	
						7.0	0.3	126	22.6		8.1		29.3		85.6		6.3		3.9		4		83				<0.2		0.8	
IM10	Fine	Moderate	10:57	7.2	Surface	1.0	0.3	112	22.6	22.6	8.1	8.1	28.8	28.9	83.8	83.8	6.2	6.2	2.1	2.5	4	3	48	74	822237	809844	<0.2	<0.2	0.8	0.8
						1.0	0.3	112	22.6		8.1		28.9		83.8		6.2		2.1		2		48				<0.2		0.8	
					Middle	3.6	0.3	129	22.6	22.6	8.1	8.1	29.0	29.0	84.4	84.5	6.2		2.6		4		86				<0.2		0.8	
						3.6	0.3	128	22.6		8.1		29.0		84.5		6.2		2.7		3		87				<0.2		0.8	
					Bottom	6.2	0.3	118	22.6	22.6	8.1	8.1	29.0	29.0	85.0	85.1	6.3	6.3	2.7		3		87				<0.2		0.9	
						6.2	0.3	122	22.6		8.1		28.9		85.2		6.3		2.8		3		87				<0.2		0.8	
IM11	Fine	Moderate	10:44	8.2	Surface	1.0	0.3	88	22.7	22.7	8.1	8.1	28.8	28.9	85.3	85.3	6.3	6.3	2.2	2.6	4	3	52	77	821522	810562	<0.2	<0.2	0.8	0.8
						1.0	0.3	93	22.7		8.1		28.9		85.3		6.3		2.2		3		53				<0.2		0.9	
					Middle	4.1	0.3	89	22.6	22.6	8.1	8.1	29.2	29.2	85.4	85.5	6.3		2.5		3		87				<0.2		0.9	
						4.1	0.3	85	22.6		8.1		29.2		85.5		6.3		2.5		2		87				<0.2		0.8	
					Bottom	7.2	0.3	119	22.6	22.6	8.1	8.1	29.4	29.4	86.0	86.1	6.3	6.3	3.0		2		90				<0.2		0.8	
						7.2	0.3	117	22.6		8.1		29.3		86.1		6.3		3.0		3		90				<0.2		0.7	
IM12	Fine	Moderate	10:37	8.0	Surface	1.0	0.4	95	22.8	22.8	8.1	8.1	29.6	29.6	85.5	85.5	6.3	6.3	2.4	2.9	2	3	45	73	821149	811523	<0.2	<0.2	0.8	0.8
						1.0	0.4	92	22.8		8.1		29.6		85.5		6.3		2.5		3		46				<0.2		0.8	
					Middle	4.0	0.4	102	22.6	22.6	8.1	8.1	29.6	29.6	85.4	85.5	6.3		2.7		3		86				<0.2		0.8	
						4.0	0.4	99	22.6		8.1		29.6		85.5		6.3		2.6		2		86				<0.2		0.7	
					Bottom	7.0	0.4	106	22.6	22.6	8.1	8.1	29.5	29.5	86.1	86.2	6.3	6.3	3.5		4		87				<0.2		0.8	
						7.0	0.4	102	22.6		8.1		29.5		86.2		6.3		3.5		3		87				<0.2		0.7	
SR1A	Fine	Moderate	10:28	5.0	Surface	1.0	-	-	22.8	22.8	8.1	8.1	29.6	29.6	89.2	89.3	6.5	6.5	1.7	2.4	2	3	-	-	819977	812659	-	-	-	-
						1.0	-	-	22.8		8.1		29.6		89.3		6.5		1.7		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	22.8	22.8	8.1	8.1	29.5	29.5	89.6	89.7	6.6	6.6	3.1		3		-				-		-	
						4.0	-	-	22.8		8.1		29.5		89.7		6.6		3.1		2		-				-		-	
SR2	Fine	Moderate	10:18	5.2	Surface	1.0	0.2	47	22.7	22.7	8.0	8.1	29.6	29.6	89.9	89.3	6.6	6.6	2.1	2.6	3	4	43	65	821486	814152	<0.2	<0.2	0.7	0.8
						1.0	0.3	48	22.7		8.1		29.6		88.7		6.5		2.1		2		43				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	64	22.7	22.7	8.1	8.1	29.6	29.6	89.3	89.4	6.5	6.6	3.1		5		87				<0.2		0.9	
						4.2	0.2	65	22.7		8.1		29.6		89.4		6.6		3.1		4		87				<0.2		0.8	
SR3	Fine	Moderate	11:40	9.0	Surface	1.0	0.3	155	22.6	22.8	8.1	8.1	29.0	29.0	88.7	88.9	6.5	6.6	2.0	2.3	4	3	-	-	822136	807567	-	-	-	-
						1.0	0.3	154	22.9		8.1		29.0		89.0		6.5		2.0		3		-				-		-	
					Middle	4.5	0.3	162	22.9	22.9	8.1	8.1	29.1	29.1	89.5	89.6	6.6		2.1		3		-				-		-	
						4.5	0.3	156	22.9		8.1		29.1		89.7		6.6		2.1		3		-				-		-	
					Bottom	8.0	0.3	154	22.9	22.9	8.1	8.1	29.1	29.1	90.3	90.4	6.6	6.6	2.9		2		-				-		-	
						8.0	0.3	149	22.9		8.1		29.1		90.5		6.6		2.9		3		-				-		-	
SR4A	Cloudy	Moderate	10:33	8.7	Surface	1.0	0.0	41	22.9	22.9	8.3	8.3	30.1	30.1	92.6	92.6	6.7	6.7	1.5	1.6	2	3	-	-	817189	807833	-	-	-	-
						1.0	0.0	37	22.9		8.3		30.1		92.6		6.7		1.5		3		-				-		-	
					Middle	4.4	0.0	61	22.9	22.9	8.3	8.3	30.1	30.1	92.5	92.5	6.7		1.5		2		-				-		-	
						4.4	0.0	64	22.9		8.3		30.1		92.5		6.7		1.5		3		-				-		-	
					Bottom	7.7	0.0	30	22.9	22.9	8.3	8.3	30.1	30.1	92.7	92.7	6.7	6.7	1.7		3		-				-		-	
						7.7	0.1	24	22.9		8.3		30.1		92.7		6.7		1.7		3		-				-		-	
SR5A	Cloudy	Moderate	10:16	3.8	Surface	1.0	0.2	95	22.9	22.9	8.3	8.3	29.5	29.5	88.9	89.0	6.4	6.5	3.2	3.1	2	3	-	-	816575	810709	-	-	-	-
						1.0	0.2	92	22.9		8.3		29.5		89.0		6.5		3.0		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	88	23.0	23.0	8.3	8.3	29.5	29.5	89.1	89.2	6.5	6.5	3.0		3		-				-		-	
						2.8	0.1	89	23.0		8.3		29.5		89.3		6.5		3.3		4		-				-		-	
SR6	Cloudy	Moderate	09:47	5.3	Surface	1.0	0.0	47	22.8	22.8	8.2	8.2	29.4	29.4	83.7	83.7	6.1	6.1	1.9	2.1	5	4	-	-	817888	814644	-	-	-	-
						1.0	0.0	53	22.8		8.2		29.4		83.7		6.1		1.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	37	22.8	22.8	8.2	8.2	29.4	29.4	83.6	83.6	6.1	6.1	2.2		2		-				-		-	
						4.3	0.0	30	22.8		8.2		29.4		83.6		6.1		2.2		3		-				-		-	
SR7	Fine	Moderate	09:33	14.2	Surface	1.0	0.4	84	22.6	22.8	8.1	8.1	28.4	28.4	84.5	84.5	6.3	6.2	2.6	2.8	3	3	-	-	823634	823719	-	-	-	-
						1.0	0.3	89	22.9		8.1		28.4		84.5		6.2		2.5		3		-				-		-	
					Middle	7.1	0.4	91	22.9	22.9	8.1	8.1	28.4	28.4	84.7	84.8	6.2		2.6		3		-				-		-	
						7.1	0.3	83	22.9		8.1		28.4		84.8		6.2		2.6		4		-				-		-	
					Bottom	13.2	0.3	61	22.9	23.0	8.1	8.1	28.5	28.5	87.0	87.3	6.4	6.4	3.1		3		-				-		-	
						13.2	0.4	61	23.0		8.1		28.5		87.6		6.4		3.1		4		-				-		-	
SR8	Fine	Moderate	10:32	4.8	Surface	1.0	-	-	22.6	22.7	8.1	8.1	29.6	29.6	84.8	84.9	6.2	6.2	2.4	3.2	3	3	-	-	820391	811630	-	-	-	-
						1.0	-	-	22.8		8.1		29.6		84.9		6.2		2.4		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.8	22.8	8.1	8.1	29.6	29.6	85.6	85.7	6.3	6.3	4.0		2		-				-		-	
						3.8	-	-	22.8		8.1		29.6		85.8		6.3		4.0		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 09 December 23 during Mid-Flood Tide

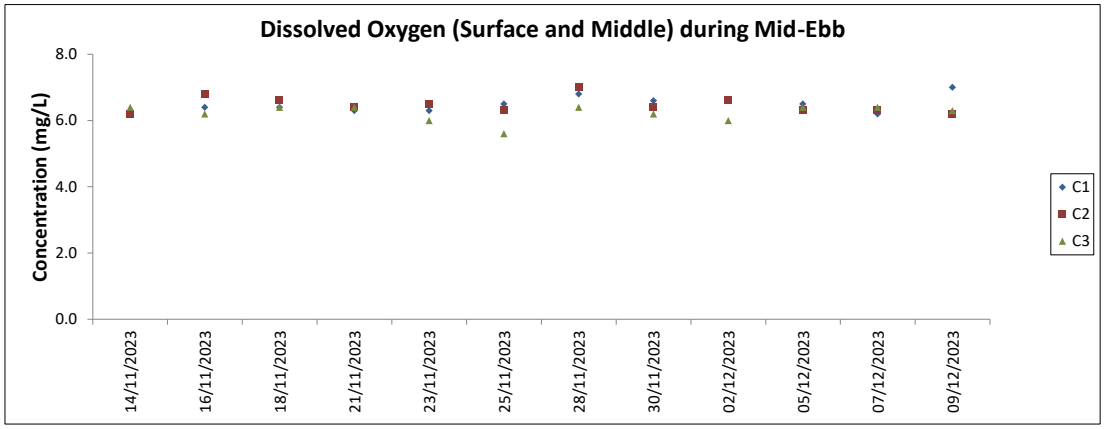
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) 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
C1	Cloudy	Moderate	16:05	8.2	Surface	1.0	0.3	27	23.4	23.4	8.2	8.2	29.7	29.7	93.6	93.6	6.7	6.7	2.0	2.5	3	3	86	86	815634	804264	<0.2	<0.2	0.8	0.8
						1.0	0.3	27	23.4		8.2		29.7		93.6		6.7		2.0		3		87				<0.2		0.8	
					Middle	4.1	0.2	23	22.8	22.8	8.2	8.2	30.1	30.1	91.1	91.1	6.6		3.2		3		88				<0.2		0.8	
						4.1	0.2	24	22.8		8.2		30.1		91.0		6.6		3.7		3		87				<0.2		0.8	
					Bottom	7.2	0.2	17	22.9	22.9	8.2	8.2	29.9	29.9	90.3	90.3	6.5	6.5	2.2		2		85				<0.2		0.9	
						7.2	0.2	21	22.9		8.2		29.9		90.3		6.5		2.1		3		85				<0.2		0.9	
C2	Fine	Moderate	14:33	11.2	Surface	1.0	0.0	257	22.7	22.7	8.1	8.1	28.6	28.6	86.8	86.8	6.4	6.5	2.7	3.6	3	3	47	74	825669	806951	<0.2	<0.2	0.9	0.9
						1.0	0.1	257	22.7		8.0		28.6		86.9		6.4		2.7		4		47				<0.2		0.9	
					Middle	5.6	0.1	267	22.7	22.7	8.0	8.0	28.6	28.6	87.8	88.0	6.5		3.9		3		83				<0.2		0.9	
						5.6	0.1	273	22.7		8.0		28.6		88.1		6.5		3.9		3		83				<0.2		0.9	
					Bottom	10.2	0.1	253	22.7	22.7	8.0	8.0	28.6	28.6	89.4	89.4	6.6	6.6	4.2		3		92				<0.2		0.9	
						10.2	0.1	246	22.7		8.0		28.6		89.6		6.6		4.1		3		92				<0.2		0.8	
C3	Fine	Moderate	16:30	11.0	Surface	1.0	0.4	253	22.5	22.6	8.1	8.1	27.7	27.7	84.5	84.6	6.3	6.3	2.5	3.4	3	2	52	75	822098	817796	<0.2	<0.2	0.9	0.9
						1.0	0.5	255	22.7		8.1		27.7		84.7		6.3		2.5		2		52				<0.2		0.9	
					Middle	5.5	0.5	271	22.7	22.7	8.1	8.1	27.7	27.7	85.5	85.7	6.3		3.6		2		85				<0.2		0.9	
						5.5	0.5	276	22.7		8.1		27.7		85.9		6.4		3.6		2		85				<0.2		0.9	
					Bottom	10.0	0.4	255	22.7	22.6	8.1	8.1	27.7	27.7	87.7	89.7	6.5	6.7	4.0		2		87				<0.2		0.8	
						10.0	0.5	254	22.5		8.1		27.7		91.7		6.8		4.1		2		87				<0.2		0.9	
IM1	Cloudy	Moderate	15:26	6.5	Surface	1.0	0.1	7	22.8	22.8	8.2	8.2	29.8	29.8	93.2	93.2	6.8	6.8	2.4	4.1	2	3	85	88	818339	806461	<0.2	<0.2	0.9	0.9
						1.0	0.1	3	22.8		8.2		29.8		93.2		6.8		2.5		3		86				<0.2		0.9	
					Middle	3.3	0.1	3	22.7	22.7	8.2	8.2	29.9	29.9	92.0	91.9	6.7		4.0		2		87				<0.2		0.9	
						3.3	0.1	6	22.7		8.2		29.9		91.8		6.7		4.1		3		88				<0.2		0.8	
					Bottom	5.5	0.1	3	22.8	22.8	8.2	8.2	29.9	29.9	91.2	91.2	6.6	6.6	5.6		4		91				<0.2		0.9	
						5.5	0.1	3	22.8		8.2		29.9		91.2		6.6		6.2		3		92				<0.2		0.9	
IM2	Cloudy	Moderate	15:23	6.8	Surface	1.0	0.0	297	22.8	22.8	8.2	8.2	29.6	29.6	92.7	92.7	6.7	6.7	1.9	6.9	3	3	86	87	818837	806201	<0.2	<0.2	0.9	1.0
						1.0	0.0	295	22.8		8.2		29.6		92.7		6.7		2.0		3		87				<0.2		1.0	
					Middle	3.4	0.0	285	22.7	22.7	8.2	8.2	29.8	29.8	92.1	92.1	6.7		7.3		2		88				<0.2		1.1	
						3.4	0.1	279	22.7		8.2		29.8		92.1		6.7		7.6		2		88				<0.2		1.0	
					Bottom	5.8	0.1	305	22.7	22.7	8.2	8.2	29.8	29.8	91.9	91.9	6.7	6.7	11.4		3		85				<0.2		1.0	
						5.8	0.2	299	22.7		8.2		29.8		91.9		6.7		11.2		2		85				<0.2		1.0	
IM3	Cloudy	Moderate	15:20	6.5	Surface	1.0	0.1	310	22.7	22.7	8.2	8.2	29.5	29.5	91.6	91.6	6.7	6.7	2.1	6.3	3	2	84	88	819408	806009	<0.2	<0.2	1.0	0.9
						1.0	0.1	317	22.7		8.2		29.5		91.6		6.7		2.4		2		86				<0.2		1.0	
					Middle	3.3	0.1	310	22.7	22.7	8.2	8.2	29.7	29.7	92.0	92.0	6.7		6.1		2		87				<0.2		0.9	
						3.3	0.1	311	22.7		8.2		29.7		92.0		6.7		6.9		2		88				<0.2		1.0	
					Bottom	5.5	0.1	338	22.8	22.8	8.2	8.2	29.7	29.7	91.6	91.6	6.7	6.7	10.4		2		91				<0.2		0.8	
						5.5	0.1	332	22.8		8.2		29.7		91.5		6.6		10.0		2		91				<0.2		0.9	
IM4	Cloudy	Moderate	15:14	7.8	Surface	1.0	0.1	328	22.7	22.7	8.2	8.2	29.4	29.4	90.9	90.9	6.6	6.6	3.3	3.9	3	3	86	88	819574	805023	<0.2	<0.2	0.9	0.9
						1.0	0.0	331	22.7		8.2		29.4		90.9		6.6		3.4		4		87				<0.2		0.9	
					Middle	3.9	0.1	335	22.7	22.7	8.2	8.2	29.4	29.4	90.8	90.8	6.6		3.8		2		87				<0.2		0.9	
						3.9	0.1	338	22.7		8.2		29.4		90.8		6.6		4.0		3		85				<0.2		1.0	
					Bottom	6.8	0.1	339	22.8	22.8	8.2	8.2	29.4	29.4	90.9	90.9	6.6	6.6	4.3		2		91				<0.2		0.9	
						6.8	0.2	335	22.8		8.2		29.4		90.9		6.6		4.3		3		90				<0.2		0.9	
IM5	Cloudy	Moderate	15:05	6.7	Surface	1.0	0.2	338	22.9	22.9	8.2	8.2	28.4	28.4	90.2	90.2	6.6	6.6	1.9	2.0	2	2	86	88	820576	804929	<0.2	<0.2	1.0	1.0
						1.0	0.2	340	22.9		8.2		28.4		90.2		6.6		1.9		2		86				<0.2		1.0	
					Middle	3.4	0.2	307	22.8	22.8	8.2	8.2	29.4	29.4	90.1	90.1	6.6		2.0		2		88				<0.2		0.9	
						3.4	0.2	301	22.8		8.2		29.4		90.1		6.6		2.1		2		88				<0.2		0.9	
					Bottom	5.7	0.1	332	22.9	22.9	8.2	8.2	29.0	29.0	90.0	90.0	6.5	6.6	2.1		2		89				<0.2		1.0	
						5.7	0.1	334	22.9		8.2		29.0		90.0		6.6		2.1		2		92				<0.2		0.9	
IM6	Cloudy	Moderate	14:57	7.4	Surface	1.0	0.1	299	22.9	22.9	8.2	8.2	28.7	28.8	90.6	90.6	6.6	6.6	1.9	3.5	2	2	86	87	821050	805823	<0.2	<0.2	0.9	0.9
						1.0	0.1	293	22.9		8.2		28.8		90.6		6.6		1.9		2		86				<0.2		0.9	
					Middle	3.7	0.1	312	22.9	22.9	8.2	8.2	29.4	29.4	90.5	90.5	6.6		2.1		2		87				<0.2		0.9	
						3.7	0.1	313	22.9		8.2		29.4		90.5		6.6		2.1		2		84				<0.2		0.8	
					Bottom	6.4	0.2	284	22.9	22.9	8.2	8.2	29.4	29.4	90.4	90.4	6.6	6.6	6.4		<2		90				<0.2		0.9	
						6.4	0.1	278	22.9		8.2		29.4		90.4		6.6		6.3		<2		89				<0.2		1.0	
IM7	Cloudy	Moderate	14:42	8.0	Surface	1.0	0.2	240	22.9	22.9	8.2	8.2	28.2	28.3	88.3	88.3	6.5	6.5	2.0	2.2	2	2	85	88	821340	806830	<0.2	<0.2	1.0	0.9
						1.0	0.2	243	22.9		8.2		28.3		88.3		6.5		2.1		2		86				<0.2		0.9	
					Middle	4.0	0.1	258	22.7	22.7	8.2	8.2	29.3	29.3	88.2	88.2	6.4		2.2		<2		88				<0.2		0.9	
						4.0	0.2	264	22.7		8.2		29.3		88.2		6.4		2.3		<2		87				<0.2		0.9	
					Bottom	7.0	0.2	264	22.8	22.8	8.2	8.2	29.3	29.3	87.9	87.9	6.4	6.4	2.3		<2		88				<0.2		0.9	
						7.0	0.1	260	22.8		8.2		29.2		87.9		6.4		2.3		<2		91				<0.2		0.9	
IM8	Fine	Moderate	14:52	7.2	Surface	1.0	0.1	233	22.9	22.9	8.1	8.1	27.6	27.7	85.0	85.2	6.3	6.4	2.0	3.1	2	2	45	71	821704	807836	<0.2	<0.2	0.8	0.9
						1.0	0.1	229	22.9		8.1		27.7		85.4		6.3		2.1		2		45				<0.2		0.9	
					Middle	3.6	0.2	231	22.9	22.9	8.1	8.1	27.8	27.9	86.9	87.1	6.4		3.1		<2		82				<0.2		0.9	
						3.6	0.2	229	22.9		8.1		27.9		87.2		6.4		3.1		<2		82				<0.2		1.0	
					Bottom	6.2	0.1	238	22.9	22.9	8.1	8.1	28.0	28.1	88.4	88.6	6.5	6.5	4.0		<2		84				<0.2		0.9	
						6.2	0.2	242	22.9		8.1		28.1		88.8		6.5		4.0		<2		85				<0.2		0.9	

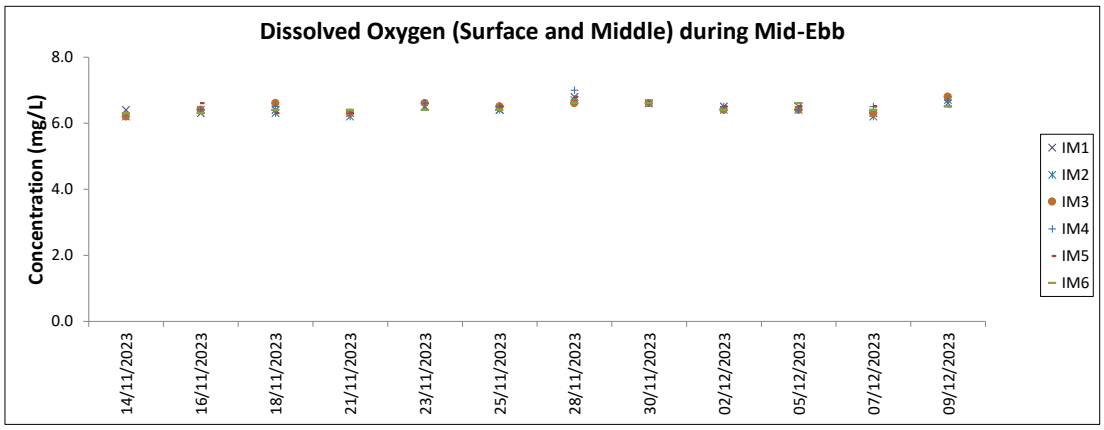
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 09 December 23 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	14:58	7.0	Surface	1.0	0.1	264	22.6	22.6	8.1	8.1	28.6	28.6	82.3	82.4	6.1	6.3	2.1	3.4	3	3	56	76	822106	808810	<0.2	<0.2	0.8	0.9
						1.0	0.1	260	22.6		8.1		28.6		82.4		6.1		2.2		4		56				<0.2		0.9	
					Middle	3.5	0.2	248	22.6	22.6	8.1	8.1	28.8	28.8	86.5	86.7	6.4		3.8		2		83				<0.2		0.9	
						3.5	0.2	250	22.6		8.1		28.8		86.8		6.4		3.7		2		83				<0.2		0.8	
					Bottom	6.0	0.1	274	22.6	22.6	8.1	8.1	28.8	28.8	88.4	88.8	6.5	6.6	4.2		2		90				<0.2		1.0	
						6.0	0.2	269	22.6		8.1		28.8		89.2		6.6		4.1		2		90				<0.2		0.9	
IM10	Fine	Moderate	15:07	8.0	Surface	1.0	0.3	259	22.7	22.7	8.1	8.1	28.8	28.8	82.7	82.8	6.1	6.2	2.0	2.5	2	2	52	77	822244	809825	<0.2	<0.2	0.9	0.9
						1.0	0.3	260	22.7		8.1		28.8		82.9		6.1		2.0		2		52				<0.2		0.8	
					Middle	4.0	0.3	264	22.7	22.7	8.1	8.1	28.8	28.8	85.5	85.9	6.3		2.4		2		89				<0.2		0.8	
						4.0	0.2	270	22.7		8.1		28.8		86.2		6.4		2.4		2		89				<0.2		0.9	
					Bottom	7.0	0.2	276	22.7	22.7	8.1	8.1	28.8	28.8	88.3	88.7	6.5	6.6	3.1		<2		90				<0.2		1.0	
						7.0	0.1	270	22.7		8.1		28.8		89.1		6.6		3.1		<2		90				<0.2		0.9	
IM11	Fine	Moderate	15:22	8.2	Surface	1.0	0.3	271	22.7	22.7	8.1	8.1	28.9	28.9	86.2	86.3	6.4	6.4	2.1	3.4	2	2	63	75	821507	810528	<0.2	<0.2	0.8	0.9
						1.0	0.3	268	22.7		8.1		28.9		86.4		6.4		2.1		2		63				<0.2		0.9	
					Middle	4.1	0.3	265	22.6	22.6	8.1	8.1	28.9	28.9	87.0	87.1	6.4		3.7		2		78				<0.2		0.9	
						4.1	0.2	258	22.6		8.1		28.9		87.2		6.4		3.6		2		78				<0.2		0.9	
					Bottom	7.2	0.2	256	22.6	22.6	8.1	8.1	28.9	28.9	93.0	93.3	6.9	6.9	4.3		<2		85				<0.2		1.0	
						7.2	0.3	257	22.6		8.1		28.8		93.6		6.9		4.3		<2		85				<0.2		1.0	
IM12	Fine	Moderate	15:28	8.0	Surface	1.0	0.3	296	22.7	22.7	8.1	8.1	28.9	28.9	86.2	86.3	6.4	6.4	2.0	2.4	<2	<2	48	71	821167	811508	<0.2	<0.2	0.8	0.9
						1.0	0.3	300	22.7		8.1		28.9		86.4		6.4		2.0		<2		48				<0.2		0.9	
					Middle	4.0	0.3	270	22.6	22.6	8.1	8.1	28.9	28.9	87.1	87.1	6.4		2.1		<2		79				<0.2		0.9	
						4.0	0.3	263	22.6		8.1		28.9		87.1		6.4		2.1		<2		79				<0.2		0.9	
					Bottom	7.0	0.3	276	22.6	22.6	8.1	8.1	28.8	28.8	93.1	93.3	6.9	6.9	3.1		<2		87				<0.2		0.8	
						7.0	0.3	280	22.6		8.1		28.8		93.4		6.9		3.1		<2		87				<0.2		0.9	
SR1A	Fine	Moderate	15:58	4.0	Surface	1.0	-	-	22.5	22.5	8.1	8.1	28.8	28.8	82.0	84.0	6.1	6.3	2.1	2.9	2	2	-	-	819980	812661	-	-	-	-
						1.0	-	-	22.5		8.1		28.8		85.9		6.4		2.1		3		-				-		-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.0	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	-	-	22.5	22.5	8.1	8.1	28.8	28.8	87.4	87.8	6.5	6.5	3.7		2		-				-		-	
						3.0	-	-	22.5		8.1		28.8		88.1		6.5		3.6		2		-				-		-	
SR2	Fine	Moderate	16:09	5.2	Surface	1.0	0.1	227	22.7	22.7	8.1	8.1	28.8	28.8	86.6	86.8	6.4	6.4	3.1	3.6	2	2	72	87	821458	814178	<0.2	<0.2	0.9	0.9
						1.0	0.1	233	22.7		8.1		28.8		86.9		6.4		3.1		2		72				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	251	22.7	22.7	8.1	8.1	28.8	28.8	89.7	90.2	6.6	6.7	4.1		2		102				<0.2		0.9	
						4.2	0.1	254	22.7		8.1		28.8		90.7		6.7		4.1		3		102				<0.2		0.8	
SR3	Fine	Moderate	14:36	9.4	Surface	1.0	0.1	231	22.8	22.8	8.1	8.1	28.6	28.6	86.0	86.1	6.3	6.4	2.1	3.1	2	2	-	-	822158	807553	-	-	-	-
						1.0	0.1	225	22.8		8.1		28.6		86.1		6.3		2.1		3		-				-		-	
					Middle	4.7	0.1	222	22.8	22.8	8.1	8.1	28.6	28.6	87.2	87.5	6.4		3.1		3		-				-		-	
						4.7	0.1	215	22.8		8.1		28.6		87.8		6.5		3.1		2		-				-		-	
					Bottom	8.4	0.1	224	22.7	22.7	8.1	8.1	28.6	28.6	90.1	90.3	6.7	6.7	4.1		<2		-				-		-	
						8.4	0.1	220	22.7		8.1		28.6		90.4		6.7		4.1		<2		-				-		-	
SR4A	Cloudy	Moderate	16:32	8.4	Surface	1.0	0.1	171	23.2	23.2	8.2	8.2	29.9	29.9	94.6	94.6	6.8	6.8	6.1	5.5	<2	<2	-	-	817170	807829	-	-	-	-
						1.0	0.0	169	23.2		8.2		29.9		94.5		6.8		6.2		<2		-				-		-	
					Middle	4.2	0.0	186	23.0	23.0	8.3	8.3	30.0	30.0	92.6	92.6	6.7		1.5		<2		-				-		-	
						4.2	0.1	185	23.0		8.3		30.0		92.5		6.7		1.6		<2		-				-		-	
					Bottom	7.4	0.1	165	22.9	23.0	8.3	8.3	30.0	30.0	91.9	91.9	6.6	6.6	8.8		<2		-				-		-	
						7.4	0.1	170	23.0		8.3		30.0		91.9		6.6		8.6		<2		-				-		-	
SR5A	Cloudy	Moderate	16:47	3.7	Surface	1.0	0.1	305	23.3	23.3	8.2	8.2	29.6	29.7	92.2	92.1	6.6	6.6	4.0	7.1	3	2	-	-	816575	810685	-	-	-	-
						1.0	0.1	297	23.3		8.2		29.7		92.0		6.6		4.0		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	318	23.2	23.3	8.2	8.2	29.7	29.7	91.1	91.2	6.6	6.6	10.1		<2		-				-		-	
						2.7	0.1	316	23.3		8.2		29.7		91.2		6.6		10.3		<2		-				-		-	
SR6	Cloudy	Moderate	17:12	4.0	Surface	1.0	0.1	246	23.1	23.1	8.2	8.2	29.1	29.1	89.1	89.1	6.5	6.5	3.6	7.7	<2	<2	-	-	817883	814662	-	-	-	-
						1.0	0.1	239	23.1		8.2		29.1		89.1		6.5		3.6		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	230	23.2	23.2	8.2	8.2	29.0	29.0	89.7	89.8	6.5	6.5	11.4		<2		-				-		-	
						3.0	0.1	230	23.2		8.2		29.0		89.8		6.5		12.2		<2		-				-		-	
SR7	Fine	Moderate	17:00	14.2	Surface	1.0	0.9	250	22.7	22.7	8.1	8.1	27.7	27.7	85.5	85.7	6.3	6.4	1.5	2.1	2	2	-	-	823658	823738	-	-	-	-
						1.0	0.9	246	22.7		8.1		27.7		85.8		6.4		1.5		2		-				-		-	
					Middle	7.1	1.0	236	22.7	22.7	8.1	8.1	27.7	27.7	86.4	86.6	6.4		1.9		3		-				-		-	
						7.1	1.0	237	22.7		8.1		27.7		86.7		6.4		1.9		2		-				-		-	
					Bottom	13.2	0.9	257	22.7	22.7	8.1	8.1	27.7	27.7	88.6	90.2	6.6	6.7	3.0		2		-				-		-	
						13.2	0.9	250	22.7		8.1		27.7		91.8		6.8		3.0		2		-				-		-	
SR8	Fine	Moderate	15:42	4.8	Surface	1.0	-	-	22.7	22.7	8.1	8.1	28.8	28.8	82.9	82.9	6.1	6.1	4.6	5.1	2	3	-	-	820375	811628	-	-	-	-
						1.0	-	-	22.7		8.1		28.8		82.9		6.1		4.6		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.6	22.6	8.1	8.1	28.8	28.8	89.0	89.5	6.6	6.6	5.5		4		-				-		-	
						3.8	-	-	22.6		8.1		28.8		89.9		6.6		5.5		4		-				-		-	

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


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
02/12/2023
05/12/2023
07/12/2023
09/12/2023
C1
C2
C3


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
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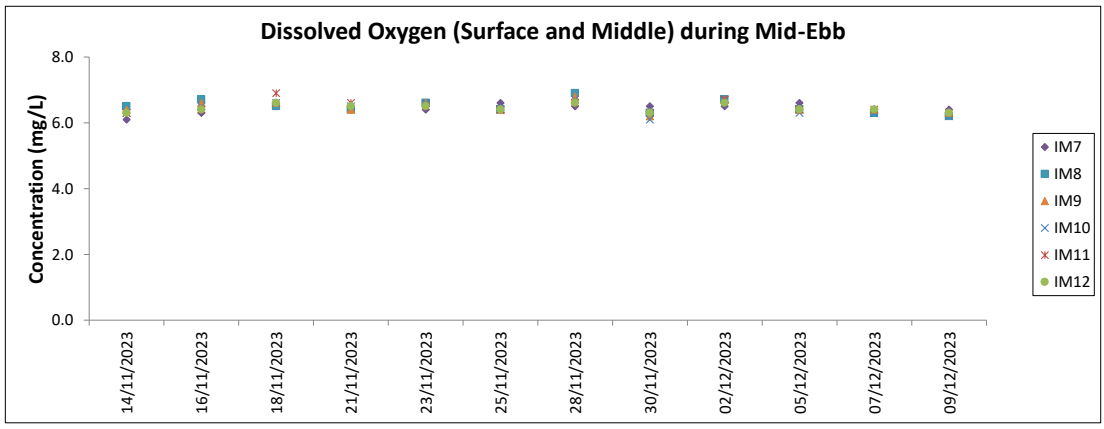
IM4
IM5
IM6


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
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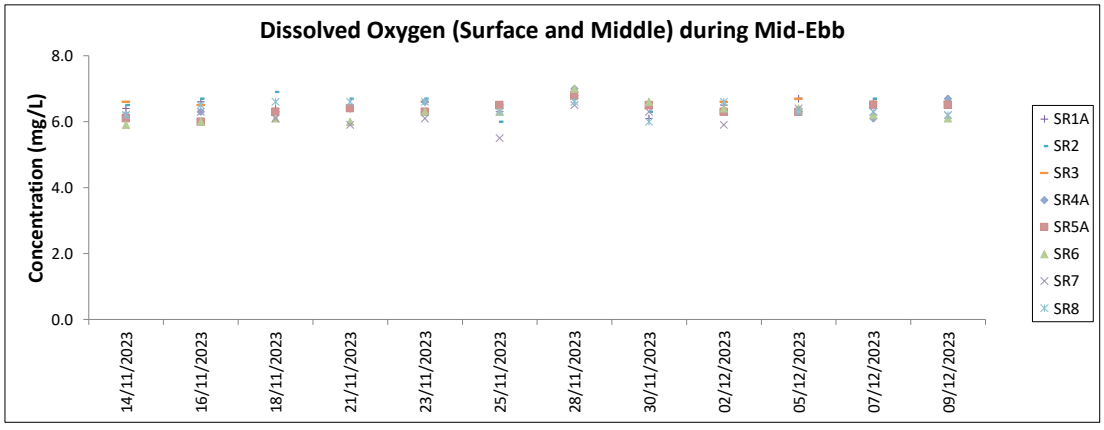
IM10
IM11
IM12


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
02/12/2023
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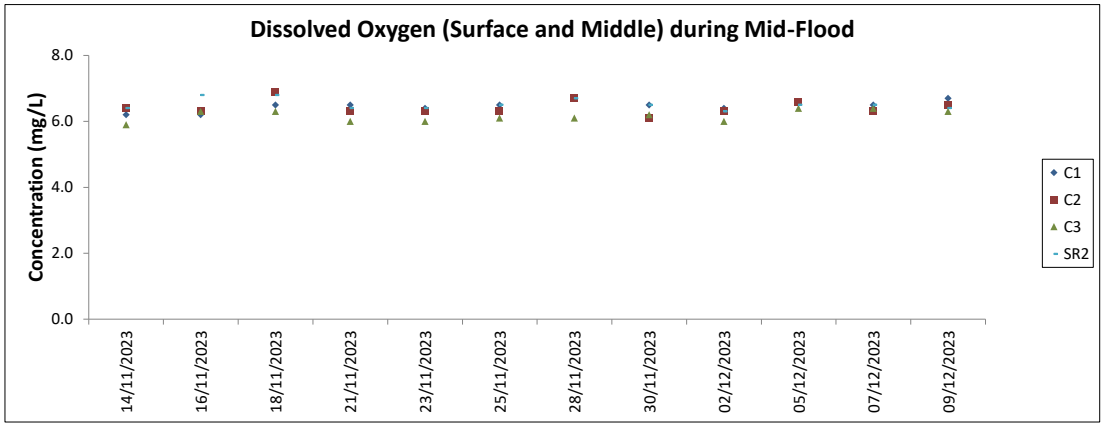
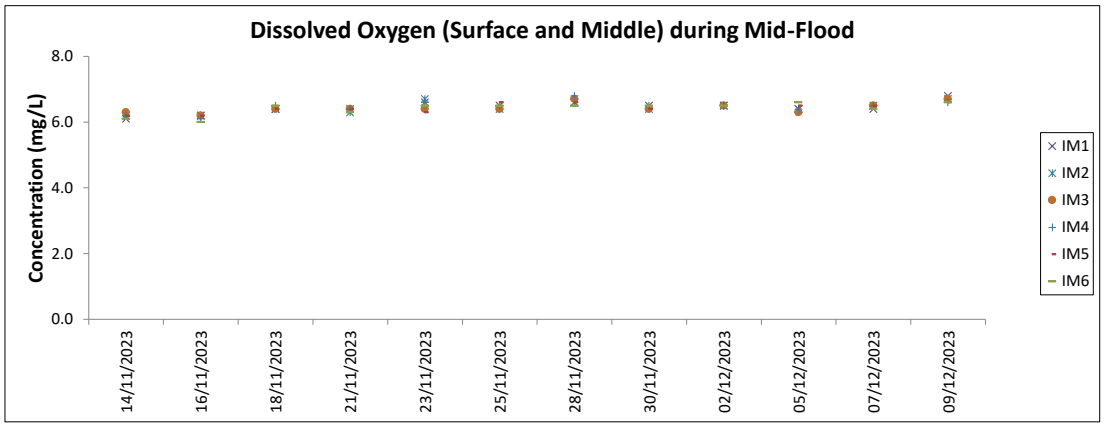
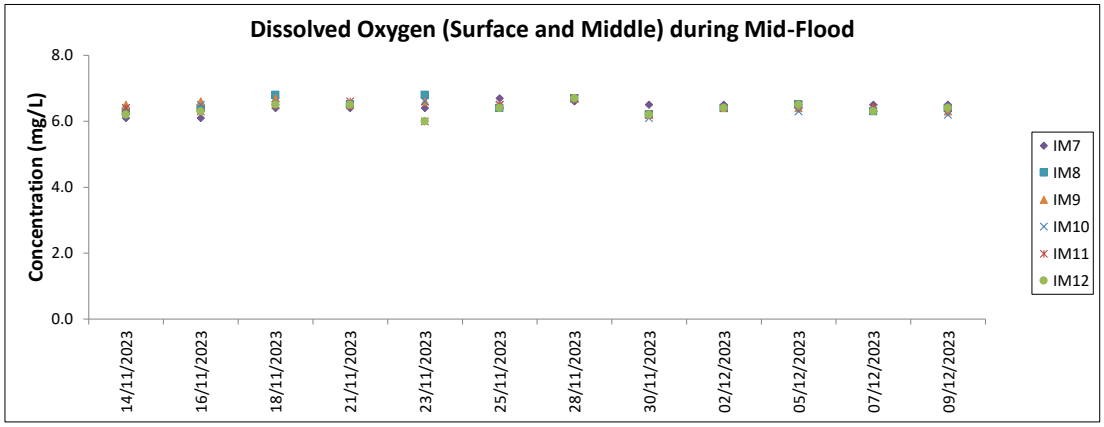
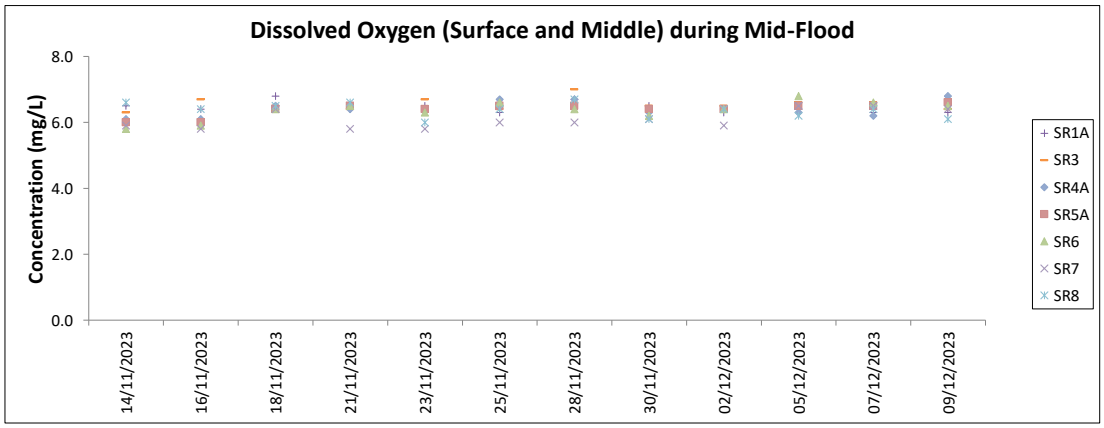
09/12/2023
SR1A
SR2
SR3
SR4A
SR5A
SR6
SR7
SR8









Note:

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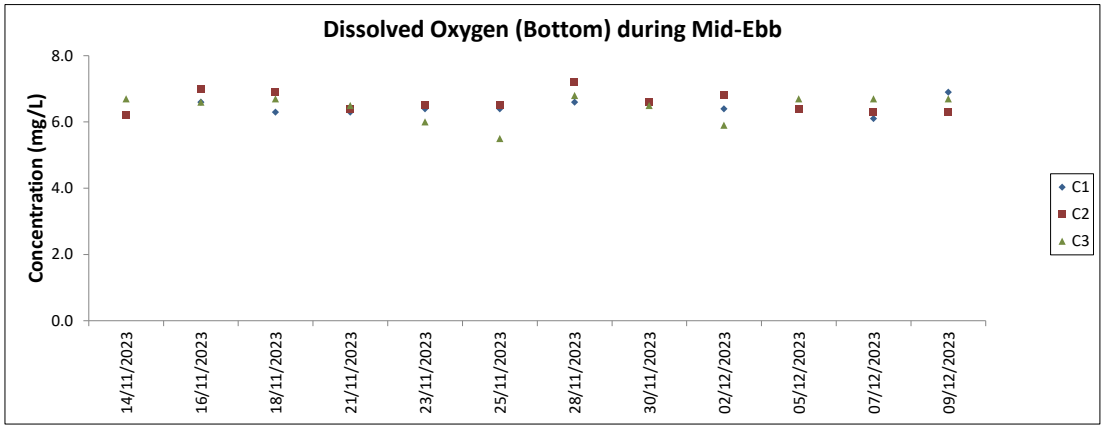
Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
8.0
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4.0
2.0
0.0
14/11/2023
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18/11/2023
21/11/2023
23/11/2023
25/11/2023
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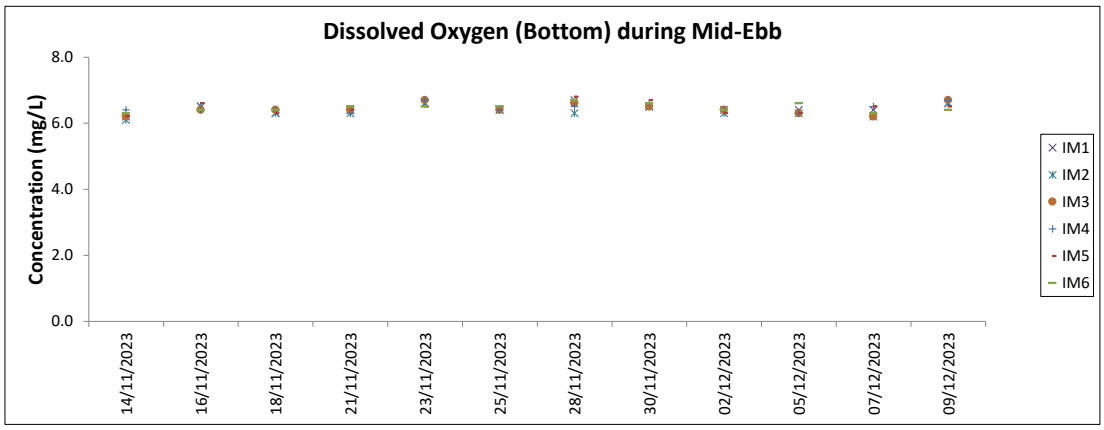
C1
C2
C3


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
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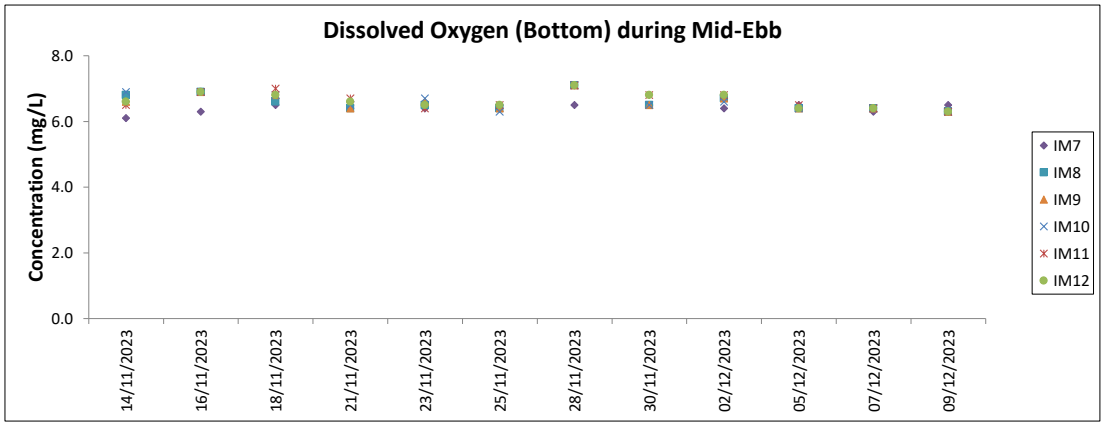
IM4
IM5
IM6


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
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18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
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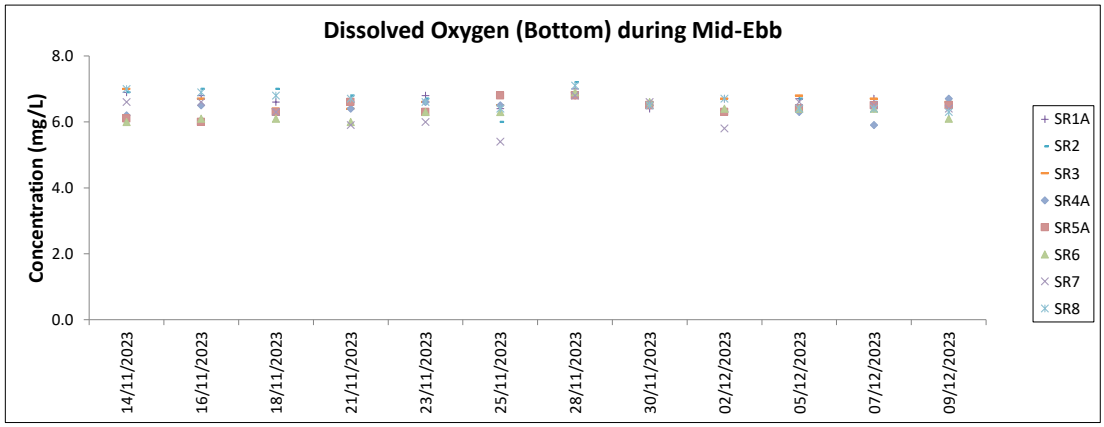
IM10
IM11
IM12


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
8.0
6.0
4.0
2.0
0.0
14/11/2023
16/11/2023
18/11/2023
21/11/2023
23/11/2023
25/11/2023
28/11/2023
30/11/2023
02/12/2023
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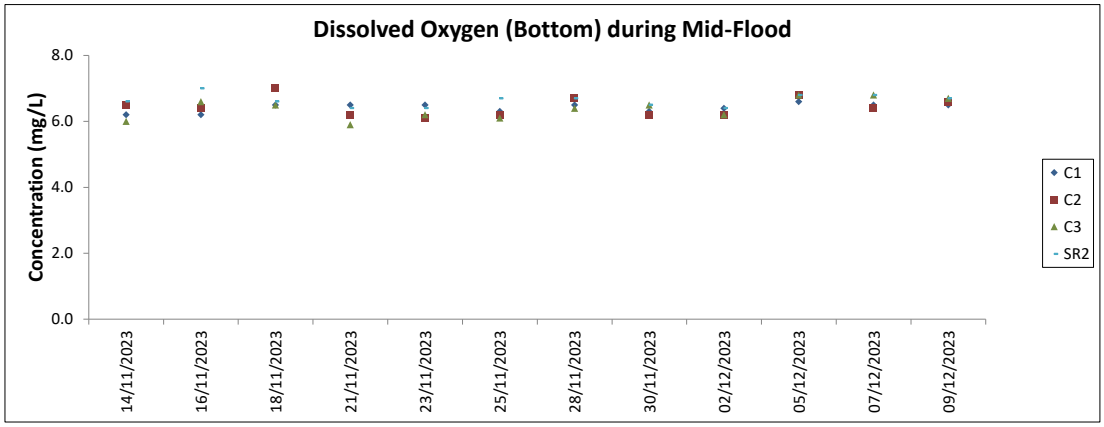
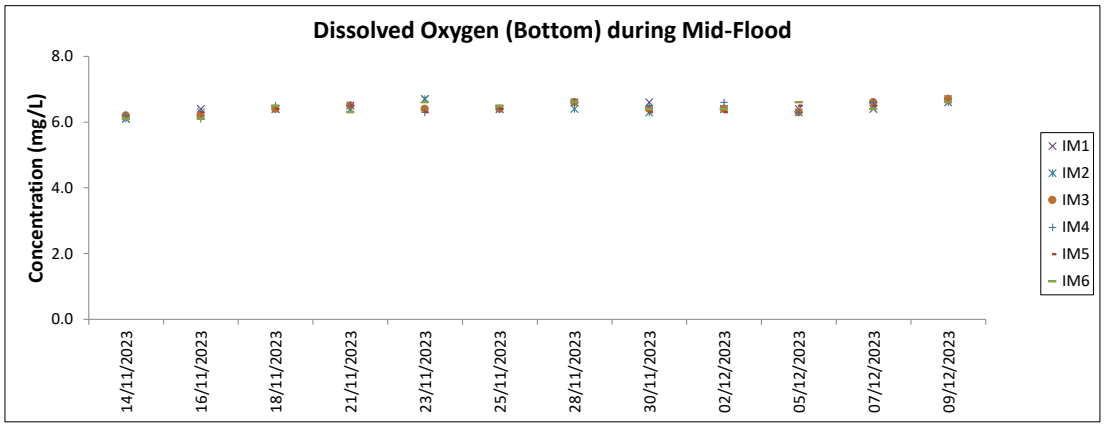
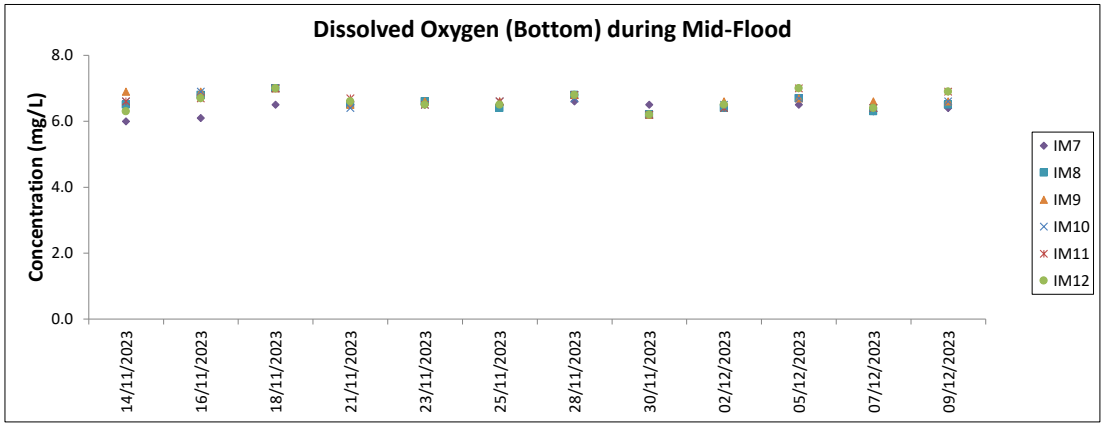
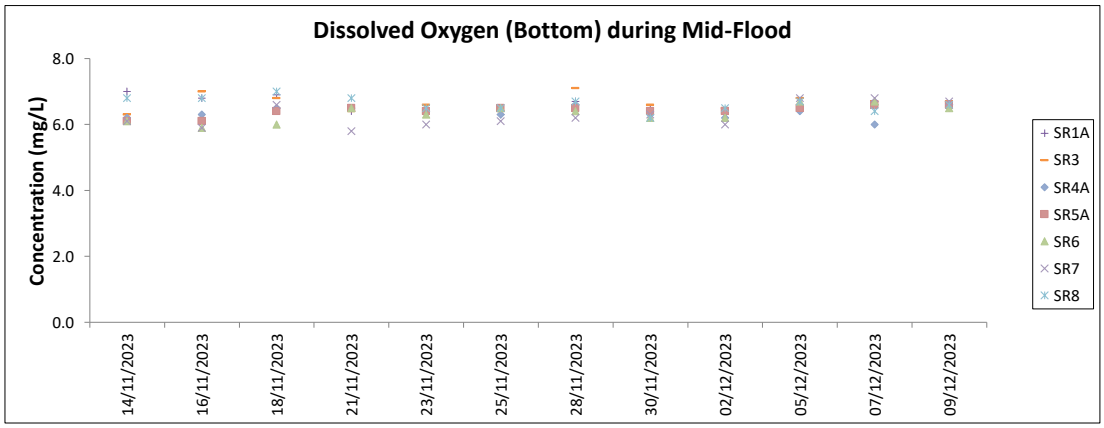
SR1A
SR2
SR3
SR4A
SR5A
SR6
SR7
SR8









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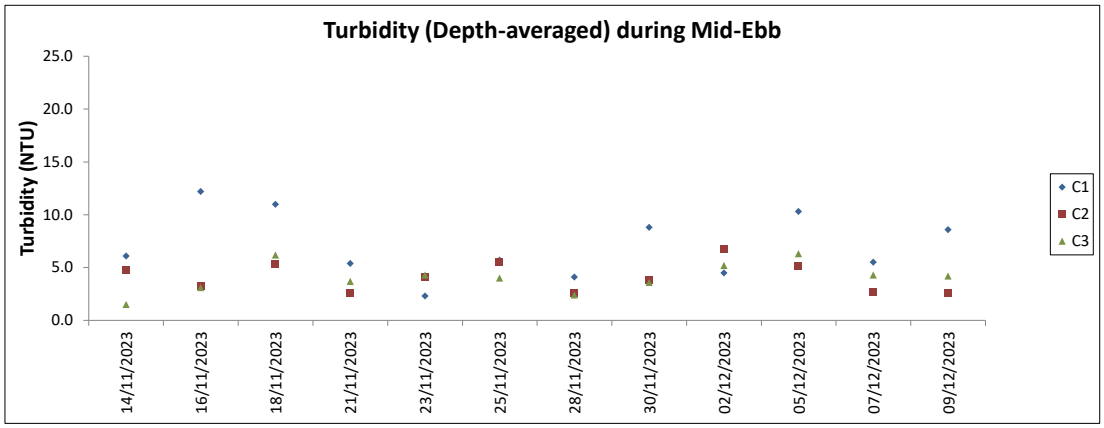

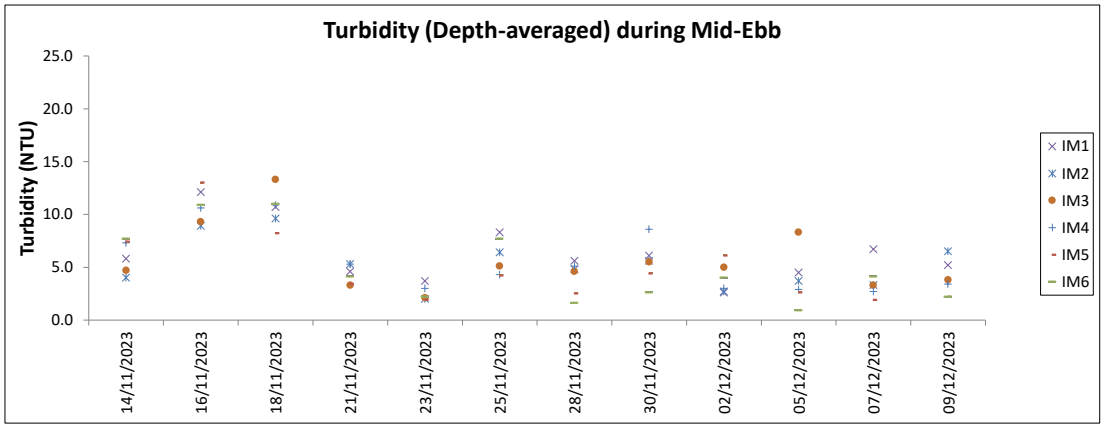

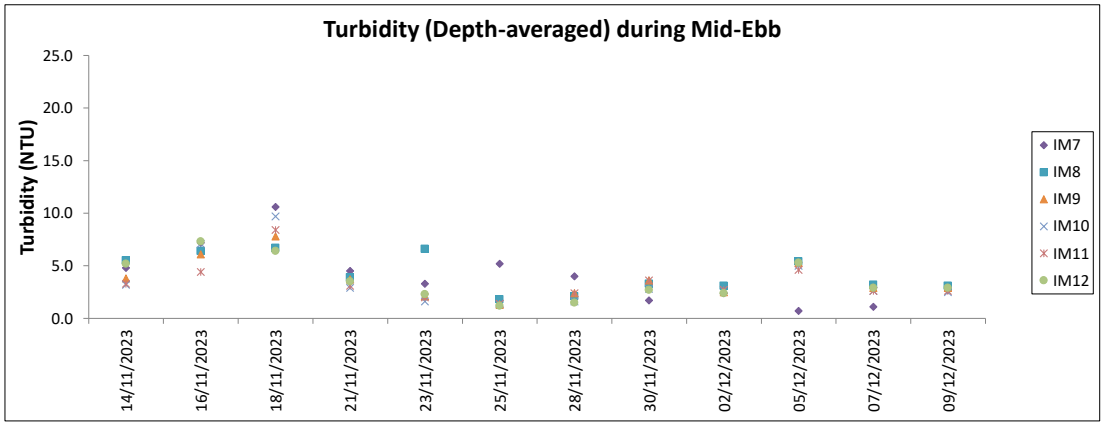

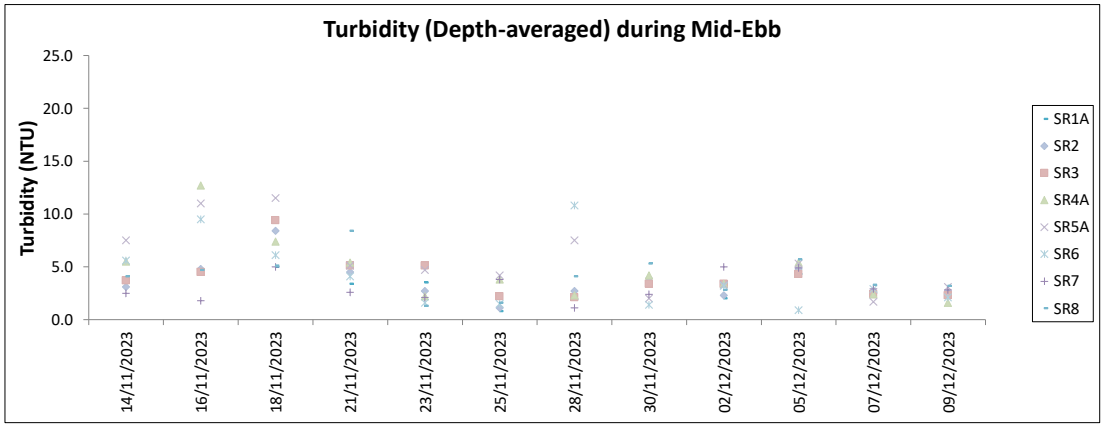

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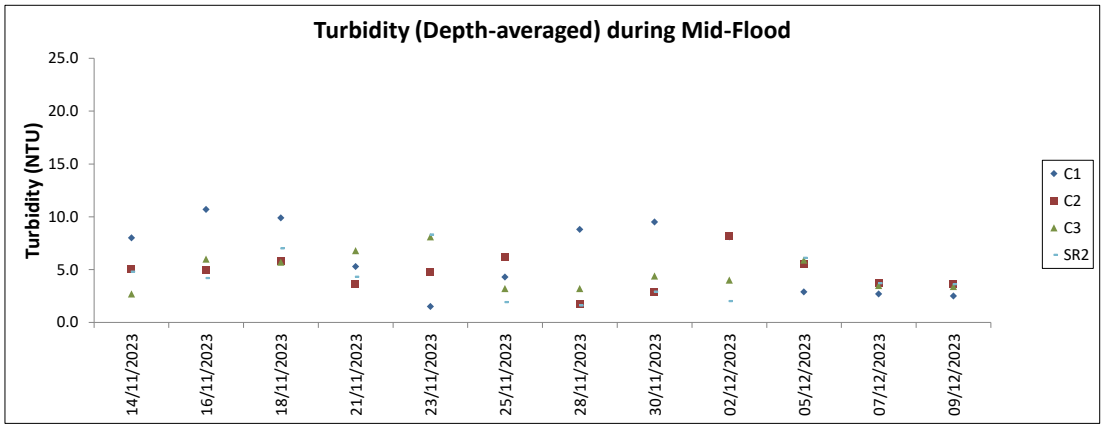

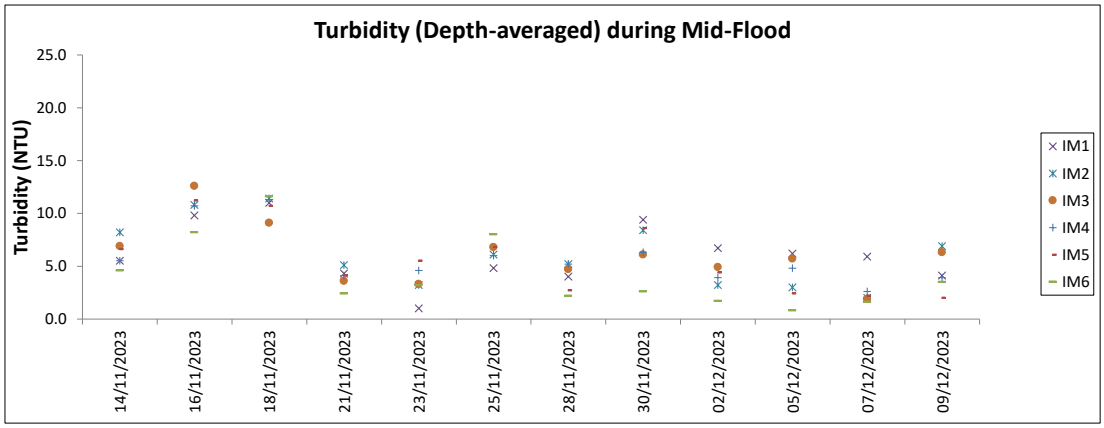

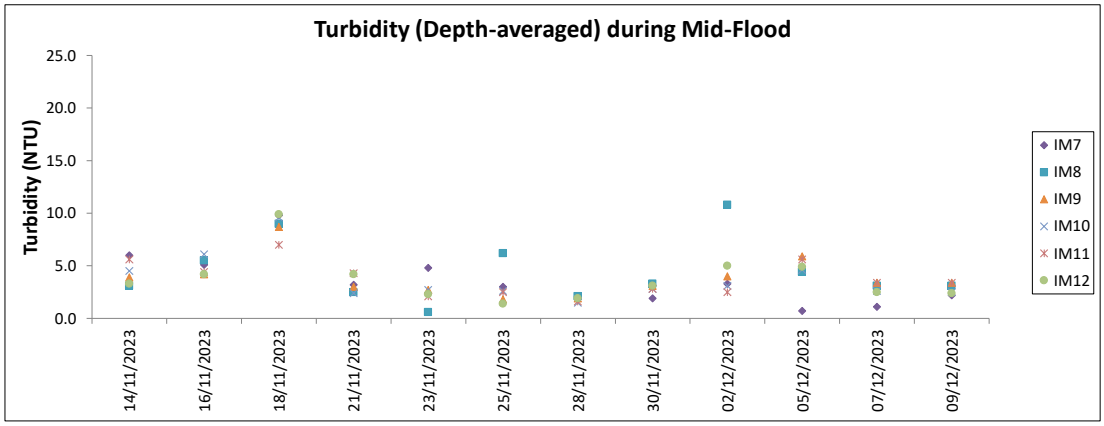

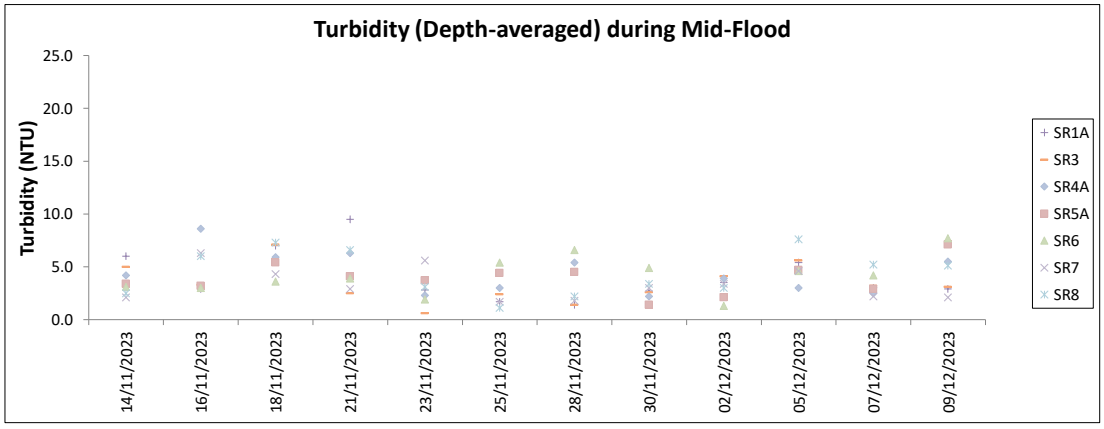

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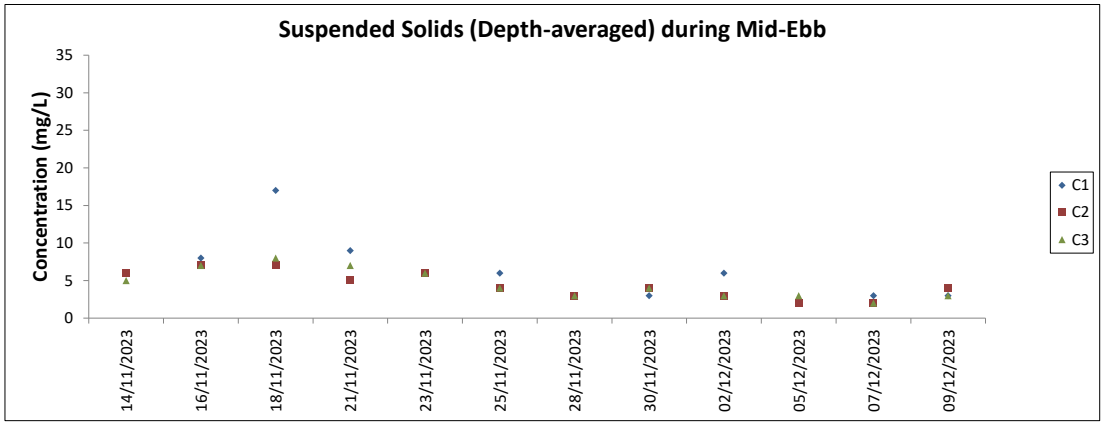

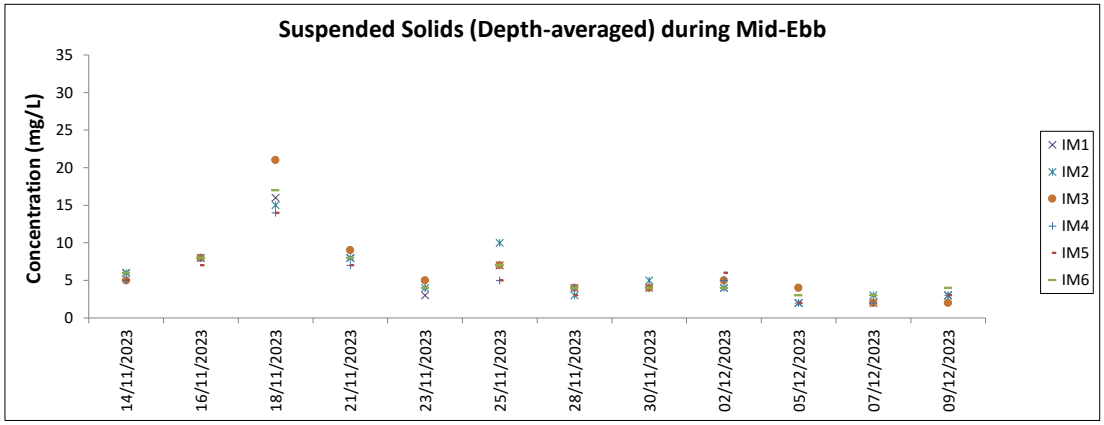

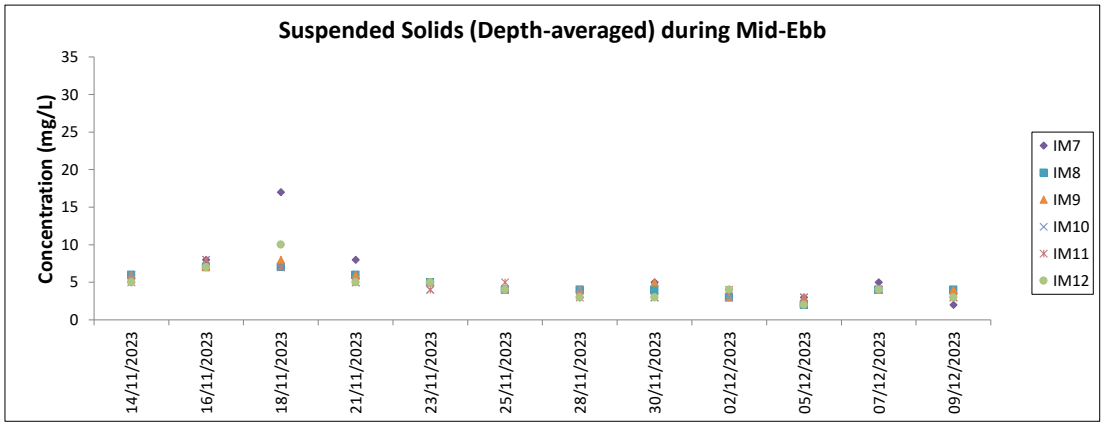

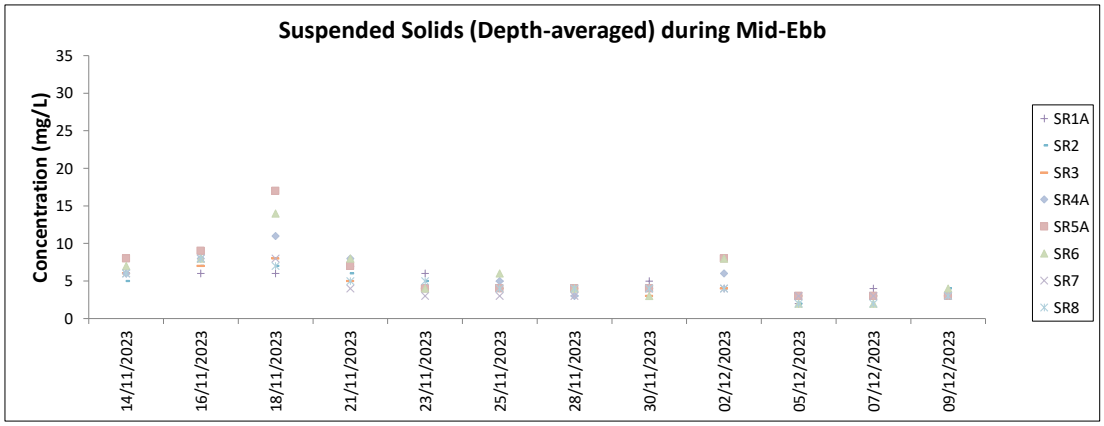

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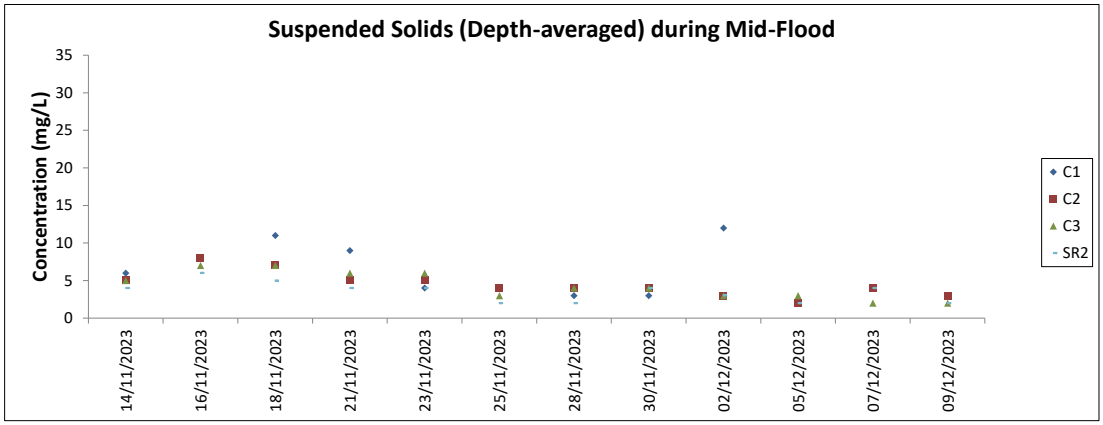

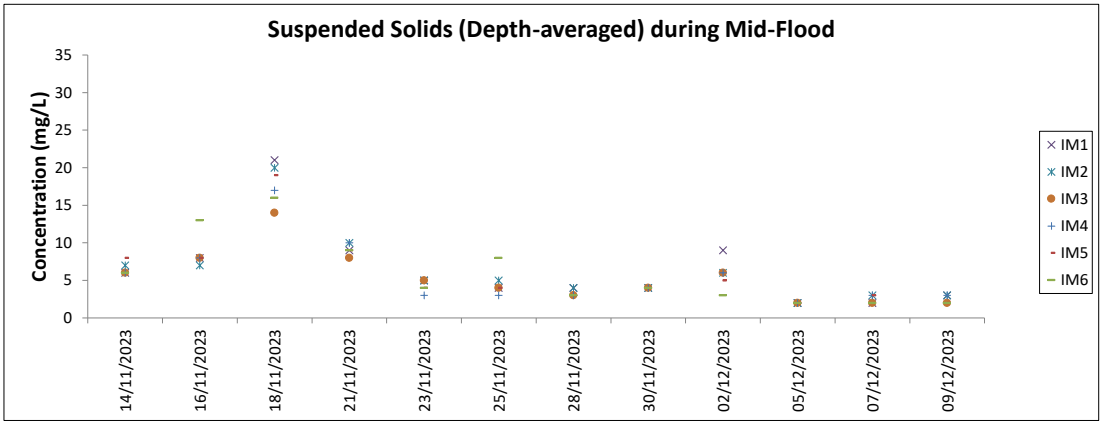

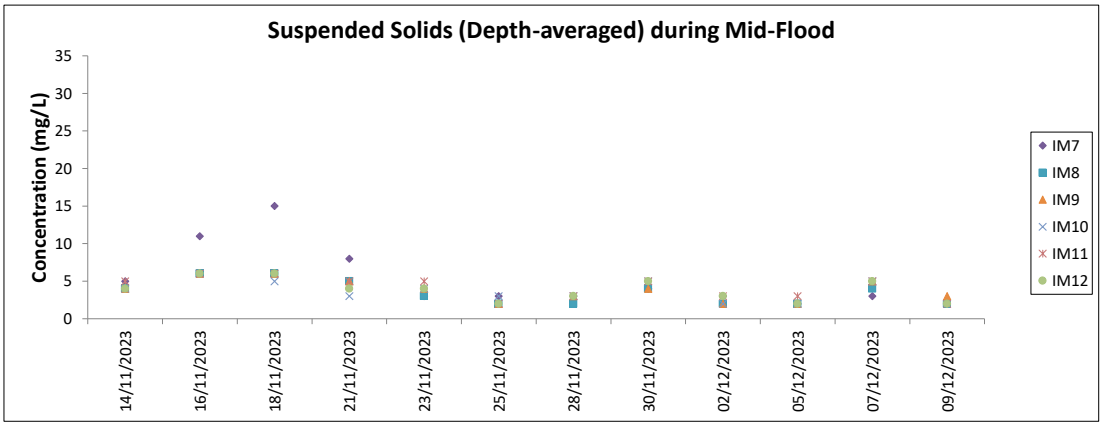

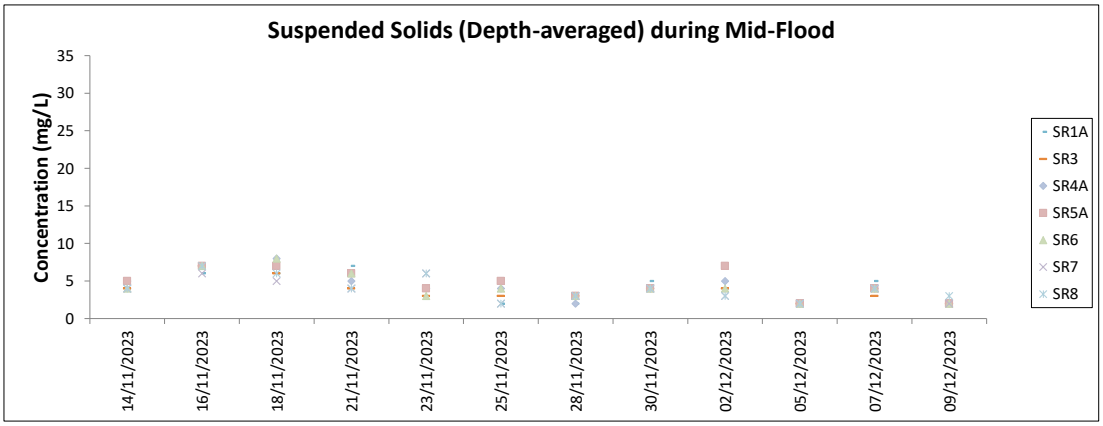

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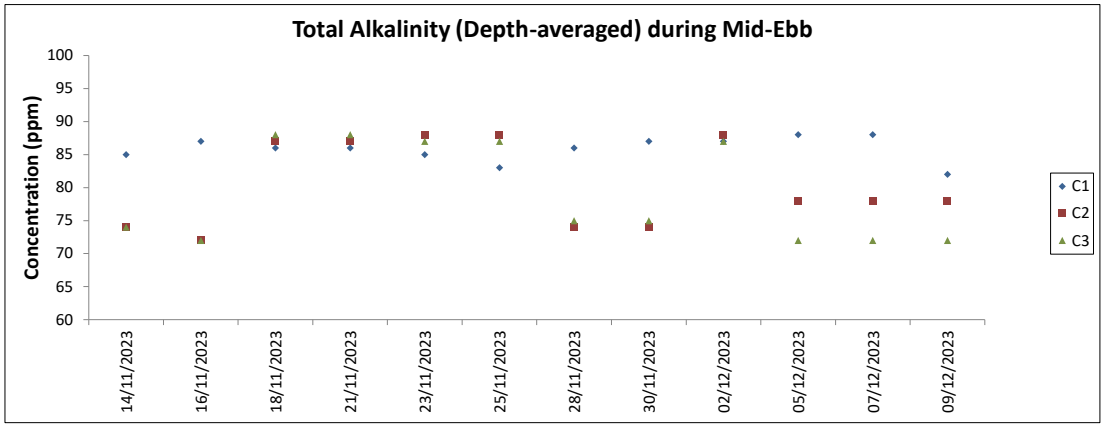

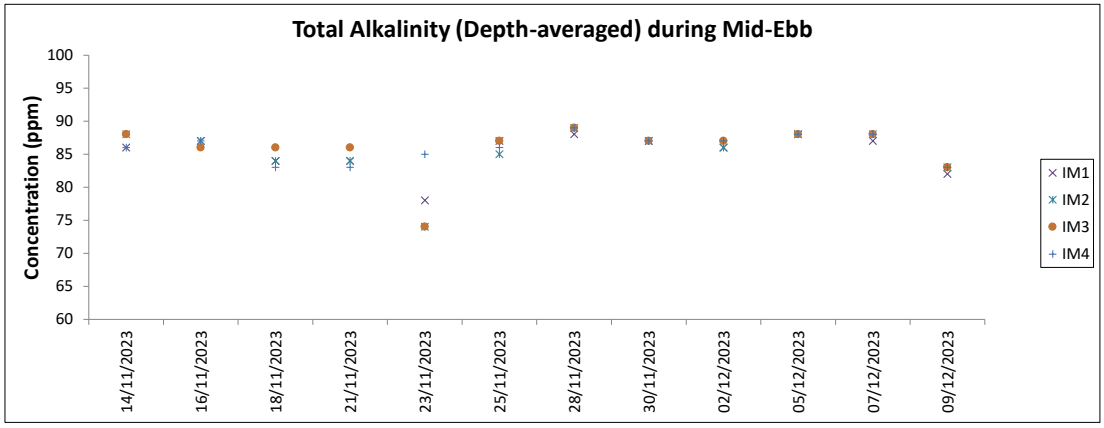

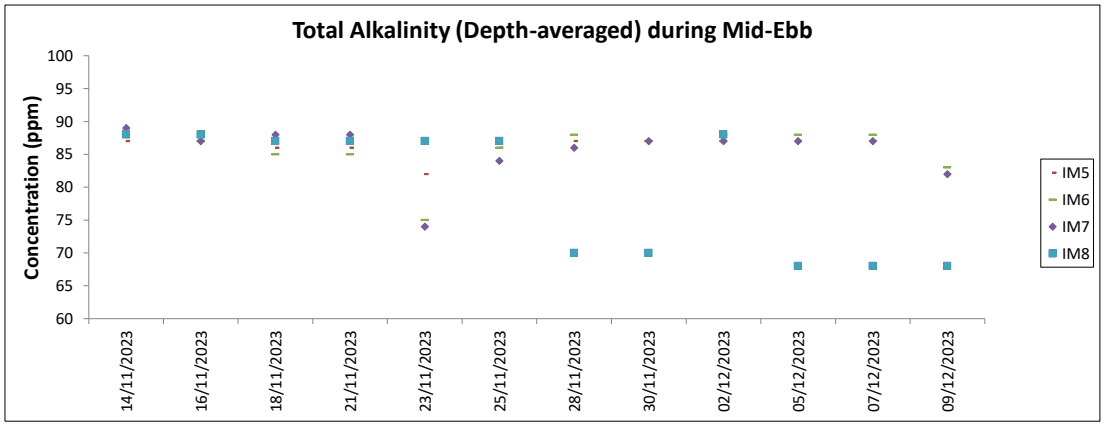

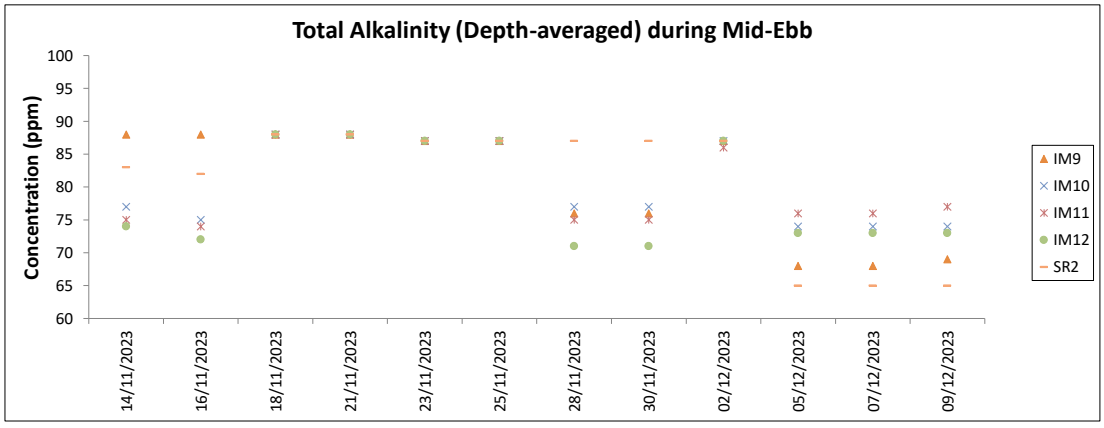

Note:

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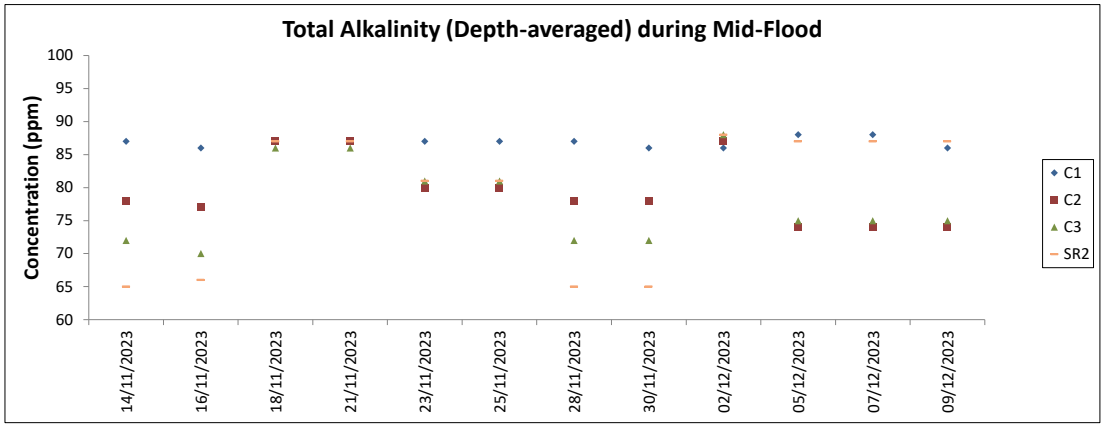

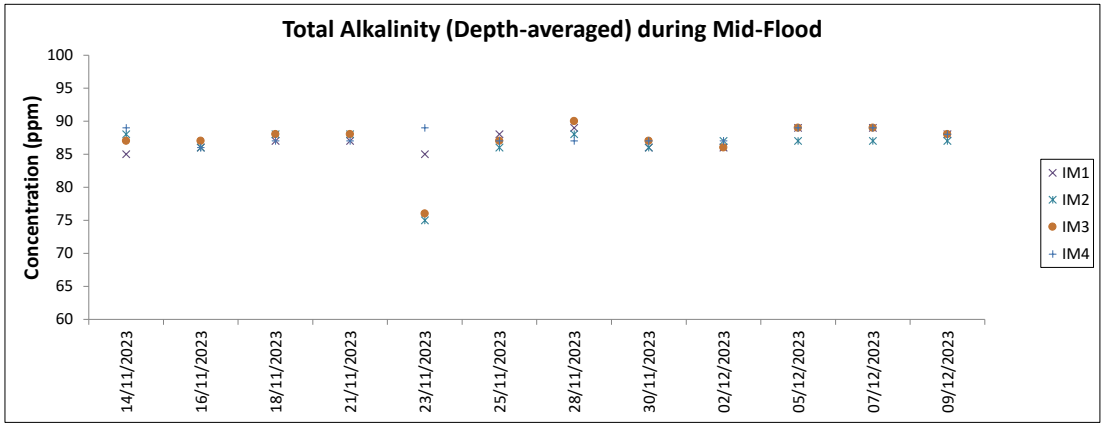

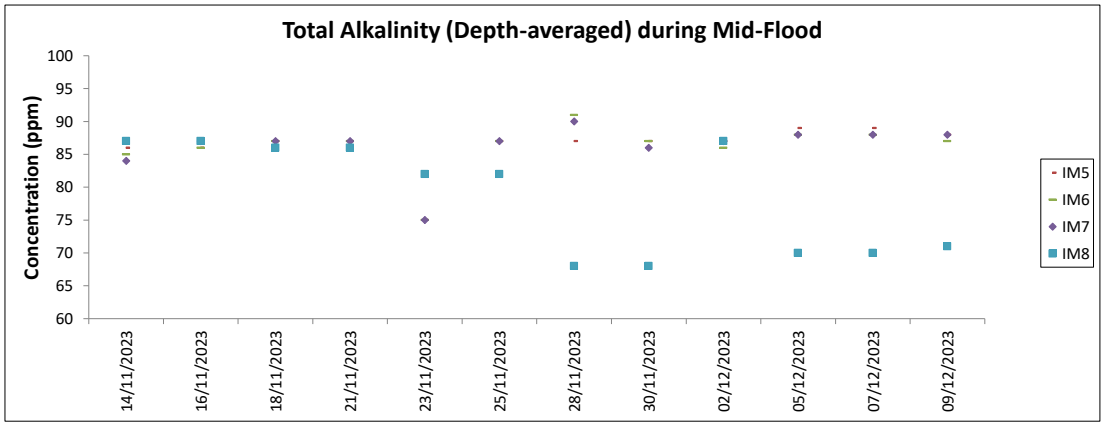

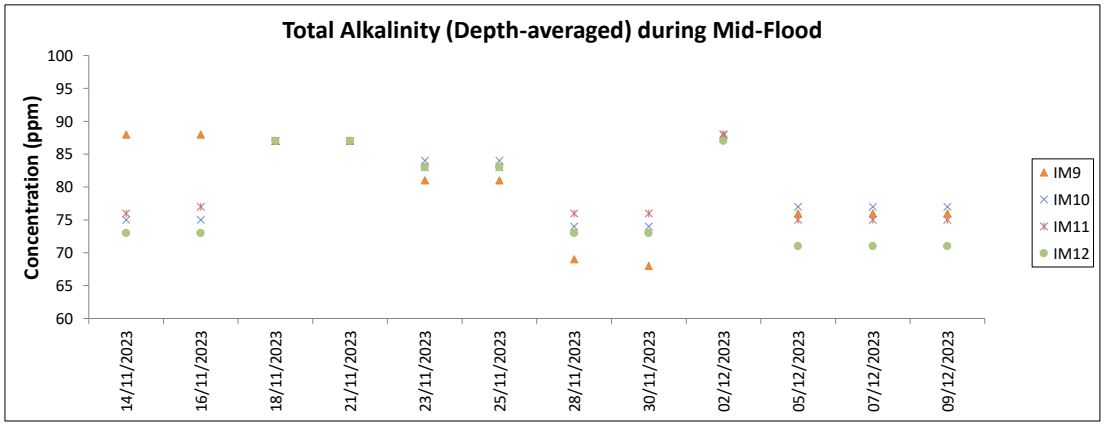

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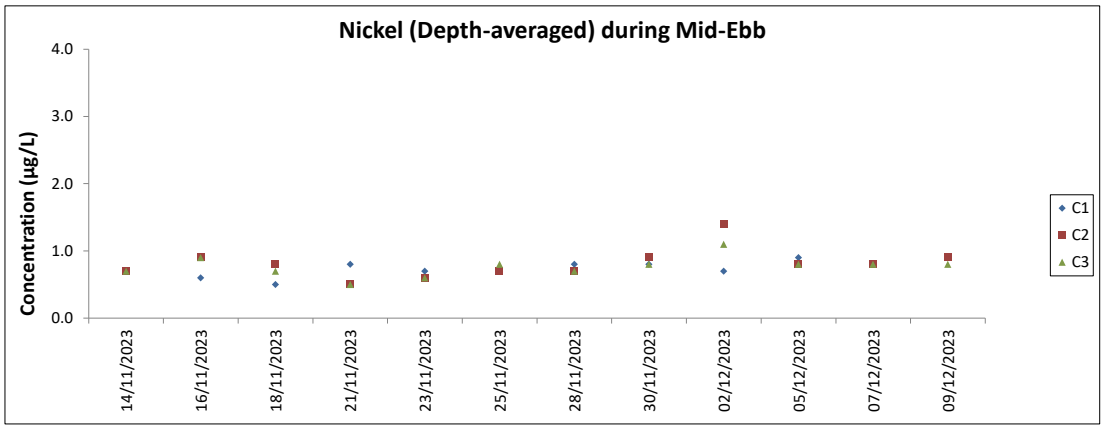

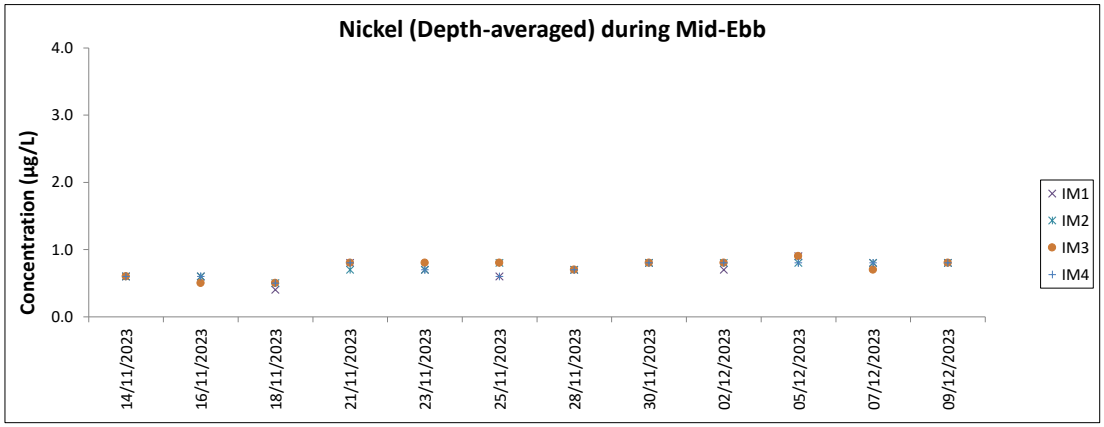

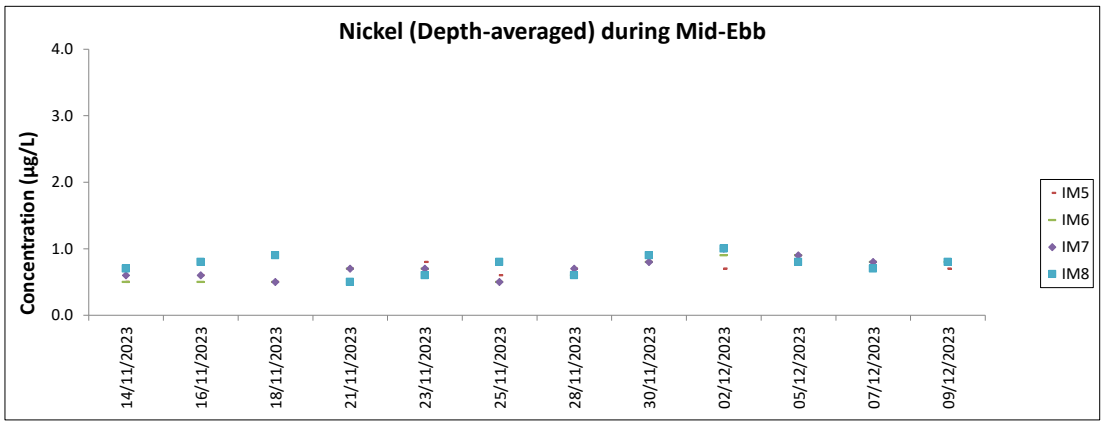

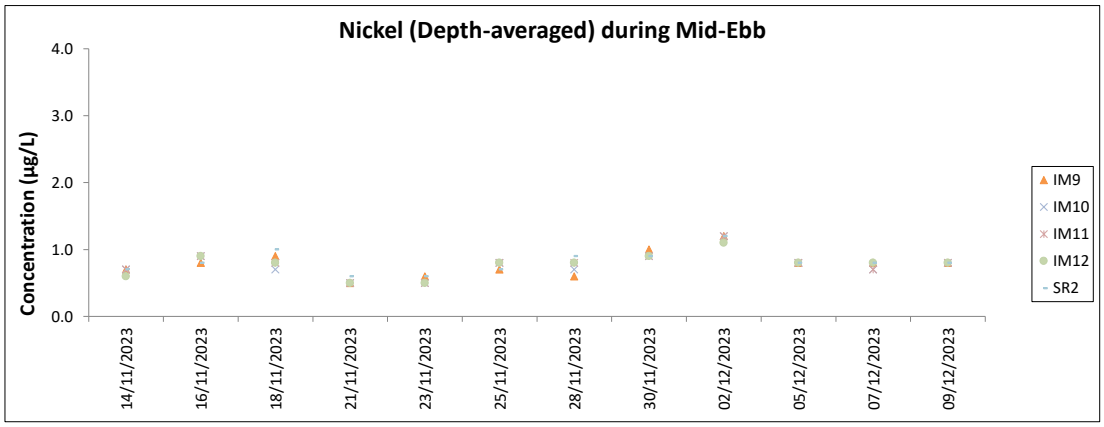

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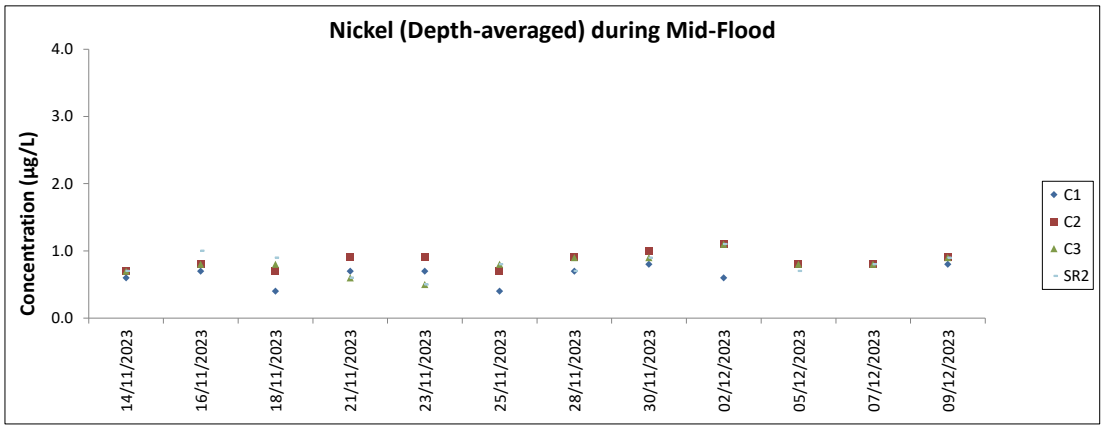
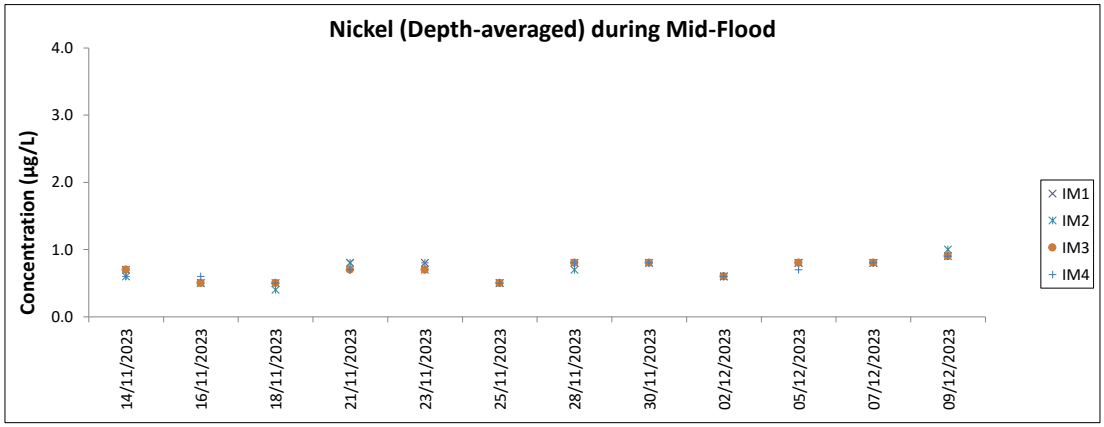
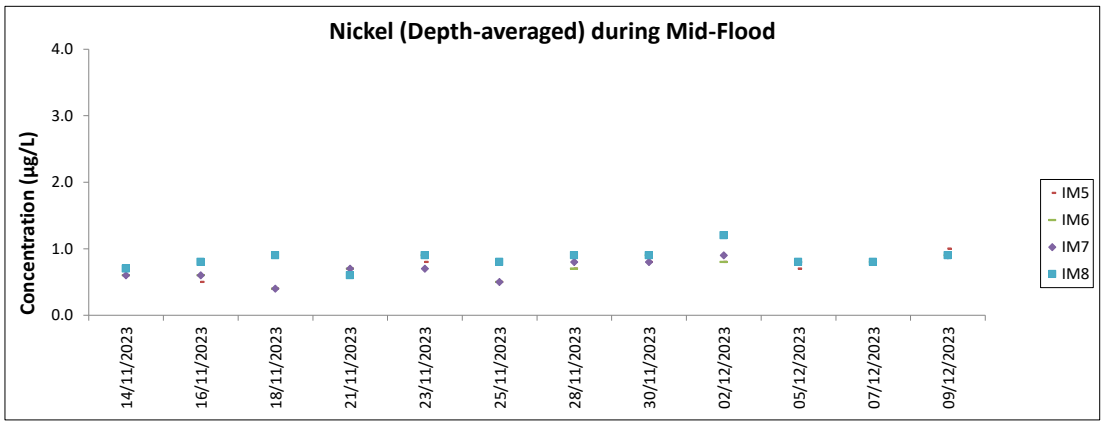
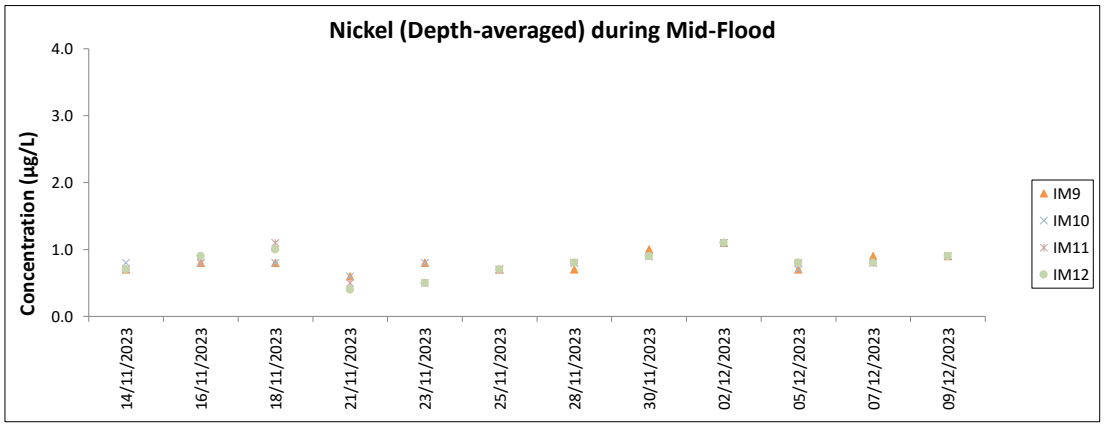
QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.





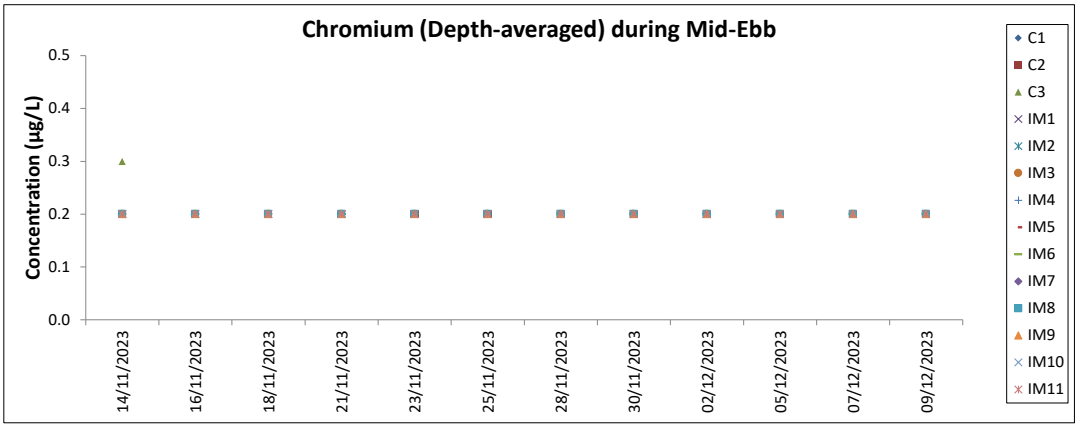


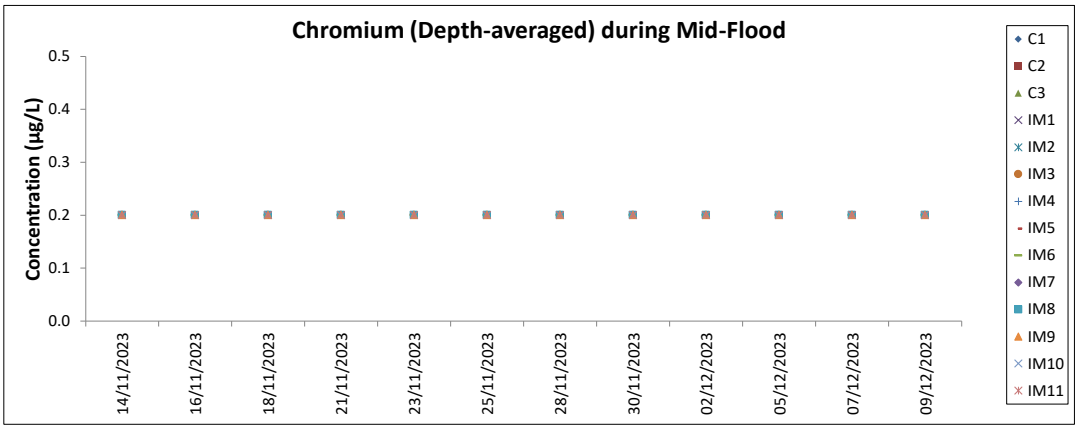


Note:

Weather conditions during monitoring are presented in the data tables above.

QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.





Note:

Weather conditions during monitoring are presented in the data tables above.
QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
06-Oct-23	NEL	2	26.24	AUTUMN	32166	3RS ET	P
06-Oct-23	NEL	3	10.33	AUTUMN	32166	3RS ET	P
06-Oct-23	NEL	4	0.77	AUTUMN	32166	3RS ET	P
06-Oct-23	NEL	2	6.37	AUTUMN	32166	3RS ET	S
06-Oct-23	NEL	3	4.39	AUTUMN	32166	3RS ET	S
12-Oct-23	NWL	2	11.4	AUTUMN	32166	3RS ET	P
12-Oct-23	NWL	3	52.8	AUTUMN	32166	3RS ET	P
12-Oct-23	NWL	2	4.3	AUTUMN	32166	3RS ET	S
12-Oct-23	NWL	3	7.3	AUTUMN	32166	3RS ET	S
13-Oct-23	AW	2	1.7	AUTUMN	32166	3RS ET	P
13-Oct-23	AW	3	3.03	AUTUMN	32166	3RS ET	P
13-Oct-23	WL	2	11.126	AUTUMN	32166	3RS ET	P
13-Oct-23	WL	3	7.776	AUTUMN	32166	3RS ET	P
13-Oct-23	WL	2	4.944	AUTUMN	32166	3RS ET	S
13-Oct-23	WL	3	5.384	AUTUMN	32166	3RS ET	S
16-Oct-23	NWL	3	63.8	AUTUMN	32166	3RS ET	P
16-Oct-23	NWL	3	11.8	AUTUMN	32166	3RS ET	S
17-Oct-23	NEL	2	1.7	AUTUMN	32166	3RS ET	P
17-Oct-23	NEL	3	33.64	AUTUMN	32166	3RS ET	P
17-Oct-23	NEL	2	4.5	AUTUMN	32166	3RS ET	S
17-Oct-23	NEL	3	7.26	AUTUMN	32166	3RS ET	S
20-Oct-23	AW	3	4.52	AUTUMN	32166	3RS ET	P
20-Oct-23	WL	2	4.763	AUTUMN	32166	3RS ET	P
20-Oct-23	WL	3	15.33	AUTUMN	32166	3RS ET	P
20-Oct-23	WL	2	2.967	AUTUMN	32166	3RS ET	S
20-Oct-23	WL	3	7.67	AUTUMN	32166	3RS ET	S
26-Oct-23	SWL	3	53.33	AUTUMN	32166	3RS ET	P
26-Oct-23	SWL	4	1.1	AUTUMN	32166	3RS ET	P
26-Oct-23	SWL	3	14.97	AUTUMN	32166	3RS ET	S
26-Oct-23	SWL	4	0.9	AUTUMN	32166	3RS ET	S
27-Oct-23	SWL	2	8.81	AUTUMN	32166	3RS ET	P
27-Oct-23	SWL	3	45.261	AUTUMN	32166	3RS ET	P
27-Oct-23	SWL	2	3.59	AUTUMN	32166	3RS ET	S
27-Oct-23	SWL	3	12.389	AUTUMN	32166	3RS ET	S
06-Nov-23	SWL	2	35.185	AUTUMN	32166	3RS ET	P
06-Nov-23	SWL	3	16.77	AUTUMN	32166	3RS ET	P
06-Nov-23	SWL	2	12.371	AUTUMN	32166	3RS ET	S
06-Nov-23	SWL	3	3.57	AUTUMN	32166	3RS ET	S
07-Nov-23	NEL	2	12.86	AUTUMN	32166	3RS ET	P
07-Nov-23	NEL	3	18.4	AUTUMN	32166	3RS ET	P
07-Nov-23	NEL	1	5	AUTUMN	32166	3RS ET	P
07-Nov-23	NEL	2	7.64	AUTUMN	32166	3RS ET	S
07-Nov-23	NEL	3	1.1	AUTUMN	32166	3RS ET	S
07-Nov-23	NEL	1	1.7	AUTUMN	32166	3RS ET	S
09-Nov-23	NWL	2	0.9	AUTUMN	32166	3RS ET	P
09-Nov-23	NWL	3	59.3	AUTUMN	32166	3RS ET	P
09-Nov-23	NWL	3	10.2	AUTUMN	32166	3RS ET	S
09-Nov-23	NWL	4	3.5	AUTUMN	32166	3RS ET	P
09-Nov-23	NWL	4	1	AUTUMN	32166	3RS ET	S
13-Nov-23	AW	3	6.49	AUTUMN	32166	3RS ET	P
13-Nov-23	WL	3	9.799	AUTUMN	32166	3RS ET	P
13-Nov-23	WL	3	8.121	AUTUMN	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
13-Nov-23	WL	4	9.56	AUTUMN	32166	3RS ET	P
13-Nov-23	WL	4	2.89	AUTUMN	32166	3RS ET	S
14-Nov-23	NWL	2	22.6	AUTUMN	32166	3RS ET	P
14-Nov-23	NWL	3	41	AUTUMN	32166	3RS ET	P
14-Nov-23	NWL	3	6	AUTUMN	32166	3RS ET	S
14-Nov-23	NWL	2	5.8	AUTUMN	32166	3RS ET	S
15-Nov-23	AW	2	1.34	AUTUMN	32166	3RS ET	P
15-Nov-23	AW	3	2.96	AUTUMN	32166	3RS ET	P
15-Nov-23	WL	2	0.25	AUTUMN	32166	3RS ET	P
15-Nov-23	WL	3	18.362	AUTUMN	32166	3RS ET	P
15-Nov-23	WL	2	1.13	AUTUMN	32166	3RS ET	S
15-Nov-23	WL	3	8.41	AUTUMN	32166	3RS ET	S
16-Nov-23	NEL	4	3.6	AUTUMN	32166	3RS ET	P
16-Nov-23	NEL	2	6.91	AUTUMN	32166	3RS ET	P
16-Nov-23	NEL	3	26.11	AUTUMN	32166	3RS ET	P
16-Nov-23	NEL	2	2.96	AUTUMN	32166	3RS ET	S
16-Nov-23	NEL	3	7.02	AUTUMN	32166	3RS ET	S
20-Nov-23	SWL	2	36.96	AUTUMN	32166	3RS ET	P
20-Nov-23	SWL	3	15.97	AUTUMN	32166	3RS ET	P
20-Nov-23	SWL	2	13.26	AUTUMN	32166	3RS ET	S
20-Nov-23	SWL	3	3.3	AUTUMN	32166	3RS ET	S
04-Dec-23	NWL	2	26.3	WINTER	32166	3RS ET	P
04-Dec-23	NWL	3	37.6	WINTER	32166	3RS ET	P
04-Dec-23	NWL	2	6.3	WINTER	32166	3RS ET	S
04-Dec-23	NWL	3	4.9	WINTER	32166	3RS ET	S
11-Dec-23	SWL	1	4.81	WINTER	32166	3RS ET	P
11-Dec-23	SWL	2	48.72	WINTER	32166	3RS ET	P
11-Dec-23	SWL	2	15.11	WINTER	32166	3RS ET	S
13-Dec-23	NEL	3	36.57	WINTER	32166	3RS ET	P
13-Dec-23	NEL	3	10.23	WINTER	32166	3RS ET	S
14-Dec-23	NWL	2	54	WINTER	32166	3RS ET	P
14-Dec-23	NWL	3	9.8	WINTER	32166	3RS ET	P
14-Dec-23	NWL	2	9.6	WINTER	32166	3RS ET	S
14-Dec-23	NWL	3	1.4	WINTER	32166	3RS ET	S
18-Dec-23	NEL	2	29.453	WINTER	32166	3RS ET	P
18-Dec-23	NEL	3	7.597	WINTER	32166	3RS ET	P
18-Dec-23	NEL	2	5.64	WINTER	32166	3RS ET	S
18-Dec-23	NEL	3	4.2	WINTER	32166	3RS ET	S
19-Dec-23	AW	3	4.89	WINTER	32166	3RS ET	P
19-Dec-23	WL	3	8.79	WINTER	32166	3RS ET	P
19-Dec-23	WL	4	3.8	WINTER	32166	3RS ET	P
19-Dec-23	WL	5	6.6	WINTER	32166	3RS ET	P
19-Dec-23	WL	3	4.71	WINTER	32166	3RS ET	S
19-Dec-23	WL	4	1.8	WINTER	32166	3RS ET	S
19-Dec-23	WL	5	3	WINTER	32166	3RS ET	S
27-Dec-23	AW	2	4.74	WINTER	32166	3RS ET	P
27-Dec-23	WL	2	11.071	WINTER	32166	3RS ET	P
27-Dec-23	WL	3	3.212	WINTER	32166	3RS ET	P
27-Dec-23	WL	2	9.414	WINTER	32166	3RS ET	S
27-Dec-23	WL	3	1.09	WINTER	32166	3RS ET	S
28-Dec-23	SWL	2	33.05	WINTER	32166	3RS ET	P
28-Dec-23	SWL	3	20.81	WINTER	32166	3RS ET	P
28-Dec-23	SWL	2	11.57	WINTER	32166	3RS ET	S
28-Dec-23	SWL	3	3.49	WINTER	32166	3RS ET	S

Notes: CWD monitoring survey data of the two preceding survey months are presented for reference only.

CWD Small Vessel Line-transect Survey — Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
13-Oct-23	1	1028	CWD	2	WL	2	243	ON	3RS ET	22.260779	113.853468	AUTUMN	NONE	S
13-Oct-23	2	1043	CWD	2	WL	2	34	ON	3RS ET	22.260956	113.840829	AUTUMN	NONE	P
13-Oct-23	3	1058	CWD	1	WL	3	91	ON	3RS ET	22.250437	113.841275	AUTUMN	GILLNETTER	P
13-Oct-23	4	1117	CWD	9	WL	2	126	ON	3RS ET	22.241167	113.841706	AUTUMN	NONE	P
13-Oct-23	5	1149	CWD	3	WL	2	139	ON	3RS ET	22.241672	113.829845	AUTUMN	NONE	P
20-Oct-23	1	1149	CWD	2	WL	2	15	ON	3RS ET	22.196308	113.834539	AUTUMN	NONE	P
27-Oct-23	1	1202	FP	2	SWL	3	45	ON	3RS ET	22.151171	113.908504	AUTUMN	NONE	P
27-Oct-23	2	1216	CWD	1	SWL	2	128	ON	3RS ET	22.168029	113.906685	AUTUMN	NONE	S
06-Nov-23	1	1038	FP	6	SWL	2	144	ON	3RS ET	22.179714	113.936292	AUTUMN	NONE	P
06-Nov-23	2	1041	FP	4	SWL	2	55	ON	3RS ET	22.174271	113.936089	AUTUMN	NONE	P
06-Nov-23	3	1050	FP	3	SWL	2	442	ON	3RS ET	22.159022	113.936224	AUTUMN	NONE	P
06-Nov-23	4	1058	FP	1	SWL	2	52	ON	3RS ET	22.145772	113.931080	AUTUMN	NONE	S
06-Nov-23	5	1102	FP	5	SWL	2	113	ON	3RS ET	22.147034	113.927694	AUTUMN	NONE	P
06-Nov-23	6	1114	FP	2	SWL	2	40	ON	3RS ET	22.168425	113.927825	AUTUMN	NONE	P
06-Nov-23	7	1435	CWD	5	SWL	2	160	ON	3RS ET	22.199740	113.860026	AUTUMN	NONE	S
06-Nov-23	8	1509	CWD	15	SWL	3	398	ON	3RS ET	22.185090	113.849075	AUTUMN	NONE	P
13-Nov-23	1	1121	CWD	8	WL	3	32	ON	3RS ET	22.223555	113.836856	AUTUMN	NONE	S
13-Nov-23	2	1204	CWD	5	WL	3	4	ON	3RS ET	22.214224	113.831569	AUTUMN	NONE	P
15-Nov-23	1	0939	CWD	3	AW	2	463	ON	3RS ET	22.293376	113.877038	AUTUMN	NONE	P
15-Nov-23	2	1022	CWD	1	WL	3	247	ON	3RS ET	22.284568	113.861728	AUTUMN	NONE	P
15-Nov-23	3	1102	CWD	1	WL	3	208	ON	3RS ET	22.260917	113.845227	AUTUMN	NONE	P
15-Nov-23	4	1131	CWD	3	WL	3	449	ON	3RS ET	22.242099	113.836970	AUTUMN	NONE	P
15-Nov-23	5	1205	CWD	3	WL	3	190	ON	3RS ET	22.224754	113.837304	AUTUMN	NONE	S
15-Nov-23	6	1213	CWD	2	WL	3	470	ON	3RS ET	22.223496	113.823713	AUTUMN	NONE	P
15-Nov-23	7	1220	CWD	2	WL	3	650	ON	3RS ET	22.215539	113.819722	AUTUMN	SHRIMP TRAWLER	S
20-Nov-23	1	1042	FP	2	SWL	3	180	ON	3RS ET	22.173928	113.935982	AUTUMN	NONE	P
20-Nov-23	2	1104	FP	1	SWL	2	37	ON	3RS ET	22.158240	113.927296	AUTUMN	NONE	P
20-Nov-23	3	1115	FP	2	SWL	2	233	ON	3RS ET	22.180467	113.928151	AUTUMN	NONE	P
20-Nov-23	4	1156	FP	2	SWL	2	113	ON	3RS ET	22.146640	113.917842	AUTUMN	NONE	P
11-Dec-23	1	1243	CWD	1	SWL	2	285	ON	3RS ET	22.202903	113.897445	WINTER	PURSE SEINER	P
11-Dec-23	2	1339	CWD	2	SWL	2	180	ON	3RS ET	22.195981	113.887741	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
11-Dec-23	3	1423	CWD	2	SWL	2	274	ON	3RS ET	22.179612	113.878398	WINTER	NONE	P
11-Dec-23	4	1445	CWD	2	SWL	2	594	ON	3RS ET	22.176185	113.868402	WINTER	NONE	P
27-Dec-23	1	1004	CWD	1	WL	2	489	ON	3RS ET	22.290284	113.861290	WINTER	NONE	P
27-Dec-23	2	1033	CWD	2	WL	2	16	ON	3RS ET	22.269684	113.844927	WINTER	NONE	S
27-Dec-23	3	1041	CWD	1	WL	2	1	ON	3RS ET	22.269091	113.852531	WINTER	NONE	P
27-Dec-23	4	1057	CWD	5	WL	2	413	ON	3RS ET	22.261197	113.852742	WINTER	NONE	P
27-Dec-23	5	1154	CWD	1	WL	2	72	ON	3RS ET	22.222960	113.833060	WINTER	NONE	P
27-Dec-23	6	1203	CWD	2	WL	2	26	ON	3RS ET	22.223131	113.828200	WINTER	NONE	P
27-Dec-23	7	1216	CWD	6	WL	2	420	ON	3RS ET	22.223018	113.824091	WINTER	NONE	P
27-Dec-23	8	1239	CWD	2	WL	3	99	ON	3RS ET	22.213960	113.823082	WINTER	NONE	P
27-Dec-23	9	1253	CWD	2	WL	2	631	ON	3RS ET	22.206000	113.838122	WINTER	NONE	P
27-Dec-23	10	1310	CWD	1	WL	2	12	ON	3RS ET	22.195912	113.830588	WINTER	NONE	P
28-Dec-23	1	1313	FP	1	SWL	2	29	ON	3RS ET	22.151581	113.889482	WINTER	NONE	S
28-Dec-23	2	1348	CWD	1	SWL	2	43	ON	3RS ET	22.204239	113.878238	WINTER	NONE	P

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

Notes:

CWD monitoring survey data of the two preceding survey months are presented for reference only. No relevant figure or text will be mentioned in this 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 encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 429.07 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 15 on-effort sightings and total number of 31 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in December 2023 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in December 2023

$$STG = \frac{15}{429.07} \times 100 = 3.50$$

Encounter Rate by Number of Dolphins (ANI) in December 2023

$$ANI = \frac{31}{429.07} \times 100 = 7.22$$

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

A total of 1312.21 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 33 on-effort sightings and total number of 99 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

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

$$STG = \frac{33}{1312.21} \times 100 = 2.51$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{99}{1312.21} \times 100 = 7.54$$

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

SLMM034_20231211_1_4

SLMM034_20231211_2_3

SLMM037_20231211_2_3

WLMM068_20231227_4_4

WLMM112_20231227_4_7

WLMM113_20231227_4_5

WLMM162_20231227_4_3

SLMM003_20231227_5_2

SLMM031_20231227_6_1	SLMM002_20231227_7_11
SLMM050_20231227_7_7	SLMM058_20231227_7_7
WLMM001_20231227_7_8	WLMM109_20231227_7_10
SLMM031_20231227_8_3	WLMM194_20231227_8_8

SLMM023_20231227_9_7	SLMM044_20231227_9_7

CWD Land-based Theodolite Tracking Survey

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
15/Dec/23	Lung Kwu Chau	8:49	14:49	6:00	2	2	2	1-2
27/Dec/23	Sha Chau	10:37	16:37	6:00	3	2-3	0	0

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

Appendix D. Status of Environmental Permits and Licenses

	Description	Permit/ Reference No.	Status
EIAO	Environmental Permit	EP-489/2014	Approved on 7 Nov 2014

Contract No.	Description	Location	Permit/ Reference No.	Status
3206	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951-Z4035-01	Completion of Registration on 18 Nov 2016
		Works area of 3206	WPN 5213-951-Z4035-02	Completion of Registration on 18 Nov 2016
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0913-23	Valid from 1 Nov 2023 to 30 Apr 2024
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3302	Notification of Construction Work under APCO	Works area of 3302	497609	Receipt acknowledged by EPD on 28 Sep 2023
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0876-23	Valid from 20 Oct 2023 to 19 Apr 2024
3305	Notification of Construction Work under APCO	Works area of 3305	460857	Receipt acknowledged by EPD on 12 Oct 2020
	Registration as Chemical Waste Producer	Works area of 3305	5213-951-A3024-01	Completion of Registration on 13 Nov 2020
	Bill Account for disposal	Works area of 3305	A/C 7035360	Approval granted from EPD on 9 Oct 2019
	Construction Noise Permit (General Works)	Works area of 3305	GW-RS0961-23	Valid from 1 Dec 2023 to 31 May 2024
3306	Registration as Chemical Waste Producer	Works area of 3306	8335-951-C4434-01	Completion of Registration on 1 Apr 2020
	Bill Account for disposal	Works area of 3306	A/C 7035868	Approval granted from EPD on 27 Nov 2019
3307	Registration as Chemical Waste Producer	Works area of 3307	5211-951-P3379-01	Completion of Registration on 8 Jun 2020
	Bill Account for disposal	Works area of 3307	A/C 7037129	Approval granted from EPD on 5 May 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
3308	Bill Account for disposal	Works area of 3308	A/C 7038988	Approval granted from EPD on 24 Nov 2020
3310	Notification of Construction Work under APCO	Works area of 3310	485057	Receipt acknowledged by EPD on 6 Oct 2022
	Registration as Chemical Waste Producer	Works area of 3310	5213-951-C4682-01	Completion of Registration on 21 Dec 2021
		Works area of 3310	5213-000-C3317-27	Completion of Registration on 31 Aug 2022
	Discharge License under WPCO	Works area of 3310	WT00039654-2021	Valid from 31 Dec 2021 to 31 Dec 2026
	Bill Account for disposal	Works area of 3310	A/C 7042793	Approval granted from EPD on 4 Jan 2022
	Construction Noise Permit (General Works)	Works area of 3310 (Existing airport)	GW-RS1010-23	Valid from 22 Nov 2023 to 19 May 2024
		Works area of 3310 (Reclamation area)	GW-RS0502-23	Valid from 19 Jun 2023 to 15 Dec 2023 (Superseded by GW-RS1096-23)
			GW-RS1096-23	Valid from 13 Dec 2023 to 7 Jun 2024
		Tsing Chau Wan	GW-RW0797-23	Valid from 26 Nov 2023 to 19 May 2024
3402	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 11 Jan 2019
3403	Notification of Construction Work under APCO	Works area of 3403	485039	Receipt acknowledged by EPD on 06 Oct 2022
		Works area of 3403 (with Area 17 and Area 15)	475369	Receipt acknowledged by EPD on 28 Dec 2021
	Registration as Chemical Waste Producer	Works area of 3403	5213-951-S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841-2020	Valid from 5 Jun 2020 to 30 Jun 2025 Approved variation on 9 Jun 2022
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0694-23	Valid from 1 Sep 2023 to 29 Feb 2024
3404	Bill Account for disposal	Works area of 3404	A/C 7035158	Approval granted from EPD on 12 Sep 2019
3405	Notification of Construction Work under APCO	Works area of 3405	484926	Receipt acknowledged by EPD on 30 Sep 2022
	Registration as Chemical Waste Producer	Works area of 3405	WPN 5218-951-C4431-01	Completion of Registration on 12 Mar 2020 Revised license was issued on 14 Jul 2023
	Discharge License under WPCO	Works area of 3405	WT00037084-2020	Valid from 17 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3405	A/C 7036796	Approval granted from EPD on 20 Mar 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)			
		Works area of 3405	GW-RS0973-23	Valid from 18 Nov 2023 to 14 May 2024
3408	Notification of Construction Work under APCO	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020
		3408 CSA-CBP	488443	Receipt acknowledged by EPD on 13 Jan 2023
	Specified Process Licence (Cement Works)	3408 CSA-CBP	L-3-268(1)	Valid from 22 May 2023 to 21 May 2025
	Registration as Chemical Waste Producer	Works area of 3408	WPN 5218-951-B2621-01	Completion of Registration on 16 Jul 2021
	Discharge License under WPCO	Works area of 3408	WT00038836-2021	Valid from 13 Dec 2023 to 30 Sep 2026
	Bill Account for disposal	Works area of 3408	A/C 7039063	Approval granted from EPD on 2 Dec 2020
	Construction Noise Permit (General Works)	Works area of 3408	GW-RS0870-23	Valid from 13 Oct 2023 to 13 Dec 2023 (Superseded by GW-RS1069-23)
		Works area of 3408	GW-RS1069-23	Valid from 13 Dec 2023 to 31 May 2024
	Construction Noise Permit (Special Case)	Works area of 3408	GW-RS1031-23	Valid from 24 Nov 2023 to 23 Apr 2024
3508	Notification of Construction Work under APCO	Works area of 3508	459017	Receipt acknowledged by EPD on 27 Aug 2020
			459469	Receipt acknowledged by EPD on 4 Sep 2020
			493055	Receipt acknowledged by EPD on 30 May 2023
	Registration as Chemical Waste Producer	Works area of 3508	WPN-5218-951-G2898-01	Completion of Registration on 28 Sep 2020
	Discharge License under WPCO	Works area of 3508	WT00037209-2020	Valid from 11 Mar 2021 to 31 Mar 2026
			WT00037523-2021	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037225-2020	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037549-2021	Valid from 1 Apr 2021 to 30 Apr 2026
	Bill Account for disposal	Works area of 3508	7038224	Approval granted from EPD on 8 Sep 2020
	Construction Noise Permit (General Works)	Works area of 3508	GW-RS0437-23	Valid from 6 Jun 2023 to 5 Dec 2023 (Superseded by GW-RS1067-23)
		Works area of 3508	GW-RS0794-23	Valid from 22 Sep 2023 to 21 Mar 2024
		Works area of 3508	GW-RS0934-23	Valid from 5 Nov 2023 to 2 May 2024

Contract No.	Description	Location	Permit/ Reference No.	Status
		Works area of 3508	GW-RS0991-23	Valid from 24 Nov 2023 to 19 May 2024
		Works area of 3508	GW-RS1067-23	Valid from 6 Dec 2023 to 5 Jun 2024
	Construction Noise Permit (Special Case)	Works area of 3508	GW-RS0635-23	Valid from 4 Aug 2023 to 31 Jan 2024
		Works area of 3508	GW-RS0770-23	Valid from 10 Sep 2023 to 31 Dec 2023
		Works area of 3508	GW-RS0879-23	Valid from 18 Oct 2023 to 31 Mar 2024
		Works area of 3508	GW-RS0881-23	Valid from 18 Oct 2023 to 31 Mar 2024
		Works area of 3508	GW-RS1002-23	Valid from 1 Dec 2023 to 31 May 2024
		Works area of 3508	GW-RS1003-23	Valid from 1 Dec 2023 to 31 May 2024
3601	Notification of Construction Work under APCO	Works area of 3601	451762	Receipt acknowledged by EPD on 10 Dec 2019
	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951-C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 7029991	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3601	GW-RS0929-23	Valid from 8 Nov 2023 to 7 May 2024
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951-N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069-01	Completion of Registration on 22 Jan 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0958-23	Valid from 22 Nov 2023 to 21 May 2024
3721	Notification of Construction	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Work under APCO			
	Bill Account for disposal	Works area of 3721	A/C 7035234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0491-23	Valid from 19 Jun 2023 to 15 Dec 2023
3728	Registration as Chemical Waste Producer	Works area of 3728	WPN 5113-951-S4481-01	Completion of Registration on 20 October 2023
	Discharge License under WPCO	Works area of 3728	WT00037809-2021	Valid from 27 Jul 2021 to 31 Jul 2026
	Bill Account for disposal	Works area of 3728	A/C 7039409	Approval granted from EPD on 22 Jan 2021
3733	Notification of Construction Work under APCO	Works area of 3733	472772	Receipt acknowledged by EPD on 18 Oct 2021
	Registration as Chemical Waste Producer	Works area of 3733	474728	Receipt acknowledged by EPD on 9 Dec 2021
	Bill Account for disposal	Works area of 3733	7041945	Approval granted from EPD on 21 Oct 2021
3801	Notification of Construction Work under APCO	Works area of 3801	488993	Receipt acknowledged by EPD on 2 Feb 2023
		Stockpiling area of 3801	454269	Receipt acknowledged by EPD on 12 Mar 2020
			450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works area of 3801	WT00041429-2022	Valid from 16 Aug 2022 to 31 Aug 2027
		Stockpiling area of 3801	WT00037354-2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-RS1027-23	Valid from 24 Nov 2023 to 21 May 2024
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
	Registration as Chemical Waste Producer	Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020
		Works area of 3802 (Existing airport)	WPN 5218-951-G2945-01	Completion of Registration on 29 Sep 2020
		Works area of 3802	WT00037032-2020	Valid from 25 May 2021 to 31 May 2026

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License under WPCO	Works area of 3802 (Existing airport)	WT00039092-2021	Valid from 30 Nov 2021 to 31 Nov 2026
			WT00043143-2023	Valid from 17 Mar 2023 to 31 Mar 2028
	Bill Account for disposal	Works area of 3802	A/C 7037575	Approval granted from EPD on 15 Jun 2020
	Construction Noise Permit (General Works)	Works area of 3802	GW-RS0995-23	Valid from 18 Nov 2023 to 14 May 2024
		Works area of 3802 (Existing airport)	GW-RS0432-23	Valid from 5 Jun 2023 to 4 Dec 2023
			GW-RS1071-23	Valid from 09 Dec 2023 to 07 Jun 2024
		Works area of 3802 (Ventilation building)	GW-RS0632-23	Valid from 31 Jul 2023 to 26 Jan 2024
3804	Notification of Construction Work under APCO	Works area of 3804	487452	Receipt acknowledged by EPD on 14 Dec 2022
	Construction Noise Permit (General Works)	Works area of 3804	GW-RS0988-23	Valid from 18 Nov 2023 to 14 May 2024
	Registration as Chemical Waste Producer	Works area of 3804	WPN 5213-951-B2686-01	Completion of Registration on 4 Jan 2023
	Bill Account for disposal	Works area of 3804	A/C 7046121	Approval granted from EPD on 3 Jan 2023
	Discharge License under WPCO	Works area of 3804	WT00044391-2023	Valid from 17 Aug 2023 to 31 Aug 2028
3805	Notification of Construction Work under APCO	Works area of 3805	490065	Receipt acknowledged by EPD on 2 Mar 2023
	Registration as Chemical Waste Producer	Works area of 3805	WPN 5218-951-C4788-01	Completion of Registration on 31 Mar 2023
	Bill Account for disposal	Works area of 3805	A/C 7046828	Approval granted from EPD on 10 Mar 2023
	Discharge License under WPCO	Works area of 3805	WT00043804-2023	Valid from 15 Jun 2023 to 30 Jun 2028
	Construction Noise Permit (General Works)	Works area of 3805	GW-RS0750-23	Valid from 4 Sep 2023 to 3 Mar 2024
3901A	Notification of Construction Work under APCO	Works area of 3901A	466883	Receipt acknowledged by EPD on 26 Apr 2021
	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901A	EP/RS/00004430 53	Approval granted on 11 Dec 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Landfill Disposal of Waste Concrete from Batching Plant	Works area of 3901A	EP195/01/18	Valid from 10 Nov 2023 to 9 Aug 2024
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Bill Account for disposal	Works area of 3901A	A/C 7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0620-23	Valid from 5 Aug 2023 to 4 Feb 2024
3901B	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901B	EP/RS/00004384 88	Approval granted on 26 Jun 2020
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951-G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0625-23	Valid from 5 Aug 2023 to 4 Feb 2024
3913	Specified Process license under APCO	Works area of 3913	L-15-040 (1)	Valid from 29 Mar 2021 to 28 Mar 2025
	Registration as Chemical Waste Producer	Works area of 3913	5213-951-S4405-01	Completion of Registration on 22 Jul 2022, updated on 29 Mar 2023
	Bill Account for disposal	Works area of 3913	A/C 7044632	Approval granted from EPD on 18 Aug 2022
	Construction Noise Permit (General Works)	Works area of 3913	GW-RS0772-23	Valid from 20 Sep 2023 to 19 Mar 2024
132 kV Cable	Bill Account for disposal	Works area of 132 kV Cable	A/C 7039280	Approval granted from EPD on 8 Jan 2021

Appendix E. Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions

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

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

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

Statistics for Complaints, Notifications of Summons and Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Prosecutions
This reporting period	2	0	0
From 28 December 2015 to end of the reporting period	70	2	2

Appendix F. Data of SkyPier HSF Movements to/from Macau (between 1 and 31 December 2023)

Data of SkyPier HSF Movements to/from Macau (between 1 and 31 Dec 2023)

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [YFT – Macao (Taipa)/ XZM – Macao (Macao Marine Time)]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
01-Dec	11:56	8S912	YFT	Arrival	12.4	-	-
01-Dec	13:00	8S193	YFT	Departure	12.5	-	-
05-Dec	11:59	8S912	YFT	Arrival	12	-	-
05-Dec	12:42	8S193	YFT	Departure	13.4	-	-
06-Dec	12:01	8S912	YFT	Arrival	12.2	-	-
06-Dec	12:45	8S193	YFT	Departure	12.7	-	-
08-Dec	12:01	8S912	YFT	Arrival	12.6	-	-
08-Dec	12:40	8S193	YFT	Departure	12.8	-	-
12-Dec	11:58	8S912	YFT	Arrival	12.9	-	-
12-Dec	12:47	8S193	YFT	Departure	12.9	-	-
13-Dec	12:00	8S912	YFT	Arrival	12.3	-	-
13-Dec	12:54	8S193	YFT	Departure	11.9	-	-
15-Dec	11:48	8S212	XZM	Arrival	12.5	-	-
15-Dec	12:28	8S123	XZM	Departure	11.9	-	-
19-Dec	11:50	8S212	XZM	Arrival	11.2	-	-
19-Dec	12:40	8S123	XZM	Departure	12.9	-	-
20-Dec	11:56	8S212	XZM	Arrival	11.3	-	-
20-Dec	12:47	8S123	XZM	Departure	12.8	-	-
22-Dec	11:47	8S212	XZM	Arrival	12.7	-	-
22-Dec	12:33	8S123	XZM	Departure	12.3	-	-
27-Dec	11:47	8S212	XZM	Arrival	12	-	-
27-Dec	12:34	8S123	XZM	Departure	13.1	-	-
29-Dec	11:46	8S212	XZM	Arrival	12.2	-	-
29-Dec	12:33	8S123	XZM	Departure	12.3	-	-

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in Dec 2023, no instantaneous speeding (i.e. a sudden change in speed at over 15 knots for a short period of time) within the SCZ was recorded.