

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

Construction Phase Monthly EM&A Report No.28 (For April 2018)

May 2018

Airport Authority Hong Kong

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This Monthly EM&A Report No. 28 has been reviewed and certified by the Environmental Team Leader (ETL) in accordance with

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

Certified by:

Terence Kong

Environmental Team Leader (ETL) Mott MacDonald Hong Kong Limited

Date 14 May 2018



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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

14 May 2018

Dear Sir,

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

Submission of Monthly EM&A Report No.28 (April 2018)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No.28 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 May 2018.

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

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

Yours faithfully, AECOM Asia Co. Ltd.

Jackel Law

Independent Environmental Checker

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Abbreviations

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

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

Executive Summary

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

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

This is the 28th Construction Phase Monthly EM&A Report for the Project which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 April 2018.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included deep cement mixing (DCM) works, seawall construction, laying of sand blanket, and prefabricated vertical drain (PVD) installation. Land-side works included site establishment, site office construction, road and drainage works, cable ducting, demolition and modification of existing facilities, piling, and excavation works.

EM&A Activities Conducted in the Reporting Period

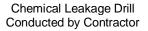
The monthly EM&A programme was undertaken in accordance with the Manual of the Project. Summary of the monitoring activities during this reporting period is presented as below:

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	36
Noise monitoring	24
Water quality monitoring	12
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	5

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

Snapshots of EM&A Activities in the Reporting Period







Noise Impact Monitoring Conducted by ET



Land-Based Theodolite Tracking Survey for CWD at Lung Kwu Chau

Results of Impact Monitoring

The monitoring works for construction dust, construction noise, water quality, 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 in the reporting period.

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

Summary of Upcoming Key Issues

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

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- Pipeline testing and commissioning; and
- Stockpiling of excavated materials from previous HDD operation.

DCM Works:

Contract 3201 to 3205 DCM Works

DCM works; and

Reclamation Works:

Contract 3206 Main Reclamation Works

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

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

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

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Excavation works;
- Pipe installation;
- Piling works; and
- Builders works of antenna farm.

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

- Site clearance:
- Brick laying;
- Fitting out of Electrical and mechanical (E&M) works;
- · Steel platform erection; and
- Cable tray installation.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Drainage, and road work; and
- Piling works

APM works:

Contract 3602 Existing APM System Modification Works

- Site office establishment; and
- Concrete plinth construction.

Baggage Handling System (BHS) works:

Contract 3603 3RS Baggage Handling System

Site survey.

Airport Support Infrastructure & Logistic Works:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Erection of hoarding;
- Diversion of underground utilities;
- Piling works; and
- Demolition of footbridge.

The key environmental issues will be associated with construction dust, construction noise, water quality, construction waste management, and CWD. The implementation of required mitigation measures by the contractor will be monitored by the ET.

Summary Table

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

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level^		V	No breach of Limit Level was recorded.	Nil
Breach of Action Level^		V	No breach of Action Level was recorded.	Nil
Complaint Received		1	No construction activities-related complaint was received.	Nil
Notification of any summons and status of prosecutions		1	No notification of summon or prosecution was received.	Nil
Change that affect the EM&A		V	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 3.1¹. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

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

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

The updated overall phasing programme of all construction works was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 7 and the contract information was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 25.

1.2 Scope of this Report

This is the 28th Construction Phase Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 to 30 April 2018.

1.3 Project Organisation

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

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

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environment	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leader	Heidi Yu	2828 5704
	Deputy Environmental Team Leader	Keith Chau	2972 1721
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9376
Advanced Works:			
Party	Position	Name	Telephone
Contract P560(R) Aviation Fuel Pipeline Diversion Works (Langfang Huayuan Mechanical and Electrical Engineering Co., Ltd.)	Project Manager	Wei Shih	2117 0566
	Environmental Officer	Lyn Liu	5172 6543
Deep Cement Mixing (DCN	D Worker		
Party	Position	Name	Telephone
Contract 3201 DCM (Package 1) (Penta-Ocean-China State- Dong-Ah Joint Venture)	Project Director	Tsugunari Suzuki	9178 9689
	Environmental Officer	Alan Tam	6119 3107
Contract 3202 DCM (Package 2) (Samsung-BuildKing Joint Venture)	Project Manager	Ilkwon Nam	9643 3117
	Environmental Officer	Dickson Mak	9525 8408
Contract 3203 DCM (Package 3) (Sambo E&C Co., Ltd)	Project Manager	Eric Kan	9014 6758
	Environmental Officer	David Hung	9765 6151
Contract 3204 DCM (Package 4) (CRBC-SAMBO Joint Venture)	Project Manager	Kyung-Sik Yoo	9683 8697
	Environmental Officer	Kanny Cho	6799 8226

Deep Cement Mixing (DCM) 1101 KS.		
Contract 3205 DCM (Package 5) (Bachy Soletanche - Sambo Joint Venture)	Deputy Project Director	Min Park	9683 0765
John Volkaroj	Environmental Officer	Margaret Chung	9130 3696
	_	<u> </u>	
Reclamation Works:			
Party	Position	Name	Telephone
Contract 3206 (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Kim Chuan Lim	3763 1509
	Environmental Officer	Kwai Fung Wong	3763 1452
Airfield Works	Desiries	Nesse	Talanhans
Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Project Manager	Kin Hang Chung	9412 1386
Terminal 2 (T2) Expansion Party	Position	Name	Telephone
Contract 3501 Antenna Farm and Sewage Pumping Station (Build King Construction Ltd.)	Project Manager	Raymond Au	6985 8860
	Environmental Officer	Edward Tam	9287 8270
Contract 3502 Terminal 2 APM Depot Modification	Project Manager		
Works (Build King Construction Ltd.)		Kivin Cheng	9380 3635
Works (Build King Construction	Environmental Officer	Kivin Cheng Chun Pong Chan	9380 3635 9187 7118
Works (Build King Construction	Environmental Officer Construction Manager		
Works (Build King Construction Ltd.) Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint		Chun Pong Chan	9187 7118
Works (Build King Construction Ltd.) Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint	Construction Manager Environmental Officer	Chun Pong Chan Stephen O'Donoghue	9187 7118 9732 6787
Works (Build King Construction Ltd.) Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture) Automated People Mo	Environmental Officer Over (APM) Works: Position	Chun Pong Chan Stephen O'Donoghue Stephen Tsang	9187 7118 9732 6787 5508 6361

Arthur Wong

Environmental Officer

9170 3394

Airport Support Infrastructure and Logistic Works:

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

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included DCM works, seawall construction, laying of sand blanket, and PVD installation. Land-side works included site establishment, site office construction, road and drainage works, cable ducting, demolition and modification of existing facilities, piling, and excavation works.

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

1.5 Summary of EM&A Programme Requirements

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

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

Baseline Monitoring The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4. Impact Monitoring On-going Noise Baseline Monitoring The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4. Impact Monitoring On-going Water Quality General Baseline Water Quality Monitoring for reclamation, water etting and field joint works General Impact Water Quality Monitoring for reclamation, water etting and field joint works Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring Monitoring Monitoring Monitoring The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM. Regular DCM Water Quality Monitoring Waste Management Waste Monitoring On-going The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. The CAR for Golf Course was submitted to EPD.	Parameters	Status
Monitoring Report and submitted to EPD under EP Condition 3.4. Impact Monitoring Noise Baseline Monitoring The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4. Impact Monitoring On-going Water Quality General Baseline Water Quality Monitoring for reclamation, water etting and field joint works General Impact Water Quality Monitoring for reclamation, water etting and field joint works Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring (DCM) Water Quality Monitoring Water Quality Monitoring The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM. On-going Waste Management Waste Monitoring On-going The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. Contamination Assessment Report The CAR for Golf Course was submitted to EPD.	Air Quality	
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Water Quality General Baseline Water Quality Monitoring for reclamation, water etting and field joint works General Impact Water Quality Monitoring for reclamation, water etting and field joint works Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring General Impact Water Quality Monitoring for reclamation, water etting and field joint works Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring General Impact Water Quality Monitoring Feport was submitted and approved by EPD in accordance with the Detailed Plan on DCM. On-going Waste Management Waste Management Waste Monitoring Don-going The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. The CAR for Golf Course was submitted to EPD.	Baseline Monitoring	
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Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4. General Impact Water Quality Monitoring for reclamation, water etting and field joint works Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring Regular DCM Water Quality Monitoring Waste Management Waste Monitoring On-going On-going On-going The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM. On-going Waste Management Waste Monitoring On-going Land Contamination Supplementary Contamination Assessment Plan (CAP) The CAR for Golf Course was submitted to EPD.	Water Quality	
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Waste Management Waste Monitoring On-going Land Contamination Supplementary Contamination Assessment Plan (CAP) The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. Contamination Assessment Report The CAR for Golf Course was submitted to EPD.	Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	
Waste Monitoring On-going Land Contamination Supplementary Contamination Assessment Plan (CAP) Contamination Assessment Report The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. The CAR for Golf Course was submitted to EPD.	Regular DCM Water Quality Monitoring	On-going On-going
Land Contamination Supplementary Contamination Assessment Plan (CAP) Contamination Assessment Report The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. The CAR for Golf Course was submitted to EPD.	Waste Management	
Supplementary Contamination Assessment Plan (CAP) Contamination Assessment Report The Supplementary CAP was submitted and approved by EPD pursuant to EP condition 2.20. The CAR for Golf Course was submitted to EPD.	Waste Monitoring	On-going
Assessment Plan (CAP) condition 2.20. Contamination Assessment Report The CAR for Golf Course was submitted to EPD.	Land Contamination	
	Supplementary Contamination Assessment Plan (CAP)	
	Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.

Parameters	Status
Terrestrial Ecology	
Pre-construction Egretry Survey Plan	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Construction works on Sheung Sha Chau Island was suspended during the ardeid's breeding season (between April and July). The ecological monitoring is therefore suspended.
Marine Ecology	
Pre-Construction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	The coral translocation was completed.
Post-Translocation Coral Monitoring	On-going On-going
Chinese White Dolphins (CWD)	
Vessel Survey, Land-based Theodolite Tracking and Passive Acoustic Monitoring (PAM)	
Baseline Monitoring	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	On-going
Landscape & Visual	
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Environmental Auditing	
Regular site inspection	On-going On-going
Marine Mammal Watching Plan (MMWP) implementation measures	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	On-going Control of the control of t
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	On-going

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

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

- One dolphin observer training provided by ET: 18 Apr 2018
- Two skipper trainings provided by ET: 4 and 18 Apr 2018
- Nine environmental management meetings for EM&A review with works contracts: 11, 17, 18, 25, 26 and 27 Apr 2018

The EM&A programme has been following the recommendations presented in the approved EIA Report and the Manual. A summary of implementation status of the environmental mitigation

measures for the construction phase of the Project during the reporting period is provided in **Appendix A**.

2 Air Quality Monitoring

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

Table 2.1: Locations of Impact Air Quality Monitoring Stations

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

2.1 Action and Limit Levels

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

Table 2.2: Action and Limit Levels of Air Quality Monitoring

Monitoring Station	Action Level (μg/m³)	Limit Level (μg/m³)
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-001 (Serial No. 934393)	11 Oct 2017	Monthly EM&A Report No. 22, Appendix E
	SIBATA LD-3B-002 (Serial No. 974350)	11 Sep 2017	
	SIBATA LD-3B-003 (Serial No. 276018)	11 Sep 2017	

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

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

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

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix E of the Construction Phase Monthly EM&A Report No. 22, and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are still valid.

2.4 Summary of Monitoring Results

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

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

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
AR1A	7 – 33	306	500
AR2	28 – 147	298	

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

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

2.5 Conclusion

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

3 Noise Monitoring

Noise monitoring in the form of 30-minute measurements of L_{eq} , L_{10} , and L_{90} levels was conducted once per week between 0700 and 1900 on normal weekdays at five representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 3.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations. As described in Section 4.3.3 of the Manual, monitoring at NM2 will commence when the future residential buildings in Tung Chung West Development become occupied.

Table 3.1: Locations of Impact Noise Monitoring Stations

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

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

3.1 Action and Limit Levels

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

Table 3.2: Action and Limit Levels for Noise Monitoring

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

Note:

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

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	B&K 2238 (Serial No. 2800932)	17 Jul 2017	Monthly EM&A Report No. 19, Appendix E
	B&K 2238 (Serial No. 2808432)	30 Aug 2017	Monthly EM&A Report No. 21, Appendix E
Acoustic Calibrator	B&K 4231 (Serial No. 3003246)	16 May 2017	Monthly EM&A Report No. 17, Appendix D
	B&K 4231 (Serial No. 3004068)	17 Jul 2017	Monthly EM&A Report No. 19, Appendix E

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

- a. The sound level meter was set on a tripod at least a height of 1.2 m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3 dB(A) was applied to the free field measurements.
- b. Façade measurements were made at the monitoring station NM3A.
- c. Parameters such as frequency weighting, time weighting and measurement time were set.
- d. Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- e. During the monitoring period, L_{eq}, L₁₀ and L₉₀ were recorded. In addition, site conditions and noise sources were recorded on a record sheet.
- f. Noise measurement results were corrected with reference to the baseline monitoring levels.
- g. Observations were recorded when high intrusive noise (e.g. dog barking, helicopter noise) was observed during the monitoring.

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

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

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

3.4 Summary of Monitoring Results

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

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)	
	Leq (30 mins)	Leq (30 mins)	
NM1A ⁽¹⁾	71 – 72	75	
NM3A	57 – 62	75	
NM4 ⁽¹⁾	63 – 66	70 ⁽²⁾	
NM5 ⁽¹⁾	54 – 61	75	
NM6 ⁽¹⁾	62 – 74	75	

Notes:

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

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

3.5 Conclusion

As the construction activities were far away from the monitoring stations, major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were road traffic noise at NM1A, aircraft and helicopter noise at NM3A and NM6, helicopter noise at NM4, and aircraft noise at NM5 during this reporting period. It is considered that the monitoring work during the reporting period is effective and there was no adverse impact attributable to the Project activities.

4 Water Quality Monitoring

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

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

Monitoring	Description	Coordinates		Parameters
Station		Easting	Northing	
C1	Control Station	804247	815620	General Parameters
C2	Control Station	806945	825682	DO, pH, Temperature,
C3 ⁽³⁾	Control Station	817803	822109	Salinity, Turbidity, SS
IM1	Impact Station	806458	818351	DCM Parameters
IM2	Impact Station	806193	818852	Total Alkalinity, Heavy
IM3	Impact Station	806019	819411	Metals ⁽²⁾
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	_
SR1 ⁽¹⁾	Future Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812586	820069	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR2 ⁽³⁾	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals ⁽²⁾⁽⁴⁾
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau		822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	

Monitoring	Description	Coordinates		Parameters
SR5A	San Tau Beach SSSI	810696	816593	
SR6	Tai Ho Bay, Near Tai Ho Stream SSSI	814663	817899	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8 ⁽⁵⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811418 (from July 2017 onwards)	820246	

Notes:

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

4.1 **Action and Limit Levels**

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

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

Parameter	'S	Action Level (AL	-)	Limit Level (LL)			
Action and (excluding	Limit Levels for genera SR1& SR8)	Il water quality mon	itoring and regular	DCM monitori	ng		
General Water Quality Monitoring	DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 4.5 mg/L		Surface and Middle 4.1 mg/L 5 mg/L for Fish Culture Zone (SR7) only			
		Bottom		Bottom			
		3.4 mg/L		2.7 mg/L			
	Suspended Solids (SS) in mg/L	23	or 120% of upstream control	37	or 130% of upstream control		
	Turbidity in NTU	22.6	station at the same tide of the	36.1	station at the same tide of the		
Regular	Total Alkalinity in ppm	95	same day,	99	same day,		
DCM Monitoring	Representative Heavy Metals for regular DCM monitoring (Chromium)	0.2	whichever is higher	0.2	whichever is higher		
	Representative Heavy Metals for regular DCM monitoring (Nickel)	3.2	_	3.6			

Parameters	Action Level (AL)	Limit Level (LL)					
SS (mg/l)	To be determined prior to its commissioning	To be determined prior to its commissioning					
Action and Limit Levels SR8							
SS (mg/l)	52	60					

Notes:

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

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

Control Station	Impact Stations
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 has been changed from C3 to SR2 from 1 Sep 2016 onwards.

4.2 Monitoring Equipment

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

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH,	YSI ProDSS (Serial No. 15M100005) YSI ProDSS (Serial No. 16H104233)		Monthly EM&A Report No. 27, Appendix D
temperature, salinity and turbidity)	YSI ProDSS (Serial No. 16H104234)		_
	YSI ProDSS (Serial No. 17E100747)	1 Feb 2018	_
	YSI ProDSS (Serial No. 17H105557)	6 Feb 2018	_
	YSI 6920 V2 (Serial No. 0001C6A7)	2 Mar 2018	_
	YSI 6920 (Serial No. 000109DF)	2 Mar 2018	
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (Serial No. 10N60623)	30 Apr 2018	Monthly EM&A Report No. 27, Appendix D

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

Table 4.5: Other Monitoring Equipment

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

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

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

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

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

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

4.3.3 Laboratory Measurement / Analysis

Analysis of SS and heavy metals have been carried out by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066). Sufficient water samples were collected at all the monitoring stations for carrying out the laboratory SS and heavy metals determination. The SS and heavy metals determination works were started within 24 hours after collection of the water samples. The analysis of SS and heavy metals have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS and heavy metals were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

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

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

4.4 Summary of Monitoring Results

The water quality monitoring schedule for the reporting period is updated and provided in **Appendix B**.

The sea conditions varied from calm to rough, and the weather conditions varied from sunny to rainy during the monitoring period.

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

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

Table 4.7 presents a summary of the SS compliance status at IM and SR stations during mid-flood tide for the reporting period.

Table 4.7: Summary of SS Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7	SR8
03/04/2018									D										
05/04/2018																			
07/04/2018																			
10/04/2018																			
12/04/2018																			
14/04/2018																			
17/04/2018																			
19/04/2018									D	D				D					
21/04/2018																			
24/04/2018																			
26/04/2018																			
28/04/2018																			
No. of result triggereing Action or Limit Level	0	0	0	0	0	0	0	0	2	1	1	0	0	1	0	0	0	0	0

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

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

As part of the investigation on the downstream events, details of the Project's marine construction activities on the concerned monitoring days were collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.8**.

Table 4.8: Summary of Findings from Investigations of SS Monitoring Results (Mid-Flood Tide)

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
03/04/2018	DCM works Sand blanket laying	Around 500m	Silt curtain deployed	No	No	No
19/04/2018	DCM works Sand blanket laying	Around 500m	Silt curtain deployed	No	No	No

According to the investigation findings, it was confirmed that both DCM and sand blanket laying activities were operating normally with silt curtains deployed. The silt curtains were maintained properly.

For the monitoring results at IM9 on 3 April 2018, this station was located downstream of the Project during flood tide, which might be affected by Project's construction activities. However, it was noticed that no Action Level was triggered at other downstream monitoring stations. Thus, this appeared to be an isolated case with no observable spatial and temporal trend to indicate any effect due to Project activities. As there was no evidence of SS release due to Project activities from site observations and all mitigation measures were carried out properly, the case was considered not due to the Project.

For the monitoring result at IM9, IM10 and SR3 on 19 April 2018, these monitoring stations were located downstream of the Project during flood tide, which might be affected by Project's construction activities. However, it was noticed that Action Level was triggered at IM11, a nearby IM station located upstream of the Project. This station, while being unlikely to be affected by the Project, affect the water quality at the downstream IM and SR stations in the vicinity. Besides, during the monitoring session conducted on 19 April 2018, no specific observation was made regarding any water quality impact due to Project activities. As there was no evidence of SS release due to Project activities from site observations and all mitigation measures were carried out properly, the cases were considered not due to the Project.

Table 4.9 presents a summary of the nickel compliance status at IM and SR stations during midflood tide for the reporting period.

IM1 IM2 IM3 IM4 IM5 IM6 IM7 IM8 IM9 IM10 IM11 IM12 03/04/2018 05/04/2018 07/04/2018 10/04/2018 12/04/2018 14/04/2018 17/04/2018 19/04/2018 21/04/2018 24/04/2018 26/04/2018 28/04/2018 No. of result triggereing 0 0 0 0 0 0 0 0 0 Action or Limit Level

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

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

Monitoring results triggered the corresponding Action Levels on two monitoring days. Both cases occurred at monitoring stations located upstream of the Project during flood tide, that would unlikely be affected by the Project.

4.5 Conclusion

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

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

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

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

5 Waste Management

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

5.1 Action and Limit Levels

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

Table 5.1: Action and Limit Levels for Construction Waste

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

5.2 Waste Management Status

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

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

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

The monitoring results complied with the Action or Limit Levels during the reporting period.

Table 5.2: Construction Waste Statistics

	Excavated Material (m³) ⁽¹⁾	C&D ⁽²⁾ Material Reused in the Project (m ³)	C&D Material Reused in other Projects (m³)	Material Disposed of as Public	Chemical Waste (kg)	Chemical Waste (L)	General Refuse (tonne)
Mar 2018 ⁽³⁾	-	-	-	1,741	-	18,000	297
Apr 2018 ⁽⁴⁾	1362	934	0	996	955	18,600	186

Notes:

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

6 Chinese White Dolphin Monitoring

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

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

6.1 Action and Limit Levels

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

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

	NEL, NWL, AW, WL and SWL as a Whole		
Action Level ⁽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 STG & ANI will be calculated from the three preceding survey months. For CWD monitoring for April 2018, data from 1 February 2018 to 30 April 2018 will be used to calculate the running quarterly encounter rates STG & ANI;
- (2) Limit Level two consecutive running quarters mean both the running quarterly encounter rates of the preceding month March 2018 (calculated by data from January 2018 to March 2018) and the running quarterly encounter rates of this month (calculated by data from February 2018 to April 2018).
- (3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

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

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

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

Naypoint	Easting	Northing	Waypoint	Easting	Northing
		NE	L		
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
		NV	VL		
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	88	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	98	812516	821356
4N	807518	829230	9N	812516	824254
		A۱	N		
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
		W	L		
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			
		SW	/L		
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	78	808553	800329

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

6.2.2 Land-based Theodolite Tracking Survey

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

Table 6.3: Land-based Theodolite Survey Station Details

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

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

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

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

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

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

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

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

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

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

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

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

6.3.2 Photo Identification

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

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

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

6.3.3 Land-based Theodolite Tracking Survey

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

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

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

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

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 3, 4, 11, 12, 18, 19, 23, and 27 April 2018, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 453.91 km of survey effort was collected from these surveys, with around 97.68% of the total survey effort being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In April 2018, 18 sightings with 58 dolphins were sighted. Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in April 2018 is illustrated in **Figure 6.3**. In NWL, all CWD sightings were recorded around the northwestern corner of the survey area, particularly around the western and northern waters off Lung Kwu Chau. In WL, CWD sightings were recorded along the coast from Tai O to Fan Lau, particularly between Tai O and Peaked Hill. In SWL, two CWD sightings were recorded at the coastal waters of Fan Lau and Shek Pik respectively while one sighting was recorded at the off-shore waters at the eastern part of the survey area. No sightings of CWDs were recorded in NEL survey area.

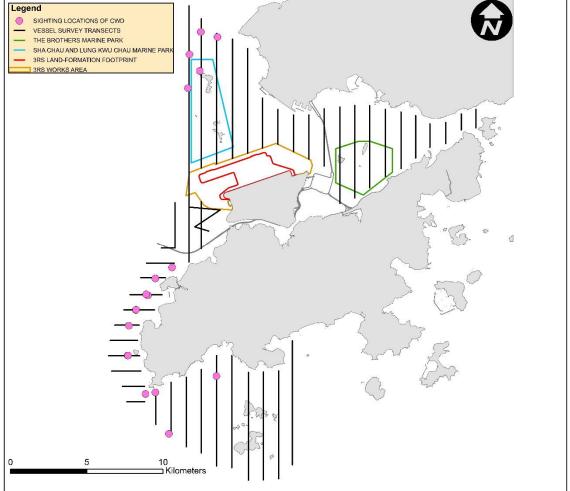


Figure 6.3: Sightings Distribution of Chinese White Dolphins

Remarks: Please note that there are 18 pink circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this distribution map. Those sightings with very similar localities that appearing overlapped on the distribution map are located on the transects between Tai O and Peaked Hill.

Encounter Rate

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

Encounter Rate by Number of Dolphin Sightings (STG)

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

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 April 2018, a total of around 443.38 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 15 on-effort sightings with 50 dolphins were sighted under such condition. Calculation of the encounter rates in April 2018 are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from February to April 2018), a total of around 1268.37 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 53 on-effort sightings and a total number of 159 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of April 2018 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rates STG and ANI did not trigger the Action Level (i.e., remained 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)
April 2018	3.38	11.28
Running Quarter from February 2018 to April 2018 ⁽¹⁾	4.18	12.54
Action Level	Running quarterly ⁽¹⁾ < 1.86	Running quarterly ⁽¹⁾ < 9.35

Note:

Group Size

In April 2018, 18 groups with 58 dolphins were sighted, and the average group size of CWDs was 3.22 dolphins per group. Numbers of sightings with small group size (i.e. 1-2 dolphins) and that with medium group (i.e. 3-9 dolphins) were similar. No sighting with large group size (i.e. 10 or more dolphins) was recorded.

Activities and Association with Fishing Boats

Three out of 18 sightings of CWDs were recorded engaging in feeding activities in April 2018. CWDs from two out of these three sightings were observed associating with operating purse seiner and shrimp trawler in WL respectively.

Mother-calf Pair

In April 2018, three sightings were observed with the presence of mother-and-unspotted juvenile pairs. Two of these sightings were recorded in NWL while the remaining one was observed in WL.

6.4.2 Photo Identification

In April 2018, a total number of 30 different CWD individuals were identified for totally 40 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

⁽¹⁾ Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, i.e. the data from February to April 2018, containing six sets of transect surveys for all monitoring areas.

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
NLMM004	23-Apr-18	1	NWL	WLMM003	11-Apr-18	4	WL
NLMM010	19-Apr-18	2	NWL	WLMM004	12-Apr-18	3	WL
	23-Apr-18	1	NWL	WLMM006	12-Apr-18	2	WL
NLMM036	19-Apr-18	3	NWL	WLMM009	12-Apr-18	2	WL
		4	NWL	WLMM030	12-Apr-18	2	WL
NLMM037	23-Apr-18	1	NWL	WLMM043	11-Apr-18	1	WL
NLMM043	23-Apr-18	1	NWL		12-Apr-18	1	WL
NLMM062	12-Apr-18	3	WL	WLMM056	12-Apr-18	7	WL
NLMM063	23-Apr-18	1	NWL	WLMM064	12-Apr-18	3	WL
SLMM003	12-Apr-18	3	WL	WLMM069	12-Apr-18	4	WL
SLMM014	04-Apr-18	5	SWL			5	WL
SLMM027	11-Apr-18	3	WL	WLMM073	11-Apr-18	3	WL
	12-Apr-18	3	WL	WLMM085	11-Apr-18	4	WL
SLMM028	11-Apr-18	1	WL	WLMM086	12-Apr-18	2	WL
SLMM036	23-Apr-18	1	NWL		19-Apr-18	3	NWL
SLMM045	12-Apr-18	3	WL			4	NWL
SLMM052	12-Apr-18	3	WL	WLMM090	12-Apr-18	2	WL
SLMM058	12-Apr-18	2	WL		19-Apr-18	3	NWL
SLMM064	11-Apr-18	2	WL			4	NWL
WLMM001	11-Apr-18	4	WL		•		
	12-Apr-18	4	WL				

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 13, 19 and 23 April 2018 and at SC on 20 and 26 April 2018, with a total of five days of land-based theodolite tracking survey effort accomplished in this reporting period. A total number of 11 CWD groups were tracked at LKC station during the surveys. Information of survey effort and CWD groups sighted during these land-based theodolite tracking surveys are presented in **Table 6.6**. Details of the survey effort and CWD groups tracked are presented in **Appendix C**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking surveys in April 2018 were depicted in **Figure 6.4**. No CWD group was sighted from SC station in this reporting month.

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

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

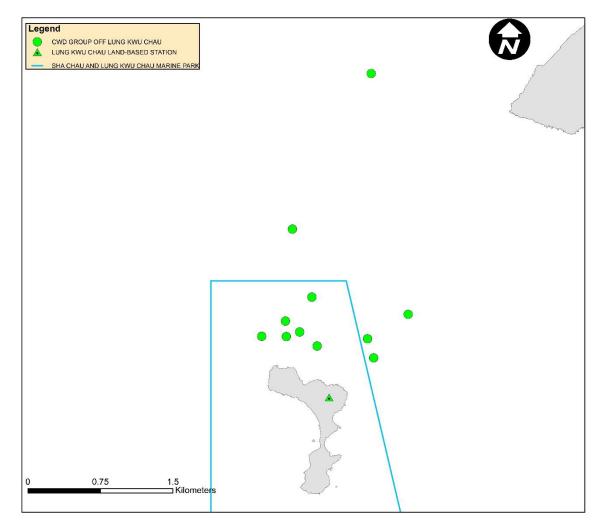


Figure 6.4: Plots of First Sightings of All CWD Groups obtained from Land-based Stations

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. In this reporting period, the Ecological Acoustic Recorder (EAR) has been remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP with 20% duty cycle (**Figure 6.5**). The EAR deployment is generally for 4-6 weeks prior to data retrieval for analysis. Acoustic data is reviewed to give an indication of CWDs occurrence patterns and to obtain anthropogenic noise information simultaneously. Analysis (by a specialized team of acousticians) involved manually browsing through every acoustic recording and logging the occurrence of dolphin signals. All data will be re-played by computer as well as listened to by human ears for accurate assessment of dolphin group presence. As the period of data collection and analysis takes more than two months, PAM results could not be reported in monthly intervals.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractors for sand blanket laying works, in which dolphin observers were deployed by each contractor in accordance with the MMWP. Teams of at least two dolphin observers were deployed at 21 to 24 dolphin observation stations by the contractors for continuous monitoring of the DEZ by all contractors for ground

improvement works (DCM works and PVD installation) and seawall construction in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 605 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtains or the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

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

6.7 Timing of Reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

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

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

Weekly site inspections of construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. The weekly site inspection schedule of the construction works is provided in **Appendix B**. Biweekly site inspections were also conducted by the IEC. Observations have been recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

The key observations from site inspection and associated recommendations were related to display of appropriate permits and labels; provision and maintenance of drip trays and spill kits; proper segregation and disposal of waste; proper implementation of dust suppression, wastewater treatment, dark smoke prevention, and runoff prevention measures; as well as proper implementation DEZ monitoring.

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

7.2 Audit of SkyPier High Speed Ferries

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

Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and Macau against the requirements of the SkyPier Plan during the reporting period are summarized in **Table 7.1**. The daily movements of all SkyPier HSFs in this reporting period (i.e., 88 to 90 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, 853 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in April 2018 and the data are presented in **Appendix F**. The time spent by the SkyPier HSFs travelling through the SCZ in April 2018 were presented in **Figure 7.1**. It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowable speed of 15 knots within the SCZ. **Figure 7.1** shows that all of the SkyPier HSFs spent more than 9.6 minutes to travel through the SCZ.

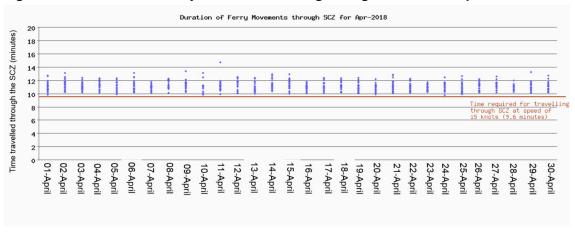


Figure 7.1: Duration of the SkyPier HSFs travelling through the SCZ for April 2018

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

Four ferries were recorded with minor deviation from the diverted route on 4 April 2018, 06 April 2018, 13 April 2018 and 28 April 2018. Notices were sent to the ferry operators and the cases are under investigation by ET. The investigation result will be presented in the next monthly EM&A report. After the minor deviation, all HSFs returned to the diverted route following the SkyPier Plan.

For the ferry with minor deviation from the diverted route on 5 March 2018 as discussed in the No.27 EM&A Report, ET's investigation found that the vessel captain had to give way to a vessel at the portside for safety reason.

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

Requirements in the SkyPier Plan	1 April to 30 April 2018
Total number of ferry movements recorded and audited	853
Use diverted route and enter / leave SCZ through Gate Access Points	4 deviations.
Speed control in speed control zone	The average speeds taken within the SCZ by all HSFs were within 15 knots (9.2 knots to 14.0 knots), which complied with the SkyPier Plan. The time used by HSFs to travel through SCZ is presented in Figure 7.1 .
Daily Cap (including all SkyPier HSFs)	88 to 90 daily movements (within the maximum daily cap - 125 daily movements).

7.3 Audit of Construction and Associated Vessels

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

ET carried out the following actions during the reporting period:

 Two skipper training sessions were held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.

- Seven skipper training sessions were held by contractor's Environmental Officer.
 Competency tests were subsequently conducted with the trained skippers by ET.
- In this reporting period, eight skippers were trained by ET and nine skippers were trained by contractor's Environmental Officer. In total, 919 skippers were trained from August 2016 to April 2018.
- The Marine Surveillance System (MSS) automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly MTCC audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.4 Implementation of Dolphin Exclusion Zone

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

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

7.5 Ecological Monitoring

In accordance with the Manual, ecological monitoring shall be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island during the HDD construction works period from August to March. Since the construction works on Sheung Sha Chau is suspended during the ardeid's breeding season between April to July, no ecological monitoring was carried out in this reporting period.

7.6 Status of Submissions under Environmental Permits

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

Table 7.2: Status of Submissions under Environmental Permit

Condition	Submission	Status
2.1	Complaint Management Plan	
2.4	Management Organizations	
2.5	Construction Works Schedule and Location Plans	Accepted / approved
2.7	Marine Park Proposal	Accepted / approved by EPD
2.8	Marine Ecology Conservation Plan	•
2.9	Marine Travel Routes and Management Plan for Construction and Associated Vessels	

EP Condition	Submission	Status
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	_
2.19	Waste Management Plan	_
2.20	Supplementary Contamination Assessment Plan	_
3.1	Updated EM&A Manual	_
3.4	Baseline Monitoring Reports	_

7.7 Compliance with Other Statutory Environmental Requirements

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

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

7.8.1 Complaints

No construction activities-related complaint was received during the reporting period.

7.8.2 Notifications of Summons or Status of Prosecution

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

7.8.3 Cumulative Statistics

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

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- · Pipeline testing and commissioning; and
- Stockpiling of excavated materials from previous HDD operation.

DCM Works:

Contract 3201 to 3205 DCM Works

DCM works; and

Reclamation Works:

Contract 3206 Main Reclamation Works

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

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

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

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Excavation works;
- Pipe installation;
- Piling works; and
- Builders works of antenna farm.

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

- Site clearance;
- Brick laying;
- Fitting out of E&M works;

- Steel platform erection; and
- Cable tray installation.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Drainage, and road work; and
- Piling works

APM works:

Contract 3602 Existing APM System Modification Works

- Site office establishment; and
- Concrete plinth construction.

Baggage Handling System (BHS) works:

Contract 3603 3RS Baggage Handling System

Site survey.

Airport Support Infrastructure & Logistic Works:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Erection of hoarding;
- Diversion of underground utilities;
- Piling works; and
- Demolition of footbridge.

8.2 Key Environmental Issues for the Coming Reporting Period

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

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

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

8.3 Monitoring Schedule for the Coming Reporting Period

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

9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included DCM works, seawall construction, laying of sand blanket, and PVD installation. Land-side works included site establishment, site office construction, road and drainage works, cable ducting, demolition and modification of existing facilities, piling, and excavation works.

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

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

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

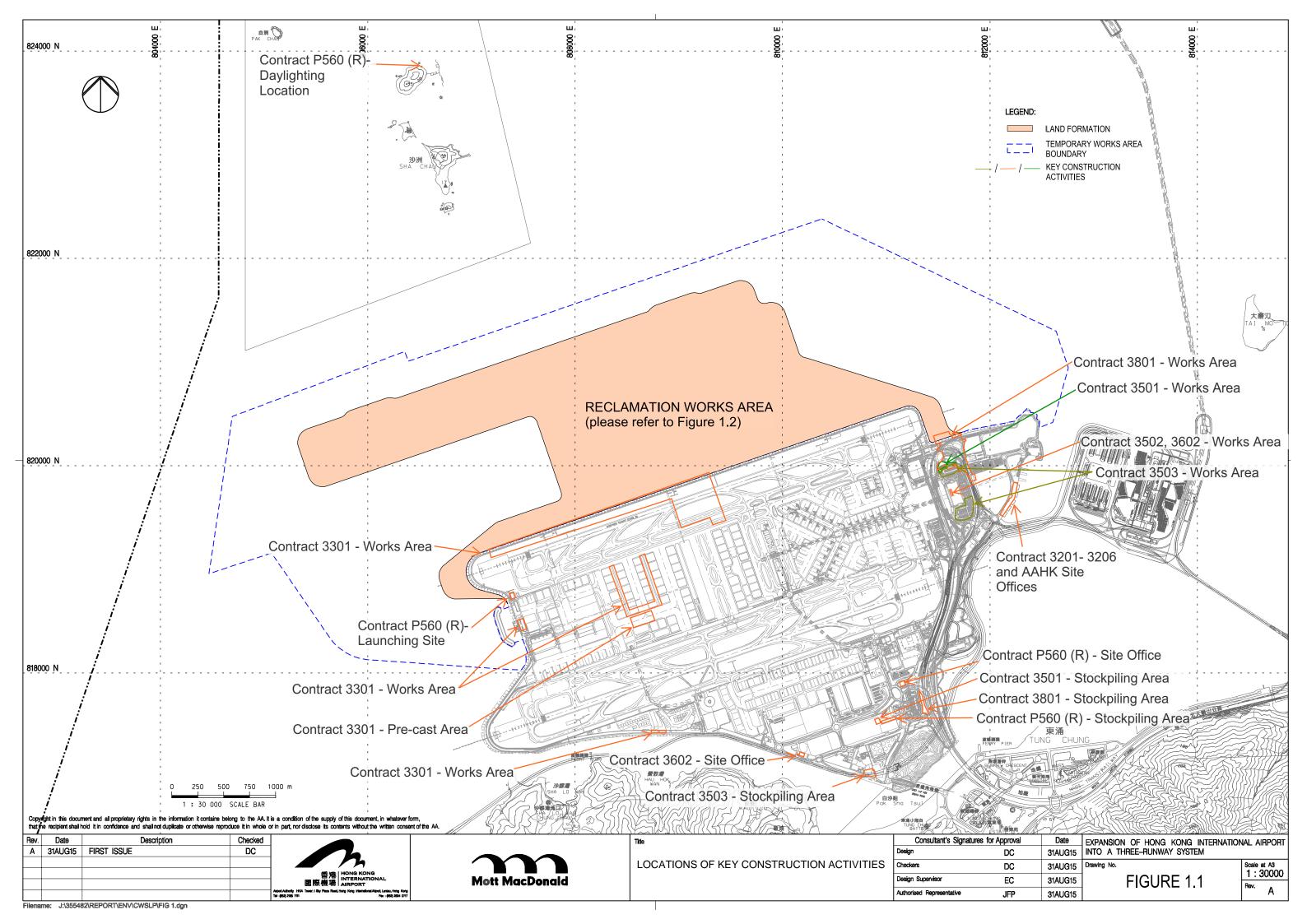
Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection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

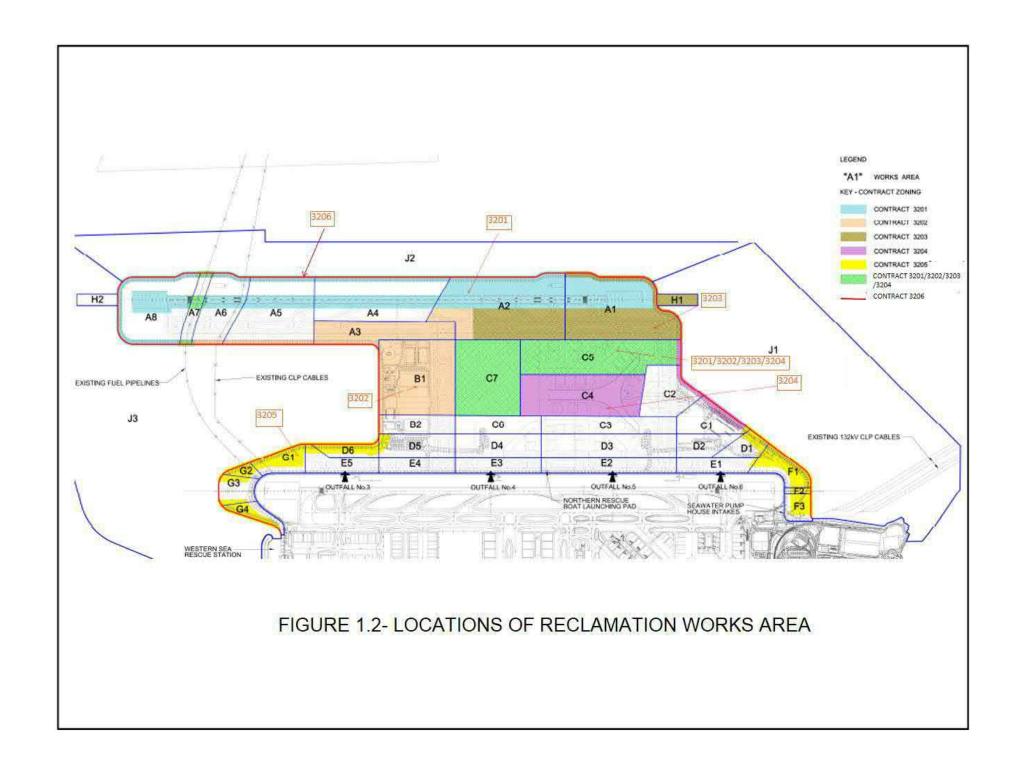
On the implementation of MMWP, dolphin observers were deployed by the contractors for laying of open sea silt curtain and laying of silt curtains for sand blanket works in accordance with the MMWP. On the implementation of DEZ Plan, dolphin observers at 21 to 24 dolphin observation stations were deployed for continuous monitoring of the DEZ by all contractors for ground improvement works (DCM works and PVD installation) and seawall construction in accordance with the DEZ Plan. Trainings for the proposed dolphin observers were provided by the ET prior to the aforementioned works, with the training records kept by the ET. From the contractors' MMWP observation records and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtains or the DEZs in this reporting month. The contractor's record was checked by the ET during site inspection. Audits of acoustic decoupling measures for construction vessels were also carried out by the ET, and relevant recommendations were made during regular site inspections.

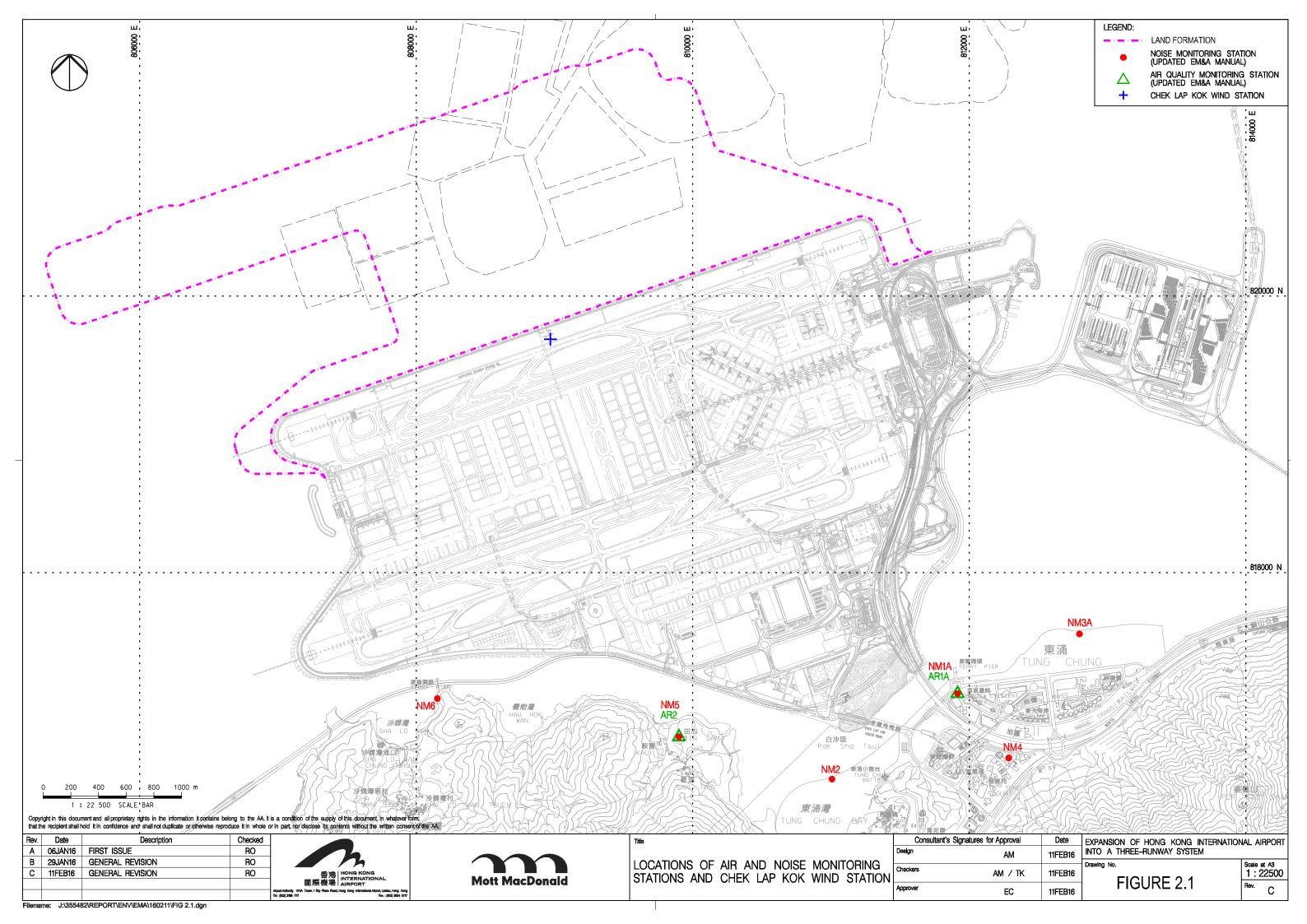
On the implementation of the SkyPier Plan, the daily movements of all SkyPier high speed ferries (HSFs) in April 2018 were in the range of 88 to 90 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 853 HSF movements under the SkyPier Plan were recorded in the reporting period. All HSFs had travelled through the SCZ with average speeds under 15 knots (9.2 to 14.0 knots), which were in compliance with the SkyPier Plan. Four deviations from the diverted route in April 2018 is recorded in the High Speed Ferry Monitoring System. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigation or actions accordingly.

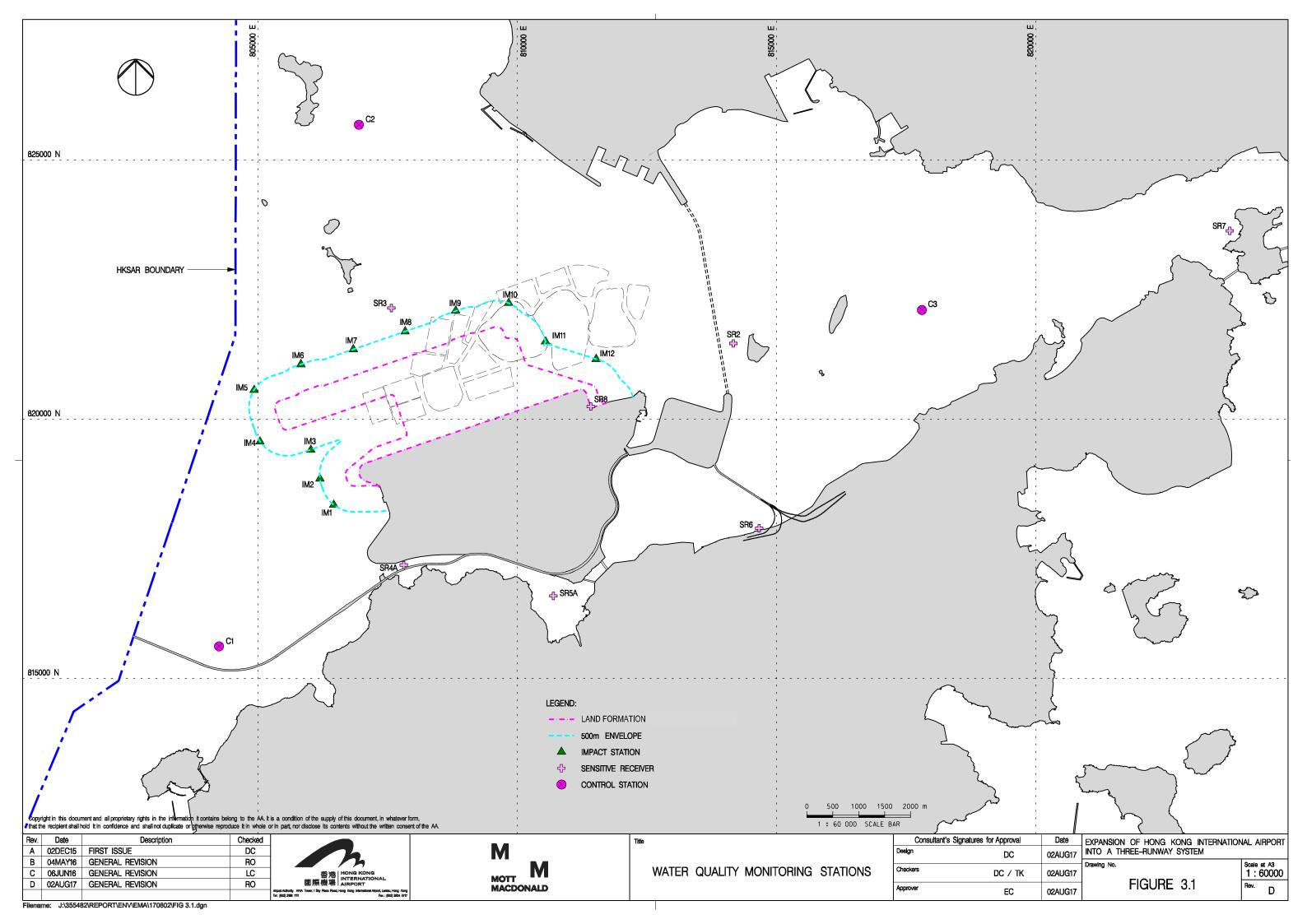
On the implementation of MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone, not travelling through the designated gates. ET conducted checking to ensure the MSS records all deviation cases accurately. Training has been provided for the concerned skippers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

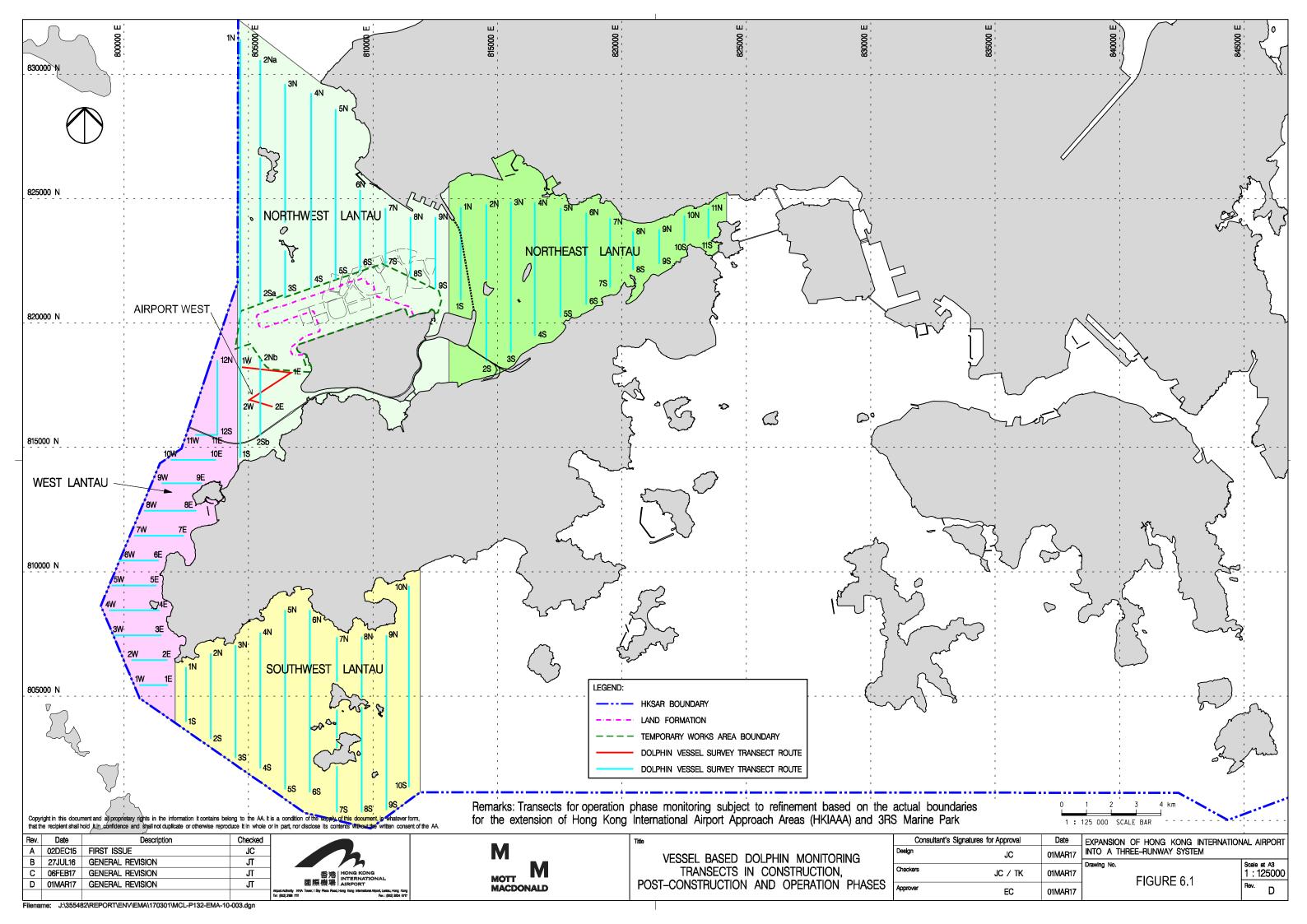
Figures

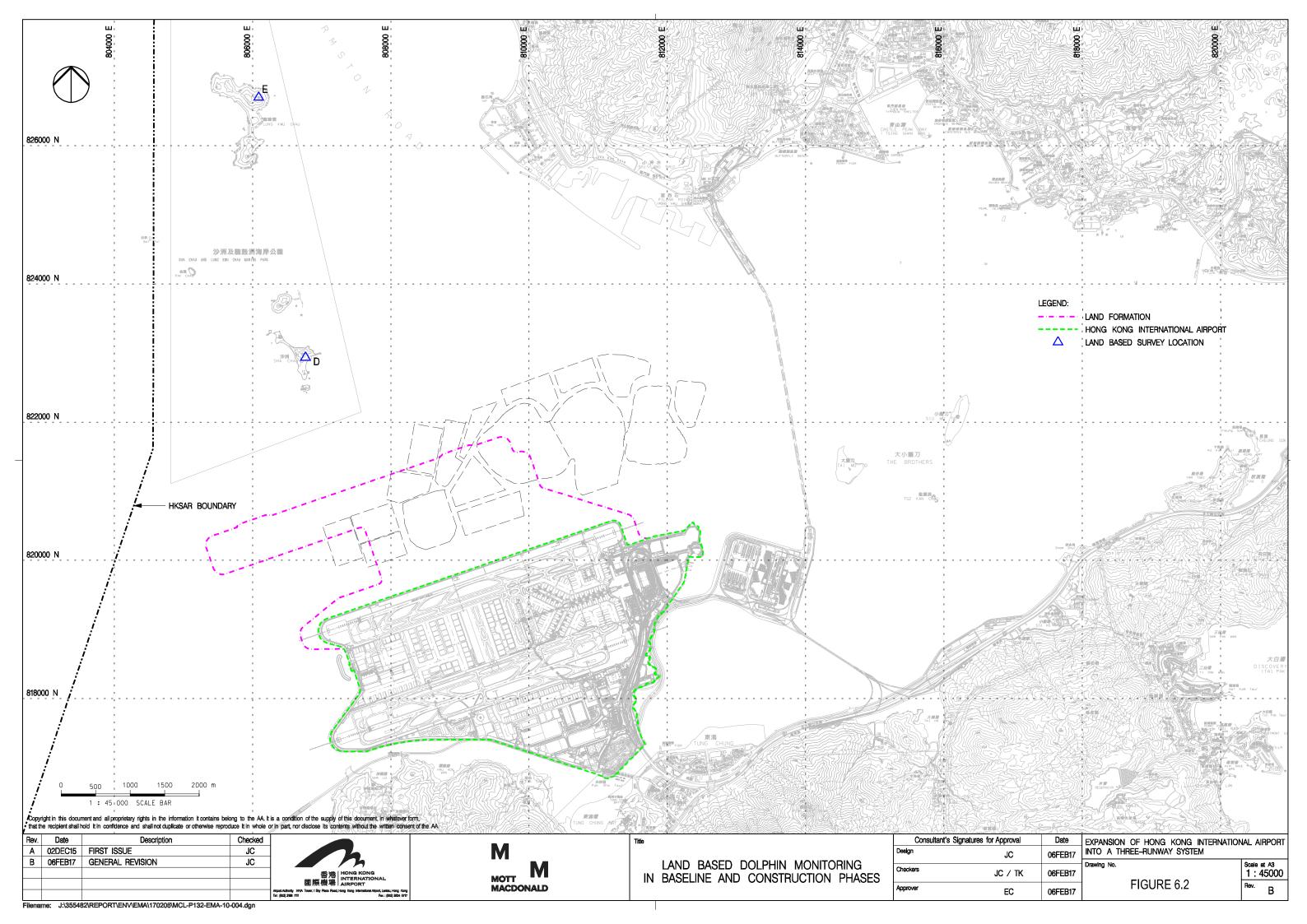


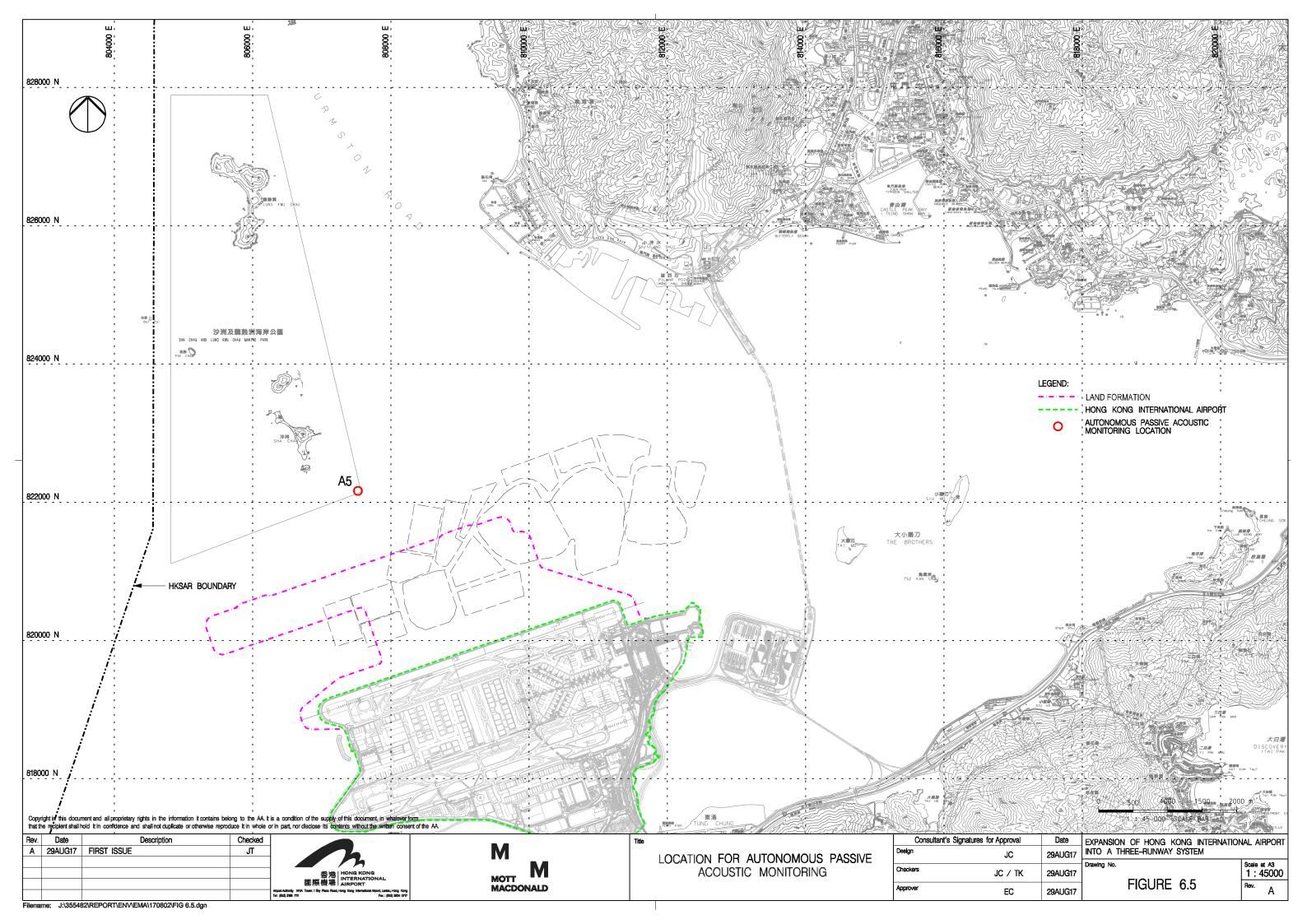












Appendix A. Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase



Appendix A

Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Air Quality Impact – Construction Phase		
5.2.6.2	2.1	-	Dust Control Measures ■ Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	1
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 byproducts 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	N/A



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;	Within construction site / Duration of the construction phase	1
			 Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and 		
			Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.		
			Site hoarding	Within construction	1
			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.	site / Duration of the construction phase	
5.2.6.5	2.1	-	Best Practices for Concrete Batching Plant	Within Concrete	N/A
			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:	Batching Plant / Duration of the construction phase	
			Cement and other dusty materials		



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	Within Concrete	N/A
			 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; 	Batching Plant / Duration of the construction phase	
			 The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stock piles and material discharge points; 		
			• All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices;		
			The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance;		
			 All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; 		
			 Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; 		
			 Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; 		
			 Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used; 		



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	Within Concrete	N/A
			Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented:	Batching Plant / Duration of the	
			(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	construction phase	
			(b) If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit.		
			■ The loading bay shall be totally enclosed during the loading process.		
			Vehicles	Within Concrete	N/A
			 All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and 	Batching Plant / Duration of the	
			 All access and route roads within the premises shall be paved and adequately wetted. 	construction phase	
			Housekeeping	Within Concrete	N/A
			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.	Batching Plant / Duration of the construction phase	
.2.6.6	2.1	-	Best Practices for Asphaltic Concrete Plant	Within Concrete	N/A
			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:	Batching Plant / Duration of the construction phase	
			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;		



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	Within Concrete	N/A
			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;	Batching Plant / Duration of the construction phase	
			• 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. 		
			Hot feed side	Within Concrete Batching Plant / Duration of the construction phase	N/A
			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; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			• All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and		
			 Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units). 		
			Material transportation	Within Concrete	N/A
			• 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;	Batching Plant / Duration of the construction phase	
			 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. 		
			Control of emissions from bitumen decanting	Within Concrete	N/A
			 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; 	Batching Plant / Duration of the	
			 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; 	construction phase	
			Proper chimney for the discharge of bitumen fumes shall be provided at high level;		
			■ The emission of bitumen fumes shall not exceed the required emission limit; and		
			The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.		
			Liquid fuel	Within Concrete	N/A
			 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. 	Batching Plant / Duration of the construction phase	
			Housekeeping	Within Concrete	N/A
			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.	Batching Plant / Duration of the construction phase	
5.2.6.7	2.1	-	Best Practices for Rock Crushing Plants	Within Concrete	N/A
			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:	Batching Plant / Duration of the construction phase	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures tion	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Crushers		
			• The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter;		
			• The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping;		
			 Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and 		
			Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure.		
			Vibratory screens and grizzlies	Within Concrete	N/A
			• 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	Batching Plant / Duration of the construction phase	
			 All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas. 		
			Belt conveyors	Within Concrete	N/A
			 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; 	Batching Plant / Duration of the construction phase	
			• 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.		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			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 Concrete Batching Plant / Duration of the construction phase	N/A
			 The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; 	·	
			 All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or 		
			■ The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls.		
			 Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly. 		
			Rock drilling equipment	Within Concrete	N/A
			 Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities. 	Batching Plant / Duration of the construction phase	
			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	1
Table 6.40	3.2	-	■ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	1
			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:	Within the Project site / During construction phase / Prior to	I
			 only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; 	commencement of operation	
			 machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; 		



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



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.2 and	5.1	2.26	Marine Construction Activities	Within construction site / Duration of the construction phase	
8.8.1.3			General Measures to be Applied to All Works Areas		
			 Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; 		
			Use of Lean Material Overboard (LMOB) systems shall be prohibited;		
			 Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; 		
			 Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; 		
			 Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; 		
			• All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;		
			■ The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and		
			For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the waste water meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.		
			Specific Measures to be Applied to All Works Areas	Within construction site / Duration of the construction phase	
			The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report;		N/A
			 A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document; 		
			 An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities; 		
			 Closed grab dredger shall be used to excavate marine sediment; 		N/A
			 Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and 		*(The arrangemen silt curtain has bee modified. The deta can be referred to Curtain Deployme Plan)
			■ The Silt Curtain Deployment Plan shall be implemented.	-	(



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains; Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and	Within construction site / Duration of the construction phase	NA *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan) For C7a, I For C8, N/A *(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
			Specific Measures to be Applied to Land Formation Activities during Marine Filling Works 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	N/A *(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; 		N/A *(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 		N/A *(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.		N/A



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion	Mitigation Measures Implemented?^
				of measures	N1/A
			Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion	Within construction site / Duration of the	N/A
			 Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping and Sea Ordinance (DASO) permit conditions; and 	construction phase	
			 Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure. 		
8.8.1.4	5.1	-	Modification of the Existing Seawall	At the existing northern seawall / Duration of the construction phase	N/A
			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.		
8.8.1.5	5.1	-	Construction of New Stormwater Outfalls and Modifications to Existing Outfalls	Within construction site / Duration of the construction phase	N/A
			 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. 		
8.8.1.6	5.1	2.27	Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons	Within construction	N/A
8.8.1.7			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.	site / Duration of the construction phase	
			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.		
8.8.1.8	5.1	-	Construction of Site Runoff and Drainage	Within construction	
			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:	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 sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site	.	ı



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform);	_	
			Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction;		
			 All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly; 	_	1
			 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; 		1
			■ In the event that contaminated groundwater is identified at excavation areas, this should be treated onsite 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	_	N/A
			• 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
8.8.1.9	5.1	-	Sewage Effluent from Construction Workforce	Within construction	I
			 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. 	site / During construction phase	
8.8.1.10	5.1		General Construction Activities	Within construction	I
8.8.1.11			 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 	site / During construction phase	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
			Timing of completion of measures	Implemented?^	
			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.		
8.8.1.12	5.1	2.28	Drilling Activities for the Submarine Aviation Fuel Pipelines	Within construction	I
8.8.1.13			To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:	site / During	
			 A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; 	construction phase	
			 No bulk storage of chemicals shall be permitted; and 		
		 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:	Within construction site / During	1
			 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 	construction phase	
			 Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 		
			Waste Management Implication – Construction Phase		
10.5.1.1	7.1	-	Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended:		
			■ The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&D materials;	Project Site Area / During design and construction phase	1
			 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; 		1
			 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; 		1
			 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 		N/A



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?
			■ 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.		N/A
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include:	Project Site Area /	I
			 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; 	Construction Phase	
			■ 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:	Project Site Area /	1
			 Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; 	Construction Phase	
			 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; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 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. 		
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	1
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:	Project Site Area /	N/A
			 On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions; 	Construction Phase	
			 The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions; 		
			 All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; 		
			 Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; 		
			 Treated and untreated sediment should be clearly separated and stored separately; and 		
			 Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge. 		
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	Project Site Area / Construction Phase	N/A



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			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. 		
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:	Project Site Area / Construction Phase	1
			 Good quality containers compatible with the chemical wastes should be used; 		
			Incompatible chemicals should be stored separately;		
			 Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and 		
			■ The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.		
10.5.1.20	7.1	-	General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.	Project Site Area / Construction Phase	N/A
			Land Contamination – Construction Phase		
11.10.1.2	8.1	2.32	For areas inaccessible during site reconnaissance survey	Project Site Area	
to 11.10.1.3			• Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.	inaccessible during site reconnaissance / Prior to Construction Phase	1
			 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. 		1



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



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?
12.7.2.3	9.1	2.30	Avoidance and Minimisation of Direct Impact to Egretry	During construction	I
and 12.7.2.6			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;	phase at Sheung Sha Chau Island	
			• 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.		
12.7.2.5	9.1	2.30	Preservation of Nesting Vegetation	During construction	1
			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.	phase at Sheung Sha Chau Island	
12.7.2.4	9.1	2.30	Timing the Pipe Connection Works outside Ardeid's Breeding Season	During construction	1
and 12.7.2.6			• 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.	phase at Sheung Sha Chau Island	
12.10.1.1	9.3	-	Ecological Monitoring	at Sheung Sha Chau	1
			 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. 	Island	
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	■ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	I
			Marine Ecological Impact – Construction Phase		
13.11.1.3	-	-	Minimisation of Land Formation Area	Land formation	1
to 13.11.1.6			 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. 	footprint / during detailed design phase to completion of construction	
13.11.1.7	-	2.31	Use of Construction Methods with Minimal Risk/Disturbance	During construction	
to 13.11.1.10		 Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; 	phase at marine works area	I	
			 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; 		I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; 		N/A
			 Avoid bored piling during CWD peak calving season (Mar to Jun); 		I
			■ Prohibition of underwater percussive piling; and	_	1
			 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. 		1
13.11.2.1	-	-	Mitigation for Indirect Disturbance due to Deterioration of Water Quality	All works area during	
to 13.11.2.7			 Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 	the construction phase	1
			 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); 		1
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		N/A
			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.		I
13.11.1.12	-	-	Strict Enforcement of No-Dumping Policy	All works area during	1
			 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; 	the construction phase	
			 Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; 		
			■ Fines for infractions should be implemented; and		
			Unscheduled, on-site audits shall be implemented.		
13.11.1.13	-	-	 Good Construction Site Practices Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators. 	All works area during the construction phase	I
13.11.1.3	-	-	Minimisation of Land Formation Area	Land formation	1
to 13.11.1.6			• 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.	footprint / during detailed design phase	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				to completion of construction	
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	Area between the footprint and SCLKC Marine Park during construction phase	I
			A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.		_
			Other mitigation measures The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and	Area between the footprint and SCLKC Marine Park during construction phase	I
			■ The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.		
13.11.5.14	10.3.1	2.31	Dolphin Exclusion Zone	Marine waters around	
to 13.11.5.18			 Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas; 	land formation works area during construction phase	1
			 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 	_	ı
			 A DEZ would also be implemented during bored piling work but as a precautionary measure only. 		N/A
13.11.5.19	10.4	2.31	Acoustic Decoupling of Construction Equipment	Around coastal works	1
			 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 	area during construction phase	
			 Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works. 		
13.11.5.20	10.6.1	2.29	Spill Response Plan	Construction phase	1
			• 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.		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.5.21 to 13.11.5.23	10.6.1	-	Construction Vessel Speed Limits and Skipper Training A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and Vessels traversing through the work areas should be required to use predefined and regular routes	All areas north and west of Lantau Island during construction phase	I
			(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.		
			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	1
			 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; 		I
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 	_	N/A
			 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. 	_	I
14.9.1.11	-		Strict Enforcement of No-Dumping Policy	All works area during	1
			 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; 	the construction phase	
			 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.		
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 	All works area during the construction phase	1



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 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. 		
14.9.1.13	-		Mitigation for Indirect Disturbance due to Deterioration of Water Quality	All works area during	
to 14.9.1.18			 Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 	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);		1
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		N/A
			 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. 		1
			Landscape and Visual Impact – Construction Phase		
Table 15.6	12.3	-	CM1 - The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works;	I
				Upon handover and completion of works.	
Table 15.6	12.3	-	CM2 - Reduction of construction period to practical minimum.	All works areas for duration of works;	1
				Upon handover and completion of works.	
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;	I
				Upon handover and completion of works.	
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;	ı
				Upon handover and completion of works.	
Table 15.6	12.3	-	CM5 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works;	1
				Upon handover and completion of works. –	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				may be disassembled in phases	
Table 15.6	12.3	-	CM6 - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and completion of works.	N/A
Table 15.6	12.3	-	CM7 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works;	1
				Upon handover and completion of works. – may be disassembled in phases	
Table 15.6	12.3	-	Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall	All existing trees to be retained;	I
		be required to submit, for approval, a detailed working method statement for the protection of trees undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	Upon handover and completion of works.		
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	All existing trees to be affected by the works;	I	
			necessary tree root and crown preparation periods shall be allowed in the project programme.	Upon handover and completion of works.	
Table 15.6	12.3	-	CM10 - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works;	N/A
				Upon handover and completion of works.	
			Cultural Heritage Impact – Construction Phase		
			Not applicable.		



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

Notes:

I= implemented where applicable;

N/A= not applicable to the construction works implemented during the reporting month. ^ Checked by ET through site inspection and record provided by the Contractor.

Appendix B. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Apr-18

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
•	_	Site Inspection	Site Inspection	, and the second	Site Inspection	•
		CWD Survey (Vessel)	CWD Survey (Vessel)			
		AR1A, AR2 NM1A, NM3A, NM4, NM5	NM6			
		TWITA, TWISA, TWIF, TWIS	TAINIO			
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 14:47 mid-flood: 08:32		mid-ebb: 16:02 mid-flood: 09:25		mid-ebb: 17:39 mid-flood: 10:23
8	9	10	11	12	13	14
		Site Inspection	Site Inspection	Site Inspection	Site Inspection	
	4044 400		CWD Survey (Vessel)	CWD Survey (Vessel)	CWD Survey (Land-based)	
	AR1A, AR2 NM1A, NM3A, NM4, NM5			NM6	AR1A, AR2	
	1411174, 14111074, 1411107			Timo		
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 10:10 mid-flood: 14:22		mid-ebb: 11:23 mid-flood: 16:37		mid-ebb: 12:20 mid-flood: 18:07
15	16	17	18	19	20	21
		Site Inspection	Site Inspection	Site Inspection	Site Inspection	
			CWD Survey (Vessel)	CWD Survey (Vessel, Land-based)	CWD Survey (Land-based)	
		NM6		AR1, AR2 NM1A, NM3A, NM4, NM5		
		NIVIO		TAINTA, TAINGA, TAINTA, TAING		
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 13:53 mid-flood: 07:31		mid-ebb: 15:11 mid-flood: 08:32		mid-ebb: 16:52 mid-flood: 09:45
22	23	24	25	26	27	28
		Site Inspection	Site Inspection	Site Inspection	Site Inspection	
	CWD Survey (Vessel, Land-based)	4844 489		CWD Survey (Land-based)	CWD Survey (Vessel)	
		AR1A, AR2 NM1A, NM4		NM3A, NM5, NM6		
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 09:03 mid-flood: 13:54		mid-ebb: 10:59 mid-flood: 16:30		mid-ebb: 12:11 mid-flood: 18:18
29	30					
	AR1A, AR2					
	NM1A, NM3A, NM4, NM5					
	, , , , , , , , , , , , , , , , , , , ,					
		Notes:				
		CWD - Chinese White Dolphin	NM4A/AD4A Man Tuna Daad Dada			
			NM1A/AR1A - Man Tung Road Park NM3A - Site Office			
		Air quality and Noise Monitoring Station	NM4 - Ching Chung Hau Po Woon P	rimary School		
			NM5/AR2 - Village House, Tin Sum			
		WQ - Water Quality	NM6 - House No. 1, Sha Lo Wan			
		DCM - Deep Cemenet Mixing				

Tentative Monitoring Schedule of Next Reporting Period

May-18

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sullday	Moriday	1 uesuay	2	3	4	5
		1.	Site Inspection	Site Inspection	Site Inspection	3
			One mopestion	CWD Survey (Vessel, Land-based)	One mopesuum	
					AR1A, AR2	
			NM6			
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 13:51		mid-ebb: 15:00		mid-ebb: 16:17
	_	mid-flood: 07:23		mid-flood: 08:18		mid-flood: 09:16
6	7	8	9 Cita Inonestian	10	11	12
		Site Inspection CWD Survey (Vessel, Land-based)	Site Inspection CWD Survey (Vessel)	Site Inspection CWD Survey (Vessel, Land-based)	Site Inspection	
				AR1A, AR2		
		NM6		NM1A, NM3A, NM4, NM5		
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 19:01		mid-ebb: 10:08		mid-ebb: 11:17
		mid-flood: 06:30		mid-flood: 15:03		mid-flood: 17:01
13	14	15	16	17	18	19
	CWD Survey (Vessel)	Site Inspection	Site Inspection	Site Inspection CWD Survey (Land-based)	Site Inspection CWD Survey (Land-based)	
	CWD Survey (Vesser)		AR1A, AR2	CWD Survey (Land-based)	CWD Survey (Land-based)	
	NM6		NM1A, NM3A, NM4, NM5			
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 12:55		mid-ebb: 14:16		mid-ebb: 15:51
		mid-flood: 06:22		mid-flood: 07:30		mid-flood: 08:48
20	21	22	23	24	25	26
	Site Inspection		Site Inspection	Site Inspection	Site Inspection CWD Survey (Vessel)	
	AR1A, AR2		CWD Survey (Vessel)	CWD Survey (Vessel)	AR1A, AR2	
	NM1A, NM3A, NM4, NM5			NM6	,	
		WO Constal & Partiles DOM		MO Occasion Resource DOM		WO Correct & Describer DOM
		WQ General & Regular DCM mid-ebb: 19:00		WQ General & Regular DCM mid-ebb: 09:43		WQ General & Regular DCM mid-ebb: 11:12
		mid-flood: 12:01		mid-flood: 15:13		mid-flood: 17:21
27	28	29	30	31		
		Site Inspection	Site Inspection	Site Inspection		
				AR1A, AR2		
		NM6		NM1A, NM3A, NM4, NM5		
		WQ General & Regular DCM mid-ebb: 12:57		WQ General & Regular DCM mid-ebb: 14:07		
		mid-flood: 12:37		mid-flood: 07:16		
		Notes:				
		CWD - Chinese White Dolphin	NM1A/AR1A - Man Tung Road Park			
		Air guality and Naise Manitoria	NM3A - Site Office			
		Air quality and Noise Monitoring Station	NM4 - Ching Chung Hau Po Woon P	rimary School		
			NM5/AR2 - Village House, Tin Sum			
		WQ - Water Quality	NM6 - House No. 1, Sha Lo Wan			
		DCM - Deep Cemenet Mixing				

Appendix C. Monitoring Results

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

Air Quality Monitoring Results

1-hour TSP Results

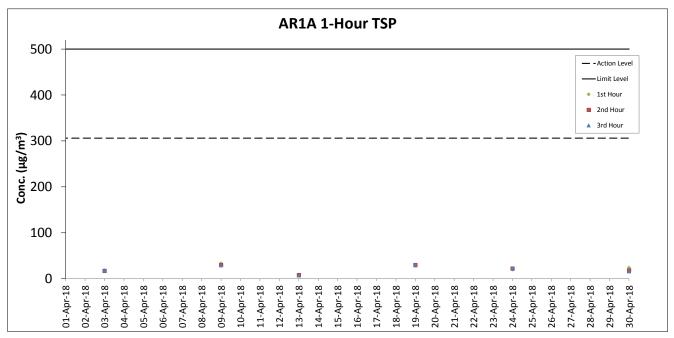
Station: AR1A- Man Tung Road Park

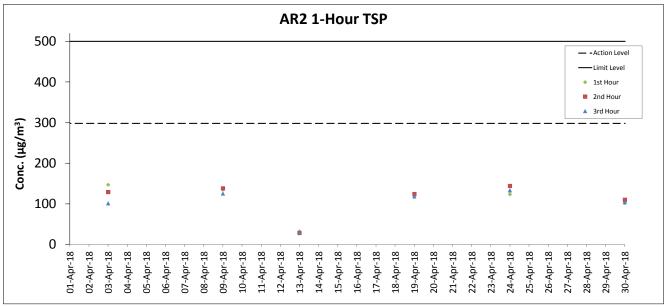
Station: ANIA-1	man rang r	toda i dik	T				
Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
03-Apr-18	13:00	Sunny	2.1	195	18	306	500
03-Apr-18	14:00	Sunny	1.9	206	17	306	500
03-Apr-18	15:00	Sunny	2.1	347	18	306	500
09-Apr-18	09:00	Sunny	3.6	195	33	306	500
09-Apr-18	10:00	Sunny	4.2	206	30	306	500
09-Apr-18	11:00	Sunny	5.9	63	29	306	500
13-Apr-18	09:00	Fine	5.7	195	9	306	500
13-Apr-18	10:00	Fine	7.0	206	8	306	500
13-Apr-18	11:00	Fine	7.2	162	7	306	500
19-Apr-18	13:00	Sunny	4.7	195	28	306	500
19-Apr-18	14:00	Sunny	4.3	206	30	306	500
19-Apr-18	15:00	Sunny	3.8	295	29	306	500
24-Apr-18	13:18	Cloudy	2.5	195	20	306	500
24-Apr-18	14:18	Cloudy	2.8	206	22	306	500
24-Apr-18	15:18	Cloudy	2.9	257	22	306	500
30-Apr-18	12:58	Sunny	2.9	195	24	306	500
30-Apr-18	13:58	Sunny	3.4	206	18	306	500
30-Apr-18	14:58	Sunny	1.8	299	16	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/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
03-Apr-18	08:53	Sunny	2.5	195	147	298	500
03-Apr-18	09:53	Sunny	3.0	206	129	298	500
03-Apr-18	10:53	Sunny	4.1	36	101	298	500
09-Apr-18	08:55	Sunny	3.2	195	135	298	500
09-Apr-18	09:55	Sunny	4.5	206	138	298	500
09-Apr-18	10:55	Sunny	6.7	57	125	298	500
13-Apr-18	08:54	Fine	5.6	195	32	298	500
13-Apr-18	09:54	Fine	6.4	206	28	298	500
13-Apr-18	10:54	Fine	6.9	161	29	298	500
19-Apr-18	09:02	Sunny	6.1	195	125	298	500
19-Apr-18	10:02	Sunny	5.9	206	124	298	500
19-Apr-18	11:02	Sunny	5.5	78	118	298	500
24-Apr-18	09:00	Rainy	2.6	195	123	298	500
24-Apr-18	10:00	Rainy	6.8	206	144	298	500
24-Apr-18	11:00	Rainy	2.0	75	133	298	500
30-Apr-18	09:00	Sunny	4.9	195	102	298	500
30-Apr-18	10:00	Sunny	2.9	206	110	298	500
30-Apr-18	11:00	Sunny	3.5	280	104	298	500





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Noise Monitoring Results

Noise Measurement Results

Station: NM1A- Man Tung Road Park

D-1-	Mashar	T:	Measured	Measured	
Date	Weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-18	Sunny	13:10	72.5	55.0	
03-Apr-18	Sunny	13:15	71.5	54.0	
03-Apr-18	Sunny	13:20	71.0	54.0	72
03-Apr-18	Sunny	13:25	73.0	55.5	72
03-Apr-18	Sunny	13:30	72.5	56.5	
03-Apr-18	Sunny	13:35	71.5	55.0	
09-Apr-18	Sunny	09:30	75.0	56.5	
09-Apr-18	Sunny	09:35	72.5	54.0	
09-Apr-18	Sunny	09:40	72.0	55.0	72
09-Apr-18	Sunny	09:45	74.0	53.5	12
09-Apr-18	Sunny	09:50	72.0	56.0	
09-Apr-18	Sunny	09:55	71.0	53.5	
19-Apr-18	Sunny	13:15	72.5	55.5	
19-Apr-18	Sunny	13:20	71.5	53.5	
19-Apr-18	Sunny	13:25	73.5	55.0	72
19-Apr-18	Sunny	13:30	73.5	56.5	12
19-Apr-18	Sunny	13:35	72.0	54.5	
19-Apr-18	Sunny	13:40	74.5	55.5	•
24-Apr-18	Cloudy	13:39	74.0	57.0	
24-Apr-18	Cloudy	13:44	72.5	54.5	
24-Apr-18	Cloudy	13:49	71.5	55.5	71
24-Apr-18	Cloudy	13:54	72.0	56.5	/1
24-Apr-18	Cloudy	13:59	71.5	55.0	
24-Apr-18	Cloudy	14:04	70.5	54.0	
30-Apr-18	Fine	13:10	73.0	56.0	
30-Apr-18	Fine	13:15	71.5	54.5	
30-Apr-18	Fine	13:20	70.5	56.5	72
30-Apr-18	Fine	13:25	72.5	56.5	/2
30-Apr-18	Fine	13:30	73.5	57.0	
30-Apr-18	Fine	13:35	72.0	55.5	

Remarks:

Noise Measurement Results Station: NM3A- Site Office

Date	Weather	Time	Measured	Measured	1 1944
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-18	Sunny	09:27	60.0	57.5	
03-Apr-18	Sunny	09:32	59.5	57.5	
03-Apr-18	Sunny	09:37	58.5	57.0	F0
03-Apr-18	Sunny	09:42	59.0	57.0	59
03-Apr-18	Sunny	09:47	59.0	57.0	
03-Apr-18	Sunny	09:52	59.0	57.0	
09-Apr-18	Sunny	13:20	61.5	60.5	
09-Apr-18	Sunny	13:25	62.0	60.5	
09-Apr-18	Sunny	13:30	62.5	61.0	62
09-Apr-18	Sunny	13:35	63.0	61.5	62
09-Apr-18	Sunny	13:40	62.5	61.0	
09-Apr-18	Sunny	13:45	61.5	60.5	
19-Apr-18	Fine	09:30	68.5	61.0	
19-Apr-18	Fine	09:35	66.5	61.0	
19-Apr-18	Fine	09:40	69.0	61.0	61
19-Apr-18	Fine	09:45	67.0	60.5	91
19-Apr-18	Fine	09:50	68.5	60.5	
19-Apr-18	Fine	09:55	66.5	60.5	
26-Apr-18	Cloudy	11:23	67.0	60.5	
26-Apr-18	Cloudy	11:28	66.5	60.5	
26-Apr-18	Cloudy	11:33	67.0	60.5	57
26-Apr-18	Cloudy	11:38	67.5	60.5	37
26-Apr-18	Cloudy	11:43	68.5	60.5	
26-Apr-18	Cloudy	11:48	70.0	60.5	
30-Apr-18	Fine	10:35	68.0	60.5	
30-Apr-18	Fine	10:40	68.5	61.0	
30-Apr-18	Fine	10:45	68.5	61.0	57
30-Apr-18	Fine	10:50	63.0	60.5	3/
30 /\pi 10					
30-Apr-18	Fine	10:55	62.0	61.0	

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

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Data	Mashar	T:	Measured	Measured	1
Date	Weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	63 64 66 66
03-Apr-18	Sunny	14:05	60.0	56.5	
03-Apr-18	Sunny	14:10	61.0	56.5	
03-Apr-18	Sunny	14:15	63.5	56.5	62
03-Apr-18	Sunny	14:20	64.5	58.0	63
03-Apr-18	Sunny	14:25	62.5	57.0	
03-Apr-18	Sunny	14:30	61.5	57.5	
09-Apr-18	Sunny	14:59	62.0	58.0	
09-Apr-18	Sunny	15:04	62.5	57.5	
09-Apr-18	Sunny	15:09	61.0	57.0	64
09-Apr-18	Sunny	15:14	62.5	57.5	04
09-Apr-18	Sunny	15:19	63.5	58.0	
09-Apr-18	Sunny	15:24	65.0	59.0	
19-Apr-18	Sunny	14:32	62.5	60.0	
19-Apr-18	Sunny	14:37	66.5	61.0	
19-Apr-18	Sunny	14:42	65.0	60.5	66
19-Apr-18	Sunny	14:47	65.0	60.0	00
19-Apr-18	Sunny	14:52	63.0	59.5	
19-Apr-18	Sunny	14:57	63.5	59.5	
24-Apr-18	Cloudy	13:27	63.0	60.5	
24-Apr-18	Cloudy	13:32	63.5	60.5	
24-Apr-18	Cloudy	13:37	64.0	60.5	65
24-Apr-18	Cloudy	13:42	63.5	60.5	05
24-Apr-18	Cloudy	13:47	63.5	60.5	
24-Apr-18	Cloudy	13:52	63.5	61.0	
30-Apr-18	Sunny	14:27	66.0	59.5	
30-Apr-18	Sunny	14:32	62.0	58.5	
30-Apr-18	Sunny	14:37	62.5	58.5	64
30-Apr-18	Sunny	14:42	62.5	58.5	04
30-Apr-18	Sunny	14:47	61.5	58.0	
30-Apr-18	Sunny	14:52	62.5	57.5	

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Data	Weather	Time	Measured	Measured	1
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-18	Sunny	09:01	53.5	48.0	
03-Apr-18	Sunny	09:06	59.5	48.5	
03-Apr-18	Sunny	09:11	56.5	50.0	61
03-Apr-18	Sunny	09:16	54.5	49.5	61
03-Apr-18	Sunny	09:21	62.0	48.5	
03-Apr-18	Sunny	09:26	62.0	49.5	
09-Apr-18	Sunny	08:55	63.5	51.0	
09-Apr-18	Sunny	09:00	59.5	51.0	
09-Apr-18	Sunny	09:05	56.5	48.0	59
09-Apr-18	Sunny	09:10	56.5	48.5	39
09-Apr-18	Sunny	09:15	56.0	48.5	
09-Apr-18	Sunny	09:20	59.0	48.5	
19-Apr-18	Sunny	09:08	65.5	54.5	
19-Apr-18	Sunny	09:13	62.0	53.5	
19-Apr-18	Sunny	09:18	59.5	53.5	61
19-Apr-18	Sunny	09:23	62.0	54.0	61
19-Apr-18	Sunny	09:28	61.0	54.5	
19-Apr-18	Sunny	09:33	63.5	54.5	
26-Apr-18	Cloudy	11:06	61.5	50.0	
26-Apr-18	Cloudy	11:11	63.5	51.0	
26-Apr-18	Cloudy	11:16	54.5	49.5	57
26-Apr-18	Cloudy	11:21	55.0	50.0	5/
26-Apr-18	Cloudy	11:26	58.5	50.0	
26-Apr-18	Cloudy	11:31	59.5	49.0	
30-Apr-18	Sunny	09:01	53.0	45.0	
30-Apr-18	Sunny	09:06	57.0	45.0	
30-Apr-18	Sunny	09:11	53.0	43.5	54
30-Apr-18	Sunny	09:16	52.0	45.0] 54
30-Apr-18	Sunny	09:21	50.0	43.0	
30-Apr-18	Sunny	09:26	54.5	44.5	1

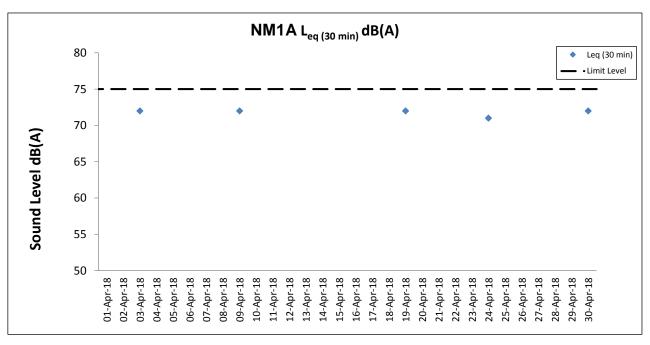
Remarks: +3dB (A) correction was applied to free-field measurement.

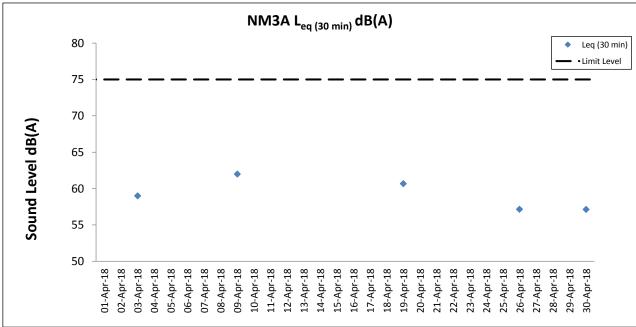
Noise Measurement Results

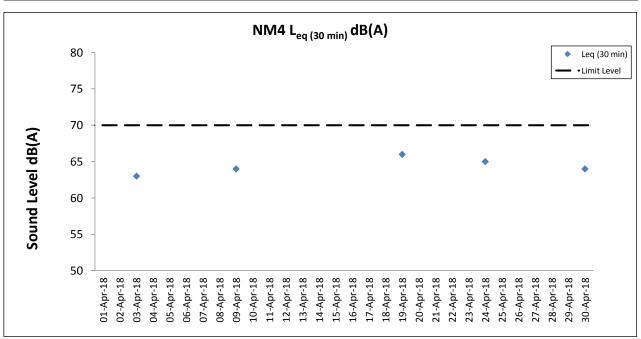
Station: NM6- House No.1 Sha Lo Wan

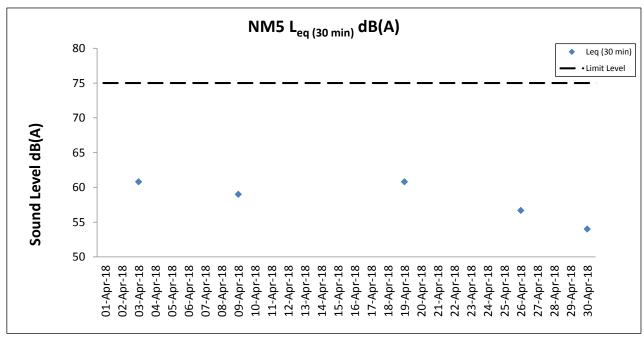
Data	Manthau	Time	Measured	Measured	1 1970
Date	Weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
04-Apr-18	Sunny	09:42	68.5	51.5	
04-Apr-18	Sunny	09:47	73.0	55.0	
04-Apr-18	Sunny	09:52	76.5	50.5	70
04-Apr-18	Sunny	09:57	73.0	50.0	70
04-Apr-18	Sunny	10:02	72.5	48.5	
04-Apr-18	Sunny	10:07	61.0	49.5	
12-Apr-18	Sunny	09:41	73.5	60.0	
12-Apr-18	Sunny	09:46	74.0	55.5	
12-Apr-18	Sunny	09:51	72.0	58.5	68
12-Apr-18	Sunny	09:56	71.5	55.5	08
12-Apr-18	Sunny	10:01	69.0	59.0	
12-Apr-18	Sunny	10:06	71.0	57.5	
17-Apr-18	Cloudy	09:39	76.0	59.5	
17-Apr-18	Cloudy	09:44	80.0	59.5	
17-Apr-18	Cloudy	09:49	74.0	57.5	74
17-Apr-18	Cloudy	09:54	77.5	57.0	/4
17-Apr-18	Cloudy	09:59	71.5	51.0	
17-Apr-18	Cloudy	10:04	74.5	54.0	
26-Apr-18	Cloudy	09:42	67.0	52.5	
26-Apr-18	Cloudy	09:47	69.5	54.5	
26-Apr-18	Cloudy	09:52	68.0	57.0	62
26-Apr-18	Cloudy	09:57	70.5	61.5	02
26-Apr-18	Cloudy	10:02	69.0	54.0	7
26-Apr-18	Cloudy	10:07	70.5	53.5	

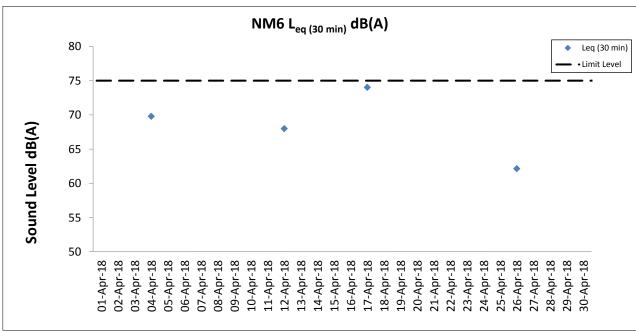
Remarks: +3dB (A) correction was applied to free-field measurement.











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Water Quality Monitoring Results

Water Quality Monitoring Results on 03 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.2 194 23.0 < 0.2 8.1 28.7 7.4 2.8 1.8 Surface 23.0 8.1 28.7 101.9 1.0 0.2 201 23.0 8.1 28.7 101 9 74 2.8 72 < 0.2 2.1 43 0.4 7.3 44 7 74 2.2 210 22 1 8.1 30.1 99.8 <02 C1 14:04 8.5 Middle 8.1 30.1 99.8 815635 804233 2.2 Fine Moderate 4.3 0.4 227 22.1 8.1 30.1 99.7 7.3 4.5 6 74 <0.2 2.2 7.5 0.4 212 21.9 8.1 7.3 7.3 19.7 7 75 <0.2 2.5 Bottom 21.9 8.1 30.7 99.0 7.3 7.5 0.4 21.9 8.1 30.7 99.0 19.9 76 <0.2 2.5 1.0 0.4 148 7.8 6.7 7.4 12 73 3.0 23.1 26.6 91.7 < 0.2 Surface 23.1 7.8 26.6 91.7 7.8 91.6 6.7 1.0 0.4 160 23.1 26.6 7.5 11 73 < 0.2 2.8 12 6.1 75 0.5 165 7.9 28.9 6.6 10.5 < 0.2 3.0 22.5 90.6 7.9 28.9 90.6 825680 C2 Moderate 13:02 12.1 Middle 22.5 12 75 806942 3.1 7.9 90.6 6.6 10.5 75 < 0.2 6.1 0.5 165 22.5 28.9 12 11.1 0.3 170 22.3 7.9 29.8 90.3 6.6 16.8 13 77 <0.2 3.3 29.8 Bottom 22.3 7.9 90.4 0.3 177 22.3 7.9 29.8 90.4 6.6 16.7 12 77 <0.2 3.4 0.3 22.9 7.9 11.6 11 73 <0.2 2.2 29.2 Surface 22.9 7.9 29.2 93.5 1.0 0.3 66 7.9 93.5 6.8 11.5 11 73 1.9 22.9 29.2 <0.2 6.1 15.9 75 2.0 97 6.6 11 0.1 22.4 7.9 29.9 90.6 < 0.2 C3 29.9 822134 817786 Fine Moderate 14:46 12.1 Middle 22.4 7.9 90.7 126 12 2.0 6.1 99 6.6 75 0.1 22.4 7.9 29.9 90.7 15.9 12 < 0.2 112 6.6 10.3 13 77 1.9 0.1 22.3 7.9 30.2 90.5 < 0.2 Bottom 7.9 30.2 90.5 11.1 0.1 114 22.3 7.9 30.2 90.5 6.6 10.2 14 77 < 0.2 1.8 1.0 0.1 4.1 72 <0.2 2.2 206 23.2 29.0 8 Surface 23.2 8.1 29.0 102.0 1.0 8.1 29.0 102.0 7.4 4.1 72 <0.2 2.0 0.2 23.2 9 2.3 3.8 0.2 187 22.6 8.1 29.5 100.8 7.4 3.8 8 73 <0.2 22.6 8.1 29.5 100.8 818341 IM1 Fine Moderate 13:45 7.6 Middle 806487 21 22.6 8.1 29.5 100.8 7.4 3.8 74 <0.2 3.8 0.2 195 6.6 181 7 75 2.0 0.3 22.1 8.1 30.3 98.8 7.2 9.0 < 0.2 Bottom 30.3 98.8 7.2 6.6 0.3 195 22 1 8.1 30.3 98.8 9.1 7 76 <0.2 19 1.0 0.1 227 23.2 28.9 5.7 72 73 <0.2 2.4 8.1 100.5 7.3 7.3 28.9 100.6 Surface 1.0 0.2 232 23.2 8.1 28.9 100.6 5.7 <0.2 2.3 4.3 210 4.8 74 2.5 0.1 22.5 8.1 29.9 100.6 7.3 9 <0.2 IM2 Fine 13:40 8.5 Middle 22.5 8.1 29.9 100.5 818824 806170 Moderate 22 4.3 0.1 216 8.1 29.9 100.4 7.3 5.1 74 <0.2 2.2 22.5 2.0 11 76 0.2 22.1 8.1 30.4 98.5 7.2 8.0 < 0.2 Bottom 30.4 98.5 7.2 7.2 7.5 98.4 7 9 77 0.2 213 8.1 30.4 9 2.0 22 1 <0.2 1.0 0.1 188 22.9 8.1 29.5 99.2 7.2 6.6 72 <0.2 1.6 Surface 29.5 99.2 7.2 10 72 1.0 0.1 201 22.8 8.1 29.5 99.1 6.6 <0.2 1.5 4.4 0.3 189 22.6 8.6 9 73 <0.2 1.6 8.1 29.6 IM3 13:35 87 Middle 226 8 1 29.6 98.0 819419 806034 Fine Moderate 9.0 4.4 8.1 29.6 98.0 8.6 74 <0.2 1.5 0.3 205 22.6 10 11 7.7 195 7.1 11.9 76 1.5 0.2 22.0 8.1 30.4 97.2 <0.2 8.1 30.4 97.2 Bottom 22.0 97.1 7.1 8.1 12.0 77 1.5 30.4 13 <0.2 0.2 201 22.0 1.0 0.3 190 22.6 8.1 7.2 8.0 12 71 <0.2 2.2 29.6 98.3 Surface 22.6 8.1 29.6 98.3 7.2 98.3 8.1 8.1 14 72 <0.2 1.0 0.3 200 22.6 20.6 2.1 4.0 0.3 176 22.1 8.1 29.9 96.5 12.7 13 73 <0.2 IM4 Moderate 13:28 7.9 Middle 22.1 29.9 96.5 819547 805039 Fine 4.0 0.3 176 22.1 8.1 29.9 96.5 12.8 13 73 < 0.2 6.9 0.2 22.0 8.1 13.6 75 <0.2 2.0 30.0 96.5 96.5 Bottom 22.0 8.1 30.0 6.9 0.3 193 8.1 30.0 96.5 7.1 13.6 13 76 <0.2 1.9 22.0 164 11.7 0.2 22.3 8.1 29.2 96.2 15 71 < 0.2 2.0 Surface 8.1 29.2 96.2 7.1 14 1.9 1.0 0.2 171 8.1 29.2 96.2 11.8 72 < 0.2 22.3 1.7 3.7 0.2 146 22.3 8.1 29.3 96.0 7.1 11.8 15 73 <0.2 IM5 Fine Moderate 13:19 7.3 Middle 29.3 96.0 820535 804951 3.7 0.2 158 22.3 8.1 29.3 96.0 7 1 11.8 14 73 <0.2 1.8 6.3 0.1 206 15.3 15 75 <0.2 1.9 22.2 8.1 29.5 7.0 95.7 7.0 8.1 29.5 Bottom 22.2 8.1 7.0 75 1.7 6.3 0.1 22.2 29.5 15.0 16 <0.2 1.0 0.1 137 22.8 8.1 29.1 98.0 8.3 11 72 <0.2 2.1 Surface 22.8 8.1 29.1 97.9 8.1 29.1 97.8 7.1 72 2.0 1.0 0.1 141 8.5 11 < 0.2 22.8 3.6 0.2 192 22.4 8.1 29.4 96.3 7.1 10.3 10 73 <0.2 1.9 IM6 13:11 7.2 Middle 29.4 96.3 821046 805802 Moderate 3.6 0.2 194 22.4 8.1 29.4 96.3 7 1 10.4 11 73 <0.2 1.8 6.2 0.2 183 22.3 14.8 11 75 <0.2 1.9 29.5 95.6 7.0 Bottom 22.3 8.1 29.5 95.6 7.0 6.2 0.2 184 22.3 8.1 29.5 95.6 14.3 12 75 <0.2 1.7 1.0 0.2 151 23.3 8.1 25.5 94.3 6.9 72 <0.2 1.2 23.3 94.5 Surface 8.1 25.5 72 1.0 0.2 160 23.3 8.1 25.5 94.6 7.0 7.3 <0.2 1.1 8 10.2 73 1.2 4.4 0.3 108 22.7 8.1 7.1 8 <0.2 29.2 96.7 IM7 Moderate 13:03 8.8 Middle 29.2 96.7 12.6 821344 806863 44 0.3 114 8.1 96.7 7 1 73 1.2 22.7 29.2 10.3 q <02 7.8 0.0 4 22.4 8.1 29.4 95.5 7.0 20.3 11 75 <0.2 1.1 29.4 95.5 7.0 7.8 0.0 22.4 8.1 29.4 95.5 7.0 20.3 10 75 < 0.2 1.0 1.0 0.2 147 22.8 10.9 73 <0.2 1.9 Surface 22.8 79 27 4 95.3 95.4 74 7.9 27.4 7.0 10.9 <0.2 1.9 1.0 0.2 158 22.8 4.2 7.3 12.8 7 75 0.3 82 23.0 8.0 29.8 100.5 <0.2 1.9 29.8 821710 IM8 Moderate 13:27 8.4 Middle 23.0 8.0 100.6 12.5 75 807841 1.9 1.9 42 0.3 8.0 29.9 100.6 7.3 12.8 76 < 0.2 86 23.0 7 77 7.4 0.3 50 22.5 8.0 30.7 100.0 7.3 13.9 8 < 0.2 1.9 Bottom 22.5 8.0 30.7 100.0 7.3 7.4 0.3 54 2.0

DA: Depth-Average

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

Water Quality Monitoring Results on 03 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.4 121 22.7 7.9 15.9 28.7 96.8 16 73 < 0.2 1.2 Surface 22.7 7.9 28.7 96.8 1.0 122 15 14 0.5 22.7 79 28.7 96.8 7 1 15.8 73 < 0.2 1.2 75 3.7 0.4 7.2 17 9 1.1 93 226 8.0 29.9 98.9 <02 IM9 13:35 7.4 Middle 8.0 29.8 98.9 15 822104 808812 1.2 Fine Moderate 3.7 0.4 93 22.6 8.0 29.8 0.8 Q 7.2 17.8 14 76 <0.2 1.2 6.4 0.3 75 22.6 8.0 7.2 7.2 20.5 14 77 <0.2 1.2 Bottom 22.6 8.0 30.4 100.0 7.2 6.4 0.3 22.6 8.0 30.4 100.0 20.2 14 77 <0.2 1.0 1.0 0.7 109 7.9 12.0 73 1.8 23.2 27.5 96.4 7.0 9 <0.2 Surface 23.2 7.9 27.6 96.4 7.9 96.4 7.0 1.0 0.7 116 23.2 27.6 12.0 8 73 < 0.2 1.9 4.2 75 0.6 102 8.0 7.1 14.3 7 < 0.2 1.8 22.7 29.2 97.2 29.2 97.3 822240 IM10 Moderate 13:44 8.3 Middle 22.7 8.0 15.3 75 809862 1.8 8.0 97.3 7.1 7 75 < 0.2 1.8 4.2 0.7 109 22.7 29.2 14.2 7.3 0.4 82 22.7 8.0 29.9 97.8 7.1 19.5 8 77 <0.2 1.9 29.9 Bottom 22.7 8.0 97.8 97.8 7.3 0.5 84 22.7 8.0 29.9 7.1 19.8 7 77 <0.2 1.8 0.5 23.3 7.9 13.0 13 73 <0.2 1.2 27.4 96.8 Surface 23.3 7.9 27.4 96.8 1.0 0.6 119 7.9 96.8 7.1 12 73 1.2 23.3 27.4 13.1 <0.2 4.2 14 75 1.9 100 7.1 15.2 0.4 22.9 8.0 29.0 97.6 < 0.2 29.0 97.7 821472 810547 IM11 Fine Moderate 13:55 8.4 Middle 22.9 8.0 13 4.2 109 97.7 7.1 75 1.8 0.4 22.9 8.0 29.0 15.6 13 < 0.2 7.4 0.4 7.1 18.7 13 77 1.6 70 22.9 8.1 29.6 98.3 < 0.2 Bottom 8.1 29.6 98.4 7 1 7 4 0.4 72 22.9 8.1 29.6 98.4 18.8 14 77 < 0.2 1.8 1.0 0.5 110 23.5 8.0 9.7 10 73 <0.2 1.7 27.4 97.9 Surface 23.5 8.0 27.4 98.0 1.0 0.6 111 23.5 8.0 27.4 98.0 7.1 9.7 73 <0.2 1.7 9 4.6 0.5 91 23.1 8.0 29.0 98.2 7.1 13.5 10 75 <0.2 1.6 29.0 98.2 821152 IM12 Fine Moderate 14:02 91 Middle 23.1 8.0 75 811527 4.6 8.0 29.1 98.2 7.1 13.6 10 10 75 <0.2 1.6 0.5 92 23.1 84 77 1.7 8.1 7.1 17.1 0.4 23.0 8.1 29.5 98.1 < 0.2 Bottom 29.5 98.1 7 1 8.1 0.4 89 23.0 8.1 29.5 98.1 17.0 11 77 <0.2 16 1.0 0.4 82 22.8 28.4 13.2 73 <0.2 1.6 7.9 91.0 6.7 28.4 91.0 Surface 7.9 1.0 0.4 84 22.8 7.9 91.0 6.7 13.6 9 73 <0.2 1.5 -SR2 Fine 14:28 3.2 Middle 821440 814152 Moderate <0.2 1.5 75 2.2 0.4 78 22.8 7.9 6.7 15.0 <0.2 1.6 28.4 91.0 Bottom 22.8 7.9 28.4 91.0 6.7 2.2 85 6.7 75 0.4 79 28.4 91.0 15.0 q 1 4 22.8 <0.2 1.0 0.3 167 22.8 7.9 27.7 94.7 9.8 6 Surface 7.9 27.7 94.7 1.0 0.3 170 22.8 7.9 27.7 94.7 7.0 9.9 4.6 0.2 117 22.7 7.9 13.4 7 SR3 13:22 92 Middle 22.7 79 28.7 96.9 13.0 822170 807571 Fine Moderate 4.6 7.9 28.7 96.9 13.4 0.2 126 22.7 8.2 0.3 7.2 7 65 22.5 8.0 30.7 99.8 15.7 30.7 99.8 7.2 Bottom 22.5 8.0 99.7 7.2 8.0 8.2 0.3 30.7 15.5 68 22.5 8 1.0 0.5 54 22.6 8.1 7.1 10.1 14 29.3 96.9 Surface 22.6 8.1 29.3 96.9 96.9 7.1 8.1 20.3 15 1.0 0.6 55 22.6 10.1 4.4 0.4 60 22.5 8.1 29.5 7.1 10.9 14 -SR4A 14:27 8.7 Middle 22.5 29.5 96.8 817162 807832 Fine Calm 4.4 0.4 64 22.5 8.1 29.5 96.8 7.1 10.9 15 7.7 0.4 22.3 8.1 7.0 11.0 13 29.9 Bottom 22.3 8.1 29.9 96.1 7.7 0.4 63 8.1 29.9 96.1 7.0 11.2 15 22.3 1.0 19 23.5 0.0 8.0 28.0 89.8 6.5 9.4 15 Surface 23.5 8.0 28.0 89.9 20 1.0 0.0 23.5 8.0 28.0 90.0 6.5 9.5 14 SR5A Fine Calm 14:42 5.0 Middle 816569 810676 4.0 0.1 127 23.3 8.0 9.8 14 28.2 92.1 6.7 92.2 6.7 23.3 8.0 28.2 Bottom 92.2 6.7 0.2 127 23.3 8.0 28.2 9.8 13 1.0 0.1 72 23.5 8.0 27.6 88.5 6.4 8.8 12 Surface 23.5 8.0 27.6 88.5 1.0 0.1 75 8.0 88.5 6.4 8.7 12 23.5 27.6 SR6 15:07 Middle 12 817883 814633 Fine Calm 3.8 2.8 0.1 23.1 12.5 12 27.9 6.3 Bottom 23.1 8.0 27.9 87.1 6.4 2.8 0.1 92 23.1 8.0 27.9 87.1 6.4 12.9 12 1.0 23.0 7.9 29.2 95.0 6.9 5.9 8 23.0 Surface 7.9 29.2 95.0 1.0 0.7 81 23.0 7.9 29.2 95.0 6.9 5.9 8 7.1 6.7 9.4 0.4 77 22.3 7.9 9 30.6 91.6 SR7 Moderate 15:15 18.7 Middle 22.3 30.6 91.6 823647 823721 94 82 79 6.7 7.1 0.4 22.3 30.6 916 8 17.7 0.2 49 22.3 8.0 30.6 91.9 6.7 7.5 Bottom 8.0 30.6 91.9 17.7 0.2 49 22.3 8.0 30.6 91.9 6.7 7.6 8 1.0 23.0 7.9 12.2 10 Surface 23.0 79 28.1 92.4 1.0 23.0 7.9 28.1 92.4 6.7 12.2 10 6.7 SR8 Fine Moderate 14:12 4.1 Middle 13.3 10 820246 811418 10 3.1 93.1 93.3 22.9 7.9 28.4 6.8 14.5 Bottom 22.9 7.9 28.4 93.2 3.1

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Surface 23.0 7.8 1.0 0.6 10 22.9 7.8 88.7 6.6 6.1 9 73 <0.2 3.3 3.4 6.1 0.6 22.6 7.8 27.2 88.7 6.6 10.7 8 75 <0.2 C2 27.2 88.7 825661 806927 Fine Moderate 09:37 12.2 Middle 7.8 75 3.3 3.3 6.1 0.6 7.9 27.2 88.7 6.6 10.8 75 < 0.2 4 22.6 8 330 77 0.4 22.5 7.9 27.2 88.5 6.6 18.9 8 < 0.2 3.3 Bottom 27.2 88.5 6.6 11 2 0.4 341 22.5 79 27.2 88.5 6.6 18.0 8 77 <0.2 3.4 1.0 0.6 268 22.6 8.0 26.6 88.5 6.7 5.0 9 10 73 <0.2 2.0 26.6 88.5 Surface 8.0 1.0 0.6 292 22.6 8.0 26.6 88.5 6.7 5.0 73 <0.2 2.1 5.7 0.7 262 6.8 9 75 2.0 22.4 8.0 90.1 <0.2 C3 07:42 Middle 22.4 8.0 27.7 90.2 822081 817813 2 1 Fine 11.3 10 Moderate 6.7 74 2.1 8.0 90.2 7.0 < 0.2 5.7 0.8 265 22.4 27.7 10 10.3 0.5 263 8.0 6.7 14.5 76 < 0.2 2.2 22.3 28.9 90.4 Bottom 22.3 8.0 28.9 90.5 90.5 6.7 10.3 8.0 28 9 14 6 77 0.6 289 22.3 9 <02 2.3 12 12 3.0 1.0 0.6 347 22.6 8.1 27.9 6.9 12.3 72 72 <0.2 Surface 27.9 93.2 1.0 0.7 319 22.6 8.1 6.9 12.3 <0.2 3.9 0.5 22.5 8.1 28.2 93.0 6.9 20.5 12 73 <0.2 2.9 09:15 Middle 22.5 28.2 93.0 818339 806442 IM1 Fine Moderate 7.8 8 1 3.0 11 74 3.0 3.9 0.6 8.1 28.2 93.0 6.9 20.5 <0.2 22.5 6.8 345 17 75 3.1 0.4 22.4 8.1 6.8 24.7 <0.2 28.3 92.9 Bottom 22.4 8.1 28.3 92.9 6.8 6.8 6.8 0.5 351 8.1 92.8 24.3 17 76 3.0 22.4 28.3 <0.2 27.4 5.2 5.3 72 73 2.4 1.0 0.7 14 22.5 8.1 <0.2 9 Surface 8.1 27.5 94.0 15 8.1 94.0 6.9 1.0 0.8 22.5 <0.2 4.3 0.7 26 22.4 8.1 28.6 94.4 6.9 20.6 8 73 <0.2 2.8 28.6 94.4 818864 806167 IM2 Fine Moderate 09:20 8.6 Middle 8.1 2.4 4.3 0.8 28 22.4 8.1 28.7 94.4 6.9 20.4 8 73 < 0.2 2.6 7.6 0.5 27 22.4 8.1 28.7 6.9 23.5 75 <0.2 2.6 Bottom 22.4 8.1 28.7 94.0 7.6 8.1 28.7 93.9 6.9 23.3 76 <0.2 1.8 0.6 22.4 10 1.0 0.7 356 71 2.7 22.7 8.1 26.7 5.3 91.9 6.8 <0.2 8.1 26.7 91.9 Surface 22.7 1.0 0.7 328 22.7 8.1 26.7 91.9 6.8 5.3 6 72 < 0.2 2.5 43 0.5 11 22.5 8.1 28.1 93.3 6.9 17.5 7 73 <0.2 IM3 Fine Moderate 09:25 8.6 Middle 93.3 819402 806038 4.3 0.6 11 22.5 8 1 28.1 93.3 17.8 8 74 <0.2 7.6 0.4 22.4 19.2 75 <0.2 2.5 8.1 28.5 93.2 6.9 Bottom 22.4 8.1 28.5 93.2 6.9 6.9 2.4 7.6 0.4 22.4 8.1 28.5 93.2 19.0 75 <0.2 0.6 22.7 8.1 26.5 6.8 4.8 72 <0.2 2.9 92.2 92.2 Surface 227 8.1 26.5 1.0 0.7 21 8.1 26.5 6.8 73 <0.2 2.8 22.7 92.2 4.8 6 41 0.6 24 22.3 8.1 28.2 93.0 6.9 19.6 8 73 <0.2 2.9 IM4 Moderate 09:33 8.2 Middle 8.1 28.2 93.0 819584 805066 2.8 Fine 41 0.7 24 22.3 8.1 28.2 93.0 6.9 19.6 7 74 < 0.2 2.7 7.2 0.5 26 22.3 8.1 28.3 92.9 6.9 20.9 75 <0.2 2.7 Bottom 22.3 8.1 28.3 92.9 6.9 7.2 0.5 22.3 8.1 28.3 92.9 6.9 21.1 70 <0.2 2.8 1.0 0.8 21 2.7 8.0 92.0 6.8 8.3 8 <0.2 22.7 8.0 26.5 92.1 Surface 1.0 0.8 22 22.6 8.0 26.5 92.1 6.8 8.4 72 <0.2 2.8 8 18 73 2.7 3.7 0.7 8.1 27.5 6.8 18.2 8 <0.2 22.4 92.1 IM5 Moderate 09:43 7.4 Middle 22.4 8.1 27.5 92.1 16.6 820541 804953 2.8 73 8.1 27.5 92 1 6.8 3.7 0.8 18 18.2 <0.2 22.4 8 6.4 0.6 9 22.3 8.1 28.0 92.3 6.8 23.1 12 75 <0.2 2.7 28.0 92.3 Bottom 12 6.4 0.7 22.3 8.1 28.0 92.3 6.8 23.2 76 < 0.2 3.0 1.0 0.5 34 22.6 2.7 8.1 27.3 6.8 10.2 72 <0.2 Surface 22.6 8 1 27.3 91.4 1.0 0.5 36 22.6 8.1 27.3 91.4 6.8 10.2 8 72 <0.2 2.8 2.8 4.1 6.7 73 0.5 22.6 8.1 27.3 91.3 20.1 8 <0.2 27.3 91.3 821070 IM6 Fine Moderate 09:49 8.2 Middle 22.6 8.1 805838 2.8 6.7 74 4.1 0.5 43 8.1 20.1 22.6 27.3 91.3 8 < 0.2 27.3 27.3 23.2 23.2 75 7.2 0.4 53 22.6 8.1 91.4 6.8 8 <0.2 2.9 Bottom 27.3 91.4 6.8 75 0.5 54 22.6 8.1 91 / 6.8 8 < 0.2 2.7 1.0 0.4 46 22.6 8.1 27.4 91.4 6.8 12.3 72 <0.2 2.9 Surface 22.6 8.1 27.4 91.4 1.0 0.4 22.6 8.1 27.4 91.4 6.8 12.3 8 73 <0.2 2.9 4.3 0.4 22.6 8.1 6.7 15.7 8 73 <0.2 2.7 27.3 91.2 IM7 09:55 8.5 27.3 91.2 821340 806822 2.9 Fine Moderate Middle 22.6 8.1 4.3 49 8.1 91.2 6.7 15.5 74 <0.2 2.8 27.3 0.4 22.6 8 7.5 0.4 69 27.3 6.7 7 77 <0.2 3.0 22.6 8.1 91.2 21.1 8.1 27.3 91.2 6.7 Bottom 22.6 76 8.1 91.2 7.5 0.4 72 22.6 21.1 < 0.2 2.9 1.0 0.3 28 22.8 8.0 26.2 88.6 6.7 10.7 12 73 <0.2 2.2 Surface 22.8 8.0 26.2 88.7 1.0 0.3 22.8 8.0 88.7 6.7 10.7 11 73 <0.2 2.3 30 26.2 0.5 15.9 12 2.2 4.2 22.6 8.0 27.9 90.2 6.7 75 <0.2 821715 27.9 807843 IM8 Fine Moderate 09:09 8.4 Middle 22.6 8.0 90.2 12 75 2.3 2.2 4.2 0.5 43 22.6 8.0 27.9 90.2 6.7 15.8 12 75 <0.2 7.4 0.4 48 22.6 8.1 6.8 16.5 13 77 <0.2 2.3 28.7 90.7 22.6 8.1 28.7 Bottom 90.7 6.8 7.4 50 8.1 6.8 12 77 0.4 90.7 16.6 2.5 22.6 28.7 < 0.2

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Water Quality Monitoring Results on 05 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 201 23.2 8.1 30.3 97.2 7.0 9.2 73 < 0.2 0.8 Surface 23.2 8.1 30.3 97.2 1.0 0.3 207 23.2 8.1 30.3 97.2 7.0 9.2 6 73 < 0.2 0.9 75 43 0.4 69 12.0 5 0.7 202 22.8 8.1 31.0 95.5 <02 C1 15:20 8.6 Middle 8.1 31.0 95.5 815619 804262 0.8 Cloudy Moderate 4.3 0.4 213 22.8 8.1 31.0 95.5 6.9 12.0 6 75 <0.2 0.7 7.6 0.3 203 22.5 8.1 22.0 8 77 <0.2 0.7 Bottom 22.5 8.1 31.5 93.7 6.8 7.6 0.3 22.5 8.1 31.5 93.7 6.8 22.0 77 <0.2 0.7 1.0 0.5 175 7.9 14.1 73 2.0 24.0 25.0 85.5 6.2 6 <0.2 Surface 24.0 7.9 25.0 85.5 7.9 85.4 6.2 1.0 0.5 175 24.0 25.1 14.2 6 73 < 0.2 1.9 6.1 176 75 0.5 8.0 27.7 81.9 6.0 14.8 9 < 0.2 1.9 23.1 27.7 81.9 825662 C2 Sunny Moderate 14:19 12.2 Middle 23.1 8.0 15.5 75 806964 2.0 8.0 27.7 81.9 6.0 75 < 0.2 6.1 0.5 192 23.1 14.9 8 11.2 0.2 149 22.8 8.0 29.5 82.1 6.0 17.5 76 <0.2 2.1 Bottom 22.8 8.0 29.5 82.2 11.2 0.3 160 22.8 8.0 29.5 82.2 6.0 17.5 7 77 <0.2 1.9 0.4 23.5 8.0 11.2 73 <0.2 3.2 28.1 6.3 86.6 Surface 23.5 8.0 28.1 86.6 1.0 0.4 79 8.0 86.5 6.3 11.3 9 73 3.6 23.5 28.1 <0.2 5.9 11.0 75 3.6 83 0.3 23.2 8.0 28.9 84.5 6.1 8 < 0.2 28.9 84.5 822106 817830 C3 Sunny Moderate 16:08 11.8 Middle 23.2 8.0 3.5 5.9 84 6.1 75 0.3 23.2 8.0 28.9 84.5 10.8 8 < 0.2 10.8 11.6 77 0.3 55 23.0 8.0 29.2 84.5 6.1 9 < 0.2 3.4 Bottom 8.0 29.2 84.5 10.8 0.3 56 23.0 8.0 29.2 84.5 6.1 11.5 10 77 <0.2 3.8 1.0 0.3 193 23.8 10.5 73 <0.2 1.8 8.1 28.5 93.2 8 Surface 23.8 8.1 28.5 93.2 1.0 0.3 194 23.8 8.1 28.5 93.2 6.7 10.5 74 <0.2 1.7 3.8 0.3 187 22.8 8.0 30.6 92.8 6.7 13.4 7 75 <0.2 1.5 22.8 8.0 30.6 92.8 818358 IM1 Cloudy Moderate 15:02 7.6 Middle 129 75 806452 13 22.8 8.0 30.6 92.8 6.7 13.4 75 <0.2 1.4 3.8 0.3 202 190 8 6.6 13 76 0.8 0.2 22.8 8.0 30.7 92.3 6.7 14.9 < 0.2 Bottom 30.7 92.3 6.7 6.6 0.3 208 22.8 8.0 30.7 92.3 14 9 12 76 <0.2 0.8 1.0 0.3 199 24.0 96.3 96.3 8.6 73 <0.2 1.6 8.0 28.2 6.9 28.2 Surface 96.3 1.0 0.3 201 24.0 8.0 28.2 8.6 73 <0.2 1.6 4.2 199 6.8 10.1 73 1.7 0.2 22.9 8.0 30.4 93.7 6 <0.2 14:57 8.4 Middle 22 9 8.0 30.4 93.7 818824 806196 IM2 Cloudy Moderate 99 75 4.2 0.2 201 8.0 30.4 93.7 6.8 10.1 74 < 0.2 1.6 22.9 8 77 0.9 7.4 0.2 173 22.8 8.0 30.9 92.8 6.7 10.9 6 < 0.2 Bottom 22.8 30.9 92.8 7.4 6.7 77 0.2 184 8.0 30.9 92.8 10.9 8 0.9 22.8 <0.2 1.0 0.1 201 24.2 8.0 28.4 97.7 7.0 7.9 73 <0.2 1.5 Surface 28.4 97.7 97.7 1.4 1.0 0.2 209 24.2 8.0 28.4 7.0 7.9 5 73 <0.2 4.4 0.3 224 23.4 11.3 5 74 <0.2 1.5 8.0 29.7 IM3 14:50 87 Middle 23.4 8.0 29.7 94.8 819440 805992 Cloudy Moderate 4.4 8.0 29.7 94.8 6.8 11.3 74 <0.2 1.4 0.3 244 23.4 7.7 0.3 190 6.7 11.9 75 1.4 23.1 8.1 30.4 93.6 8 <0.2 30.4 93.6 Bottom 23.1 8.1 6.7 8.1 93.6 11.9 75 1.3 0.3 30.4 <0.2 204 23.1 1.0 0.4 200 23.2 73 <0.2 1.3 8.0 30.3 94.6 6.8 9.8 Surface 23.2 8.0 30.3 94.6 94.6 6.8 73 1.3 8.0 30.3 9.8 4 < 0.2 1.0 0.4 205 23.2 0.9 4.0 0.3 194 22.8 8.0 30.8 93.1 6.7 11.6 7 74 <0.2 IM4 Moderate 14:43 8.0 Middle 22.8 8.0 30.8 93.1 819562 805044 Cloudy 4.0 0.3 196 22.8 8.0 30.8 93.1 6.7 11.6 9 74 < 0.2 7.0 0.2 187 22.7 8.0 6.7 11.5 75 <0.2 0.9 31.0 22.7 31.0 92.7 Bottom 8.0 7.0 0.2 198 22.7 8.0 31.0 92.7 6.7 11.5 9 75 <0.2 0.8 1.0 178 9.7 0.3 24.1 8.0 26.9 95.7 6.9 73 < 0.2 2.0 Surface 8.0 26.9 95.7 73 1.9 1.0 0.3 185 8.0 26.9 95.7 6.9 9.7 6 < 0.2 24.1 1.4 3.7 0.3 176 23.1 8.0 29.2 92.3 6.7 13.3 6 74 <0.2 IM5 Cloudy Moderate 14:33 7.4 Middle 8.0 29.2 92.3 820546 804899 3.7 0.4 188 23.1 8.0 29.2 92.3 6.7 13.3 6 74 <0.2 1.3 6.4 0.3 199 21.2 75 <0.2 1.3 22.7 8.0 30.7 91.4 6.6 91.4 8.0 30.7 6.6 Bottom 22.7 8.0 91.4 6.6 75 6.4 0.3 202 22.7 30.7 21.2 <0.2 1.1 1.0 0.2 147 23.4 8.0 28.9 6.6 13.9 72 <0.2 2.0 92.0 Surface 23.4 8.0 28.9 92.0 8.0 28.9 92.0 6.6 13.9 72 1.9 1.0 0.2 154 < 0.2 23.4 4 3.8 0.2 155 22.9 8.0 29.7 90.7 6.6 17.2 4 74 <0.2 1.4 14:25 Middle 29.7 90.7 821077 805803 IM6 Sunny Moderate 7.5 3.8 0.3 162 22.9 8.0 29.7 90.7 6.6 17.2 5 73 <0.2 1.3 6.5 0.3 133 22.8 18.7 74 <0.2 1.4 8.0 30.4 91.2 6.6 Bottom 22.8 8.0 30.4 91.2 6.6 6.5 0.3 143 22.8 8.0 30.4 91.2 6.6 18.7 10 73 <0.2 1.4 1.0 0.3 145 24.1 8.0 27.1 96.0 6.9 9.6 8 72 <0.2 2.1 27.1 Surface 24 1 8.0 96.0 72 2.1 1.0 0.3 157 24.1 8.0 27.1 96.0 6.9 9.6 9 <0.2 6.7 12.6 73 4.4 0.1 101 23.2 8.0 1.6 29.2 93.2 < 0.2 IM7 Sunny Moderate 14:17 8.7 Middle 23.2 29.2 93.2 821353 806828 44 0.1 108 6.7 7 73 1.7 23.2 8.0 29.2 93.2 126 <02 7.7 0.2 87 23.0 8.0 29.5 92.6 6.7 15.8 13 11 75 <0.2 1.1 Bottom 29.5 92.6 8.0 7.7 0.2 94 23.0 8.0 29.5 92.6 6.7 15.8 75 < 0.2 1.3 1.0 0.2 155 23.6 8.0 12.7 73 <0.2 2.6 23.6 26.5 88 6 Surface 8.0 88.6 6.5 170 8.0 26.5 12.9 73 <0.2 2.6 1.0 0.2 23.6 13.7 2.7 4.2 6.6 8 75 0.1 65 23.5 8.0 27.9 91.8 < 0.2 27.9 91.8 821709 IM8 Sunny Moderate 14:43 8.4 Middle 23.5 8.0 75 807853 2.8 42 8.0 27 9 91.8 66 13.9 75 < 0.2 0.1 71 23.5 7 77 7 7.4 0.1 56 23.1 8.1 29.4 90.8 6.6 15.7 < 0.2 2.8 Bottom 23.1 8.1 29.4 90.8 7.4 0.2 58 23.1 9 3.0

DA: Depth-Averaged

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

Water Quality Monitoring during Mid-Ehh Tide

Water Qual	ity Monit	oring Resu	lts on		05 April 18	during Mid-	Ebb Tide	•																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept	h (m)	Current Speed	Current	Water Te	mperature (°C)	р	Н	Salir	ity (ppt)		ituration %)	Disso		Turbidity(NTI		ed Solids g/L)		dkalinity pm)	Coordinate HK Grid	Coordinate HK Grid	Chror (µg		ickel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average		Average		Average	Value	DA	Value D		DA	Value	DA	(Northing)	(Easting)	Value		alue DA
					Surface	1.0	0.4	136 147	23.3 23.3	23.3	8.0	8.0	27.8 27.8	27.8	88.2 88.3	88.3	6.4	6.5	17.4 17.3	10	1	73 73				<0.2 <0.2	2	2.6
IM9	Sunny	Moderate	14:52	7.4	Middle	3.7	0.3	125 127	23.3 23.3	23.3	8.0	8.0	28.2	28.2	89.1 89.1	89.1	6.5 6.5		17.8 18.1	0 9 8	9	75 75	75	822108	808792	<0.2	<0.2	2.4 2.5
					Bottom	6.4 6.4	0.2	71 71	23.2	23.2	8.1 8.1	8.1	28.8	28.8	89.5 89.5	89.5	6.5 6.5	6.5	18.8 18.6	9	1	77 77				<0.2		2.4
					Surface	1.0 1.0	0.6 0.7	128 132	23.9 23.9	23.9	7.9 7.9	7.9	25.9 25.9	25.9	87.2 87.2	87.2	6.4	0.4	11.5 11.2	6 7		73 73				<0.2	2	2.4
IM10	Sunny	Moderate	15:01	8.3	Middle	4.2 4.2	0.5	112 119	23.3 23.3	23.3	8.0	8.0	27.3	27.3	86.3 86.3	86.3	6.3	6.4	13.7	7	6	75 75	75	822235	809813	<0.2	.0.2	2.6 2.4 2.5
					Bottom	7.3 7.3	0.4	91 91	23.2	23.2	8.0	8.0	28.7	28.7	87.8 87.8	87.8	6.4	6.4	16.8 16.8	7	1	77				<0.2	2	2.3
					Surface	1.0	0.5	115 119	23.6	23.6	8.0 8.0	8.0	26.5 26.5	26.5	88.7 88.7	88.7	6.5		12.3	7 6		73 73				<0.2 <0.2	2	2.6
IM11	Sunny	Moderate	15:12	8.2	Middle	4.1 4.1	0.4	103	23.5	23.5	8.0	8.0	27.5 27.5	27.5	89.8 89.8	89.8	6.5	6.5	14.4 14.5	5	7	75 75	75	821525	810524	<0.2	.0.2	2.7
					Bottom	7.2	0.3	65	23.5	23.5	8.1	8.1	28.6	28.6	89.9	89.9	6.5	6.5	17.1	6 7	1	77				<0.2	2	2.6
					Surface	7.2 1.0	0.3	67 113	23.5 23.8	23.8	8.1	8.1	28.6 26.9	26.9	89.9 91.2	91.2	6.5 6.6		17.0 12.9	12		77 73				<0.2	2	2.6
IM12	Sunnv	Moderate	15:20	9.0	Middle	1.0 4.5	0.4	113 103	23.8 23.7	23.7	8.1 8.1	8.1	26.9 27.3	27.3	91.2 90.5	90.5	6.6 6.6	6.6	12.9 14.0	12	11	73 75	75	821133	811539	<0.2	2	2.8
2	ounny	Wodorato	10.20	0.0	Bottom	4.5 8.0	0.4	107 85	23.7 23.5	23.5	8.1 8.1	8.1	27.3 28.1	28.1	90.5 89.3	89.3	6.6 6.5	6.5	14.2 15.4	10	∄	75 77] "	021100	011000	<0.2 <0.2	2	2.7
					Surface	8.0 1.0	0.3	88 85	23.5 23.7	23.7	8.1 8.1	8.1	28.1 26.9	26.9	89.3 87.9	87.9	6.5 6.4	0.0	15.5 12.2	11 8		77 73				<0.2	2	2.7
000			45.40			1.0	0.4	86	23.7	23.1	8.1	0.1	26.9	20.9	87.9	67.9	6.4	6.4	12.2	8 -]	73] _,		044407	<0.2		2.1
SR2	Cloudy	Moderate	15:46	3.7	Middle	2.7	0.3	- 82	23.3		8.0		27.9	-	- 85.8		6.2		15.5	9	9	- 75	74	821467	814167	<0.2		2.1
					Bottom	2.7 1.0	0.3	84 174	23.3 24.2	23.3	8.1 8.0	8.0	27.9 25.9	27.9	85.9 89.9	85.9	6.2	6.2	15.0 12.4	10 5	1	75				<0.2		2.3
					Surface	1.0	0.3	185 132	24.1	24.1	8.0	8.0	25.9 28.0	25.9	89.9 89.7	89.9	6.5	6.5	12.4	6	‡	-				-		-
SR3	Sunny	Moderate	14:37	9.1	Middle	4.6 8.1	0.2	143 70	23.3	23.3	8.0 8.1	8.0	28.0	28.0	89.7 89.8	89.7	6.5		17.2 17.3 18.0	9 7	7	-	ļ -	822131	807574	-	_	-
					Bottom	8.1 1.0	0.2	72	23.0	23.0	8.1	8.1	29.4	29.4	89.8	89.8	6.5	6.5	18.0	8		-	<u> </u>			-		-
					Surface	1.0	0.4	40	23.4	23.4	8.0	8.0	29.6 29.6	29.6	92.6 92.6	92.6	6.7	6.7	14.6	10	1	-				-		-
SR4A	Cloudy	Calm	15:39	8.2	Middle	4.1 4.1	0.3 0.4	42 45	23.1 23.1	23.1	8.0	8.0	29.9 29.9	29.9	91.8 91.8	91.8	6.6		16.7 16.7	13	13	-	<u> </u>	817206	807782	-		-
					Bottom	7.2 7.2	0.3	46 47	23.1 23.1	23.1	8.0	8.0	30.1	30.1	91.7 91.7	91.7	6.6	6.6	16.2 16.2	17 16	1	-				-		-
					Surface	1.0	0.1	309 324	24.2 24.2	24.2	7.9 7.9	7.9	28.5	28.5	87.1 87.1	87.1	6.2	6.2	14.6 14.6	10	1	-				-		-
SR5A	Cloudy	Calm	15:55	3.7	Middle	-	-		-	-	-	-	-	-	-	-	-	0.2	- 15	6 -	11	-	۱.	816576	810669	-		
					Bottom	2.7	0.0	57 62	23.8 23.8	23.8	7.9 7.9	7.9	28.5 28.5	28.5	86.5 86.5	86.5	6.2	6.2	16.5 16.5	12 11	-	-				-		-
					Surface	1.0 1.0	0.1 0.1	53 56	24.0 24.0	24.0	7.9	7.9	27.6 27.6	27.6	87.9 87.9	87.9	6.3		13.6 13.6	12 12	-	-				-		-
SR6	Cloudy	Calm	16:17	3.3	Middle	-	-		-	-	-	-	-		-	-		6.3	- 13		12	-	١.	817880	814678	-		
					Bottom	2.3 2.3	0.1 0.2	63 66	23.8 23.8	23.8	7.9 7.9	7.9	27.9 27.9	27.9	88.8 88.8	88.8	6.4 6.4	6.4	14.0 14.0	12 13	1	-				-		-
					Surface	1.0	0.5	92 92	23.8	23.8	8.0	8.0	28.0	28.0	89.0 89.0	89.0	6.4		8.3	7	†	-	-			-		-
SR7	Sunny	Moderate	16:37	19.2	Middle	9.6	0.2	68	23.0	23.0	8.0 8.0	8.0	29.9 29.9	29.9	85.6 85.6	85.6	6.2	6.3	8.2	6	8	-	1.	823630	823716	-		-
					Bottom	9.6 18.2	0.2	70 -	23.0	22.9	8.0	8.0	30.1	30.1	85.4	85.4	6.2	6.2	10.0	6 10	‡	-	1			-		-
					Surface	18.2	0.3	-	22.9	23.7	8.0	8.1	30.1 26.8	26.8	85.4 91.4	91.4	6.2		10.0	8	 	-	<u> </u>		<u> </u>	-		-
SR8	Cloudy	Moderate	15:34	3.9	Middle	1.0	-	-	23.7		8.1		26.8	-	91.4		6.6	6.6	12.3	8 -	8	-	1.	820246	811418	-		<u>.</u>
0.10	5.0007			0.0	Bottom	2.9	-	-	23.7	23.7	8.1	8.1	26.7	26.7	90.9	90.9	6.6	6.6	11.0	- 8	∄ ັ	-		0202.0		-		-
					DOROII	2.9	-	-	23.7	23.1	8.1	0.1	26.7	20.1	90.9	30.3	6.6	0.0	10.8	8		-				-		-]

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 05 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 0.5 23.2 6.7 10.3 1.0 8.0 28.6 92.8 73 < 0.2 1.8 17 Surface 23.2 8.0 28.6 92.8 1.0 0.6 18 23.2 8.0 28.6 92.8 6.7 10.3 5 73 < 0.2 1.7 4.4 0.5 21 22.5 8.0 31.2 91.8 6.6 20.2 3 75 <0.2 1.4 C1 09:38 8.7 Middle 22.5 8.0 31.2 91.8 815603 804222 Cloudy Moderate 75 0.6 22.5 8.0 31.2 91.8 6.6 20.2 3 75 <0.2 1.3 7.7 0.5 18 77 < 0.2 1.2 22.4 8.0 31.5 91.2 6.6 23.3 4 Bottom 31.5 91.2 66 77 0.6 18 22.4 8.0 31.5 91 2 23.3 4 76 <0.2 12 1.0 356 <0.2 2.8 0.5 23.7 7.9 23.4 6.3 10.2 73 23.4 84.8 Surface 23.7 7.9 1.0 0.5 23.7 7.9 23.4 84.8 6.3 10.1 74 <0.2 2.9 328 6.2 2.9 6.2 0.6 345 23.4 7.9 26.3 82.9 6.1 12.9 6 75 <0.2 82.9 825669 806917 C2 Sunnv Moderate 10:29 12.3 Middle 7.9 26.3 75 2.9 3.1 6.2 0.7 351 7.9 26.3 6.1 13.2 75 < 0.2 23.4 82.9 77 11.3 0.5 351 22.9 8.0 28.2 80.6 5.9 15.8 < 0.2 3.0 Bottom 28.2 80.6 5.9 5.9 11.3 0.5 358 22.9 8.0 28.2 80.6 15.7 5 77 <0.2 2.8 1.0 0.5 269 23.3 8.0 27.1 84.9 6.2 8.7 73 <0.2 1.5 27.1 84.9 Surface 8.0 1.0 0.5 270 23.3 8.0 27.1 84.9 6.2 8.9 6 73 <0.2 1.6 5.8 0.5 272 10.5 75 1.6 23.2 8.0 83.9 6.1 6 <0.2 C3 11.5 Middle 23.2 8.0 27.5 83.9 822132 817805 08:38 Sunny Moderate 6.1 75 1.8 5.8 8.0 27.5 83.9 10.8 < 0.2 0.5 286 23.2 6 10.5 0.5 277 8.0 6.1 12.7 6 77 < 0.2 1.6 22.5 30.3 83.5 Bottom 22.5 8.0 30.3 83.6 10.5 8.0 30.3 83.6 6.1 12.4 77 1.7 0.5 292 22.5 8 <02 1.0 0.5 29 23.3 8.0 28.0 90.6 90.6 6.6 14.7 73 <0.2 1.8 Surface 23.3 28.0 90.6 72 1.9 1.0 0.5 29 23.3 8.0 6.6 14.7 4 <0.2 3.7 0.4 34 23.1 8.0 29.5 90.2 6.5 20.1 6 75 <0.2 1.5 09:55 Middle 23.1 29.5 90.2 818379 806478 IM1 Cloudy Moderate 7.3 8.0 74 1.5 3.7 0.5 34 23.1 8.0 29.5 90.2 6.5 20.1 <0.2 6.3 75 1.5 0.4 23.1 8.0 6.5 21.2 5 <0.2 29.8 89.9 Bottom 23.1 8.0 29.8 89.9 6.5 6.5 6.3 0.4 41 8.0 89.9 21.2 75 1.4 23.1 29.8 6 <0.2 6 73 73 2.0 1.0 0.6 357 23.3 8.0 28.0 90.3 10.9 <0.2 Surface 8.0 28.0 90.3 328 8.0 6.6 1.0 0.7 23.3 28.0 10.9 <0.2 8.0 4.1 0.6 4 23.2 28.8 90.3 6.5 20.9 7 73 <0.2 1.8 28.8 90.3 818869 806172 IM2 Cloudy Moderate 10:00 8.2 Middle 8.0 4.1 0.6 4 23.2 8.0 28.8 90.3 6.5 20.9 6 74 < 0.2 2.0 7.2 0.4 22.9 8.0 89.8 6.5 20.5 75 <0.2 2.1 30.2 Bottom 22.9 8.0 30.2 89.8 7.2 8.0 89.8 6.5 20.5 75 <0.2 2.2 0.4 22.9 30.2 1.0 0.2 22 12.2 73 2.1 23.3 8.0 28.1 90.1 6.5 <0.2 28.1 90.1 Surface 23.3 8.0 0.3 23.3 8.0 28.1 90.1 6.5 12.2 4 73 < 0.2 1.0 22 1.7 43 0.2 24 23.2 8.0 28.4 90.1 6.5 17.6 5 75 <0.2 Cloudy Moderate 10:05 8.5 Middle 28.4 819398 806035 4 75 4.3 0.3 24 23.2 8.0 28.4 90.1 17.6 < 0.2 7.5 23.0 18.2 75 <0.2 1.7 0.2 8.0 29.9 89.7 6.5 6 Bottom 23.0 8.0 29.9 89.7 6.5 7.5 6.5 1.7 0.2 21 23.0 8.0 29.9 18.2 4 76 <0.2 0.5 23.5 8.0 26.5 6.5 11.0 73 <0.2 2.5 89.3 Surface 23.5 8.0 26.5 89.3 1.0 0.5 31 8.0 89.3 6.5 11.0 73 < 0.2 2.6 23.5 26.5 5 41 0.6 39 23.2 8.0 27.5 89.5 6.5 19.0 5 75 <0.2 2.4 IM4 Moderate 10:12 8.2 Middle 27.5 89.5 16.6 819566 805030 2.3 Cloudy 41 0.6 40 23.2 8.0 27.5 89.5 6.5 19.0 6 75 < 0.2 2.4 7.2 0.5 40 22.8 8.0 30.2 89.1 6.4 19.8 4 77 <0.2 1.9 Bottom 22.8 8.0 30.2 89.1 6.4 7.2 0.5 43 8.0 30.2 89.1 6.4 19.8 77 <0.2 2.1 22.8 1.0 0.7 41 72 8.0 89.6 8 <0.2 2.2 23.3 8.0 27.3 89.6 Surface 1.0 0.7 43 23.3 8.0 27.3 89.6 6.5 17.8 73 <0.2 2.2 8 2.1 3.8 0.7 36 6.5 22.3 8 74 <0.2 23.2 8.0 27.6 89.6 IM5 Cloudy Moderate 10:21 7.6 Middle 23.2 8.0 27.6 89.6 820547 804942 2.1 8.0 89.6 6.5 74 3.8 0.7 27.6 <0.2 38 23.2 22.3 7 6.6 0.6 31 23.2 8.0 29.4 90.6 6.5 24.5 10 75 <0.2 2.0 23.2 29.4 90.6 Bottom 75 6.6 0.6 31 23.2 8.0 29.4 90.6 6.5 24.5 8 < 0.2 1.8 1.0 0.4 23 23.3 2.1 8.0 27.9 6.5 10 <0.2 Surface 23.3 8.0 27.9 89.0 1.0 0.4 23 23.3 8.0 27.9 89.0 6.5 17.1 9 72 <0.2 1.8 3.6 6.5 18.6 73 1.6 0.5 23.2 8.0 28.4 89.0 13 <0.2 89.0 821073 IM6 Cloudy Moderate 10:28 7.2 Middle 23.2 8.0 28.4 12 805834 74 1.6 3.6 0.5 8.0 6.5 13 23.2 28.4 89.0 18.6 < 0.2 356 76 6.2 0.4 23.2 8.0 28.7 89.3 6.5 19.2 13 <0.2 17 Bottom 28.7 89.3 6.5 328 8.0 80.3 6.5 6.2 0.4 23.2 28.7 19.2 13 76 < 0.2 1.8 1.0 0.3 23 23.4 8.0 27.2 88.9 6.5 18.8 71 <0.2 2.8 Surface 23.4 8.0 27.2 88.9 0.3 23 23.4 8.0 88.9 6.5 18.8 72 <0.2 2.9 0.4 23.3 8.0 6.4 20.7 12 73 <0.2 2.4 28.3 88.6 IM7 10:35 8.4 28.3 88.6 10 821357 806859 2.4 Cloudy Moderate Middle 23.3 8.0 73 4.2 8.0 88.6 6.4 73 <0.2 2.3 19 28.3 20.7 0.5 23.4 11 7.4 0.4 16 13 75 <0.2 1.9 23.2 8.0 28.6 88.7 6.4 23.6 28.6 88.7 Bottom 23.2 8.0 88.7 8.0 6.4 74 2.1 7.4 0.4 16 23.2 28.6 23.6 14 < 0.2 1.0 0.2 67 23.5 8.0 25.1 85.9 6.3 12.9 73 <0.2 2.8 8 Surface 23.5 8.0 25.1 85.9 1.0 0.2 68 23.5 8.0 25.1 85.9 6.3 13.2 6 74 <0.2 2.9 0.3 23.4 16.6 75 2.8 4.2 8.0 25.7 85.5 6.3 6 <0.2 821691 25.7 85.5 807827 IM8 Sunny Moderate 10:04 8.4 Middle 23.4 8.0 2.8 2.8 4.2 0.4 40 23.4 8.0 25.7 85.5 6.3 16.9 6 75 <0.2 7.4 0.3 39 23.3 8.1 85.5 6.3 17.8 77 <0.2 2.9 26.4 23.3 8.1 26.4 85.5 Bottom 6.3 7.4 40 8.1 17.4 78 0.3 23.3 85.5 6.3 < 0.2 2.6 26.4

DA: Depth-Averaged

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

Water Quality Monitoring Results on 05 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 304 23.4 14.6 17 73 < 0.2 8.0 26.1 86.2 6.3 2.4 Surface 23.4 8.0 26.1 86.2 1.0 317 0.3 23.4 8.0 26.1 86.2 6.3 14.2 17 74 < 0.2 2.4 75 3.7 0.4 314 6.3 18.8 18 2.3 23.4 8.0 26.1 86 1 <02 IM9 09:55 7.4 Middle 8.0 26.1 86.1 18.0 822113 808798 2.4 Sunny Moderate 3.7 0.4 321 23.4 8.0 26.1 86.1 6.3 18.9 16 76 <0.2 2.4 6.4 0.4 326 23.4 8.0 26.2 20.7 18 77 <0.2 2.5 Bottom 23.4 8.0 26.2 86.7 6.4 6.4 0.4 23.4 8.0 26.2 86.7 6.4 20.7 17 78 <0.2 2.2 1.0 0.6 303 8.0 13.8 73 23.5 25.8 85.9 6.3 <0.2 2.5 Surface 23.5 8.0 25.8 85.9 8.0 85.9 6.3 2.5 1.0 0.6 324 23.5 25.8 13.8 8 74 <0.2 3.5 6.2 75 0.5 304 8.0 15.6 7 < 0.2 2.7 23.3 26.7 85.3 26.7 85.3 822216 IM10 Sunny Moderate 09:47 7.0 Middle 23.3 8.0 15.4 75 809836 2.5 8.0 85.3 7 76 < 0.2 3.5 0.6 315 23.3 26.7 15.4 6.0 0.4 312 23.3 8.0 26.8 85.9 6.3 16.8 8 77 <0.2 2.4 26.8 Bottom 23.3 8.0 85.9 6.3 6.0 0.4 325 23.3 8.0 26.8 85.9 6.3 16.8 77 <0.2 2.5 0.6 23.4 8.0 11.1 74 <0.2 2.4 25.8 6.3 Surface 23.4 8.0 25.8 85.7 1.0 0.6 292 8.0 85.6 6.3 8 73 2.6 23.4 25.8 11.0 <0.2 3.9 12.5 75 2.5 0.4 286 23.4 8.0 26.5 85.1 6.2 7 < 0.2 26.5 821478 810542 IM11 Sunny Moderate 09:31 7.7 Middle 23.4 8.0 85.1 126 2.5 3.9 85.1 6.2 76 0.4 303 23.4 8.0 26.5 12.5 9 < 0.2 6.7 77 2.6 0.4 295 23.3 8.0 27.1 85.5 6.2 14.3 < 0.2 Bottom 8.0 27.1 85.6 6.7 0.4 304 23.3 8.0 27.1 85.6 6.3 14.4 7 78 < 0.2 24 1.0 0.7 279 23.5 7.9 12.4 8 74 <0.2 2.1 25.3 85.8 Surface 23.5 7.9 25.4 85.8 1.0 0.7 23.5 7.9 25.4 85.8 6.3 12.7 75 <0.2 2.0 4.0 0.7 277 23.2 8.0 27.4 83.9 6.1 13.5 7 75 <0.2 2.0 23.2 27.4 83.9 821166 IM12 Sunnv Moderate 09:25 8.0 Middle 8.0 76 811498 21 75 77 8.0 27.4 83.9 6.1 13.2 <0.2 2.1 4.0 0.8 285 23.2 7.0 7 2.1 0.5 277 23.2 8.0 27.6 84.0 6.1 16.2 < 0.2 Bottom 23.2 27.6 84.0 7.0 0.5 277 23.2 8.0 27.7 84.0 6.1 16.5 7 77 <0.2 21 1.0 0.2 315 23.3 13.0 74 <0.2 2.0 8.0 27.3 83.9 6.1 27.3 84.0 Surface 23.3 8.0 1.0 0.2 319 23.3 8.0 84.0 6.1 13.1 6 73 <0.2 2.2 -SR2 08:58 46 Middle 821465 814165 Sunnv Moderate <0.2 2 1 75 3.6 0.2 320 23.2 8.0 27.8 85.8 6.3 18.7 <0.2 2.0 8 Bottom 23.2 8.0 27.8 85.9 6.3 3.6 0.2 341 85.9 75 8.0 27.8 6.3 18.7 6 21 23.2 <0.2 1.0 0.3 24 23.6 7.9 25.1 85.1 6.3 8.2 Surface 7.9 25.1 85.1 85.1 1.0 0.4 25 23.6 7.9 25.1 6.3 8.3 6 4.6 0.3 26 23.5 7.9 9.9 9 25.2 6.2 SR3 10:09 92 Middle 23.5 79 25.2 84.5 10.2 822127 807567 Moderate Sunny 4.6 23.5 7.9 25.2 84.5 6.2 10.1 0.3 8.2 0.2 7.9 6.3 7 23.4 25.5 85.1 12.4 7.9 25.5 85.1 6.3 Bottom 23.4 7.9 25.5 85.1 6.3 8.2 12.5 0.2 23.4 8 1.0 0.4 252 23.2 14.9 10 7.9 28.6 85.8 6.2 Surface 23.2 7.9 28.6 85.8 85.8 6.2 7.0 28.6 1.0 0.5 269 23.2 1/1 0 9 4.7 0.3 252 23.2 7.9 28.6 6.2 18.1 9 -SR4A 09:16 9.3 Middle 23.2 7.9 28.6 85.8 817201 807807 Fine Calm 4.7 0.3 256 23.2 7.9 28.6 85.8 6.2 18.1 9 0.2 250 23.2 7.9 6.3 24.4 13 28.7 23.2 28.7 86.2 Bottom 7.9 6.3 8.3 0.2 259 7.9 28.7 86.2 6.3 24.4 13 23.2 1.0 270 0.3 23.3 7.9 28.4 84.6 6.1 16.5 8 Surface 23.3 7.9 28.4 84.6 1.0 0.3 283 23.3 7.9 28.4 84.6 6.1 9 16.5 SR5A Fine Calm 09:00 4.0 Middle 816597 810711 3.0 0.2 284 23.3 7.9 28.4 17.1 13 6.2 28.4 86.1 6.2 23.3 7.9 Bottom 7.9 86.1 6.2 17.1 3.0 0.3 309 23.3 28.4 15 1.0 0.2 255 23.3 7.9 27.6 6.0 13.9 8 83.0 Surface 23.3 7.9 27.6 83.0 1.0 256 7.9 83.0 6.0 0.2 23.3 27.6 13.9 8 6.0 SR6 08:40 4.3 Middle 817869 814647 Fine Calm 3.3 0.1 268 23.2 13.2 11 27.9 6.3 Bottom 23.2 7.9 27.9 87.1 6.3 3.3 0.2 268 23.2 7.9 27.9 87.1 6.3 13.2 9 1.0 0.2 224 23.1 8.0 27.8 85.1 6.2 8.1 23.1 Surface 8.0 27.8 85.1 1.0 0.2 224 23.1 8.0 27.8 85.1 6.2 8.3 4 62 8.6 9.4 0.3 192 22.7 8.0 6.1 4 29.5 83.3 SR7 Sunny Moderate 80:80 18.7 Middle 29.5 83.3 823621 823721 9.4 0.3 196 6.1 4 22.7 8.0 29.5 83.3 89 17.7 53 22.5 8.0 30.4 83.0 6.0 8.7 6 Bottom 8.0 30.4 83.0 6.0 17.7 57 22.5 8.0 30.4 83.0 6.0 8.7 4 1.0 23.4 8.0 6.4 9.5 4 Surface 8.0 25.7 86.8 23.4 1.0 23.4 8.0 25.7 86.8 6.4 9.7 4 SR8 Sunny Moderate 09:19 4.0 Middle 820246 811418 3.0 88.4 88.4 23.4 8.0 26.0 6.5 8.9 5 Bottom 23.4 8.0 26.0 88.4 6.5 3.0 23.4 4

DA: Depth-Average

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

	Weather	oring Resu Sea	Sampling	Water	07 April 18	during Mid-	Current		Water T	emperature (°C)		pН	Salinity (ppt)	DO:	Saturation	Dissolv	ed _T	Furbidity(N		ded Solids		lkalinity	Coordinate	Coordinate	Chro	mium (µg	₁₎ [,	Nicke
Monitoring Station	Condition	Condition			Sampling De	pth (m)	Speed (m/s)	Current Direction	Value	Average	-	Average		e Value	(%)	Oxyge Value	1		OA Value	g/L) DA	(pp Value	DA	HK Grid (Northing)	HK Grid (Easting)	\vdash	Average		/alue
	Condition	Condition	Time	Depth (m)		1.0	0.5	209	21.5	-	8.2	<u> </u>	20.0	97.6	+ -	7.2	JA .	9.0	oA value	DA	73	DA	(Northing)	(Lasting)	<0.2			2.4
					Surface	1.0	0.6	214	21.5	21.5	8.2	8.2	30.9	97.6	97.6	7.2	7.1	9.2	5	Ī	73	1			<0.2	<0.2		2.6
C1	Cloudy	Rough	16:57	9.1	Middle	4.6	0.4	197	21.8	21.8	8.2		31.7	95.6		7.0		8.6	9.8	7	75	75	815649	804223	<0.2	<0.2		2.6
						4.6 8.1	0.4	197 191	21.8 22.4	1	8.2		31.7	95.5 94.9	1	7.0 6.8		11.8	10	4	75 77	-			<0.2			2.6
					Bottom	8.1	0.3	204	22.4	22.4	8.2		33.3	95.0		6.8		11.8	10	+	77	t			<0.2	<0.2	H	2.4
					Surface	1.0	0.3	162	22.1	22.1	8.0		27.5	91.5	91.5	6.8		13.1	8		73				<0.2	<0.2	Ĺ	2.8
					Odnace	1.0	0.3	171	22.1	22.1	8.0		27.5	91.5		6.8	3.7	13.1	7	_	73	1			<0.2	\0.Z		2.8
C2	Cloudy	Rough	15:57	12.0	Middle	6.0	0.1	138 142	22.3 22.3	22.3	8.1		30.8 30.8	91.3		6.6	_	14.8 14.8	3.1 8	9	75 75	75	825701	806960	<0.2	<0.2		2.6
					Bottom	11.0	0.1	355	22.1	22.4	8.1	8.1	22.4	93.4		6.0	5.8	11.3	10	1	77	i			<0.2	<0.2		2.4
					DOLLOITI	11.0	0.1	327	22.1	22.1	8.1		32.4	93.4	33.4	6.8	0.0	11.3	11		77				<0.2	<0.2		2.4
					Surface	1.0	0.3	74 74	22.0	22.0	8.1		32.0 32.0	92.7		6.7	_	5.5 5.5	5	4	73 74				<0.2	<0.2		1.6
						1.0 5.9	0.3	74 89	22.0		8.1		22.7	93.6	-	6.7	8.8	E 0		+	75	1			<0.2		<u> </u>	1.7
C3	Cloudy	Moderate	17:41	11.8	Middle	5.9	0.2	95	22.1	22.1	8.1		32.7	93.6		6.8		5.9	5.9	- 5	75	75	822123	817800	<0.2	<0.2	<0.2	1.6
					Bottom	10.8	0.2	69	22.1	22.1	8.1	8.1	33.2	95.3	95.3	6.9	6.9	6.2	5]	77	1			<0.2	<0.2		1.7
						10.8	0.2	73 179	22.1	1	8.1		33.2	95.3		6.9		6.2 10.7	10		76 73				<0.2			1.6
					Surface	1.0	0.2	179	21.9	21.9	8.2		31.1 31.1	94.9 95.0	95.0	7.0		10.7	10	+	73	1			<0.2	<0.2		2.4
IM1	01	Darrah	16:41	7.8	Middle	3.9	0.2	145	22.0	22.0	8.2		31.9 31.9	95.2		6.9	6.9	10.1	1.0	10	75	75	818378	806473	<0.2	0.0		2.3
IIVIT	Cloudy	Rough	16:41	7.8	Middle	3.9	0.2	150	22.0	22.0	8.2		31.9	95.2	95.2	6.9		10.3	10	10	75	/5	818378	806473	<0.2	<0.2	<0.2	2.4
					Bottom	6.8	0.1	159	22.3	22.3	8.2		32.8	95.3	95.3	6.9		12.4	11	_	77	1			<0.2	<0.2	L	2.3
					ļ	6.8 1.0	0.1	168 189	22.3 21.8	+	8.2		32.8 32.6	95.3 94.6	_	6.9		11.9 11.1	10	+	77 73				<0.2			2.1
					Surface	1.0	0.2	202	21.8	21.8	8.2	8.2	30.7	94.6		6.0		11.3	8	+	73	1			<0.2	<0.2	H	2.2
IM2	Cloudy	Rough	16:36	8.6	Middle	4.3	0.2	164	22.1	22.1	8.2		32.5	95.4		6.9	5.9	10.3	1.0 10	10	75	75	818829	806219	<0.2	<0.2	.0.2	2.2
IIVIZ	Oloudy	rtougn	10.50	0.0	Wildelic	4.3	0.2	171	22.1	22.1	8.2		32.5	95.4		6.9		10.2	9		75	, , ,	010025	000213	<0.2	V0.2		2.2
					Bottom	7.6 7.6	0.1	177 188	22.2	22.2	8.2		32.7 32.7	95.3 95.3		6.9		11.6 11.5	12 12	4	77 77	4			<0.2	<0.2	H	2.2
						1.0	0.1	193	21.8		8.2		20.0	95.2		7.0		10.6	8	1	73				<0.2			2.2
					Surface	1.0	0.2	206	21.8	21.8	8.2	8.2	30.9	95.2	33.2	7.0	, , _	10.8	7	1	73	1			<0.2	<0.2		2.2
IM3	Cloudy	Rough	16:30	8.7	Middle	4.4	0.2	102	21.9	21.9	8.2	8.2	31.6	95.2	95.2	6.9		10.1	0.9	8	75	75	819405	805997	<0.2	<0.2	<0.2	2.0
	,					4.4 7.7	0.2	111 45	21.9 22.2		8.2 8.2		31.6	95.2 95.0		6.9		10.0 11.8	7	-	75 77	-			<0.2			2.0
					Bottom	7.7	0.1	45	22.2	22.2	8.2		32.7	95.0		6.9		11.8	8	+	77	1			<0.2	<0.2		2.3
					Surface	1.0	0.2	190	21.7	21.7	8.2	0.2	30.4	96.8	06.0	7.1		9.0	6		73				<0.2	<0.2		2.2
					Surface	1.0	0.2	204	21.7	21.7	8.2		30.4	96.8		7.1	7.1	9.2	8	1	73	1			<0.2	<0.2		2.2
IM4	Cloudy	Rough	16:22	8.2	Middle	4.1 4.1	0.1	184 189	21.8 21.8	21.8	8.2		31.8 31.8	95.9 95.9		7.0		9.1	0.4 7	7	75 75	75	819544	805057	<0.2	<0.2	<0.2	2.3
						7.2	0.1	179	22.3		8.2		22.0	95.9		6.0		12.8	8	+	77	1			<0.2		-	2.3
					Bottom	7.2	0.2	188	22.3	22.3	8.2		32.9 32.9	95.7		6.9	6.9	12.9	8	7	77	i			<0.2	<0.2	—	2.1
					Surface	1.0	0.1	138	21.7	21.7	8.2		31.0	97.1	97.1	7.1		8.6	6		73				<0.2	<0.2		2.1
						1.0	0.1	144	21.7		8.2		31.0	97.1		7.1	7.1	8.7	7	4	73				<0.2		L	2.2
IM5	Cloudy	Rough	16:13	7.4	Middle	3.7	0.1	126 126	21.7	21.7	8.2	8.2	31.2 31.2	95.9 95.8	95.9	7.0	_	10.3 10.3	2.8 7	7	75 75	75	820589	804919	<0.2	<0.2	<0.2	2.2
					D-#	6.4	0.1	159	22.1	00.4	8.2		00.4	93.4		6.0		19.6	7	†	77	1			<0.2	0.0		2.1
					Bottom	6.4	0.1	166	22.1	22.1	8.2	8.2	32.1	93.4	93.4	6.8	0.8	19.5	6		77				<0.2	<0.2		2.1
					Surface	1.0	0.1	156	21.7	21.7	8.2		30.3	95.5 95.4		7.0		10.2	7	_	73	4			<0.2	<0.2		2.2
						1.0 3.8	0.1	168 114	21.7	1	8.2		20.7	95.4		7.0 6.8		10.1	8 6	+	73 75	+			<0.2			2.3
IM6	Cloudy	Rough	16:06	7.5	Middle	3.8	0.1	120	21.8	21.8	8.2		30.7	93.1	93.2	6.8		12.7	3.3	- 8	75	75	821068	805803	<0.2	<0.2	<0.2	2.1
					Bottom	6.5	0.1	110	22.2	22.2	8.2		32.1	92.4		6.7		17.1	8	1	77	1			<0.2	<0.2		2.1
					Bottom	6.5	0.1	120	22.2	ZE.E	8.2		32.1	92.4		6.7		17.2	10	1	77				<0.2	\U.Z		2.0
					Surface	1.0	0.1	135 144	21.7	21.7	8.2		28.5 28.5	94.8		7.1		13.2	10	4	73 73	4			<0.2	<0.2		1.9 2.0
			45.50			4.5	0.1	88	21.7		8.2		20.0	92.9		6.9		111	4.4	-	75		001050		<0.2			2.1
IM7	Cloudy	Rough	15:58	8.9	Middle	4.5	0.3	96	21.7	21.7	8.2	8.2	29.9	92.8	92.9	6.9		14.4	11	11	75	75	821352	806822	<0.2	<0.2	<0.2	2.1
					Bottom	7.9	0.2	98	22.2	22.2	8.2		31.9 31.9	92.6		6.7		20.6	10	4	76				<0.2	<0.2		1.9
						7.9	0.2	103 142	22.2		8.2	<u> </u>	31.9	92.7	1	6.7 7.1		20.6 15.2	12	1	77 73	\vdash			<0.2			1.9
					Surface	1.0	0.2	146	21.8	21.8	8.2		28.3	95.3		7.4		15.2	11	+	73	1			<0.2	<0.2		1.9
IM8	Cloudy	Moderate	16:20	8.8	Middle	4.4	0.2	119	21.9	21.9	8.1	8.1	28.7	95.5	05.5	7.1		15.6	5.1 9	11	75	75	821666	807855	<0.2	<0.2	-0.2	2.1
IIVIO	Cioday	WOUCHALE	10.20	0.0	ivildule	4.4	0.2	124	21.9	21.9	8.1		28.7	95.5		7.1		15.6	10	վ ՝՝	75	,,,	32 1000	301033	<0.2	~U.Z	L	2.1
					Bottom	7.8	0.2	70	21.8	21.8	8.1		31.8	96.4		7.0	7.0	14.4	12	4	75				<0.2	<0.2		1.8
			L]	7.8	0.2	75	21.8	<u> </u>	8.1		31.8	96.4		7.0		14.4	13	<u> </u>	76				<0.2			2.0

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Qua	ity Monite	oring Resu	lts on		07 April 18	during Mid-)																			
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water T	emperature (°C)		Н	Salinity (ppt)	DOS	Saturation (%)	Dissolved Oxygen	Turbidity	(NTU)	Suspended Solid (mg/L)	s Total Al		Coordinate	Coordinate	Chro	omium (µg	J/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling De	epth (m)	(m/s)	Direction	Value	Average	Value	Average	Value Average	e Value	Averag	- 1	Value	DA	Value DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)	Value	Average	DA	Value DA
					Surface	1.0 1.0	0.3	119 119	21.8 21.8	21.8	8.2	8.2	28.5 28.5 28.5	94.4	94.4	7.0	15.3 15.3		11 12	73 73				<0.2	<0.2		1.9
IM9	Cloudy	Moderate	16:28	7.6	Middle	3.8	0.4	99	21.8	21.8	8.2	8.2	29.1	93.8	93.8	6.9	17.8	18.3	12	75	75	822068	808825	<0.2	<0.2	<0.2	1.9
					Bottom	3.8 6.6	0.4	99 83	21.8 22.1	22.1	8.2 8.1	8.1	29.1 31.6 31.6 31.6	93.8 95.6	95.6	7.0 7.0 7.0	17.8 21.9		11	75 76				<0.2	<0.2	.	1.8
						6.6 1.0	0.3	88 113	22.1		8.1		31.6	95.6 92.1		7.0	21.9		9	77 73				<0.2			1.8
					Surface	1.0 3.8	0.5 0.3	114 97	22.1 22.1	22.1	8.1 8.1	8.1	29.9 29.9 30.3	92.1 92.6	92.1	6.8 6.8 6.8	14.8 15.0		11 10 10	73 75				<0.2	<0.2	.	1.8
IM10	Cloudy	Moderate	16:35	7.5	Middle	3.8	0.4	97	22.1	22.1	8.1	8.1	30.3	92.6	92.6	6.8	15.0	15.1	10	71	74	822229	809863	<0.2	<0.2		1.9
					Bottom	6.5 6.5	0.4	97 100	22.1 22.1	22.1	8.1 8.1	8.1	31.1 31.1	99.9 99.9	99.9	7.3 7.3	15.5 15.5		10 9	77 76				<0.2	<0.2		1.7
					Surface	1.0	0.4	101	22.0	22.0	8.1 8.1	8.1	29.1 29.1	90.3	90.3	6.7 6.7 6.7	15.5 15.5		10 9	73 73				<0.2	<0.2		1.7
IM11	Cloudy	Moderate	16:48	8.2	Middle	4.1	0.3	92 95	22.1 22.1	22.1	8.2 8.2	8.2	30.4 30.4	90.4	90.4	6.6	16.4 16.4	16.2	12 12	74 74	74	821473	810574	<0.2	<0.2	-0.2	1.7
					Bottom	7.2	0.1	75	22.1	22.1	8.1	8.1	30.8	92.2	92.2	6.7	16.6		12	75				<0.2	<0.2		1.7
					Surface	7.2 1.0	0.1	77 82	22.1	21.9	8.1 8.1	8.1	30.8 30.8 29.5 29.5 29.5	92.2	90.7	6.7	16.6 13.9		14 12	75 72				<0.2	<0.2	一	1.7
						1.0 4.5	0.4	86 95	21.9 21.9		8.1 8.1		29.5	90.7 88.7		6.7 6.5	13.9 11.6		13	73 75				<0.2			1.7
IM12	Cloudy	Moderate	16:56	8.9	Middle	4.5 7.9	0.2 0.1	104 134	21.9 22.2	21.9	8.1 8.0	8.1	30.4	88.7 88.4	88.7	6.5	11.6 14.0	13.2	13 13	75 76	74	821186	811503	<0.2	<0.2	<0.2	1.7 1.6
					Bottom	7.9	0.1	147	22.2	22.2	8.0	8.0	31.7	88.4	88.4	6.4	14.0		13	75				<0.2	<0.2		1.7
					Surface	1.0	0.2	46 47	22.0 22.0	22.0	8.1 8.1	8.1	31.0 31.0	91.7 91.7	91.7	6.7 6.7 6.7	7.8 7.8		8	73 73				<0.2	<0.2	. t	1.2
SR2	Cloudy	Moderate	17:21	4.3	Middle	-	-	-	-	-	-	-		-	-	- 0.7	-	8.3	- 8	-	74	821468	814141	-	-	<0.2	1.3
					Bottom	3.3 3.3	0.2	38 40	22.2 22.2	22.2	8.1 8.1	8.1	32.0 32.0	94.1 94.1	94.1	6.8 6.8	8.8 8.8		8	75 75				<0.2	<0.2	. [1.3
					Surface	1.0	0.3	156 156	21.9	21.9	8.0	8.0	27.8 27.8 27.8	94.9	94.9	7.1	12.8 12.8		10	-				-	-		-
SR3	Cloudy	Moderate	16:16	9.4	Middle	4.7	0.2	143	21.7	21.7	8.1	8.1	29.8	94.3	94.3	7.0	16.2	17.7	11 11	-	_	822136	807586	-			-
					Bottom	4.7 8.4	0.2	149 150	21.7 22.1	22.1	8.1 8.1	8.1	31.7	94.3 95.7	95.7	7.0 7.0 7.0	16.2 24.2		10	-				-		[-
						8.4 1.0	0.3	150 81	22.1		8.1 8.1		31.7	95.7 93.3		7.0 7.0 6.8	24.2		10	-				-		-	-
					Surface	1.0 4.6	0.3	85 75	21.8 22.3	21.8	8.1	8.1	31.2	93.3 93.3	93.3	6.8	14.5 13.3		11	-				-			-
SR4A	Cloudy	Moderate	17:20	9.2	Middle	4.6	0.4	77	22.3	22.3	8.2	8.2	32.5	93.3	93.3	6.7	13.4	15.8	12	-	-	817192	807795	-	-		-
					Bottom	8.2 8.2	0.2	61 61	22.3 22.3	22.3	8.2	8.2	32.8 32.8	93.3	93.3	6.7 6.7	19.2 19.5		15 13	-				-	-		-
					Surface	1.0	0.3	24 25	22.0 22.0	22.0	8.0	8.0	28.5 28.5	88.3 88.3	88.3	6.5	14.9 15.1		10	-				-	-	-	-
SR5A	Cloudy	Moderate	17:36	5.1	Middle	-	-	-	-	-	-	-		-	-	- 6.6	-	15.9	- 10	-	-	816612	810723	-	-	[-
					Bottom	4.1	0.2	8	22.0	22.0	8.1 8.1	8.1	30.0 29.9 30.0	90.2	90.2	6.6 6.6	16.7 16.9		10 11	-				-	-	.	-
					Surface	1.0	0.1	69	22.0	22.0	8.0	8.0	27.3	89.1	89.1	6.7	11.0		8	-				-	_		-
SR6	Cloudy	Moderate	17:59	4.1	Middle	1.0	0.1	72 -	22.0		8.0		27.3	89.0		6.6	11.1	11.4	10 - 10	-		817909	814659	-			-
Sixo	Cloudy	Woderate	17.59	4.1		3.1	0.1	- 83	22.2		8.0		27.7	90.5	<u> </u>	6.7	11.8	11.4	10	-	_	617909	814039	-			-
					Bottom	3.1 1.0	0.1 0.1	86 35	22.2	22.2	8.0 8.1	8.0	27.7	90.6 92.6	90.6	6.7 6.7	11.7 5.1		10	-				-			-
					Surface	1.0	0.1	36	21.9	21.9	8.1	8.1	32.5	92.6	92.6	6.7	5.1		6	-				-	-	,	-
SR7	Cloudy	Moderate	18:09	16.3	Middle	8.2 8.2	0.1 0.1	315 322	22.1 22.1	22.1	8.1 8.1	8.1	33.3 33.3	92.5 92.5	92.5	6.7	6.1 6.1	6.0	6 5	-	-	823665	823736	-	-		
					Bottom	15.3 15.3	0.1 0.1	91 94	22.1 22.1	22.1	8.1 8.1	8.1	33.3 33.3	93.7 93.8	93.8	6.7	6.9	L	6	-					1		-
					Surface	1.0	-	-	22.0 22.0	22.0	8.1 8.1	8.1	29.8 29.8	92.4 92.4	92.4	6.8	14.3 14.3	ļ	8	-		j			-	Ī	-
SR8	Cloudy	Moderate	17:09	4.3	Middle	-	-	-	-	-	-	-			-	- 6.8	-	12.5	- 9	-	-	820246	811418	-	-		-
					Bottom	3.3	-	-	22.0	22.0	8.1	8.1	30.3	96.1	96.1	7.0 7.0	10.6		10	-				-		.	-
						3.3	-	-	22.0		8.1	0	30.3	96.1	00.1	7.0	10.6		9	-				-			-

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring

							Current							DO 0	Saturation	Disso	lved		1	uspended Sol	ds Total	Alkalinity	1					
Monitoring	Weather	Sea	Sampling	Water	Compling De	anth (m)	Speed	Current	Water To	emperature (°C)		pН	Salinity (pp) 50,	(%)	Oxy		Turbidity(NTU)	(mg/L)		nkaiiriity pm)	Coordinate HK Grid	Coordinate HK Grid	Chr	omium (µg/	L) Ni	lickel (µg/
Station	Condition	Condition	Time	Depth (m)	Sampling De	eptn (m)	(m/s)	Direction	Value	Average	Value	Average	Value Avera	ge Value	Averag	e Value	DA	Value	DA	Value DA	Value	DA	(Northing)	(Easting)	Value	Average	DA Va	alue D
					Surface	1.0	0.2	162	21.9	21.9	8.1	8.1	31.4 31.4	94.8	94.8	6.9		10.2		8	73				<0.2	<0.2		1.8
					Odnace	1.0	0.2	171	21.9	21.5	8.1	0.1	31.4	94.8		6.9	6.9	9.8		6	73				<0.2	V0.2		1.7
C1	Cloudy	Rough	10:34	8.7	Middle	4.4	0.1	236 258	22.1	22.1	8.2	8.2	31.9 31.9	94.5		6.9	-	13.4	13.0	9 10	75 75	75	815637	804272	<0.2	<0.2		1.8 1.8
						7.7	0.1	55	22.1		8.2		22.0	04.5		6.8		15.4	F	13	76	-			<0.2			1.8
					Bottom	7.7	0.2	55	22.4	22.4	8.2	8.2	33.0	94.5		6.8	6.8	15.6	F	13	77	1			<0.2	<0.2		1.8
					Surface	1.0	0.2	309	22.3	22.3	8.1	8.1	27.1 27.	90.1		6.7		13.5		8	73				<0.2	<0.2		2.6
						1.0 5.9	0.2	310 321	22.3		8.1		27.1	90.1		6.7 6.5	6.6	13.5 21.2	-	9	73 75	-			<0.2		-	2.5
C2	Cloudy	Rough	11:21	11.8	Middle	5.9	0.4	335	22.3	22.3	8.0	8.0	30.7	89.7		6.5	-	21.2	18.0	13 11	75	75	825708	806940	<0.2	<0.2		2.4 2.6
					Bottom	10.8	0.3	313	22.3	22.3	8.0	8.0	31.1	91.9	01.0	6.7	6.7	19.4		12	75				< 0.2	<0.2	2	2.6
					Bottom	10.8	0.3	330	22.3	22.0	8.0		31.1	91.9		6.7	0.7	19.4		13	76				<0.2	V0.2		2.5
					Surface	1.0	0.4	248 250	22.2	22.2	8.1	8.1	31.6 31.6	90.3		6.6	-	5.7 5.8	-	7	74 73	-			<0.2	<0.2		1.5 1.6
						5.7	0.4	250	22.2		8.1		22.0	00.5		6.5	6.6	6.8		0	75	┪			<0.2		1	1.6
C3	Cloudy	Moderate	09:25	11.4	Middle	5.7	0.5	253	22.2	22.2	8.1	8.1	32.9 32.9	90.5		6.5		6.8	6.4	9 9	75	75	822100	817832	<0.2	<0.2		1.6
					Bottom	10.4	0.3	258	22.2	22.2	8.1	8.1	32.9	90.9		6.5	6.5	6.5		10	77				<0.2	<0.2		1.7
						10.4	0.4	280 326	22.2		8.1 8.1		32.9	90.9		6.5 6.8		6.5 12.2		9	77 73	1			<0.2			1.5 2.0
					Surface	1.0	0.1	337	21.9	21.9	8.1	8.1	29.6 29.6	92.4	92.4	6.8	۱ ۱	12.4	+	11	74	-			<0.2	<0.2		2.1
IM1	Cloudy	Rough	10:56	7.7	Middle	3.9	0.2	353	21.9	21.9	8.1	8.1	29.7	01.8		6.8	6.8	15.2	16.2	11 12	75	75	818323	806470	<0.2	<0.2		2.2
IIVI I	Cidday	Rough	10.50	1.1	ivildule	3.9	0.2	325	21.9	21.5	8.1	0.1	29.7	91.8		6.8		15.3	10.2	11	75	13	010323	800470	<0.2	<0.2	2	2.1
					Bottom	6.7	0.3	18 18	22.2	22.2	8.2	8.2	32.4 32.4	91.9		6.6	6.6	21.1	-	12	77 78	-			<0.2	<0.2		2.0
						1.0	0.3	352	21.9	04.0	8.1		00.0	00.0		6.9		12.6		14	74	1			<0.2			2.1
					Surface	1.0	0.2	324	21.9	21.9	8.1	8.1	29.3 29.3	93.1		6.9	6.9	12.7		14	74				<0.2	<0.2	2	2.1
IM2	Cloudy	Rough	11:03	8.6	Middle	4.3	0.2	26	21.9	21.9	8.1	8.1	29.4 29.4	92.5		6.8	0.5	12.5	16.4	13 14	75	76	818854	806206	<0.2	<0.2		2.0 2.1
	,					4.3 7.6	0.2	27 27	21.9		8.1		29.4	92.5		6.8		12.6 24.1	-	12	76 77	_			<0.2			2.2
					Bottom	7.6	0.3	28	22.2	22.2	8.1		32.3	92.5		6.7	6.7	23.9	-	16	78	-			<0.2	<0.2		2.1
					Surface	1.0	0.2	4	21.9	21.9	8.1		29.1	93.0	02.0	6.9		11.3		17	73				<0.2	<0.2	1	1.8
					Ounace	1.0	0.2	4	21.9	21.5	8.1	0.1	29.1	93.0		6.9	6.9	11.3	-	17	74	_			<0.2	V0.2		1.7
IM3	Cloudy	Rough	11:09	8.4	Middle	4.2	0.3	26 27	21.9 21.9	21.9	8.1	8.1	29.2 29.2	92.5		6.8	-	13.3 13.3	13.7	17 16	76 76	76	819434	806024	<0.2	<0.2	<0.2	1.8 1.8
						7.4	0.2	34	22.2		8.1		22.2	01.0		6.6		16.4	 	17	77	-			<0.2			1.8
					Bottom	7.4	0.2	36	22.2	22.2	8.1	8.1	32.2	91.8	91.8	6.6	6.6	16.4		16	77				<0.2	<0.2	1	1.8
					Surface	1.0	0.3	6	21.7	21.7	8.1	8.1	29.4 29.4	94.0		7.0		10.4	L	8	73	_			<0.2	<0.2		2.0
						1.0 4.1	0.3	6 8	21.7 21.7		8.1		29.4	94.0		7.0 6.9	7.0	10.6 12.8	F	8 .	74 75	-			<0.2		2	2.0
IM4	Cloudy	Rough	11:17	8.1	Middle	4.1	0.3	8	21.7	21.7	8.1	8.1	29.4 29.4	93.3		6.9		13.0	13.0	8 8	76	76	819571	805037	<0.2	<0.2		1.9 2.0
					Bottom	7.1	0.4	28	22.2	22.2	8.1	8.1	32.3	92.5		6.7	6.7	15.3		8	78				<0.2	<0.2		1.9
					Dottom	7.1	0.4	29	22.2		8.1	0.1	32.3	92.5		6.7	0.1	15.6		8	77	<u> </u>			<0.2	40.2		2.0
					Surface	1.0	0.1	346 318	21.8 21.8	21.8	8.1	8.1	29.2 29.2	94.0		7.0	-	10.2	-	8	74 74	-			<0.2	<0.2		1.8 1.6
IM5	Cloudy	Rough	11:29	7.5	Middle	3.8	0.2	355	21.8	21.8	8.1	8.1	29.3	02.0		6.9	7.0	14.4	14.5	7 8	76	76	820539	804934	<0.2	<0.2		1.9
livio	Cidday	Rough	11.25	7.5	ivildule	3.8	0.3	327	21.8	21.0	8.1	0.1	29.3	92.8		6.9		14.3	14.5	8	76] ′°	020339	004334	<0.2	<0.2	1	1.8
					Bottom	6.5 6.5	0.1	323 345	22.1	22.1	8.1	8.1	32.1 32.1	92.6 92.7		6.7	6.7	18.7 18.8	-	7	78 78	-			<0.2	<0.2		1.8
						1.0	0.1	140	21.9		8.1		20.1	02.2	1	6.9		11.3		9	74	1		l	<0.2			1.8
					Surface	1.0	0.1	150	21.9	21.9	8.1	8.1	29.1	93.2	93.2	6.9	6.9	11.4		8	73				<0.2	<0.2	1	1.8
IM6	Cloudy	Rough	11:38	7.4	Middle	3.7	0.1	28	22.0	22.0	8.1	8.1	29.2	92.2		6.8	0.5	13.3	13.9	10 9	76	76	821073	805856	<0.2	<0.2		1.7
	,					3.7 6.4	0.1	28 70	22.0 22.1		8.1 8.1		29.2	92.2	-	6.8		13.5 17.2	-	9 8	76 78	_			<0.2			1.7
					Bottom	6.4	0.1	73	22.1	22.1	8.1		31.2	92.7		6.8	6.8	16.8	F	8	78	-			<0.2	<0.2		1.7
					Surface	1.0	0.1	213	22.0	22.0	8.2	8.2	28.8	02.4		6.8		13.5		11	74				<0.2	<0.2	1	1.9
					Ounace	1.0	0.1	222	22.0	22.0	8.2	0.2	28.8	92.4		6.9	6.8	13.4	-	12	74	_			<0.2	V0.2		1.8
IM7	Cloudy	Rough	11:47	8.8	Middle	4.4	0.1	21 21	22.1 22.1	22.1	8.2	8.2	29.6 29.6	91.7		6.7		14.6 14.7	16.5	11 12	75 76	76	821359	806819	<0.2	<0.2		1.7 1.7
					D-#	7.8	0.1	283	22.1	00.0	8.1	0.4	04.0	04.0		6.7	0.7	21.8	F	12	77	1			<0.2	0.0		1.6
					Bottom	7.8	0.1	283	22.2	22.2	8.1	8.1	31.0	91.9	91.9	6.7	6.7	21.2		12	78	<u> </u>		<u> </u>	<0.2	<0.2	1	1.6
	Ī				Surface	1.0	0.2	228	22.1	22.1	8.2	8.2	27.1	90.3		6.7	I	20.1	F	17	74				<0.2	<0.2		1.8
						1.0 4.1	0.2	236 255	22.1		8.2		27.1	90.3		6.7	6.8	20.1 19.8	-	17	73 75	-			<0.2		-1	1.9
IM8	Cloudy	Rough	10:50	8.2	Middle	4.1	0.0	262	22.2	22.2	8.2	8.2	27.4 27.4	91.2		6.8		19.8	20.4	16 17	75	75	821706	807844	<0.2	<0.2		1.9
					Bottom	7.2	0.2	67	22.3	22.3	8.1	8.1	30.2	93.0	02.0	6.8	6.8	21.3		16	75				<0.2	<0.2	2	2.1
			1		BOLLOITI	7.2	0.2	69	22.3	22.3	8.1	0.1	30.2	93.0	33.0	6.8	0.0	21.3		16	76	1	1	ı	<0.2	NU.2	1	1.7

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Qual	ity Monito	oring Resu	lts on		07 April 18	during Mid-		de																			
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water T	emperature (°C)	_	ЭН	Salinity (pp	t) DOS	Saturation (%)	Dissolved Oxygen	Turbidity	(NTU)	Suspended Solid: (mg/L)	Total Al		Coordinate	Coordinate	Chro	omium (µg	J/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling De	epth (m)	(m/s)	Direction	Value	Average	Value	Average	Value Avera	age Value	Averag	- 1	Value	DA	Value DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)	Value	Average	DA ¹	Value DA
					Surface	1.0	0.1	352	22.3	22.3	8.2	8.2	27.4 27.	4 89.5		6.7	16.9		17	73				<0.2	<0.2		1.4
13.40	Oleverte	Daniel	40:40	7.0	NAT-JUL-	1.0 3.7	0.1	324 305	22.3	00.0	8.2 8.2	0.0	27.4	89.1		6.6 6.6	16.9 18.8	40.4	19	73 75	7.5	000004	808836	<0.2			1.4
IM9	Cloudy	Rough	10:43	7.3	Middle	3.7	0.2	307	22.3	22.3	8.2	8.2	27.7	88.8		6.6	18.8	18.4	19 19	75	75	822084	808836	<0.2	<0.2	<0.2	1.4
					Bottom	6.3	0.3	289 306	22.4 22.4	22.4	8.1 8.1	8.1	30.2 30.2 30.2	90.8		6.6	19.6 19.6	ŀ	20	76 77				<0.2	<0.2		1.4
					Surface	1.0	0.4	288 313	22.0 22.0	22.0	8.0	8.0	30.1 30.1	1 89.6		6.6	8.3 8.3		6	73 73				<0.2	<0.2		1.4
IM10	Cloudy	Rough	10:35	7.4	Middle	3.7	0.3	282	22.1	22.1	8.0	8.0	31.1	89.7	90.7	6.5	11.9	11.1	5 5	75	75	822233	809859	<0.2	<0.2	-0.2	1.2
	Cicacy	rtoug.	10.00	***		3.7 6.4	0.4	306 281	22.1		8.0		31.1	89.7	-	6.5	11.9 13.1		5 4	75 77		022200	000000	<0.2		. L	1.4
					Bottom	6.4	0.3	298	22.1	22.1	8.0	8.0	31.4	91.7	91.7	6.7	13.1		6	77				<0.2	<0.2		1.4
					Surface	1.0	0.2	291 305	22.3	22.3	8.0	8.0	29.3 29.	3 88.4		6.5	9.8	-	6	73 73				<0.2	<0.2		2.0
IM11	Cloudy	Moderate	10:22	8.4	Middle	4.2	0.1	304	22.3	22.3	8.0	8.0	31.3	89.8	90.0	6.5	11.0	10.4	6	74	74	821526	810520	<0.2	<0.2		2.0
	,					4.2 7.4	0.1	333 293	22.3		8.0		31.3	89.9		6.5	11.1 10.3	-	6 7	75 75				<0.2 <0.2		. L	2.2
					Bottom	7.4	0.3	300	22.2	22.2	8.0	8.0	31.6	92.3	92.3	6.7	10.3		7	76				<0.2	<0.2		2.3
					Surface	1.0	0.5 0.5	265 286	22.2	22.2	8.0	8.0	28.6 28.	6 87.2 87.2		6.4	8.3 8.3	-	6	73 73				<0.2	<0.2		1.7
IM12	Cloudy	Moderate	10:15	9.0	Middle	4.5	0.4	272	22.2	22.2	8.0	8.0	31.8	8 86.7		6.3	9.5	9.7	5 5	74	74	821191	811497	<0.2	<0.2		2.3 2.0
	,					4.5 8.0	0.4	281 271	22.2		8.0		31.8	86.7		6.3	9.5 11.3	-	5	74 76				<0.2			1.9
					Bottom	8.0	0.2	296	22.2	22.2	8.0	8.0	32.1	87.8	87.8	6.3	11.3		4	75				<0.2	<0.2		1.9
					Surface	1.0	0.2	278 288	22.0	22.0	8.0	8.0	30.6 30.6	6 90.0		6.6	7.8 7.8	-	5 4	73 73				<0.2	<0.2	F	1.3
SR2	Cloudy	Moderate	09:48	3.8	Middle	-	-	-	-		-	-		-	-	- 6.6	-	8.3	- 6	-	74	821468	814174	-	-	<0.2	- 1.4
					Bottom	2.8	0.1	266	22.3	22.3	8.0	8.0	32.0 32.	92.3	92.3	6.7	8.8	-	6	75				<0.2	<0.2	ŀ	1.5
						2.8	0.1	286 294	22.3		8.0 8.1		32.0	92.3	1	6.7	8.8 20.7		7	75				<0.2	V0.2		1.5
					Surface	1.0	0.1	320	22.3	22.3	8.1	8.1	27.3 27.	91.3		6.8	20.7		16	-				-	-	. t	-
SR3	Cloudy	Rough	10:56	9.0	Middle	4.5 4.5	0.1	3	22.3	22.3	8.1	8.1	27.5 27.	91.9		6.8	19.4 19.4	19.9	17 16	-	-	822143	807549	-	-		-
					Bottom	8.0	0.3	34	22.3	22.3	8.1	8.1	29.7	95.5	05.5	7.0	19.7		17	-				-			-
						8.0 1.0	0.4	36 246	22.3		8.1 8.1		29.7	95.5	1	7.0 7.0 6.5	19.7 15.4		16 15	-				-		\rightarrow	-
					Surface	1.0	0.1	269	22.0	22.0	8.1	8.1	28.2	87.9	87.9	6.5	15.4		16	-				-	-	. [-
SR4A	Cloudy	Moderate	10:14	9.3	Middle	4.7	0.2	67 72	22.4	22.4	8.1	8.1	30.8 30.	88.3		6.4	20.5 20.6	19.9	15 15	-	-	817216	807823	-	-	- -	
					Bottom	8.3	0.2	53	22.4	22.4	8.1	8.1	31.7	88.6	88.6	6.4	23.6		15	-				-		ļ	-
						8.3 1.0	0.2	57 179	22.4		8.1 8.0		31.7	88.6	1	6.4 5.9	23.6 16.4		15 14	-				-	\rightarrow	\rightarrow	-
					Surface	1.0	0.0	188	22.8	22.8	8.0	8.0	28.0	80.6		5.9 5.9	16.6	l	15	-				- 1	-	F	-
SR5A	Cloudy	Calm	09:58	4.4	Middle	-	-	-	-	 -	-	-		-	-	-	-	15.7	- 14	-	-	816593	810721	-	-	- -	
					Bottom	3.4	0.0	295 301	22.7 22.7	22.7	8.0	8.0	28.0 28.0 28.0	0 81.8		6.0	15.0 14.9		14 14	-				-	-	F	-
					Surface	1.0	0.1	240	22.2	22.2	8.0	8.0	26.9	86.6	966	6.5	12.7		11	-				-		-t	-
						1.0	0.1	263	22.2		8.0	0.0	26.9	86.5	00.0	6.5	12.5	-	12	-				-		F	-
SR6	Cloudy	Calm	09:36	4.5	Middle	-	-		-	-	-	-	-	-	-	-	-	13.2	- 12	-	-	817909	814657	-	-		-
					Bottom	3.5 3.5	0.1	231 249	22.6 22.6	22.6	8.0	8.0	29.3 29.	3 85.0 85.0		6.2 6.2	13.8	-	13 13	-				-	-	F	-
					Surface	1.0	0.2	49	22.1	22.1	8.0	8.0	32.5	90.9		6.6	5.0		4	-				-	-	T	-
007				40.0		1.0 8.0	0.2	53 51	22.1		8.0 8.1		32.5	90.9		6.6 6.6	5.0 5.7	- 0	5 4	-				-		ŀ	-
SR7	Cloudy	Moderate	08:54	16.0	Middle	8.0	0.2	54	22.2	22.2	8.1	8.1	32.9	91.2	91.2	6.6	5.7	5.6	6	-	-	823657	823765	-	-	-	-
					Bottom	15.0 15.0	0.1 0.1	106 110	22.2	22.2	8.1 8.1	8.1	33.3 33.3	3 92.3 92.3		6.6	6.2		6	-				-	-	ŀ	-
					Surface	1.0	-	-	22.3	22.3	8.0	8.0	28.5	5 87.4		6.4	9.1		6	-				-	-	T	-
SR8	Cloudy	Moderate	10:09	4.6	Middle	1.0	-		22.3		8.0		28.5	87.4		6.4	9.1	8.9	7 - 6	-		820246	811418	-	_		-
ono	Cioddy	woudlate	10.09	4.0		3.6	-	-	22.4	<u> </u>	8.0	-	31.4	4 89.8	+-	- 6.5	8.7	0.9	6	-	-	020240	011410	-	-	- F	-
					Bottom	3.6	-	-	22.4	22.4	8.0	8.0	31.4 31.	4 89.8		6.5	8.7	-	6	H-				-	-	F	-

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring

Water Quality Monitoring Results on 10 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen Speed (mg/L) (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA DA Value Value DA Condition Condition Time Depth (m) (m/s) Average Value Average Value Valu Average Value Value Value (Northing) (Easting) Value Value 0.2 194 23.2 8.2 7.5 73 1.0 30.0 8.0 < 0.2 2.3 Surface 23.2 8.2 111.3 200 1.0 0.2 23.2 8.2 30.0 1111 8.0 7.4 73 < 0.2 2.7 8.2 2.2 41 0.4 210 7.5 75 < 0.2 22 1 8.2 32.5 103.5 3 C1 Moderate 10:17 8.2 Middle 32.5 103.5 815628 804267 2.2 Sunny 4.1 0.4 228 22.1 8.2 32.5 103.5 7.5 8.6 3 75 <0.2 2.1 7.2 0.4 212 22.0 100.5 100.6 7.2 77 <0.2 1.8 Bottom 22.0 8.2 32.9 100.6 7.3 7.2 0.4 22.0 8.2 32.9 7.3 7.2 77 <0.2 1.8 1.0 0.3 176 23.3 8.0 96.3 96.2 7.4 72 <0.2 2.5 28.0 7.0 4 Surface 23.3 8.0 28.0 96.3 28.0 2.7 8.0 1.0 0.3 187 23.3 7.0 7.4 2 72 <0.2 5.8 0.1 73 2.6 172 22.2 8.0 31.7 86.4 86.4 6.3 7.9 5 <0.2 31.7 86.4 C2 Moderate 11:23 11.5 Middle 22.2 74 825681 806948 2.6 5.8 8.0 6.3 8.0 74 <0.2 0.1 22.2 31.7 4 86.9 87.0 10.5 0.2 165 22.1 8.0 32.1 6.3 10.7 4 75 <0.2 2.6 Bottom 22.1 32.1 87.0 6.3 10.5 0.2 174 22.1 8.0 32.1 6.3 10.7 4 76 <0.2 2.6 0.0 188 22.5 93.2 93.1 3.6 <2 71 1.6 8.0 32.4 < 0.2 Surface 22.5 8.0 32.4 93.2 1.0 0.0 22.5 8.0 32.4 6.7 71 <0.2 1.3 205 3.6 <2 5.8 158 6.4 3.8 73 1.0 0.1 22.2 8.0 33.1 89.5 <2 < 0.2 СЗ 33.1 89.5 822135 1.2 Fine Moderate 09:30 11.5 Middle 22.2 817829 5.8 0.1 161 33.1 89.4 6.4 3.9 73 1.2 22.2 8.0 <2 < 0.2 10.5 0.1 4.4 69 22.2 8.0 33.2 89.1 6.4 75 < 0.2 1.3 Bottom 8.0 33.2 89.1 89.1 10.5 0.1 71 22.2 8.0 33.2 6.4 4.5 3 76 <0.2 0.9 1.0 0.0 329 22.6 102.3 102.3 6.4 73 <0.2 2.2 8.1 7.5 Surface 22.6 8.1 29.7 102.3 1.0 0.0 22.6 8.1 29.7 7.5 6.5 73 <0.2 2.0 2.2 2.2 1.5 3.5 0.0 21 22.3 8.1 30.7 101.7 7.4 7.6 5 75 <0.2 22.3 30.7 101.7 IM1 Sunnv Moderate 10:39 7.0 Middle 8.1 75 818364 806461 1.9 3.5 6.0 8.1 30.6 101.7 7.4 7.6 75 <0.2 0.0 22 69 22.3 6 0.1 77 31.7 98.0 98.0 7 < 0.2 22.1 8.1 7.1 9.6 Bottom 31.7 98.0 6.0 0.1 70 22 1 8.1 31.7 7 1 9.5 6 77 <0.2 1.5 1.0 0.1 331 22.7 102.4 102.6 7.8 73 <0.2 2.1 7.5 7.5 29.5 102.5 Surface 1.0 0.1 305 22.7 8.1 29.5 8.0 73 <0.2 3.9 0.0 7.2 2.2 333 22.3 8.1 30.5 101.6 7.4 4 75 <0.2 10:45 7.7 Middle 22.3 8.1 30.5 101.6 818851 806213 2.0 IM2 Sunnv Moderate 75 3.9 0.0 306 22.3 8.1 30.5 101.6 7.4 7.4 75 <0.2 2.3 77 8.3 6.7 0.1 22.1 8.1 31.7 100.1 7.3 4 < 0.2 Bottom 31.7 100.2 7.3 6.7 0.1 101 8.1 31.7 100.2 77 16 22.1 8.3 4 <0.2 29.5 29.6 102.8 2.1 1.0 0.0 12 22.7 8.1 7.5 7.4 73 <0.2 Surface 29.5 102.8 1.0 0.0 12 22.7 8.1 7.5 7.3 6 73 <0.2 3.8 0.0 352 22.3 8.1 <0.2 2.1 75 IM3 10:51 76 Middle 22.3 8 1 30.1 102.0 819415 806001 1.8 Moderate Sunny 3.8 30.1 102.0 8.3 75 <0.2 0.0 324 22.3 100.6 6.6 0.1 22.1 77 <0.2 1.4 13 8.1 31.5 7.3 8.0 8.1 31.5 100.6 7.3 Bottom 22.1 31.5 8.1 7.3 77 1.4 6.6 0.1 13 8.3 <0.2 22.1 1.0 0.2 204 22.7 8.1 29.5 103.0 7.0 73 <0.2 2.0 Surface 22.7 29.5 103.0 8.1 7.5 6.6 1 73 < 0.2 1.0 0.2 207 22.7 2.1 3.6 0.1 208 22.3 8.2 7.5 6.8 75 <0.2 IM4 Moderate 10:58 7.1 Middle 22.3 8.2 30.8 102.5 819542 805057 1.8 Sunny 3.6 0.1 220 22.3 8.2 30.8 7.5 7.0 8 75 <0.2 6.1 0.2 22.1 100.7 100.7 7.3 8.2 <0.2 8.2 31.5 100.7 Bottom 22.1 8.2 6.1 0.2 166 22.1 8.2 31.5 7.3 8.4 77 <0.2 1.4 6 1.0 0.1 142 7.8 22.9 8.1 29.4 7.5 73 <0.2 1.8 Surface 29.4 102.9 103.0 1.0 0.1 147 22.8 8.1 29.5 7.5 7.8 7 73 < 0.2 2.0 102.1 3.3 0.2 131 22.3 8.1 30.2 7.5 7.0 5 75 <0.2 1.9 IM5 Sunny Moderate 11:14 6.6 Middle 8.1 30.2 102.1 820585 804922 1.9 3.3 0.2 143 22.3 8.1 30.2 7.5 7.3 75 <0.2 2.0 5.6 0.1 83 22.1 7.1 77 <0.2 8.2 7.3 8.2 31.6 100.9 7.3 Bottom 22.1 100.9 7.3 7.3 1.7 5.6 0.1 22.1 8.2 <0.2 2.2 1.0 0.1 154 22.7 8.1 29.6 29.6 102.6 102.6 8.2 73 <0.2 Surface 22.7 8.1 29.6 102.6 8.1 7.5 1.0 0.1 162 22.7 8.2 < 0.2 73 3.2 0.2 101 22.3 8.2 30.5 102.1 7.4 7.0 6 75 <0.2 2.2 Moderate 11:15 6.3 Middle 102.1 821039 805836 2.0 IM6 Sunny 3.2 0.2 104 22.3 8.2 30.5 7 4 6.7 7 75 <0.2 2.1 5.3 0.1 80 22.2 99.9 100.0 7.2 9.8 77 <0.2 1.9 22.2 8.1 32.1 100.0 7.2 Bottom 5.3 0.1 86 22.2 8.1 32.1 9.8 77 < 0.2 1.6 1.0 0.1 163 22.9 8.1 29.5 102.9 7.5 8.2 73 <0.2 2.2 22 9 102.9 Surface 8.1 29.5 102.9 7.5 2.3 1.0 0.1 164 22.9 8.1 29.4 8.4 73 < 0.2 4 7.5 6.8 2.3 3.8 0.1 22.3 8.2 75 < 0.2 30.8 103.1 4 IM7 Sunny Moderate 11:26 7.5 Middle 30.8 103.1 821329 806847 2.0 3.8 0.1 101 8.2 30.8 103.1 7.5 7.0 75 <0.2 22.3 5 6.5 0.1 62 22.1 8.2 31.4 100.6 7.3 8.7 76 <0.2 1.6 31.4 100.7 7.3 6.5 0.1 67 22.1 8.2 31.4 100.7 7.3 8.4 77 <0.2 1.6 1.0 0.3 32 23.6 6.9 72 <0.2 2.3 Surface 23.6 27.8 8.0 96.8 2.2 2.1 2.4 96.7 1.0 8.0 27.8 7.0 72 0.3 32 23.6 7.0 4 <0.2 42 3.8 0.3 6.6 6.2 73 22.2 8.0 30.6 90.7 4 < 0.2 30.6 90.7 IM8 Moderate 10:57 7.6 Middle 22.2 8.0 6.2 74 821671 807831 2.3 42 8.0 90.6 6.6 6.2 5 74 <0.2 3.8 0.3 22.2 30.6 75 2.3 6.6 0.3 11 22.2 8.0 31.4 91.4 6.6 5.5 <0.2 31.4 91.5 6.7 6.6 0.3 44

DA: Depth-Average

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

Water Quality Monitoring

Water Quality Monitoring Results on 10 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Coordinate Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Monitoring Current Oxygen Speed (mg/L) (ppm) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA DA (m/s) Value Value DA Condition Condition Time Depth (m) Average Value Average Value Value Average Value Value Value (Northing) (Easting) Value Value 0.1 23.5 8.0 7.0 72 1.0 53 28.0 97.5 < 0.2 2.3 Surface 23.5 8.0 28.0 97.5 1.0 55 97.5 0.1 23.5 8.0 28.0 7 1 7.0 4 73 < 0.2 19 6.9 5.4 3.9 0.3 52 8.0 6.6 5 74 < 0.2 1.9 22 2 31.1 90.8 IM9 Moderate 10:51 7.7 Middle 31.1 90.8 822080 808837 2.0 Fine 90.8 3.9 0.3 56 22.2 8.0 31.1 6.6 5.4 5 74 <0.2 1.9 6.7 0.3 72 22.1 8.0 6.8 76 <0.2 1.9 Bottom 22.1 8.0 31.8 87.8 6.4 87.8 6.7 0.3 22.1 8.0 31.8 6.4 6.9 76 <0.2 1.9 1.0 0.2 96 22.8 8.0 96.6 96.6 72 <0.2 1.7 29.0 7.0 6.9 Surface 22.8 8.0 29.0 96.6 29.0 8.0 1.9 1.0 0.2 96 22.7 7.0 7.0 4 72 <0.2 3.6 0.3 108 7.1 22.2 8.1 96.4 96.5 7.4 4 74 <0.2 1.8 30.3 30.3 96.5 IM10 Moderate 10:47 7.1 Middle 22.2 7.3 74 822245 809831 1.9 8.1 7.1 7.4 74 <0.2 3.6 0.3 111 22.2 96.6 96.6 6.1 0.2 109 22.1 8.1 31.9 7.0 7.6 75 <0.2 2.0 Bottom 22.1 8.1 31.9 96.6 7.0 6.1 0.2 114 22.1 8.1 31.9 7.0 7.6 5 75 <0.2 2.0 1.0 0.2 128 22.5 8.1 93.9 93.6 8.5 71 30.4 < 0.2 1.9 Surface 22.5 8.1 30.4 93.8 1.0 0.2 134 22.5 8.1 30.4 6.8 72 <0.2 1.8 8.4 4.1 1.8 135 6.5 8.2 73 0.2 22.2 8.1 31.2 89.6 5 < 0.2 31.2 821486 810552 IM11 Fine Moderate 10:31 8.2 Middle 22.2 89.5 8.5 1.9 4.1 0.2 143 31.2 89.4 6.5 74 2.1 22.2 8.1 8.4 6 < 0.2 8.7 7.2 1.9 0.1 92 22.2 8.0 31.5 89.9 6.5 6 75 < 0.2 Bottom 22.2 8.0 31.5 90.0 7.2 90.0 0.1 98 22.2 8.0 31.5 6.5 8.7 7 75 <0.2 2.0 1.0 0.1 103 22.7 8.1 30.4 93.4 93.3 8.4 72 <0.2 30.4 6.8 1.8 Surface 22.7 8.1 93.4 1.0 0.2 22.7 8.1 30.4 6.8 8.4 72 <0.2 1.7 4.4 0.2 116 22.1 8.0 31.4 89.3 6.5 7.0 74 <0.2 1.9 22.1 8.0 31.4 89.3 IM12 Fine Moderate 10:23 88 Middle 74 821161 811532 1.9 4.4 0.2 125 127 8.0 31.4 89.3 6.5 7.0 74 <0.2 2.1 22.1 6 7.8 2.0 8.0 31.5 90.1 75 22.1 6.6 7.4 6 < 0.2 Bottom 90.1 7.8 0.2 131 22 1 8.0 31.5 6.6 7.4 75 <0.2 2.0 1.0 0.2 44 22.4 91.3 91.4 6.4 71 <0.2 1.5 8.0 31.4 6.6 91.4 Surface 8.0 31.4 1.0 0.2 47 22.4 8.0 31.4 6.6 6.4 5 72 <0.2 1.5 6.6 -SR2 Fine 09:53 3.4 Middle 821453 814144 1.5 Moderate 72 2.4 0.2 40 22.2 8.0 31.6 6.6 7.1 73 <0.2 1.5 90.9 Bottom 22.2 8.0 31.6 91.0 6.6 24 43 8.0 31.6 91.0 0.2 22.2 6.6 6.6 73 <0.2 1.5 5 95.7 95.6 1.0 0.4 88 23.8 8.0 27.7 6.9 6.9 4 Surface 27.7 95.7 1.0 0.4 92 23.8 8.0 27.7 6.9 6.9 6 3.8 0.4 60 22.2 6.2 SR3 11:00 7.5 Middle 22.2 8.0 30.6 92.0 62 822141 807579 Fine Moderate 3.8 8.0 30.6 92.1 6.7 0.4 22.2 6.2 6.5 0.3 58 22.2 92.9 92.9 6.8 5.5 8.0 31.1 5 8.0 31.1 92.9 6.8 Bottom 22.2 8.0 31.1 6.8 5.3 6.5 0.3 62 22.2 6 84 1.0 0.3 22.5 106.1 8.0 8.2 30.4 Surface 22.5 30.4 106.1 7.7 8.2 30.4 8.3 1.0 0.3 88 22.5 4.2 0.2 78 22.0 32.2 7.2 8.8 6 SR4A Moderate 09:56 8.3 Middle 22.0 8.2 32.2 99.5 817186 807815 Sunny 4.2 0.2 82 22.0 8.2 32.2 7.2 9.0 6 7.3 0.2 21.9 10.6 8.2 32.8 96.9 7.0 32.8 96.9 Bottom 21.9 8.2 7.3 0.2 67 21.9 8.2 32.8 96.9 7.0 9.9 15 1.0 0.0 46 23.6 8.1 31.0 96.6 6.9 11.6 8 Surface 23.6 8.1 31.0 96.6 96.6 1.0 0.0 46 23.6 8.1 31.0 11.7 8 6.9 SR5A Sunny Calm 09:37 4.1 Middle 816595 810710 3.1 0.1 98 22.4 8.1 31.6 17.7 93.1 6.7 93.1 6.7 22.4 8.1 31.6 Bottom 31.6 93.1 6.7 17.7 3.1 0.1 99 22.4 8.1 1.0 0.2 49 23.0 8.2 31.4 99.2 6.3 Surface 23.0 8.2 31.4 99.2 1.0 0.2 49 8.2 99.2 7.1 23.0 31.4 6.6 7 SR6 09:12 4.0 Middle 817886 814678 Sunny Calm 7.0 3.0 0.2 22.4 96.4 96.5 7.1 Bottom 22.4 8.1 31.5 96.5 7.0 3.0 0.2 62 22.4 8.1 31.5 7.3 1.0 0.1 22.3 8.0 33.0 89.2 6.4 4.1 Surface 22.3 89.2 8.0 33.0 1.0 89.1 0.1 49 22.3 8.0 33.0 6.4 4.1 9.9 0.1 260 5.0 22.2 8.0 87.7 6.3 33.4 SR7 Moderate 08:54 19.8 Middle 33.4 87.7 5.0 823608 823770 99 0.1 279 8.0 33.4 87.7 6.3 5.0 7 22.2 18.8 0.1 33 22.1 8.0 33.6 88.2 6.3 5.8 Bottom 33.6 88.2 6.3 18.8 0.1 34 22.1 8.0 33.6 88.2 6.3 5.8 1.0 22.6 9.4 Surface 22.6 8.1 30.7 97.8 97.7 1.0 22.6 8.1 30.7 7.1 9.5 SR8 Fine Calm 10:17 3.6 Middle 8.8 820246 811418 2.6 22.4 95.9 95.8 8.1 31.0 7.0 8.1 Bottom 22.4 31.0 95.9 7.0

8.1

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

2.6

22.4

Water Quality Monitoring

Water Quality Monitoring Results on 10 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen Speed (mg/L) (ppm) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Valu Average Value Value Value (Northing) (Easting) Value Value 0.1 23.9 8.2 7.7 73 1.0 296 29.5 7.9 < 0.2 Surface 23.9 111.5 29.5 1111 1.0 0.1 311 23.9 8.2 8.0 7.9 4 73 < 0.2 2.0 4.3 0.0 104 22.2 8.2 32.2 106.3 7.7 6.9 4 75 <0.2 1.8 C1 13:41 8.5 Middle 22.2 8.2 32.2 106.3 815616 804244 1.5 Sunnv Moderate 75 4.3 0.0 110 22.2 8.2 106.2 7.1 75 <0.2 1.8 3 7.5 0.0 118 103.7 77 <0.2 0.8 22.0 8.2 32.8 7.5 9.5 4 Bottom 32.8 103.8 7.5 0.0 122 22.0 8.2 32.8 7.5 92 4 77 <0.2 0.8 1.0 0.2 186 8.0 23.4 8.0 27.8 6.9 72 <0.2 2.6 27.8 95.1 Surface 23.4 8.0 1.0 0.2 23.4 8.0 27.8 6.9 8.0 73 <0.2 2.6 203 5.7 2.7 0.1 235 22.2 8.0 31.1 88.8 6.5 6.1 73 <0.2 22.2 88.7 825674 C2 Sunnv Moderate 12:40 11.4 Middle 8.0 31.1 806954 2.6 2.4 5.7 0.1 241 22.2 8.0 31.1 88.6 6.5 6.1 74 <0.2 10.4 10.8 0.1 134 22.1 8.0 32.3 85.8 6.2 75 < 0.2 2.5 Bottom 32.3 85.9 6.2 10.4 0.1 140 22 1 8.0 32.3 85.9 6.2 10.8 6 75 <0.2 2.6 1.0 0.2 275 23.2 8.1 31.8 97.1 97.1 6.9 4.3 72 <0.2 1.5 Surface 31.8 97.1 8.1 1.0 0.2 288 23.1 8.1 31.8 6.9 4.3 72 <0.2 1.5 6.0 0.2 242 22.6 92.4 92.4 4.9 73 1.8 6.6 <0.2 C3 Middle 22.6 8.0 32.2 92.4 822082 817781 1.5 Moderate 14:35 11 9 73 Sunny 1.3 6.0 0.2 8.0 32.2 6.6 4.9 73 < 0.2 261 22.6 10.9 298 22.3 8.0 33.0 92.8 93.0 6.7 6.1 75 < 0.2 1.4 Bottom 22.3 33.0 92.9 6.7 33.0 10.9 8.0 6.7 6.0 1.4 0.2 310 22.3 75 <0.2 1.0 0.0 234 23.4 8.2 30.4 112.8 8.1 5.3 73 <0.2 1.5 Surface 112.8 1.4 1.0 0.0 246 23.4 8.2 5.3 73 <0.2 1.3 3.7 0.1 93 22.2 8.2 31.6 5.7 75 <0.2 13:21 Middle 22.2 107.4 818351 806464 1.2 IM1 Sunny Moderate 7.3 8.2 31.6 6.0 75 31.7 7.8 75 3.7 0.1 97 22.2 8.2 6.0 <0.2 6.3 78 1.0 311 22.0 101.3 7.3 7.0 <0.2 8.2 32.8 Bottom 22.0 8.2 32.7 101.3 32.7 101.3 7.3 6.3 313 22.0 8.2 6.6 77 <0.2 0.9 3 111.4 1.0 0.1 230 23.3 8.2 30.4 8.0 6.5 74 <0.2 1.4 Surface 30.4 111.4 0.1 23.3 6.5 73 1.5 1.0 236 8.2 8.0 <0.2 31.8 4.1 0.0 0 22.1 8.2 106.6 7.7 6.9 2 75 <0.2 1.3 13:13 31.8 106.6 818826 806171 1.3 IM2 Moderate 8.1 Middle 8.2 7.2 Sunny 106.5 4.1 0.0 22.1 8.2 31.8 7.7 6.9 2 76 <0.2 1.6 7.1 0.0 12 22.0 8.2 32.7 7.4 8.4 77 <0.2 Bottom 22.0 8.2 32.7 101.9 7.1 8.2 32.7 101.9 7.4 8.1 78 <0.2 1.1 0.0 12 22.0 1.0 0.1 220 23.2 7.5 73 1.9 8.2 108.7 <0.2 29.9 23.2 8.2 29.9 108.7 Surface 1.0 0.1 29.9 7.8 7.5 3 74 <0.2 2.0 228 23.2 104.5 1.4 42 0.0 17 22.0 8.2 32.0 7.6 6.5 3 75 <0.2 Moderate 13:08 8.3 Middle 104.5 819431 806026 1.5 Sunny 6.7 4.2 0.0 18 22.0 8.2 32.0 4 75 <0.2 7.3 0.1 84 5.7 77 <0.2 1.1 22.0 8.2 32.7 103.5 7.5 103.5 Bottom 22.0 8.2 32.7 7.5 7.3 7.5 1.2 0.1 87 22.0 8.2 5.2 <0.2 1.0 189 7.9 0.1 23.2 8.2 29.7 107.2 7.7 74 <0.2 1.8 Surface 23.2 8.2 29.6 107.3 1.0 0.1 202 23.2 8.2 29.6 107.4 7.7 8.6 74 < 0.2 2.0 2 3.8 0.0 95 22.1 8.2 32.2 106.3 77 7.1 4 76 <0.2 1.6 IM4 Moderate 13:01 7.5 Middle 32.2 106.3 819547 805042 1.5 Sunny 3.8 0.0 101 22.1 8.2 32.2 106.2 7.7 7.2 4 76 <0.2 1.4 6.5 0.0 44 22.0 8.2 32.6 104.5 7.6 7.0 77 <0.2 1.1 Bottom 22.0 8.2 32.6 104.5 7.6 6.5 0.0 46 22.0 8.2 32.6 104.4 7.6 7.2 78 <0.2 1.0 1.0 0.1 219 23.2 103.9 103.9 2.0 73 <0.2 23.2 8.1 28.9 103.9 Surface 1.0 0.2 220 23.2 8.1 28.9 7.5 8.5 74 < 0.2 2.0 0.1 2.0 3.4 246 22.2 8.2 101.5 101.5 7.4 8.3 75 <0.2 31.0 IM5 Moderate 12:53 6.8 Middle 22.2 31.0 101.5 75 820563 804915 1.7 Sunny <0.2 8.2 31.0 7 4 8.5 76 3.4 0.1 249 22.2 3 100.1 5.8 0.0 22.1 8.2 32.4 7.2 9.2 77 <0.2 1.2 100.1 7.2 Bottom 5.8 0.0 22.1 8.2 32.4 9.4 4 77 <0.2 1.2 1.0 0.3 23.4 8.9 73 29.2 <0.2 2.1 Surface 23.4 29.2 104.3 8.1 1.0 0.3 32 23.4 8.1 29.2 104.3 7.5 74 < 0.2 2.2 9.1 1.8 3.4 8.7 0.2 22.3 8.2 30.8 101.4 7.4 4 75 < 0.2 101.4 821037 1.7 IM6 Sunny Moderate 12:45 6.7 Middle 22.3 8.2 30.8 75 805821 101.4 1.7 3.4 0.2 19 8.2 7.4 8.9 76 22.3 30.8 5 <0.2 99.8 7.2 7.2 77 5.7 0.3 24 22.1 8.2 31.9 11.2 1 <0.2 Bottom 31.9 99.8 7.2 77 5.7 0.3 25 22.1 8.2 31 0 11.5 1 < 0.2 1.2 1.0 0.1 193 23.5 8.1 28.7 7.4 7.3 73 <0.2 2.3 Surface 23.5 8.1 28.7 102.4 1.0 0.1 204 23.5 8.1 102.4 7.4 7.4 73 <0.2 3.0 4.1 0.1 22.3 8.2 101.8 7.4 75 <0.2 1.5 30.8 IM7 12:38 8.2 8.2 30.8 101.8 821351 806812 1.8 Sunny Moderate Middle 22.3 75 4.1 156 8.2 101.7 7.4 7.8 75 <0.2 1.7 30.8 0.1 22.3 3 7.2 0.1 99.1 7.2 7.2 77 <0.2 1.2 88 22.1 8.2 32.0 8.1 8.2 32.0 99.1 7.2 Bottom 22.1 8.2 32.0 7.7 77 7.2 0.1 90 22.1 < 0.2 1.0 0.1 203 23.6 8.0 28.5 97.8 7.0 6.7 71 <0.2 2.6 Surface 23.6 8.0 28.5 97.7 1.0 0.2 219 23.6 8.0 97.6 7.0 6.8 72 <0.2 2.5 4.0 0.0 6.1 22.4 8.0 30.3 95.7 7.0 73 <0.2 2.5 95.7 821698 807830 2.6 IM8 Sunny Moderate 13:05 7.9 Middle 22.4 8.0 30.3 6.2 74 74 2.7 4.0 0.0 322 22.4 8.0 30.3 95.7 7.0 6.1 3 <0.2 6.9 8.1 98.2 7.1 5.6 75 <0.2 2.6 0.1 20 22.1 31.5 3 22.1 31.5 97.8 Rottom 8.1 7.1 6.9 22.1 31.5 97.4 7.1 5.8 76 2.7 0.1 21 8.1 < 0.2

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Water Quality Monitoring

Water Quality Monitoring Results on 10 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen Speed (mg/L) (ppm) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA DA Value Value DA Condition Condition Time Depth (m) (m/s) Average Value Average Value Value Average Value Value Value (Northing) (Easting) Value Value 0.1 217 23.5 8.0 6.9 1.0 28.7 97.0 7.0 < 0.2 2.7 Surface 23.5 8.0 28.7 97.0 233 96.9 1.0 0.1 23.5 8.0 28.7 7.0 6.9 72 < 0.2 2.8 3.5 0.2 164 8.1 95.5 6.9 7 1 73 < 0.2 2.8 22.3 30.8 3 IM9 Moderate 13:13 7.0 Middle 30.8 95.5 73 822077 808824 2.8 Sunny < 0.2 95.4 3.5 0.2 177 22.3 8.1 30.8 6.9 7.1 4 74 <0.2 2.8 6.0 0.1 86 22.2 8.1 31.0 <u>95.4</u> 95.4 6.9 7.1 4 75 <0.2 2.8 Bottom 22.2 8.1 95.4 6.9 6.0 0.1 22.2 8.1 31.0 6.9 7.2 75 <0.2 2.8 1.0 0.1 163 23.9 8.0 28.7 99.0 72 <0.2 2.5 7.1 6.6 Surface 23.9 8.0 28.7 98.9 28.7 98.8 2.5 8.0 7.1 1.0 0.1 175 23.8 6.7 4 73 <0.2 2.7 3.3 0.1 121 6.9 22.4 8.1 30.6 94.7 7.3 4 75 <0.2 30.6 94.7 IM10 Sunny Moderate 13:20 6.5 Middle 22.4 8.1 75 822253 809840 2.5 8.1 6.9 7.4 75 <0.2 3.3 0.2 130 22.4 30.6 6 30.8 94.2 94.4 5.5 0.1 76 22.3 8.0 6.9 76 <0.2 2.5 94.3 Bottom 22.3 8.0 30.8 6.9 5.5 0.1 82 22.3 8.0 6.9 7.3 8 76 <0.2 2.3 0.1 22.9 8.0 97.7 97.7 6.4 73 2.5 29.8 < 0.2 Surface 22.9 8.0 29.8 97.7 1.0 0.1 178 22.9 8.0 29.8 7.1 73 <0.2 2.4 6.4 3.9 2.4 7.1 7.3 76 <0.2 0.1 313 22.5 8.1 30.3 97.1 5 30.3 97.1 821475 810521 IM11 Sunny Moderate 13:33 7.8 Middle 22.5 2.4 7.3 3.9 0.1 97.1 7.1 76 <0.2 342 22.5 8.1 30.3 6.8 0.1 2.4 337 22.5 8.1 30.6 96.1 7.0 76 < 0.2 Bottom 8.1 30.6 96.1 96.0 6.8 0.1 342 22.5 8.1 30.6 7.0 7.6 3 76 <0.2 2.4 1.0 0.2 139 23.0 8.1 29.9 29.9 99.7 99.6 7.1 73 <0.2 2.6 7.2 Surface 23.0 8.1 99.7 1.0 0.2 152 23.1 8.1 29.9 7.2 7.1 74 <0.2 2.6 6 2.5 4.4 0.1 121 22.4 8.2 30.9 95.9 7.0 8.2 4 75 <0.2 22.4 8.2 30.9 95.9 811494 IM12 Sunnv Moderate 13:42 87 Middle 75 821155 2.6 4.4 8.2 30.9 95.9 7.0 8.3 75 <0.2 0.1 130 22.4 6 7.7 76 2.5 0.0 31.3 94.2 < 0.2 6 22.3 8.1 6.8 7.6 5 Bottom 31.3 94.2 77 0.0 6 22.3 8.1 31.3 6.8 77 77 <0.2 2.5 1.0 0.0 303 23.4 100.6 100.6 6.4 71 <0.2 1.8 8.1 30.3 7.2 <2 30.3 100.6 Surface 23.4 8.1 1.0 0.0 315 23.4 8.1 6.5 <2 72 <0.2 1.8 7.2 -SR2 14:11 3.3 Middle 821433 814193 Sunnv Moderate 73 1.6 2.3 0.1 295 23.0 30.6 98.0 6.8 74 <0.2 1.5 8.1 7.1 Bottom 23.0 8.1 30.6 98.0 2.3 0.1 295 8.1 30.6 97.9 7.0 74 23.0 6.8 <0.2 1 4 6 28.6 97.0 96.8 1.0 0.2 192 23.9 8.0 7.0 6.7 Surface 28.6 96.9 1.0 0.2 197 23.8 8.0 6.9 6.8 4 4.4 0.1 10 22.2 7.2 SR3 13:00 8.7 Middle 22.2 8 1 31.0 95.0 6.8 822157 807557 Moderate Sunny 4.4 10 31.0 95.2 6.9 7.4 0.1 22.2 7.7 0.1 24 22.1 8.1 95.5 6.5 31.9 6.9 8 8.1 31.8 95.5 6.9 Bottom 22.1 31.8 95.4 8.1 6.9 7.7 0.1 6.4 24 22.1 0.1 82 1.0 22.5 8.2 30.5 107.5 107.4 7.8 7.9 Surface 22.5 30.5 107.5 8.2 1.0 30.5 7.8 7.9 0.1 8/1 22.5 8 4.6 0.1 63 32.2 100.8 7.3 9.2 11 SR4A Calm 14:03 9.2 Middle 21.9 8.2 32.2 100.8 817172 807834 Sunny 4.6 0.1 63 21.9 8.2 32.2 7.3 9.3 10 8.2 0.0 21.9 8.8 10 8.2 32.7 7.2 32.7 99.1 Bottom 21.9 8.2 8.2 0.0 267 21.9 8.2 32.7 99.1 7.2 9.0 9 1.0 0.1 356 23.7 8.1 31.0 97.7 6.9 9.0 8 Surface 23.7 8.1 31.0 97.7 97.6 1.0 0.1 328 23.7 8.1 31.0 9.1 9 6.9 SR5A Sunny Calm 14:22 5.4 Middle 816576 810707 4.4 0.1 345 22.5 8.1 31.4 9.6 93.3 6.7 31.4 93.4 6.7 22.5 8.1 Bottom 4.4 31.4 93.4 6.7 0.2 346 22.6 8.1 9.5 1.0 0.0 215 23.0 8.2 31.4 99.4 9.4 Surface 23.0 8.2 31.4 99.4 1.0 0.0 8.2 99.4 7.1 9.2 222 23.0 31.4 5 SR6 14:47 4.5 Middle 817911 814682 Sunny Calm 7.0 3.5 0.1 22.5 97.3 97.4 6.3 Bottom 22.5 8.1 31.4 97.4 7.0 3.5 0.1 248 22.5 8.1 31.4 6.1 10 1.0 0.1 22.6 8.1 33.1 92.1 6.6 4.0 6 Surface 22.6 92.1 8.1 33.1 1.0 92.1 0.1 213 22.6 8.1 33.1 6.6 4.0 6 8.8 0.1 6.5 4.0 134 22.5 8.1 90.4 33.2 6 SR7 Sunny Moderate 15:10 17.5 Middle 33.2 90.4 823621 823728 8.8 0.1 136 8.1 33.2 90.3 6.5 4.0 22.5 6 16.5 0.1 50 22.4 8.0 33.3 90.4 6.5 4.3 Bottom 33.3 90.4 6.5 16.5 0.1 54 22.4 8.0 33.3 90.4 6.5 4.3 1.0 23.6 30.6 9.5 Surface 23.6 8.2 30.6 101 6 101.5 1.0 23.6 8.2 30.6 7.2 9.5 10 72 SR8 Sunny Calm 13:50 5.8 Middle 820372 811422 4.8 23.0 98.3 98.3 8.1 30.8 7.1 8.6 Bottom 23.0 30.8 98.3 7.1 4.8 23.0 8.1

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Note: Access to SR8 was blocked by barge and its wires. The monitoring at SR8 was slightly shifted to the closest safe and accessible location temporarily.

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 12 April 18 during

during Mid-Ebb Tide

1	Water Qual	ity Monite	oring Resu	its on		12 April 18	during Mid-		9																				
Marcha M		Weather	Sea	Sampling	Water	Sampling Dept	h (m)	Current Speed		Water Te	mperature (°C)		ЭΗ	Salir	ity (ppt)					Turbidity(I	ITU) Si				Coordinate				cel (μg/L)
	Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value A	Average	Value	DA	Value	DA '	/alue	DA Va	lue DA	(Northing)	(Easting)	Value	DA Valu	ie DA
Phi						Surface					23.7		8.4		28.6		126.6		-		_								
Part	C1	Fine	Moderate	11:46	8.1	Middle	4.1	0.2	182	22.4	22.4	8.2	8.2	31.5	31.5	100.9	100.9	7.3	8.3	9.9	120	10	0	73	815627	804222	<0.2	-0.2 1.5	5 1.4
Martin		1 1110	Moderate		0.1													_		0.0	-			73	010027	001222		1.7	7
Part						Bottom	7.1	0.1	198	22.2	22.2	8.2	8.2	32.5	32.5	101.2	101.2	7.3	7.3	16.0		8		76			<0.2	0.9	9
Color Colo						Surface					24.2		8.1		24.7		105.2		7.0		-								
Property of the column Property of the col	C2	Cloudy	Moderate	12:37	11.4	Middle					23.2		8.0		28.9		91.1		1.2		11.7				825673	806918			
Cuy Modern 1934 122 Surface 1 10 1 10 1 10 1 10 1 10 1 10 10 10 1 10 10						Bottom	10.4	0.4	151	22.8	22.8	8.0	8.0	31.4	31.4	87.8	87.9	6.3	6.3	15.6		8		77			<0.2	1.8	3
Mathematical Research Math																													
Cuber Cube						Surface					23.4		8.1		30.1		98.9		6.9					73					
Marche M	C3	Cloudy	Moderate	10:34	12.2	Middle	6.1	0.2	118	22.9	22.9		8.0	31.9	31.9		91.8			6.7	7.1	4	۰ _	75	822127	817807	<0.2	<0.2	3 0.8
Mail Fire Modelsee 1206 72 Mode 1206						Bottom					22.6		8.0		32.7		89.0		6.4		_								
M11 Fre Moderate 1206 7.2 Mode						Surface	1.0	0.3	189	23.2	23.2	8.3	8.3	28.8	28.8	111.6	111.5	8.1		11.5		8		72			<0.2	1.9)
First Firs		-		40.05															7.8		-			73	040070			1.0	3
Fire Modelses Fire Modelses Local Local Local Succession Local Loc	IM1	Fine	Moderate	12:05	7.2	Middle			184	22.8	22.8	8.2	8.2	30.1	30.1	101.9	102.0	7.4		11.2	11.1		8	73	818373	806466	<0.2	<0.2	1.9
Moderate Prior Prior Moderate Prior Prior Prior Moderate Prior						Bottom					22.5		8.2		31.2		100.4		7.3										
Moderne Fine Moderne 12-10 Moderne 1						Surface					23.7		8.3		27.3		115.7		-		_								
Moderate 12-04 Moderate	IM2	Fine	Moderate	12:10	8.2	Middle	4.1	0.1	234	23.1	23.1	8.2	8.2	29.4	29.4	106.2	106.2	7.7	8.1	9.8	10.3	10	٠ -	74 74	818860	806185	<0.2	-0.2 1.9	1 0
Noderate 12-00 Noderate						Rottom												7.3	7.2		-			75				1.8	
Surface Fine Moderate Fine Fine Moderate Fine Moderate Fine Fine Fine Moderate Fine																			7.3										
May Fine Moderate 124 8.1 Middle 4.1 0.2 222 228 2						Surface	1.0	0.1	226	23.8	23.8	8.4	8.4	26.1	26.1	127.5	128.3	9.3	8.4	9.2		8		72			<0.2	2.0)
Section Sect	IM3	Fine	Moderate	12:24	8.1	Middle					22.9		8.2		29.4		102.3		-		11.6				819411	806046			
Surface 1.0 0.1 230 238 238 8.4 8.4 252 252 1338 133 135						Bottom		0.2	210	22.8	22.8		8.2	30.1	30.1	101.6	101.6		7.4	13.1				75			<0.2	2.2	2
MA Fine Moderate 12:30 7.5 Middle 3.3 0.2 2.9 2.8 2.8 2.9 8.2 8.2 2.8 1.32 1.0						Surface	1.0	0.1	230	23.8	23.8	8.4	8.4	25.2	25.2	133.8	133.1	9.8		10.5		9		72			<0.2	2.1	1
Miles Mile		_												_					8.6		 	_	_	7.4				1.0	<u>. </u>
Surface 10	IM4	Fine	Moderate	12:30	7.5	Middle	3.8	0.2	211	22.9	22.9	8.2	8.2	29.1	29.1	102.8	103.0	7.5		12.0	12.6	10	9	74	819567	805047	<0.2	1.7	7 1.3
Moderate Fine Fine Moderate Fine Moderate Fine Fine Fine Moderate Fine						Bottom					22.7		8.2		30.5		100.7		7.3		-	-							
Mide						Surface					23.9		8.4		25.7		127.2					_							
Moderate 12-56 Rottom	IM5	Fine	Moderate	12:40	6.6	Middle	3.3	0.3	176	22.9	22.9	8.2	8.2	28.5	28.5	99.2	99.3	7.2	8.2	12.2	11.3	10	٠ -	73 74	820584	804922	<0.2	-0.2 1.8	3 10
Soliding																					···					***************************************		1.5	5
Moderate Fine Moderate 12:48 6.5 Middle 3.3 0.3 184 23.1 23.1 8.2 8.2 28.1 101.1 101.2 7.4 11.6 8.2 9.1 11.6 8.2 9.2 11.6						Bottom	5.6	0.3	176	22.9	22.9	8.2	8.2	29.8	29.8	98.9	98.9	7.2	7.2	11.6		9		77			<0.2	2.0)
Middle M						Surface					23.7		8.4		25.9		124.6				-								
Bottom 5.5 0.2 200 23.0 23.0 8.2 8.2 8.6 28.6 10.6 10.8 7.3 7.3 13.4 9 9 75 76 8 82186 8651 1.8 1.8 1 8.1 8.1 8.1 8.1 8.1 8.1 8.1	IM6	Fine	Moderate	12:48	6.5	Middle					23.1		8.2		28.1		101.2		0.3		11.6				821050	805798			
Moderate 12:55 B.1 Surface 1.0 0.1 149 23.3 23.						Bottom	5.5	0.2	200	23.0	23.0	8.2	8.2	28.5	28.6	100.6	100.8	7.3	7.3	13.4		9		75			<0.2	1.8	3
Moderate 12:55 8.1 Moderate 12:55 Moderate																						-							
Middle 4.1 0.1 194 23.1 2						Surface	1.0	0.1	154	23.3	23.3	8.2	8.2	27.0	27.0	96.5	96.9	7.1	7.0	9.6		10		72			<0.2	1.6	3
Moderate 12:10 Bottom 10:10	IM7	Fine	Moderate	12:55	8.1	Middle	4.1	0.1	194	23.1	23.1	8.1	8.1	28.7	28.7	94.7	94.6	6.9		11.2	11.0	8	9	73	821376	806851	<0.2	<0.2	3 1.8
IM8 Cloudy Moderate I 2:10 Bottom 7:0 0.1 179 23.4 23.4 8.1 8.1 28.2 26.2 105.3 105.3 7.7 7.4 10.2 11.0 10.6 7.7 7.4 10.2 11.0 10.6 7.7 7.5 7.5 82168 807822 40.2 40.2 40.2 40.2 40.2 40.2 40.2 40						Bottom					22.9		8.1		29.1		96.1		7.0				H	75 75					
Moderate 12:10 Moderate						Surface	1.0	0.1	179	23.4	23.4	8.1	8.1	26.2	26.2	105.3	105.3	7.7		10.2	L	8		73			<0.2	1.8	3
Middle 4.0 0.2 207 23.2 23.2 8.1 8.1 28.6 28.6 29.2 29.3 29.3 7.2 7.2 10.5 7 77 82 100 80 80 80 80 80 80 8	IMO	Claudy	Moderat-	12:10	9.0														7.4		10.6		_	76	924662	907922		-0.2 1.9	17
7.0 0.1 171 23.1 23.1 8.1 0.1 28.6 20.0 99.2 99.3 7.2 1.2 10.5 7 77 < 0.2 1.6	IIVI8	Cloudy	woderate	12:10	8.0	ivildale															0.0		′ _	75	821068	80/822	<0.2	<0.2	3 1.7
						Bottom					23.1		8.1		28.6		99.3		7.2			7							

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 12 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 124 23.4 11.2 < 0.2 8.1 26.8 7.4 73 2.1 101.2 Surface 23.4 8.1 26.8 101.2 1.0 0.3 124 23.4 8.1 26.8 101 1 7.4 11.2 8 73 < 0.2 2.2 75 3.5 0.2 129 7 1 12 9 7 1.8 23.1 8.1 28.3 97.6 <02 IM9 12:02 6.9 Middle 8.1 28.3 97.7 12.3 822080 808783 1.9 Cloudy Moderate 3.5 0.2 141 23.1 8.1 28.3 97.7 7 1 12.9 8 75 <0.2 1.7 5.9 0.2 97 23.1 8.1 7.2 7.2 12.9 9 77 <0.2 1.7 Bottom 23.1 8.1 28.6 98.5 7.2 5.9 0.2 104 23.1 8.1 28.6 98.5 12.9 77 <0.2 1.8 1.0 0.4 128 8.1 10.3 73 2.4 23.8 24.9 103.2 7.6 <0.2 Surface 23.8 8.1 24.9 103.2 8.1 103.1 7.6 1.0 0.4 131 23.8 24.9 10.3 7 73 < 0.2 2.3 3.8 117 75 0.4 8.1 7.0 11.3 6 < 0.2 2.5 23.2 28.0 96.5 96.5 822225 IM10 Cloudy Moderate 11:54 7.5 Middle 23.2 8.1 28.0 75 809840 2.2 7.0 96.5 7 75 < 0.2 3.8 0.4 127 23.2 8.1 28.0 11.3 6.5 0.3 118 23.2 8.1 28.2 96.7 7.0 12.7 9 76 <0.2 2.1 Bottom 23.2 8.1 28.2 96.7 7.0 6.5 0.3 128 23.2 8.1 28.2 96.7 7.0 12.6 7 77 <0.2 1.8 0.3 23.8 8.2 11.6 10 73 <0.2 1.8 26.1 8.2 Surface 23.8 8.2 26.1 112.9 1.0 0.4 8.2 112.8 8.2 11.6 10 73 1.9 125 23.8 26.1 <0.2 3.7 75 1.7 12.1 10 0.4 107 23.5 8.2 27.3 105.2 7.6 < 0.2 27.3 821482 810544 IM11 Cloudy Moderate 11:39 7.4 Middle 23.5 8.2 105.2 3.7 112 8.2 7.6 10 75 1.6 0.4 23.5 27.3 105.1 12.1 < 0.2 11.7 12 77 1.3 6.4 0.2 116 23.2 8.1 28.9 99.5 7.2 < 0.2 Bottom 8.1 28.9 99.5 72 6.4 0.2 124 23.2 8.1 28.9 99.5 11.7 12 77 < 0.2 1 4 1.0 0.4 78 23.9 8.3 14.4 15 73 <0.2 1.6 25.3 119.6 Surface 23.9 8.3 25.3 119.5 1.0 0.4 23.9 8.3 25.3 119.3 8.7 14.4 14 73 <0.2 1.6 4.4 0.3 98 23.3 8.1 28.1 97.0 7.0 14.7 17 75 <0.2 1.5 23.3 28.1 97.0 821158 IM12 Cloudy Moderate 11.29 87 Middle 8.1 135 75 811522 8.1 28.2 96.9 7.0 14.7 16 16 75 <0.2 1.7 4.4 0.4 105 23.3 7.7 77 93 6.7 1.8 0.2 23.1 8.0 29.8 92.6 11.4 < 0.2 Bottom 29.8 92.7 6.7 77 0.2 94 23.1 8.0 29.8 92.7 11 4 17 76 <0.2 1.8 1.0 0.3 90 23.3 9.6 73 <0.2 2.1 8.1 29.5 7.0 29.5 Surface 23.3 8.1 96.5 1.0 0.3 94 23.3 8.1 96.5 7.0 9.7 73 <0.2 2.1 --SR2 10:59 44 Middle 821436 814173 Cloudy Moderate <0.2 1.8 75 3.4 0.1 78 23.1 8.0 6.8 12.4 <0.2 1.5 30.1 94.8 Bottom 23.1 8.0 30.1 94.9 6.8 3.4 82 94.9 6.8 7 75 0.1 8.0 30.1 12.5 1.3 23.1 <0.2 1.0 0.0 177 23.5 8.1 25.7 101.3 7.4 10.5 Surface 25.7 101.2 1.0 0.0 190 23.5 8.1 25.7 101.0 7.4 10.5 8 4.4 0.2 164 23.0 8.0 12.7 8 SR3 12:16 8.8 Middle 23.0 8.0 28.8 91.2 123 822168 807572 Cloudy Moderate 4.4 8.0 28.8 91.2 6.6 12.7 0.2 166 23.0 7.8 0.1 178 6.5 13.6 10 23.0 8.0 29.6 90.0 29.6 90.1 6.5 Bottom 23.0 8.0 6.5 8.0 90.1 7.8 0.1 187 29.6 13.6 10 23.0 1.0 0.1 64 23.3 11.8 11 8.3 28.4 108.1 7.8 Surface 23.3 8.3 28.4 108.0 7.8 8.3 10 1.0 0.1 69 23.3 28.4 11.8 4.3 0.1 55 22.6 8.2 30.3 7.4 17.2 10 -SR4A 11:27 8.6 Middle 22.6 8.2 30.3 101.5 817177 807803 Fine Calm 4.3 0.2 58 22.6 8.2 30.3 101.5 7.4 17.3 9 7.6 0.2 83 22.6 8.2 7.4 18.8 30.3 Bottom 22.6 8.2 30.3 101.6 7.6 0.2 89 8.2 30.3 101.6 7.4 19.0 11 22.6 1.0 94 9.7 0.1 23.7 8.3 27.5 109.1 7.9 10 Surface 23.7 8.3 27.5 109.0 100 1.0 0.1 23.7 8.3 27.4 108.8 7.9 9 9.8 SR5A Fine Calm 11:09 5.0 Middle 816577 810710 4.0 0.1 46 23.7 28.8 104.7 9.2 8.2 7.5 28.8 104.7 7.5 23.7 8.2 Bottom 104.7 7.5 0.1 23.7 8.2 28.8 9.3 10 1.0 0.1 67 23.6 8.1 103.5 7.4 7.6 8 29.0 Surface 23.6 8.1 29.0 103.5 1.0 0.1 68 8.1 103.4 7.4 7.8 23.6 29.0 7 SR6 10:45 4.0 Middle 817870 814669 Fine Calm 3.0 0.1 55 23.5 8.0 29.1 Bottom 23.5 8.1 29.1 101.9 7.3 7.3 3.0 0.1 56 23.5 8.1 29.1 101.8 8.1 6 1.0 0.3 49 23.0 8.0 31.7 92.8 6.6 6.7 23.0 92.8 Surface 8.0 31.7 1.0 0.3 51 23.0 8.0 31.7 92.7 6.6 6.7 8.2 9.3 0.2 73 22.6 8.0 6.4 4 33.0 89.0 SR7 Cloudy Moderate 09:59 18.6 Middle 22.6 8.0 33.0 89.0 823643 823748 9.3 0.2 73 64 8.2 4 22.6 8.0 33.0 89.0 17.6 0.0 52 22.6 8.0 32.9 89.3 6.4 8.4 6 Bottom 8.0 32.9 89.3 17.6 0.0 53 22.6 8.0 32.9 89.3 6.4 8.2 1.0 23.9 8.2 12.5 Surface 23.9 82 26.9 109.3 1.0 23.9 8.2 26.9 109.2 7.9 12.5 7 79 SR8 Cloudy Moderate 11:20 4.1 Middle 820246 811418 3.1 23.7 7 8.1 27.8 105.3 7.6 20.3 Bottom 23.7 8.1 27.8 105.3 3.1 23.7 9

DA: Depth-Average

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

Water Quality Monitoring Results on 12 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 0.2 23.8 145.2 1.0 77 8.4 27.2 7.6 72 < 0.2 1.2 Surface 23.8 8.4 145.2 1.0 0.2 84 23.8 8.4 27.2 1/15 2 10.5 7.7 10 73 < 0.2 1.3 4.3 0.1 30 22.7 8.2 30.5 103.1 7.5 10.8 9 75 <0.2 1.5 C1 15:56 8.6 Middle 22.7 8.2 30.5 103.1 815628 804261 1.2 Cloudy Moderate 10 75 0.1 22.7 8.2 30.5 10.9 10 75 <0.2 1.3 7.6 0.2 21 12 76 < 0.2 1.0 22.3 8.2 32.1 101.4 7.3 14.8 Bottom 32.1 101.5 7.3 7.6 0.2 22 22.3 8.2 32.1 101.5 14 7 10 76 <0.2 11 1.0 164 <0.2 0.5 23.3 8.0 25.8 93.5 6.9 11.7 11 73 2.3 25.8 93.5 Surface 23.2 8.0 1.0 0.5 171 23.2 8.0 25.8 93.5 6.9 11.7 11 73 <0.2 2.5 1.8 5.6 0.1 208 23.3 8.0 28.4 91.8 6.7 9.7 12 75 <0.2 91.8 825656 806967 C2 Cloudy Moderate 14:52 11.1 Middle 8.0 28.4 75 5.6 0.2 228 8.0 28.4 6.7 9.5 11 75 < 0.2 1.8 23.3 91.8 10.1 11.2 11 77 0.1 343 23.0 8.0 29.8 89.7 6.5 < 0.2 1.4 Bottom 29.8 89.7 6.5 10.1 0.1 357 23.0 8.0 29.8 89.7 6.5 11.2 11 77 <0.2 1 4 1.0 0.3 270 23.8 8.2 28.2 111.7 8.0 8.6 11 73 <0.2 1.6 28.2 111.8 Surface 1.0 0.3 289 23.8 8.2 28.2 111.8 8.0 8.6 11 73 <0.2 1.5 5.9 0.4 249 7.2 12 75 1.4 23.3 8.1 29.8 96.6 <0.2 C3 16:45 Middle 23.3 8 1 29.8 96.6 12 822093 817790 1.3 11.8 Cloudy Moderate 96.6 6.9 75 1.2 5.9 8.1 29.8 7.2 < 0.2 0.4 251 23.3 11 10.8 0.4 278 22.7 6.6 8.8 12 77 < 0.2 0.9 8.0 32.3 92.8 Bottom 22.7 8.0 32.3 92.9 6.7 10.8 8.0 32.3 92.9 8.8 77 1.0 0.4 299 22.7 14 <0.2 118.2 72 72 2.0 1.0 0.0 283 23.4 8.3 28.1 8.6 9.3 13 <0.2 Surface 28.1 118.2 1.0 0.0 310 23.4 8.3 8.6 9.3 14 <0.2 2.0 3.6 0.1 327 22.9 8.2 29.9 103.5 7.5 10.4 12 73 <0.2 15:37 7.2 Middle 22.9 29.9 103.5 818340 806460 IM1 Cloudy Moderate 82 21 7.5 74 3.6 0.1 327 22.9 8.2 29.9 103.4 10.4 13 <0.2 13.4 15 75 2.1 6.2 0.2 349 22.4 7.2 <0.2 8.2 31.4 99.9 Bottom 22.4 8.2 31.4 100.0 7.2 7.2 6.2 0.2 358 8.2 13.3 13 76 2.0 22.4 31.4 100.0 <0.2 72 72 2.0 1.0 0.2 200 23.7 8.3 27.0 9.2 <0.2 9 Surface 8.3 27.0 108.7 214 8.3 27.0 7.8 1.0 0.2 23.7 107.8 9.1 <0.2 4.1 0.2 224 23.1 8.2 28.5 100.2 7.3 9.1 8 73 <0.2 2.3 15:32 28.5 100.3 818874 806195 IM2 Cloudy Moderate 8.1 Middle 8.2 2.1 4.1 0.2 245 23.1 8.2 28.5 100.3 7.3 9.3 9 74 < 0.2 2.1 7.1 0.2 22.7 8.2 7.3 9.6 11 75 <0.2 2.1 30.3 Bottom 22.7 8.2 30.3 100.6 7.3 7.1 8.2 30.4 100.6 10.1 75 <0.2 2.1 0.2 22.7 1.0 0.1 183 10.3 11 72 72 2.2 24.3 8.5 <0.2 26.2 148.3 148.2 Surface 24.3 8.5 26.1 0.1 8.5 26.1 148.1 10.7 10.3 12 < 0.2 1.0 200 24.3 41 0.1 277 23.0 8.2 28.8 104.3 7.6 9.1 10 73 <0.2 2.0 Cloudy Moderate 15:27 8.1 28.8 104.3 819390 806009 2.1 4.1 0.1 297 23.0 8.2 28.8 104.3 9.3 10 74 <0.2 7.1 0.1 270 8.6 10 75 <0.2 2.1 22.9 8.2 29.7 104.5 7.6 Bottom 22.9 8.2 29.7 104.5 7.6 7.1 8.7 0.1 288 22.9 8.2 29.7 104.5 10 <0.2 2.1 0.1 260 24.7 8.5 25.4 143.9 10.4 9.2 10 72 <0.2 2.2 Surface 247 8.5 25.4 143.9 1.0 0.1 270 8.5 143.9 10.4 9.1 11 72 <0.2 2.2 24.7 25.4 3.7 0.1 0 23.7 8.3 26.8 123.4 9.0 11 7 10 73 <0.2 2.1 IM4 Moderate 15:20 7.4 Middle 26.7 123.3 13 819577 805016 2.2 Cloudy 3.7 0.1 0 23.7 8.3 26.7 123.2 9.0 11.4 12 74 < 0.2 2.3 6.4 0.1 0 23.1 8.2 28.5 109.7 10.8 16 75 <0.2 2.1 Bottom 23.1 8.2 28.5 110.2 6.4 0.1 23.1 8.2 28.6 110.6 8.0 10.6 18 76 <0.2 2.1 1.0 240 2.2 0.1 8.5 24.6 <0.2 247 8.5 24.6 137 9 Surface 1.0 0.1 257 24.7 8.5 24.6 137.1 9.9 11.4 73 <0.2 2.4 8 2.1 3.4 0.2 265 8.2 7.2 12.6 8 73 <0.2 23.1 28.0 98.8 IM5 Cloudy Moderate 15:11 6.8 Middle 23.1 8.2 28.0 98.8 12.8 820557 804896 2.2 7.2 8.2 98.8 74 3.4 0.2 28.0 13.2 10 <0.2 270 23.1 5.8 0.2 312 22.9 8.1 28.8 97.8 7.1 14.1 10 75 <0.2 2.2 28.8 97.9 Bottom 75 5.8 0.2 336 22.9 8.1 14.1 10 < 0.2 1.9 1.0 0.3 245 23.7 11.3 1.9 8.3 26.0 8.2 <0.2 Surface 23.7 8.3 26.0 112.2 1.0 0.3 249 23.7 8.3 26.0 8.2 11.2 12 72 <0.2 2.0 112.0 2.0 6.8 15.2 73 3.2 0.2 244 23.1 8.1 28.4 94.1 10 <0.2 94.1 821070 805822 IM6 Cloudy Moderate 15:02 6.4 Middle 23.1 8.1 28.4 12 2.0 3.2 74 0.2 8.1 6.8 15.5 10 264 23.1 28.4 94.0 <0.2 93.0 75 5.4 0.1 242 23.0 8.1 29.0 6.8 23.2 15 <0.2 2.0 Bottom 29.0 93.0 6.8 23.3 15 5.4 0.1 23.0 8.1 29.0 6.8 76 < 0.2 2.0 1.0 0.2 241 24.3 8.4 25.4 8.8 9.7 12 72 <0.2 1.9 Surface 24.3 8.4 25.4 120.8 0.2 24.3 8.4 25.4 120.4 8.7 9.4 11 72 <0.2 2.1 0.2 23.1 8.1 27.8 6.8 10.4 11 73 <0.2 2.0 92.7 IM7 14:54 27.8 92.6 12 821332 806847 2.0 Cloudy Moderate 7.9 Middle 23.1 8.1 4.0 8.1 92.5 6.7 10.7 73 <0.2 2.0 27.9 0.2 231 23.1 11 6.9 237 12 75 <0.2 2.1 0.1 23.0 8.1 28.7 92.8 6.8 11.2 8.1 28.7 6.8 Bottom 23.0 92.9 28.7 92.9 11.1 76 6.9 0.1 258 23.0 8.1 14 < 0.2 1.9 1.0 0.3 217 23.9 8.2 25.5 119.7 8.7 10.1 11 73 <0.2 2.1 Surface 23.9 8.2 25.5 119.7 1.0 0.3 8.2 119.7 8.7 10.0 12 73 <0.2 2.2 233 23.9 4.0 9.9 12 75 2.1 0.2 23.2 8.0 27.8 94.3 6.9 <0.2 821715 27.8 94.3 807865 IM8 Cloudy Moderate 15:16 7.9 Middle 23.2 8.0 75 2.0 2.1 4.0 0.2 225 23.2 8.0 27.8 94.2 6.9 9.9 10 75 <0.2 6.9 273 23.1 8.0 28.5 96.4 7.0 10.9 10 77 <0.2 1.5 0.1 23.1 8.0 28.5 Rottom 96.5 7.0 6.9 275 8.0 7.0 10.9 11 77 0.1 96.5 1.8 23.1 28.5 < 0.2

DA: Depth-Average

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

Water Quality Monitoring

during Mid-Flood Tide

Water Qual	lity Monit	oring Resu	lts on		12 April 18	during Mid-	Flood Ti	de																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	h (m)	Current Speed	Current	Water Te	emperature (°C)	F	рН	Salir	nity (ppt)		aturation %)	Disso Oxy		Turbidity(N	TU) Sus	ended S (mg/L)	olids To	tal Alkalin (ppm)	Coordinate	Coordinate HK Grid	Chron (µg/		Nickel (µg/	L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average		Average		Average	Value	DA					alue DA			Value		/alue D/	Å.
					Surface	1.0	0.1	239 259	24.0 24.0	24.0	8.2	8.2	25.3 25.3	25.3	117.3 117.2	117.3	8.6 8.5	7.8	9.9		1		74 73			<0.2		2.5	
IM9	Cloudy	Moderate	15:25	6.8	Middle	3.4 3.4	0.1	243 261	23.4	23.4	8.0	8.0	27.4	27.4	96.7 96.6	96.7	7.0	7.0	8.5 8.5		1		75 75	822070	808781	<0.2		2.0 2.	0
					Bottom	5.8 5.8	0.1	290 302	23.1	23.1	8.0	8.0	28.2 28.2	28.2	96.0 96.1	96.1	7.0	7.0	9.9 9.9		0		77 77			<0.2		1.6 1.5	
					Surface	1.0 1.0	0.2	294 320	23.7 23.7	23.7	8.1 8.1	8.1	26.1 26.1	26.1	106.6 106.6	106.6	7.8 7.8		8.7 8.7		0		73 73			<0.2		2.0	٦
IM10	Cloudy	Moderate	15:33	7.0	Middle	3.5	0.2	286 302	23.3	23.3	8.0	8.0	28.2	28.2	93.2	93.2	6.8	7.3	0.1	86	,	0	75 75	822235	809847	<0.2	-0.2	1.5 1.5	7
					Bottom	6.0 6.0	0.2	273 283	23.1	23.1	8.0	8.0	28.4	28.4	93.7 93.7	93.7	6.8	6.8	9.0		3		77			<0.2		1.5	
					Surface	1.0	0.2	256	23.7	23.7	8.2	8.2	26.3	26.3	116.7	116.7	8.5		10.4		0		73			<0.2		2.0	╡
IM11	Cloudy	Moderate	15:47	7.6	Middle	1.0 3.8	0.2	259 265	23.7 23.2	23.2	8.2 8.1	8.1	26.3 27.8	27.8	116.7 98.1	98.1	8.5 7.1	7.8	10.4	22	1		73 75 75	821524	810528	<0.2	-0.2	1.8	8
					Bottom	3.8 6.6	0.3 0.2	282 269	23.2 23.2	23.2	8.1 8.1	8.1	27.8 27.9	27.9	98.0 99.5	99.6	7.1 7.2	7.2	12.3 13.8		2		75 77			<0.2 <0.2	- F	2.0 1.5	
					Surface	6.6 1.0	0.2	280 295	23.2 23.8	23.8	8.1	8.2	27.9 25.9	25.9	99.6 111.4	111.4	7.2 8.1		13.9 10.1		0		77 73			<0.2		1.7 2.1	-
IM12	Cloudy	Moderate	15:54	8.5	Middle	1.0 4.3	0.2	315 284	23.8 23.3	23.3	8.2 8.1	8.1	25.9 28.4	28.4	111.3 95.8	95.8	8.1 7.0	7.5	10.0 9.4		1		73 75 75	821136	811499	<0.2	-0.2	2.3 1.9	,
IIVI12	Cloudy	Woderate	15.54	6.5		4.3 7.5	0.2	300 268	23.3 22.9		8.1 8.0		28.4 30.8		95.7 92.7	92.8	6.9 6.7	0.7	9.4 9.9		1		75 77	021130	611499	<0.2		1.7	
					Bottom	7.5 1.0	0.1	288 327	22.9 23.8	22.9	8.0 8.2	8.0	30.8 27.0	30.8	92.9 107.7		6.7 7.8	6.7	10.0 9.4)		77 73			<0.2		1.1 1.9	-
					Surface	1.0	0.2	334	23.8	23.8	8.2	8.2	27.0	27.0	107.5	107.6	7.8	7.8	9.4		0		73			<0.2		2.0	
SR2	Cloudy	Moderate	16:22	4.5	Middle	3.5	0.1	271	23.1	-	8.0	-	29.7	-	96.6	-	7.0		8.0	8.7	2		74 - 75	821470	814144	<0.2		1.7	3
					Bottom	3.5 1.0	0.1	291	23.1	23.1	8.0	8.0	29.7	29.7	96.6	96.6	7.0	7.0	8.0		0		75			<0.2		1.7	4
					Surface	1.0	0.3	215	23.9	23.9	8.2	8.2	25.6	25.6	110.8	111.0	8.1	7.5	10.1				-			-		-	
SR3	Cloudy	Moderate	15:11	8.8	Middle	4.4	0.3	204	23.2 23.2 23.0	23.2	8.0	8.0	27.8	27.8	92.9 92.9	92.9	6.8		10.3	0.7	3	′ 🗆	-	822142	807583	-		-	
					Bottom	7.8 7.8	0.2	269 283	23.0	23.0	8.0	8.0	29.0 29.0	29.0	95.4 95.5	95.5	6.9	6.9	11.6		,					-		-	
					Surface	1.0 1.0	0.3	252 273	24.2 24.2	24.2	8.4	8.4	27.2 27.2	27.2	131.2 131.0	131.1	9.4 9.4	8.3	9.0 9.2		0		-			-		-	
SR4A	Cloudy	Calm	16:17	8.9	Middle	4.5 4.5	0.2	251 262	22.7 22.7	22.7	8.2 8.2	8.2	30.4 30.4	30.4	99.1 99.0	99.1	7.2		10.2	0.1	1	'1 _	-	817199	807818	-			
					Bottom	7.9 7.9	0.2	296 324	22.5 22.5	22.5	8.2 8.2	8.2	31.1	31.1	96.9 97.0	97.0	7.0	7.0	11.0 11.0		2		-			-		-	
					Surface	1.0	0.2	257 269	24.2	24.2	8.3	8.3	28.1	28.1	127.2 127.2	127.2	9.1	9.1	9.5 9.7		0	-	-			-	-	-	
SR5A	Cloudy	Calm	16:35	5.1	Middle	-	-	-	-		-	-	-	-	-	-	-	9.1		0.5				816608	810681	-			
					Bottom	4.1 4.1	0.2	289 293	23.4 23.4	23.4	8.2 8.2	8.2	29.2	29.2	103.8 104.0	103.9	7.5 7.5	7.5	11.3 11.6				-			-	, F	-	
					Surface	1.0	0.2	233 249	23.7	23.7	8.3	8.2	28.4	28.5	107.4	107.2	7.7		24.5		6		-			-	_	-	٦
SR6	Cloudy	Calm	16:59	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	7.7		15				817898	814669	-			
					Bottom	3.6 3.6	0.1	281 294	23.7	23.7	8.2 8.2	8.2	29.0	29.0	107.9	108.0	7.7	7.7	19.0		1	_	-			-		-	
					Surface	1.0	0.1	221	23.2	23.2	8.1	8.1	31.2	31.2	97.6	97.6	7.0		6.8			_	-			-	_	-	7
SR7	Cloudy	Moderate	17:20	18.5	Middle	9.3	0.1	231 297	23.3	22.8	8.1	8.0	31.2 32.6	32.6	97.5 90.7	90.6	7.0 6.5	6.8	6.8 8.0	8.5	5 B	8	= .	823651	823727	-	. 🗀		
					Bottom	9.3 17.5	0.1	308 75	22.8 22.6	22.6	8.0	8.0	32.6 33.0	33.0	90.5 90.6	90.6	6.5 6.5	6.5	10.8		0	` <u> </u>	-			-		-	
					Surface	17.5 1.0	0.1	82	22.6 24.7	24.7	8.0	8.3	33.0 26.6	26.6	90.6 125.9	125.9	6.5 9.0	0.0	10.8 12.7		1		-			-		-	ᅥ
epo.	Clouds	Madarat-	16:02	2.0		1.0	-	-	24.7	24.1	8.3	0.3	26.6	20.0	125.9	140.8	9.0	9.0	12.7		1		-	920240	044440	-	L L	-	
SR8	Cloudy	Moderate	16:03	3.9	Middle	2.9	-	-	24.2	-	8.2	-	26.9	00.0	116.9	- 440.0	8.4		13.3	3.0	3	12		820246	811418	-		-	
					Bottom	2.9	-	-	24.2	24.2	8.2	8.2	26.9	26.9	116.8	116.9	8.4	8.4	13.4		3		-			-			

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 14 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current (ppm) Speed Oxygen (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.4 217 23.9 8.2 28.7 104.7 7.5 9.2 84 < 0.2 1.4 Surface 23.9 8.2 104.7 1.0 234 0.4 23.9 8.2 28.7 1047 7.5 9.2 85 < 0.2 1.3 42 0.4 74 11.3 5 86 1.6 215 23.4 8.2 29.4 102 5 <02 C1 12:32 8.3 Middle 8.2 29.4 102.5 87 815596 804225 Cloudy Moderate 4.2 0.4 231 23.4 8.2 29.4 102.5 7.4 11.3 7 87 <0.2 1.4 7.3 0.0 215 23.0 8.2 16.7 10 89 <0.2 1.4 Bottom 23.0 8.2 30.8 101.2 7.3 7.3 0.0 23.0 8.2 30.8 101 2 16.7 12 88 <0.2 1.4 1.0 0.7 170 8.0 14.1 13 84 24.2 25.6 89.0 6.5 < 0.2 2.2 Surface 24.2 8.0 25.6 89.1 8.0 89.1 6.5 1.0 0.8 185 24.2 25.6 14.1 14 84 < 0.2 2.2 5.6 12 0.7 167 8.0 6.3 16.0 86 < 0.2 2.2 23.6 28.4 87.8 28.4 87.8 825678 C2 Cloudy Moderate 13:27 11.1 Middle 23.6 8.0 147 13 87 806937 2.3 87.8 87 8.0 6.3 < 0.2 5.6 0.7 170 23.6 28.4 16.0 13 10.1 0.2 155 23.6 8.0 29.2 88.2 6.3 14.1 14 89 <0.2 2.5 Bottom 23.6 29.2 88.2 6.3 10.1 0.2 163 23.6 8.0 29.2 88.2 6.3 14.1 14 89 <0.2 2.2 0.3 24.0 6.7 6.4 85 <0.2 1.4 8.1 29.1 94.5 6 Surface 24.0 8.1 29.1 94.5 1.0 0.3 72 8.1 94.5 6.7 85 1.4 24.0 29.1 6.3 8 <0.2 5.9 87 1.4 6.6 6.9 0.3 90 23.5 8.1 30.2 91.7 6 < 0.2 822081 817815 C3 Cloudy Moderate 11:17 11.8 Middle 23.5 8.1 30.2 91.8 5.9 97 6.6 87 1.3 0.3 23.5 8.1 30.2 91.8 6.9 6 < 0.2 10.8 89 1.4 0.3 82 23.3 8.0 31.4 90.6 6.5 6.8 < 0.2 Bottom 31.4 90.7 10.8 0.3 86 23.3 8.0 31 4 90.7 6.5 6.7 6 89 < 0.2 1 4 1.0 0.4 190 23.9 9.8 <0.2 1.4 8.2 28.5 103.7 8 85 Surface 23.9 8.2 28.5 103.7 1.0 0.4 23.9 8.2 28.5 103.7 7.4 9.8 84 <0.2 1.4 6 3.6 0.4 193 23.5 8.2 29.0 102.1 7.4 9.5 8 86 <0.2 1.3 23.5 8.2 29.0 102.1 818330 IM1 Cloudy Moderate 12:52 72 Middle 87 806457 8.2 29.0 7.4 9.5 87 <0.2 1.2 3.6 0.4 203 23.5 6.2 88 0.3 192 23.3 8.2 29.7 101.3 7.3 8.1 8 < 0.2 1.4 Bottom 101.3 7.3 6.2 0.3 194 23.3 8.2 29.7 101.3 8.1 9 89 <0.2 1 4 1.0 0.3 201 24.1 11.5 84 <0.2 1.3 8.3 28.3 7.4 7.4 103.0 Surface 1.0 0.3 207 24.1 8.3 11.5 85 <0.2 1.2 4.0 11.4 87 1.4 0.3 203 23.5 8.2 29.1 101.1 7.3 6 <0.2 12:57 8.0 Middle 23.5 8.2 29.1 101.1 87 818863 806183 IM2 Cloudy Moderate 4.0 0.3 217 23.5 8.2 29.1 101.1 7.3 11.4 86 < 0.2 1.5 88 1.3 0.2 23.2 8.2 29.9 100.4 7.2 11.4 < 0.2 Bottom 29.9 100.4 7.2 7.0 7 89 0.2 217 8.2 29.9 100.4 11 4 1 4 23.2 <0.2 1.0 0.3 201 24.1 8.2 28.2 105.3 8.5 85 <0.2 1.3 Surface 105.3 1.0 0.3 219 24.1 8.2 105.3 7.5 8.5 6 85 <0.2 1.4 3.9 0.3 211 23.6 11.3 5 86 <0.2 1.4 8.2 IM3 13:03 7.8 Middle 23.6 82 28.9 103.2 819381 806022 Cloudy Moderate 8.2 28.9 103.2 11.3 87 <0.2 1.3 3.9 0.3 23.6 6.8 0.3 207 12.0 89 1.3 23.6 8.2 29.0 102.4 7.4 5 <0.2 29.0 102.4 Bottom 23.6 8.2 8.2 102.4 7.4 88 1.4 6.8 0.3 29.0 12.0 <0.2 210 23.6 214 1.0 0.5 23.9 8.2 13.1 85 <0.2 1.2 28.9 103.0 Surface 23.9 8.2 28.9 103.0 7.4 85 8.2 28.0 < 0.2 1.2 1.0 0.5 220 23.9 13.1 9 1.3 3.8 0.4 193 23.5 8.2 29.2 7.2 18.6 8 86 <0.2 IM4 Moderate 13:10 7.6 Middle 23.5 8.2 29.2 100.8 819574 805051 Cloudy 3.8 0.4 193 23.5 8.2 29.2 100.8 7.2 18.6 8 87 < 0.2 0.3 23.3 8.2 7.2 21.6 89 <0.2 1.2 29.5 100.5 Bottom 23.3 8.2 29.5 6.6 0.4 209 23.3 8.2 29.5 100.5 7.2 21.6 8 89 <0.2 1.1 0.5 199 17.6 85 23.6 8.2 28.3 100.7 < 0.2 1.4 Surface 8.2 28.3 100.7 85 1.0 0.6 199 8.2 28.3 7.3 17.6 6 < 0.2 1.4 23.6 100.7 1.3 3.3 0.4 200 23.4 8.2 28.8 100.3 7.2 20.2 8 87 <0.2 IM5 Cloudy Moderate 13:21 6.6 Middle 8.2 28.8 100.3 820544 804919 3.3 0.5 215 23.4 8.2 28.8 100.3 7.2 20.2 87 <0.2 1.6 5.6 0.3 87 <0.2 1.6 203 23.4 8.2 28.9 100.1 7.2 22.2 8.2 28.9 100.1 7.2 Bottom 23.4 7.2 88 5.6 0.4 23.4 8.2 28.9 100.1 22.2 <0.2 1.0 0.5 198 24.3 8.2 27.3 101.9 7.3 12.5 85 <0.2 1.4 Surface 24.3 8.2 27.3 101.9 8.2 27.3 101.9 7.3 12.6 1.5 1.0 0.5 24.3 84 < 0.2 213 7 3.3 0.4 205 23.6 8.2 28.6 101.0 7.3 15.0 8 87 <0.2 1.5 13:29 Middle 101.0 821081 805842 IM6 Cloudy Moderate 6.5 3.3 0.4 222 23.6 8.2 28.6 101.0 7.3 15.0 8 87 <0.2 1.5 5.5 0.3 205 23.6 15.8 88 <0.2 1.5 8.2 28.8 7.2 Bottom 23.6 8.2 28.8 100.7 7.2 5.5 0.3 216 23.6 8.2 28.8 100.7 15.8 8 87 <0.2 1.4 1.0 0.4 215 24.4 8.1 26.6 97.2 7.0 9.5 84 <0.2 1.8 97.2 Surface 24.4 8.1 26.6 7.0 1.0 0.5 229 24.4 8.1 26.6 97.2 9.5 85 <0.2 1.8 3.9 11.9 86 1.8 0.4 23.7 8.2 5 224 27.8 98.1 < 0.2 IM7 Cloudy Moderate 13:36 7.8 Middle 27.8 98.1 821326 806806 3.9 98.1 7 1 87 1.9 0.4 229 23.7 8.2 27.8 11 9 6 <02 6.8 0.3 207 23.8 8.2 27.7 99.0 7.1 7.1 12.1 6 88 <0.2 1.8 27.7 99.0 6.8 0.3 23.8 8.2 27.7 99.0 12.1 87 < 0.2 1.8 1.0 0.3 198 24.0 10.4 84 <0.2 1.8 Surface 8 1 27.2 99 1 24.0 7.1 8.1 27.2 99.1 10.4 85 <0.2 1.8 1.0 0.3 211 24.0 6 87 3.9 218 7.2 10.9 9 0.2 23.7 8.1 28.0 <0.2 1.8 100.4 100.4 821683 IM8 Cloudy Moderate 12:59 7.7 Middle 23.7 8.1 28.0 87 807811 1.8 1.8 3.9 8.1 28.0 100.4 7.3 10.9 87 < 0.2 0.2 222 23.7 8 7 6.7 0.1 169 23.6 8.1 28.6 100.1 7.2 10.7 89 < 0.2 1.8 28.6 100.1 7.2 6.7 0.1 182 1.8

DA: Depth-Average

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

Water Quality Monitoring Results on 14 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 143 24.1 11.9 85 < 0.2 1.7 8.1 97.8 Surface 24.1 8.1 27.0 97.9 1.0 0.3 149 24.1 8.1 27.0 97.9 7 1 11.8 85 < 0.2 19 87 3.4 0.3 135 7 1 13.3 6 1.9 23.8 8.1 27.6 98.0 <02 IM9 12:50 6.8 Middle 8.1 27.6 98.0 87 822064 808829 1.9 Cloudy Moderate 3.4 0.3 142 23.8 8.1 27.6 08 N 7 1 13.2 6 87 <0.2 1.8 5.8 0.1 116 23.6 8.1 7.1 7.1 13.2 7 89 <0.2 1.9 Bottom 23.6 8.1 28.3 98.7 5.8 0.1 23.6 8.1 28.3 98.6 13.2 89 <0.2 1.9 1.0 0.7 120 8.1 14.7 12 85 1.9 23.9 27.2 96.6 7.0 <0.2 Surface 23.9 8.1 27.2 96.6 8.1 96.6 7.0 1.0 0.7 127 23.9 27.2 14.7 12 11 84 < 0.2 1.9 3.5 87 0.5 112 8.1 7.0 17.2 < 0.2 1.9 23.7 27.8 96.8 27.8 96.8 822265 IM10 Cloudy Moderate 12:41 7.0 Middle 23.7 8.1 17 1 87 809819 2.0 7.0 8.1 27.8 96.8 17.3 87 < 0.2 3.5 0.6 116 23.7 12 6.0 0.4 113 23.7 8.1 27.9 96.4 7.0 19.3 89 <0.2 2.0 27.9 Bottom 23.7 8.1 96.4 7.0 6.0 0.4 123 23.7 8.1 27.9 96.4 7.0 19.4 10 89 <0.2 2.0 0.4 24.0 8.1 10.8 84 <0.2 1.9 27.0 6.9 96.3 Surface 24.0 8.1 27.0 96.4 1.0 0.4 115 8.1 96.4 7.0 6 85 1.8 24.0 27.0 10.8 <0.2 3.9 87 2.6 109 7.0 13.5 0.5 23.8 8.1 27.4 97.0 6 < 0.2 27.4 821510 810561 IM11 Cloudy Moderate 12:22 7.7 Middle 23.8 8.1 97.0 13.5 2.3 3.9 7.0 87 0.5 111 23.8 8.1 27.4 97.0 13.6 7 < 0.2 6.7 89 2.6 0.3 86 23.8 8.1 27.8 96.9 7.0 16.2 8 < 0.2 Bottom 8.1 27.8 96.9 6.7 0.4 92 23.8 8.1 27.8 96.8 7.0 16.3 8 89 < 0.2 2.3 1.0 0.4 106 23.9 12.7 8 85 <0.2 1.6 8.2 27.7 Surface 23.9 8.2 27.7 96.7 1.0 0.4 23.9 8.2 96.7 7.0 12.6 84 <0.2 1.4 4.2 0.3 98 23.8 8.2 27.8 96.2 6.9 14.6 12 87 <0.2 1.4 23.8 27.8 96.2 821168 IM12 Cloudy Moderate 12:12 84 Middle 8.2 10 87 811499 1.5 8.2 27.8 96.2 6.9 14.7 86 <0.2 1.5 4.2 0.3 105 23.8 11 7.4 94 11 89 1.5 0.3 23.8 8.2 27.9 95.2 6.9 17.4 < 0.2 Bottom 27.9 95.2 7 4 0.3 94 23.8 8.2 27 9 95.2 69 17 1 11 89 <0.2 16 1.0 0.4 104 24.1 9.3 85 <0.2 1.5 8.1 27.9 95.9 6.9 27.8 95.9 Surface 8.1 1.0 0.4 106 24.1 8.1 95.9 6.9 9.2 4 84 <0.2 1.4 -SR2 11:43 Middle 821475 814165 Cloudy Moderate 3.4 <0.2 1.5 87 2.4 0.2 106 23.9 8.1 6.8 10.4 <0.2 1.5 28.4 94.6 4 Bottom 23.9 8.1 28.4 94.6 6.8 24 106 94.5 87 0.3 8.1 28.4 6.8 10.4 5 1 4 23.9 <0.2 1.0 0.2 180 24.2 8.1 27.0 99.4 10.9 4 Surface 27.0 99.4 1.0 0.2 194 24.2 8.1 27.0 99.3 7.1 10.9 5 4.3 0.2 205 23.8 8.1 14.5 7 27.9 SR3 13:05 8.6 Middle 23.8 8 1 27.9 98.2 13.8 822175 807584 Cloudy Moderate 4.3 8.1 27.9 98.2 14.5 0.2 218 23.8 7.6 7.1 16.0 0.2 245 23.6 8.1 28.4 99.1 8 8.1 28.4 99.1 Bottom 23.6 7.1 8.1 99.1 7.6 28.4 16.1 0.2 257 23.6 8 1.0 0.3 79 23.8 8.2 28.7 7.3 11.9 102.3 Surface 23.8 8.2 28.7 102.3 7.3 8.2 11 0 1.0 0.3 84 23.8 28.7 102 3 8 4.8 0.3 76 23.6 8.2 28.8 7.3 13.5 9 -SR4A Cloudy Moderate 12:13 9.6 Middle 23.6 8.2 28.8 101.1 817175 807833 4.8 0.3 76 23.6 8.2 28.8 101 1 7.3 13.5 11 8.6 0.3 23.5 8.2 28.9 7.3 16.3 100.8 100.8 Bottom 23.5 8.2 28.9 8.6 0.3 84 8.2 28.9 100.8 7.3 16.3 11 23.5 1.0 40 0.1 24.5 8.2 28.7 108.6 7.7 11.0 9 Surface 24.5 8.2 28.7 108.6 43 7.7 7 1.0 0.1 24.5 8.2 28.7 108.6 11.0 SR5A Cloudy Calm 11:55 3.7 Middle 816567 810715 2.7 0.1 54 24.5 28.7 12.4 8.2 7.6 28.7 107.6 7.6 24.5 8.2 Bottom 7.6 0.1 24.5 8.2 28.7 107.6 12.4 1.0 0.2 58 24.4 8.2 28.4 106.7 7.6 8.6 4 Surface 24.4 8.2 28.4 106.7 1.0 60 8.2 106.7 7.6 0.2 24.4 28.4 8.6 5 SR6 11:32 4.0 Middle 817896 814652 Cloudy Calm 3.0 0.1 50 24.2 14.1 28.8 Bottom 24.2 8.2 28.8 102.9 7.3 7.3 3.0 0.1 51 24.2 8.2 28.8 102.9 14.1 4 1.0 0.1 112 23.4 8.0 31.4 91.7 6.5 7.2 23.4 Surface 8.0 31.4 91.7 7.2 7.7 1.0 0.1 116 23.4 8.0 31.4 91.7 6.5 9.6 0.0 23.3 8.0 6.4 3 54 31.5 90.2 SR7 Cloudy Moderate 10:35 19.2 Middle 23.3 31.5 90.2 823609 823750 9.6 0.0 58 31.5 64 7.8 4 23.3 8.0 90.2 18.2 0.0 352 23.2 8.0 31.9 89.0 6.3 8.8 Bottom 8.0 31.9 89.0 6.3 18.2 0.0 324 23.2 8.0 31 0 89.0 6.3 8.9 5 1.0 24.2 8.1 6.9 12.2 Surface 24.2 8.1 28.1 96.7 96.7 1.0 8.1 28.1 6.9 12.2 24.2 7 69 SR8 Cloudy Moderate 12:03 4.0 Middle 820246 811418 10 3.0 96.1 96.0 23.9 8.1 28.2 6.9 11.9 Bottom 23.9 8.1 28.2 96.1 6.9 3.0 23.9

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Water Quality Monitoring Results on 14 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 0.3 24.4 1.0 8.2 28.5 105.0 7.5 6.7 84 < 0.2 1.3 Surface 24.4 8.2 28.5 105.0 1.0 0.3 37 24.4 8.2 28.5 105.0 7.5 6.7 5 85 < 0.2 1.4 4.1 0.3 38 23.6 8.2 29.2 99.4 7.1 10.1 3 86 <0.2 1.3 C1 17:25 8.2 Middle 23.6 8.2 29.2 99.4 815624 804247 1.3 Cloudy Moderate 86 0.3 23.6 8.2 29.2 99.4 10.1 3 86 <0.2 1.3 7.2 0.3 36 7.0 89 < 0.2 1.2 23.0 8.2 30.5 96.6 14.4 3 Bottom 30.5 96.6 7.2 0.3 36 23.0 8.2 30.5 96.6 14.4 4 88 <0.2 13 1.0 0.6 189 24.2 18.5 <0.2 3.1 7.9 25.0 88.6 6.4 12 85 25.0 88.6 Surface 24.2 7.9 1.0 0.6 207 24.2 7.9 25.1 88.6 6.5 18.6 11 85 <0.2 2.7 5.4 2.9 0.6 23.7 7.9 26.5 84.8 6.2 20.1 12 87 <0.2 84.8 825687 806947 C2 Cloudy Moderate 16:23 10.8 Middle 7.9 26.5 12 87 2.9 2.8 5.4 0.6 186 7.9 26.5 84.8 6.2 20.2 11 87 < 0.2 23.7 9.8 12 89 0.2 215 23.6 7.9 28.1 85.9 6.2 23.2 < 0.2 2.9 Bottom 28.1 85.9 6.2 9.8 0.2 228 23.6 79 28 1 85.9 6.2 23.1 12 89 <0.2 29 1.0 0.6 261 23.9 8.1 28.4 93.1 6.7 6.9 4 85 <0.2 1.6 Surface 28.4 93.1 8.1 1.0 0.6 262 23.9 8.1 28.4 93.1 6.7 6.9 85 <0.2 1.7 5.9 0.8 258 8.0 5 87 1.7 23.7 8.1 30.1 90.5 6.5 <0.2 C3 18:20 Middle 23.7 8 1 30.1 90.5 822099 817820 117 9.0 Cloudy Moderate 90.5 6.5 87 1.7 5.9 8.1 8.0 < 0.2 0.8 272 23.7 30.1 10.7 0.4 267 23.3 6.3 12.1 4 89 < 0.2 1.6 8.0 88.88 31.2 Bottom 23.3 8.0 31.2 88.9 6.3 10.7 0.4 8.0 31.2 88.9 6.3 12.2 89 16 276 23.3 5 <02 2.2 1.0 0.2 24.1 8.2 28.2 100.8 7.2 11.7 85 <0.2 Surface 28.2 100.8 1.0 0.2 24.1 8.2 11.7 5 85 <0.2 3.6 0.3 12 24.0 8.3 28.4 7.2 13.2 9 87 <0.2 2.2 Middle 24.0 28.4 100.8 818360 806446 IM1 Cloudy Moderate 17:06 7 1 8.3 21 7.2 87 2.1 3.6 0.3 12 24.0 8.3 28.4 100.8 13.2 <0.2 6.1 90 2.0 0.4 23.8 7.1 19.9 9 <0.2 8.2 28.7 99.7 Bottom 23.8 8.2 28.7 99.7 7.1 6.1 0.4 10 8.2 99.7 19.9 88 2.1 23.8 28.7 9 <0.2 8.2 8.2 27.2 27.2 99.3 99.3 85 85 2.0 1.0 0.1 226 24.2 7.1 11.3 <0.2 Surface 8.2 27.2 99.3 7 237 1.0 0.1 24.2 11.3 <0.2 4.1 0.1 257 24.0 8.3 28.2 100.3 7.2 12.9 9 87 <0.2 2.3 28.2 100.3 818845 806174 IM2 Cloudy Moderate 17:01 8.2 Middle 8.3 3.5 4.1 0.2 280 24.0 8.3 28.2 100.3 7.2 12.9 88 < 0.2 2.2 7.2 0.2 310 23.9 8.2 11.9 8 89 <0.2 2.0 Bottom 23.9 8.2 28.8 99.6 7.2 8.2 28.8 99.6 7.1 11.9 90 <0.2 2.0 0.2 23.9 1.0 0.2 217 11.0 10 85 2.2 24.4 8.1 26.4 6.9 <0.2 95.5 Surface 24.4 8.1 26.4 0.2 8.1 26.4 95.5 6.9 11.0 9 85 < 0.2 1.0 231 24.4 4.0 0.1 254 24.1 8.1 27.3 96.7 7.0 13.2 9 87 <0.2 2.4 Cloudy Moderate 16:56 7.9 Middle 819405 806043 2.5 4.0 0.1 268 24.1 8 1 27.3 96.7 13.2 8 88 <0.2 6.9 332 24.1 15.3 10 89 <0.2 2.6 0.2 8.2 27.8 96.5 6.9 Bottom 24.1 8.2 27.8 96.5 96.5 6.9 6.9 0.2 354 24.1 8.2 15.3 12 90 <0.2 2.5 290 0.3 24.2 8.1 26.9 6.9 14.6 10 84 <0.2 2.9 96.0 Surface 24.2 8.1 26.9 96.0 1.0 0.3 308 8.1 96.0 6.9 14.6 11 85 <0.2 3.1 24.2 26.9 3.7 0.3 301 24.0 8.1 27.5 97.4 7.0 18.0 10 86 <0.2 2.8 IM4 Moderate 16:48 7.3 Middle 8.1 27.5 97.4 819549 805043 2.8 Cloudy 3.7 0.3 328 24.0 8.1 27.5 97.4 7.0 18.0 8 87 <0.2 2.6 6.3 0.2 314 24.0 8.2 27.8 97.9 7.0 18.7 9 90 <0.2 2.6 Bottom 24.0 8.2 27.8 97.9 7.0 6.3 0.2 24.0 8.2 27.8 97.9 7.0 18.7 10 89 <0.2 2.8 1.0 0.4 276 2.6 24.1 8.1 91.0 6.6 8 <0.2 8.1 26.8 91.0 Surface 24 1 1.0 0.5 276 24.1 8.1 26.8 91.0 6.6 19.1 85 <0.2 2.6 8 12 2.5 3.7 0.3 267 6.6 20.4 87 <0.2 23.9 8.1 27.3 91.7 IM5 Cloudy Moderate 16:39 7.4 Middle 23.9 8.1 27.3 91.7 20.1 820540 804911 2.6 8.1 91.7 6.6 88 3.7 0.3 27.3 20.4 12 <0.2 292 23.9 6.4 0.2 277 23.9 8.1 27.4 94.4 6.8 20.8 13 90 <0.2 2.7 27.4 94.4 Bottom 6.4 0.2 279 23.9 8.1 27.4 94.4 20.8 15 90 < 0.2 2.8 1.0 0.4 264 24.1 19.7 18 85 2.8 8.0 26.6 6.6 <0.2 Surface 24 1 8.0 26.6 90.8 1.0 0.4 272 24.1 8.0 26.6 90.8 6.6 19.7 18 85 <0.2 2.8 2.6 6.6 20.5 87 3.2 0.5 262 24.1 8.0 26.7 91.2 18 <0.2 91.2 821073 805820 IM6 Cloudy Moderate 16:32 6.3 Middle 8.0 26.7 19 87 2.7 3.2 17 0.5 277 8.0 6.6 87 24.1 26.7 91.2 20.5 < 0.2 20.5 20.5 20 22 89 5.3 0.4 266 24.0 8.0 26.9 93.7 6.8 <0.2 2.5 Bottom 26.9 93.7 6.8 8.0 93.7 53 0.4 284 24.0 26.9 6.8 90 < 0.2 2.6 1.0 0.6 236 24.8 8.0 25.2 92.2 6.6 13.3 85 <0.2 2.8 Surface 24.8 8.0 25.2 92.2 0.7 253 24.8 8.0 25.2 6.6 13.3 85 <0.2 3.0 0.5 24.0 8.0 6.4 16.9 8 87 <0.2 2.7 26.8 89.2 IM7 16:22 26.8 89.2 821358 806838 2.7 Cloudy Moderate 7.4 Middle 24.0 8.0 3.7 8.0 89.2 6.4 16.9 87 <0.2 2.6 268 26.8 0.5 24.0 8 6.4 6.4 89 89 <0.2 2.3 0.4 252 24.0 8.0 26.9 89.1 20.6 8 26.9 Bottom 24.0 8.0 89.1 8.0 26.9 89.1 6.4 6.4 0.4 273 24.0 20.6 8 < 0.2 2.7 1.0 0.4 210 24.3 8.0 26.0 6.7 12.0 85 <0.2 2.4 93.1 Surface 24.3 8.0 26.0 93.1 1.0 0.4 24.3 8.0 93.1 6.7 12.1 7 85 <0.2 2.3 226 26.0 3.8 0.4 15.1 9 87 24.2 8.0 26.4 91.2 6.6 <0.2 2.5 821717 91.2 807823 IM8 Cloudy Moderate 16:44 7.5 Middle 24.2 8.0 26.4 87 2.5 2.6 3.8 0.4 232 24.2 8.0 26.4 91.2 6.6 15.1 10 87 <0.2 6.5 0.3 244 24.1 8.0 6.6 16.6 11 89 <0.2 2.5 26.8 91.2 24.1 26.8 91.2 Bottom 8.0 6.6 6.5 264 8.0 6.6 12 90 0.3 16.6 2.5 24.1 26.8 91.2 < 0.2

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Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 17 April 18 during

during Mid-Ebb Tide

Water Qual	ity Monite	oring Resu	its on		17 April 18	during Mid-		9																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept	th (m)	Current Speed	Current	Water Te	mperature (°C)		ЭΗ	Salir	ity (ppt)	DO Satu (%		Dissol Oxyg		Turbidity(N		ided Solid ng/L)	ds Total A (pr	dkalinity pm)	Coordinate HK Grid	Coordinate HK Grid	Chror (µg.		kel (µg/L)
Station	Condition	Condition	Time	Depth (m)		, ,	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value A	verage	Value	DA	Value	DA Valu	DA	Value	DA	(Northing)	(Easting)	Value	DA Valu	ue DA
					Surface	1.0	0.4	201 204	22.6 22.6	22.6	8.2	8.2	32.9 32.9	32.9	104.2	104.2	7.4		11.9 12.1	9	_	83				<0.2	1.7	
C1	Cloudy	Moderate	13:08	9.1	Middle	4.6	0.4	220	22.6	22.6	8.2	8.2	33.8	33.8	103.3	103.3	7.3	7.4	13.4	10	10	86	85	815628	804230	<0.2	-0.2 1.7	17
	Cioday	Moderate	10.00	0.1	***	4.6 8.1	0.4	241 215	22.6 22.6		8.2 8.2		33.8 33.8		103.3		7.3 7.3		13.5 15.9	10	- "	85 87	- "	0.0020	001200	<0.2	1.6	5
					Bottom	8.1	0.4	232	22.6	22.6	8.2	8.2	33.8	33.8	103.1	103.1	7.3	7.3	16.0	10		87				<0.2	1.6	3
					Surface	1.0	0.3	162 170	22.6 22.6	22.6	8.0	8.0	29.0 29.0	29.0	94.9 95.0	95.0	6.9	7.0	16.8 16.9	13		83 84				<0.2	1.9	
C2	Cloudy	Moderate	12:09	11.4	Middle	5.7 5.7	0.3	165 175	22.3 22.3	22.3	8.0 8.0	8.0	30.1	30.1	95.6 95.6	95.6	7.0	7.0	17.2 17.1	17.5	14	85 86	86	825670	806916	<0.2	<0.2	
					Bottom	10.4	0.4	140	22.3	22.3	8.0	8.0	30.3	30.3	95.6	95.8	7.0	7.0	18.7	15		88				<0.2	1.9	9
						10.4	0.4	151 70	22.3 22.9		8.0		30.2		95.9		7.0 6.6		18.2 17.3	14		88 86	<u> </u>			<0.2	1.6	
					Surface	1.0 6.3	0.6	73	22.9 22.8	22.9	8.0	8.0	31.3 31.4	31.3	91.7	91.7	6.6	6.6	17.3 17.1	16		86 88				<0.2	1.2	2
C3	Cloudy	Moderate	13:55	12.5	Middle	6.3	0.4	91 95	22.8	22.8	8.0	8.0	31.4	31.4	92.2	92.2	6.6		17.0	17.1	17	88	88	822091	817819	<0.2	<0.2	1.1
					Bottom	11.5 11.5	0.3	82 90	22.8 22.8	22.8	8.0	8.0	31.5 31.5	31.5	93.9	94.0	6.7	6.7	16.8 16.9	17 19	_	89 90	-			<0.2	1.0	
					Surface	1.0	0.2	225	22.5	22.5	8.2	8.2	32.6	32.6	101.7	101.7	7.3		12.1	13		83				<0.2	1.6	3
13.44	Oleverto	Madasta	40.50	7.7	Marian -	1.0 3.9	0.2	246 185	22.5 22.5		8.2 8.2		32.6 33.0		101.7		7.3 7.4	7.4	12.1 12.3	12	- 40	83 86	0.5	040074	000470	<0.2	1.5	<u>. </u>
IM1	Cloudy	Moderate	12:50	7.7	Middle	3.9 6.7	0.2	187 174	22.5 22.6	22.5	8.2 8.2	8.2	33.0 33.5	33.0	102.8	102.8	7.4 7.3		12.4 12.5	12.3	13	85 87	85	818371	806473	<0.2	<0.2 1.6 1.5	
					Bottom	6.7	0.2	174	22.6	22.6	8.2	8.2	33.5	33.5	103.0	103.0	7.3	7.3	12.5	15		87				<0.2	1.4	1
					Surface	1.0	0.3	227 239	22.7 22.7	22.7	8.2 8.2	8.2	31.6 31.5	31.5	99.7 99.8	99.7	7.2	-	10.4 9.9	13 14	_	84	-			<0.2	1.4	
IM2	Cloudy	Moderate	12:45	8.7	Middle	4.4	0.2	201	22.5	22.5	8.2	8.2	32.9	33.0	101.8	101.8	7.3	7.3	10.9	11 2 15	14	85	86	818862	806187	<0.2	-0.2 1.5	14
	,				Bottom	4.4 7.7	0.2	204 193	22.5 22.5	22.5	8.2 8.2	8.2	33.0 33.2	33.2	101.8	101.8	7.3 7.3	7.3	11.2 12.5	14	+	86 88				<0.2	1.4	
						7.7 1.0	0.2	210 129	22.5 22.5		8.2 8.2		33.2		101.8		7.3 7.3	1.3	12.4 13.5	14 14		88 84	1			<0.2	1.4	
					Surface	1.0	0.3	131	22.5	22.5	8.2	8.2	33.1	33.1	101.9	101.9	7.3	7.3	13.5	13		84	1			<0.2	1.3	3
IM3	Cloudy	Moderate	12:40	8.7	Middle	4.4 4.4	0.3	131 136	22.5 22.5	22.5	8.2 8.2	8.2	33.1	33.1	101.6 101.6	101.6	7.3	-	13.6 13.9	14.2	14	86 85	86	819403	806044	<0.2	<0.2	
					Bottom	7.7 7.7	0.3	149 149	22.5 22.5	22.5	8.2 8.2	8.2	33.2	33.2	102.0 102.1	102.0	7.3 7.3	7.3	15.5 15.5	14 14	4	88 88]			<0.2	1.5 1.7	5
					Surface	1.0	0.3	131	22.5	22.5	8.2	8.2	32.5	32.5	102.6	102.6	7.4		13.0	9		84				<0.2	1.5	5
						1.0 4.4	0.3	134 158	22.5 22.5		8.2 8.2		32.5 32.9		102.7		7.4	7.4	12.3 13.3	9 13	-	85 87	-			<0.2	1.7	,
IM4	Cloudy	Moderate	12:32	8.8	Middle	4.4	0.2	159	22.5	22.5	8.2	8.2	32.9	32.9	103.0	103.0	7.4		13.5	13	12	87	87	819591	805068	<0.2	1.7	, 1.7
					Bottom	7.8	0.1	148 156	22.5 22.5	22.5	8.2 8.2	8.2	33.3	33.3	103.0	103.0	7.3	7.3	13.9 14.0	14	-	89 89	1			<0.2	1.7	
					Surface	1.0	0.2	171 180	22.4 22.4	22.4	8.2 8.2	8.2	32.6 32.6	32.6	101.3	101.3	7.3 7.3		14.6 14.6	14 16		84 83				<0.2	1.6 1.4	
IM5	Cloudy	Moderate	12:22	7.2	Middle	3.6	0.2	179	22.4	22.4	8.2	8.2	32.7	32.7	404.0	101.3	7.3	7.3	14.7	14.4	15	85	85	820552	804920	<0.2	-0.2 1.4	1 15
livio	Oloudy	Woderate	12.22	7.2		3.6 6.2	0.2	187 180	22.4 22.4		8.2 8.2		32.7 32.8		101.3		7.3 7.3		14.5 14.0	15	- 10	85 87	- 00	020332	004320	<0.2	1.6	5
					Bottom	6.2	0.2	190	22.4	22.4	8.2	8.2	32.8	32.8	101.9	101.8	7.3	7.3	14.1	16		87				<0.2	1.5	5
					Surface	1.0	0.3	105 108	22.5 22.4	22.5	8.2 8.2	8.2	32.4 32.5	32.5	101.7	101.7	7.3	7.0	14.6 14.8	12 14	+	83 84	1			<0.2	1.4	
IM6	Cloudy	Moderate	12:14	7.6	Middle	3.8 3.8	0.2	120 126	22.4 22.4	22.4	8.2 8.2	8.2	32.8 32.8	32.8	101.5 101.5	101.5	7.3 7.3	7.3	15.7 15.9	15.3	14	85 85	86	821031	805830	<0.2	<0.2	
					Bottom	6.6	0.2	150	22.4	22.4	8.2	8.2	32.9	32.9	102.1	102.1	7.3	7.3	15.4	14		88				<0.2	1.5	5
						6.6 1.0	0.2	156 117	22.4		8.2 8.2		32.9 32.1		102.1		7.3 7.1	7.0	15.5 14.7	16 18		88				<0.2	1.5 1.6	
					Surface	1.0	0.2	119	22.3	22.3	8.2	8.2	32.1	32.1	98.9	98.9	7.1	7.1	15.3	17		83				<0.2	1.6	3
IM7	Cloudy	Moderate	12:08	8.9	Middle	4.5 4.5	0.2	92 98	22.3 22.3	22.3	8.2 8.2	8.2	32.1 32.1	32.1	99.0	99.0	7.1 7.1	ŀ	14.3 14.5	14.4	18	86 86	86	821339	806806	<0.2	<0.2	
					Bottom	7.9 7.9	0.2	90 90	22.3 22.3	22.3	8.2 8.2	8.2	32.1 32.2	32.2	99.2 99.6	99.4	7.2 7.2	7.2	14.0 13.7	18 18	1	88 87				<0.2	1.7	7
					Surface	1.0	0.3	115	23.0	23.0	8.0	8.0	29.3	29.3	97.1	97.1	7.0		11.4	10	_	84	 			<0.2	1.8	3
						1.0 4.2	0.4	116 62	23.0 22.2		8.0 8.1		29.3 32.1		97.1		7.0	7.1	11.4 15.3	11	┥.	84 85	┨			<0.2	1.8	,
IM8	Cloudy	Moderate	12:32	8.4	Middle	4.2	0.3	63	22.2	22.2	8.1	8.1	32.1	32.1	98.9	98.9	7.2		15.2	13	12	86	86	821701	807842	<0.2	<0.2	1.8
					Bottom	7.4 7.4	0.3	53 57	22.2 22.2	22.2	8.1 8.1	8.1	32.4 32.4	32.4	99.7 99.7	99.7	7.2	7.2	17.5 17.5	13 13		88 88	<u>L</u>			<0.2	1.8	
DA: Denth-Aver																												

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring

Water Quality Monitoring Results on 17 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.5 109 22.6 12.6 83 < 0.2 1.8 8.0 29.8 97.4 Surface 22.6 8.0 29.8 97.4 1.0 113 0.5 226 8.0 29.8 97.4 7 1 12.7 11 83 < 0.2 1.8 13 3.7 0.5 7 1 15.4 86 1.8 83 22.3 8.1 31.2 98.4 <02 IM9 12:40 7.4 Middle 8.1 31.2 98.5 12 822070 808839 1.8 Cloudy Moderate 3.7 0.5 83 22.3 8.1 31.2 98.5 7 1 15.5 12 86 <0.2 1.7 6.4 0.4 69 22.2 8.1 7.2 7.2 21.2 11 88 <0.2 1.8 Bottom 22.2 8.1 32.0 99.0 7.2 6.4 0.4 22.2 8.1 32.0 99.1 21.2 11 88 <0.2 1.8 1.0 0.6 107 8.0 12.4 11 84 22.6 29.8 96.6 7.0 <0.2 1.8 Surface 22.6 8.0 29.8 96.7 8.0 96.7 7.0 2.0 1.0 0.6 108 22.6 29.8 12.4 11 84 < 0.2 12 4.0 0.6 97 8.1 7.0 14.7 88 < 0.2 1.7 22.3 30.7 96.6 96.6 822263 IM10 Cloudy Moderate 12:48 7.9 Middle 22.3 8.1 30.7 14.6 12 87 809839 1.8 7.0 96.6 14.7 88 < 0.2 1.8 4.0 0.6 106 22.3 8.1 30.7 12 6.9 0.4 80 22.2 8.1 31.7 98.1 7.1 16.7 13 89 <0.2 1.8 31.7 Bottom 22.2 98.1 6.9 0.4 87 22.2 8.1 31.7 98.1 7.1 16.8 13 90 <0.2 1.8 0.6 22.7 8.0 12.0 84 <0.2 29.7 Surface 22.7 8.0 29.7 97.1 1.0 0.6 110 8.0 97.1 7.1 11.9 10 84 1.8 22.7 29.7 <0.2 4.0 16.9 85 1.6 7.1 11 0.5 96 22.5 8.1 30.9 97.6 < 0.2 97.6 821491 IM11 Cloudy Moderate 13:02 8.0 Middle 22.5 8.1 30.9 810568 4.0 97 7.1 86 1.9 0.5 22.5 8.1 30.9 97.6 17.1 9 < 0.2 7.0 7.1 19.8 13 1.7 0.4 62 22.3 8.1 31.5 98.1 88 < 0.2 Bottom 8.1 31.5 98.2 7 1 7.0 0.4 67 22.3 8.1 31.5 98.3 19.7 15 88 < 0.2 1.8 1.0 0.4 107 16.0 10 84 <0.2 1.5 22.5 8.2 30.5 96.5 Surface 22.5 8.2 30.5 96.5 1.0 0.4 116 22.5 8.2 96.5 7.0 16.1 10 84 <0.2 1.6 4.5 0.5 96 22.5 8.2 96.8 7.0 19.1 10 86 <0.2 1.5 30.8 22.5 30.8 96.8 821143 IM12 Cloudy Moderate 13:10 89 Middle 8.2 86 811490 8.2 30.8 96.8 7.0 19.2 86 <0.2 1.6 4.5 0.5 98 22.5 9 7.9 10 89 0.5 86 22.4 8.1 31.1 97.9 7.1 20.3 < 0.2 1.6 Bottom 31.1 98.0 79 0.5 88 22.4 8.1 31.1 98.0 7 1 20.4 12 89 <0.2 16 1.0 0.4 69 22.6 94.5 16.4 12 14 85 <0.2 1.0 8.1 30.1 6.9 30.1 94.6 Surface 22.6 8.1 1.0 0.5 69 22.6 8.1 30.1 94.7 6.9 16.5 85 <0.2 1.1 -SR2 13:35 43 Middle 87 821486 814136 Cloudy Moderate 13 <0.2 3.3 0.4 65 22.6 8.0 97.0 7.0 18.8 13 88 <0.2 1.1 30.1 Bottom 22.6 8.0 30.1 97.1 3.3 67 97.1 7.1 14 0.4 8.0 30.1 18.9 88 1.0 226 <0.2 1.0 0.3 136 22.6 8.0 29.7 96.7 13.5 Surface 29.7 96.8 1.0 0.3 146 22.6 8.0 29.7 96.9 7.1 13.4 13 4.6 0.3 78 22.2 8.1 17.8 12 32.0 97.9 SR3 12:27 92 Middle 22.2 8 1 32.0 97.9 12 822144 807575 Cloudy Moderate 4.6 8.1 32.0 97.9 17.9 0.3 80 22.2 10 8.2 0.3 59 7.1 21.9 22.2 8.1 32.2 98.1 8.1 32.2 98.1 Bottom 22.2 7.1 8.1 98.1 21.9 8.2 0.4 32.2 12 61 22.2 51 1.0 0.3 22.6 7.3 14.2 12 8.2 33.1 Surface 22.6 8.2 33.1 101.7 7.3 8.2 11 1.0 0.3 52 22.6 33.2 101 7 1/1/1 4.4 0.3 70 22.5 8.2 33.5 7.2 15.8 14 -SR4A Cloudy 13:29 8.8 Middle 22.5 8.2 33.5 101.3 817214 807813 Calm 4.4 0.3 70 22.5 8.2 33.5 101.3 7.2 16.0 14 7.8 0.2 22.5 8.2 7.3 15.8 33.5 Bottom 22.5 8.2 33.5 101.9 7.8 0.2 61 8.2 33.5 101.9 7.3 15.9 15 22.5 1.0 88 14.6 0.1 22.5 8.1 29.4 95.0 6.9 10 Surface 22.5 8.1 29.4 95.1 1.0 0.1 91 22.5 8.1 29.4 95.2 7.0 9 14.9 SR5A Cloudy Calm 13:45 4.3 Middle 12 816574 810704 115 3.3 0.1 22.4 8.1 31.4 15.6 13 7.2 31.3 99.0 7.2 22.4 8.1 Bottom 99.1 7.2 3.3 0.1 125 22.4 8.1 31.3 15.7 14 1.0 0.1 356 22.8 8.1 6.7 9.2 6 29.0 92.3 Surface 22.8 8.1 29.0 92.3 1.0 328 8.1 92.4 6.7 0.1 22.8 29.0 9.1 7 SR6 14:07 4.0 Middle 817928 814690 Cloudy Calm 3.0 0.1 335 22.8 8.4 29.1 6.9 Bottom 22.8 8.1 29.1 95.1 6.9 3.0 0.1 345 22.8 8.1 29.1 95.3 6.9 8.3 8 1.0 1.0 74 23.1 8.0 30.9 93.6 6.7 8.2 Surface 23.1 8.0 30.9 93.6 1.0 1.0 75 23.1 8.0 30.9 93.5 6.7 8.2 10 9.7 10.2 0.5 6.6 10 58 22.9 8.0 31.9 91.8 SR7 Cloudy Moderate 14:22 20.3 Middle 31.9 91.8 10 823610 823718 10.2 0.5 62 6.6 9.7 12 22.9 8.0 31 9 91.8 19.3 0.4 18 22.8 8.0 32.1 91.8 6.6 10.2 10 Bottom 8.0 32.1 91.8 6.6 19.3 0.4 18 22.8 8.0 32.1 91.8 6.6 10.1 1.0 22.9 6.9 15.9 10 Surface 22 9 8.1 29.8 95.1 95.1 1.0 8.1 29.8 6.9 16.1 22.9 12 69 SR8 Cloudy Moderate 13:18 4.0 Middle 820246 811418

8.1

8.1

22.6

30.1

96.1 96.6

96.4

30.0

7.0

7.0

20.1

11

10

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

3.0

3.0

Bottom

22.6

Water Quality Monitoring Results on 17 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 0.6 22.2 15.5 1.0 55 8.2 32.1 98.4 24 85 < 0.2 1.5 Surface 22.2 8.2 32.1 98.4 1.0 0.6 57 22.2 8.2 32.1 98.4 7.1 15.7 24 85 < 0.2 1.5 4.3 0.5 50 22.2 8.2 32.1 98.0 7.1 16.9 29 88 <0.2 1.5 C1 07:46 8.5 Middle 22.2 8.2 32.1 98.0 19.8 28 815610 804244 1.5 Cloudy Moderate 89 0.6 22.2 8.2 32.1 98.0 17.8 31 88 <0.2 1.5 7.5 0.5 48 7.1 30 93 < 0.2 1.5 22.3 8.2 32.2 98.0 26.6 Bottom 32.2 98.0 7.5 0.6 49 22.3 8.2 32.2 98 1 26.5 32 92 <0.2 1.5 1.0 346 <0.2 0.5 22.6 7.9 27.7 6.8 12.3 85 2.1 27.7 91.7 Surface 22.6 7.9 1.0 0.5 356 7.9 27.7 91.7 6.8 12.4 8 85 <0.2 2.3 22.6 6.1 0.6 353 22.9 8.0 28.7 92.3 6.7 13.2 9 88 <0.2 2.2 28.7 92.3 825680 806946 C2 Rainv Moderate 08:10 12.1 Middle 8.0 88 2.2 2.2 6.1 0.7 325 8.0 28.7 6.7 13.2 88 < 0.2 22.9 92.3 89 0.5 343 22.9 8.0 28.7 93.5 6.8 13.6 8 < 0.2 2.2 Bottom 28.7 93.7 6.8 11.1 0.5 345 22.9 8.0 28.7 93.9 6.8 13.7 9 90 <0.2 22 1.0 0.6 266 22.6 8.0 30.0 92.5 6.7 12.2 84 <0.2 1.7 30.0 92.5 Surface 8.0 1.0 0.6 279 22.6 8.0 30.0 92.4 6.7 12.4 84 <0.2 1.9 5.6 0.6 268 15.8 85 2.0 22.9 8.0 31.4 91.0 6.5 <0.2 C3 06:27 11 2 Middle 22 9 8.0 31.4 91.0 822079 817774 Rainv Moderate 6.5 85 2.0 5.6 8.0 31.4 90.9 15.9 < 0.2 0.6 269 22.9 8 10.2 0.4 273 8.0 6.6 14.2 88 < 0.2 2.0 22.9 31.4 91.8 Bottom 22.9 8.0 31.4 91.9 6.6 10.2 8.0 31 4 91.9 14.3 88 19 0.5 279 22 9 <02 1.0 8.0 343 22.2 8.2 30.8 96.5 96.5 7.0 12.7 85 <0.2 1.7 Surface 22.2 30.8 96.5 1.0 0.8 316 8.2 7.0 13.0 9 85 <0.2 1.8 3.8 0.8 351 22.3 8.2 31.1 96.4 7.0 20.7 11 87 <0.2 1.8 Middle 22.3 31.2 87 818375 806444 IM1 Cloudy Moderate 08:02 7.6 82 96.4 7.0 10 87 1.6 3.8 0.8 323 22.3 8.2 31.2 96.4 20.8 <0.2 6.6 89 1.6 0.7 22.3 96.7 7.0 24.3 12 <0.2 8.2 31.4 Bottom 22.3 8.2 31.4 96.7 7.0 6.6 0.7 319 8.2 96.7 23.9 14 90 1.6 22.3 31.4 <0.2 96.5 96.5 1.0 0.7 22.3 8.2 30.6 7.0 12.3 84 <0.2 1.6 Surface 8.2 30.6 96.5 8.2 12.5 8 84 1.6 1.0 0.7 31 22.3 30.6 <0.2 4.3 0.6 35 22.3 8.2 30.7 96.5 7.0 18.7 10 86 <0.2 1.5 30.7 96.5 818861 806189 IM2 Cloudy Moderate 08:07 8.6 Middle 22.3 8.2 4.3 0.7 38 22.3 8.2 30.7 96.5 7.0 19.0 11 87 < 0.2 1.5 7.6 0.6 35 22.3 8.2 31.9 96.8 24.2 11 89 <0.2 1.6 Bottom 22.3 8.2 31.9 96.8 7.6 8.2 31.8 96.8 23.5 89 <0.2 1.6 0.6 22.3 12 1.0 0.6 45 22.3 11.5 85 1.6 8.2 8 30.4 96.3 7.0 <0.2 96.2 Surface 22.3 8.2 30.4 0.7 48 22.3 8.2 30.4 96.2 7.0 12.3 8 85 1.6 1.0 < 0.2 43 0.7 40 22.3 8.2 30.6 96.3 7.0 15.5 8 87 <0.2 1.6 IM3 Cloudy Moderate 08:12 8.5 Middle 30.6 819401 806046 1.6 4.3 0.7 42 22.3 8.2 30.6 96.3 16.6 8 88 < 0.2 7.5 0.6 41 91 <0.2 1.5 22.2 8.2 31.6 97.4 29.5 97.4 Bottom 22.2 8.2 31.6 7.5 97.4 7.1 10 1.6 0.6 22.2 8.2 31.6 28.3 90 <0.2 0.5 354 22.3 8.1 29.9 7.0 10.7 11 85 <0.2 1.6 96.1 Surface 22.3 8.1 29.9 96.1 1.0 0.5 326 8.1 96.1 7.0 10.7 10 86 < 0.2 1.7 22.3 29.9 4.0 0.5 3 22.2 8.2 31.4 96.9 7.0 22.6 11 89 <0.2 1.7 IM4 Moderate 08:20 8.0 Middle 8.2 31.4 96.9 819582 805020 Rainy 4.0 0.5 3 22.2 8.2 31.4 96.9 7.0 22.9 10 88 < 0.2 17 7.0 0.4 6 22.2 8.2 31.6 97.3 23.5 13 91 <0.2 1.6 Bottom 22.2 8.2 31.6 97.3 7.0 0.4 8.2 31.6 97.4 7.1 23.5 11 91 <0.2 1.6 22.2 1.0 0.7 354 18 8.1 30.2 <0.2 1.5 22.2 8.1 30.2 96.7 Surface 1.0 0.8 326 22.2 8.1 30.2 96.8 7.1 15.3 18 86 <0.2 1.5 21.5 17 1.5 3.6 0.7 357 7.1 89 <0.2 22.2 8.1 30.7 97.1 IM5 Rainy Rough 08:30 7.2 Middle 22.2 8.1 30.7 97.1 19.9 820566 804950 8.1 97.2 7.1 88 3.6 0.7 328 30.7 21.6 18 <0.2 22.2 6.2 0.7 356 22.2 8.2 30.9 97.7 7.1 7.1 22.9 16 91 <0.2 1.6 22.2 8.2 30.9 97.7 Bottom 97.8 6.2 0.8 328 22.2 8.2 30.9 22.9 16 91 < 0.2 1.5 0.4 22.3 22 85 1.5 8.2 30.4 20.6 <0.2 Surface 22.3 8.2 30.4 95.8 1.0 0.4 28 22.3 8.2 95.8 7.0 21 85 <0.2 1.5 30.4 20.3 7.0 22 88 1.6 3.7 0.4 22.3 8.2 30.4 95.8 20.5 <0.2 95.8 821081 IM6 Rainy Moderate 08:38 7.3 Middle 22.3 8.2 30.4 23 88 805837 7.0 22 1.5 3.7 33 8.2 20.7 88 0.4 22.3 30.4 95.8 < 0.2 7.0 7.0 20.5 20.2 25 23 6.3 0.4 35 22.3 8.2 30.4 96.0 91 <0.2 1.5 Bottom 30.4 96.0 7.0 8.2 96.1 6.3 0.4 22.3 30.4 91 < 0.2 1.6 1.0 0.6 19 22.3 8.2 30.2 95.6 7.0 12.2 14 84 <0.2 1.6 Surface 22.3 8.2 30.2 95.6 1.0 0.6 22.3 8.2 30.2 95.6 7.0 12.4 14 85 <0.2 1.6 0.7 22.4 8.2 7.0 15 87 <0.2 1.6 30.3 96.5 IM7 08:54 8.7 96.5 821330 806834 Rainy Moderate Middle 22.4 8.2 30.3 4.4 8.2 96.6 7.0 15.9 87 <0.2 1.5 30.3 0.7 13 22.4 16 7.7 7.2 7.2 14 89 <0.2 1.5 0.6 22.4 8.2 30.5 98.8 14.5 30.5 7.2 Bottom 22.4 8.2 98.8 98.9 8.2 30.5 14.4 89 7.7 0.6 22.4 15 < 0.2 1.6 1.0 0.2 66 22.6 8.1 28.7 94.0 6.9 16.8 13 83 <0.2 1.8 Surface 22.6 8.1 28.8 94.0 1.0 0.2 67 22.6 8.1 28.8 94.0 6.9 16.7 12 84 <0.2 1.8 0.3 20.3 11 1.7 4.1 22.6 8.2 29.0 94.5 6.9 86 <0.2 821711 29.0 94.6 807839 IM8 Rainy Moderate 07:46 8.2 Middle 22.6 8.2 13 86 1.8 1.8 4.1 0.3 54 22.6 8.2 29.0 94.6 6.9 20.4 12 86 <0.2 7.2 51 22.6 8.2 7.0 20.4 16 88 <0.2 1.9 0.3 29.0 95.7 22.6 8.2 29.0 Bottom 95.8 7.0 7.2 51 8.2 7.0 20.3 14 88 0.3 95.8 1.9 22.6 29.0 < 0.2

DA: Depth-Averaged

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 339 22.7 8.0 6.9 18.3 < 0.2 1.6 29.4 94.4 19 84 Surface 22.7 8.0 29.4 94.4 1.0 20 19 0.4 312 22.7 8.0 29.4 94.4 69 18.6 84 < 0.2 1.5 85 3.7 0.3 339 69 19.3 16 22.7 8.0 29.4 94.8 <02 IM9 07:38 7.4 Middle 8.0 29.4 94.9 20 822082 808793 Rainy Moderate 3.7 0.4 349 22.7 8.0 29.4 94.9 6.9 19.2 20 86 <0.2 1.7 6.4 0.3 335 22.7 8.0 7.1 7.1 20.3 20 88 <0.2 1.6 Bottom 22.7 8.0 29.4 97.7 6.4 0.3 22.7 8.0 29.4 97.7 20.6 22 89 <0.2 1.6 1.0 0.6 311 8.0 6.9 16.8 20 85 22.5 29.7 94.6 <0.2 1.6 Surface 22.5 8.0 29.7 94.6 8.0 94.6 6.9 1.0 0.6 330 22.5 29.7 16.9 21 86 <0.2 1.5 23 3.4 0.5 315 8.0 29.7 6.9 19.1 88 < 0.2 1.5 22.5 94.8 29.7 94.9 822232 IM10 Rainy Moderate 07:31 6.7 Middle 22.5 8.0 19.6 21 88 809851 8.0 94.9 6.9 88 < 0.2 1.6 3.4 0.6 343 22.5 29.7 19.1 22 5.7 0.5 315 22.5 8.0 29.7 95.3 7.0 22.7 21 89 <0.2 1.6 29.7 Bottom 22.5 8.0 95.4 7.0 5.7 0.5 316 22.5 8.0 29.7 95.4 7.0 22.7 21 90 <0.2 1.5 0.5 22.5 29.8 6.9 16.1 19 85 <0.2 1.6 8.1 94.6 Surface 22.5 8.1 29.8 94.7 1.0 0.5 297 8.1 94.7 6.9 21 86 1.6 22.5 29.8 15.8 <0.2 3.6 20 87 1.6 287 6.9 20.3 0.5 22.4 8.0 29.7 94.8 < 0.2 29.7 821512 810557 IM11 Rainy Moderate 07:16 7.1 Middle 22.4 8.0 94.8 21 3.6 6.9 21 1.6 0.5 300 22.4 8.0 29.7 94.8 20.2 88 < 0.2 23 89 1.6 6.1 0.4 292 22.5 8.1 29.9 95.6 7.0 21.1 < 0.2 Bottom 22.5 8.1 29.9 95.6 6.1 0.5 318 22.5 8.1 29.9 95.6 7.0 21.1 21 89 < 0.2 1.5 1.0 0.9 275 8.0 15.3 10 85 <0.2 1.8 22.5 29.8 93.9 Surface 22.5 8.0 29.8 93.9 1.0 1.0 8.0 29.8 93.9 6.8 15.3 12 85 <0.2 1.8 22.5 4.4 0.8 278 22.5 8.0 30.0 94.4 6.9 16.7 11 88 <0.2 1.8 22.5 30.0 94.5 821143 IM12 Rainv Moderate 07:09 87 Middle 8.0 87 811527 8.0 94.6 6.9 16.9 10 10 88 <0.2 1.8 4.4 0.9 300 22.5 30.0 7.7 89 0.6 287 22.5 8.0 30.1 95.0 6.9 18.4 < 0.2 1.8 Bottom 95.1 77 0.6 290 22.5 8.0 30.1 95.2 69 18.5 11 89 <0.2 1.8 1.0 0.2 93 22.5 19.2 14 85 <0.2 1.7 8.0 29.6 93.6 6.8 29.6 93.6 Surface 22.5 8.0 1.0 0.2 96 22.5 8.0 29.6 93.6 6.8 19.0 14 85 <0.2 1.8 -SR2 4.5 Middle 87 821483 814166 Rainv Moderate 06:46 <0.2 1.8 3.5 0.2 68 22.6 8.0 29.9 93.5 6.8 18.6 18 88 <0.2 1.7 Bottom 22.6 8.0 29.9 93.5 6.8 3.5 73 93.5 6.8 18 0.2 8.0 29 9 18.6 88 1.8 226 <0.2 1.0 0.3 14 22.7 8.0 28.0 93.0 6.8 11.2 Surface 28.0 93.0 1.0 0.3 14 22.7 8.0 28.0 92.9 6.8 11.3 4.4 0.4 18 22.7 8.0 16.3 8 SR3 07:51 8.8 Middle 22.7 8.0 28.4 94.1 166 822162 807584 Moderate Rainv 4.4 0.4 8.0 28.4 94.3 6.9 16.4 22.7 7.8 0.4 21 22.7 8.0 28.9 95.4 7.0 22.2 8 28.9 95.6 7.0 Bottom 22.7 8.0 7.0 8.0 95.7 7.8 0.4 28.9 22.1 21 22.7 255 1.0 0.3 22.4 8.1 6.5 14.8 13 29.9 89.5 Surface 22.4 8.1 29.9 89.5 89.6 6.5 8.1 12 1.0 0.4 280 22.4 20.0 1/1/8 4.6 0.2 253 22.4 8.1 30.1 90.0 6.6 16.6 14 -SR4A Cloudy 07:24 9.1 Middle 22.4 30.1 90.0 817172 807802 Calm 4.6 0.2 261 22.3 8.1 30.1 90.0 6.6 16.6 14 8.1 0.1 285 22.3 8.1 6.6 15.6 30.2 91.0 Bottom 22.3 8.1 30.2 8.1 0.1 308 8.1 91.1 6.6 15.4 17 22.3 30.2 1.0 296 0.4 22.5 8.1 29.1 92.6 6.8 13.1 10 Surface 22.5 8.1 29.1 92.6 1.0 0.5 309 22.5 8.1 92.7 6.8 9 29.1 13.3 SR5A Cloudy Calm 06:55 4.3 Middle 12 816598 810710 3.3 0.4 295 22.5 8.1 29.1 13.1 14 7.2 99.5 7.3 22.5 8.1 29.1 Bottom 100.9 7.4 3.3 0.4 321 22.5 8.1 29.1 13.1 15 1.0 0.2 251 22.6 8.1 28.8 89.1 6.5 8.3 6 Surface 22.6 8.1 28.8 89.1 1.0 258 8.1 28.8 89.2 6.5 0.2 22.6 8.8 6 SR6 06:34 4.0 Middle 817897 814649 Cloudy Calm 3.0 251 22.8 10.1 29.6 6.6 Bottom 22.8 8.1 29.6 90.4 6.6 3.0 0.3 273 22.8 8.1 29.6 90.4 6.6 10.3 6 1.0 0.1 22.7 8.0 30.4 94.0 6.8 8.7 22.7 Surface 8.0 30.4 94.0 1.0 0.1 217 22.7 8.0 30.4 94.0 6.8 8.8 6 9.8 8.6 0.1 197 22.7 8.0 6.8 6 30.4 93.6 SR7 Rainy Moderate 05:53 19.6 Middle 30.4 93.6 823656 823726 9.8 0.1 212 30.4 93.6 6.8 22.7 8.0 8.6 6 18.6 0.3 203 22.8 8.0 30.6 95.6 6.9 8.8 6 8.0 30.6 95.6 6.9 18.6 0.3 212 22.8 8.0 30.6 95.6 6.9 8.8 1.0 22.5 8.0 15.8 15 Surface 22.5 8.0 29 4 95.7 95.8 1.0 22.5 8.0 29.4 7.0 15.9 16 7.0 SR8 Rainy Moderate 07:02 3.8 Middle 17 820246 811418 2.8 95.9 96.0 18 22.4 8.0 29.4 7.0 16.7

22.4

22.4

8.0

29.4

96.0

7.0

19

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Bottom

2.8

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 19 April 18 during

during Mid-Ebb Tide

Water Qual	ity Monit	oring Resu	lts on		19 April 18	during Mid-		е																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)	р	Н	Salir	ity (ppt)	DO Sat		Disso Oxyg		Turbidity(NTU) S	spended (mg/L		tal Alkalin (ppm)	Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		kel (μg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average	<u> </u>	Average		Average	Value	DA	Value	DA	/alue		alue DA	(Northing)	(Easting)	Value	DA Value	
					Surface	1.0	0.5 0.5	178 188	23.1	23.1	8.2	8.2	32.6 32.6	32.6	103.5	103.5	7.4	7.4	10.3 10.5		9		83 83			<0.2	1.9	
C1	Fine	Moderate	14:27	8.9	Middle	4.5 4.5	0.5	187 197	22.9 22.9	22.9	8.2	8.2	32.8	32.8	102.2	102.2	7.3	,. 	12.4 12.7	12.5	10 9		86 86	815612	804219	<0.2	<0.2 1.9	
					Bottom	7.9 7.9	0.4	192 208	22.8 22.8	22.8	8.2 8.2	8.2	33.0 33.0	33.0	102.0 102.0	102.0	7.3 7.3	7.3	14.7 14.4		11		89 89			<0.2	2.2	
					Surface	1.0	0.4	177 182	23.2	23.2	8.0	8.0	29.6 29.6	29.6	91.8	91.8	6.6		13.4		6 7		85 85			<0.2	1.4	
C2	Cloudy	Moderate	13:29	12.5	Middle	6.3	0.3	174	22.9	22.9	8.0	8.0	31.0 31.0	31.0	90.5	90.5	6.5	6.6	17.7	17.4	7		88	825662	806964	<0.2	1.4	
					Bottom	6.3 11.5	0.3	184 174	22.9	22.8	8.0	8.0	31.3	31.3	90.5	91.8	6.5	6.6	17.8 20.8		8		88 89			<0.2	1.5	
					Surface	11.5 1.0	0.4	177 75	22.8	23.2	8.0	8.0	31.3	31.2	91.8 92.4	92.4	6.6		20.8 11.7		10		90 83			<0.2	1.3 0.7	
СЗ	Cloudy	Moderate	15:19	11.7	Middle	1.0 5.9	0.3	80 90	23.2 23.1	23.1	8.0	8.0	31.2 31.3	31.3	92.4 91.3	91.3	6.6	6.6	11.8 12.7	12.8	10 12		84 85 86	822096	817774	<0.2	<0.2	0.7
0.3	Cloudy	woderate	15.19	11.7		5.9 10.7	0.3	91 76	23.1 23.0		8.0		31.3 31.6		91.3 90.7		6.5 6.5		12.8 13.9	12.0	12 12		86 88	622096	01///4	<0.2	0.7	
					Bottom	10.7	0.3	80 217	23.0	23.0	8.0	8.0	31.6	31.6	90.7	90.7	6.5 7.1	6.5	14.1		13		89 83			<0.2	0.6	
					Surface	1.0	0.2	229 213	23.5	23.5	8.2	8.2	31.6	31.6	100.7	100.7	7.1	7.2	10.9		7		83 85			<0.2	2.2	
IM1	Fine	Moderate	14:11	7.8	Middle	3.9	0.2	220	23.2	23.2	8.2	8.2	31.8	31.8	100.5	100.5	7.2		11.0	11.1	7	8	85	818358	806470	<0.2	<0.2	2.3
					Bottom	6.8 6.8	0.2	188 189	22.9 22.9	22.9	8.2 8.2	8.2	32.4 32.3	32.3	100.5	100.5	7.2	7.2	11.6 11.2		9 11		88 88			<0.2	2.4	
					Surface	1.0 1.0	0.2 0.2	179 183	23.5 23.5	23.5	8.2	8.2	31.8 31.8	31.8	100.8	100.8	7.1	7.1	11.5 11.7		6		83 83			<0.2 <0.2	2.3	
IM2	Fine	Moderate	14:06	8.7	Middle	4.4	0.2	193 207	23.3	23.3	8.2 8.2	8.2	32.1 32.1	32.1	100.2 100.2	100.2	7.1		12.7 12.7	12.2	9		86 86	818868	806220	<0.2	<0.2 2.4	2.4
					Bottom	7.7	0.3	158 172	22.9	22.9	8.2	8.2	32.1 32.1	32.1	100.3	100.4	7.2	7.2	12.3 12.3		7		87 88			<0.2	2.5	
					Surface	1.0	0.3	221 223	22.9 22.9	22.9	8.2 8.2	8.2	31.9 31.9	31.9	98.8 98.8	98.8	7.1 7.1		13.9 14.0		10 9		83 83			<0.2	2.4	
IM3	Fine	Moderate	14:01	8.8	Middle	4.4 4.4	0.2	210 229	22.7 22.7	22.7	8.2 8.2	8.2	32.0 32.0	32.0	99.0 99.0	99.0	7.1 7.1	7.1	15.8 15.9	15.1	12 12	12	86 85	819387	806027	<0.2	<0.2 2.5	24
					Bottom	7.8	0.3	206 224	22.8	22.8	8.2	8.2	32.1 32.1	32.1	99.7	99.8	7.1	7.1	15.7 15.5		13		89 88			<0.2	2.4	
					Surface	1.0	0.3	154	22.9	22.8	8.2	8.2	31.9	31.9	99.6	99.6	7.1		13.3		7		84			<0.2	2.5	
IM4	Fine	Moderate	13:55	8.0	Middle	1.0 4.0	0.3	163 158	22.8	22.7	8.2	8.2	31.9	32.2	99.6	99.4	7.1	7.1	13.2	14.3	9	9	84 85 86	819588	805011	<0.2	<0.2	22
					Bottom	4.0 7.0	0.3	163 141	22.7 22.7	22.7	8.2 8.2	8.2	32.2 32.4	32.4	99.4 99.3	99.3	7.1 7.1	7.1	13.9 15.6		10 9		85 88			<0.2	2.2	
					Surface	7.0 1.0	0.3	152 159	22.7	23.1	8.2 8.2	8.2	32.4 31.7	31.7	99.3 99.6	99.6	7.1 7.1		15.8 11.2		7		89 84			<0.2 <0.2	2.2	
IM5	Fine	Moderate	13:46	7.6	Middle	1.0 3.8	0.3	164 159	23.1 22.8	22.8	8.2 8.2	8.2	31.7 31.8	31.8	99.6 98.6	98.6	7.1	7.1	11.4 14.0	13.1	7		83 85 85	820535	804918	<0.2	<0.2	
livio	i iiie	Woderate	13.40	7.0		3.8 6.6	0.3	165 167	22.8 22.8		8.2 8.2		31.8 31.8		98.6 99.4		7.1 7.1		14.3 13.8	13.1	11 12		85 87	020333	804918	<0.2	1.9	
					Bottom	6.6	0.2	175 151	22.8 22.9	22.8	8.2 8.2	8.2	31.8	31.8	99.4 98.1	99.4	7.1 7.0	7.1	13.7 18.2		11		87 83	1	1	<0.2	2.0	
					Surface	1.0	0.2	160 125	22.9 22.8	22.9	8.2	8.2	31.9	31.9	98.1 97.9	98.1	7.0	7.0	18.0		17		84			<0.2	2.0	
IM6	Fine	Moderate	13:38	7.5	Middle	3.8 6.5	0.1	129 132	22.8	22.8	8.2	8.2	31.8	31.8	98.0	98.0	7.0	ŀ	18.9	18.5	17	''	86 88	821062	805807	<0.2	<0.2	2.0
					Bottom	6.5	0.2	137	22.8	22.8	8.2	8.2	31.8	31.8	98.7 98.8	98.8	7.1 7.1	7.1	18.6 18.2		17		88			<0.2	1.9	
					Surface	1.0	0.3	158 172	23.1 23.1	23.1	8.2	8.2	31.8	31.8	98.3 98.1	98.2	7.0	7.0	14.1 14.8		9		83 83			<0.2	1.9	
IM7	Fine	Moderate	13:28	9.2	Middle	4.6 4.6	0.3	157 163	22.9 22.9	22.9	8.2	8.2	31.8	31.8	97.1 97.1	97.1	7.0	-	17.4 17.4	17.2	10		85 85	821324	806859	<0.2	<0.2 2.0	
					Bottom	8.2 8.2	0.3	154 154	22.8 22.8	22.8	8.2 8.2	8.2	31.8 31.8	31.8	96.9 96.9	96.9	6.9 6.9	6.9	19.7 19.8	F	14 13		89 89			<0.2 <0.2	2.1	
					Surface	1.0	0.3	129 141	23.2	23.2	8.0	8.0	29.7 29.7	29.7	97.5 97.6	97.6	7.0 7.0	7.0	14.1 14.2	F	11		84 84			<0.2	1.3	
IM8	Cloudy	Moderate	13:55	8.5	Middle	4.3	0.3	79 84	22.9	22.9	8.1	8.1	31.7	31.7	98.0	98.1	7.0	7.0	17.4	16.0	11	10	85 86	821671	807841	<0.2	<0.2	14
					Bottom	7.5 7.5	0.2	57 60	22.9 22.9	22.9	8.1	8.1	31.8	31.8	98.1 98.1	98.1	7.0	7.0	16.4 16.4		10		88 88			<0.2	1.3	
L			1		L	1.0	0.2	- 00	1 22.0		0.1		01.0		30.1		7.0		10.7		J		~~ <u> </u>		1	1 70.2	1.3	

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 19 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.5 120 23.2 8.0 12.5 83 29.9 97.1 7.0 < 0.2 1.2 Surface 23.2 8.0 29.9 97.1 1.0 0.5 125 23.2 8.0 29 9 97 1 7.0 12.5 q 84 < 0.2 1.2 3.8 0.5 7.0 8 86 1.1 97 22 9 8.1 31.4 97 9 18 1 <02 IM9 14:04 7.6 Middle 8.1 31.4 97.9 822103 808804 Cloudy Moderate 3.8 0.5 101 22.9 8.1 31.4 97 Q 7.0 18.2 9 86 <0.2 1.0 6.6 0.4 72 22.9 8.1 23.6 12 88 <0.2 1.1 Bottom 22.9 8.1 31.8 98.1 7.0 7.0 6.6 0.4 22.9 8.1 31.8 98.0 23.6 10 88 <0.2 1.2 1.0 0.5 116 8.0 14.8 12 84 23.1 30.2 97.4 7.0 < 0.2 1.3 Surface 23.1 8.0 30.2 97.4 8.0 97.4 7.0 85 1.0 0.5 122 23.1 30.2 14.8 10 11 < 0.2 1.1 3.7 0.6 101 8.0 7.0 19.7 86 < 0.2 1.2 22.9 30.9 97.0 30.9 97.0 822263 IM10 Cloudy Moderate 14:13 7.3 Middle 22.9 8.0 19.9 86 809828 7.0 8.0 96.9 86 < 0.2 1.0 3.7 0.6 105 22.9 30.9 19.8 11 6.3 0.4 87 22.9 8.0 31.4 7.0 25.1 12 88 <0.2 1.1 Bottom 22.9 8.0 31.4 97.7 7.0 97.7 6.3 0.4 92 22.9 8.0 31.4 7.0 25.1 11 88 <0.2 1.0 0.5 120 23.5 8.0 13.5 11 84 <0.2 1.1 29.8 Surface 23.5 8.0 29.8 98.2 1.0 0.6 120 8.0 98.2 7.0 10 84 1.3 23.5 29.8 13.6 <0.2 4.3 86 1.3 114 7.0 19.7 10 0.5 23.2 8.1 30.9 98.1 < 0.2 821518 810542 IM11 Cloudy Moderate 14:27 8.5 Middle 23.2 8.1 30.9 98.1 12 4.3 98.1 7.0 87 0.5 124 23.2 8.1 30.9 19.8 < 0.2 7.5 7.0 10 87 0.9 0.3 105 23.1 8.1 31.4 98.0 22.6 < 0.2 Bottom 8.1 31.4 98.0 7.5 0.3 112 23.1 8.1 31 4 98.0 7.0 22.7 10 88 < 0.2 11 1.0 0.6 102 23.3 8.1 15.1 11 84 <0.2 1.1 30.6 Surface 23.3 8.1 30.6 98.9 1.0 0.6 23.3 8.1 30.6 98.9 7.1 15.2 11 84 <0.2 1.0 4.4 0.5 95 23.2 8.1 98.6 7.0 20.0 11 85 <0.2 0.9 31.3 23.2 31.3 98.7 821177 IM12 Cloudy Moderate 14:36 87 Middle 8.1 12 86 811498 8.1 31.3 98.7 7.0 10 13 86 <0.2 1.1 4.4 0.5 104 23.2 20.0 7.7 94 88 1.2 0.4 23.2 8.1 31.3 98.4 7.0 23.6 < 0.2 Bottom 31.3 98.5 77 0.4 97 23.2 8.1 31.3 98.5 7.0 23.2 15 89 <0.2 11 1.0 0.4 84 23.0 13 14 85 <0.2 1.1 8.1 30.5 92.6 6.7 20.3 30.5 92.6 Surface 23.0 8.1 1.0 0.4 87 23.0 8.1 92.6 6.7 20.4 86 <0.2 1.1 -SR2 15:00 4.5 Middle 87 821440 814144 Cloudy Moderate <0.2 3.5 0.3 80 23.0 8.0 30.5 6.7 22.1 16 88 <0.2 1.0 93.2 Bottom 23.0 8.0 30.5 93.2 6.7 3.5 84 93.2 6.7 16 0.4 8.0 30.5 22 1 88 1.0 23.0 <0.2 1.0 0.3 164 23.0 8.0 30.0 95.9 6.9 13.1 10 Surface 30.0 95.9 95.9 1.0 0.3 167 23.0 8.0 30.0 6.9 13.1 9 4.5 0.2 137 23.0 22.7 10 8.1 SR3 13:49 89 Middle 23.0 8 1 31.7 98.5 10 822147 807577 Cloudy Moderate 4.5 145 8.1 31.7 98.4 7.0 22.1 0.2 23.0 10 7.9 69 7.0 9 0.2 22.9 8.1 31.8 98.3 25.8 8.1 31.8 98.3 7.0 Bottom 22.9 98.3 7.0 8.1 7.9 0.3 31.8 25.7 73 22.9 9 1.0 0.3 64 23.0 8.2 7.1 13.9 13 31.9 99.2 Surface 23.0 8.2 31.9 99.2 99.1 7.1 8.2 31 0 12 1.0 0.3 68 23.0 14.0 4.6 0.3 66 22.8 8.2 32.2 98.9 7.1 16.4 13 -SR4A 14:49 9.2 Middle 22.8 8.2 32.2 98.9 817167 807831 Fine Calm 4.6 0.3 70 22.8 8.2 32.3 98.9 7.1 16.5 13 8.2 0.2 22.7 8.2 15.9 14 32.3 Bottom 22.7 8.2 32.3 99.1 8.2 0.2 56 22.7 8.2 32.3 99.1 7.1 15.9 13 1.0 51 14.6 0.0 23.2 8.1 31.0 96.7 6.9 6 Surface 23.2 8.1 31.0 96.8 54 1.0 0.0 23.2 8.1 31.0 96.8 6.9 6 14.7 SR5A Fine Calm 15:04 5.4 Middle 816618 810668 117 4.4 0.1 23.1 8.1 14.8 10 31.3 31.3 99.4 23.1 8.1 7.1 Bottom 99.4 7.1 0.1 120 23.1 8.1 31.3 14.6 9 1.0 0.1 78 23.2 8.1 6.6 14.9 9 30.6 91.4 Surface 23.2 8.1 30.6 91.4 1.0 83 8.1 91.4 6.6 0.1 23.2 30.6 14.9 7 SR6 15:25 4.1 Middle 817886 814634 Fine Calm 3.1 0.1 68 22.8 17.7 30.6 6.8 Bottom 22.8 8.1 30.6 94.0 6.8 94.1 3.1 0.1 69 22.9 8.1 30.6 6.8 17.6 10 1.0 0.8 72 23.3 8.0 31.2 93.1 6.6 8.7 23.3 Surface 8.0 31.2 93.1 1.0 0.9 72 23.3 8.0 31.2 93.0 6.6 8.7 10.5 9.4 0.6 52 23.1 8.0 6.5 5 31.7 91.3 SR7 Cloudy Moderate 15:50 21.0 Middle 31.7 91.3 9.3 823636 823744 10.5 0.6 56 31.7 6.5 6 23.1 8.0 91.3 9.4 20.0 0.4 12 23.1 8.0 31.8 91.4 6.5 9.8 4 Bottom 8.0 31.8 91.5 6.5 20.0 0.5 23.1 8.0 31.8 91.5 6.5 9.8 1.0 23.4 8.1 6.9 13.7 Surface 8.1 30.3 96.3 23.4 1.0 23.4 8.1 30.4 96.3 6.9 13.9 8 69 SR8 Cloudy Calm 14:44 4.1 Middle 820246 811418 3.1 96.7 96.8 13.7 22.9 8.1 30.6 7.0 Bottom 22.9 8.1 30.6 96.8 7.0 3.1 8

DA: Depth-Average

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

Water Quality Monitoring Results on 19 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Average Value Value Value (Northing) (Easting) Value 1.0 0.9 22.7 18.0 24 8.1 31.5 97.9 7.0 14 85 < 0.2 2.0 Surface 22.7 8.1 31.5 97.9 1.0 0.9 24 22.7 8.1 31.5 97 g 7.0 18.3 16 85 < 0.2 2.0 4.5 0.8 24 22.7 8.2 31.9 97.0 7.0 25.8 16 88 <0.2 2.1 C1 09:02 9.0 Middle 22.7 8.2 31.9 97.0 815629 804255 Fine Moderate 23.4 18 88 2.0 0.8 22.7 8.2 31.9 26.1 16 88 <0.2 1.9 8.0 0.8 23 22 91 < 0.2 2.0 22.7 8.2 31.9 97.0 7.0 26.1 Bottom 31.9 97.0 7.0 8.0 0.8 24 22.7 8.2 31.9 97.0 26.0 24 92 <0.2 22 1.0 346 0.5 23.0 7.9 28.0 91.6 6.7 10.2 85 <0.2 1.8 28.0 91.6 Surface 23.0 7.9 1.0 0.5 23.0 7.9 28.0 91.6 6.7 10.3 4 86 <0.2 1.9 352 1.9 6.2 0.5 23.0 7.9 28.7 90.2 6.6 16.3 4 88 <0.2 28.7 90.2 825694 806938 C2 Cloudy Moderate 09:56 12.4 Middle 7.9 88 6.2 0.5 319 7.9 28.7 90.2 6.6 16.5 88 < 0.2 1.8 23.0 4 89 11.4 0.4 22.9 8.0 29.3 91.6 6.7 20.4 < 0.2 1.8 Bottom 29.3 91.7 6.7 11 4 0.4 q 22.9 8.0 29.3 91.7 20.4 4 89 <0.2 17 1.0 0.6 267 22.8 8.0 30.4 91.9 6.6 11.2 4 83 <0.2 1.2 30.4 91.9 Surface 1.0 0.7 291 22.8 8.0 30.4 91.9 6.6 11.3 84 <0.2 1.2 5.8 0.6 268 17.3 6 85 1.0 22.7 8.0 31.5 90.2 <0.2 C3 11.5 Middle 22.7 8.0 31.5 90.2 822095 817791 Cloudy 08:02 Moderate 90.2 6.5 0.9 5.8 8.0 31.5 17.5 86 < 0.2 0.7 272 22.7 6 10.5 0.5 265 22.7 8.0 6.6 18.6 6 88 < 0.2 1.1 31.7 92.1 Bottom 22.7 8.0 31.7 92.2 6.6 10.5 8.0 31.7 92.2 18.8 88 11 0.5 278 22.7 5 <02 96.6 96.5 2.0 1.0 0.7 19 22.8 8.1 31.0 7.0 13.9 85 <0.2 Surface 31.0 96.6 1.0 0.7 19 22.8 8.1 7.0 15.3 6 86 <0.2 4.0 0.7 19 22.7 8.1 31.3 6.9 18.4 6 88 <0.2 1.8 09:17 Middle 22.7 31.3 96.1 818328 806461 IM1 Fine Moderate 79 8 1 1.8 4.0 0.7 19 22.7 8.1 31.3 6.9 18.2 88 <0.2 6.9 90 1.8 0.6 22.7 8.2 7.0 22.5 6 <0.2 31.4 97.1 Bottom 22.7 8.2 31.4 97.2 7.0 6.9 0.6 8.2 31.4 97.2 21.9 90 1.6 9 22.7 6 <0.2 85 85 1.0 0.7 22.8 8.1 30.9 7.0 11.2 <0.2 1.7 5 6 Surface 30.9 97.1 8.1 30.9 97.1 1.8 1.0 0.7 29 22.8 11.3 <0.2 4.4 0.6 36 22.7 8.1 31.3 96.4 6.9 20.7 5 87 <0.2 1.8 31.3 96.4 818856 806191 IM2 Fine Moderate 09:21 8.8 Middle 8.1 4.4 0.6 37 22.7 8.1 31.3 96.4 6.9 20.6 6 87 < 0.2 2.0 7.8 0.5 37 22.7 8.1 31.7 25.5 90 <0.2 2.0 Bottom 22.7 8.1 31.7 97.1 7.8 8.1 31.7 97 1 24.8 90 <0.2 1.8 0.6 22.7 1.0 0.5 12.8 85 2.4 22.8 8.1 6 30.9 <0.2 96.7 Surface 22.8 8.1 30.9 1.0 0.6 17 8.1 30.9 96.7 7.0 13.0 6 86 < 0.2 1.8 22.8 1.6 4.5 0.5 21 22.7 8.1 31.3 96.2 6.9 23.9 8 87 <0.2 IM3 Fine Moderate 09:26 8.9 31.3 819418 806005 4.5 0.5 22 22.7 8.1 31.3 96.3 24.4 8 88 < 0.2 7.9 0.4 22.7 91 <0.2 2.0 8.1 31.5 96.7 7.0 23.1 Bottom 22.7 8.1 31.5 96.7 7.0 7.9 96.7 7.0 0.4 28 22.7 8.1 31.5 21.4 8 91 <0.2 2.0 0.7 22.7 8.2 97.4 7.0 16.0 9 85 <0.2 1.9 31.3 97.4 Surface 22.7 8.2 31.3 1.0 0.8 8.2 31.3 97.4 7.0 16.5 86 < 0.2 1.8 22.7 8 41 0.6 5 22.7 8.2 31.5 96.9 7.0 21.2 12 89 <0.2 2.0 IM4 Moderate 09:33 8.2 Middle 31.5 96.9 819597 805051 Fine 41 0.6 5 22.7 8.2 31.5 96.9 7.0 21.4 10 89 < 0.2 1.8 7.2 0.6 8 22.7 8.1 31.5 97.5 22.1 13 91 <0.2 1.8 Bottom 22.7 8.1 31.5 97.6 7.0 7.2 0.6 22.7 8.1 31.5 97.6 7.0 21.6 13 91 <0.2 1.8 1.0 0.8 8.1 31.0 8 <0.2 1.8 22.8 8.1 31.0 97.7 Surface 1.0 0.9 33 22.8 8.1 31.0 97.7 7.0 12.5 86 <0.2 1.9 8 11 1.9 3.7 0.8 31 97.3 7.0 19.4 89 <0.2 22.7 8.1 31.2 IM5 Moderate 09:41 7.4 Middle 22.7 8.1 31.2 97.3 18.0 820547 804914 8.1 97.3 7.0 89 3.7 0.9 32 31.2 19.4 11 <0.2 22.7 6.4 0.7 29 22.7 8.1 31.3 98.2 7.1 22.3 11 92 <0.2 1.7 31.3 98.3 Bottom 21.7 6.4 0.7 30 22.7 8.1 08.3 11 92 < 0.2 1.8 1.0 0.3 22.8 10.9 1.8 8.1 30.6 6.9 10 85 <0.2 Surface 22.8 8 1 30.6 96.0 1.0 0.3 41 22.8 8.1 96.0 6.9 10.2 10 86 <0.2 1.6 30.6 3.8 23.5 88 1.7 0.3 22.8 8.1 30.6 96.2 7.0 8 <0.2 96.2 821057 IM6 Fine Moderate 09:48 7.5 Middle 22.8 8.1 30.6 88 805838 7.0 1.7 3.8 0.3 28 8.1 88 22.8 30.6 96.2 23.9 8 < 0.2 30 31 6.5 0.3 35 22.8 8.1 30.7 96.7 7.0 23.1 91 <0.2 1.8 Bottom 30.7 96.8 7.0 96.8 7.0 6.5 0.3 22.8 8.1 30.7 22.6 91 < 0.2 1.6 1.0 0.4 65 22.8 8.2 31.0 95.9 6.9 10.7 10 84 <0.2 1.6 Surface 22.8 8.2 31.0 95.9 0.4 22.8 8.2 31.0 95.9 6.9 10.5 85 <0.2 1.7 0.4 22.8 8.2 6.9 17 87 <0.2 1.8 31.1 95.8 IM7 09:55 31.0 95.8 821331 806811 Fine Moderate 9.0 Middle 22.8 8.2 14 4.5 8.2 95.8 6.9 18.8 88 <0.2 1.7 31.0 18 0.4 61 22.8 8.0 0.3 54 16 91 <0.2 1.7 22.8 8.2 31.0 95.9 6.9 23.7 31.0 6.9 Bottom 22.8 8.2 96.0 96.0 8.2 90 8.0 0.4 55 22.8 31.0 23.4 16 < 0.2 1.8 1.0 0.2 342 23.0 8.0 28.7 93.1 6.8 18.9 18 84 <0.2 1.3 Surface 23.0 8.0 28.7 93.2 1.0 0.2 23.0 8.0 28.7 93.2 6.8 18.9 19 84 <0.2 1.3 353 4.4 0.3 19.8 18 1.5 22.9 8.0 29.2 93.5 6.8 86 <0.2 821698 29.2 93.5 807832 IM8 Cloudy Moderate 09:31 8.8 Middle 22.9 8.0 19 1.4 4.4 0.3 23 22.9 8.0 29.2 93.5 6.8 19.8 18 86 <0.2 7.8 32 22.8 8.1 94.9 6.9 24.5 20 88 <0.2 1.3 0.5 29.8 22.8 8.1 29.8 Bottom 94.9 6.9 7.8 32 8.1 22 88 0.6 6.9 24.6 22.8 29.8 94.9 < 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 19 April 18 during

during Mid-Flood Tide

Water Qual	ity Monite	oring Resu	lts on		19 April 18	during Mid-	Flood Ti	de																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)	pН	8	alinity	(ppt)	DO Satur (%)		Dissol Oxyg		Turbidity(NTU)	Suspende (mg/		Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/l		kel (μg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value A	verage Va	lue A		Value Av	verage		DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)		DA Value	
					Surface	1.0	0.3	338 311	22.9 22.9	22.9	8.0		0.5		94.5	94.5	6.8		20.6	-	27 25		83 84				<0.2	1.0	
IM9	Cloudy	Moderate	09:22	7.5	Middle	3.8	0.3	339	22.9	22.9	8.0	8.0 29			94.2		6.8	6.8	20.7	22.0	24	26	85	86	822086	808822	<0.2	<0.2	1.0
					Bottom	6.5	0.3	359 332	22.9 22.9	22.9	8.0	e n 29	0.7	29.7	94.8		6.9	6.9	20.7 24.7	E	26 26		86 89				<0.2	1.0	
						6.5 1.0	0.3	332 306	22.9 22.8		8.0	29	0.7		94.8		6.9	0.0	24.7 17.6		25 20		89 84				<0.2	1.0	
					Surface	1.0	0.6	306 313	22.8 22.8	22.8	8.0	8.0	0.1	30.1	94.0 93.8	94.0	6.8	6.8	17.7 18.8	Ī	20 21		84 85				<0.2	0.9	
IM10	Cloudy	Moderate	09:15	8.1	Middle	4.1	0.5	313	22.8	22.8	8.0		0.1		93.8	93.8	6.8	-	18.8	19.9	22	<u>25</u>	86	86	822228	809866	<0.2	<0.2	0.9
					Bottom	7.1 7.1	0.4	316 340	22.8 22.8	22.8	8.0).1).1		93.7		6.8	6.8	23.2	-	34 32		88 89				<0.2	0.9	
					Surface	1.0 1.0	0.6	294 310	22.8 22.8	22.8	8.0).5).5		92.6 92.6		6.7 6.7		18.1 18.2		22 24		84 84				<0.2	1.0	
IM11	Cloudy	Moderate	08:56	8.3	Middle	4.2	0.5	295	22.7	22.7	8.0	8.0 30).5	30.5	92.4	02.4	6.7	6.7	21.7	21.1	25	24	86	86	821518	810564	<0.2	1.0	□
	Cloudy	Moderate	00.00	0.0		4.2 7.3	0.6	300 294	22.7 22.7		8.0	30	0.5		92.4		6.7 6.7		21.8 23.3		25 24		86 89	00	021010	0.000.	<0.2	1.1	
					Bottom	7.3	0.4	316 273	22.7 22.8	22.7	8.0		0.5	30.5	93.2	93.1	6.7 6.7	6.7	23.4 16.5		23 22		89 83				<0.2	1.0	1
					Surface	1.0	0.7	284	22.8	22.8	8.0	8.0	0.6	30.6	92.2	92.2	6.7	6.7	16.6	E	22		84				<0.2	1.1	
IM12	Cloudy	Moderate	08:50	8.2	Middle	4.1	0.6	275 275	22.8 22.8	22.8	8.0		0.6		92.3		6.7 6.7	-	17.5 17.4	19.5	23 24	23	86 86	86	821167	811494	<0.2	<0.2	
					Bottom	7.2 7.2	0.5 0.5	282 283	22.8 22.8	22.8	8.0		0.6		93.0		6.7 6.7	6.7	24.6 24.6	F	22 22		88 88				<0.2	1.1	
					Surface	1.0	0.3	319	22.8	22.8	8.0	8.0 30).5	30.5	94.0	94.1	6.8		20.3		9		84				<0.2	0.9	
SR2	Claudy	Moderate	09:25	4.5		1.0	0.3	341	22.8		8.0	30	.5		94.1		6.8	6.8	20.2	20.8	9	11	84	86	924.474	814180	<0.2	<0.2	0.9
SKZ	Cloudy	Moderate	08:25	4.5	Middle	3.5	0.3	321	22.8	•	8.0	3(0.5		95.9		6.9		21.5	20.0	- 14	"	- 88	00	821474	014100	<0.2	0.9	
					Bottom	3.5	0.3	346	22.8	22.8	8.0	8.0).5	30.5	96.2		7.0	7.0	21.2		13		88				<0.2	1.0	
					Surface	1.0	0.5 0.5	13 14	22.8 22.8	22.8	8.1).6).6		95.8 95.7	95.8	6.9	6.9	18.4 18.5	E	30 30		-				-	-	
SR3	Cloudy	Moderate	09:36	9.5	Middle	4.8	0.6	23 23	22.8 22.8	22.8	8.1).7		95.8 95.8	95.8	6.9	0.5	19.9 19.9	21.2	28 29	<u>30</u>	-	-	822146	807586	-		
					Bottom	8.5 8.5	0.5 0.6	25 26	22.7 22.7	22.7	0.1	0 1 30	١.0	20.0	06.0		7.0	7.0	25.3 25.2	F	30 31		-				-	-	
					Surface	1.0	0.2	251	22.6	22.6	8.1	8.1 31	.0	31.0	90.9		6.6		13.7		14		-						#
SR4A	Fine	Calm	08:39	9.3	Middle	1.0 4.7	0.2	258 257	22.6 22.6	22.6	8.1	31	.0		91.0		6.6 6.6	6.6	13.4 13.4	13.8	15 16	17	-		817159	807831	-	-	- '
SK4A	Tille	Callii	00.59	9.3		4.7 8.3	0.3	273 259	22.6 22.6		8.1	31	.0		91.5		6.6 6.7		13.3 14.7	13.0	16 21	17	-	-	017139	807831	-	· -	_
					Bottom	8.3	0.3	270	22.6	22.6	8.1	8.1	.1	31.1	92.4	92.4	6.7	6.7	14.1		21		-				-	-	
					Surface	1.0	0.4	284 285	22.6 22.6	22.6	8.1		0.7		90.6	90.6	6.6	6.6	14.0 13.8	_	9		-				-	-	_
SR5A	Fine	Calm	08:25	5.2	Middle	-	-	-	-	-	-	-	-	-	-	- -	-	0.0	-	15.0	-	14	-	-	816609	810709	-		
					Bottom	4.2 4.2	0.3	291 301	22.6 22.6	22.6	8.1).7	30.7	91.9	92.0	6.7	6.7	15.7 16.3	F	18 19		-				-	-	┦ '
					Surface	1.0	0.2	226	22.7	22.7	8.1	0 1 30).6		92.9	02.0	6.7		12.0		11		-				-		
one	Fire	0-1	00:04	4.0		1.0	0.2	233	22.7		8.1	30	0.6		92.9		6.7	6.7	12.2	40.7	12	11	-		817882	814635	-	-	_
SR6	Fine	Calm	08:04	4.2	Middle	3.2	0.2	226	22.7	-	8.1	20).7		94.9	-	6.9		13.6	12.7	- 11	11	-	-	817882	814635	-	· -	_
					Bottom	3.2	0.2	236	22.7	22.7	8.1	8.1).7	30.7	98.2	96.6	7.1	7.0	12.8		11		-				-	-	
					Surface	1.0	0.4	68 74	22.7 22.7	22.7	8.0	8.0 31	.2		90.4		6.5	6.5	8.2 8.1	H	6 4		-				-	-	Ⅎ '
SR7	Cloudy	Moderate	07:27	20.4	Middle	10.2 10.2	0.4 0.5	60 61	22.7 22.7	22.7	8.0		.5 .5		88.8		6.4	0.3	9.7 9.7	9.2	7	7	-	-	823633	823733	-		
					Bottom	19.4	0.4	52	22.7	22.7	8.0	8.0 31	.7	31.7	88.0		6.3	6.3	9.9	þ	7		-				-	-	ゴ '
					Surface	19.4 1.0	0.4	57 -	22.7 22.8	22.8	8.0	e n 30).2	30.2	93.5		6.8		9.6 13.5		8 22		-				-	-	\pm
						1.0	-	-	22.8	22.0	8.0	30).2	50.2	93.6	55.0	6.8	6.8	13.5	F	20		-				-	-	_
SR8	Cloudy	Calm	08:44	3.9	Middle	2.9	-	-	22.7	-	-			-	- 05.0	-	-		- 14.6	14.1	- 22	22	-	-	820246	811418	-	-	
					Bottom	2.9	-	-	22.7	22.7	8.0		0.3		95.0 95.1		6.9 6.9	6.9	14.6 14.7	<u> </u>	22		-				-	<u> </u>	1

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 21 April 18 during

during Mid-Ebb Tide

Water Qual	ity Monite	oring Resu	its on		21 April 18	during Mid-		9																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	mperature (°C)		ЭΗ	Salir	ity (ppt)		turation %)	Disso Oxy		Turbidity(I	TU) Sus	ended mg/L	Solids Tot	al Alkalinit (ppm)	Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		kel (μg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA V	lue	DA Va	lue DA	(Northing)	(Easting)	Value	DA Valu	ue DA
					Surface	1.0	0.4	210 214	23.5	23.5	8.2	8.2	32.7	32.7	105.5	105.5	7.4		11.6 11.6		9 B		5 6			<0.2	0.8	
C1	Fine	Moderate	16:05	9.0	Middle	4.5	0.4	194	23.4	23.4	8.2	8.2	32.8	32.8	104.3	104.3	7.4	7.4	13.5	145	9	12 8	7 00	815626	804248	<0.2	-0.2 1.0	1.0
						4.5 8.0	0.5	195 186	23.4 23.4		8.2 8.2		32.8 32.8		104.3		7.4 7.3		13.5 18.3		7	8	9			<0.2	0.9	9
					Bottom	8.0	0.3	204	23.4	23.4	8.2	8.2	32.8	32.8	103.0	103.0	7.3	7.3	18.3		8	ç	0			<0.2	1.0	0
					Surface	1.0	0.2	204 219	23.8 23.8	23.8	7.9 7.9	7.9	28.5 28.5	28.5	95.7 95.0	95.4	6.9	6.7	15.3 15.4		5		5 5			<0.2	2.6	
C2	Fine	Moderate	15:09	12.1	Middle	6.1 6.1	0.4 0.5	162 177	23.2 23.2	23.2	7.9 7.9	7.9	30.6 30.6	30.6	91.0 91.1	91.1	6.5 6.5	6.7	13.7 13.8		4 5	15 8		825678	806971	<0.2	<0.2 2.6	
					Bottom	11.1	0.3	162	23.2	23.2	7.9	7.9	31.1	31.1	93.4	93.5	6.7	6.7	16.0		6	8	9			<0.2	2.8	В
						11.1	0.3	178 56	23.2		7.9 8.0		31.1		93.5 94.5		6.7		16.0 11.4		1		5			<0.2	2.6 1.8	
					Surface	1.0	0.4	56	23.6	23.6	8.0	8.0	30.6	30.6	94.5	94.5	6.7	6.7	11.4		1	8	5			<0.2	1.8	В
C3	Fine	Moderate	17:03	12.3	Middle	6.2	0.2	97 102	23.4 23.4	23.4	8.0	8.0	31.1	31.1	92.3 92.2	92.3	6.6		10.0		3		88	822116	817803	<0.2	<0.2	B 1.8
					Bottom	11.3 11.3	0.2	106 113	23.2	23.2	8.0	8.0	31.7	31.7	92.0 92.1	92.1	6.6	6.6	10.0		5	9	0			<0.2	1.8	
					Surface	1.0	0.3	239	23.5	23.5	8.2	8.2	32.3	32.3	103.9	103.9	7.3		9.6		9	8	5			<0.2	1.2	2
	_					1.0 3.9	0.3	244 222	23.5 23.4		8.2 8.2		32.3 32.4		103.9 102.4		7.3 7.3	7.3	9.6 11.4		0		6 00			<0.2	1.1	2
IM1	Fine	Moderate	15:49	7.7	Middle	3.9	0.3	228	23.4	23.4	8.2	8.2	32.4	32.4	102.4	102.4	7.3		11.4	10.7	9	10	6	818372	806433	<0.2	<0.2	3
					Bottom	6.7	0.3	236 253	23.4 23.4	23.4	8.2 8.2	8.2	32.4 32.4	32.4	102.2 102.2	102.2	7.2	7.2	11.2 11.2		0		8			<0.2	1.2	
					Surface	1.0	0.2	216 224	23.5 23.5	23.5	8.2 8.2	8.2	32.3 32.3	32.3	104.1 104.1	104.1	7.4		10.5 10.5		9 B		5 5			<0.2	1.1	
IM2	Fine	Moderate	15:43	8.5	Middle	4.3	0.3	203	23.5	23.5	8.2	8.2	32.3	32.3	102.9	102.9	7.3	7.4	11.7	11 2	В	10 8	6 86	818844	806216	<0.2	-0.2 1.2	2 12
	10	Moderate	10.10	0.0		4.3 7.5	0.3	211 196	23.5 23.3		8.2 8.2		32.3 32.4		102.9 102.4		7.3 7.3		11.7 11.4		4 4	8	7	0.0011	000210	<0.2	1.1	1
					Bottom	7.5	0.2	204	23.3	23.3	8.2	8.2	32.4	32.4	102.4	102.4	7.3	7.3	11.4		4	8	8			<0.2	1.2	2
					Surface	1.0	0.2	191 202	23.6 23.6	23.6	8.2 8.2	8.2	32.1 32.1	32.1	104.2 104.2	104.2	7.4	7.4	10.3		0		5 5			<0.2	1.2	
IM3	Fine	Moderate	15:38	8.6	Middle	4.3 4.3	0.3	164 171	23.5 23.5	23.5	8.2 8.2	8.2	32.3 32.3	32.3	103.3 103.3	103.3	7.3 7.3	7.4	10.9 10.9		0		7 7	819389	806012	<0.2	<0.2	
					Bottom	7.6	0.2	152	23.4	23.4	8.2	8.2	32.4	32.4	102.8	102.8	7.3	7.3	11.4		9	8	9			<0.2	1.1	1
						7.6 1.0	0.2	153 210	23.4		8.2 8.2		32.4		102.8		7.3 7.4	7.0	11.4 11.5		9		5			<0.2	1.1 1.4	
					Surface	1.0	0.3	219	23.7	23.7	8.2	8.2	31.8	31.8	104.8	104.8	7.4	7.4	11.5		9	8	6			<0.2	1.5	5
IM4	Fine	Moderate	15:30	7.8	Middle	3.9 3.9	0.2	210 215	23.7 23.7	23.7	8.2 8.2	8.2	32.0 32.0	32.0	104.2 104.2	104.2	7.4		11.1 11.1		9		6 6 87	819563	805053	<0.2	<0.2	1.5
					Bottom	6.8 6.8	0.2	225 241	23.7	23.7	8.2 8.2	8.2	32.0 32.0	32.0	103.1	103.1	7.3 7.3	7.3	12.2 12.2		0		9			<0.2	1.4	
					Surface	1.0	0.3	177	23.4	23.4	8.1	8.1	31.4	31.4	100.8	100.8	7.2		12.5		0	8	6			<0.2	1.6	6
						1.0 3.8	0.3	185 192	23.4 23.3		8.1 8.1		31.4 31.7		100.8		7.2 7.1	7.2	12.5 16.8		0		7 07			<0.2	1.7	2
IM5	Fine	Moderate	15:21	7.6	Middle	3.8	0.2	208	23.3	23.3	8.1	8.1	31.7	31.7	100.1	100.1	7.1		16.8	15.5	0	13	8 07	820574	804922	<0.2	1.5	5 1.6
					Bottom	6.6	0.3	190 204	23.3 23.3	23.3	8.1 8.1	8.1	31.8	31.8	100.1 100.5	100.3	7.1	7.1	18.2 16.1		7	8	7 8			<0.2	1.5	
					Surface	1.0	0.2	202 206	23.6 23.6	23.6	8.1 8.1	8.1	31.3	31.3	100.7	100.7	7.1 7.1		13.6 13.6		2	8	5 6			<0.2	1.6	
IM6	Fine	Moderate	15:14	7.2	Middle	3.6	0.2	191	23.4	23.4	8.1	8.1	31.4	31.4	100.0	100.1	7.1	7.1	14.9	164	2	13 8	6 86	821086	805805	<0.2	-0.2 1.7	7 16
	10	Moderate	10.11			3.6 6.2	0.2	201 162	23.4 23.4		8.1 8.1		31.4 31.8		100.1 101.4		7.1 7.2		15.2 20.4		5	- 8	7	02.000	000000	<0.2	1.6	
					Bottom	6.2	0.1	176	23.4	23.4	8.1	8.1	31.8	31.8	101.4	101.4	7.2	7.2	20.4		5	8	8			<0.2	1.4	4
					Surface	1.0	0.1	215 215	23.8	23.8	8.1 8.1	8.1	29.7	29.7	101.3	101.3	7.2	7.2	11.6 11.6		4		5 6			<0.2	2.2	
IM7	Fine	Moderate	15:07	9.0	Middle	4.5 4.5	0.2	134 144	23.4 23.4	23.4	8.1 8.1	8.1	31.5 31.5	31.5	100.7	100.7	7.2	1.2	15.0 15.0		3		6 6 87	821334	806863	<0.2	<0.2 1.9	
					Bottom	8.0	0.1	138	23.4	23.4	8.1	8.1	32.0	32.0	100.6	100.6	7.1	7.1	15.6		3	8	9			<0.2	1.6	6
						8.0 1.0	0.1	145 146	23.4		8.1		32.0		100.6		7.1		15.6 12.4		0		5	 		<0.2	1.5 1.9	
					Surface	1.0	0.2	154	23.7	23.7	8.0	8.0	30.3	30.3	100.8	100.9	7.2	7.2	12.3		1	8	6			<0.2	1.9	9
IM8	Fine	Moderate	15:36	8.5	Middle	4.3	0.2	89 92	23.7	23.7	8.0	8.0	30.8	30.8	101.9 101.9	101.9	7.2		13.1 13.2		1		7 7 88	821688	807839	<0.2	<0.2 1.9	
					Bottom	7.5	0.2	45	23.5	23.5	8.1	8.1	31.9	31.9	100.7	100.8	7.1	7.1	14.1		2	9	0			<0.2	2.2	2
DA: Denth-Aver			l l			7.5	0.2	47	23.5		8.1		31.9	l	100.9		7.1		14.1		2	9	U	1	<u> </u>	<0.2	1.9	<u>/ </u>

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring during Mid-Ebb Tide

Water Qua	ity Monite	oring Resu	lts on		21 April 18	during Mid-l)																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Depth	ı (m)	Current Speed	Current	Water Ter	mperature (°C)		pН	Salir	ity (ppt)		aturation (%)	Disso Oxy		Turbidity	(NTU)	Suspende (mg	d Solids T /L)	otal Alkal (ppm)		oordinate HK Grid	Coordinate HK Grid	Chron (µg/		kel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Camping Dopi	. (,	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA \	/alue [Northing)	(Easting)			
					Surface	1.0	0.2	166 168	24.0 24.0	24.0	8.1 8.1	8.1	29.1	29.1	101.2	101.2	7.2		11.8 11.8		13 13		86 88				<0.2	2.3	
IM9	Fine	Moderate	15:45	7.5	Middle	3.8	0.2	127	23.8	23.8	8.1	8.1	29.9	29.9	101.4	101.4	7.2	7.2	13.0	13.8	13	12	88	88	822121	808834	<0.2	-0.2 2.4	4 24
					Bottom	3.8 6.5	0.2	128 63	23.8 23.4	23.4	8.1	8.1	31.8	31.8	101.4 100.8	100.9	7.2 7.2	7.2	13.1 16.6		12 12		87 89				<0.2	2.4	4
						6.5 1.0	0.3	67 114	23.4		8.1 8.0		31.8 29.5		100.9		7.2		16.4 12.8		11		90 85				<0.2	2.4	
					Surface	1.0	0.5 0.4	119 106	23.7	23.7	8.0 8.1	8.0	29.5 30.2	29.5	100.0 100.4	100.0	7.2 7.2	7.2	12.8 13.5		10 13		85				<0.2	2.4	4
IM10	Fine	Moderate	15:54	8.5	Middle	4.3	0.5	115	23.7	23.7	8.1	8.1	30.2	30.2	100.4	100.4	7.2		13.5	13.6	14	12	88	88	822223	809812	<0.2	<0.2	5 2.4
					Bottom	7.5 7.5	0.3	75 79	23.4 23.4	23.4	8.1 8.1	8.1	31.3	31.3	99.1 99.1	99.1	7.1 7.1	7.1	14.4 14.4		13 12		90 90				<0.2	2.2	<u>2</u> 6
					Surface	1.0	0.2	135 138	24.1	24.1	8.1 8.1	8.1	29.7 29.7	29.7	103.2 103.1	103.2	7.3		12.4 12.4		12 11		85 85				<0.2	2.2	2
IM11	Fine	Moderate	16:08	7.8	Middle	3.9	0.3	88	23.7	23.7	8.1	8.1	30.8	30.8	101.8	101.9	7.2	7.3	14.6	14.2	12	12	88	88	821512	810539	<0.2	2.0	0 04
					Bottom	3.9 6.8	0.3	95 80	23.7 23.6	23.6	8.1 8.1	8.1	30.8 31.2	31.2	101.9 102.0	101.9	7.2 7.2	7.2	14.8 15.4		14 13		90				<0.2 <0.2	<0.2 2.1	1
						6.8 1.0	0.3	85 97	23.6		8.1 8.1		31.2 29.5		101.8 100.7		7.2	1.2	15.3 12.9		13 11		90 86				<0.2	2.5	
					Surface	1.0	0.3	99	23.9	23.9	8.1	8.1	29.5	29.5	100.7	100.7	7.2	7.2	12.9		12		85				<0.2	2.2	2
IM12	Fine	Moderate	16:17	8.4	Middle	4.2	0.3	108 116	23.8 23.8	23.8	8.1 8.1	8.1	30.2	30.2	100.9 101.0	101.0	7.2		14.6 14.7	16.5	13 12	13	88	88	821171	811504	<0.2	<0.2	4 2.3
					Bottom	7.4 7.4	0.4	100 100	23.7	23.7	8.1 8.1	8.1	30.9	30.9	100.6 100.7	100.7	7.1 7.1	7.1	22.0 21.8		15 15		90 89				<0.2	2.1	
					Surface	1.0 1.0	0.4 0.4	85 93	23.8 23.8	23.8	8.0 8.0	8.0	29.7 29.7	29.7	98.0 97.9	98.0	7.0 7.0		12.5 12.5		13 13		86 85				<0.2	2.2	
SR2	Fine	Moderate	16:43	3.9	Middle	-	-	-	- 1	-	-	-	-	-	-	-	-	7.0	-	14.5	-	13		87	821435	814181	-	<0.2	
					Bottom	2.9	0.3	85	23.5	23.5	8.0	8.0	30.2	30.2	95.9	95.9	6.9	6.9	16.5		12		88				<0.2	2.3	3
			1			2.9 1.0	0.3	90 222	23.5		8.0		30.2 29.3		95.8 99.9		6.8 7.1	0.0	16.6 12.3		12 14		88	_			<0.2	2.1	
					Surface	1.0	0.3	224 181	23.8 23.4	23.8	8.0	8.0	29.3 30.4	29.3	99.8 98.9	99.9	7.1 7.1	7.1	12.3 14.5		13 14		-				-	-	_
SR3	Fine	Moderate	15:30	9.3	Middle	4.7	0.1	183	23.4	23.4	8.0	8.0	30.4	30.4	98.9	98.9	7.1		14.5	15.1	13	14	-	-	822131	807588	-	· 🗀	
					Bottom	8.3 8.3	0.2	45 48	23.3	23.3	8.0	8.0	31.6 31.6	31.6	99.8 99.7	99.8	7.1	7.1	18.4 18.3		15 16	-	-				-	<u> </u>	
					Surface	1.0 1.0	0.1	48 51	23.5 23.5	23.5	8.2 8.2	8.2	32.2 32.2	32.2	101.5 101.5	101.5	7.2		11.5 11.5		9 10	-	-				-	-	_
SR4A	Fine	Calm	16:27	8.8	Middle	4.4	0.1	74 78	23.3	23.3	8.2 8.2	8.2	32.5 32.5	32.5	100.9	100.9	7.1	7.2	13.6	13.3	10	11	-	-	817193	807822	-		
					Bottom	7.8	0.2	74	23.2	23.2	8.2	8.2	32.6	32.6	100.4	100.4	7.1	7.1	14.8		13		-				-	_	
						7.8 1.0	0.2	75 85	23.2		8.2 8.1		32.6 31.0		100.4 99.7	99.7	7.1 7.0		14.8 13.7		14 12		-				-	-	+
					Surface	1.0	0.1	91	24.0	24.0	8.1	8.1	31.0	31.0	99.7	99.7	7.0	7.0	13.7		12	-	-				-	-	7
SR5A	Fine	Calm	16:43	5.3	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	13.6	-	14	-	-	816565	810711	-	· =	
					Bottom	4.3	0.2	121 124	24.1 24.1	24.1	8.1 8.1	8.1	31.3	31.3	99.8 99.8	99.8	7.0	7.0	13.5 13.5		16 14		-				-	-	
					Surface	1.0 1.0	0.1	33 35	24.0 24.0	24.0	8.1 8.1	8.1	30.6 30.6	30.6	97.2 97.2	97.2	6.9		13.0 13.0		13 14	-	-				-	-	7
SR6	Fine	Calm	17:04	4.2	Middle	-	-	-	-	-	-	-	-		-	-	-	6.9	-	14.2	-	15	-	-	817928	814658	-	. =	
					Bottom	3.2	0.1	0	23.8	23.8	8.1	8.1	30.6	30.6	97.2	97.2	6.9	6.9	15.3		16	: <u> </u>	-				-		=
						3.2 1.0	0.1	93	23.8		8.1 8.0		30.6		97.2 95.1		6.9	0.5	15.3 8.4		15 7		-	+			-	+	+
					Surface	1.0	0.5	100 66	23.6	23.6	8.0	8.0	31.2 31.6	31.2	95.0 92.5	95.1	6.7	6.7	8.4 9.6		8		-				-	-	_
SR7	Fine	Moderate	17:31	18.0	Middle	9.0	0.5	68	23.4	23.4	8.0	8.0	31.6	31.6	92.5	92.5	6.6		9.6	10.1	8	8	-	-	823617	823746	-		_
					Bottom	17.0 17.0	0.2	53 56	23.4 23.4	23.4	8.0	8.0	31.6 31.6	31.6	92.7 92.7	92.7	6.6	6.6	12.3 12.4		9	<u></u> -	-				-		
					Surface	1.0 1.0	-	-	23.8	23.8	8.1 8.1	8.1	29.9 29.9	29.9	97.0 97.0	97.0	6.9		14.2 14.1		11 11		-				-	-	\mp
SR8	Fine	Moderate	16:27	4.0	Middle	-	-	-	-	-	-	-		_	-	-	-	6.9	-	14.6	-	12	-	-	820246	811418	-		
					Bottom	3.0	-	-	23.5	23.5	8.1	8.1	30.6	30.6	97.2	97.2	6.9	6.9	15.1		12	: E	-				-		_ '
					DOROIII	3.0	-	-	23.5	23.3	8.1	0.1	30.6	30.0	97.1	31.2	6.9	0.5	15.1		14		-				-		

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 21 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.5 23.0 10.8 8.2 32.4 7.2 13 85 < 0.2 1.0 Surface 23.0 8.2 32.4 101.9 1.0 0.5 38 23.0 8.2 32.4 101 0 7.2 10.8 11 86 < 0.2 1.0 4.6 0.5 47 23.0 8.2 32.5 101.0 7.2 13.5 12 88 <0.2 1.1 C1 10:26 9.2 Middle 23.0 8.2 32.5 101.0 12.9 815603 804247 Fine Moderate 14 88 4.6 0.5 23.0 8.2 32.5 13.5 13 88 <0.2 1.1 8.2 0.4 57 18 89 < 0.2 1.2 23.0 8.2 32.6 101.1 7.2 14.3 Bottom 32.6 101.1 72 8.2 0.4 61 23.0 8.2 32.6 101 1 14.3 17 90 <0.2 12 1.0 0.6 343 23.5 <0.2 7.9 28.3 95.8 6.9 9.8 86 2.3 28.3 95.8 Surface 23.5 7.9 1.0 0.6 353 23.5 7.9 28.3 95.8 6.9 9.8 7 86 <0.2 2.8 2.6 6.3 0.5 342 23.5 8.0 28.5 95.0 6.9 11.2 8 88 <0.2 C2 95.0 825677 Fine Moderate 11:04 12.5 Middle 8.0 28.5 88 806954 2.5 2.6 6.3 0.6 358 8.0 28.5 95.0 6.9 11.3 88 < 0.2 23.5 8 11.5 13.7 90 0.4 356 23.3 8.0 28.8 94.1 6.8 8 < 0.2 2.3 Bottom 28.8 94.2 6.8 11.5 0.5 328 23.3 8.0 28.8 94.2 6.8 13.8 9 90 <0.2 24 1.0 0.5 264 23.3 8.0 30.4 95.6 6.9 7.9 6 86 <0.2 1.6 Surface 30.4 95.6 1.0 0.5 265 23.3 8.0 30.4 95.5 6.8 7.9 85 <0.2 1.8 6.0 0.4 255 9.4 88 1.7 23.2 8.0 30.6 93.2 6 <0.2 C3 Middle 23.2 8.0 30.6 93.3 822129 817824 Fine 09:14 11 9 9.5 Moderate 93.3 6.7 87 1.6 8.0 30.6 9.4 < 0.2 6.0 0.4 263 23.2 6 10.9 0.4 273 23.1 8.0 6.5 11.3 6 90 < 0.2 1.8 31.7 90.6 Bottom 23.1 8.0 31.7 90.6 10.9 8.0 31.7 90.6 6.5 11.2 90 1.6 0.4 282 23.1 6 <0.2 1.0 0.4 357 23.2 8.1 31.0 7.3 8.9 85 <0.2 1.3 Surface 23.2 31.0 101.9 1.2 1.0 0.5 328 23.2 8.1 7.3 8.9 5 85 <0.2 4.0 0.4 23.2 8.1 31.1 7.3 10.2 6 87 <0.2 1.5 Middle 23.2 31.1 101.7 818360 806471 IM1 Fine Moderate 10.43 79 8 1 7.3 1.6 4.0 0.4 23.2 8.1 31.1 10.2 88 <0.2 6.9 4 89 1.4 0.4 23.2 8.1 7.2 8.8 <0.2 31.1 101.0 Bottom 23.2 8.1 31.1 101.0 7.2 7.2 6.9 8.1 31.1 101.0 8.8 87 1.5 0.4 4 23.2 6 <0.2 6 86 85 1.0 0.4 23.3 8.1 30.9 7.3 8.4 <0.2 1.8 Surface 8.1 30.9 102.0 8.1 30.9 1.4 1.0 0.4 19 23.3 101.9 9.4 <0.2 4.3 0.5 31 23.1 8.1 31.3 100.2 7.2 13.4 7 88 <0.2 1.4 31.3 100.2 818865 806193 IM2 Fine Moderate 10:48 8.6 Middle 8.1 4.3 0.5 32 23.1 8.1 31.3 100.2 7.2 13.4 6 87 < 0.2 1.5 7.6 0.3 39 23.1 8.2 31.6 7.2 13.3 89 <0.2 1.3 Bottom 23.1 8.2 31.6 100.4 7.2 7.6 8.2 31.6 100.4 7.2 13.3 90 <0.2 1.7 0.3 42 23.1 10 1.0 0.6 354 85 1.6 23.4 8.1 9.7 30.8 102.4 7.3 <0.2 8.1 102.4 Surface 23.4 30.8 0.6 8.1 30.8 7.3 9.6 8 86 < 0.2 1.3 1.0 326 23.4 102.4 7.2 7.2 1.5 43 0.6 358 23.3 8.1 30.9 100.7 14.6 6 88 <0.2 IM3 Fine Moderate 10:52 8.6 100.7 819426 806010 4.3 0.6 329 23.3 8 1 30.9 100.7 14.6 7 87 < 0.2 7.6 0.4 23.1 24.5 89 <0.2 1.2 8.2 31.8 99.9 Bottom 23.1 8.2 31.8 99.9 7.6 7.1 1.5 0.4 323 23.1 8.2 99.9 24.5 8 90 <0.2 0.5 23.4 8.1 7.2 11.1 85 <0.2 1.7 30.7 100.2 8 Surface 23.4 8.1 30.7 100.2 1.0 0.6 38 8.1 7.2 11.1 8 85 < 0.2 1.6 23.4 30.7 100.2 41 0.6 34 23.2 8.1 31.1 99.7 7 1 9.9 9 88 <0.2 1.5 IM4 Moderate 11:00 8.2 Middle 8.1 31.1 99.7 819547 805050 Fine 41 0.6 35 23.2 8.1 31.1 99.7 7.1 9.9 9 87 < 0.2 1.5 7.2 0.4 38 23.3 8.1 31.1 100.2 7.2 14.1 89 <0.2 1.3 Bottom 23.3 8.1 31.1 100.2 7.2 7.2 0.5 23.3 8.1 31.1 100.2 7.2 14.1 88 <0.2 1.4 1.0 0.6 355 8.1 30.6 7.3 9.1 8 <0.2 1.4 23.5 8.1 30.6 101 9 Surface 1.0 0.6 327 23.5 8.1 30.6 101.9 7.3 9.1 85 <0.2 1.4 6 3.9 7 0.6 357 7.2 10.3 85 <0.2 1.4 23.5 8.1 30.7 101.4 IM5 Moderate 11:09 7.8 Middle 23.5 8.1 30.7 101.4 820549 804935 7.2 1.5 8.1 101 4 86 3.9 0.6 328 30.7 10.3 <0.2 23.5 6 6.8 0.6 23.4 8.1 30.9 101.6 7.2 20.0 89 <0.2 1.6 Bottom 30.9 101.6 7.2 6.8 0.7 23.4 8.1 30.9 101 6 20.0 9 90 < 0.2 1.5 1.0 0.3 23.3 85 1.3 8.2 31.1 16.6 <0.2 Surface 23.3 8.2 31.1 99.3 1.0 0.3 23.3 8.2 99.3 7.1 16.7 16 86 <0.2 1.5 31.1 3.9 7.1 17.7 87 1.3 0.3 23.3 8.2 31.1 99.1 18 <0.2 821037 IM6 Fine Moderate 11:16 7.8 Middle 23.3 8.2 31.1 99.1 19 88 805856 7.1 17 87 1.4 3.9 0.3 13 8.2 17.7 23.3 31.1 99.1 <0.2 355 327 7.1 7.1 25 23 89 6.8 0.2 23.3 8.1 31.1 99.9 19.9 <0.2 1 / Bottom 31.1 99.9 aa a 95 6.8 0.2 23.3 8.1 31.1 10 0 < 0.2 1.3 1.0 0.5 35 23.4 8.2 31.3 99.6 15.2 14 86 <0.2 1.4 Surface 23.4 8.2 31.3 99.6 1.0 0.5 23.4 8.2 31.3 99.6 7.1 15.2 15 85 <0.2 1.3 0.4 23.3 8.2 16.6 18 87 <0.2 1.6 31.3 99.4 IM7 11:23 8.7 31.3 99.4 821345 806834 Fine Moderate Middle 23.3 8.2 4.4 8.2 99.4 7.1 16.6 87 <0.2 1.1 31.3 19 0.4 35 23.3 7.7 0.3 43 7.1 22 89 <0.2 1.4 23.3 8.2 31.4 99.7 20.1 31.4 Bottom 23.3 8.2 99.7 99.7 8.2 31.4 96 7.7 0.3 44 23.3 20.1 20 < 0.2 2.0 333 1.0 0.1 23.4 8.0 28.2 7.0 16.5 11 86 <0.2 2.4 97.3 Surface 8.0 28.2 97.4 1.0 0.1 23.4 8.0 28.2 97.4 7.1 16.5 11 86 <0.2 2.4 335 4.4 17.1 15 88 2.5 0.2 23.4 8.0 28.5 96.9 7.0 <0.2 821709 28.5 807828 IM8 Fine Moderate 10:38 8.8 Middle 23.4 8.0 96.9 14 88 2.4 2.6 4.4 0.2 43 23.4 8.0 28.5 96.9 7.0 17.1 17 88 <0.2 7.8 0.4 41 23.3 8.1 29.8 7.0 18.9 16 90 <0.2 2.3 97.4 23.3 8.1 29.8 97.4 Bottom 7.0 7.8 8.1 7.0 18.9 15 90 0.4 41 23.3 29.8 97.3 < 0.2 2.4

DA: Depth-Averaged

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

Water Quality Monitoring Results on 21 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 326 23.3 6.9 18.2 17 86 < 0.2 8.1 28.7 96.0 2.3 Surface 23.3 8.1 28.7 96.0 1.0 19 17 0.4 341 23.3 8.1 28.7 96.0 69 18.6 86 < 0.2 2.2 3.9 0.3 330 69 88 2.2 23.3 8.1 28.7 95.7 20.2 <02 IM9 10:31 7.8 Middle 8.1 28.7 95.7 19 822098 808823 2.3 Fine Moderate 3.9 0.3 347 23.3 8.1 28.7 95.7 6.9 20.2 18 88 <0.2 2.2 6.8 0.3 324 23.3 8.1 28.9 23.6 21 90 <0.2 2.4 Bottom 23.3 8.1 28.9 96.4 7.0 6.8 0.3 23.3 8.1 28.9 96.4 7.0 23.7 21 90 <0.2 2.2 1.0 0.5 295 8.0 7.0 13.0 13 86 2.0 23.4 28.9 96.4 <0.2 Surface 23.4 8.0 28.9 96.4 8.0 96.4 7.0 1.0 0.5 299 23.4 28.9 13.0 13 86 < 0.2 2.0 14 4.4 0.5 298 8.0 95.7 6.9 14.9 88 < 0.2 2.0 23.3 29.0 95.8 822217 IM10 Moderate 10:23 8.7 Middle 23.3 8.0 29.0 14.8 13 88 809845 2.1 8.0 95.8 6.9 88 < 0.2 4.4 0.5 315 23.3 29.0 14.8 12 7.7 0.3 317 23.2 8.1 29.3 95.5 6.9 16.5 14 90 <0.2 2.0 Bottom 23.2 29.3 95.6 6.9 7.7 0.3 320 23.2 8.1 29.3 95.6 6.9 16.6 14 90 <0.2 2.2 0.3 23.3 8.0 6.9 15.8 19 86 <0.2 1.9 29.2 95.8 Surface 23.3 8.0 29.2 95.8 1.0 0.3 8.0 95.7 6.9 15.7 18 86 2.2 286 23.3 29.2 <0.2 4.0 17.4 88 2.1 6.8 21 0.3 283 23.3 8.1 29.3 94.8 < 0.2 29.3 821520 810537 IM11 Fine Moderate 10:07 8.0 Middle 23.3 8.1 94.8 20 2.0 4.0 6.8 17.5 21 0.3 310 23.3 8.1 29.3 94.8 88 < 0.2 7.0 19.9 21 2.0 0.3 296 23.2 8.0 29.6 94.5 6.8 90 < 0.2 Bottom 8.0 29.6 94.5 22 7.0 0.3 303 23.2 8.0 29.6 94.5 6.8 19.8 90 < 0.2 19 1.0 0.7 286 23.3 8.0 12.6 10 86 <0.2 1.9 29.1 95.3 Surface 23.3 8.0 29.1 95.3 1.0 0.7 23.3 8.0 29.1 95.3 6.9 12.6 12 86 <0.2 1.8 4.1 0.5 283 23.3 8.0 29.4 94.7 6.8 14.5 12 88 <0.2 1.9 23.3 29.4 94.8 821185 IM12 Fine Moderate 10:00 8 1 Middle 8.0 12 88 811490 8.0 29.4 94.8 6.8 14.6 88 <0.2 2.0 4.1 0.5 300 23.3 13 7.1 12 291 90 0.4 23.3 8.0 29.6 94.8 6.8 17.5 < 0.2 1.8 Bottom 23.3 29.6 94.9 7 1 0.4 295 23.3 8.0 29.6 94 9 6.8 17 7 13 90 <0.2 1.8 1.0 0.1 23.4 29.4 12.0 14 86 <0.2 1.5 8.0 94.3 6.8 29.4 94.3 Surface 23.4 8.0 1.0 0.1 23.4 8.0 29.4 94.3 6.8 12.1 14 86 <0.2 1.6 -SR2 Fine 09:35 47 Middle 87 821449 814150 Moderate <0.2 1.6 3.7 0.2 350 23.3 8.0 6.8 15.1 18 88 <0.2 1.6 30.0 94.6 Bottom 23.3 8.0 30.0 94.6 6.8 3.7 322 94.6 18 0.2 23.3 8.0 30.0 6.8 15.1 88 1.5 <0.2 97.3 97.4 1.0 0.4 344 23.4 8.0 28.3 7.0 14.7 19 Surface 28.3 97.4 1.0 0.4 316 23.4 8.0 28.3 7.1 14.7 18 4.8 0.4 5 23.4 8.0 17.2 18 28.7 97.2 SR3 10:45 96 Middle 23.4 8.0 28.7 97.2 16.7 19 822168 807589 Fine Moderate 4.8 0.4 8.0 28.7 17.3 23.4 18 19 8.6 0.4 7.0 18.0 24 23.3 8.1 29.7 96.7 29.7 96.8 7.0 Bottom 23.3 8.1 7.0 8.1 29.7 96.8 8.6 0.4 18.4 20 24 23.3 251 1.0 0.3 23.3 11.8 8.1 31.0 6.9 Surface 23.3 8.1 31.0 96.2 96.2 6.9 8.1 10 1.0 0.3 258 23.3 31 0 11.8 4.4 0.2 250 23.2 8.1 31.1 96.6 6.9 11.1 12 -SR4A 10:04 8.8 Middle 23.2 31.1 96.6 817177 807800 Fine Calm 4.4 0.2 263 23.2 8.1 31.1 96.6 6.9 11.1 12 7.8 0.2 276 23.2 8.1 7.0 11.4 31.3 97.9 Bottom 23.2 8.1 31.3 7.8 0.2 300 8.1 31.3 97.9 7.0 11.4 11 23.2 1.0 278 14.1 15 0.2 23.3 8.1 30.6 94.8 6.8 Surface 23.3 8.1 30.6 94.8 1.0 0.2 297 23.3 8.1 30.6 94.8 6.8 14 14.1 SR5A Fine Calm 09:48 5.6 Middle 816567 810669 4.6 0.2 300 23.3 8.1 30.7 15.4 18 95.8 6.9 30.7 95.9 6.9 23.3 8.1 Bottom 95.9 6.9 4.6 0.2 23.3 8.1 30.7 15.5 16 1.0 0.2 241 23.2 8.1 6.7 10.7 10 30.2 92.6 Surface 23.2 8.1 30.2 92.6 1.0 8.1 30.3 92.5 6.6 11 0.2 248 23.2 10.8 SR6 09:24 4.2 Middle 817911 814645 Sunny Calm 3.2 238 23.2 10.4 11 30.3 6.7 Bottom 23.2 8.1 30.3 92.9 6.7 3.2 0.2 238 23.2 8.1 30.3 92.9 6.7 10.3 11 1.0 0.2 256 23.1 8.0 31.1 93.1 6.7 7.2 23.1 Surface 8.0 31.1 93.1 1.0 0.2 265 23.1 8.0 31.1 93.0 6.7 7.2 6 7.6 6.5 9.4 0.4 217 23.0 7.9 8 31.6 90.4 SR7 Moderate 08:47 18.8 Middle 23.0 7.9 31.6 90.4 823624 823735 94 0.4 221 79 6.5 7.6 9 23.0 31.6 90.3 17.8 0.1 229 23.0 7.9 31.7 90.5 6.5 8.0 12 Bottom 7.9 31.7 90.6 6.5 17.8 0.1 243 23.0 7.9 31.7 90.6 6.5 8.1 1.0 23.5 8.0 12.6 13 Surface 23.5 8.0 28.3 97.4 1.0 23.5 8.0 28.3 97.4 7.0 12.6 12 7.0 SR8 Fine Moderate 09:51 3.9 Middle 12.2 14 820246 811418 14 2.9 98.6 98.7 23.5 8.0 28.3 7.1 11.8 Bottom 23.5 8.0 28.3 98.7 7.1 2.9 23.5 15

DA: Depth-Average

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

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 24 April 18 during

during Mid-Ebb Tide

Water Qual	ity Monit	oring Resu	lts on		24 April 18	during Mid-	Ebb Tid	е																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)	р	Н	Salir	ity (ppt)		aturation (%)	Disso		Turbidity(NTU) S	uspended (mg/l	d Solids T L)	otal Alka (ppm		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/l		kel (μg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average	<u> </u>	Average	Value	Average	Value	DA	Value	DA	Value	DA '		DA	(Northing)	(Easting)		DA Value	
					Surface	1.0	0.1	147 152	24.3	24.3	8.2	8.2	28.8	28.9	108.1	108.1	7.7	7.6	7.6 7.4	-	3	-	83				<0.2	1.9	
C1	Cloudy	Moderate	09:30	8.6	Middle	4.3 4.3	0.2	220 240	23.9 23.9	23.9	8.2 8.2	8.2	31.3 31.3	31.3	105.8 105.8	105.8	7.5 7.5	7.6	8.2 8.4	9.8	5 5	5	85 86	85	815620	804263	<0.2	<0.2	
					Bottom	7.6	0.1	208	23.8	23.8	8.2 8.2	8.2	31.8	31.8	104.0	104.0	7.3	7.3	13.5		6		87 88				<0.2	1.5	5
					Surface	7.6 1.0	0.1	210 182	23.8	24.8	7.9	7.9	23.8	23.8	95.6	95.7	6.9		13.6 9.4		5 3		85				<0.2	2.8	В
C2	Rainv	Moderate	10:28	11.7	Middle	1.0 5.9	0.6	187 174	24.8 24.5	24.5	7.9 7.9	7.9	23.8 27.0	27.0	95.7 92.9	92.9	6.9 6.6	6.8	9.5 10.0	11 1	3	, -	85 87	87	825684	806962	<0.2	<0.2	
02	Railly	Moderate	10.26	11.7		5.9 10.7	0.3	181 141	24.5 23.8		7.9 8.0		27.0 30.4		92.8 88.7		6.6		10.0 13.8	'''' F	4 5	* F	88 89	01	023004	800902	<0.2	2.8	3
					Bottom	10.7	0.2	148	23.8	23.8	8.0	8.0	30.4	30.4	88.8	88.8	6.3	6.3	13.7		3		90				<0.2	3.0)
					Surface	1.0	0.1	70	24.3	24.3	8.0	8.0	29.1 29.2	29.1	95.5 95.5	95.5	6.8	6.6	7.0	E	4		85 85				<0.2	2.0)
C3	Cloudy	Moderate	08:21	11.9	Middle	6.0	0.0	109 118	23.8 23.8	23.8	8.0	8.0	31.4	31.4	91.1	91.1	6.4		7.3 7.3	7.7	3		88	88	822127	817805	<0.2	<0.2 2.2	2.0
					Bottom	10.9 10.9	0.1	108 111	23.7	23.7	8.0	8.0	31.6 31.7	31.7	91.1	91.1	6.4	6.4	8.7 8.7		2		90 90				<0.2	2.0	
					Surface	1.0	0.2	184 186	24.5 24.5	24.5	8.1 8.1	8.1	26.8 26.8	26.8	104.1	104.1	7.5 7.5		10.1 9.8	Ė	5 4		83 84				<0.2	1.8	В
IM1	Rainy	Moderate	09:49	7.3	Middle	3.7	0.2	166	24.4	24.3	8.1	8.1	28.6	28.6	103.6	103.6	7.4	7.5	11.6	12.0	6	6	85	86	818325	806459	<0.2	-0.2 1.7	
					Bottom	3.7 6.3	0.2	175 133	24.3 24.0	24.0	8.1 8.2	8.2	28.6 30.7	30.7	103.6 102.5	102.5	7.4 7.2	7.2	11.7 14.6	Ŀ	8		86 88				<0.2	2.0)
						6.3 1.0	0.1	143 226	24.0 24.5		8.2 8.1		30.7 27.1		102.5 104.0		7.2	7.2	14.4 8.0	-	6 5		88 84				<0.2	2.0	
					Surface	1.0 4.2	0.2	248 173	24.5 24.3	24.5	8.1 8.1	8.1	27.1 28.8	27.1	104.0 103.6	104.0	7.4 7.4	7.4	8.2 10.4		4 5		84				<0.2	1.8	3
IM2	Rainy	Moderate	09:55	8.3	Middle	4.2	0.2	175	24.3	24.3	8.1	8.1	28.9	28.8	103.6	103.6	7.4		10.7	10.1	4	5	86	86	818798	806263	<0.2	<0.2	1.9
					Bottom	7.3 7.3	0.1	112 118	24.2 24.2	24.2	8.1 8.1	8.1	29.8 29.8	29.8	103.6 103.7	103.7	7.3 7.3	7.3	11.7 11.7	-	5 5		88 88				<0.2	2.1 1.9)
					Surface	1.0	0.2	176 177	24.5 24.5	24.5	8.1	8.1	27.4	27.4	101.9	101.9	7.3	7.0	10.2 10.2	-	6	-	83 83				<0.2	1.8	
IM3	Rainy	Moderate	10:01	8.2	Middle	4.1 4.1	0.2	195 205	24.4 24.4	24.4	8.1 8.1	8.1	28.0 28.0	28.0	101.9 102.0	102.0	7.3 7.3	7.3	10.8 10.6	11.2	7 5	6	86 86	86	819386	805994	<0.2	<0.2	
					Bottom	7.2	0.2	122 123	24.2	24.2	8.1	8.1	29.5	29.5	101.4	101.4	7.2	7.2	12.7	E	6	Ī	88				<0.2	1.6	3
					Surface	1.0	0.3	205	24.4	24.4	8.1	8.1	27.0	26.9	103.8	103.8	7.4		9.5		6		84				<0.2	1.9)
IM4	Rainy	Moderate	10:08	7.5	Middle	1.0 3.8	0.4	205 205	24.4 24.3	24.3	8.1 8.1	8.1	26.9 28.7	28.6	103.8 103.1	103.1	7.4	7.4	9.7 12.1	12.4	6	8	83 86	86	819560	805065	<0.2	<0.2	20
1111-4	reality	Wioderate	10.00	7.5		3.8 6.5	0.3	207 180	24.3 24.1		8.1 8.1		28.6 30.2		103.1		7.3		12.0 15.3	12.4	7	ľ	86 89		013300	000000	<0.2	2.0	<u> </u>
					Bottom	6.5 1.0	0.2	181 228	24.0 24.5	24.0	8.1 8.1	8.1	30.3 25.6	30.2	102.2	102.3	7.2	7.2	15.8 10.9		10 6		89 84				<0.2	1.9)
					Surface	1.0	0.3	233	24.5	24.5	8.1	8.1	25.6	25.6	102.7	102.8	7.4	7.4	11.0		6	_	85				<0.2	1.9)
IM5	Rainy	Moderate	10:18	6.9	Middle	3.5 3.5	0.2	205 220	24.4 24.4	24.4	8.1 8.1	8.1	27.8 27.8	27.8	101.9 101.9	101.9	7.3		15.2 15.4	14.8	7 6	7	88 88	87	820546	804923	<0.2	<0.2 2.0	2.0
					Bottom	5.9 5.9	0.1	182 191	24.3	24.3	8.1	8.1	29.0	29.0	100.9	100.9	7.2	7.2	18.1 18.1	-	8	-	89 89				<0.2	1.9	
					Surface	1.0	0.2	218 230	24.6 24.6	24.6	8.1 8.1	8.1	24.0	23.9	100.8	100.8	7.3 7.3		10.2 9.9		6		83 84				<0.2	2.8	
IM6	Rainy	Moderate	10:27	6.8	Middle	3.4	0.2	192	24.4	24.4	8.1	8.1	27.3	27.3	100.7	100.7	7.2	7.3	13.1	11.9	7	6	86	86	821030	805836	<0.2	2.8	20
					Bottom	3.4 5.8	0.2	194 183	24.4 24.4	24.4	8.1 8.1	8.1	27.3 28.5	28.5	100.7 100.9	100.9	7.2	7.2	14.0 12.0		6 5		86 89				<0.2	2.7	3
						5.8 1.0	0.1	185 177	24.4		8.1 8.1		28.5 25.9		100.9		7.2	, <u>. </u>	12.1 8.4		5		89 85				<0.2	2.8	
					Surface	1.0 4.1	0.1 0.1	191 156	24.5 24.4	24.5	8.1 8.1	8.1	25.9 26.7	25.9	100.1 99.0	100.1	7.2 7.1	7.2	8.5 10.5	F	7	Ţ	85				<0.2 <0.2	2.6	<u>;</u>
IM7	Rainy	Moderate	10:35	8.2	Middle	4.1	0.1	157	24.4	24.4	8.1	8.1	26.8	26.7	99.0	99.0	7.1		10.7	10.5	6	6	88	88	821355	806823	<0.2	<0.2	
					Bottom	7.2 7.2	0.1 0.1	131 137	24.4 24.4	24.4	8.1 8.1	8.1	27.8 27.8	27.8	98.8 98.8	98.8	7.0 7.1	7.1	12.3 12.4		6 5		90 90				<0.2	2.8	
					Surface	1.0	0.2	140 150	24.7 24.7	24.7	7.9	7.9	24.1	24.1	97.6 97.6	97.6	7.1	7.1	9.4 9.4	-	6 5	-	86 85				<0.2	2.8	
IM8	Rainy	Moderate	09:58	8.1	Middle	4.1 4.1	0.2	97 98	24.5 24.5	24.5	8.0	8.0	26.7 26.7	26.7	97.4 97.5	97.5	7.0	7.1	11.6 11.6	10.7	5 5	5	88 88	88	821706	807856	<0.2	<0.2 3.3	
					Bottom	7.1 7.1	0.2	67 67	24.4	24.4	8.0	8.0	27.8	27.8	98.4 98.5	98.5	7.0	7.0	11.2	F	6	ļ	90				<0.2	2.8	3
L					1	7.1	0.2	10	24.4		შ.∪		21.8		98.5		7.0		11.Z		5		90				<0.2	3.0	

DA: Depth-Averaged

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

<u>Value exceeding Action Level is underlined</u>: <u>Value exceeding Limit Level is bolded and underlined</u>

Note: Access to IM2 was blocked by a barge. The monitoring at IM2 was slightly shifted to the closest safe and accessible location temporarily.

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 24 April 18 during

during Mid-Ebb Tide

Moderate Sampling Weather Sampling Station Station Condition C	Water Qual	ity Monite	oring Resu	lts on		24 April 18	during Mid-		е																					
March Marc		Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed		Water Te	emperature (°C)	pl	Н	Salin	ity (ppt)					Turbidity(NTU) S									cel (μg/L)
Martin M	Station	Condition	Condition	Time	Depth (m)						Average		Average		Average	<u> </u>	Average		DA		DA	Value	DA		DA	(Northing)	(Easting)			
Model Mode						Surface					24.9		7.9		23.2		97.7				H		-							
Marker M	IM9	Rainy	Moderate	09:50	7.1	Middle	3.6	0.3		24.5	24.5	8.0	8.0	26.1	26.1		97.4	7.0	7.1	10.1	10.1	4	6	88	88	822087	808803	<0.2	3.1	21
Marine Mores of the first separate sepa						Bottom	6.1	0.3	74	24.4	24.4	8.0	8.0	27.3	27.3	98.7	98.7	7.1	71	11.2	E	7	L	90				<0.2	3.0)
Martin M																					-									
Mary Modelson Mary Modelson Mary Modelson Mary						Surface	1.0	0.5	131	24.8	24.8	7.9	7.9	24.0	24.0	97.3	97.4	7.0	7.0	9.7				85				<0.2	3.6	3
Mart	IM10	Rainy	Moderate	09:41	6.6	Middle				24.5	24.5		8.0	26.1	26.1		97.4	7.0		10.5	11.0		6	87	88	822212	809818	<0.2	<0.2	3.4
Marchan Marc						Bottom					24.5		8.0		27.2		98.1		7.0		H		-							
Miles						Surface					24.9		8.0		23.6		100.9				İ									
Mary Modern Mary Mary Modern Mary Ma	IM11	Rainy	Moderate	09:25	77	Middle	3.9	0.4	113	24.8	24.8	8.1	8.1	25.9	25.9	99.5	99.5	7.1	7.2	10.9	104	5	5	88	88	821528	810516	<0.2	3.0) ,,
Model Mode		ramy	Moderate	00.20	• • •																			87		02.020	0.00.0		2.7	
Mile Moderate Mo						Bottom					24.7	8.0	8.0	27.8	27.8	99.3	99.3	7.0	7.1					90				<0.2	2.8	3
Moderate Rany Moderate Rany Moderate Rany Moderate Range Rany Range Rang						Surface	1.0		125	24.9	24.9	8.1	8.1	25.0	25.0	99.9	100.0	7.2	71	10.1	L		E	85				<0.2	2.6	3
Second S	IM12	Rainy	Moderate	09:16	8.9	Middle					24.8		8.1		26.1		97.8				10.9		8		88	821169	811527			
SR2 Cloudy Moderate RoAd Road						Bottom					24.5		8.0		28.7		95.8		6.8											
Moderate Decomposition Part Decomposition Decomposit						Surface	1.0	0.2	54	24.5	24.5	8.0	8.0	28.6	28.6	97.4	97.4	6.9		8.1		6		86				<0.2	2.2	2
Bothom 23 02 42 24 40 60 80 250 75 75 76 65 65 65 77 77	ena.	Claudy	Moderate	09:45	2.0	Middle	1.0	0.2	- 55	24.5		8.0		28.6		97.4		6.9	6.9	8.1		-	_	_	06	921442	044450	<0.2	_	_
SR3 Rainy Moderate 10-04 B.3 Surface 10-04 B.3 Surface 10-04 B.3 Surface 10-05 Determine 10-04 B.3 Surface 10-05 Determine 10-	SK2	Cloudy	Moderate	06.45	3.9		- 29	- 0.2	42	24.4	-	- 8.0		29.0		97.5		- 69		- 8 9	0.0		8	-	00	021443	014132	-02	-	
SRA Rainy Moderate 10.04 8.3 Middle						Bottom	2.9	0.2	43	24.4	24.4	8.0	8.0	29.0	29.0	97.6	97.6	6.9	6.9	9.1		7		87				<0.2	2.1	
R8 Rainy Moderate 10.04 8.3 Middle 4.2 0.2 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2						Surface	1.0	0.2	183	24.8	24.8		7.9	23.9	23.9		96.5	7.0	69	9.1			L							
Second Figure F	SR3	Rainy	Moderate	10:04	8.3	Middle					24.5		7.9		27.0		94.2		0.5		9.8		7	_	-	822162	807542	-		
SR4A Cloudy Calm 09:10 9.3 Surface 1.0 0.3 94 247 24.6 8.1 8.1 27.9 27.9 102.9 102.9 7.3						Bottom		0.2	245	24.1	24.1		8.0		29.3	94.2	94.3		6.7	10.5	F									
SR4A Cloudy Calm 09:10 9.3 Middle 47 0.3 91 243 243 8.1 8.1 8.1 293 29.3 101.6 101.6 7.2 162. 162. 162. 162. 162. 162. 162. 16						Surface	1.0	0.3	94	24.7	24.6	8.1	8.1	27.9	27.9	102.9	102.9	7.3		11.5		6								
A	CD4A	Claudy	Colm	00:10	0.2														7.3		146			-		017170	907706	-	 -	- '
SR5A Cloudy Calm 08.52 4.9 Middle 1	3N4A	Cloudy	Callii	09.10	9.3																14.0	_	ů			017172	007790	$\overline{}$		_
SR5A Cloudy Calm 08:52 4.9 Middle 1.0 0.2 103 24.7 24.7 8.0 8.1 8.1 27.9 27.9 99.8 99.8 7.7 7.1 8.2 7.9 4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0						Bottom	8.3	0.3	102	24.3	24.3	8.1	8.1	29.5	29.5	101.3	101.3	7.2	7.2	16.0		10		-						$\overline{}$
SR5A Cloudy Calm 08:52 4.9 Middle						Surface					24.7		8.1		27.9		99.8		7.1									-		_
SR6 Cloudy Calm 08:29 4.3 Surface 1.0 0.1 47 24.7 24.7 8.0 8.0 8.0 27.8 27.8 99.8 99.8 7.1 7.9 7.5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	SR5A	Cloudy	Calm	08:52	4.9	Middle	-	-			-		-	-	-	_	-		,		7.9		5		-	816591	810668			
SR6 Cloudy Calm 08:29 4.3 Surface 1.0 0.1 47 24.7 24.7 8.0 8.0 8.0 27.8 27.8 99.8 99.8 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1						Bottom					24.8		8.1		29.1		99.6		7.0					-				-	_	┦ '
SR6 Cloudy Calm 08:29 4.3 Middle 1.0 0.1 48 24.7 8.0 27.8 99.8 7.1 7.1 7.9 7.9 5 5						Surface	1.0	0.1	47	24.7	24.7	8.0	8.0	27.8	27.8	99.8	99.8	7.1		7.3		7						-		
Bottom ene	Claudy	Colm	08:20	4.2			1			=	8.0		27.8		99.8		7.1	7.1	7.9						917904	94.4690	-		_	
SR7 Cloudy Moderate 07:45 18.8 Surface 1.0 0.1	SKO	Cloudy	Callii	06.29	4.3						-		-	- 20.8	-	- 97.2	-				9.4		0		-	017094	014000			_
SR7 Cloudy Moderate 07:45 18.8 Middle 1.0						Bottom	3.3	0.1	63	24.9	24.9	8.0	8.0	29.8	29.8	97.2	97.2	6.8	6.8	11.3		6		-				-	-	
SR7 Cloudy Moderate 07:45 18.8 Middle 9.4 0.1 76 23.7 7.9 7.9 31.7 31.7 90.0 90.0 6.4 7.6 8.3 6 5 - 823659 823729						Surface				24.0	24.0		7.9		30.6		92.7		6.5	7.3	-		ŀ	-					<u> </u>	Ⅎ '
Bottom 17.8 0.0 226 23.5 23.5 7.9 7.9 32.6 32.6 89.6 89.6 6.3 6.3 10.0 5	SR7	Cloudy	Moderate	07:45	18.8	Middle					23.7		7.9		31.7		90.0		0.0		8.3		5	-	-	823659	823729	-		- '
SR8 Rainy Moderate 09:09 3.8 Surface 1.0 - 24.9 24.9 8.0 8.0 8.0 24.5 24.5 100.7 100.8 7.3 7.3 7.3 10.0 6 6 - 2 820246 811418 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						Bottom	17.8	0.0	226	23.5	23.5	7.9	7.9	32.6	32.6	89.6	89.6	6.3	6.3	10.0	F	5	ļ					-		_
SR8 Rainy Moderate 09:09 3.8 Middle 1.0 - 24.9 8.0 24.5 100.8 7.3 7.3 10.0 9.9 6 - 6 - 820246 811418						Surface	1.0	-	-	24.9	24.9	8.0	8.0	24.5	24.5	100.7	100.8	7.3		10.0		6		-	\dashv				-	
Bottom 2.8 24.8 24.8 8.0 8.0 25.5 25.5 100.7 100.8 7.2 7.2 9.8 7	000	D-i	Mad	00.00	0.0		1.0		-	24.9	_ 1.5		0.0	24.5	2 1.0	100.8	.50.0	7.3	7.3	10.0	, F	6		-		000010	044	-		_
	SR8	Kainy	Moderate	09:09	3.8	Middle	- 20		-	- 24.9	-	-	-	- 25 F	-	- 100.7	-	- 7.2		- 0.0	9.9		б		-	820246	811418			
						Bottom					24.8		8.0		25.5		100.8		7.2					-						᠋

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 24 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value Average Value Value Value (Northing) (Easting) Value 1.0 0.1 24.7 8.2 26.7 110.2 7.9 8.0 85 < 0.2 2.0 Surface 24.7 8.2 26.7 110.2 1.0 0.1 16 24.7 8.2 26.7 110 1 7.9 8.0 6 85 < 0.2 17 4.4 0.2 24 23.8 8.2 31.7 102.8 7.2 11.0 4 86 <0.2 1.7 C1 13:15 8.8 Middle 23.8 8.2 31.7 102.8 10.0 815590 804242 Cloudy Moderate 87 1.8 0.2 23.8 8.2 31.7 102.8 11.2 86 <0.2 1.8 5 7.8 0.2 38 89 < 0.2 1.8 23.8 8.2 31.7 102.9 7.3 10.9 4 Bottom 31.7 102.9 7.3 7.8 0.2 41 23.8 8.2 31.7 102 9 10.9 5 90 <0.2 1.8 1.0 0.4 178 24.8 <0.2 2.9 7.9 23.6 7.0 9.6 85 23.6 97.0 Surface 24.8 7.9 1.0 0.4 180 24.8 7.9 23.6 96.9 7.0 9.6 4 86 <0.2 3.0 5.4 3.0 0.2 219 24.5 7.9 27.3 94.4 6.7 9.2 5 88 <0.2 825657 27.3 94.4 806958 C2 Rainv Moderate 12:10 10.8 Middle 7.9 88 3.0 3.0 5.4 0.2 236 7.9 27.3 6.7 9.2 88 < 0.2 24.5 94.4 5 9.8 90 3.0 0.1 156 24.3 7.9 29.4 94.2 6.7 9.9 < 0.2 Bottom 29.3 94.3 6.7 9.8 0.1 157 24.3 79 29.3 94.3 99 4 90 <0.2 3.1 1.0 0.2 255 24.6 8.0 27.6 98.1 7.0 7.2 85 <0.2 3.2 Surface 27.6 98.1 8.0 1.0 0.2 269 24.6 8.0 27.6 98.0 7.0 7.2 86 <0.2 3.2 6.0 0.4 270 7.1 88 3.1 23.8 8.0 31.3 90.5 <0.2 C3 14:01 Middle 23.8 8.0 31.3 90.5 822098 817813 32 Cloudy 11 9 Moderate 90.4 6.4 3.1 8.0 31.3 7.1 88 < 0.2 6.0 0.4 292 23.8 6 10.9 0.3 277 23.7 8.0 6.5 9.0 6 90 < 0.2 3.1 31.8 92.3 Bottom 23.7 8.0 31.8 92.4 10.9 8.0 31.8 92.4 6.5 9.0 90 0.3 301 23.7 6 <02 3.2 3.1 2.9 1.0 0.1 339 24.5 8.2 28.3 104.0 7.4 9.0 4 84 <0.2 Surface 24.5 28.3 104.0 1.0 0.1 340 24.5 8.2 104.0 7.4 9.3 5 85 <0.2 3.1 3.7 0.2 334 24.2 8.2 29.3 103.5 7.3 9.6 6 86 <0.2 12:56 Middle 24.2 29.3 103.6 818349 806483 IM1 Cloudy Calm 74 82 3.0 7.3 3.7 0.2 351 24.2 8.2 29.3 103.6 9.6 86 <0.2 6.4 10.4 88 2.9 0.2 354 23.9 7.2 6 <0.2 8.2 31.2 102.5 Bottom 23.9 8.2 31.2 102.5 7.2 7.2 6.4 0.3 326 8.2 31.2 102.4 10.5 88 2.9 23.9 6 <0.2 8.2 8.2 3.0 1.0 0.1 268 24.5 26.7 9.9 84 <0.2 Surface 8.2 26.7 103.0 274 7.4 10.0 6 84 1.0 0.1 24.5 26.7 103.0 <0.2 4.1 0.1 53 24.2 8.1 28.8 103.2 7.3 8.6 7 85 <0.2 3.0 12:50 28.8 103.2 818881 806221 IM2 Rainy Moderate 8.1 Middle 24.2 8.1 3.2 4.1 0.1 58 24.2 8.1 28.8 103.2 7.3 8.7 5 86 < 0.2 7.1 0.3 46 24.0 8.2 30.6 7.2 9.6 88 <0.2 3.1 Bottom 24.0 8.2 30.6 102.3 7.2 7.1 8.2 102.2 7.2 9.6 89 <0.2 3.0 0.3 24.0 30.5 1.0 0.1 262 10.1 84 3.3 24.6 8.1 4 <0.2 27.0 7.3 8.1 27.0 Surface 24.6 101.5 0.1 8.1 26.9 7.3 10.2 3 84 < 0.2 3.3 1.0 278 24.6 7.2 7.2 3.3 42 0.1 301 24.5 8.1 28.5 101.1 11.3 4 85 <0.2 IM3 Rainy Moderate 12:43 8.3 101.1 819431 805997 3.3 4 4.2 0.1 303 24.5 8.1 28.5 101 1 11.6 85 <0.2 7.3 0.1 359 24.3 14.9 88 <0.2 3.1 8.1 29.0 100.3 7.1 Bottom 24.3 8.1 29.0 100.3 7.3 7.1 0.2 330 24.3 8.1 29.0 100.3 15.2 4 88 <0.2 3.4 0.1 24.5 8.1 26.1 7.4 9.3 83 <0.2 3.0 102.7 Surface 24.5 8.1 26.1 102.7 1.0 0.2 272 8.1 7.4 9.2 4 84 <0.2 3.1 24.5 26.1 102.6 3.8 0.1 279 24 1 8.1 30.1 100.7 7 1 11.5 6 85 <0.2 2.9 IM4 Moderate 12:36 7.6 Middle 8.1 30.1 100.8 819552 805028 3.0 Rainy 3.8 0.1 306 24.1 8.1 30.1 100.8 7.1 11.8 4 86 < 0.2 2.9 6.6 0.1 4 23.9 8.2 31.1 100.8 13.5 8 88 <0.2 2.9 Bottom 23.9 8.2 31.1 100.8 6.6 0.1 23.9 8.2 31.1 100.8 7.1 13.4 88 <0.2 3.0 1.0 0.3 261 2.9 24.5 8.1 24.7 9.6 84 <0.2 24.5 8.1 24.7 101.8 Surface 1.0 0.3 276 24.5 8.1 24.7 101.7 7.4 9.7 84 <0.2 3.0 3.0 3.4 0.1 255 27.5 7.2 9.7 5 85 <0.2 24.4 8.1 100.1 IM5 Rainy Moderate 12:26 6.8 Middle 24.4 8.1 27.5 100.1 820569 804897 2.9 8.1 27.5 7.2 86 3.4 0.1 100.1 9.8 <0.2 260 24.4 6 5.8 0.1 8 24.4 8.1 28.7 100.0 7.1 7.1 9.5 88 <0.2 2.9 Bottom 8.1 28.7 100.0 9.4 5.8 0.2 24.4 8.1 28.7 100.0 6 88 < 0.2 2.9 1.0 0.2 255 24.5 85 2.9 8.1 9.1 <0.2 Surface 24.5 8 1 25.8 100.4 1.0 0.2 272 24.5 8.1 25.8 7.2 9.2 85 <0.2 2.9 100.4 6 11.2 2.8 3.4 7.1 86 0.1 266 24.4 8.1 26.6 99.5 <0.2 821052 IM6 Rainy Moderate 12:18 6.8 Middle 24.4 8.1 26.6 99.5 805853 3.0 3.4 284 8.1 7.1 11.5 86 0.1 24.4 26.6 99.5 6 <0.2 7.0 7.0 88 5.8 0.1 279 24.4 8.1 28.5 99.0 13.2 <0.2 3.1 Bottom 28.5 99.0 7.0 287 aa n 5 5.8 0.1 24.4 8.1 28.5 13.0 88 < 0.2 3.0 1.0 0.2 287 24.6 8.0 24.9 96.7 7.0 8.5 83 <0.2 3.0 Surface 24.6 8.0 24.9 96.7 0.2 303 24.6 8.0 24.9 96.7 7.0 8.6 84 <0.2 3.1 3.7 0.1 24.6 8.1 7.0 10.0 4 86 <0.2 3.1 25.7 96.8 IM7 12:10 7.4 25.7 96.8 821348 806838 Rainy Moderate Middle 24.6 8.1 3.0 3.7 8.1 96.8 7.0 10.2 86 <0.2 3.0 316 25.7 0.1 24.6 4 6.4 0.0 110 97.3 97.3 7.0 88 <0.2 3.0 24.4 8.1 27.6 12.1 4 8.1 27.6 97.3 7.0 Bottom 24.4 27.6 12.2 88 6.4 0.0 119 24.4 8.1 5 < 0.2 3.0 1.0 0.1 176 24.8 7.9 23.4 99.6 7.2 9.3 4 86 <0.2 3.4 Surface 24.8 7.9 23.4 99.6 1.0 0.1 185 24.8 7.9 23.4 99.6 7.2 9.3 6 86 <0.2 3.4 4.0 0.1 24.6 9.6 88 3.3 7.9 24.8 98.5 6 <0.2 821678 7.9 24.8 98.5 807839 IM8 Rainy Moderate 12:32 8.0 Middle 24.6 88 3.3 3.3 4.0 0.1 280 24.6 7.9 24.8 98.5 7.1 9.7 4 88 <0.2 7.0 0.1 16 24.4 8.0 99.4 7.1 10.3 5 90 <0.2 3.2 27.6 24.4 8.0 27.6 Rottom 99.4 7.1 7.0 17 8.0 7.1 6 90 3.0 0.1 10.3 24.4 99.4 < 0.2

DA: Depth-Averaged

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

Water Quality Monitoring
Water Quality Monitoring Results on during Mid-Flood Tide 24 April 18

Water Quality Monitoring Results on				24 April 18	during Mid-l	Flood Ti	de																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Depth	n (m)	Current Speed	Current	Water Ter	mperature (°C)	р	Н	Salir	ity (ppt)	DO Sat	turation 6)	Disso Oxyg		Turbidity	NTU)	Suspende (mg	d Solids To /L)	tal Alkalin (ppm)	Coordinate HK Grid	Coordinate HK Grid	Chroi (µg	mium g/L) Ni	ickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	24		(m/s)	Direction	Value	Average		Average		Average		Average	Value	DA	Value	DA	Value		alue DA		(Easting)	Value		alue DA
					Surface	1.0	0.0	232 252	24.9	24.9	7.9	7.9	23.0	23.0	99.0	99.0	7.2	7.2	9.2	-	7		86			<0.2	3	3.1
IM9	Cloudy	Moderate	12:39	7.2	Middle	3.6 3.6	0.1 0.1	242 243	24.5 24.5	24.5	7.9	7.9	25.6 25.6	25.6	98.5 98.5	98.5	7.1 7.1		10.2 10.2	9.9	5 5	6	88 88	822077	808811	<0.2	<0.2	3.1
					Bottom	6.2 6.2	0.1 0.1	264 289	24.5 24.5	24.5	8.0	8.0	27.0 27.0	27.0	100.3	100.3	7.2	7.2	10.2 10.2		6 5		90 90			<0.2	3	3.1 3.1
					Surface	1.0	0.1	335 337	25.0 25.0	25.0	7.9	7.9	24.2	24.2	99.6 99.6	99.6	7.2	7.1	8.5 8.5		3		86 86			<0.2	3	2.9 3.0
IM10	Cloudy	Moderate	12:48	7.3	Middle	3.7	0.1 0.1	314 344	24.4 24.4	24.4	7.9	7.9	26.8 26.8	26.8	96.7 96.6	96.7	6.9	,	11.1 11.1	10.4	4	3	88 88	822223	809836	<0.2	<0.2	2.8
					Bottom	6.3 6.3	0.1 0.1	300 318	24.4 24.4	24.4	8.0	8.0	27.0 27.0	27.0	98.2 98.3	98.3	7.0	7.0	11.4 11.5		3		90 90			<0.2		2.8
					Surface	1.0 1.0	0.1	275 288	24.8 24.8	24.8	8.0	8.0	24.9 24.9	24.9	100.4	100.4	7.2 7.2	7.2	9.3 9.3		6 5		86 86			<0.2		2.7
IM11	Cloudy	Moderate	13:02	7.5	Middle	3.8	0.2	286 301	24.7 24.7	24.7	8.0	8.0	25.7 25.7	25.7	98.4 98.4	98.4	7.1	1.2	10.3 10.4	10.9	4		88 88	821518	810543	<0.2		2.6
					Bottom	6.5 6.5	0.2	283 306	24.6 24.6	24.6	8.1 8.1	8.1	27.1 27.1	27.1	97.9 98.0	98.0	7.0	7.0	12.9 12.9	Ī	5 5		90 90			<0.2		3.0 3.0
					Surface	1.0 1.0	0.3 0.3	300 307	24.8 24.8	24.8	8.0	8.0	24.8 24.8	24.8	100.6 100.5	100.6	7.3 7.2	7.0	9.2 9.2		4		85 86			<0.2		2.7
IM12	Cloudy	Moderate	13:10	8.9	Middle	4.5 4.5	0.3 0.4	285 300	24.6 24.6	24.6	8.0	8.0	27.2 27.2	27.2	94.9 94.8	94.9	6.8	7.0	10.7 10.7	11.1	4		88 88	821165	811537	<0.2		2.9
					Bottom	7.9 7.9	0.1 0.1	264 275	23.9 23.9	23.9	8.0	8.0	30.3	30.3	91.1 91.2	91.2	6.5 6.5	6.5	13.3 13.2	-	3		90 90			<0.2		3.0
					Surface	1.0 1.0	0.1 0.1	245 268	24.9 24.9	24.9	7.9 7.9	7.9	25.1 25.1	25.1	98.1 98.0	98.1	7.0 7.0		8.7 8.7	-	3		86 85			<0.2		2.9
SR2	Cloudy	Moderate	13:37	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	7.0		9.2	-	4	87	821438	814188	-	<0.2	2.9
					Bottom	3.6 3.6	0.2	307 319	24.4 24.3	24.3	8.0	8.0	28.4	28.4	94.8	94.9	6.8	6.8	9.6 9.7	-	3		88 88			<0.2		2.8
					Surface	1.0	0.2	189 202	24.8 24.8	24.8	7.9	7.9	23.7	23.7	98.3 98.3	98.3	7.1 7.1		9.4 9.4		5		-			-		-
SR3	Rainy	Moderate	12:26	8.3	Middle	4.2 4.2	0.1 0.1	284 310	24.5 24.5	24.5	7.9 7.9	7.9	25.8 25.8	25.8	97.4 97.4	97.4	7.0 7.0	7.1	10.6 10.6	10.8	6 7	7	-	822171	807591	-		-
					Bottom	7.3 7.3	0.1	25 27	24.4	24.4	8.0	8.0	27.9 27.9	27.9	99.0 99.0	99.0	7.1	7.1	12.3 12.4	F	10 8		-			-	ΙF	=
					Surface	1.0	0.1 0.1	285 287	24.5 24.5	24.5	8.1	8.1	28.4	28.4	101.5 101.4	101.5	7.2 7.2		9.1 9.3		5		-			-	F	=
SR4A	Cloudy	Calm	13:35	9.2	Middle	4.6 4.6	0.2	232 245	24.1 24.1	24.1	8.1 8.1	8.1	30.2 30.2	30.2	100.4	100.4	7.1 7.1	7.2	9.5 9.6	9.7	6 7	6	-	817170	807801	-	1 - F	-
					Bottom	8.2 8.2	0.1	230 232	24.1 24.1	24.1	8.1	8.1	30.4	30.3	100.2	100.3	7.1 7.1	7.1	10.2 10.6	ŀ	6 7		-			-	ł F	=
					Surface	1.0	0.1	278 281	24.9 24.9	24.9	8.1 8.1	8.1	28.2	28.2	101.0	100.9	7.1 7.1		7.9 8.0		5 6		-			-	F	
SR5A	Cloudy	Calm	13:52	5.2	Middle	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	9.2	-	6	-	816587	810674	-		
					Bottom	4.2 4.2	0.1 0.1	303 320	24.7	24.7	8.1 8.1	8.1	28.8 28.8	28.8	99.1 99.2	99.2	7.0 7.0	7.0	10.5 10.4	ŀ	6		-			-	l F	=
					Surface	1.0	0.2	253 258	24.9	24.9	8.1	8.1	26.1	26.1	102.2	102.1	7.3		11.9		4 5		-			-	F	-
SR6	Cloudy	Calm	14:16	4.3	Middle	-	-		-	-	-	-	-	-	-		-	7.3	-	15.6	-	6		817899	814665	-	ł - F	-
					Bottom	3.3	0.2	250 260	24.8	24.8	8.1 8.1	8.1	28.4	28.4	100.4	100.5	7.1 7.1	7.1	19.0 19.3		6		-			-	l F	=
					Surface	1.0	0.1	324 338	24.4	24.4	8.0	8.0	29.2	29.2	103.5	103.5	7.3		6.7		5		_				F	=
SR7	Cloudy	Moderate	14:33	19.3	Middle	9.7	0.1	18	23.6	23.6	8.0	8.0	32.4 32.5	32.4	89.6 89.7	89.7	6.3	6.8	8.1 8.1	8.0	4	4	-	823612	823728	-	- -	-
					Bottom	18.3 18.3	0.1	79 80	23.5	23.5	8.0	8.0	32.9 32.9	32.9	91.3 91.5	91.4	6.4	6.4	9.2	-	3 4		-			-		=
					Surface	1.0	-	-	24.9	24.9	8.0	8.0	24.0	24.0	107.1	107.1	7.7		9.0		5 4						F	=
SR8	Cloudy	Moderate	13:20	4.0	Middle	-	-	-	- 24.9	-	-	-	-	-	-	-	-	7.7	9.0	10.3	-	4	<u> </u>	820246	811418	-		-
					Bottom	3.0	-	-	24.8	24.8	8.0	8.0	25.0 24.9	24.9	103.8	103.8	7.5	7.5	11.6 11.5		4 3					-		-
					<u> </u>	3.0	-	-	24.8		8.0		24.9		103.7		7.5		11.5		3		-		1	-		<u>- </u>

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 26 April 18 during

during Mid-Ebb Tide

Water Qua	ity Monit	oring Resu	lts on		26 April 18	during Mid-	Ebb Tide	е																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)	р	Н	Salir	ity (ppt)		aturation %)	Disso Oxy		Turbidity(NTU)	Suspende (mg/	d Solids 1 L)	otal Alka (ppm		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/		kel (µg/L)
Station	Condition	Condition	Time	Depth (m)	, , ,		(m/s)	Direction	Value	Average		Average	<u> </u>	Average	Value	Average	Value	DA	Value	DA	Value	DA		DA	(Northing)	(Easting)	Value	DA Value	
					Surface	1.0	0.1	211 224	23.7	23.7	8.2	8.2	30.5	30.5	109.6 109.6	109.6	7.8	7.7	6.7 6.9	-	4	-	85 86				<0.2	1.2	
C1	Cloudy	Moderate	11:08	8.8	Middle	4.4	0.2	196 197	23.7	23.7	8.2	8.2	32.0	32.0	106.0 106.0	106.0	7.5 7.5	/./	7.9 8.1	8.2	7 5	6	87 88	88	815646	804218	<0.2	<0.2 1.3	
					Bottom	7.8 7.8	0.3	193 209	23.6 23.6	23.6	8.2 8.2	8.2	32.8 32.8	32.8	104.2 104.3	104.3	7.3 7.3	7.3	9.8		7	F	89 90				<0.2	1.2	2
					Surface	1.0	0.6 0.7	173 180	24.3 24.3	24.3	7.9	7.9	27.0 27.0	27.0	93.4	93.4	6.7		10.5 10.5		8		84 84				<0.2	2.3	3
C2	Cloudy	Moderate	12:21	11.6	Middle	5.8 5.8	0.5	171 176	24.0	24.0	8.0 8.0	8.0	29.7	29.7	92.4 92.4	92.4	6.6	6.7	12.4 12.4	11.9	12	11	86	86	825681	806956	<0.2	1.9	10
					Bottom	10.6	0.2	138	24.0	24.0	8.0	8.0	30.0	30.0	94.3	94.3	6.7	6.7	12.9		12		86 88				<0.2	1.8	3
					Surface	10.6	0.2	144 62	24.0	23.9	8.0	8.0	30.0	30.4	94.3 94.0	94.0	6.7		12.9 6.7		13 6		89 85				<0.2	1.2	
00	Olevetic	Madaata	10:11	40.0	Middle	1.0 6.2	0.3	65 98	23.9 23.7	23.7	8.0 8.0		30.4 31.8		94.0 93.3		6.7 6.6	6.7	6.7 7.6	7.7	6	7	86 87	88	822087	817796	<0.2	<0.2	
C3	Cloudy	Moderate	10:11	12.3		6.2 11.3	0.3 0.3	103 90	23.7 23.6		8.0 8.0	8.0	31.8 32.6	31.8	93.3 93.7	93.3	6.6		7.6 8.7	′.′	7	′ [88 89	88	822087	817796	<0.2 <0.2	<0.2 0.8 0.6	3
					Bottom	11.3	0.3	97 215	23.6	23.6	8.0	8.0	32.6	32.6	93.7	93.7	6.6	6.6	8.7		7		90				<0.2	0.5	5
					Surface	1.0	0.1	231	23.7	23.7	8.2	8.2	30.4	30.4	108.0	108.1	7.7	7.5	6.5	L	6	Ė	86				<0.2	1.1	
IM1	Cloudy	Moderate	11:27	7.3	Middle	3.7	0.1	217 223	23.7	23.7	8.2	8.2	31.9	31.9	103.6	103.6	7.3		8.1	9.3	6	7	88	88	818353	806438	<0.2	<0.2	□ '.'
					Bottom	6.3 6.3	0.1	182 189	23.6 23.6	23.6	8.2 8.2	8.2	32.5 32.5	32.5	102.4 102.4	102.4	7.2	7.2	13.4 13.3		11 10	-	90 91				<0.2	1.1	
					Surface	1.0 1.0	0.3	213 223	23.7 23.7	23.7	8.2 8.2	8.2	31.4 31.4	31.4	105.0 105.0	105.0	7.4	7.4	7.9 7.8	L	6 7	L	86 86				<0.2	1.1	
IM2	Cloudy	Moderate	11:33	8.3	Middle	4.2	0.3	197 215	23.7	23.7	8.2	8.2	32.0 32.0	32.0	102.8 102.8	102.8	7.3	7.4	9.3 9.3	9.5	8	8	88 88	88	818822	806200	<0.2	<0.2	
					Bottom	7.3 7.3	0.2	187 199	23.6 23.6	23.6	8.2 8.2	8.2	32.4	32.4	102.7 103.1	102.9	7.2	7.3	11.4 11.1	F	9	F	90 91				<0.2	1.1	
					Surface	1.0	0.3	243 244	23.7	23.7	8.2	8.2	31.2	31.2	106.0 105.9	106.0	7.5 7.5		7.6 7.5		8		86 86				<0.2	1.1	
IM3	Cloudy	Moderate	11:39	8.0	Middle	4.0	0.3	229 229	23.7	23.7	8.2	8.2	31.7	31.7	103.4	103.4	7.3	7.4	9.9	11.1	9	8	00	88	819393	805991	<0.2	<0.2	1.0
					Bottom	7.0 7.0	0.3	203	23.7	23.7	8.2	8.2	32.3	32.3	102.7	102.7	7.2	7.2	16.0	Ė	9		90				<0.2	1.0)
					Surface	1.0	0.3	214 228	23.7	23.7	8.2	8.2	31.4	31.4	106.1	106.1	7.5		15.8 8.0		7		91 86				<0.2	1.0)
IM4	Cloudy	Moderate	11:46	7.7	Middle	1.0 3.9	0.3	235 214	23.7 23.7	23.7	8.2 8.2	8.2	31.4 32.2	32.2	106.1 104.9	104.9	7.5 7.4	7.5	7.9 8.1	8.4	6 8	8	86 88	88	819593	805016	<0.2	<0.2	1.0
	,				Bottom	3.9 6.7	0.3	227 196	23.7 23.7	23.7	8.2 8.2	8.2	32.2 32.4	32.4	104.8 104.9	105.0	7.4	7.4	8.2 9.1	E	10		91			-	<0.2	1.0)
						6.7 1.0	0.3	209 202	23.7		8.2 8.2		32.4		105.0 106.9		7.4	7.4	9.2 6.8		8		90 86				<0.2	1.0	
					Surface	1.0 3.4	0.5 0.4	207 193	23.9 23.8	23.9	8.2 8.2	8.2	30.0 30.4	30.0	106.9 106.3	106.9	7.6 7.5	7.6	6.9 7.7	F	6	F	86 89				<0.2	0.9)
IM5	Cloudy	Moderate	11:57	6.8	Middle	3.4 5.8	0.4	204 173	23.8	23.8	8.2	8.2	30.4	30.4	106.3 105.5	106.3	7.5 7.5		7.9 8.3	7.7	7 8	7	88 91	89	820562	804905	<0.2	<0.2 0.9	9 1.0
					Bottom	5.8	0.2	186 179	23.7	23.7	8.2	8.2	31.5	31.5	105.5	105.5	7.5	7.5	8.5 6.7		8		91				<0.2	1.1	
					Surface	1.0	0.4	186	24.0	24.0	8.1	8.1	28.7	28.7	103.2	103.2	7.4	7.4	6.8	Ė	10		86				<0.2	1.0)
IM6	Cloudy	Moderate	12:06	6.9	Middle	3.5 3.5	0.4	168 172	23.8 23.8	23.8	8.2	8.2	30.9	30.9	104.5 104.4	104.5	7.4 7.4		9.6 9.0	11.7	8	9	88	88	821078	805831	<0.2	<0.2) 1.0
					Bottom	5.9 5.9	0.2	144 144	23.7 23.7	23.7	8.2	8.2	31.8 31.8	31.8	102.0 102.0	102.0	7.2	7.2	18.9 19.3		8 10		91 91				<0.2	0.9 1.0)
					Surface	1.0	0.2	218 239	24.1	24.1	8.1	8.1	28.0	28.0	101.1	101.1	7.2	7.0	6.6 6.6		4 5		86 86				<0.2	1.2	
IM7	Cloudy	Moderate	12:15	8.1	Middle	4.1 4.1	0.2	173 188	23.9 23.9	23.9	8.1 8.1	8.1	29.8 29.8	29.8	102.0 102.0	102.0	7.3	7.3	8.5 8.2	7.9	5 6	6	00	88	821367	806838	<0.2	<0.2	1 2
					Bottom	7.1	0.2	123 129	23.7	23.7	8.2	8.2	31.5 31.5	31.5	101.4 101.5	101.5	7.2	7.2	8.7 8.9	F	8	ļ	90				<0.2	1.3	3
					Surface	1.0	0.3	177	24.1	24.1	8.0	8.0	27.9 27.9	27.9	100.4	100.5	7.2		7.6 7.6		5		85 85				<0.2	1.8	3
IM8	Cloudy	Moderate	11:50	8.0	Middle	4.0	0.0	108	23.9	23.9	8.0	8.0	29.6	29.6	100.0	100.0	7.1	7.2	8.9	8.3	6	6	86	86	821704	807845	<0.2	1.5	1.5
					Bottom	4.0 7.0	0.0	109 163	23.9 23.8	23.8	8.0 8.1	8.1	29.6 31.4	31.4	100.0 101.3	101.3	7.1 7.2	7.2	8.9 8.3	E	7	Ŀ	86		-		<0.2	1.4	3
					Dottom	7.0	0.0	171	23.8	20.0	8.1	0	31.4	V	101.3	.00	7.2		8.3		8		88				<0.2	1.4	<u>. </u>

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 26 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.4 143 24.0 8.0 8.4 85 < 0.2 28.4 7.2 1.4 Surface 24.0 8.0 28.4 101.0 1.0 0.4 156 24 0 8.0 28.4 101 0 7.2 8.4 4 85 < 0.2 1 4 3.5 0.3 117 7.2 9.6 4 86 14 23.9 8.0 29.6 101.3 <02 IM9 11:42 7.0 Middle 8.0 29.6 101.3 822082 808831 1.2 Cloudy Moderate 3.5 0.3 122 23.9 8.0 29.6 101 3 7.2 9.6 5 86 <0.2 1.4 6.0 0.2 62 23.7 8.1 7.2 10.1 5 87 <0.2 0.9 Bottom 23.7 8.1 31.3 101.4 7.2 6.0 0.3 23.7 8.1 31.3 101 4 7.2 10.1 88 <0.2 0.9 1.0 0.5 139 8.0 9.6 84 1.9 24.2 27.5 98.3 7.1 5 <0.2 Surface 24.2 8.0 27.5 98.3 8.0 98.3 7.1 85 1.0 0.5 139 24.2 27.5 9.6 6 < 0.2 1.9 3.9 7.2 7.2 0.5 124 8.0 14.0 8 86 < 0.2 1.8 23.8 29.0 100.2 29.0 100.2 IM10 Cloudy Moderate 11:34 7.8 Middle 23.8 8.0 13.2 822240 809816 1.7 8.0 86 < 0.2 1.9 3.9 0.5 128 23.8 29.0 100.2 14.0 8 6.8 0.3 90 23.8 8.1 31.0 99.8 15.9 8 87 <0.2 1.3 Bottom 23.8 31.0 99.8 6.8 0.3 92 23.8 8.1 31.0 99.8 7.1 15.9 9 88 <0.2 1.3 0.4 132 24.0 8.1 9.6 85 <0.2 1.4 28.7 7.2 100.2 6 Surface 24.0 8.1 28.7 100.2 1.0 0.4 137 8.1 7.2 86 1.4 24.0 28.7 100.2 9.6 <0.2 3.9 14.5 88 1.2 7.2 0.3 108 23.9 8.1 29.6 100.4 8 < 0.2 29.6 821523 IM11 Cloudy Moderate 11:16 7.8 Middle 23.9 8.1 100.4 810560 1.3 3.9 108 7.2 88 0.3 23.9 8.1 29.6 100.4 14.5 8 < 0.2 89 1.2 6.8 0.3 75 23.8 8.1 30.7 100.3 7.1 20.2 9 < 0.2 Bottom 8.1 30.7 100.3 6.8 0.3 78 23.8 8.1 30.7 100.3 7 1 20.2 9 90 < 0.2 12 1.0 0.4 105 24.0 8.1 10.3 10 85 <0.2 1.2 29.5 Surface 24.0 8.1 29.5 99.1 1.0 0.4 24.0 8.1 29.5 99.1 7.1 10.3 10 86 <0.2 1.3 4.5 0.3 106 23.9 8.1 30.1 98.6 7.0 15.8 12 86 <0.2 1.1 30.1 98.6 821154 IM12 Cloudy Moderate 11:06 9.0 Middle 23.9 8.1 12 87 811509 8.1 30.1 98.6 7.0 15.8 86 <0.2 1.1 4.5 0.3 106 23.9 13 8.0 84 13 89 1.0 0.3 23.8 8.1 30.7 98.8 7.0 19.5 < 0.2 Bottom 30.7 98.8 8.0 0.3 91 23.8 8.1 30.7 98.8 7.0 19.5 14 88 <0.2 0.9 1.0 0.4 88 24.0 9.2 85 <0.2 1.3 8.0 29.4 92.8 6.6 29.4 92.8 Surface 24.0 8.0 1.0 0.4 90 24.0 8.0 29.4 6.6 9.2 9 86 <0.2 1.4 -SR2 10:37 44 Middle 87 821449 814190 Cloudy Moderate <0.2 13 87 3.4 0.3 81 24.0 8.0 29.9 6.6 10.2 12 <0.2 1.2 93.2 Bottom 24.0 8.0 29.9 93.2 6.6 3.4 0.3 84 93.2 66 12 8.0 29 9 10.2 88 1.3 24 0 <0.2 1.0 0.4 179 24.1 8.0 27.4 97.6 7.0 8.8 6 Surface 27.4 97.6 97.6 1.0 0.4 192 24.1 8.0 27.4 7.0 8.8 6 4.6 0.1 175 23.8 8.1 7.2 10.8 8 30.1 SR3 11:58 9 1 Middle 23.8 8 1 30.1 100.6 106 822154 807597 Cloudy Moderate 4.6 0.1 8.1 100.6 10.8 23.8 30.1 8.1 7.2 11 0.2 28 23.7 8.1 31.5 101.3 12.2 8.1 31.5 7.2 Bottom 23.7 101.3 7.2 8.1 31.5 101.3 8.1 12.2 9 0.2 30 23.7 1.0 0.3 23.8 8.2 7.3 9.1 31.0 102.5 Surface 23.8 8.2 31.0 102.5 7.3 7 8.2 1.0 0.3 60 23.8 31 0 102.4 9.3 4.4 0.3 72 23.7 8.2 31.5 100.6 10.6 6 -SR4A Cloudy Moderate 10:47 8.7 Middle 23.7 8.2 31.5 100.6 817195 807813 4.4 0.3 75 23.7 8.2 31.5 100.6 9.6 6 7.7 0.3 74 23.7 8.2 10.6 31.6 100.8 Bottom 23.7 8.2 31.6 7.7 0.3 76 23.7 8.2 31.6 100.8 7.1 10.5 6 1.0 316 7.8 0.1 24.2 8.1 28.7 91.2 6.5 Surface 24.2 8.1 28.7 91.2 1.0 0.1 321 8.1 28.7 6.5 7.9 5 24.2 91.2 SR5A Cloudy Calm 10:30 4.5 Middle 816586 810701 116 3.5 0.0 23.9 8.1 29.8 10.2 6 93.1 6.6 29.8 93.1 6.6 23.9 8.1 Bottom 93.1 6.6 10.4 3.5 0.0 122 23.9 8.1 29.8 1.0 0.1 49 24.1 8.0 6.6 6.5 29.0 93.2 Surface 24.1 8.0 29.0 93.2 1.0 49 8.0 93.2 6.6 0.1 24.1 29.0 6.3 2 SR6 10:06 4.6 Middle 817882 814633 Cloudy Calm 3.6 0.1 53 24.1 93.9 94.0 9.3 29.3 Bottom 24.1 8.0 29.3 94.0 6.7 3.6 0.1 53 24.1 8.0 29.3 6.7 9.2 4 1.0 0.5 23.6 8.0 32.2 93.5 6.6 6.8 93.5 Surface 23.6 8.0 32.2 1.0 0.6 69 23.6 8.0 32.2 93.5 6.6 6.8 4 7.5 8.1 0.3 23.6 8.0 6.5 6 4 32.8 93.0 SR7 Cloudy Moderate 09:26 16.2 Middle 23.6 32.8 93.0 823638 823730 8.1 0.3 32.8 6.5 7.5 5 4 23.6 8.0 93.0 15.2 0.3 23.6 8.0 32.8 93.4 6.6 7.9 5 Bottom 8.0 32.8 93.4 6.6 15.2 0.3 23.6 8.0 32.8 93.4 6.6 7.9 6 1.0 24.2 6.8 10.5 Surface 24.2 8.1 29 4 95.3 1.0 8.1 29.4 95.3 6.8 10.5 24.2 7 6.8 SR8 Cloudy Moderate 10:57 4.0 Middle 820246 811418 3.0 96.3 96.3 24.1 8.1 29.9 6.8 12.5 Bottom 8.1 29.9 96.3 10 3.0 24.1

DA: Depth-Average

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 26 April 18 during

during Mid-Flood Tide

Water Qual	ity Monito	oring Resu	lts on		26 April 18	during Mid-	Flood T	ide																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)		рН	Salin	ity (ppt)		aturation (%)	Dissolved Oxygen	Turbidity	(NTU)	Suspende (mg		Total Alk (ppr		Coordinate HK Grid	Coordinate HK Grid	Chromi (µg/L		ckel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average \	/alue DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)			lue DA
					Surface	1.0	0.4	25 27	24.0 24.0	24.0	8.1	8.1	27.3 27.3	27.3	110.5 110.3		8.2	3.7		7	ŀ	86 85				<0.2	1.0	
C1	Cloudy	Moderate	15:53	8.8	Middle	4.4	0.3	30	23.8	23.8	8.1	8.1	30.2	30.2	105.2	105.2	7.9	3.6	4.6	6	7	87	88	815605	804219	<0.2	-0.3	9 00
01	Oloudy	Woderate	10.00	0.0	Wilde	4.4 7.8	0.3	31 27	23.8		8.1 8.1	0.1	30.2 31.0		105.1 99.7		7.9 7.5	3.8 6.4	4.0	7	ł	88 90	00	013003	004213	<0.2	0.8	.8
					Bottom	7.8	0.3	27	23.7	23.7	8.1	8.1	31.0	31.0	99.9		7.5	6.3		7		90				<0.2	1.0	
					Surface	1.0	0.4	180 184	24.3 24.3	24.3	7.9 7.9	7.9	25.9 25.9	25.9	92.2 92.2		6.7	9.6 9.6		6	1	86 85				<0.2	2.5	
C2	Cloudy	Moderate	14:46	11.3	Middle	5.7	0.1	233	24.0	24.0	8.0	8.0	29.7	29.7	90.2	90.2	6.4	13.8	14.9	7	8	87	88	825710	806939	<0.2	-0.2	3 17
	,					5.7 10.3	0.1	241 332	24.0 24.0		8.0		29.7 30.0		90.2 89.3		6.4	13.8 21.3		9	1	88 89				<0.2	1.4	
					Bottom	10.3	0.2	332	24.0	24.0	8.0	8.0	30.0	30.0	89.3	89.3	6.3	21.3		10	<u> </u>	90				<0.2	1.2	2
					Surface	1.0	0.4	238 259	23.9 23.9	23.9	8.0	8.0	30.0	30.0	94.3		6.7	6.3	+ +	3	†	85 86				<0.2	1.1	
C3	Cloudy	Moderate	16:50	12.2	Middle	6.1 6.1	0.4	253 270	23.8	23.8	8.0	8.0	31.1	31.1	92.9 92.9		6.6	7.5 7.5	7.6	2	4	88 88	88	822095	817809	<0.2	<0.2	
					Bottom	11.2	0.4	273	23.6	23.6	8.0	8.0	32.6	32.6	93.6	02.6	6.6	8.9	i i	6	İ	89				<0.2	0.6	6
						11.2 1.0	0.4	277 344	23.6		8.0 8.1		32.6 27.1		93.6 112.6		6.6 8.3	8.9 3.6		6 5	├ ─	90 85				<0.2	0.6	
					Surface	1.0	0.3	316	24.2	24.2	8.1	8.1	27.1	27.1	112.6	112.0	8.3	3.6	1	3	1	85				<0.2	1.8	8
IM1	Cloudy	Moderate	15:33	7.4	Middle	3.7	0.2	337 342	23.9	23.9	8.1 8.1	8.1	27.8	27.8	110.1		8.3	3.5	4.4	4	4	88 88	88	818364	806479	<0.2	<0.2	
					Bottom	6.4	0.2	352	23.7	23.7	8.1	8.1	30.2	30.2	102.7	102.0	7.7	6.2		5	1	90				<0.2	1.6	6
					Surface	6.4 1.0	0.2	324 300	23.7	23.6	8.1	8.2	30.2 32.3	32.3	102.8 102.5		7.7	6.1 4.3		3		90 86	\rightarrow			<0.2	1.5	
						1.0 4.2	0.1	326 59	23.6		8.2 8.2		32.3 30.6		102.5 103.4		7.2 7.3	4.3 3.5		4	ĺ	85 88				<0.2	1.6	
IM2	Cloudy	Moderate	15:25	8.3	Middle	4.2	0.1	62	23.8	23.8	8.2	8.2	30.6	30.6	103.5	103.5	7.3	3.5	6.7	4	4	88	88	818867	806197	<0.2	<0.2	7
					Bottom	7.3	0.2	21 22	23.8	23.8	8.2	8.2	31.1	31.1	102.9		7.3 7.3	12.3		3	ł	90				<0.2	1.7	
					Surface	1.0	0.2	241	23.8	23.8	8.2	8.2	31.4	31.4	103.0	103.0	7.3	4.5		4		85				<0.2	1.7	.7
IM3	Cloudy	Moderate	15:17	8.2	Middle	1.0 4.1	0.2	248 308	23.8	23.8	8.2 8.2	8.2	31.4 30.6	30.6	103.0		7.3 7.4	3.9	4.2	5 5	-	85 88	88	819427	806021	<0.2	<0.2	
livio	Cloudy	Woderate	15.17	0.2	ivildale	4.1 7.2	0.1 0.1	335 335	23.8 23.8		8.2 8.2		30.6 30.9		103.7 103.2		7.4	3.9 4.3	4.2	4 5	3	88 90	00	019427	000021	<0.2	1.0	.7
					Bottom	7.2	0.1	337	23.8	23.8	8.2	8.2	30.9	30.9	103.3	103.3	7.3	4.2		5	<u> </u>	90				<0.2	1.6	6
					Surface	1.0	0.2	311 333	23.8	23.8	8.2	8.2	31.4	31.4	103.1		7.3	4.8		4	ł	86 85				<0.2	1.0	
IM4	Cloudy	Moderate	15:08	7.5	Middle	3.8	0.2	324	23.8	23.8	8.2	8.2	30.9	30.9	103.6	102.6	7.3	6.7	6.9	4	4	88	88	819587	805039	<0.2	-0.2 1.6	6 16
					D-#	3.8 6.5	0.2	352 348	23.8 25.5	04.0	8.2 8.2	0.0	30.9 30.1	20.0	103.6 101.8		7.0	6.7 9.2	†	4	†	90				<0.2	1.6	
					Bottom	6.5 1.0	0.1	353 272	23.8	24.6	8.2 8.1	8.2	31.4 28.9	30.8	104.6 102.2		7.4 7.2 7.3	9.1 8.6		5 4	<u> </u>	90 86				<0.2	1.6	
					Surface	1.0	0.2	287	24.0	24.0	8.1	8.1	28.9	28.9	102.2	102.2	7.3	8.8	1	5	Ì	86				<0.2	1.8	.8
IM5	Cloudy	Moderate	15:00	6.8	Middle	3.4	0.2	288 306	23.8	23.8	8.1 8.1	8.1	30.2	30.2	102.8		7.3	9.5 8.9	9.7	5 6	5	88 88	88	820555	804925	<0.2	<0.2	
					Bottom	5.8	0.1	356	23.7	23.7	8.1	8.1	31.3	31.3	102.5	102.5	7.3	11.2	1	5	ļ	90				<0.2	1.8	.8
					Surface	5.8 1.0	0.1	358 275	23.7	24.2	8.1	8.0	31.3 28.1	28.1	102.5 98.5		7.3	7.3		7	\vdash	90 86	_			<0.2	1.5	
						1.0	0.4	287 298	24.2		8.0 8.1		28.1 30.1		98.5 101.5		7.0 7.2	7.5 8.7]	4 7	ĺ	86 88				<0.2	1.9	0
IM6	Cloudy	Moderate	14:53	6.6	Middle	3.3	0.3	307	23.9	23.9	8.1	8.1	30.1	30.1	101.5		7.2	8.1	8.3	6	5	88	88	821036	805818	<0.2	<0.2	8 1.9
					Bottom	5.6 5.6	0.1	343 358	23.7	23.7	8.1 8.1	8.1	31.2 31.2	31.2	101.5 101.5	101.5	7.2 7.2	9.0	} }	5 6	+	90 90				<0.2	1.9	
					Surface	1.0	0.4	256	24.3	24.3	8.0	8.0	27.3	27.3	96.1	96.1	6.9	8.0		6		85	=			<0.2	1.7	7
15.50	01-	Maril	,,	0.0		1.0 4.1	0.4	257 295	24.3 24.0		8.0 8.1		27.3 29.1		96.1 97.0		6.9 6.9	8.2 8.4		5 5	-	85 87		004005	000011	<0.2	1.8	0
IM7	Cloudy	Moderate	14:45	8.2	Middle	4.1	0.4	303	24.0	24.0	8.1	8.1	29.1	29.1	97.0	97.0	6.9	8.6	8.3	5	5	87	87	821335	806811	<0.2	1.8	8 1.0
					Bottom	7.2 7.2	0.1	324 334	23.8 23.8	23.8	8.1 8.1	8.1	31.2 31.2	31.2	98.3 98.3		7.0 7.0	8.4 8.1	<u> </u>	6 5	<u></u>	89 89				<0.2	1.8	
					Surface	1.0	0.3	223 241	24.2 24.2	24.2	8.0	8.0	27.9 27.9	27.9	94.5 94.5		6.8	8.6 8.6		6 7	$\overline{}$	85 86				<0.2	1.8	
IM8	Rainy	Moderate	15:10	7.9	Middle	4.0	0.3	250	24.2	24.2	8.0	8.0	28.7	28.7	95.0	05.0	6.8	8.4	8.5	7	7	86	86	821692	807861	<0.2	-0.2	6 16
	. carry	ocorato	.5.10			4.0 6.9	0.3	256 281	24.2 24.1		8.0		28.7 29.1		95.0 97.2		6.8	8.4 8.6	5.5	7	t É	86 88	55	02.002	55.661	<0.2	1.7	.7
DA: Depth-Aver					Bottom	6.9	0.2	289	24.1	24.1	8.0	8.0	29.1	29.1	97.2		6.9	8.6	<u> </u>	6		87				<0.2	1.4	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring during Mid-Flood Tide

Water Qua	ity Monit	oring Resu	lts on		26 April 18	during Mid-		de																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept	h (m)	Current Speed	Current	Water Te	mperature (°C)		рН	Salir	nity (ppt)		ituration %)	Disso Oxy		Turbidity(N	ITU) ^S	uspende (mg/	d Solids /L)	Total Al (pp		Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		lickel (µg/L
Station	Condition	Condition	Time	Depth (m)	22		(m/s)	Direction	Value	Average		Average	<u> </u>	Average		Average	Value	DA		DA	Value	DA	Value	DA	(Northing)	(Easting)	Value		alue DA
					Surface	1.0	0.3	262 268	24.4 24.4	24.4	7.9	7.9	28.1	28.1	95.6 95.6	95.6	6.8	6.8	8.0		6 7		85 86				<0.2	_	2.0 1.9
IM9	Rainy	Moderate	15:22	7.0	Middle	3.5 3.5	0.3	265 276	24.4 24.4	24.4	8.0	8.0	28.5 28.5	28.5	96.2 96.2	96.2	6.8		8.5 8.5	8.4	5 6	7	88 88	87	822113	808835	<0.2	<0.2	1.8 1.8
					Bottom	6.0 6.0	0.2	274 274	24.2 24.2	24.2	8.0	8.0	28.9 28.9	28.9	99.0 99.0	99.0	7.0	7.0	8.8 8.8		10 8		89 88				<0.2		1.9 1.7
					Surface	1.0	0.3	279 293	24.2 24.2	24.2	8.0	8.0	28.6 28.6	28.6	95.7 95.7	95.7	6.8		8.1 8.1		3		85 86				<0.2	F	2.0 1.7
IM10	Rainy	Moderate	15:31	7.2	Middle	3.6	0.4	283 300	24.1	24.1	8.0	8.0	29.0	29.0	95.7 95.7	95.7	6.8	6.8	0.0	10.4	3 4	5	88 87	88	822232	809855	<0.2	-0.2	1.6 1.6
					Bottom	6.2 6.2	0.2	282 307	24.0	24.0	8.0	8.0	29.4 29.4	29.4	97.4 97.4	97.4	6.9	6.9	13.2		7		89 90				<0.2	-	1.3
					Surface	1.0	0.2	290 303	24.1	24.1	8.0	8.0	28.4	28.4	98.7	98.7	7.1		8.0		4 3		85 85				<0.2		1.7
IM11	Cloudy	Moderate	15:47	8.0	Middle	4.0	0.4	293	24.0	24.0	8.1	8.1	29.4	29.4	99.3	99.3	7.1	7.1	10.5	9.9	3	4	87	87	821484	810554	<0.2	.0.2	1.6
					Bottom	4.0 7.0	0.4	312 290	24.0 23.9	23.9	8.1 8.1	8.1	29.4 30.0	30.0	99.3 99.5	99.5	7.1 7.1	7.1	10.5 11.2		3		88 88				<0.2 <0.2	-	1.4
					Surface	7.0 1.0	0.3	317 282	23.9 24.0	24.0	8.1 8.1	8.1	30.0 29.1	29.1	99.5 100.2	100.2	7.1 7.1		11.2 7.4		5 3		89 85				<0.2		1.3
IM12	Cloudy	Moderate	15:56	7.7	Middle	1.0 3.9	0.6 0.5	285 284	24.0 24.0	24.0	8.1 8.1	8.1	29.1 29.7	29.7	100.2 101.6	101.6	7.1	7.2	7.4 8.4	8.2	3	. 3	86 87	87	821176	811502	<0.2	.0.2	1.4
IWITZ	Oloudy	Woderate	13.30		Bottom	3.9 6.7	0.5 0.4	288 286	24.0 24.0	24.0	8.1 8.1	8.1	29.7 30.0	30.0	101.6 102.5	102.5	7.2 7.3	7.3	8.4 8.7	-	3		88 87	01	021170	011302	<0.2	1 1	1.2
						6.7 1.0	0.4	306 25	24.0 24.0	24.0	8.1 8.0	8.0	30.0 29.6	29.6	102.5 96.3	96.3	7.3 6.8	7.5	8.7 7.8		4		88 86				<0.2		1.2
	<u>.</u>				Surface	1.0	0.2	26	24.0	24.0	8.0	8.0	29.6	29.6	96.3	96.3	6.8	6.8	7.8	F	4		85				<0.2	_	1.2
SR2	Cloudy	Moderate	16:26	4.8	Middle	3.8	0.1	- 85	23.9	-	8.0	-	30.1	-	97.1		6.9		8.3	8.1	7	6	87	86	821491	814165	<0.2		1.4
					Bottom	3.8	0.1	90 214	23.9	23.9	8.0 7.9	8.0	30.1	30.1	97.1	97.1	6.9	6.9	8.3		9		87				<0.2		1.7
					Surface	1.0	0.4	229 232	24.3	24.3	7.9	7.9	27.3	27.3	95.7 97.4	95.7	6.9	6.9	8.3 9.2		8		-				-		-
SR3	Rainy	Moderate	15:05	8.1	Middle	4.1 4.1 7.1	0.3	245 270	24.0	24.0	8.0	8.0	28.9	28.9	97.4 99.5	97.4	6.9 7.1		9.2	9.2	12	10	-	-	822176	807563	-		-
					Bottom	7.1	0.2	295	24.0	24.0	8.0	8.0	29.4	29.4	99.5	99.5	7.1	7.1	10.1		11		-			1	-		-
					Surface	1.0 1.0	0.2	234 242	23.8 23.8	23.8	8.1 8.1	8.1	27.7 27.7	27.7	103.8 103.7	103.8	7.7	7.5	6.3 6.3		7 8		-				-		-
SR4A	Cloudy	Moderate	16:13	8.8	Middle	4.4 4.4	0.2	226 247	23.8 23.8	23.8	8.0	8.0	28.8 28.8	28.8	95.5 96.1	95.8	7.2		6.8	7.2	11 13	11	-	-	817202	807784	-		
					Bottom	7.8 7.8	0.1 0.1	241 248	25.5 23.8	24.6	8.1	8.0	29.5 29.5	29.5	99.0 98.8	98.9	7.4	7.4	8.5 8.6		12 13		-				-		-
					Surface	1.0	0.2	308 310	23.9 23.9	23.9	8.0	8.0	28.6	28.6	99.9 99.8	99.9	7.4	7.4	5.7 5.6	-	13 12						-	-	-
SR5A	Cloudy	Moderate	16:31	5.3	Middle	-	-	-	-	-		-	-	-	-	-	-	7.4	-	7.1	-	13	-	-	816593	810671	-		
					Bottom	4.3 4.3	0.2	290 307	23.8 23.8	23.8	8.0	8.0	29.1	29.1	93.4 94.2	93.8	7.0 7.0	7.0	8.5 8.5		15 13		-				-		-
					Surface	1.0	0.1	107 111	23.8 23.8	23.8	8.1 8.1	8.1	27.1 27.1	27.1	98.1 97.9	98.0	7.3		7.2 7.1		14 13		-				-		-
SR6	Cloudy	Moderate	16:54	4.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-	7.3		8.4	-	14	-	-	817899	814672	-		-
					Bottom	3.4 3.4	0.1	204 222	23.7	23.7	8.0	8.0	28.5 28.5	28.5	88.8 89.0	88.9	6.6	6.6	9.7 9.7		14 15		-				-	F	=
					Surface	1.0	0.1	355	23.7	23.7	8.0	8.0	32.0	32.0	93.3	93.3	6.6		6.4		12		-				-	_	-
SR7	Cloudy	Moderate	17:25	16.8	Middle	1.0 8.4	0.1	355 57	23.7	23.6	8.0	8.0	32.0 32.6	32.6	93.3 92.6	92.6	6.6	6.6	6.4 7.6	7.2	12 13	13	-	_	823618	823765	-	. 🗀	-
	•				Bottom	8.4 15.8	0.2	57 36	23.6	23.6	8.0	8.0	32.6	32.7	92.6 93.1	93.1	6.5	6.6	7.6 7.5	F	12 15		-				-		-
					Surface	15.8 1.0	0.1	38	23.6 24.0	24.0	8.0	8.0	32.7 28.9	28.9	93.1	101.5	6.6 7.2		7.5 7.6		16 12						-		-
SR8	Cloudy	Moderate	16:06	4.2	Middle	1.0	-	-	24.0		8.0		28.9		101.5		7.2	7.2	7.6	7.7	11 -	11	-		820246	811418	-		-
0110	Siduay	woderate	10.00	7.2	Bottom	3.2	-	-	24.0	24.0	8.0	8.0	28.9	28.9	105.6	105.6	7.5	7.5	7.8		- 12				020270	311413	-		- 1
					DULUIII	3.2	-	-	24.0	24.0	8.0	0.0	28.9	20.9	105.6	105.6	7.5	1.5	7.8		10		-				-		-]

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 28 April 18 during Mid-Ebb Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current (ppm) Speed Oxygen (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.6 227 24.3 8.2 83 29.0 7.6 7.8 < 0.2 1.5 Surface 24.3 8.2 107.3 1.0 247 0.6 24.3 8.2 29 0 107 2 76 7.9 8 84 < 0.2 1.6 42 0.4 7.5 8.0 7 86 1.3 211 24.1 8.2 29.7 105.8 <02 C1 12:27 8.4 Middle 8.2 29.7 105.8 815630 804276 1.3 Cloudy Moderate 4.2 0.4 225 24.1 8.2 29.7 105.8 7.5 8.0 9 86 <0.2 1.2 7.4 0.4 207 24.0 8.2 8.0 10 88 <0.2 1.1 Bottom 24.0 8.2 30.4 105.0 7.4 7.4 0.4 24.0 8.2 30.4 105.0 7.4 8.1 88 <0.2 1.3 1.0 0.9 169 7.8 4 85 2.3 25.1 25.7 87.1 6.2 3.3 <0.2 Surface 25.1 7.8 25.7 87.1 7.8 25.7 87.1 6.2 1.0 1.0 174 25.1 3.4 5 85 <0.2 2.3 4.6 0.9 164 7.9 6.0 5.6 9 88 < 0.2 2.3 24.4 26.2 84.0 26.2 84.0 825696 C2 Moderate 13:38 9.2 Middle 24.4 7.9 88 806941 2.3 7.9 83.9 6.0 5.8 87 < 0.2 4.6 1.0 171 24.4 26.2 8 8.2 0.4 178 24.1 7.9 27.6 83.6 6.0 11.2 9 90 <0.2 2.3 27.6 Bottom 7.9 83.6 8.2 0.4 184 24.1 7.9 27.6 83.6 6.0 11.2 8 90 <0.2 2.4 0.4 24.3 8.0 2.4 85 <0.2 1.9 29.1 6.5 Surface 24.3 8.0 29.1 92.1 1.0 0.4 48 8.0 92.0 6.5 2.4 4 86 2.4 24.3 29.1 <0.2 6.2 88 2.2 83 4.1 0.4 23.8 8.0 30.5 85.3 6.1 6 < 0.2 822089 817827 C3 Cloudy Moderate 11:16 12.3 Middle 23.8 8.0 30.6 85.3 6.2 85.3 6.1 88 0.4 89 23.8 8.0 30.6 4.3 4 < 0.2 107 6.0 5.7 1.5 11.3 0.4 23.7 8.0 30.9 85.2 90 < 0.2 Bottom 30.9 85.2 11.3 0.4 110 23.7 8.0 30.9 85.2 6.0 5.7 5 90 < 0.2 16 1.0 0.6 194 24.5 11.2 <0.2 1.0 8.2 29.6 83 Surface 24.5 8.2 29.6 103.7 1.0 0.6 24.5 8.2 29.6 103.5 7.3 11.6 84 <0.2 1.1 3.6 0.5 191 24.2 8.1 29.8 101.4 7.2 16.4 5 85 <0.2 1.0 24.2 29.8 818341 IM1 Cloudy Moderate 12:49 7 1 Middle 8 1 101 4 806439 12 8.1 29.8 101.4 7.2 16.9 86 <0.2 1.0 3.6 0.6 194 24.2 6 6.1 87 185 0.4 24.1 8.1 29.9 101.2 7.2 26.9 5 < 0.2 1.4 Bottom 101.3 7.2 6.1 0.4 202 24 1 8.1 29 9 101.3 26.7 6 88 <0.2 1 4 1.0 0.6 205 24.7 28.4 10.2 84 <0.2 1.3 8.1 7.3 7.3 103.7 Surface 1.0 0.6 223 24.7 8.1 28.4 103.7 10.2 85 <0.2 1.4 4.1 12.3 86 1.3 0.5 202 24.5 8.2 29.2 103.5 7.3 5 <0.2 12:55 8.1 Middle 24.5 8.2 29.2 103.5 818878 806197 IM2 Cloudy Moderate 4.1 0.6 204 8.2 103.4 7.3 12.3 86 < 0.2 1.4 24.5 29.2 88 1.4 0.4 194 24.2 8.2 29.7 100.9 7.2 20.6 8 < 0.2 Bottom 24.2 29.7 100.9 7.2 7.1 0.4 207 8.2 29.7 100.9 20.7 9 88 2.8 24.2 <0.2 1.0 0.4 210 24.6 8.1 28.8 102.5 11.7 85 <0.2 1.4 Surface 28.8 102.5 1.0 0.4 214 24.6 8.1 28.8 102.5 7.2 11.4 85 <0.2 1.4 4.0 0.4 218 24.3 7.2 14.6 88 <0.2 1.4 8.2 IM3 13:02 79 Middle 24.3 82 29.5 101.6 15 9 819397 806003 Cloudy Moderate 4.0 8.2 29.5 101.6 14.5 88 <0.2 1.4 0.4 230 24.3 6.9 0.4 189 7.2 21.6 89 1.4 24.2 8.2 29.8 101.3 8 <0.2 29.8 101.4 7.2 Bottom 24.2 8.2 7.2 8.2 101.4 21.8 89 1.5 6.9 0.4 29.8 <0.2 204 24.2 1.0 0.5 205 24.6 8.2 15.4 85 <0.2 1.5 29.2 104.0 Surface 24.6 8.2 29.2 104.0 7.3 85 8.2 15.6 11 < 0.2 1.4 1.0 0.6 218 24.6 29.2 1.4 3.6 0.6 196 24.4 8.1 29.4 103.6 7.3 19.1 12 86 <0.2 IM4 Moderate 13:09 7.2 Middle 24.4 29.4 103.6 819563 805042 Cloudy 3.6 0.6 211 24.4 8.1 29.4 103.6 7.3 19.1 12 86 < 0.2 0.4 195 24.4 8.1 29.6 7.3 23.1 88 <0.2 1.4 103.2 Bottom 24.4 8.1 29.6 6.2 0.5 206 8.1 29.6 103.1 7.3 23.2 10 88 <0.2 1.6 24.4 214 85 0.9 24.6 8.1 28.7 103.6 13.9 8 < 0.2 1.3 Surface 8.1 28.7 103.6 10 1.3 1.0 0.9 217 8.1 28.7 103.5 7.3 86 < 0.2 24.6 14.0 1.3 3.2 0.7 213 24.3 8.1 29.3 102.1 7.2 20.8 10 88 <0.2 IM5 Cloudy Moderate 13:22 6.4 Middle 8.1 29.3 102.1 820543 804908 3.2 0.7 221 24.3 8.1 29.3 102.0 7.2 21.0 10 89 <0.2 1.3 5.4 0.6 22.8 17 <0.2 1.4 212 24.2 8.1 29.4 7.2 90 8.1 29.4 101.9 7.2 Bottom 24.2 8.1 7.2 5.4 0.6 24.2 29.4 22.7 17 90 <0.2 1.4 1.0 0.6 222 24.8 8.1 27.9 99.9 11.6 6 86 <0.2 1.3 Surface 24.8 8.1 27.9 99.9 8.1 27.9 99.9 7.1 86 1.3 1.0 0.6 24.8 11.6 < 0.2 229 5 3.2 0.5 217 24.4 8.1 28.8 100.0 7.1 16.4 6 88 <0.2 1.4 13:32 Middle 28.8 100.1 821036 805832 IM6 Cloudy Moderate 6.3 3.2 0.5 234 24.4 8.1 28.8 100.1 7 1 16.4 7 89 <0.2 1.5 5.3 0.4 220 24.4 7.1 7.1 21.1 90 <0.2 1.3 28.9 Bottom 24.4 8.1 28.9 100.6 5.3 0.5 223 24.4 8.1 28.9 100.7 20.9 90 <0.2 1.4 1.0 0.7 25.3 8.1 27.3 99.4 7.0 12.7 85 <0.2 1.3 Surface 25.3 8.1 27.3 99.4 7.0 1.0 0.7 234 25.3 8.1 27.3 99.4 12.8 86 <0.2 1.4 6 3.9 24.5 7.0 16.1 88 1.5 0.6 229 8.1 98.8 28.3 < 0.2 IM7 Cloudy Moderate 13:42 7.8 Middle 24.5 28.3 98.8 821348 806852 3.9 229 98.8 7.0 7 88 1.2 0.6 24.5 8.1 28.3 16.3 <02 6.8 0.5 245 24.2 8.1 29.0 98.0 7.0 24.1 6 7 90 <0.2 1.4 29.0 98.0 7.0 6.8 0.5 250 24.2 8.1 29.0 98.0 7.0 24.2 90 < 0.2 1.3 1.0 0.5 195 24.8 5.0 86 <0.2 1.8 79 27 1 93.4 Surface 24.8 24.8 7.9 93.4 6.6 4.9 85 <0.2 1.6 1.0 0.5 204 27.1 3.9 215 6.7 6.0 6 88 1.7 0.4 24.2 8.0 28.4 93.9 < 0.2 28.4 93.9 821697 IM8 Moderate 13:01 7.8 Middle 24.2 8.0 88 807832 1.7 3.9 0.4 8.0 28.4 93.9 6.7 6.1 88 < 0.2 1.6 222 24.2 6 90 1.7 6.8 0.3 257 24.2 8.0 28.6 94.2 6.7 6.8 < 0.2 Bottom 24.2 28.6 94.2 6.7 6.8 0.3 267 1.8

DA: Depth-Average

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 28 April 18 during

during Mid-Ebb Tide

Water Qual	ity Monite	oring Resu	lts on		28 April 18	during Mid-	Ebb Tide	е																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)	р	Н	Salir	nity (ppt)		aturation %)	Disso Oxy		Turbidity(NTU) S	uspende (mg/	d Solids L)	otal Alk (ppn		Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		ckel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average	<u>. </u>	Average		Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA Val	
					Surface	1.0	0.5 0.5	144 144	24.6 24.6	24.6	7.9	7.9	27.3	27.3	90.9	91.0	6.5	6.6	5.6 5.7	-	8		85 86				<0.2	2.0	
IM9	Fine	Moderate	12:52	7.0	Middle	3.5 3.5	0.3	134 141	24.2 24.2	24.2	8.0	8.0	28.4	28.4	93.5 93.6	93.6	6.7	6.6	11.4 11.4	10.1	8	7	88 88	88	822084	808783	<0.2	<0.2	
					Bottom	6.0	0.3	133	24.2	24.2	8.0	8.0	28.4	28.4	94.2	94.2	6.7	6.7	12.5		6		90				<0.2	1.9	9
					Surface	6.0 1.0	0.3	140 129	24.2 24.9	24.9	8.0 7.9	7.9	28.4	27.0	94.2 93.8	93.8	6.7		14.1 5.1		6 7		90 85				<0.2 <0.2	2.0	.0
	_					1.0 3.4	0.5 0.6	133 119	24.9 24.4		7.9 8.0		27.0 27.6		93.8 93.4		6.7 6.7	6.7	5.1 6.3		6	_	85 88				<0.2	2.0	0
IM10	Fine	Moderate	12:43	6.7	Middle	3.4 5.7	0.7 0.5	125 106	24.4 24.2	24.4	8.0	8.0	27.7 28.3	27.6	93.4 93.4	93.4	6.7 6.7		6.3 10.3	7.2	6 8	7	88 90	88	822228	809822	<0.2	<0.2	9 1.9
					Bottom	5.7	0.5	113	24.2	24.2	8.0	8.0	28.3	28.3	93.4	93.4	6.7	6.7	10.1		9		90				<0.2	1.8	.8
					Surface	1.0 1.0	0.2	135 148	24.4 24.4	24.4	8.0	8.0	27.8 27.9	27.9	94.9 94.9	94.9	6.8	6.8	4.4 4.4		7		85 85				<0.2	1.9	.8
IM11	Fine	Moderate	12:25	8.0	Middle	4.0	0.3	88 91	24.3 24.3	24.3	8.0	8.0	28.2	28.2	94.8	94.9	6.8	0.0	5.0 5.1	6.0	10 9	9	88 88	88	821514	810524	<0.2	<0.2	6 1.7
					Bottom	7.0 7.0	0.3	80 86	24.3 24.3	24.3	8.1	8.1	28.6 28.6	28.6	95.6 95.6	95.6	6.8	6.8	8.7 8.4		11	-	90 90				<0.2	1.5	5
					Surface	1.0	0.4	122	24.4	24.4	8.0	8.0	28.1	28.1	95.7	95.7	6.8		4.6		10		85				<0.2	1.0	6
IM12	Fine	Moderate	12:15	8.9	Middle	1.0 4.5	0.4	123 114	24.4 24.3	24.3	8.0	8.0	28.1 28.5	28.5	95.6 95.2	95.2	6.8	6.8	4.7 5.4	6.5	9	11	88 88	88	821159	811496	<0.2	<0.2	5 1.5
IIVITZ	Tille	Woderate	12.15	0.9		4.5 7.9	0.3	120 86	24.3 24.2		8.0		28.5 28.9		95.2 94.9		6.8		5.6 9.6	0.5	10 13	''	88 90	00	021139	011490	<0.2	1.	.5
					Bottom	7.9	0.4	87 94	24.2	24.2	8.0	8.0	28.9	28.9	94.9	94.9	6.8	6.8	9.2		12		90				<0.2	1.4	
					Surface	1.0	0.6	102	24.4	24.4	8.0	8.0	28.1	28.1	91.6 91.4	91.5	6.5	6.5	3.7	E	9		85 85				<0.2	2.0	0
SR2	Cloudy	Moderate	11:42	4.5	Middle	-	-	-	-	=	-	-	-	-	-	-	-		-	8.6	-	9	-	86	821461	814148	-	<0.2	1.9
					Bottom	3.5 3.5	0.4	96 102	24.2	24.2	8.0	8.0	28.9	28.9	89.8 89.9	89.9	6.4	6.4	13.4 13.5		8 10		88 87				<0.2	1.5	9
					Surface	1.0 1.0	0.6	177 185	24.8 24.8	24.8	7.9 7.9	7.9	27.0 27.1	27.0	91.3 91.3	91.3	6.5 6.5		6.4 6.4		9		-				-	-	
SR3	Fine	Moderate	13:08	8.5	Middle	4.3	0.5	190	24.3	24.3	8.0	8.0	28.1	28.1	93.8	93.8	6.7	6.6	7.1	9.5	9	9	-	-	822155	807564	-	. 🗀	
					Bottom	7.5	0.5 0.3	204 230	24.3 24.2	24.2	8.0	8.0	28.4	28.4	93.4	93.4	6.7	6.7	15.0		8 10	-	-				-		
					Surface	7.5 1.0	0.3	233 71	24.2 24.7	24.7	8.0 8.1	8.1	28.4	29.1	93.4	103.5	6.7 7.3		14.8 10.9		9		-				-	- -	_
						1.0 4.3	0.3	77 78	24.7 24.3		8.1 8.1		29.1 29.8		103.5 99.8		7.3 7.1	7.2	11.0 17.4	F	6		-				-		
SR4A	Cloudy	Calm	12:07	8.5	Middle	4.3 7.5	0.2	83 68	24.3	24.3	8.1	8.1	29.8	29.8	99.8	99.8	7.1		17.0 19.5	15.9	8	7	-	-	817172	807808	-		-
					Bottom	7.5	0.2	69	24.2 24.2	24.2	8.1	8.1	29.9 29.9	29.9	100.2	100.2	7.1 7.1	7.1	19.4		8 6	-					-		=
					Surface	1.0	0.1	94 99	24.8 24.8	24.8	8.1 8.1	8.1	29.4	29.4	95.3 95.3	95.3	6.7	6.7	10.2 10.2	-	7		-				-	-	
SR5A	Cloudy	Calm	11:48	4.0	Middle	-	-	-		-	-	-	-	-		-	-	6.7	-	10.6	-	7	-	-	816608	810691	-	- <u>-</u>	
					Bottom	3.0 3.0	0.1	95 102	24.7 24.7	24.7	8.1 8.1	8.1	29.4	29.4	96.1 96.1	96.1	6.8	6.8	11.0 11.1		8	F	-				-		=
					Surface	1.0	0.1	71	24.5	24.5	8.0	8.0	28.8	28.8	94.4	94.4	6.7		8.4		4		- 1				-		
SR6	Cloudy	Calm	11:24	4.9	Middle	1.0	0.1	71 -	24.5		8.0		28.8		94.3		6.7	6.7	8.5	9.9	4	5	-		817906	814636	-	-	
- ONO	Oloudy	Oaiiii	11.24	4.5		3.9	0.1	- 63	24.4		8.0		29.3		92.6		6.6		11.3	5.5	5	,	-		017300	014030	-	-	
					Bottom	3.9	0.1	66 69	24.4	24.4	8.0	8.0	29.3	29.3	92.7	92.7	6.6	6.6	11.2		5		-				-	-	
					Surface	1.0	0.5	69	23.7	23.7	7.9	7.9	31.1	31.1	85.4	85.4	6.1	6.0	2.4		6	-	-				-	_	
SR7	Cloudy	Moderate	10:29	18.6	Middle	9.3 9.3	0.4	46 46	23.7 23.7	23.7	7.9 7.9	7.9	31.3	31.3	84.9 84.9	84.9	6.0		3.0	3.1	6	6	-	-	823634	823725	-	· - -	· -
					Bottom	17.6 17.6	0.2	22 23	23.6 23.6	23.6	7.9 7.9	7.9	31.4 31.4	31.4	85.2 85.3	85.3	6.0	6.0	3.8		4 6		-				-		
					Surface	1.0	-	-	25.0	25.0	8.0	8.0	28.3	28.3	93.4 93.6	93.5	6.6		5.6	1	11 10	-	-				-	-	킈目
SR8	Fine	Moderate	12:08	4.1	Middle	-	-	-	25.0	-	-	_	- 20.3	-	93.6		-	6.6	5.6	5.4	-	11	-	_	820246	811418	-	. 🗀	
					Bottom	3.1	-	-	24.6	24.6	8.0	8.0	28.7	28.7	94.2	94.2	6.7	6.7	5.2		12		-				-		<u>. </u>
					DULUIII	3.1	-	-	24.6	24.0	8.0	0.0	28.7	20.7	94.2	94.2	6.7	0.7	5.2		12		-				-	-	

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 28 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 0.4 24.5 10.5 1.0 24 8.2 29.4 104.7 7.4 86 < 0.2 1.6 Surface 24.5 8.2 104.6 1.0 0.4 24 24.5 8.2 29.4 104.5 7.4 10.6 8 86 < 0.2 1.4 4.3 0.4 36 24.1 8.2 30.3 101.6 7.2 15.4 8 88 <0.2 1.4 C1 17:34 8.5 Middle 24.1 8.2 30.2 101.7 815591 804219 1.5 Cloudy Moderate 15.4 88 0.4 24.1 8.2 30.2 7.2 15.8 8 88 <0.2 1.5 7.5 0.3 39 89 < 0.2 1.4 24.0 8.2 30.6 101.5 7.2 20.1 9 Bottom 30.6 101.6 7.2 72 7.5 0.3 41 24.0 8.2 30.6 101 6 19.8 q 89 <0.2 1.5 1.0 0.4 178 24.9 <0.2 2.8 23.2 82.6 6.0 8.0 10 86 23.2 82.7 Surface 24.9 7.7 1.0 0.4 183 24.9 7.8 23.2 6.0 7.9 8 86 <0.2 2.7 4.6 10.3 2.7 0.2 219 24.3 7.8 26.7 80.8 5.8 8 88 <0.2 C2 825671 806929 Fine Moderate 16:33 9.1 Middle 24.3 7.8 26.7 80.8 10 88 2.7 2.7 4.6 0.2 229 7.8 26.7 80.8 5.8 10.2 10 88 < 0.2 24.3 11 90 8.1 0.1 156 24.2 7.8 27.3 80.8 5.8 18.0 < 0.2 2.8 Bottom 7.8 27.3 80.8 5.8 5.8 8.1 0.1 167 24.2 7.8 27.3 80.8 18.0 11 90 <0.2 27 1.0 0.5 260 24.3 8.0 29.1 89.9 6.4 2.5 6 86 <0.2 1.1 29.1 89.9 Surface 8.0 1.0 0.5 266 24.3 8.0 29.1 89.8 6.4 2.6 86 <0.2 1.2 6.0 0.6 261 9.0 88 1.0 23.9 7.9 30.4 6.0 6 <0.2 C3 12.0 Middle 23.9 79 30.4 84.7 822104 817777 Fine 18:45 Moderate 84.6 6.0 1.1 7.9 30.4 9.4 87 < 0.2 6.0 0.6 273 23.9 11.0 0.4 267 7.9 6.0 11.3 90 < 0.2 1.2 23.9 30.5 84.4 Bottom 23.9 7.9 30.5 84.4 6.0 6.0 11.0 0.4 7.9 30.5 84.4 11.9 90 1.0 277 23.9 8 <02 1.0 0.3 24.9 8.2 28.7 103.1 7.3 10.8 84 <0.2 1.8 Surface 28.7 103.1 1.0 0.3 24.9 8.2 7.3 10.9 9 84 < 0.2 1.8 3.5 0.3 346 24.7 8.1 29.3 102.7 7.2 15.1 9 85 <0.2 1.7 17:13 Middle 24.7 29.3 102.7 818328 806485 IM1 Cloudy Moderate 7.0 8 1 7.2 85 3.5 0.3 318 24.7 8.2 29.3 102.7 15.2 <0.2 6.0 345 88 1.7 0.4 24.7 8.1 7.2 25.0 9 <0.2 29.5 102.0 Bottom 24.7 8.1 29.5 102.0 7.2 7.2 6.0 0.4 346 8.1 102.0 24.8 88 1.7 24.7 29.5 8 <0.2 27.3 1.0 0.1 230 24.8 8.1 7.0 10.7 8 10 83 <0.2 1.8 Surface 8.1 27.3 98.5 98.8 8.1 84 1.8 1.0 0.2 245 24.8 10.7 <0.2 4.0 0.2 320 24.7 8.2 29.0 102.6 7.2 10.7 9 85 <0.2 1.8 17:07 29.0 102.6 818845 806218 IM2 Cloudy Moderate 7.9 Middle 8.2 4.0 0.2 340 24.7 8.2 29.0 102.6 7.2 10.8 10 85 < 0.2 1.8 6.9 0.2 340 24.7 8.2 29.4 7.2 11.2 12 88 <0.2 1.7 Bottom 24.7 8.2 29.4 102.4 6.9 8.2 29.4 102.4 7.2 11.2 88 <0.2 1.8 0.2 344 24.7 11 1.0 0.1 249 12.7 11 84 1.8 24.8 8.0 6.7 26.5 94.5 <0.2 26.5 94.7 Surface 24.8 8.0 0.1 8.0 26.5 94.8 6.8 12.7 11 84 < 0.2 2.0 1.0 258 24.8 3.9 0.2 287 24.8 8.2 28.1 100.3 7.1 12.9 12 86 <0.2 1.9 IM3 Cloudy Moderate 17:02 7.8 Middle 100.4 12.8 819396 806013 19 3.9 0.2 308 24.8 8.2 28.1 100.4 12.8 10 86 < 0.2 6.8 319 24.8 12.9 10 88 <0.2 1.9 0.3 8.2 28.5 100.7 7.1 Bottom 24.8 8.1 28.5 100.7 7.1 11 1.9 6.8 0.3 350 24.8 8.1 28.5 100.6 12.9 88 <0.2 0.2 24.8 8.1 27.4 6.8 13.7 10 84 <0.2 2.0 95.1 Surface 24.8 8.1 27.4 95.1 1.0 0.2 36 8.1 95.1 6.8 13.4 11 84 < 0.2 1.9 24.8 27.4 3.5 0.2 24.8 8.1 27.5 97.4 6.9 16.0 13 85 <0.2 1.9 IM4 Moderate 16:54 6.9 Middle 8.1 27.5 97.5 13 819590 805050 2.0 Cloudy 3.5 0.2 24.8 8.1 27.5 97.5 6.9 16.0 13 86 <0.2 1.9 5.9 0.2 348 24.7 8.1 28.2 99.5 7.0 20.5 15 87 <0.2 2.0 Bottom 24.7 8.1 28.2 99.5 7.0 5.9 0.2 24.7 8.1 28.3 99.5 7.0 20.8 15 88 <0.2 2.1 1.0 0.3 287 16 24.6 8.0 90.3 <0.2 2.2 24.6 8.0 26.5 90.3 Surface 1.0 0.3 312 24.6 8.0 26.5 90.3 6.5 18.7 16 16 84 <0.2 2.2 2.1 3.2 0.3 289 6.5 20.8 85 <0.2 24.6 8.0 26.6 90.5 IM5 Cloudy Moderate 16:45 6.4 Middle 24.6 8.0 26.6 90.6 820568 804899 2.1 8.0 90.6 6.5 86 3.2 0.3 26.6 20.4 15 <0.2 305 246 5.4 0.2 294 24.6 8.0 26.6 91.8 6.6 23.9 20 88 <0.2 1.9 26.6 91.8 Bottom 5.4 0.2 313 24.6 8.0 26.6 23.6 21 89 < 0.2 2.1 1.0 261 24.6 17.4 83 0.5 8.0 6.4 <0.2 1.9 Surface 24 6 8.0 26.5 89 9 1.0 0.6 274 8.0 26.5 89.9 6.4 17.4 11 84 <0.2 2.0 24.6 2.0 6.5 20.9 13 85 3.2 0.5 24.6 8.0 26.6 90.3 <0.2 90.4 821051 IM6 Cloudy Moderate 16:38 6.3 Middle 24.6 8.0 26.6 14 86 805831 2.0 3.2 0.5 277 8.0 6.5 14 86 24.6 26.6 90.4 20.8 < 0.2 16 17 88 5.3 0.4 276 24.5 8.0 26.7 91.4 6.5 23.3 <0.2 2.1 Bottom 26.7 91.4 6.5 8.0 6.5 53 0.4 288 24.6 26.7 91.4 23.0 88 < 0.2 2.0 1.0 0.7 235 24.9 8.0 25.5 89.8 6.4 13.6 8 84 <0.2 2.1 Surface 24.9 8.0 25.5 89.8 0.7 243 24.9 8.0 25.5 89.8 6.4 13.6 84 <0.2 2.0 3.8 0.6 24.5 8.0 6.4 22.0 8 86 <0.2 2.0 26.8 89.1 IM7 16:33 26.8 89.1 821365 806827 Cloudy Moderate 7.5 Middle 24.5 8.0 20.1 10 8.0 89.1 6.4 86 <0.2 1.8 3.8 261 26.8 22.1 0.6 24.5 9 6.5 90.2 6.5 11 87 87 <0.2 1.8 0.5 258 24.4 8.0 26.8 24.8 26.8 6.5 Bottom 24.4 8.0 90.3 6.5 0.5 259 24.4 8.0 26.8 24.7 13 < 0.2 1.6 1.0 0.4 228 24.9 7.8 24.9 85.1 6.1 5.0 86 <0.2 2.6 Surface 24.9 7.8 24.9 85.1 1.0 0.4 24.9 7.8 24.9 85.1 6.1 5.0 8 86 <0.2 2.7 3.8 0.3 9.7 88 2.7 24.5 7.8 26.3 84.1 6.0 <0.2 821684 7.8 84.2 807839 IM8 Fine Moderate 16:56 7.6 Middle 24.5 26.3 2.6 2.6 3.8 0.3 244 24.5 7.8 26.3 84.2 6.0 9.7 7 88 <0.2 6.6 262 24.5 7.8 84.5 6.1 13.5 6 90 <0.2 2.6 0.2 26.4 24.5 7.8 26.4 Rottom 84.6 6.1 6.6 269 7.8 6 90 0.2 84.6 6.1 13.6 24.5 26.4 < 0.2 2.6

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Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

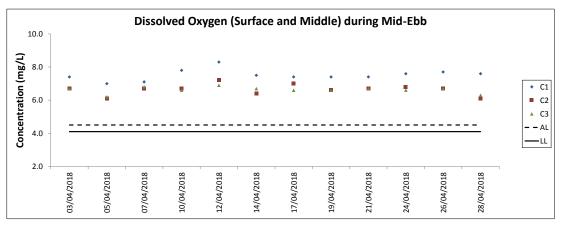
Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring

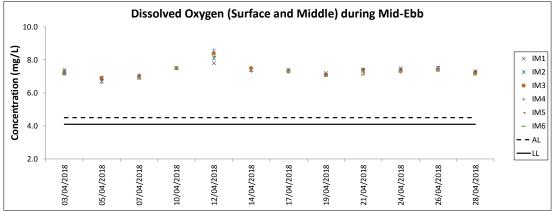
Water Quality Monitoring Results on 28 April 18 during Mid-Flood Tide DO Saturation Dissolved Suspended Solids otal Alkalinity Chromium Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) Coordinate Coordinate Monitoring Current Oxygen (ppm) Speed (mg/L) (µg/L) Sampling Depth (m) HK Grid HK Grid Station Direction DA DA DA Value DA Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value Value (Northing) (Easting) Value 1.0 0.3 258 25.0 < 0.2 2.6 7.8 25.0 86.0 6.2 4.7 86 Surface 25.0 7.8 25.0 86.0 1.0 0.3 278 25.0 7.8 25.0 85.9 6.2 47 6 86 < 0.2 2.6 3.3 0.3 6.0 6.6 6 88 2.6 273 24.5 7.8 26.4 84 0 <02 IM9 17:05 6.6 Middle 7.8 26.4 84.0 822115 808793 2.7 Fine Moderate 3.3 0.3 299 24.5 7.8 26.4 84.0 6.0 6.6 5 88 <0.2 2.5 5.6 0.2 286 24.5 7.8 6.8 90 <0.2 2.5 Bottom 24.5 7.8 26.5 84.7 5.6 0.2 24.5 7.8 26.5 847 6.1 7.0 90 <0.2 3.2 1.0 0.4 295 7.8 4.0 4 86 2.1 24.7 26.2 86.2 6.2 <0.2 Surface 24.7 7.8 26.2 86.2 7.8 86.1 6.2 1.0 0.4 298 24.7 26.2 4.0 6 86 <0.2 2.0 6.2 3.5 0.3 299 7.8 85.3 6.1 4.8 5 88 < 0.2 2.0 24.6 26.4 26.4 85.3 822243 IM10 Moderate 17:17 7.0 Middle 24.6 7.8 88 809861 2.1 85.3 7.8 6.1 88 < 0.2 3.5 0.4 314 24.6 26.4 4.9 4 6.0 0.3 326 24.5 7.8 27.2 83.8 6.0 10.4 4 90 <0.2 2.1 27.2 Bottom 24.5 7.8 83.8 6.0 6.0 0.3 333 24.5 7.8 83.8 6.0 10.5 4 90 <0.2 2.0 0.5 24.7 7.9 6.4 4.9 86 <0.2 1.6 27.3 6 Surface 24.7 7.9 27.3 89.5 1.0 0.5 7.9 89.5 6.4 4.9 8 86 1.6 295 24.7 27.3 <0.2 3.6 6.6 88 1.7 287 6.3 0.4 24.7 7.9 27.4 88.9 7 < 0.2 27.4 821473 810559 IM11 Fine Moderate 17:33 7.1 Middle 24.7 7.9 88.9 3.6 88.9 6.3 88 1.7 0.4 293 24.7 7.9 27.4 6.7 9 < 0.2 0.3 10.1 90 1.7 6.1 285 24.6 7.9 27.6 88.9 6.3 < 0.2 Bottom 7.9 27.6 88.9 6.1 0.3 312 24.6 79 27.6 88.9 6.3 10.1 7 90 < 0.2 16 1.0 0.6 279 24.8 7.9 5.0 86 <0.2 1.6 27.6 93.6 6 Surface 24.8 7.9 27.6 93.6 1.0 0.7 24.8 7.9 27.6 93.6 6.6 4.9 86 <0.2 1.6 5 4.2 0.6 274 24.7 8.0 27.9 93.9 6.7 6.8 9 88 <0.2 1.5 24.7 27.9 93.9 821182 IM12 Fine Moderate 17:43 84 Middle 8.0 88 811489 8.0 27.9 93.9 6.7 6.9 88 <0.2 1.6 4.2 0.6 279 277 24.7 8 7.4 90 0.4 24.6 8.0 28.2 93.8 6.7 10.8 8 < 0.2 1.6 Bottom 24.6 28.2 93.8 6.7 7 4 0.4 277 24 6 8.0 28.2 93.8 10.8 8 90 <0.2 16 1.0 0.1 205 24.6 6.4 86 <0.2 1.3 8.0 28.3 91.7 6.5 28.3 91.7 Surface 24.6 8.0 1.0 0.2 214 24.6 8.0 91.7 6.5 6.4 10 86 <0.2 1.3 6.5 -SR2 Fine 18:20 4.5 Middle 87 821477 814190 Moderate 10 <0.2 13 3.5 0.1 234 24.6 8.0 28.3 6.5 6.9 88 <0.2 1.2 91.2 Bottom 24.6 8.0 28.3 91.2 6.5 3.5 253 6.5 0.1 8.0 28.3 91.2 6.9 q 88 1.3 24 6 <0.2 1.0 0.5 203 24.7 7.8 25.2 83.8 6.0 6.7 Surface 25.2 83.8 1.0 0.5 222 24.7 7.8 83.7 6.0 6.7 6 4.2 0.4 210 24.3 7.8 10.1 82.2 SR3 16:50 8.3 Middle 24.3 7.8 26.5 82.2 9.8 822172 807557 Fine Moderate 4.2 0.4 7.8 26.5 82.2 5.9 10.1 219 24.3 7.3 0.3 202 11 24.3 7.8 26.7 82.9 6.0 12.6 26.7 82.9 6.0 Bottom 24.3 7.8 82.9 7.8 26.7 6.0 7.3 0.3 12.4 10 213 24.3 253 1.0 0.3 25.1 8.1 12.5 29.2 99.0 6.9 Surface 25.1 8.1 29.2 99.0 98.9 6.9 8.1 12.7 1.0 0.3 265 25.1 29.2 8 4.5 0.3 259 25.0 8.1 29.2 6.8 12.1 9 -SR4A Cloudy 17:54 8.9 Middle 25.0 29.2 97.7 12.2 817181 807835 Calm 4.5 0.3 280 25.0 8.1 29.2 97.6 6.8 12.0 9 7.9 0.2 255 24.9 8.1 6.8 12.0 29.3 97.6 97.7 Bottom 24.9 8.1 29.3 7.9 0.2 280 8.1 29.3 97.8 6.9 12.1 7 24.9 1.0 298 0.3 24.9 8.1 29.2 97.8 6.9 10.9 8 Surface 24.9 8.1 29.2 97.8 1.0 0.3 314 8.1 97.8 6.9 10.9 6 24.9 29.2 SR5A Cloudy Calm 18:13 4.9 Middle 816597 810684 3.9 0.3 305 24.9 8.1 10.5 8 29.2 6.9 98.4 6.9 24.9 8.1 29.2 Bottom 98.5 6.9 3.9 0.3 24.9 8.1 29.2 10.6 6 1.0 0.2 238 24.7 8.1 98.4 6.9 10.1 29.1 Surface 24.7 8.1 29.1 98.3 1.0 8.1 98.2 6.9 0.2 250 24.7 29.2 10.1 5 6.9 SR6 18:37 4.1 Middle 817879 814641 Cloudy Calm 3.1 0.1 245 24.5 10.9 29.5 6.9 Bottom 24.5 8.1 29.5 98.6 7.0 98.8 3.1 0.1 269 24.5 8.1 29.5 7.0 11.2 1.0 0.1 266 24.0 8.0 30.4 85.6 6.1 3.1 24 0 85.6 Surface 8.0 30.4 1.0 0.1 289 24.0 8.0 30.4 85.6 6.1 3.1 6 6.0 5.8 9.4 0.2 103 23.8 8.0 31.3 85.3 SR7 Moderate 19:24 18.8 Middle 23.8 31.3 85.3 4.9 823610 823744 94 0.2 108 8.0 85.3 6.0 5.9 7 23.8 31.3 17.8 0.2 183 23.8 8.0 31.4 85.3 6.0 5.6 5 Bottom 8.0 31.4 85.3 6.0 17.8 0.2 196 23.8 8.0 31.4 85.3 6.0 5.6 6 1.0 24.8 8.0 3.5 Surface 8.0 28.0 95.3 24.8 1.0 24.8 8.0 28.0 95.3 6.7 3.5 5 6.7 SR8 Fine Moderate 17:58 4.0 Middle 820246 811418 3.0 94.6 94.6 24.8 8.0 28.3 6.7 4.6 Bottom 24.8 8.0 28.3 94.6 6.7 3.0 24.8

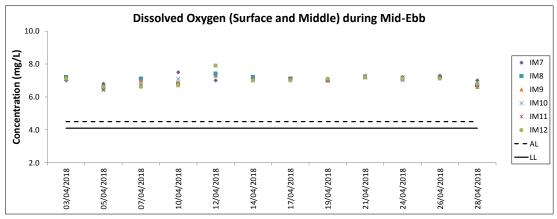
DA: Depth-Average

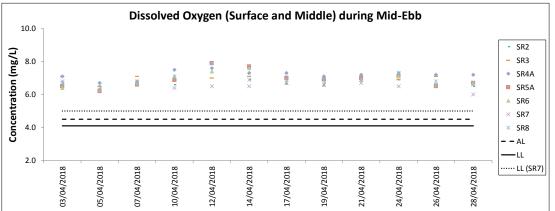
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

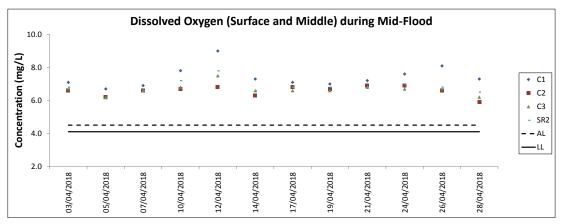
Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

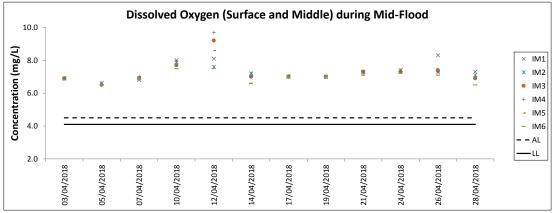


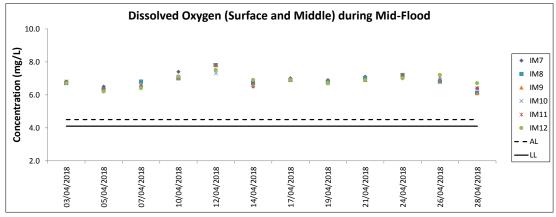


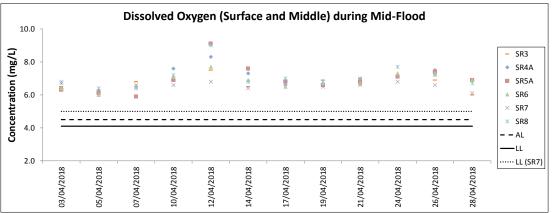


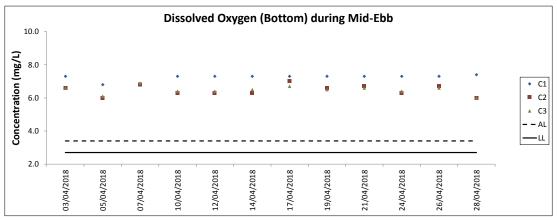


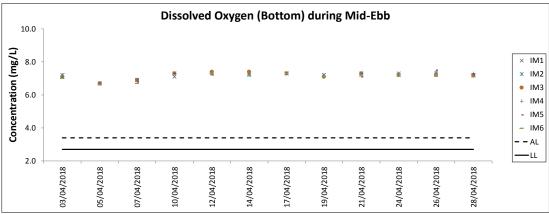


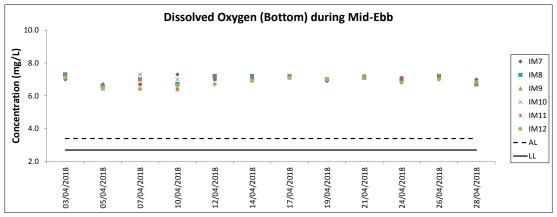


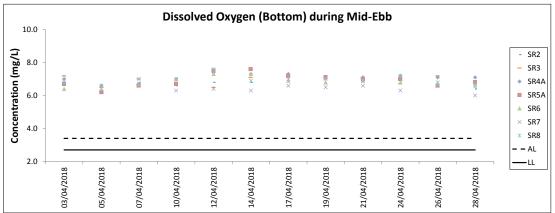


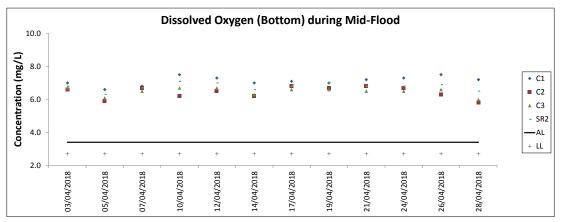


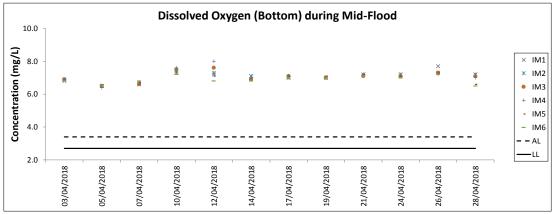


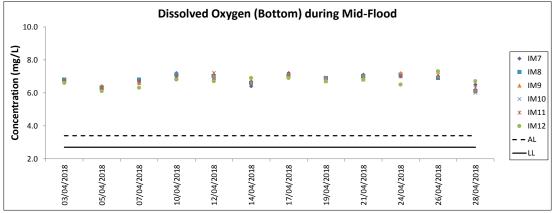


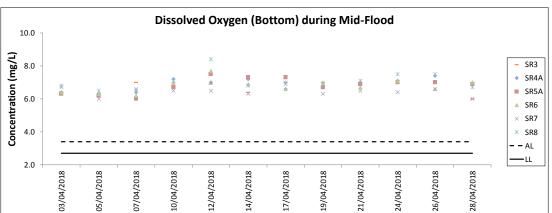


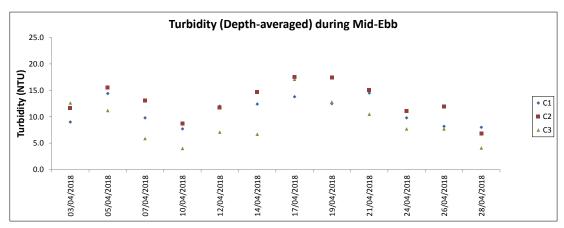


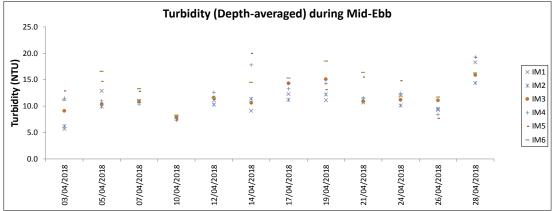


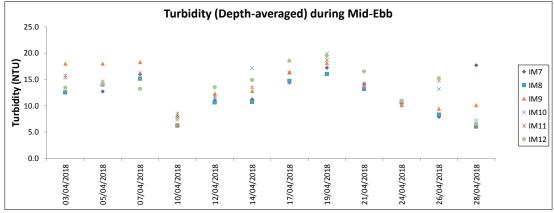


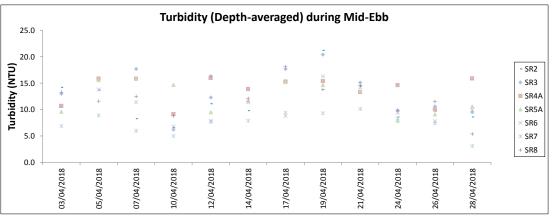




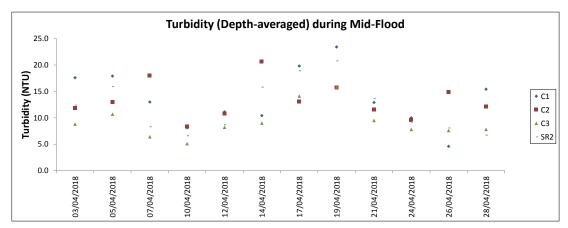


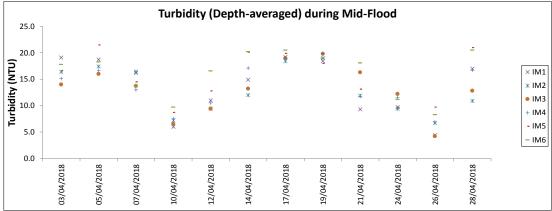


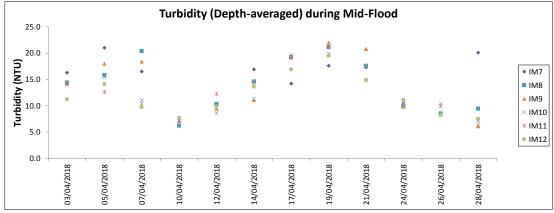


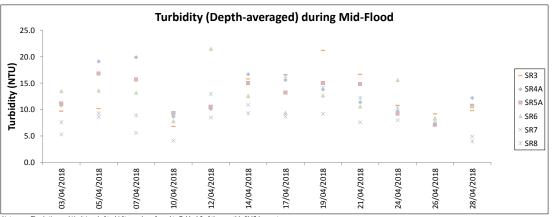


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

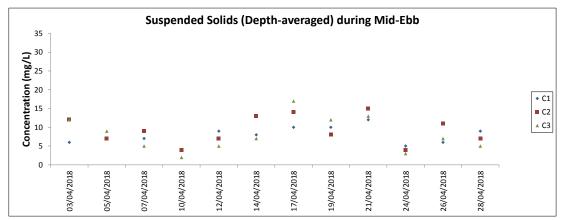


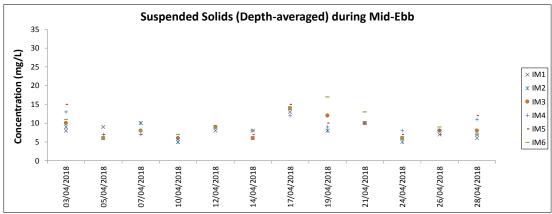


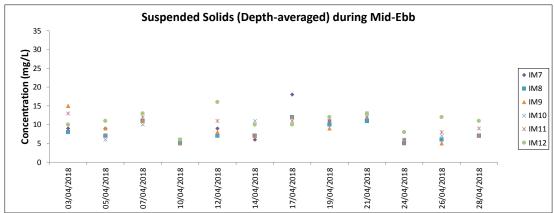


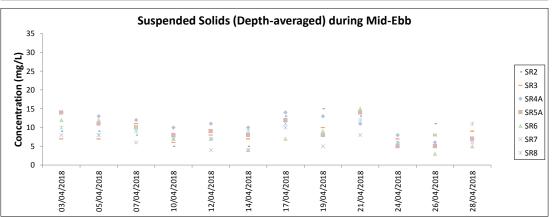


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

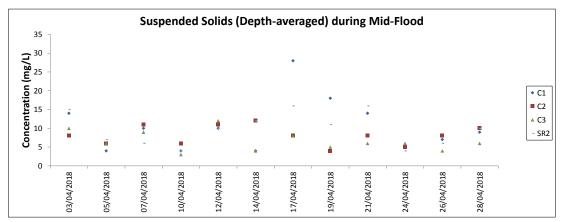


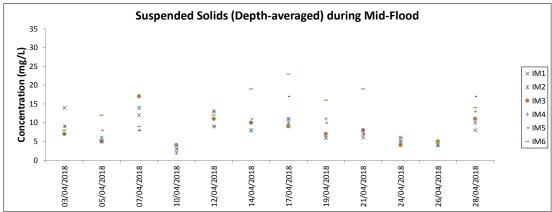


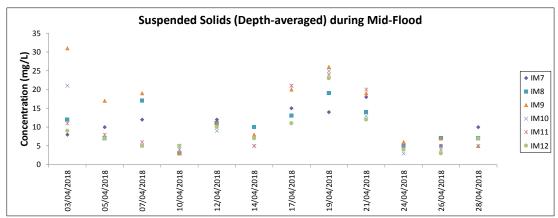


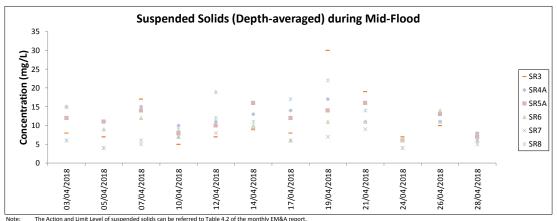


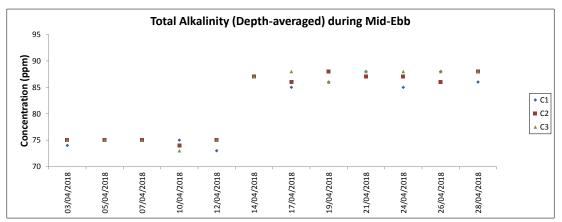
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report

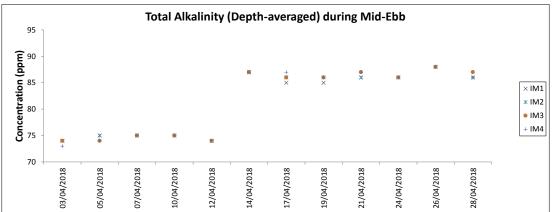


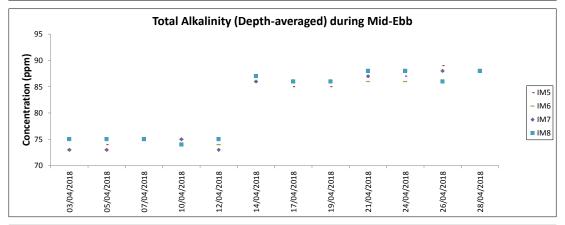


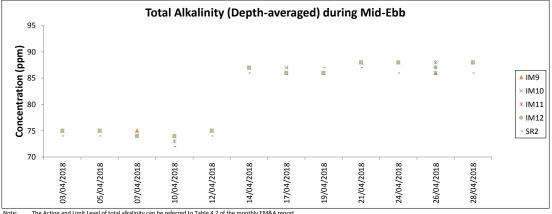


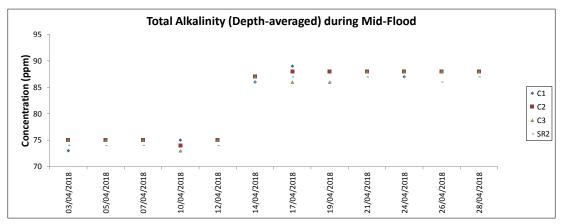


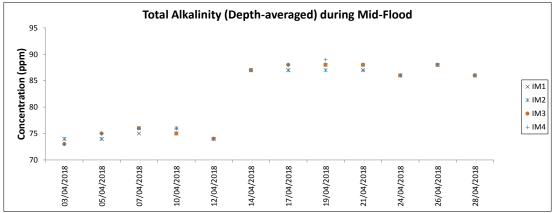


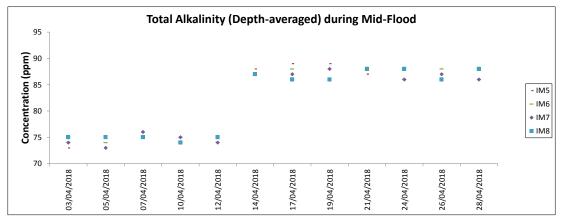


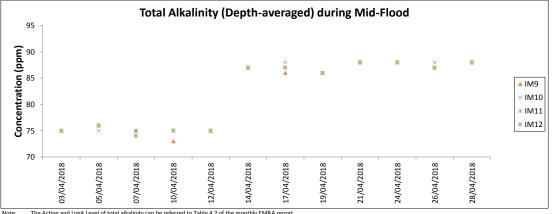


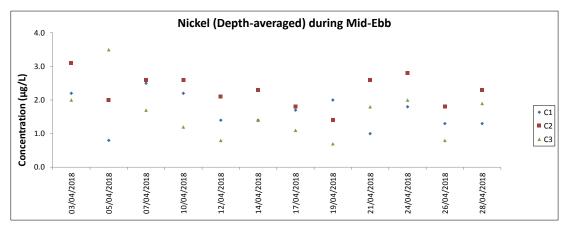


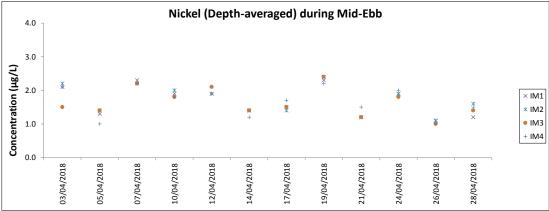


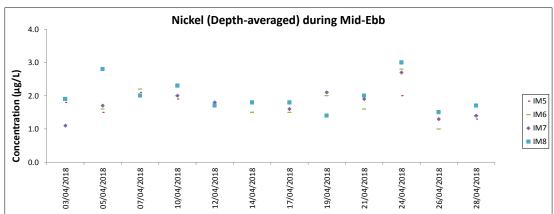


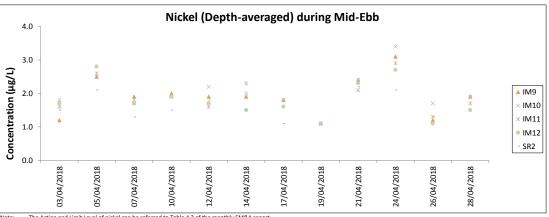






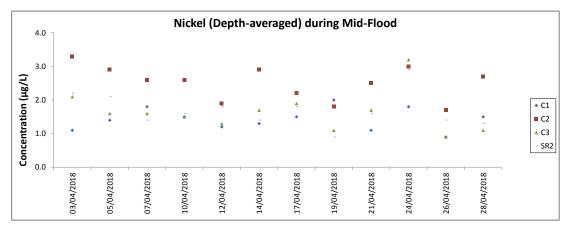


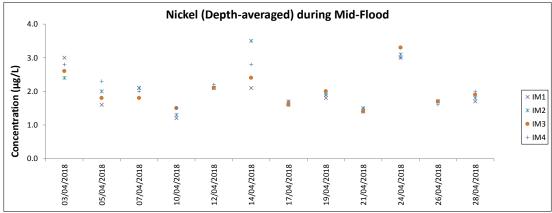


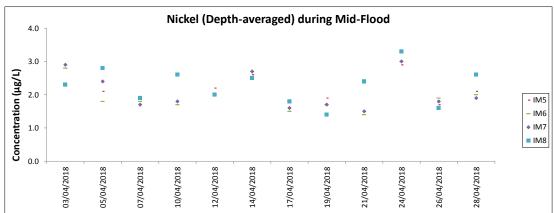


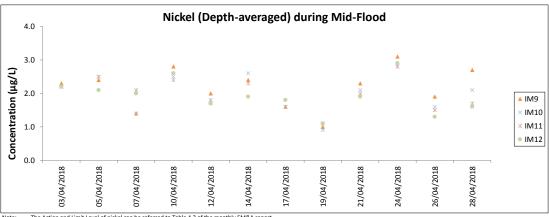
e: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.

All chromium results in the reporting period was below the reporting limit 0.2 µg/L.









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

Mott MacDonald Expansion of Hong Kong International Airport into a Three-Runway System
Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey

Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
06-Feb-18	NWL	2	10.500	WINTER	32166	3RS ET
06-Feb-18	NWL	3	51.794	WINTER	32166	3RS ET
06-Feb-18	NWL	4	13.389	WINTER	32166	3RS ET
07-Feb-18	NEL	1	9.800	WINTER	32166	3RS ET
07-Feb-18	NEL	2	37.100	WINTER	32166	3RS ET
12-Feb-18	NWL	2	7.850	WINTER	32166	3RS ET
12-Feb-18	NWL	3	62.380	WINTER	32166	3RS ET
12-Feb-18	NWL	4	4.890	WINTER	32166	3RS ET
13-Feb-18	AW	2	4.800	WINTER	32166	3RS ET
13-Feb-18	WL	2	17.744	WINTER	32166	3RS ET
13-Feb-18	WL	3	9.140	WINTER	32166	3RS ET
13-Feb-18	WL	4	5.970	WINTER	32166	3RS ET
13-Feb-18	SWL	5	6.830	WINTER	32166	3RS ET
14-Feb-18	AW	2	4.620	WINTER	32166	3RS ET
14-Feb-18	WL	2	27.499	WINTER	32166	3RS ET
14-Feb-18	WL	3	2.810	WINTER	32166	3RS ET
14-Feb-18	WL	4	1.420	WINTER	32166	3RS ET
14-Feb-18	SWL	4	6.860	WINTER	32166	3RS ET
21-Feb-18	SWL	2	28.770	WINTER	32166	3RS ET
21-Feb-18	SWL	3	25.830	WINTER	32166	3RS ET
21-Feb-18	SWL	4	7.600	WINTER	32166	3RS ET
22-Feb-18	NEL	2	8.700	WINTER	32166	3RS ET
22-Feb-18	NEL	3	36.900	WINTER	32166	3RS ET
22-Feb-18	NEL	4	1.300	WINTER	32166	3RS ET
23-Feb-18	SWL	2	1.640	WINTER	32166	3RS ET
23-Feb-18	SWL	3	60.860	WINTER	32166	3RS ET
05-Mar-18	SWL	1	40.540	SPRING	32166	3RS ET
05-Mar-18	SWL	2	21.840	SPRING	32166	3RS ET
07-Mar-18	NEL	2	6.660	SPRING	32166	3RS ET
07-Mar-18	NEL	3	29.130	SPRING	32166	3RS ET
07-Mar-18	NEL	4	11.510	SPRING	32166	3RS ET
08-Mar-18	NEL	2	25.549	SPRING	32166	3RS ET
08-Mar-18	NEL	3	21.251	SPRING	32166	3RS ET
12-Mar-18	AW	2	1.070	SPRING	32166	3RS ET
12-Mar-18	AW	3	3.660	SPRING	32166	3RS ET
12-Mar-18	WL	2	32.876	SPRING	32166	3RS ET
12-Mar-18	WL	3	0.550	SPRING	32166	3RS ET
12-Mar-18	SWL	2	1.970	SPRING	32166	3RS ET
12-Mar-18	SWL	3	14.329	SPRING	32166	3RS ET
12-Mar-18	SWL	4	2.130	SPRING	32166	3RS ET
13-Mar-18	AW	1	4.700	SPRING	32166	3RS ET
13-Mar-18	WL	2	22.370	SPRING	32166	3RS ET
13-Mar-18	WL	3	9.417	SPRING	32166	3RS ET
13-Mar-18	WL	4	1.643	SPRING	32166	3RS ET
13-Mar-18	SWL	3	6.820	SPRING	32166	3RS ET
14-Mar-18	NWL	2	59.690	SPRING	32166	3RS ET
14-Mar-18	NWL	3	14.666	SPRING	32166	3RS ET
1 4 -14141-10	INVVL	J	14.000	SERING	JZ 100	JING E I

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
21-Mar-18	SWL	2	16.139	SPRING	32166	3RS ET
21-Mar-18	SWL	3	10.311	SPRING	32166	3RS ET
21-Mar-18	SWL	4	23.030	SPRING	32166	3RS ET
22-Mar-18	NWL	2	34.844	SPRING	32166	3RS ET
22-Mar-18	NWL	3	37.876	SPRING	32166	3RS ET
03-Apr-18	SWL	1	14.910	SPRING	32166	3RS ET
03-Apr-18	SWL	2	45.610	SPRING	32166	3RS ET
03-Apr-18	SWL	3	2.000	SPRING	32166	3RS ET
04-Apr-18	SWL	1	31.340	SPRING	32166	3RS ET
04-Apr-18	SWL	2	28.140	SPRING	32166	3RS ET
04-Apr-18	SWL	3	2.610	SPRING	32166	3RS ET
11-Apr-18	AW	2	4.770	SPRING	32166	3RS ET
11-Apr-18	WL	2	14.970	SPRING	32166	3RS ET
11-Apr-18	WL	3	16.070	SPRING	32166	3RS ET
11-Apr-18	SWL	2	2.140	SPRING	32166	3RS ET
11-Apr-18	SWL	3	4.680	SPRING	32166	3RS ET
12-Apr-18	AW	2	3.530	SPRING	32166	3RS ET
12-Apr-18	AW	3	1.280	SPRING	32166	3RS ET
12-Apr-18	WL	2	12.481	SPRING	32166	3RS ET
12-Apr-18	WL	3	18.889	SPRING	32166	3RS ET
12-Apr-18	SWL	2	6.735	SPRING	32166	3RS ET
18-Apr-18	NEL	2	30.140	SPRING	32166	3RS ET
18-Apr-18	NEL	3	17.060	SPRING	32166	3RS ET
19-Apr-18	NWL	2	15.530	SPRING	32166	3RS ET
19-Apr-18	NWL	3	53.430	SPRING	32166	3RS ET
19-Apr-18	NWL	4	6.030	SPRING	32166	3RS ET
23-Apr-18	NWL	2	39.210	SPRING	32166	3RS ET
23-Apr-18	NWL	3	31.250	SPRING	32166	3RS ET
23-Apr-18	NWL	4	4.500	SPRING	32166	3RS ET
27-Apr-18	NEL	1	22.760	SPRING	32166	3RS ET
27-Apr-18	NEL	2	23.840	SPRING	32166	3RS ET

Notes:

CWD monitoring survey data of the two preceding survey months (i.e. February and March 2018) are presented for reference only.

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
06-Feb-18	1	1043	CWD	2	NWL	3	N/A	OFF	3RS ET	22.2784	113.8777	WINTER	GILLNET
06-Feb-18	2	1058	CWD	1	NWL	3	80	ON	3RS ET	22.2829	113.8785	WINTER	NONE
06-Feb-18	3	1153	CWD	5	NWL	3	75	ON	3RS ET	22.3720	113.8771	WINTER	NONE
06-Feb-18	4	1523	CWD	2	NWL	2	N/A	OFF	3RS ET	22.3304	113.9495	WINTER	NONE
12-Feb-18	1	1121	CWD	2	NWL	3	76	ON	3RS ET	22.3384	113.8781	WINTER	NONE
12-Feb-18	2	1153	CWD	7	NWL	2	80	ON	3RS ET	22.3709	113.8768	WINTER	NONE
12-Feb-18	3	1240	CWD	3	NWL	3	345	ON	3RS ET	22.4121	113.8780	WINTER	NONE
12-Feb-18	4	1348	CWD	3	NWL	3	114	ON	3RS ET	22.3460	113.8981	WINTER	NONE
13-Feb-18	1	0943	CWD	3	AW	2	548	ON	3RS ET	22.2917	113.8745	WINTER	NONE
13-Feb-18	2	1011	CWD	1	AW	2	N/A	OFF	3RS ET	22.2879	113.8838	WINTER	NONE
13-Feb-18	3	1052	CWD	1	WL	2	366	ON	3RS ET	22.2686	113.8559	WINTER	NONE
13-Feb-18	4	1115	CWD	3	WL	2	475	ON	3RS ET	22.2604	113.8491	WINTER	NONE
13-Feb-18	5	1141	CWD	4	WL	2	392	ON	3RS ET	22.2604	113.8445	WINTER	NONE
13-Feb-18	6	1158	CWD	1	WL	2	47	ON	3RS ET	22.2605	113.8419	WINTER	NONE
13-Feb-18	7	1212	CWD	4	WL	2	200	ON	3RS ET	22.2504	113.8388	WINTER	NONE
13-Feb-18	8	1248	CWD	2	WL	2	456	ON	3RS ET	22.2375	113.8262	WINTER	NONE
14-Feb-18	1	0931	CWD	1	AW	2	11	ON	3RS ET	22.3019	113.8813	WINTER	NONE
14-Feb-18	2	0944	CWD	5	AW	2	638	ON	3RS ET	22.2951	113.8805	WINTER	NONE
14-Feb-18	3	1020	CWD	5	WL	2	269	ON	3RS ET	22.3031	113.8611	WINTER	NONE
14-Feb-18	4	1035	CWD	4	WL	2	231	ON	3RS ET	22.2937	113.8616	WINTER	GILLNET
14-Feb-18	5	1058	CWD	1	WL	3	761	ON	3RS ET	22.2751	113.8494	WINTER	NONE
14-Feb-18	6	1156	CWD	1	WL	2	71	ON	3RS ET	22.2415	113.8386	WINTER	NONE
14-Feb-18	7	1211	CWD	4	WL	2	6	ON	3RS ET	22.2416	113.8352	WINTER	NONE
14-Feb-18	8	1256	CWD	5	WL	2	110	ON	3RS ET	22.2140	113.8237	WINTER	NONE
23-Feb-18	1	1222	CWD	1	SWL	3	8	ON	3RS ET	22.1759	113.9072	WINTER	NONE
05-Mar-18	1	1328	FP	2	SWL	2	58	ON	3RS ET	22.1574	113.8973	SPRING	NONE
05-Mar-18	2	1338	FP	2	SWL	2	145	ON	3RS ET	22.1484	113.8941	SPRING	NONE
05-Mar-18	3	1454	FP	3	SWL	2	103	ON	3RS ET	22.1824	113.8685	SPRING	NONE
12-Mar-18	1	1146	CWD	10	WL	2	122	ON	3RS ET	22.2076	113.8396	SPRING	NONE
12-Mar-18	2	1208	CWD	2	WL	2	17	ON	3RS ET	22.2053	113.8384	SPRING	NONE
12-Mar-18	3	1412	CWD	1	SWL	3	164	ON	3RS ET	22.1995	113.8784	SPRING	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
13-Mar-18	1	1037	CWD	2	WL	2	56	ON	3RS ET	22.2666	113.8596	SPRING	NONE
13-Mar-18	2	1128	CWD	1	WL	2	140	ON	3RS ET	22.2348	113.8251	SPRING	NONE
13-Mar-18	3	1205	CWD	5	WL	2	384	ON	3RS ET	22.2231	113.8195	SPRING	NONE
13-Mar-18	4	1244	CWD	1	WL	4	12	ON	3RS ET	22.2143	113.8273	SPRING	NONE
13-Mar-18	5	1324	CWD	1	WL	2	36	ON	3RS ET	22.1961	113.8406	SPRING	NONE
14-Mar-18	1	1000	CWD	2	NWL	2	65	ON	3RS ET	22.3539	113.8689	SPRING	NONE
14-Mar-18	2	1013	CWD	2	NWL	2	335	ON	3RS ET	22.3431	113.8687	SPRING	NONE
14-Mar-18	3	1126	CWD	2	NWL	2	N/A	OFF	3RS ET	22.3245	113.8729	SPRING	NONE
14-Mar-18	4	1208	CWD	4	NWL	2	57	ON	3RS ET	22.3912	113.8785	SPRING	NONE
14-Mar-18	5	1253	CWD	1	NWL	3	587	ON	3RS ET	22.3824	113.8888	SPRING	NONE
14-Mar-18	6	1310	CWD	2	NWL	3	13	ON	3RS ET	22.3837	113.8887	SPRING	NONE
21-Mar-18	1	1050	FP	4	SWL	2	59	ON	3RS ET	22.1486	113.9340	SPRING	NONE
21-Mar-18	2	1106	FP	1	SWL	2	201	ON	3RS ET	22.1599	113.9272	SPRING	NONE
21-Mar-18	3	1111	FP	2	SWL	2	262	ON	3RS ET	22.1658	113.9272	SPRING	NONE
21-Mar-18	4	1202	FP	1	SWL	2	30	ON	3RS ET	22.1453	113.9176	SPRING	NONE
21-Mar-18	5	1311	FP	1	SWL	4	225	ON	3RS ET	22.1641	113.8975	SPRING	NONE
22-Mar-18	1	1219	CWD	6	NWL	3	981	ON	3RS ET	22.3840	113.8774	SPRING	PURSE SEINE
22-Mar-18	2	1305	CWD	2	NWL	3	579	ON	3RS ET	22.3952	113.8893	SPRING	NONE
22-Mar-18	3	1418	CWD	1	NWL	2	50	ON	3RS ET	22.3780	113.8980	SPRING	NONE
22-Mar-18	4	1454	CWD	1	NWL	2	51	ON	3RS ET	22.3760	113.9062	SPRING	NONE
03-Apr-18	1	1048	FP	1	SWL	1	1489	ON	3RS ET	22.1788	113.9360	SPRING	NONE
03-Apr-18	2	1056	FP	2	SWL	1	192	ON	3RS ET	22.1652	113.9359	SPRING	NONE
04-Apr-18	1	1058	FP	3	SWL	1	23	ON	3RS ET	22.1556	113.9361	SPRING	NONE
04-Apr-18	2	1208	FP	2	SWL	1	116	ON	3RS ET	22.1499	113.9178	SPRING	NONE
04-Apr-18	3	1216	FP	1	SWL	1	85	ON	3RS ET	22.1415	113.9128	SPRING	NONE
04-Apr-18	4	1335	FP	5	SWL	2	176	ON	3RS ET	22.1487	113.8963	SPRING	NONE
04-Apr-18	5	1405	CWD	2	SWL	2	78	ON	3RS ET	22.2025	113.8879	SPRING	NONE
11-Apr-18	1	1034	CWD	2	WL	2	444	ON	3RS ET	22.2666	113.8595	SPRING	PURSE SEINE
11-Apr-18	2	1108	CWD	1	WL	3	117	ON	3RS ET	22.2500	113.8442	SPRING	NONE
11-Apr-18	3	1129	CWD	3	WL	3	511	ON	3RS ET	22.2414	113.8365	SPRING	SHRIMP TRAWLER
11-Apr-18	4	1226	CWD	3	WL	3	119	ON	3RS ET	22.2145	113.8315	SPRING	NONE
12-Apr-18	1	1029	CWD	2	WL	2	N/A	OFF	3RS ET	22.2601	113.8489	SPRING	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
12-Apr-18	2	1054	CWD	6	WL	3	285	ON	3RS ET	22.2507	113.8431	SPRING	NONE
12-Apr-18	3	1130	CWD	8	WL	2	18	ON	3RS ET	22.2416	113.8367	SPRING	NONE
12-Apr-18	4	1201	CWD	3	WL	3	136	ON	3RS ET	22.2321	113.8322	SPRING	NONE
12-Apr-18	5	1242	CWD	5	WL	3	119	ON	3RS ET	22.2145	113.8317	SPRING	NONE
12-Apr-18	6	1345	CWD	1	WL	3	N/A	OFF	3RS ET	22.1919	113.8428	SPRING	NONE
12-Apr-18	7	1352	CWD	3	SWL	2	320	ON	3RS ET	22.1928	113.8491	SPRING	NONE
12-Apr-18	8	1421	CWD	1	SWL	2	21	ON	3RS ET	22.1684	113.8577	SPRING	NONE
19-Apr-18	1	0953	CWD	1	NWL	3	114	ON	3RS ET	22.3730	113.8693	SPRING	NONE
19-Apr-18	2	1207	CWD	1	NWL	2	15	ON	3RS ET	22.3832	113.8769	SPRING	NONE
19-Apr-18	3	1235	CWD	5	NWL	2	410	ON	3RS ET	22.4063	113.8775	SPRING	NONE
19-Apr-18	4	1316	CWD	5	NWL	2	N/A	OFF	3RS ET	22.4033	113.8881	SPRING	NONE
23-Apr-18	1	0946	CWD	6	NWL	2	413	ON	3RS ET	22.3930	113.8703	SPRING	NONE

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

Notes:

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

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

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

A total of 443.375 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 50 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in April 2018 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in April 2018
$$STG = \frac{15}{443.375} \ x \ 100 = 3.38$$

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

$$ANI = \frac{50}{443.375} \times 100 = 11.28$$

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

A total of 1268.370 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 53 on-effort sightings and total number of 159 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)

$$STG = \frac{53}{1268.370} \times 100 = 4.18$$

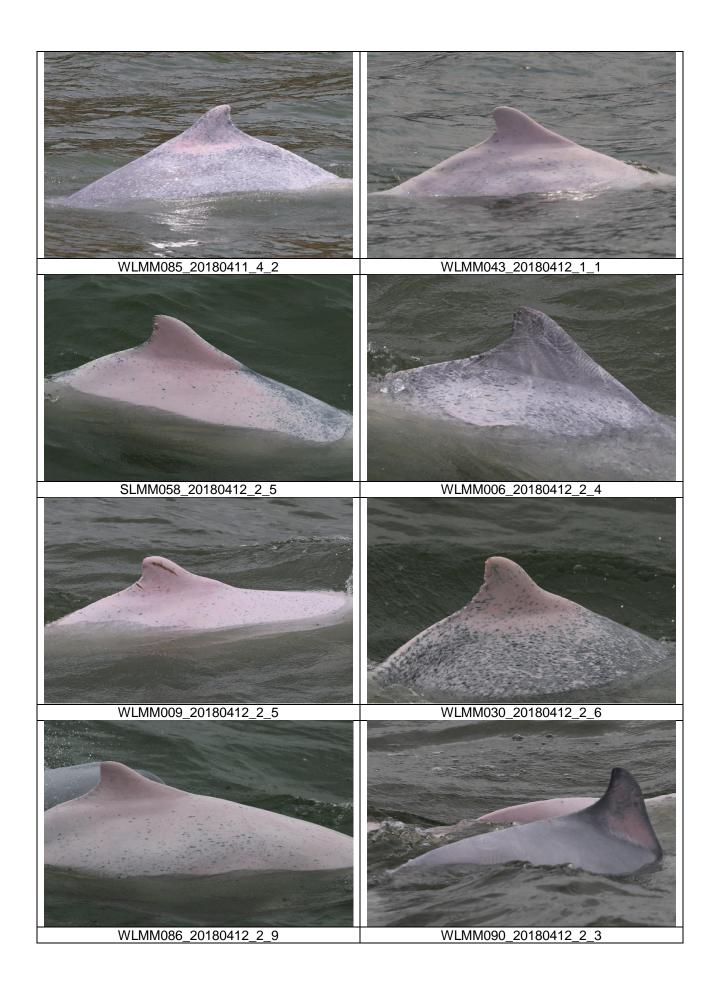
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

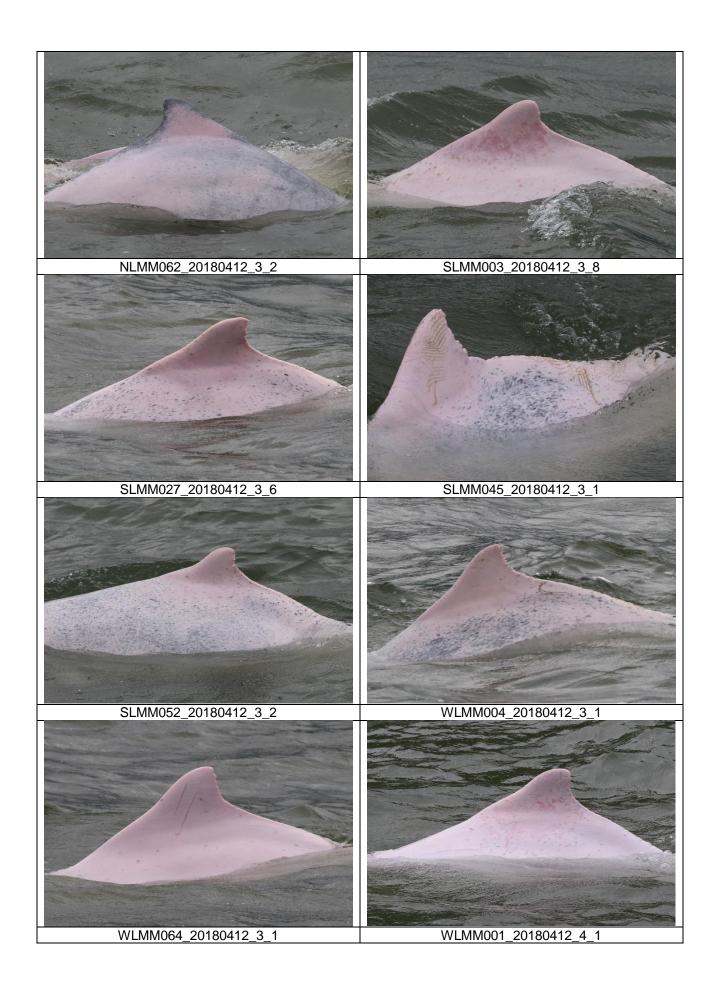
$$ANI = \frac{159}{1168.370} \times 100 = 12.54$$

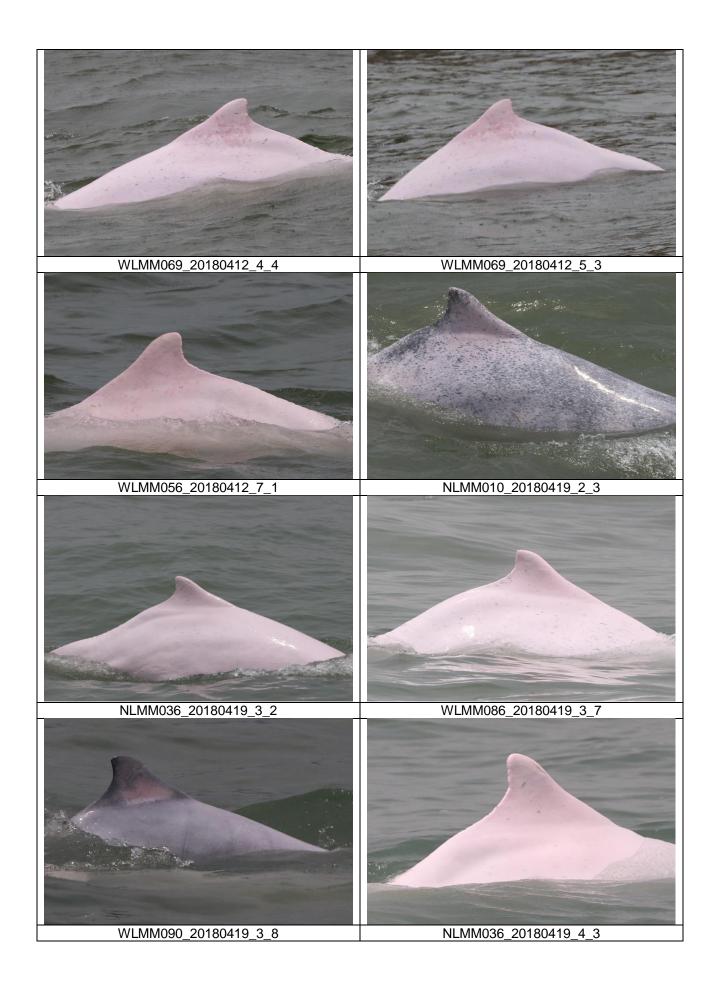
CWD Small Vessel Line-transect Survey

Photo Identification











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
13/April/18	Lung Kwu Chau	8:53	14:53	6:00	2-3	2	2	2
19/April/18	Lung Kwu Chau	8:43	14:43	6:00	2	2	6	1-2
20/April/18	Sha Chau	8:48	14:48	6:00	2-4	2-3	0	N/A
23/April/18	Lung Kwu Chau	8:51	14:51	6:00	2	2	3	2-4
26/April/18	Sha Chau	8:49	14:49	6:00	2-3	3	0	N/A

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

Appendix D. Status of Environmental **Permits and Licences**

	Description		Permit/ Reference No.	Status
EIAO	Environmental Perm	it	EP-489/2014	Approved on 7 Nov 2014
Contract No.	Description	Location	Permit/ Reference No.	Status
P560 (R)	Notification of Construction Work	Launching Site	423880	Receipt acknowledged by EPD on 1 Dec 2017
	under APCO	Site Office	397151	Receipt acknowledged by EPD on 15 Jar 2016
		Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016
		Sheung Sha Chau	405860	Receipt acknowledged by EPD on 5 Aug 2016
	Construction Noise Permit (General	Launching Site	GW-RS0096-18	Superseded by GW-RS0326-18 on 26 Apr 2018
	Works)		GW-RS0326-18	Valid until 23 Oct 2018
		Sheung Sha Chau	GW-RW0533-17	Valid until 8 Apr 2018
		Stockpiling Area	GW-RS0043-18	Valid until 13 Aug 2018
	Discharge License under WPCO	Launching Site	WT00024249- 2016	Valid from to 25 Apr 2016 to 30 Apr 2021
		Stockpiling Area	WT00024250- 2016	Approved on 25 Apr 2016 to 30 Apr 2021
	Registration as Chemical Waste Producer	Launching Site	WPN 5213-951- L2902-01	Registration was updated on 29 Sep 2017
		Sheung Sha Chau	WPN 5111-434- L2902-03	Registration was updated on 6 Oct 2017
		Stockpiling Area	WPN 5213-951- L2902-02	Registration was updated on 3 Oct 2016
	Bill Account for disposal		A/C 7023982	Approval granted from EPD on 14 Dec 2015
3201	Notification of Construction Work under APCO	Works area of 3201	406004	Receipt acknowledged by EPD on 10 Aug 2016
	Construction Noise Works area of Permit (General 3201 Works)		GW-RS0187-18	Superseded by GW-RS0251-18 on 3 Apr 2018
		Works area of 3201	GW-RS0251-18	Superseded by GW-RS0315-18 on 20 Apr 2018
		Works area of	GW-RS0315-18	Valid until 17 Oct 2018

3201

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3201	WPN 5213-951- P3231-01	Completion of Registration on 9 Sep 2016
	Bill Account for disposal		A/C 7025760	Approval granted from EPD on 31 Aug 2016
3202	Notification of Construction Work under APCO	Works area of 3202	407624	Receipt acknowledged by EPD on 15 Sep 2016
	Construction Noise Permit (General	Works area of 3202	GW-RS0083-18	Superseded by GW-RS0252-18 on 3 Apr 2018
	Works)	Works area of 3202	GW-RS0252-18	Superseded by GW-RS0316-18 on 20 Apr 2018
		Works area of 3202	GW-RS0316-18	Valid until 17 Oct 2018
	Registration as Chemical Waste Producer	Works area of 3202	WPN 5213-951- S3967-01	Registration was updated on 23 May 2017
	Discharge License under WPCO	Works area of 3202	WT00028293- 2017	Valid from 12 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025739	Approval granted from EPD on 31 August 2016
3203	Notification of Construction Work under APCO	Works area of 3203	407053	Receipt acknowledged by EPD on 2 Sep 2016
	Construction Noise Permit (General	Works area of 3203	GW-RS1172-17	Superseded by GW-RS0253-18 on 3 Apr 2018
	Works)	Works area of 3203	GW-RS0253-18	Superseded by GW-RS0317-18 on 20 Apr 2018
		Works area of 3203	GW-RS0317-18	Valid until 17 Oct 2018
	Registration as Chemical Waste Producer	Works area of 3203	WPN 5213-951- S3954-01	Registration was updated on 12 Dec 2016
	Discharge License under WPCO	Works area of 3203	WT00028251- 2017	Valid from 9 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025846	Approval granted from EPD on 9 Sep 2016
3204	Notification of Construction Work under APCO	Works area of 3204	406446	Receipt acknowledged by EPD on 19 Aug 2016
	Construction Noise Permit (General Works)	Works Area of 3204	GW-RS0188-18	Superseded by GW-RS0254-18 on 3 Apr 2018
		Works Area of 3204	GW-RS0254-18	Superseded by GW-RS0318-18 on 20 Apr 2018
		Works Area of 3204	GW-RS0318-18	Valid until 17 Oct 2018
	Registration as Chemical Waste Producer 3204 Works Area of 3204 3204		WPN 5213-951- C4102-01	Completion of Registration on 15 Sep 2016
		Site Office of 3204	WPN 5213-951- C4102-02	Completion of Registration on 17 Mar 2017
	Discharge License under WPCO	Works area of 3204	WT00028245- 2017	Valid from 5 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025969	Approval granted from EPD on 21 Sep 2016

Contract No.	Description	Location	Permit/ Reference No.	Status			
3205	Notification of Construction Work under APCO	Works area of 3205	409041	Receipt acknowledged by EPD on 19 Oct 2016			
	Registration as Chemical Waste Producer	Works Area of 3205	WPN 5213-951- B2502-01	Registration was updated on 25 Sep 2017			
		Works Area of 3205	WPN 5111-421- B2509-01	Registration was updated on 25 Sep 2017			
	Construction Noise Permit (General Works)	Works Area of 3205	GW-RS0255-18	Superseded by GW-RS0319-18 on 20 Apr 2018			
		Works Area of 3205	GW-RS0319-18	Valid until 17 Oct 2018			
	Discharge License under WPCO	Works area of 3205	WT00028370- 2017	Valid from 21 Jun 2017 to 30 Jun 2022			
	Bill Account for disposal	Works area of 3205	A/C 7026295	Approval granted from EPD on 9 Nov 2016			
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016			
	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951- Z4035-01	Completion of Registration on 18 Nov 2016			
		Works area of 3206	WPN 5213-951- Z4035-02	Completion of Registration on 18 Nov 20			
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0190-18	Superseded by GW-RS0256-18 on 28 Mar 2018			
		Works Area of 3206	GW-RS0256-18	Superseded by GW-RS0320-18 on 20 Apr 2018			
		Works Area of 3206	GW-RS0320-18	Valid until 10 Oct 2018			
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016			
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017			
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951- F2718-02	Completion of Registration on 9 Jun 2017			
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017			
	Construction Noise Permit (General Works)	Works area of 3301 (Cable ducting	GW-RS0991-17	Superseded by GW-RS0270-18 on 6 Apr 2018			
	,	works)	GW-RS0270-18	Valid until 5 Oct 2018			
		Works area of 3301	GW-RS1184-17	Superseded by GW-RS0288-18 on 6 Apr 2018			
			GW-RS0288-17	Valid until 5 Oct 2018			
3501	Notification of Construction Work under APCO	Works area of 3501	417903	Receipt acknowledged by EPD on 13 Jun 2017			

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3501	WPN 5213-951- B2520-02	Completion of Registration on 25 Jul 2017
	Bill Account for disposal	Works area of 3501	A/C 7028144	Approval granted from EPD on 23 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3501	GW-RS1187-17	Valid until 1 July 2018
3502	Notification of Construction Work under APCO	Works area of 3502	417511	Receipt acknowledged by EPD on 2 Jun 2017
	Registration as Chemical Waste Producer	Works area of 3502	WPN 5213-951- B2520-01	Completion of Registration on 3 Jul 2017
	Bill Account for disposal	Works area of 3502	A/C 7028050	Approval granted from EPD on 21 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3502	GW-RS0193-18	Valid until 10 Sep 2018
3503	Notification of Construction Work under APCO	Works area of 3503	424591	Receipt acknowledged by EPD on 8 Dec 2017
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951- L2845-02	Completion of Registration on 8 Jan 2018
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise Permit (General	Works area of 3503	GW-RS0213-18	Superseded by GW-RS0290-18 on 9 Apr 2018
	Works)		GW-RS0290-18	Valid until 8 Oct 2018
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951- N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951- N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
3801	Notification of Construction Work under APCO	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
		Works area of 3801	430372	Receipt acknowledged by EPD on 2 Feb 2018
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951- C1169-51	Completion of Registration on 4 Aug 2017
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535- 2017	Valid from 24 Nov 2017 to 30 Nov 2022
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
			GW-RS0284-18	Superseded by GW-RS0340-18 on 27 Apr 2018

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works and stockpiling area of 3801	GW-RS0340-18	Valid until 26 Oct 2018
		Works area of 3801	GW-RS0343-18	Valid until 29 Jun 2018
		Works area of 3801	GW-RS0229-18	Valid until 22 May 2018

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

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

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

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

Statistics for Complaints, Notifications of Summons and Prosecution

Reporting Period	Cumulative Statistics			
	Complaints	Notifications of Summons	Prosecutions	
This reporting period	0	0	0	
From 28 December 2015 to end of the reporting period	10	1	0	

Appendix F. Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 April 2018)

<u>Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 30 April 2018)</u>

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
01-Apr	08:13	8S210	XZM	Arrival	12.8	-	-
01-Apr	08:14	3A061	YFT	Arrival	12	-	-
01-Apr	09:55	3A062	YFT	Arrival	11.4	-	-
01-Apr	10:14	3A163	YFT	Departure	13.4	-	-
01-Apr	10:36	8S212	XZM	Arrival	11.5	-	-
01-Apr	10:39	3A081	ZUI	Arrival	12.9	-	-
01-Apr	11:12	8S121	XZM	Departure	12.3	-	-
01-Apr	11:19	3A063	YFT	Arrival	12.3	-	-
01-Apr	12:22	3A168	YFT	Departure	12.7	-	-
01-Apr	12:25	3A181	ZUI	Departure	12.5	-	-
01-Apr	12:48	8S215	XZM	Arrival	11.8	-	-
01-Apr	13:08	3A064	YFT	Arrival	12.8	-	-
01-Apr	13:40	8S123	XZM	Departure	11.7	-	-
01-Apr	13:45	3A082	ZUI	Arrival	12.7	-	-
01-Apr	14:31	3A164	YFT	Departure	13.2	-	-
01-Apr	14:36	3A182	ZUI	Departure	12.1	-	-
01-Apr	14:58	3A065	YFT	Arrival	12.6	-	-
01-Apr	16:18	3A167	YFT	Departure	12.8	-	-
01-Apr	16:43	3A083	ZUI	Arrival	13	-	-
01-Apr	16:44	8S218	XZM	Arrival	10.8	-	-
01-Apr	16:59	3A067	YFT	Arrival	12.4	-	-
01-Apr	17:11	3A183	ZUI	Departure	12.1	-	-
01-Apr	17:22	8S126	XZM	Departure	11.8	-	-
01-Apr	19:01	3A166	YFT	Departure	13.8	-	-
01-Apr	19:58	3A084	ZUI	Arrival	12.1	-	-
01-Apr	20:06	3A185	ZUI	Departure	12.7	-	-
01-Apr	20:54	8S2113	XZM	Arrival	10.3	-	-
01-Apr	20:56	3A169	YFT	Departure	12.7	-	-
01-Apr	21:53	8S522	XZM	Departure	10.7	-	-
02-Apr	08:15	3A061	YFT	Arrival	11.5	-	-
02-Apr	08:25	8S210	XZM	Arrival	11.6	-	-
02-Apr	09:48	3A062	YFT	Arrival	10.9	-	-
02-Apr	10:14	3A163	YFT	Departure	12	-	-
02-Apr	10:35	8S212	XZM	Arrival	10.4	-	-
02-Apr	10:46	3A081	ZUI	Arrival	13.1	-	-
02-Apr	11:06	8S121	XZM	Departure	11.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
02-Apr	11:14	3A063	YFT	Arrival	12.3	-	-
02-Apr	12:13	3A181	ZUI	Departure	13	-	-
02-Apr	12:21	3A168	YFT	Departure	11.1	-	-
02-Apr	12:49	8S215	XZM	Arrival	11.9	-	-
02-Apr	12:54	3A064	YFT	Arrival	12.2	-	-
02-Apr	13:19	8S123	XZM	Departure	12	-	-
02-Apr	13:45	3A082	ZUI	Arrival	14	-	-
02-Apr	14:22	3A182	ZUI	Departure	13.3	-	-
02-Apr	14:22	3A164	YFT	Departure	12.5	-	-
02-Apr	14:54	3A065	YFT	Arrival	12.4	-	-
02-Apr	16:16	3A167	YFT	Departure	12.8	-	-
02-Apr	16:40	3A083	ZUI	Arrival	11.2	-	-
02-Apr	16:44	8S218	XZM	Arrival	11.8	-	-
02-Apr	16:56	3A067	YFT	Arrival	11.7	-	-
02-Apr	16:57	3A183	ZUI	Departure	12.5	-	-
02-Apr	17:22	8S126	XZM	Departure	0.0 **	-	-
02-Apr	19:02	3A166	YFT	Departure	12.5	-	-
02-Apr	19:48	3A084	ZUI	Arrival	11.9	-	-
02-Apr	20:15	3A185	ZUI	Departure	13.2	-	-
02-Apr	20:52	8S2113	XZM	Arrival	12.7	-	-
02-Apr	21:01	3A169	YFT	Departure	12.2	-	-
02-Apr	21:52	8S522	XZM	Departure	13.2	-	-
03-Apr	08:10	3A061	YFT	Arrival	12.5	-	-
03-Apr	08:25	8S210	XZM	Arrival	11.2	-	-
03-Apr	09:58	3A062	YFT	Arrival	11.7	-	-
03-Apr	10:17	3A163	YFT	Departure	12.1	-	-
03-Apr	10:35	8S212	XZM	Arrival	12.4	-	-
03-Apr	10:39	3A081	ZUI	Arrival	12.2	-	-
03-Apr	11:06	8S121	XZM	Departure	12.4	-	-
03-Apr	11:14	3A063	YFT	Arrival	12.6	-	-
03-Apr	12:14	3A168	YFT	Departure	13	-	-
03-Apr	12:16	3A181	ZUI	Departure	13.1	-	-
03-Apr	12:44	8S215	XZM	Arrival	11.9	-	-
03-Apr	12:55	3A064	YFT	Arrival	12.4	-	-
03-Apr	13:16	8S123	XZM	Departure	11	-	-
03-Apr	13:48	3A082	ZUI	Arrival	13.4	-	-
03-Apr	14:12	3A182	ZUI	Departure	13.4	-	-
03-Apr	14:13	3A164	YFT	Departure	12.2	-	-
03-Apr	14:51	3A065	YFT	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
03-Apr	16:13	3A167	YFT	Departure	12.6	-	-
03-Apr	16:35	8S218	XZM	Arrival	11.6	-	-
03-Apr	16:39	3A083	ZUI	Arrival	11.8	-	-
03-Apr	16:58	3A067	YFT	Arrival	11.7	-	-
03-Apr	17:05	8S126	XZM	Departure	11.6	-	-
03-Apr	17:07	3A183	ZUI	Departure	11.7	-	-
03-Apr	19:03	3A166	YFT	Departure	12.4	-	-
03-Apr	19:50	3A084	ZUI	Arrival	12.3	-	-
03-Apr	20:15	3A185	ZUI	Departure	12.9	-	-
03-Apr	20:56	8S2113	XZM	Arrival	11.6	-	-
03-Apr	20:58	3A169	YFT	Departure	12.9	-	-
03-Apr	21:58	8S522	XZM	Departure	12	-	-
04-Apr	08:13	3A061	YFT	Arrival	12.7	<= 5	< 1min
04-Apr	08:19	8S210	XZM	Arrival	12	-	-
04-Apr	10:11	3A062	YFT	Arrival	11.5	-	-
04-Apr	10:33	3A163	YFT	Departure	11.7	-	-
04-Apr	10:41	8S212	XZM	Arrival	11.5	-	-
04-Apr	10:42	3A081	ZUI	Arrival	11.7	-	-
04-Apr	11:15	8S121	XZM	Departure	11.5	-	-
04-Apr	11:23	3A063	YFT	Arrival	11.4	-	-
04-Apr	12:17	3A181	ZUI	Departure	12.7	-	-
04-Apr	12:19	3A168	YFT	Departure	11.3	-	-
04-Apr	12:42	8S215	XZM	Arrival	12.3	-	-
04-Apr	13:04	3A064	YFT	Arrival	12	-	-
04-Apr	13:16	8S123	XZM	Departure	12.2	-	-
04-Apr	13:54	3A082	ZUI	Arrival	13.2	-	-
04-Apr	14:18	3A164	YFT	Departure	11.1	-	-
04-Apr	14:30	3A182	ZUI	Departure	12.6	-	-
04-Apr	14:57	3A065	YFT	Arrival	11.7	-	-
04-Apr	16:27	3A167	YFT	Departure	11	-	-
04-Apr	16:42	8S218	XZM	Arrival	11	-	-
04-Apr	16:45	3A083	ZUI	Arrival	11.9	-	-
04-Apr	16:55	3A067	YFT	Arrival	12.4	-	-
04-Apr	17:04	3A183	ZUI	Departure	11.9	-	-
04-Apr	17:18	8S126	XZM	Departure	12.1	-	-
04-Apr	19:04	3A166	YFT	Departure	12.9	-	-
04-Apr	19:48	3A084	ZUI	Arrival	12.1	-	-
04-Apr	20:09	3A185	ZUI	Departure	12.3	-	-
04-Apr	20:59	3A169	YFT	Departure	13.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
04-Apr	21:06	8S2113	XZM	Arrival	12.1	-	-
04-Apr	22:49	8S522	XZM	Departure	12.3	-	-
05-Apr	08:09	3A061	YFT	Arrival	12.1	-	-
05-Apr	08:23	8S210	XZM	Arrival	12.1	-	-
05-Apr	09:51	3A062	YFT	Arrival	13.2	-	-
05-Apr	10:11	3A163	YFT	Departure	13.6	-	-
05-Apr	10:36	8S212	XZM	Arrival	12.2	-	-
05-Apr	10:41	3A081	ZUI	Arrival	12.5	-	-
05-Apr	11:07	8S121	XZM	Departure	12.5	-	-
05-Apr	11:14	3A063	YFT	Arrival	11.6	-	-
05-Apr	12:11	3A168	YFT	Departure	12.1	-	-
05-Apr	12:16	3A181	ZUI	Departure	13.2	-	-
05-Apr	12:44	8S215	XZM	Arrival	11.5	-	-
05-Apr	12:55	3A064	YFT	Arrival	13.3	-	-
05-Apr	13:23	8S123	XZM	Departure	11.2	-	-
05-Apr	13:41	3A082	ZUI	Arrival	13.2	-	-
05-Apr	14:13	3A164	YFT	Departure	13.6	-	-
05-Apr	14:18	3A182	ZUI	Departure	12	-	-
05-Apr	14:50	3A065	YFT	Arrival	12	-	-
05-Apr	16:11	3A167	YFT	Departure	11.2	-	-
05-Apr	16:37	8S218	XZM	Arrival	11.6	-	-
05-Apr	16:38	3A083	ZUI	Arrival	12.9	-	-
05-Apr	16:53	3A067	YFT	Arrival	13.7	-	-
05-Apr	17:08	3A183	ZUI	Departure	12.9	-	-
05-Apr	17:16	8S126	XZM	Departure	12.4	-	-
05-Apr	19:01	3A166	YFT	Departure	11	-	-
05-Apr	19:52	3A084	ZUI	Arrival	12.1	-	-
05-Apr	20:11	3A185	ZUI	Departure	12.7	-	-
05-Apr	20:49	8S2113	XZM	Arrival	11.7	-	-
05-Apr	21:04	3A169	YFT	Departure	12.4	-	-
05-Apr	21:48	8S522	XZM	Departure	0.0 **	-	-
06-Apr	08:14	3A061	YFT	Arrival	11.6	-	-
06-Apr	08:22	8S210	XZM	Arrival	11.7	-	-
06-Apr	09:58	3A062	YFT	Arrival	12.1	-	-
06-Apr	10:19	3A163	YFT	Departure	12.8	-	-
06-Apr	10:35	8S212	XZM	Arrival	12.6	<= 5	< 1min
06-Apr	10:43	3A081	ZUI	Arrival	12.7	-	-
06-Apr	11:07	8S121	XZM	Departure	11.8	-	-
06-Apr	11:18	3A063	YFT	Arrival	13.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
06-Apr	12:21	3A168	YFT	Departure	13.1	-	-
06-Apr	12:24	3A181	ZUI	Departure	12.3	-	-
06-Apr	12:53	3A064	YFT	Arrival	12.2	-	-
06-Apr	12:59	8S215	XZM	Arrival	10.9	-	-
06-Apr	13:31	8S123	XZM	Departure	10.8	-	-
06-Apr	13:59	3A082	ZUI	Arrival	12.8	-	-
06-Apr	14:14	3A164	YFT	Departure	12.6	-	-
06-Apr	14:31	3A182	ZUI	Departure	11.8	-	-
06-Apr	14:59	3A065	YFT	Arrival	13.1	-	-
06-Apr	16:16	3A167	YFT	Departure	13.2	-	-
06-Apr	16:39	3A083	ZUI	Arrival	12.5	-	-
06-Apr	16:40	8S218	XZM	Arrival	11.4	-	-
06-Apr	16:54	3A067	YFT	Arrival	12.6	-	-
06-Apr	17:04	3A183	ZUI	Departure	12.6	-	-
06-Apr	17:29	8S126	XZM	Departure	10.3	-	-
06-Apr	19:04	3A166	YFT	Departure	12.9	-	-
06-Apr	19:50	3A084	ZUI	Arrival	12.2	-	-
06-Apr	20:04	3A185	ZUI	Departure	12.7	-	-
06-Apr	20:55	8S2113	XZM	Arrival	12	-	-
06-Apr	20:59	3A169	YFT	Departure	13.3	-	-
06-Apr	21:58	8S522	XZM	Departure	12.8	-	-
07-Apr	08:18	3A061	YFT	Arrival	12.1	-	-
07-Apr	08:21	8S210	XZM	Arrival	12.1	-	-
07-Apr	09:57	3A062	YFT	Arrival	12.3	<= 5	< 1min
07-Apr	10:11	3A163	YFT	Departure	13.2	-	-
07-Apr	10:36	8S212	XZM	Arrival	11.6	-	-
07-Apr	10:43	3A081	ZUI	Arrival	13.1	-	-
07-Apr	11:05	8S121	XZM	Departure	11.8	-	-
07-Apr	11:14	3A063	YFT	Arrival	11.5	-	-
07-Apr	12:15	3A168	YFT	Departure	12.1	-	-
07-Apr	12:22	3A181	ZUI	Departure	13.4	-	-
07-Apr	12:56	3A064	YFT	Arrival	13.3	-	-
07-Apr	12:59	8S215	XZM	Arrival	13	-	-
07-Apr	13:39	8S123	XZM	Departure	13	-	-
07-Apr	14:00	3A082	ZUI	Arrival	12.2	-	-
07-Apr	14:12	3A164	YFT	Departure	13.1	-	-
07-Apr	14:33	3A182	ZUI	Departure	12.6	-	-
07-Apr	14:54	3A065	YFT	Arrival	12.2	-	-
07-Apr	16:15	3A167	YFT	Departure	13.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
07-Apr	16:37	3A083	ZUI	Arrival	12.7	-	-
07-Apr	16:45	8S218	XZM	Arrival	12.4	-	-
07-Apr	17:08	3A067	YFT	Arrival	12.5	-	-
07-Apr	17:08	3A183	ZUI	Departure	11.9	-	-
07-Apr	17:31	8S126	XZM	Departure	12.9	-	-
07-Apr	18:58	3A166	YFT	Departure	12.3	-	-
07-Apr	19:50	3A084	ZUI	Arrival	12.4	-	-
07-Apr	20:07	3A185	ZUI	Departure	12.3	-	-
07-Apr	20:58	8S2113	XZM	Arrival	13	-	-
07-Apr	21:03	3A169	YFT	Departure	12.2	-	-
07-Apr	21:59	8S522	XZM	Departure	11.9	-	-
08-Apr	08:15	3A061	YFT	Arrival	12.7	-	-
08-Apr	08:18	8S210	XZM	Arrival	12.5	-	-
08-Apr	09:56	3A062	YFT	Arrival	11.9	-	-
08-Apr	10:13	3A163	YFT	Departure	12.4	-	-
08-Apr	10:32	8S212	XZM	Arrival	12.1	-	-
08-Apr	10:45	3A081	ZUI	Arrival	12.2	-	-
08-Apr	11:00	8S121	XZM	Departure	12.6	-	-
08-Apr	11:14	3A063	YFT	Arrival	11.9	-	-
08-Apr	12:16	3A181	ZUI	Departure	13.4	-	-
08-Apr	12:19	3A168	YFT	Departure	12.4	-	-
08-Apr	12:48	8S215	XZM	Arrival	11.1	-	-
08-Apr	12:57	3A064	YFT	Arrival	12.1	-	-
08-Apr	13:22	8S123	XZM	Departure	11.2	-	-
08-Apr	13:47	3A082	ZUI	Arrival	13.2	-	-
08-Apr	14:16	3A164	YFT	Departure	12.3	-	-
08-Apr	14:20	3A182	ZUI	Departure	12.9	-	-
08-Apr	14:56	3A065	YFT	Arrival	12.1	-	-
08-Apr	16:13	3A167	YFT	Departure	12	-	-
08-Apr	16:43	8S218	XZM	Arrival	11.3	-	-
08-Apr	16:44	3A083	ZUI	Arrival	11.4	-	-
08-Apr	16:57	3A067	YFT	Arrival	12.6	-	-
08-Apr	17:15	3A183	ZUI	Departure	11.5	-	-
08-Apr	17:18	8S126	XZM	Departure	11.4	-	-
08-Apr	19:04	3A166	YFT	Departure	11.3	-	-
08-Apr	19:52	3A084	ZUI	Arrival	12.3	-	-
08-Apr	20:09	3A185	ZUI	Departure	12.4	-	-
08-Apr	20:49	8S2113	XZM	Arrival	11.9	-	-
08-Apr	20:55	3A169	YFT	Departure	12.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
08-Apr	21:58	8S522	XZM	Departure	11.2	-	-
09-Apr	08:15	3A061	YFT	Arrival	11.2	-	-
09-Apr	08:22	8S210	XZM	Arrival	11.6	-	-
09-Apr	10:04	3A062	YFT	Arrival	11.9	-	-
09-Apr	10:19	3A163	YFT	Departure	12.5	-	-
09-Apr	10:33	8S212	XZM	Arrival	12.1	-	-
09-Apr	10:49	3A081	ZUI	Arrival	12.6	-	-
09-Apr	11:02	8S121	XZM	Departure	12.5	-	-
09-Apr	11:14	3A063	YFT	Arrival	12.1	-	-
09-Apr	12:19	3A181	ZUI	Departure	13.3	-	-
09-Apr	12:21	3A168	YFT	Departure	11.8	-	-
09-Apr	12:40	8S215	XZM	Arrival	11.5	-	-
09-Apr	12:56	3A064	YFT	Arrival	12.1	-	-
09-Apr	13:26	8S123	XZM	Departure	11.8	-	-
09-Apr	13:54	3A182	ZUI	Arrival	0.0 **	-	-
09-Apr	14:18	3A164	YFT	Departure	12.4	-	-
09-Apr	14:20	3A082	ZUI	Departure	0.0 **	-	-
09-Apr	14:55	3A065	YFT	Arrival	11.6	-	-
09-Apr	16:18	3A167	YFT	Departure	13.3	-	-
09-Apr	16:49	8S218	XZM	Arrival	11.7	-	-
09-Apr	16:54	3A067	YFT	Arrival	11.5	-	-
09-Apr	16:55	3A083	ZUI	Arrival	12.5	-	-
09-Apr	17:24	3A183	ZUI	Departure	13.2	-	-
09-Apr	17:38	8S126	XZM	Departure	11.7	-	-
09-Apr	19:04	3A166	YFT	Departure	12.3	-	-
09-Apr	19:57	3A084	ZUI	Arrival	12.9	-	-
09-Apr	20:21	3A185	ZUI	Departure	13.1	-	-
09-Apr	21:10	8S2113	XZM	Arrival	10.1	-	-
09-Apr	21:15	3A169	YFT	Departure	12.5	-	-
10-Apr	08:12	3A061	YFT	Arrival	12.1	-	-
10-Apr	08:17	8S210	XZM	Arrival	12	-	-
10-Apr	10:06	3A062	YFT	Arrival	12.1	-	-
10-Apr	10:17	3A163	YFT	Departure	12.2	-	-
10-Apr	10:35	8S212	XZM	Arrival	12.2	-	-
10-Apr	10:42	3A081	ZUI	Arrival	12.4	-	-
10-Apr	11:09	8S121	XZM	Departure	12.2	-	-
10-Apr	11:16	3A063	YFT	Arrival	13.6	-	-
10-Apr	12:15	3A181	ZUI	Departure	12.5	-	-
10-Apr	12:17	3A168	YFT	Departure	13.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
10-Apr	12:44	8S215	XZM	Arrival	12.1	-	-
10-Apr	13:00	3A064	YFT	Arrival	12.2	-	-
10-Apr	13:17	8S123	XZM	Departure	12.3	-	-
10-Apr	13:45	3A082	ZUI	Arrival	13.4	-	-
10-Apr	14:10	3A182	ZUI	Departure	12.8	-	-
10-Apr	14:12	3A164	YFT	Departure	12.3	-	-
10-Apr	14:53	3A065	YFT	Arrival	13.2	-	-
10-Apr	16:16	3A167	YFT	Departure	13.4	-	-
10-Apr	16:40	8S218	XZM	Arrival	10.4	-	-
10-Apr	16:52	3A083	ZUI	Arrival	12.6	-	-
10-Apr	17:05	3A183	ZUI	Departure	13	-	-
10-Apr	17:05	3A067	YFT	Arrival	12.4	-	-
10-Apr	17:21	8S126	XZM	Departure	12.6	-	-
10-Apr	19:03	3A166	YFT	Departure	10.9	-	-
10-Apr	19:46	3A084	ZUI	Arrival	12.7	-	-
10-Apr	20:10	3A185	ZUI	Departure	12.6	-	-
10-Apr	20:56	8S2113	XZM	Arrival	12.4	-	-
10-Apr	21:10	3A169	YFT	Departure	12.2	-	-
11-Apr	08:16	3A061	YFT	Arrival	12	-	-
11-Apr	08:22	8S210	XZM	Arrival	11.6	-	-
11-Apr	10:03	3A062	YFT	Arrival	12	-	-
11-Apr	10:24	3A163	YFT	Departure	11.8	-	-
11-Apr	10:33	8S212	XZM	Arrival	11.4	-	-
11-Apr	10:41	3A081	ZUI	Arrival	12.6	-	-
11-Apr	11:10	8S121	XZM	Departure	11.9	-	-
11-Apr	11:18	3A063	YFT	Arrival	12.8	-	-
11-Apr	12:23	3A168	YFT	Departure	12.7	-	-
11-Apr	12:24	3A181	ZUI	Departure	12.3	-	-
11-Apr	12:51	8S215	XZM	Arrival	11.6	-	-
11-Apr	12:59	3A064	YFT	Arrival	11.6	-	-
11-Apr	13:22	8S123	XZM	Departure	12.6	-	-
11-Apr	13:54	3A082	ZUI	Arrival	12	-	-
11-Apr	14:18	3A164	YFT	Departure	12.1	-	-
11-Apr	14:18	3A182	ZUI	Departure	12.2	-	-
11-Apr	14:53	3A065	YFT	Arrival	12.7	-	-
11-Apr	16:27	3A167	YFT	Departure	13.7	-	-
11-Apr	16:47	8S218	XZM	Arrival	11.6	-	-
11-Apr	16:54	3A083	ZUI	Arrival	11.4	-	-
11-Apr	17:02	3A067	YFT	Arrival	12.7	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
11-Apr	17:17	3A183	ZUI	Departure	9.2	-	-
11-Apr	17:17	8S126	XZM	Departure	12.2	-	-
11-Apr	19:13	3A166	YFT	Departure	12	-	-
11-Apr	19:43	3A084	ZUI	Arrival	13	-	-
11-Apr	20:21	3A185	ZUI	Departure	12.8	-	-
11-Apr	20:54	8S2113	XZM	Arrival	12.3	-	-
11-Apr	21:02	3A169	YFT	Departure	13	-	-
12-Apr	08:21	8S210	XZM	Arrival	12	-	-
12-Apr	08:24	3A061	YFT	Arrival	11.4	-	-
12-Apr	09:56	3A062	YFT	Arrival	11.1	-	-
12-Apr	10:28	3A081	ZUI	Arrival	13.1	-	-
12-Apr	10:30	3A163	YFT	Departure	11.6	-	-
12-Apr	10:47	8S212	XZM	Arrival	11.9	-	-
12-Apr	11:23	8S121	XZM	Departure	12.1	-	-
12-Apr	11:31	3A063	YFT	Arrival	12.3	-	-
12-Apr	12:23	3A181	ZUI	Departure	13.4	-	-
12-Apr	12:23	3A168	YFT	Departure	13	-	-
12-Apr	12:44	8S215	XZM	Arrival	11.4	-	-
12-Apr	12:57	3A064	YFT	Arrival	11.5	-	-
12-Apr	13:18	8S123	XZM	Departure	11.4	-	-
12-Apr	13:46	3A082	ZUI	Arrival	12.3	-	-
12-Apr	14:17	3A164	YFT	Departure	11.1	-	-
12-Apr	14:19	3A182	ZUI	Departure	13.6	1	-
12-Apr	14:54	3A065	YFT	Arrival	12.8	1	-
12-Apr	16:17	3A167	YFT	Departure	13.6	-	-
12-Apr	16:33	3A083	ZUI	Arrival	13.6	-	-
12-Apr	16:42	8S218	XZM	Arrival	10.8	1	-
12-Apr	16:58	3A067	YFT	Arrival	11.5	-	-
12-Apr	16:58	3A183	ZUI	Departure	13.8	1	-
12-Apr	17:08	8S126	XZM	Departure	11.4	1	-
12-Apr	19:05	3A166	YFT	Departure	12.3	ı	-
12-Apr	19:59	3A084	ZUI	Arrival	11.7	1	-
12-Apr	20:12	3A185	ZUI	Departure	12	-	-
12-Apr	20:53	8S2113	XZM	Arrival	10.9	-	-
12-Apr	21:09	3A169	YFT	Departure	12.2	-	-
13-Apr	08:19	3A061	YFT	Arrival	13.1	-	-
13-Apr	08:21	8S210	XZM	Arrival	12.4	-	-
13-Apr	10:02	3A062	YFT	Arrival	12.2	-	
13-Apr	10:20	3A163	YFT	Departure	13.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
13-Apr	10:36	8S212	XZM	Arrival	11.5	-	-
13-Apr	10:38	3A081	ZUI	Arrival	13.6	-	-
13-Apr	11:06	8S121	XZM	Departure	11.5	-	-
13-Apr	11:13	3A063	YFT	Arrival	12.7	-	-
13-Apr	12:20	3A168	YFT	Departure	13	-	-
13-Apr	12:25	3A181	ZUI	Departure	13.3	-	-
13-Apr	12:44	8S215	XZM	Arrival	11.1	-	-
13-Apr	12:58	3A064	YFT	Arrival	12.7	-	-
13-Apr	13:17	8S123	XZM	Departure	11.6	-	-
13-Apr	13:45	3A082	ZUI	Arrival	12.3	-	-
13-Apr	14:15	3A164	YFT	Departure	13.1	-	-
13-Apr	14:18	3A182	ZUI	Departure	12.6	-	-
13-Apr	14:50	3A065	YFT	Arrival	12.6	-	-
13-Apr	16:17	3A167	YFT	Departure	13.1	-	-
13-Apr	16:47	3A083	ZUI	Arrival	11	-	-
13-Apr	16:52	8S218	XZM	Arrival	12.4	-	-
13-Apr	16:56	3A067	YFT	Arrival	12.3	-	-
13-Apr	17:09	3A183	ZUI	Departure	12.9	-	-
13-Apr	17:31	8S126	XZM	Departure	11.9	-	-
13-Apr	18:56	3A166	YFT	Departure	11	-	-
13-Apr	19:48	3A084	ZUI	Arrival	12.4	-	-
13-Apr	20:10	3A185	ZUI	Departure	13.4	-	-
13-Apr	21:07	3A169	YFT	Departure	11.6	-	-
13-Apr	21:07	8S2113	XZM	Arrival	11.3	-	-
14-Apr	08:14	3A061	YFT	Arrival	12.5	-	-
14-Apr	08:18	8S210	XZM	Arrival	12.4	-	-
14-Apr	10:09	3A062	YFT	Arrival	10.7	-	-
14-Apr	10:20	3A163	YFT	Departure	10.5	-	-
14-Apr	10:33	8S212	XZM	Arrival	12.3	-	-
14-Apr	11:05	3A081	ZUI	Arrival	12.9	-	-
14-Apr	11:13	8S121	XZM	Departure	12.1	-	-
14-Apr	11:19	3A063	YFT	Arrival	12.2	-	-
14-Apr	12:24	3A168	YFT	Departure	12.6	-	-
14-Apr	12:30	3A181	ZUI	Departure	13.1	-	-
14-Apr	12:59	3A064	YFT	Arrival	11.6	-	-
14-Apr	13:02	8S215	XZM	Arrival	12	-	-
14-Apr	13:37	8S123	XZM	Departure	12.3	-	-
14-Apr	13:41	3A082	ZUI	Arrival	12.8	-	-
14-Apr	14:17	3A182	ZUI	Departure	12.4	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
14-Apr	14:18	3A164	YFT	Departure	10.9	-	-
14-Apr	14:53	3A065	YFT	Arrival	11.9	-	-
14-Apr	16:23	3A167	YFT	Departure	12.9	-	-
14-Apr	16:39	8S218	XZM	Arrival	11.3	-	-
14-Apr	16:43	3A083	ZUI	Arrival	12.4	-	-
14-Apr	17:00	3A067	YFT	Arrival	11	-	-
14-Apr	17:11	3A183	ZUI	Departure	12.9	-	-
14-Apr	17:21	8S126	XZM	Departure	12	-	-
14-Apr	19:10	3A166	YFT	Departure	11.8	-	-
14-Apr	19:50	3A084	ZUI	Arrival	12.3	-	-
14-Apr	20:06	3A185	ZUI	Departure	13.1	-	-
14-Apr	20:57	3A169	YFT	Departure	12.2	-	-
14-Apr	20:59	8S2113	XZM	Arrival	12.5	-	-
14-Apr	21:51	8S522	XZM	Departure	12.9	-	-
15-Apr	08:17	3A061	YFT	Arrival	11.8	-	-
15-Apr	08:21	8S210	XZM	Arrival	12.5	-	-
15-Apr	10:03	3A062	YFT	Arrival	11.2	-	-
15-Apr	10:24	3A163	YFT	Departure	11	-	-
15-Apr	10:41	8S212	XZM	Arrival	12.2	-	-
15-Apr	10:44	3A081	ZUI	Arrival	12.8	-	-
15-Apr	11:13	8S121	XZM	Departure	12.1	-	-
15-Apr	11:20	3A063	YFT	Arrival	12.1	-	-
15-Apr	12:22	3A168	YFT	Departure	12.2	-	-
15-Apr	12:23	3A181	ZUI	Departure	12.2	-	-
15-Apr	12:48	8S215	XZM	Arrival	11.8	-	-
15-Apr	13:21	3A064	YFT	Arrival	11.8	-	-
15-Apr	13:28	8S123	XZM	Departure	10.5	-	-
15-Apr	13:47	3A082	ZUI	Arrival	12.2	<= 5	< 1min
15-Apr	14:23	3A164	YFT	Departure	11.4	-	-
15-Apr	14:30	3A182	ZUI	Departure	12.4	-	-
15-Apr	15:00	3A065	YFT	Arrival	11.5	-	-
15-Apr	16:40	3A167	YFT	Departure	12.3	-	-
15-Apr	17:00	8S218	XZM	Arrival	11.1	-	-
15-Apr	17:02	3A083	ZUI	Arrival	11.6	-	-
15-Apr	17:15	3A067	YFT	Arrival	11.1	-	-
15-Apr	17:23	3A183	ZUI	Departure	13.6	-	-
15-Apr	17:37	8S126	XZM	Departure	11.3	-	-
15-Apr	19:13	3A166	YFT	Departure	11.9	-	-
15-Apr	20:02	3A084	ZUI	Arrival	11.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
15-Apr	20:22	3A185	ZUI	Departure	13.1	-	-
15-Apr	20:54	8S2113	XZM	Arrival	11.9	-	-
15-Apr	21:08	3A169	YFT	Departure	12.6	-	-
15-Apr	21:58	8S522	XZM	Departure	13.4	-	-
16-Apr	08:17	3A061	YFT	Arrival	11.8	-	-
16-Apr	08:35	8S210	XZM	Arrival	11.6	-	-
16-Apr	10:02	3A062	YFT	Arrival	12.9	-	-
16-Apr	10:10	3A163	YFT	Departure	13.5	-	-
16-Apr	10:38	8S212	XZM	Arrival	11.5	-	-
16-Apr	10:55	3A081	ZUI	Arrival	12.5	-	-
16-Apr	11:03	8S121	XZM	Departure	11.6	-	-
16-Apr	11:18	3A063	YFT	Arrival	12.6	-	-
16-Apr	12:13	3A181	ZUI	Departure	12.9	-	-
16-Apr	12:20	3A168	YFT	Departure	12.1	-	-
16-Apr	12:48	8S215	XZM	Arrival	13.1	-	-
16-Apr	13:00	3A064	YFT	Arrival	13.3	-	-
16-Apr	13:19	8S123	XZM	Departure	12.6	-	-
16-Apr	13:57	3A082	ZUI	Arrival	12.6	-	-
16-Apr	14:16	3A182	ZUI	Departure	12	-	-
16-Apr	14:20	3A164	YFT	Departure	13.3	-	-
16-Apr	14:58	3A065	YFT	Arrival	12.2	-	-
16-Apr	16:21	3A167	YFT	Departure	12.6	-	-
16-Apr	16:51	8S218	XZM	Arrival	12.5	-	-
16-Apr	16:52	3A083	ZUI	Arrival	12.5	-	-
16-Apr	17:01	3A067	YFT	Arrival	12.5	-	-
16-Apr	17:10	3A183	ZUI	Departure	12	-	-
16-Apr	17:26	8S126	XZM	Departure	12.9	-	-
16-Apr	19:07	3A166	YFT	Departure	12.4	-	-
16-Apr	19:52	3A084	ZUI	Arrival	12.4	-	-
16-Apr	20:14	3A185	ZUI	Departure	12.7	-	-
16-Apr	20:59	3A169	YFT	Departure	12.3	-	-
16-Apr	20:59	8S2113	XZM	Arrival	11.7	-	-
17-Apr	08:15	3A061	YFT	Arrival	13.4	-	-
17-Apr	08:19	8S210	XZM	Arrival	12.4	-	-
17-Apr	09:53	3A062	YFT	Arrival	11.8	-	-
17-Apr	10:16	3A163	YFT	Departure	12.9	-	-
17-Apr	10:35	8S212	XZM	Arrival	12	-	-
17-Apr	10:48	3A081	ZUI	Arrival	12.3	-	-
17-Apr	11:09	8S121	XZM	Departure	12.9	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
17-Apr	11:15	3A063	YFT	Arrival	11.2	-	-
17-Apr	12:17	3A168	YFT	Departure	11.1	-	-
17-Apr	12:19	3A181	ZUI	Departure	13.2	-	-
17-Apr	12:51	8S215	XZM	Arrival	12.3	-	-
17-Apr	12:55	3A064	YFT	Arrival	12.1	-	-
17-Apr	13:28	8S123	XZM	Departure	12.4	-	-
17-Apr	13:49	3A082	ZUI	Arrival	12.3	-	-
17-Apr	14:16	3A164	YFT	Departure	12.4	-	-
17-Apr	14:17	3A182	ZUI	Departure	12.7	-	-
17-Apr	14:59	3A065	YFT	Arrival	11.7	-	-
17-Apr	16:20	3A167	YFT	Departure	10.9	-	-
17-Apr	16:43	8S218	XZM	Arrival	11.7	-	-
17-Apr	16:44	3A083	ZUI	Arrival	12.7	-	-
17-Apr	16:59	3A067	YFT	Arrival	11.6	-	-
17-Apr	17:10	3A183	ZUI	Departure	12.4	-	-
17-Apr	17:14	8S126	XZM	Departure	12.4	-	-
17-Apr	19:11	3A166	YFT	Departure	13.2	-	-
17-Apr	19:49	3A084	ZUI	Arrival	11.8	-	-
17-Apr	20:11	3A185	ZUI	Departure	12.3	-	-
17-Apr	20:49	8S2113	XZM	Arrival	12.3	-	-
17-Apr	21:07	3A169	YFT	Departure	12.6	-	-
18-Apr	08:13	3A061	YFT	Arrival	11.7	-	-
18-Apr	08:20	8S210	XZM	Arrival	12	-	-
18-Apr	10:01	3A062	YFT	Arrival	12.2	-	-
18-Apr	10:14	3A163	YFT	Departure	12.5	-	-
18-Apr	10:38	8S212	XZM	Arrival	12	-	-
18-Apr	10:47	3A081	ZUI	Arrival	12.1	-	-
18-Apr	11:06	8S121	XZM	Departure	12	-	-
18-Apr	11:16	3A063	YFT	Arrival	12.9	-	-
18-Apr	12:24	3A168	YFT	Departure	13.3	-	-
18-Apr	12:25	3A181	ZUI	Departure	12.9	-	-
18-Apr	12:44	8S215	XZM	Arrival	11.5	-	-
18-Apr	12:55	3A064	YFT	Arrival	12.2	-	-
18-Apr	13:20	8S123	XZM	Departure	11.2	-	-
18-Apr	13:59	3A082	ZUI	Arrival	12	-	-
18-Apr	14:14	3A164	YFT	Departure	12.4	-	-
18-Apr	14:19	3A182	ZUI	Departure	11.5	-	-
18-Apr	14:54	3A065	YFT	Arrival	13.1	-	-
18-Apr	16:16	3A167	YFT	Departure	13.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
18-Apr	16:37	8S218	XZM	Arrival	11.4	-	-
18-Apr	16:44	3A083	ZUI	Arrival	12.5	-	-
18-Apr	17:05	3A183	ZUI	Departure	12.2	-	-
18-Apr	17:06	8S126	XZM	Departure	12.3	-	-
18-Apr	17:12	3A067	YFT	Arrival	12	-	-
18-Apr	19:03	3A166	YFT	Departure	11	-	-
18-Apr	19:55	3A084	ZUI	Arrival	11.1	-	-
18-Apr	20:12	3A185	ZUI	Departure	12.6	-	-
18-Apr	20:54	8S2113	XZM	Arrival	12.8	-	-
18-Apr	21:00	3A169	YFT	Departure	12.1	-	-
19-Apr	08:17	3A061	YFT	Arrival	12.4	-	-
19-Apr	08:24	8S210	XZM	Arrival	11.3	-	-
19-Apr	10:01	3A062	YFT	Arrival	11.2	-	-
19-Apr	10:21	3A163	YFT	Departure	11.4	-	-
19-Apr	10:35	8S212	XZM	Arrival	11.6	-	-
19-Apr	10:45	3A081	ZUI	Arrival	12.1	-	-
19-Apr	11:01	8S121	XZM	Departure	11.6	-	-
19-Apr	11:19	3A063	YFT	Arrival	12.6	-	-
19-Apr	12:18	3A168	YFT	Departure	13.5	-	-
19-Apr	12:18	3A181	ZUI	Departure	12.5	-	-
19-Apr	12:49	8S215	XZM	Arrival	13.3	-	-
19-Apr	13:00	3A064	YFT	Arrival	12.2	-	-
19-Apr	13:17	8S123	XZM	Departure	13	-	-
19-Apr	13:53	3A082	ZUI	Arrival	13.3	-	-
19-Apr	14:11	3A182	ZUI	Departure	12.8	-	-
19-Apr	14:20	3A164	YFT	Departure	12.1	-	-
19-Apr	14:57	3A065	YFT	Arrival	12.7	-	-
19-Apr	16:26	3A167	YFT	Departure	12.9	-	-
19-Apr	16:50	3A083	ZUI	Arrival	12.4	-	-
19-Apr	16:51	8S218	XZM	Arrival	13.4	-	-
19-Apr	17:04	3A067	YFT	Arrival	11.6	-	-
19-Apr	17:10	3A183	ZUI	Departure	12	-	-
19-Apr	17:14	8S126	XZM	Departure	12.6	-	-
19-Apr	18:59	3A166	YFT	Departure	12.5	-	-
19-Apr	19:51	3A084	ZUI	Arrival	12.5	-	-
19-Apr	20:08	3A185	ZUI	Departure	13	-	-
19-Apr	21:14	8S2113	XZM	Arrival	10.9	-	-
19-Apr	21:15	3A169	YFT	Departure	12	-	-
20-Apr	08:12	3A061	YFT	Arrival	12.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
20-Apr	08:19	8S210	XZM	Arrival	12.5	-	-
20-Apr	09:57	3A062	YFT	Arrival	13.4	-	-
20-Apr	10:14	3A163	YFT	Departure	13.7	-	-
20-Apr	10:39	8S212	XZM	Arrival	12.1	-	-
20-Apr	10:46	3A081	ZUI	Arrival	12.2	-	-
20-Apr	10:58	8S121	XZM	Departure	12.1	-	-
20-Apr	11:16	3A063	YFT	Arrival	11.8	-	-
20-Apr	12:19	3A181	ZUI	Departure	12.4	-	-
20-Apr	12:20	3A168	YFT	Departure	12.3	-	-
20-Apr	12:52	3A064	YFT	Arrival	13.3	-	-
20-Apr	13:00	8S215	XZM	Arrival	12	-	-
20-Apr	13:23	8S123	XZM	Departure	12	-	-
20-Apr	14:01	3A082	ZUI	Arrival	13	-	-
20-Apr	14:28	3A164	YFT	Departure	13.7	-	-
20-Apr	14:29	3A182	ZUI	Departure	12.3	-	-
20-Apr	15:01	3A065	YFT	Arrival	12	-	-
20-Apr	16:17	3A167	YFT	Departure	11.7	-	-
20-Apr	16:42	3A083	ZUI	Arrival	12.2	-	-
20-Apr	16:45	8S218	XZM	Arrival	11.1	-	-
20-Apr	16:55	3A067	YFT	Arrival	12.8	-	-
20-Apr	17:04	8S126	XZM	Departure	12.4	-	-
20-Apr	17:16	3A183	ZUI	Departure	12.3	-	-
20-Apr	19:06	3A166	YFT	Departure	13	-	-
20-Apr	20:00	3A084	ZUI	Arrival	12.1	-	-
20-Apr	20:14	3A185	ZUI	Departure	12.5	-	-
20-Apr	21:00	8S2113	XZM	Arrival	11.7	-	-
20-Apr	21:11	3A169	YFT	Departure	12.7	-	-
21-Apr	08:14	3A061	YFT	Arrival	11.4	-	-
21-Apr	08:20	8S210	XZM	Arrival	11.6	-	-
21-Apr	09:53	3A062	YFT	Arrival	11.8	-	-
21-Apr	10:09	3A163	YFT	Departure	13.1	-	-
21-Apr	10:35	8S212	XZM	Arrival	12.2	-	-
21-Apr	10:49	3A081	ZUI	Arrival	10.6	-	-
21-Apr	11:08	8S121	XZM	Departure	12.2	-	-
21-Apr	11:21	3A063	YFT	Arrival	12.8	-	-
21-Apr	12:19	3A168	YFT	Departure	12.4	-	-
21-Apr	12:20	3A181	ZUI	Departure	12.7	-	-
21-Apr	12:51	3A064	YFT	Arrival	12.5	-	-
21-Apr	12:56	8S215	XZM	Arrival	10.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
21-Apr	13:22	8S123	XZM	Departure	13.3	-	-
21-Apr	13:46	3A082	ZUI	Arrival	12.4	-	-
21-Apr	14:13	3A164	YFT	Departure	12.2	-	-
21-Apr	14:15	3A182	ZUI	Departure	12	-	-
21-Apr	14:59	3A065	YFT	Arrival	13.2	-	-
21-Apr	16:13	3A167	YFT	Departure	13.5	-	-
21-Apr	16:43	8S218	XZM	Arrival	10.9	-	-
21-Apr	16:53	3A083	ZUI	Arrival	12.1	-	-
21-Apr	16:55	3A067	YFT	Arrival	12.7	-	-
21-Apr	17:08	8S126	XZM	Departure	12.4	-	-
21-Apr	17:10	3A183	ZUI	Departure	13.1	-	-
21-Apr	18:56	3A166	YFT	Departure	12.4	-	-
21-Apr	19:49	3A084	ZUI	Arrival	13.3	-	-
21-Apr	20:07	3A185	ZUI	Departure	12.7	-	-
21-Apr	20:55	8S2113	XZM	Arrival	12.3	-	-
21-Apr	20:58	3A169	YFT	Departure	11.5	-	-
21-Apr	22:07	8S522	XZM	Departure	13.2	-	-
22-Apr	08:18	3A061	YFT	Arrival	12	-	-
22-Apr	08:22	8S210	XZM	Arrival	12.1	-	-
22-Apr	10:00	3A062	YFT	Arrival	12.9	-	-
22-Apr	10:14	3A163	YFT	Departure	13.3	-	-
22-Apr	10:34	8S212	XZM	Arrival	12.9	-	-
22-Apr	10:53	3A081	ZUI	Arrival	12.1	-	-
22-Apr	11:03	8S121	XZM	Departure	11.8	-	-
22-Apr	11:16	3A063	YFT	Arrival	11.1	-	-
22-Apr	12:21	3A168	YFT	Departure	11.3	-	-
22-Apr	12:22	3A181	ZUI	Departure	12.6	-	-
22-Apr	12:43	8S215	XZM	Arrival	13	-	-
22-Apr	12:58	3A064	YFT	Arrival	12.6	-	-
22-Apr	13:12	8S123	XZM	Departure	12.8	-	-
22-Apr	13:51	3A082	ZUI	Arrival	12.4	-	-
22-Apr	14:15	3A164	YFT	Departure	13.4	-	-
22-Apr	14:18	3A182	ZUI	Departure	12.3	-	-
22-Apr	14:57	3A065	YFT	Arrival	11.4	-	-
22-Apr	16:21	3A167	YFT	Departure	13.1	-	-
22-Apr	16:56	8S218	XZM	Arrival	13.2	-	-
22-Apr	16:58	3A083	ZUI	Arrival	11.4	-	-
22-Apr	17:00	3A067	YFT	Arrival	13	-	-
22-Apr	17:12	8S126	XZM	Departure	13.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
22-Apr	17:18	3A183	ZUI	Departure	11.3	-	-
22-Apr	18:59	3A166	YFT	Departure	12.5	-	-
22-Apr	19:58	3A084	ZUI	Arrival	12.5	-	-
22-Apr	20:15	3A185	ZUI	Departure	12.8	-	-
22-Apr	20:59	8S2113	XZM	Arrival	11.2	-	-
22-Apr	21:09	3A169	YFT	Departure	12.2	-	-
23-Apr	08:17	3A061	YFT	Arrival	12.3	-	-
23-Apr	08:22	8S210	XZM	Arrival	13	-	-
23-Apr	10:06	3A062	YFT	Arrival	13.2	-	-
23-Apr	10:21	3A163	YFT	Departure	13.2	-	-
23-Apr	10:38	8S212	XZM	Arrival	11.4	-	-
23-Apr	10:50	3A081	ZUI	Arrival	13.1	-	-
23-Apr	11:03	8S121	XZM	Departure	11.3	-	-
23-Apr	11:13	3A063	YFT	Arrival	11.8	-	-
23-Apr	12:20	3A168	YFT	Departure	11.9	-	-
23-Apr	12:22	3A181	ZUI	Departure	13	-	-
23-Apr	12:44	8S215	XZM	Arrival	12.3	-	-
23-Apr	12:56	3A064	YFT	Arrival	12.9	-	-
23-Apr	13:20	8S123	XZM	Departure	11.7	-	-
23-Apr	13:40	3A082	ZUI	Arrival	12.7	-	-
23-Apr	14:14	3A164	YFT	Departure	12.7	-	-
23-Apr	14:16	3A182	ZUI	Departure	12	-	-
23-Apr	14:54	3A065	YFT	Arrival	12.2	-	-
23-Apr	16:15	3A167	YFT	Departure	12.4	-	-
23-Apr	16:44	3A083	ZUI	Arrival	12.3	-	-
23-Apr	16:48	8S218	XZM	Arrival	11.6	-	-
23-Apr	16:58	3A067	YFT	Arrival	13	-	-
23-Apr	17:02	3A183	ZUI	Departure	12.6	-	-
23-Apr	17:11	8S126	XZM	Departure	11.8	-	-
23-Apr	19:13	3A166	YFT	Departure	13.2	-	-
23-Apr	19:46	3A084	ZUI	Arrival	12.3	-	-
23-Apr	20:11	3A185	ZUI	Departure	12.6	-	-
23-Apr	20:55	8S2113	XZM	Arrival	12.3	<= 5	< 1min
23-Apr	20:58	3A169	YFT	Departure	12.3	-	-
24-Apr	08:13	3A061	YFT	Arrival	10.9	-	-
24-Apr	08:18	8S210	XZM	Arrival	13.2	-	-
24-Apr	09:50	3A062	YFT	Arrival	11.7	-	-
24-Apr	10:20	3A163	YFT	Departure	11.6	-	-
24-Apr	10:45	3A081	ZUI	Arrival	13.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
24-Apr	10:48	8S212	XZM	Arrival	12.5	-	-
24-Apr	11:17	8S121	XZM	Departure	11.7	-	-
24-Apr	11:22	3A063	YFT	Arrival	12.1	<= 5	< 1min
24-Apr	12:18	3A168	YFT	Departure	12.4	-	-
24-Apr	12:22	3A181	ZUI	Departure	13.1	-	-
24-Apr	12:44	8S215	XZM	Arrival	12.9	-	-
24-Apr	12:57	3A064	YFT	Arrival	11.9	-	-
24-Apr	13:16	8S123	XZM	Departure	13	-	-
24-Apr	13:52	3A082	ZUI	Arrival	13.9	-	-
24-Apr	14:11	3A182	ZUI	Departure	12.5	-	-
24-Apr	14:13	3A164	YFT	Departure	12.3	-	-
24-Apr	14:55	3A065	YFT	Arrival	11.8	-	-
24-Apr	16:16	3A167	YFT	Departure	12	-	-
24-Apr	16:49	8S218	XZM	Arrival	13.2	-	-
24-Apr	16:49	3A083	ZUI	Arrival	13.1	-	-
24-Apr	16:54	3A067	YFT	Arrival	12	-	-
24-Apr	17:06	3A183	ZUI	Departure	12.5	-	-
24-Apr	17:08	8S126	XZM	Departure	13.2	-	-
24-Apr	19:00	3A166	YFT	Departure	11.9	-	-
24-Apr	19:56	3A084	ZUI	Arrival	12.9	-	-
24-Apr	20:22	3A185	ZUI	Departure	13	-	-
24-Apr	20:57	8S2113	XZM	Arrival	12.7	-	-
24-Apr	21:04	3A169	YFT	Departure	13.2	-	-
25-Apr	08:15	3A061	YFT	Arrival	12.6	-	-
25-Apr	08:20	8S210	XZM	Arrival	11.8	-	-
25-Apr	09:57	3A062	YFT	Arrival	13	-	-
25-Apr	10:25	3A163	YFT	Departure	13.2	-	-
25-Apr	10:32	8S212	XZM	Arrival	11.5	-	-
25-Apr	10:47	3A081	ZUI	Arrival	12.6	-	-
25-Apr	11:07	8S121	XZM	Departure	12.3	-	-
25-Apr	11:17	3A063	YFT	Arrival	13.4	-	-
25-Apr	12:23	3A168	YFT	Departure	13.1	-	-
25-Apr	12:27	3A181	ZUI	Departure	13.2	-	-
25-Apr	12:48	8S215	XZM	Arrival	11.8	<= 5	< 1min
25-Apr	12:59	3A064	YFT	Arrival	12.7	-	-
25-Apr	13:21	8S123	XZM	Departure	12.1	-	-
25-Apr	13:49	3A082	ZUI	Arrival	12.2	-	-
25-Apr	14:18	3A164	YFT	Departure	13.1	-	-
25-Apr	14:21	3A182	ZUI	Departure	12	<= 5	< 1min

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT - Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
25-Apr	14:55	3A065	YFT	Arrival	12.4	-	-
25-Apr	16:25	3A167	YFT	Departure	13.5	<= 5	< 2min
25-Apr	16:43	3A083	ZUI	Arrival	12.5	-	-
25-Apr	16:47	8S218	XZM	Arrival	10.7	-	-
25-Apr	16:56	3A067	YFT	Arrival	13.1	-	-
25-Apr	17:03	3A183	ZUI	Departure	12.8	-	-
25-Apr	17:05	8S126	XZM	Departure	11.7	-	-
25-Apr	19:00	3A166	YFT	Departure	13.1	-	-
25-Apr	19:49	3A084	ZUI	Arrival	13.2	-	-
25-Apr	20:07	3A185	ZUI	Departure	13.2	-	-
25-Apr	20:57	8S2113	XZM	Arrival	11.1	-	-
25-Apr	21:08	3A169	YFT	Departure	13.7	-	-
26-Apr	08:16	8S210	XZM	Arrival	13.3	-	-
26-Apr	08:26	3A061	YFT	Arrival	11.4	-	-
26-Apr	09:55	3A062	YFT	Arrival	12.2	-	-
26-Apr	10:16	3A163	YFT	Departure	11.8	-	-
26-Apr	10:32	8S212	XZM	Arrival	12.5	-	-
26-Apr	10:47	3A081	ZUI	Arrival	12.4	-	-
26-Apr	11:07	8S121	XZM	Departure	12.5	-	-
26-Apr	11:12	3A063	YFT	Arrival	12.1	-	-
26-Apr	12:20	3A168	YFT	Departure	13.1	-	-
26-Apr	12:24	3A181	ZUI	Departure	12.7	-	-
26-Apr	12:46	8S215	XZM	Arrival	11.1	-	-
26-Apr	12:56	3A064	YFT	Arrival	12.5	-	-
26-Apr	13:15	8S123	XZM	Departure	11.9	-	-
26-Apr	14:04	3A082	ZUI	Arrival	11.8	-	-
26-Apr	14:12	3A164	YFT	Departure	13.1	-	-
26-Apr	14:39	3A182	ZUI	Departure	13.2	-	-
26-Apr	14:51	3A065	YFT	Arrival	12.2	-	-
26-Apr	16:22	3A167	YFT	Departure	13	-	-
26-Apr	16:43	8S218	XZM	Arrival	11.3	-	-
26-Apr	16:47	3A083	ZUI	Arrival	11.9	-	-
26-Apr	16:57	3A067	YFT	Arrival	11.8	-	-
26-Apr	17:07	8S126	XZM	Departure	12	-	-
26-Apr	17:09	3A183	ZUI	Departure	12.6	-	-
26-Apr	19:10	3A166	YFT	Departure	12.9	-	-
26-Apr	19:48	3A084	ZUI	Arrival	11.7	-	-
26-Apr	20:13	3A185	ZUI	Departure	12.6	-	-
26-Apr	20:55	8S2113	XZM	Arrival	11.7	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
26-Apr	21:10	3A169	YFT	Departure	12.6	-	-
27-Apr	08:15	3A061	YFT	Arrival	12	-	-
27-Apr	08:20	8S210	XZM	Arrival	12.1	-	-
27-Apr	09:58	3A062	YFT	Arrival	11.6	-	-
27-Apr	10:20	3A163	YFT	Departure	11.1	-	-
27-Apr	10:44	8S212	XZM	Arrival	12	-	-
27-Apr	10:53	3A081	ZUI	Arrival	12.2	-	-
27-Apr	11:03	8S121	XZM	Departure	11.8	-	-
27-Apr	11:14	3A063	YFT	Arrival	11.9	-	-
27-Apr	12:18	3A168	YFT	Departure	11.7	-	-
27-Apr	12:23	3A181	ZUI	Departure	12	-	-
27-Apr	12:44	8S215	XZM	Arrival	12.9	-	-
27-Apr	12:52	3A064	YFT	Arrival	11.9	-	-
27-Apr	13:15	8S123	XZM	Departure	12.9	-	-
27-Apr	13:52	3A082	ZUI	Arrival	13.3	-	-
27-Apr	14:09	3A182	ZUI	Departure	13	-	-
27-Apr	14:20	3A164	YFT	Departure	10.8	-	-
27-Apr	15:00	3A065	YFT	Arrival	11.7	-	-
27-Apr	16:14	3A167	YFT	Departure	12.2	-	-
27-Apr	16:42	8S218	XZM	Arrival	12.6	-	-
27-Apr	16:44	3A083	ZUI	Arrival	12.4	-	-
27-Apr	16:55	3A067	YFT	Arrival	11.1	-	-
27-Apr	17:10	8S126	XZM	Departure	12.4	-	-
27-Apr	17:19	3A183	ZUI	Departure	13.4	-	-
27-Apr	18:59	3A166	YFT	Departure	12.3	-	-
27-Apr	19:51	3A084	ZUI	Arrival	12.2	-	-
27-Apr	20:12	3A185	ZUI	Departure	13.1	-	-
27-Apr	20:46	8S2113	XZM	Arrival	12.4	-	-
27-Apr	20:58	3A169	YFT	Departure	11.7	-	-
28-Apr	08:13	8S210	XZM	Arrival	13	-	-
28-Apr	08:23	3A061	YFT	Arrival	12.2	-	-
28-Apr	10:03	3A062	YFT	Arrival	12.9	-	-
28-Apr	10:17	3A163	YFT	Departure	12.8	-	-
28-Apr	10:42	8S212	XZM	Arrival	12.3	-	-
28-Apr	10:49	3A081	ZUI	Arrival	12.4	-	-
28-Apr	11:15	8S121	XZM	Departure	12.7	-	-
28-Apr	11:19	3A063	YFT	Arrival	13	-	-
28-Apr	12:13	3A168	YFT	Departure	13.3	-	-
28-Apr	12:16	3A181	ZUI	Departure	12.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
28-Apr	12:39	8S215	XZM	Arrival	11.1	-	-
28-Apr	12:53	3A064	YFT	Arrival	13	-	-
28-Apr	13:18	8S123	XZM	Departure	12.1	-	-
28-Apr	13:48	3A082	ZUI	Arrival	11.7	-	-
28-Apr	14:21	3A182	ZUI	Departure	12.7	-	-
28-Apr	14:23	3A164	YFT	Departure	12.9	-	-
28-Apr	14:53	3A065	YFT	Arrival	12.8	-	-
28-Apr	16:18	3A167	YFT	Departure	13.3	-	-
28-Apr	16:49	8S218	XZM	Arrival	11.3	-	-
28-Apr	16:56	3A067	YFT	Arrival	12	-	-
28-Apr	16:59	3A083	ZUI	Arrival	11.9	-	-
28-Apr	17:12	8S126	XZM	Departure	12.4	-	-
28-Apr	17:14	3A183	ZUI	Departure	12.7	-	-
28-Apr	19:03	3A166	YFT	Departure	12.2	-	-
28-Apr	19:49	3A084	ZUI	Arrival	12.1	-	-
28-Apr	20:06	3A185	ZUI	Departure	13	-	-
28-Apr	20:53	8S2113	XZM	Arrival	12.5	-	-
28-Apr	21:08	3A169	YFT	Departure	12.3	-	-
29-Apr	08:11	3A061	YFT	Arrival	11.4	-	-
29-Apr	08:21	8S210	XZM	Arrival	11.8	-	-
29-Apr	09:59	3A062	YFT	Arrival	12.9	-	-
29-Apr	10:20	3A163	YFT	Departure	13.4	-	-
29-Apr	10:38	8S212	XZM	Arrival	12.8	-	-
29-Apr	10:45	3A081	ZUI	Arrival	12.7	-	-
29-Apr	11:01	8S121	XZM	Departure	12.6	-	-
29-Apr	11:14	3A063	YFT	Arrival	11.6	-	-
29-Apr	12:10	3A168	YFT	Departure	11.7	-	-
29-Apr	12:21	3A181	ZUI	Departure	13	-	-
29-Apr	12:49	8S215	XZM	Arrival	11.7	-	-
29-Apr	12:56	3A064	YFT	Arrival	13.1	-	-
29-Apr	13:13	8S123	XZM	Departure	11.5	-	-
29-Apr	13:50	3A082	ZUI	Arrival	12.3	-	-
29-Apr	14:15	3A164	YFT	Departure	13.4	-	-
29-Apr	14:20	3A182	ZUI	Departure	12.5	-	-
29-Apr	14:57	3A065	YFT	Arrival	12.1	-	-
29-Apr	16:17	3A167	YFT	Departure	12	-	-
29-Apr	16:51	3A083	ZUI	Arrival	12.5	-	-
29-Apr	16:55	8S218	XZM	Arrival	10.3	-	-
29-Apr	17:03	3A067	YFT	Arrival	12.9	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM Macao (Maritime Ferry Terminal) YFT — Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
29-Apr	17:04	3A183	ZUI	Departure	12.7	-	-
29-Apr	17:12	8S126	XZM	Departure	11.8	-	-
29-Apr	19:06	3A166	YFT	Departure	11.9	-	-
29-Apr	19:48	3A084	ZUI	Arrival	12.4	-	-
29-Apr	20:06	3A185	ZUI	Departure	12.7	-	-
29-Apr	20:56	8S2113	XZM	Arrival	11.9	-	-
29-Apr	20:59	3A169	YFT	Departure	12	-	-
29-Apr	22:01	8S522	XZM	Departure	12	-	-
30-Apr	08:15	3A061	YFT	Arrival	12.2	-	-
30-Apr	08:21	8S210	XZM	Arrival	10.7	-	-
30-Apr	09:44	3A062	YFT	Arrival	12	-	-
30-Apr	10:16	3A163	YFT	Departure	12.1	-	-
30-Apr	10:33	8S212	XZM	Arrival	11.8	-	-
30-Apr	10:50	3A081	ZUI	Arrival	11.7	-	-
30-Apr	11:00	8S121	XZM	Departure	12.9	-	-
30-Apr	11:17	3A063	YFT	Arrival	12.1	-	-
30-Apr	12:17	3A181	ZUI	Departure	13.3	-	-
30-Apr	12:19	3A168	YFT	Departure	12.3	-	-
30-Apr	12:44	8S215	XZM	Arrival	13.4	-	-
30-Apr	12:55	3A064	YFT	Arrival	12.7	-	-
30-Apr	13:16	8S123	XZM	Departure	13.1	-	-
30-Apr	13:40	3A082	ZUI	Arrival	12.7	-	-
30-Apr	14:18	3A164	YFT	Departure	12.3	-	-
30-Apr	14:21	3A182	ZUI	Departure	11.1	-	-
30-Apr	15:00	3A065	YFT	Arrival	12.1	-	-
30-Apr	16:23	3A167	YFT	Departure	12.2	-	-
30-Apr	16:52	8S218	XZM	Arrival	12.8	-	-
30-Apr	16:56	3A083	ZUI	Arrival	12.7	-	-
30-Apr	16:58	3A067	YFT	Arrival	11.5	-	-
30-Apr	17:11	8S126	XZM	Departure	12.6	-	-
30-Apr	17:13	3A183	ZUI	Departure	11.9	-	-
30-Apr	19:06	3A166	YFT	Departure	12.6	-	-
30-Apr	19:49	3A084	ZUI	Arrival	12	-	-
30-Apr	20:13	3A185	ZUI	Departure	13.1	-	-
30-Apr	20:53	8S2113	XZM	Arrival	13.2	-	-
30-Apr	20:58	3A169	YFT	Departure	12.8	-	-
30-Apr	21:59	8S522	XZM	Departure	13.1	-	-

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in April 2018, instantaneous speeding (i.e. a sudden change in speed at over 15 knots for a short period of time) within the SCZ was recorded from 9 HSF movements of which the durations of all instantaneous speeding cases were less than two minutes. The AIS data and ferry operators' responses showed the cases were due to local strong water currents. The captains had reduced speed and maintained the speed at less than 15 knots after the incidents.

Two HSFs with no transmission of AIS data and Four HSFs with insufficient transmission of AIS data were received in April 2018. Vessel captains were requested to provide the AIS plots to indicate the vessel entered the SCZ though the gate access points with no speeding in the SCZ.