

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

Construction Phase Monthly EM&A Report No.52 (For April 2020)

May 2020

Airport Authority Hong Kong

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This Monthly EM&A Report No. 52 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 2020



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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 2020

Dear Sir,

Contract No. 3102 3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 52 (April 2020)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 52 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 May 2020.

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 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 Boun Crossing Facilities			
HKIA	Hong Kong International Airport		
HOKLAS	Hong Kong Laboratory Accreditation Scheme		
HSF	High Speed Ferry		
HVS	High Volume Sampler		
IEC	Independent Environmental Checker		
LKC	Lung Kwu Chau		
MTCC	Marine Traffic Control Centre		
MMHK	Mott MacDonald Hong Kong Limited		
MMWP	Marine Mammal Watching Plan		
MSS	Maritime Surveillance System		
MTRMP-CAV Marine Travel Routes and Management Plan for			
	and Associated Vessel		
NEL	Northeast Lantau		
NWL	Northwest Lantau		
PAM	Passive Acoustic Monitoring		
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 52nd Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 April 2020.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included deep cement mixing (DCM) works, marine filling, seawall and facilities construction, together with runway and associated works. Land-based works on Existing Airport Island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, piling, and excavation works.

EM&A Activities Conducted in the Reporting Period

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

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	20
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

Environmental auditing works, including weekly site inspections 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 Maritime Surveillance System (MSS), and contractors' site records, it is noted that environmental pollution control and mitigation measures were properly implemented and construction activities of the Project in the reporting period did not introduce adverse impacts to the sensitive receivers.

Snapshots of EM&A Activities in the Reporting Period



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



Dust Suppression Measure conducted by Contractor



Impact Noise Monitoring conducted by ET in Sha Lo Wan

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, water quality, construction waste, and CWD did not trigger the corresponding Action and Limit Levels in the reporting period.

Summary of Upcoming Key Issues

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

Stockpiling of construction materials

Reclamation Works:

Contract 3205 DCM works

DCM works

Contract 3206 Main Reclamation Works

- Land-based ground improvement works;
- Seawall construction;
- Marine filling; and
- Sorting and reuse of inert waste from other 3RS contracts.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works;
- Subgrade compaction and paving works; and
- Drainage construction works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation works;
- Backfilling and reinstatement works;
- Piling and structure works; and

Site establishment.

Contract 3303 Third Runway and Associated Works

- Plant and equipment mobilisation;
- Footing and utilities work;
- Preparation works for box culvert construction; and
- Site establishment.

Third Runway Concourse:

Contract 3402 New Integrated Airport Centres Enabling Works

- Potable water and seawater works;
- Footing construction;
- Road works; and
- Sewerage and pipe works.

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Site establishment: and
- Foundation works.

Contract 3405 Three Runway Concourse Foundation and Substructure Works

Site establishment.

Terminal 2 Expansion:

Contract 3501 Antenna Farm and Sewage Pumping Station

Site clearance.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Excavation works
- Utilities, drainage, and road work; and
- Piling and structure works.

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

Contract 3601 New Automated People Mover System (TRC Line)

Construction of site office.

Contract 3602 Existing APM System Modification Works

Modification works at APM depot.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Site clearance and establishment;
- Excavation for utilities works; and
- Construction of utilities and logistic facilities.

Contract 3722 Construction Support Facilities

- Formboard erecting and concreting; and
- Site Establishment.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Construction of temporary traffic steel deck;
- Cofferdam installation for box culvert;
- Rising main installation;
- Drilling and grouting works;
- Piling and foundation works; and
- Site clearance.

Construction Support (Services / Licences):

Contract 3901B Concrete Batching Facility

- Footing construction; and
- Erection of steelwork.

Summary Table

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

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level [^]		V	No breach of Limit Level was recorded.	Nil
Breach of Action Level^		\checkmark	No breach of Action Level was recorded.	Nil
Complaint Received		√	No construction activities - related complaint was received	Nil
Notification of any summons and status of prosecutions		1	No notification of summons 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 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. 51.

1.2 Scope of this Report

This is the 52nd Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 30 April 2020.

1.3 Project Organisation

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

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	Daniel Sum	2585 8495
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141

Advanced Works:

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

Reclamation Works:

Party	Position	Name	Telephone
Contract 3205 DCM	Deputy Project Director	Min Park	9683 0765
(Package 5) (Bachy Soletanche - Sambo Joint Venture)	Environmental Officer	William Chan	5408 3045
Contract 3206 Main Reclamation Works	Project Manager	Kim Chuan Lim	3763 1509
(ZHEC-CCCC-CDC Joint Venture)	Environmental Officer	Kwai Fung Wong	3763 1452

Airfield Works:

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway	Deputy Project Director	Kin Hang Chung	9800 0048
(FJT-CHEC-ZHEC Joint Venture)	Environmental Officer	Joe Wong	6182 0351
Contract 3302 Eastern Vehicular Tunnel Advance	Project Manager	Wan Cheung Lee	6100 6075
Works (China Road and Bridge Corporation)	Environmental Officer	Dennis Ho	5645 0563

Party	Position	Name	Telephone	
Contract 3303 Third Runway and Associated	Project Manager	Andrew Keung	6277 6628	
Works (SAPR Joint Venture)	Environmental Officer	Max Chin	6447 5707	

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Contract Manager	Michael Kan	9206 0550
	Environmental Officer	Lisa He	5374 3418
Contract 3403 New	Project Manager	Alice Leung	9220 3162
Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Environmental Officer	Alpha Chia	9626 1114
Contract 3405 Third Runway Concourse Foundation and	Project Manager	Francis Choi	9423 3469
Substructure Works (China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Environmental Officer	K M Lui	5113 8223

Terminal 2 (T2) Expansion:

Party	Position	Name	Telephone
Contract 3501 Antenna Farm and Sewage Pumping	Contracts Manager	Vincent Kwan	9833 1313
Station (Build King Construction Ltd.)	Environmental Officer	Edward Tam	9287 8270
Contract 3503 Terminal 2 Foundation and	Project Manager	Eric Wu	3973 1718
Substructure Works (Leighton – Chun Wo Joint Venture)	Environmental Officer	Malcolm Leung	3973 0850

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

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line)	Project Manager	Hongdan Wei	158 6180 9450
(CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Environmental Officer	KFLi	9086 1793
Contract 3602 Existing APM System Modification Works	Project Manager	Kunihiro Tatecho	9755 0351
(Niigata Transys Co., Ltd.)	Environmental Officer	Yolanda Gao	5399 3509
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Eric Ha	9215 3432

Construction Support (Facilities):

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works	Site Agent	Thomas Lui	9011 5340
(China State Construction Engineering (Hong Kong) Ltd.)	Environmental Officer	Xavier Lam	9493 2944
Contract 3722 Western Support Area – Construction Support	Deputy Project Director	Philip Kong	9049 3161
Facilities (Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture)	Environmental Officer	Sampson Lo	9752 9118

Airport Support Infrastructure:

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

Construction Support (Services / Licences):

Party	Position	Name	Telephone
Contract 3901B Concrete Batching Facility (Gammon Construction Limited)	Senior Project Manager	Gabriel Chan	2435 3260
	Environmental Officer	Rex Wong	2695 6319

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included DCM works, marine filling, seawall and facilities construction, together with runway and associated works. Land-based works on Existing Airport Island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for APM and BHS systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

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

1.5 Summary of EM&A Programme Requirements

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

<u> </u>	
Parameters	Status
Air Quality	
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 jetting and field joint works	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	On-going
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	On-going
Waste Management	
Waste Monitoring	On-going
Land Contamination	
Supplementary Contamination Assessment Plan (CAP)	The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.
Contamination Assessment Report (CAR) for Terminal 2 Emergency Power Supply System No.1 (Volumes 1 and 2)	The CAR for Terminal 2 Emergency Power Supply System No.1 (Volumes 1 and 2) was submitted to EPD.
Terrestrial Ecology	
Pre-construction Egretry Survey Plan	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
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	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
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	
Landscape & Visual Plan	The Landscape & Visual Plan was submitted to EPD under EP Condition 2.18
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.

Parameters	Status
Impact Monitoring	On-going
Environmental Auditing	
Regular site inspection	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	On-going
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	On-going

Taking into account the construction works in this reporting period, impact monitoring of air quality, noise, water quality, waste management, landscape & visual, 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 summarised as below:

- Three skipper training sessions provided by ET: 1, 15 and 29 April 2020;
- Two dolphin observer training sessions provided by ET: 14 and 20 April 2020;
- One environmental briefing on EP and EM&A requirements of the 3RS Project provided by ET;
- Fourteen environmental management meetings for EM&A review with works contracts: 1, 3, 9, 15, 21, 22, 23, 24, 27, 28 and 29 April 2020.

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-2 (Serial No. 296098)	24 Oct 2019	Monthly EM&A Report No. 46, Appendix E

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

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

- a. The portable direct reading dust meter was mounted on a tripod at a height of 1.2m above the ground.
- b. Prior to the measurement, the equipment was set up for 1 minute span check and 6 second background check.

- c. The one hour dust measurement was started. Site conditions and dust sources at the nearby area were recorded on a record sheet.
- d. When the measurement completed, the "Count" reading per hour was recorded for result calculation.

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix E of the Construction Phase Monthly EM&A Report No. 46, and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are valid in the reporting period.

2.4 Summary of Monitoring Results

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

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

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
AR1A	5 - 32	306	500
AR2	4 - 22	298	_

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

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

2.5 Conclusion

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

3 Noise Monitoring

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

Table 3.1: Locations of Impact Noise Monitoring Stations

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

Note:

- (1) As described in Section 4.3.3 of the Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.
- (2) According to Section 4.3.3 of the Manual, the noise monitoring at NM3A was temporarily suspended starting from 1 September 2018 and would be resumed with the completion of the Tung Chung East Development.

3.1 Action and Limit Levels

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

Table 3.2: Action and Limit Levels for Noise Monitoring

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

Note:

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

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 01287679)	21 Sep 2019 Monthly EM&A Report No Appendix D	
	Rion NL-52 (Serial No. 00998505)	24 Mar 2020	Appendix D
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	21 Sep 2019	Monthly EM&A Report No. 45, Appendix D
	Castle GA607 (Serial No. 040162)	14 Jul 2019	Monthly EM&A Report No. 43, Appendix D

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

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

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

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

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

3.4 Summary of Monitoring Results

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

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)	
	Leq (30mins)	Leq (30mins)	
NM1A ⁽¹⁾	67 - 71	75	
NM4 ⁽¹⁾	61 - 64	70 ⁽²⁾	
NM5 ⁽¹⁾	55 - 58	75	
NM6 ⁽¹⁾	62 - 68	75	

Notes:

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

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

3.5 Conclusion

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

4 Water Quality Monitoring

Water quality monitoring of DO, pH, temperature, salinity, turbidity, suspended solids (SS), total alkalinity, chromium, and nickel was conducted three days per week, at mid-ebb and mid-flood tides, at a total of 23 water quality monitoring stations, comprising 12 impact (IM) stations, 8 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. 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 4.1** shows the locations of the monitoring stations.

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

Monitoring Station	Description		Coordinates	Parameters
		Easting	Northing	
C1	Control Station	804247	815620	General Parameters
C2	Control Station	806945	825682	DO, pH, Temperature,
C3 ⁽³⁾	Control Station	817803	822109	Salinity, Turbidity, SS
IM1	Impact Station	807132	817949	DCM Parameters
IM2	Impact Station	806166	818163	Total Alkalinity, Heavy
IM3	Impact Station	805594	818784	Metals ⁽²⁾
IM4	Impact Station	804607	819725	
IM5	Impact Station	804867	820735	
IM6	Impact Station	805828	821060	
IM7	Impact Station	806835	821349	
IM8	Impact Station	808140	821830	
IM9	Impact Station	808811	822094	
IM10	Impact Station	809794	822385	
IM11	Impact Station	811460	822057	
IM12	Impact Station	812046	821459	
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR2 ⁽³⁾	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
				<u>DCM Parameters</u> Total Alkalinity, Heavy Metals ⁽²⁾⁽⁴⁾
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
SR5A	San Tau Beach SSSI	810696	816593	
SR6A ⁽⁵⁾	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963	General Parameters
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	DO, pH, Temperature, Salinity, Turbidity, SS
SR8 ⁽⁶⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390	

Notes:

- (1) With the operation of HKBCF, water quality monitoring at SR1A station was commenced on 25 October 2018. To better reflect the water quality in the immediate vicinity of the intake, the monitoring location of SR1A has been shifted closer to the intake starting from 5 January 2019.
- (2) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (http://env.threerunwaysystem.com/en/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.
- (3) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.
- (4) Total alkalinity and heavy metals results are collected at SR2 as a control station for regular DCM monitoring.
- (5) As the access to SR6 was obstructed by the construction activities and temporary structures for Tung Chung New Town Extension, the monitoring location has been relocated to SR6A starting from 8 August 2019.
- (6) 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 above-mentioned 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 (A	L)	Limit Level (LL)
	Limit Levels for genera SR1A & SR8)	l water quality mor	nitoring and regula	r DCM monitorin	g
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle 4.5mg/l		Surface and Middle 4.1mg/l 5mg/l for Fish Culture Zone (SR7) only	
Monitoring		Bottom 3.4mg/l		Bottom 2.7mg/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 same day, whichever is higher	36.1	station at the same tide of the
Regular	Total Alkalinity in ppm	95		99	same day,
DCM Monitoring	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/l	0.2		0.2	whichever is higher
	Representative Heavy Metals for regular DCM monitoring (Nickel) in µg/l	3.2		3.6	
Action and	Limit Levels SR1A				
SS (mg/l))		33		42	
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, SR6A, SR8
Ebb Tide	
C1	SR4A, SR5A, SR6A
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 September 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	YSI 6920V2 (Serial No. 0001C6A7)	21 Apr 2020	Appendix D
(measurement of DO, pH, temperature, salinity and turbidity)	YSI 6920V2 (Serial No. 00019CB2)	21 Apr 2020	
	YSI ProDSS (Serial No. 17H105557)	11 Mar 2020	Monthly EM&A Report No. 51, Appendix E
	YSI ProDSS (Serial No. 16H104234)	11 Mar 2020	
	YSI ProDSS (Serial No. 17E100747)	11 Mar 2020	
	YSI ProDSS (Serial No. 18A104824)	11 Mar 2020	
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N60623)	5 Mar 2020	Monthly EM&A Report No. 51, Appendix E

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, alkalinity and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for heavy metals and SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen), delivered to the laboratory within 24 hours of collection.

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

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

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	2mg/l
Heavy Metals			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2μg/l
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2μg/l

4.4 Summary of Monitoring Results

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

The water quality monitoring results for all parameters (i.e. DO, total alkalinity, turbidity, SS, chromium, and nickel) obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix C**.

4.5 Conclusion

During the reporting period, all monitoring results were within the corresponding Action and Limit Levels. Nevertheless, as part of the EM&A programme, the construction methods and mitigation measures for water quality will continue to be monitored and opportunities for further enhancement will continue to be explored and implemented where possible, to strive for better protection of water quality and the marine environment.

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

5 Waste Management

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

5.1 Action and Limit Levels

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

Table 5.1: Action and Limit Levels for Construction Waste

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

5.2 Waste Management Status

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

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

Based on updated information provided by contractors, construction waste generated in the reporting period is summarised in **Table 5.2**. The stockpile of compressed materials of Contract P560 has been reused in 3RS reclamation works since March 2020.

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

Along with the design and construction progress, further development on the treatment level/details and the re-use mode for marine sediment generated from 3RS Project has been conducted according to the EIA recommendation.

Table 5.2: Construction Waste Statistics

	C&D ⁽¹⁾ Material Stockpiled for Reuse or Recycle (m ³)	Reused in	C&D Material Reused in other Projects (m³)	Transferred to	Waste	Chemical Waste (I)	General Refuse (tonne)
March 2020 ⁽²⁾⁽³⁾	5,861*	23,125	0	4,654	1,070	8,400	1,350

	C&D ⁽¹⁾ Material Stockpiled for Reuse or Recycle (m ³)		C&D Material Reused in other Projects (m³)	Transferred to	Chemical Waste (kg)	Chemical Waste (I)	General Refuse (tonne)
April 2020 ⁽²⁾⁽⁴⁾	2,809	14,720	0	2,700	0	4,800	998

Notes:

- (1) C&D refers to Construction and Demolition.
- (2) Metals, paper and/or plastics were recycled in the reporting period.
- (3) Updated figure for the previous month is reported and marked with an asterisk (*). Updated figures for earlier months will be reported in the forthcoming Annual EM&A Report.
- (4) The data was based on the information provided by contractors up to the submission date of this Monthly EM&A Report, and might be updated in the forthcoming Monthly EM&A Report.

6 Chinese White Dolphin Monitoring

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

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

6.1 Action and Limit Levels

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

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

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

Notes: (referring to the baseline monitoring report)

- (1) Action Level running quarterly STG & ANI will be calculated from the three preceding survey months.
- (2) Limit Level two consecutive running quarters mean both the running quarterly encounter rates of the preceding month and the running quarterly encounter rates of this month.
- (3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

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

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

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

Waypoint	Easting	Northing	Waypoint	Easting	Northing
7.		NE			
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	8S	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	9S	812516	821356
4N	807518	829230	9N	812516	824254
		A'	W		
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	W8	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			
		SV	VL		
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	7S	808553	800329
2N	803489	806720	7N	808553	807377
3S	804484	802509	8S	809547	800338
3N	804484	807048	8N	809547	807396
4S	805478	802105	9S	810542	800423
4N	805478	807556	9N	810542	807462

Waypoint	Easting	Northing	Waypoint	Easting	Northing
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, AW, WL and SWL areas as proposed in the Manual, which are consistent with the AFCD long-term monitoring programme (except AW). There are two types of transect lines:

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

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

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

During on-effort survey periods, the survey team recorded effort data including time, position (waypoints), weather conditions (Beaufort sea state and visibility) and distance travelled in each

series with assistance of a handheld GPS device. The GPS device also continuously and automatically logged data including time, position (latitude and longitude) and vessel speed throughout the entire survey.

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

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

6.3.2 Photo Identification

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

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

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

6.3.3 Land-based Theodolite Tracking Survey

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

Three surveyors (one theodolite operator, one computer operator, and one observer) were involved in each survey. Observers searched for dolphins using unaided eyes and handheld binoculars (7X50). Theodolite tracking sessions were initiated whenever an individual CWD or group of CWDs was located. Where possible, a distinguishable individual was selected, based on colouration, within the group. The focal individual was then continuously tracked via the theodolite, with a position recorded each time the dolphin surfaced. In case an individual could not be positively distinguished from other members, the group was tracked by recording positions based on a central point within the group whenever the CWD surfaced. Tracking continued until animals were lost from view; moved beyond the range of reliable visibility (>1-3km, depending on station height); or environmental conditions obstructed visibility (e.g., intense haze, Beaufort sea state >4, or sunset), at which time the research effort was terminated. In addition to the tracking

of CWD, all vessels that moved within 2-3km of the station were tracked, with effort made to obtain at least two positions for each vessel.

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

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 3, 7, 9, 15, 16, 17, 20 and 21 April 2020, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 455.28 km of survey effort was collected from these surveys and around 97.4% of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In April 2020, seven sightings with 30 dolphins were sighted. All these sightings are on-effort sightings under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in April 2020 is illustrated in **Figure 6.3**. All CWD sightings were recorded in WL, scattered from Tai O to Peaked Hill. One of the sightings was recorded within the newly designated Southwest Lantau Marine Park. No sightings of CWD were recorded in neither NEL, NWL, AW nor SWL survey areas.

Legend SIGHTING LOCATIONS OF CWD SHA CHAU AND LUNG KWU CHAU MARINE PARK THE BROTHERS MARINE PARK SOUTHWEST LANTAU MARINE PARK VESSEL SURVEY TRANSECTS **3RS LAND-FORMATION FOOTPRINT** 10 ⊐ Kilometers 3RS WORKS AREA

Figure 6.3: Sightings Distribution of Chinese White Dolphins

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

Encounter Rate

Two types of dolphin encounter rates were calculated based on the data from April 2020. 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 2020, a total of around 443.28 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of seven on-effort sightings with 30 dolphins were sighted under such condition. Calculation of the encounter rates in April 2020 are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from February 2020 to April 2020), a total of around 1270.97 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 30 on-effort sightings and a total number of 97 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 2020 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rate STG remains above the Action Level but the running quarterly encounter rate ANI is below the Action Level. Nevertheless, the overall Action Level is not triggered.

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

	Encounter Rate (STG)	Encounter Rate (ANI)
April 2020	1.58	6.77
Running Quarter from February 2020 to April 2020 ⁽¹⁾	2.36	7.63
Action Level	Running quarterly ⁽¹⁾ ST	ΓG < 1.86 & ANI < 9.35

Note: (1) Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, i.e. the data from February 2020 to April 2020, containing six sets of transect surveys for all monitoring areas. Action Level will be triggered if both STG and ANI fall below the criteria.

Group Size

In April 2020, seven groups with 30 dolphins were sighted, and the average group size of CWDs was 4.3 dolphins per group. Sightings with small group size (i.e. 1-2 dolphins) accounted for more than half of all sightings. One CWD sighting with large group size (i.e. 10 or more dolphins) was recorded.

Activities and Association with Fishing Boats

Three sightings of CWDs were recorded engaging in feeding activities in April 2020 and two of them were observed in association with operating purse seiner and pair trawler respectively.

Mother-calf Pair

In April 2020, no CWD sighing was recorded with the presence of mother-and-unspotted calf or mother-and-unspotted juvenile pair.

6.4.2 Photo Identification

In April 2020, a total number of 21 different CWD individuals were identified for totally 24 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individua ID	I Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM057	9-Apr-2020	1	WL	WLMM006	9-Apr-2020	6	WL
		3	WL	WLMM007	9-Apr-2020	6	WL
NLMM070	9-Apr-2020	3	WL	WLMM013	9-Apr-2020	6	WL
SLMM002	9-Apr-2020	6	WL	WLMM028	9-Apr-2020	6	WL
SLMM007	9-Apr-2020	6	WL	WLMM029	9-Apr-2020	6	WL
SLMM014	9-Apr-2020	6	WL	WLMM056	9-Apr-2020	1	WL
SLMM028	9-Apr-2020	6	WL	WLMM060	9-Apr-2020	1	WL
SLMM031	9-Apr-2020	6	WL	WLMM075	9-Apr-2020	1	WL
SLMM037	9-Apr-2020	1	WL			3	WL
SLMM045	9-Apr-2020	4	WL	WLMM114	9-Apr-2020	1	WL
SLMM050	9-Apr-2020	6	WL			2	WL
SLMM058	9-Apr-2020	6	WL	WLMM131	15-Apr-2020	1	WL

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 16 April 2020 and at SC on 9 April 2020, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. Four CWD groups were tracked at LKC station during the survey. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort and CWD groups tracked are presented in **Appendix D**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking surveys in April 2020 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	1	6:00	4	0.67
Sha Chau	1	6:00	0	0
TOTAL	2	12:00	4	0.33

Legend

CWD GROUP OFF LUNG KWU CHAU

Logend

CWD GROUP OFF LUNG KWU CHAU

LING KWU CHAU LAND-BASED STATION

SHA CHAU AND LUNG KWU CHAU

MARINE PARK

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

Remark: Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. In this reporting period, the Ecological Acoustic Recorder (EAR) was retrieved on 8 April 2020 and subsequently redeployed and positioned at south of Sha Chau Island inside the SCLKCMP with 20% duty cycle (**Figure 6.5**). The EAR deployment is generally for 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 specialised team of acousticians) involved manually browsing through spectrograms of every acoustic recording and logging the occurrence of dolphin signals. All potential dolphin detections 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 four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 2 to 5 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for DCM and seawall construction works 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 687 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. As for DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

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

6.7 Timing of Reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

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

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

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

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

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

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

Implementation of applicable landscape and visual mitigation measures (reference to the environmental protection measures CM1 – CM10 in **Appendix A**) was monitored regularly in accordance with the Manual. No non-conformity was recorded during the reporting period. Based on the latest Contractors' submitted records, a cumulative total of 231 and 8 trees were retained and transplanted. The Contractors' performance on existing trees maintenance and protection measures on retained and transplanted trees were regularly checked by the ET. In case of non-conformity, specific recommendations would be made, and actions will be carried out according to the Event and Action Plan.

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.

Due to the COVID-19 pandemic, all ferry service between HKIA SkyPier and Macau has been suspended from 4 February 2020 and all SkyPier HSF services have been suspended from 25 March 2020 until further notice. No ferry movements between HKIA SkyPier and Zhuhai and Macau was recorded in April 2020.

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 summarised in **Table 7.1**. There were no daily movements of all SkyPier HSFs in this reporting period. Status of compliance with the annual daily average of 99 movements will be further reviewed in the annual EM&A Report.

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

Requirements in the SkyPier Plan	1 to 30 April 2020
Total number of ferry movements recorded and audited	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap (including all SkyPier HSFs)	0 daily movement (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:

- Three 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.
- Eleven skipper training sessions were held by contractors' Environmental Officers.
 Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 11 skippers were trained by ET and 79 skippers were trained by contractors' Environmental Officers. In total, 1448 skippers were trained from August 2016 to April 2020.
- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.

- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly MTCC audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.4 Implementation of Dolphin Exclusion Zone

The DEZ Plan was submitted in accordance with EP Condition 3.1 (v) requirement and Section 10.3 of the Manual, and approved in April 2016 by EPD. The 24-hour DEZs with a 250m radius for marine works were established and implemented by the contractors for DCM works 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 dolphin sighting record and relevant records by the contractors to audit the implementation of DEZ.

7.5 Status of Submissions under Environmental Permits

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

Table 7.2: Status of Submissions under Environmental Permit

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

7.6 Compliance with Other Statutory Environmental Requirements

During the reporting period, environmental related licenses and permits required for the construction activities were checked. No non-compliance with environmental statutory

requirements was recorded. The environmental licenses and permits which are valid in the reporting period are presented in **Appendix E**.

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

7.7.1 Complaints

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

7.7.2 Notifications of Summons or Status of Prosecution

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

7.7.3 Cumulative Statistics

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

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

8.1 Construction Programme for the Coming Reporting Period

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

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

Stockpiling of construction materials

Reclamation Works:

Contract 3205 DCM works

DCM works

Contract 3206 Main Reclamation Works

- Land-based ground improvement works;
- Seawall construction;
- Marine filling; and
- Sorting and reuse of inert waste from other 3RS contracts.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works;
- Subgrade compaction and paving works; and
- Drainage construction works;

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation works;
- Backfilling and reinstatement works
- Piling and structure works; and
- Site establishment.

Contract 3303 Third Runway and Associated Works

- Plant and equipment mobilisation;
- Footing and utilities work;
- · Preparation works for box culvert construction; and
- Site establishment.

Third Runway Concourse:

Contract 3402 New Integrated Airport Centres Enabling Works

Potable water and seawater works;

- Footing construction;
- Road works; and
- Sewerage and pipe works.

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Site establishment; and
- Foundation works.

Contract 3405 Three Runway Concourse Foundation and Substructure Works

Site establishment.

Terminal 2 Expansion:

Contract 3501 Antenna Farm and Sewage Pumping Station

Site clearance.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Excavation works
- · Utilities, drainage, and road work; and
- Piling and structure works.

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

Contract 3601 New Automated People Mover System (TRC Line)

Construction of site office.

Contract 3602 Existing APM System Modification Works

Modification works at APM depot.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Site clearance and establishment;
- Excavation for utilities works; and
- Construction of utilities and logistic facilities.

Contract 3722 Construction Support Facilities

- Formboard erecting and concreting; and
- Site Establishment.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Construction of temporary traffic steel deck;
- Cofferdam installation for box culvert;
- Rising main installation;
- Drilling and grouting works;
- Piling and foundation works; and
- Site clearance.

Construction Support (Services / Licenses):

Contract 3901B Concrete Batching Facility

· Footing construction; and

Erection of steelwork.

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 DCM works and marine filling;
- DEZ monitoring for ground improvement works (DCM works) and seawall construction;
- Implementation of MMWP for silt curtain deployment;
- 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**.

8.4 Review of the Key Assumptions Adopted in the EIA Report

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

9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included DCM works, marine filling, seawall and facilities construction, together with runway and associated works. Land-based works on Existing Airport Island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for APM and BHS systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

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

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

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.

Due to the COVID-19 pandemic, all SkyPier HSF services have been suspended from 25 March 2020 until further notice. No HSF movements under the SkyPier Plan were recorded during the reporting period. Therefore, the daily movement of HSF is within the maximum daily cap of 125 daily movements in April 2020.

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

Figures

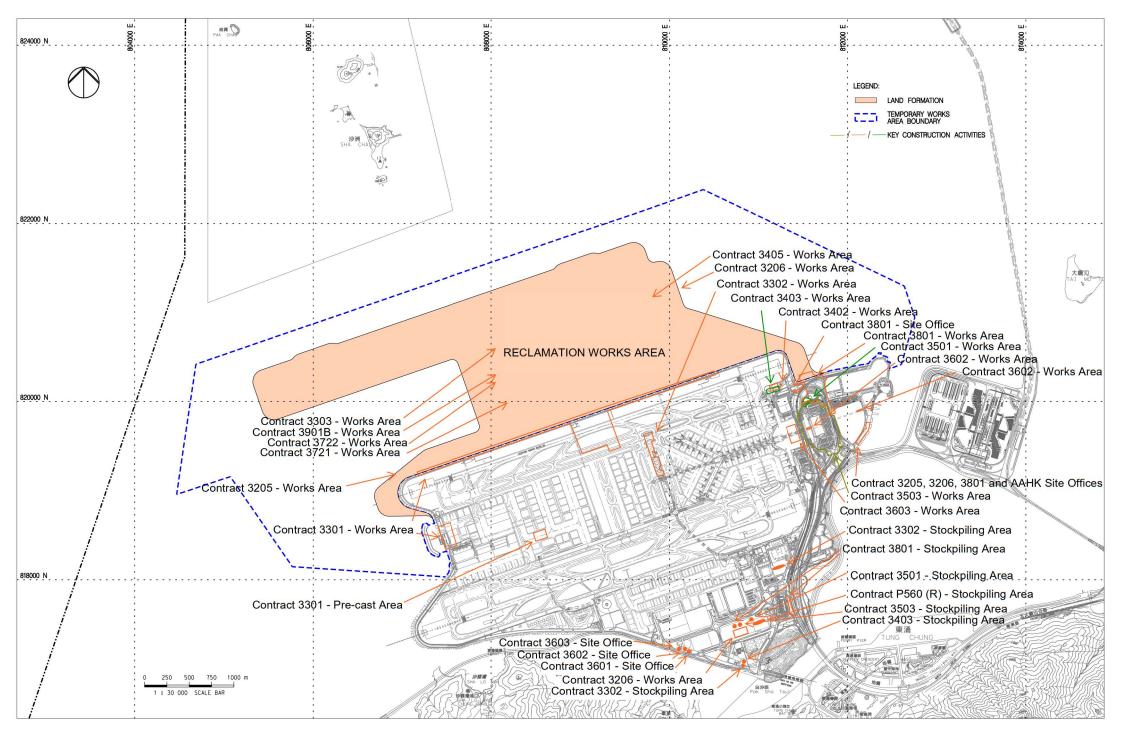
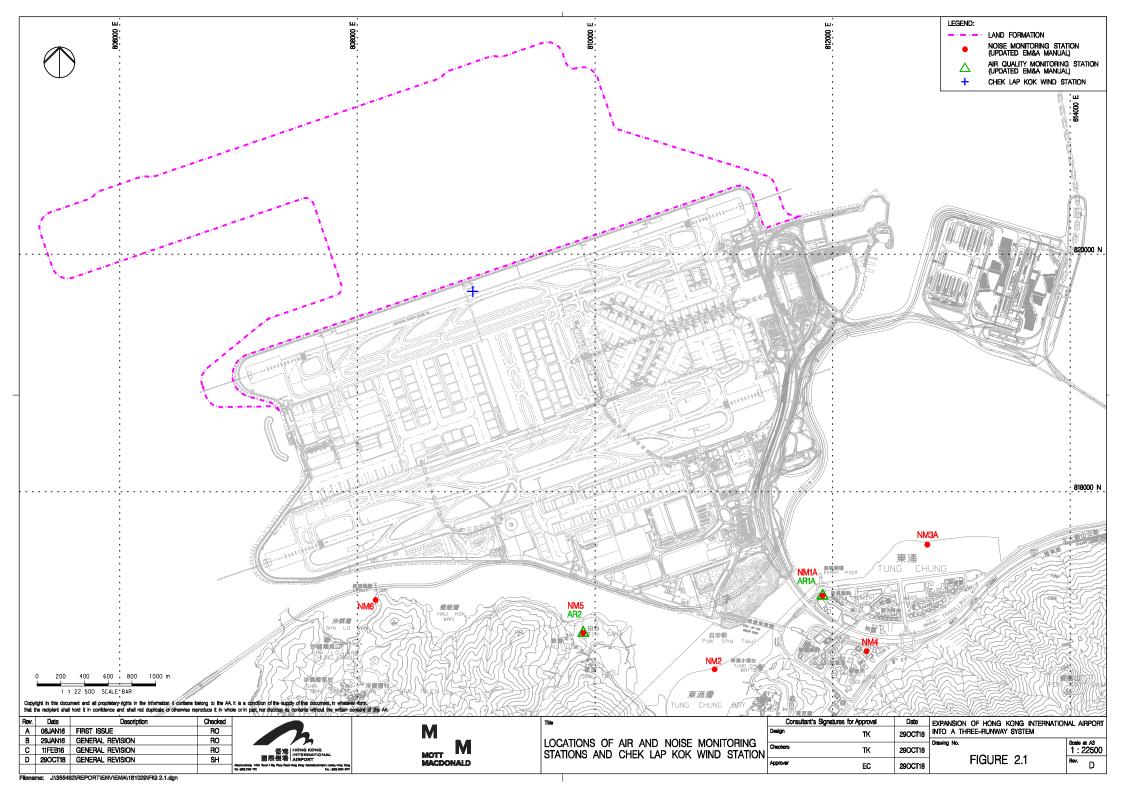
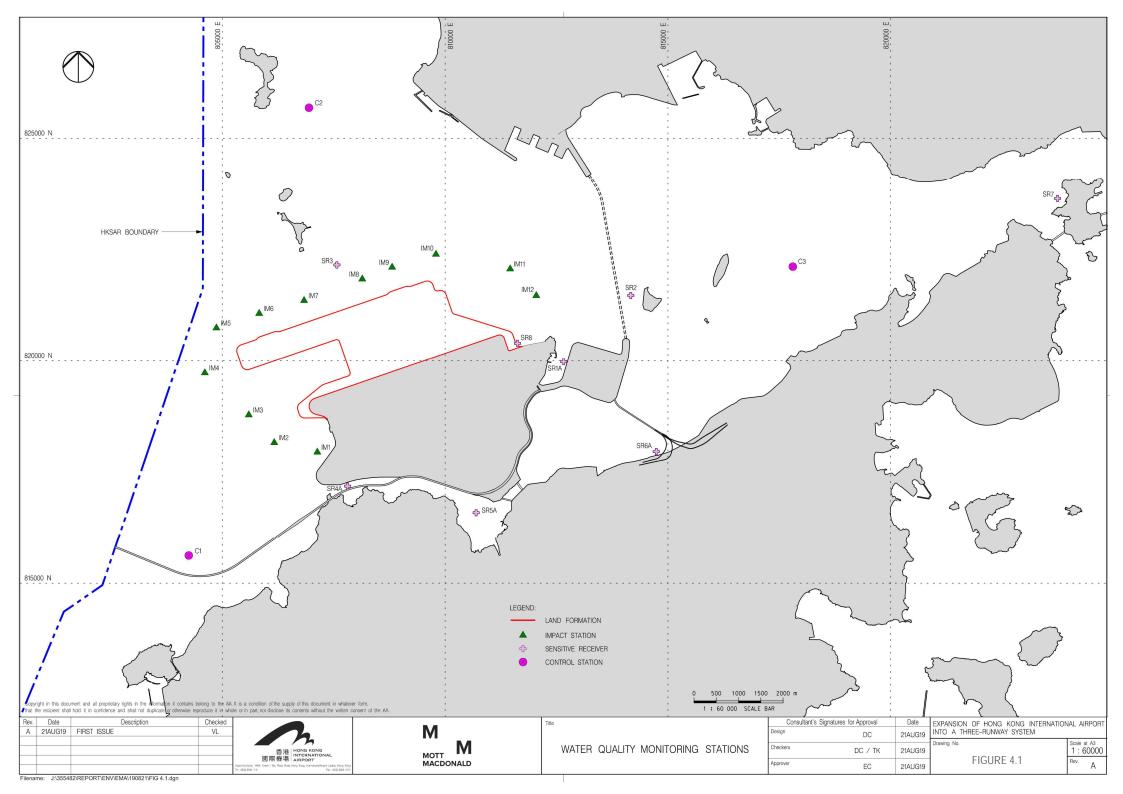
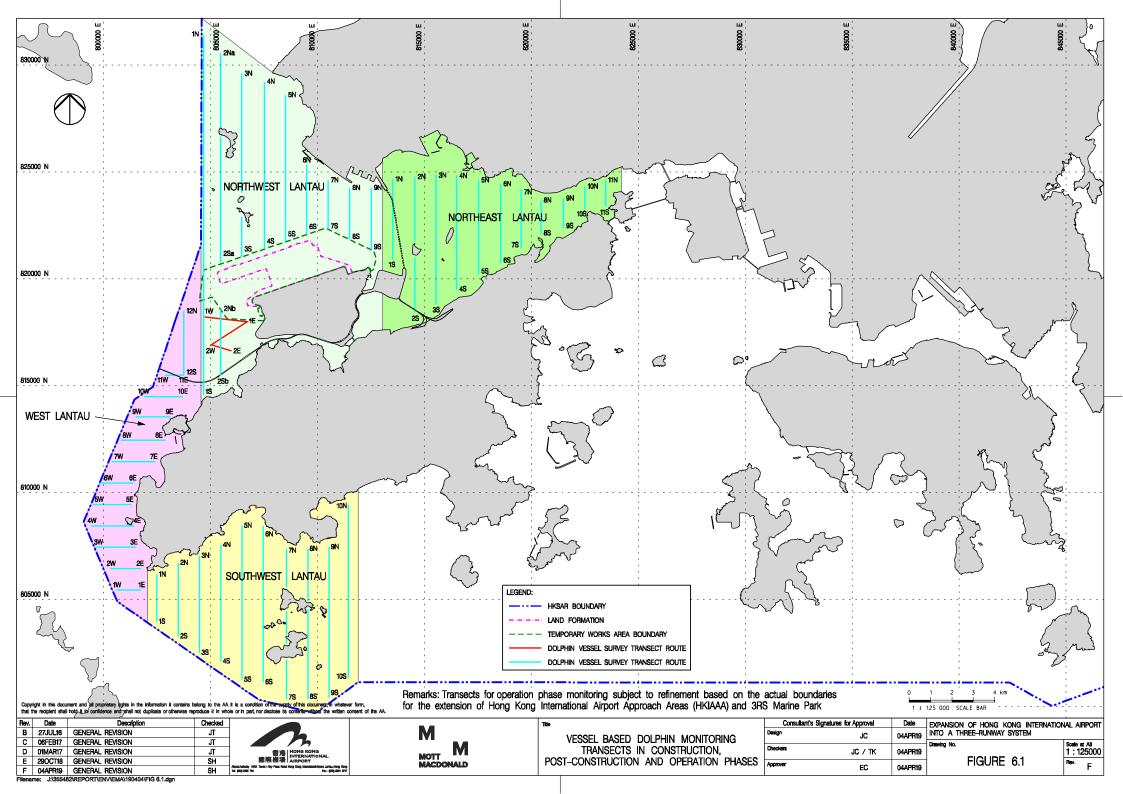
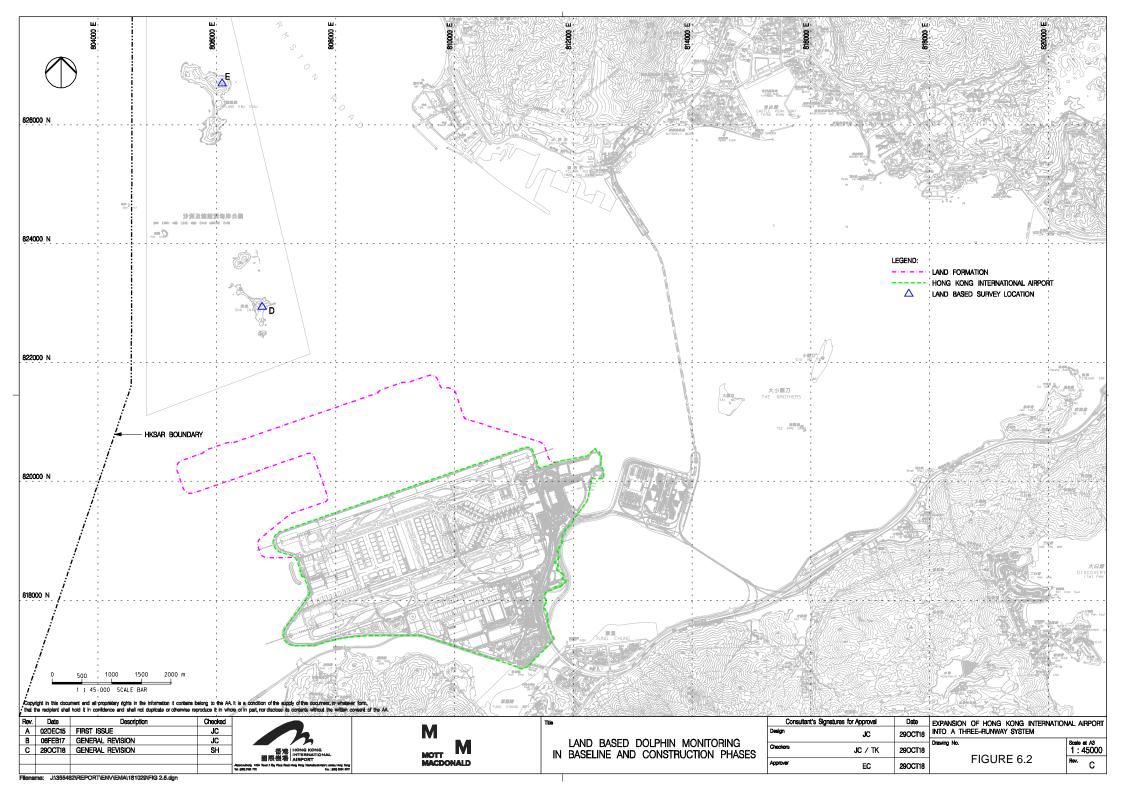


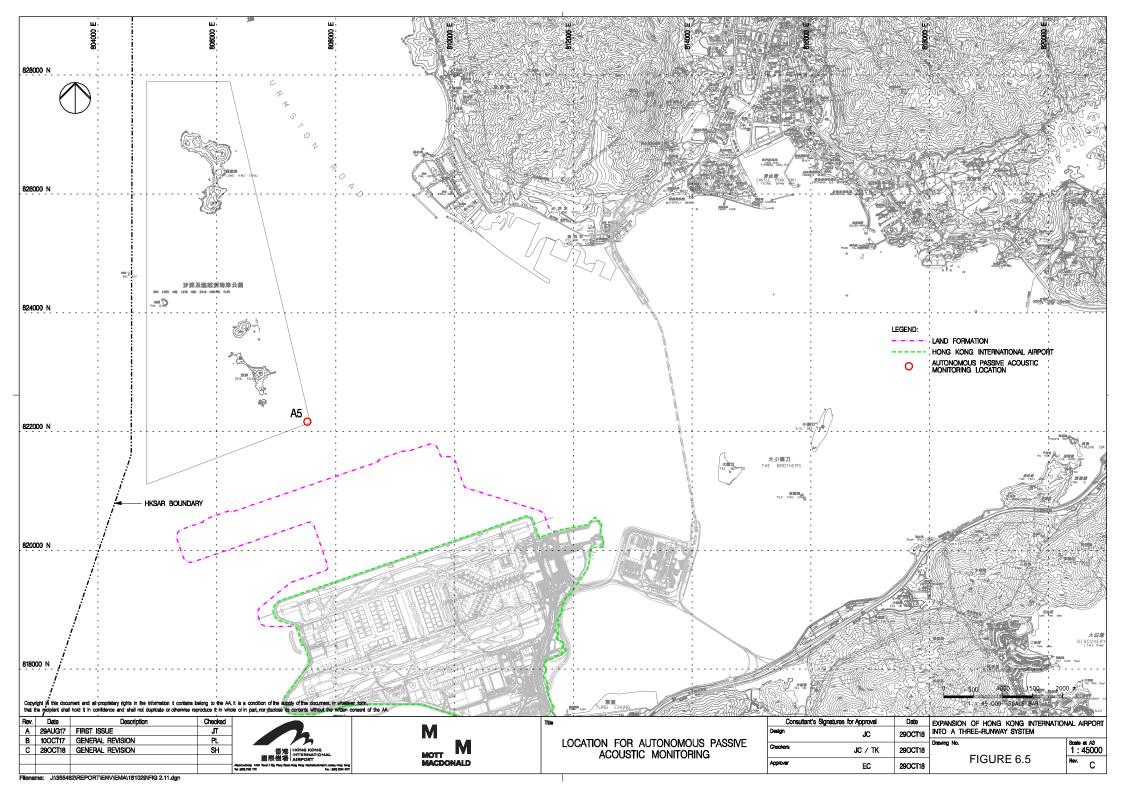
FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES











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



Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Air Quality Impact – Construction Phase		
5.2.6.2	2.1	-	Dust Control Measures ■ Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	 Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling. 	Within construction site / Duration of the construction phase	I
5.2.6.4 2.	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	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of 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	Within construction site / Duration of the construction phase	1
			 Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. Transport of Dusty Materials Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	Within construction site / Duration of the construction phase	1
			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	I
			 Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and 		
			 Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 		
			Site hoarding • Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	Best Practices for Concrete Batching Plant The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include:	Within Concrete Batching Plant / Duration of the construction phase	N/A
			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 construction phase	
			(a) Pre-mixing the materials in a totally enclosed concrete mixer before loading the materials into the concrete truck is recommended. All dust-laden air generated by the pre-mixing process as well as the loading process shall be totally vented to fabric filtering system to meet the required emission limit; and		
			(b) If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit.		
			The loading bay shall be totally enclosed during the loading process.		
			Vehicles	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	
5.2.6.6	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? ⁴
			■ 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	
			• 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;	construction phase	
			• The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping;		
			 Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance; 		
			 Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface; 		
			 All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and 		
			 All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures. 	Within Concrete Batching Plant / Duration of the construction phase	
			Hot feed side		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	Mitigation Measures
				Timing of completion of 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 Within Concrete Batching Plant / Duration of the construction phase	
			Housekeeping		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. 		
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		Location / Duration of measures	Mitigation Measures
				Timing of completion of 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 Batching Plant / Duration of the construction phase	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		
			 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 Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Hazard to Human Life – Construction Phase		
Table 6.40	3.2	-	■ Precautionary measures should be established to request barges to move away during typhoons.	Construction Site / Construction Period	I
Table 6.40	3.2	-	 An appropriate marine traffic management system should be established to minimize risk of ship collision. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	■ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	ı
			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	I
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; 		1
			 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; 		I
			 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 arrangement silt curtain has beer modified. The detai can be referred to \$ Curtain Deploymen Plan)
			■ The Silt Curtain Deployment Plan shall be implemented.		1



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	N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan) For C7a, I For C8, I *(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	I *(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.	-	1



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 the Field Joint Excavation Works for the Submarine Cable Diversion Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and 	Within construction site / Duration of the construction phase	N/A
			 Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure. 		
8.8.1.4	5.1	-	 Modification of the Existing Seawall Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works. 	At the existing northern seawall / Duration of the construction phase Within construction site / Duration of the construction phase	N/A
8.8.1.5	5.1	-	 Construction of New Stormwater Outfalls and Modifications to Existing Outfalls During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations. 		N/A
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 The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:	Within construction site / Duration of the construction phase	
			 Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site 	-	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation 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;	_	ı
			 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; 		I
			• In the event that contaminated groundwater is identified at excavation areas, this should be treated on- site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and	_	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.		ı
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 Timing of completion of measures	Mitigation 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	1
8.8.1.13			To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:	site / During construction phase	
			 A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; 		
			 No bulk storage of chemicals shall be permitted; and 		
			 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; 		I
			 Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and 	•	I



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.		I
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: On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;	Project Site Area / Construction Phase	I
			 The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions; 		I
			 All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; 		I
			 Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; 		I
			■ Treated and untreated sediment should be clearly separated and stored separately; and	_	I
			 Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge. 		ı
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	1
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	1
			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	I
			 Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas. 	-	I



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 and Terminal 2 Emergency Power Supply System No.1)
			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	1



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures Implemented?^
				Timing of completion of measures	implemented?*
				HDD drilling works at HKIA	
12.7.2.3	9.1	■ The daylighting location will a	Avoidance and Minimisation of Direct Impact to Egretry	During construction	1
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
			he proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree chau Island witting, 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	I
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	I
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	1



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures Implemented?
				Timing of completion of measures	
			 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; 	_	1
			 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); 	_	1
			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. 		I
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); 	-	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 the CWDs and other marine ecological resources.		ı
13.11.1.12	-	-	Strict Enforcement of No-Dumping Policy	All works area during	I
			 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



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
13.11.1.3 to 13.11.1.6	-	-	 Minimisation of Land Formation Area Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population. 	Land formation footprint / during detailed design phase to completion of construction	I
13.11.5.4	10.3.1	-	SkyPier High Speed Ferries' Speed Restrictions and Route Diversions	Area between the	I
to 13.11.5.13			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	footprint and SCLKC Marine Park during construction phase	
			■ 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	I
			 A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and 		1
			 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	I
			 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
				•	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			• 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.		
13.11.5.21	10.6.1	-	Construction Vessel Speed Limits and Skipper Training	All areas north and	I
to 13.11.5.23			 A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and 	west of Lantau Island during construction phase	
			 Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing. 	pnase	
			Fisheries Impact - Construction Phase		
14.9.1.2 to	-		Minimisation of Land Formation Area	Land formation	I
14.9.1.5			 Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources. 	footprint / during detailed design phase to completion of construction	
14.9.1.6	-	-	Use of Construction Methods with Minimal Risk/Disturbance	During construction	
			 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	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; 		ı
			 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	I
			 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. 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
14.9.1.12	-		Good Construction Site Practices Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I
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	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);		ı
			 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
			Landscape and Visual Impact – Construction Phase		
Table 15.6	12.3	-	CM1 - The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM2 - Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM3 - Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM4 - Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Table 15.6	12.3	-	CM5 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	I
Table 15.6	12.3	-	CM6 - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and	N/A
Table 15.6	12.3	-	CM7 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	completion of works. All works areas for duration of works; Upon handover and completion of works. — may be disassembled in phases	I
Table 15.6	12.3	-	CM8 - All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	All existing trees to be retained; Upon handover and completion of works.	1
Table 15.6	12.3	-	CM9 - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	1
Table 15.6	12.3	-	CM10 - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works;	N/A



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

Notes:

I= implemented where applicable;

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

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

Appendix B. Monitoring Schedule

Monitoring Schedule of This Reporting Period



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Januay	monday	racoddy	1 Site Inspection	2 Site Inspection	Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	4
				WQ General & Regular DCM mid-ebb: 19:49 mid-flood: 07:08		WQ General & Regular DCM mid-ebb: 10:38 mid-flood: 15:35
5	6	7 Site Inspection CWD Survey (Vessel)	8 Site Inspection	9 Site Inspection CWD Survey (Vessel, Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6	10	11
		WQ General & Regular DCM mid-ebb: 12: mid-flood: 18:	33	WQ General & Regular DCM mid-ebb: 13:53 mid-flood: 20:22		WQ General & Regular DCM mid-ebb: 15:20 mid-flood: 08:47
12	13	14 Site Inspection	CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	16 Site Inspection CWD Survey (Vessel, Land-based)	Site Inspection CWD Survey (Vessel)	18
		WQ General & Regular DCM mid-ebb: 17: mid-flood: 10:		WQ General & Regular DCM mid-ebb: 20:42 mid-flood: 08:01		WQ General & Regular DCM mid-ebb: 11:14 mid-flood: 16:13
19	CWD Survey (Vessel)	Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	Site Inspection	Site Inspection	24 Site Inspection	25
		WQ General & Regular DCM mid-ebb: 12:: mid-flood: 18::		WQ General & Regular DCM mid-ebb: 13:26 mid-flood: 19:44		WQ General & Regular DCM mid-ebb: 14:22 mid-flood: 07:47
26	Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6	28 Site Inspection	29 Site Inspection	30		
		WQ General & Regular DCM mid-ebb: 16: mid-flood: 09:		WQ General & Regular DCM mid-ebb: 18:03 mid-flood: 05:30		
		Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality DCM - Deep Cement Mixing	NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Prin NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan	nary School		

Tentative Monitoring Schedule of Next Reporting Period

May-20

			111017 20			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
						AR1A, AR2
						WQ General & Regular DCM mid-ebb: 09:16
						mid-ebb: 09:16 mid-flood: 13:56
3	4	5	6	7	8	9
		Site Inspection		Site Inspection	Site Inspection	
		·		·	· ·	
	CWD Survey (Vessel)		CWD Survey (Vessel)	CWD Survey (Vessel)	AR1A, AR2	
					NM1A, NM4, NM5, NM6	
					TAINTA, TAINTA, TAINTO, TAINTO	
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 11:33		mid-ebb: 12:53		mid-ebb: 14:19
40	14	mid-flood: 17:33	40	mid-flood: 19:31	45	mid-flood: 07:37
10	11	12	13	14	15	16
		Site Inspection		Site Inspection	Site Inspection	
	CWD Survey (Vessel)	CWD Survey (Vessel, Land-based)	CWD Survey (Vessel)			
				AR1A, AR2		
				NM1A, NM4, NM5, NM6		
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 16:37		mid-ebb: 18:31		mid-ebb: 09:52
		mid-flood: 09:23		mid-flood: 05:59		mid-flood: 14:30
17	18	19	20	21	22	23
		Site Inspection		Site Inspection	Site Inspection	
	CWD Survey (Vessel)	CWD Survey (Vessel)	CWD Survey (Land-based)			
	Citiz currey (veces)	2112 24113) (13333)	AR1A, AR2			
			NM1A, NM4, NM5, NM6			
		MO Conserve Bonder DOM		WO Conserve & Describe DOM		WQ General & Regular DCM
		WQ General & Regular DCM mid-ebb: 11:35		WQ General & Regular DCM mid-ebb: 12:31		mid-ebb: Regular DCM
		mid-flood: 17:27		mid-flood: 05:56		mid-flood: 20:20
24	25	26	27	28	29	30
		Site Inspection		Site Inspection	Site Inspection	
		AR1A, AR2				
		NM1A, NM4, NM5, NM6				
		WQ General & Regular DCM		WQ General & Regular DCM		WQ General & Regular DCM
		mid-ebb: 15:19		mid-ebb: 16:53		mid-ebb: 07:12
31		mid-flood: 08:09 Notes:	ļ.	mid-flood: 09:28	1	mid-flood: 11:50
31		1.0.00				
		CWD - Chinese White Dolphin				
			NM1A/AR1A - Man Tung Road Park			
		Air quality and Noise Monitoring Station	NM4 - Ching Chung Hau Po Woon Prima	ary School		
			NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan			
		WQ - Water Quality	THING THOUSE INC. 1, SHA LU WALL			
		DCM - Deep Cement Mixing				

Appendix C. Monitoring Results

Mott MacDonald Expansion of Hong Kong International Airport into a Three-Runway	·
Air Quality Monitoring Posul	lte
Air Quality Monitoring Resu	lts

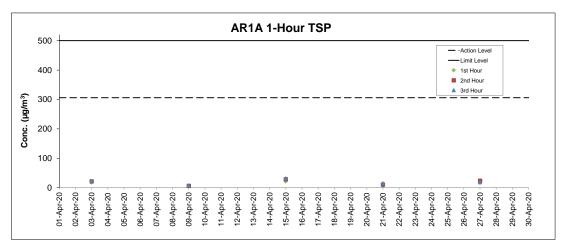
1-hour TSP Results

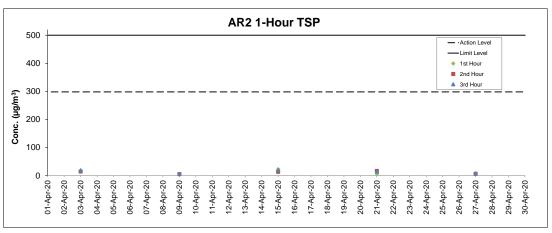
Station: AR1A- Man Tung Road Park

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-20	12:43	Cloudy	10.6	88	18	306	500
03-Apr-20	13:43	Cloudy	8.3	84	22	306	500
03-Apr-20	14:43	Cloudy	5.3	74	23	306	500
09-Apr-20	12:39	Sunny	5.3	261	5	306	500
09-Apr-20	13:39	Sunny	3.9	257	7	306	500
09-Apr-20	14:39	Sunny	3.3	260	8	306	500
15-Apr-20	12:50	Sunny	3.1	266	22	306	500
15-Apr-20	13:50	Sunny	3.9	258	29	306	500
15-Apr-20	14:50	Sunny	4.7	262	32	306	500
21-Apr-20	12:33	Sunny	7.5	150	7	306	500
21-Apr-20	13:33	Sunny	6.9	153	11	306	500
21-Apr-20	14:33	Sunny	7.2	138	15	306	500
27-Apr-20	13:05	Cloudy	3.6	259	17	306	500
27-Apr-20	14:05	Cloudy	3.9	262	24	306	500
27-Apr-20	15:05	Cloudy	4.2	251	19	306	500

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

Station: AILE- VIIIag				Wind Direction		Action Level	Limit Level
Date	Time	Weather	Wind Speed (m/s)	(deg)	1-hr TSP (μg/m³)	(μg/m ³)	(μg/m³)
03-Apr-20	9:05	Cloudy	8.3	84	15	298	500
03-Apr-20	10:05	Cloudy	8.3	92	14	298	500
03-Apr-20	11:05	Cloudy	10.3	90	18	298	500
09-Apr-20	9:00	Sunny	3.3	54	4	298	500
09-Apr-20	10:00	Sunny	3.1	49	5	298	500
09-Apr-20	11:00	Sunny	2.2	342	5	298	500
15-Apr-20	9:10	Sunny	1.7	359	22	298	500
15-Apr-20	10:10	Sunny	2.8	269	13	298	500
15-Apr-20	11:10	Sunny	3.3	252	18	298	500
21-Apr-20	9:00	Sunny	4.2	160	6	298	500
21-Apr-20	10:00	Sunny	5.6	147	16	298	500
21-Apr-20	11:00	Sunny	6.1	155	14	298	500
27-Apr-20	9:00	Cloudy	2.5	50	7	298	500
27-Apr-20	10:00	Cloudy	3.3	55	6	298	500
27-Apr-20	11:00	Cloudy	3.1	54	7	298	500





- Notes

 1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.

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

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

Noise Monitoring Results	

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

Noise Measurement Results

Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured	Measured	1 dp(A)
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-20	Cloudy	13:03	69.3	52.1	
03-Apr-20	Cloudy	13:08	67.2	52.1	
03-Apr-20	Cloudy	13:13	68.9	52.7	67
03-Apr-20	Cloudy	13:18	65.6	49.2	67
03-Apr-20	Cloudy	13:23	65.6	52.5	
03-Apr-20	Cloudy	13:28	67.5	52.6	
09-Apr-20	Sunny	14:48	69.3	51.3	
09-Apr-20	Sunny	14:53	65.7	50.1	1
09-Apr-20	Sunny	14:58	72.4	51.5	1
09-Apr-20	Sunny	15:03	73.0	51.8	71
09-Apr-20	Sunny	15:08	70.4	50.2	1
09-Apr-20	Sunny	15:13	72.7	51.1	1
15-Apr-20	Sunny	14:57	68.4	51.0	
15-Apr-20	Sunny	15:02	71.5	48.5	1
15-Apr-20	Sunny	15:07	73.9	52.9	71
15-Apr-20	Sunny	15:12	72.6	52.2	71
15-Apr-20	Sunny	15:17	65.6	50.1	1
15-Apr-20	Sunny	15:22	67.2	51.3	1
21-Apr-20	Sunny	12:54	70.8	51.4	
21-Apr-20	Sunny	12:59	70.7	50.5	1
21-Apr-20	Sunny	13:04	73.3	52.5	7,
21-Apr-20	Sunny	13:09	72.7	51.6	71
21-Apr-20	Sunny	13:14	74.4	52.2	1
21-Apr-20	Sunny	13:19	70.3	52.7	1
27-Apr-20	Cloudy	13:20	68.7	48.7	
27-Apr-20	Cloudy	13:25	71.4	50.6	7
27-Apr-20	Cloudy	13:30	84.8	52.9	71
27-Apr-20	Cloudy	13:35	72.9	54.1	71
27-Apr-20	Cloudy	13:40	70.0	51.9	1
27-Apr-20	Cloudy	13:45	71.8	50.8	1

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured	Measured	10(4)
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-20	Cloudy	13:53	63.5	57.6	
03-Apr-20	Cloudy	13:58	62.9	57.4	
03-Apr-20	Cloudy	14:03	61.9	57.7	64
03-Apr-20	Cloudy	14:08	65.2	59.4	04
03-Apr-20	Cloudy	14:13	64.6	58.7	
03-Apr-20	Cloudy	14:18	61.6	57.4	
09-Apr-20	Cloudy	14:04	61.6	56.7	
09-Apr-20	Cloudy	14:09	62.4	57.4	
09-Apr-20	Cloudy	14:14	63.1	56.9	63
09-Apr-20	Cloudy	14:19	61.0	56.5	05
09-Apr-20	Cloudy	14:24	62.4	56.3	
09-Apr-20	Cloudy	14:29	64.1	55.8	7
15-Apr-20	Sunny	13:32	59.5	55.2	
15-Apr-20	Sunny	13:37	60.8	55.5	
15-Apr-20	Sunny	13:42	61.2	55.5	61
15-Apr-20	Sunny	13:47	61.2	54.9	01
15-Apr-20	Sunny	13:52	61.0	56.4	
15-Apr-20	Sunny	13:57	60.1	54.9	
21-Apr-20	Sunny	13:00	60.9	57.2	
21-Apr-20	Sunny	13:05	62.2	57.6	
21-Apr-20	Sunny	13:10	61.0	57.2	62
21-Apr-20	Sunny	13:15	59.7	56.8	7 62
21-Apr-20	Sunny	13:20	61.2	57.1	
21-Apr-20	Sunny	13:25	63.3	56.6	
27-Apr-20	Sunny	13:03	59.5	55.3	
27-Apr-20	Sunny	13:08	60.6	55.2	
27-Apr-20	Sunny	13:13	59.2	55.0	61
27-Apr-20	Sunny	13:18	61.2	55.8	91
27-Apr-20	Sunny	13:23	59.8	55.2	
27-Apr-20	Sunny	13:28	59.5	54.7	

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

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured	Measured	1 10(4)
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A)
03-Apr-20	Cloudy	9:16	59.0	51.7	
03-Apr-20	Cloudy	9:21	52.9	50.5	
03-Apr-20	Cloudy	9:26	54.5	50.7	57
03-Apr-20	Cloudy	9:31	54.3	50.6	5/
03-Apr-20	Cloudy	9:36	56.5	50.1	
03-Apr-20	Cloudy	9:41	56.0	51.3	
09-Apr-20	Sunny	10:11	51.4	44.9	
09-Apr-20	Sunny	10:16	58.7	46.4	
09-Apr-20	Sunny	10:21	50.1	45.6	58
09-Apr-20	Sunny	10:26	49.6	44.8	58
09-Apr-20	Sunny	10:31	48.7	43.3	
09-Apr-20	Sunny	10:36	51.9	45.6	
15-Apr-20	Sunny	9:37	57.1	43.8	
15-Apr-20	Sunny	9:42	53.8	43.5	
15-Apr-20	Sunny	9:47	52.4	43.6	55
15-Apr-20	Sunny	9:52	57.3	44.2	33
15-Apr-20	Sunny	9:57	52.9	44.3	
15-Apr-20	Sunny	10:02	55.0	43.3	
21-Apr-20	Sunny	9:45	55.8	44.6	
21-Apr-20	Sunny	9:50	54.7	43.9	
21-Apr-20	Sunny	9:55	63.9	44.5	57
21-Apr-20	Sunny	10:00	51.0	42.5	5/
21-Apr-20	Sunny	10:05	55.4	44.6	
21-Apr-20	Sunny	10:10	56.7	42.9	
27-Apr-20	Cloudy	9:06	49.7	45.2	
27-Apr-20	Cloudy	9:11	53.1	45.2	
27-Apr-20	Cloudy	9:16	56.5	46.0	Ε0
27-Apr-20	Cloudy	9:21	54.2	47.0	58
27-Apr-20	Cloudy	9:26	56.0	48.1	
27-Apr-20	Cloudy	9:31	64.3	46.2	

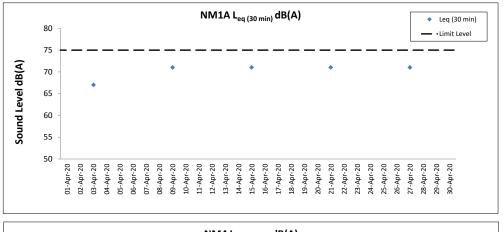
Noise Measurement Results

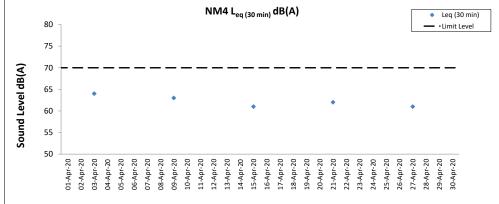
Station: NM6- House No.1 Sha Lo Wan

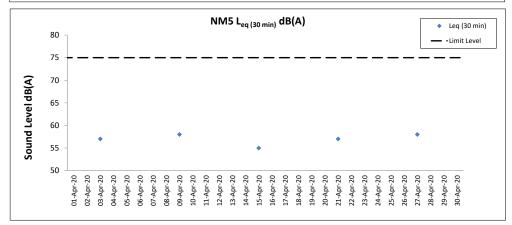
Date	Weather	Time	Measured	Measured	L _{eg(30mins)} dB(A)
			L ₁₀ dB(A)	L ₉₀ dB(A)	eq(30mins) d D(71)
03-Apr-20	Cloudy	15:47	70.2	51.0	1
03-Apr-20	Cloudy	15:52	67.2	48.1	
03-Apr-20	Cloudy	15:57	67.5	48.5	62
03-Apr-20	Cloudy	16:02	66.0	47.0	02
03-Apr-20	Cloudy	16:07	68.3	48.8	
03-Apr-20	Cloudy	16:12	67.4	44.9	
09-Apr-20	Cloudy	15:49	66.3	45.5	
09-Apr-20	Cloudy	15:54	63.6	45.4	
09-Apr-20	Cloudy	15:59	68.4	51.8	67
09-Apr-20	Cloudy	16:04	63.5	46.6	67
09-Apr-20	Cloudy	16:09	62.9	43.8	
09-Apr-20	Cloudy	16:14	60.2	42.3	
15-Apr-20	Sunny	15:43	61.9	49.9	
15-Apr-20	Sunny	15:48	59.5	48.4	
15-Apr-20	Sunny	15:53	60.4	47.5	68
15-Apr-20	Sunny	15:58	66.6	49.8	08
15-Apr-20	Sunny	16:03	65.6	59.3	
15-Apr-20	Sunny	16:08	65.4	59.3	
21-Apr-20	Cloudy	15:43	71.6	64.3	
21-Apr-20	Cloudy	15:48	67.9	61.5	
21-Apr-20	Cloudy	15:53	67.5	63.3	66
21-Apr-20	Cloudy	15:58	67.6	63.9	00
21-Apr-20	Cloudy	16:03	68.5	60.3	
21-Apr-20	Cloudy	16:08	68.8	60.7	
27-Apr-20	Sunny	15:43	61.0	45.3	
27-Apr-20	Sunny	15:48	59.7	45.6	1
27-Apr-20	Sunny	15:53	71.2	45.0	62
27-Apr-20	Sunny	15:58	52.0	43.3	62
27-Apr-20	Sunny	16:03	57.2	47.3	1
27-Apr-20	Sunny	16:08	68.8	49.3	

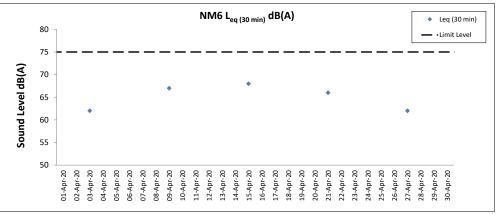
Remarks: +3dB (A) correction was applied to free-field measurement.

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









Notes

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

Mott MacDonald Expansion of Hong Kong International Airport into a Three-Runway System	
Water Quality Monitoring Result	S

Water Quality Monitoring Results on 02 April 20 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling	Water	Sampling D	anth (m)	Current Speed	Current	Water Ter	mperature (°C)		рН	Salinity ((ppt)		aturation	Dissolved	Turbic	ity(NTU)	Suspende			nity Coordina		te (uc	mium	Nickel (µg/L)
Station	Condition	Condition					.,				+-				(%)	Oxygen	1	71 -7	(mg	/L)	(ppm)	HK Gri	HK Grid		3/L)	(P9, E)
		Condition	Time	Depth (m)	,	()	(m/s)	Direction	Value	Average	Value	Average	Value Av	verage	Value	Average	Value D	Value	DA	Value	DA	Value D				DA	Value DA
					Surface	1.0	0.4	217 224	21.8 21.8	21.8	7.8	7.8	33.6 33.6	33.6	96.2 96.1	96.2	6.9	4.3		6		86 86			<0.2		1.0 0.9
C1	Fine	Rough	19:07	8.8	Middle	4.4	0.4	211	21.9	21.9	7.8	7.8	33.6	33.7	92.6	92.6	6.7	6.2	J 65	8	7	90 0	0 815608	804239	<0.2	<0.2	1.2
0.	1 110	rtougii	10.07	0.0		4.4 7.8	0.4	228 209	21.9 21.8		7.8 7.8		33.7		92.6 93.4		6.7 6.7	6.7		6 8		90	0.000	00 1200	<0.2	- 10.2	1.2 0.9
					Bottom	7.8	0.3	210	21.8	21.8	7.8	7.8	34.1	34.1	93.3	93.4	6.7	8.7		7		93			<0.2		0.8
					Surface	1.0	0.1	169 171	21.7	21.7	8.1	8.1	29.5	29.5	93.0 92.9	93.0	6.9	1.4	-	7 5		85 85			<0.2	} }	1.2
C2	Cloudy	Moderate	18:05	12.2	Middle	6.1	0.1	122	21.6	21.6	8.1	8.1	30.3 30.3	30.3	92.1	92.0	6.8 6.8	1.5	2.4	5 3	5	88	8 825695	806932	<0.2	<0.2	1.1
					Bottom	6.1 11.2	0.1	132 92	21.6 21.6	21.6	8.1 8.0	8.0	22.0	32.0	91.9 86.2	86.2	6.3	1.6		4	ł	90			<0.2	i t	1.1
						11.2	0.1	95 87	21.6		8.0 8.1		32.0		86.2 92.2		6.8	4.2 2.4		4 5		90 85			<0.2		1.1 0.8
					Surface	1.0	0.2	87	21.5	21.5	8.1	8.1	31.1	31.1	92.3	92.3	6.8	2.4		5	1	85			<0.2	1 1	0.7
C3	Cloudy	Moderate	20:14	12.8	Middle	6.4	0.3	105 113	21.5 21.5	21.5	8.1	8.1	31.3	31.3	91.8 91.8	91.8	6.8	2.5	3.1	<u>4</u> 5	4	87 87	7 82208	817783	<0.2	<0.2	0.8
					Bottom	11.8	0.3	122	21.5	21.5	8.2	8.2	32.3	32.3	90.3	90.3	6.6	4.3		3		90			<0.2	1 [0.7
	1					11.8	0.3	127 167	21.5 21.9		8.2 7.8		32.3		90.3		6.6	7.4		10		89 86		1	<0.2		0.7
					Surface	1.0	0.2	179	21.9	21.9	7.8	7.8	33.8	33.8	91.1	91.2	6.6	7.4		9	Ĭ	85			<0.2] [0.7
IM1	Fine	Moderate	18:49	5.4	Middle	-	-	-	-	-		-	-		-		-	-	7.8	-	9	- 9	0 817932	807146	-	<0.2	- 0.7
					Bottom	4.4	0.2	188 204	21.9 21.9	21.9	7.8	7.8	33.9	33.9	91.3 91.2	91.3	6.6 6.	8.6		8		93			<0.2	Į ,	0.6
					Surface	1.0	0.2	178	21.9	21.9	7.7	7.7	33.7	33.7	94.8	94.7	6.8	4.6		6		86			<0.2		0.6
	-					1.0 3.6	0.2	181 176	21.9 21.9		7.7 7.8		33.7		94.6 91.8		6.8 6.6	, 4.6 5.4	_	7		90			<0.2	t t	0.6
IM2	Fine	Rough	18:43	7.1	Middle	3.6 6.1	0.2	186 148	21.9	21.9	7.8	7.8	33.7	33.7	91.8	91.8	6.6	5.5	5.4	6 7	6	89	0 818147	806183	<0.2	<0.2	0.5
					Bottom	6.1	0.1	152	21.9 21.9	21.9	7.8	7.8	33.8	33.8	91.8 91.3	91.6	6.6	6.2		6	ł	93			<0.2	† †	0.6
					Surface	1.0	0.3	224 233	21.9 21.9	21.9	7.7	7.7	33.6 33.6	33.6	94.7 94.7	94.7	6.8	4.9		11 9		82 83			<0.2		0.6
IM3	Fine	Rough	18:36	7.4	Middle	3.7	0.2	221	21.9	21.9	7.7	7.7	33.6	33.6	91.8	91.8	6.6	5.7	5.9	9	9	86	7 81876	805596	<0.2	<0.2	0.6
						3.7 6.4	0.2	224 198	21.9 22.0		7.7 7.6		33.6		91.8 91.0		6.6 6.6	5.8		9 8		90			<0.2	+	0.6
					Bottom	6.4	0.2	214	22.0	22.0	7.6	7.6	33.7	33.7	91.0	91.0	6.6	7.1		7		91			<0.2		0.6
					Surface	1.0	0.4	200 212	21.8	21.8	7.7	7.7	31.9	31.9	95.0 94.9	95.0	6.9	3.6		6	ł	83			<0.2		0.7
IM4	Fine	Moderate	18:27	8.2	Middle	4.1 4.1	0.2	198 210	21.9 21.9	21.9	7.7	7.7	33.3	33.3	92.3 92.2	92.3	6.7 6.7	5.2 5.2	5.0	7 5	6	87 87	7 819709	804605	<0.2	<0.2	0.7 0.6
					Bottom	7.2	0.2	183	22.0	22.0	7.7	7.7	33.5	33.5	91.9	91.9	6.6	6.1		7	İ	91			<0.2	1 1	0.6
						7.2 1.0	0.2	189 233	22.0		7.7		33.5		91.9 93.0		6.6 6.8	6.1 5.6		5		91 83			<0.2		1.0
					Surface	1.0	0.6	247	21.7	21.7	7.7	7.7	31.3	31.3	93.0	93.0	6.8	5.6		6	İ	82			<0.2	1 [0.9
IM5	Fine	Moderate	18:21	8.0	Middle	4.0	0.6	233 238	21.9 21.9	21.9	7.8	7.8	32.3	32.3	91.6 91.6	91.6	6.7	7.4	7.3	6	6	87 87	7 820746	804855	<0.2	<0.2	0.9 1.0
					Bottom	7.0 7.0	0.5 0.5	227 243	21.9 21.9	21.9	7.8	7.8	33.4 33.4	33.4	89.9 89.9	89.9	6.5 6.5	8.7		5 6		91 90			<0.2		0.9
					Surface	1.0	0.3	245	21.7	21.7	7.7	7.7	31.0	31.0	91.5	91.4	6.7	5.4		6		83			<0.2		0.9
	_					1.0	0.3	263 257	21.7 21.7		7.7 7.8		31.0		91.3 90.3		6.7 6.6	5.4 6.5	_	5 6		83 87			<0.2	ł ł	0.9
IM6	Fine	Moderate	18:15	7.6	Middle	3.8	0.2	272	21.7	21.7	7.8	7.8	31.4	31.4	90.3	90.3	6.6	6.7	6.9	6	6	88	821080	805833	<0.2	<0.2	1.0
					Bottom	6.6	0.1	194 206	21.8 21.8	21.8	7.8	7.8	33.2	33.2	89.4 89.1	89.3	6.5 6.5	9.1		5 6		92			<0.2	+ +	1.0
	Ì				Surface	1.0	0.2	259 267	21.7	21.7	7.6	7.6	30.7	30.7	92.2 92.3	92.3	6.8	5.3		6 7		85 84			<0.2		1.1
IM7	Fine	Moderate	18:08	8.8	Middle	4.4	0.1	199	21.7	21.7	7.7	7.7	31.3	31.3	89.6	89.6	6.6	9.5	8.1	6	6	88 .	8 82135	806833	<0.2	<0.2	1.1
nvi/	1 1110	moudiale	10.00	0.0		4.4 7.8	0.1	213 126	21.7 21.8		7.7 7.6		31.3		89.6 89.1		6.6 6.5	9.5		4 6	ľ	88 89	02135	300033	<0.2 <0.2	-0.2	1.1
					Bottom	7.8	0.1	128	21.8	21.8	7.6	7.6	33.1		89.1	89.1	6.5	9.5		6		93			<0.2		1.1
					Surface	1.0	0.1	161 171	21.6 21.6	21.6	8.2	8.2	30.5		92.6 92.7	92.7	6.8	3.8	-	5 4	1	86 87			<0.2	} }	1.0
IM8	Cloudy	Moderate	18:38	8.1	Middle	4.1	0.0	117	21.7	21.7	8.2	8.2	30.9		92.7	92.7	6.8	6.2	6.6	4	4	89 8	9 821848	808149	<0.2	<0.2	0.9
	- 1				Bottom	4.1 7.1	0.0	122 155	21.7 21.7	21.7	8.2 8.2		30.9	32.5	92.6 92.1	92.1	6.8 6.7 6.	6.2 , 9.7	-	4	1	88 91			<0.2 <0.2	} }	1.0
DA: Depth-Average	nod.				DOLLOTTI	7.1	0.1	167	21.7	21.1	8.2	8.2	32.5	32.3	92.1	92.1	6.7	9.8		4		91			<0.2		1.0

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

during Mid-Ebb Tide Water Quality Monitoring Results on 02 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Value Average 0.2 30.6 1.0 0.2 98 21.6 8.2 92.4 6.8 4.1 86 <0.2 1.0 6.9 3.8 0.2 21.7 8.2 30.8 93.4 93.4 6.9 6.9 6.1 89 88 <0.2 1.1 IM9 Cloudy Moderate 18:47 7.6 Middle 30.8 93.4 6.0 88 822081 808789 <0.2 3.8 21.7 6.1 < 0.2 6.6 0.2 69 21.7 94.2 94.2 90 < 0.2 1.0 8.2 31.4 6.9 7.8 Bottom 21.7 8.2 31.4 94.2 6.9 8.2 31.4 6.9 6.6 0.2 21.7 7.8 90 1.0 75 <0.2 0.6 21.6 3.6 0.8 8.2 6.8 Surface 21.6 30.7 92.4 8.2 30.7 92.4 6.8 86 0.7 1.0 0.6 103 21.6 3.6 < 0.2 0.5 21.6 21.6 0.8 30.7 92.6 92.7 6.8 3.6 88 88 <0.2 3.9 8.2 IM10 Cloudy Moderate 18:56 7.7 Middle 21.6 8.2 30.7 92.7 88 822366 809790 <n 2 6.7 0.5 104 21.6 8.2 88.4 6.5 7.1 90 <0.2 0.8 31.6 8.2 31.6 88.4 6.5 Bottom 21.6 6.7 0.5 112 21.6 8.2 88.3 6.5 7.1 91 < 0.2 0.8 1.0 0.4 156 21.5 3.8 0.8 8.2 6.7 86 30.4 90.5 8 <0.2 Surface 21.5 8.2 30.4 90.6 1.0 0.4 161 21.5 8.2 30.4 90.6 6.7 3.8 6 86 <0.2 0.9 0.9 4.3 0.4 140 21.6 8.2 6.6 4.9 88 <0.2 30.6 89.7 IM11 Cloudy 822048 811462 Moderate 19:09 8.5 Middle 21.6 8.2 30.6 89.7 88 <0.2 4.3 0.5 146 5.0 87 0.9 <0.2 21.6 7.5 142 8.2 88.2 6.5 9.7 <0.2 0.8 Rottom 21.5 8.2 31.6 88.3 6.5 7.5 0.3 155 21.5 8.2 31.6 88.4 6.5 9.7 89 0.8 8.2 90.1 90.1 4.8 87 <0.2 0.9 Surface 21.6 8.2 30.4 90.1 1.0 0.4 21.6 8.2 30.4 6.7 4.8 4 86 <0.2 0.8 4.4 0.4 94 21.6 89.0 6.1 6 87 <0.2 8.0 19:17 Middle 821455 IM12 Cloudy Moderate 21.6 8.2 30.5 88.9 4.4 0.4 21.6 8.2 88.8 6.6 88 0.8 7.8 0.3 105 21.5 8.2 88.7 6.5 6.5 10.0 6 90 <0.2 0.9 Bottom 21.5 8.2 31.5 88.8 6.5 88.8 7.8 0.3 110 21.5 8.2 31.5 10.0 6 90 <0.2 0.9 1.0 21.5 8.2 30.3 86.7 6.4 4.0 Surface 21.5 8.2 30.3 86.7 1.0 21.5 8.2 30.3 86.7 6.4 4.0 4 2.7 Cloudy Moderate 19:39 Middle 819971 812655 2.7 4.3 21.6 8.2 84.9 6.2 5.3 6 6.2 Bottom 21.6 8.2 31.3 84.9 4.3 21.6 8.2 31.3 84.9 6.2 5.3 6 1.0 0.4 70 21.5 8.2 91.0 2.8 87 <0.2 0.9 Surface 21.5 8.2 30.4 91.0 1.0 0.4 73 21.5 8.2 30.4 91.0 6.7 2.9 4 88 <0.2 1.0 SR2 Cloudy Moderate 19:52 4.9 Middle 821440 814160 <0.2 0.9 67 90.2 6.6 Bottom 21.5 31.5 90.2 6.6 3.9 0.2 69 21.5 8.2 31.6 41 4 89 <0.2 0.8 1.0 0.2 207 21.6 8.1 30.3 91.7 6.8 3.7 8.1 30.3 91.7 1.0 0.2 212 21.6 8.1 30.3 91.6 6.8 3.7 3 4.8 0.1 208 21.6 8.2 30.8 91.2 6.7 5.5 4 SR3 Moderate 18:31 9.5 91.2 822134 807580 Cloudy 4.8 0.1 212 21.6 8.2 30.8 91.2 6.7 5.5 5 0.0 21.7 8.2 91.9 6.7 7.5 7.6 8.5 8.5 45 45 4 Bottom 21.7 8.2 32.4 92.0 6.7 1.0 0.0 162 22.0 7.8 30.1 94.9 7.0 3.8 6 Surface 22.0 7.8 30.1 94.9 171 1.0 0.0 22.0 7.8 30.1 94.8 7.0 3.9 7.3 4 -4.2 0.1 75 21.9 6.5 7.8 34.0 90.8 7.8 807793 SR4A Fine Calm 19:30 8.4 Middle 21.9 34.0 90.8 817209 4.2 0.1 80 21.9 7.8 34.0 6.5 7.3 90.8 0.1 21.9 7.8 8.7 7.4 73 34.0 91.1 6.6 Rottom 21.9 7.8 34.0 91.1 6.6 7.4 74 21.9 21.8 0.1 7.8 34.0 91.0 6.5 8.4 1.0 0.1 307 4.8 7.8 6.8 29.0 91.0 Surface 21.8 7.8 29.0 91.0 1.0 0.1 328 21.8 7.8 29.0 91.0 6.8 4.9 4 SR5A 19:48 Middle 816581 810700 Fine Calm 5.2 4.2 0.0 245 21.8 7.7 5.8 33.4 6.5 90.2 Bottom 21.8 7.7 33.4 90.2 6.5 4.2 0.0 21.8 246 6.5 Surface 21.6 7.7 28.4 86.6 317 21.6 7.7 5.5 6.5 SR6A Fine 20:17 4.3 Middle 817970 814737 Calm 3.3 0.0 203 21.6 86.6 6.4 4 Bottom 7.7 86.8 212 56 1.0 0.6 21.5 8.0 32.5 90.1 6.6 2.3 Surface 21.5 8.0 1.0 0.6 59 21.5 8.0 90.0 6.6 2.3 8.0 0.4 51 21.5 8.0 32.6 89.9 6.6 2.2 3 SR7 Cloudy Moderate 20:44 Middle 21.5 90.0 823625 823761 8.0 0.4 53 21.5 8.0 32.6 90.0 6.6 22 4 15.0 0.3 24 21.5 8.1 89.7 6.6 2.5 4 Bottom 21.5 8.1 89.8 15.0 0.3 21.5 8.1 89.8 6.6 21.8 1.0 89.0 89.0 5.8 Surface 21.8 30.0 6.6 5.6 8.2 6 --SR8 Cloudy Moderate 19:29 5.1 Middle 820376 811644 21.6 88.4 6.5 4.1 8.1 31.1 8.6 8 Bottom 21.6 8.1 31.1 88.5 21.6

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

during Mid-Flood Tide Water Quality Monitoring Results on 02 April 20 Suspended Solids Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value Value Value Average 0.0 1.0 21.5 0.5 1.0 0.0 57 21.5 7.8 31.6 93.7 6.9 2.0 84 <0.2 0.4 6.8 4.0 0.2 65 21.8 7.8 33.9 91.1 6.6 3.3 3 89 <0.2 0.5 07:34 Middle 21.8 7.8 33.9 91.1 88 815622 804232 0.5 C1 Fine Moderate 8.0 < 0.2 4.0 0.2 67 6.6 3.4 <0.2 0.4 21.8 91.1 90 91 <0.2 0.5 21.9 34.0 91.2 6.6 3.8 7.8 Bottom 21.9 34.0 91.2 6.6 7.0 0.1 63 21.9 7.8 6.6 3.8 92 <0.2 0.5 274 21.5 8.1 6.8 2.9 86 <0.2 1.6 90.5 Surface 21.5 8.1 28.7 90.6 1.0 0.4 282 21.5 8.1 90.6 6.8 2.9 86 <0.2 1.6 6.8 5.8 0.3 88 88 1.6 1.7 21.5 8.1 28.8 89.6 89.4 6.7 3.0 <0.2 Cloudy 825671 806961 C2 Rough 08:45 11.5 Middle 21.5 8.1 28.8 89.5 88 < 0.2 3.0 10.5 0.1 248 21.5 8.1 30.0 88.2 6.5 3.9 90 <0.2 1.5 21.5 8.1 30.0 88.3 6.5 Bottom 10.5 0.1 21.5 8.1 6.5 3.9 90 1.3 0.3 21.3 89.7 89.6 Surface 21.3 8.0 31.4 89.7 1.0 0.3 283 21.3 8.0 31.4 6.6 2.2 85 <0.2 3.7 6.6 6.1 0.3 21.4 32.2 88.9 89.1 6.5 6.5 4.0 3 88 <0.2 1.4 822122 817822 Cloudy Moderate 06:38 Middle 8.0 6.1 0.3 281 21.4 8.0 41 88 11.2 0.2 267 21.5 8.1 32.5 87.9 6.4 8.6 3 89 <0.2 3.2 Bottom 21.5 8.1 32.5 88.0 6.4 267 11 2 0.2 21.5 8.1 32.5 88.0 6.4 8.6 4 90 <0.2 3.2 0.0 21.5 1.0 7.7 89.6 6.5 5.8 85 <0.2 0.4 Surface 21.5 7.7 32.9 89.2 1.0 0.0 298 21.5 7.7 32.9 88.7 6.5 6.1 5 85 < 0.2 0.5 IM1 Fine Moderate 07:55 4.9 Middle 817925 807122 <0.2 3.9 0.1 50 21.6 33.4 33.3 6.4 6.5 90 <0.2 0.5 7.8 88.5 Bottom 0.1 7.8 89.1 7.2 90 0.6 53 21.6 39 <0.2 1.0 0.1 312 21.6 77 91.4 91.3 6.6 6.2 83 < 0.2 0.4 Surface 21.6 7.7 33.1 91.4 7.7 33.1 6.6 82 0.5 0.1 313 21.6 6.4 8 < 0.2 7.7 0.1 15 21.7 7.7 6 86 0.5 33.2 91.0 6.6 <0.2 IM2 Fine Moderate 08:02 7.0 Middle 21.7 7.7 33.2 91.1 86 818157 806153 <n 2 21.7 91.1 86 <0.2 3.5 6.0 0.1 15 50 0.1 7.7 6 90 0.5 33.5 33.5 92.0 6.7 8.2 7.7 92.1 6.7 Rottom 21.7 33.5 6.0 0.1 21.7 7.7 92.1 6.7 8.1 90 0.5 53 6 <0.2 1.0 0.1 292 21.6 7.7 84 0.8 32.5 32.5 92.0 6.7 3.4 <0.2 Surface 21.6 7.7 32.5 92.0 21.6 6.7 3.4 83 <0.2 0.8 6 0.7 3.5 0.0 339 7.7 6.6 3.9 4 87 <0.2 21.6 32.7 91.0 IM3 Fine 08:09 7.0 Middle 21.6 7.7 32.7 91.0 87 818781 805617 < 0.2 Moderate 0.0 21.6 32.7 91.0 6.6 87 <0.2 0.7 3.5 339 3.9 6.0 7.7 33.4 6.5 90 <0.2 0.7 90.3 7.7 6.5 Rottom 21.7 33.4 90.3 6.0 0.1 21.7 7.7 4.6 91 <0.2 0.7 21.5 93.9 93.8 3.1 0.8 1.0 0.3 280 7.7 32.2 6.9 83 <0.2 Surface 21.5 7.7 32.2 93.9 1.0 0.3 21.5 7.7 32.2 6.9 3.1 83 <0.2 0.8 299 3.9 0.3 286 21.6 7.7 3.4 86 <0.2 0.8 32.5 91.4 IM4 Fine Rough 08:17 7.8 Middle 21.6 7.7 32.5 91.4 819702 804616 <0.2 3.9 0.3 21.6 7.7 32.4 91.4 6.7 3.5 87 <0.2 7.7 <0.2 6.8 351 21.8 33.6 91.9 92.1 6.6 4.3 90 0.8 Bottom 21.8 7.7 33.6 92.0 6.6 359 21.8 6.8 0.1 33.6 4.4 4 91 0.9 1.0 0.3 276 21.5 7.7 30.8 92.9 6.9 3.3 86 <0.2 0.9 Surface 21.5 7.7 30.8 92.9 1.0 0.4 288 21.5 77 30.8 92.8 6.8 3.3 3 85 <0.2 0.8 7.7 3.6 0.3 296 21.6 31.8 89.9 6.6 5.5 3 90 <0.2 0.9 IM5 Fine Rough 08:25 7.2 Middle 21.6 7.7 31.8 90.0 820716 804862 3.6 0.3 316 21.6 7.7 31.8 90.0 6.6 5.6 4 89 <0.2 0.9 303 310 21.7 6.2 0.2 7.7 33.3 90.0 6.5 7.1 4 94 <0.2 0.9 Bottom 6.6 6.2 0.2 77 6.8 3 94 <0.2 1.0 1.0 0.3 265 21.6 77 30.6 90.2 6.7 6.4 4 85 <0.2 0.9 Surface 7.7 30.6 90.3 1.0 0.3 77 6 86 1.0 267 21.6 30.7 90.3 6.7 6.5 <0.2 1.0 3.5 247 7.9 4 89 0.2 21.6 7.8 31.2 89.8 6.6 805816 < 0.2 IM6 Fine Rough 08:35 7.0 Middle 21.6 7.8 31.2 89.9 821074 90 1.2 3.5 0.2 252 21.6 7.8 31.2 89.9 6.6 7.9 6 <0.2 6.0 0.1 248 21.7 7.8 32.6 90.6 6.6 7.8 6 93 <0.2 1.1 Bottom 21.7 7.8 32.6 90.7 6.6 6.0 0.1 271 21.7 7.8 32.6 90.7 6.6 7.8 93 <0.2 1.0 1.0 0.5 258 21.5 7.7 29.2 29.2 90.0 6.7 3.0 4 85 <0.2 0.9 Surface 21.5 7.7 29.2 90.0 7.7 90.0 6.7 1.0 21.5 0.9 0.5 262 3.0 4 86 < 0.2 6.7 7.7 29.7 29.7 6.7 5 90 <0.2 <0.2 0.9 3.9 0.3 257 21.5 89.6 3.5 21.5 7.7 29.7 89.6 821333 806839 IM7 Fine Rough 08:44 7.8 Middle 90 < 0.2 3.9 7.7 6.7 89 0.9 262 3.6 5 0.3 21.5 89.6 93 6.8 0.1 21.6 7.7 4 <0.2 0.9 332 32.9 91.6 6.7 5.5 7.7 91.7 6.7 Rottom 21.6 32.9 6.7 7.7 91.7 6.8 0.1 343 21.6 5.5 94 <0.2 0.9 1.0 0.2 21.5 8.1 6.8 4.3 1.2 228 28.4 90.8 85 <0.2 Surface 21.5 8.1 28.4 90.8 28.4 90.8 6.8 4.3 85 1.2 1.0 0.2 234 21.5 <0.2 21.5 5.0 <0.2 1.2 3.9 0.1 183 8.1 28.9 90.4 6.7 5 88 IM8 Cloudy Rough 08:16 7.8 Middle 21.5 8.1 28.9 90.4 87 821819 808133 1.2 < 0.2 3.9 0.1 196 21.5 8.1 6.7 5.0 5 87 <0.2 1.2 89 <0.2 1.2

8.2

8.2

21.5

32.1

32.1

92.7

92.7

6.8

6.8

5.7

4

0.2

21.5

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

Rottom

during Mid-Flood Tide Water Quality Monitoring Results on 02 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value 0.1 90.1 6.8 1.0 0.1 262 21.5 8.1 28.3 4.5 84 <0.2 1.3 3.7 0.0 21.5 8.1 8.1 90.7 6.8 5.0 88 87 <0.2 1.1 IM9 Cloudy Rough 08:10 7.4 Middle 90.7 5.5 87 822092 808808 <0.2 1.2 0.0 183 21.5 5.0 6.4 0.1 45 21.5 90.4 90.5 7.1 6 89 < 0.2 1.2 8.2 31.8 6.6 Bottom 21.5 8.2 31.8 90.5 6.6 6.6 8.2 31.8 1.2 6.4 0.2 21.5 7 1 90 48 <0.2 0.0 300 21.5 89.6 4.9 84 1.3 8.1 Surface 21.5 8.1 28.3 89.6 8.1 28.3 89.5 6.7 85 1.2 1.0 0.0 326 21.5 4.9 6 < 0.2 0.2 21.6 21.6 5.4 5.4 1.2 104 8.1 8.1 29.6 29.6 89.7 89.8 86 87 <0.2 3.6 6.7 IM10 Cloudy Rough 08:01 7.1 Middle 21.6 8.1 29.6 89.8 87 822404 809791 <0.2 6.1 0.2 87 21.5 8.1 91.6 6.8 6.2 89 < 0.2 1.2 30.9 8.1 30.9 91.7 6.8 Bottom 21.5 6.1 0.2 95 21.5 8.1 91.7 6.8 6.2 89 < 0.2 1.1 1.0 271 21.4 6.7 3.9 85 1.1 8.2 4 29.7 90.3 <0.2 Surface 21.4 8.2 29.7 90.3 1.0 0.1 280 21.4 8.2 29.7 90.3 6.7 3.9 85 <0.2 1.1 1.0 4.3 0.1 273 21.4 8.2 29.7 29.7 89.3 89.3 6.6 3.0 88 <0.2 IM11 Cloudy 822058 811474 Rough 07:51 8.6 Middle 21.4 8.2 29.7 89.3 88 <0.2 4.3 0.1 21.4 21.5 88 1.2 <0.2 296 113 3.0 7.6 8.2 29.8 88.9 6.6 3.2 <0.2 1.1 Rottom 21.5 8.2 29.8 89.0 6.6 7.6 0.1 117 21.5 8.3 29.8 89.0 6.6 3.2 90 1.1 21.4 8.1 29.6 29.6 89.4 89.5 3.7 85 <0.2 1.1 Surface 21.4 8.1 29.6 89.5 1.0 0.1 21.4 8.1 6.7 3.7 86 <0.2 1.1 4.0 0.1 78 21.4 89.8 3.6 88 <0.2 1.2 07:42 Middle 821461 812052 IM12 Cloudy Rough 21.4 8.1 29.6 89.8 <0.2 4.0 0.1 21.4 8.1 89.7 6.7 3.7 88 1.0 6.9 0.1 115 21.5 8.1 91.3 6.8 3.4 90 <0.2 1.1 Bottom 21.5 8.1 30.1 91.4 6.8 91.4 6.8 6.9 0.1 117 21.5 8.1 30.1 3.5 6 90 < 0.2 1.3 1.0 21.2 8.0 87.9 6.7 3.6 Surface 21.2 8.0 27.3 88.0 21.2 8.0 27.3 88.0 6.7 3.6 2 2.6 SR1A Cloudy Moderate 07:20 5.1 Middle 819973 812661 2.6 21.5 21.5 88.1 88.1 6.5 6.5 4.1 30.2 4.5 Bottom 21.5 8.1 30.2 88.1 6.5 41 44 8.1 1.0 0.3 346 21.4 8.0 30.1 89.9 6.7 23 86 <0.2 11 Surface 21.4 8.0 30.1 89.9 1.0 0.3 1.0 318 21.4 8.0 30.1 6.7 2.3 86 89.8 4 < 0.2 -SR2 Cloudy Moderate 07:01 4.8 Middle 87 821466 814168 0.2 339 312 3.8 21.4 8.1 30.6 89.3 89.3 6.6 4.8 88 <0.2 1.0 21.4 Bottom 8.1 30.6 89.3 6.6 21.4 8.1 30.6 4.8 1.1 89 < 0.2 247 1.0 0.2 21.4 8.1 28.3 91.2 6.8 6.9 6 Surface 21.4 8.1 28.3 91.2 1.0 0.3 28.3 251 21.4 8.1 91.1 6.8 7.0 6 4.5 5.4 6.7 220 21.5 8.1 29.5 90.2 6 SR3 08:22 Middle 21.5 822149 807554 Cloudy Rough 9.0 8.1 29.5 90.3 4.5 0.3 222 21.5 8.1 29.5 90.3 6.7 5.4 8 . 8.0 0.2 21.5 8.2 32.1 32.1 92.0 92.0 6.7 7.3 7.3 92.0 6.7 Rottom 21.5 8.2 32.1 0.1 78 21.3 7.8 6.8 4.0 30.4 91.8 Surface 21.3 7.8 30.4 91.9 1.0 83 21.3 91.9 6.8 4.2 6.7 4.4 0.2 21.6 6.5 6.5 7.8 33.1 89.5 SR4A Fine Moderate 07:14 8.7 Middle 21.6 7.8 33.1 89.5 817196 807825 4.4 0.2 69 21.6 7.8 6.5 6.5 0.2 63 21.6 7.8 33.3 90.4 6.6 6.8 Bottom 21.6 7.8 33.3 90.4 6.6 66 21.6 0.2 1.0 0.1 304 21.3 3.5 7.8 27.9 6.6 Surface 21.3 7.8 87.7 27.9 1.0 0.1 333 21.3 7.8 87.7 6.6 3.5 Fine Calm 06:57 Middle 810688 3.0 0.1 311 21.4 7.8 87.8 6.6 4.1 4 Bottom 21.4 3.0 0.1 330 21.4 6.6 4.0 221 1.0 0.0 21.5 77 28.5 86.5 6.5 3.3 21.5 7.7 86.4 1.0 0.0 226 21.5 77 28.7 6.5 3.5 4 6.5 -SR6A Fine Calm 06:31 4.0 Middle 817951 814743 7.7 3.0 0.0 218 21.5 29.0 29.0 86.7 87.3 6.5 6.5 3.8 5 -7.7 87.0 Bottom 7.7 3.0 0.0 236 21.5 3.8 1.0 0.1 27 21.4 8.1 8.1 31.9 31.9 89.0 88.9 6.5 6.5 1.5 1.5 Surface 21.4 8.1 31.9 89.0 1.0 0.1 29 21.4 7.8 0.2 356 21.5 8.0 32.8 32.8 88.8 6.5 3.5 3 -88.8 21.5 8.0 32.8 823647 823765 SR7 Cloudy Moderate 06:03 15.6 Middle 88.8 8.0 6.5 7.8 0.2 328 21.5 3.5 2 -14.6 0.1 14 21.5 8.0 88.7 6.5 6.5 3.1 3 32.8 Bottom 21.5 8.0 32.8 88.6 6.5 88.5 8.0 14.6 0.1 14 21.5 3.0 7.1 21.5 21.5 8.0 29.1 29.1 95.2 95.4 6.4 1.0 Surface 21.5 8.0 95.3 29.1 8.0 7.1 6.4 4 SR8 Cloudy Rough 07:33 4.9 Middle 820384 811643 8.2 29.7 86.6 6.4 21.5 8.2 29.7 86.7 6.4 Bottom

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

04 April 20

Water Quality Monitoring Results on

during Mid-Ebb Tide

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Surface

Middle

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Surface

Middle

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Surface

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Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water рΗ Coordinate Sampling Water Temperature (°C) Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value Value Value Value (Northing) (Easting) Value Value Value Average Average 1.0 0.1 190 21.6 0.8 1.0 0.1 208 21.6 8.1 30.3 95.5 71 19 <2 84 < 0.2 0.8 4.2 0.1 188 21.6 8.1 92.7 6.8 3.3 <2 88 <0.2 0.8 Cloudy Moderate 10:35 Middle 815615 804229 4.2 0.1 205 21.6 8 1 92.7 6.8 3.3 <2 89 <0.2 1.0 7.3 0.1 21.7 6.7 92 <0.2 1.0 206 8.1 92.8 Bottom 21.7 8.1 33.2 92.8 7.3 0.1 211 21.7 8.1 92.8 6.7 6.6 93 0.9 1.0 0.5 21.6 8.1 91.3 6.9 3.2 84 <0.2 1.3 26.2 Surface 21.6 8.1 91.4 26.2 1.0 0.5 167 21.6 8.1 91.5 6.9 3.2 84 <0.2 1.2 5.8 0.3 164 21.7 8.1 30.5 90.0 6.6 6.4 3 87 <0.2 1.3 C2 Moderate 11:58 11.6 Middle 21.7 8.1 30.5 90.0 825675 806932 Cloudy 5.8 0.3 175 21.7 8.1 6.6 6.4 87 <0.2 1.3 10.6 0.1 136 21.6 8.1 87.7 6.5 8.7 3 88 <0.2 1.3 21.6 8.1 87.8 6.5 Bottom 10.6 0.1 137 21.6 8.1 87.8 6.5 8.7 88 <0.2 1.3 0.3 21.4 8.0 90.7 6.7 1.1 85 0.6 31.1 <0.2 Surface 21.4 8.0 31.1 90.7 1.0 0.3 102 21.4 8.0 6.7 1.1 86 <0.2 0.6 6.6 6.2 0.3 21.5 6.5 2.3 <2 88 <0.2 0.6 8.0 32.6 88.5 C3 Cloudy Moderate 09:34 12.3 Middle 21.5 8.0 32.6 88.6 822120 817780 < 0.2 2.3 <2 89 0.6 6.2 87 21.5 <0.2 21.4 <2 0.7 11.3 0.2 61 8.0 3.4 90 <0.2 32.8 89.3 6.5 21.4 8.0 32.8 89.4 6.5 Bottom 11.3 0.2 65 21.4 89.5 6.5 3.3 <2 <0.2 0.7 0.1 200 21.6 4.8 88 8.0 94.4 <0.2 21.6 94.4 Surface 8.0 30.0 8.0 30.0 94.3 7.0 4.8 3 89 <0.2 1.4 1.0 0.1 203 21.6 -817925 807144 Rainy IM1 Moderate 10:56 4.7 Middle 3.7 210 21.7 8.0 32.0 92.1 6.7 10.1 4 91 <0.2 1.1 21.7 8.0 32.0 92.2 6.7 Bottom 3.7 211 21.7 8.0 92.2 6.7 10.0 92 <0.2 1.2 2.3 85 1.0 <0.2 95.4 Surface 21.6 8.1 29.0 95.4 1.0 0.1 199 21.6 95.3 2.3 85 <0.2 1.0 3.4 0.1 142 7.0 2.5 89 0.9 21.7 8.1 < 0.2 30.1 94.3 Middle 21.7 94.3 818164 806144 IM2 Rainy Moderate 11:04 6.7 8.1 30.1 3.4 0.1 146 21.7 8.1 94.3 7.0 2.6 89 <0.2 1.0 92 1.0 5.7 0.1 54 21.7 8.1 <0.2 32.3 92.1 6.7 3.6 21.7 Bottom 8.1 32.3 92.1 6.7 5.7 0.1 56 21.7 8.1 32.3 92.1 6.7 3.6 3 93 <0.2 1.0 0.1 21.6 85 0.9 8.0 94.8 < 0.2 Surface 21.6 8.0 29.1 94.9 0.9 1.0 0.1 89 8.0 29.1 94.9 7.1 2.3 3 86 <0.2 21.6 0.0 6.7 3.9 3 89 1.0 3.4 41 21.7 8.0 32.3 92.4 < 0.2 818774 805593 IM3 Rainy Moderate 11:11 6.8 Middle 21.7 8.0 32.3 92.4 89 1.1 3 91 3.4 0.0 41 21.7 8.0 32.3 92.3 6.7 3.9 <0.2 93 11 8.0 3 5.8 0.0 24 21.7 324 94.5 69 44 <0.2 Bottom 21.7 8.0 32.4 94.5 6.9 92 1.0 5.8 0.0 25 21.7 8.0 32.4 94.4 6.9 44 3 <0.2

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Suspended Solids

DA: Depth-Averaged

IM4

IM6

IM7

IM8

Rainy

Rainy

Rainy

Rainy

Cloudy

Moderate

Moderate

Moderate

Moderate

Moderate

11:21

11:31

11:40

11:49

7.7

7.4

7.0

8.2

7.8

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

11:23

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

during Mid-Ebb Tide Water Quality Monitoring Results on 04 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Value Average Average 0.2 90.5 1.0 0.2 115 21.7 8.1 26.2 6.8 2.6 4 84 <0.2 1.3 3.7 0.2 21.7 8.1 90.4 6.8 3.6 4 86 87 <0.2 1.2 IM9 Cloudy Moderate 11:15 7.4 Middle 49 87 822100 808803 <0.2 53 21.7 8.1 < 0.2 6.4 0.3 54 21.7 89 < 0.2 1.3 8.1 30.7 90.6 6.7 8.4 Bottom 21.7 8.1 30.7 90.7 6.7 6.7 6.4 0.3 21.7 8 1 30.7 90.8 8.4 88 13 55 <0.2 0.4 21.6 2.8 1.2 8.1 92.1 6.9 Surface 21.6 8.1 26.7 92.1 132 8.1 26.7 92.1 7.0 89 1.2 1.0 0.4 21.6 2.8 4 < 0.2 21.6 21.6 1.3 0.4 26.8 26.8 91.7 91.7 3.6 88 88 <0.2 4.0 8.1 6.9 IM10 Cloudy Moderate 11:06 7.9 Middle 21.6 8.1 26.8 91.7 88 822369 809816 <n 2 4.0 0.5 6.9 0.4 119 21.7 8.1 91.6 6.8 9.8 3 89 <0.2 1.2 29.6 8.1 29.6 91.6 6.8 Bottom 21.7 6.9 0.4 119 21.7 8.1 29.7 91.6 6.8 9.8 89 < 0.2 1.2 1.0 0.6 114 21.7 3.1 85 1.2 8.1 6.9 26.4 90.9 6 <0.2 Surface 21.7 8.1 26.4 90.9 1.0 118 21.7 8.1 26.4 90.8 6.9 3.1 6 85 <0.2 1.3 1.2 4.7 0.5 97 21.7 8.1 29.1 29.1 89.3 89.3 6.6 5.4 87 <0.2 IM11 Cloudy 822077 811445 Moderate 10:51 9.3 Middle 21.7 8.1 29.1 89.3 <0.2 4.7 0.5 8.1 5.5 88 106 <0.2 8.3 8.1 87.6 87.5 6.5 8.1 88 <0.2 1.3 Rottom 21.6 8.1 31.1 87.6 6.5 8.3 0.3 21.6 8.1 31.1 6.4 8.2 89 1.3 26.3 26.3 90.3 90.4 90.4 6.8 3.4 <0.2 1.2 Surface 21.6 8.1 26.3 1.0 0.5 118 21.6 8.1 3.4 85 <0.2 1.2 4.4 0.3 107 21.6 3.8 87 <0.2 1.1 90.2 Middle 821435 812039 IM12 Cloudy Moderate 10:36 21.6 8.1 30.0 90.1 4.4 0.3 110 21.6 8.1 6.7 3.8 88 1.2 7.8 0.1 75 21.5 8.1 89.2 6.6 43 4 89 <0.2 1.1 Bottom 21.5 8.1 31.3 89.2 6.6 89.2 7.8 0.1 78 21.5 8.1 31.3 6.6 4.3 4 89 <0.2 1.2 1.0 21.4 8.0 29.1 90.4 6.8 2.6 Surface 21.4 8.0 29.1 90.4 1.0 21.4 8.0 29.1 90.4 6.7 2.6 3 2.6 Cloudy Moderate 10:12 Middle 819981 812659 2.6 4.1 21.5 8.0 89.0 6.6 3.6 6.6 Bottom 21.5 8.0 30.6 89.0 4.1 21.5 8.0 30.6 88.9 6.6 3.7 3 1.0 0.1 50 21.5 8.0 30.6 88.7 4.1 87 <0.2 1.2 Surface 21.5 8.0 30.7 88.8 1.0 0.1 51 21.5 8.0 30.7 88.8 6.6 4.2 <2 87 <0.2 1.2 SR2 Cloudy Moderate 09:58 4.9 Middle 821464 814144 <0.2 1.2 40 31.2 89.7 89.7 6.6 Bottom 21.5 31.2 89.7 6.6 3.9 0.1 42 21.5 8.0 5.9 89 <0.2 1.2 1.0 0.1 133 21.6 8.1 26.4 91.5 6.9 3.3 8.1 26.4 91.5 1.0 0.1 134 21.6 8.1 26.4 91 4 6.9 3.4 3 4.6 0.2 75 21.7 8.2 29.9 91.7 6.8 5.4 3 SR3 Moderate 11:30 9.1 29.9 91.7 822152 807579 Cloudy 4.6 0.2 79 21.7 8.2 29.9 91.6 6.8 5.4 21.7 8.2 30.9 91.7 91.9 6.7 9.7 8.1 0.1 163 166 Bottom 21.7 91.8 6.8 0.1 1.0 0.2 82 21.6 8.1 30.1 93.9 6.9 4.9 Surface 21.6 8.1 30.1 93.9 1.0 0.2 21.6 8.1 30.1 93.9 6.9 4.9 85 5 -4.4 0.2 8.1 6.7 9.3 66 21.7 32.1 91.2 807807 SR4A Cloudy Calm 10:13 8.7 Middle 21.7 8.1 32.1 91.3 817181 4.4 0.2 70 21.7 8.1 32.1 91.3 6.7 9.3 4 0.2 8.1 10.1 32.1 92.7 6.8 Rottom 21.7 8.1 32.1 92.7 6.8 7.7 21.7 21.6 0.2 72 152 8.1 32.1 92.6 6.8 10.1 0.1 1.0 8.1 5.5 6.8 8 30.4 91.7 Surface 21.6 8.1 30.4 91.7 1.0 0.1 155 21.6 8.1 30.4 91.7 6.8 5.5 9 SR5A 09:55 4.3 Middle 816593 810705 Cloudy Calm 3.3 0.1 42 21.6 6.8 8.1 30.6 91.5 5.5 Bottom 21.6 8.1 30.6 91.5 6.8 3.3 0.1 21.6 0.0 8.3 90.3 Surface 21.5 8.3 29.8 90.3 174 21.5 3.3 SR6A Cloudy 09:26 4.1 Middle 817969 814745 Calm 3.1 0.0 159 21.5 88.0 6.5 Bottom 88.0 1.0 0.1 312 21.4 7.9 32.9 87.3 87.2 6.4 2.4 Surface 7.9 1.0 0.1 330 21.4 79 32 9 6.4 2.4 8.0 0.1 65 21.4 7.9 33.1 86.9 6.3 2.7 3 SR7 Cloudy Moderate 08:53 Middle 87.0 823651 823718 8.0 0.1 70 21.4 79 33.1 87.0 6.3 2.8 3 15.0 0.1 105 21.4 7.9 87.2 6.4 3.1 3 Bottom 7.9 87.2 15.0 0.1 109 21.4 7.9 6.4 3.1 21.6 21.6 91.7 91.8 1.0 8.1 26.9 26.9 4.9 Surface 21.6 91.8 6.9 5.0 8 1 4 6.9 --SR8 Cloudy Moderate 10:26 4.8 Middle 820388 811627 3.8 21.6 7.2 8.1 28.3 91.7 6.9 Bottom 21.6 8.1 28.3 91.8 21.6

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

during Mid-Flood Tide Water Quality Monitoring Results on 04 April 20 Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value Value Value (Northing) (Easting) Value Value Value Average 0.2 1.0 1.0 0.2 52 21.7 8.0 30.9 96.7 71 2.8 87 <0.2 1.0 4.5 0.4 46 21.7 8.0 33.2 94.2 6.8 5.0 3 91 <0.2 0.9 15:18 Middle 8.0 33.2 94.2 815611 804258 Cloudy Moderate 8.9 < 0.2 4.5 0.4 47 21.7 94.2 5.0 92 <0.2 0.9 94 1.0 21.7 93.8 6.8 9.8 <0.2 33.3 Bottom 21.7 8.1 33.3 93.8 6.8 7.9 46 21.7 8.1 6.8 9.8 <0.2 0.9 178 21.8 8.0 6.9 2.8 84 <0.2 1.5 91.5 Surface 21.8 8.0 91.5 25.2 1.0 0.3 194 21.8 8.0 91.4 6.9 2.8 84 <0.2 1.5 6.8 5.7 0.3 191 5.6 4 87 87 1.6 1.5 8.1 30.1 90.8 6.7 <0.2 Cloudy 825671 806942 C2 Moderate 13:54 11.4 Middle 21.7 8.1 30.1 90.8 < 0.2 200 5.7 10.4 0.1 21.8 8.1 92.0 6.7 9.9 4 89 <0.2 1.6 21.8 8.1 92.0 Bottom 10.4 0.1 327 21.8 8.1 6.7 9.8 88 1.6 0.1 246 21.7 92.2 92.2 0.9 Surface 21.7 8.2 30.3 92.2 1.0 0.1 248 21.7 8.2 30.3 6.8 1.7 4 87 <0.2 0.9 5.6 0.2 21.5 88.2 88.1 6.5 5.5 5.7 89 <0.2 1.0 822109 Cloudy Moderate 15:56 Middle 0.3 282 21.5 8.2 89 10.2 0.3 270 21.4 8.2 32.9 87.6 6.4 8.8 3 91 <0.2 0.9 8.2 32.9 87.7 10.2 0.4 284 21.4 8.2 32 9 87.7 6.4 9.1 91 <0.2 0.9 0.1 16 1.0 21.9 8.0 7.1 3.2 88 0.9 Surface 21.9 8.0 96.5 1.0 0.1 17 21.9 8.0 30.1 96.5 7.1 3.2 5 88 < 0.2 1.0 -Cloudy Moderate 14:58 5.3 817961 807135 <0.2 43 0.1 34 21.7 32.3 32.3 93.6 93.5 6.8 90 <0.2 1.0 8.0 8.5 Bottom 0.1 8.0 8.5 90 0.9 43 21.7 <0.2 35 329 1.0 0.2 21.8 8.0 29.9 29.9 96.6 23 87 < 0.2 1.0 Surface 21.8 96.6 96.6 1.0 8.0 7.1 2.3 88 1.0 0.2 303 21.8 < 0.2 3.1 0.2 338 21.7 6.9 6.9 3.1 3 91 1.0 8.0 31.2 94.4 <0.2 IM2 Cloudy Moderate 14:50 6.2 Middle 21.7 8.0 31.2 94.4 818167 806167 <n 2 92 95 0.2 21.7 8.0 94.4 <0.2 3.1 354 18 5.2 8.0 32.6 32.6 10.9 0.9 93.8 6.8 93.8 6.8 Rottom 21.7 8.0 32.6 5.2 21.7 8.0 93.8 6.8 10.9 95 1.0 0.2 18 < 0.2 1.0 0.1 21.9 87 300 0.9 8.0 30.3 96.4 7.1 2.6 <0.2 Surface 21.9 8.0 30.3 96.4 21.9 2.6 87 <0.2 0.9 3.5 0.1 339 21.8 6.9 4.4 90 <0.2 0.9 8.0 31.7 94.5 IM3 Cloudy 14:29 7.0 Middle 21.8 8.0 31.7 94.5 818762 805613 < 0.2 Moderate 0.1 347 21.8 8.0 31.7 94.5 4.4 4 91 <0.2 0.9 3.5 6.0 6.8 13.0 95 <0.2 0.9 93.7 6.8 Rottom 21.7 8.0 32.6 93.7 6.0 0.2 21.7 8.0 32.6 93.6 13.0 95 <0.2 0.9 334 21.9 95.0 95.0 1.2 1.0 8.0 31.5 6.9 4.9 86 <0.2 Surface 21.9 8.0 31.5 95.0 1.0 0.2 307 21.9 8.0 31.5 6.9 4.9 86 <0.2 1.2 3.9 0.1 338 21.8 7.1 90 <0.2 1.2 93.9 IM4 Cloudy Moderate 14:19 7.8 Middle 21.8 8.0 31.7 93.9 90 819724 804601 <0.2 0.1 21.8 8.0 31.7 93.9 6.9 7.1 90 <0.2 <0.2 1.2 6.8 0.2 18 19 21.8 32.6 32.6 93.0 6.8 6.7 Bottom 21.8 8.1 32.6 93.0 6.8 21.8 8.1 6.8 0.2 6.7 95 1.0 0.1 12 21.7 8.0 94.5 7.0 4.2 88 <0.2 1.3 29.2 Surface 8.0 29.2 94.5 1.0 0.2 12 21.7 8.0 29.2 94.5 7.0 4.2 89 <0.2 1.3 3.6 0.3 14 21.8 8.0 30.8 91.2 6.7 6.5 4 91 <0.2 1.3 IM5 Sunny Moderate 14:09 Middle 21.8 8.0 30.8 91.2 820711 804850 3.6 0.3 14 21.8 8.0 30.8 91.2 6.7 6.5 4 92 <0.2 1.3 21.8 21.8 6.8 6.1 0.2 18 32.0 32.0 93.1 6.4 92 1.3 6.8 6.1 0.2 18 8.0 93.2 6.4 93 <0.2 13 1.0 0.1 248 21.8 8.0 26.7 95.4 7.2 2.1 85 <0.2 1.4 Surface 8.0 95.5 1.0 0.1 72 2 87 1.5 258 21.8 8.0 26.7 95.5 2.1 <0.2 1.5 91 0.1 6.7 5.1 4 3.4 21.7 8.0 30.6 91.3 805820 < 0.2 IM6 Moderate 14:01 6.7 Middle 30.6 91.3 821061 Sunny 6.7 93 1.5 3.4 0.1 21.7 8.0 30.6 91.3 5.0 4 <0.2 5.7 0.2 42 21.7 8.0 31.1 91.1 6.7 5.0 4 94 <0.2 1.5 Bottom 21.7 8.0 31.1 91.2 6.7 5.7 0.2 21.7 8.0 31.1 91.2 6.7 5.0 95 <0.2 1.4 256 1.0 0.2 21.7 8.0 26.6 94.3 7.1 2.1 87 <0.2 1.3 Surface 21.7 26.6 94.2 26.6 94.1 1.4 1.0 21.7 8.0 7.1 2.1 87 0.2 263 4 < 0.2 27.6 27.6 7.0 3 89 1.3 4.0 0.0 336 21.7 7.9 93.1 2.9 < 0.2 21.7 7.9 27.6 93.2 821366 806831 IM7 Sunny Moderate 13:50 8.0 Middle 90 < 0.2 7.0 2.9 <0.2 4.0 309 7.9 3 90 1.4 0.0 21.7 93.2 94 1.4 7.0 0.1 75 21.7 7.9 <0.2 31.2 91.9 6.7 6.3 21.7 7.9 6.7 Rottom 31.2 91.9 7.0 7.9 6.7 0.1 76 21.7 6.3 94 <0.2 1.4 1.0 0.1 288 21.9 8.1 1.3 26.6 94.4 7.1 2.1 85 <0.2 Surface 21 9 8.1 94.4 26.6 26.6 94.4 2.1 85 1.4 1.0 292 21.9 <0.2 0.1 21.8 4.9 87 <0.2 1.4 3.9 262 8.1 26.9 92.5 7.0 3 IM8 Fine 14:20 7.8 Middle 21.8 8.1 26.9 92.6 87 821853 808142 Moderate < 0.2 3.9 0.1 265 21.8 8.1 5.0 3 87 1.4 6.8 89 1.4 21.7 8.1 30.8 92.4 4 21.7 8.1 30.8 92.4 6.8

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

during Mid-Flood Tide Water Quality Monitoring Results on 04 April 20 Suspended Solids Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value Value Average 0.1 1.4 6.9 1.0 0.1 293 21.7 8.1 27.0 92.3 2.8 85 <0.2 1.4 6.9 3.8 0.2 282 300 21.7 8.1 91.3 91.3 6.8 4.3 4.3 4 87 87 <0.2 1.4 IM9 Fine Moderate 14:28 7.5 Middle 8.1 91.3 87 822070 808810 <0.2 21.7 8.1 6.5 0.1 263 21.7 89 < 0.2 1.4 8.1 30.4 91.4 6.7 7.4 Bottom 21.7 8.1 30.4 91.5 6.7 91.5 6.7 1.5 6.5 0.1 21.7 8 1 30.4 7.4 89 265 297 <0.2 0.2 22.0 1.4 8.1 < 0.2 Surface 22.0 8.1 27.0 93.3 8.1 27.0 93.3 7.0 84 1.4 1.0 0.2 305 22.0 2.6 4 < 0.2 21.7 0.3 5.0 1.3 4.5 8.1 8.1 27.8 27.9 90.7 87 88 <0.2 6.8 IM10 Fine Moderate 14:39 9.0 Middle 21.7 8.1 27.9 90.7 87 822387 809775 <0.2 8.0 0.4 286 21.7 8.2 90.7 6.7 7.5 3 89 < 0.2 1.3 30.9 21.7 8.2 30.9 90.8 6.7 Bottom 8.0 0.4 293 21.7 8.2 90.8 6.7 7.5 90 < 0.2 1.4 1.0 0.2 348 21.9 2.9 84 1.5 8.2 6.9 27.6 92.8 <0.2 Surface 21.9 8.2 27.6 92.8 1.0 0.2 356 21.9 8.2 92.7 6.9 2.9 85 <0.2 1.4 4.6 0.3 310 21.7 8.2 29.5 29.5 6.6 6.0 87 <0.2 1.4 89.4 IM11 89.4 822052 811444 Fine Moderate 14:50 9.1 Middle 21.7 8.2 29.5 <0.2 4.6 0.3 8.2 89.4 6.1 88 1.4 340 <0.2 8.1 305 21.6 8.1 30.8 89.4 6.6 10.3 90 <0.2 1.5 Rottom 21.6 8.1 30.8 89.5 6.6 8.1 0.3 326 21.6 8.1 30.8 89.6 6.6 10.5 90 1.4 91.1 3.3 85 <0.2 1.5 Surface 21.8 8.1 27.5 91.1 1.0 0.2 321 21.8 8.1 6.8 3.4 4 86 <0.2 1.5 4.7 0.3 273 21.6 87.0 7.5 4 88 <0.2 1.5 Middle 87.0 821435 IM12 Fine Moderate 14:58 21.6 8.2 30.4 4.7 0.3 21.6 8.2 30.4 87.0 6.4 7.6 88 1.4 8.3 0.3 303 21.5 8.1 87.2 10.3 90 <0.2 1.5 Bottom 21.5 8.1 31.2 87.3 6.4 31.2 87.4 8.3 0.3 314 21.5 8.1 6.4 10.3 3 90 < 0.2 1.4 1.0 21.9 8.1 94.0 7.0 2.5 4 Surface 21.9 8.1 27.2 94.0 21.9 8.1 27.2 94.0 7.0 2.5 4 2.7 SR1A Cloudy Moderate 15:18 5.3 Middle 819971 812654 2.7 21.6 21.6 93.3 7.0 4.3 28.3 2.9 Bottom 21.6 8.1 28.3 93.3 7.0 8.1 1.0 0.3 340 21.8 8.2 28.8 91.8 6.8 41 87 <0.2 1.0 Surface 21.8 8.2 28.8 91.8 1.0 0.3 358 21.8 8.2 28.9 6.8 41 5 88 0.9 91.8 < 0.2 -SR2 Cloudy Moderate 15:31 4.7 Middle 89 821478 814162 3.7 0.3 339 353 30.6 93.3 93.3 6.9 5.4 89 <0.2 0.9 Bottom 21.6 8.2 30.6 93.3 6.9 0.3 21.6 8.2 30.6 5.4 90 < 0.2 0.9 1.0 0.2 208 21.9 8.1 27.2 92.8 6.9 2.4 4 Surface 21.9 8.1 27.2 92.8 1.0 8.1 27.2 6.9 0.2 223 21.9 92.7 2.4 4 4.5 3.6 274 6.9 4 21.6 8.1 27.8 92.1 SR3 14:13 Middle 21.6 27.8 822161 807557 Fine Moderate 8.9 8.1 92.1 4.5 0.1 288 21.6 8.1 27.8 92.0 6.9 3.5 4 . 7.9 0.1 21.7 8.1 30.9 91.7 91.5 6.7 6.6 40 21.7 91.6 6.7 Rottom 8.1 30.9 1.0 0.1 74 21.9 7.9 94.9 7.0 3.6 30.1 Surface 21 9 7.9 30.1 95.0 1.0 79 21.9 95.0 7.0 3.6 6.9 4.2 0.1 21.7 6.8 6.0 7.9 31.3 92.5 SR4A Cloudy Calm 15:38 8.3 Middle 21.7 7.9 31.3 92.5 817179 807816 4.2 0.1 67 21.7 7.9 6.8 6.1 0.2 21.7 7.9 32.1 91.5 6.7 8.5 Bottom 21.7 7.9 32.1 91.5 6.7 7.3 21.7 6.7 0.2 1.0 0.1 211 21.9 7.9 6.9 3.6 30.3 94.5 Surface 21.9 7.9 30.3 94.5 1.0 0.1 228 21.9 7.9 94.4 6.9 3.6 6 Cloudy Calm 15:56 Middle 810709 2.8 0.1 241 21.7 7.9 30.5 93.3 6.9 4.3 4 Bottom 21.7 7.9 6.9 2.8 0.1 258 162 21.7 7 0 6.0 13 1.0 0.0 21.9 7.9 29.0 94.4 7.0 2.3 21.9 1.0 0.0 169 21.9 79 29.0 94 4 7.0 2.3 4 -SR6A Calm 16:24 3.5 Middle 817949 814722 Cloudy 2.5 0.0 90 21.8 7.9 7.9 29.3 29.3 93.6 93.6 6.9 6.9 2.6 4 -7.9 29.3 93.6 Bottom 2.5 0.0 94 21.8 1.0 0.0 228 237 21.5 8.2 8.2 32.9 32.9 88.0 88.1 6.4 1.4 Surface 21.5 8.2 32.9 88.1 1.4 1.0 0.0 21.5 4 7.7 0.0 21.5 8.2 33.0 33.0 87.9 6.4 263 1.6 4 -87.8 8.2 33.0 823626 823760 SR7 Cloudy Moderate 16:31 15.4 Middle 21.5 87.7 8.2 6.4 4 7.7 0.0 277 21.5 1.6 -14.4 0.1 179 21.5 8.2 86.9 87.0 6.3 1.7 5 33.0 Bottom 21.5 8.2 33.0 87.0 6.3 8.2 1.8 14.4 0.1 183 21.5 6.9 1.0 21.9 21.9 8.1 26.9 26.9 92.0 91.9 3.2 5 Surface 21 9 8.1 92.0 26.9 8.1 69 SR8 Cloudy 15:09 5.1 Middle 820411 811626 Moderate 8.2 29.4 90.3 6.2 21.5 8.2 29.4 90.4 6.7 Bottom

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 07 April 20 during Mid-Ebb Tide

Water Qua	ity Monit	oring Kesu	its on		07 April 20	during Mid-	-Epp Ha€	9																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Depti	h (m)	Current Speed	Current	Water Tempe	rature (°C)		рН	Salir	ity (ppt)		turation %)	Disso Oxy		Turbidity(NTU)	Suspende (mg	ed Solids /L)	Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/l		ckel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value A	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA Valu	lue DA
					Surface	1.0	0.7	216 229	21.0	21.0	8.1 8.1	8.1	28.6	28.6	93.5 93.4	93.5	7.1 7.1		5.2 5.2	-	8		85 85				<0.2	1.0	
C1	Cloudy	Moderate	12:46	8.2	Middle	4.1	0.7	211	20.9	20.9	8.1	8.1	30.5	30.5	90.4	90.4	6.8	7.0	10.0	10.2	8	9	88	88	815627	804233	<0.2	-0.9	9 00
	ĺ				Bottom	4.1 7.2	0.7	222 215	20.9 20.9	20.9	8.1 8.1	8.1	30.5	20.0	90.4 90.2	90.2	6.8	6.7	10.2 15.2	H	8 10		88 91				<0.2	0.9	
						7.2 1.0	0.6	233 173	20.9		8.1 8.0		30.9 24.1	30.9	90.2 87.7		6.7	0.7	15.2 12.8		8 7		90 85				<0.2	0.9	
					Surface	1.0	1.1	182	21.2	21.2	8.0	8.0	24.0	24.0	87.6	87.7	6.8	6.7	12.5	L	8		85				<0.2	1.1	.1
C2	Fine	Moderate	13:41	11.2	Middle	5.6 5.6	1.0	174 189	21.1	21.1	8.0	8.0	29.7	29.7	88.0 88.1	88.1	6.6	0.,	15.1 14.8	14.3	7	7	88 88	88	825689	806924	<0.2	<0.2	2 1.2
					Bottom	10.2	0.5	177	21.1	21.1	8.0	8.0	30.3	30.3	89.1	89.1	6.7	6.7	15.4	F	6 7	Ī	91 91				<0.2	1.2	2
					Surface	10.2	0.5	193 94	21.1	21.2	8.0	8.0	30.3	31.3	89.1 88.2	88.2	6.6		15.0 2.8		5		86				<0.2 <0.2	0.6	.6
						1.0 6.3	0.5 0.5	98 94	21.2		8.0		31.3 31.4		88.1 88.0		6.5 6.5	6.5	2.8 3.9	-	5 6	•	86 89				<0.2	0.6	c
C3	Fine	Moderate	11:38	12.5	Middle	6.3	0.5	102	21.2	21.2	8.0	8.0	31.4	31.4	87.9	88.0	6.5		3.9	4.8	5	5	89	89	822114	817779	<0.2	0.6	.6
					Bottom	11.5 11.5	0.4	96 104	21.2	21.2	8.0	8.0	31.6	31.6	88.6 88.7	88.7	6.6	6.6	7.8 7.7	F	5		93 92				<0.2	0.6	
					Surface	1.0	0.0	261 282	21.0 21.0	21.0	8.1 8.1	8.1	28.9	28.9	93.4 93.4	93.4	7.0		6.3 6.4		7		87 87				<0.2	0.9	
IM1	Cloudy	Moderate	13:10	4.9	Middle	-	-	-	-	-	-	_	-	_	-	_	-	7.0	-	7.3	-	7	-	88	817972	807123	-	-02	
	,					3.9	0.1	229	20.8		8.0		29.5		92.9		7.0		8.3		- 6		89				<0.2	0.8	
					Bottom	3.9 1.0	0.1	234 106	20.8	20.8	8.0 8.2	8.0	29.5	29.5	93.0 91.0	93.0	7.0 6.8	7.0	8.3 14.0		6 8		88 84				<0.2 <0.2	0.8	.8
					Surface	1.0	0.2	107	20.9	20.9	8.2	8.2	30.0	30.0	91.1	91.1	6.8	6.8	13.9	Ŀ	9	l	84				<0.2	0.9	.9
IM2	Cloudy	Moderate	13:18	6.6	Middle	3.3	0.1	83 89	20.9	20.9	8.2 8.2	8.2	30.3	30.3	89.7 89.7	89.7	6.7	0.0	15.8 15.8	14.9	16 17	14	87 87	87	818169	806187	<0.2	<0.2	
					Bottom	5.6 5.6	0.1	64 67	20.0	20.9	8.2 8.2	8.2	30.4	30.4	91.4 91.5	91.5	6.8	6.8	15.0 15.1	Į	17 16		89 89				<0.2	0.9	.9
					Surface	1.0	0.1	142	20.9	20.9	8.2	8.2	29.8	29.8	89.8	89.8	6.7		15.3	L	22		84				<0.2	0.9	.9
						1.0 3.3	0.1	152 110	20.9		8.2 8.2		29.8 29.9		89.8 89.0		6.7	6.7	15.5 18.9	F	22 18	1	85 87				<0.2	0.9	0
IM3	Cloudy	Moderate	13:26	6.5	Middle	3.3	0.1	112	20.9	20.9	8.2	8.2	29.9	29.9	89.0	89.0	6.7		18.8	18.7	19	19	87	87	818786	805580	<0.2	<0.2	.9
					Bottom	5.5 5.5	0.1	108 118	20.9	20.9	8.2 8.2	8.2	30.0	30.0	88.8 88.8	88.8	6.7	6.7	21.8 21.7	-	18 16		88 89				<0.2	0.8	
					Surface	1.0	1.0	198 211	21.1	21.1	8.2 8.2	8.2	29.4	29.4	91.9 91.8	91.9	6.9		14.7 14.8		20 19		84 85				<0.2	0.9	9
IM4	Cloudy	Moderate	13:39	7.4	Middle	3.7	0.9	196	21.0	21.0	8.2	8.2	29.7	29.7	91.2	91.2	6.8	6.9	19.3	18.2	20	19	87	87	819736	804630	<0.2	-0.2	.0
	,				Bottom	3.7 6.4	1.0 0.9	210 196	21.0 21.0	21.0	8.2 8.2	8.2	29.7 29.7	29.7	91.1 90.6	90.6	6.8	6.8	19.3 20.7	L	18 18		88 89				<0.2	1.0	.0
						6.4 1.0	0.9	205 209	21.0		8.2 8.1		29.7 24.7		90.6 90.5		6.8 7.0	0.0	20.6 10.6		18 9		89 84				<0.2	0.9	
					Surface	1.0	1.4	220	21.0	21.0	8.1	8.1	24.7	24.7	90.5	90.5	7.0	6.9	10.6	Į	10		85				<0.2	1.4	4
IM5	Cloudy	Moderate	13:54	6.8	Middle	3.4	1.0	216 228	21.0 21.0	21.0	8.1 8.1	8.1	26.3	26.3	89.1 89.2	89.2	6.8		16.4 16.5	15.1	10 11	11	88 88	87	820719	804861	<0.2	<0.2	
					Bottom	5.8 5.8	0.9	220 229	21.0 21.0	21.0	8.1 8.1	8.1	27.4 27.4	27.4	89.3 89.4	89.4	6.8	6.8	18.1 18.1	F	12 11	Ī	89 89				<0.2	1.4	4
					Surface	1.0	0.8	251	21.0	21.0	8.1	8.1	29.0	29.0	90.3	90.3	6.8		12.0		6		84				<0.2	1.2	2
						1.0 3.2	0.8	268 251	21.0		8.1 8.1		29.1 29.8		90.3 89.6		6.8	6.8	12.2 19.5		5 5	_	83 88				<0.2	1.2	2
IM6	Cloudy	Moderate	14:08	6.3	Middle	3.2 5.3	0.8	257 252	20.9	20.9	8.1	8.1	29.8	29.8	89.7	89.7	6.7		19.5 20.2	17.3	6	6	87 89	87	821061	805812	<0.2	<0.2	.2
					Bottom	5.3	0.6	260	20.9	20.9	8.1	8.1	29.9 29.9	29.9	90.1	90.2	6.8	6.8	20.2	-	7		88				<0.2	1.2	2
					Surface	1.0	0.8	232 244	21.2	21.2	8.1	8.1	27.2	27.2	91.1	91.1	6.9		11.7 11.9	F	11 10		85 86	I			<0.2	1.4	
IM7	Cloudy	Moderate	14:20	7.9	Middle	4.0	0.8	238	21.1	21.1	8.1	8.1	28.8	28.8	89.6	89.6	6.7	6.8	15.8	15.2	9	10	88	88	821354	806848	<0.2	<0.2	4 44
					Bottom	4.0 6.9	0.8	243 256	21.1	21.0	8.1 8.1	8.1	28.8 29.1	29.1	89.6 91.4	91.5	6.8 6.9	6.9	16.0 18.1	E	9		88 89				<0.2	1.5	.5
						6.9 1.0	0.7	262 243	21.0		8.1 8.0		29.1 27.4		91.5 90.9		6.9 6.9	0.5	17.9 7.9		9		89 85				<0.2	1.4	
					Surface	1.0	0.1	245	21.1	21.1	8.0	8.0	27.4	27.4	90.9	90.9	6.9	6.9	8.0	ļ	5		85				<0.2	1.2	2
IM8	Fine	Moderate	13:12	7.6	Middle	3.8	0.2	242 259	20.9	20.9	8.0	8.0	29.3	29.3	91.3 91.3	91.3	6.9		11.2 11.3	10.8	5	5	88 89	88	821836	808136	<0.2	<0.2	
					Bottom	6.6 6.6	0.1	239 246	20.9 20.9	20.9	8.0	8.0	29.7	29.7	93.7 94.4	94.1	7.0	7.1	13.3	F	6		91 92				<0.2	1.2	2
DA: Depth-Aver	aned			1		0.0	J U. I	240	20.9		0.0	<u> </u>	29.7		94.4		7.1		13.1		5	I	92				<∪.∠		السلك

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

during Mid-Ebb Tide Water Quality Monitoring Results on 07 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Value Average Average 0.3 90.2 1.0 0.3 160 21.1 8.0 27.6 6.8 7.5 85 <0.2 1.0 3.7 0.3 145 20.9 8.0 90.4 6.8 8.4 88 <0.2 1.0 28.5 IM9 Fine Moderate 13:07 7.3 Middle 8.7 88 822101 808792 <0.2 0.3 148 20.9 8.6 6 < 0.2 6.3 0.3 139 21.0 6.9 7.0 91 <0.2 1.0 8.0 29.7 92.1 10.8 6 Bottom 21.0 8.0 29.7 92.6 7.0 93.1 29.7 6.3 0.3 149 8.0 10.3 91 1.0 21.0 <0.2 0.8 21.2 8.8 1.0 8.0 83 6.9 Surface 21.2 8.0 27.5 91.3 114 8.0 27.5 91.3 6.9 82 1.0 1.0 0.8 21.2 8.9 4 < 0.2 21.0 21.0 10.2 1.0 0.8 8.0 92.8 92.9 <0.2 3.9 93 96 7.0 86 87 IM10 Fine Moderate 12:59 7.7 Middle 21.0 8.0 28.3 92.9 86 822368 809800 <n 2 0.8 6 6.7 0.5 85 20.9 8.0 96.1 7.3 11.4 90 <0.2 0.9 28.6 8.0 7.3 Bottom 20.9 28.5 96.6 6.7 0.6 92 20.9 8.0 28.5 97.1 7.3 11.0 90 < 0.2 1.0 1.0 0.9 107 21.1 11.7 83 0.6 8.0 6.8 27.7 90.4 8 <0.2 Surface 21.1 8.0 27.7 90.6 1.0 1.0 21.1 8.0 90.7 6.9 11.8 8 83 <0.2 0.6 0.6 3.9 0.9 99 21.0 8.0 91.1 6.9 12.0 86 <0.2 28.4 IM11 822066 811479 Fine Moderate 12:46 7.8 Middle 21.0 8.0 28.4 91.2 <0.2 0.9 8.0 87 0.6 3.9 <0.2 12.0 6.8 8.0 28.9 91.8 6.9 13.3 90 <0.2 0.6 Rottom 21.0 8.0 28.8 92.1 7.0 6.8 0.8 99 21.0 8.0 28.8 92.4 7.0 13.6 10 90 0.6 27.6 27.5 89.6 89.5 85 <0.2 0.6 Surface 21.2 8.0 27.5 89.6 1.0 0.9 107 21.2 8.0 6.8 7.1 85 <0.2 0.6 4.9 0.6 95 20.9 8.0 8.5 6 88 <0.2 0.6 90.6 12:38 Middle 821444 IM12 Fine Moderate 20.9 8.0 28.8 90.8 <0.2 4.9 0.6 20.9 8.0 6.9 8.3 88 0.6 8.7 0.5 88 20.9 8.0 29.1 92.3 7.0 10.3 91 <0.2 0.6 Bottom 20.9 8.0 29.1 92.7 7.0 8.7 0.5 96 20.9 8.0 29.1 93.0 7.0 10.9 92 < 0.2 0.6 1.0 20.9 8.0 29.6 88.7 6.7 5.9 Surface 20.9 8.0 29.6 88.8 1.0 20.9 8.0 29.6 88.8 6.7 6.4 4 2.8 SR1A Fine Calm 12:18 5.6 Middle 819974 812656 2.8 4.6 21.0 8.0 90.2 6.8 10.5 4 6.8 Bottom 21.0 8.0 30.0 90.5 4.6 21.0 8.0 30.0 90.7 6.8 10.5 4 1.0 0.6 70 21.1 8.0 25.7 90.1 3.7 84 <0.2 0.6 Surface 21.1 8.0 25.7 90.4 1.0 0.6 21.2 8.0 25.7 90.6 6.9 3.9 6 85 <0.2 0.6 SR2 Fine Moderate 12:04 4.7 Middle 821460 814152 <0.2 0.6 3.7 29.6 29.7 92.2 6.9 6.9 Bottom 92.4 6.9 3.7 0.3 63 21.0 8.0 6.9 6 89 <0.2 0.5 1.0 0.2 216 21.1 8.0 28.0 89.4 6.8 7.2 8 8.0 28.0 89.5 1.0 0.2 227 21.0 8.0 28.0 89.6 6.8 7.6 7 4.4 0.2 209 20.9 8.0 28.9 89.7 6.8 10.0 7 SR3 Fine Moderate 13:18 8.8 28.9 89.6 822158 807564 4.4 0.2 214 20.9 8.0 28.9 89.5 6.8 10.3 6 0.2 20.9 8.0 89.8 89.8 6.7 11.2 11.2 7.8 225 242 Bottom 89.8 6.7 1.0 0.1 44 20.9 8.1 28.6 91.6 6.9 8.2 10 Surface 20.9 8.1 28.6 91.6 1.0 0.1 46 8.1 28.6 91.6 6.9 8.2 10 20.9 -4.0 0.2 54 8.1 6.8 9.7 20.8 29.0 89.3 8 807805 SR4A Cloudy Calm 12:26 8.0 Middle 20.8 8.1 29.0 89.4 817178 4.0 0.2 55 20.8 8.1 29.0 6.8 9.8 89.4 8 0.1 20.8 8.1 45 29.4 91.4 6.9 12.2 Rottom 20.8 8.1 29.4 91.4 6.9 7.0 0.1 48 20.8 8.1 29.4 91.4 6.9 12.2 1.0 0.2 8.1 12 6.9 11.5 29.7 91.2 Surface 20.9 8.1 29.7 91.2 1.0 0.2 101 20.9 8.1 29.7 91.2 6.9 11.5 11 SR5A 12:06 3.7 Middle 12 816614 810677 Fine Calm 2.7 0.1 53 20.9 8.0 6.9 8.8 11 30.1 91.7 Bottom 20.9 8.0 30.1 91.8 6.9 2.7 0.1 20.9 0.1 8.0 6.8 90.2 Surface 20.9 8.0 30.2 90.2 293 20.9 13.5 16 SR6A Fine 11:28 4.1 Middle 817950 814721 Calm 0.1 287 20.9 92.1 6.9 14.4 17 Bottom 7.9 3.1 0.1 292 56 1.0 0.5 21.1 8.0 32.1 85.8 86.1 6.3 4.1 Surface 8.0 1.0 0.5 57 21.1 8.0 6.4 42 9 9.0 0.3 39 21.1 8.0 32.3 85.4 6.3 5.6 9 SR7 Fine Calm 11:00 Middle 823641 823764 9.0 0.4 41 21 1 8.0 32.3 85.3 6.3 5.9 9 17.0 0.2 330 21.1 8.0 84.8 6.2 6.9 Bottom 84.8 0.2 359 21.1 8.0 84.7 6.2 7.3 21.1 1.0 8.0 28.6 28.6 91.3 91.4 10.4 19 21 Surface 21.1 91.4 6.9 10.5 8.0 --SR8 Fine Calm 12:29 4.5 Middle 19 820405 811640 3.5 21.1 8.0 18 28.6 93.5 7.1 10.8 Bottom 21.1 8.0 28.6 94.0 21.1

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

during Mid-Flood Tide Water Quality Monitoring Results on 07 April 20 Suspended Solids Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value Value Value Average 0.5 21.0 1.0 1.0 0.5 34 21.0 8.1 28.1 91 4 6.9 15.3 10 87 <0.2 1.0 6.9 4.2 0.5 32 21.0 8.1 29.4 91.2 6.9 17.2 10 89 <0.2 1.0 18:08 Middle 21.0 29.4 91.3 10 89 815616 804236 Cloudy Moderate 8.3 8.1 < 0.2 4.2 0.6 34 10 <0.2 1.0 21.0 17.5 88 12 1.0 20.9 8.0 30.3 91.2 6.8 19.9 <0.2 Bottom 20.9 8.0 30.3 91.3 6.8 7.3 0.7 36 20.9 8.0 6.8 <0.2 1.0 186 8.0 9.4 84 <0.2 1.6 6.7 86.0 Surface 21.1 8.0 23.7 86.0 1.0 0.5 186 21.1 8.0 85.9 6.7 9.4 11 84 <0.2 1.5 12 5.6 0.3 87 88 1.6 1.6 21.2 8.0 86.3 86.4 6.5 11.0 <0.2 806952 C2 Fine Moderate 16:48 11.2 Middle 21.2 8.0 27.4 86.4 12 88 825697 < 0.2 171 10.2 0.2 267 21.2 8.0 28.9 88.9 6.7 12.1 12 92 <0.2 1.6 21.2 89.2 6.7 Bottom 8.0 28.9 10.2 0.2 268 21.2 8.0 6.7 11.7 12 91 1.7 21.1 88.2 88.3 4.5 83 1.6 Surface 21.1 7.9 29.9 88.3 1.0 0.7 276 21.1 7.9 30.0 6.6 4.9 84 <0.2 1.6 6.6 6.1 0.7 21.2 87.7 87.7 6.5 4.9 6 7 88 <0.2 1.7 822088 Fine Moderate 18:34 Middle 7.9 6.1 0.8 265 21.2 7.9 5.3 88 11.2 0.6 256 21.1 8.0 31.2 88.7 6.6 8.7 91 <0.2 1.6 Bottom 31.2 89.0 6.6 11 2 0.6 279 21 1 8.0 31.2 89.2 6.6 8.8 92 <0.2 17 1.0 0.2 4 21.1 8.1 6.9 7.9 87 1.0 Surface 21.1 8.1 29.1 92.3 1.0 0.2 4 21.1 8.1 29.1 92.3 6.9 7.9 8 87 < 0.2 1.1 -Cloudy Moderate 17:45 5.0 Middle 817963 807133 <0.2 4.0 0.1 340 20.9 30.0 92.2 92.3 6.9 6.9 89 <0.2 1.0 8 1 8 Bottom 0.1 8 1 1.0 313 20.9 12.8 88 4 0 <0.2 1.0 0.4 21.0 8 1 29.0 29.0 91.2 91.3 6.9 13.8 15 85 <0.2 11 Surface 21.0 91.3 1.0 8.1 6.9 13 1.0 0.4 21.0 13.7 86 < 0.2 3.3 0.4 21.1 6.9 16.5 14 87 1.1 8.1 29.4 91.5 <0.2 IM2 Cloudy Moderate 17:36 6.6 Middle 21.1 8.1 29.4 91.5 15 87 818179 806189 <n 2 15 16 21.1 8.1 88 <0.2 3.3 5.6 0.4 16.4 0.3 354 89 1.1 8.1 29.4 29.4 91.7 6.9 20.5 6.9 Rottom 21.1 8.1 29.4 91.7 5.6 0.3 326 21.1 8.1 91.7 6.9 20.5 14 89 1.1 <0.2 1.0 0.5 21.0 15.5 16 85 1.2 8.1 29.1 91.0 6.8 < 0.2 Surface 21.0 8.1 29.1 91.0 21.0 8.1 6.8 15.6 17 85 <0.2 1.2 3.4 0.4 351 8.1 6.8 19.5 17 88 <0.2 1.2 21.0 90.7 29.6 IM3 Cloudy 17:28 6.7 Middle 21.0 8.1 29.6 90.7 16 87 818795 805615 < 0.2 Moderate 3.4 0.4 8.1 29.6 6.8 19.6 16 87 <0.2 1.2 323 21.0 90.6 6.8 16 89 <0.2 1.2 90.5 6.8 Rottom 21.0 8.1 29 9 5.7 0.4 316 21.0 8.1 29.9 90.7 21.5 14 89 <0.2 1.2 21.0 91.3 91.3 18 1.0 1.0 326 8.1 29.7 6.9 18.5 85 <0.2 Surface 21.0 8.1 29.7 91.3 1.0 0.7 344 21.0 8.1 29.7 6.9 18.7 18 85 <0.2 1.1 3.8 0.6 330 21.0 90.7 20.7 19 88 1.0 6.8 <0.2 IM4 Cloudy Moderate 17:15 7.6 Middle 21.0 8.1 30.0 90.7 22 87 819739 804588 <0.2 3.8 0.6 21.0 8.1 30.0 6.8 20.8 22 88 <0.2 6.6 331 20.9 30.3 30.3 91.0 6.8 22.0 21.8 27 89 <0.2 1.0 Bottom 20.9 8.1 30.3 91.1 6.8 6.6 0.5 337 20.9 8.1 29 89 1.0 1.0 0.4 324 21.2 8.1 90.4 6.9 7.7 10 84 <0.2 1.6 Surface 21.2 8.1 26.6 90.4 1.0 0.4 338 21.2 8.1 26.6 90.4 6.9 7.7 10 85 <0.2 1.5

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26.3

26.6

24.6

25.1

25.5

89.9

89.9

91.3

88.8

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89.4

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87.9

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88.4 88.4

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89.6

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821834

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808123

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1.6

1.6

IM5

IM6

IM7

IM8

Cloudy

Cloudy

Cloudy

Fine

Moderate

Moderate

Moderate

Moderate

17:06

16:58

16:49

6.5

8.4

7.3

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

17:10

3.4

3.4

5.8

5.8

1.0

1.0

3.3

3.3

5.5

5.5

1.0

1.0

4.2

4.2

7.4

7.4

1.0

3.7

3.7

Middle

Surface

Middle

Bottom

Surface

Middle

Rottom

Surface

Middle

0.4

0.4

0.5

0.5

0.4

0.5

0.4

0.5

0.4

0.4

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0.3

0.2

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343

340

344

273

277

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246

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252

252

260

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211

221

227

230

236

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during Mid-Flood Tide Water Quality Monitoring Results on 07 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Average Average 0.2 89.9 1.0 0.2 235 21.1 8.0 24.4 6.9 4.6 86 <0.2 1.6 3.5 0.2 220 225 21.2 8.0 91.6 91.8 7.0 7.1 5.0 88 89 <0.2 1.7 IM9 Fine Moderate 17:15 7.0 Middle 91.7 5.2 88 822089 808812 <0.2 3.5 0.2 21.2 5.0 6.0 0.2 220 21.2 25.4 25.3 5.7 89 < 0.2 1.6 8.0 94.5 7.2 Bottom 21.2 8.0 25.3 95.0 7.3 95.5 8.0 0.2 6.0 90 16 6.0 233 21.2 <0.2 0.4 314 21.1 6.2 8.0 89.3 6.9 Surface 21.1 8.0 25.1 89.4 8.0 25.1 89.4 6.9 86 1.6 1.0 0.4 319 21.1 6.3 < 0.2 0.5 21.2 5.9 5.7 1.6 3.9 320 329 8.0 26.1 91.3 91.8 90 90 <0.2 7.0 6 IM10 Fine Moderate 17:22 7.7 Middle 21.1 8.0 26.1 91.6 90 822374 809773 <0.2 6.7 0.5 326 21.1 8.0 93.5 7.1 9.1 92 < 0.2 1.6 27.8 8.0 27.8 93.9 7.1 Bottom 21.1 6.7 0.5 335 21.1 8.0 94.3 7.1 9.4 6 93 < 0.2 1.6 1.0 0.2 50 21.1 12.7 1.7 8.0 6.9 8 86 27.6 91.4 <0.2 Surface 21.1 8.0 27.6 91.5 1.0 0.2 21.1 8.0 91.5 6.9 13.1 87 <0.2 1.6 1.6 3.5 0.3 63 21.0 8.0 92.3 92.2 7.0 14.2 91 <0.2 28.1 IM11 17:34 822054 811460 Fine Moderate 7.0 Middle 21.0 8.0 28.1 92.3 90 <0.2 0.3 8.0 14.4 90 1.6 3.5 64 <0.2 21.0 6.0 8.0 28.4 93.9 94.1 7.1 7.1 16.1 92 <0.2 1.6 Rottom 21.0 8.0 28.4 94.0 7 1 6.0 0.2 69 21.0 8.0 28.4 16.1 93 1.6 306 21.0 27.8 27.8 90.3 8.5 86 <0.2 1.6 Surface 21.0 8.0 27.8 90.3 1.0 0.5 331 21.0 8.0 6.8 8.9 9 87 <0.2 1.6 4.6 0.6 304 21.1 9.5 10 92 <0.2 1.6 90.4 IM12 17:40 Middle 21.1 90.5 821474 812034 Fine Moderate 8.0 28.2 4.6 0.6 21.1 8.0 6.8 9.7 10 91 1.6 8.2 0.6 296 21.0 8.0 29.4 91.3 6.9 6.9 10.3 10 93 <0.2 1.6 Bottom 21.0 8.0 29.4 91.6 6.9 91.9 8.2 0.6 307 21.0 8.0 29.4 10.0 11 93 <0.2 1.6 1.0 21.1 7.9 28.1 92.4 7.0 5.2 11 Surface 21.1 7.9 28.1 92.4 1.0 21.1 7.9 28.1 92.4 7.0 5.2 10 2.7 SR1A Fine Calm 17:57 5.4 Middle 10 819974 812660 2.7 21.1 29.1 94.6 95.7 10 10 4.4 7.9 7.1 7.2 5.5 5.4 Bottom 21.1 7.9 29.0 95.2 7.2 44 79 1.0 0.2 165 21.1 79 29.2 90.0 6.8 5.7 85 <0.2 16 Surface 21.1 7.9 29.2 90.0 1.0 0.2 166 21 1 79 6.8 5.9 6 85 16 29.2 90.0 < 0.2 -SR2 Fine Calm 18:11 4.8 Middle 821457 814150 3.8 173 7.9 29.3 29.3 93.8 94.0 7.0 7.1 91 <0.2 1.6 Bottom 21.1 7.9 29.3 93.9 7.1 0.2 187 21.1 7.9 8.7 1.6 6 91 < 0.2 1.0 0.3 213 21.2 8.0 25.1 88.2 6.8 5.9 Surface 21.2 8.0 25.1 88.2 1.0 0.3 25.1 221 21.2 8.0 88.2 6.8 6.0 6 4.5 6.6 6.8 21.2 8.0 25.7 89.1 6 SR3 17:04 Middle 21.2 822163 807568 Fine Moderate 9.0 8.0 25.7 89.3 4.5 0.2 282 21.2 8.0 25.8 89.5 6.9 6.6 . 8.0 0.2 21.2 8.0 25.8 25.8 91.7 7.0 7.1 6.9 7.0 235 257 21 2 92.1 7 1 Rottom 8.0 25.8 8.1 1.0 0.0 36 21.0 15.9 30.1 90.2 6.7 10 Surface 21.0 8.1 30.1 90.2 1.0 39 21.0 90.2 6.7 15.9 17 4.4 0.0 21.0 90.0 6.7 16.5 8.0 30.1 15 SR4A Cloudy Calm 18:30 8.8 Middle 21.0 8.0 30.1 90.1 817206 807804 4.4 354 21.0 8.0 6.7 16.5 18 7.8 0.1 342 21.0 8.0 30.2 90.3 6.8 17.1 24 Bottom 21.0 8.0 30.2 90.4 6.8 7.8 0.1 21.0 348 24 1.0 0.1 290 21.1 8.0 12.1 18 30.3 89.6 Surface 21.1 8.0 30.3 89.6 1.0 0.1 313 21.1 8.0 89.6 6.7 12.1 19 Cloudy Calm 18:47 Middle 810699 2.9 0.1 304 21.1 8.0 30.3 88.9 6.6 20 Bottom 21.1 2.9 0.1 333 21.1 8 0 6.6 13.4 18 1.0 225 0.1 21.1 8.0 29.2 90.2 6.8 5.2 5.2 1.0 0.1 239 21.1 8.0 29.2 90.2 6.8 6.8 -SR6A Calm 19:15 4.1 Middle 817964 814759 Cloudy 3.1 0.0 269 21.1 7.9 7.9 29.6 91.3 91.4 6.8 6.2 14 -7.9 91.4 Bottom 3.1 0.0 285 21.1 29.6 1.0 0.2 332 350 21.1 7.9 7.9 31.1 86.4 86.4 6.4 4.4 Surface 21.1 7.9 31.1 86.4 4.4 0.2 21.1 6 10.2 0.2 21.1 7.9 31.9 86.0 6.7 38 6.4 6 -31.9 7.9 86.2 823619 823760 SR7 Fine Moderate 19:10 20.3 Middle 21.1 31.9 86.3 7.9 6.4 10.2 0.2 38 21.1 6.8 6 -19.3 0.1 92 21.1 8.0 87.0 6.4 8.1 31.9 Bottom 21.1 8.0 31.9 87.3 6.5 8.0 8.1 19.3 0.1 21.1 21.1 7.9 27.9 27.9 92.9 93.4 7.0 7.1 8.2 8.3 15 13 1.0 Surface 21.1 7.9 27.9 93.2 7.9 SR8 Fine Calm 17:49 4.6 Middle 14 820409 811601 8.2 13 8.0 28.0 97.4 7.4 8.1 21.1 8.0 28.0 97.6 7.4 Bottom

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

during Mid-Ebb Tide Water Quality Monitoring Results on 09 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water рΗ Coordinate Sampling Water Temperature (°C) Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value Value DA Value Value (Northing) (Easting) Value Value Value Average Average 0.7 1.0 21.6 1.8 1.0 0.8 223 21.6 79 24 9 91 9 7.0 5.2 6 85 < 0.2 1.8 41 0.8 211 21.0 8.0 89.5 6.8 8.9 5 88 <0.2 1.6 Moderate 13:57 Middle 815638 804227 Sunny 41 0.8 21.0 8.0 89.4 6.8 9.2 5 88 <0.2 1.4 222 7.1 0.6 20.9 11.8 90 <0.2 1.3 7.9 88.7 Bottom 20.9 7.9 27.9 88.7 7.1 0.6 219 20.9 7.9 88.7 6.7 11.8 90 1.2 1.0 1.3 21.6 84.8 6.7 87 <0.2 1.1 Surface 21.6 7.7 18.9 84.8 1.0 1.3 179 21.6 7.7 18.9 84.7 6.7 7.2 6 86 <0.2 1.1 5.5 1.2 177 21.4 84.6 6.6 9.3 7 90 <0.2 1.1 C2 Moderate 15:19 11.0 Middle 21.4 7.7 22.0 84.7 825701 806935 Fine 5.5 1.2 179 21.4 7.7 84.8 6.6 9.6 90 <0.2 1.1 10.0 1.0 168 21.0 7.7 84.2 84.6 6.5 11.5 7 92 <0.2 1.1 21.0 7.7 84.4 6.5 Bottom 25.4 10.0 1.0 168 21.0 77 6.5 11.6 93 <0.2 11 0.6 21.3 7.7 86.3 86.4 6.5 5.3 84 1.9 28.2 <0.2 Surface 21.3 7.7 28.2 86.4 1.0 0.6 92 21.3 6.5 5.3 85 <0.2 1.9 6.5 6.7 0.4 21.1 6.5 5.9 7 88 <0.2 1.8 102 7.8 29.4 86.5 C3 Fine Moderate 12:52 13.4 Middle 21.1 7.8 29.4 86.4 822093 817788 21.1 5.8 89 1.8 6.7 102 <0.2 21.1 92 1.6 12.4 0.4 123 7.8 6.2 8 <0.2 30.3 87.0 6.5 21.1 7.8 30.3 87.1 6.5 Bottom 12.4 0.4 126 21.1 7.8 87.1 6.5 6.3 92 <0.2 1.8 0.0 120 4.8 86 1.3 22.3 7.8 24.6 93.5 <0.2 22.3 7.8 93.5 Surface 24.6 7.8 93.5 7.1 4.8 86 <0.2 1.2 1.0 0.0 122 22.3 5 -817926 807117 14:19 IM1 Sunny Moderate 4.6 Middle 3.6 229 22.0 7.8 25.1 91.4 6.9 5.9 88 <0.2 1.2 22.0 7.8 91.4 6.9 Bottom 25.1 3.6 0.0 232 22.0 6.9 5.9 88 <0.2 1.3 16.3 84 1.3 88.8 <0.2 Surface 21.2 7.9 26.9 88.8 1.0 0.2 108 21.2 88.8 16.4 11 85 <0.2 1.2 3.2 6.7 18.2 10 87 1.2 0.1 21.0 8.0 < 0.2 27.2 88.2 Middle 21.0 818146 806181 IM2 Sunny Moderate 14:26 6.4 8.0 27.2 88.2 3.2 0.1 98 21.0 8.0 88.2 6.7 18.4 10 88 <0.2 1.2 89 1.2 5.4 0.2 106 21.0 20.2 9 <0.2 7.9 27.2 87.2 6.6 21.0 7.9 Bottom 27.2 87.2 6.6 5.4 0.2 106 21.0 7.9 27.2 87.2 6.6 20.2 9 89 <0.2 1.2 233 21.2 7.9 88.5 14.1 13 85 < 0.2 1.0 Surface 21.1 7.9 27.0 88.7 1.1 1.0 0.1 238 21.1 7.9 27.0 88.8 6.7 13 85 <0.2 14.4 1.2 0.0 17.2 12 87 3.3 283 21.0 7.9 27.2 88.7 6.7 < 0.2 818768 805608 IM3 Sunny Moderate 14:34 6.5 Middle 21.0 7.9 27.2 88.7 12 87 7.9 12 88 1.1 3.3 0.0 21.0 27.2 88.6 6.7 311 17 4 <0.2 11 11 0.1 6.7 89 5.5 257 21.0 7.9 27.2 88.3 20.8 <0.2 Bottom 21.0 7.9 27.2 88.3 6.7 7.9 11 5.5 0.1 271 21.0 27.2 88.2 6.7 20.5 89 <0.2 1.0 1.0 13 197 21.8 7.8 25.4 90.9 6.9 14.2 11 84 <0.2 15 Surface 7.8 25.5 90.9 1.0 7.8 11 85 16 14 203 21.8 25.5 90.9 69 14.2 < 0.2 1.5 11 87 3.6 12 196 21.5 79 26.1 88 9 6.7 16.0 <0.2 IM4 Moderate 14:44 7.2 Middle 21.5 7.9 26.1 88.9 819727 804599 Sunny 3.6 1.3 208 21.5 79 26.1 88 9 6.7 16.0 11 87 <0.2 1.5 6.2 0.9 197 21.4 7.9 26.6 88.5 6.7 18.4 10 89 <0.2 16 7.9 88.5 6.7 6.2 1.0 197 21.4 79 26.6 88.5 6.7 18.4 11 89 <0.2 1.5 1.0 13 217 21.8 7.8 23.4 89.8 6.9 13.0 15 84 <0.2 17 7.8 89.8 1.0 1.4 221 21.8 7.8 23.4 89.7 6.9 13.0 14 85 <0.2 1.6 3.3 11 218 21.7 79 25.4 88.9 6.7 16.6 12 87 <0.2 1.7 Sunny Moderate 14:58 25.4 89.0 820757 804880 3.3 12 239 21.7 79 25.4 89.0 6.7 16.6 12 87 <0.2 17 6.7 5.5 1.0 217 21.8 7.9 88.5 17.3 10 89 <0.2 17 25.9 Bottom 21.8 7.9 25.9 88.5 6.7 5.5 1.1 222 21.8 7.9 25.9 88.4 6.7 17.3 9 89 <0.2 1.6 1.0 0.8 242 22.1 7.8 6.9 8.4 12 84 <0.2 1.4 Surface 22.1 7.8 24.0 90.7 1.0 0.9 22.1 7.8 23.9 90.7 6.9 8.5 12 84 <0.2 1.4 246 3.2 0.8 244 21.2 7.9 26.2 85.7 6.5 11.6 10 88 <0.2 1.5 805815 IM6 Moderate 15:09 6.3 Middle 21.2 7.9 26.2 85.7 821074 <0.2 Sunny 3.2 0.9 259 21.3 7.9 85.7 6.5 11.6 10 88 <0.2 1.4 5.3 0.8 245 21.1 84.6 6.4 15.3 9 89 <0.2 1.4 Bottom 21.1 7.9 26.8 84.6 6.4 84.5 5.3 0.8 21.1 7.9 26.8 6.4 15.2 9 89 <0.2 1.4 1.0 1.0 249 21.5 7.9 25.3 89.1 89.0 7.8 10 <0.2 1.5 Surface 21.5 7.9 25.3 89.1 1.0 1.0 269 21.5 7.9 25.3 6.8 7.8 9 85 <0.2 1.5 3.7 1.0 251 21.2 87.8 88.0 9.5 87 1.6 7.9 26.2 <0.2 IM7 Moderate 15:21 7.4 Middle 21.2 7.9 26.2 87.9 821350 806811 <0.2 Sunny 3.7 1.0 254 21.2 7.9 26.2 6.7 9.4 88 <0.2 1.4 0.7 21.2 86.9 86.8 89 1.5 6.4 259 7.9 26.3 6.6 11.3 <0.2 Bottom 21.2 7.9 26.3 86.9 6.6 6.4 0.8 21.2 7.9 26.3 6.6 11.3 89 <0.2 1.4 185 21.5 7.7 23.8 89.2 89.1 6.9 7.9 86 <0.2 1.6 21.5 7.7 23.8 89.2 Surface 21.5 7.7 23.8 6.9 87 1.6 1.0 0.3 201 8.1 6 <0.2 3.8 0.3 192 21.3 7.7 25.5 89.0 6.8 9.6 6 90 <0.2 1.6 7.7 25.5 89.1 821822 808146 14:47 7.6 Middle 21.3 90 IM8 Fine Moderate 9.3 < 0.2 1.6

7.7

7.7

21.2

25.5

25.9

7.7

89.1

90.2

26.0

6.8

6.9

6.9

90.6

9.8

10.3

90

92

92

6

6

1.6

1.6

<0.2

< 0.2

DA: Depth-Averaged

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

3.8

6.6

Bottom

0.4

0.2

0.3

200

207

210

21.3

21.2

21.2

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

during Mid-Ebb Tide Water Quality Monitoring Results on 09 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Value Average Average 0.4 152 88.8 1.0 0.4 21.3 23.9 6.8 8.3 84 <0.2 1.6 6.9 3.5 0.4 146 21.2 7.7 89.5 89.7 6.9 6.9 9.6 87 88 <0.2 1.6 IM9 Fine Moderate 14:41 7.0 Middle 7.7 9.5 88 822117 808828 <0.2 7.7 3.5 150 21.2 9.9 6 < 0.2 0.4 6.0 0.3 141 21.2 91.9 92.9 92 < 0.2 1.6 7.7 26.0 7.0 10.6 6 Bottom 21.2 7.7 26.0 92.4 7.1 25.9 0.3 144 77 10.5 91 16 6.0 21.2 <0.2 0.8 22.4 9.8 83 91.1 6.9 Surface 22.4 7.7 23.1 91.0 12 10 10 109 7.7 23.2 90.9 6.9 83 1.7 1.0 0.8 22.3 10.0 < 0.2 21.2 21.2 1.6 3.7 0.7 90.8 10.8 87 87 <0.2 92 100 7.0 IM10 Fine Moderate 14:33 7.4 Middle 21.2 7.7 25.5 90.9 87 822375 809770 <0.2 0.8 6.4 91 21.2 7.7 93.3 7.1 12.4 6 92 <0.2 1.6 25.6 7.7 25.6 93.4 7.2 Bottom 21.2 6.4 0.7 93 21.2 7.7 25.6 93.4 7.2 12.3 92 < 0.2 1.6 1.0 0.9 104 21.8 7.7 9.5 12 85 1.6 6.9 21.7 23.0 89.6 <0.2 Surface 7.7 23.0 89.6 1.0 1.0 113 21.7 89.6 6.9 9.6 12 86 <0.2 1.7 4.1 0.9 102 21.4 7.0 10.0 11 88 <0.2 1.7 23.6 90.6 IM11 822063 811440 Fine Moderate 14:20 8.1 Middle 21.4 7.7 23.7 90.7 88 <0.2 4.1 1.0 10.1 11 89 1.7 21.4 <0.2 100 92.0 7.1 11.6 89 <0.2 1.7 92.5 7.1 Rottom 21 4 7.7 24.0 7 1 7.1 0.8 108 21.5 7.7 23.9 93.0 11.5 1.6 92 23.8 23.8 88.6 88.4 9.9 83 <0.2 1.5 Surface 21.6 7.7 23.8 88.5 7.7 1.0 0.8 94 21.6 6.8 9.8 11 84 <0.2 1.5 5.4 0.6 83 21.1 7.7 88.0 10.2 88 <0.2 1.5 Middle 7.7 821463 812023 IM12 Fine Moderate 14:08 21.1 25.6 88.1 <0.2 0.6 21.1 7.7 6.8 10.1 88 1.5 9.8 0.4 73 21.1 77 89.5 6.9 6.9 12.2 6 91 <0.2 1.5 Bottom 21.1 7.7 25.9 89.6 6.9 89.7 9.8 0.5 74 21.1 77 25.9 12.2 6 92 <0.2 1.5 1.0 21.3 7.7 24.8 88.6 6.8 8.7 13 Surface 21.3 7.7 24.8 88.8 1.0 21.3 7.7 24.9 88.9 6.8 8.0 14 2.5 SR1A Fine Calm 13:38 Middle 819976 812666 2.5 3.9 21.2 89.7 6.8 5.0 11 6.8 Bottom 21.2 7.8 26.4 89.7 3.9 21.2 7.8 26.4 89.7 6.8 5.1 11 1.0 0.7 65 21.2 7.7 24.8 86.9 10.9 85 <0.2 1.4 Surface 21.2 7.7 24.8 86.9 1.0 0.7 68 21.2 7.7 24.8 86.9 6.7 10.9 7 85 <0.2 1.4 SR2 Fine Calm 13:22 4.7 Middle 821458 814174 <0.2 3.7 0.4 26.1 26.1 87.2 87.3 10 10 1.3 Bottom 7.7 26.1 87.3 3.7 0.4 71 21.1 77 6.7 11.2 91 <0.2 14 1.0 0.4 198 21.7 7.8 24.9 91.1 6.9 8.2 7.8 24.9 91.1 1.0 0.4 208 21.7 7.8 25.0 91.0 6.9 8.4 6 4.4 0.5 203 21.2 7.8 26.2 90.1 6.9 10.6 6 SR3 Fine Moderate 14:53 8.8 26.2 822139 807566 4.4 0.5 222 21.2 7.8 26.2 90.1 6.9 10.8 6 21.2 26.5 26.5 91.1 6.9 12.6 12.4 7.8 0.4 221 224 7.7 Bottom 21.2 7.7 91.2 6.9 0.4 7.7 1.0 0.1 240 21.4 7.9 25.5 89.4 6.8 13.1 16 Surface 21.4 7.9 25.5 89.3 1.0 0.1 21.4 7.9 25.5 89.2 6.8 13.1 16 256 -4.2 0.1 6.7 16.0 16 21.2 7.9 25.8 87.7 7.9 807800 SR4A Sunny Calm 13:37 8.3 Middle 21.2 25.8 87.7 16 817209 272 4.2 0.1 21.2 7.9 25.8 87.7 6.7 16.1 16 0.1 15 21.1 276 26.2 86.5 6.6 20.8 Rottom 21.1 7.9 26.2 86.6 6.6 7.3 21.1 0.1 299 7.9 86.6 6.6 18.5 15 1.0 0.2 23 7.9 6.8 18.5 26.0 89.8 Surface 21.6 7.9 26.0 89.8 1.0 0.2 88 21.6 7.9 26.0 89.8 6.8 16.5 22 SR5A 13:19 3.7 Middle 22 816590 810704 Sunny Calm 2.7 0.2 21.6 7.9 17.4 22 88.9 6.7 26.0 Bottom 21.6 7.9 26.0 88.9 6.7 2.7 0.2 21.6 17.3 21 7.9 6.2 Surface 21.7 7.9 26.2 90.7 29 21.7 7.9 6.8 6.2 6.9 SR6A 12:37 4.2 Middle 817972 814740 Sunny Calm 3.2 67 21.6 89.2 Bottom 7.9 68 1.0 0.6 93 21.2 7.8 30.3 86.1 6.4 3.5 Surface 7.8 1.0 0.7 93 21.2 7.8 86.0 6.4 3.5 11.5 0.3 68 21.2 7.8 30.8 85.6 6.4 4.4 6 SR7 Fine Calm 12:11 Middle 85.6 823619 823724 11.5 0.3 70 21.2 7.8 30.8 85.6 6.4 46 6 22.0 0.3 29 21.2 7.9 30.8 84.9 6.3 5.2 8 Bottom 21.2 7.9 85.0 22.0 0.3 21.2 7.9 6.3 5.4 21.2 1.0 7.7 24.7 88.3 88.1 41 Surface 21.2 7.7 77 6.8 291.7 41 -SR8 Fine Calm 13:51 4.2 Middle 37 820367 811627 3.2 21.1 7.7 25.2 32 89.8 6.9 418.5 Bottom 21.1 7.7 25.1 90.2 21.1

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

during Mid-Flood Tide Water Quality Monitoring Results on 09 April 20 Suspended Solids Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value Value Value Average Average 0.5 1.0 21.5 1.3 1.0 0.5 41 21.5 7.8 25.0 90.1 6.9 17.0 25 86 <0.2 1.2 6.9 4.0 0.4 37 21.4 7.8 26.4 89.1 6.8 18.9 24 88 <0.2 1.3 19:54 Middle 7.8 89.1 23 88 815619 804229 Cloudy Moderate 8.0 26.4 < 0.2 4.0 0.4 6.8 19.0 23 89 <0.2 1.3 38 21.4 89.1 21 1.3 21.3 26.8 88.4 21.8 90 <0.2 7.7 Bottom 21.3 26.8 88.4 6.7 7.0 0.3 37 21.3 7.7 6.7 21 <0.2 1.3 198 21.1 81.9 6.5 86 <0.2 2.1 Surface 21.1 7.7 19.0 81.8 1.0 0.7 217 21.1 7.7 81.7 6.5 11.9 19 87 <0.2 2.2 6.5 5.4 0.3 18 17 92 91 2.2 192 21.0 81.9 6.4 13.0 <0.2 806959 C2 Fine Rough 18:38 10.8 Middle 21.0 7.7 22.2 82.0 90 825705 < 0.2 7.7 9.8 0.3 265 21.1 7.7 25.1 83.1 6.4 15.7 15 93 <0.2 2.1 21.1 7.7 83.2 6.4 Bottom 25.1 9.8 0.3 285 21.1 77 6.4 16.1 15 93 2.2 0.6 21.3 88.3 88.3 6.4 Surface 21.3 7.8 25.7 88.3 1.0 0.6 265 21.3 7.8 25.7 6.7 6.3 82 <0.2 2.1 6.6 6.4 0.7 21.2 28.7 86.8 86.9 6.5 8.4 8 87 <0.2 2.2 822088 817798 Fine Moderate 20:32 Middle 7.8 6.4 0.8 258 21.2 7.8 8.5 87 11.8 0.6 249 21.2 7.8 28.7 87.4 6.6 9.3 8 91 <0.2 2.2 Bottom 21.2 7.8 28.7 87.6 6.6 250 11.8 0.7 21.2 7.8 28.7 87.8 6.6 9.6 8 92 <0.2 2.2 21.5 17 1.0 0.3 7.8 90.4 6.9 14.3 85 1.3 Surface 21.5 7.8 25.5 90.4 1.0 0.3 14 21.5 7.8 25.5 90.4 6.9 14.4 17 86 < 0.2 1.2 Cloudy Moderate 19:31 4.6 Middle 817960 807151 <0.2 3.6 0.2 11 21.6 26.0 26.0 6.8 12 12 88 <0.2 1.2 7.8 89.7 19.3 Bottom 0.2 7.8 89.8 88 1.2 11 21.6 19.3 3.6 <0.2 1.0 0.4 21.5 7.8 25.5 25.5 88.6 6.8 15.3 14 84 < 0.2 12 Surface 21.5 7.8 88.6 88.6 6.7 7.8 14 85 1.2 1.0 0.4 21.5 15.4 < 0.2 15 350 3.3 0.3 21.5 88.3 6.7 6.7 18.4 87 1.2 7.8 25.9 <0.2 IM2 Cloudy Moderate 19:23 6.5 Middle 21.5 7.8 25.9 88.3 15 87 818165 806185 <n 2 15 15 21.5 21.4 88.3 88 <0.2 3.3 5.5 0.4 322 0.3 7.8 87.7 90 1.2 26.3 26.3 6.7 20.9 7.8 87.7 6.7 Rottom 21 4 26.3 5.5 0.4 349 21.4 7.8 87.6 6.7 20.7 16 90 1.3 < 0.2 1.0 347 0.5 21.5 12.7 14 84 1.3 7.8 25.3 25.3 89.2 6.8 < 0.2 Surface 21.5 7.8 25.3 89.2 21.5 6.8 12.7 14 85 <0.2 1.3 3.3 0.5 331 21.4 7.8 26.3 26.3 6.7 14.9 13 88 <0.2 1.3 88.1 IM3 Cloudy 19:16 6.6 Middle 21.4 7.8 26.3 88.1 13 87 818803 805587 <0.2 Moderate 0.5 21.4 7.8 88.0 15.0 14 88 <0.2 1.3 3.3 350 26.5 26.5 86.9 86.9 86.9 6.6 12 89 <0.2 1.3 7.8 6.6 Rottom 21 4 7.8 26.5 5.6 0.5 347 21.4 7.8 18.0 12 90 <0.2 1.2 331 21.4 89.3 89.4 13 1.3 1.0 7.8 26.6 6.8 14.3 85 <0.2 Surface 21.4 7.8 26.6 89.4 1.0 0.7 336 21.4 7.8 26.6 6.8 14.4 13 85 <0.2 1.3 6.8 3.7 0.6 331 21.4 88.8 88.7 16.9 14 87 <0.2 1.4 26.6 IM4 Cloudy Moderate 19:03 7.4 Middle 21.4 7.8 26.6 88.8 87 819732 804616 <0.2 21.4 7.8 26.6 6.7 17.0 14 87 <0.2 1.3 7.8 6.4 335 352 21.4 26.6 26.6 88.8 6.7 19.1 14 89 <0.2 1.3 Bottom 21.4 7.8 26.6 88.8 6.7 21.4 6.4 0.6 19.3 14 89 1.4 1.0 0.5 333 21.5 7.8 87.5 6.8 10.6 15 85 <0.2 1.8 Surface 21.5 7.8 21.6 87.5 1.0 0.5 355 21.5 7.8 21.6 87.5 6.8 10.6 14 86 <0.2 1.7 3.3 0.6 345 21.7 7.8 24.4 88.3 6.7 10.5 15 87 <0.2 1.7 IM5 Cloudy Moderate 18:54 Middle 7.8 24.4 88.3 820755 804856 <0.2 3.3 0.6 352 21.7 7.8 24.4 88.3 6.7 10.5 15 89 <0.2 1.8 348 355 21.5 21.5 87.4 87.4 6.6 16 15 5.5 0.5 26.1 26.1 11.7 90 <0.2 1.7 Bottom 87.4 6.6 5.5 0.6 7.8 11.7 89 <0.2 1.8 1.0 0.4 285 21.4 77 20.3 84.3 6.6 13.5 13 84 <0.2 1.9 Surface 7.7 20.3 84.3 1.0 77 13 15 19 0.4 309 21.4 20.3 84.3 6.6 13.6 85 <0.2 87 1.8 3.2 0.3 295 21.4 7.7 20.4 83.9 6.6 15.2 805842 < 0.2 IM6 Cloudy Moderate 18:47 6.3 Middle 21.4 7.7 20.4 83.9 821066 16 88 1.9 3.2 0.3 304 21.4 7.7 20.4 83.9 6.6 14.7 <0.2 17 5.3 0.3 293 21.4 7.7 20.4 83.6 6.6 15.0 89 <0.2 1.8 Bottom 21.4 7.7 20.4 83.6 6.6 5.3 0.3 308 21.4 7.7 20.4 83.6 6.6 15.0 89 <0.2 1.8 1.0 0.4 246 21.4 7.7 17.8 82.4 6.6 9.2 10 84 <0.2 2.2 Surface 21.4 7.7 17.9 82.4 82.4 1.0 0.4 7.7 17.9 6.6 2.2 269 21.4 9.2 9 85 < 0.2 6.5 0.4 6.4 9 87 2.1 3.9 248 21.4 7.7 20.4 81.8 12.3 <0.2 7.7 81.8 87 821371 806851 IM7 Cloudy Moderate 18:39 7.8 Middle 21.4 20.4 <0.2 3.9 20.4 88 <0.2 2.2 271 7.7 6.4 12.3 9 0.4 21.4 81.8 88 6.8 0.4 21.3 7.7 <0.2 2.3 265 21.1 80.8 6.3 15.3 8 7.7 6.3 Rottom 21.3 21.1 80.8 7.7 6.3 6.8 0.4 265 21.3 80.8 15.3 88 <0.2 2.2 1.0 0.2 21.4 7.7 6.8 203 17.7 84.9 9.9 10 87 <0.2 2.1 Surface 21 4 7.7 17.7 85.0 17.7 6.8 11 86 2.1 1.0 0.2 219 21.4 85.0 10.0 <0.2 21.4 <0.2 3.6 0.1 256 7.7 18.5 87.2 6.9 11.8 9 91 2.2 IM8 Fine 19:00 7.2 Middle 21.4 7.7 18.5 87.5 90 821848 808129 2.1 Moderate < 0.2 3.6 0.1 267 21.4 7.7 18.5 87.7 12.1 9 91 <0.2 2.1 92 2.1 6.2 0.2 21.4 7.7 89.5 7.1 15.9 8 <0.2 21.4 7.7 18.5 90.2 7.2 Rottom

DA: Depth-Average

during Mid-Flood Tide Water Quality Monitoring Results on 09 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Average Average 0.2 85.7 6.8 1.0 0.2 295 21.5 18.3 8.8 87 <0.2 2.0 3.3 0.2 21.5 7.7 18.2 18.2 85.5 85.5 6.8 9.0 9 90 91 <0.2 2.0 IM9 Fine Moderate 19:08 6.6 Middle 7.7 18.2 9.2 90 822079 808816 <0.2 7.7 3.3 0.2 21.5 9.0 5.6 0.2 298 21.5 10.1 9 92 < 0.2 2.1 7.7 18.8 86.1 6.8 Bottom 21.5 7.7 18.8 86.0 6.8 6.8 7.7 18.8 85.9 10 0.2 21.5 10.2 93 2.0 5.6 325 <0.2 1.0 0.6 313 21.5 83 2.2 6.9 < 0.2 Surface 21.5 7.7 19.8 87.3 7.7 19.8 87.3 6.9 83 2.1 1.0 0.6 330 21.5 12.9 8 < 0.2 0.6 21.7 21.7 13 14 2.2 3.5 312 321 20.8 89.4 89.5 87 87 <0.2 7.0 14.9 IM10 Fine Moderate 19:16 7.0 Middle 21.7 7.7 20.8 89.5 12 87 822374 809782 <0.2 14.9 6.0 0.6 312 21.7 7.7 91.1 7.1 15.7 14 91 <0.2 2.2 21.1 21.7 7.7 21.1 91.7 7.2 Bottom 6.0 0.6 312 21.7 7.7 21.1 92.2 7.2 15.5 14 91 < 0.2 2.1 1.0 333 21.6 7.7 10.8 10 2.2 87.9 6.9 82 21.1 87.9 <0.2 Surface 21.6 7.7 21.1 1.0 338 21.6 21.0 87.9 6.9 10.9 10 82 <0.2 2.1 3.6 0.6 315 21.4 7.8 88.6 6.8 12.8 87 <0.2 2.1 24.7 IM11 88.7 822048 811441 Fine Moderate 19:28 7.1 Middle 21.4 7.8 24.7 <0.2 0.6 88 3.6 21.4 12.9 <0.2 6.1 295 7.8 25.8 92.0 92.8 7.0 7.1 14.3 <0.2 2.2 Rottom 21.3 7.8 25.8 7 1 6.1 0.6 310 21.3 7.8 25.8 93.6 14.7 92 264 21.6 88.0 88.1 82 <0.2 2.1 Surface 21.6 7.7 21.7 88.1 7.7 1.0 0.6 21.6 21.6 6.9 11.3 6 82 <0.2 2.2 4.5 0.5 256 21.5 88.4 13.3 8 86 <0.2 2.0 IM12 19:35 Middle 88.5 821474 812034 Fine Moderate 21.5 7.8 25.1 <0.2 4.5 0.5 21.5 7.8 88.6 6.8 13.3 86 8.0 0.4 257 21.6 7.8 89.6 6.8 15.6 10 91 <0.2 2.0 Bottom 21.6 7.8 25.4 89.7 6.8 89.8 6.8 8.0 0.4 262 21.6 7.8 25.4 15.8 9 91 < 0.2 2.2 1.0 21.7 7.8 92.6 7.2 7.4 Surface 21.7 7.8 22.0 92.7 21.7 7.8 21.8 92.7 7.2 7.4 7 2.1 SR1A Fine Calm 19:54 4.1 Middle 819974 812659 2.1 21.7 96.1 97.1 7.8 7.5 3.1 24.2 7.4 Bottom 21.7 7.8 24.2 96.6 7.8 7.4 1.0 0.1 169 21.4 7.8 24.7 88.7 6.8 8.2 82 <0.2 21 Surface 21.4 7.8 24.7 88.8 1.0 0.1 181 21.4 7.8 24.7 88.8 6.8 8.1 7 82 21 < 0.2 -SR2 Fine Calm 20:06 4.6 Middle 85 821444 814144 <0.2 87 3.6 145 21.4 25.2 25.2 89.5 90.0 6.8 8.6 <0.2 2.1 7.8 Bottom 21.4 25.2 89.8 6.9 0.2 148 21.4 7.8 8.6 6 87 < 0.2 2.1 1.0 0.4 229 21.4 7.7 10.7 11 17.5 83.8 6.7 Surface 21.4 7.7 17.5 83.9 1.0 0.4 7.7 17.5 6.7 11 231 21.4 83.9 11.0 4.0 13.5 13 21.4 6.7 249 19.8 84.4 SR3 18:54 Middle 21.4 7.7 84.4 14 822170 807568 Fine Moderate 8.0 19.8 4.0 0.2 251 21.4 7.7 19.8 84.4 6.7 13.5 13 . 7.7 17 0.2 21.4 20.3 85.2 85.3 6.7 14.3 262 271 21.4 7.7 85.3 6.7 Rottom 20.3 17 7.7 1.0 0.2 75 21.6 6.8 16.7 22 25.8 90.0 Surface 21.6 7.7 25.8 90.0 1.0 79 21.6 7.7 25.8 90.0 6.8 16.7 22 0.2 6.7 4.2 0.2 21.8 88.0 88.0 6.6 14.7 22 7.7 26.3 SR4A Cloudy Calm 20:14 8.4 Middle 21.8 7.7 26.3 88.0 22 817176 807793 4.2 0.2 69 21.8 7.7 6.6 14.8 22 0.2 21.8 26.4 89.2 6.7 15.2 22 Bottom 21.8 7.7 26.4 89.2 6.7 7.4 77 21.8 7.7 6.7 22 0.2 1.0 0.1 75 21.7 7.7 6.8 10.2 16 26.5 89.5 Surface 21.7 7.7 26.5 89.6 1.0 0.1 82 21.7 77 89.6 6.8 10.2 15 Cloudy Calm 20:31 Middle 810674 2.9 0.0 30 21.7 7.6 89.0 6.7 10.4 16 Bottom 21.7 6.7 2.9 0.0 21.7 6.7 10.4 15 1.0 225 0.0 21.5 7.6 24.1 88.5 6.8 5.9 10 21.5 24.1 1.0 0.0 244 21.5 7.6 88.5 6.8 5.9 9 6.8 -SR6A Calm 21:07 4.3 Middle 817967 814724 Cloudy 3.3 0.0 323 21.6 7.6 7.6 25.2 25.2 88.2 88.2 6.7 6.7 6.3 -7.6 25.2 88.2 6.7 Bottom 3.3 0.0 335 21.6 6.4 1.0 0.1 290 300 21.2 7.8 7.8 29.2 29.2 86.0 85.9 6.4 7.5 7.4 Surface 21.2 7.8 29.2 86.0 1.0 0.1 21.2 9 10.0 0.1 21.2 7.8 30.2 87.3 6.5 9.0 92 6 -7.8 87.3 30.2 823642 823728 SR7 Fine Moderate 21:11 20.0 Middle 21.2 87.2 7.8 6.5 10.0 0.2 101 21.2 8.9 -103 19.0 0.2 21.2 7.8 87.8 6.5 6.6 11.0 5 30.3 Bottom 21.2 7.8 30.3 88.0 6.6 7.8 88.2 19.0 0.2 105 21.2 6.9 7.0 21.9 21.9 7.7 21.2 89.7 89.8 13.2 13.2 1.0 8 Surface 21 9 7.7 21.2 89.8 7.7 7.0 SR8 Fine Calm 19:43 5.0 Middle 820385 811623 15.7 7.8 23.7 93.1 21.7 7.8 23.7 93.6 7.2 Bottom

DA: Depth-Averaged

Water Quality Monitoring Results on 11 April 20 during Mid-Ebb Tide

Water Qual	ity wonit	oring Resu	its on		11 April 20	during Mid	-EDD Hae	9																					
Monitoring	Weather	Sea	Sampling	Water	Sampling I	Depth (m)	Current Speed	Current	Water Te	mperature (°C)		рН	Salinity (p	ppt)		aturation (%)	Dissolv Oxyge		Turbidity(NTU)	Suspende (mg/		Total Alka (ppm		Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value Ave	erage	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA	Value DA
					Surface	1.0	0.6	222 241	21.4 21.4	21.4	7.9 7.9	7.9	25.4 24.8	25.1	93.2 93.2	93.2	7.1		5.4 5.5	-	5 4		86 87				<0.2		1.1
C1	Cloudy	Moderate	14:42	8.6	Middle	4.3	0.6	210	21.2	21.2	7.9	7.9	28.0	28.0	91.6	91.6	6.9	7.0	9.5	9.5	5	- 5	89	89	815618	804237	<0.2	<0.2	1.2
	,					4.3 7.6	0.6	218 204	21.2 21.2		7.9 7.9		28.0		91.6 90.4		6.9		9.5 13.5		5 5		89 91				<0.2		1.4
					Bottom	7.6	0.5	209	21.2	21.2	7.9	7.9	29.1	29.1	90.3	90.4	6.8	6.8	13.3		5	•	91				<0.2		1.2
					Surface	1.0	0.7	178 182	21.5 21.5	21.5	7.8 7.8	7.8	21.4 2	21.4	86.9 87.0	87.0	6.8	6.7	6.7	ŀ	7 6		88 87				<0.2		2.0 1.8
C2	Cloudy	Moderate	13:35	11.5	Middle	5.8 5.8	0.5 0.5	161 161	21.3 21.3	21.3	7.8 7.8	7.8	25.2 25.2	25.2	86.4 86.2	86.3	6.6 6.6	6.7	12.4 12.3	10.5	6	6	89 90	90	825680	806963	<0.2 <0.2	<0.2	1.8 1.9
					Bottom	10.5	0.3	125	21.3	21.3	7.9	7.9	26.7	26.7	86.0	86.0	6.5	6.5	12.4	Ė	5		93				<0.2	. !	1.6
						10.5	0.3	132 94	21.3		7.9		26.7		86.0 88.7		6.5	0.0	12.5 5.9		5 9		92 86				<0.2	_	1.9
					Surface	1.0	0.4	98	21.6	21.6	7.9	7.9	25.0	25.0	88.7	88.7	6.8	6.8	5.9	Į	9		86				<0.2	, [1.4
С3	Cloudy	Moderate	15:31	10.7	Middle	5.4 5.4	0.4	110 119	21.5 21.5	21.5	7.9 7.9	7.9	25.4 25.4	25.4	87.8 87.8	87.8	6.7	-	8.9 9.0	9.7	8	8	88 87	88	822125	817824	<0.2	<0.2	1.4
					Bottom	9.7 9.7	0.4	68	21.3 21.3	21.3	7.9 7.9	7.9	27.4	27.4	85.9 85.8	85.9	6.5	6.5	14.2	ļ	7		90				<0.2	, [1.3
					Surface	1.0	0.4	72 184	21.8	21.8	7.9	7.8	24.0	24.0	93.4	93.4	7.1		14.1 4.7		4		86				<0.2	=	1.3
						1.0	0.2	184	21.8	21.0	7.8	7.0	24.0	24.0	93.3	33.4	7.1	7.1	4.7	F	4		86				<0.2	. [1.2
IM1	Cloudy	Moderate	14:23	5.3	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	7.3	-	4	-	87	817937	807137		<0.2	- 1.2
					Bottom	4.3	0.1	190 205	21.5 21.5	21.5	7.8	7.8	26.0 26.0	26.0	90.6	90.6	6.9	6.9	9.9	-	4 5		88				<0.2	;	1.2
					Surface	1.0	0.3	181 189	21.6 21.5	21.5	7.9 7.9	7.9	23.8 23.8 2	23.8	92.9 92.9	92.9	7.1 7.1		3.9 3.9	Ì	5 5		85 84				<0.2		1.2
IM2	Cloudy	Moderate	14:16	7.6	Middle	3.8	0.2	170	21.3	21.3	7.9	7.9	26.5	26.5	91.1	91.1	6.9	7.0	6.2	6.8	4	. 4	87	87	818171	806174	<0.2	<0.2	1.3
IIVIZ	Cioday	Woderate	14.10	7.0	-	3.8 6.6	0.2	184 148	21.3 21.3		7.9 7.9		26.5		91.1		6.9		6.2 10.4	0.0	4		87 89	0,	010171	000174	<0.2	VO.2	1.2
					Bottom	6.6	0.2	151	21.3	21.3	7.9	7.9	27.6	27.6	90.3	90.4	6.8	6.8	10.3		3		89				<0.2		1.1
					Surface	1.0	0.3	147 160	21.5 21.5	21.5	7.9	7.9	25.2 25.2	25.2	92.2 92.2	92.2	7.0		4.6 4.6	ŀ	3		84 84				<0.2		1.2
IM3	Cloudy	Moderate	14:09	7.9	Middle	4.0	0.3	142 151	21.3 21.3	21.3	7.9 7.9	7.9	27.3 27.3	27.3	91.4 91.3	91.4	6.9 6.9	7.0	6.1 6.1	8.4	5 5	5	87 87	87	818768	805590	<0.2	<0.2	1.2 1.4
					Bottom	6.9	0.3	138	21.2	21.2	7.9	7.9	28.1	28.1	89.9	89.9	6.8	6.8	14.4	Ŀ	6		89				<0.2	.	1.4
						6.9 1.0	0.3	140 189	21.2 21.4		7.9 7.9		28.1		89.9 90.9		6.8 7.0	0.0	14.4 8.7		6 7		90 84				<0.2		1.4
					Surface	1.0	0.6	203	21.4	21.4	7.9	7.9	24.8	24.8	90.9	90.9	7.0	6.9	8.7	Į	7		85				<0.2	, [1.5
IM4	Cloudy	Moderate	14:01	8.5	Middle	4.3	0.5	159 171	21.4 21.4	21.4	7.9 7.9	7.9	27.4 27.4	27.4	89.4 89.4	89.4	6.7	ŀ	12.6 12.9	12.4	8	8	87 87	87	819739	804617	<0.2	<0.2	1.5 1.4
					Bottom	7.5 7.5	0.3	153 163	21.3 21.3	21.3	7.9 7.8	7.8	28.9 28.9	28.9	89.2 89.3	89.3	6.7	6.7	15.7 15.5	F	8		89 89				<0.2	. [1.5
					Surface	1.0	0.5	224	21.4	21.4	7.8	7.8	25.0	25.0	90.6	90.6	6.9		7.5		9		84				<0.2	. = †	1.4
					-	1.0 4.1	0.6	245 201	21.4		7.8 7.9		25.0		90.6 89.3		6.9	6.9	7.5 10.4		9		84 87				<0.2		1.4
IM5	Cloudy	Moderate	13:54	8.2	Middle	4.1	0.5	206	21.4	21.4	7.9	7.9	27.2	27.2	89.4	89.4	6.8		10.6	10.8	8	. 8	87	87	820726	804879	<0.2	<0.2	1.5
					Bottom	7.2 7.2	0.4	192 195	21.3 21.3	21.3	7.9 7.9	7.9	28.5 28.5	28.5	88.7 88.7	88.7	6.7	6.7	14.3 14.3	-	8		89 90				<0.2		1.6
					Surface	1.0	0.3	251 253	21.4 21.4	21.4	7.9 7.9	7.9	25.9 25.9	25.9	90.5 90.5	90.5	6.9	Ī	9.9	Ī	6		84 85	Ī			<0.2	Ţ	1.4
IM6	Cloudy	Moderate	13:47	7.7	Middle	3.9	0.3	229	21.3	21.3	7.9	7.9	27.3	27.3	89.9	89.9	6.8	6.9	12.3	12.4	7	7	87	87	821082	805816	<0.2	<0.2	1.5
	,					3.9 6.7	0.3	231 202	21.3 21.3		7.9 7.9		27.2		89.9 89.3		6.8		12.5 15.0		7		87 89	-			<0.2		1.4
					Bottom	6.7	0.3	202	21.3	21.3	7.9	7.9	28.0	28.0	89.3	89.3	6.7	6.7	14.8		8		89				<0.2		1.5
					Surface	1.0	0.2	252 269	21.4 21.4	21.4	7.8 7.8	7.8	24.0 24.0	24.0	89.3 89.3	89.3	6.9	6.9	10.1	ŀ	6		85 85				<0.2	, }	1.6
IM7	Cloudy	Moderate	13:39	9.0	Middle	4.5 4.5	0.1	228 229	21.3 21.3	21.3	7.9 7.9	7.9	26.5 26.5	26.5	90.0	90.0	6.8	0.3	13.9 13.9	13.2	5 5	5	87 87	87	821362	806826	<0.2 <0.2	<0.2	1.5 1.5
					Bottom	8.0	0.2	136	21.3	21.3	7.9	7.9	27.5	27.5	89.4	89.5	6.8	6.8	15.5	Į	4		89				<0.2	,	1.5
						8.0 1.0	0.2	137 201	21.3 21.4		7.9 7.9		27.5		89.5 88.0		6.8		15.6 7.0		4		89 84				<0.2	_	1.5
					Surface	1.0	0.2	204	21.4	21.4	7.9	7.9	22.6	22.6	88.0	88.0	6.8	6.8	7.1	ļ	4		84				<0.2	, [1.6
IM8	Cloudy	Moderate	14:00	8.3	Middle	4.2	0.0	211 213	21.3 21.3	21.3	7.9 7.9	7.9	25.6 25.6	25.6	87.8 87.9	87.9	6.7	ŀ	9.0 8.9	10.3	5 6	5	86 86	86	821811	808119	<0.2	<0.2	1.6 1.7
					Bottom	7.3 7.3	0.1	83	21.3 21.3	21.3	7.9	7.9	20.5	26.5	88.9 88.9	88.9	6.8	6.8	14.8 14.8	ļ	6		88				<0.2	, [1.5
DA: Depth-Aver	raged				1	1.3	0.1	89	21.3		7.9	<u> </u>	Zb.5		88.9	l	8.8		14.8		ь		88				<0.2		1.6

during Mid-Ebb Tide Water Quality Monitoring Results on 11 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water рΗ Coordinate Sampling Water Temperature (°C) Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Value Average Average 0.3 88.5 1.0 0.3 130 21.5 22.3 6.9 5.4 85 <0.2 1.8 4.0 0.3 138 21.3 7.9 7.9 87.3 87.2 6.7 10.2 87 88 <0.2 1.6 IM9 Cloudy Moderate 14:07 7.9 Middle 7.9 87.3 9.0 87 822099 808790 <0.2 4.0 0.3 21.3 10.3 6 < 0.2 6.9 0.2 79 21.3 25.8 25.8 89 <0.2 1.5 7.9 89.5 6.8 11.3 6 Bottom 21.3 7.9 25.8 89.5 6.8 6.8 6.9 0.2 21.3 79 89.5 11.5 16 82 89 <0.2 21.6 4.8 1.4 89.6 Surface 21.6 7.9 22.1 89.7 7.9 22.1 89.7 7.0 86 1.8 1.0 0.8 126 21.6 4.8 4 < 0.2 21.5 21.5 7.7 7.7 87 88 1.5 4.1 0.7 110 89.9 89.8 <0.2 7.0 6.9 4 IM10 Cloudy Moderate 14:15 8.1 Middle 21.5 7.9 22.8 89.9 88 822386 809809 <n 2 115 7.1 0.5 94 21.3 7.9 87.5 6.7 15.9 6 89 <0.2 1.6 25.4 7.9 87.5 6.7 Bottom 21.3 25.4 7.1 0.6 95 21.3 7.9 25.4 87.4 6.7 15.9 6 89 < 0.2 1.7 1.0 0.8 122 21.5 6.5 85 1.6 7.9 6.9 4 22.7 89.1 <0.2 Surface 21.5 7.9 22.7 89.1 1.0 0.9 126 21.5 7.9 22.7 89.1 6.9 6.6 4 85 <0.2 1.6 1.5 4.4 0.8 120 21.4 7.9 88.5 6.8 10.3 87 <0.2 24.0 IM11 Cloudy 822051 811451 Moderate 14:27 8.7 Middle 21.4 7.9 24.0 88.5 <0.2 4.4 0.9 10.5 87 21.4 <0.2 120 118 7.9 25.0 88.2 88.3 6.8 13.8 89 <0.2 1.6 Rottom 21 4 7.9 25.0 88.3 6.8 7.7 0.4 127 21.4 7.9 25.0 6.8 13.9 89 1.6 7.9 23.1 89.4 89.4 6.9 6.2 <0.2 1.5 Surface 21.7 7.9 23.1 89.4 1.0 0.9 114 21.7 7.9 23.1 6.2 84 <0.2 1.4 4.2 0.6 99 21.4 7.9 87.5 9.5 86 <0.2 1.4 Middle 821476 812024 IM12 Cloudy Moderate 14:34 21.4 7.9 25.1 87.5 0.6 21.4 7.9 87.5 6.7 9.1 87 1.5 7.3 0.3 101 21.3 7.9 26.0 86.1 6.6 13.2 6 89 <0.2 1.4 Bottom 21.3 7.9 26.0 86.2 6.6 86.2 7.3 0.3 109 21.3 7.9 26.0 6.6 13.0 6 90 <0.2 1.5 1.0 21.5 7.8 23.4 88.5 6.8 7.6 Surface 21.5 7.8 23.4 88.5 1.0 21.5 7.8 23.4 88.5 6.8 7.6 7 2.8 Cloudy Moderate 14:55 Middle 819979 812665 2.8 4.6 21.4 87.4 6.7 9 6.7 Bottom 21.4 7.8 25.1 87.5 4.6 21.4 7.8 25.1 87.5 6.7 7.2 9 1.0 0.5 63 21.8 7.8 23.1 89.5 6.9 85 <0.2 1.5 Surface 21.8 7.8 23.1 89.6 1.0 0.5 64 21.8 7.8 23.1 89.6 6.9 6.8 6 84 <0.2 1.5 SR2 Cloudy Moderate 15:08 3.9 Middle 85 821483 814175 <0.2 2.9 53 57 24.7 88.0 87.9 Bottom 24.7 88.0 0.3 21.5 7.8 6.7 8.6 8 86 <0.2 1.5 1.0 0.1 220 21.7 7.8 21.6 88.6 6.9 5.3 7.8 21.6 88.6 1.0 0.1 228 21.7 7.8 21.6 88.6 6.9 5.4 5 4.9 0.1 241 21.3 7.8 25.6 87.0 6.6 9.5 5 SR3 Moderate 13:53 9.8 25.6 87.0 822131 807576 Cloudy 4.9 0.2 263 21.3 7.8 25.6 87.0 6.6 9.6 5 21.3 88.7 88.7 6.7 12.1 11.9 8.8 0.1 7.9 Bottom 7.9 88.7 6.7 0.1 7.9 1.0 0.1 79 21.8 7.8 24.3 92.3 7.0 6.5 Surface 21.8 7.8 24.3 92.3 1.0 0.2 86 21.8 7.8 24.3 92.2 7.0 6.5 4 -4.1 0.1 6.8 11.3 65 21.5 7.8 26.1 89.8 7.8 807809 SR4A Cloudy Calm 15:04 8.1 Middle 21.5 26.1 89.8 817211 4.1 0.1 70 21.5 7.8 26.1 89.7 6.8 11.3 0.2 21.4 68 7.8 26.3 88.9 6.7 12.5 Rottom 21.4 7.8 26.3 88.9 6.7 6.7 7.1 21.4 0.2 74 7.8 26.3 88.8 12.6 1.0 0.0 318 7.8 7.0 6.7 6 25.4 92.9 Surface 22.3 7.8 25.4 92.9 1.0 0.0 341 22.3 7.8 25.4 92.8 7.0 6.8 6 SR5A 15:20 Middle 816599 810693 Cloudy Calm 3.8 2.8 0.1 347 21.7 6.8 9.4 7.8 26.1 90.0 Bottom 21.7 7.8 26.1 90.0 6.8 2.8 0.1 351 21.7 9.4 0.0 7.8 Surface 21.6 7.8 24.6 87.7 327 21.6 4.8 SR6A Cloudy 15:47 4.2 Middle 817948 814729 Calm 3.2 262 21.5 6.6 4 Bottom 7.7 25.1 86.8 0.1 287 1.0 1.0 82 21.5 7.9 24.6 88.9 6.8 3.0 Surface 7.9 24.6 1.0 1.0 83 21.5 79 88.7 6.8 3.0 7.3 0.6 68 21.4 7.9 26.5 87.6 6.6 42 6 SR7 Cloudy Moderate 15:59 Middle 26.5 87.6 823637 823731 7.3 0.7 74 21.4 79 26.5 87.5 6.6 42 6 13.6 0.3 40 21.4 7.9 87.1 6.6 6.0 Bottom 7.9 13.6 0.3 41 21.4 7.9 87.1 6.6 6.0 21.7 10.2 10.4 1.0 7.8 23.0 88.3 88.3 13 12 Surface 21.7 7.8 6.8 --SR8 Cloudy Moderate 14:46 4.3 Middle 11 820378 811620 3.3 7.8 7.8 6.8 10 21.4 24.3 87.9 11.3 Bottom 21.4 7.8 24.3 88.0 21.4

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 Water Quality Monitoring Results on 11 April 20 during

during Mid-Flood Tide

Water Qua	lity Monite	oring Resu	lts on		11 April 20	during Mid-	Flood Ti	ide																				
Monitoring	Weather	Sea	Sampling	Water	Sampling D	epth (m)	Current Speed	Current	Water Te	emperature (°C))	pН	Salinity (ppt)	DO	Saturation (%)	Disso Oxy		Turbidity(NTU)	Suspende (mg	ed Solids /L)	Total All		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/l		lickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Oumpaing 5		(m/s)	Direction	Value	Average	Value	Average	Value Averag	je Valu	e Average		DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)			alue DA
					Surface	1.0	0.7	41 42	21.2	21.2	7.9	7.9	25.6 25.6 25.6	91.0		7.0		13.7 14.0	-	12 13	 	86 86	-			<0.2		1.6
C1	Cloudy	Moderate	09:31	8.5	Middle	4.3 4.3	0.7	36 38	21.3 21.3	21.3	7.9 7.9	7.9	28.5 28.5	90.9		6.8	6.9	16.4 16.2	16.3	10 10	11	88 89	89	815601	804257	<0.2		1.6 1.6
					Bottom	7.5	0.7	38	21.3	21.3	7.8	7.8	29.6	90.	00.5	6.8	6.8	18.6		10		91				<0.2	1	1.7
					Surface	7.5 1.0	0.7	41 342	21.3	21.1	7.8 7.9	7.9	29.6 29.0	90.4	946	6.8		18.8 5.4		10 6		91 88				<0.2 <0.2	1	1.5 1.9
C2	Cloudy	Moderate	10:10	12.2	Middle	1.0 6.1	0.6	358 359	21.1 21.2	21.2	7.9 7.9	7.9	20.2	84.0	947	6.7 6.6	6.7	5.4 10.5	9.7	6	6	89 90	91	825705	806953	<0.2	-0.2 2	1.8 2.0 1.9
02	Cioday	Woderate	10.10	12.2		6.1 11.2	0.5	330 11	21.2		7.9 7.9		21.7	84.		6.6 6.5		10.6 13.0	3.7	6	ľ	91 93	31	623703	800933	<0.2		2.0
					Bottom	11.2	0.5	11 259	21.2 21.4	21.2	7.9 7.9	7.9	23.1	83.9	84.0	6.5	6.5	13.0 4.6		5	\square	92 87				<0.2	1	1.9
					Surface	1.0	0.8	269 248	21.4	21.4	7.9	7.9	23.9	87.3	87.4	6.7	6.7	4.6	ļ	6	ļ	86	1			<0.2	1	1.4
C3	Foggy	Moderate	07:48	11.1	Middle	5.6 5.6	0.7	259	21.3	21.3	7.9	7.9	26.0 26.0 26.0	86.	8 00.3	6.6		5.7	6.5	6	6	91 91	90	822104	817820	<0.2	1	1.6 1.5
					Bottom	10.1 10.1	0.5	254 263	21.3 21.3	21.3	7.9 7.9	7.9	28.0 28.0 28.0	85.8	85.8	6.5	6.5	9.2 9.1	-	7		92 92				<0.2 <0.2	1	1.5 1.5
					Surface	1.0	0.2	22 24	21.4 21.4	21.4	7.8	7.8	26.7	88.		6.7	6.7	14.5 14.5	-	17 17	 	86 87	+			<0.2		1.1
IM1	Cloudy	Moderate	09:48	5.5	Middle	-	-	-	-	-	-	-	-	-	-	-	0.7		16.2		17	-	88	817966	807111	-	<0.2	1.2
					Bottom	4.5 4.5	0.1 0.1	59 60	21.3 21.3	21.3	7.7	7.7	27.0 27.0 27.0	88.3		6.7	6.7	17.8 17.8	Ī	17 18		89 89				<0.2 <0.2		1.2
					Surface	1.0	0.3	12 12	21.3	21.3	7.9	7.9	27.1 27.1 27.1	00.1	90.8	6.9		16.4 16.5		8		85 85				<0.2	1	1.5
IM2	Cloudy	Moderate	09:55	8.0	Middle	4.0	0.3	11	21.3	21.3	7.9	7.9	27.3	90.	90.2	6.8	6.9	18.6	18.7	8	7	88	87	818148	806162	<0.2	-0.2	1.5
					Bottom	4.0 7.0	0.3	11 8	21.3 21.3	21.3	7.9 7.8	7.8	27.3 27.3	90.2 89.8	80.0	6.8	6.8	18.8 20.8	ļ	6	ļ	88 89				<0.2 <0.2	1	1.4
					Surface	7.0 1.0	0.4	8 353	21.3 21.3	21.3	7.8 7.9	7.9	27.3 27.3 25.3 25.4	90.9	90.9	6.8 7.0		20.8 8.7		8	H	89 85				<0.2	1	1.4
IM3	Cloudy	Moderate	10:01	8.2	Middle	1.0 4.1	0.6 0.5	359 351	21.3 21.3	21.3	7.9 7.9	7.9	26.7	90.4	,	6.9 6.9	6.9	8.8 11.1	12.0	8		85 88	88	818787	805591	<0.2	-02 1	1.4
IIVIS	Cioday	Woderate	10.01	0.2		4.1 7.2	0.5	323 342	21.3 21.3		7.9 7.8		26.7	90.4	1	6.9 6.7	0.7	11.2 15.8	12.0	8 9		89 89	- 00	010707	003331	<0.2	1	1.3
					Bottom	7.2	0.5	315 351	21.3 21.3	21.3	7.8 7.9	7.8	28.0 28.0 24.3	89.7	3	6.7 7.0	6.7	16.1 7.1		8	$\vdash \vdash \vdash$	90 84				<0.2		1.4
					Surface	1.0 4.4	1.0	323 357	21.3 21.3	21.3	7.9 7.9	7.9	24.3	91.3	91.2	7.0 6.8	6.9	7.1 10.2	ļ	8		85 87				<0.2	1	1.4
IM4	Cloudy	Moderate	10:09	8.8	Middle	4.4	0.8	357 353	21.3	21.3	7.9	7.9	28.1 28.2 28.2	90.0	90.0	6.8		10.3	10.0	8	8	88	87	819727	804600	<0.2	<0.2	1.5
					Bottom	7.8 7.8	0.8	325	21.3	21.3	7.9	7.9	28.2	89.	89.5	6.7	6.7	12.5		8	ш	90				<0.2	1	1.4
					Surface	1.0	1.2	15 15	21.3 21.3	21.3	7.9 7.9	7.9	24.9 24.8	92.2	92.2	7.1	7.0	13.7 13.6	ŀ	9	ļ	84 84	1			<0.2	1	1.3
IM5	Cloudy	Moderate	10:15	7.9	Middle	4.0	1.1	16 17	21.3 21.3	21.3	7.9 7.9	7.9	26.8 26.8	89.8	89.8	6.8		16.2 16.1	16.5	12 12	11	87 87	87	820729	804860	<0.2	<0.2	1.5 1.4
					Bottom	6.9 6.9	0.9	20 20	21.3 21.3	21.3	7.9 7.9	7.9	26.9 26.9	89.4 89.5		6.8	6.8	19.8 19.5	-	13 13		89 89				<0.2 <0.2	1	1.5 1.4
					Surface	1.0	0.1	259 276	21.2 21.2	21.2	7.9 7.9	7.9	19.3 19.3	88.3		7.0		5.3 5.3	-	5 5	П	85 85				<0.2		2.1 1.8
IM6	Cloudy	Moderate	10:23	8.2	Middle	4.1 4.1	0.2	47 47	21.3 21.3	21.3	7.9 7.9	7.9	22.6 22.6 22.6	88 (006	6.9	7.0	8.7 8.7	8.6	5	5	88 88	87	821050	805830	<0.2	2 2	2.0
					Bottom	7.2	0.2	79 82	21.4	21.4	7.8	7.8	25.6 25.6 25.6	90.1	89.0	6.8	6.8	11.9		6	[89 89				<0.2	2	2.0
					Surface	1.0	0.1	168	21.2	21.2	7.8	7.8	19.9	87.0	07.6	6.9		4.9		6		85				<0.2	2	2.0
IM7	Cloudy	Moderate	10:30	9.1	Middle	1.0 4.6	0.1	176 97	21.2 21.3	21.3	7.8 7.9	7.9	23.4	89.	89.1	6.9	6.9	4.9 12.9	11.0	6 5	5	85 88	88	821358	806814	<0.2 <0.2	.0.2	2.0
	/				Bottom	4.6 8.1	0.3	100 106	21.3 21.3	21.3	7.9 7.9	7.9	25.3	88.8	3 88.8	6.9 6.8	6.8	12.9 15.2		5 4		88 89				<0.2	2	2.0
						8.1 1.0	0.2	106 60	21.3		7.9 7.8		25.3	88.8	3	6.8	0.0	15.2 3.7		6	$\vdash \vdash$	90 86				<0.2	1	2.1 1.9
	_				Surface	1.0	0.3	65 68	21.2 21.2	21.2	7.8 7.8	7.8	19.5	87.3	87.3	6.9	6.9	3.7 7.7		6		87 89				<0.2	2	2.0
IM8	Cloudy	Moderate	09:15	8.2	Middle	4.1	0.2	73 116	21.2	21.2	7.8	7.8	20.9	86.4	86.4	6.8		7.7	7.3	5	5	90	90	821841	808155	<0.2	<0.2	2.0
DA: Depth-Ave					Bottom	7.2	0.1	121	21.3	21.3	7.8	7.8	21.4 21.4	87.		6.9	6.9	10.5		3	Ш	93				<0.2		2.0

during Mid-Flood Tide Water Quality Monitoring Results on 11 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Average Average 0.3 67 86.9 6.9 14 1.0 0.3 21.2 20.3 7.5 85 <0.2 2.1 3.9 0.2 74 21.3 7.8 7.8 87.8 87.9 6.9 6.9 10.5 13 13 89 89 <0.2 1.8 Cloudy IM9 Moderate 09:06 7.7 Middle 87.9 13 89 822093 808788 <0.2 3.9 0.2 21.3 10.2 75 12 6.7 0.1 61 21.3 92 < 0.2 1.8 7.8 21.6 88.4 6.9 13.5 Bottom 21.3 7.8 21.6 88.4 6.9 6.9 7.8 88.4 6.7 0.1 21.3 21.6 13.4 92 1.8 65 <0.2 0.9 21.3 8.3 1.6 7.8 6.8 Surface 21.3 7.8 22.1 87.8 7.8 22.1 87.8 6.8 83 1.6 1.0 0.9 313 21.3 8.4 < 0.2 21.4 21.4 10.9 10.6 1.5 4.3 0.7 287 297 23.8 23.8 86.2 86.1 6.6 84 85 <0.2 7.9 7.9 IM10 Cloudy Moderate 08:58 8.5 Middle 21 4 7.9 23.8 86.2 88 822373 809797 <0.2 7.5 0.5 276 21.4 7.8 86.1 6.6 12.9 8 95 <0.2 1.5 23.9 7.8 23.9 86.2 6.6 Bottom 21.4 7.5 0.5 294 21.4 7.8 23.9 86.2 6.6 13.3 95 < 0.2 1.5 1.0 0.8 290 21.3 6.7 85 1.6 7.8 86.3 8.0 8 23.9 <0.2 Surface 21.3 7.8 23.9 86.3 1.0 0.8 306 21.3 7.8 86.2 6.6 8.0 84 <0.2 1.6 1.4 4.2 0.7 288 21.4 7.9 6.6 10.3 89 <0.2 24.9 86.0 IM11 Cloudy 822072 811441 Moderate 08:49 8.3 Middle 21.3 7.9 24.9 86.1 88 <0.2 0.7 89 1.5 4.2 10.2 <0.2 21.3 7.3 7.9 85.5 85.4 6.5 15.7 92 <0.2 1.4 6.5 Rottom 21.3 7.9 25.7 85.5 7.3 0.5 293 21.3 7.9 25.7 6.5 15.8 91 1.6 21.4 7.9 23.4 88.0 88.0 6.8 87 <0.2 1.5 Surface 21.4 7.9 23.4 88.0 1.0 0.9 21.4 7.9 23.5 6.8 5.1 6 87 <0.2 1.5 3.6 0.7 285 21.4 7.9 87.3 8.0 91 <0.2 1.4 Middle 821477 812043 IM12 Cloudy Moderate 08:41 21.4 7.9 24.0 87.4 <0.2 0.7 21.4 7.9 87.4 6.7 8.1 92 1.4 6.2 0.5 289 21.4 7.9 24.8 87.0 6.7 10.2 9 94 <0.2 1.6 Bottom 21.4 7.9 24.8 87.0 6.7 6.7 6.2 0.5 308 21.4 7.9 24.8 86.9 10.4 9 94 < 0.2 1.6 1.0 21.3 7.9 88.7 6.9 5.0 Surface 21.3 7.9 22.0 88.7 21.3 7.9 22.0 88.6 6.9 5.0 8 2.6 SR1A Foggy Moderate 08:20 5.1 Middle 819976 812656 2.6 21.4 21.4 88.6 88.6 6.8 4.1 7.9 23.8 9.1 Bottom 21.4 7.9 23.8 88.6 6.8 41 79 9.2 1.0 0.3 21.3 79 23.8 86.6 6.7 7.6 87 <0.2 15 Surface 21.3 7.9 23.8 86.6 1.0 0.3 39 21.3 79 86.6 6.7 7.6 5 87 14 23.8 < 0.2 SR2 Moderate 80:80 4.7 Middle 821472 814157 Foggy 0.2 1.5 3.7 25.3 25.3 86.2 86.2 6.6 9.4 90 <0.2 Bottom 21.3 7.9 25.3 86.2 6.6 76 21.3 7.9 1.5 9.4 89 < 0.2 1.0 0.3 56 4.0 21.2 7.8 19.9 85.7 6.8 6 Surface 21.2 7.8 19.9 85.7 1.0 21.2 85.7 4.0 0.3 56 7.8 19.9 6.8 6 4.9 4.9 21.2 7.8 20.8 84.8 6.7 6 SR3 09:50 9.7 Middle 21.2 7.8 822166 807588 Cloudy Moderate 20.8 84.9 4.9 0.2 74 21.2 7.8 20.8 84.9 6.7 4.9 6 . 8.7 0.3 83 7.8 21.4 84.4 84.5 6.6 6.7 21.2 21 2 21.4 84.5 Rottom 7.8 6.6 88.8 1.0 0.2 84 21.5 7.8 6.8 10.3 12 25.2 Surface 21.5 7.8 25.2 88.8 1.0 91 21.5 7.8 25.2 6.8 10.3 12 0.2 6.7 4.9 0.4 21.4 87.0 87.0 6.6 12.8 12 7.8 25.8 SR4A Cloudy Calm 09:08 9.8 Middle 21.4 7.8 25.8 87.0 12 817207 807809 4.9 0.4 73 21.4 7.8 6.6 12.9 11 8.8 0.4 21.4 7.8 26.3 86.6 6.6 18.6 11

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810696

814726

823733

811618

817974

823629

820400

-

-

-

-

DA: Depth-Averaged

SR6A

SR7

SR8

Cloudy

Cloudy

Foggy

Cloudy

Calm

Calm

Moderate

Moderate

08:51

08:25

07:21

4.3

14.5

4.1

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

08:32

Bottom

Surface

Middle

Bottom

Middle

Bottom

Surface

Middle

Bottom

Surface

Middle

Bottom

8.8

1.0

1.0

2.9

2.9

1.0

1.0

3.3

3.3

1.0

1.0

7.3

7.3

13.5

1.0

during Mid-Ebb Tide Water Quality Monitoring Results on 14 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water рΗ Coordinate Sampling Water Temperature (°C) Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value Value DA Value Value (Northing) (Easting) Value Value Value Average Average 1.0 0.4 21.4 12 1.0 0.4 233 21 4 8.0 27.0 103.2 7.8 49 86 < 0.2 12 43 0.3 205 21.3 8.0 100.7 7.4 5.1 4 90 <0.2 1.1 Cloudy Moderate 17:19 Middle 815638 804265 4.3 0.4 217 21.3 8.0 31.6 100.7 74 5.0 4 90 <0.2 1.2 7.5 0.3 21.2 8.0 11.7 91 <0.2 1.2 212 96.4 Bottom 21.2 8.0 31.8 96.4 7.5 0.3 230 21.2 8.0 31.8 96.4 7 1 11.7 92 1.2 1.0 0.1 21.5 8.1 21.6 98.5 2.8 86 <0.2 1.4 Surface 21.5 8.1 98.5 21.6 1.0 0.2 218 21.5 8.1 98.4 7.7 2.9 4 85 <0.2 1.4 6.2 0.3 21.3 8.1 28.9 89.9 6.7 8.0 4 88 <0.2 1.5 C2 Moderate 16:13 12.4 Middle 21.3 8.1 28.9 89.8 825684 806951 Cloudy 6.2 0.3 183 21.3 8.1 6.7 8.6 4 88 <0.2 1.4 11.4 0.2 174 21.2 8.1 89.3 6.7 13.0 3 90 <0.2 1.4 Bottom 21.2 8.1 89.4 29.6 11.4 0.2 177 21.2 8.1 89.5 6.7 12.9 90 <0.2 1.4 0.3 21.4 8.1 93.4 2.9 87 1.4 28.4 7.0 <0.2 Surface 21.4 8.1 28.4 93.3 1.0 0.3 95 21.4 8.1 93.2 3.0 86 <0.2 1.4 6.0 0.2 21.3 6.9 3.2 3 89 <0.2 1.5 8.1 29.1 91.9 C3 Cloudy Moderate 17:45 12.0 Middle 21.3 8.1 29.1 91.8 822117 817817 21.3 3.2 88 1.4 6.0 78 <0.2 1.4 11.0 0.3 41 21.2 8.1 5.5 90 <0.2 30.1 91.2 6.8 21.2 8.1 30.1 Bottom 91.3 6.8 11.0 0.3 43 21.2 8.1 5.8 90 <0.2 1.4 0.2 184 21.6 5.6 88 8.1 28.4 <0.2 1.0 21.6 8.1 Surface 28.4 100.9 187 8.1 100.8 7.5 5.5 4 88 <0.2 1.0 1.0 0.2 21.6 -817936 807146 17:00 IM1 Cloudy Moderate 5.0 Middle 4.0 187 21.2 8.1 30.6 95.4 7.1 14.5 89 <0.2 1.0 21.2 8.1 30.5 95.4 Bottom 4.0 0.1 187 21.2 8.1 7.1 14.5 89 <0.2 0.9 197 7.9 87 1.0 7.6 <0.2 101.2 Surface 21.5 8.1 28.5 101.3 1.0 0.2 199 21.5 101.3 7.8 87 <0.2 0.9 3.6 134 7.5 5.5 4 89 1.0 0.1 21.3 8.1 < 0.2 30.7 101.6 Middle 21.3 806166 IM2 Cloudy Moderate 16:53 7.1 8.1 30.7 101.5 818176 3.6 0.1 140 21.3 8.1 7.5 5.7 4 90 <0.2 1.0 146 90 1.0 6.1 0.1 21.3 13.2 4 <0.2 8.1 31.5 96.1 7.1 21.3 Bottom 8.1 31.5 96.1 6.1 0.1 160 21.3 8.1 31.5 96.0 7.1 13.4 4 91 <0.2 0.9 0.1 21.4 8.1 100.2 7.5 6.3 87 <0.2 1.7 Surface 21.4 8.1 28.7 100.3 1.7 1.0 0.1 184 8.1 28.7 100.3 7.5 6.2 5 87 <0.2 21.4 0.1 155 4.7 5 88 1.7 3.7 21.3 8.1 29.5 102.5 7.7 < 0.2 818766 805579 IM3 Cloudy Moderate 16:46 7.3 Middle 21.3 8.1 29.5 102.6 89 1.6 3.7 0.2 162 21.3 8.1 29.5 1026 77 46 5 89 <0.2 90 1.4 133 5 6.3 0.2 21.3 8.1 31.5 96.1 71 9.7 <0.2 Bottom 21.3 8.1 31.5 96.1 7 1 9.7 90 6.3 0.2 145 21.3 8.1 31.5 96.1 6 <0.2 1.0 1.0 0.4 201 21.4 8.0 28.7 98.7 74 5.2 86 <0.2 1.8 Surface 21.5 8.0 28.6 98.8 1.0 207 8.0 5.0 3 87 17 0.4 21.5 28.6 98.9 74 < 0.2 89 5.7 3 1.8 41 0.2 149 21.3 8.1 30.9 98.6 7.3 <0.2 IM4 Cloudy Moderate 16:37 8.2 Middle 30.9 98.6 819707 804586 41 0.2 152 21.3 8.1 30.8 98.5 7.3 5.7 2 89 <0.2 17 72 0.2 163 21.3 8.1 31.6 95.9 7.1 7 1 2 89 <0.2 1.8 95.9 7.2 0.2 166 21.3 8.1 31.6 95.9 71 7.1 2 90 <0.2 17 1.0 0.4 239 21.7 8.0 25.2 101.4 77 4.0 86 <0.2 17 101.4 25.2 1.0 0.4 250 21.7 8.0 25.2 7.7 4.0 4 86 <0.2 1.6 8.0 3.9 0.3 220 21.3 29.6 96.9 72 11.0 3 88 <0.2 1.6 Cloudy Moderate 16:29 7.7 29.5 96.9 820714 804888 3.9 0.3 224 21.3 8.0 29.5 96.9 72 11 4 3 88 <0.2 1.8 6.7 0.2 174 21.3 8.0 31.3 95.1 7.0 8.1 3 89 <0.2 1.6 Bottom 21.3 8.0 31.3 95.1 6.7 0.2 176 21.3 8.0 31.3 95.1 7.0 8.2 3 89 <0.2 1.6 8.0 1.0 0.3 241 21.4 99.9 5.0 86 <0.2 1.3 26.5 Surface 21.4 8.0 26.5 99.9 1.0 0.3 21.4 8.0 26.5 99.8 7.6 5.0 86 <0.2 1.3 251 3.7 0.1 232 21.3 8.0 29.4 96.8 7.2 6.7 4 88 <0.2 1.2 805826 IM6 Cloudy Moderate 16:21 7.3 Middle 21.3 8.0 29.4 96.8 821048 <0.2 3.7 0.1 21.3 8.0 29.4 96.7 7.2 6.7 3 88 <0.2 1.3 6.3 0.1 198 21.3 8.0 95.7 95.7 7.3 4 89 <0.2 1.3 Bottom 21.3 8.0 30.9 95.7 7.1

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96.2 96.3

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100.3 100.1

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821326

821815

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806853

808151

DA: Depth-Averaged

IM7

IM8

Cloudy

Cloudy

Moderate

Moderate

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

16:32

16:12

8.6

8.0

6.3

1.0

1.0

4.3

4.3

7.6

7.6

1.0

4.0

4.0

7.0

7.0

Surface

Middle

Bottom

Surface

Middle

Bottom

0.2

0.2

0.2

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.2

0.2

212

244

251

104

113

93

145

159

64

67

77

83

21.3

21.6

21.6

21.3

21.3

21.3

21.3

21.6

21.6

21.5

21.4

21.4

21.4

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

during Mid-Ebb Tide Water Quality Monitoring Results on 14 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Value Average Average 0.3 99.8 7.7 1.0 0.3 151 21.6 8.1 24.1 2.6 87 <0.2 1.5 3.9 0.2 115 21.5 8.1 97.9 97.5 7.5 7.5 3.2 4 88 89 <0.2 1.5 IM9 Cloudy Moderate 16:37 7.7 Middle 97.7 89 822112 808800 <0.2 3.9 0.2 123 21.5 8.1 6.7 0.3 92 21.4 90 <0.2 1.5 8.1 29.5 96.3 7.2 6.3 Bottom 21.4 8.1 29.4 96.4 7.2 96.4 6.7 0.3 21 4 8 1 29.4 6.4 91 15 qq <0.2 0.4 21.6 2.4 1.4 8.1 Surface 21.6 8.1 24.3 97.7 8.1 24.2 97.5 87 1.4 1.0 0.4 119 21.6 7.5 2.4 3 < 0.2 21.4 21.4 1.5 0.4 96.3 96.3 2.5 88 87 <0.2 3.6 94 8.1 4 IM10 Cloudy Moderate 16:43 7.2 Middle 21.4 8.1 25.5 96.3 88 822399 809796 <n 2 0.4 6.2 0.3 72 21.4 8.1 96.2 7.2 5.7 4 90 <0.2 1.4 28.7 8.1 28.8 96.4 7.2 Bottom 21.4 6.2 0.4 76 21.4 8.1 28.9 96.5 7.2 6.0 91 < 0.2 1.5 0.6 100 21.6 2.6 86 1.5 1.0 8.1 7.6 24.6 99.4 <0.2 Surface 21.6 8.1 24.7 99.3 1.0 0.6 103 21.6 8.1 99.1 7.6 2.6 87 <0.2 1.5 1.4 4.2 0.6 93 21.4 8.1 25.5 25.5 7.1 4.0 89 <0.2 92.9 IM11 Cloudy 822051 811440 Moderate 16:52 8.4 Middle 21.4 8.1 25.5 92.7 89 <0.2 0.6 8.1 92.4 4.4 88 1.5 4.2 21.4 <0.2 7.4 8.1 28.6 91.4 6.9 6.4 <0.2 1.5 Rottom 21.3 8.1 28.6 91.5 69 7.4 0.3 21.3 8.1 28.6 91.6 6.9 6.4 91 1.5 97 24.3 97.9 97.7 3.1 87 <0.2 1.5 Surface 21.6 8.1 24.3 97.8 1.0 0.6 105 21.6 8.1 7.5 3.4 4 86 <0.2 1.5 4.4 0.5 86 21.3 4.3 4 88 <0.2 1.4 Middle 821467 812026 IM12 Cloudy Moderate 16:58 21.3 8.1 27.1 91.8 4.4 0.5 21.3 8.1 91.7 6.9 4.4 89 1.4 7.8 0.3 72 21.3 8.1 28.4 91.6 6.9 4.5 4 91 <0.2 1.4 Bottom 21.3 8.1 28.4 91.7 6.9 91.7 6.9 7.8 0.3 75 21.3 8.1 28.4 4.6 3 91 <0.2 1.3 1.0 21.5 8.1 25.7 92.6 7.0 3.7 Surface 21.5 8.1 25.7 92.5 1.0 21.5 8.1 25.7 92.3 7.0 3.8 3 2.5 Cloudy Moderate 17:15 5.0 Middle 819979 812657 2.5 4.0 21.3 8.0 91.9 6.9 3.8 4 6.9 Bottom 21.3 8.0 28.3 92.0 4.0 21.3 8.0 28.3 92.1 6.9 3.9 4 1.0 0.4 70 21.5 8.1 95.9 7.3 2.9 88 <0.2 1.4 Surface 21.5 8.1 26.2 96.0 1.0 0.5 76 21.5 8.1 26.2 96.0 7.3 2.9 4 88 <0.2 1.4 SR2 Cloudy Moderate 17:26 4.4 Middle 821450 814159 <0.2 3.4 27.3 27.0 97.4 97.8 1.4 Bottom 21.5 8.1 97.6 3.4 0.3 72 21.4 8.1 7.4 29 91 <0.2 1.4 1.0 0.1 232 21.6 8.1 24.3 99.0 7.6 2.5 4 8.1 24.3 98.9 1.0 0.1 254 21.6 8.1 24.3 98.8 7.6 2.5 4 4.4 0.1 191 21.3 8.1 28.0 95.2 7.2 4.4 4 SR3 Moderate 16:26 8.8 28.0 95.4 822151 807579 Cloudy 4.4 0.1 194 21.3 8.1 28.0 95.5 7.2 4.6 21.3 8.1 8.1 29.3 29.4 97.4 97.6 7.3 7.8 0.1 121 7.3 7.3 Bottom 21.3 97.5 7.3 0.1 1.0 0.1 57 21.6 8.0 27.5 103.2 7.7 7.2 Surface 21.6 8.0 27.5 103.2 7.1 1.0 0.1 57 21.6 8.0 27.5 103.2 7.7 3 -4.6 0.1 74 8.0 7.2 8.8 21.3 30.5 96.3 17:43 807795 SR4A Cloudy Moderate 9.2 Middle 21.3 8.0 30.5 96.3 817185 4.6 0.1 78 21.3 8.0 30.5 7.2 8.7 96.3 0.1 7.9 11.8 8.2 30.8 95.1 Rottom 21.3 7.9 30.8 95.1 74 21.3 21.6 7.1 8.2 0.1 7.9 30.8 95.1 11.8 1.0 0.0 61 5.8 8.1 7.6 27.4 100.9 Surface 21.6 8.1 27.4 100.8 1.0 0.0 63 21.6 8.1 27.4 100.7 7.6 5.8 5 SR5A 18:00 Middle 816577 810682 Cloudy Moderate 3.9 2.9 0.0 168 21.3 8.0 7.2 28.1 96.6 7.3 Bottom 21.3 8.0 28.1 96.6 7.3 2.9 0.0 170 21.3 7.9 Surface 21.3 7.9 26.8 90.5 32 21.3 7.9 6.9 8.3 SR6A Moderate 18:29 4.0 Middle 817976 814725 Cloudy 3.0 0.0 263 21.2 86.9 87.0 6.6 Bottom 7.9 87.0 287 1.0 0.6 53 21.3 8.1 27.2 96.8 7.3 1.9 <2 Surface 8.1 96.6 1.0 0.6 53 21.3 8.1 96.4 73 1.9 <2 8.2 0.3 26 21.3 8.1 29.6 93.3 7.0 1.9 <2 SR7 Cloudy Moderate 18:10 Middle 21.3 29.6 93.3 823658 823734 8.2 0.3 26 21.3 8.1 29.7 93.3 7.0 2.0 2 15.4 0.2 356 21.2 8.1 93.7 7.0 2.5 Bottom 21.2 8.1 30.3 93.8 15.4 0.2 328 21.2 8.1 93.8 22.1 22.1 1.0 8.0 25.0 25.1 3.4 97.0 96.8 Surface 7.3 3.4 8.0 --SR8 Cloudy Moderate 17:07 5.4 Middle 3.5 820379 811645 21.8 3.8 4.4 8.0 26.0 96.2 96.2 7.3 Bottom 21.9 8.0 26.0 96.2 4.4 21.9

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

during Mid-Flood Tide Water Quality Monitoring Results on 14 April 20 Suspended Solids Salinity (ppt) Turbidity(NTU) Nickel (µg/L) Sampling Water Water Temperature (°C) рΗ Coordinate Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value Value DA (Northing) (Easting) Value Value Value Average Average 0.4 1.0 21.1 1.2 1.0 0.4 30 21.1 8.0 28.6 97.9 7.4 4.8 4 86 <0.2 11 7.3 4.1 0.3 30 21.2 8.0 31.7 96.2 7.1 9.1 4 89 <0.2 1.3 10:52 Middle 8.0 31.7 96.2 89 815638 804244 Cloudy Moderate 8.2 < 0.2 4.1 0.3 9.4 4 89 <0.2 1.2 32 21.2 96.2 1.2 21.2 8.0 31.8 7.0 13.4 91 <0.2 95.2 31.8 Bottom 21.2 8.0 95.2 7.0 7.2 0.2 39 21.2 8.0 95.2 13.0 <0.2 1.3 337 21.2 8.1 3.4 86 <0.2 1.4 93.1 7.3 Surface 21.2 8.1 22.0 93.0 1.0 0.3 345 21.2 8.1 22.0 92.8 7.3 3.6 86 <0.2 1.4 6.3 0.5 6.7 5 87 1.4 21.3 8.1 28.1 92.5 7.0 <0.2 Cloudy 12.5 806948 C2 Moderate 11:23 Middle 21.3 8.1 28.2 92.6 88 825663 < 0.2 6.3 7.4 11.5 0.2 13 21.3 8.1 29.0 93.0 7.0 13.5 90 <0.2 1.3 21.3 8.1 29.0 93.0 7.0 Bottom 11.5 0.3 21.3 8.1 13.7 90 1.4 21.1 93.4 93.4 Surface 21.1 8.0 26.0 93.4 1.0 0.2 244 21.1 8.0 25.9 7.2 2.7 4 87 <0.2 1.4 6.1 0.3 21.1 28.2 90.5 6.8 2.4 88 <0.2 1.4 822127 817789 Cloudy Moderate 09:39 Middle 8.0 6.1 0.3 275 21.2 8.0 2.8 88 11.2 0.3 254 21.2 8.0 31.0 89.2 6.6 8.1 3 91 <0.2 1.3 Bottom 21.2 31.0 89.3 6.6 254 12 11 2 0.3 21.2 8.0 31.0 89.3 6.6 8.0 90 <0.2 14 0.2 21.1 1.0 8.0 7.3 5.0 87 1.1 Surface 21.1 8.0 27.7 96.5 1.0 0.3 13 21.1 8.0 27.7 96.3 7.3 5.0 4 87 < 0.2 1.1 -Cloudy Moderate 11:12 5.3 Middle 817929 807121 <0.2 43 0.2 21.3 30.1 93.8 93.8 7.0 7.0 89 <0.2 11 8.0 10.0 Bottom 21.3 7.0 0.2 8.0 1.1 43 21.3 10.2 89 <0.2 1.0 0.2 338 21.1 8 1 27.9 27.9 99.3 99.3 7.5 49 85 < 0.2 1.0 Surface 21.1 27.9 99.3 7.5 311 21.1 8.1 86 1.0 0.2 4.9 4 < 0.2 6 3.7 0.3 21.1 7.4 7.4 4.9 88 0.9 1.0 8.0 28.4 98.2 <0.2 IM2 Cloudy Moderate 11:19 7.3 Middle 21.1 8.0 28.4 98.2 88 818177 806160 <n 2 21.1 8.0 89 <0.2 0.3 4.9 6.3 356 6.5 90 1.0 0.2 8.0 30.6 96.0 7.1 6 7.1 Rottom 21.2 8.0 30.6 96.1 6.3 21.2 8.0 30.6 96.1 7.1 6.3 90 1.0 0.2 328 6 <0.2 348 21.0 1.1 1.0 0.4 8.1 4.6 85 27.1 99.4 7.6 < 0.2 Surface 21.0 8.1 27.1 99.4 21.0 8.1 99.4 4.7 85 <0.2 1.0 3.8 0.3 341 21.1 4.4 88 <0.2 1.0 8.1 28.9 97.3 7.3 5 IM3 Cloudy 11:26 7.5 Middle 21.1 8.1 28.9 97.3 88 818760 805584 < 0.2 Moderate 3.8 0.4 314 21.1 8.1 28.9 4.5 88 <0.2 1.0 325 9.8 89 <0.2 1.0 95.6 7.1 7 1 Rottom 21 2 8.0 30.8 95.6 6.5 0.3 343 21.2 8.0 30.8 95.6 7.1 9.8 90 <0.2 1.0 99.2 99.1 4.3 1.0 1.0 0.6 350 20.6 8.1 7.6 85 <0.2 26.2 Surface 20.6 8.1 26.2 99.2 1.0 0.7 356 20.6 8.1 7.6 4.3 6 86 <0.2 1.0 4.2 0.6 336 21.2 95.8 95.8 5.2 88 <0.2 0.9 29.8 IM4 Cloudy Moderate 11:35 8.4 Middle 21.2 8.1 29.8 95.8 88 819742 804624 <0.2 4.2 0.6 309 8.1 29.8 5.2 88 <0.2 21.2 7.4 7.4 0.4 21.3 31.2 31.2 94.7 94.6 7.0 7.0 12.0 12.0 90 <0.2 1.0 Bottom 21.3 8.1 31.2 94.7 7.0 0.4 8.1 4 89 1.0 1.0 0.8 20.9 8.1 26.7 97.3 7.4 4.7 85 <0.2 1.1 Surface 21.0 8.1 26.7 97.2 1.0 0.9 21.0 8.1 26.7 97.0 7.4 5.0 4 85 <0.2 1.1 3.8 0.6 10 21.3 8.1 30.1 95.3 7.1 8.1 4 88 <0.2 1.1 IM5 Cloudy Moderate 11:42 Middle 21.3 8.1 30.1 95.3 820716 804858 <0.2 3.8 0.6 10 21.3 8.1 30.1 95.3 7.1 8.1 4 87 <0.2 1.0 21.3 94.9 6.6 0.5 25 27 30.4 10.1 89 <0.2 1.0 Bottom 94.9 6.6 0.5 8.0 30.4 7 1 10.1 5 89 <0.2 1.0 1.0 0.1 161 21.1 8.1 24.5 95.7 7.4 5.0 84 <0.2 1.0 Surface 24.5 95.7 1.0 0.1 161 8.1 5.0 1.0 21.1 246 95.6 7.4 4 85 <0.2 9.7 87 1.0 3.8 0.2 4 82 21.3 8.1 29.9 94.1 7.0 < 0.2

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821806

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IM6

IM7

IM8

Cloudy

Cloudy

Cloudy

Moderate

Moderate

Moderate

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

11:00

11:51

12:00

7.5

8.3

8.0

Middle

Bottom

Surface

Middle

Rottom

Surface

Middle

Rottom

3.8

6.5

6.5

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0.1

0.1

88

104

108

289

305

87

90

99

99

264

264

334

340

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21.3

during Mid-Flood Tide Water Quality Monitoring Results on 14 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value DA Value DA Value Value DA (Northing) (Easting) Value DA Value Average 0.2 91.5 1.0 0.2 254 21.3 8.0 25.2 7.0 4.8 4 86 <0.2 1.3 3.8 0.2 267 284 21.3 8.0 90.7 6.9 5.9 4 88 <0.2 1.3 Cloudy IM9 Moderate 10:54 7.5 Middle 90.7 5.6 88 822114 808814 <0.2 21.3 5.9 6.5 0.2 274 21.3 5.8 90 <0.2 1.3 8.0 27.4 91.7 6.9 Bottom 21.3 8.0 27.4 91.9 7.0 92.0 7.0 8.0 1.3 6.5 0.2 21.3 27.4 6.5 91 288 <0.2 0.5 21.3 4.8 1.3 8.0 91.4 Surface 21.3 8.0 25.0 91.3 8.0 25.0 91.2 7.0 85 1.4 1.0 0.5 310 21.3 4.8 4 < 0.2 21.3 21.3 7.2 7.3 1.4 0.4 8.0 88.8 88.6 88 87 <0.2 3.9 6.7 IM10 Cloudy Moderate 10:47 7.8 Middle 21.3 8.0 27.0 88.7 88 822400 809780 <0.2 0.4 6.8 0.3 263 21.3 8.0 88.7 6.7 8.0 90 <0.2 1.3 28.6 8.0 28.6 88.8 6.7 Bottom 21.3 6.8 0.3 268 21.3 8.0 28.6 88.9 6.7 8.0 91 < 0.2 1.4 1.0 0.3 289 21.2 3.2 86 1.4 8.1 7.2 23.8 92.5 <0.2 Surface 21.2 8.1 23.8 92.4 1.0 0.4 299 21.2 8.1 92.2 7.1 3.2 87 <0.2 1.3 1.4 4.0 0.4 276 21.3 8.0 6.7 5.1 4 88 <0.2 28.0 89.2 IM11 Cloudy 822039 811438 Moderate 10:37 8.0 Middle 21.3 8.0 28.0 89.2 88 <0.2 4.0 0.4 8.0 89 1.3 5.0 <0.2 294 256 21.3 21.2 8.0 28.9 89.4 6.0 <0.2 1.4 Rottom 21.2 8.0 28.9 89.5 6.7 7.0 0.4 265 21.2 8.0 28.9 89.6 6.7 5.9 90 1.3 278 8.0 24.2 24.1 91.1 3.1 86 <0.2 1.4 Surface 21.2 8.0 24.2 91.0 1.0 0.3 284 21.2 8.1 7.0 3.2 4 87 <0.2 1.4 4.1 0.4 265 21.3 8.0 3.7 4 88 <0.2 1.4 89.0 10:31 Middle 821482 812032 IM12 Cloudy Moderate 21.3 8.0 28.0 89.0 4.1 0.4 21.3 8.0 89.0 6.7 3.7 88 1.4 72 0.4 273 21.2 8.0 29.8 88.4 6.6 127 90 <0.2 1.3 Bottom 21.2 8.0 29.8 88.6 6.6 88.7 7.2 0.4 280 21.2 8.0 29.8 6.6 13.0 2 91 <0.2 1.4 1.0 21.0 8.0 23.9 92.6 7.2 3.5 Surface 21.0 8.0 23.9 92.6 1.0 21.0 8.0 23.9 92.5 7.2 3.5 4 2.7 SR1A Cloudy Moderate 10:13 5.4 Middle 819972 812656 2.7 21.0 91.5 91.7 7.0 7.1 4.4 25.2 25.2 3.5 Bottom 21.0 8.0 25.2 91.6 7.1 44 8.0 1.0 0.1 309 21.3 8.0 23.7 90.2 7.0 45 87 <0.2 13 Surface 21.3 8.0 23.8 90.1 1.0 0.1 315 21.3 8.0 6.9 49 5 88 14 23.8 89.9 < 0.2 SR2 Cloudy Moderate 10:00 4.9 Middle 89 821468 814147 3.9 0.1 275 276 21.2 8.0 27.8 27.8 90.2 6.8 6.5 90 <0.2 1.3 Bottom 21.2 8.0 27.8 90.4 6.8 0.1 8.0 6.4 1.4 90 < 0.2 1.0 0.2 21.0 8.0 272 22.8 95.0 7.4 3.0 Surface 21.0 8.0 22.8 95.0 1.0 8.1 22.8 7.4 3.0 0.2 284 21.0 95.0 6 4.4 3.6 4 21.2 8.1 26.6 93.5 7.1 SR3 11:05 Middle 21.2 822131 807568 Cloudy Moderate 8.8 8.1 26.6 93.6 4.4 0.1 309 21.2 8.1 26.6 93.6 7.1 3.8 5 . 7.8 0.2 8.1 29.0 29.0 94.5 94.6 7.1 7.1 6.3 21.3 94.6 Rottom 21.3 8.1 29.0 344 1.0 0.0 21.0 7.9 6.0 28.0 95.0 7.2 Surface 21 1 7.9 28.0 95.0 1.0 355 21.1 7.2 6.0 0.0 4.7 0.1 21.2 8.9 223 7.9 29.3 93.0 7.0 SR4A Cloudy Calm 10:29 9.4 Middle 21.2 7.9 29.3 93.0 817189 807827 4.7 0.1 237 21.2 7.9 8.8 8.4 0.0 21.2 7.9 29.8 92.2 6.9 9.1 Bottom 21.2 7.9 29.8 92.3 6.9 8.4 9.1 21.2 1.0 0.1 318 20.9 7.8 5.1 27.1 95.1 7.2 Surface 20.9 7.8 27.1 95.1 1.0 0.1 331 20.9 7.8 95.0 7.2 5.1 4 Cloudy Calm 10:12 Middle 816574 810714 2.5 0.1 320 21.0 7.9 94.4 7.2 6.1 Bottom 7.9 7.2 2.5 0.1 338 20.9 7 0 9/1/ 6.1 1.0 22 0.0 21.2 7.9 26.8 90.1 6.8 46 21.2 4.7 1.0 0.0 24 21.2 79 26.8 90.0 6.8 6.8 -SR6A Calm 09:44 4.1 Middle 817955 814721 Cloudy 3.1 0.0 338 21.3 7.9 7.9 90.3 90.4 6.8 5.2 4 -90.4 Bottom 3.1 0.0 359 1.0 0.0 259 259 21.0 8.0 28.7 28.7 91.7 91.5 6.9 2.2 Surface 21.0 8.0 28.7 91.6 1.0 0.0 21.0 2.2 8.2 0.1 21.2 8.0 30.6 30.6 90.1 6.7 2.3 89 3 -90.1 8.0 30.6 823622 823743 SR7 Cloudy Moderate 09:09 16.4 Middle 21.2 8.0 90.0 6.7 8.2 0.1 93 21.2 2.5 4 -15.4 171 0.1 21.2 8.0 6.6 2.7 4 31.8 89.8 Bottom 21.2 8.0 31.8 89.9 6.6 89.9 6.6 8.0 15.4 0.1 175 21.2 2.8 1.0 21.0 21.0 8.0 22.8 22.8 93.5 93.3 7.3 7.3 3.3 Surface 21.0 8.0 93.4 22.8 8.0 4 7.3 SR8 Cloudy 10:23 5.5 Middle 820373 811638 Moderate 6.8 21.2 8.0 26.2 89.8 8.3 21.2 8.0 26.2 89.9 6.9 Bottom 8.0

DA: Depth-Averaged

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 16 April 20 during

during Mid-Ebb Tide

Martin	Water Qual	ity Monite	oring Resu	lts on		16 April 20	during Mid-E	bb Tide	е																			
March Marc		Weather	Sea	Sampling	Water	Sampling D	epth (m)			Water Te	emperature (°C)		рН	Salinity (ppt)	DO S		Dissolved Oxygen	Turbidity	NTU)					Coordinate HK Grid	Coordinate HK Grid			(μg/L)
Class	Station	Condition	Condition	Time	Depth (m)	January 2	F=- ()	(m/s)	Direction	Value	Average	Value	Average	Value Average	Value	Average	/alue DA	Value	DA	Value	DA	Value	DA			Value	DA Value	DA
Motion M						Surface					21.5		8.1				7.8			-								
Part	C1	Cloudy	Moderate	20:19	8.2	Middle	4.1	0.4	213	21.5	21.5	8.1	8.1	27.9	99.0	99.0	7.4	3.8	3.8	7	6	88	88	815606	804238	<0.2	-0.2 1.4	1.3
Control Cont						Bottom	7.2			21.5	21.5	8.1	8.1	28.3	99.2	00.3	7.5	4.8				89				<0.2	1.4	
Martin M														28.3			7.5											
Color Western Color Western Color Western Color Color Western Color Colo						Surface	1.0	0.2	201	23.0	23.0	8.1	8.1	20.9	110.2	110.4	8.4 7.6	2.5		4		86				<0.2	1.6	
Color Colo	C2	Cloudy	Moderate	18:57	12.4	Middle					21.5		8.0						3.9		6		88	825684	806962			1.6
Cauchy Maderina 2044 11.8 Surfaces 1.5						Bottom					21.3		8.0															
Change Moderate 22-44 1.8 Moderate 22-44 Moderate						Surface	1.0	0.1	157	22.5	22.5	8.1	8.1	24.8	104.1	104.0	7.8	2.4		5		84				<0.2	1.7	
Made Made	62	Claudy	Madazata	20.44	44.0	Middle								20.2					2.0					000400	047706		1.0	1.0
M. Dilly Moderne 1936 1	L3	Cloudy	Moderate	20:44	11.8									28.2			60		2.8		. 5		88	822123	817796		1.8	1.8
Male Modeles M						Bottom	10.8	0.1	88	21.4	21.4	8.1	8.1	30.8	91.6	91.5	6.8	3.8		4		90				<0.2	1.8	
May Moderate Moderate May Moderate Mo						Surface					21.8		8.1				7.6									<0.2		
Button B	IM1	Cloudy	Moderate	20:01	4.6	Middle	-	-	-	-	-	-	-	-	-		- 7.6		3.5		6		88	817926	807142	-	-0.2	1.4
M2 Clusty Moderate 19.6 P. A. Surface 10. 0.2 197 21.6 21.8 21.8 21.8 21.8 21.8 21.8 21.8 21.8						Bottom					21.7		8.1					5.0		6		89					1.3	
Made reference of the control of the														28.7			7.3											=
Moderate Moderate												_		27.6													13	
Mart Mart	IM2	Cloudy	Moderate	19:54	6.7	Middle	3.4	0.2	179	21.8	21.8	8.1	8.1	27.7	101.6	101.7	7.6	2.5	2.5	5	6	89	88	818172	806174	<0.2	<0.2	1.3
Moderate 19.47 Moderate 19.48 Moderate 19.48 Moderate 19.49 Moderate						Bottom					21.8		8.1							-								
Miles Mile						Surface					21.8		8.1				7.6											
Moderate 19.31 Part Pa	IM3	Cloudy	Moderate	19:47	6.9	Middle	3.5	0.3	137	21.8	21.8	8.1	8.1	26.5	100.2	100.3	7.6	2.6	2.7	6	6	89	89	818773	805584	<0.2	-0.2	1.4
Mart Moderate 19.8 Moderate 19.8 Moderate 19.8 Fig.		,				Dattem					24.0		0.1	27.2			7.5											
Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Moderate 19.38 Fig. Fig						l								27.3	00.0	99.0	7.5											_
Moderate 19.36 Moderate 19.36 Moderate 19.36 Moderate 19.31 A Moderate 19.32 A Moderate 19.32 A Moderate 19.33 A A A A A A A A A						Surface	1.0	0.6	179	21.8	21.8	8.1	8.1	25.6	99.8	99.6	7.6	3.2		6		86				<0.2	1.4	
Surface 10	IM4	Cloudy	Moderate	19:38	7.8	Middle					21.8		8.1						4.4		6		88	819748	804619			1.4
No. Moderate 19.31 Paris Par						Bottom					21.8		8.1															
Moderate 19:31 7.4 Middle 3.7 0.4 213 21.8						Surface	1.0	0.4	212	21.7	21.7	8.1	8.1	24.7	100.5	100.6	7.7	2.8		6		86				<0.2	1.5	
Moderate 19:16 Rottom	IME	Cloudy	Modorato	10:21	7.4	Middle					21.0		0.2	27.1					42					920756	904992		12	1.4
Moderate 19:16 Surface 1.0 0.3 224 21.7 21.8 8.1 8.1 25.6 25.6 99.0 99.0 7.5 7.5 7.5 3.5 5 99.0 99.0 7.5 7.5 7.5 3.5 5 99.0	CIVII	Cloudy	Moderate	19.51	7.4									27.1			7.6		4.3		. 6		00	620756	004002		1.3	1.4
Middle Moderate						Bottom	6.4	0.3	210	21.8	21.8	8.1	8.1	29.0	101.7	101.7	7.6	5.6		5		90				<0.2	1.5	
Middle M						Surface					21.7		8.1				7.5											
Bottom 6.1 0.2 206 21.8 21.8 21.8 8.2 8.2 30.8 30.8 102.7 102.7 7.6 7.6 7.7 7.7 7.6 7.7 7.7 7.7 7.7 7	IM6	Cloudy	Moderate	19:24	7.1	Middle					21.7		8.1				7.5		4.9		6		88	821066	805804			1.5
No. No.						Bottom	6.1	0.2	206	21.8	21.8	8.2	8.2	30.8	102.7	1027	7.6	7.7		7		90				<0.2	1.5	
Moderate 19:16 Robbit						Curtons					24.0			30.8			7.5											_
Moderate 19:16 8.3 Middle 4.2 0.3 211 21.8 21.8 21.8 21.8 21.8 21.8 21.8														25.9		30.4	7.4 7.5										1.7	
Moderate 19:18 Fig. Fi	IM7	Cloudy	Moderate	19:16	8.3	Middle	4.2	0.3	211	21.8	21.8	8.1	8.1	27.1	100.0	100.0	7.5	4.8	5.6	5	6	89	88	821339	806827	<0.2	<0.2	1.6
Moderate 19:18 Total Property of the control						Bottom					21.8		8.1															
Moderate 19:18 7.8 Middle 3.9 0.2 140 21.7 21.7 8.1 8.1 28.0 28.0 98.8 7.4 7.8 7.8 5.6 5.8 5						Surface					23.1		8.1															
Bottom 6.8 0.1 57 21.6 21.6 8.1 28.0 98.7 7.4 5.8 5 88 0.2 1.6 8.0 1.6 8.1 0.2 1.6 8.1 8.1 28.0 98.7 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7	IM8	Cloudy	Moderate	19:18	7.8	Middle	3.9	0.2	140	21.7	21.7	8.1	8.1	28.0	98.8	08.8	7.4	5.6	5.4	5	6	88	87	821806	808124	<0.2	-0.2	1.6
6.8 0.2 57 21.6 21.0 8.1 0.1 29.5 29.5 98.8 90.7 7.3 7.3 6 90 <0.2 1.5		2.200,		120										28.0			7.2							500			1.6	
	DA: Donth A:	nand				Bottom	6.8	0.2			21.6		8.1							6								

during Mid-Ebb Tide Water Quality Monitoring Results on 16 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water рΗ Coordinate Sampling Water Temperature (°C) Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Condition Value Average Average 0.2 109.4 1.0 0.2 126 22.6 8.1 22.5 8.3 2.9 85 <0.2 1.6 3.7 0.3 121 129 21.9 8.1 103.0 7.8 7.8 5.1 88 89 <0.2 1.5 IM9 Cloudy Moderate 19:25 7.4 Middle 103.0 88 822109 808800 <0.2 0.3 21.9 8.1 102.9 5.8 < 0.2 6.4 0.3 74 21.6 90 < 0.2 1.5 8.1 28.6 98.9 7.4 7.4 9.9 6 Bottom 21.6 8.1 28.6 99.1 7.4 6.4 0.3 77 8 1 28.5 99.2 99 90 15 21.6 <0.2 0.5 118 23.0 1.5 8.1 8.3 Surface 23.0 8.1 21.1 109.0 8.1 21.1 108.8 85 1.6 1.0 0.5 122 23.0 8.3 2.2 6 < 0.2 21.8 5.8 6.2 1.5 0.5 110 97.9 97.6 89 89 <0.2 3.4 8.1 7.4 IM10 Cloudy Moderate 19:32 6.7 Middle 21.8 8.1 25.7 97.8 88 822377 809796 <n 2 0.5 115 8.1 5.7 0.4 96 21.6 8.1 98.4 12.1 90 <0.2 1.6 27.7 7.4 7.4 Bottom 21.6 8.1 27.7 98.6 5.7 0.4 99 21.6 8.1 98.8 7.4 11.9 90 < 0.2 1.6 1.0 0.6 116 87 1.6 23.0 8.1 2.2 21.6 107.7 8.2 4 <0.2 Surface 23.0 8.1 21.6 107.6 1.0 0.6 123 23.0 8.1 21.6 107.4 8.1 2.2 87 <0.2 1.8 1.8 4.1 0.4 113 21.6 8.1 94.1 7.1 5.2 89 <0.2 27.2 IM11 Cloudy 822063 811443 Moderate 19:43 8.2 Middle 21.6 8.1 27.2 94.0 89 <0.2 4.1 0.4 119 8.1 89 5.6 <0.2 21.6 7.2 114 8.1 94.7 7.9 89 <0.2 1.8 Rottom 21.6 8.1 27.8 95.1 72 7.2 0.3 115 21.6 8.1 95.5 7.2 7.9 1.7 22.1 108.9 8.3 2.3 86 <0.2 1.7 Surface 22.8 8.1 22.1 108.8 1.0 0.5 119 22.8 8.1 8.3 2.4 5 86 <0.2 1.6 4.7 0.4 112 21.8 4.1 4 88 <0.2 1.7 96.5 Middle 821470 812064 IM12 Cloudy Moderate 19:49 21.8 8.1 26.1 96.1 4.7 0.5 21.8 8.1 4.3 88 8.3 0.4 105 21.6 8.1 94.4 5.1 89 <0.2 1.7 Bottom 21.6 8.1 27.5 94.5 7.1 94.6 8.3 0.4 114 21.6 8.1 27.5 71 49 6 89 <0.2 1.8 1.0 22.6 8.1 24.0 102.3 7.7 3.7 Surface 22.6 8.1 24.0 102.3 1.0 22.6 8.1 24.0 102.2 7.7 3.8 6 2.5 Cloudy Calm 20:12 5.0 Middle 819973 812663 2.5 4.0 21.8 8.1 94.2 4.5 7.1 Bottom 21.9 8.1 26.5 94.2 4.0 21.9 8.1 26.5 94.2 7.1 4.6 6 1.0 0.4 91 22.4 8.1 23.8 104.1 2.4 84 <0.2 1.6 Surface 22.4 8.1 23.8 104.0 1.0 0.4 93 22.4 8.1 23.8 103.9 7.9 2.4 5 84 <0.2 1.8 SR2 Cloudy Moderate 20:24 4.6 Middle 821477 814170 <0.2 27.0 27.0 97.5 97.9 7.3 7.4 1.7 Bottom 8.1 27.0 97.7 3.6 0.3 91 21.7 8.1 3.3 88 <0.2 17 1.0 0.0 201 22.3 8.1 22.0 108.1 8.3 2.7 6 8.1 22.0 107.9 1.0 0.0 208 22.2 8.1 22.0 107.7 8.3 2.8 5 4.5 0.2 158 21.7 8.1 26.6 98.4 7.4 3.2 6 SR3 Moderate 19:13 9.0 98.3 822170 807569 Cloudy 26.6 4.5 0.2 171 21.7 8.1 26.6 98.2 7.4 3.3 6 0.0 21.6 21.6 8.1 8.1 29.5 29.5 97.1 97.3 13.1 12.6 8.0 149 151 7.2 Bottom 21.6 97.2 7.2 1.0 0.2 259 21.8 8.1 27.3 101.1 7.6 2.8 Surface 21.8 8.1 27.3 101.1 1.0 0.2 259 21.8 8.1 27.3 101.0 7.6 2.8 7 -4.4 0.1 8.1 7.6 3.7 21.8 27.9 100.8 6 807803 SR4A Cloudy Calm 20:42 8.8 Middle 21.8 8.1 27.9 100.8 817188 4.4 0.1 71 21.8 8.1 7.6 3.7 100.8 0.0 21.8 8.1 4.1 61 29.5 100.3 7.4 Rottom 21.8 8.1 29.5 100.3 7.4 7.8 21.8 21.8 0.0 66 8.1 29.5 100.3 7.4 4.1 1.0 0.1 308 8.1 2.3 7.6 28.5 101.3 6 Surface 21.8 8.1 28.5 101.3 1.0 0.1 312 21.8 8.1 28.5 101.3 7.6 2.2 7 SR5A 21:01 3.7 Middle 816578 810709 Cloudy Calm 2.7 0.1 304 21.8 4.0 8.1 29.9 100.8 7.5 Bottom 21.8 8.1 29.9 100.8 7.5 2.7 0.1 317 21.8 0.0 8.1 Surface 21.8 8.1 28.0 101.3 341 21.8 2.2 10 SR6A Cloudy 21:29 3.9 Middle 817980 814722 Calm 2.9 0.0 240 21.8 3.2 10 101.1 Bottom 8.1 2.9 246 0.4 109 22.5 8.1 25.2 25.2 106.4 8.0 1.7 Surface 8.1 106.4 1.0 0.5 117 22.5 8.1 106.3 8.0 17 8.0 0.4 95 22.0 8.1 26.8 101.2 7.6 1.9 5 SR7 Cloudy Moderate 21:13 Middle 26.9 100.9 823654 823735 8.0 0.5 99 22.0 8.1 26.9 100.6 7.5 19 5 14.9 0.4 92 21.7 8.1 96.6 2.4 5 Bottom 8.1 28.9 14.9 0.4 21.7 8.1 96.8 2.4 22.7 22.7 1.0 8.1 23.7 103.2 102.7 3.6 3.8 7.8 Surface 103.0 8 1 --SR8 Cloudy Calm 20:02 5.2 Middle 820398 811620 4.2 22.3 25.1 7.7 4.5 8.1 102.8 4 Bottom 22.3 8.1 25.0 103.1

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

Water Quality Monitoring Results on 16 April 20 during Mid-Flood Tide

Water Qua	ity wonite	oring Resu	its on		16 April 20	during Mid-		ae																			
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	oth (m)	Current Speed	Current	Water Te	emperature (°C)		pН	Sali	nity (ppt)		Saturation (%)	Disso Oxy		Turbidity(NTU)	Suspende (mg		Total Alkalinity (ppm)	Coordinate HK Grid	Coordinate HK Grid	Chron (µg/	
Station	Condition	Condition	Time	Depth (m)	Camping 20		(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value DA	(Northing)	(Easting)	Value	DA Value DA
					Surface	1.0	0.1	29 30	21.7 21.7	21.7	8.1 8.1	8.1	24.2	24.2	89.5 89.7	89.6	6.9		3.0 3.1		4		84 84			<0.2	1.5
C1	Fine	Moderate	08:30	8.3	Middle	4.2	0.1	43	21.8	21.8	8.1	8.1	25.7	25.7	90.6	90.6	6.9	6.9	6.4	6.7	5	5	87 87	815622	804261	<0.2	1.4
	1 110	Moderate	00.00	0.0		4.2 7.3	0.1	47 54	21.8 21.8		8.1 8.1		25.6 26.8		90.6 93.1		6.9 7.0		6.2 10.5	-	4 5		87	0.0022	00.201	<0.2	1.5
					Bottom	7.3	0.1	54	21.8	21.8	8.1	8.1	26.8	26.8	93.1	93.1	7.0	7.0	10.8		5		89			<0.2	1.5
					Surface	1.0	0.1	88 89	21.7	21.7	8.1	8.1	23.0	23.0	94.0	93.8	7.2		3.2	ŀ	4		86 86			<0.2	2.1 1.9
C2	Cloudy	Moderate	09:31	12.0	Middle	6.0	0.1	157	21.5 21.4	21.5	8.1 8.0	8.0	27.0		89.5 89.2	89.4	6.8	7.0	3.9 4.4	5.3	4	4	89 00	825698	806936	<0.2	.0.2 2.1 2.0
					Bottom	11.0	0.1	159 156	21.4	21.3	8.0	8.0	30.4	20.4	84.6	84.8	6.3	6.3	8.3	H	5 4		90			<0.2	2.0
						11.0	0.3	161 228	21.3		8.0 8.1		30.4 25.1		84.9 95.2		6.3 7.3	0.3	8.7 1.6		5		91 82			<0.2	2.0
					Surface	1.0	0.2	250	21.3	21.3	8.1	8.1	25.0	25.1	95.0	95.1	7.3	7.0	1.6	Ė	4		83			<0.2	1.6
С3	Cloudy	Moderate	07:24	12.2	Middle	6.1	0.3	254 267	21.3 21.3	21.3	8.1 8.1	8.1	31.3	31.3	90.9	91.0	6.7		2.6	2.8	3 4	4	84 85 86	822087	817784	<0.2	<0.2 1.7 1.7
					Bottom	11.2	0.2	272	21.2	21.2	8.1 8.1	8.1	31.4 31.4	31.4	91.7 91.9	91.8	6.8	6.8	3.9	F	6 5		90 90			<0.2	1.8
					Surface	11.2	0.2	290 315	21.2	21.8	8.1	8.1	26.9	26.9	91.9	94.2	6.8 7.1		4.0 5.8		4		84			<0.2	1.4
						1.0	0.0	332	21.8	21.0	8.1	0.1	26.9	20.3	94.1	34.2	7.1	7.1	6.2	-	5		84			<0.2	1.4
IM1	Fine	Moderate	08:10	4.9	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.8	-	5	- 86	817950	807137	-	
					Bottom	3.9	0.0	8	21.9 21.9	21.9	8.1 8.1	8.1	27.6 27.6		93.8	93.8	7.0	7.0	3.7	ŀ	6		87 87			<0.2	1.4
					Surface	1.0	0.1 0.1	312 317	21.8 21.8	21.8	8.0	8.0	24.9 24.9	24.9	89.5 89.4	89.5	6.8		2.3	-	5 4		85 85			<0.2	1.5 1.5
IM2	Fine	Moderate	08:01	6.8	Middle	3.4	0.2	37	21.8	21.8	8.1	8.1	25.6	25.6	89.5	89.6	6.8	6.8	2.7	3.3	4	4	87 87	818178	806170	<0.2	1.6
	1 110	Moderate	00.01	0.0		3.4 5.8	0.2	38 42	21.8 21.8		8.1 8.1		25.6 27.5		89.6 90.3		6.8		2.8 4.8	-	4		87 89	0.0170	000110	<0.2	1.6
					Bottom	5.8	0.1	45	21.8	21.8	8.1	8.1	27.5	27.5	90.3	90.3	6.8	6.8	4.8		5		89			<0.2	1.6
					Surface	1.0	0.1	307 311	21.9 21.9	21.9	8.1 8.1	8.1	24.6 24.6		93.0	93.0	7.1 7.1	7.1	3.2	ŀ	6		84 84			<0.2	1.4
IM3	Fine	Moderate	07:56	7.0	Middle	3.5 3.5	0.1	41 42	21.9 21.9	21.9	8.1 8.1	8.1	27.2 27.2	27.2	92.8 92.8	92.8	7.0	7.1	3.4 3.5	3.4	5 6	6	86 87	818788	805579	<0.2	<0.2 1.4 1.4
					Bottom	6.0	0.1	53	21.9	21.9	8.1	8.1	30.0		92.5	92.5	6.8	6.8	3.6		7		89			<0.2	1.4
						6.0 1.0	0.1	54 9	21.9		8.1		30.0 26.6		92.5 93.6	<u> </u>	6.8 7.0		3.7 5.1		8		90 85			<0.2	1.4
					Surface	1.0	0.2 0.1	9 42	21.9 21.9	21.9	8.1 8.1	8.1	26.6 27.5	26.6	93.6 93.3	93.6	7.0 7.0	7.0	5.3 5.3	F	5 4		85 86			<0.2	1.6
IM4	Fine	Moderate	07:44	7.6	Middle	3.8	0.1	45	21.9	21.9	8.1	8.1	27.5	27.5	93.3	93.3	7.0		5.5	6.5	5	5	87	819738	804587	<0.2	<0.2
					Bottom	6.6	0.1	38 38	21.8	21.8	8.1	8.1	28.4		93.1	93.1	6.9	6.9	8.6 8.9	ŀ	5 5		89 90			<0.2	1.6
					Surface	1.0	0.3	340	21.8	21.9	8.1	8.1	23.4		93.5	93.5	7.2		5.0		5		84			<0.2	1.8
IM5	Fine	Moderate	07:37	7.2	Middle	1.0 3.6	0.3	355 332	21.9 21.9	21.9	8.1 8.1	8.1	23.4 28.5	20 E	93.5 93.3	93.3	7.2 6.9	7.1	5.0 5.2	6.2	6 5	5	84 86 86	820735	804867	<0.2	<0.2 1.8 1.8
livio	rine	Widderate	07.37	7.2		3.6 6.2	0.1	343 34	21.9 21.8		8.1 8.1		28.5		93.3		6.9		5.3 8.4	0.2	4	3	86 89	020733	804807	<0.2	1.8
					Bottom	6.2	0.2	34	21.8	21.8	8.1	8.1	29.4	29.4	92.9	93.0	6.9	6.9	8.4		5		89			<0.2	1.8
					Surface	1.0	0.1	214 215	21.8 21.8	21.8	8.1 8.1	8.1	22.6	22.6	93.8 93.6	93.7	7.2	7.0	2.5	ŀ	5 4		85 85			<0.2	2.1
IM6	Fine	Moderate	07:30	7.1	Middle	3.6 3.6	0.2	74 81	21.7 21.7	21.7	8.1 8.1	8.1	24.6 24.6	24.6	92.5 92.5	92.5	7.1 7.1	7.2	3.4	4.0	5 5	5	86 87	821066	805837	<0.2	<0.2 2.1 2.0
					Bottom	6.1	0.2	67	21.7	21.7	8.1	8.1	27.2	27.2	92.7	92.8	7.0	7.0	6.4	Ŀ	6		90			<0.2	2.0
						6.1 1.0	0.2	67 288	21.7		8.1 8.1		27.2		92.8 92.8		7.0	7.0	5.9 2.1		6		90 86			<0.2	2.0
					Surface	1.0	0.1	306	21.7	21.7	8.1	8.1	21.7	21.7	92.8	92.8	7.2	7.1	2.1	ļ	7		85			<0.2	2.2
IM7	Fine	Moderate	07:21	8.0	Middle	4.0	0.2	89 91	21.7 21.7	21.7	8.1 8.1	8.1	29.0 29.0	29.0	92.6 92.5	92.6	6.9		4.1 4.2	4.6	7	7	88 87 88	821333	806830	<0.2 <0.2	<0.2 2.2 2.2
					Bottom	7.0 7.0	0.3	93 99	21.6 21.6	21.6	8.0	8.0	31.3 31.3	31.3	92.7 92.9	92.8	6.8	6.8	7.5 7.5	F	7		90 89			<0.2	2.2
					Surface	1.0	0.1	61	21.8	21.8	8.0	8.0	21.8		93.6	93.6	7.3		3.8		8		85			<0.2	2.0
1140	011	Madad	00.00	7.0		1.0 3.9	0.1	66 89	21.7 21.6		8.0 8.1		21.7 24.9		93.5 93.4		7.2 7.1	7.2	3.7	, }	7	-	86	004007	0004.45	<0.2	1.9
IM8	Cloudy	Moderate	09:06	7.8	Middle	3.9	0.2	96 82	21.6	21.6	8.1	8.1	24.8	24.8	93.6	93.5	7.1		3.3	4.2	7	′	89 89	821831	808146	<0.2	<0.2 2.0 2.1
					Bottom	6.8	0.2	82 85	21.7	21.7	8.1	8.1	26.6	26.6	96.5 96.5	96.5	7.3 7.3	7.3	5.4		6		89			<0.2	2.1
DA: Depth-Aver	roand																										

during Mid-Flood Tide Water Quality Monitoring Results on 16 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Average Average 0.3 7.1 1.0 0.3 102 21.7 8.0 23.2 92.2 3.7 86 <0.2 2.1 3.7 0.3 95 102 21.6 8.1 92.2 92.4 7.0 7.1 4.0 86 87 <0.2 2.0 IM9 Cloudy Moderate 08:59 7.4 Middle 47 87 822087 808828 <0.2 0.3 21.6 8.1 6 77 6.4 0.3 21.6 88 <0.2 2.1 8.1 26.7 94.0 7.1 6.0 Bottom 21.6 8.1 26.7 94.2 7.1 26.8 94.4 8.1 6.4 0.3 6.5 88 2.0 80 21.6 <0.2 0.4 106 21.7 3.5 8.0 2.0 < 0.2 Surface 21.7 8.0 23.0 92.7 8.0 23.0 92.7 7.1 85 2.2 1.0 0.4 107 21.7 3.5 4 < 0.2 21.7 0.3 8.0 8.1 24.7 92.4 92.5 3.3 86 87 <0.2 2.0 3.6 7.0 IM10 Cloudy Moderate 08:50 72 Middle 21.7 8.0 24.7 92.5 87 822400 809777 <0.2 6.2 0.3 98 21.6 8.1 92.5 7.0 5.8 4 89 <0.2 2.0 26.5 21.6 8.1 26.5 92.6 7.0 Bottom 6.2 0.3 102 21.6 8.1 92.7 7.0 5.9 89 < 0.2 2.0 0.3 119 21.7 8.1 2.7 84 1.7 1.0 7.4 21.7 22.6 95.3 <0.2 Surface 8.1 22.6 95.2 1.0 0.3 130 21.7 8.1 22.6 95.0 7.3 2.6 4 85 <0.2 1.7 1.6 3.8 0.4 107 21.6 8.1 25.4 25.4 92.1 91.7 7.0 3.2 85 <0.2 IM11 Cloudy 822045 811450 Moderate 08:36 7.6 Middle 21.6 8.1 25.4 91.9 86 <0.2 0.4 116 8.1 85 3.8 21.6 3.5 <0.2 6.6 8.0 29.1 91.7 6.8 5.7 89 <0.2 1.7 Rottom 21 4 8.0 29.1 91.9 69 6.6 0.2 110 21.4 8.0 29.1 92.1 6.9 5.8 89 1.6 123 94.6 94.1 3.3 82 <0.2 1.5 21.9 Surface 21.8 8.1 21.9 94.4 1.0 0.3 125 21.8 8.1 21.9 7.3 3.2 4 82 <0.2 1.6 4.7 0.1 98 21.7 3.1 84 <0.2 1.7 91.2 Middle 21.7 821457 812033 IM12 Cloudy Moderate 08:26 8.1 27.6 91.1 4.7 0.1 21.6 8.1 6.8 3.5 85 1.7 8.4 0.1 345 21.4 8.1 29.6 89.2 6.6 8.5 85 <0.2 1.6 Bottom 21.4 8.0 29.6 89.3 6.7 89.4 6.7 8.4 0.1 317 21.4 8.0 29.6 8.4 6 86 <0.2 1.7 2.5 1.0 21.7 8.1 23.4 93.7 7.2 Surface 21.7 8.1 23.4 93.6 1.0 21.7 8.1 23.3 93.5 7.2 3 2.7 SR1A Cloudy Calm 08:03 5.3 Middle 819972 812655 2.7 21.4 21.4 91.4 6.8 4.3 28.9 7.7 Bottom 21.4 8.0 28.9 91.8 6.9 43 8.0 8.0 1.0 0.2 355 21.8 8 1 22.2 96.6 7.5 2.8 84 <0.2 1.8 Surface 21.8 8.1 22.2 96.6 1.0 0.2 357 8.1 1.8 21.8 96.5 2.8 4 222 74 84 < 0.2 -SR2 Cloudy Moderate 07:51 4.9 Middle 821483 814151 0.2 3.9 322 343 8.1 28.4 92.9 93.4 7.0 3.3 88 <0.2 1.9 Bottom 21.5 8.1 28.4 93.2 7.0 21.5 8.1 28.5 1.8 89 < 0.2 1.0 0.1 160 21.6 8.0 23.4 91.9 7.1 3.7 4 Surface 21.6 8.0 23.5 91.9 1.0 0.1 174 23.5 7.1 3.7 21.6 8.0 91.9 4.7 3.9 21.6 8.1 25.8 92.6 7.0 SR3 09:12 Middle 21.6 92.7 822133 807559 Cloudy Moderate 9.3 8.1 25.8 4.7 0.0 157 21.6 8.1 25.8 92.8 7.0 4.1 6 . 8.3 0.1 21.7 8.1 27.3 27.4 95.4 95.5 7.2 7.2 8.7 21.7 27.4 95.5 Rottom 8.1 72 0.3 75 21.7 8.1 6.9 2.7 24.3 90.2 Surface 21.7 8.1 24.3 90.3 1.0 75 21.7 90.4 6.9 2.7 0.3 4.5 0.2 21.7 3.2 8.1 25.3 91.9 7.0 Fine SR4A Calm 08:52 9.0 Middle 21.7 8.1 25.3 92.0 817175 807819 4.5 0.3 67 21.7 8.1 3.3 8.0 0.2 21.8 8.1 27.3 93.2 7.0 8.5 Bottom 21.8 8.1 27.3 93.2 7.0 8.0 21.8 0.2 66 1.0 0.1 344 21.8 2.6 8.1 25.3 94.0 Surface 21.8 8.1 25.3 94.0 1.0 0.2 352 21.8 8.1 93.9 7.1 2.6 4 Fine Calm 09:10 3.7 Middle 810707 2.7 0.1 330 21.9 8.1 93.4 7.0 4.0 6 Bottom 21.9 27.7 7.0 2.7 0.1 338 21.9 8 1 93.4 4.0 1.0 147 0.0 21.8 8.1 27.4 94.1 7.1 2.7 21.9 7 1 2.7 1.0 0.0 150 21.9 8 1 27.5 94 1 4 -SR6A Fine Calm 09:39 4.1 Middle 817982 814756 3.1 0.0 269 21.9 8.1 28.2 28.2 94.1 94.1 7.0 7.0 2.8 4 -94.1 Bottom 3.1 0.0 283 21.9 8.1 1.0 0.0 323 351 21.4 8.0 30.0 91.0 91.0 6.8 1.6 1.6 Surface 21.4 8.0 30.0 91.0 1.0 0.0 21.4 8.1 0.1 21.3 8.0 31.2 31.3 89.7 6.6 2.5 89 3 -89.8 8.0 31.3 823614 823730 SR7 Cloudy Moderate 06:53 16.1 Middle 21.3 8.0 89.8 6.6 8.1 0.1 94 21.2 2.5 3 -149 15.1 0.2 21.2 8.0 90.0 6.6 2.7 4 32.0 Bottom 21.2 8.0 32.0 90.0 6.6 6.6 8.0 15.1 0.2 158 21.2 2.6 1.0 21.6 21.6 8.1 20.5 95.3 95.1 7.5 7.4 3.5 3.5 3 Surface 21.6 8.1 95.2 20.5 8.1 SR8 Cloudy 08:15 5.1 Middle 820368 811616 Calm 3.4 26.2 93.2 7.0 21.6 8.1 26.2 93.3 Bottom

DA: Depth-Averaged

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 18 April 20 during N

during Mid-Fbb Tide

Water Qua	lity Monit	toring Res	ults on		18 April 20	during Mid-	Ebb Tid	е																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water To	emperature (°C)		рН	Salir	ity (ppt)		aturation (%)	Dissol Oxyg		Turbidity(NTU)	Suspende (mg		Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chromiui (µg/L)		l (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	ui (iii)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value D	DA Value	DA
					Surface	1.0	0.1	79 85	22.5 22.5	22.5	8.2	8.2	23.8	23.7	116.1 115.5	115.8	8.8		5.5 5.5		9 10		85 86				<0.2	1.1	-
C1	Fine	Moderate	11:33	8.3	Middle	4.2 4.2	0.1	100 100	21.7	21.7	8.2	8.2	30.9	30.9	101.6 101.7	101.7	7.5 7.5	8.1	3.8	5.3	10 9	10	89 90	89	815639	804256	-O 2	0.2 1.0	1.2
					Bottom	7.3	0.0	88	21.6	21.6	8.1	8.1	31.6 31.6	31.6	105.5	105.6	7.7	7.8	6.5		10 11		91 91				<0.2	1.2	
					Surface	7.3 1.0	0.1	91	22.8	22.8	8.3	8.3	20.9	20.9	131.2	131.0	10.0		7.0		8		86				<0.2	1.5	
C2	Fine	Moderate	12:17	11.8	Middle	1.0 5.9	0.1 0.1	10 172	22.8 21.9	21.9	8.3	8.0	20.9 25.8	25.8	130.7 94.0	93.9	7.1	8.6	7.2 5.8	6.7	9	9	87 88	88	825665	806951	<0.2	0.2	1.5
					Bottom	5.9 10.8	0.1 0.1	178 206	21.8 21.6	21.6	8.0	8.0	25.8 29.9	29.9	93.8 89.3	89.4	7.1 6.6	6.6	6.1 7.1	•	9		87 90				<0.2	1.6	
						10.8	0.1	218 39	21.6		8.0		29.9		89.5 133.3		6.6 10.0	0.0	6.9 2.9		10 6		90 86			1	<0.2	1.4	\vdash
					Surface	1.0 6.3	0.2	41 51	22.6 21.8	22.7	8.3	8.3	23.6 30.5	23.9	132.3 101.2	132.8	10.0 7.4	8.7	2.9		5	İ	87 88				<0.2	1.6	
C3	Fine	Moderate	10:23	12.6	Middle	6.3 11.6	0.2	55 45	21.8	21.8	8.1	8.1	30.5 31.4	30.5	101.2 97.5	101.2	7.4		2.9	3.3	6	6	88 90	88	822090	817820	<0.2	0.2 1.4	1.5
					Bottom	11.6	0.2	45	21.6	21.6	8.1	8.1	31.4	31.4	97.6	97.6	7.2	7.2	4.2		6		91				<0.2	1.4	
					Surface	1.0	0.1	180 191	23.2	23.2	8.2	8.2	24.2	24.2	134.7 134.5	134.6	10.0	10.0	12.4 12.6		9		86 86				<0.2	1.1	1
IM1	Fine	Moderate	11:56	5.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	13.8	-	10	-	88	817947	807132	-	0.2	1.1
					Bottom	4.1	0.1	190 191	22.1 22.1	22.1	8.0	8.0	28.8	28.7	106.3 106.5	106.4	7.9	7.9	15.1 15.1		11 10		89 90				<0.2	1.2	
					Surface	1.0	0.1 0.1	88 91	22.4 22.4	22.4	8.2	8.2	25.1 25.1	25.1	117.3 116.8	117.1	8.8		4.6 4.6		9		85 85				<0.2 <0.2	0.9	
IM2	Fine	Moderate	12:05	6.9	Middle	3.5 3.5	0.1 0.1	165 165	21.8 21.8	21.8	8.1 8.1	8.1	29.7 29.7	29.7	100.9 101.0	101.0	7.5 7.5	8.2	5.1 5.1	7.2	10 9	10	88 88	88	818186	806178	-0.2	0.2 1.0	1.0
					Bottom	5.9 5.9	0.1	171	21.8	21.8	8.2	8.2	30.0	30.0	100.0	100.0	7.4	7.4	11.7		12		90				<0.2	1.0	1
					Surface	1.0	0.1	100 105	22.7	22.7	8.2 8.2	8.2	23.7	23.7	117.5 116.9	117.2	8.9 8.8		6.2		9		84 85				<0.2	1.0	
IM3	Fine	Moderate	12:12	7.0	Middle	3.5	0.0	37	22.1	22.1	8.1	8.1	28.4	28.4	101.9	101.9	7.5	8.2	7.1	6.6	12	12	88	87	818789	805611	<0.2	0.2 1.0	
					Bottom	3.5 6.0	0.0	37 176	22.1 21.8	21.8	8.1 8.1	8.1	28.4 29.9	29.9	101.9 105.4	105.6	7.5 7.8	7.8	7.1 6.5		12 15		87 90				<0.2	1.0	1
					Surface	1.0	0.1	190 160	21.8	22.5	8.1	8.1	29.9 24.5	24.4	105.7 105.6	105.6	7.8		6.5 6.6		14 9		89 85				<0.2	1.1	\vdash
	F		40.00	7.0		1.0 3.9	0.1	171 155	22.5		8.1 8.2		24.4		105.5 103.1		7.9	7.8	6.6 8.4		8 10	4.0	85 87		040744	004004	<0.2	1.5	٠
IM4	Fine	Moderate	12:22	7.8	Middle	3.9 6.8	0.1 0.1	166 132	22.2 22.0	22.2	8.2 8.1	8.2	27.8 28.7	27.8	103.1 99.9	103.1	7.7		8.4 10.9	8.7	9 11	10	87 89	87	819711	804604	<0.2 <0.2	0.2	1.4
					Bottom	6.8	0.1	135 214	22.0	22.0	8.1	8.1	28.7	28.7	100.0	100.0	7.4	7.4	11.2		10		89 84				<0.2	1.5	
					Surface	1.0	0.2	230	22.8 22.5	22.8	8.2	8.2	23.4	23.4	124.9 106.7	125.1	9.4	8.7	6.1		12	•	85 87				<0.2 <0.2	1.3	
IM5	Fine	Moderate	12:31	7.1	Middle	3.6	0.3	223	22.5	22.5	8.2	8.2	25.6	25.6	106.3	106.5	7.9		6.2	6.4	10	11	88	87	820742	804847	<0.2	1.1	1.2
					Bottom	6.1 6.1	0.2	201 211	22.1 22.1	22.1	8.1	8.1	28.1 28.1	28.1	101.7 101.7	101.7	7.5 7.5	7.5	6.9 6.9		10 11		88 89				<0.2	1.2	
					Surface	1.0	0.1 0.1	211 218	22.8 22.8	22.8	8.2	8.2	23.3	23.3	114.8 114.4	114.6	8.7 8.6	8.4	6.8 6.8		8		84 85				<0.2	1.5 1.6	
IM6	Fine	Moderate	12:39	7.2	Middle	3.6	0.1	170 184	22.4	22.4	8.2	8.2	25.4 25.4	25.4	109.5 109.6	109.6	8.2	0.4	8.8 8.7	8.8	9	9	87 88	87	821042	805835	<0.2	0.2 1.7	1.6
					Bottom	6.2 6.2	0.1 0.1	178 190	22.4 22.4	22.4	8.0	8.0	27.0 27.0	27.0	106.1 106.1	106.1	7.9 7.9	7.9	10.7 10.8		9	Ī	89 89				<0.2	1.6	-
					Surface	1.0	0.0	314 337	22.4	22.4	8.1	8.1	24.0	24.0	104.1	104.0	7.9		6.3		7 8		84 84				<0.2	1.4	П
IM7	Fine	Moderate	12:48	8.0	Middle	4.0 4.0	0.1	92	22.2	22.2	8.1	8.1	25.6 25.6	25.6	96.6 96.5	96.6	7.3	7.6	8.4 8.4	8.4	8 7	8	87 87	86	821353	806835	-O 2	0.2	1.4
					Bottom	7.0	0.1	158	22.0	22.0	8.1	8.1	26.2	26.2	94.0	94.0	7.1	7.1	10.2		9	<u> </u>	88				<0.2	1.5	
					Surface	7.0 1.0	0.1	160 52	22.0 22.5	22.5	8.1	8.2	26.2	22.2	94.0	113.5	7.1 8.7		10.4 6.4		10 9		88 87				<0.2	1.4	\vdash
IM8	Fine	Moderate	11:52	7.2	Middle	1.0 3.6	0.2	55 104	22.5 22.3	22.3	8.2 8.1	8.1	22.2 24.7	24.7	113.0 104.2	104.3	8.6 7.9	8.3	6.5 7.1	7.4	9	8	88 89	89	821851	808136	<0.2	0.2	1.5
livio	FILE	wouciale	11.02	1.2		3.6 6.2	0.3	109 105	22.3		8.1 8.1		24.7 25.2		104.3 100.4		7.9 7.6	7.0	7.2 8.5	7.4	8 7	°	88 90	os	02 100 1	000130	<0.2	1.5	1.0
					Bottom	6.2	0.3	108	22.2	22.2	8.1	8.1	25.2	25.2	100.5	100.5	7.6	7.6	8.6		7	1	90				<0.2	1.4	

Water Quality Monitoring

18 April 20 during Mid-Ebb Tide Water Quality Monitoring Results on Suspended Solids Weather Sampling Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Nickel (µg/L) Monitorina Current Oxygen (mg/L) HK Grid Sampling Depth (m) HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) /alue Value Value Average Value DA Value DA Value DA Value DA (Easting) Value DA Average 0.5 22.8 8.3 19.7 125.8 Surface 0.5 139 19.6 9.7 6.0 0.5 133 22.4 6.8 88 1.5 3.7 8.1 24.5 8.1 8 <0.2 IM9 Fine 11:46 7.3 Middle 22.4 8.1 24.6 107.4 88 822084 808792 1.6 Moderate 0.5 144 22.4 8.1 6.9 87 <0.2 1.6 6.3 0.5 125 22.3 8.1 25.1 102. 7.7 8.0 7 90 <0.2 1.5 7.7 Bottom 22.3 8.1 25.1 102.2 6.3 0.5 125 22.3 8.1 25.1 102 2 77 8.1 7 91 <0.2 1.7 22.7 1.0 0.6 106 8.4 18.9 129. 10.1 6.1 86 < 0.2 1.5 Surface 22.7 8.4 18.9 129.3 6.2 7.5 1.7 1.0 0.7 114 22.7 8.4 18.9 128. 10.0 8 88 <0.2 9.2 1.5 3.8 0.5 91 22.5 8.2 23.2 8.4 8 89 <0.2 809776 IM10 Fine Moderate 11:39 7.6 Middle 22.5 8.2 23.2 110.3 822362 8.0 8 88 1.6 8.2 8.4 3.8 0.5 96 22.5 <0.2 22.3 22.3 8.1 8.1 7.6 7.6 13.0 13.2 8 7 90 < 0.2 1.4 6.6 0.4 86 25.2 25.2 101.5 Rottom 8.1 25.2 7.6 1.5 6.6 0.4 <0.2 1.0 0.8 22.9 8.4 18.8 4.9 88 <0.2 1.4 22.9 8.4 139.8 Surface 18.8 8.4 18.8 10.8 4.9 89 1.4 0.8 88 22.8 8 <0.2 9.2 3.9 0.6 79 22.2 26.6 5.5 8 89 <0.2 1.5 IM11 11:27 7.8 Middle 22.2 8.1 26.6 100.8 822041 811443 Fine Moderate 3.9 0.7 82 22.2 8 1 26.5 5.4 8 90 <0.2 22.1 6.6 9 6.8 0.3 67 8.1 91 1.6 7.2 8 1 6.8 0.3 67 26.0 93 r0 2 0.4 128 86 1.6 1.0 22.5 83 20.1 91 5.6 12 <0.2 Surface 22.5 8.3 20.1 115.6 8.8 5.6 6.3 11 87 1.6 1.0 0.4 133 22.4 8.3 20.2 < 0.2 129 9 1.6 4.5 0.2 22.2 8.1 88 7.5 <0.2 98.9 IM12 Fine Moderate 11:19 8.9 Middle 22.2 8.1 25.2 98.8 88 821478 812027 1.6 8.1 25.2 98.6 7.4 6.3 8 88 <0.2 4.5 0.3 138 22.1 7.9 0.2 130 21.9 8.1 28.0 7.3 8.2 90 <0.2 1.6 Bottom 21.9 8.1 28.0 97.9 7.3 7.9 0.2 135 21.9 8.1 28.0 97.9 7.3 8.3 8 90 <0.2 1.7 1.0 22.4 8.2 23.1 8.9 5.5 8 8.2 117.2 Surface 22.4 23.2 1.0 22.4 8.2 23.2 8.9 5.4 7 2.6 SR1A Fine 10:59 5.2 Middle 819983 812663 Moderate 2.6 4.2 22.2 104.: 7.8 6.1 Bottom 8.1 26.9 104.5 7.8 4.2 22.2 8.1 26.9 104. 7.8 6.0 1.0 0.2 90 22.8 8.3 21.3 131.7 10.0 3.9 8 88 <0.2 1.6 Surface 22.8 8.3 21.3 131.5 1.0 0.2 92 22.8 8.3 21.4 131.3 10.0 3.9 9 87 <0.2 1.4 -SR2 Fine Moderate 10:48 4.6 Middle 89 821473 814164 3.6 0.1 22.7 8.3 9.1 4.1 9 90 <0.2 1.4 24.4 121.3 121.1 Bottom 22.7 8.3 24.4 9.1 1.3 3.6 0.1 22.7 8.3 24.4 120.9 4.1 9 91 <0.2 0.0 22.4 6.5 8 8.3 20.5 8.9 114.9 Surface 22.4 8.3 20.3 22.4 8.7 6.4 8 8.3 4.4 0.2 197 22.2 6.7 7 102.4 807579 SR3 Fine Moderate 11:57 Middle 8.1 25.5 822153 44 0.2 204 22.2 8 1 6.8 7.8 0.1 221 22.0 8.1 26.4 96.2 7.2 8.0 8 Bottom 8.1 26.4 96.2 7.2 7.8 0.1 240 22.0 8.1 26.4 8.1 1.0 0.2 23.1 9.3 7.7 10 75 8.2 23.5 Surface 8.2 23.5 123.8 7.7 11 1.0 0.2 82 23.1 8.2 12.1 11 4.5 0.1 22.2 8.1 40 28.0 8.0 107.4 807818 SR4A Fine Calm 11:12 8.9 Middle 22.2 8.1 28.0 12 817210 22.2 8.0 12.2 10 4.5 0.1 28.0 14 7.9 0.1 68 22.1 8.1 28.4 106. 7.9 15.5 Bottom 8.1 28.4 106.6 7.9 22.1 7.9 0.1 68 22.1 8.1 7.9 15.4 15 11 1.0 0.1 23.4 8.2 23.5 138.3 5.3 Surface 23.4 8.2 23.5 138.3 1.0 0.1 23.4 8.2 138. 10.3 5.4 11 SR5A Fine Calm 10:51 3.7 Middle 816610 810691 27 7 1 10 0.1 23.0 8 1 24 3 9.8 Bottom 23.0 8.1 24.3 131.1 9.8 2.7 0.1 23.0 8.1 9.8 7.1 11 24.3 131 23.0 23.0 12.2 12.2 0.1 189 8.1 24.8 23 24 Surface 23.0 8.1 24.8 113.8 8.5 1.0 196 8.1 24.8 0.1 8.5 814729 SR6A Fine Calm 10:21 4.2 Middle 817946 204 22.5 26.1 8.0 9.8 14 Bottom 22.5 8.1 26.1 106.9 8.0 3.2 0.0 205 22.5 8.1 26.1 8.0 9.9 14 0.1 7.7 Surface 1.0 0.1 218 21.8 8.0 29.3 104 3.0 5 8.2 0.2 210 21.6 8.0 31.9 93.3 6.8 3.6 4 SR7 Moderate 09:49 16.4 Middle 31.9 93.3 823622 823755 8.2 0.2 212 21.6 8.0 31.9 93.3 6.8 3.6 4

8.0

8.0

8.3

8.3

8.2

21.6

23.0

22.4

31.9

31.9

24.5

8.0

8.3

8.2

94.3

94.5

132.

108.9

31.9

20.5

24.5

6.9

6.9

10.1

8.2 8.2 6.9

8.2

94.4

133.1

108.9

3.8

3.8

10.4

10.7

12.8 12.5 5

12

820413

811639

4

12

DA: Depth-Averaged

Fine

Moderate

SR8

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

11:11

5.1

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

15.4

15.4

1.0

1.0

4.1

41

Bottom

Surface

Middle

181

185

21.6

21.6

23.0

23.0

22.4 22.4

0.2

0.2

Water Quality Monitoring
Water Quality Monitoring Results on

Water Qua	lity Moni	toring Res	ults on		18 April 20	during Mid-	Flood T	ide																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)		pН	Salir	ity (ppt)	DO S	aturation (%)	Dissol Oxyg		Turbidity(NTU)	Suspende (mg		Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chromium (µg/L)	¹ Nickel	l (µg/L)
Station	Condition	Condition	Time	Depth (m)	Gampling Dep	ar (iii)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value DA	A Value	DA
					Surface	1.0	0.5 0.5	46 48	23.6	23.6	8.2 8.2	8.2	21.0	21.0	152.7 151.9	152.3	11.5		3.7 3.7		8 7		85 86				<0.2	1.1	
C1	Cloudy	Moderate	15:53	8.5	Middle	4.3 4.3	0.2	62 62	22.7 22.7	22.7	8.1 8.1	8.1	25.8 25.8	25.8	116.5 116.2	116.4	8.7 8.6	10.1	4.6 4.6	4.5	6	7	88 88	88	815604	804263	<0.2	12	1.1
					Bottom	7.5	0.0	33	22.0	22.0	8.0	8.0	29.2	29.2	111.2	111.4	8.2	8.2	5.2		7		90	, !			<0.2	1.2	1
					Surface	7.5 1.0	0.0	33 174	22.0	23.6	8.0 8.5	8.5	29.2	20.2	111.5 154.6	154.7	8.2 11.7		5.2 4.9		6		90 86	=			<0.2	1.2	
-00	-		44.00			1.0 5.7	0.6	185 174	23.6		8.5 8.0		20.2		154.8 98.7	98.0	11.7 7.5	9.6	5.1 5.1		5 5	6	87 88		005004		<0.2	1.2	
C2	Fine	Moderate	14:29	11.4	Middle	5.7 10.4	0.6 0.4	182 146	22.0 21.8	22.1	8.0	8.0	24.7 28.3	24.7	97.3 91.3		7.4 6.8		5.1 6.6	5.7	6	ь	89 90	88	825681	806938	<0.2	1.2	1.2
					Bottom	10.4	0.4	152 243	21.8	21.8	8.0	8.0	28.3	28.3	91.4	91.4	6.8	6.8	7.2		6		90				<0.2	1.2	
					Surface	1.0	0.4	262	22.3	22.4	8.3	8.3	24.8	24.9	124.5	124.2	9.4 7.9	8.6	3.1		6		88	, !			<0.2	1.3	1
C3	Fine	Moderate	16:14	12.1	Middle	6.1 6.1	0.4	242 259	22.0	22.0	8.1 8.1	8.1	28.3 28.3	28.3	106.0 105.7	105.9	7.9		3.7	3.6	6 5	5	88 87	88	822093	817813	<0.2	1.4	1.3
					Bottom	11.1 11.1	0.3	261 272	21.8 21.8	21.8	8.1 8.1	8.1	31.1	31.1	99.4 102.9	101.2	7.3 7.6	7.5	4.2 4.2		5 4		90	<u>. </u>			<0.2	1.2	1
					Surface	1.0	0.1	49 49	23.6 23.6	23.6	8.2	8.2	24.5	24.5	146.2 146.1	146.2	10.8	10.8	6.4 6.4	ŀ	8		86 85	i l			<0.2	0.9	1
IM1	Cloudy	Moderate	15:29	4.7	Middle	-	-	-	-	-	-	-	-	-		-	-	10.0	-	7.0	-	8	-	87	817925	807149	- <0.	.2 -	1.0
					Bottom	3.7 3.7	0.1 0.2	12 12	22.1 22.1	22.1	7.9 7.9	7.9	29.0 29.0	29.0	110.3 110.3	110.3	8.1 8.1	8.1	7.5 7.5	ŀ	9		88 88	, !			<0.2	1.0	-
					Surface	1.0	0.3 0.4	20 20	24.3 24.3	24.3	8.2 8.2	8.2	20.5	20.5	163.7 162.9	163.3	12.2 12.1		3.7 3.8		8		85 85				<0.2	1.2	
IM2	Cloudy	Moderate	15:22	7.1	Middle	3.6 3.6	0.2	312 322	22.1 22.1	22.1	8.2 8.2	8.2	28.3	28.3	100.7 100.7	100.7	7.5 7.5	9.8	7.2 7.2	7.4	7	7	87 87	87	818182	806154	<0.2	1.1	
					Bottom	6.1	0.1	319 347	21.8	21.8	8.2	8.2	30.2	30.2	98.5	98.5	7.3	7.3	11.2	ŀ	8		90	,			<0.2	1.2	-
					Surface	1.0	0.1	312 324	24.0	24.0	8.2 8.2	8.2	20.7	20.7	176.1 175.6	175.9	13.2		4.4 4.5		9		85 84	\neg			<0.2	1.2	
IM3	Cloudy	Moderate	15:13	7.2	Middle	3.6	0.2	286 288	22.2	22.2	8.1	8.1	28.0	28.0	109.8	110.0	8.1	10.7	4.7 4.7	6.4	9	10	87 87	87	818775	805597	<0.2	2 1.1	1.2
					Bottom	3.6 6.2	0.2	323	21.8	21.8	8.1 8.2	8.1	30.3	30.3	98.1	98.1	7.2	7.2	10.1	l	10		90	,			<0.2	1.1	
					Surface	6.2 1.0	0.2	333 207	21.8	24.1	8.1 8.4	8.4	30.3 20.2	20.2	98.1 172.7	172.5	7.2 12.9		10.1 4.6		10 10		89 84	\dashv			<0.2	1.2	\vdash
IM4	Cloudy	Moderate	15:04	8.0	Middle	1.0 4.0	0.2	210 305	24.1 22.3	22.3	8.4 8.1	8.1	20.2	26.7	172.2 105.5	105.5	12.9 7.9	10.4	4.7 7.4	7.5	11 10	10	84 87	87	819711	804597	<0.2	1.4	1.3
IIV	Oloddy	Woderate	15.04	0.0		4.0 7.0	0.2	333 331	22.3 21.8	21.8	8.1 8.1		26.7 29.7	29.7	105.4 100.8	101.0	7.8 7.5	7.5	7.4 10.5	7.5	10	10	87 90	, ",	013711	004337	<0.2	1.3	1.5
					Bottom	7.0 1.0	0.3	346 250	21.8		8.1	8.1	29.7		101.2 188.4		7.5 14.1	7.5	10.6 3.9		11 11		90 84	$\overline{}$			<0.2	1.4	
					Surface	1.0 3.7	0.2	267 290	24.2 22.6	24.2	8.2 8.1	8.2	20.2 24.3	20.2	187.9 118.5	188.2	14.1 8.9	11.5	3.9 6.0	ŀ	10 10		84 87	,			<0.2	1.2	1
IM5	Cloudy	Moderate	14:55	7.3	Middle	3.7 6.3	0.3	293 284	22.6	22.6	8.1	8.1	24.2	24.2	118.6	118.6	8.9 8.5		6.0	6.2	9	10	88	87	820726	804887	<0.2	1.2	1.2
					Bottom	6.3	0.2	304 263	22.3	22.3	8.0	8.0	26.7	26.7	114.7	114.6	8.5 13.7	8.5	8.8 4.8		10		90	\square			<0.2	1.2	
					Surface	1.0	0.3	267	23.6	23.6	8.2	8.2	19.2	19.2	180.0 179.2	179.6	13.6	11.0	4.8		11		85	,			<0.2	1.5	1
IM6	Cloudy	Moderate	14:47	7.0	Middle	3.5 3.5	0.3	280 304	22.4 22.4	22.4	8.1 8.1	8.1	25.2 25.2	25.2	110.9 111.3	111.1	8.3 8.4		5.5 5.6	5.8	9 10	10	87 87	87	821081	805830	<0.2	1.4	1.5
					Bottom	6.0	0.2	264 275	22.3 22.3	22.3	8.1 8.1	8.1	26.5 26.5	26.5	132.2 133.3	132.8	9.9	9.9	7.2 7.0		10 10		89 90	اسا			<0.2	1.5	-
					Surface	1.0	0.4	258 264	23.5 23.5	23.5	8.3	8.3	19.6 19.7	19.6	163.1 161.6	162.4	12.4	10.1	4.8 4.8		11 10		84 84				<0.2	1.7	-
IM7	Cloudy	Rough	14:37	8.4	Middle	4.2 4.2	0.3	259 272	22.4 22.4	22.4	8.0	8.0	25.3 25.3	25.3	103.9 103.8	103.9	7.8 7.8	10.1	4.9 5.0	5.7	10 10	10	87 87	87	821348	806823	<0.2	.2 1.7	1.7
					Bottom	7.4	0.2	245 245	22.2	22.2	7.9	7.9	26.5 26.5	26.5	103.2	103.3	7.7	7.7	7.4	ļ	8		89 89	,			<0.2	1.5	-
					Surface	1.0	0.3	197 204	23.0	23.0	8.4 8.4	8.4	20.8	20.9	157.0 156.9	157.0	11.9		6.1		9		87 88	\neg			<0.2	1.3	
IM8	Fine	Moderate	14:51	7.6	Middle	3.8	0.2	207	22.5	22.5	8.2	8.2	23.0	23.1	117.3	117.3	8.9	10.4	5.7	7.2	9	9	88	89	821820	808139	<0.2	. 1.4	1.3
					Bottom	3.8 6.6	0.2	208 275	22.5 22.5	22.5	8.2 8.2	8.2	23.1 23.8	23.8	117.3 117.3	117.3	8.9 8.9	8.9	5.8 9.1	ŀ	8 9		89 90	,			<0.2	1.2	
DA: Denth-Ave						6.6	0.2	296	22.5		8.2		23.8	_5.0	117.2		8.9		10.1		8		91		<u> </u>	L	<0.2	1.3	ш

Water Quality Monitoring
Water Quality Monitoring Results on

Water Qua	lity Monit	toring Resi	ults on		18 April 20	during Mid-	Flood T	ide																						
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	mperature (°C)		рН	Salir	nity (ppt)		aturation (%)	Dissol Oxyg		Turbidity(I	NTU)	Suspende (mg/		Total A		Coordinate HK Grid	Coordinate HK Grid	Chron (µg		Nickel (µ	ıg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA ۱		DA
					Surface	1.0	0.2	239 256	23.1	23.1	8.4	8.4	20.8	20.8	152.0 151.8	151.9	11.6	-	5.2 5.2	-	8		86 87	1			<0.2	F	1.4	
IM9	Fine	Moderate	14:58	7.2	Middle	3.6	0.2	222	22.6	22.6	8.2	8.2	23.0	22.0	116.2	116.2	8.8		5.8	6.5	8	8	89	88	822110	808833	<0.2		1.5	1.4
					Bottom	3.6 6.2	0.2	233 203	22.5 22.4	22.4	8.2 8.2		23.0 24.3	24.3	116.1 109.7	109.7	8.8 8.3	8.3	5.9 8.4	ŀ	8		88 90	1			<0.2		1.4	
					Bollom	6.2 1.0	0.1	203 140	22.4	22.4	8.2 8.5	8.2	24.3		109.7 163.1		8.3 12.4		8.7 5.4		8 7		90 87				<0.2		1.5	
					Surface	1.0	0.1	142	23.4	23.4	8.5	8.5	20.1	20.1	162.5	162.8	12.3	10.5	5.4	İ	7		86	1			<0.2		1.3	
IM10	Fine	Moderate	15:05	6.8	Middle	3.4	0.1	74 81	22.5 22.5	22.5	8.2	8.2	23.7		115.0 114.6	114.8	8.7 8.7	-	5.5 5.4	5.3	8 9	8	89 88	88	822398	809785	<0.2	<0.2	1.2	1.3
					Bottom	5.8 5.8	0.1	61	22.4 22.4	22.4	8.2 8.2	8.2	24.1		109.9	110.0	8.3	8.3	5.0	Ī	8		90 90	1			<0.2		1.3	
					Surface	1.0	0.1	66 22	23.0	23.0	8.4	8.4	21.3	21.2	144.9	144.6	11.0		5.5		11		86				<0.2		1.4	_
						1.0 4.4	0.2	23 43	22.9 22.1		8.4 8.2		21.3		144.3		11.0 8.3	9.6	5.5 6.5	ŀ	10 8		88 89	1			<0.2	Г	1.4	
IM11	Fine	Moderate	15:15	8.8	Middle	4.4	0.2	43	22.1	22.1	8.2	8.2	24.0	24.0	107.4	108.4	8.2		6.6	6.4	7	8	87	89	822041	811446	<0.2	<0.2	1.4	1.4
					Bottom	7.8 7.8	0.3	60 63	21.9 21.9	21.9	8.1 8.1	8.1	28.2	28.1	100.6 101.3	101.0	7.5 7.5	7.5	7.2 7.1	ŀ	6 5		91 90	1			<0.2		1.4	
					Surface	1.0	0.1 0.1	313 321	23.4 23.4	23.4	8.5 8.5	8.5	20.5	20.5	162.6 162.0	162.3	12.3		7.3 7.1		8 9		86 86	-			<0.2	F	1.3	
IM12	Fine	Moderate	15:21	8.9	Middle	4.5	0.2	298	22.3	22.3	8.1	8.1	24.4	24.4	101.6	101.5	7.7	10.0	5.4	6.1	9	9	88	88	821473	812045	<0.2	.o.a [1.3	1.3
						4.5 7.9	0.2	306 285	22.2		8.1 8.1		24.4		101.3 94.7		7.7		5.4 5.6	-	9		88 90	1			<0.2	L	1.2	
					Bottom	7.9 1.0	0.4	298	21.9 23.0	21.9	8.1 8.5	8.1	28.2	28.2	94.9	94.8	7.1 11.1	7.1	5.7 5.5		9 10		91				<0.2		1.3	_
					Surface	1.0	-	-	23.0	23.0	8.5	8.5	21.3	21.3	144.8	145.4	11.0	11.1	5.6	Ė	10		-	1			-	Ŀ	-	
SR1A	Fine	Moderate	15:39	5.1	Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	···· -	-	5.8	-	10	-	-	819977	812659	-		-	-
					Bottom	4.1			22.9	22.9	8.3 8.3	8.3	23.5	23.5	121.8 121.9	121.9	9.2	9.2	5.9 6.0	Ī	11		-	‡			-	F	-	
					Surface	1.0	0.1	262	23.0	23.0	8.4	8.4	21.9	21.0	154.3	154.5	11.7		5.1		10 7		87				<0.2		1.4	-
						1.0	0.1	273	23.0	20.0	8.5	0.4	21.9	21.3	154.6	134.5	11.7	11.7	5.1	-	8		89	1			<0.2		1.3	
SR2	Fine	Moderate	15:52	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.1	-	8	-	89	821449	814150	-	<0.2	-	1.3
					Bottom	3.6 3.6	0.1 0.1	294 322	22.8 22.9	22.9	8.3 8.3	8.3	23.0	23.0	132.2 131.7	132.0	10.0 9.9		5.2 5.2		8 7		90 91				<0.2		1.3	
					Surface	1.0	0.1 0.1	216 227	22.7 22.7	22.7	8.4 8.4	8.4	20.8	20.8	136.0 134.3	135.2	10.4		6.0		8		-	-				F	=	
SR3	Fine	Moderate	14:44	8.4	Middle	4.2	0.3	115	22.3	22.3	8.1	8.1	23.5	23.5	107.0	107.0	8.1		8.4	9.8	8	9			822127	807575	-		-	-
						4.2 7.4	0.4	126 104	22.3		8.1 8.1		23.5 25.8		106.9 101.2		8.1 7.6	7.0	8.7 15.2	-	9 10		-	1			-	ŀ	-	
					Bottom	7.4 1.0	0.3	111 254	22.2 23.7	22.2	8.1 8.3	8.1	25.9		101.1 136.5	101.2	7.6 10.1		14.5 6.7		9 10		-	1			-	[-	_
					Surface	1.0	0.2	256	23.7	23.7	8.3	8.3	23.1	23.1	135.4	136.0	10.0	8.9	6.8	Ė	11			1			-	F	-	
SR4A	Cloudy	Calm	16:13	9.2	Middle	4.6	0.1	96 97	22.0 22.0	22.0	8.1	8.1	29.0	29.0	103.6	103.7	7.7	-	8.6 8.6	8.9	12 11	11	-	-	817178	807803	-	· -	-	-
					Bottom	8.2 8.2	0.1	89 93	21.9	21.9	8.1 8.1	8.1	29.6 29.6	29.6	104.8	105.0	7.7		11.2	Ī	11		-	1			-	F	_	
					Surface	1.0	0.1	274	23.5	23.5	8.2	8.2	23.9	23.9	142.0	141.8	10.5		5.4		11		-				-	-t	=	-
						1.0	0.2	275	23.5	20.0	8.2	0.2	23.9	20.0	141.6	141.0	10.5	10.5	5.4		12		-	1			-	ŀ	-	
SR5A	Cloudy	Calm	16:32	3.9	Middle	2.9	0.1	302	22.9	-	-	-	-	-	-	-	-		-	6.3	- 12	12	-	1 -	816616	810678	-	· [=	-
					Bottom	2.9	0.1	308	22.9	22.9	8.0	8.0	25.6 25.6	25.6	120.7 120.7	120.7	9.0		7.2 7.2		13		-				-			
					Surface	1.0	0.1 0.1	164 165	23.2	23.2	8.2	8.2	23.6		156.3 155.8	156.1	11.7 11.6		6.5 6.5		14 14		-				-	-	-	
SR6A	Cloudy	Calm	17:00	4.3	Middle	-	-	-	-	-	-	-	-	-	-	-	-	11.7	-	6.4	-	13	-		817983	814718	-		_	-
						3.3	0.0	194	23.2	22.2	8.1	0.4	24.1		151.9	454.0	11.3	11.3	6.3	ŀ	13		-	ł			-	H	-	
					Bottom	3.3 1.0	0.0	206 147	23.2 22.4	23.2	8.1 8.4	8.1	24.1 25.7		151.7 132.8		11.3 9.9		6.3 2.9		12 9		-	1			-	F	크	_
					Surface	1.0	0.0	154	22.4	22.4	8.4	8.4	25.7	25.7	131.8	132.3	9.9	٠. ـ	2.9	L	10		÷	İ			-	Ŀ		
SR7	Fine	Moderate	16:46	16.4	Middle	8.2 8.2	0.1	65 68	21.7	21.7	8.1 8.1	8.1	31.1	31.1	96.3 96.2	96.3	7.1		3.3	3.2	10 9	10	-	-	823639	823737	-	- -	-	-
					Bottom	15.4 15.4	0.1 0.1	203 214	21.6 21.6	21.6	8.1 8.1	8.1	31.7	31.7	96.2 96.5	96.4	7.1 7.1	7.1	3.3		10 10			1			-	F		
					Surface	1.0	-		23.1	23.1	8.5	8.5	21.0		150.1	149.5	11.4		8.4		14		-	 				一	\equiv	\dashv
000			45.00	5.0		1.0	-	-	23.0	20	8.5	0.0	21.1		148.9		11.3	11.4	8.4	-	15 -		-	1	00044=	044705	-	-	-	
SR8	Fine	Moderate	15:29	5.2	Middle	4.2	-		- 22.5	-	-	-	- 22.0	<u> </u>	- 1100	<u> </u>	-		9.4	8.9	- 15	15		ļ ·	820447	811700	-	. [-	-
					Bottom	4.2	-	-	22.5 22.5	22.5	8.2	8.2	23.9		113.3 113.5	113.4	8.6	8.6	9.4	ŀ	15 15		-	t		1	-	H	-	

DA: Depth-Averaged

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

Value exceeding Action Level is underfined; Value exceeding Limit Level is botted and underlined

Note: Due to safety concern, the monitoring at 188 was shifted to the closest safe and accessible location as a precautionary measure.

Water Quality Monitoring Results on 21 April 20 during Mid-Ebb Tide

Water Qual	ity Monit	oring Resu	its on		21 April 20	during Mid	וו ממ⊒-	9																				
Monitoring	Weather	Sea	Sampling	Water	Sampling	Depth (m)	Current Speed	Current	Water Te	mperature (°C)		рН	Salinity (ppt)	DO	O Saturation (%)		ssolved xygen	Turbidity	NTU)	Suspende (mg/		Total Alk (ppn		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/		Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value Avera	ge Val	ue Avera	age Valu	e DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA	Value DA
					Surface	1.0	0.4	250 274	24.1 24.1	24.1	8.4	8.4	22.3 22.4	113		.1 8.4		2.4		4		86 87				<0.2	-	1.2
C1	Cloudy	Moderate	12:18	8.8	Middle	4.4	0.5	203	22.0	22.0	8.1	8.1	30.3	92	.8 02.0	6.8	J /.6	8.1	8.6	5	5	89	89	815608	804263	<0.2	<0.2	1.2
-	,		12.10			7.8	0.5	203 229	22.0 22.0		8.1 8.1		30.3	92	.9	6.8		8.5 14.9		5 5		88 90				<0.2		0.9
					Bottom	7.8	0.2	229	22.0	22.0	8.1	8.1	31.0	91	.3	6.7	6.7	15.2		5		91				<0.2		1.1
					Surface	1.0	0.9	162 168	25.0 25.0	25.0	8.2 8.2	8.2	20.0 20.0	118		8.7	J 84	3.7		3		84 84				<0.2 <0.2		1.2
C2	Fine	Moderate	14:11	12.0	Middle	6.0	0.8	159 168	23.1	23.1	8.2	8.2	24.4 24.4	107		.9 8.0		3.7	5.3	3	3	87 87	86	825689	806944	<0.2		1.3
					Bottom	11.0	0.4	155	22.6	22.6	8.2	8.2	27.4	97	.8 97 8	8 7.2	72	8.5		4		88				<0.2		1.2
					Surface	11.0	0.4	161 64	22.6 23.8	23.8	8.2 8.0	8.0	27.4 24.3	97		7.2		8.5 2.5		4 <2		88 85				<0.2		1.2
						1.0 6.6	0.5	68 105	23.8 22.7		8.0 7.9		24.3	118	3.3	8.7		2.5 3.2		<2 2		85 88				<0.2		0.9
C3	Fine	Moderate	11:34	13.1	Middle	6.6	0.4	106	22.7	22.7	7.9	7.9	28.7	106	6.9	7.8		3.2	3.2	2	3	87	87	822106	817799	<0.2	<0.2	1.0
					Bottom	12.1 12.1	0.2	69 69	22.3	22.3	7.9	7.9	30.5	100		.2 7.3		3.9		4		90 89				<0.2	ŀ	1.0
					Surface	1.0	0.1	189 195	23.4 23.4	23.4	8.3	8.3	24.0	110		.2 8.2		8.5 9.0		3		87 86				<0.2 <0.2		0.9 1.0
IM1	Cloudy	Moderate	12:40	4.8	Middle	-	-	-	-		-					-	8.2	-	10.8	-	5	-	88	817969	807137	-	<0.2	- 10
iivi i	Cioday	Woderate	12.40	4.0	-	3.8	0.1	207	22.7		8.2		26.5	. 96	8	7.2		12.8	10.0	7		90	00	017303	007137	<0.2	. L	1.0
					Bottom	3.8	0.1	219 132	22.7	22.7	8.2	8.2	26.5 26.5 21.8	96	.9	7.2	7.2	12.7		6		90				<0.2		1.0
					Surface	1.0	0.2	132	24.2	24.3	8.4	8.4	21.8	118		.0 8.8		1.6		3		85 87				<0.2 <0.2		1.1
IM2	Cloudy	Moderate	12:47	6.9	Middle	3.5	0.3	127 136	23.1	23.1	8.2	8.2	24.7 24.7	104		.5 7.8		4.6 4.6	3.9	4	4	88 87	88	818185	806185	<0.2		1.1 0.9
					Bottom	5.9	0.1	91	22.3	22.3	8.2	8.2	29.2	93	.8 03.0	6.9	6.0	6.0		6		90				<0.2		1.0
					Surface	5.9 1.0	0.1	99 304	22.3 24.3	24.3	8.2 8.3	8.3	29.2	111	.9	6.9		5.4 2.3		5 3		91 86				<0.2		1.0 0.9
						1.0 3.5	0.1	324 163	24.3		8.3 8.3		22.2	101	2.0	8.3		2.3 5.8		3		86 87				<0.2		1.0
IM3	Cloudy	Moderate	12:55	7.0	Middle	3.5	0.3	176	23.2	23.2	8.3	8.3	24.7	103	3.6	.8 7.7		5.9	5.7	3	3	88	88	818773	805591	<0.2	<0.2	0.9
					Bottom	6.0	0.3	109 109	22.4 22.4	22.4	8.1 8.1	8.1	28.2	97		9 7.2	7.2	9.3 8.6		2		90				<0.2		1.0 0.8
					Surface	1.0	0.9	182 196	23.4 23.4	23.4	8.3 8.3	8.3	23.7	112		.8 8.4		5.8 5.9		7		86 87				<0.2		0.8
IM4	Cloudy	Moderate	13:04	7.8	Middle	3.9	0.7	179	23.3	23.3	8.3	8.3	23.9	111	1.6	s 8.3	8.4	6.9	8.6	10	9	88	88	819747	804587	<0.2	-0.2	0.8
	,				Bottom	3.9 6.8	0.8	180 176	23.3 23.3	23.3	8.3 8.3		24.0 24.1	111	.4	8.3		6.9 13.3		10 11		87 90				<0.2		0.9
					Bottom	6.8	0.6	186 189	23.3 24.7		8.3 8.3	8.3	24.1	108	3.6	8.1	0.1	12.8 3.6		11 3		91 86				<0.2		0.9
					Surface	1.0	0.8	202	24.7	24.7	8.3	8.3	22.3	118	3.5	8.7	3.6	3.6		3		86				<0.2	. [0.9
IM5	Cloudy	Moderate	13:14	7.3	Middle	3.7	0.7	196 198	23.5 23.5	23.5	8.3	8.3	23.4 23.3	113		.0 8.4	_	5.3 5.7	6.3	3	3	88 87	88	820755	804871	<0.2		0.8
					Bottom	6.3 6.3	0.6	193 194	23.1 23.1	23.1	8.3 8.3	8.3	24.5 24.5	106		.7 7.9		9.6 10.0		3		90 90				<0.2 <0.2		0.8
					Surface	1.0	0.6	216	24.2	24.2	8.3	8.3	22.6	116	3.2	2 8.6		3.0		4		87				<0.2	L.	0.8
						1.0 3.6	0.6	237 211	24.2 24.1		8.3 8.3		22.6	116	5.2	8.6		3.0		4		86 87				<0.2	·	0.8
IM6	Cloudy	Moderate	13:21	7.1	Middle	3.6	0.6	225	24.1	24.1	8.3	8.3	22.8	115	5.3	8.5		3.2	4.8	4	4	88	88	821054	805822	<0.2	<0.2	0.8
					Bottom	6.1 6.1	0.4	219 232	23.3 23.3	23.3	8.3	8.3	23.6 23.6	105		.8 7.9		8.1 8.5		4		90				<0.2 <0.2		0.8
					Surface	1.0	0.3	268 278	24.9 24.7	24.8	8.3 8.3	8.3	21.9 22.0	118		.2 8.7	_	2.5 2.6		2		86 87			,	<0.2		0.7
IM7	Cloudy	Moderate	13:30	8.2	Middle	4.1	0.3	244	23.3	23.3	8.3	8.3	23.1	111	1.2	2 8.3	0.5	3.9	4.6	2	2	88	88	821367	806854	<0.2	-0.2	0.8
					Pattor	4.1 7.2	0.3	253 227	23.3 23.1	23.1	8.3 8.2	8.2	23.1	1111	1.1	8.3		3.8 7.5		3		87 90				<0.2	_	0.8
					Bottom	7.2 1.0	0.2	245 209	23.1 23.7		8.2 8.3		24.4	106	3.0	7.9	7.9	7.5 4.1		3		91 84				<0.2		0.8
					Surface	1.0	0.2	213	23.7	23.7	8.3	8.3	22.4 22.4	118	3.5	.5 8.8	3.6	4.1		6		84				<0.2		1.0
IM8	Fine	Moderate	13:40	7.6	Middle	3.8	0.3	188 193	23.2	23.2	8.3	8.3	23.5	110		.6 8.3		6.8	6.3	6 5	5	87 86	86	821811	808129	<0.2		0.9
					Bottom	6.6	0.3	207	23.2	23.2	8.2	8.2	23.9	40	7.1	0.8	8.0	7.8		4		88				<0.2		0.8
DA: Depth-Aver	raged				1	6.6	0.3	210	23.2		8.2		23.8	1106	9.9	8.0		7.9		4		88				<0.2		0.8

during Mid-Ebb Tide Water Quality Monitoring Results on 21 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Value Average 0.3 1.0 0.3 118 23.8 8.3 21.9 125.2 9.3 4.8 84 <0.2 0.9 8.9 3.6 0.4 116 23.3 8.3 114.1 8.5 8.5 6.7 87 86 <0.2 0.9 IM9 Fine Moderate 13:34 7.2 Middle 23.1 114.1 86 822085 808791 <0.2 3.6 119 7.4 < 0.2 0.4 23.3 114.0 6.2 0.4 101 23.1 107.7 107.6 88 <0.2 1.0 8.3 24.2 8.0 11.0 Bottom 23.1 8.3 24.2 107.7 8.0 8.0 0.4 105 8.3 24.2 11.2 88 1.0 6.2 23.1 <0.2 0.7 24.4 84 0.7 8.3 Surface 24.4 8.3 122.7 8.3 21.3 122.7 9.1 85 0.7 1.0 0.8 104 24.4 3.0 < 0.2 23.6 23.6 87 86 0.8 0.8 103 8.3 8.3 117.5 8.8 <0.2 3.6 4.4 IM10 Fine Moderate 13:23 7.1 Middle 23.6 8.3 22.5 117.5 87 822403 809798 <n 2 0.8 4.5 6.1 0.6 103 23.2 8.2 107.4 12.6 <2 88 <0.2 0.9 23.9 107.5 8.0 Bottom 23.2 8.2 23.9 6.1 0.6 108 23.2 8.2 23.9 8.0 12.4 <2 89 < 0.2 0.8 1.0 109 24.0 0.8 8.2 8.8 3.9 84 22.6 118.9 <0.2 Surface 24.0 8.2 22.6 118.9 1.0 116 24.0 8.2 22.6 118.9 8.8 4.2 85 <0.2 0.8 4.2 0.6 112 23.3 8.3 10.0 86 <0.2 0.8 23.7 113.3 8.4 IM11 822061 811436 Fine Moderate 13:08 8.3 Middle 23.3 8.3 23.7 113.3 86 <0.2 0.6 8.3 87 <0.2 4.2 10.0 23.3 7.3 116 23.3 8.3 23.7 8.3 10.5 88 <0.2 0.8 Rottom 23.3 8.3 23.7 111.9 8.3 7.3 0.4 120 23.3 8.3 23.7 111.8 8.3 10.4 88 0.8 8.3 119.6 119.6 4.2 84 <0.2 0.8 22.4 Surface 24.1 8.3 22.4 119.6 1.0 0.7 114 24.1 8.3 22.4 8.8 4.6 6 84 <0.2 0.8 4.9 0.5 114 23.5 8.2 9.0 87 <0.2 0.9 Middle 113.9 821460 812056 IM12 Fine Moderate 12:59 23.5 8.2 23.2 4.9 0.5 115 23.5 8.2 9.3 86 0.8 8.7 0.4 108 23.3 8.2 24.1 109.0 11.5 89 <0.2 0.9 Bottom 23.3 8.2 24.1 109.1 8.1 109.2 8.1 8.7 0.4 115 23.3 8.2 24 0 11.3 88 < 0.2 0.8 1.0 23.9 8.2 22.4 114.6 8.5 5.5 Surface 23.9 8.2 22.4 114.6 1.0 23.9 8.2 22.4 114.6 8.5 5.5 4 2.6 SR1A Fine Moderate 12:20 Middle 819982 812664 2.6 4.1 23.3 8.1 8.3 6.5 8.3 Bottom 23.3 8.1 25.2 111.8 4.1 23.3 8.1 25.1 1117 8.2 6.4 1.0 0.7 85 23.9 8.1 3.9 86 <0.2 0.9 Surface 23.9 8.1 21.7 114.3 1.0 0.7 85 23.9 8.1 21.7 114.3 8.5 3.9 3 86 <0.2 0.9 SR2 Fine Moderate 12:05 4.9 Middle 821446 814164 <0.2 0.9 110.4 8.2 8.2 0.9 Bottom 24.5 110.4 3.9 0.4 64 23.3 8.0 24.4 41 88 <0.2 0.9 1.0 0.3 193 24.6 8.3 21.1 130.6 9.6 3.4 4 8.3 21.1 130.6 1.0 0.3 200 24.6 8.3 21 1 130.5 9.6 3.4 4 4.4 0.3 181 23.3 8.3 23.2 114.8 8.6 6.4 3 SR3 Fine Moderate 13:46 8.8 23.2 114.8 822145 807556 4.4 0.4 189 23.3 8.3 23.3 114.7 8.6 6.6 0.2 23.1 8.2 24.4 107.0 107.0 8.0 9.6 9.5 7.8 190 203 Bottom 8.2 107.0 8.0 1.0 0.0 161 24.3 8.4 21.4 113.4 112.7 8.4 5.8 Surface 24.3 8.4 21.4 113.1 1.0 0.0 166 24.3 8.4 21.4 8.3 6.6 6 -4.2 0.3 8.2 10.3 22.8 26.1 100.3 7.4 807826 SR4A Cloudy Moderate 11:59 8.4 Middle 22.8 8.2 26.1 100.2 817198 4.2 0.3 58 22.8 8.2 26.2 7.4 10.4 100.1 8.2 7.4 0.3 22.7 16.1 26.6 98.9 Rottom 22.7 8.2 26.6 98.9 7.3 7.4 0.3 59 22.7 8.2 26.6 98.9 7.3 16.1 84 1.0 0.1 8.3 4.2 22.6 123.0 9.0 Surface 24.3 8.3 22.6 123.0 1.0 0.1 92 24.3 8.3 22.6 122.9 9.0 4.1 3 SR5A 11:42 5.2 Middle 816579 810691 Cloudy Calm 4.2 0.2 42 24.3 4.7 8.3 118.9 8.8 22.7 Bottom 24.3 8.3 22.7 118.8 8.8 4.2 0.2 44 24.3 8.2 8.1 Surface 24.3 8.2 22.8 118.0 15 24.3 8.2 8.2 SR6A Cloudy 11:15 4.6 Middle 817960 814761 Calm 3.6 208 23.8 113.5 Bottom 8.1 213 1.0 0.2 63 23.1 8.1 27.6 8.1 2.8 Surface 8.1 1.0 0.2 64 23.1 8.1 110.8 8.1 2.8 7.8 0.2 91 22.2 8.1 30.7 100.1 7.3 4.5 2 SR7 Fine Moderate 10:54 Middle 823637 823741 7.8 0.2 91 22.2 8.1 30.6 100.1 7.3 4.5 2 14.6 0.1 54 22.1 8.2 31.4 97.1 7.1 4.5 Bottom 8.2 14.6 0.1 58 22.1 8.3 97.1 7.1 4.5 24.5 24.5 1.0 23.4 118.9 Surface 24.5 118.9 8.2 8.7 5.9 --SR8 Fine Moderate 12:49 4.8 Middle 820389 811628 3.8 23.9 117.2 7.8 8.3 23.8 8.6 Bottom 23.9 8.3 23.8 117.2 23.9

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

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 21 April 20 during

during Mid-Flood Tide

Water Qual	lity Monit	oring Resu	lts on		21 April 20	during Mid-	Flood T	ide																				
Monitoring	Weather	Sea	Sampling	Water	Sampling De	epth (m)	Current Speed	Current	Water Te	emperature (°C))	pН	Salinity (ppt	DC	Saturation (%)		olved ygen	Turbidity	NTU)	Suspende (mg		Total Al		Coordinate HK Grid	Coordinate HK Grid	Chrom (µg/l		Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average		•			DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)			Value DA
					Surface	1.0	0.4	30 30	24.2 24.2	24.2	8.3 8.3	8.3	22.6 22.6	114		8.5 8.4	1	3.2	ŀ	5 5		86 86	1			<0.2		0.8
C1	Cloudy	Moderate	17:58	8.3	Middle	4.2	0.3	17 17	22.9 22.8	22.9	8.2 8.2	8.2	25.6 25.6	102		7.6 7.6	8.0	6.8 6.5	5.8	5 4	5	88 88	88	815624	804264	<0.2		0.8
					Bottom	7.3	0.3	40 42	22.4	22.4	8.2 8.2	8.2	28.8 28.8 28.8	9/1	0 04.2	6.0	6.9	7.5 7.6		4		90	1			<0.2		0.8
					Surface	1.0	0.4	171	24.0	24.0	7.8	7.8	19.1	102	.1 102.1	7.7		6.2		4		84				<0.2		1.2
C2	Fine	Moderate	16:43	11.6	Middle	1.0 5.8	0.6	184 172	24.0 22.8	22.8	7.8 7.8	7.8	25.1	102	.3 102.3	7.7	7.7	6.3 5.5	6.7	4	5	84 87	87	825681	806942	<0.2 <0.2	-0.2	1.2 1.5
02		moderate	10.10	11.0	Bottom	5.8 10.6	0.3	175 306	22.8 22.6	22.6	7.8 7.8	7.8	26.9	102	.3	7.6	7.4	5.5 8.4		6	Ü	86 89	.	020001	000012	<0.2	·	1.5
						10.6	0.3	309 240	22.6		7.8 8.1		26.9	11/	5	7.4	7.4	8.3 2.7		6		89 86				<0.2		1.5
					Surface	1.0 5.8	0.6	243 246	23.6 22.7	23.6	8.1 8.1	8.1	24.6	114	7	8.4	8.1	2.7 3.1	ŀ	2		86 88				<0.2		1.0
C3	Fine	Moderate	18:49	11.5	Middle	5.8 10.5	0.6	255 268	22.7	22.7	8.1	8.1	28.3	104	.6 104.7	7.7	1	3.1	4.7	2	2	88 90	88	822095	817789	<0.2	<0.2	1.0
					Bottom	10.5	0.5	280	22.4	22.4	8.0	8.0	30.0	98.	5 98.5	7.2	7.2	8.1		3		90				<0.2		1.1
					Surface	1.0	0.0	125 125	24.7 24.7	24.7	8.4 8.4	8.4	22.5 22.4	110		8.0	8.1	3.4		6		86 88				<0.2		1.0
IM1	Cloudy	Moderate	17:36	4.9	Middle	-	-	-	-	-	-	-		-	-	-		-	3.5	-	7	-	89	817927	807119	-	<0.2	1.1
					Bottom	3.9	0.1	24 24	23.1 23.0	23.1	8.2 8.2	8.2	26.1 26.2	103		7.6	7.5	3.9		8		90				<0.2		1.2
					Surface	1.0	0.3	22 23	23.6 23.6	23.6	8.2 8.2	8.2	23.8 23.9	109		8.1 8.1		4.0		7		86 86				<0.2		1.0
IM2	Cloudy	Moderate	17:29	6.8	Middle	3.4	0.2	318 330	22.9 22.8	22.9	8.2 8.2	8.2	25.2 25.5 25.5	101		7.6 7.5	7.8	7.8 8.6	9.1	6	6	87 89	88	818164	806187	<0.2		1.1 0.9
					Bottom	5.8	0.1	311 320	22.6	22.6	8.2	8.2	27.9 28.0	95	0 04 0	7.0	7.0	14.8	I	6		90	1			<0.2		1.0
					Surface	1.0	0.5	328 352	24.0	24.0	8.3 8.3	8.3	24.0 24.2	107	.7 107.5	7.0		4.2		6		86 87				<0.2		1.0
IM3	Cloudy	Moderate	17:23	7.0	Middle	3.5	0.4	339	22.6	22.6	8.2	8.2	26.0	99.	4 99 1	7.4	7.7	7.2	6.6	4	5	88	88	818764	805614	<0.2	-02	1.1
					Bottom	3.5 6.0	0.4	312 334	22.6 22.4	22.4	8.2 8.2	8.2	26.0	98	9 04.0	7.4 6.9	6.9	6.8 8.3		4		87 90				<0.2		1.1
					Surface	6.0 1.0	0.4	307 336	22.4 24.1	24.1	8.2 8.3	8.3	23.3	94	.8 1120	8.3		8.8 3.1		8		91 86				<0.2		1.1
IM4	Cloudy	Moderate	17:14	7.4	Middle	1.0 3.7	0.5	357 329	24.1 23.1	23.1	8.3 8.2	8.2	23.4	112	.0 1016	7.8	8.1	3.2 6.8	7.8	8	7	87 88	88	819741	804630	<0.2		1.2
IIVI-4	Cloudy	Woderate	17.14	7.4		3.7 6.4	0.6	303 339	23.0 22.5		8.2 8.2		24.9	104	.5	7.8 7.1	7.4	7.6 13.1	7.0	8	,	87 90	- 00	019741	804030	<0.2	. L	1.1
					Bottom	6.4 1.0	0.4	312 306	22.5 24.6	22.5	8.2 8.3	8.2	28.2	96.	2	7.1	7.1	13.3 4.9		6 12		90 85				<0.2 <0.2		1.0
					Surface	1.0	0.4	314 309	24.6	24.6	8.3 8.3	8.3	21.5	119	.1	8.8	8.8	4.8	ļ	12		86 89				<0.2		1.0
IM5	Cloudy	Moderate	17:06	7.0	Middle	3.5 6.0	0.5	321 330	23.7	23.8	8.3 8.3	8.3	22.1	116	.4 116.8	8.7		8.0 8.3	6.9	12	12	87 91	88	820755	804866	<0.2	<0.2	1.0
					Bottom	6.0	0.4	355	23.6	23.6	8.3	8.3	24.3	107	.7	8.0	8.0	8.0		11		92				<0.2		1.1
					Surface	1.0	0.6	274 296	24.4 24.4	24.4	8.1 8.1	8.1	19.8 19.8	109	.4	8.2	8.5	4.6 4.7		6		87 87				<0.2		1.0 0.9
IM6	Cloudy	Moderate	16:59	6.6	Middle	3.3	0.4	281 301	24.3 24.3	24.3	8.3 8.3	8.3	21.5 21.5	118	.5 118.5	8.8		5.2 5.2	5.3	7	7	88 89	89	821082	805809	<0.2	<0.2	1.1 0.9
					Bottom	5.6 5.6	0.3	280 286	24.3 24.3	24.3	8.3 8.3	8.3	21.5 21.5	117		8.7	8.7	6.0	-	9		90	-			<0.2		1.0
					Surface	1.0	0.5	271 284	24.5 24.1	24.3	8.2 8.3	8.2	20.7	111		8.2	Ŧ	4.6 4.8		8		86 87				<0.2		1.1
IM7	Cloudy	Moderate	16:43	7.8	Middle	3.9 3.9	0.3	243 267	24.0 24.0	24.0	8.3 8.3	8.3	22.0 22.0 22.0	115	.9 115.0	0.6	8.5	9.0 9.2	8.0	7	7	88 87	88	821352	806845	<0.2	-0.2	1.0 1.0
					Bottom	6.8	0.4	268 286	24.0	24.0	8.3	8.3	22.1 22.1	115	.1 115.0	9.6	8.5	10.3	ļ	6		91				<0.2		1.1
					Surface	1.0	0.2	240	24.8	24.8	8.0	8.0	19.9	111	.1 1113	8.2	<u> </u>	5.1		6		85				<0.2		1.5
IM8	Fine	Moderate	17:09	7.5	Middle	1.0 3.8	0.2	241 265	24.8 24.4	24.4	8.0 8.1	8.1	20.9	111	.0 1161	8.6	8.4	5.0 11.6	10.6	6 4	5	84 86	87	821837	808138	<0.2 <0.2	-0.0	1.5 1.6 1.5
	"""				Bottom	3.8 6.5	0.2	275 260	24.4 24.1	24.1	8.1 8.1	8.1	21.5	116	.0 114.0	8.5	8.5	12.0 14.9		4		87 88	j	JE 1007	500.00	<0.2		1.5
DA: Denth-Aver					DULUIII	6.5	0.2	281	24.1	24.1	8.1	0.1	21.5	113	.9	8.5	0.5	14.9		4		89				<0.2		1.4

during Mid-Flood Tide Water Quality Monitoring Results on 21 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Average 0.2 1.0 0.2 265 24.9 8.0 19.9 8.4 4.0 85 <0.2 1.4 3.4 0.3 271 24.4 8.1 8.1 118.8 8.8 3.7 86 87 <0.2 1.5 IM9 Fine Moderate 17:18 6.7 Middle 118.8 87 822077 808798 <0.2 3.4 0.3 282 24.4 5.7 0.3 277 24.1 114.3 114.2 6 89 <0.2 1.6 8.1 21.9 8.5 5.4 Bottom 24.1 8.1 21.9 114.3 8.5 8.5 5.7 0.3 24.1 8 1 21 9 5.3 89 1 4 282 <0.2 0.3 24.3 1.5 8.1 Surface 24.3 8.1 21.3 117.2 8.1 21.3 8.7 84 1.5 1.0 0.3 296 24.3 5.1 6 < 0.2 0.3 23.8 23.8 1.4 3.8 8.1 8.1 114.5 114.6 4.8 87 88 <0.2 8.5 8.5 IM10 Fine Moderate 17:27 7.6 Middle 23.8 8.1 22.5 114.6 87 822393 809771 <0.2 4.8 107.6 6.6 0.3 291 23.6 8.0 107.7 6.3 89 <0.2 1.5 23.1 23.6 8.0 8.0 Bottom 23.1 6.6 0.3 319 23.6 8.0 23.1 8.0 6.4 89 < 0.2 1.4 1.0 0.5 299 8.1 5.3 85 1.2 23.7 114.7 8.5 22.8 114.7 6 <0.2 Surface 23.7 8.1 22.8 1.0 0.6 300 23.7 8.1 22.8 114.7 8.5 5.3 85 <0.2 1.2 1.2 3.7 0.6 301 23.5 8.1 111.3 7.2 87 <0.2 23.1 8.3 IM11 17:41 111.3 822052 811453 Fine Moderate 7.4 Middle 23.5 8.1 23.1 <0.2 3.7 0.6 8.1 7.3 87 1.2 <0.2 329 23.5 6.4 23.3 8.0 23.8 105.3 7.8 12.9 89 <0.2 1.2 Rottom 23.3 8.0 23.8 105.2 7.8 6.4 0.4 304 23.3 8.0 23.8 105.1 7.8 13.0 89 1.2 285 24.2 22.2 118.4 118.4 3.9 84 <0.2 1.2 Surface 24.2 8.1 22.2 118.4 1.0 0.5 24.2 8.1 8.8 3.9 3 85 <0.2 1.1 4.0 0.5 287 23.4 6.4 4 86 <0.2 1.3 IM12 Middle 110.8 821467 Fine Moderate 17:49 23.4 8.1 23.4 4.0 0.5 23.4 8.1 6.4 87 1.2 6.9 0.6 284 23.1 8.1 104.6 10.9 88 <0.2 1.2 Bottom 23.1 8.1 25.5 104.6 7.7 104.6 6.9 0.7 311 23.1 8.1 25.5 7.7 10.4 6 89 < 0.2 1.2 1.0 24.3 8.1 116.1 8.5 47 Surface 24.3 8.1 23.2 116.1 24.3 8.1 23.3 116.1 8.5 4.8 5 2.5 SR1A Fine Moderate 18:10 4.9 Middle 819974 812664 2.5 3.9 24.2 114.9 114.8 23.5 8.4 5.5 5.5 Bottom 24.2 8.1 23.5 114.9 8.4 8.4 8.1 1.0 0.4 331 23.9 8 1 23.9 112.8 83 49 86 <0.2 1.0 Surface 23.9 8.1 23.9 112.8 1.0 0.5 11 349 8.1 5.0 85 23.9 23.9 1127 8.3 4 < 0.2 -SR2 Fine Moderate 18:23 4.8 Middle 87 821484 814173 297 298 3.8 0.1 8.0 25.6 25.6 104.5 103.8 7.7 7.6 6.1 88 <0.2 1.0 Bottom 23.3 8.0 25.6 104.2 7.7 0.1 23.3 8.0 6.1 1.0 87 < 0.2 1.0 0.3 215 24.6 8.0 20.1 116.1 8.6 3.9 Surface 24.6 8.0 20.2 116.1 1.0 4.0 0.3 222 24.5 8.0 20.3 116.0 8.6 4.2 4.8 23.9 8.0 21.7 110.9 8.3 6 SR3 17:03 Middle 21.7 822125 807557 Fine Moderate 8.4 23.9 8.0 110.9 4.2 0.3 277 23.9 8.0 8.3 4.9 . 7.4 0.1 23.5 8.0 22.5 22.5 107.6 8.0 10.0 242 22.5 Rottom 23.5 8.0 107.5 8.0 7.4 1.0 0.1 196 24.5 8.3 8.5 7.5 22.6 116.0 10 Surface 24.5 8.3 22.6 115.7 1.0 24.4 8.3 8.5 7.6 10 206 22.6 4.3 0.1 24.0 8.0 10 8.3 22.9 112.8 8.3 SR4A Cloudy Moderate 18:16 8.6 Middle 24.0 8.3 22.9 112.7 817207 807806 4.3 0.1 172 23.9 8.3 8.3 8.0 10 0.2 23.5 8.3 24.9 103.3 7.6 9.7 Bottom 23.5 8.3 24.9 103.2 7.6 7.6 85 23.5 0.2 1.0 0.2 268 24.3 8.4 7.3 10 22.8 Surface 24.4 8.4 22.8 118.7 1.0 0.2 290 24.4 8.4 118.7 8.7 7.6 9 Cloudy Calm 18:32 Middle 810712 3.8 0.2 281 24.5 8.4 117.3 8.6 9.9 8 Bottom 24.5 117.1 3.8 307 24.5 8.4 1160 9.9 1.0 210 0.1 24 0 8.3 24.3 112.7 8.3 77 24.3 7.9 1.0 0.1 224 24.0 8.3 8.3 8 8.3 -SR6A Calm 18:58 4.0 Middle 817975 814730 Cloudy 3.0 0.1 229 24.0 8.3 111.9 8.2 8.2 9.2 10 -111.9 Bottom 3.0 0.1 231 23.9 8.3 24.5 111.8 9.8 1.0 0.0 184 22.9 8.0 28.3 28.3 105.1 7.7 7.7 3.0 Surface 22.9 8.0 28.3 105.1 1.0 0.0 200 22.9 3.0 8.0 0.1 169 8.0 29.3 29.4 101.3 4.0 22.6 7.4 3 -101.3 8.0 29.4 823654 823746 SR7 Fine Moderate 19:26 16.0 Middle 22.6 8.0 171 7.4 8.0 0.1 22.6 4.1 4 -15.0 130 0.1 22.3 8.0 96.0 96.0 7.0 7.0 5.2 2 30.9 Bottom 22.3 8.0 30.9 96.0 7.0

8.0

8.1

8.1

24.3

23.9

22.2

22.9

22.2

22.9

117.5

112.0

8.1

8.1

5.3

4.1

4.3 87

9.1

5

820395

811619

8.7

8.7

8.3 8.3

8.3

117.6

111.9

DA: Depth-Averaged

SR8

Fine

Moderate

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

18:00

4.7

15.0

1.0

Surface

Middle

Bottom

0.1

140

22.3

24.3 24.3

23.9

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 23 April 20 during Management

during Mid-Fbb Tide

Water Qua	lity Monit	toring Res	ults on		23 April 20	during Mid-	Ebb Tid	le																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	4h ()	Current Speed	Current	Water Te	emperature (°C)		рH	Salin	ity (ppt)	DO S	aturation %)	Dissol Oxyg		Turbidity(NTU)	iuspende (mg		Total Alk (ppn		Coordinate HK Grid	Coordinate HK Grid	Chromium (µg/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	uri (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value DA	Value DA
					Surface	1.0	0.4	219 223	22.8	22.8	7.7	7.7	27.5 27.5	27.5	93.5 93.5	93.5	6.9 6.9	ŀ	2.4	L	4		86 86				<0.2 <0.2	0.6
C1	Rainy	Moderate	13:43	8.4	Middle	4.2	0.4	200	22.8	22.8	7.7	7.7	29.0	29.0	90.9	90.8	6.6	6.8	7.6	8.0	4	4	89	89	815608	804266	<0.2	0.6
	. ,				Bottom	4.2 7.4	0.4	212 204	22.8 22.8	22.8	7.7	7.7	29.0 29.3	29.3	90.7 89.8	89.8	6.6	6.5	7.6 14.0		4		88 91				<0.2	0.7
						7.4	0.4	208 172	22.8		7.7 8.2		29.3		89.8 94.1	-	6.5 7.0	0.5	13.8 4.3		5		91 85				<0.2	0.7
					Surface	1.0	1.1	187	23.2	23.2	8.2	8.2	23.4	23.4	94.0	94.1	7.0	6.9	4.4	ļ	5		85				<0.2	0.7
C2	Cloudy	Moderate	14:40	11.5	Middle	5.8 5.8	1.0	167 175	23.0 23.0	23.0	8.2	8.2	25.4 25.4	25.4	90.1	90.2	6.7	-	10.3 10.4	8.6	4	4	88 88	88	825694	806939	<0.2 <0.2	0.8
					Bottom	10.5 10.5	0.4	150 160	22.8	22.8	8.2 8.2	8.2	29.3	29.3	91.0	91.1	6.6	6.6	11.2 11.2	-	3		90				<0.2	0.7
					Surface	1.0	0.4	63 64	23.1	23.1	8.2	8.2	26.1	26.1	96.0 95.8	95.9	7.1		1.6		3		87 88				<0.2	0.9
СЗ	Cloudy	Moderate	12:24	12.6	Middle	6.3	0.2	95	22.6	22.6	8.2	8.2	29.5	29.5	92.6	92.6	6.8	7.0	1.7	18	3	3	89	89	822127	817783	<0.2	0.9
	Cicacy	wodorato	12.21	12.0		6.3 11.6	0.2	104 66	22.6 22.5		8.2 8.1		29.5 31.2		92.6 93.8		6.8		1.7 2.1		3	Ĭ	89 91	00	OLL ILI	011100	<0.2	1.0
					Bottom	11.6 1.0	0.2	70 172	22.5 22.8	22.5	8.1 7.7	8.1	31.2 27.9	31.2	93.8 86.1	i	6.8	6.8	2.1 9.8		4		91 87				<0.2	0.9
					Surface	1.0	0.2	174	22.8	22.8	7.7	7.7	27.9	27.9	86.1	86.1	6.3	6.3	9.9	t	4		87				<0.2	0.7
IM1	Cloudy	Moderate	14:06	4.9	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.2	-	5	-	88	817935	807119	- <0.2	2 - 0.8
					Bottom	3.9 3.9	0.1 0.1	180 180	22.7 22.7	22.7	7.7 7.7	7.7	28.5 28.5	28.5	86.3 86.3	86.3	6.3 6.3	6.3	12.5 12.5	F	5 6	Ī	89 89				<0.2	0.8
					Surface	1.0	0.2	152	22.8	22.8	7.7	7.7	27.6	27.6	90.7	90.8	6.7		4.9		4		85				<0.2	0.7
IM2	Cloudy	Moderate	14:14	6.8	Middle	1.0 3.4	0.2	159 155	22.8 22.8	22.8	7.7 7.7	7.7	27.6 27.6	27.6	90.8 90.4	90.4	6.6	6.7	4.9 6.5	9.0	5 6	6	85 88	88	818140	806148	<0.2	0.6
IIVIZ	Cioday	Woderate	14.14	0.0		3.4 5.8	0.3	158 148	22.8		7.7		27.7		90.4 88.6		6.6 6.5		6.7 15.6	3.0	6 7	ľ	88 90	00	010140	000140	<0.2	0.8
					Bottom	5.8 1.0	0.2	160 136	22.8	22.8	7.7 7.7	7.7	28.7 27.8	28.7	88.5 89.9	88.6	6.5	6.5	15.5 11.1		6 9		90 85				<0.2	0.8
					Surface	1.0	0.5	139	22.8	22.8	7.7	7.7	27.8	27.8	89.7		6.6	6.6	11.1		9		85				<0.2	0.6
IM3	Cloudy	Moderate	14:22	7.0	Middle	3.5 3.5	0.3	126 135	22.8 22.8	22.8	7.7	7.7	28.2	28.2	89.1 89.1	89.1	6.5		14.3 14.3	14.2	10 8	9	88 88	88	818766	805611	<0.2	2 0.7 0.7
					Bottom	6.0	0.3	109 111	22.8 22.8	22.8	7.7	7.7	28.4	28.4	88.5 88.6	88.6	6.5 6.5	6.5	17.4 17.1	F	9		90				<0.2	0.7
					Surface	1.0	0.9	192	22.9	22.9	7.7	7.7	26.5	26.5	90.8	90.8	6.7		7.5		8		85				<0.2	0.6
IM4	Cloudy	Moderate	14:32	7.3	Middle	1.0 3.7	0.9	207 183	22.9 22.8	22.8	7.7 7.7	7.7	26.4 28.0	28.0	90.8 90.4	90.4	6.6	6.7	7.5 10.8	10.9	7	g	84 88	87	819737	804612	<0.2	0.7
1101-4	Cioday	Woderate	14.52	7.5		3.7 6.3	0.8	197 177	22.8		7.7		28.0		90.4		6.6		10.9	10.5	8	Ů	88 89	01	013737	004012	<0.2	0.7
					Bottom	6.3 1.0	0.7 1.0	185 212	22.8	22.8	7.7	7.7	28.2	28.2	90.3	90.3	6.6	6.6	14.2 4.9		8		89				<0.2	0.7 1.0
					Surface	1.0	1.1	214	23.0	23.0	7.6 7.6	7.6	25.4 25.4	25.4	92.4 92.3	92.4	6.8	6.8	5.0	þ	6		85 85				<0.2	0.9
IM5	Cloudy	Moderate	14:44	7.2	Middle	3.6 3.6	0.9	203 203	22.8	22.8	7.7	7.7	27.5 27.5	27.5	92.1 92.1	92.1	6.8		7.8 7.8	7.6	7 8	7	88 89	88	820751	804884	<0.2	2 1.0 1.0
					Bottom	6.2	0.7 0.7	198 217	22.8 22.8	22.8	7.7	7.7	27.9 27.9	27.9	91.4 91.4	91.4	6.7	6.7	10.0 10.0	F	8	Ī	90				<0.2 <0.2	0.9 1.0
					Surface	1.0	0.9	249	23.2	23.2	7.7	7.7	23.9	23.9	92.2	92.2	6.9		6.2		6		85				<0.2	1.1
IM6	Cloudy	Moderate	14:55	6.7	Middle	1.0 3.4	1.0 0.7	252 241	23.2 22.8	22.8	7.7 7.7	7.7	23.9 27.6	27.6	92.2 88.9	88.9	6.9	6.7	6.3 10.9	10.9	4	5	84 88	87	821075	805838	<0.2	1.1
livio	Cioddy	Woderate	14.55	0.7		3.4 5.7	0.7 0.5	241 242	22.8 22.7		7.7		27.6 28.1		88.9 88.6		6.5		11.0 15.5	10.9	4	3	88 89	01	821075	003030	<0.2	1.2
					Bottom	5.7	0.5	246	22.7	22.7	7.7	7.7	28.1	28.1	88.7	88.7	6.5	6.5	15.5		5		90				<0.2	1.2
					Surface	1.0	0.6 0.7	230 249	23.1 23.1	23.1	7.7	7.7	24.2	24.2	92.1 91.9	92.0	6.9 6.9	6.9	4.1 4.1	Ŀ	4 5	l	85 84				<0.2	1.2
IM7	Cloudy	Moderate	15:06	7.1	Middle	3.6 3.6	0.6 0.6	246 260	23.0 23.0	23.0	7.7 7.7	7.7	24.6 24.6	24.6	90.8	90.8	6.8	0.0	5.3 5.0	5.1	5 5	5	88 88	87	821331	806858	<0.2	2 1.1 1.2
					Bottom	6.1	0.4	273	22.9	22.9	7.7	7.7	25.8 25.8	25.8	88.5 88.4	88.5	6.6	6.6	6.0	ļ	5	İ	89 89				<0.2	1.2
					Surface	6.1 1.0	0.5	277 153	22.9	23.4	8.3	8.3	23.9	23.9	96.2	96.3	7.2		2.4	_	5 3		84				<0.2	0.7
11.40				7.0		1.0 3.9	0.2	159 141	23.4		8.3 8.3		23.9		96.3 94.6		7.2	7.1	2.5 4.5		3		85 88		004047	000445	<0.2	0.8
IM8	Cloudy	Moderate	14:10	7.8	Middle	3.9 6.8	0.3	149 26	23.3 23.0	23.3	8.3 8.2	8.3	24.4 26.4	24.4	94.6 95.8	94.6	7.0	_	4.6 6.4	4.5	4	3	88 89	87	821847	808116	<0.2 <0.2 <0.2	0.7 0.7
					Bottom	6.8	0.2	26	23.1	23.0	8.2	8.2	26.3	26.3	96.0	95.9	7.1	7.1	6.4		3		89				<0.2	0.7

Water Quality Monitoring Results on during Mid-Fbb Tide

Water Qua	lity Monit	toring Resu	ults on		23 April 20	during Mid-E	bb Tide	Э																						
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept		Current Speed	Current	Water Ter	nperature (°C)	F	Н	Salin	ity (ppt)		aturation %)	Disso Oxyg		Turbidity(f	NTU)	uspende (mg/	d Solids 'L)	Fotal A		Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		Nickel (µ	ıg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dept	()	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA	Value	DA
					Surface	1.0	0.4	101 109	23.3	23.3	8.3	8.3	24.1	24.1	93.3 93.2	93.3	6.9	6.8	4.4 4.5	-	3	ŀ	85 85				<0.2		0.8	
IM9	Cloudy	Moderate	14:04	7.6	Middle	3.8 3.8	0.4	102 109	23.0 23.0	23.0	8.3 8.3	8.3	26.1 26.1	26.1	91.0 91.0	91.0	6.7	0.0	9.3 9.5	8.3	3	4	88 89	88	822109	808797	<0.2	<0.2	0.8	0.7
					Bottom	6.6 6.6	0.3 0.4	54 54	22.9 22.9	22.9	8.2 8.2	8.2	27.8 27.7	27.7	93.7 93.8	93.8	6.9	6.9	11.1 10.7		3		90 90				<0.2		0.6	
					Surface	1.0	0.7	139 144	23.3	23.3	8.2 8.2	8.2	24.1	24.1	93.8 93.7	93.8	7.0		6.0		4 3		85 86				<0.2		0.8	
IM10	Cloudy	Moderate	13:56	7.8	Middle	3.9 3.9	0.6	131	22.9	22.9	8.2 8.2	8.2	26.5	26.5	91.8 91.8	91.8	6.8	6.9	12.9	11.2	4	4	88	88	822365	809795	<0.2	-0.2	0.0	0.7
					Bottom	6.8	0.5	131	22.9	22.9	8.1 8.1	8.1	26.7	26.7	93.7 94.0	93.9	6.9	6.9	14.5		3	į	89 90				<0.2		0.7	
					Surface	1.0	0.9	103	23.2	23.2	8.2	8.2	24.5	24.5	93.9	93.8	7.0		6.4		5		85				<0.2		0.8	=
IM11	Rainy	Moderate	13:41	8.5	Middle	1.0 4.3	0.9	107 102	23.2	23.0	8.2 8.2	8.2	24.5 26.7	26.7	93.7 91.6	91.6	7.0 6.7	6.9	7.1 9.8	10.3	5	5	85 88	88	822054	811458	<0.2	-0.2	0.8	0.8
	. ,				Bottom	4.3 7.5	0.9	107 99	23.0 23.0	23.0	8.2 8.2	8.2	26.7 27.2	27.2	91.6 91.8	91.8	6.7 6.7	6.7	9.6 14.3		4		88 90				<0.2	E	0.8	
					Surface	7.5 1.0	0.6 0.8	107 102	23.0 23.3	23.3	8.2 8.3	8.3	27.2 23.9	23.9	91.8 93.9	93.9	6.7 7.0		14.3 5.3		5 5		90 84				<0.2		0.7	
IM12	Point	Moderate	12:22	10.9		1.0 5.4	0.9	106 87	23.3	23.0	8.3 8.2		23.9 27.0	27.0	93.8 90.2	90.2	7.0 6.6	6.8	5.4 10.2	9.7	5 4	4	85 88	- 88	821442	812045	<0.2	-0.2 E	0.8	0.8
IIVI12	Rainy	Moderate	13:32	10.8	Middle	5.4 9.8	0.6	94 94	23.0 23.0		8.2 8.2	8.2	27.0 27.5		90.2 89.8		6.6 6.6		10.5 13.3	9.7	3	4	88 90	00	021442	012045	<0.2		0.8	0.8
					Bottom	9.8 1.0	0.3	99	23.0	23.0	8.2 8.2	8.2	27.5 25.7	27.5	89.7 95.0	89.8	6.6 7.0	6.6	13.2 5.2		4 6		90				<0.2		0.7	_
					Surface	1.0	-	-	23.1	23.1	8.2	8.2	25.8	25.7	94.9	95.0	7.0	7.0	5.3		6	ļ					-	F	-	
SR1A	Rainy	Calm	13:01	5.2	Middle	2.6 4.2		-	23.1	-	8.2	-	27.0	-	96.0	-	7.0		6.8	6.1	5	6	-	-	819978	812658	-	-		-
					Bottom	4.2	-	-	23.1	23.1	8.2	8.2	26.9	26.9	96.3	96.2	7.1	7.1	6.9		5		Ė						⇉	
					Surface	1.0	0.3 0.4	111 117	23.1 23.0	23.0	8.2	8.2	25.5 25.5	25.5	97.3 97.4	97.4	7.2	7.2	3.2 3.2		5 5		85 85				<0.2		0.8	
SR2	Rainy	Moderate	12:48	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-	5	-	87	821440	814151	-	<0.2	-	0.7
					Bottom	4.0 4.0	0.2	112 113	23.0 23.0	23.0	8.2	8.2	28.5 28.5	28.5	98.8	98.9	7.2	7.2	3.4	_	5 5		88 89				<0.2		0.6	
					Surface	1.0	0.5	160 161	23.1	23.1	8.3	8.3	24.0	24.0	92.6 92.5	92.6	6.9	6.8	4.6 4.7		5		-				-	L	-	
SR3	Cloudy	Moderate	14:16	9.3	Middle	4.7 4.7	0.3	163 171	22.9 22.9	22.9	8.3 8.3	8.3	26.5 26.5	26.5	90.7	90.7	6.7	0.0	8.6 8.7	7.8	4	5	-	-	822150	807553	-		-	-
					Bottom	8.3 8.3	0.1 0.1	315 335	22.8 22.8	22.8	8.3 8.3	8.3	28.2 28.2	28.2	92.1 92.1	92.1	6.7	6.7	10.0 9.9		5 4		-				-	F	-	
					Surface	1.0	0.2	82 88	22.8 22.8	22.8	7.7	7.7	27.6 27.6	27.6	88.8 88.9	88.9	6.5		5.7 5.8		6 7		-				-	-	-	
SR4A	Rainy	Calm	13:22	9.1	Middle	4.6 4.6	0.2	59 63	22.8 22.8	22.8	7.7	7.7	28.1 28.1	28.1	86.7 86.8	86.8	6.4 6.4	6.5	8.2 8.3	7.8	7	7	-	-	817195	807790	-		=	-
					Bottom	8.1 8.1	0.2	56 60	22.8 22.8	22.8	7.7	7.7	28.3	28.3	85.6 85.7	85.7	6.3	6.3	9.4 9.2		7	ŀ	-				-	F	-	
					Surface	1.0	0.1	301 315	23.1	23.1	7.7	7.7	25.7 25.7	25.7	88.2 88.3	88.3	6.5		7.6 7.7		8		-				-	T	=	
SR5A	Rainy	Calm	13:03	3.7	Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	8.8	-	7	-		816592	810708	-	.		
					Bottom	2.7	0.1	320 332	23.0	23.0	7.7	7.7	26.5 26.5	26.5	85.9 85.9	85.9	6.3	6.3	10.0		7		÷						-	
					Surface	1.0	0.1	12 12	23.1	23.1	7.7	7.7	25.4	25.4	94.1	94.1	7.0		10.3		8		÷				-	<u> </u>		=
SR6A	Rainy	Calm	12:25	4.2	Middle	1.0	0.1	-	23.1	-	7.7	-	25.4		94.0		7.0	7.0	10.2	12.2	8	7			817979	814751	-	.		
	. ,				Bottom	3.2	0.1	23	23.1	23.1	7.7	7.7	25.4	25.4	93.2	93.2	6.9	6.9	14.1		7						-	L	-	
					Surface	3.2 1.0	0.1	24 78	23.1 22.7	22.7	7.7 8.0	8.0	25.4 29.6	29.6	93.2 92.7	92.7	6.9		14.0 1.0		2		÷				-		-	-
SR7	Cloudy	Moderate	11:49	15.7	Middle	1.0 7.9	0.3	83 69	22.7 22.5	22.5	8.0 7.9	7.9	29.6 30.1	30.1	92.6 89.9	89.9	6.7 6.5	6.6	1.0	1.1	<2 2		-		823631	823728	-	-	-	
SIN!	Cioudy	WOUGHAR	11.43	13.7		7.9 14.7	0.1 0.1	74 285	22.5 22.4		7.9 7.9		30.1 31.7		89.9 89.7		6.5 6.5	6.5	1.2	··· F	3 <2	-	-	•	023031	023120	-	F	-	-
					Bottom	14.7 1.0	0.1	288	22.4 23.2	22.4	7.9 8.2	7.9	31.7 25.4	31.7	89.7 94.2	89.7	6.5 7.0	6.5	1.2 4.4	\perp	3 6		-	_			-	[=	_
					Surface	1.0	-	-	23.2	23.2	8.2	8.2	25.5	25.4	94.3	94.3	7.0	7.0	4.4	þ	5	ļ	-	İ			-	ļ	-	
SR8	Rainy	Calm	13:22	5.3	Middle	4.3		-	23.2	-	8.2	-	25.7	-	- 06.0	-	7.1		4.5	4.5	- 6	6	-	ļ ·	820432	811766		-		-
					Bottom	4.3		-	23.2	23.2	8.2	8.2	25.7	25.7	96.0 96.1	96.1	7.1	7.1	4.6	-	7		÷				-	-	-	

DA: Depth-Averaged
Caim: 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: Due to safety concern, the monitoring at SR8 was shifted to the closest safe and accessible location as a precautionary measure.

Water Quality Monitoring

Water Quality Monitoring Results on 23 April 20 during Mid-Flood Tide Suspended Solids Weather Water Water Temperature (°C Salinity (ppt) Turbidity(NTU) Coordinate Nickel (µg/L) Sampling Coordinate Monitorina Current Sampling Depth (m) HK Grid HK Grid Station Direction DA Condition Condition Time Depth (m) (m/s) Average Value Average Value DA Value DA Value DA Value DA (Easting) Value DA Value Average Value 0.4 22.8 0.9 7.7 27.0 90.2 Surface 43 90.2 6.7 9.8 1.0 0.4 22.8 7.7 27.0 11 86 <0.2 0.9 12.1 1.0 4.0 0.4 26 22.8 7.7 27.9 89.7 6.6 11 89 <0.2 7.7 27.9 89.7 804233 C1 Cloudy Moderate 19:15 8.0 Middle 22.8 89 815639 0.9 1.0 89.6 6.6 10 90 <0.2 4.0 0.5 22.8 7.7 12.1 26 7.0 0.4 30 22.8 7.8 16.0 10 91 <0.2 0.9 28.3 88.7 6.5 7.8 Bottom 22.8 28.3 88.7 6.5 6.5 15.9 88.6 10 0.9 7.0 0.4 32 22.8 7.8 28.3 91 < 0.2 84 Surface 23.0 8.2 22.3 91.4 1.0 0.7 91.4 6.9 85 211 23.0 8.2 22.3 8.0 4 < 0.2 0.8 5.4 0.5 203 23.1 8.2 26.2 89.9 6.6 11.1 6 88 <0.2 89.9 C2 Cloudy Moderate 18:02 10.8 Middle 23.1 8.2 26.2 88 825660 806957 5.4 8.2 26.2 89.9 6.6 11.1 88 <0.2 1.0 0.5 222 23.1 5 8.2 11.6 11.7 5 6 9.8 0.2 274 23.0 26.8 90.1 6.6 90 <0.2 0.9 Bottom 23.0 8.2 26.8 90.1 6.6 9.8 26.8 1.0 0.7 252 22.9 8.3 3.6 87 <0.2 0.8 Surface 22.9 8.3 27.8 92.5 1.0 0.7 273 22.9 8.3 27.7 92.5 6.8 3.7 4 88 <0.2 0.8 6.0 6.3 5 4 0.7 61 0.6 245 22.6 8.3 30.0 91.4 6.6 88 <0.2 СЗ Rainy Moderate 20:00 12.2 Middle 8.3 30.0 91.4 822122 817790 0.7 88 6.1 0.6 265 22.6 8.3 91.4 < 0.2 11.2 11.2 250 270 22.6 22.6 30.3 6.7 7.3 7.3 4 0.3 8.3 92.0 92.1 90 91 <0.2 0.7 Rottom 8.3 30.2 92.1 6.7 8.3 4 0.3 < 0.2 0.2 22.8 85.4 10.7 12 <0.2 0.7 7.7 27.6 6.3 Surface 22.8 7.7 27.6 85.5 1.0 19 22.8 7.7 27.6 85.5 6.3 10.7 13 87 <0.2 0.9 0.2 6.3 -807148 IM1 Cloudy Moderate 18:53 4.5 Middle 817932 0.8 3.5 0.1 85.6 85.6 6.3 14 89 <0.2 0.8 7.7 Bottom 27.6 85.6 3.5 0.1 11 22.7 27.6 10.6 16 89 0.7 1.0 0.4 355 22.8 7.7 27.3 89.0 6.6 8.7 12 85 <0.2 0.7 Surface 7.7 1.0 0.4 327 22.8 7.7 27.3 89.0 6.6 8.7 13 86 <0.2 0.9 3.3 0.3 356 22.8 7.7 27.4 88.6 6.5 9.9 13 88 <0.2 0.8 IM2 Cloudy Moderate 18:44 6.5 Middle 7.7 27.4 88.7 12 818182 806143 0.7 7.7 88.7 10.0 12 89 0.4 328 27.4 3.3 22.8 5.5 0.4 345 22.8 7.7 12.8 11 90 <0.2 0.7 27.8 87.5 6.4 7.7 27.8 87.6 6.4 Bottom 22.8 87.7 0.6 0.4 317 12.6 12 <0.2 5.5 22.8 0.4 332 22.8 7.7 6.4 13.1 15 86 <0.2 0.9 Surface 22.8 7.7 27.3 87.6 1.0 0.4 349 22.8 87.6 6.4 13.1 14 85 1.0 340 15.1 13 89 88 1.2 22.8 <0.2 7.7 87.4 805586 IM3 Cloudy Moderate 18:37 Middle 22.8 27.5 818761 3.4 0.4 313 22.8 7.7 27.5 87.4 6.4 15.1 14 5.8 0.3 328 22.8 7.7 27.9 87.1 6.4 19.2 14 90 < 0.2 1.0 Bottom 22.8 7.7 27.9 87.1 1.1 5.8 0.3 337 22.8 7.7 27.9 87.1 6.4 19.5 16 90 < 0.2 295 307 0.9 1.0 0.4 22.8 7.7 26.6 88.9 6.6 6.2 12 85 < 0.2 Surface 7.7 26.6 89.0 89.0 6.6 6.2 1.0 7.7 12 85 1.0 0.4 22.8 26.6 <0.2 1.0 3.8 307 22.7 22.7 7.1 12 13 88 88 <0.2 0.5 7.7 27.6 88.8 6.5 22.7 7.7 27.6 88.9 819742 804593 IM4 Cloudy Moderate 18:26 7.5 Middle 320 27.6 7.2 3.8 0.5 10.0 13 0.9 6.5 0.4 313 22.7 7.7 28.0 88.1 6.5 90 <0.2 Bottom 7.7 88.1 6.5 22.7 28.0 6.5 0.5 336 22.7 7.7 10.1 14 90 1.0 1.0 0.4 271 23.1 7.6 14.0 19 85 <0.2 0.9 Surface 23.1 7.6 91.5 23.7 1.0 0.4 283 23.1 7.6 91.4 6.8 14.1 20 85 <0.2 1.1 6.8 16.1 15.8 3.2 0.3 267 23.1 7.6 20 88 <0.2 1.1 Moderate 18:18 6.3 Middle 820729 804856 3.2 278 23.1 6.8 21 89 0.3 7.6 91.2 21 5.3 0.3 276 6.8 16.6 <0.2 11 23.1 7.6 23.7 90.9 90 Bottom 7.6 23.7 90.9 6.8 7.6 16.7 20 1.3 5.3 23.1 90.9 90 0.3 296 < 0.2 0.7 23.1 23.1 7.6 7.6 17.5 17.3 85 85 0.8 1.0 260 23.6 91.9 6.9 17 <0.2

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DA: Depth-Averaged

IM6

IM7

IM8

Cloudy

Cloudy

Cloudy

Moderate

Moderate

Moderate

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

18:26

18:10

18:01

6.5

7.4

6.9

Surface

Middle

Bottom

Surface

Middle

Rottom

Surface

Middle

1.0

3.3

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3.7

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5.9

5.9

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 23 April 20 during M

during Mid-Flood Tide

Water Qua	lity Monit	oring Resu	ılts on		23 April 20	during Mid	-Flood T	ide																						
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept	th (m)	Current Speed	Current	Water Te	mperature (°C)		рH	Salir	ity (ppt)	DO S	aturation %)	Dissolv Oxyge		Turbidity(N	NTU) S	spende (mg/	d Solids L)	Total A (pp		Coordinate HK Grid	Coordinate HK Grid	Chron (µg		Nickel (μg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	/alue	DA	Value	DA	(Northing)	(Easting)	Value	DA	Value	DA
					Surface	1.0	0.3	265 277	23.2	23.2	8.3	8.3	23.9	23.9	93.9 94.0	94.0	7.0	-	12.5 12.7	-	11 10		85 85				<0.2		0.9	
IM9	Cloudy	Moderate	18:32	6.8	Middle	3.4	0.3	267	23.2	23.2	8.2	8.2	23.9	23.9	93.9	93.9	7.0	7.0	13.1	13.2	10	10	89	88	822097	808791	<0.2	<0.2	1.0	0.9
						3.4 5.8	0.4	284 279	23.2		8.2 8.2		23.9 24.1		93.9 94.5		7.0	_	13.0 13.9	-	9		90 90				<0.2		0.9 1.0	
					Bottom	5.8	0.2	290	23.2	23.2	8.2	8.2	24.1	24.1	94.5	94.5	7.0	7.0	13.9		10		90				<0.2		0.9	
					Surface	1.0	0.4	267 293	23.2	23.2	8.3	8.3	24.1	24.1	94.1	94.1	7.0	7.0	5.8	H	19 17		86 87				<0.2		0.9	
IM10	Cloudy	Moderate	18:41	7.0	Middle	3.5 3.5	0.4	282 299	23.1 23.1	23.1	8.2 8.2	8.2	24.4	24.4	94.2 94.2	94.2	7.0	′.0	7.1 7.1	6.7	13 12	14	89 89	89	822375	809800	<0.2		0.9	0.9
					Bottom	6.0	0.3	286	23.1	23.1	8.2	8.2	24.5	24.5	95.4	95.8	7.1	7.1	7.1	E	11		90				<0.2		1.0	
						6.0 1.0	0.3	286 319	23.1		8.2 8.2		24.5 25.0		96.1 93.2		7.1 6.9		7.3		11		90 85				<0.2		1.0 0.9	_
					Surface	1.0	0.5	341	23.2	23.2	8.2	8.2	25.0	25.0	93.1	93.2	6.9	69 E	10.6		12		86	1			<0.2		0.9	
IM11	Cloudy	Moderate	18:54	7.7	Middle	3.9	0.5	319 339	23.1	23.1	8.2	8.2	25.2 25.2	25.2	93.1	93.2	6.9	H	11.9 11.8	11.9	11	11	88 89	88	822053	811480	<0.2		0.9	0.9
					Bottom	6.7 6.7	0.4 0.4	321 334	23.1 23.1	23.1	8.2 8.2	8.2	25.2 25.2	25.2	94.1 94.0	94.1	7.0 7.0	7.0	13.1 13.2		10 11		89 90				<0.2		0.9	
					Surface	1.0	0.4	316	23.1	23.1	8.3	8.3	24.9	24.9	93.6	93.6	7.0		6.4		18		84				<0.2	-	1.0	\neg
						1.0 4.1	0.6	336 312	23.1 23.1		8.3 8.3		24.9 25.3		93.6 92.7		6.9	6.9	6.6 9.5	-	19 11		84 89				<0.2		1.0	
IM12	Cloudy	Moderate	19:01	8.2	Middle	4.1	0.6	323	23.1	23.1	8.3	8.3	25.3	25.3	92.7	92.7	6.9		9.2	8.9	10	13	89	88	821439	812054	<0.2	<0.2	1.0	1.0
					Bottom	7.2	0.5	308 314	23.1	23.1	8.3	8.3	25.5 25.5	25.5	95.2 95.3	95.3	7.0	7.1	10.9	-	9		90				<0.2		0.8	
					Surface	1.0 1.0	-	-	23.1 23.1	23.1	8.2 8.1	8.1	25.2 25.2	25.2	92.9 93.4	93.2	6.9 6.9		4.3		6		-				-		=	
SR1A	Cloudy	Calm	19:21	4.6	Middle	2.3		-			-		- 25.2		93.4		-	6.9	4.3	4.4	-	7	-		819977	812655	-	. t	-	
OKIA	Cloudy	Odilli	13.21	4.0		2.3 3.6	-	-	23.1	=	8.0		25.3		97.3		7.2	-	4.4		9	,	-		013377	012033	-		-	
					Bottom	3.6	-	-	23.1	23.1	8.0	8.0	25.3	25.3	97.5	97.4	7.2	7.2	4.4		8		-				-			
					Surface	1.0	0.3	304 327	23.0 23.0	23.0	8.3	8.3	26.3	26.3	93.5 93.7	93.6	6.9	6.9	9.3	H	11 12		85 86				<0.2		0.9	
SR2	Cloudy	Moderate	19:34	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	9.9	-	12	-	87	821452	814161	-	<0.2	-	0.9
					Bottom	3.5	0.3	303	23.0	23.0	8.2	8.2	26.4	26.3	95.7	96.0	7.1	71	10.7	E	12		88				<0.2		1.0	
						3.5 1.0	0.3	309 198	23.0		8.2 8.3		26.3		96.2 93.1		7.1		9.3		13 8		89				<0.2	\rightarrow	0.9	\dashv
					Surface	1.0 4.1	0.6	216	23.1	23.1	8.3	8.3	23.7	23.7	93.1	93.1	7.0	7.0	9.4		8		-				-	. [-	
SR3	Cloudy	Moderate	18:18	8.2	Middle	4.1	0.4	215 217	23.1 23.1	23.1	8.3	8.3	24.1	24.1	93.3 93.4	93.4	7.0	-	8.9 8.6	9.8	9	8	-	-	822163	807557	-		-	-
					Bottom	7.2 7.2	0.4	234 244	23.1	23.1	8.3	8.3	24.2	24.2	94.1	94.2	7.0	7.0	11.1 11.5		7		-				-	. [-	
					Surface	1.0	0.1	123	23.0	23.0	7.7	7.7	26.4	26.4	86.7	86.7	6.4		17.5		19		-				-	二		
						1.0 4.8	0.1	129 69	23.0		7.7		26.4 26.5		86.7 86.3		6.4	6.4	17.6 19.2		20 19		-	1			-		-	
SR4A	Cloudy	Calm	19:35	9.6	Middle	4.8	0.1	71 45	23.0	23.0	7.7	7.7	26.5	26.5	86.3	86.3	6.4		19.1	19.3	21 19	20	-		817188	807786	-	[-	•
					Bottom	8.6 8.6	0.1	46	22.9 22.9	22.9	7.7	7.7	26.6 26.6	26.6	85.8 85.8	85.8	6.3		21.1		21		-				-		-	
					Surface	1.0	0.1	256 261	23.0	23.0	7.7	7.7	25.8 25.8	25.8	87.8 87.8	87.8	6.5	-	15.2 15.3	-	13 13		-	1			-	}	-	
SR5A	Cloudy	Calm	19:54	3.7	Middle	-	-	-	-	-	-		-		-		-	6.5	-	16.6	-	14	-		816598	810690	-		-	-
						2.7	0.1	270	23.0	20.0	7.8	7.0	25.8	05.0	87.2	87.2	6.5	0.5	18.0	-	16		-				-	.	-	
					Bottom	2.7	0.1	286 181	23.0 23.0	23.0	7.8 7.6	7.8	25.8 25.4	25.8	87.2 91.6		6.4	6.5	17.8 9.6		15 12		-				-		-	
					Surface	1.0	0.0	191	23.0	23.0	7.6	7.6	25.4	25.4	91.6	91.6	6.8	6.8	9.6		12						-	. [-	
SR6A	Cloudy	Calm	20:23	4.1	Middle	-	-	-	-		-	-	-	-	-	-	-	-	-	9.7	-	12	-	-	817979	814732	-		-	-
					Bottom	3.1	0.0	141	23.0	23.0	7.7	7.7	25.5	25.5	90.9	91.0	6.7	6.7	9.7		11		-	1			-		-	
						3.1 1.0	0.0	154 217	23.0 22.8		7.7 8.3		25.5 28.9		91.0 91.4	91.4	6.7	+	9.7		12 5		-				-	_	-	-
					Surface	1.0 8.4	0.1	232 36	22.8 22.5	22.8	8.3 8.3	8.3	28.9 30.9		91.3 90.3		6.7	6.6	3.2 5.2	F	4 5		-				-	, [-	
SR7	Rainy	Moderate	20:35	16.8	Middle	8.4	0.0	37	22.5	22.5	8.3	8.3	30.9	30.9	90.3	90.3	6.5		5.2	4.5	4	4	÷	-	823612	823725	-		-	-
					Bottom	15.8 15.8	0.1	121 122	22.4 22.4	22.4	8.3	8.3	31.3	31.3	91.6 91.8	91.7	6.6	6.6	5.3	\vdash	3		-	-			-	. }	-	
					Surface	1.0	-	-	23.1	23.1	8.3	8.3	24.7	24.7	93.5	93.6	6.9	T	9.9		8		-				-	T	三	
SR8	Cloudy	Moderate	19:12	4.8	Middle	1.0	-		23.1		8.3		24.7		93.6		7.0	7.0	10.1	13.6	-	8			820369	811643	-	1	-	
SNO	Cicady	WOOGIAIE	10.12	7.0		3.8	-	-	23.1		8.2		24.9		93.6		6.9	-F	17.1	.5.5	- 8	J	-		020309	011043	-	,	-	-
					Bottom	3.8		-	23.1	23.1	8.2	8.2	24.9	24.9	93.6	93.6	6.9	6.9	17.4		9							-		

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 25 April 20 during Material Monitoring Results on 25 April 20 during Material Monitoring

during Mid-Fbb Tide

Water Qua	lity Monit	toring Res	ults on		25 April 20	during Mid-	Ebb Tid	le																				
Monitoring	Weather	Sea	Sampling	Water	0	11. ()	Current Speed	Current	Water Te	emperature (°C)		рН	Salir	ity (ppt)	DO S	aturation (%)	Dissol Oxyg		Turbidity(I	NTU)	Suspende mg)		Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chromium (µg/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	tn (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value DA	Value DA
					Surface	1.0	0.4	229 242	22.3 22.3	22.3	7.5 7.5	7.5	28.6 28.6	28.6	89.4 89.5	89.5	6.6 6.6		6.7 6.7	L	10 10		87 87				<0.2	1.0
C1	Cloudy	Moderate	13:47	8.3	Middle	4.2	0.4	203	22.1	22.1	7.5	7.5	31.3	31.3	91.2	91.3	6.6	6.6	9.6	9.5	10	9	90	89	815640	804227	<0.2	1.0
	Cicacy	Moderate	10.11	0.0		4.2 7.3	0.4	204 203	22.1		7.5 7.5		31.3		91.3		6.6		9.8	-	9	ľ	89 91	00	0.0010	001227	<0.2	0.9
					Bottom	7.3	0.3	213	22.2	22.2	7.5	7.5	31.7	31.7	90.9	90.9	6.6	6.6	12.1		8		92				<0.2	1.0
					Surface	1.0	0.3	147 150	22.4 22.4	22.4	8.1 8.1	8.1	27.2	27.2	85.9 85.8	85.9	6.4	6.4	9.9 10.1		12 11	İ	86 86				<0.2	1.7
C2	Rainy	Moderate	12:37	11.4	Middle	5.7 5.7	0.4	129 129	22.4	22.4	8.1 8.1	8.1	28.0 28.1	28.1	85.4 85.4	85.4	6.3	0.4	11.4 11.4	12.2	12 12	12	87 88	88	825666	806924	<0.2	1.7
					Bottom	10.4	0.4	143	22.4	22.4	8.1	8.1	28.5	28.5	85.7	85.8	6.3	6.3	14.9	ļ	13	İ	90				<0.2	1.8
					Surface	10.4	0.4	147 56	22.4	22.4	8.1 8.1	8.1	28.5 28.4	28.5	85.8 85.9	85.9	6.3		15.5 6.4		12 8		91 86				<0.2 <0.2	1.8
						1.0 6.3	0.6	59 60	22.4 22.4		8.1 8.1		28.5 29.3		85.8 85.4		6.3	6.3	6.5 6.9	F	7	-	86 89				<0.2	1.2
C3	Rainy	Moderate	14:22	12.6	Middle	6.3	0.4	63	22.4	22.4	8.1	8.1	29.4	29.4	85.4	85.4	6.3		6.8	6.6	9	9	88	88	822123	817789	<0.2	1.2
					Bottom	11.6 11.6	0.3	40 41	22.3 22.3	22.3	8.1 8.1	8.1	30.1	30.1	86.0 86.2	86.1	6.3	6.3	6.4	-	11 11		90				<0.2	1.2
					Surface	1.0	0.1	190 194	22.3 22.3	22.3	7.5 7.5	7.5	28.4	28.4	88.5 88.5	88.5	6.5 6.5		13.0 13.0	-	10 9		87 87				<0.2	1.2
IM1	Cloudy	Moderate	13:27	5.1	Middle	-	-	-	-	-	-		-	-	-		-	6.5	-	14.0	-	9	-	88	817927	807129	- <0.2	
	,				Bottom	4.1	0.2	175	22.2	22.2	7.5	7.5	30.1	30.1	90.7	90.7	6.6	6.6	15.1	E	8	İ	89				<0.2	1.1
						4.1 1.0	0.2	190 181	22.2		7.5 7.5		30.1 28.5		90.7		6.6	0.0	15.0 8.0		9		89 85				<0.2	1.1
					Surface	1.0	0.2	183	22.3	22.3	7.5	7.5	28.5	28.5	91.1	91.0	6.7	6.7	8.0	Į	9	1	85				<0.2	1.1
IM2	Cloudy	Moderate	13:19	7.2	Middle	3.6 3.6	0.2	156 165	22.2 22.2	22.2	7.5 7.5	7.5	30.1	30.1	91.6 91.4	91.5	6.7		10.3 10.5	10.4	9	9	88 88	88	818156	806150	<0.2 <0.2	1.2
					Bottom	6.2	0.2	138 147	22.2	22.2	7.5 7.5	7.5	30.8	30.8	90.9	91.0	6.6	6.6	12.8 12.7	F	9	ŀ	90 89				<0.2	1.3
					Surface	1.0	0.2	146 158	22.2	22.2	7.5	7.5	28.5	28.5	90.6		6.7		5.4		9		85 85				<0.2	1.2
IM3	Cloudy	Moderate	13:12	7.5	Middle	3.8	0.3	148	22.3	22.3	7.5	7.5	29.0	29.0	89.9	90.0	6.6	6.7	9.2	9.7	9	9	88	88	818790	805601	<0.2	1.2
	Cicacy	Moderate	10.12	7.0		3.8 6.5	0.3	150 145	22.3		7.5 7.5		29.0 31.0		90.0		6.6 6.7		9.2 14.7	-	9	ľ	88 90	00	0.0.00	000001	<0.2	1.2
					Bottom	6.5 1.0	0.3	150 187	22.2	22.2	7.5	7.5	31.0	31.0	91.6	91.6	6.7	6.7	14.4 8.2		10		90 85				<0.2	1.2
					Surface	1.0	0.5 0.6	201	22.3	22.3	7.5 7.5	7.5	28.5 28.5	28.5	89.6 89.8	89.7	6.6	6.7	8.2		8	İ	86				<0.2 <0.2	1.2
IM4	Cloudy	Moderate	13:03	8.4	Middle	4.2	0.3	157 161	22.2	22.2	7.6 7.6	7.6	30.3	30.3	91.3	91.3	6.7	0	8.1 8.1	9.2	9	9	88 88	88	819722	804620	<0.2	1.2
					Bottom	7.4 7.4	0.2	146 154	22.2 22.2	22.2	7.6 7.6	7.6	31.3	31.3	90.8	90.9	6.6	6.6	11.3 11.1	F	8	ļ	90 90				<0.2 <0.2	1.3
					Surface	1.0	0.4	222	22.3	22.3	7.5	7.5	28.1	28.1	89.2	89.2	6.6		8.5		8		85				<0.2	1.4
11.45	011		40.55	7.0		1.0 4.0	0.4	233 185	22.3		7.5 7.6		28.1 29.8		89.2 90.4		6.6	6.6	8.5 9.9		7		85 88		000700	004075	<0.2	1.5
IM5	Cloudy	Moderate	12:55	7.9	Middle	4.0 6.9	0.4	187 173	22.3 22.2	22.3	7.6 7.6	7.6	29.8 30.5	29.8	90.4 90.6	90.4	6.6 6.6		10.0 12.5	10.3	8 7	8	88 90	88	820723	804875	<0.2 <0.2	1.2
					Bottom	6.9	0.4	175	22.2	22.2	7.6	7.6	30.4	30.4	90.6	90.6	6.6	6.6	12.4		8		90				<0.2	1.2
					Surface	1.0	0.2	252 259	22.4 22.4	22.4	7.5 7.5	7.5	26.9 26.9	26.9	88.8	88.8	6.6		8.7 8.7	F	7		85 85				<0.2	1.4
IM6	Cloudy	Moderate	12:47	7.8	Middle	3.9 3.9	0.2	195 204	22.3 22.3	22.3	7.6 7.6	7.6	29.2	29.2	89.0 89.0	89.0	6.5 6.5	6.6	12.3 12.3	11.9	7 6	7	88 88	88	821038	805809	<0.2 <0.2	1.3
					Bottom	6.8	0.2	181	22.2	22.2	7.6	7.6	29.8	29.8	89.7	89.7	6.6	6.6	14.8		8	İ	89				<0.2	1.4
						6.8 1.0	0.3	195 321	22.2	1	7.6 7.6		29.8		89.7 88.7		6.6		14.8 9.1		7		90 85				<0.2 <0.2	1.3
					Surface	1.0 4.5	0.1	323 134	22.4	22.4	7.6 7.6	7.6	27.2 28.9	27.2	88.8 89.1	88.8	6.6	6.6	9.1 12.1	þ	6	İ	85 88				<0.2	1.4
IM7	Cloudy	Moderate	12:39	8.9	Middle	4.5	0.1	139	22.2	22.2	7.6	7.6	28.9	28.9	89.0	89.1	6.6		12.1	11.1	7	7	89	88	821370	806815	<0.2	1.3
					Bottom	7.9 7.9	0.2	142 142	22.2	22.2	7.7	7.7	29.1	29.1	89.7 89.6	89.7	6.6	6.6	12.1 12.1	F	7	1	90 90				<0.2	1.3
					Surface	1.0	0.2	51	22.4	22.4	8.1	8.1	26.6	26.7	88.9	89.0	6.6		8.1		9	İ	86				<0.2	1.7
IM8	Cloudy	Moderate	13:01	8.0	Middle	1.0 4.0	0.2	52 76	22.4 22.3	22.3	8.1 8.1	8.1	26.7 27.6	27.7	89.0 89.7	89.8	6.6	6.7	8.2 10.0	10.0	9	8	86 88	88	821853	808134	<0.2	1.7
IIVIO	Cioddy	.vioudiate	13.01	0.0		4.0 7.0	0.2	83 50	22.3		8.1 8.1		27.8 28.4		89.9 90.7		6.7 6.7		10.3 11.6	.0.0	8	ľ	87 90	00	32 1033	300134	<0.2	1.8
					Bottom	7.0	0.3	51	22.2	22.2	8.1	8.1	28.3	28.4	90.9	90.8	6.7	6.7	11.5		8	<u> </u>	90				<0.2	1.7

Water Quality Monitoring Results on during Mid-Fbb Tide

Water Qua	lity Monit	toring Resi	ults on		25 April 20	during Mid-E	bb Tide	е																						
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept		Current Speed	Current	Water Ter	mperature (°C)	1	Н	Salin	ity (ppt)		aturation (%)	Disso Oxy		Turbidity(I	NTU)	Suspende (mg/			dkalinity om)	Coordinate HK Grid	Coordinate HK Grid	Chron (µg		Nickel (µ	ıg/L)
Station	Condition	Condition	Time	Depth (m)	Camping Dept	()	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value	DA V	Value I	DA
					Surface	1.0	0.3	76 76	22.4 22.4	22.4	8.1 8.1	8.1	27.2	27.2	87.4 87.5	87.5	6.5	-	9.3 9.5		10 10		86 87				<0.2		1.3	
IM9	Cloudy	Moderate	13:09	7.7	Middle	3.9 3.9	0.3 0.4	96 102	22.3 22.3	22.3	8.1 8.1	8.1	27.7 27.7	27.7	87.8 87.8	87.8	6.5 6.5	6.5	10.3 10.4	11.3	10 10	10	88 87	88	822075	808792	<0.2	<0.2	1.4	1.3
					Bottom	6.7	0.3	84 92	22.2	22.2	8.1	8.1	28.2	28.2	90.3	90.4	6.7	6.7	14.1		11		90	1			<0.2		1.3	
					Surface	1.0	0.7	130	22.4	22.4	8.1	8.1	27.3	27.4	87.4	87.3	6.5		5.7		10		86				<0.2		1.6	=
IM10	Cloudy	Moderate	13:16	7.8	Middle	1.0 3.9	0.8	140 121	22.4 22.3	22.3	8.1 8.1	8.1	27.4 28.1	28.1	87.2 86.7	86.7	6.5 6.4	6.5	5.5 12.4	10.2	9		86 88	88	822387	809810	<0.2	-0.2	1.7	1.6
IIWITO	Cioday	Woderate	13.10	7.0		3.9 6.8	0.5	127 122	22.3		8.1 8.1		28.1 28.2	28.2	86.7 86.8	86.9	6.4	6.4	12.1 12.8	10.2	9	,	87 90	- 00	022307	003010	<0.2		1.4	1.0
					Bottom	6.8 1.0	0.4	126 102	22.3 22.5	22.3	8.1 8.1	8.1	28.2 27.3		86.9 87.7		6.4	6.4	12.8 6.3		10 10		90 86				<0.2		1.6	_
					Surface	1.0	0.9	103	22.5	22.5	8.1	8.1	27.4	27.4	87.7	87.7	6.5	6.5	6.4	ļ	11		86	1			<0.2		1.2	
IM11	Cloudy	Moderate	13:27	8.3	Middle	4.2 4.2	0.9	104 104	22.4 22.4	22.4	8.1 8.1	8.1	27.7 27.8	27.8	87.3 87.3	87.3	6.5 6.5		6.8 6.8	7.4	9	9	88 89	88	822066	811437	<0.2	<0.2	1.2	1.2
					Bottom	7.3 7.3	0.6	94 96	22.4 22.4	22.4	8.1	8.1	28.5 28.4	28.5	88.9 89.2	89.1	6.6	6.6	9.2 8.8	-	8		90 91	1			<0.2		1.0	
					Surface	1.0	0.6	92 100	22.4 22.4	22.4	8.1 8.1	8.1	27.9 27.9	27.9	86.3 86.4	86.4	6.4		12.4 12.7	-	12 11		86 86				<0.2		0.9 1.0	
IM12	Cloudy	Moderate	13:32	9.5	Middle	4.8 4.8	0.5 0.6	99 104	22.4 22.4	22.4	8.1 8.1	8.1	28.0 28.1	28.0	87.4 87.9	87.7	6.5	6.5	15.1 15.4	15.4	11 11	11	88 87	88	821460	812058	<0.2	-0.2	1.0	1.0
					Bottom	8.5	0.5	100	22.3	22.3	8.1	8.1	28.3	28.3	89.8	90.0	6.6	6.7	18.5	ļ	10		91	1			< 0.2		1.0	
					Surface	8.5 1.0	0.5	102	22.3 22.5	22.5	8.1	8.1	28.3 26.6	26.6	90.1 88.7	88.9	6.7		18.1 7.3		11 11		91			1	<0.2		1.1	-
SR1A	Cloudy	Moderate	13:50	5.2	Middle	1.0 2.6	-		22.5	EE.0	8.1	0.1	26.6	20.0	89.0	00.0	6.6	6.6	7.5	7.8	- 11	12	-	1	819976	812662	-	⊢	-	
SKIA	Cloudy	Moderate	13.50	5.2		2.6 4.2	-	- :	22.4		8.1		26.8	-	91.0	-	6.8	[- 8.1	′.°	- 12	12	-	-	019976	012002		F	-	
					Bottom	4.2	-	-	22.3	22.4	8.1	8.1	26.8	26.8	91.4	91.2	6.8	6.8	8.2		12		-				-		=	
					Surface	1.0	0.5 0.5	85 86	22.5 22.5	22.5	8.1 8.1	8.1	27.1 27.1	27.1	89.8 90.1	90.0	6.7	6.7	9.1 9.3		9		86 88	1			<0.2		1.1	
SR2	Rainy	Moderate	14:01	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.5	-	8	-	89	821464	814172	-	<0.2	- '	1.1
					Bottom	3.5 3.5	0.3	85 93	22.2	22.2	8.1	8.1	27.4	27.4	92.0 92.6	92.3	6.8	6.9	11.7 11.8		7		90 91				<0.2		1.0	
					Surface	1.0	0.1 0.1	169 177	22.5 22.5	22.5	8.1 8.1	8.1	26.4 26.5	26.5	88.4 88.5	88.5	6.6	ŀ	8.1 8.4		7						-	Ŧ	=	
SR3	Rainy	Moderate	12:56	9.1	Middle	4.6	0.1	200	22.3	22.3	8.1	8.1	27.7	27.8	89.9 90.1	90.0	6.7	6.7	11.2	10.7	6	7	÷		822148	807558	-	.	=	-
					Bottom	4.6 8.1	0.1 0.1	218 72	22.3 22.2	22.3	8.1 8.1	8.1	28.4	28.4	91.1	91.2	6.7	6.7	11.4 12.6		7						-	E		
					Surface	8.1 1.0	0.1	74 247	22.3 22.3	22.3	8.1 7.5	7.5	28.4	29.1	91.3 88.2	88.2	6.7		12.5 10.4		10		-				-	一	+	-
						1.0 4.6	0.0	248 89	22.3 22.2		7.5 7.5		29.1 30.2		88.2 89.5		6.5 6.5	6.5	10.5 15.0		9 10		-	1			-	F	-	
SR4A	Cloudy	Calm	14:12	9.2	Middle	4.6 8.2	0.0	92 27	22.2 22.2	22.2	7.5 7.5	7.5	30.2 30.3	30.2	89.5 89.1	89.5	6.5 6.5		15.0 16.0	13.8	9	9	-	-	817200	807831	-	·	-	-
					Bottom	8.2	0.0	28	22.2	22.2	7.5	7.5	30.3	30.3	89.1	89.1	6.5	6.5	16.1		7			<u> </u>					⇉	
					Surface	1.0	0.1	321 340	22.4 22.4	22.4	7.5 7.5	7.5	27.7	27.7	86.6 86.5	86.6	6.4	6.4	9.3		7 8		÷				-	E	-	
SR5A	Cloudy	Calm	14:31	3.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	-	9	-	-	816592	810706	-		-	-
					Bottom	2.4	0.1 0.1	335 351	22.2	22.2	7.5 7.5	7.5	28.2	28.2	86.9 87.0	87.0	6.4	6.4	13.5 13.6		9 10		-	1			-	F	-	
					Surface	1.0 1.0	0.0	268 276	22.6 22.6	22.6	7.5 7.5	7.5	26.7 26.7	26.7	86.8 86.8	86.8	6.4	-	15.4 15.6		14 15		-					Ŧ	Ħ	
SR6A	Cloudy	Calm	15:03	3.9	Middle	-	-	-	-	-	-		-	-	-	-	-	6.4	-	16.9		15			817967	814728	-			-
	,				Bottom	2.9	0.1	275	22.6	22.6	7.5	7.5	26.8	26.8	88.2	88.2	6.5	6.5	18.2	E	- 15		÷	1			-	Ŀ	-	
					Surface	2.9 1.0	0.1	300 57	22.6 22.5	22.5	7.5 8.1	8.1	26.8 28.5	28.5	88.2 87.1	87.1	6.5 6.4	0.5	18.3 3.8		14 8		-			1	-	\dashv	-	_
						1.0 8.2	0.7	60 30	22.5 22.4		8.1 8.1		28.6 29.1		87.0 86.8		6.4	6.4	3.8 4.0		8		-	1			-	F	-	
SR7	Rainy	Moderate	14:51	16.4	Middle	8.2 15.4	0.3	31 18	22.4	22.4	8.1	8.1	29.1	29.1	86.9 88.5	86.9	6.4		4.1	4.0	8	8	-	1 -	823617	823754	-	- -	=	-
					Bottom	15.4	0.3	18	22.4	22.4	8.1	8.1	29.3	29.3	88.9	88.7	6.5	6.5	4.2		7		-						⇉	
					Surface	1.0	-	-	22.5 22.5	22.5	8.1 8.1	8.1	26.9 26.9	26.9	87.3 87.5	87.4	6.5	6.5	12.4 12.3	ŀ	16 14			1			-	E	-	
SR8	Cloudy	Moderate	13:40	5.6	Middle	-	-	-	-	-	-	-	-	-		-	-	0.5	-	12.4	-	15	-	-	820423	811704	-		-	-
					Bottom	4.6 4.6	-	-	22.5 22.5	22.5	8.1 8.1	8.1	26.9 26.9	26.9	89.0 89.2	89.1	6.6	6.6	12.3 12.5	F	15 14		-	1			-	F	=	
						7.0	-		22.0		0.1		20.3		00.2		0.0		14.0		17		-		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: Due to safety concern, the monitoring at SR8 was shifted to the closest safe and accessible location as a precautionary measure.

Water Quality Monitoring
Water Quality Monitoring Results on

Water Qua	lity Monit	toring Res	ults on		25 April 20	during Mid-	Flood T	ide																				
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)		pН	Salir	ity (ppt)	DO S	aturation (%)	Disso Oxyg		Turbidity(NTU)	Suspende (mg		Total All (ppr		Coordinate HK Grid	Coordinate HK Grid	Chromium (µg/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	ui (iii)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value DA	Value DA
					Surface	1.0	0.5 0.6	44 44	22.0	22.0	7.6 7.6	7.6	28.0 28.0	28.0	90.2	90.2	6.7		7.8 7.8		10 8		86 87				<0.2	1.2
C1	Cloudy	Moderate	08:14	8.2	Middle	4.1	0.5	39 39	22.2	22.2	7.7	7.7	30.3	30.3	90.8	90.8	6.6	6.7	10.8 10.5	10.7	8	9	89 90	89	815610	804238	<0.2	1.1
					Bottom	7.2	0.6	34	22.2	22.2	7.7	7.7	31.0	31.0	90.1	90.1	6.6	6.6	13.7		8		91	,			<0.2	1.1
					Surface	7.2 1.0	0.7	36 28	22.2	22.5	7.7 8.1	8.1	31.0 25.4	25.5	90.0 88.4	88.4	6.6		13.4 5.9		7		92 86				<0.2	1.2
-00	011		00.00	40.0		1.0 6.1	0.5	28 8	22.5 22.5		8.1 8.1		25.5 25.9		88.4 88.7		6.6	6.6	5.9 8.3	40.4	7		86 89		005050		<0.2	1.4
C2	Cloudy	Moderate	08:39	12.2	Middle	6.1 11.2	0.6 0.5	8 4	22.5 22.5	22.5	8.1 8.1	8.1	26.0 26.4	25.9	88.8 92.1	88.8	6.6 6.9		9.1 16.0	10.1	7	/	88 90	88	825658	806960	<0.2 <0.2	2 1.5 1.4
					Bottom	11.2	0.5	4 279	22.5	22.5	8.1	8.1	26.4	26.4	92.5	92.3	6.9	6.9	15.3 5.0		8		90				<0.2	1.4
					Surface	1.0	0.5	294	22.4	22.4	8.1	8.1	27.2	27.1	86.8 86.7	86.8	6.4	6.4	5.0	l	9		88				<0.2	1.1
C3	Cloudy	Moderate	06:36	12.0	Middle	6.0	0.5 0.6	267 277	22.4 22.4	22.4	8.1 8.1	8.1	27.7	27.7	86.8 86.8	86.8	6.4	-	6.9 7.8	8.4	7	8	88 89	89	822124	817824	<0.2	1.0
					Bottom	11.0 11.0	0.4	266 278	22.3 22.3	22.3	8.1	8.1	29.5 29.5	29.5	87.2 87.4	87.3	6.4	6.4	13.0 12.6	-	7		91				<0.2	1.0
					Surface	1.0	0.2	16 16	22.2	22.2	7.7	7.7	28.2	28.2	85.5 85.5	85.5	6.3		14.0 14.1		14 13		87 87				<0.2	1.1
IM1	Cloudy	Moderate	08:32	5.3	Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.3	-	14.9	-	13	-	89	817928	807135	- <0.2	-
					Bottom	4.3 4.3	0.1	27 28	22.3	22.3	7.7	7.7	28.4	28.4	85.8 85.9	85.9	6.3	6.3	15.7 15.8	ļ	11		90				<0.2	0.9
					Surface	1.0	0.5	3	21.9	21.9	7.6 7.6	7.6	28.0	28.0	90.2	90.2	6.7		5.0		10		86				<0.2	0.9
IM2	Cloudy	Moderate	08:40	7.6	Middle	3.8	0.5 0.4	3	22.2	22.2	7.6	7.6	28.9	28.9	89.6	89.7	6.6	6.7	12.1	11.1	9	10	85 88	88	818170	806157	<0.2	0.9 0.9 0.9
					Bottom	3.8 6.6	0.4	2 355	22.2 22.2	22.2	7.6 7.6	7.6	28.9 29.1	29.1	89.7 90.0	90.0	6.6	6.6	12.2 16.1	ŀ	10 10		88 90				<0.2	0.9
					Surface	6.6 1.0	0.4	327 343	22.2 22.1	22.1	7.6 7.6	7.6	29.1 28.6	28.6	90.0 89.8	89.8	6.6	-	15.8 7.3		9		90 85				<0.2	0.9
11.40	011		00.47	7.0		1.0 3.9	0.4	356 336	22.1		7.6 7.6		28.6 29.2		89.8 89.3		6.6	6.6	7.3 9.6	40.0	10 9	40	85 89		040707	005570	<0.2	0.9
IM3	Cloudy	Moderate	08:47	7.8	Middle	3.9 6.8	0.4	355 336	22.3 22.3	22.3	7.6 7.6	7.6	29.2 29.2	29.2	89.3 89.8	89.3	6.6		9.6 13.9	10.2	10 10	10	89 89	88	818787	805576	<0.2 <0.2 <0.2	2 0.8 0.9
					Bottom	6.8	0.4	355 351	22.3	22.3	7.6 7.5	7.6	29.2	29.2	89.7 90.1	89.8	6.6	6.6	13.7		9		90 85				<0.2	0.9
					Surface	1.0	0.7	352 345	22.2	22.2	7.5	7.5	29.0	29.0	90.2	90.2	6.6	6.6	16.1		14		85 89				<0.2	0.8
IM4	Cloudy	Moderate	08:56	8.5	Middle	4.3	0.8	359	22.3	22.3	7.5	7.5	29.4	29.4	89.2	89.2	6.5		16.0	16.5	10	11	88	88	819743	804623	<0.2	0.9 0.8
					Bottom	7.5 7.5	0.6 0.7	345 317	22.3 22.3	22.3	7.5 7.5	7.5	29.4 29.4	29.4	89.5 89.5	89.5	6.6	6.6	17.2 17.2		10 12		89 90				<0.2	0.8
					Surface	1.0	0.9 1.0	13 13	22.2	22.2	7.5 7.5	7.5	28.9	28.9	89.0 89.0	89.0	6.6	6.6	12.2 12.2	ŀ	12 12		85 85				<0.2	0.8
IM5	Cloudy	Moderate	09:02	8.0	Middle	4.0	0.9 1.0	14 15	22.2	22.2	7.5 7.5	7.5	28.9 28.9	28.9	89.3 89.2	89.3	6.6	0.0	14.8 14.8	13.9	14 15	14	89 89	88	820735	804861	<0.2	2 0.8 0.8
					Bottom	7.0 7.0	0.9	17 17	22.2 22.2	22.2	7.5 7.5	7.5	28.9 28.9	28.9	89.5 89.4	89.5	6.6	6.6	14.5 14.6		15 16		90				<0.2	0.8
					Surface	1.0	0.1 0.1	294 309	22.4 22.4	22.4	7.4	7.4	25.7 25.7	25.7	87.7 87.7	87.7	6.6 6.6		6.4 6.5		18 19		84 85				<0.2 <0.2	0.7
IM6	Cloudy	Moderate	09:11	7.9	Middle	4.0	0.1	63	22.3	22.3	7.4	7.4	26.9	26.9	87.2 87.2	87.2	6.5	6.6	8.2 8.3	9.0	17	17	89 90	88	821058	805823	<0.2	0.8
					Bottom	6.9 6.9	0.3	59 60	22.2	22.2	7.4	7.4	27.8 27.8	27.8	87.5 87.4	87.5	6.5	6.5	12.3 12.1	ļ	17 16		90	.			<0.2	0.8
					Surface	1.0	0.1	279	22.4	22.4	7.4	7.4	25.3	25.3	87.9	87.9	6.6		5.8		7		85	=			<0.2	1.2
IM7	Cloudy	Moderate	09:20	9.1	Middle	1.0 4.6	0.1 0.1	282 161	22.4 22.4	22.4	7.4	7.4	25.3 26.2	26.2	87.8 87.3	87.3	6.6 6.5	6.6	5.9 9.8	9.9	8	. 8	85 89	88	821362	806839	<0.2	1.2
	Jioday	·NOGOTORS	00.20	J	Bottom	4.6 8.1	0.1	172 122	22.4 22.2	22.2	7.4 7.4	7.4	26.2 28.1	28.1	87.3 86.5	86.5	6.5 6.4	6.4	9.8 14.0	5.0	8		89 90		321002		<0.2	1.2
						8.1 1.0	0.2	123 93	22.2		7.4 8.1		28.1 25.9		86.5 89.5		6.4	0.4	13.8 8.4		8		91 86	_			<0.2	1.2
					Surface	1.0	0.1	93 85	22.3	22.3	8.1	8.1	26.0	25.9	89.6 90.6	89.6	6.7	6.8	8.7	ļ	8		87 88				<0.2	1.1
IM8	Cloudy	Moderate	08:12	8.1	Middle	4.1 4.1 7.1	0.1 0.1	90	22.3	22.3	8.1 8.1	8.1	26.0 26.0	26.0	90.9	90.8	6.8		10.0	9.8	8	8	87 90	88	821815	808125	<0.2	2 1.1 1.1
DA: Denth-Ave					Bottom	7.1	0.1	95 95	22.2	22.2	8.1	8.1	26.1	26.1	92.0	92.2	6.9	6.9	10.9		8		90				<0.2	1.1

Water Quality Monitoring
Water Quality Monitoring Results on

Water Qua	lity Monit	oring Resu	ults on		25 April 20	during Mid-	Flood T	ide																						
Monitoring	Weather	Sea	Sampling	Water	Sampling Dept	h (m)	Current Speed	Current	Water Ter	mperature (°C)		рН	Salin	ity (ppt)		aturation %)	Dissolv Oxyge		urbidity(N	TU) Si	pended (mg/L	Solids	Total A (pp		Coordinate HK Grid	Coordinate HK Grid	Chron (µg/		Nickel (µ	Jg/L)
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average		Average		Average	Value	Average				DA \	alue	DA	Value	DA	(Northing)	(Easting)	Value	DA		DA
					Surface	1.0	0.3	237 242	22.4 22.4	22.4	8.1	8.1	26.2	26.2	87.1 87.1	87.1	6.5		13.4 13.4		9		86 85				<0.2	-	1.4	
IM9	Cloudy	Moderate	08:07	7.7	Middle	3.9 3.9	0.2	244 266	22.4 22.4	22.4	8.1 8.1	8.1	26.2	26.2	87.2 87.2	87.2	6.5	6.5	12.1	14.2	9	9	87 88	88	822102	808791	<0.2		1.4	1.3
					Bottom	6.7	0.1	221	22.4	22.4	8.1	8.1	26.2	26.2	88.2	88.3	6.6	66	16.9		9	Į	90				<0.2		1.3	
					Surface	6.7 1.0	0.1	224 314	22.4	22.2	8.1 8.1	8.1	26.2 26.2	26.2	88.4 88.6	88.6	6.6		17.1 6.8		9		90 86				<0.2		1.3	-
						1.0 4.2	0.9	331 318	22.2 22.3		8.1 8.1		26.2 26.4		88.6 88.4		6.6		6.7 12.6		14 10		86 87				<0.2		1.7	
IM10	Cloudy	Moderate	07:58	8.3	Middle	4.2	0.7	331	22.3	22.3	8.1	8.1	26.4	26.4	88.5	88.5	6.6		12.4	1.6	10	11	88	88	822403	809806	<0.2	₹0.2	1.4	1.5
					Bottom	7.3 7.3	0.6	325 331	22.3 22.3	22.3	8.1 8.1	8.1	26.4 26.4	26.4	90.5	90.8	6.8	6.8	15.5 15.9		10 10		90 90				<0.2		1.4	
					Surface	1.0	0.7	293 297	22.4 22.4	22.4	8.1 8.1	8.1	26.5 26.5	26.5	88.4 88.4	88.4	6.6		11.7 12.7	-	11	-	86 86	ł			<0.2	-	1.2	
IM11	Cloudy	Moderate	07:30	8.1	Middle	4.1 4.1	0.6 0.6	296 309	22.4 22.4	22.4	8.1 8.1	8.1	26.5 26.5	26.5	88.7 88.9	88.8	6.6 6.6	0.6	14.4	14.4	9	10	88 87	88	822064	811461	<0.2	ا م م	1.2	1.2
					Bottom	7.1	0.5	303	22.4	22.4	8.1	8.1	26.6	26.6	90.8	91.2	6.8	60	16.9		10	Į	90				<0.2	Г	1.2	
					Surface	7.1 1.0	0.5 0.6	310 275	22.4 22.2	22.2	8.1 8.1	8.1	26.6 26.3	26.3	91.5 87.8	87.8	6.8		16.5 5.5		9		91 86				<0.2		1.2	-
						1.0 4.6	0.6	298 274	22.2 22.3		8.1 8.1		26.4 26.7		87.7 87.2		6.6		5.5 5.5		12		87 88				<0.2		1.1	
IM12	Cloudy	Moderate	07:24	9.2	Middle	4.6 8.2	0.7 0.5	277 275	22.3 22.4	22.3	8.1 8.1	8.1	26.7 27.1	26.7	87.2 87.8	87.2	6.5 6.5		5.5 10.6	7.2	10 9	10	87 90	88	821470	812060	<0.2	<0.2	1.1	1.1
					Bottom	8.2	0.5	296	22.4	22.4	8.1	8.1	27.1	27.1	88.0	87.9	6.5	6.5	10.3		8		91				<0.2		1.0	
					Surface	1.0	-	-	22.3 22.3	22.3	8.1 8.1	8.1	26.1	26.1	88.5 88.9	88.7	6.6		4.7		9	ŀ	-	1			-	H	-	
SR1A	Cloudy	Moderate	07:06	5.1	Middle	2.6 2.6	-	-	-	-		-	-	-	-	-	-	6.7	-	4.9	-	8	-	-	819982	812657	-		-	-
					Bottom	4.1	-	-	22.3 22.3	22.3	8.1	8.1	26.1 26.1	26.1	90.7 91.0	90.9	6.8		5.0		8	ļ		1			-	F	-	
					Surface	1.0	0.0	103	22.4	22.4	8.1	8.1	27.0	27.0	87.3	87.4	6.5		9.4		14		86				<0.2		1.1	
SR2	Cloudy	Moderate	06:54	5.2	Middle	1.0	0.0	106	22.4		8.1		27.0		87.5		6.5	6.5	9.7	10.1	13	14	87	- 88	821476	814177	<0.2	<0.2	1.1	
SK2	Cloudy	woderate	06.54	5.2		4.2	0.1	- 8	22.4		8.1		27.1	-	- 89.1		6.6		10.6	10.1	- 14	14	90	- 00	621476	014177	<0.2	L	1.0	''
					Bottom	4.2	0.1	8	22.4	22.4	8.1	8.1	27.1	27.1	89.3	89.2	6.6	6.6	10.7		14		90				<0.2		1.0	_
					Surface	1.0	0.1	56 57	22.4 22.4	22.4	8.1	8.1	24.9 25.0	25.0	88.8 88.8	88.8	6.7	6 7 C	5.0		6						-	Ŀ		
SR3	Cloudy	Moderate	08:19	9.2	Middle	4.6 4.6	0.0	6	22.4 22.4	22.4	8.1 8.1	8.1	25.7 25.7	25.7	89.2 89.3	89.3	6.7		8.5 8.7	8.3	7	8	-	-	822158	807562	-		-	-
					Bottom	8.2 8.2	0.0	57 61	22.4 22.4	22.4	8.1 8.1	8.1	25.8 25.8	25.8	91.9 92.1	92.0	6.9 6.9		11.1 11.3		9	Ī	-	1			-	F	-	
					Surface	1.0	0.1	228	22.2	22.2	7.6	7.6	27.6	27.6	84.7	84.8	6.3		10.5		11						-	_		7
SR4A	Cloudy	Calm	07:51	9.0	Middle	1.0 4.5	0.1	234 228	22.2 22.2	22.2	7.6 7.6	7.6	27.6 27.6	27.6	84.8 84.5	84.6	6.3	0.3	10.7		10 12	12	÷		817196	807832	-		-	
OK4A	Cloudy	Cairi	07.51	3.0		4.5 8.0	0.0	231 30	22.2 22.1		7.6 7.6		27.6 27.6		84.6 85.1		6.3		10.3 9.9	-	12	'-	-		017130	007032	-		-	
					Bottom	8.0 1.0	0.0	32 298	22.1 22.3	22.1	7.6 7.6	7.6	27.6 27.1	27.6	85.3 84.9	85.2	6.3	6.3	10.3 8.2		12 10		-				-			_
					Surface	1.0	0.1	309	22.3	22.3	7.6	7.6	27.1	27.1	85.1	85.0	6.3		8.2		12	Į	÷				-	t		
SR5A	Rainy	Calm	07:34	3.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	-	10	÷	-	816616	810685	-		-	-
					Bottom	2.5 2.5	0.1	298 311	22.3	22.3	7.7	7.7	27.1	27.1	87.2 87.3	87.3	6.5		8.7 8.7		9						-	F	-	
					Surface	1.0	0.1	246 270	22.4 22.4	22.4	7.6	7.6	26.7 26.8	26.7	88.7 88.8	88.8	6.6		4.2		6 5						-	丁	彐	
SR6A	Rainy	Calm	07:08	4.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.6	-	4.6	-	6	÷		817982	814742	-			.
					Bottom	3.1	0.1	246	22.3	22.3	7.7	7.7	27.3	27.3	93.8	94.0	7.0	7.0	5.0	-	7		-	ł			-	F	-	
						3.1 1.0	0.1	257 215	22.3 22.3		7.7 8.0		27.3		94.1 87.7		7.0 6.5		5.0 3.8		8		-				-	 -	-	_
					Surface	1.0	0.2	220	22.3	22.3	8.0	8.0	27.2	27.2	87.5	87.6	6.5	65	3.7		8	ļ	-	1			-	ļ		
SR7	Cloudy	Moderate	06:08	16.8	Middle	8.4 8.4	0.2	183 198	22.3 22.3	22.3	8.0	8.0	28.8 28.9	28.9	86.9 86.9	86.9	6.4		3.5	3.5	7	8	÷	-	823657	823727	-	- [-	-
					Bottom	15.8 15.8	0.1	250 270	22.3 22.3	22.3	8.0	8.0	29.5 29.4	29.4	87.6 87.7	87.7	6.4		3.1		8	}	-	L			-	_ }	-	
					Surface	1.0 1.0	-		22.4 22.4	22.4	8.1 8.1	8.1	26.0 26.0	26.0	88.5 88.6	88.6	6.6 6.6		11.9 12.3	F	9		-					Ŧ		
SR8	Cloudy	Moderate	07:16	5.2	Middle	-	-	-	-	-	-		-	-	-		-	6.6	_	14.0	-	10			820393	811643	-	.		-
					Bottom	4.2	-	-	22.3	22.3	8.1	8.1	26.1	26.1	90.1	90.2	6.7		15.9		10	ŀ					-	Ŀ	-	
DA: Denth-Aver	<u> </u>				DOMONI	4.2	-	-	22.3	22.0	8.1	0.1	26.1	20.1	90.3	30.2	6.8	0.0	16.1		10		-				L -]			

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 28 April 20 during Material Monitoring Results on 28 April 20 during Material Monitoring

during Mid-Fbb Tide

Water Qua	lity Monit	toring Res	ults on		28 April 20	during Mid-	Ebb Tid	e																			
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	ath (m)	Current Speed	Current	Water Te	emperature (°C)		рH	Salir	ity (ppt)	DO S	aturation (%)	Dissolve Oxyger		dity(NTU		led Solids g/L)	Total Alk (ppn		Coordinate HK Grid	Coordinate HK Grid	Chromium (µg/L)	Nickel (µg/L)
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	our (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value [DA Val	e DA	Value	DA	Value	DA	(Northing)	(Easting)	Value DA	Value DA
					Surface	1.0	0.4	224 237	23.8	23.8	8.1 8.1	8.1	27.9	27.9	100.4	100.4	7.2 7.2	4.		8	1	86 86				<0.2 <0.2	1.0
C1	Fine	Moderate	15:36	8.2	Middle	4.1	0.4	200	23.2	23.2	8.1	8.1	29.5	29.5	96.4	96.3	7.0	6.1		. 11	10	89	89	815604	804229	<0.2	1.0
					Bottom	4.1 7.2	0.4	205 196	23.2	22.7	8.1 8.1	8.1	29.5 31.0	31.0	96.2 93.1	93.1	6.9	6.7		10 11	+	89 91				<0.2	1.1
						7.2	0.3	206 205	22.7		8.1 8.0		31.0 24.2		93.1 95.3		6.7 7.0	14		10	<u> </u>	91 85				<0.2	1.1
					Surface	1.0	0.2	219	23.8	23.8	8.0	8.0	24.2	24.2	95.2	95.3	7.0	6.7		10	1	86				<0.2	1.4
C2	Fine	Moderate	14:30	12.7	Middle	6.4 6.4	0.5 0.5	160 164	22.9 22.9	22.9	8.1 8.1	8.1	26.2 26.2	26.2	85.4 85.1	65.5	6.3	10	9 10.	9	10	88 89	88	825696	806924	<0.2 <0.2	1.3
					Bottom	11.7 11.7	0.4	149 151	22.7	22.7	8.1 8.1	8.1	28.8	28.8	85.1 85.8		6.2 6.3	6.3 15		10 9	+	90				<0.2	1.4
					Surface	1.0	0.2	136 138	23.4 23.4	23.4	7.9 7.9	7.9	27.1 27.1	27.1	91.3 91.2		6.7	5.		10 10		86 86				<0.2	1.3
СЗ	Fine	Moderate	16:25	11.8	Middle	5.9	0.3	120	23.2	23.2	7.9	7.9	27.6	27.7	89.8	80.8	6.5	6.		9	10	89	88	822121	817783	<0.2	1.2
					Bottom	5.9 10.8	0.3	129 24	23.2 22.7	22.7	7.9 7.9	7.9	27.8 29.6	29.6	89.8 85.6	0E 7	6.5 6.2	6.2		10 9	1	88 90				<0.2	1.2
						10.8	0.3	24 159	22.7		7.9 8.1		29.6		85.8 93.6		6.2	9. 6.		9		90 87				<0.2	1.3
					Surface	1.0	0.1	165	24.2	24.2	8.1	8.1	27.1	27.1	93.5		C 7	6.7		8	1	87				<0.2	1.1
IM1	Fine	Moderate	15:16	5.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-	8	-	88	817928	807112	- <0.2	-
					Bottom	4.1	0.2	156 167	23.0 23.0	23.0	8.0	8.0	29.2	29.2	89.6 89.7	89.7	6.5 6.5	6.5	7	7		89 89				<0.2	1.1
					Surface	1.0	0.2	186 203	23.5	23.5	8.1 8.1	8.1	27.4	27.4	95.3 95.3		6.9	4.		7 8		86 86				<0.2	1.1
IM2	Fine	Moderate	15:09	7.3	Middle	3.7 3.7	0.1	152 159	23.1	23.0	8.1 8.1	8.1	29.3 29.3	29.3	93.7 93.6	02.7	6.8	6.9 5. 5.		7	7	88 88	88	818167	806177	<0.2 <0.2	2 1.1 1.2
					Bottom	6.3	0.2	116	22.8	22.8	8.1	8.1	30.4	30.4	90.7	00.7	6.6	9.		7	1	89				<0.2	1.2
					Surface	6.3 1.0	0.2	120 134	22.8	23.2	8.1 8.1	8.0	30.4 28.4	28.4	90.7	04.0	6.6	9. 5.		6 9	1	90 85				<0.2 <0.2	1.2
	_					1.0 3.8	0.2	134 145	23.2		8.0		28.4 29.3		91.8 89.4		6.7 6.5	6.6		9	1	85 89				<0.2	1.2
IM3	Fine	Moderate	15:03	7.6	Middle	3.8 6.6	0.3	157 120	22.9 22.8	22.9	8.0	8.0	29.3 30.4	29.3	89.6 90.2	69.5	6.5	8.		10 11	10	88 90	88	818775	805578	<0.2 <0.2 <0.2	2 1.2 1.1 1.1
					Bottom	6.6	0.2	125	22.8	22.8	8.0	8.0	30.4	30.4	90.2	90.2	6.5	8.5		10		90				<0.2	1.1
					Surface	1.0	0.5 0.5	189 194	23.4 23.3	23.3	8.0	8.0	27.9 27.9	27.9	91.5 91.5	91.5	6.6 6.6	6.6	i	9 8	1	85 85				<0.2 <0.2	1.3
IM4	Fine	Moderate	14:54	8.6	Middle	4.3	0.4	176 178	23.1	23.1	8.0	8.0	28.6 28.6	28.6	90.3	90.3	6.6	8.		12	11	88	88	819704	804621	<0.2	2 1.1 1.1
					Bottom	7.6 7.6	0.3	144 149	22.8 22.8	22.8	8.0	8.0	30.4	30.4	89.6 89.5	89.6	C E	6.5 9.		11 12	1	90 89				<0.2 <0.2	1.0
					Surface	1.0	0.4	219	23.3	23.3	8.1	8.1	27.6	27.6	94.1		6.9	6.		7		85				<0.2	1.4
IM5	Fine	Moderate	14:46	8.0	Middle	1.0 4.0	0.4	227 188	23.3 23.2	23.2	8.1 8.1	8.1	27.6 28.9	28.9	94.2 92.6	92.6	6.9 6.7	6.8		8	9	85 88	87	820749	804887	<0.2	1.5 1.4 1.4
livio	rine	Moderate	14.40	8.0		4.0 7.0	0.4	192 179	23.2		8.1 8.1		28.9 30.1		92.5 90.5		6.7 6.6	6.		10	_ "	87 89	01	820749	004007	<0.2	1.4
					Bottom	7.0	0.4	194 255	22.8	22.8	8.1	8.1	30.1	30.1	90.5	90.5	6.5	6.6 9.		10	1	89 85				<0.2	1.4
					Surface	1.0	0.3	268	23.5	23.5	8.0	8.0	26.1	26.1	92.1		6.7	6.7		6	1	85				<0.2	1.4
IM6	Fine	Moderate	14:39	7.7	Middle	3.9	0.3	209 222	23.0	23.0	8.1 8.1	8.1	28.6	28.6	91.6 91.6		6.7	8.		6	7	87 87	87	821080	805837	<0.2	1.6
					Bottom	6.7 6.7	0.3	186 197	22.9 22.9	22.9	8.1 8.1	8.1	29.5 29.5	29.5	89.9 89.8	89.9	6.5 6.5	6.5		8 7	7	89 88				<0.2 <0.2	1.4
					Surface	1.0	0.2	232	23.2	23.2	8.1	8.1	26.0	26.0	90.1		6.6	7.		7	1	86				<0.2	1.5
IM7	Fine	Moderate	14:28	9.1	Middle	1.0 4.6	0.2 0.1	247 170	23.2 23.3	23.3	8.1 8.1	8.1	26.0 27.4	27.4	90.1		6.6	6.6 7.	□ ₀₂	6	6	86 89	88	821369	806840	<0.2	1.5
		···odorato	23	0		4.6 8.1	0.1	170 129	23.3 22.9		8.1 8.1		27.4 28.8		90.0 88.3		6.6	9.		6	+ ~	88 90	55	JE 1000	5000.0	<0.2	1.5
					Bottom	8.1 1.0	0.2	141 195	22.9	22.9	8.1 8.1	8.1	28.8	28.8	88.4 95.1	00.4	7.0	6.4		6 8	1	90 84				<0.2 <0.2	1.5
					Surface	1.0	0.1	202	23.6	23.7	8.1	8.1	25.1	24.9	94.9		7.0	6.8		9	1	84				<0.2	1.3
IM8	Fine	Moderate	14:57	8.2	Middle	4.1 4.1	0.1 0.1	161 162	23.0 23.0	23.0	8.1 8.1	8.1	26.7 26.8	26.7	89.1 89.0	89.1	6.6	9.	9.2	8	8	88 89	87	821814	808133	<0.2	1.4
					Bottom	7.2 7.2	0.2	13 13	22.9 22.9	22.9	8.1 8.1	8.1	27.9 27.8	27.8	89.4 89.6	89.5	6.5 6.6	6.6		8	7	89 90				<0.2 <0.2	1.5
					ř.				,		, v.,		, 20.0		, 00.0								_				

Water Quality Monitoring
Water Quality Monitoring Results on

Nodersite 15:03 7.4 Surface 10 0 0 0 140 239	Water Qua	lity Monit	toring Res	ults on		28 April 20	during Mid-	-Ebb Tid	le																					
March Marc		Weather	Sea	Sampling	Water	Sampling D	epth (m)			Water Te	mperature (°C)		рН	Salin	ity (ppt)					Turbidity(NTU					Coordinate				Nickel ((µg/L)
Martin M	Station	Condition	Condition	Time	Depth (m)	Jamping 2		(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value DA	Value	DA	Value	DA	(Northing)		Value	DA	Value	DA
Month Mont						Surface					23.9		8.1		25.0		96.1				8							F		
Mail	IM9	Fine	Moderate	15:03	7.4	Middle	3.7	0.3	141	23.2	23.2	8.1	8.1	26.2	26.2	90.5	90.4	6.7	6.8	8.1	7	8	89	88	822076	808821	<0.2	-02	1.4	1.4
May May		1 110	Wodorato	10.00	***															8.3	- 8	1		- 00	022070	000021				
Ministry Ministry						Bottom	6.4	0.1	72	23.0	23.0	8.1	8.1	26.8	26.8	88.8	88.7	6.5	6.5	9.9	9		90				<0.2		1.4	
Males Male						Surface					23.8		8.3		25.3		96.7					+								
Mathematical Region Mathematical Region	IM10	Fine	Moderate	15:17	8.2	Middle	4.1	0.6	127	23.4	23.4	8.3	8.3	26.0	26.1	95.5	95.5	7.0	7.1	7.7	. 7	7	88	88	822406	809811	<0.2	-0.2	1.3	1.2
Main Main						Dattare					22.2		0.4		20.0		00.2					+						. F		
Martin Five Martin Mar						BOILOITI					23.2		0.4				90.3		0.0		7	<u> </u>								_
1						Surface	1.0	0.9	101	23.6	23.6	8.2	8.2	25.6	25.6	94.0	94.1	6.9	6.8	6.6			86	1			<0.2		1.3	
Proper column Proper colum	IM11	Fine	Moderate	15:27	8.1	Middle					23.3		8.2		26.0		91.9		0.0		1 -	7		88	822041	811450				1.3
Fig. Moderate Mo						Bottom	7.1	0.6	98	23.1	23.1	8.2	8.2	26.8	26.7	90.0	90.1	6.6	6.6	18.2	6		90				<0.2		1.3	
Model Mode																												\dashv		\dashv
Fig. Model						Surface	1.0	0.6	124	23.8	23.9	8.2	8.2	25.4	25.4	93.9	94.1	6.9	6.8	6.3		1	85	1			<0.2		1.2	
Section Sect	IM12	Fine	Moderate	15:34	8.9	Middle					23.4		8.2		26.1		90.1				5	7		88	821474	812048		<0.2		1.2
Second Fire Calm 15.51 Surface 1.0						Bottom					23.0		8.2		27.0		87.9		6.5									. F		
Section Fine Calm 155 5.0 Masks 1.5 1.						Surface	1.0	-	-	23.4	23.4	8.2	8.2	26.4	26.4	89.5	80.5	6.5		8.6	6		-				-	一	-	_
SRIA Fre Cam								-	-	23.4	20.4	8.2		26.4	20.4	89.4	00.0		6.5		6	-	-				-	}	-	
Serie Fine Moderate 1605 4.0 Serie Moderate 1605 Serie Moderat	SR1A	Fine	Calm	15:53	5.0	Middle	2.5		-	-	-		-	-	-	-	-	-		- 8.7	-	8		-	819980	812664	-		-	-
State Stat						Bottom			-		23.3		8.2		26.6		90.2		6.6				-					-		
SR2 Fine Moderate 16:00 4:0 Moderate 16:00 4:0 Moderate 14:51 9:2 Modera						Surface					23.5		8.2		26.3		95.4					İ								
Red Red	CDO	Fin a	Madassa	40.05	4.0	Middle	1.0	-	- 116	- 23.4		8.2		26.4		95.3		-	7.0				- 84	07	004440	04.4450	<0.2			1.2
Fire Moderate Mo	SR2	rine	woderate	16.05	4.0	ivildale		- 0.4		- 22.1		- 0.2		- 26.0		- 01.0	-	- 67		-	-	l °		01	021440	014100	- 0.2		-	1.2
SR3						Bottom	3.0		119		23.1		8.2	26.9	26.9		92.0		6.8	12.3										
Second Fine Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 14.51 9.2 Moderate 15.50 9.2						Surface					24.1		8.2		24.6		98.2					+	-				-		-	
Second S	SR3	Fine	Moderate	14:51	9.2	Middle	4.6	0.1	274	23.0	23.0	8.3	8.3	27.1	27.2	88.3	88.4	6.5	6.9	10.5	8	9	-		822129	807558	-	[-	
Second S																		6.6				ł	-				-		-	
SRAA Fine Calm 15.59 P.2 Middle 4.6 0.1 80 2.30 2.0 8.0 8.0 8.0 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 2.8 2.8 2.8 2.8 8.0 8.0 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8						Bottom		0.2		23.0	23.0	8.3	8.3	28.1	28.1	90.0	90.0	6.6	6.6	10.8		<u> </u>						[
SR6A Fine Calm 15:59 9.2 Middle 4.6 0.1 80 23.0 23.0 8.0 8.0 23.4 29.4 88.3 8.0 24.4 29.4 88.3 8.0 4.6 1.0 1						Surface	1.0	0.2	51	24.0	24.0		8.0		27.8		94.9	6.8	66	8.6	_	İ						. t		
Section Sect	SR4A	Fine	Calm	15:59	9.2	Middle					23.0		8.0		29.4		88.3		0.0			9	-	-	817178	807832	-		-	-
SR5A Fine Calm 16:16						Bottom	8.2	0.1	71	22.8	22.8	8.0	8.0	29.8	29.8	88.2	88.3	6.4	6.4	14.6	10		_				-	. [-	
SR5A Fine Calm 16:16 3.9 Middle 1.0 0.0 197 24.1 24.1 8.0 8.0 26.5 26.5 93.8 93.9 6.8 6.8 8.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0																							+				-	=	\rightarrow	=
RRA Fine Moderate 15:49						Бипасе	1.0	0.0	197	24.1	24.1	8.0	8.0		26.5	93.8	93.9	6.8	6.8	8.4]	-]			-	. [-	
SR6A Fine Hoderate Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Moderate Fine Fine Fine Moderate Fine Fine Fine Fine Moderate Fine Fine Fine Fine Fine Fine Fine Fin	SR5A	Fine	Calm	16:16	3.9	Middle					-	Ħ	-	Ė	-		-			-	-	10		-	816575	810705	-	ŀ	-	-
SR6A Fine Calm 16:46 4.4 Middle						Bottom					23.3		8.1		27.5	90.3	90.3	6.6	6.6			-	-					}	-	
SR6A Fine Calm 16.46						Surface	1.0	0.1	40	23.1	23.1	8.0	8.0	26.5	26.5	87.4	87.5	6.4		12.4	18							一	-	_
RR Fine Moderate In Section Moderate In Sectio		_					1.0		- 43	23.1	-	8.0		26.5		87.5		6.4	6.4				-	1			-		-	
SR7 Fine Moderate 16.57 15.9 Surface 1.0 0.7 75 23.4 23.4 23.4 23.4 7.9 7.9 27.3 27.3 44.4 6.5 4.4 4.4 6.5 7. 4.4 4.4 6.5 7. 4.4 4.4 6.5 7. 4.4 4.4 7.7 4.4 4.4 7.7 4.4 4.4 7.7 4.4 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.5 7.7 4.4 4.5 7.7 4.4 4.5 7.7 4.4 4.5 7.7 4.4 4.5 7.7 4.5 7.	SR6A	Fine	Calm	16:46	4.4	Middle	-		-	-	-	-	-	-	-	-	-	-		-	-	18		-	817939	814740	-	[-
SR7 Fine Moderate 16:57 15:9 Middle						Bottom					23.1		8.0		27.7		86.0		6.3			+	_						_	
SR7 Fine Moderate 16.57 15.9 Middle 8.0 0.3 29 22.9 8.0 8.0 8.0 29.0 29.0 88.1 89.1 65.6 6.7 4.6 4.6 4.5 7.6 6 82363 823719						Surface		0.7	72		23.4		7.9		27.3		94.2											F		
R80 03 31 22.9 8.0 29.1 89.1 65. 4.6 6 6 4.7 5 5	SR7	Fine	Moderate	16:57	15.9	Middle	8.0	0.3	29	22.9	22.9	8.0	8.0	29.0	29.0	89.1	89.1	6.5	6.7	4.6	7	1		1.	823633	823710	-	t	-	
SR8 Fine Moderate 15:43 5.1 Middle 23.4 23.4 23.4 8.2 8.2 8.2 8.2 8.6 90.2 90.1 90.4 6.6 6.6 9.7 7 7 820449 81745	GK/	1 116	woderate	10.57	13.3															4.6	6	"	-	^	023033	023/19	-	. [-
SR8 Fine Moderate 15:43 5.1 Middle						Bottom	14.9			22.9	22.9	8.0	8.0	29.2	29.2	90.4	90.4	6.6	6.6	4.7	6	<u> </u>					-			
SR8 Fine Moderate 15:43 5.1 Middle						Surface		-	-		23.9		8.2		26.2		90.5	0.0			_	+	-				-	, ⊦	-	
Bottom 4.1 - 23.4 23.4 8.2 8.2 26.6 26.6 90.2 90.1 6.6 6.6 9.7 7	SR8	Fine	Moderate	15:43	5.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.6	- g		8	-	1 .	820449	811745	-	🏻		-
BOULUTI 4.1 23.4 23.4 8.2 0.2 26.6 20.0 90.2 90.1 6.6 0.0 9.7 7							4.1		-		22.4		0.7	26.6	26.6		00.1	6.6	6.6	9.5	-	†		1			-	, F		
	DA: Denth-Aven	aned		<u> </u>		DOUGH	4.1	-	-	23.4	23.4	8.2	0.2	26.6	20.0	90.2	90.1	6.6	0.0	9.7	7	T	-			<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

Note: Due to salety concern, the monitoring at SRs was shifted to the closest sale and accessible location as a precautionary measure.

Expansion of Hong Kong International Airport into a Three-Runway System Water Quality Monitoring Water Quality Monitoring Results on 28 April 20 during M

during Mid-Flood Tide

Water Qual	ity Monit	oring Resi	uits on		28 April 20	during Mid-	-Flood I	iae																					
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	th (m)	Current Speed	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)	DOS	aturation (%)	Dissolv Oxyge		Turbidity(I	NTU)	Suspende (mg		Total Alka (ppm		Coordinate HK Grid	Coordinate HK Grid	Chromiu (µg/L)		el (μg/L)
Station	Condition	Condition	Time	Depth (m)		. ,	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	(Northing)	(Easting)	Value D	OA Valu	ie DA
					Surface	1.0	0.4	31 32	23.0 23.0	23.0	8.2 8.2	8.2	28.1	28.1	90.3	90.3	6.6	6.5	6.6 6.7		7		87 87				<0.2	1.2	
C1	Fine	Moderate	09:32	8.0	Middle	4.0	0.4	31 31	22.7 22.7	22.7	8.2 8.2	8.2	30.7	30.7	88.6 88.6	88.6	6.4	0.0	9.6 9.2	9.7	7	7	89 89	89	815604	804249	<0.2	0.2	1.2
					Bottom	7.0	0.5 0.6	34 36	22.6 22.6	22.6	8.3 8.3	8.3	31.6 31.6	31.6	87.5 87.5	87.5	6.3	6.3	12.9 13.0	-	7 8		91 92				<0.2 <0.2	1.1	
					Surface	1.0 1.0	0.4	353 325	23.6 23.6	23.6	8.1 8.1	8.1	23.1	23.1	93.3 93.1	93.2	6.9 6.9	6.6	4.8 4.8		6 5		85 85				<0.2	1.2	
C2	Fine	Moderate	10:40	12.9	Middle	6.5 6.5	0.4	333 306	22.9 22.9	22.9	8.1 8.1	8.1	26.3 26.3	26.3	84.4 84.3	84.4	6.2	0.0	6.8 6.1	6.6	5 6	6	88 89	88	825676	806965	<0.2	0.2 1.2	1.2
					Bottom	11.9 11.9	0.4	330 304	22.7	22.7	8.2 8.2	8.2	27.7 27.7	27.7	82.1 82.2	82.2	6.0	6.0	9.0		7		89 90				<0.2	1.2	
					Surface	1.0	0.4	247 253	22.9	22.9	7.8	7.8	25.2 25.2	25.2	90.7	90.7	6.7	6.5	4.8	Ŀ	6 5	ļ	88				<0.2	1.2	
C3	Fine	Moderate	08:42	12.8	Middle	6.4 6.4	0.6	260 272	22.6	22.6	7.8	7.8	29.4	29.4	84.3 84.4	84.4	6.2		4.7	6.7	6	6	89 89 90	89	822096	817804	<0.2	0.2	
					Bottom	11.8 11.8	0.5 0.5 0.2	269 273 17	22.6 22.6 23.1	22.6	7.8 7.9 8.2	7.8	30.4 30.4 27.4	30.4	84.9 85.0	85.0	6.2	6.2	10.9 10.1 13.2		6		90	_			<0.2 <0.2 <0.2	1.2 1.2	
					Surface	1.0	0.2	18	23.1	23.1	8.2	8.2	27.4	27.4	86.9 86.9	86.9	6.4	6.4	13.4	þ	5	†	87				<0.2	1.1	
IM1	Fine	Moderate	09:51	5.5	Middle	4.5	0.1	347	22.9	-	- 8.2	-	28.4	-	86.0	-	- 63		16.4	14.9	- 6	6	- 90	89	817955	807153	<0.2	0.2	1.1
					Bottom	4.5 1.0	0.1	319 353	22.9	22.9	8.2 8.1	8.2	28.4	28.4	86.0 90.0	86.0	6.3	6.3	16.4		6		89 85	_			<0.2	1.1	
					Surface	1.0	0.3	325 6	23.2	23.2	8.1	8.1	26.7	26.7	89.9 88.4	90.0	6.6	6.5	8.0	Ī	6	†	86 88				<0.2	1.2	
IM2	Fine	Moderate	09:59	7.6	Middle	3.8 6.6	0.4	6	22.8 22.8	22.8	8.1 8.1	8.1	29.3 29.5	29.3	88.3 88.1	88.4	6.4		13.8 17.5	13.0	5 5	6	88 90	88	818185	806167	<0.2	0.2	1.2
					Bottom	6.6 1.0	0.2	6 324	22.8 23.4	22.8	8.1 8.1	8.1	29.5 26.2	29.5	88.0 91.6	88.1 91.6	6.4	6.4	17.3 6.0		5 4	Ī	90 85	\dashv			<0.2 <0.2	1.2	
IM3	Fine	Moderate	10:06	7.8	Middle	1.0 3.9	0.5 0.5	348 345	23.4 23.0	23.4	8.1 8.1	8.1	26.2 27.4	27.4	91.5 88.9	88.9	6.7 6.5	6.6	6.1 9.8	9.8	6 5	5	85 88	88	818760	805592	<0.2 <0.2	0.2	1 1 2
IIVIO	1 1116	Woderate	10.00	7.0	Bottom	3.9 6.8	0.5 0.3	317 349	23.0 22.8	22.8	8.1 8.0	8.0	27.4 29.7	29.7	88.9 88.2	88.3	6.5 6.4	6.4	10.1 13.6	3.0	5	1	88 90	00	010700	003032	<0.2	1.2	
					Surface	6.8 1.0	0.3	321 337	22.8	23.1	8.0 8.1	8.1	29.7 26.2	26.2	88.3 91.2	91.1	6.7	0	13.3 6.8	_	5 6		89 85	\dashv			<0.2	1.2	!
IM4	Fine	Moderate	10:19	8.7	Middle	1.0 4.4	0.7	346 2	23.1	22.9	8.1	8.1	26.2	28.0	91.0 88.8	88.7	6.5	6.6	6.8 10.3	10.5	8	8	85 88	88	819739	804593	<0.2	0.2	13
					Bottom	7.7 7.7	0.7 0.6 0.6	2 358 329	22.9 22.6 22.6	22.6	8.1 8.1	8.1	28.0 29.8 29.8	29.8	88.6 86.9 86.9	86.9	6.5 6.3	6.3	10.5 14.4 14.4	þ	8 8 9	ļ	90 89				<0.2 <0.2 <0.2	1.3 1.2	
					Surface	1.0	0.9	4 4	22.9	22.8	8.1 8.1	8.1	28.0 28.0	28.0	87.1 86.9	87.0	6.4		16.2 16.5	Ī	6		86 85	_			<0.2 <0.2	1.2	
IM5	Fine	Moderate	10:24	8.1	Middle	4.1 4.1	0.7	7	22.7	22.7	8.1 8.1	8.1	28.8	28.8	86.4 86.3	86.4	6.3	6.4	18.7	18.4	5	6	88 87	88	820748	804853	-O 2	0.2	1 1 1
					Bottom	7.1	0.5	26 28	22.6	22.6	8.1	8.1	29.3	29.3	85.9 85.8	85.9	6.2	6.3	20.2	F	7	†	89				<0.2	1.1	
					Surface	1.0 1.0	0.0	90 97	23.2 23.2	23.2	8.0	8.0	25.5 25.5	25.5	89.5 89.4	89.5	6.6	e E	10.5 10.5	ŀ	5 6		85 86				<0.2 <0.2	1.6	i
IM6	Fine	Moderate	10:32	7.9	Middle	4.0 4.0	0.1 0.1	53 54	23.0 23.0	23.0	8.0	8.0	27.0 27.0	27.0	87.1 87.1	87.1	6.4	6.5	14.3 14.3	14.3	6	6	88 88	88	821075	805851	<0.2	0.2	1.6
					Bottom	6.9 6.9	0.3 0.3	61 63	22.8 22.8	22.8	8.0 8.0	8.0	28.5 28.5	28.5	86.9 86.9	86.9	6.4	6.4	18.3 18.1	F	6 6		90 89				<0.2 <0.2	1.6 1.6	i
		-			Surface	1.0 1.0	0.0	71 75	23.5 23.5	23.5	8.0	8.0	24.3	24.3	90.1	90.1	6.7	6.6	4.4 4.4		4		86 86				<0.2 <0.2	1.6 1.5	1
IM7	Fine	Moderate	10:41	9.2	Middle	4.6 4.6	0.1	94 97	23.1	23.1	8.0	8.0	25.5 25.5	25.5	87.4 87.4	87.4	6.5		9.0	9.5	5 4	4	88 89	88	821328	806815	<0.2	0.2	1.6
					Bottom	8.2 8.2	0.3	83 87	22.8	22.8	8.0	8.0	28.4	28.4	85.9 85.8	85.9	6.3	6.3	15.1 15.1	-	5 4		90				<0.2	1.5	
					Surface	1.0	0.1	137 145	23.2	23.2	8.0	8.0	24.9	24.9	87.7 87.7	87.7	6.5	6.5	7.7	ļ	5 4		87 87				<0.2	1.2	
IM8	Fine	Moderate	10:12	8.0	Middle	4.0 4.0 7.0	0.0 0.0 0.2	54 57 42	23.0 23.0 23.0	23.0	8.0 8.0 8.0	8.0	25.8 26.0 25.9	25.9	86.9 86.8	86.9	6.4 6.4		10.4 10.5 10.3	9.4	6	5	88 88 89	88	821830	808123	<0.2 <0.2 <0.2	0.2 1.2 1.2	. 1.2
DA: Depth-Aver					Bottom	7.0	0.2	42	23.0	23.0	8.0	8.0	25.9	25.9	86.6 86.8	86.7	6.4	6.4	10.3	-	6 5	<u> </u>	90	\Box			<0.2	1.2	

Water Quality Monitoring

28 April 20 Water Quality Monitoring Results on during Mid-Flood Tide Suspended Solids Weather Sampling Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Nickel (µg/L) Monitorina Current Oxygen (mg/L) HK Grid Sampling Depth (m) HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Value Average Value DA Value DA Value DA Value DA (Easting) Value DA Average 0.1 23.3 7.9 25.3 86.7 Surface 23.3 0.1 204 23.3 86.6 6.4 11.0 174 23.1 12.9 1.3 3.8 0.1 7.9 25.8 85.8 6.3 5 89 <0.2 IM9 Fine 10:06 7.5 Middle 23.1 7.9 25.8 85.8 12.7 89 822071 808828 Moderate 3.8 0.1 188 23.1 85.8 6.3 13.0 5 89 <0.2 1.2 6.5 0.1 158 23.1 8.0 25.8 86.8 6.4 14.3 5 90 <0.2 1.2 87.0 6.4 Bottom 23.1 8.0 25.8 6.5 0.1 163 23.1 8.0 25.8 87.2 6.4 14.1 5 90 <0.2 1.3 1.0 0.7 322 23.3 7.9 25.0 87.8 6.5 6.7 4 85 < 0.2 1.2 Surface 7.9 25.0 87.8 5 5 6 1.4 1.0 0.7 335 23.3 7.9 87.7 6.5 6.9 86 <0.2 3.9 0.4 320 23.0 7.9 26.5 84.5 6.2 8.4 88 <0.2 809778 IM10 Fine Moderate 09:55 7.8 Middle 7.9 26.5 84.5 822401 327 88 3.9 7.9 84.4 6.2 8.3 0.4 23.0 26.5 <0.2 22.9 22.9 12.0 12.4 6 90 < 0.2 1.3 6.8 0.3 319 8.0 26.7 84.7 6.2 Rottom 8.0 84.8 6.3 26.7 336 8.0 6.8 0.3 <0.2 1.0 0.7 276 23.1 7.9 6.6 86 <0.2 1.2 7.9 Surface 23.1 25.0 88.7 23.1 7.9 88.5 6.6 5.4 4 1.2 1.0 0.7 284 86 <0.2 6.5 4.2 0.6 278 22.9 8.0 26.6 85.5 6.3 7.8 5 88 <0.2 1.2 IM11 09:44 Middle 8.0 85.5 822060 811461 Fine Moderate 22.9 26.6 4.2 0.7 301 22.9 8.0 26.7 63 77 4 89 <0.2 22.9 22.9 12.0 11.7 7.4 0.4 273 8.0 4 89 1.2 6.4 297 8.0 5 7 4 0.4 90 r0 2 0.7 288 86 11 1.0 23.2 79 26.0 88.5 6.5 5.5 <0.2 Surface 23.2 7.9 26.0 88.6 88.6 6.5 5.5 7.4 86 1.1 1.0 0.7 309 23.2 7.9 26.0 < 0.2 6.5 288 6 1.1 4.3 0.6 23.0 7.9 6.4 88 26.7 86.4 <0.2 IM12 Fine Moderate 09:34 8.6 Middle 23.0 7.9 26.7 86.5 88 821482 812053 7.9 26.7 86.5 6.4 7.5 5 89 <0.2 4.3 0.6 291 23.0 7.6 0.3 283 22.9 8.0 27.2 86.3 6.3 10.9 5 90 <0.2 1.1 Bottom 22.9 8.0 27.2 86.4 6.3 7.6 0.3 288 22.9 8.0 27.3 86.4 6.3 10.2 90 <0.2 1.1 1.0 23.1 7.9 24.4 6.6 5.6 4 Surface 23.1 7.9 24.4 88.8 1.0 23.1 7.9 24.4 88.7 6.6 5.6 3 2.5 SR1A 09:15 4.9 Middle 812659 Fine Calm 2.5 3.9 22.9 6.5 7.9 25.6 88.0 6.2 4 Bottom 7.9 25.6 88.1 6.5 3.9 23.0 7.9 25.6 88.1 6.5 6.2 4 114 1.1 1.0 0.2 23.2 7.9 25.3 88.6 6.6 5.8 7 86 < 0.2 Surface 23.2 7.9 25.3 88.5 1.0 0.2 121 23.2 6.5 5.9 6 87 <0.2 1.1 821478 814173 SR2 09:03 4.6 Middle Fine Moderate 3.6 0.2 92 22.8 7.9 28.0 87.3 6.4 7.6 4 88 <0.2 22.9 7.9 27.9 87.5 6.4 Bottom 3.6 22.9 7.9 87.6 6.4 7.8 89 1.2 1.0 0.2 274 23.2 7.9 24.3 89.2 6.6 5.7 5 Surface 24.3 89.1 1.0 0.2 275 23.2 7 9 24.3 89 N 6.6 5.7 4 4.8 0.1 317 23.0 8.0 24.8 88.1 88.0 6.5 6.5 5.8 5.7 4 SR3 Moderate 10:18 9.6 Middle 8.0 24.9 88.1 822147 807556 5 4.8 0.1 334 23.0 5 8.6 0.1 25 22.9 8.0 26.4 88.2 6.5 16.1 6.5 Bottom 22.9 8.0 26.4 88.4 88.5 16.0 0.1 22.9 8.0 6 8.6 26 246 0.2 23.1 8.2 6.4 6.1 25.9 Surface 23.1 8.2 25.9 87.3 0.3 23.1 8.2 25.9 87.2 6.4 6.1 1.0 257 4.7 0.1 277 23.0 8.4 SR4A Fine Calm 09:11 9.4 Middle 23.0 8.2 27.6 85.7 817173 807812 4.7 0.1 283 23.0 85.7 8.4 8 8.4 0.1 22.9 8.2 28.2 85.1 6.2 12.7 8 Bottom 22.9 8.2 28.1 85.1 6.2 85.1 8 8.4 0.1 63 22.9 8.2 28.1 6.2 12.9 1.0 0.1 278 23.2 8.1 6.4 Surface 8.1 26.0 87.2 1.0 0.1 282 23.2 8.1 26.0 87.1 6.4 7.7 6 810706 SR5A Fine Calm 08:54 3.7 Middle 816571 2.7 0.1 10.4 7 285 23.2 8.1 26.3 86.3 6.3 Rottom 23.2 8.1 26.3 86.2 6.3 2.7 0.1 299 23.2 8.1 26.3 86.1 6.3 10.5 8 254 23.1 0.1 8.2 25.8 86.5 6.4 Surface 23.1 8.2 25.8 86.5 1.0 0.1 23.1 8.2 86.5 6.4 4.1 6.4 Fine Calm 08:24 4.5 Middle 817952 814750 3.5 6.4 4.5 0.0 23.3 8.2 26.4 86.6 6 86.6 4.5 0.0 26.4 3.5 23.3 8.2 0.1 249 4.1 Surface 22.7 7.7 27.1 86.9 86.8 6.4 0.1 266 22.7 27.1 4.1 4 7.9 0.1 235 22.6 7.7 29.1 84.2 6.2 3.9 4 7.7 Middle 84.2 823750 SR7 Fine Moderate 08:11 15.8 22.6 29.2 823634 7.9 84.1 3.9 0.1 241 22.6 29.2 3 14.8 0.2 108 22.6 7.8 30.7 84.0 6.1 4.3 4.3 4 Bottom 22.6 7.8 30.7 84.1 6.1 0.2 7.8 84.1 1.0 23.4 7.9 24.6 88.4 8.0 Surface 23.4 7.9 24.6 88.4 1.0 23.4 7.9 88.3 6.5 8.1 5 SR8 Fine Calm 09:26 5.3 Middle 820403 811618

> 7.9 8.0

23.0

27.0 27.0

27.0

7.9

85.7 86.2

23.0

23.0

6.3

6.3

86.0

10.8 10.2 8

DA: Depth-Averaged

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

4.3

4.3

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

30 April 20 during Mid-Ebb Tide Water Quality Monitoring Results on

Water Qual	ity Monito	oring Resu	lts on		30 April 20 during	Mid-Ebb Tie	de																		
Monitoring	Weather	Sea	Sampling	Water	Sampling Depth (m)	Current Speed	Current	Water Te	mperature (°C)		рН	Sali	nity (ppt)		aturation (%)	Dissolve Oxygen	Turbid	ty(NTU)	Suspende (mg/		Total Alkalinity (ppm)	Coordinate HK Grid	Coordinate HK Grid	Chromit (µg/L)	
Station	Condition	Condition	Time	Depth (m)	Sampling Sopar (III)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value D		DA	Value	DA	Value DA	(Northing)	(Easting)		DA Value DA
					Surface 1.		214 217	25.3 25.3	25.3	8.4 8.4	8.4	25.2 25.2	25.2	156.0 155.2	155.6	11.1	2.7		4		87 87			<0.2	1.4
C1	Fine	Moderate	17:25	8.0	Middle 4.		231 247	23.8	23.8	8.1 8.1	8.1	28.0		116.3 115.9		8.4 8.3	2.8	4.8	3	3	89 89	815608	804233	<0.2	<0.2 1.4 1.4
					Bottom 7.		232 245	23.0 23.0	23.0	8.1 8.1	8.1	30.8	30.8	97.1 97.4	97.3	7.0 7.	8.7	7	3		90			<0.2	1.3
					Surface 1.		214 228	24.9 24.9	24.9	8.3 8.3	8.3	23.3	23.3	144.9 143.4	144.2	10.5	4.2		5 5		86 86			<0.2	2.0
C2	Fine	Rough	16:18	12.5	Middle 6.	3 0.5	166 173	23.2	23.2	8.2 8.2	8.2	28.1	28.3	87.2 86.7	87.0	6.3	8.1 8.3	10.4	4 4	4	88 88	825664	806925	-O 2	<0.2 2.1 2.0
					Bottom 11	5 0.4	152 154	22.9	22.9	8.3 8.3	8.3	29.8	29.8	80.7 81.1	80.9	5.8 5.9	40.7	1	4 4		89			<0.2	1.8
					Surface 1.	0.2	101	23.9	23.9	8.5	8.5	26.7	26.7	111.6	111.6	8.1	4.4		4		87			<0.2	1.8
СЗ	Fine	Moderate	18:03	12.2	1. Middle 6.	0.1	103 355	23.9 23.8	23.8	8.5 8.5	8.5	26.7 27.4	27.4	111.5 104.2	104.1	8.1 7.5	4.3	4.7	4	4	88 88 89	822100	817788	<0.2	<0.2 1.8
					Bottom 11	2 0.1	327 75	23.8 23.0	23.0	8.5 8.5	8.5	27.4 30.3	30.2	104.0 88.4	88.5	7.5 6.4 6	4.2 4 5.5	_	4		89 90			<0.2	1.6
					11 Surface 1.	0.1	81 287	23.0 25.3	25.3	8.5 8.3	8.3	30.2 25.9	25.8	88.6 132.7	132.5	9.4	2.9		4 6		90 87			<0.2	1.6
IM1	Fine	Moderate	17:05	5.1	1. Middle		295	25.3	-	8.3	0.5	25.8	25.0	132.3	132.3	9.4 9	3.1	4.7	6	5	87 - 88	817951	807137	<0.2	<0.2 - 1.2
IIVI	riie	Woderate	17.03	5.1	Bottom 4.	0.1	253	23.3	23.3	8.1	8.1	29.7	29.7	99.6	99.6	7.2	6.3	4./	3	3	- 88	017931	607137	<0.2	1.2
					4.		255 200	23.3		8.1 8.2		29.7		99.6 133.8		7.2 7.9.6	6.6 3.5		4		88 85			<0.2	1.1
	_				Surface 1.		202 156	24.7 23.3	24.8	8.2 8.1	8.2	26.1 29.4	26.1	132.4 98.7		9.5 7.1	3.5	7	4		84			<0.2	1.1
IM2	Fine	Moderate	16:59	7.2	Middle 3.		167 136	23.3 23.1	23.3	8.1 8.1	8.1	29.4 30.4		98.8 94.6	98.8	7.1 6.8	4.9	5.8	3	3	87 89	818184	806175	<0.2	<0.2 1.0 1.1
					Bottom 6.	0.2	141 208	23.1	23.1	8.1 8.1	8.1	30.4 26.6		94.8 117.5	94.7	6.8 6.8	8.7		3		89 86			<0.2	1.0
					Surface 1.	0.0	219 163	24.3	24.3	8.1	8.1	26.6	26.6	117.3 93.7	117.4	8.4 6.8	3.6	7	2		85			<0.2	0.9
IM3	Fine	Moderate	16:53	7.5	Middle 3.	3 0.3	172 156	23.2	23.2	8.0	8.0	29.9	29.8	93.6 93.6	93.7	6.7	5.9	6.2	3 4	3	88 89	818795	805577	<0.2	<0.2 0.9 0.9 0.8 0.9
					Bottom 6.	0.3	156	23.1	23.1	8.1	8.1	30.4	30.4	93.9	93.8	6.8	9.2		4		88			<0.2	0.8
					Surface 1.	0.7	220	24.6 24.5	24.6	8.3	8.3	26.2	26.2	137.2	136.8	9.8 9.8 8	3.6 3.7	1	3		84			<0.2	0.8
IM4	Fine	Moderate	16:44	8.3	Middle 4.	2 0.6	206 211	23.8 23.8	23.8	8.1	8.1	27.7	27.7	108.8 108.4	108.6	7.8	4.6	5.2	3	3	89 88 87	819701	804620	<0.2	<0.2 0.9 0.8
					Bottom 7.	3 0.5	205 216	23.3 23.3	23.3	8.0 8.1	8.0	29.4 29.4	29.4	96.2 96.1	96.2	6.9 6.9	7.3		4		89 89			<0.2	0.8
					Surface 1.	0.4	236 242	25.0 25.0	25.0	8.3	8.3	25.0 25.1	25.0	150.9 148.5	149.7	10.8	3.5	1	3		84 85			<0.2	0.9
IM5	Fine	Moderate	16:37	7.9	Middle 4.	0.3	225 245	23.4 23.4	23.4	8.0	8.0	28.6 28.5	28.5	98.4 98.5	98.5	7.1	4.5	5.8	3	3	89 88	820725	804843	<0.2	<0.2 0.8 0.9
					Bottom 6.		229 242	23.3 23.3	23.3	8.1 8.1	8.1	29.0 29.0	29.0	97.6 98.0	97.8	7.0 7.1	9.5		2		89 89			<0.2 <0.2	0.8
					Surface 1.		216 217	24.6 24.6	24.6	8.3 8.3	8.3	26.1 26.1	26.1	147.6 141.1	144.4	10.6 10.1 9	2.9		2		85 86			<0.2	0.9
IM6	Fine	Moderate	16:31	7.4	Middle 3.		223 228	24.0 24.0	24.0	8.1 8.1	8.1	27.0 27.1		119.6 119.5		8.6 8.6	3.6	4.3	2	2	89 88	821061	805847	<0.2	<0.2 0.9 0.9
					Bottom 6.	0.3	209 214	23.4 23.4	23.4	8.1 8.1	8.1	28.7 28.6	28.6	99.3 99.4	99.4	7.2 7	6.5	7	3		89 89			<0.2	0.8
					Surface 1.	0.1	225 241	25.4 25.4	25.4	8.5 8.5	8.5	24.4	24.4	177.9 177.0	177.5	12.7	2.9		2		86 85			<0.2	1.0
IM7	Fine	Rough	16:23	8.9	Middle 4.	0.1	177	23.6	23.6	8.0	8.0	26.9	26.9	96.5 96.7	96.6	7.0	6.4	6.2	3	3	88 88	821326	806818	-O 2	<0.2 0.8 0.9
					Bottom 7.	0.1	152	23.4	23.4	8.0 8.1 8.1	8.1	28.8	28.8	96.7 97.2 97.4	97.3	7.0 7.0 7.0	0.4	1	4 4		90			<0.2 <0.2 <0.2	0.8
					Surface 1.	0.1	153 334	24.6	24.6	8.5	8.5	24.5	24.5	134.2	134.1	9.7	4.6	#	4		85			<0.2	1.8
IM8	Fine	Rough	16:41	7.9	1. Middle	0.1	357 176	24.6 23.8	23.8	8.5 8.5	8.5	24.5 26.8	26.8	134.0 102.3	102.1	9.7 7.4	6.1	7.9	4	4	86 89 88	821806	808150	<0.2	<0.2 1.8 1.8
	-	9			Rottom 6.	0.1	180 77	23.7 23.5	23.5	8.5 8.5	8.5	26.8 28.2	28.2	101.9 98.1	98.3	7.4 7.1 7	6.1	∄	4		90			<0.2	1.6
DA: Depth-Aver	aned				6.	0.1	77	23.5	20.0	8.5	0.0	28.2	20.2	98.5	00.0	7.1	13.0		4		90			<0.2	1.8

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

during Mid-Ebb Tide Water Quality Monitoring Results on 30 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Sampling Coordinate Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Value Average 0.3 24.4 109 124.7 1.0 0.3 24.3 24.8 9.1 4.8 85 <0.2 1.9 3.8 0.2 116 23.9 8.5 8.5 106.8 106.9 7.8 7.8 5.8 88 <0.2 2.0 IM9 Fine Rough 16:50 7.6 Middle 106.9 88 822098 808806 <0.2 3.8 0.2 118 23.9 5.8 6.6 0.2 69 23.6 17.5 6 90 <0.2 1.9 8.5 98.8 7.2 Bottom 23.6 8.5 27.6 99.2 7.2 99.5 6.6 0.2 72 8.5 27.6 17.7 90 1.8 23.6 <0.2 0.5 126 24.3 4.7 1.3 8.6 Surface 24.3 8.6 25.0 147.7 8.6 25.1 144.5 10.5 86 1.2 1.0 0.5 131 24.3 4.8 < 0.2 107 24.1 24.1 5.3 5.8 87 87 1.1 0.4 8.6 8.5 25.4 25.5 120.2 119.9 8.7 <0.2 3.6 IM10 Fine Rough 16:56 7.2 Middle 24.1 8.5 25.4 120.1 87 822393 809780 <n 2 0.5 108 101.9 7.4 6.2 0.3 96 23.7 8.5 10.6 89 <0.2 1.0 27.0 101.8 23.7 8.5 27.0 7.4 Bottom 6.2 0.3 100 23.7 8.5 102.0 7.4 10.7 89 < 0.2 1.1 1.0 0.6 110 25.0 4.1 85 1.0 8.6 144.8 144.7 10.4 24.0 <0.2 Surface 25.1 8.6 24.0 144.8 1.0 0.6 114 25.1 8.6 10.4 4.2 4 86 <0.2 1.0 1.2 4.5 0.5 105 23.8 8.6 25.9 26.0 106.8 7.8 6.9 89 <0.2 IM11 822035 811441 Fine Moderate 17:06 8.9 Middle 23.8 8.6 25.9 106.7 88 <0.2 4.5 0.5 8.6 7.3 89 108 <0.2 23.7 7.9 23.7 8.6 26.2 102.5 7.5 9.5 <0.2 1.1 Rottom 23.7 8.6 26.2 102.6 7.5 7.9 0.5 117 23.7 8.6 26.2 102.6 7.5 9.3 90 1.0 24.2 8.6 25.1 25.1 122.6 121.5 4.5 85 <0.2 1.1 Surface 24.2 8.6 25.1 122.1 1.0 0.5 114 24.2 8.6 8.8 4.6 85 <0.2 1.1 4.8 0.3 113 23.8 8.1 89 <0.2 1.1 17:12 Middle 821445 812030 IM12 Fine Moderate 9.5 23.8 8.5 26.1 101.9 4.8 0.4 115 23.8 8.5 8.4 89 0.9 8.5 0.1 73 23.7 8.5 26.6 94.1 6.8 10.2 4 90 <0.2 1.0 Bottom 23.7 8.4 26.6 94.3 6.9 94.5 8.5 0.1 74 23.7 8.4 26.6 6.9 10.0 4 90 < 0.2 1.0 1.0 24.6 8.6 24.9 116.2 8.4 4.6 Surface 24.6 8.6 25.0 116.0 1.0 24.6 8.6 25.1 115.8 8.4 4.7 4 2.3 SR1A Fine Calm 17:30 4.6 Middle 819975 812664 2.3 3.6 23.9 8.5 97.4 5.4 7.1 Bottom 24.0 8.5 26.4 97.5 3.6 24.0 8.5 26.4 97.5 7.1 5.5 1.0 0.4 97 24.5 8.6 25.1 132.2 4.2 85 <0.2 1.0 Surface 24.5 8.6 25.1 132.7 1.0 0.4 106 24.4 8.6 25.2 133.1 9.6 4.4 6 85 <0.2 1.0 SR2 Fine Moderate 17:43 4.9 Middle 821483 814175 <0.2 26.1 26.1 102.3 7.5 7.5 Bottom 102.4 3.9 0.2 92 23.8 8.5 5.7 4 89 <0.2 1.0 1.0 0.2 198 24.2 8.5 24.3 134.1 9.8 5.2 8.5 24.3 133.1 1.0 0.2 212 24.1 8.5 24.3 132 1 9.7 5.6 5 4.6 0.2 203 23.5 8.5 27.6 97.8 7.1 8.8 5 SR3 Fine 16:35 9.2 97.8 822142 807574 Rough 4.6 0.2 209 23.5 8.5 27.7 97.8 7.1 9.1 5 0.0 23.5 8.5 8.5 28.3 98.5 98.8 10.3 9.9 8.2 7.1 7.1 Bottom 8.5 98.7 1.0 0.1 253 25.4 8.2 26.0 126.8 9.0 3.3 Surface 25.4 8.2 25.9 126.6 1.0 0.2 277 25.4 8.2 25.9 126.4 9.0 3.3 4 -4.8 0.1 252 23.4 8.1 7.2 6.8 4 29.4 100.1 17:47 807800 SR4A Fine Calm 9.5 Middle 23.4 8.1 29.4 100.1 817201 7.2 4.8 0.1 266 8.1 7.0 23.4 29.4 100.0 0.0 23.3 8.1 8.7 8.5 282 29.8 100.4 Rottom 23.3 8.1 29.8 100.6 7.2 8.5 0.0 305 23.3 25.2 8.1 29.8 100.7 8.5 340 1.0 0.0 8.2 3.7 8.7 26.3 123.2 Surface 25.2 8.2 26.3 123.0 1.0 0.0 343 25.2 8.2 26.3 122.8 8.7 3.7 4 SR5A 18:05 Middle 816575 810686 Fine Calm 3.8 2.8 0.1 24.1 26.9 8.1 106.8 7.7 5.1 Bottom 24.1 8.1 26.9 106.7 7.7 2.8 0.1 24.1 0.1 8.1 6.4 Surface 24.7 8.1 26.1 111.9 37 24.7 6.4 8.0 SR6A Fine 18:31 4.3 Middle 817944 814720 Calm 252 23.9 92.9 9.2 Bottom 8.1 265 85 1.0 0.6 24.7 8.5 134.0 9.6 3.8 Surface 8.5 133.9 1.0 0.6 89 24.7 8.5 25.4 133.7 9.6 3.9 8 1 0.1 91 23.8 8.5 26.9 113.2 8.2 3.6 4 SR7 Fine Moderate 18:32 Middle 113.2 823647 823754 8.1 0.1 97 23.7 8.5 27.0 113 2 8.2 3.6 4 15.1 0.1 90 23.5 8.5 28.1 7.4 3.6 3 Bottom 15.1 0.1 23.5 8.5 7.4 3.6 25.1 25.0 5.7 5.7 1.0 24.8 115.9 115.7 Surface 8.3 8.5 8.3 --SR8 Fine Moderate 17:21 5.2 Middle 9.3 820367 811612 4.2 106.6 7.7 12.7 24.4 8.5 25.4 4 Bottom 24.4 8.5 25.4 106.8 24.4

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

Water Quality Monitoring Results on 30 April 20 during Mid-Flood Tide

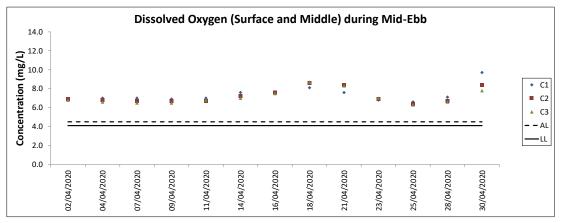
Water Quar	ity wont	oring Resu	its on		30 April 20	during Mid-	riooa iii	ae																				
Monitoring	Weather	Sea	Sampling	Water	Sampling	Depth (m)	Current Speed	Current	Water Te	mperature (°C)		pН	Salir	nity (ppt)		aturation %)	Dissolve Oxyge		rbidity(N	ΓU) Su	pended (mg/L)	Solids To	otal Alkalii (ppm)	Coordinat	e Coordinate		Nicke'	el (µg/L)
Station	Condition	Condition	Time	Depth (m)	, ,	,,,,	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA Va	alue	DA V	alue	DA V	alue D				A Value	DA
					Surface	1.0	0.1	4	23.6 23.6	23.6	8.1 8.1	8.1	26.1 26.0	26.0	105.2 104.9	105.1	7.7 7.7		2.7		4		87 87			<0.2 <0.2	0.7	
C1	Cloudy	Moderate	05:37	8.2	Middle	4.1	0.1	52	23.3	23.3	8.1	8.1	29.8	29.8	99.8	99.8	7.2		2	3.2	3		89 8	9 815607	804261	<0.2	0.7	
01	Oloudy	Woderate	05.57	0.2	Wildle	4.1 7.2	0.2	56 51	23.3	20.0	8.1 8.1	0.1	29.8 30.5	23.0	99.7 96.2		7.2 6.9		1.7	-	3	· L	88 91	3 013007	004201	<0.2	0.8	
					Bottom	7.2	0.2	55	23.1	23.1	8.1	8.1	30.5	30.5	96.2	96.2	6.9	6.9	1.9		3		91			<0.2	0.8	
					Surface	1.0	0.1	179 184	23.7	23.7	8.2	8.2	23.3	23.3	91.2 91.3	91.3	6.8	-	5.0		3		85 86			<0.2	1.7	
C2	Fine	Moderate	06:35	11.5	Middle	5.8	0.0	101	23.4	23.4	8.2	8.2	25.6	25.6	91.3	91.1	6.7	6.8	3.5	6.0	3	, [88 。	8 825697	806957	<0.2	2.2	٦.,
					Bottom	5.8 10.5	0.0	106 185	23.3 23.3	23.4	8.2 8.2	8.2	25.6 27.3	27.2	90.9 83.9	84.2	6.7 6.1		6.7 6.5	-	3		89 90			<0.2	2.2	
						10.5	0.1	191 341	23.4 23.1		8.2 7.9		27.0 28.1		84.5 88.8		6.2 6.5	- 6	1.0		3		90 88			<0.2 <0.2	2.1	
					Surface	1.0	0.1	353	23.1	23.1	7.9	7.9	28.3	28.2	88.4	88.6	6.4	. 3	3.9		3		88			<0.2	1.3	1
C3	Cloudy	Rough	04:39	11.4	Middle	5.7 5.7	0.1	290 307	22.9 22.9	22.9	7.9 7.9	7.9	29.8	29.8	86.3 86.2	86.3	6.2	4	1.0		3		89 89	9 822093	817806	<0.2	.2 1.2	1.2
					Bottom	10.4	0.0	328	22.9	22.9	7.9	7.9	30.1	30.1	85.2	85.4	6.2		5.1		3		90			<0.2	1.1	1
					Surface	10.4	0.0	352 316	22.9	23.8	7.9 8.1	8.1	30.1 25.1	25.1	85.5 106.0	105.9	7.8		3.5		2		90 88		1	<0.2	1.2	
						1.0	0.0	327	23.8	23.0	8.1	0.1	25.2	25.1	105.8	103.9	7.7		3.6		2		89			<0.2	1.1	7
IM1	Fine	Moderate	05:57	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	3.9	-	2	- 8	9 817947	807129			1.1
ı					Bottom	4.0	0.0	279 284	23.8	23.8	8.1	8.1	25.4 25.4	25.4	104.1	104.0	7.6		1.3		2		89 90			<0.2	1.1	
					Surface	1.0	0.0	273 290	23.9 23.9	23.9	8.1 8.1	8.1	25.5 25.5	25.5	105.2 105.0	105.1	7.7		3.4		4		85 85			<0.2 <0.2	1.2	
IM2	Fine	Moderate	06:04	6.9	Middle	3.5	0.0	102	23.7	23.7	8.1	8.1	27.1	27.1	98.9	98.9	7.2	.5	1.1	4.8	3	3	88	8 818165	806175	<0.2	2 1.2] ,,
	1 110	Moderate	00.01	0.0		3.5 5.9	0.1	105 195	23.7 23.2		8.1 8.1		27.1 28.8		98.9 90.9		7.2 6.6	7	7.0	—	3		88 89	0.0.00	000110	<0.2	1.2	- ''-
					Bottom	5.9	0.1	208	23.2	23.2	8.1	8.1	28.8	28.8	90.9	90.9	6.6	6.6	6.9		3		90			<0.2	1.2	
ı					Surface	1.0	0.1	301 311	23.8 23.8	23.8	8.1 8.1	8.1	25.9 25.9	25.9	103.1 103.0	103.1	7.5 7.5		3.2		4		85 85			<0.2	1.2	7
IM3	Fine	Moderate	06:11	7.2	Middle	3.6 3.6	0.1	324 329	23.7	23.7	8.1 8.1	8.1	26.6 26.6	26.6	99.1 98.9	99.0	7.2	4	1.0	4.4	3		88 88	7 818765	805601	<0.2	.2 1.2	1.2
ı					Bottom	6.2	0.1	259	23.2	23.2	8.1	8.1	28.7	28.7	91.1	91.1	6.6	. 6	5.1		3		89			<0.2	1.2	1
						6.2 1.0	0.1	269 272	23.2		8.1 8.1		28.7 25.4		91.1 102.5		6.6 7.5	- 6	2.8		3		89 85			<0.2 <0.2	1.2	
ı					Surface	1.0 4.1	0.1 0.1	276 346	23.6 23.8	23.6	8.1 8.1	8.1	25.3 26.6	25.3	102.4 102.7	102.5	7.5	2	2.8		4		85 87			<0.2	1.3	1
IM4	Fine	Moderate	06:20	8.1	Middle	4.1	0.1	318	23.8	23.8	8.1	8.1	26.6	26.6	102.7	102.7	7.4	3	3.2	3.0	4	4	88	7 819730	804604	<0.2	1.3	1.3
ı					Bottom	7.1	0.1	357 328	23.8	23.8	8.1	8.1	27.0	26.9	99.5 99.3	99.4	7.2		3.1	-	5 4		89 89			<0.2	1.3	
					Surface	1.0	0.1	335	23.7	23.8	8.1	8.1	23.9	23.8	101.6	101.7	7.5		3.7		4		85			<0.2	1.6	
IM5	Fine	Moderate	06:29	7.5	Middle	1.0 3.8	0.1	351 28	23.8 23.8	23.8	8.1 8.1	8.1	23.8 26.7	26.7	101.7 101.4	101.5	7.4		3.7		4		84 88 8	7 820732	804871	<0.2	1.6] ,,
IIVIS	riie	Woderate	00.29	7.5		3.8 6.5	0.1	28 85	23.8		8.1 8.1		26.7 27.0		101.5 97.2		7.4 7.1	-	3.5 3.5	+.0	4	· L	87 89	020732	804871	<0.2	1.7	
					Bottom	6.5	0.1	85	23.7	23.7	8.1	8.1	27.0	27.0	97.1	97.2	7.0	.1 ε	6.5		4		89			<0.2	1.6	
ŀ					Surface	1.0	0.1	279 300	23.9 23.8	23.9	8.1 8.1	8.1	24.2	24.2	99.2 99.2	99.2	7.3 7.3		3.9 3.9		3		84 85			<0.2	1.5	
IM6	Fine	Moderate	06:37	7.3	Middle	3.7	0.0	314 338	23.7 23.7	23.7	8.1 8.1	8.1	26.1 26.1	26.1	99.0 99.0	99.0	7.2	. 4	1.7 1.7		3	2 <u></u>	87 88	7 821072	805810	<0.2 <0.2	1.6] 16
ı					Bottom	6.3	0.0	153	23.6	23.6	8.1	8.1	27.0	27.0	97.4	97.4	7.1 .	. 1 5	5.6		3		88			<0.2	1.6	1
						6.3	0.0	166 271	23.6		8.1 8.0		27.0		97.3 94.5		7.1	5	5.6 3.3	-	5		89 86			<0.2	1.6	
ŀ					Surface	1.0	0.1	288	23.8	23.9	8.0	8.0	22.9	22.9	94.3	94.4	7.0 .	. 3	3.4		5		86			<0.2	2.0]
IM7	Fine	Moderate	06:46	8.6	Middle	4.3 4.3	0.1 0.1	165 172	23.7 23.7	23.7	8.1 8.1	8.1	25.6 25.7	25.7	95.4 95.8	95.6	7.0	4	1.0 1.0		4	* [88 88	8 821333	806848	<0.2	2.0	1.9
l					Bottom	7.6 7.6	0.1	98 101	23.7	23.7	8.1 8.1	8.1	26.7 26.7	26.7	97.0 96.9	97.0	7.1		5.8		3		90 90			<0.2	1.9	
ı					Surface	1.0	0.0	139	23.9	23.9	8.2	8.2	23.2	23.2	94.8	94.7	7.0	4	1.9		2		85	1	1	<0.2	1.8	Ī
IMO	Fine	Madazati	06.00	7.0		1.0 3.9	0.0	147 108	23.9		8.2 8.2		23.3 24.3		94.5 94.6		7.0		1.9		3		86 88	004000	000440	<0.2	1.9	7
IM8	Fine	Moderate	06:09	7.8	Middle	3.9 6.8	0.0	110 84	23.7 23.6	23.7	8.2 8.2	8.2	24.4 26.6	24.4	94.9 94.1	94.8	7.0	5	7.2	6.0	3	3	88 89	8 821833	808118	<0.2	1.9	1.9
,	1		1		Bottom	6.8	0.1	89	23.6	23.6	8.2	8.2	26.6	26.6	93.8	94.0	6.8		7.1	-	2		89	1		<0.2	1.8	

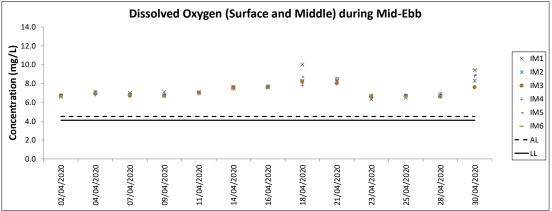
DA: Depth-Averaged
Cahr: Small or no wave; Moderate: Between cahr and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

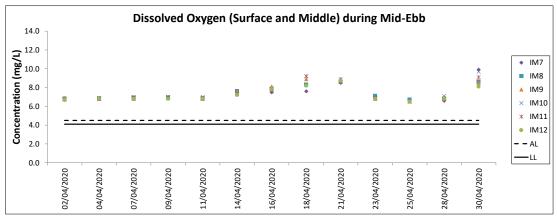
during Mid-Flood Tide Water Quality Monitoring Results on 30 April 20 Suspended Solids Nickel (µg/L) Salinity (ppt) Turbidity(NTU) Water Water Temperature (°C) рΗ Coordinate Coordinate Sampling Monitoring Current (ppm) Sampling Depth (m) HK Grid HK Grid Station Direction Value DA Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Value DA Value DA Value DA Value DA (Northing) (Easting) Value DA Value Average Average 0.2 93.6 6.9 1.0 0.2 138 23.8 8.2 23.1 4.9 86 <0.2 1.8 3.7 0.1 137 23.7 8.2 23.9 94.2 7.0 5.8 87 87 <0.2 1.9 IM9 Fine Moderate 06:03 7.4 Middle 5.8 87 822079 808807 <0.2 147 6.0 0.2 23.7 6.4 0.2 66 23.7 25.3 25.2 92.7 92.5 4 88 <0.2 1.7 8.2 6.8 6.6 Bottom 23.7 8.1 25.2 92.6 6.8 8.1 6.8 1.7 6.4 0.2 6.4 88 69 23.7 <0.2 0.4 118 24.0 94.7 4.9 1.8 8.2 < 0.2 Surface 24.0 8.2 23.7 94.6 8.2 23.8 94.4 6.9 85 1.8 1.0 0.4 121 23.9 4.9 4 < 0.2 0.3 23.8 23.8 5.2 1.9 4.1 132 8.1 8.1 24.2 93.6 93.6 6.9 89 90 <0.2 4 IM10 Fine Moderate 05:56 8.2 Middle 23.8 8.1 24.2 93.6 88 822366 809781 <0.2 7.2 0.2 81 23.6 8.1 86.8 6.3 5.5 3 90 <0.2 1.9 26.5 23.6 8.1 26.5 86.9 6.3 Bottom 7.2 0.3 82 23.6 8.1 26.4 86.9 6.3 5.5 90 < 0.2 2.0 1.0 0.3 114 24.0 4.9 85 1.8 8.2 97.6 7.2 4 22.9 97.5 <0.2 Surface 24.0 8.2 22.9 1.0 0.3 114 24.0 8.2 22.9 97.3 7.2 5.1 86 <0.2 1.9 1.8 4.1 0.2 30 23.7 8.1 95.0 95.0 6.9 6.2 89 <0.2 25.8 IM11 822069 811467 Fine Moderate 05:43 8.1 Middle 23.7 8.1 25.9 95.0 88 <0.2 4.1 89 0.2 <0.2 23.7 6.2 356 23.4 8.1 27.2 90.4 90.3 6.6 5.7 <0.2 1.9 Rottom 23.4 8.1 27.2 90.4 6.6 7.1 0.2 328 23.4 8.1 6.6 5.7 90 1.8 23.7 24.5 24.5 94.7 94.3 5.7 84 <0.2 1.8 Surface 23.7 8.1 24.5 94.5 1.0 0.3 117 23.7 8.1 6.9 5.6 4 85 <0.2 1.7 4.4 0.0 116 23.4 5.0 4 88 <0.2 1.7 IM12 Middle 821454 812060 Fine Moderate 05:35 23.4 8.1 27.2 91.9 4.4 0.0 119 23.4 8.1 91.9 6.7 5.1 4 89 1.5 77 0.0 97 23.2 8.1 86.7 6.3 6.5 4 90 <0.2 1.8 Bottom 23.2 8.1 27.9 86.7 6.3 86.7 77 0.0 98 23.2 8.1 27 9 6.3 6.5 4 90 <0.2 1.8 1.0 23.8 8.1 25.6 98.4 4.3 4 Surface 23.8 8.1 25.7 98.4 1.0 23.7 8.1 25.9 98.3 7.2 4.4 4 2.4 SR1A Cloudy Calm 05:17 4.7 Middle 819982 812660 2.4 23.5 23.5 91.0 91.0 6.6 3.7 8.1 27.0 27.0 5.3 5.3 Bottom 8.0 27.0 91.0 6.6 8.0 1.0 0.3 23.8 8.0 25.4 100.1 73 43 85 <0.2 21 Surface 23.8 8.0 25.4 100.1 1.0 0.3 3 8.0 25.4 7.3 4.3 4 86 21 23.8 100.0 < 0.2 -SR2 Cloudy Moderate 05:03 4.6 Middle 87 821479 814145 < 0.2 3.6 0.3 8.0 26.7 26.7 93.3 93.2 6.8 4.7 88 <0.2 2.1 Bottom 23.5 8.0 26.7 93.3 6.8 0.3 8.0 4.7 23.5 89 < 0.2 2.2 164 1.0 0.0 23.9 8.2 4.9 21.5 94.4 7.0 4 Surface 23.9 8.2 21.6 94.3 1.0 0.0 166 21.6 94.2 5.0 23.8 8.2 7.0 4 4.5 6.8 23.6 8.2 26.0 95.5 7.0 SR3 06:14 Middle 822160 807551 Fine Moderate 9.0 23.6 8.2 26.1 95.6 4.5 0.1 210 23.6 8.2 26.1 95.7 7.0 7.0 3 . 8.0 0.1 44 23.6 8.2 26.6 26.6 95.4 95.1 6.9 9.3 9.1 Rottom 23.6 8.2 26.6 95.3 69 47 23.6 0.3 85 23.7 8.1 7.8 3.8 24.7 106.1 Surface 23.7 8.1 24.6 106.0 1.0 86 105.8 3.8 0.3 23.7 4.6 0.2 23.9 5.8 8.1 25.9 104.1 7.6 SR4A Cloudy Calm 05:17 9.1 Middle 23.9 8.1 25.9 104.0 817175 807786 4.6 0.2 83 23.9 8.1 5.9 8.1 0.1 23.9 8.1 26.4 101.0 7.3 6.3 Bottom 23.9 8.1 26.4 101.0 7.3 8.1 0.1 23.9 1.0 0.1 96 23.6 3.9 8.1 27.2 98.7 7.2 Surface 23.6 8.1 27.2 98.9 1.0 0.1 103 23.5 8.1 99.1 7.2 3.8 4 Cloudy Calm 04:58 Middle 810707 2.7 0.1 83 23.6 8.1 26.6 100.2 7.3 3.6 4 Bottom 7.3 2.7 0.1 23.6 8 1 37 1.0 191 0.0 23.6 8.1 25.7 7.4 2.6 25.7 2.7 1.0 0.0 199 23.6 8 1 25.7 101 5 7.4 --SR6A Calm 04:30 4.2 Middle 817947 814749 Cloudy 3.2 0.0 10 23.6 8.0 25.9 25.9 101.1 101.2 7.4 7.4 3.1 -101.2 Bottom 8.0 3.2 0.0 10 23.6 1.0 0.1 51 23.2 7.8 7.8 28.2 90.0 89.9 6.5 6.5 4.0 Surface 23.2 7.8 28.2 90.0 1.0 0.1 23.2 7.9 0.1 144 22.8 7.8 30.9 31.0 85.8 6.2 4.8 3 -31.0 85.8 04:03 7.8 823655 823731 SR7 Cloudy Moderate 15.8 Middle 22.8 153 7.8 85.8 6.2 7.9 0.1 22.8 4.8 3 -14.8 0.1 67 22.7 7.8 6.2 4.8 4 31.4 85.6 Bottom 22.7 7.8 31.4 85.6 6.2 7.8 85.6 4.8 14.8 0.1 70 22.7 23.7 8.1 24.5 24.5 96.5 96.1 7.1 5.4 1.0 3 Surface 23.7 8.1 24.5 96.3 8.1 7.1 5.4 SR8 Cloudy 05:26 4.4 Middle 820373 811614 Calm 5.5 23.7 26.4 95.6 7.0 5.6 23.7 8.1 26.4 95.6 7.0 Bottom

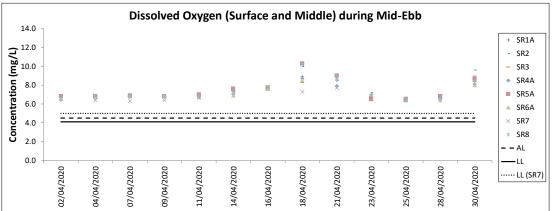
DA: Depth-Averaged

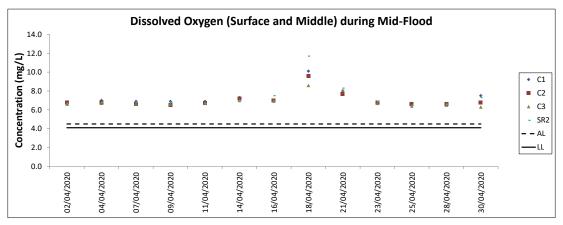
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

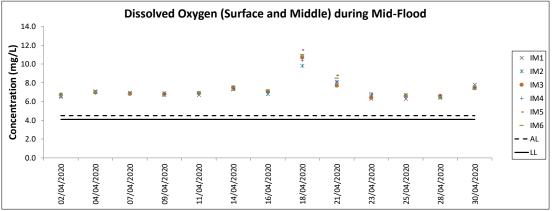


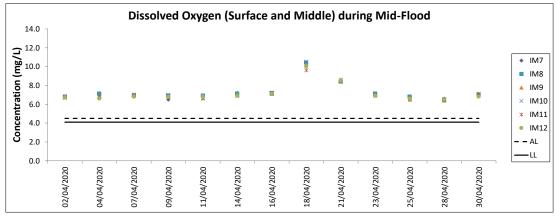


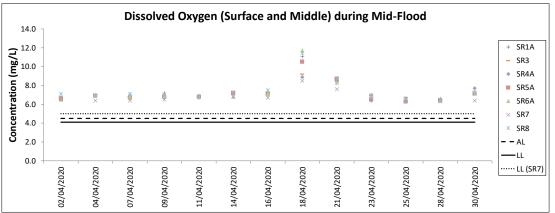


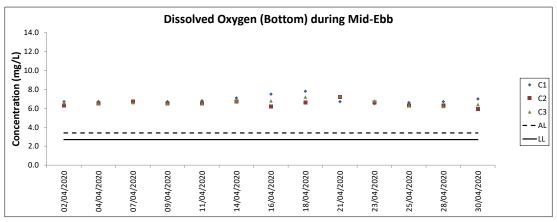


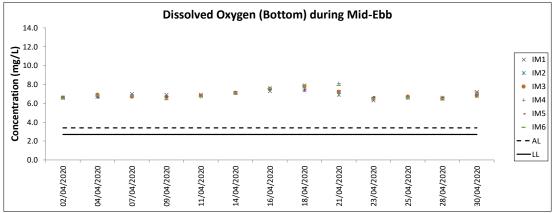


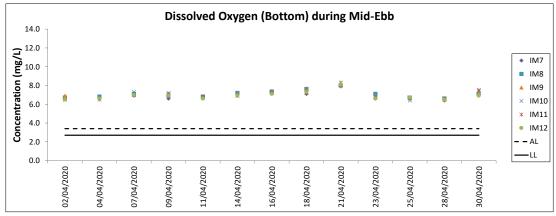


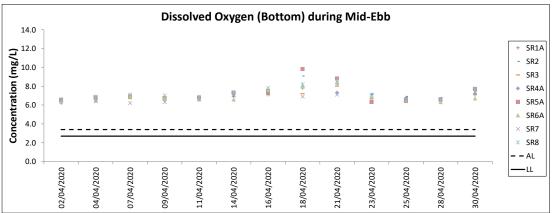


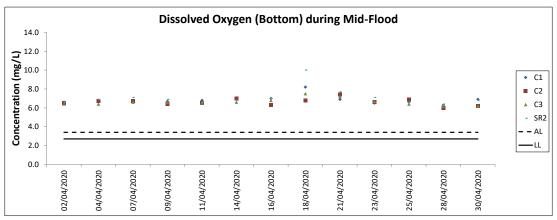


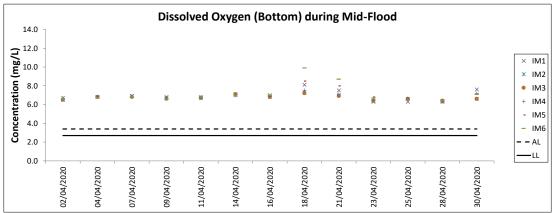


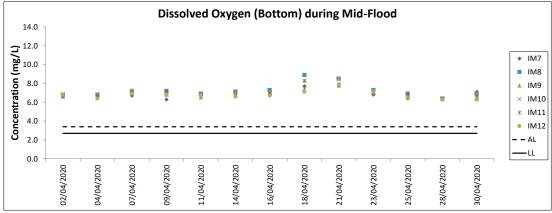


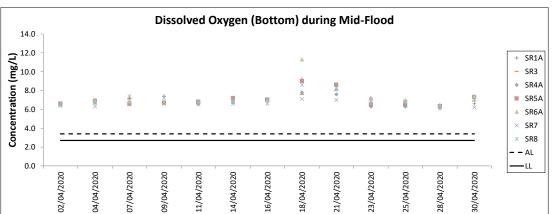


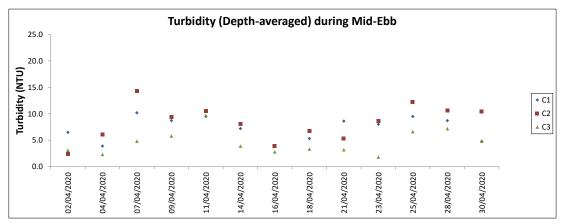


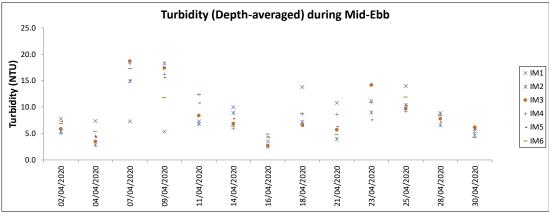


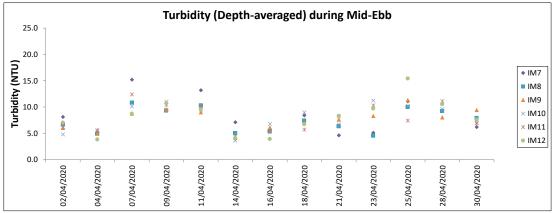


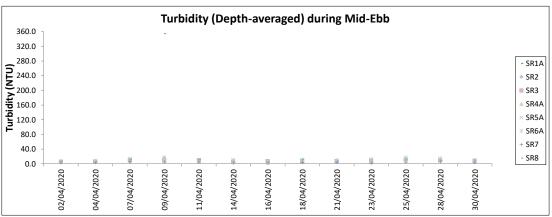




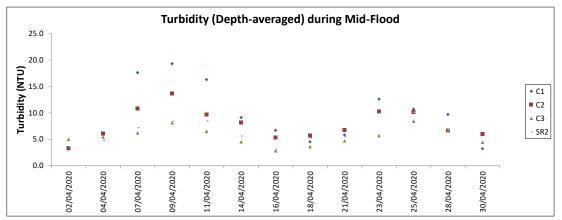


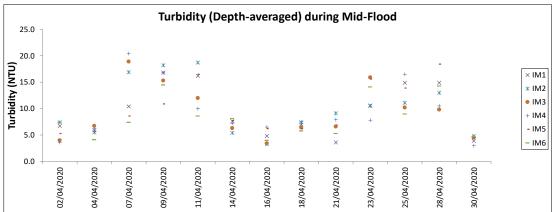


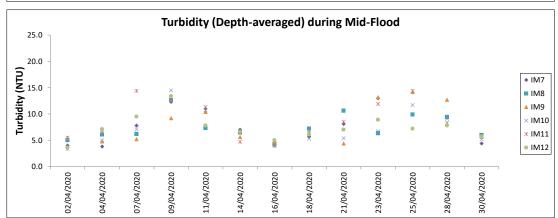


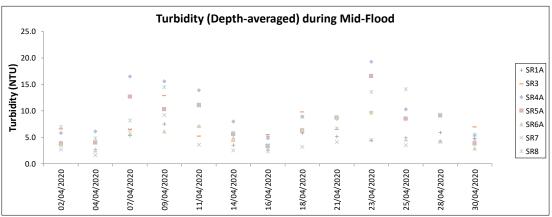


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

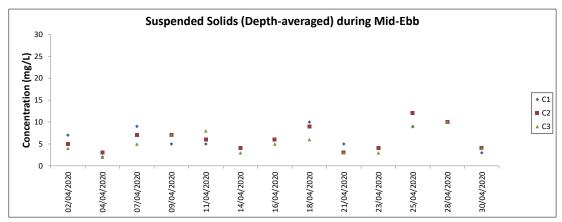


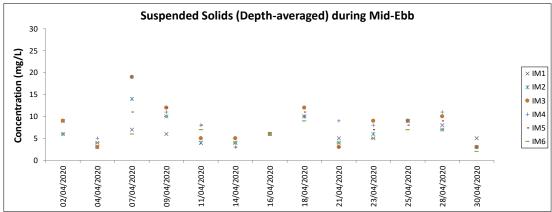


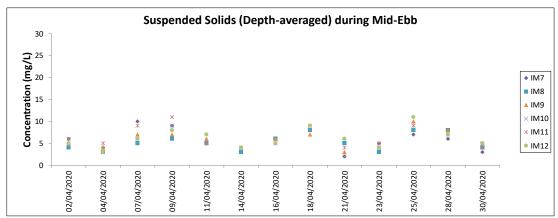


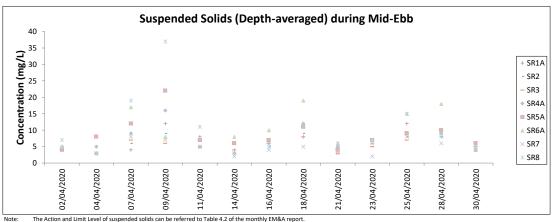


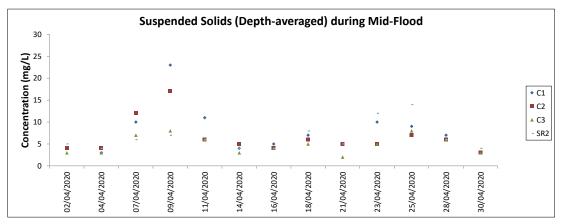
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

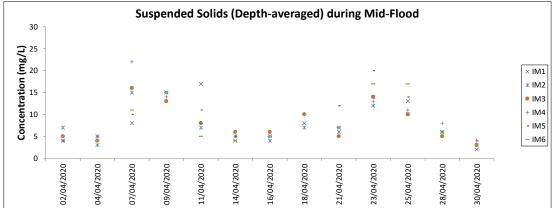


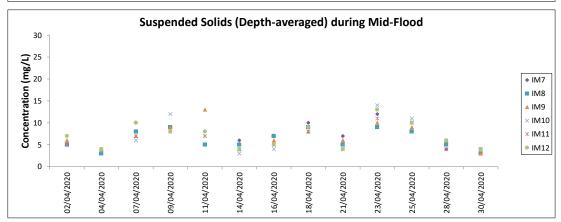


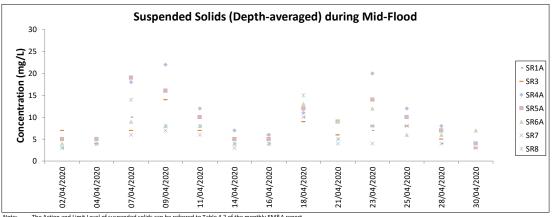




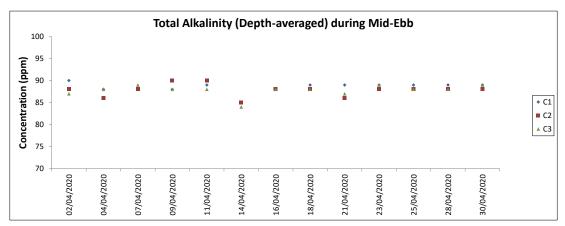


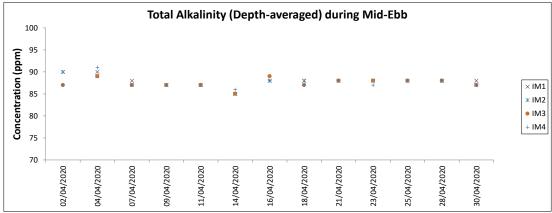


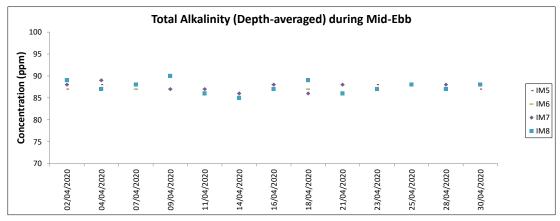


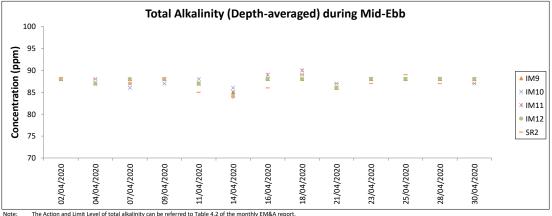


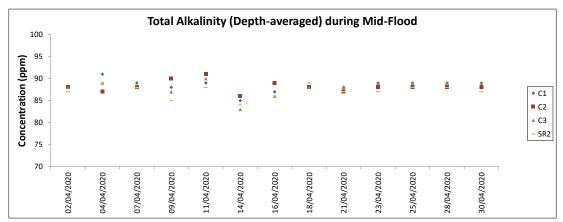
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report

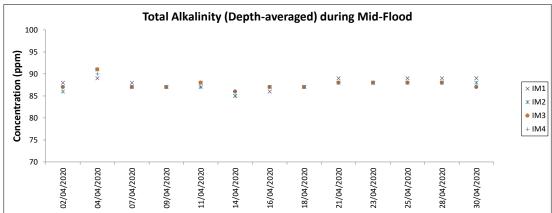


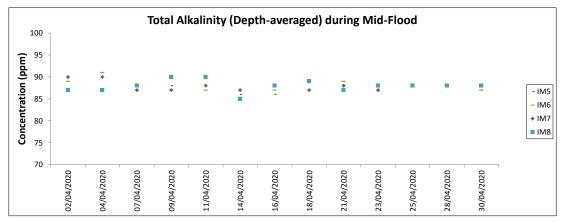


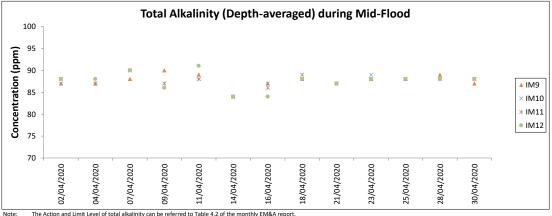


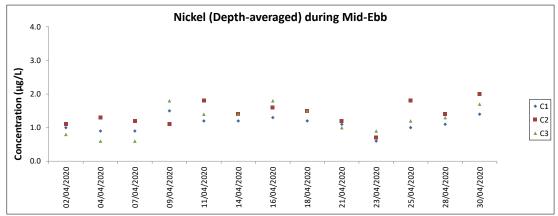


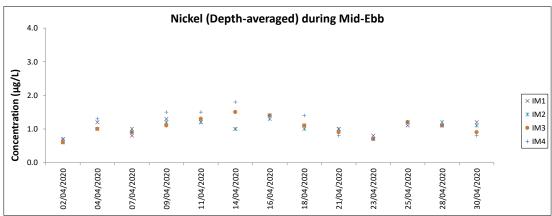


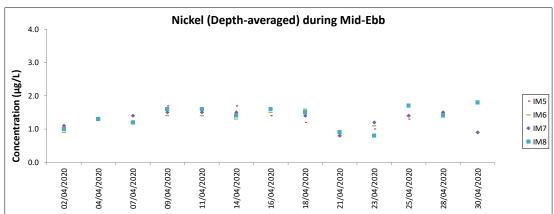


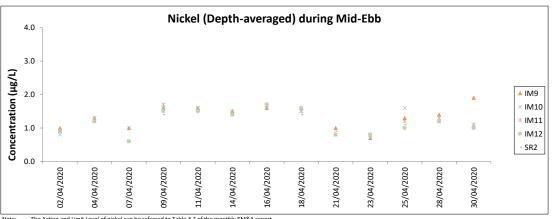




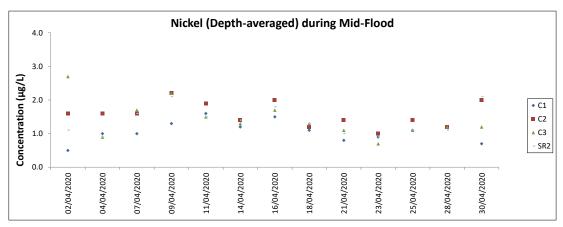


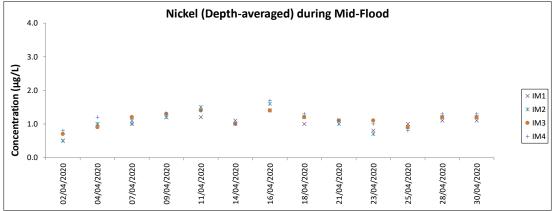


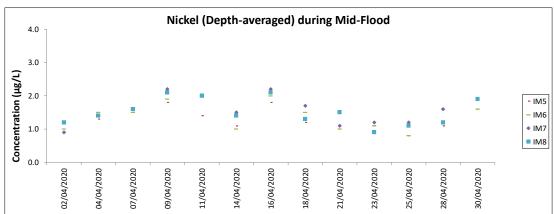


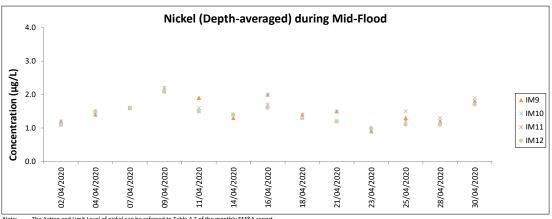


te: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.









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

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

Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.

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

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

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	P/S
10-Feb-20	NWL	2	58.000	WINTER	32166	3RS ET	Р
10-Feb-20	NWL	3	5.360	WINTER	32166	3RS ET	Р
10-Feb-20	NWL	2	11.700	WINTER	32166	3RS ET	S
11-Feb-20	NWL	2	30.200	WINTER	32166	3RS ET	Р
11-Feb-20	NWL	3	33.800	WINTER	32166	3RS ET	Р
11-Feb-20	NWL	2	4.600	WINTER	32166	3RS ET	S
11-Feb-20	NWL	3	6.900	WINTER	32166	3RS ET	S
12-Feb-20	AW	2	4.552	WINTER	32166	3RS ET	Р
12-Feb-20	WL	2	18.710	WINTER	32166	3RS ET	Р
12-Feb-20	WL	3	0.959	WINTER	32166	3RS ET	Р
12-Feb-20	WL	2	8.676	WINTER	32166	3RS ET	S
12-Feb-20	WL	3	1.631	WINTER	32166	3RS ET	S
17-Feb-20	NEL	2	7.100	WINTER	32166	3RS ET	Р
17-Feb-20	NEL	3	29.780	WINTER	32166	3RS ET	Р
17-Feb-20	NEL	2	3.900	WINTER	32166	3RS ET	S
17-Feb-20	NEL	3	6.420	WINTER	32166	3RS ET	S
18-Feb-20	NEL	2	15.530	WINTER	32166	3RS ET	Р
18-Feb-20	NEL	3	21.650	WINTER	32166	3RS ET	Р
18-Feb-20	NEL	2	5.120	WINTER	32166	3RS ET	S
18-Feb-20	NEL	3	5.000	WINTER	32166	3RS ET	S
20-Feb-20	AW	3	4.920	WINTER	32166	3RS ET	Р
20-Feb-20	WL	2	13.391	WINTER	32166	3RS ET	Р
20-Feb-20	WL	3	5.057	WINTER	32166	3RS ET	Р
20-Feb-20	WL	2	9.593	WINTER	32166	3RS ET	S
20-Feb-20	WL	4	1.013	WINTER	32166	3RS ET	S
21-Feb-20	SWL	3	26.930	WINTER	32166	3RS ET	Р
21-Feb-20	SWL	4	18.000	WINTER	32166	3RS ET	Р
21-Feb-20	SWL	5	9.200	WINTER	32166	3RS ET	Р
21-Feb-20	SWL	3	7.600	WINTER	32166	3RS ET	S
21-Feb-20	SWL	4	7.700	WINTER	32166	3RS ET	S
21-Feb-20	SWL	5	1.270	WINTER	32166	3RS ET	S
26-Feb-20	SWL	1	1.800	WINTER	32166	3RS ET	Р
26-Feb-20	SWL	2	49.708	WINTER	32166	3RS ET	Р
26-Feb-20	SWL	3	0.840	WINTER	32166	3RS ET	Р
26-Feb-20	SWL	2	13.918	WINTER	32166	3RS ET	S
26-Feb-20	SWL	3	1.970	WINTER	32166	3RS ET	S
2-Mar-20	NEL	2	2.500	SPRING	32166	3RS ET	Р
2-Mar-20	NEL	3	32.140	SPRING	32166	3RS ET	Р
2-Mar-20	NEL	4	2.600	SPRING	32166	3RS ET	Р
2-Mar-20	NEL	2	1.200	SPRING	32166	3RS ET	S
2-Mar-20	NEL	3	8.160	SPRING	32166	3RS ET	S
2-Mar-20	NEL	4	1.000	SPRING	32166	3RS ET	S
6-Mar-20	NEL	2	3.460	SPRING	32166	3RS ET	Р
6-Mar-20	NEL	3	33.340	SPRING	32166	3RS ET	Р
6-Mar-20	NEL	2	1.200	SPRING	32166	3RS ET	S
6-Mar-20	NEL	3	9.900	SPRING	32166	3RS ET	S
11-Mar-20	NWL	2	4.786	SPRING	32166	3RS ET	Р

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
11-Mar-20	NWL	3	53.890	SPRING	32166	3RS ET	Р
11-Mar-20	NWL	4	1.400	SPRING	32166	3RS ET	Р
11-Mar-20	NWL	3	12.430	SPRING	32166	3RS ET	S
12-Mar-20	AW	4	4.920	SPRING	32166	3RS ET	Р
12-Mar-20	WL	3	1.675	SPRING	32166	3RS ET	Р
12-Mar-20	WL	4	15.140	SPRING	32166	3RS ET	Р
12-Mar-20	WL	5	2.008	SPRING	32166	3RS ET	Р
12-Mar-20	WL	3	0.480	SPRING	32166	3RS ET	S
12-Mar-20	WL	4	7.380	SPRING	32166	3RS ET	S
12-Mar-20	WL	5	1.762	SPRING	32166	3RS ET	S
17-Mar-20	NWL	2	39.340	SPRING	32166	3RS ET	Р
17-Mar-20	NWL	3	23.260	SPRING	32166	3RS ET	Р
17-Mar-20	NWL	4	1.000	SPRING	32166	3RS ET	Р
17-Mar-20	NWL	2	6.700	SPRING	32166	3RS ET	S
17-Mar-20	NWL	3	4.900	SPRING	32166	3RS ET	S
18-Mar-20	AW	2	5.000	SPRING	32166	3RS ET	Р
18-Mar-20	WL	2	9.543	SPRING	32166	3RS ET	Р
18-Mar-20	WL	3	9.425	SPRING	32166	3RS ET	Р
18-Mar-20	WL	2	7.497	SPRING	32166	3RS ET	S
18-Mar-20	WL	3	2.691	SPRING	32166	3RS ET	S
19-Mar-20	SWL	1	6.940	SPRING	32166	3RS ET	Р
19-Mar-20	SWL	2	38.570	SPRING	32166	3RS ET	Р
19-Mar-20	SWL	3	8.050	SPRING	32166	3RS ET	P
19-Mar-20	SWL	2	14.355	SPRING	32166	3RS ET	S
19-Mar-20	SWL	3	2.200	SPRING	32166	3RS ET	S
23-Mar-20	SWL	1	6.890	SPRING	32166	3RS ET	Р
23-Mar-20	SWL	2	45.972	SPRING	32166	3RS ET	Р
23-Mar-20	SWL	1	1.350	SPRING	32166	3RS ET	S
23-Mar-20	SWL	2	14.535	SPRING	32166	3RS ET	S
3-Apr-20	NEL	2	1.270	SPRING	32166	3RS ET	Р
3-Apr-20	NEL	3	26.900	SPRING	32166	3RS ET	Р
3-Apr-20	NEL	4	8.700	SPRING	32166	3RS ET	Р
3-Apr-20	NEL	3	9.830	SPRING	32166	3RS ET	S
3-Apr-20	NEL	4	1.000	SPRING	32166	3RS ET	S
7-Apr-20	NEL	1	10.100	SPRING	32166	3RS ET	Р
7-Apr-20	NEL	2	27.170	SPRING	32166	3RS ET	Р
7-Apr-20	NEL	1	1.000	SPRING	32166	3RS ET	S
7-Apr-20	NEL	2	9.330	SPRING	32166	3RS ET	S
9-Apr-20	AW	2	5.030	SPRING	32166	3RS ET	Р
9-Apr-20	WL	2	10.238	SPRING	32166	3RS ET	Р
9-Apr-20	WL	3	6.538	SPRING	32166	3RS ET	Р
9-Apr-20	WL	4	1.390	SPRING	32166	3RS ET	Р
9-Apr-20	WL	2	6.432	SPRING	32166	3RS ET	S
9-Apr-20	WL	3	2.932	SPRING	32166	3RS ET	S
9-Apr-20	WL	4	0.910	SPRING	32166	3RS ET	S
15-Apr-20	AW	2	5.040	SPRING	32166	3RS ET	P
15-Apr-20	WL	2	20.680	SPRING	32166	3RS ET	Р
15-Apr-20	WL	2	10.420	SPRING	32166	3RS ET	S
16-Apr-20	SWL	2	52.486	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
16-Apr-20	SWL	2	15.854	SPRING	32166	3RS ET	S
17-Apr-20	SWL	2	26.394	SPRING	32166	3RS ET	Р
17-Apr-20	SWL	3	27.056	SPRING	32166	3RS ET	Р
17-Apr-20	SWL	2	9.230	SPRING	32166	3RS ET	S
17-Apr-20	SWL	3	8.050	SPRING	32166	3RS ET	S
20-Apr-20	NWL	2	41.800	SPRING	32166	3RS ET	Р
20-Apr-20	NWL	3	22.200	SPRING	32166	3RS ET	Р
20-Apr-20	NWL	2	7.600	SPRING	32166	3RS ET	S
20-Apr-20	NWL	3	4.200	SPRING	32166	3RS ET	S
21-Apr-20	NWL	2	26.840	SPRING	32166	3RS ET	Р
21-Apr-20	NWL	3	36.760	SPRING	32166	3RS ET	Р
21-Apr-20	NWL	2	4.300	SPRING	32166	3RS ET	S
21-Apr-20	NWL	3	7.600	SPRING	32166	3RS ET	S

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

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG#	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
10-Feb-20	1	0953	CWD	5	NWL	2	31	ON	3RS ET	22.3704	113.8700	WINTER	NONE	Р
12-Feb-20	1	0936	CWD	6	AW	2	11	ON	3RS ET	22.3032	113.8723	WINTER	NONE	Р
12-Feb-20	2	1103	CWD	2	WL	2	22	ON	3RS ET	22.2688	113.8576	WINTER	NONE	Р
12-Feb-20	3	1129	CWD	1	WL	2	365	ON	3RS ET	22.2554	113.8358	WINTER	NONE	S
12-Feb-20	4	1143	CWD	1	WL	2	80	ON	3RS ET	22.2502	113.8347	WINTER	NONE	Р
12-Feb-20	5	1231	CWD	1	WL	2	317	ON	3RS ET	22.2232	113.8359	WINTER	NONE	Р
12-Feb-20	6	1249	CWD	1	WL	2	38	ON	3RS ET	22.2229	113.8313	WINTER	NONE	Р
12-Feb-20	7	1304	CWD	3	WL	2	43	ON	3RS ET	22.2145	113.8270	WINTER	NONE	Р
20-Feb-20	1	1048	CWD	2	WL	2	45	ON	3RS ET	22.2599	113.8494	WINTER	NONE	Р
20-Feb-20	2	1054	CWD	2	WL	2	175	ON	3RS ET	22.2611	113.8428	WINTER	NONE	Р
20-Feb-20	3	1148	CWD	6	WL	2	305	ON	3RS ET	22.2235	113.8328	WINTER	NONE	Р
20-Feb-20	4	1238	CWD	3	WL	2	282	ON	3RS ET	22.2005	113.8254	WINTER	NONE	S
26-Feb-20	1	1049	FP	2	SWL	2	294	ON	3RS ET	22.1800	113.9361	WINTER	NONE	Р
26-Feb-20	2	1058	FP	1	SWL	2	69	ON	3RS ET	22.1669	113.9362	WINTER	NONE	Р
26-Feb-20	3	1102	FP	2	SWL	2	604	ON	3RS ET	22.1632	113.9361	WINTER	NONE	Р
26-Feb-20	4	1110	FP	2	SWL	2	1	ON	3RS ET	22.1489	113.9347	WINTER	NONE	S
26-Feb-20	5	1113	FP	2	SWL	2	11	ON	3RS ET	22.1473	113.9332	WINTER	NONE	S
26-Feb-20	6	1118	FP	1	SWL	2	246	ON	3RS ET	22.1437	113.9283	WINTER	NONE	S
26-Feb-20	7	1122	FP	3	SWL	2	89	ON	3RS ET	22.1484	113.9275	WINTER	NONE	S
26-Feb-20	8	1149	FP	2	SWL	2	179	ON	3RS ET	22.2012	113.9271	WINTER	NONE	Р
26-Feb-20	9	1222	FP	1	SWL	2	137	ON	3RS ET	22.1533	113.9178	WINTER	NONE	Р
26-Feb-20	10	1226	FP	1	SWL	2	124	ON	3RS ET	22.1489	113.9177	WINTER	NONE	Р
26-Feb-20	11	1229	FP	1	SWL	2	32	ON	3RS ET	22.1468	113.9181	WINTER	NONE	Р
26-Feb-20	12	1242	FP	1	SWL	3	293	ON	3RS ET	22.1493	113.9085	WINTER	NONE	Р
26-Feb-20	13	1249	FP	1	SWL	2	3	ON	3RS ET	22.1549	113.9062	WINTER	NONE	S
26-Feb-20	14	1352	FP	1	SWL	2	171	ON	3RS ET	22.1555	113.8976	WINTER	NONE	Р
26-Feb-20	15	1544	CWD	2	SWL	2	745	ON	3RS ET	22.1784	113.8498	WINTER	NONE	Р
11-Mar-20	1	0938	CWD	8	NWL	2	712	ON	3RS ET	22.4130	113.8701	SPRING	NONE	Р
11-Mar-20	2	1055	CWD	2	NWL	3	118	ON	3RS ET	22.2980	113.8701	SPRING	NONE	Р
12-Mar-20	1	1030	CWD	4	WL	4	N/A	OFF	3RS ET	22.2778	113.8565	SPRING	NONE	Р
12-Mar-20	2	1046	CWD	1	WL	5	36	ON	3RS ET	22.2693	113.8518	SPRING	NONE	Р
12-Mar-20	3	1056	CWD	1	WL	3	192	ON	3RS ET	22.2635	113.8568	SPRING	NONE	S

DATE	STG#	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
12-Mar-20	4	1108	CWD	4	WL	3	440	ON	3RS ET	22.2611	113.8489	SPRING	NONE	Р
12-Mar-20	5	1136	CWD	2	WL	3	751	ON	3RS ET	22.2482	113.8517	SPRING	NONE	S
18-Mar-20	1	1052	CWD	1	WL	3	102	ON	3RS ET	22.2605	113.8500	SPRING	NONE	Р
18-Mar-20	2	1201	CWD	5	WL	2	147	ON	3RS ET	22.2324	113.8236	SPRING	NONE	S
18-Mar-20	3	1246	CWD	2	WL	3	29	ON	3RS ET	22.2130	113.8365	SPRING	NONE	S
19-Mar-20	1	1035	FP	3	SWL	1	38	ON	3RS ET	22.2111	113.9360	SPRING	NONE	Р
19-Mar-20	2	1042	FP	1	SWL	2	79	ON	3RS ET	22.1984	113.9363	SPRING	NONE	Р
19-Mar-20	3	1046	FP	2	SWL	2	230	ON	3RS ET	22.1951	113.9362	SPRING	NONE	Р
19-Mar-20	4	1050	FP	11	SWL	2	162	ON	3RS ET	22.1909	113.9357	SPRING	NONE	Р
19-Mar-20	5	1106	FP	2	SWL	2	8	ON	3RS ET	22.1708	113.9359	SPRING	NONE	Р
19-Mar-20	6	1216	FP	2	SWL	2	352	ON	3RS ET	22.1552	113.9177	SPRING	NONE	Р
19-Mar-20	7	1221	FP	1	SWL	2	62	ON	3RS ET	22.1487	113.9176	SPRING	NONE	Р
19-Mar-20	8	1259	FP	3	SWL	2	452	ON	3RS ET	22.1924	113.9078	SPRING	NONE	Р
19-Mar-20	9	1408	FP	2	SWL	2	146	ON	3RS ET	22.1909	113.8878	SPRING	NONE	Р
23-Mar-20	1	1047	FP	3	SWL	2	128	ON	3RS ET	22.1813	113.9359	SPRING	NONE	Р
23-Mar-20	2	1050	FP	6	SWL	2	37	ON	3RS ET	22.1788	113.9358	SPRING	NONE	Р
23-Mar-20	3	1056	FP	1	SWL	2	179	ON	3RS ET	22.1704	113.9365	SPRING	NONE	Р
23-Mar-20	4	1101	FP	1	SWL	2	228	ON	3RS ET	22.1633	113.9357	SPRING	NONE	Р
23-Mar-20	5	1118	FP	2	SWL	2	36	ON	3RS ET	22.1532	113.9275	SPRING	NONE	Р
23-Mar-20	6	1127	FP	1	SWL	2	267	ON	3RS ET	22.1710	113.9278	SPRING	NONE	Р
23-Mar-20	7	1207	FP	4	SWL	2	139	ON	3RS ET	22.1632	113.9183	SPRING	NONE	Р
23-Mar-20	8	1224	FP	4	SWL	2	245	ON	3RS ET	22.1449	113.9080	SPRING	NONE	Р
23-Mar-20	9	1231	FP	2	SWL	2	165	ON	3RS ET	22.1549	113.9047	SPRING	NONE	S
23-Mar-20	10	1332	FP	5	SWL	2	424	ON	3RS ET	22.1535	113.8977	SPRING	NONE	Р
23-Mar-20	11	1338	FP	1	SWL	2	237	ON	3RS ET	22.1488	113.8931	SPRING	NONE	S
23-Mar-20	12	1346	FP	1	SWL	2	3	ON	3RS ET	22.1578	113.8879	SPRING	NONE	Р
23-Mar-20	13	1355	FP	2	SWL	2	431	ON	3RS ET	22.1743	113.8880	SPRING	NONE	Р
23-Mar-20	14	1359	FP	1	SWL	2	274	ON	3RS ET	22.1816	113.8878	SPRING	NONE	Р
23-Mar-20	15	1426	FP	1	SWL	2	572	ON	3RS ET	22.1932	113.8780	SPRING	NONE	Р
23-Mar-20	16	1455	FP	4	SWL	2	351	ON	3RS ET	22.1597	113.8721	SPRING	NONE	S
23-Mar-20	17	1519	CWD	4	SWL	2	535	ON	3RS ET	22.1996	113.8618	SPRING	NONE	Р
23-Mar-20	18	1607	CWD	3	SWL	2	299	ON	3RS ET	22.1951	113.8503	SPRING	NONE	Р
9-Apr-20	1	1031	CWD	7	WL	2	264	ON	3RS ET	22.2687	113.8500	SPRING	PURSE SEINER	Р

DATE	STG#	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
9-Apr-20	2	1053	CWD	2	WL	2	73	ON	3RS ET	22.2636	113.8569	SPRING	NONE	S
9-Apr-20	3	1124	CWD	4	WL	2	58	ON	3RS ET	22.2501	113.8420	SPRING	NONE	Р
9-Apr-20	4	1156	CWD	1	WL	3	7	ON	3RS ET	22.2325	113.8378	SPRING	NONE	Р
9-Apr-20	5	1226	CWD	1	WL	3	129	ON	3RS ET	22.2146	113.8305	SPRING	NONE	Р
9-Apr-20	6	1246	CWD	14	WL	3	148	ON	3RS ET	22.2056	113.8254	SPRING	PAIR TRAWLER	Р
15-Apr-20	1	1047	CWD	1	WL	2	240	ON	3RS ET	22.2505	113.8392	SPRING	NONE	Р
16-Apr-20	1	1023	FP	1	SWL	2	43	ON	3RS ET	22.2087	113.9356	SPRING	NONE	Р
16-Apr-20	2	1032	FP	2	SWL	2	187	ON	3RS ET	22.1955	113.9360	SPRING	NONE	Р
16-Apr-20	3	1036	FP	1	SWL	2	341	ON	3RS ET	22.1888	113.9363	SPRING	NONE	Р
16-Apr-20	4	1038	FP	2	SWL	2	22	ON	3RS ET	22.1864	113.9363	SPRING	NONE	Р
16-Apr-20	5	1042	FP	2	SWL	2	199	ON	3RS ET	22.1832	113.9363	SPRING	NONE	Р
16-Apr-20	6	1054	FP	3	SWL	2	257	ON	3RS ET	22.1604	113.9361	SPRING	NONE	Р
16-Apr-20	7	1112	FP	3	SWL	2	4	ON	3RS ET	22.1582	113.9274	SPRING	NONE	Р
16-Apr-20	8	1116	FP	5	SWL	2	1108	ON	3RS ET	22.1626	113.9276	SPRING	NONE	Р
16-Apr-20	9	1121	FP	2	SWL	2	46	ON	3RS ET	22.1687	113.9278	SPRING	NONE	Р
16-Apr-20	10	1131	FP	2	SWL	2	444	ON	3RS ET	22.1871	113.9276	SPRING	NONE	Р
16-Apr-20	11	1135	FP	1	SWL	2	6	ON	3RS ET	22.1909	113.9275	SPRING	NONE	Р
16-Apr-20	12	1209	FP	4	SWL	2	99	ON	3RS ET	22.1597	113.9176	SPRING	NONE	Р
16-Apr-20	13	1215	FP	1	SWL	2	46	ON	3RS ET	22.1494	113.9177	SPRING	NONE	Р
16-Apr-20	14	1228	FP	2	SWL	2	146	ON	3RS ET	22.1460	113.9083	SPRING	NONE	Р
16-Apr-20	15	1233	FP	1	SWL	2	70	ON	3RS ET	22.1511	113.9083	SPRING	NONE	Р
16-Apr-20	16	1335	FP	3	SWL	2	18	ON	3RS ET	22.1562	113.8980	SPRING	NONE	Р
16-Apr-20	17	1338	FP	4	SWL	2	251	ON	3RS ET	22.1523	113.8974	SPRING	NONE	Р
17-Apr-20	1	1304	FP	3	SWL	2	70	ON	3RS ET	22.1701	113.8964	SPRING	NONE	Р
17-Apr-20	2	1311	FP	1	SWL	2	747	ON	3RS ET	22.1594	113.8973	SPRING	NONE	Р
17-Apr-20	3	1327	FP	1	SWL	3	68	ON	3RS ET	22.1608	113.8872	SPRING	NONE	Р

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

Notes:

CWD monitoring survey data of the two preceding survey months are presented for reference only. No relevant figure or text will be mentioned in this monthly EM&A report.

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

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

A total of 443.280 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 7 on-effort sightings and total number of 30 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in April 2020 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in April 2020

$$STG = \frac{7}{443,280} \times 100 = 1.58$$

Encounter Rate by Number of Dolphins (ANI) in April 2020

$$ANI = \frac{30}{443.280} \times 100 = 6.77$$

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

A total of 1270.974 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 30 on-effort sightings and total number of 97 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

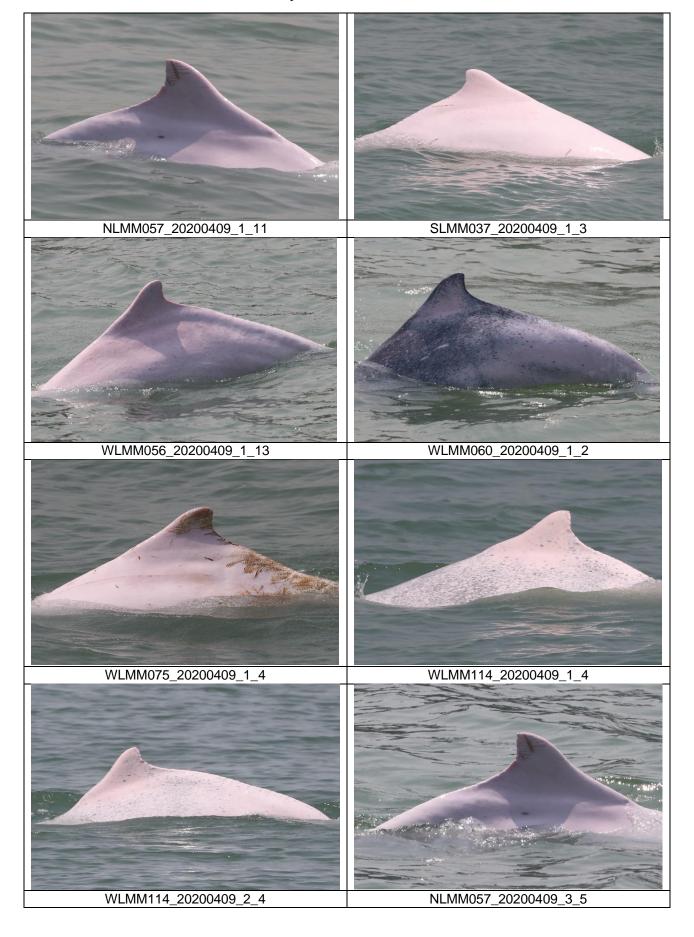
Running Quarterly Encounter Rate by Number of Dolphin Sightings (STG)

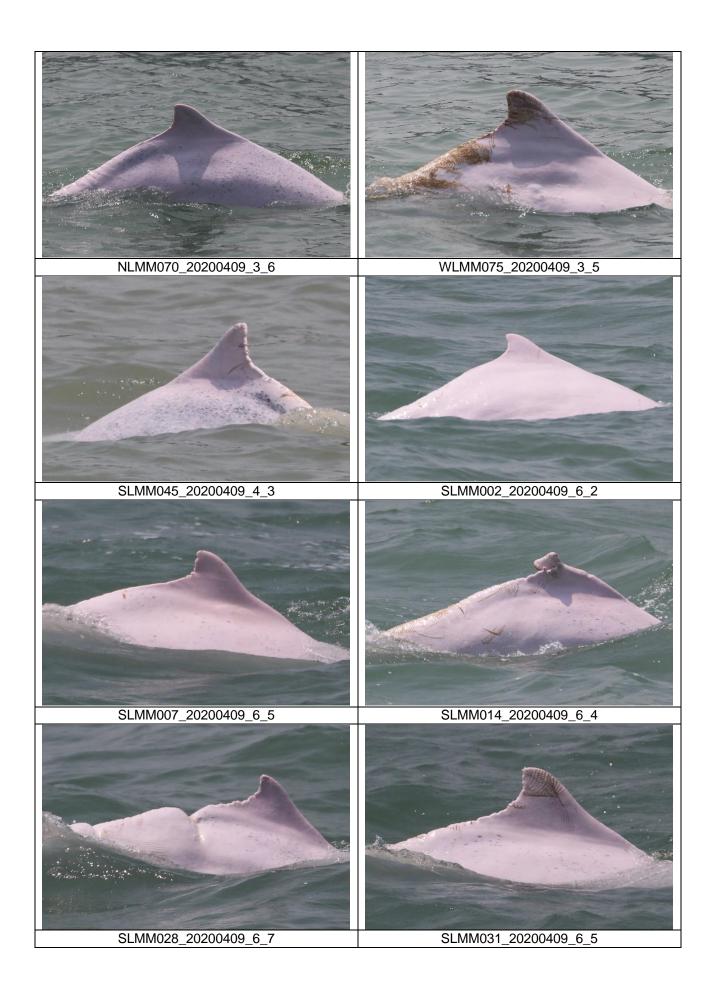
$$STG = \frac{30}{1270.974} \times 100 = 2.36$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)
$$ANI = \frac{97}{1270.974} \ x \ 100 = 7.63$$

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
9/Apr/20	Sha Chau	10:34	16:34	6:00	2	2	0	-
16/Apr/20	Lung Kwu Chau	9:09	15:09	6:00	2	2-3	4	1-4

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

Appendix D. Calibration Certificates



CALIBRATION CERTIFICATE

Certificate Information

24-Mar-2020 Certificate Number | MLCN200615S Date of Issue

Customer Information

Mott MacDonald Hong Kong Limited Company Name

3/F., International Trade Tower, Address

348 Kwun Tong Road,

Kwun Tong, Kowloon, Hong Kong

Equipment-under-Test (EUT)

Description Sound Level Meter

Manufacturer Rion Model Number

NL-52

Serial Number 00998505 **Equipment Number**

Calibration Particular

Date of Calibration 24-Mar-2020

4231(MLTE008) / AV180068 / 13-May-2020 **Calibration Equipment**

Calibration Procedure MLCG00, MLCG15

 $23 \, ^{\circ}\text{C} \pm 5 \, ^{\circ}\text{C}$ Temperature **Calibration Conditions** Laboratory

> $55\% \pm 25\%$ Relative Humidity

EUT Stabilizing Time Over 3 hours 10 minutes

Warm-up Time Internal battery Power Supply

Calibration Results Calibration data were detailed in the continuation pages.

Approved By & Date

K.O. Lo 24-Mar-2020

Statements

- Calibration equipment used for this calibration are traceable to national / international standards.
- The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the EUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
- MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the EUT.
- The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.

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Certificate No. MLCN200615S

Calibration Date	a								
Frequency / Time Weighting	Range	EUT Readi		Standa Readii		EUT I	Error	Calibrati Uncertair	
A / FAST	25 - 138 dE	94.0	dB	94.0	dB	0.0	dB	0.2	dΒ
(1 kHz Input)		114.0	dB	114.0	dB	0.0	dB	0.2	dΒ
C / FAST	33 - 138 dE	94.0	dB	94.0	dB	0.0	dB	0.2	dΒ
(1 kHz Input)		114.0	dB	114.0	dB	0.0	dB	0.2	dΒ
Z / FAST	38 - 138 dE	94.0	dB	94.0	dB	0.0	dB	0.2	dΒ
(1 kHz Input)		114.0	dB	114.0	dB	0.0	dB	0.2	dΒ
A / SLOW	25 - 138 dF	94.0	dB	94.0	dΒ	0.0	dB	0.2	dΒ
(1 kHz Input)		114.0	dB	114.0	dB	0.0	dB	0.2	dΒ
C / SLOW	33 - 138 dI	94.0	dB	94.0	dB	0.0	dB	0.2	dΒ
(1 kHz Input)		114.0	dΒ	114.0	dΒ	0.0	dB	0.2	dB
Z / SLOW	38 - 138 dI	94.0	dB	94.0	dB	0.0	dB	0.2	dB
(1 kHz Input)		114.0	dΒ	114.0	dB	0.0	dB	0.2	dB

- END -

Calibrated By:

Date:

Dan

Checked By:

Date:

K.O. Lo

24-Mar-2020

24-Mar-2020

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Date of Issue

21 April 2020

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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI 6920V2 (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

0001C6A7

Date of Received

Apr 21, 2020

Date of Calibration

Apr 21, 2020

Date of Next Calibration(a)

Jul 20, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H+ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity Temperature APHA 21e 2130 B Section 6 of international Accreditation New Zealand Technical

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

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.10	0.09	Satisfactory

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer	Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.1	0.1	Satisfactory
28.0	28.1	0.1	Satisfactory
49.0	49.1	0.1	Satisfactory

Tolerance limit of temperature should be less than ±2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

The results relate only to the calibrated equipment as received

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/checking regardless of equipment precision or significant figures.

The "Tolerance Limit" mentioned is referenced to YSI product specifications.

LEE Chun-ning, Desmond Senior Chemist

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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.59	-0.19	Satisfactory
2.18	2.26	0.08	Satisfactory
5.67	5.55	-0.12	Satisfactory
8.03	8.11	0.08	Satisfactory

Tolerance limit of dissolved oxygen should be less than ± 0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	147.6	0.48	Satisfactory
0.01	1412	1458	3.26	Satisfactory
0.1	12890	12666	-1.74	Satisfactory
0.5	58670	59424	1.29	Satisfactory
1.0	111900	110688	-1.08	Satisfactory

Tolerance limit of conductivity should be less than ±10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.95	-0.50	Satisfactory
20	19.96	-0.20	Satisfactory
30	30.34	1.13	Satisfactory

Tolerance limit of salinity should be less than ± 10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0	20	Satisfactory
10	9.90	-1.0	Satisfactory
20	19.80	-1.0	Satisfactory
100	98.9	-1.1	Satisfactory
800	793.2	-0.8	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

[&]quot;Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.
The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form

relevant international standards.



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AJ040072

Date of Issue

21 April 2020

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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI 6920V2 (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

00019CB2

Date of Received

Apr 21, 2020

Date of Calibration

Apr 21, 2020

Date of Next Calibration(a)

Jul 20, 2020

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H⁺ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity

APHA 21e 2130 B

Temperature

Section 6 of international Accreditation New Zealand Technical

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

PART D - CALIBRATION RESULTS(b,c)

(1) nH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.01	0.01	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	9.96	-0.05	Satisfactory

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer	rmometer Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.1	0.1	Satisfactory
28.0	28.0	0.0	Satisfactory
49.0	49.1	0.1	Satisfactory

Tolerance limit of temperature should be less than ±2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

The results relate only to the calibrated equipment as received

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

The "Tolerance Limit" mentioned is referenced to YSI product specifications.

LEE Chun-ning, Desmond Senior Chemist



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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.60	-0.18	Satisfactory
2.18	2.22	0.04	Satisfactory
5.67	5.57	-0.10	Satisfactory
8.03	8.12	0.09	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCI (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	147.7	0.54	Satisfactory
0.01	1412	1438	1.84	Satisfactory
0.1	12890	12741	-1.16	Satisfactory
0.5	58670	59364	1.18	Satisfactory
1.0	111900	110822	-0.96	Satisfactory

Tolerance limit of conductivity should be less than ±10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.94	-0.60	Satisfactory
20	20.04	0.20	Satisfactory
30	30.52	1.73	Satisfactory

Tolerance limit of salinity should be less than ±10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0		Satisfactory
10	9.90	-1.0	Satisfactory
20	19.70	-1.5	Satisfactory
100	97.8	-2.2	Satisfactory
800	794.2	-0.7	Satisfactory

Tolerance limit of turbidity should be less than ±10.0 (%)

~ END OF REPORT ~

Remark(s): -

^{(1) &}quot;Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

^(#) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

Appendix E. Status of Environmental Permits and Licences

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

Contract No.	Description	Location	Permit/ Reference No.	Status
P560 (R)	Notification of Construction Work under APCO	Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016
	Discharge License under WPCO	Stockpiling Area	WT00024250- 2016	Valid from 25 Apr 2016 to 30 Apr 2021
	Registration as Chemical Waste Producer	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
3205	Notification of Construction Work under APCO	Works area of 3205	409041	Receipt acknowledged by EPD on 19 Oct 2016
	Registration as Chemical Waste	Works Area of 3205	WPN 5213-951- B2502-01	Registration was updated on 25 Sep 2017
	Producer	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-RS0143-20	Valid from 19 Mar 2020 to 17 Sep 2020
	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
		Works area of 3206 (Area 11)	447899	Receipt acknowledged by EPD on 8 Aug 2019
	Registration as Chemical Waste	Site office of 3206	WPN 5213-951- Z4035-01	Completion of Registration on 18 Nov 2016
	Producer	Works area of 3206	WPN 5213-951- Z4035-02	Completion of Registration on 18 Nov 2016
		Works Area of 3206 (Area 11)	WPN 5213-951- Z4035-04	Completion of Registration on 4 Sep 2019
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0161-20	Superseded by GW-RS0267-20
			GW-RS0267-20	Valid from 24 Apr 2020 to 15 Oct 2020
		Works Area of 3206 (Area 11)	GW-RS1170-19	Valid from 2 Jan 2020 to 24 Jun 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
		Works Area of 3206	GW-RS0156-20	Valid from 24 Mar 2020 to 19 Jul 2020
	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
	Discharge License under WPCO	Works area of 3301	WT00029286- 2017	Valid from 20 Sep 2017 to 30 Sep 2022
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
	Construction Noise Permit (General Works)	Works area of 3301 (Cable ducting works)	GW-RS0129-20	Valid from 4 Mar 2020 to 13 Sep 2020
		Works area of	GW-RS0865-19	Superseded by GW-RS0212-20
		3301	GW-RS0212-20	Valid until from 12 Apr 2020 to 11 Oct 2020
3302	Notification of Construction Work under APCO	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018
		Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
			454882	Receipt acknowledged by EPD on 2 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331- 01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Works area of 3302	WT00034539- 2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Staging area of 3302	WT00034541- 2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS1162-19	Valid from 7 Jan 2020 to 6 Jul 2020
3303	Notification of Construction Work under APCO	Works area of 3303	445611	Receipt acknowledged by EPD on 27 May 2019
	Registration as Chemical Waste Producer	Works area of 3303	5213-951-S4174- 01	Completion of Registration on 17 Jun 2019
	Bill Account for disposal	Works area of 3303	A/C 7034272	Approval granted from EPD on 10 Jun 2019
	Construction Noise Permit (General	Works area of 3303 (Existing	GW-RS0134-20	Superseded by GW-RS0222-20
	Works)	airport)	GW-RS0222-20	Valid from 9 Apr 2020 to 5 Oct 2020
		Works area of 3303 (Reclamation area)	GW-RS0154-20	Valid from 19 Mar 2020 to 17 Sep 2020
3402	Notification of Construction Work	Works area of 3402	440808	Receipt acknowledged by EPD on 31 Dec 2018
	under APCO	Stockpiling area of 3402	441960	Receipt acknowledged by EPD on 8 Feb 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3402	WPN 5213-951- W1172-05	Registration was updated on 25 Feb 2019
	Discharge License under WPCO	Works area of 3402	WT00033685- 2019	Valid from 20 Jun 2019 to 30 Jun 2024
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0070-20	Valid from 3 Feb 2020 to 1 Aug 2020
3403	Notification of Construction Work under APCO	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951- S4218-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise	Works area of	GW-RS0078-20	Superseded by GW-RS0225-20
	Permit (General Works)	3403	GW-RS0225-20	Valid from 11 Apr 2020 to 30 Sep 2020
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0178-20	Valid from 1 Apr 2020 to 30 Apr 2020
3405	Notification of Construction Work under APCO	Works area of 3405	453447	Receipt acknowledged by EPD on 18 Feb 2020
	Registration as Chemical Waste Producer	Works area of 3405	WPN 5218-951- C4431-01	Completion of Registration on 12 Mar 2020
	Bill Account for disposal	Works area of 3405	A/C 7036796	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3405	GW-RS0275-20	Valid from 24 Apr 2020 to 21 Oct 2020
3501	Notification of Construction Work under APCO	Works area of 3501	434640	Receipt acknowledged by EPD on 13 Jun 2018
	Registration as Chemical Waste Producer	Works area of 3501	WPN 5213-951- B2520-02	Completion of Registration on 25 Jul 2017
	Discharge License under WPCO	Works area of 3501	WT00031400- 2018	Valid from 30 Aug 2018 to 31 Aug 2023
	Bill Account for disposal	Works area of 3501	A/C 7028144	Approval granted from EPD on 23 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3501	GW-RS0796-19	Valid from 5 Sep 2019 to 2 Mar 2020
3503	Notification of Construction Work under APCO	Works area of 3503	435180	Receipt acknowledged by EPD on 29 Jun 2018
		Stockpiling area of 3503	439777	Receipt acknowledged by EPD on 26 Nov 2018
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951- L2845-02	Completion of Registration on 8 Jan 2018
	Discharge License under WPCO	Works area of 3503	WT00031258- 2018	Valid from 7 Jun 2018 to 30 Jun 2023

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise	Works area of	GW-RS0124-20	Superseded by GW-RS0221-20
	Permit (General Works)	3503	GW-RS0221-20	Valid from 15 Apr 2020 to 30 Sep 2020
		Works area of	GW-RS0139-20	Valid from 9 Mar 2020 to 31 May 2020
		3503 (Special Case)	GW-RS0261-20	Valid from 26 Apr 2020 to 1 Jul 2020
		Stockpiling area of 3503	GW-RS1012-19	Valid from 14 Nov 2019 to 13 May 2020
		Stockpiling area of 3503	GW-RS1180-19	Valid from 4 Jan 2020 to 30 Jun 2020
3601	Notification of Construction Work under APCO	Works area of 3601	451765	Receipt acknowledged by EPD on 10 Dec 2019
	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951- C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 702991	Approval granted from EPD on 1 Feb 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
	Construction Noise Permit (General Works)	Works area of 3602	GW-RS0133-20	Valid from 1 Apr 2020 to 30 Sep 2020
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Works area of 3603	WPN 5296-951- S4069-01	Completion of Registration on 22 Jan 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0909-19	Superseded by GW-RS0165-20
			GW-RS0165-20	Valid from 8 Apr 2020 to 7 Oct 2020
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
	Registration as Chemical Waste Producer	Works area of 3721	WPN 5218-951- C4412-01	Completion of Registration on 9 Dec 2019
	Bill Account for disposal	Works area of 3721	A/C 705234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0172-20	Valid from 19 Mar 2020 to 17 Sep 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
3722	Notification of Construction Work under APCO	Works area of 3722A	453195	Receipt acknowledged by EPD on 11 Feb 2020
		Works area of 3722B	453671	Receipt acknowledged by EPD on 25 Feb 2020
		Works area of 3722C	453673	Receipt acknowledged by EPD on 25 Feb 2020
		Works area of 3722D	453675	Receipt acknowledged by EPD on 25 Feb 2020
	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722D	A/C 7036795	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3722A, 3722B, 3722C and 3722D	GW-RS0155-20	Valid from 19 Mar 2020 to 17 Sep 2020
3801	Notification of Construction Work	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
	under APCO		430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
			450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951- C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535- 2017	Valid from 24 Nov 2017 to 30 Nov 2022
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works and stockpiling area of 3801	GW-RS1212-19	Valid from 9 Jan 2020 to 8 Jul 2020
		Works area of 3801	GW-RS0152-20	Valid from 27 Mar 2020 to 26 Jun 2020
			GW-RS0113-20	Valid from 7 Mar 2020 to 2 Jun 2020
3901B	Notification of Construction Work under APCO	Works area of 3901B	452168	Receipt acknowledged by EPD on 23 Dec 2019
	Specified Process license under APCO	Works area of 3901B	443181	Receipt acknowledged by EPD on 15 Mar 2019
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951- G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0106-20	Valid from 2 Mar 2020 to 19 Aug 2020

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

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

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

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	17	1	1	