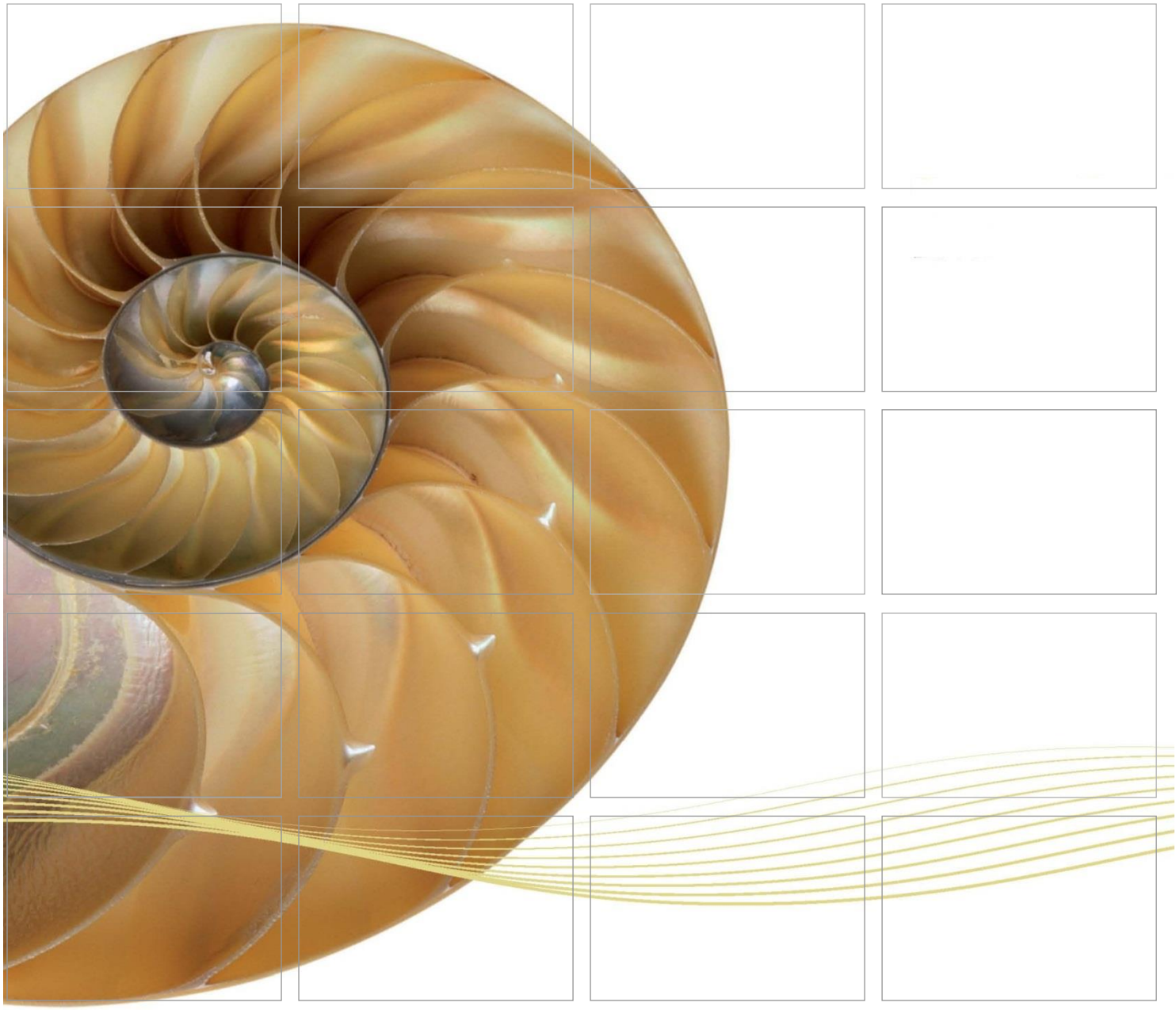
Report



Contract No. HY/2012/08
Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section

Seventy-fourth Monthly Environmental Monitoring & Audit (EM&A) Report

13 January 2020

Environmental Resources Management
2507, 25/F One Harbourfront
18 Tak Fung Street
Hunghom, Kowloon
Hong Kong
Telephone 2271 3000
Facsimile 2723 5660

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RAMBOLL

Ref.: HYDHZMBEEM00_0_7826L.20.docx

13 January 2020

By Fax (2293 6300) and By Post

AECOM Asia Co. Ltd.
Supervising Officer Representative's Office
No.8 Mong Fat Street, Tuen Mun, New Territories, Hong Kong

Attention: Messrs. Andy Westmoreland / Roger Man

Dear Sirs,

Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. HY/2012/08
TM-CLKL – Northern Connection Sub-sea Tunnel Section
74th Monthly EM&A Report for December 2019 (EP-354/2009/D)

Reference is made to the Monthly EM&A Report for December 2019 (ET's ref.: "*0212330_74th Monthly EM&A_20200113.doc*") certified by the ET Leader and provided to us via e-mail on 13 January 2020.

Please be informed that we have no adverse comments on the captioned Report. We write to verify the captioned submission in accordance with Condition 4.4 of EP-354/2009/D.

Thank you for your attention. Please do not hesitate to contact the undersigned or the ENPO Leader Mr. Y. H. Hui should you have any queries.

Yours sincerely,

F. C. Tsang
Independent Environmental Checker
Tuen Mun – Chek Lap Kok Link

c.c.

HyD	Mr. Patrick Ng	(By Fax: 3188 6614)
HyD	Mr. Cheng Pan	(By Fax: 3188 6614)
AECOM	Mr. Conrad Ng	(By Fax: 3922 9797)
ERM	Dr. Jasmine Ng	(By Fax: 2723 5660)
DBJV	Mr. Bryan Lee	(By Fax: 2293 7499)

Internal: DY, YH, ENPO Site

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Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com

Contract No. HY/2012/08
Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section

Seventy-fourth Monthly Environmental Monitoring & Audit (EM&A) Report

Document Code: 0212330_74th Monthly EM&A_20200113.doc

Environmental Resources Management

2507, 25/F One Harbourfront
18 Tak Fung Street
Hunghom, Kowloon
Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

Client: DBJV	Project No: 0212330
Summary: This document presents the Seventy-fourth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section.	Date: 13 January 2020 Approved by:  *Mr Craig Reid* *Partner* Certified by:  *Dr Jasmine Ng* *ET Leader*

Revision	Description	By	Checked	Approved	Date
	74th Monthly EM&A Report	VAR	JN	CAR	13/01/20

Distribution

☐ Internal

☒ Public

☐ Confidential

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel Section of the Tuen Mun – Chek Lap Kok Link Project (TM-CLK Link Project) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET) in accordance with *Environmental Permit No. EP-354/2009/A*. Ramboll Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO). Subsequent applications for variation of environmental permits (VEP), *EP-354/2009/B*, *EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

The construction phase of the Contract commenced on 1 November 2013 and will tentatively be completed in early 2020. The impact monitoring of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.

This is the Seventy-fourth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 December 2019 for the *Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section* (the "Contract") in accordance with the Updated EM&A Manual of the TM-CLK Link Contract. As informed by the Contractor, major activities in the reporting period included:

Land-based Works

- Construction of Thermal barrier – TBM tunnel;
- Construction of Walkway Corbel & Cover – TBM Tunnel;
- Road & Drainage works – Portion N-A;
- C&C Tunnel RC structure – Portion S-A;
- Roofing System Installation – Portion S-A;
- Road & Drainage works – Portion S-B & S-C;

Marine-based Works

- Seawall Modification Works – Portion S-B

A summary of monitoring and audit activities conducted in the reporting period is listed below:

24-hour TSP Monitoring	11 sessions
1-hour TSP Monitoring	11 sessions
Water Quality Monitoring	12 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental Site Inspection	4 sessions

Implementation of Marine Mammal Exclusion Zone

Daily marine mammal exclusion zone was in effect during the period of silt curtain installation in open waters under this Contract. No sighting of the *Indo-Pacific humpback dolphin Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in December 2019 during the exclusion zone monitoring.

Summary of Breaches of Action/Limit Levels

Breaches of Action and Limit Levels for Air Quality

Four (4) Action Level and One (1) Limit Level exceedances of 1-hour TSP Monitoring were recorded in the air quality monitoring of this reporting month. No exceedance of 24-hour TSP Monitoring was recorded.

Breaches of Action and Limit Levels for Water Quality

No exceedance was recorded in the water quality monitoring of this reporting month.

Breaches of Action and Limit Levels for Dolphin Monitoring

Due to monthly variation in dolphin occurrence within the survey area, it would be more appropriate to draw conclusion on whether any unacceptable impacts on dolphins have been detected in relation to the construction activities of this Contract in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

Environmental Complaints, Non-compliance & Summons

No non-compliance with EIA recommendations, EP conditions and other requirements associated with the construction of this Contract was recorded in this reporting period.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

Reporting Change

Seawall Modification Works has been completed on 30th December 2019. No marine works will be carried out in the next reporting month. Water Quality Monitoring will be suspended.

Upcoming Works for the Next Reporting Month

Works to be undertaken in the next monitoring period of January 2020 include the following:

Land-based Works

- Construction of Thermal barrier – TBM tunnel;
- Construction of Walkway Corbel & Cover – TBM Tunnel;
- Road & Drainage works – Portion N-A;
- C&C Tunnel RC structure – Portion S-A;
- Roofing System Installation – Portion S-A;
- D-wall cut – Portion S-A;
- Tower Crane Removal – Portion S-A;
- Removal of Access Tower – Portion S-B;
- Gantry Crane Removal – Portion S-B
- Road & Drainage works – Portion S-B & S-C

Future Key Issue

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of January 2020 are mainly associated with dust, marine ecology and waste management issues.

1 INTRODUCTION

1.1 BACKGROUND

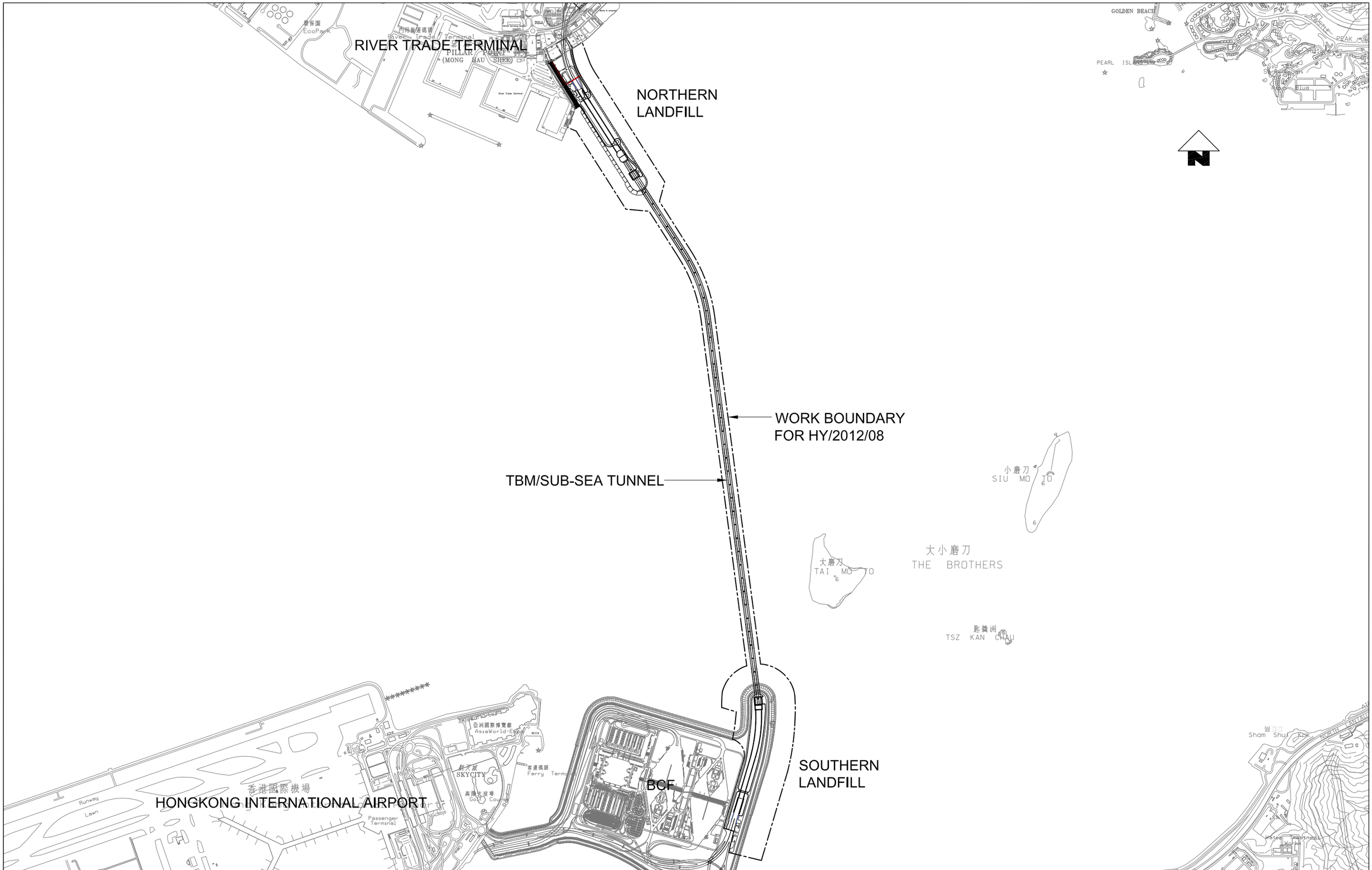
According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated increase in cross boundary traffic, developments in the Northwest New Territories (NWNT), and possible developments in North Lantau, including the Airport developments, the Lantau Logistics Park (LLP) and the Hong Kong – Zhuhai – Macao Bridge (HZMB). In order to cope with the anticipated traffic demand, two new road sections between NWNT and North Lantau – Tuen Mun – Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) are proposed.

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process* (*EIAO-TM*). The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-146/2009), an Environmental Permit (EP-354/2009) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variation (VEP) (EP-354/2009/A) was issued on 8 December 2010. Subsequent applications for variation of environmental permits (VEPs), *EP-354/2009/B, EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel Section of TM-CLKL while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). Ramboll Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO).

Layout of the Contract components is presented in *Figure 1.1*.

The construction phase of the Contract commenced on 1 November 2013 and will tentatively be completed in early 2020. The impact monitoring phase of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.



Rev.	Description	Date	Checked
A	FIRST ISSUE	11SEP13	PKV

Designed By: PKV
Drawn By: DAI
Approved By: SPo PP
Date: 11SEP2013

Main Contractor: Dragages - Bouygues Joint Venture 實嘉 - 布依格聯營

Client: 路政署 HIGHWAYS DEPARTMENT

Contractor's Designer: ARUP Ove Arup & Partners Hong Kong Limited

Project: Contract No. HY/2012/08
Tuen Mun - Chek Lap Kok Link -
Northern Connection Sub-Sea Tunnel Section

Drawing Title: **Figure 1.1**

Drawing no.: TMCLKL8-DBJ-GEN-DWG-00174
Scale: 1:25000 @ A3
CADD Ref.: TMCLKL8-DBJ-GEN-DWG-00174-DFT-A
Issue Status: DFT (DRAFT)
Revision: A

1.2 SCOPE OF REPORT

This is the Seventy-fourth Monthly EM&A Report under the *Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section*. This report presents a summary of the environmental monitoring and audit works in December 2019.

1.3 ORGANIZATION STRUCTURE

The organization structure of the Contract is shown in *Appendix A*. The key personnel contact names and contact details are summarized in *Table 1.1* below.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Highways Department	Engr 24/SD	Ken T.M. Cheng	2762 4062	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Roger Man	2293 6388	2293 6300
		Andrew Westmoreland	2293 6360	2293 6300
ENPO / IEC (Ramboll Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3465 2850	3465 2899
	IEC	Dr. F.C. Tsang	3465 2851	3465 2899
Contractor (Dragages – Bouygues Joint Venture)	Deputy Environmental Manager	Bryan Lee	2293 7323	2293 7499
	24-hour hotline		2293 7330	
ET (ERM-HK)	ET Leader	Jasmine Ng	2271 3311	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of this Contract was commenced on 1 November 2013. The construction programme is shown in *Appendix B*.

As per DBJV's information, details of major construction works carried out in this reporting period are summarized in *Table 1.2*.

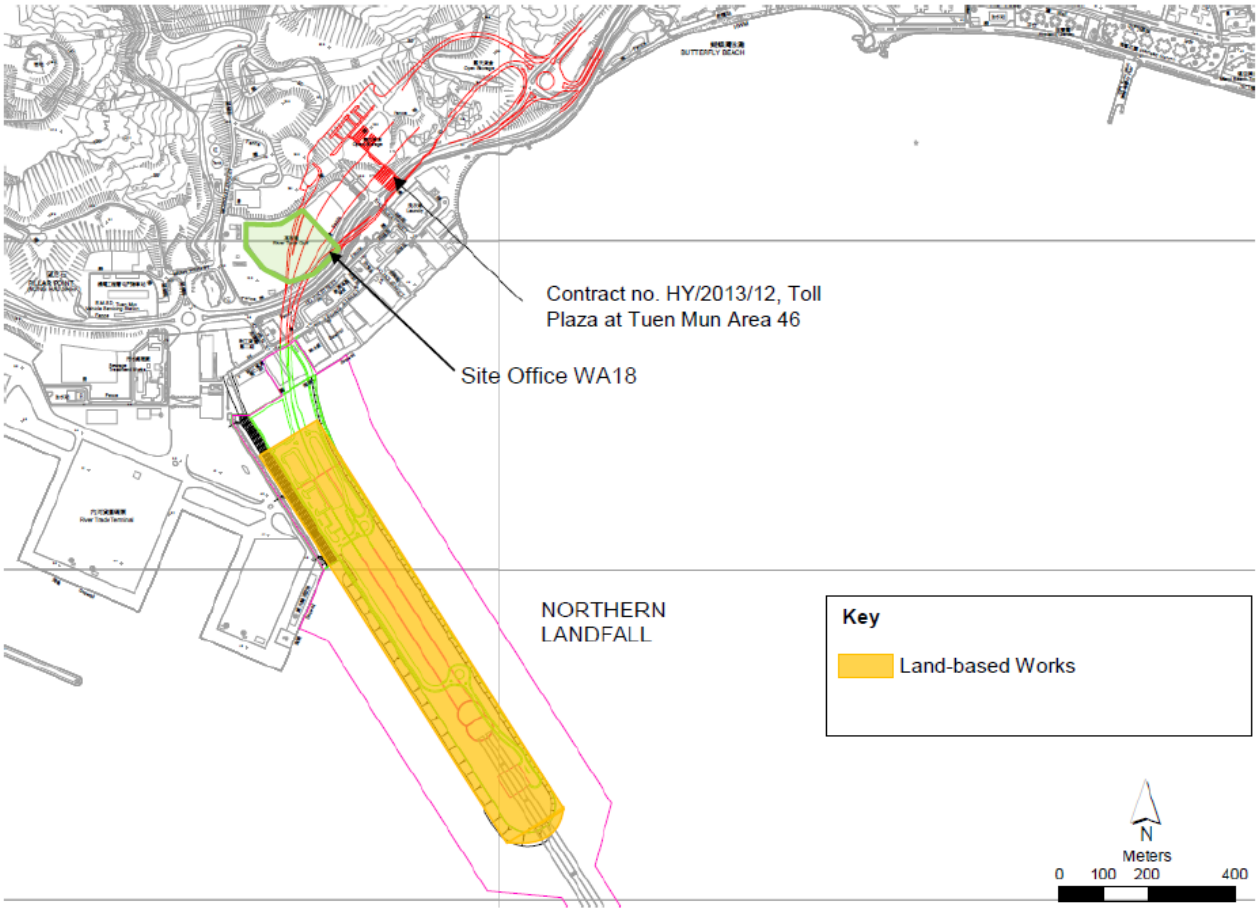
The general layout plan of the site showing the detailed works areas is shown in *Figure 1.2*. The Environmental Sensitive Receivers in the vicinity of the Contract are shown in *Figure 1.3*.

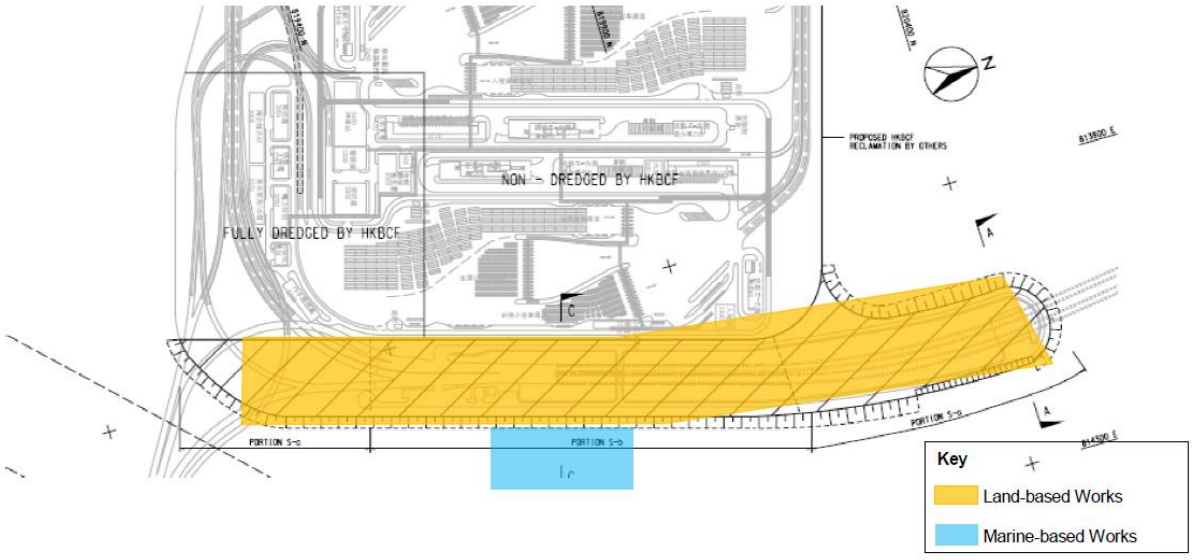
The implementation schedule of environmental mitigation measures is presented in *Appendix C*.

Table 1.2 Summary of Construction Activities Undertaken during the Reporting Period

Construction Activities Undertaken
Land-based Works
• Construction of Thermal barrier – TBM tunnel; • Construction of Walkway Corbel & Cover – TBM Tunnel; • Road & Drainage works – Portion N-A; • C&C Tunnel RC structure – Portion S-A; • Roofing System Installation – Portion S-A; • Road & Drainage works – Portion S-B & S-C;
Marine-based Works
• Seawall Modification Works – Portion S-B

Figure 1.2 Locations of Construction Activities – December 2019





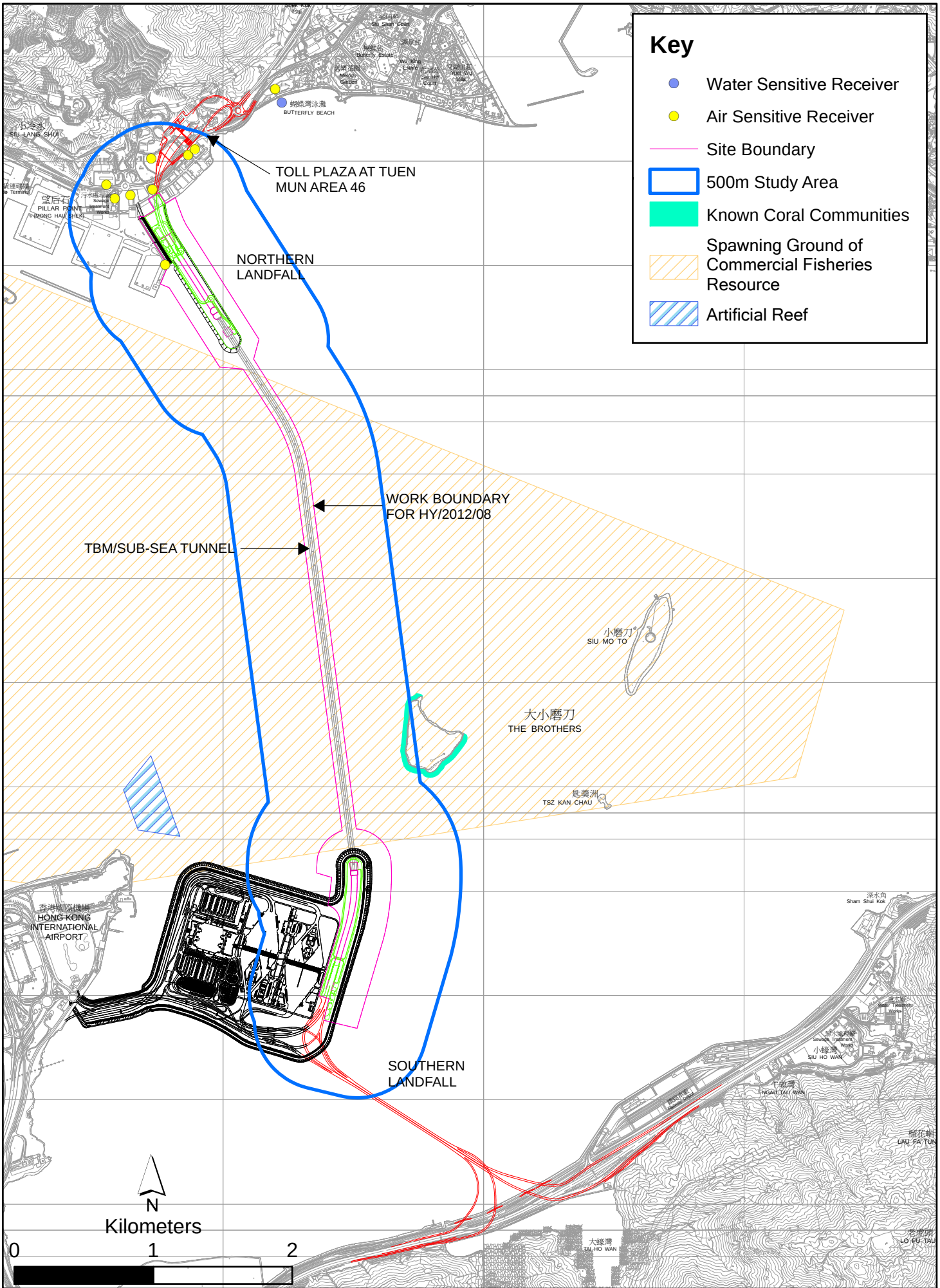


Figure 1.3 Environmental Sensitive Receivers in the vicinity of Contract No. HY/2012/08 Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-Sea Tunnel Section

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Date: 15/4/2014

Environmental Resources Management

2 EM&A RESULTS

The EM&A programme required environmental monitoring for air quality, water quality and marine ecology as well as environmental site inspections for air quality, noise, water quality, waste management, marine ecology and landscape and visual impacts. The EM&A requirements and related findings for each component are summarized in the following sections

2.1 AIR QUALITY

2.1.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual and the Enhanced TSP Monitoring Plan, impact 1-hour TSP monitoring was conducted three (3) times every six (6) days and impact 24-hour TSP monitoring was carried out once every six (6) days when the highest dust impact was expected. 1-hr and 24-hr TSP monitoring frequency was increased to three times per day every three days and daily every three days, respectively, as excavation works for launching shaft commenced on 24 October 2014.

High volume samplers (HVSs) were used to carry out the 1-hour and 24-hour TSP monitoring on 1, 4, 7, 10, 13, 16, 19, 22, 25, 28 and 31 December 2019 at the five (5) air quality monitoring stations in accordance with the requirements stipulated in the Updated EM&A Manual (*Figure 2.1*; *Table 2.1*). Wind meter was installed at the rooftop of ASR5 for logging wind speed and wind direction. Details of the equipment deployed are provided in *Table 2.2*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.1 Locations of Impact Air Quality Monitoring Stations and Monitoring Dates in this Reporting Period

Monitoring Station	Monitoring Dates	Location	Description	Parameters & Frequency
ASR1	1, 4, 7, 10, 13, 16, 19, 22, 25, 28 and 31 December 2019	Tuen Mun Fireboat Station	Office	TSP monitoring • 1-hour Total Suspended Particulates (1-hour TSP, µg/m³), 3 times in every 6 days • 24-hour Total Suspended Particulates (24-hour TSP, µg/m³), daily for 24-hour in every 6 days Enhanced TSP monitoring (commenced on 24 October 2014) • 1-hour Total Suspended Particulates (1-hour TSP, µg/m³), 3 times in every 3 days • 24-hour Total Suspended Particulates (24-hour TSP, µg/m³), daily for 24-hour in every 3 days
ASR5		Pillar Point Fire Station	Office	
AQMS1		Previous River Trade Golf	Bare ground	
ASR6		Butterfly Beach Laundry	Office	
ASR10		Butterfly Beach Park	Recreational uses	

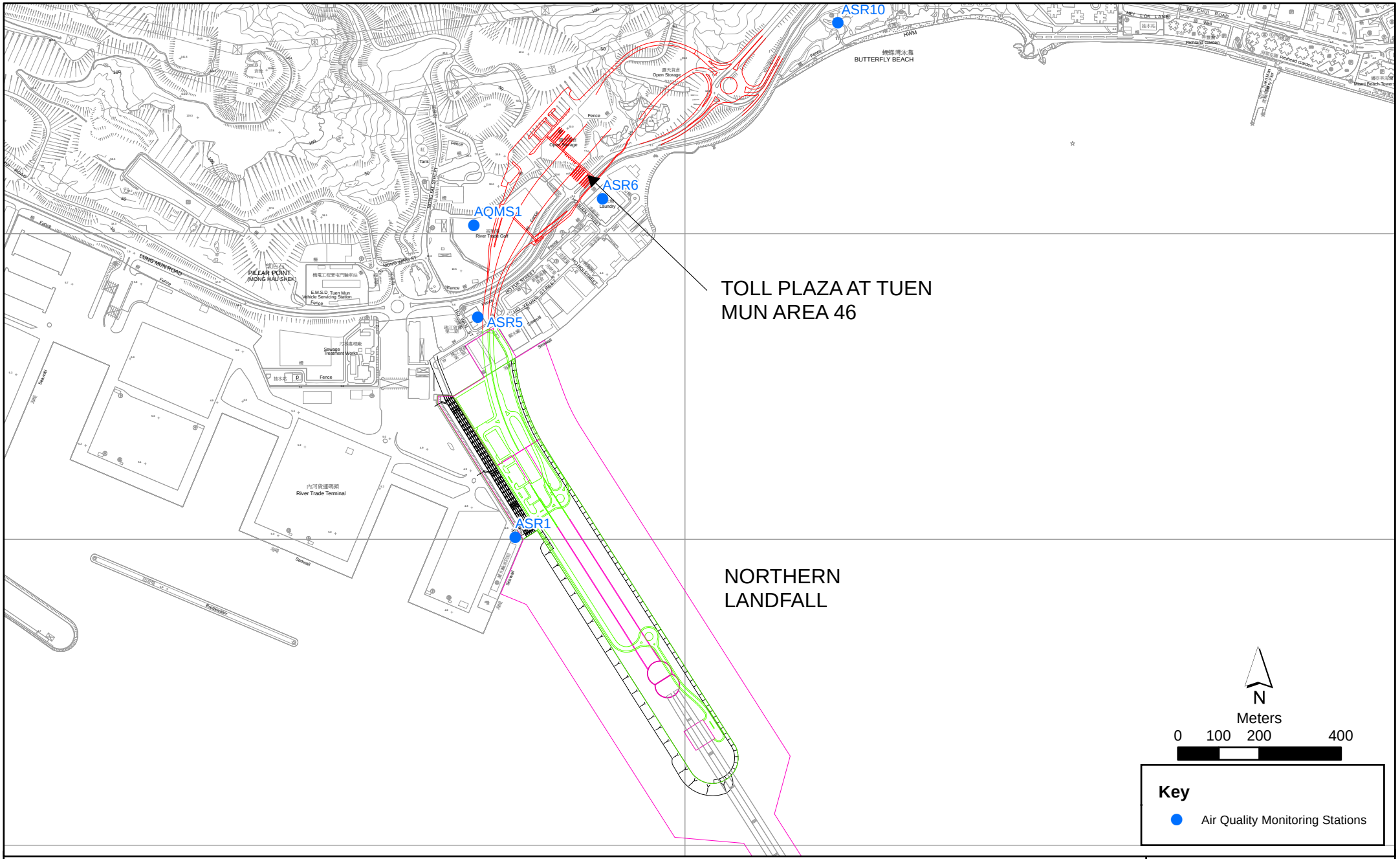

Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring

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Date: 21/2/2014

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Table 2.2 *Air Quality Monitoring Equipment*

Equipment	Brand and Model
High Volume Sampler (1-hour TSP and 24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Sampler (Model No. TE-5170)
Wind Meter	Davis (Model: Vantage Pro 2 (S/N: AS160104014)
Wind Anemometer for calibration	Lutron (Model No. AM-4201)

2.1.2 Action & Limit Levels

The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*. The Event and Action plan is presented in *Appendix K.*

2.1.3 Monitoring Schedule for the Reporting Month

The schedule for air quality monitoring in December 2019 is provided in *Appendix F.*

2.1.4 Results and Observations

The monitoring results for 1-hour TSP and 24-hour TSP are summarized in *Tables 2.3* and *2.4,* respectively. Detailed impact air quality monitoring results and graphical presentations are presented in *Appendix G.*

Table 2.3 *Summary of 1-hour TSP Monitoring Results in this Reporting Period*

Station	Average (µg/m³)	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
ASR1	191	66 - 747	331	500
ASR5	198	84 - 380	340	500
AQMS1	145	56 - 302	335	500
ASR6	139	40 - 249	338	500
ASR10	116	29 - 407	337	500

Table 2.4 *Summary of 24-hour TSP Monitoring Results in this Reporting Period*

Station	Average (µg/m³)	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
ASR1	136	63 - 168	213	260
ASR5	135	102 - 190	238	260
AQMS1	93	64 - 131	213	260
ASR6	111	71 - 149	238	260
ASR10	77	47 - 103	214	260

The weather condition during the monitoring period varied from sunny to cloudy. The major dust sources in the reporting period included construction activities under the Contract as well as nearby traffic emissions.

A total of 11 1-hour TSP and 24-hour TSP monitoring were undertaken in this reporting month. Four (4) Action Level and One (1) Limit Level exceedances

of 1-hour TSP Monitoring were recorded in the air quality monitoring of this reporting month. No exceedance of 24-hour TSP Monitoring was recorded.

Meteorological information collected at the ASR5, including wind speed and wind direction, is provided in *Appendix H*.

2.2 WATER QUALITY MONITORING

2.2.1 Monitoring Requirements & Equipment

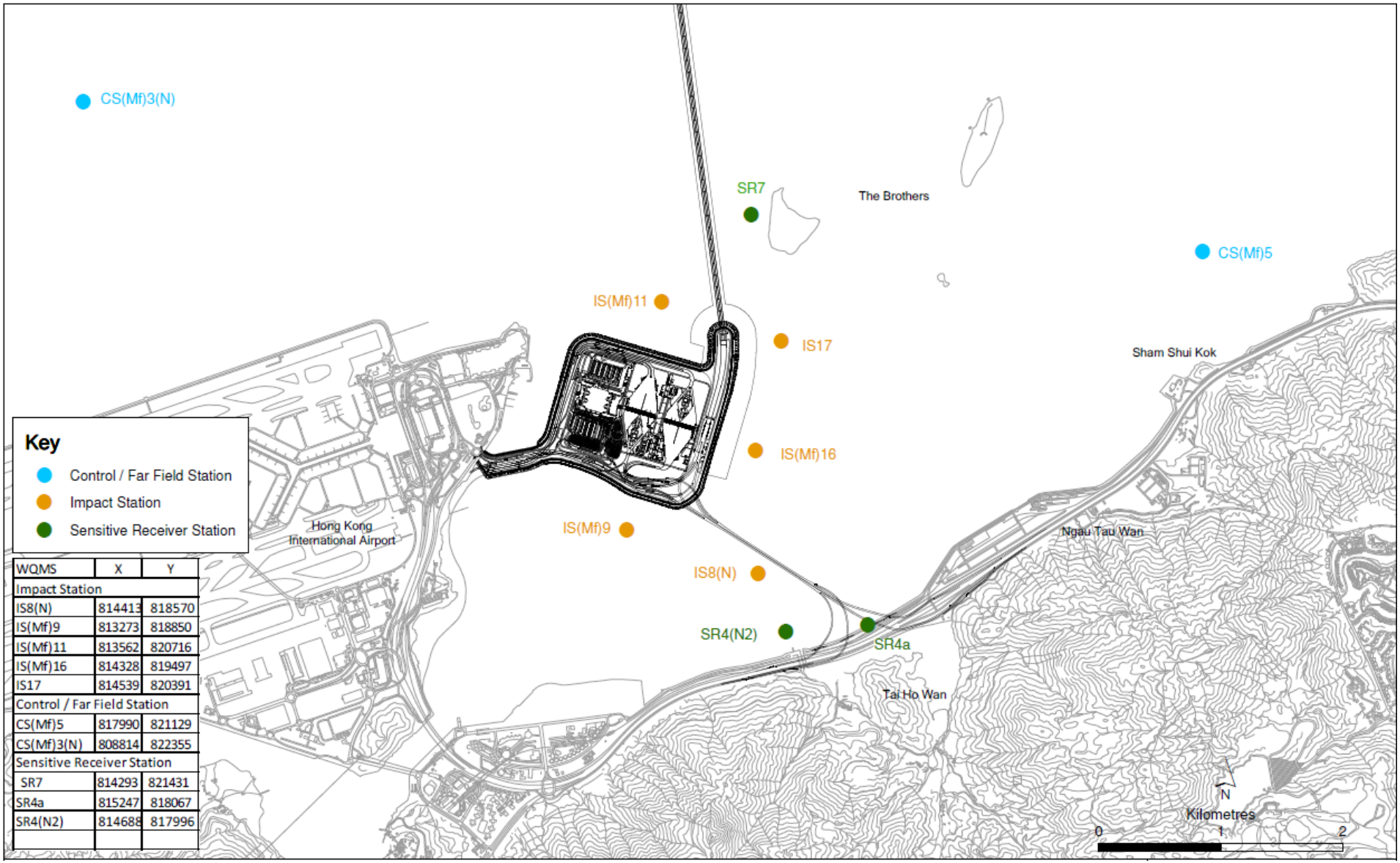
The Seawall Modification Works has commenced on 12 August 2019. Water quality monitoring was carried out in this reporting month.

In accordance with the approved Environmental Review Report dated 21 March 2018 for the Change in Design of Vertical Seawall to Sloping Seawall on Southern Landfall, Updated Impact water quality monitoring programme and water quality monitoring stations IS17, SR7 and IS(Mf)11 specified under the EM&A Manual for HZMB HKBCF project will be adopted. (*Figure 2.2*; *Table 2.5*).

The Action and Limit Levels of the water quality monitoring were adopted from the EM&A Manual for HZMB HKBCF project. The Action and Limit Levels are provided in Appendix D.

Table 2.5 Locations of Water Quality Monitoring Stations and the Corresponding Monitoring Requirements

Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
		Easting	Northing			
IS(Mf)11	Impact Station (Close to HKBCF construction site)	813562	820716	• Temperature(°C) • pH(pH unit) • Turbidity (NTU) • Water depth (m) • Salinity (ppt)	3 water depths: 1m below sea	Impact monitoring: 3 days per week, at mid-flood
IS17	Impact Station (Close to HKBCF construction site)	814539	820391	• DO (mg/L and % of saturation) • SS (mg/L)	surface, mid-depth and 1m above	and mid-ebb tides during the construction period of



WQMS	X	Y
Impact Station		
IS8(N)	814413	818570
IS(Mf)9	813273	818850
IS(Mf)11	813562	820716
IS(Mf)16	814328	819497
IS17	814539	820391
Control / Far Field Station		
CS(Mf)5	817990	821129
CS(Mf)3(N)	808814	822355
Sensitive Receiver Station		
SR7	814293	821431
SR4a	815247	818067
SR4(N2)	814688	817996

Figure 2.2

Water Quality Monitoring Stations

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Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
SR7	Sensitive receivers (Tai Mo Do)	814293	821431		sea bed. If the water depth is less than 3m, mid-depth sampling only. If water depth less than 6m, mid-depth may be omitted.	the Contract.
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850			
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497			
IS8(N)	Impact Station (Close to HKBCF construction site)	814413	818570			
SR4(N2)	Sensitive receiver (Tai Ho Inlet)	814688	817996			
SR4a	Sensitive receiver	815247	818067			
CS(Mf)3(N)	Control Station	808814	822355			
CS(Mf)5	Control Station	817990	821129			

*Notes:

In addition to the parameters presented monitoring location/position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or works underway nearby were also recorded.

Water Quality Monitoring Station CS(Mf)3 was relocated to CS(Mf)3(N) since 2 May 2017.

Water Quality Monitoring Station SR4 was relocated to SR4(N) since 2 March 2018.

Water Quality Monitoring Station SR4(N) was relocated to SR4(N2) since 12 June 2019

Water Quality Monitoring Station IS8 was relocated to IS8(N) since 12 June 2019.

Table 2.6 summarizes the equipment used in the impact water quality monitoring programme. Copies of the calibration certificates are attached in *Appendix E*.

Table 2.6 ***Water Quality Monitoring Equipment***

Equipment	Model
Multi-Parameters	YSI ProDss 00019CB2
Multi-Parameters	YSI ProDss 0001C6A7
Multi-Parameters	YSI ProDss 16H104233
Multi-Parameters	YSI ProDss 17H105557
Multi-Parameters	YSI ProDss 16H104234
Positioning Equipment	Furuno GP-170
Water Depth Detector	Lowrance Mark 5x / Garmin Striker 4

2.2.2 Action & Limit Levels

The Action and Limit levels of water quality impact monitoring are shown in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.2.3 Monitoring Schedule for the Reporting Month

The schedule for water quality monitoring in December 2019 is provided in *Appendix F*.

2.2.4 Results and Observations

Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Results and graphical presentations of impact water quality monitoring are presented in *Appendix J*.

In this reporting period, a total of twelve (12) monitoring events were undertaken in which no exceedance was recorded in the water quality monitoring.

2.3 DOLPHIN MONITORING

2.3.1 Monitoring Requirements

Impact dolphin monitoring is required to be conducted by a qualified dolphin specialist team to evaluate whether there have been any effects on the dolphins. In order to fulfil the EM&A requirements and make good use of available resources, Contract No. HY/2012/08 has taken over the responsibility for implementation of dolphin monitoring from HZMB HKLR Contract No. HY/2011/03 since October 2019.

2.3.2 Monitoring Equipment

Table 2.7 summarises the equipment used for the impact dolphin monitoring.

Table 2.7 Dolphin Monitoring Equipment

Equipment	Model
Global Positioning System (GPS)	Garmin 18X-PC Geo One Phottix
Camera	Nikon D90 300m 2.8D fixed focus Nikon D90 20-300m zoom lens
Laser Binocular	Infinitor LRF 1000
Marine Binocular	Bushell 7 x 50 marine binocular with compass and reticules
Vessel for Monitoring	65 foot single engine motor vessel with viewing platform 4.5m above water level

2.3.3 Monitoring Parameter, Frequencies & Duration

Dolphin monitoring should cover all transect lines in Northeast Lantau (NEL) and the Northwest Lantau (NWL) survey areas twice per month throughout the entire construction period. The monitoring data should be compatible with, and should be made available for, long-term studies of small cetacean ecology in Hong Kong. In order to provide a suitable long-term dataset for comparison, identical methodology and line transects employed in baseline dolphin monitoring was followed in the impact dolphin monitoring.

2.3.4 Monitoring Location

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in *Figure 2.3*. The co-ordinates of all transect lines are shown in *Table 2.8* below.

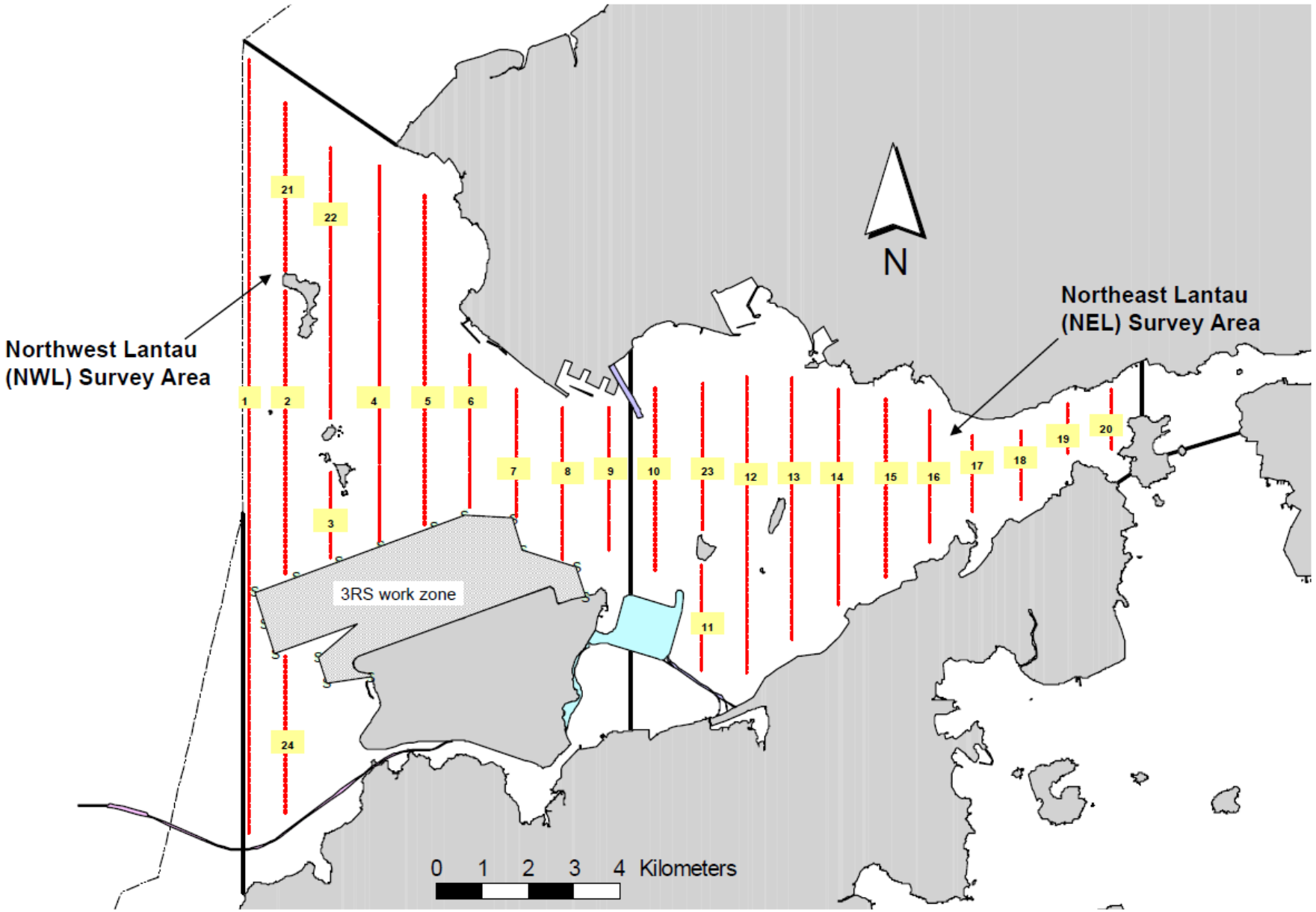

Figure 2.3

Layout of Transect Lines of Dolphin Monitoring in Northwest and Northeast Lantau Areas

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Date: 29/11/2013

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ERM

Table 2.8 Impact Dolphin Monitoring Line Transect Co-ordinates

Line No.		Easting	Northing	Line No.		Easting	Northing
1	Start Point	804671	815456	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805476	820800*	14	Start Point	817537	820220
2	End Point	805476	826654	14	End Point	817537	824613
3	Start Point	806464	821150*	15	Start Point	818568	820735
3	End Point	806464	822911	15	End Point	818568	824433
4	Start Point	807518	821500*	16	Start Point	819532	821420
4	End Point	807518	829230	16	End Point	819532	824209
5	Start Point	808504	821850*	17	Start Point	820451	822125
5	End Point	808504	828602	17	End Point	820451	823671
6	Start Point	809490	822150*	18	Start Point	821504	822371
6	End Point	809490	825352	18	End Point	821504	823761
7	Start Point	810499	822000*	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	821123	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	821303	21	Start Point	805476	827081
9	End Point	812516	824254	21	End Point	805476	830562
10	Start Point	813525	821176	22	Start Point	806464	824033
10	End Point	813525	824657	22	End Point	806464	829598
11	Start Point	814556	818853	23	Start Point	814559	821739
11	End Point	814556	820992	23	End Point	814559	824768
12	Start Point	815542	818807	24*	Start Point	805476*	815900*
12	End Point	815542	824882	24*	End Point	805476*	819100*

Remarks: The coordinates of several starting and ending points have been revised due to the presence of a work zone to the north of the airport platform with intense construction activities in association with the construction of the third runway expansion for the Hong Kong International Airport. Co-ordinates in red and marked with asterisk are revised co-ordinates of transect line.

2.3.5 *Action & Limit Levels*

The Action and Limit levels of impact dolphin monitoring are shown in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.3.6 Monitoring Schedule for the Reporting Month

Dolphin monitoring was carried out on 3, 10, 12 and 16 of December 2019. The dolphin monitoring schedule for the reporting month is shown in *Appendix F*.

2.3.7 Results & Observations

A total of 262.02 km of survey effort was collected, with 100% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) in December 2019. Among the two areas, 95.80 km and 166.22 km of survey effort were collected from NEL and NWL survey areas, respectively. The total survey effort conducted on primary and secondary lines were 189.40 km and 72.62 km respectively. The survey efforts are summarized in *Appendix I.*

Three groups of 13 Chinese White Dolphins sightings were recorded during the two sets of surveys in December 2019. The dolphin sighting was made in NWL, while none was sighted in NEL. All three dolphin sightings were made during on-effort search and was made on primary lines. The dolphin groups were not associated with any operating fishing vessel.

No dolphin sighting was made in the proximity of the TM-CLKL alignment. The distribution of dolphin sightings during the reporting month is shown in *Figure 2.4.*

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in December 2019 with the results present in *Tables 2.9* and *2.10.*

Table 2.9 Individual Survey Event Encounter Rates

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	**Encounter rate (ANI)** (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	**Primary Lines Only**
NEL	Set 1: December 3rd / 10th	0.0	0.0
	Set 2: December 12th / 16th	0.0	0.0
NWL	Set 1: December 3rd / 10th	0.0	0.0
	Set 2: December 12th / 16th	5.0	21.8

Note: Dolphin Encounter Rates are deduced from the Two Sets of Surveys (Two Surveys in Each Set) in December 2019 in Northeast (NEL) and Northwest Lantau (NWL)

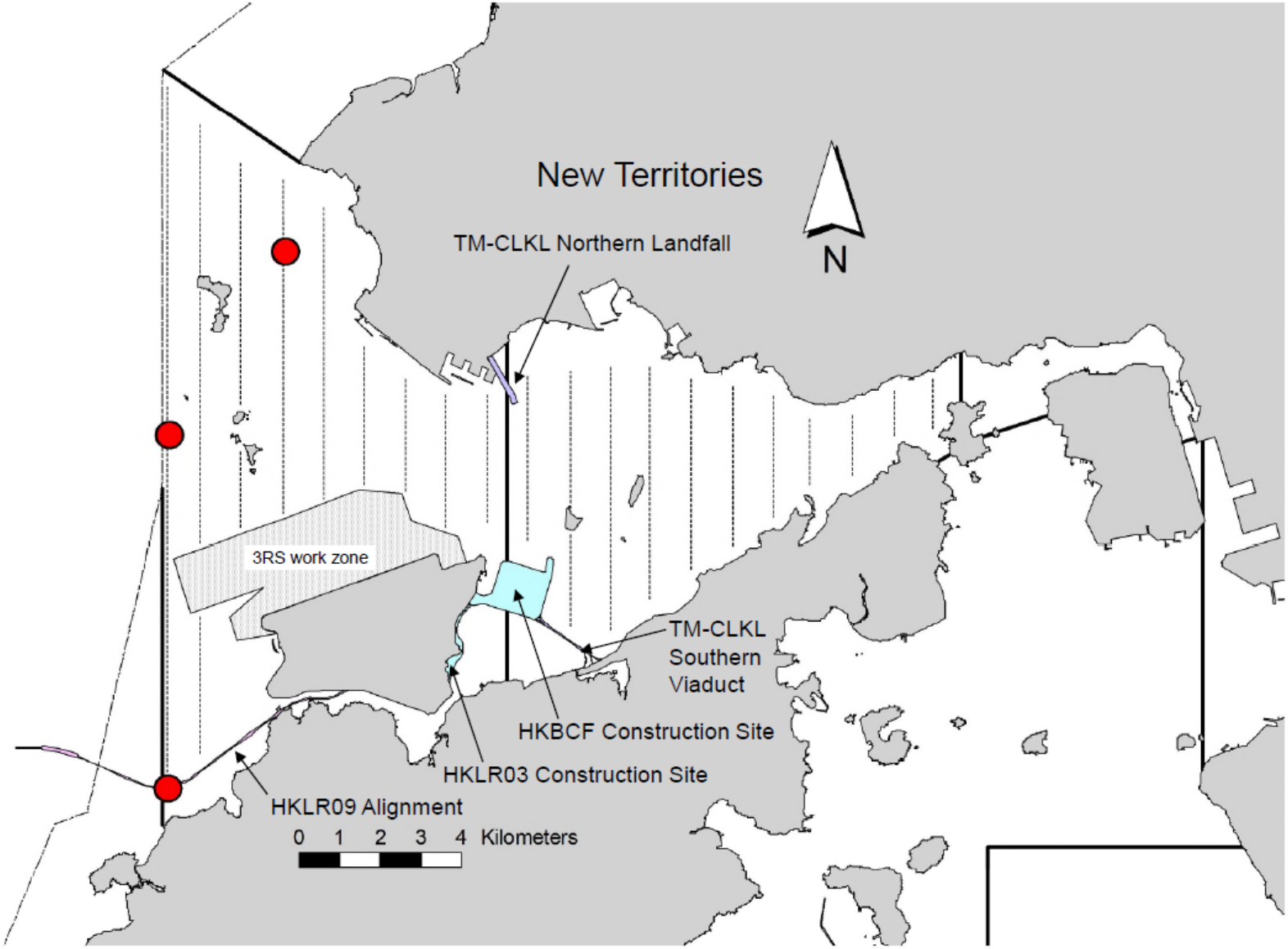

Figure 2.4

HY/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section
The distribution of dolphin sightings in December 2019

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Table 2.10 Monthly Average Encounter Rates

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	**Both Primary and Secondary Lines**	**Primary Lines Only**	**Both Primary and Secondary Lines**
Northeast Lantau	0.0	0.0	0.0	0.0
Northwest Lantau	2.5	1.8	10.9	7.8

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in December 2019 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau.

Due to monthly variation in dolphin occurrence within the survey area, it would be more appropriate to draw conclusion on whether any unacceptable impacts on dolphins have been detected in relation to the construction activities of this Contract in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

2.3.8 Implementation of Marine Mammal Exclusion Zone

Daily marine mammal exclusion zone was in effect during the period of silt curtain installation in open waters under this Contract. No sighting of the *Indo-Pacific humpback dolphin Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in December 2019 during the exclusion zone monitoring.

2.4 EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting month, four (4) site inspections were carried out on 4, 11, 18 and 27 December 2019.

Key observations and recommendations during the site inspections in this reporting period are summarized in *Table 2.11*.

Table 2.11 Specific Observations and Recommendations during the Weekly Site Inspection in this Reporting Month

Inspection Date	Observations	Recommendations/ Remarks
4 December 2019	Works Area – Portion N-C • Food waste should be removed. Works Area – Portion N-B • Drip tray should be provided during car repairing. Works Area – Portion S-A • Drip tray should be provided for the chemical container. **Reminder from the SOR** Works Area - Portion S-B • Stagnant water should be cleared.	Works Area – Portion N-C • The Contractor was reminded to remove the food waste. Works Area – Portion N-B • The Contractor was reminded to provide drip tray during car repairing. Works Area – Portion S-A • The Contractor was reminded to provideip tray for the chemical container. **Reminder from the SOR** Works Area - Portion S-B • The Contractor was reminded to clear the stagnant water.
11 December 2019	Works Area – TBM tunnel • Chemical drums and cement bags should be removed. Works Area – Portion S-B • NRMM label should be displayed on the excavator.	Works Area – TBM tunnel • The Contractor was reminded to remove the chemical drums and cement bags. Works Area – Portion S-B • The Contractor was reminded to display NRMM label on the excavator.
18 December 2019	Works Area – Portion S-B • Cover should be provided between sand barges during sand crab action. Works Area – Portion S-A • Drip tray for the chemicals should be provided. • Domestic waste should be removed and water barrier should be repaired. Works Area – Portion N-A • Cement bags should be covered by tarpaulin sheets. • Drip tray should be provided for the generator. **Reminder from the SOR** Works Area – Portion S-A • Stagnant water should be cleared.	Works Area – Portion S-B • The Contractor was reminded to provide cover between sand barges during sand crab action. Works Area – Portion S-A • The Contractor was reminded to provide drip tray for the chemicals. • The Contractor was reminded to remove the domestic waste and repair the water barrier. Works Area – Portion N-A • The Contractor was reminded to cover the cement bags by tarpaulin sheets. • The Contractor was reminded to provide drip tray for the generator. **Reminder from the SOR** Works Area – Portion S-A • The Contractor was reminded to clear the stagnant water.

Inspection Date	Observations	Recommendations/ Remarks
27 December 2019	Works Area – TBM tunnel • Water spraying should be applied on the haul raod. • Drip tray for the chemicals should be provided. Works Area – Portion S-A • Drip tray for the chemicals should be provided.	Works Area – TBM tunnel • The Contractor was reminded to apply water spraying on the haul road. • The Contractor was reminded to provide drip tray for the chemicals. Works Area – Portion S-A • The Contractor was reminded to provide drip tray for the chemicals.

The Contractor has rectified all of the observations as identified during environmental site inspections in the reporting month.

2.5 *WASTE MANAGEMENT STATUS*

The Contractor had submitted application form for registration as chemical waste producer under the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

Wastes generated during this reporting period included mainly construction wastes (inert and non-inert). Reference has been made to the waste flow table prepared by the Contractor (*Appendix M*). The quantities of different types of wastes are summarized in *Table 2.12*.

Table 2.12 Quantities of Different Waste Generated in the Reporting Month

Month/Year	Inert Construction Waste [a] (tonnes)	Inert Construction Waste Re-used (tonnes)	Non-inert Construction Waste [b] (tonnes)	Recyclable Materials [c] (kg)	Chemical Wastes (kg)	Marine Sediment (m^3)		
						Category L	Category M (M_p & M_f)	Mixed (L+M)
December 2019	4,216	0	441	0	0	0	0	0

Notes:
(a) Inert construction wastes include hard rock and large broken concrete, and materials disposed as public fill.
(b) Non-inert construction wastes include general refuse disposed at landfill.
(c) Recyclable materials include metals, paper, cardboard, plastics, timber and others.

The Contractor was advised to properly maintain on site C&D materials and waste collection, sorting and recording system, dispose of C&D materials and wastes at designated ground and maximize reuse/ recycle of C&D materials and wastes. The Contractor was also reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

For chemical waste containers, the Contractor was reminded to treat properly and store temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

2.6 *ENVIRONMENTAL LICENSES AND PERMITS*

The status of environmental licensing and permit is summarized in *Table 2.13* below.

Table 2.13 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/D	13 March 2015	Throughout the Contract	HyD	Application for VEP on 3 March 2015 to supersede EP-354/2009/C
Construction Dust Notification	435068	27 June 2018	Throughout the Contract	DBJV	Northern Landfall
Construction Dust Notification	435505	12 July 2018	Throughout the Contract	DBJV	Southern Landfall
Chemical Waste Registration	5213-422-D2516-02	18 January 2017	Throughout the Contract	DBJV	Northern Landfall
Chemical Waste Registration	5213-951-D2591-01	25 May 2016	Throughout the Contract	DBJV	Southern Landfall
Construction Waste Disposal Account	7018108	28 August 2013	Throughout the Contract	DBJV	Waste disposal in Contract No. HY/2012/08
Construction Waste Disposal Account	7021715	4 October 2019	14 January 2020	DBJV	Vessel Disposal
Waste Water Discharge License	WT00031435-2018	2 August 2018	31 August 2023	DBJV	Southern Landfall
Waste Water Discharge License	WT00034060-2019	25 July 2019	30 June 2024	DBJV	Northern Landfall (4 Discharge Point)
Construction Noise Permit	GW-RW0406-18	17 October 2019	15 April 2020	DBJV	Urmston Road in front of Pillar Point
Construction Noise Permit	GW-RW0374-19	20 August 2019	19 February 2020	DBJV	WA23 @ Tsing Yi
Construction Noise Permit	GW-RS0766-19	2 September 2019	25 February 2020	DBJV	Southern Landfall

Notes:
HyD = Highways Department
DBJV = Dragages – Bouygues Joint Venture
VEP = Variation of Environmental Permit

2.7 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

In response to the site audit findings, the Contractors carried out all corrective actions.

A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in *Appendix C*. The necessary mitigation measures relevant to this Contract were implemented properly.

2.8 SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT

Four (4) Action Level and One (1) Limit Level exceedances of 1-hour TSP Monitoring were recorded in the air quality monitoring of this reporting month. No exceedance of 24-hour TSP Monitoring was recorded.

No exceedance was recorded in the water quality monitoring of this reporting month.

Cumulative statistics are provided in *Appendix L*.

2.9 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

The Environmental Complaint Handling Procedure is provided in *Figure 2.5*.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

Statistics on complaints, notifications of summons and successful prosecutions are summarized in *Appendix L*.

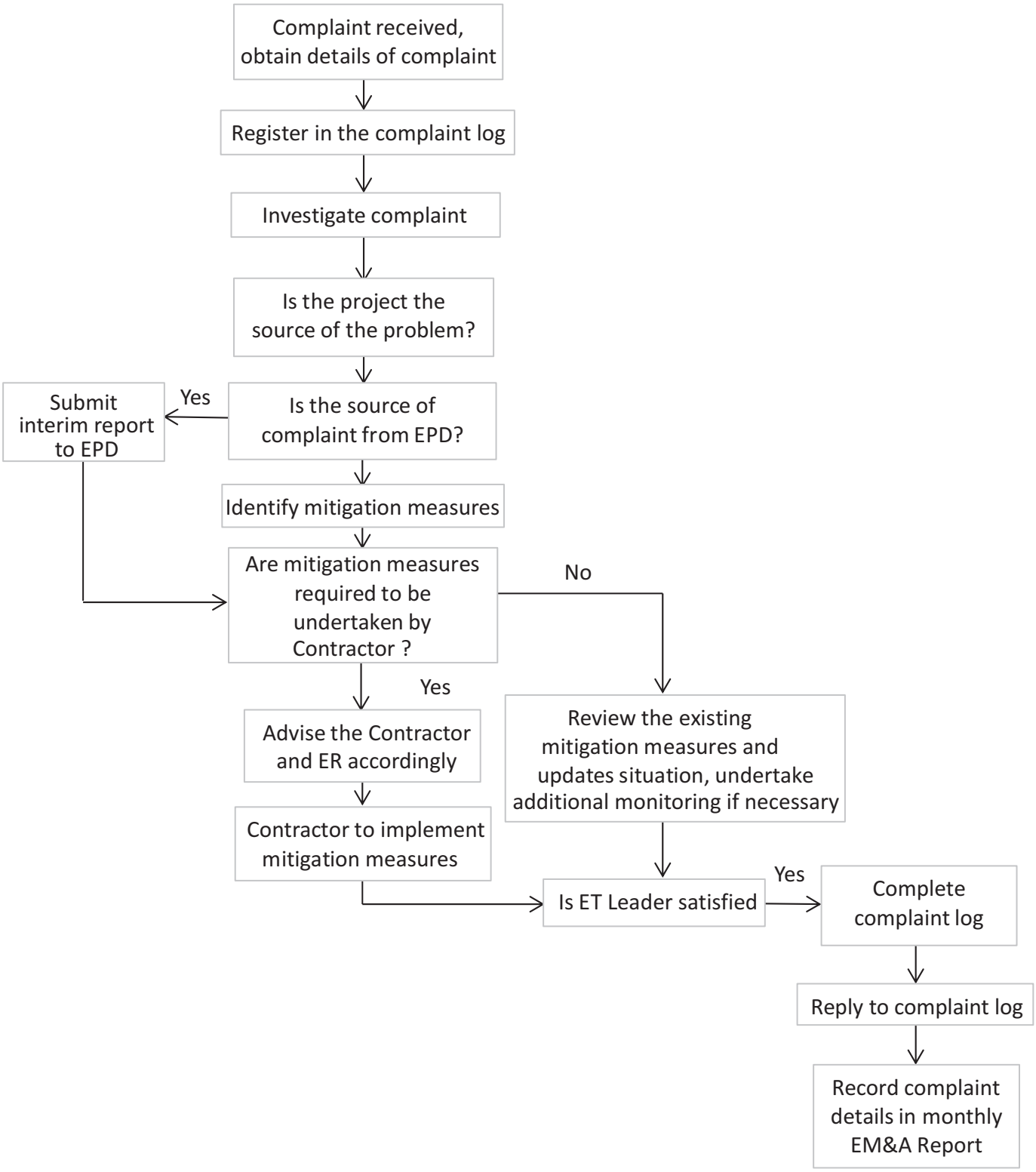

Figure 2.5 Environmental Complaint Handling Procedure

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DATE: 06/12/2013

Environmental Resources Management

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3 FUTURE KEY ISSUES

3.1 CONSTRUCTION ACTIVITIES FOR THE COMING MONTH

As informed by the Contractor, the major works for the Contract in January 2020 are summarized in *Table 3.1*.

Table 3.1 Construction Works to Be Undertaken in the Coming Month

Works to be undertaken
Land-based Works • Construction of Thermal barrier – TBM tunnel; • Construction of Walkway Corbel & Cover – TBM Tunnel; • Road & Drainage works – Portion N-A; • C&C Tunnel RC structure – Portion S-A; • Roofing System Installation – Portion S-A; • D-wall cut – Portion S-A; • Tower Crane Removal – Portion S-A; • Removal of Access Tower – Portion S-B; • Gantry Crane Removal – Portion S-B • Road & Drainage works – Portion S-B & S-C

3.2 KEY ISSUES FOR THE COMING MONTH

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of January 2020 are mainly associated with dust, marine water quality, marine ecology and waste management issues.

3.3 MONITORING SCHEDULE FOR THE COMING MONTH

The tentative schedule for environmental monitoring in January 2020 is provided in *Appendix F*.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This Seventy-fourth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 December 2019, in accordance with the Updated EM&A Manual and the requirements of EP-354/2009/D.

Air quality (including 1-hour TSP and 24-hour TSP), water quality monitoring and dolphin monitoring were carried out in this reporting month.

Four (4) Action Level and One (1) Limit Level exceedances of 1-hour TSP Monitoring were recorded in the air quality monitoring of this reporting month. No exceedance of 24-hour TSP Monitoring was recorded.

No exceedance was recorded in the water quality monitoring of this reporting month.

Three groups of 13 Chinese White Dolphins sightings were recorded during the two sets of surveys in December 2019. The dolphin sighting was made in NWL, while none was sighted in NEL. All three dolphin sightings were made during on-effort search and was made on primary lines. The dolphin groups were not associated with any operating fishing vessel.

Environmental site inspection was carried out four (4) times in December 2019. Remedial actions recommended for the deficiencies identified during the site audits were properly implemented by the Contractor.

No non-compliance event was recorded during the reporting period.

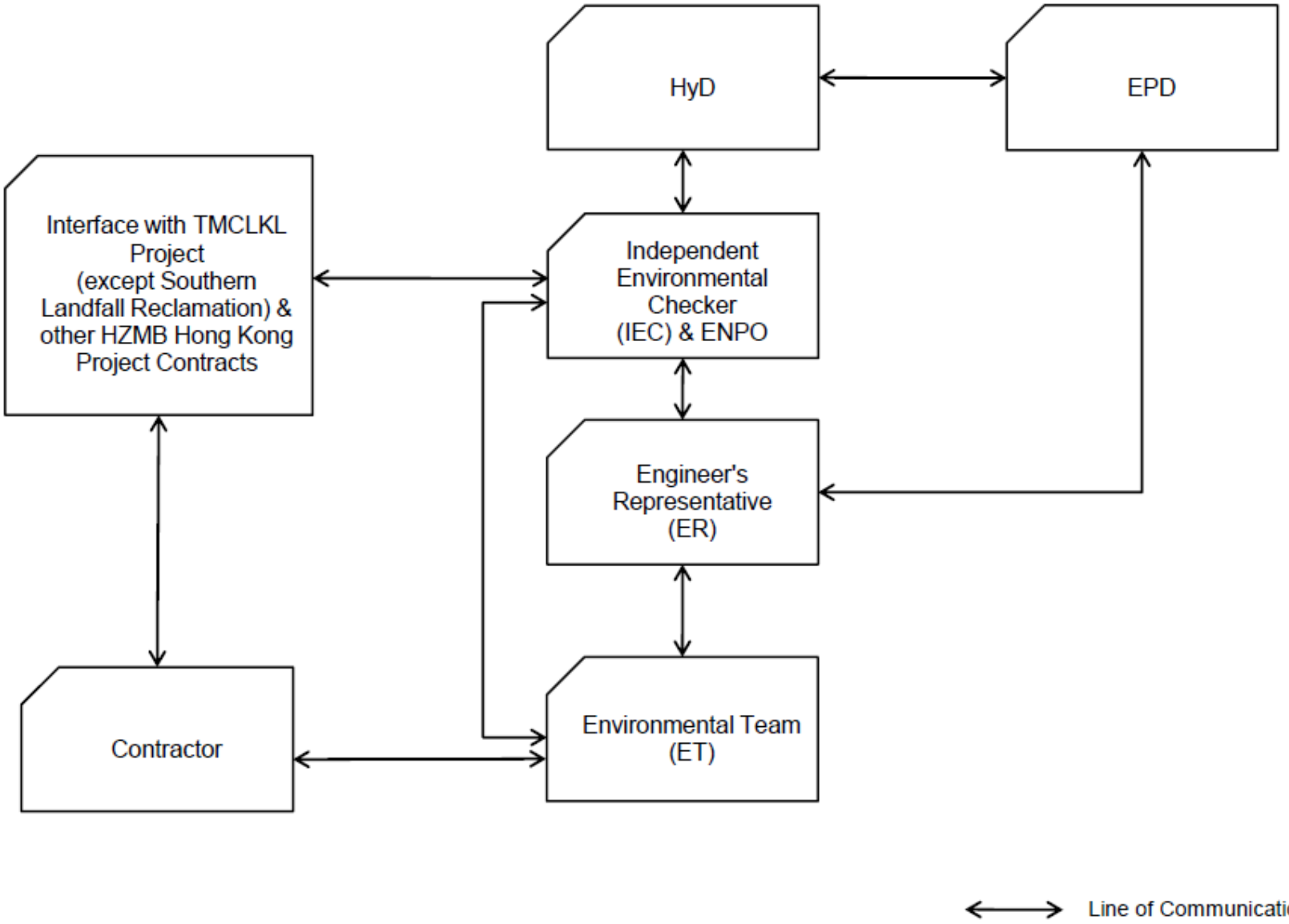
No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A

Project Organization for Environmental Works



Appendix A1

Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section
Project Organization

DATE: 06/03/2013

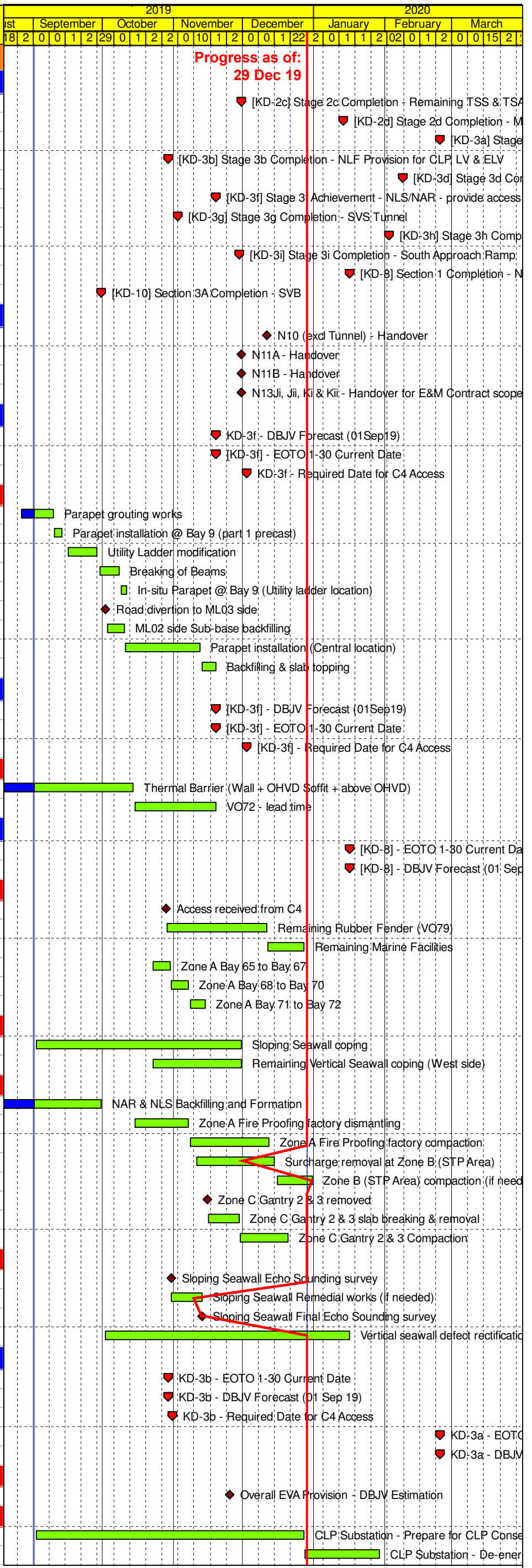
Environmental Resources Management

ERM

Appendix B

Construction Programme

#	Activity Name	Orig Dur	Start	Finish
1	**TMCLKL Northern Connection Sub-sea Tunnel Section**			
2	**Contract Key Dates**			
3	[KD-2c] Stage 2c Completion - Remaining TSS & TSA	0		30-Nov-19*
4	[KD-2d] Stage 2d Completion - MHS C&C Tunnel	0		13-Jan-20*
5	[KD-3a] Stage 3a Completion - NLF UU/At-grade Provision	0		24-Feb-20*
6	[KD-3b] Stage 3b Completion - NLF Provision for CLP, LV & ELV	0		29-Oct-19*
7	[KD-3d] Stage 3d Completion - SLF Provision for CLP, LV & ELV	0		08-Feb-20*
8	[KD-3f] Stage 3f Achievement - NLS/NAR - provide access	0		19-Nov-19*
9	[KD-3g] Stage 3g Completion - SVS Tunnel	0		02-Nov-19*
10	[KD-3h] Stage 3h Completion - SVS Ventilation Duct	0		02-Feb-20*
11	[KD-3i] Stage 3i Completion - South Approach Ramp	0		29-Nov-19*
12	[KD-8] Section 1 Completion - NLF Reclamation & Seawall	0		16-Jan-20*
13	[KD-10] Section 3A Completion - SVB	0		30-Sep-19*
14	**Portion Handover Dates**			
15	N10 (excl Tunnel) - Handover	0		11-Dec-19*
16	N11A - Handover	0		30-Nov-19*
17	N11B - Handover	0		30-Nov-19*
18	N13Ji, Jii, Ki & Kii - Handover for E&M Contract scope	0		30-Nov-19*
19	**North Approach Ramp KD-3f**			
20	KD-3f - DBJV Forecast (01Sep19)	0		19-Nov-19
21	[KD-3f] - EOTO 1-30 Current Date	0		19-Nov-19*
22	KD-3f - Required Date for C4 Access	0		02-Dec-19*
23	**North Approach Ramp**			
24	Parapet grouting works	12	27-Aug-19 A	09-Sep-19
25	Parapet installation @ Bay 9 (part 1 precast)	4	10-Sep-19	13-Sep-19
26	Utility Ladder modification	12	16-Sep-19	28-Sep-19
27	Breaking of Beams	6	30-Sep-19	08-Oct-19
28	In-situ Parapet @ Bay 9 (Utility ladder location)	3	09-Oct-19	11-Oct-19
29	Road divertion to ML03 side	0		02-Oct-19*
30	ML02 side Sub-base backfilling	6	03-Oct-19	10-Oct-19
31	Parapet installation (Central location)	28	11-Oct-19	12-Nov-19
32	Backfilling & slab topping	6	13-Nov-19	19-Nov-19
33	**North Launching Shaft KD-3f**			
34	[KD-3f] - DBJV Forecast (01Sep19)	0		19-Nov-19
35	[KD-3f] - EOTO 1-30 Current Date	0		19-Nov-19*
36	[KD-3f] - Required Date for C4 Access	0		02-Dec-19*
37	**North Launching Shaft**			
38	Thermal Barrier (Wall + OHVD Soffit + above OHVD)	70	22-Jul-19 A	14-Oct-19
39	VO72 - lead time	31	15-Oct-19	19-Nov-19
40	**Remaining North Reclamation KD-8**			
41	[KD-8] - EOTO 1-30 Current Date	0		16-Jan-20*
42	[KD-8] - DBJV Forecast (01 Sep 19)	0		16-Jan-20
43	**Vertical Seawall**			
44	Access received from C4	0		28-Oct-19*
45	Remaining Rubber Fender (VO79)	38	29-Oct-19	11-Dec-19
46	Remaining Marine Facilities	12	12-Dec-19	27-Dec-19
47	Zone A Bay 65 to Bay 67	7	23-Oct-19	30-Oct-19
48	Zone A Bay 68 to Bay 70	7	31-Oct-19	07-Nov-19
49	Zone A Bay 71 to Bay 72	6	08-Nov-19	14-Nov-19
50	**Sloping Seawall**			
51	Sloping Seawall coping	75	02-Sep-19	30-Nov-19
52	Remaining Vertical Seawall coping (West side)	34	23-Oct-19	30-Nov-19
53	**Removal, Backfilling & Compaction**			
54	NAR & NLS Backfilling and Formation	51	01-Aug-19 A	30-Sep-19
55	Zone A Fire Proofing factory dismantling	21	15-Oct-19*	07-Nov-19
56	Zone A Fire Proofing factory compaction	30	08-Nov-19	12-Dec-19
57	Surcharge removal at Zone B (STP Area)	30	11-Nov-19*	14-Dec-19
58	Zone B (STP Area) compaction (if needed)	12	16-Dec-19	31-Dec-19
59	Zone C Gantry 2 & 3 removed	0		15-Nov-19*
60	Zone C Gantry 2 & 3 slab breaking & removal	12	16-Nov-19	29-Nov-19
61	Zone C Gantry 2 & 3 Compaction	18	30-Nov-19	20-Dec-19
62	**Overall**			
63	Sloping Seawall Echo Sounding survey	0		31-Oct-19*
64	Sloping Seawall Remedial works (if needed)	12	31-Oct-19	13-Nov-19
65	Sloping Seawall Final Echo Sounding survey	0		13-Nov-19
66	Vertical seawall defect rectification	88	02-Oct-19	16-Jan-20
67	**NLF Demobilization & At-grade works**			
68	KD-3b - EOTO 1-30 Current Date	0		29-Oct-19*
69	KD-3b - DBJV Forecast (01 Sep 19)	0		29-Oct-19*
70	KD-3b - Required Date for C4 Access	0		31-Oct-19*
71	KD-3a - EOTO 1-30 Current Date	0		24-Feb-20*
72	KD-3a - DBJV Forecast (01 Sep 19)	0		24-Feb-20
73	**Requirement**			
74	Overall EVA Provision - DBJV Estimation	0		25-Nov-19*
75	**Portion N12 & Portion N6B**			
76	CLP Substation - Prepare for CLP Consent for de-energization	96	02-Sep-19	27-Dec-19
77	CLP Substation - De-energization	24	28-Dec-19	29-Jan-20



Planned Bar
Planned Milestone
Key Date
Progress Milestone
Progress Bar

TMCLKL Northern Connection Sub-sea Tunnel Section

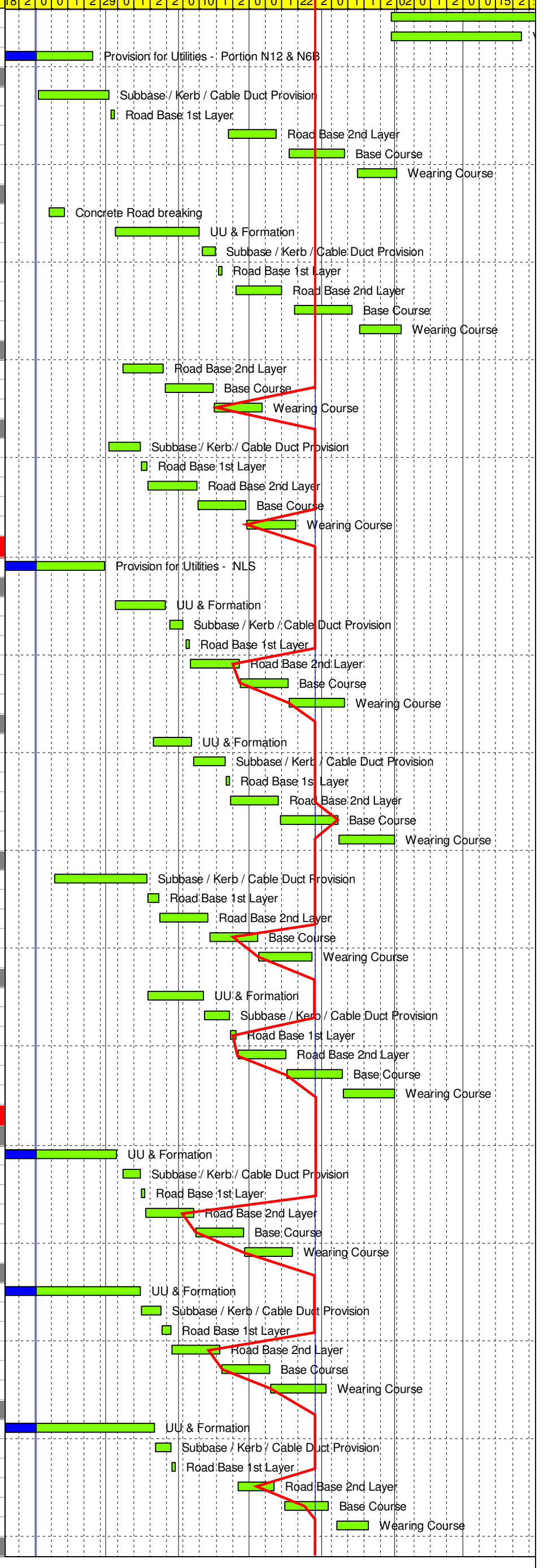
Detailed Works Programme Rev. K

Forecast as of 01 September 2019

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

Date	Revision	Checked	Approved
22-Dec-17	Rev. H	WYu	
05-Feb-18	Rev. I AC	WYu	
07-Mar-18	Rev. I	WYu	
04-Jun-18	Rev. J	WYu	
11-Nov-19	Rev. K	SPa	WYu

#	Activity Name	Orig Dur	Start	Finish
78	CLP Substation - Dismantling & Removal	102	30-Jan-20	02-Jun-20
79	VO-009 Temporary Protection Barrier - Dismantling & Removal	48	30-Jan-20	25-Mar-20
80	Provision for Utilities - Portion N12 & N6B	133	15-Apr-19 A	25-Sep-19
81	**NPO5 (ML03)**			
82	Subbase / Kerb / Cable Duct Provision	25	02-Sep-19	02-Oct-19
83	Road Base 1st Layer	2	03-Oct-19	04-Oct-19
84	Road Base 2nd Layer	18	22-Nov-19	12-Dec-19
85	Base Course	18	18-Dec-19	10-Jan-20
86	Wearing Course	12	16-Jan-20	01-Feb-20
87	**NPO5 (ML02) + NP05 (MD)**			
88	Concrete Road breaking	6	07-Sep-19	13-Sep-19
89	UU & Formation	30	05-Oct-19	09-Nov-19
90	Subbase / Kerb / Cable Duct Provision	6	11-Nov-19	16-Nov-19
91	Road Base 1st Layer	2	18-Nov-19	19-Nov-19
92	Road Base 2nd Layer	18	25-Nov-19	14-Dec-19
93	Base Course	18	20-Dec-19	13-Jan-20
94	Wearing Course	12	17-Jan-20	03-Feb-20
95	**Portion N6**			
96	Road Base 2nd Layer	16	08-Oct-19*	25-Oct-19
97	Base Course	18	26-Oct-19	15-Nov-19
98	Wearing Course	18	16-Nov-19	06-Dec-19
99	**Retaining Wall A**			
100	Subbase / Kerb / Cable Duct Provision	11	02-Oct-19*	15-Oct-19
101	Road Base 1st Layer	3	16-Oct-19	18-Oct-19
102	Road Base 2nd Layer	18	19-Oct-19	08-Nov-19
103	Base Course	18	09-Nov-19	29-Nov-19
104	Wearing Course	18	30-Nov-19	20-Dec-19
105	**North Launching Shaft**			
106	Provision for Utilities - NLS	48	05-Aug-19 A	30-Sep-19
107	**Roundabout at NLS**			
108	UU & Formation	18	05-Oct-19	26-Oct-19
109	Subbase / Kerb / Cable Duct Provision	6	28-Oct-19	02-Nov-19
110	Road Base 1st Layer	2	04-Nov-19	05-Nov-19
111	Road Base 2nd Layer	18	06-Nov-19	26-Nov-19
112	Base Course	18	27-Nov-19	17-Dec-19
113	Wearing Course	18	18-Dec-19	10-Jan-20
114	**Carpark**			
115	UU & Formation	15	21-Oct-19	06-Nov-19
116	Subbase / Kerb / Cable Duct Provision	12	07-Nov-19	20-Nov-19
117	Road Base 1st Layer	2	21-Nov-19	22-Nov-19
118	Road Base 2nd Layer	18	23-Nov-19	13-Dec-19
119	Base Course	18	14-Dec-19	07-Jan-20
120	Wearing Course	18	08-Jan-20	31-Jan-20
121	**Retaining Wall A to B**			
122	Subbase / Kerb / Cable Duct Provision	32	09-Sep-19	18-Oct-19
123	Road Base 1st Layer	4	19-Oct-19	23-Oct-19
124	Road Base 2nd Layer	18	24-Oct-19	13-Nov-19
125	Base Course	18	14-Nov-19	04-Dec-19
126	Wearing Course	18	05-Dec-19	27-Dec-19
127	**NPO3**			
128	UU & Formation	20	19-Oct-19	11-Nov-19
129	Subbase / Kerb / Cable Duct Provision	10	12-Nov-19	22-Nov-19
130	Road Base 1st Layer	2	23-Nov-19	25-Nov-19
131	Road Base 2nd Layer	18	26-Nov-19	16-Dec-19
132	Base Course	18	17-Dec-19	09-Jan-20
133	Wearing Course	16	10-Jan-20	31-Jan-20
134	**Sloping Seawall**			
135	**Workshop 14-9**			
136	UU & Formation	127	06-May-19 A	05-Oct-19
137	Subbase / Kerb / Cable Duct Provision	7	08-Oct-19	15-Oct-19
138	Road Base 1st Layer	2	16-Oct-19	17-Oct-19
139	Road Base 2nd Layer	18	18-Oct-19	07-Nov-19
140	Base Course	18	08-Nov-19	28-Nov-19
141	Wearing Course	18	29-Nov-19	19-Dec-19
142	**Workshop 9-1**			
143	UU & Formation	107	07-Jun-19 A	15-Oct-19
144	Subbase / Kerb / Cable Duct Provision	8	16-Oct-19	24-Oct-19
145	Road Base 1st Layer	3	25-Oct-19	28-Oct-19
146	Road Base 2nd Layer	18	29-Oct-19	18-Nov-19
147	Base Course	18	19-Nov-19	09-Dec-19
148	Wearing Course	18	10-Dec-19	02-Jan-20
149	**Outfall C 1/2**			
150	UU & Formation	86	10-Jul-19 A	21-Oct-19
151	Subbase / Kerb / Cable Duct Provision	6	22-Oct-19	28-Oct-19
152	Road Base 1st Layer	2	29-Oct-19	30-Oct-19
153	Road Base 2nd Layer	14	26-Nov-19	11-Dec-19
154	Base Course	14	16-Dec-19	03-Jan-20
155	Wearing Course	12	07-Jan-20	20-Jan-20
156	**Outfall C 2/2**			



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TMCLKL Northern Connection Sub-sea Tunnel Section

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Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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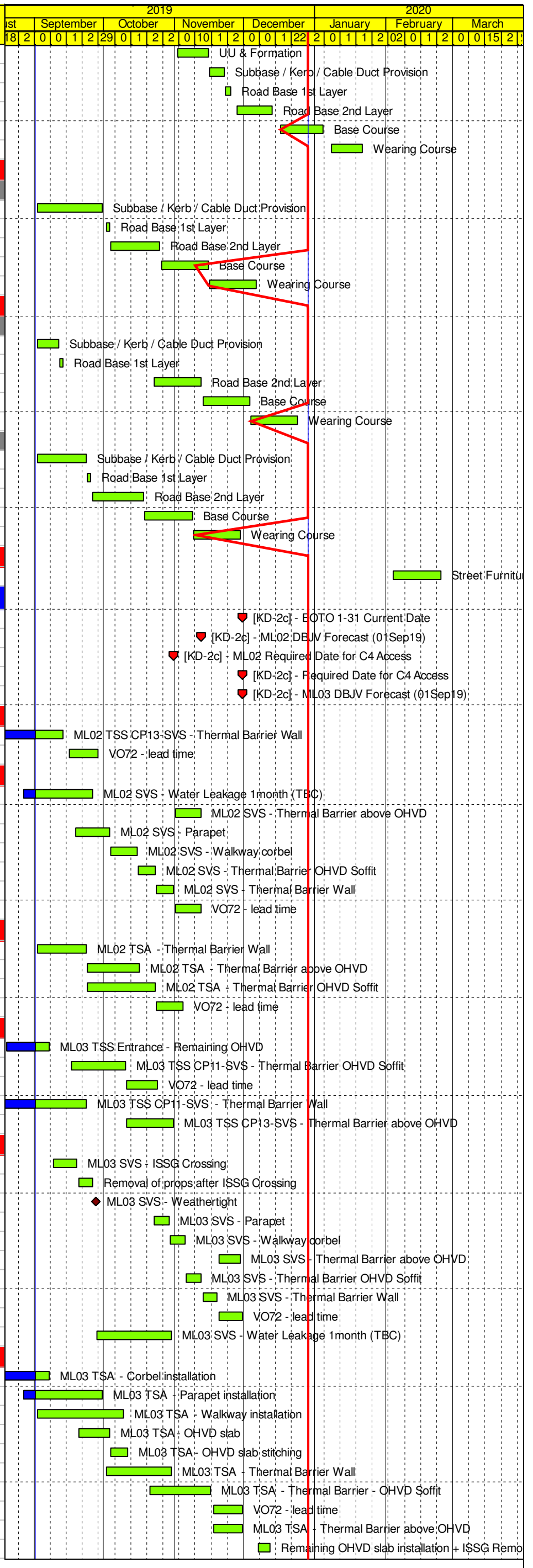
#	Activity Name	Orig Dur	Start	Finish
157	UU & Formation	12	02-Nov-19	15-Nov-19
158	Subbase / Kerb / Cable Duct Provision	6	16-Nov-19	22-Nov-19
159	Road Base 1st Layer	2	23-Nov-19	25-Nov-19
160	Road Base 2nd Layer	14	28-Nov-19	13-Dec-19
161	Base Course	14	17-Dec-19	04-Jan-20
162	Wearing Course	12	08-Jan-20	21-Jan-20
163	**Precast Segment Yard**			
164	**Roundabout/G4**			
165	Subbase / Kerb / Cable Duct Provision	24	02-Sep-19	30-Sep-19
166	Road Base 1st Layer	2	02-Oct-19	03-Oct-19
167	Road Base 2nd Layer	18	04-Oct-19	25-Oct-19
168	Base Course	18	26-Oct-19	15-Nov-19
169	Wearing Course	18	16-Nov-19	06-Dec-19
170	**NVS & STP (Portion N7 Interface)**			
171	**North Ventilation Building**			
172	Subbase / Kerb / Cable Duct Provision	9	02-Sep-19	11-Sep-19
173	Road Base 1st Layer	2	12-Sep-19	13-Sep-19
174	Road Base 2nd Layer	18	23-Oct-19	12-Nov-19
175	Base Course	18	13-Nov-19	03-Dec-19
176	Wearing Course	18	04-Dec-19	24-Dec-19
177	**FSD/CEDD**			
178	Subbase / Kerb / Cable Duct Provision	18	02-Sep-19	23-Sep-19
179	Road Base 1st Layer	2	24-Sep-19	25-Sep-19
180	Road Base 2nd Layer	18	26-Sep-19	18-Oct-19
181	Base Course	18	19-Oct-19	08-Nov-19
182	Wearing Course	18	09-Nov-19	29-Nov-19
183	**Northern Landfall - Overall**			
184	Street Furniture & Road Marking	18	04-Feb-20	24-Feb-20
185	**Remaining Internal Structure KD-2c**			
186	[KD-2c] - EOTO 1-31 Current Date	0		30-Nov-19*
187	[KD-2c] - ML02 DBJV Forecast (01Sep19)	0		12-Nov-19
188	[KD-2c] - ML02 Required Date for C4 Access	0		31-Oct-19*
189	[KD-2c] - Required Date for C4 Access	0		30-Nov-19*
190	[KD-2c] - ML03 DBJV Forecast (01Sep19)	0		30-Nov-19
191	**ML02 TSS**			
192	ML02 TSS CP13-SVS - Thermal Barrier Wall	47	22-Jul-19 A	13-Sep-19
193	VO72 - lead time	12	16-Sep-19	28-Sep-19
194	**ML02 SVS**			
195	ML02 SVS - Water Leakage 1month (TBC)	26	27-Aug-19 A	26-Sep-19
196	ML02 SVS - Thermal Barrier above OHVD	10	01-Nov-19	12-Nov-19
197	ML02 SVS - Parapet	12	19-Sep-19*	03-Oct-19
198	ML02 SVS - Walkway corbel	9	04-Oct-19	15-Oct-19
199	ML02 SVS - Thermal Barrier OHVD Soffit	7	16-Oct-19	23-Oct-19
200	ML02 SVS - Thermal Barrier Wall	7	24-Oct-19	31-Oct-19
201	VO72 - lead time	10	01-Nov-19	12-Nov-19
202	**ML02 TSA**			
203	ML02 TSA - Thermal Barrier Wall	18	02-Sep-19	23-Sep-19
204	ML02 TSA - Thermal Barrier above OHVD	18	24-Sep-19	16-Oct-19
205	ML02 TSA - Thermal Barrier OHVD Soffit	24	24-Sep-19	23-Oct-19
206	VO72 - lead time	10	24-Oct-19	04-Nov-19
207	**ML03 TSS**			
208	ML03 TSS Entrance - Remaining OHVD	17	20-Aug-19 A	07-Sep-19
209	ML03 TSS CP11-SVS - Thermal Barrier OHVD Soffit	19	17-Sep-19	10-Oct-19
210	VO72 - lead time	12	11-Oct-19	24-Oct-19
211	ML03 TSS CP11-SVS - Thermal Barrier Wall	30	19-Aug-19 A	23-Sep-19
212	ML03 TSS CP13-SVS - Thermal Barrier above OHVD	18	11-Oct-19	31-Oct-19
213	**ML03 SVS**			
214	ML03 SVS - ISSG Crossing	9	09-Sep-19	19-Sep-19
215	Removal of props after ISSG Crossing	6	20-Sep-19	26-Sep-19
216	ML03 SVS - Weathertight	0		27-Sep-19*
217	ML03 SVS - Parapet	6	23-Oct-19	29-Oct-19
218	ML03 SVS - Walkway corbel	6	30-Oct-19	05-Nov-19
219	ML03 SVS - Thermal Barrier above OHVD	9	20-Nov-19	29-Nov-19
220	ML03 SVS - Thermal Barrier OHVD Soffit	6	06-Nov-19	12-Nov-19
221	ML03 SVS - Thermal Barrier Wall	6	13-Nov-19	19-Nov-19
222	VO72 - lead time	10	20-Nov-19	30-Nov-19
223	ML03 SVS - Water Leakage 1month (TBC)	26	28-Sep-19	30-Oct-19
224	**ML03 TSA**			
225	ML03 TSA - Corbel installation	93	21-May-19 A	07-Sep-19
226	ML03 TSA - Parapet installation	29	27-Aug-19 A	30-Sep-19
227	ML03 TSA - Walkway installation	30	02-Sep-19	09-Oct-19
228	ML03 TSA - OHVD slab	11	20-Sep-19	03-Oct-19
229	ML03 TSA - OHVD slab stitching	6	04-Oct-19	11-Oct-19
230	ML03 TSA - Thermal Barrier Wall	24	02-Oct-19	30-Oct-19
231	ML03 TSA - Thermal Barrier - OHVD Soffit	24	21-Oct-19	16-Nov-19
232	VO72 - lead time	12	18-Nov-19	30-Nov-19
233	ML03 TSA - Thermal Barrier above OHVD	12	18-Nov-19	30-Nov-19
234	Remaining OHVD slab installation + ISSG Removal	6	07-Dec-19	12-Dec-19



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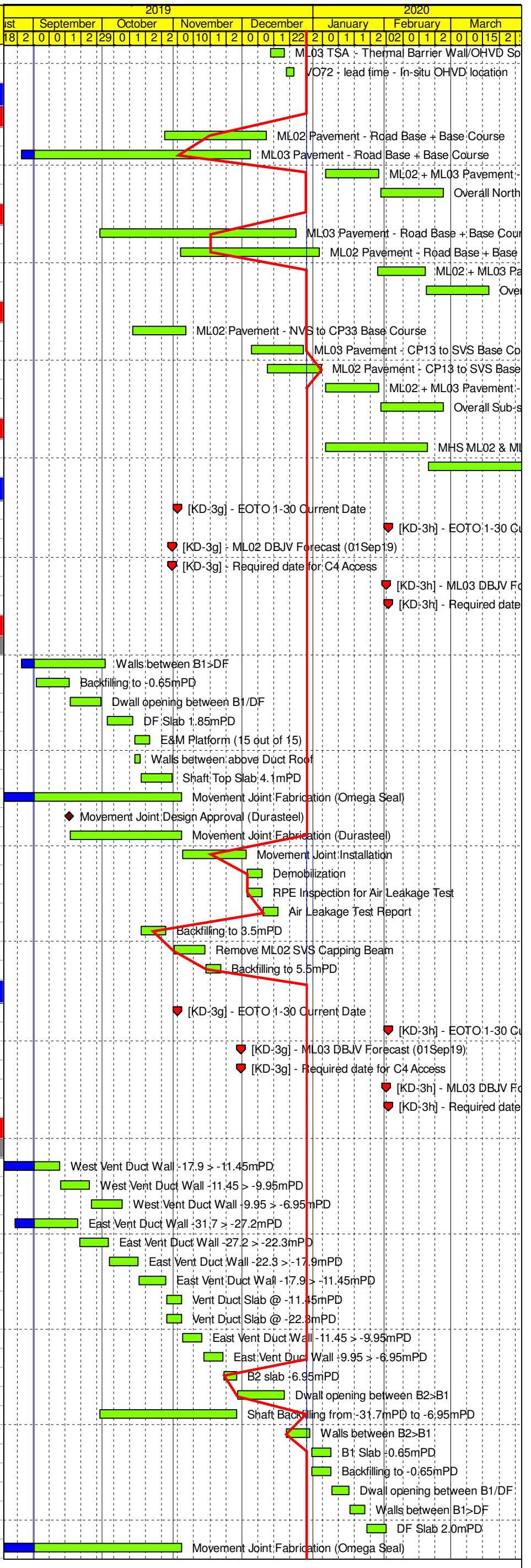
11-Nov-19	Rev. K	SPa	WYu

#	Activity Name	Orig Dur	Start	Finish
235	ML03 TSA - Thermal Barrier Wall/OHVD Soffit - In-situ OHVD locatior	6	13-Dec-19	19-Dec-19
236	VO72 - lead time - In-situ OHVD location	3	20-Dec-19	23-Dec-19
237	**Tunnel Roadworks**			
238	**North Approach Ramp & North Launching Shaft**			
239	ML02 Pavement - Road Base + Base Course	39	28-Oct-19*	11-Dec-19
240	ML03 Pavement - Road Base + Base Course	83	27-Aug-19 A	04-Dec-19
241	ML02 + ML03 Pavement - Final Layer	18	06-Jan-20	29-Jan-20
242	Overall North Approach Ramp Road Marking	24	30-Jan-20	26-Feb-20
243	**North Approach Tunnel to North Ventilation Shaft**			
244	ML03 Pavement - Road Base + Base Course	72	30-Sep-19*	24-Dec-19
245	ML02 Pavement - Road Base + Base Course	50	04-Nov-19*	03-Jan-20
246	ML02 + ML03 Pavement - Final Layer	18	29-Jan-20	18-Feb-20
247	Overall North Approach Tunnel Road Marking	24	19-Feb-20	17-Mar-20
248	**Sub-sea Tunnel**			
249	ML02 Pavement - NVS to CP33 Base Course	21	14-Oct-19*	06-Nov-19
250	ML03 Pavement - CP13 to SVS Base Course	18	05-Dec-19	27-Dec-19
251	ML02 Pavement - CP13 to SVS Base Course	18	12-Dec-19	04-Jan-20
252	ML02 + ML03 Pavement - Final Layer	18	06-Jan-20	29-Jan-20
253	Overall Sub-sea Tunnel Road Marking	24	30-Jan-20	26-Feb-20
254	**MHS TBM Tunnel, Cut & Cover & South Approach Ramp**			
255	MHS ML02 & ML03 TBM Tunnel	36	06-Jan-20	19-Feb-20
256	MHS C&C Tunnel and Approach Ramp	36	20-Feb-20	01-Apr-20
257	**ML02 South Ventilation Shaft**			
258	[KD-3g] - EOTO 1-30 Current Date	0		02-Nov-19*
259	[KD-3h] - EOTO 1-30 Current Date	0		02-Feb-20*
260	[KD-3g] - ML02 DBJV Forecast (01Sep19)	0		31-Oct-19
261	[KD-3g] - Required date for C4 Access	0		31-Oct-19*
262	[KD-3h] - ML03 DBJV Forecast (01Sep19)	0		01-Feb-20
263	[KD-3h] - Required date for C4 Access	0		02-Feb-20*
264	**ML02 SVS Structure**			
265	**Above Tunnel Vent Duct**			
266	Walls between B1>DF	30	27-Aug-19 A	02-Oct-19
267	Backfilling to -0.65mPD	12	02-Sep-19	16-Sep-19
268	Dwall opening between B1/DF	12	17-Sep-19	30-Sep-19
269	DF Slab 1.85mPD	9	03-Oct-19	14-Oct-19
270	E&M Platform (15 out of 15)	6	15-Oct-19	21-Oct-19
271	Walls between above Duct Roof	3	15-Oct-19	17-Oct-19
272	Shaft Top Slab 4.1mPD	12	18-Oct-19	31-Oct-19
273	Movement Joint Fabrication (Omega Seal)	113	21-Jun-19 A	04-Nov-19
274	Movement Joint Design Approval (Durasteel)	0		16-Sep-19*
275	Movement Joint Fabrication (Durasteel)	40	17-Sep-19	04-Nov-19
276	Movement Joint Installation	24	05-Nov-19	02-Dec-19
277	Demobilization	6	03-Dec-19	09-Dec-19
278	RPE Inspection for Air Leakage Test	6	03-Dec-19	09-Dec-19
279	Air Leakage Test Report	6	10-Dec-19	16-Dec-19
280	Backfilling to 3.5mPD	9	18-Oct-19	28-Oct-19
281	Remove ML02 SVS Capping Beam	12	01-Nov-19	14-Nov-19
282	Backfilling to 5.5mPD	6	15-Nov-19	21-Nov-19
283	**ML03 South Ventilation Shaft**			
284	[KD-3g] - EOTO 1-30 Current Date	0		02-Nov-19*
285	[KD-3h] - EOTO 1-30 Current Date	0		02-Feb-20*
286	[KD-3g] - ML03 DBJV Forecast (01Sep19)	0		30-Nov-19*
287	[KD-3g] - Required date for C4 Access	0		30-Nov-19*
288	[KD-3h] - ML03 DBJV Forecast (01Sep19)	0		01-Feb-20
289	[KD-3h] - Required date for C4 Access	0		02-Feb-20*
290	**ML03 SVS Structure**			
291	**Above Tunnel Vent Duct**			
292	West Vent Duct Wall -17.9 > -11.45mPD	51	16-Jul-19 A	12-Sep-19
293	West Vent Duct Wall -11.45 > -9.95mPD	10	13-Sep-19	25-Sep-19
294	West Vent Duct Wall -9.95 > -6.95mPD	10	26-Sep-19	09-Oct-19
295	East Vent Duct Wall -31.7 > -27.2mPD	23	24-Aug-19 A	20-Sep-19
296	East Vent Duct Wall -27.2 > -22.3mPD	10	21-Sep-19	03-Oct-19
297	East Vent Duct Wall -22.3 > -17.9mPD	10	04-Oct-19	16-Oct-19
298	East Vent Duct Wall -17.9 > -11.45mPD	10	17-Oct-19	28-Oct-19
299	Vent Duct Slab @ -11.45mPD	6	29-Oct-19	04-Nov-19
300	Vent Duct Slab @ -22.3mPD	6	29-Oct-19	04-Nov-19
301	East Vent Duct Wall -11.45 > -9.95mPD	8	05-Nov-19	13-Nov-19
302	East Vent Duct Wall -9.95 > -6.95mPD	8	14-Nov-19	22-Nov-19
303	B2 slab -6.95mPD	5	23-Nov-19	28-Nov-19
304	Dwall opening between B2>B1	18	29-Nov-19	19-Dec-19
305	Shaft Backfilling from -31.7mPD to -6.95mPD	50	30-Sep-19	28-Nov-19
306	Walls between B2>B1	7	20-Dec-19	30-Dec-19
307	B1 Slab -0.65mPD	7	31-Dec-19	08-Jan-20
308	Backfilling to -0.65mPD	7	31-Dec-19	08-Jan-20
309	Dwall opening between B1/DF	7	09-Jan-20	16-Jan-20
310	Walls between B1>DF	6	17-Jan-20	23-Jan-20
311	DF Slab 2.0mPD	5	24-Jan-20	01-Feb-20
312	Movement Joint Fabrication (Omega Seal)	113	21-Jun-19 A	04-Nov-19



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Dragages HongKong 香港寶嘉
A member of the Bouygues Construction group
Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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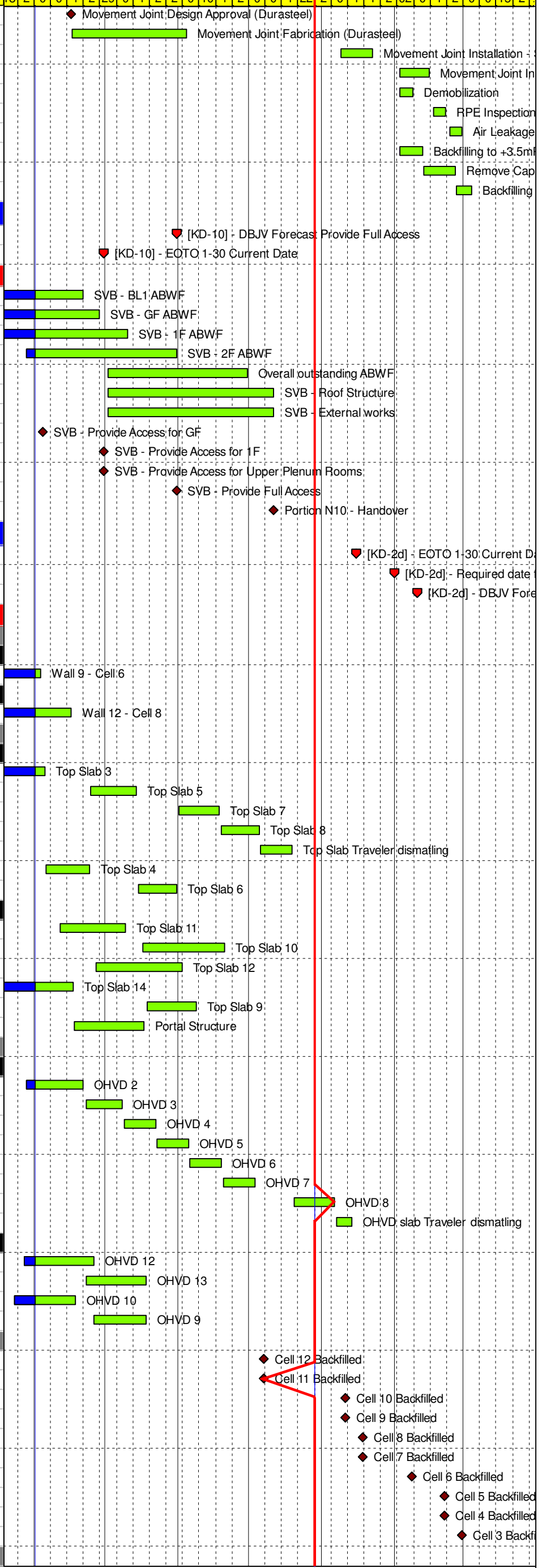
11-Nov-19	Rev. K	SPa	WYu

#	Activity Name	Orig Dur	Start	Finish
313	Movement Joint Design Approval (Durasteel)	0		16-Sep-19*
314	Movement Joint Fabrication (Durasteel)	40	17-Sep-19	04-Nov-19
315	Movement Joint Installation - Stage 1	12	09-Jan-20	22-Jan-20
316	Movement Joint Installation - Stage 2	12	03-Feb-20	15-Feb-20
317	Demobilization	6	03-Feb-20	08-Feb-20
318	RPE Inspection for Air Leakage Test	6	17-Feb-20	22-Feb-20
319	Air Leakage Test Report	6	24-Feb-20	29-Feb-20
320	Backfilling to +3.5mPD	9	03-Feb-20	12-Feb-20
321	Remove Capping Beam	12	13-Feb-20	26-Feb-20
322	Backfilling to +5.5mPD	6	27-Feb-20	04-Mar-20
323	**South Ventilation Building KD-10**			
324	[KD-10] - DBJV Forecast Provide Full Access	0		31-Oct-19
325	[KD-10] - EOTO 1-30 Current Date	0		30-Sep-19*
326	**ABWF**			
327	SVB - BL1 ABWF	79	20-Jun-19 A	21-Sep-19
328	SVB - GF ABWF	85	20-Jun-19 A	28-Sep-19
329	SVB - 1F ABWF	49	12-Aug-19 A	10-Oct-19
330	SVB - 2F ABWF	52	29-Aug-19 A	31-Oct-19
331	Overall outstanding ABWF	51	02-Oct-19	30-Nov-19
332	SVB - Roof Structure	60	02-Oct-19	11-Dec-19
333	SVB - External works	60	02-Oct-19	11-Dec-19
334	SVB - Provide Access for GF	0		04-Sep-19*
335	SVB - Provide Access for 1F	0		30-Sep-19*
336	SVB - Provide Access for Upper Plenum Rooms	0		30-Sep-19*
337	SVB - Provide Full Access	0		31-Oct-19
338	Portion N10 - Handover	0		11-Dec-19*
339	**MHS Cut-and-cover Tunnel KD-2d**			
340	[KD-2d] - EOTO 1-30 Current Date	0		15-Jan-20*
341	[KD-2d] - Required date for C4 Access	0		31-Jan-20*
342	[KD-2d] - DBJV Forecast (01Sep19)	0		10-Feb-20
343	**South MHS Cut-and-cover KD-2d**			
344	**Wall**			
345	**Traveller Formworks**			
346	Wall 9 - Cell 6	22	09-Aug-19 A	03-Sep-19
347	**Traditional Formworks**			
348	Wall 12 - Cell 8	40	31-Jul-19 A	16-Sep-19
349	**Top Slab**			
350	**Traveller Formworks**			
351	Top Slab 3	22	12-Aug-19 A	05-Sep-19
352	Top Slab 5	15	25-Sep-19	14-Oct-19
353	Top Slab 7	15	01-Nov-19	18-Nov-19
354	Top Slab 8	15	19-Nov-19	05-Dec-19
355	Top Slab Traveler dismatling	12	06-Dec-19	19-Dec-19
356	Top Slab 4	15	06-Sep-19	24-Sep-19
357	Top Slab 6	15	15-Oct-19	31-Oct-19
358	**Traditional Formworks**			
359	Top Slab 11	21	12-Sep-19	09-Oct-19
360	Top Slab 10	30	17-Oct-19	20-Nov-19
361	Top Slab 12	30	27-Sep-19	02-Nov-19
362	Top Slab 14	31	12-Aug-19 A	17-Sep-19
363	Top Slab 9	18	19-Oct-19	08-Nov-19
364	Portal Structure	24	18-Sep-19	17-Oct-19
365	**OHVD**			
366	**Traveller Formworks**			
367	OHVD 2	20	29-Aug-19 A	21-Sep-19
368	OHVD 3	12	23-Sep-19	08-Oct-19
369	OHVD 4	12	09-Oct-19	22-Oct-19
370	OHVD 5	12	23-Oct-19	05-Nov-19
371	OHVD 6	12	06-Nov-19	19-Nov-19
372	OHVD 7	12	20-Nov-19	03-Dec-19
373	OHVD 8	12	20-Dec-19	06-Jan-20
374	OHVD slab Traveler dismatling	6	07-Jan-20	13-Jan-20
375	**Traditional Formworks**			
376	OHVD 12	25	28-Aug-19 A	26-Sep-19
377	OHVD 13	21	23-Sep-19	18-Oct-19
378	OHVD 10	21	24-Aug-19 A	18-Sep-19
379	OHVD 9	18	26-Sep-19	18-Oct-19
380	**Backfilling**			
381	Cell 12 Backfilled	0		07-Dec-19*
382	Cell 11 Backfilled	0		07-Dec-19*
383	Cell 10 Backfilled	0		11-Jan-20*
384	Cell 9 Backfilled	0		11-Jan-20*
385	Cell 8 Backfilled	0		18-Jan-20*
386	Cell 7 Backfilled	0		18-Jan-20*
387	Cell 6 Backfilled	0		08-Feb-20*
388	Cell 5 Backfilled	0		22-Feb-20*
389	Cell 4 Backfilled	0		22-Feb-20*
390	Cell 3 Backfilled	0		29-Feb-20*
391	**Internal Structure**			



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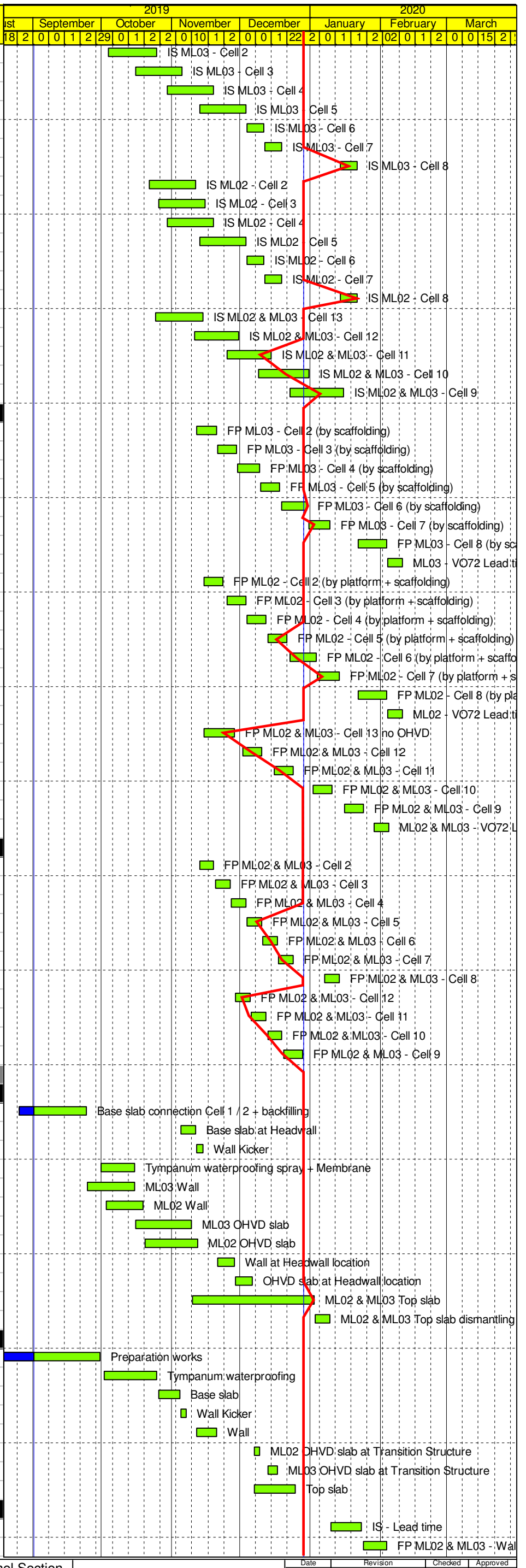
#	Activity Name	Orig Dur	Start	Finish
392	IS ML03 - Cell 2	18	04-Oct-19	25-Oct-19
393	IS ML03 - Cell 3	18	16-Oct-19	05-Nov-19
394	IS ML03 - Cell 4	18	30-Oct-19	19-Nov-19
395	IS ML03 - Cell 5	18	13-Nov-19	03-Dec-19
396	IS ML03 - Cell 6	7	04-Dec-19	11-Dec-19
397	IS ML03 - Cell 7	7	12-Dec-19	19-Dec-19
398	IS ML03 - Cell 8	7	14-Jan-20	21-Jan-20
399	IS ML02 - Cell 2	18	22-Oct-19	11-Nov-19
400	IS ML02 - Cell 3	18	26-Oct-19	15-Nov-19
401	IS ML02 - Cell 4	18	30-Oct-19	19-Nov-19
402	IS ML02 - Cell 5	18	13-Nov-19	03-Dec-19
403	IS ML02 - Cell 6	7	04-Dec-19	11-Dec-19
404	IS ML02 - Cell 7	7	12-Dec-19	19-Dec-19
405	IS ML02 - Cell 8	7	14-Jan-20	21-Jan-20
406	IS ML02 & ML03 - Cell 13	18	25-Oct-19	14-Nov-19
407	IS ML02 & ML03 - Cell 12	18	11-Nov-19	30-Nov-19
408	IS ML02 & ML03 - Cell 11	18	25-Nov-19	14-Dec-19
409	IS ML02 & ML03 - Cell 10	18	09-Dec-19	31-Dec-19
410	IS ML02 & ML03 - Cell 9	18	23-Dec-19	15-Jan-20
411	**Thermal Barrier (Wall + OHVD Soffit)**			
412	FP ML03 - Cell 2 (by scaffolding)	8	12-Nov-19	20-Nov-19
413	FP ML03 - Cell 3 (by scaffolding)	8	21-Nov-19	29-Nov-19
414	FP ML03 - Cell 4 (by scaffolding)	8	30-Nov-19	09-Dec-19
415	FP ML03 - Cell 5 (by scaffolding)	8	10-Dec-19	18-Dec-19
416	FP ML03 - Cell 6 (by scaffolding)	8	19-Dec-19	30-Dec-19
417	FP ML03 - Cell 7 (by scaffolding)	8	31-Dec-19	09-Jan-20
418	FP ML03 - Cell 8 (by scaffolding)	8	22-Jan-20	03-Feb-20
419	ML03 - VO72 Lead time	6	04-Feb-20	10-Feb-20
420	FP ML02 - Cell 2 (by platform + scaffolding)	8	15-Nov-19	23-Nov-19
421	FP ML02 - Cell 3 (by platform + scaffolding)	8	25-Nov-19	03-Dec-19
422	FP ML02 - Cell 4 (by platform + scaffolding)	8	04-Dec-19	12-Dec-19
423	FP ML02 - Cell 5 (by platform + scaffolding)	8	13-Dec-19	21-Dec-19
424	FP ML02 - Cell 6 (by platform + scaffolding)	8	23-Dec-19	03-Jan-20
425	FP ML02 - Cell 7 (by platform + scaffolding)	8	04-Jan-20	13-Jan-20
426	FP ML02 - Cell 8 (by platform + scaffolding)	8	22-Jan-20	03-Feb-20
427	ML02 - VO72 Lead time	6	04-Feb-20	10-Feb-20
428	FP ML02 & ML03 - Cell 13 no OHVD	12	15-Nov-19	28-Nov-19
429	FP ML02 & ML03 - Cell 12	8	02-Dec-19	10-Dec-19
430	FP ML02 & ML03 - Cell 11	8	16-Dec-19	24-Dec-19
431	FP ML02 & ML03 - Cell 10	8	02-Jan-20	10-Jan-20
432	FP ML02 & ML03 - Cell 9	8	16-Jan-20	24-Jan-20
433	ML02 & ML03 - VO72 Lead time	6	29-Jan-20	04-Feb-20
434	**Thermal Barrier (above OHVD)**			
435	FP ML02 & ML03 - Cell 2	6	13-Nov-19	19-Nov-19
436	FP ML02 & ML03 - Cell 3	6	20-Nov-19	26-Nov-19
437	FP ML02 & ML03 - Cell 4	6	27-Nov-19	03-Dec-19
438	FP ML02 & ML03 - Cell 5	6	04-Dec-19	10-Dec-19
439	FP ML02 & ML03 - Cell 6	6	11-Dec-19	17-Dec-19
440	FP ML02 & ML03 - Cell 7	6	18-Dec-19	24-Dec-19
441	FP ML02 & ML03 - Cell 8	6	07-Jan-20	13-Jan-20
442	FP ML02 & ML03 - Cell 12	6	29-Nov-19	05-Dec-19
443	FP ML02 & ML03 - Cell 11	6	06-Dec-19	12-Dec-19
444	FP ML02 & ML03 - Cell 10	6	13-Dec-19	19-Dec-19
445	FP ML02 & ML03 - Cell 9	6	20-Dec-19	28-Dec-19
446	**Cell 1 Interface**			
447	**SCC Section + Headwall**			
448	Base slab connection Cell 1 / 2 + backfilling	25	26-Aug-19 A	24-Sep-19
449	Base slab at Headwall	7	05-Nov-19	11-Nov-19
450	Wall Kicker	3	12-Nov-19	14-Nov-19
451	Tympanum waterproofing spray + Membrane	15	01-Oct-19	15-Oct-19
452	ML03 Wall	21	25-Sep-19	15-Oct-19
453	ML02 Wall	17	03-Oct-19	19-Oct-19
454	ML03 OHVD slab	25	16-Oct-19	09-Nov-19
455	ML02 OHVD slab	24	20-Oct-19	12-Nov-19
456	Wall at Headwall location	8	21-Nov-19	28-Nov-19
457	OHVD slab at Headwall location	8	29-Nov-19	06-Dec-19
458	ML02 & ML03 Top slab	54	10-Nov-19	02-Jan-20
459	ML02 & ML03 Top slab dismantling	7	03-Jan-20	09-Jan-20
460	**Transition Structure**			
461	Preparation works	36	19-Aug-19 A	30-Sep-19
462	Tympanum waterproofing	20	02-Oct-19	25-Oct-19
463	Base slab	10	26-Oct-19	04-Nov-19
464	Wall Kicker	3	05-Nov-19	07-Nov-19
465	Wall	9	12-Nov-19	20-Nov-19
466	ML02 OHVD slab at Transition Structure	3	07-Dec-19	09-Dec-19
467	ML03 OHVD slab at Transition Structure	5	13-Dec-19	17-Dec-19
468	Top slab	19	07-Dec-19	25-Dec-19
469	**Internal Structure**			
470	IS - Lead time	12	10-Jan-20	23-Jan-20
471	FP ML02 & ML03 - Wall + OHVD Soffit + Above OHVD	6	24-Jan-20	03-Feb-20



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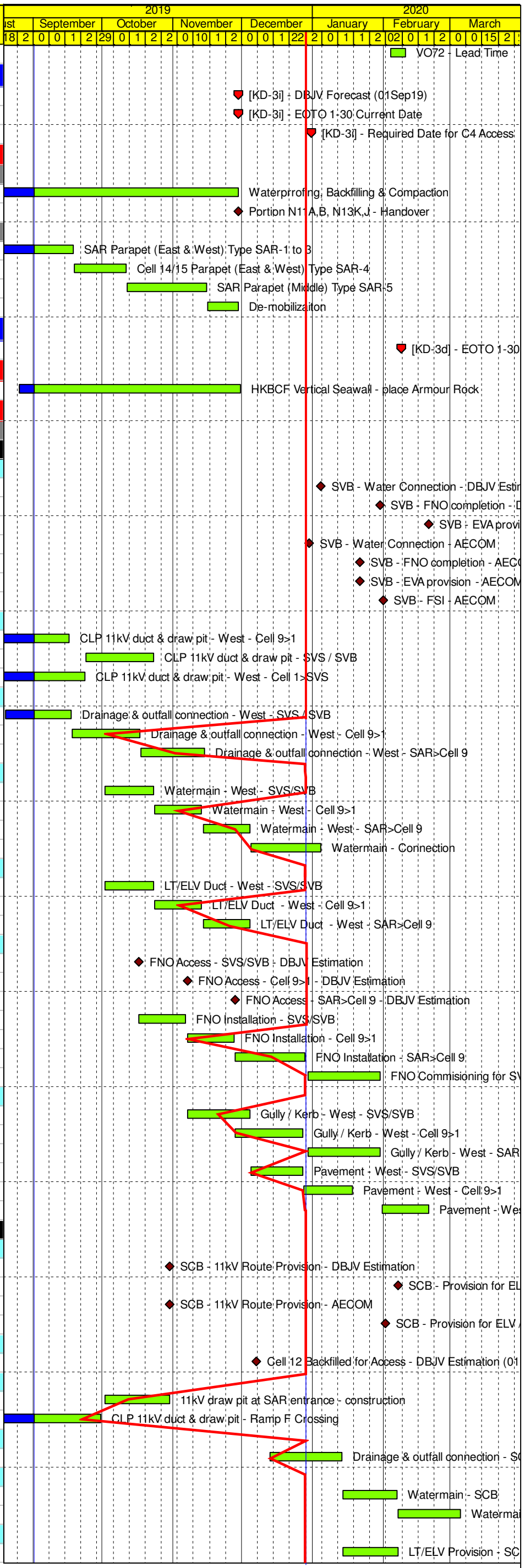
#	Activity Name	Orig Dur	Start	Finish
472	VO72 - Lead Time	6	04-Feb-20	10-Feb-20
473	**MHS Approach Ramp KD-3i**			
474	[KD-3i] - DBJV Forecast (01Sep19)	0		29-Nov-19
475	[KD-3i] - EOTO 1-30 Current Date	0		29-Nov-19*
476	[KD-3i] - Required Date for C4 Access	0		31-Dec-19*
477	**South Approach Ramp**			
478	**RC Structure**			
479	Waterprrofing, Backfilling & Compaction	216	11-Mar-19 A	29-Nov-19
480	Portion N11A,B, N13K,J - Handover	0		29-Nov-19
481	**Internal Structure**			
482	SAR Parapet (East & West) Type SAR-1 to 3	40	02-Aug-19 A	18-Sep-19
483	Cell 14/15 Parapet (East & West) Type SAR-4	18	19-Sep-19	11-Oct-19
484	SAR Parapet (Middle) Type SAR-5	30	12-Oct-19	15-Nov-19
485	De-mobilizaiton	12	16-Nov-19	29-Nov-19
486	**Southern Landfall - Surface**			
487	[KD-3d] - EOTO 1-30 Current Date	0		08-Feb-20*
488	**HKBCF Seawall Modification (schedule TBC)**			
489	HKBCF Vertical Seawall - place Armour Rock	81	26-Aug-19 A	30-Nov-19
490	**UU / At-grade works**			
491	**South Road & Drain KD-3c**			
492	**South Ventilation Building - Provision for FSI**			
493	**Requirement**			
494	SVB - Water Connection - DBJV Estimation	0		04-Jan-20
495	SVB - FNO completion - DBJV Estimation	0		30-Jan-20
496	SVB - EVA provision - DBJV Estimation	0		20-Feb-20
497	SVB - Water Connection - AECOM	0		30-Dec-19*
498	SVB - FNO completion - AECOM	0		21-Jan-20*
499	SVB - EVA provision - AECOM	0		21-Jan-20*
500	SVB - FSI - AECOM	0		31-Jan-20*
501	**CLP 11kV**			
502	CLP 11kV duct & draw pit - West - Cell 9>1	51	18-Jul-19 A	16-Sep-19
503	CLP 11kV duct & draw pit - SVS / SVB	24	24-Sep-19	23-Oct-19
504	CLP 11kV duct & draw pit - West - Cell 1>SVS	36	12-Aug-19 A	23-Sep-19
505	**Drainage**			
506	Drainage & outfall connection - West - SVS / SVB	24	20-Aug-19 A	17-Sep-19
507	Drainage & outfall connection - West - Cell 9>1	24	18-Sep-19	17-Oct-19
508	Drainage & outfall connection - West - SAR>Cell 9	24	18-Oct-19	14-Nov-19
509	**Watermain**			
510	Watermain - West - SVS/SVB	18	02-Oct-19*	23-Oct-19
511	Watermain - West - Cell 9>1	18	24-Oct-19	13-Nov-19
512	Watermain - West - SAR>Cell 9	18	14-Nov-19	04-Dec-19
513	Watermain - Connection	24	05-Dec-19	04-Jan-20
514	**LT/ELV**			
515	LT/ELV Duct - West - SVS/SVB	18	02-Oct-19*	23-Oct-19
516	LT/ELV Duct - West - Cell 9>1	18	24-Oct-19	13-Nov-19
517	LT/ELV Duct - West - SAR>Cell 9	18	14-Nov-19	04-Dec-19
518	**Provision for FNO**			
519	FNO Access - SVS/SVB - DBJV Estimation	0	17-Oct-19	
520	FNO Access - Cell 9>1 - DBJV Estimation	0	07-Nov-19	
521	FNO Access - SAR>Cell 9 - DBJV Estimation	0	28-Nov-19	
522	FNO Installation - SVS/SVB	18	17-Oct-19	06-Nov-19
523	FNO Installation - Cell 9>1	18	07-Nov-19	27-Nov-19
524	FNO Installation - SAR>Cell 9	25	28-Nov-19	28-Dec-19
525	FNO Commisioning for SVB	24	30-Dec-19	30-Jan-20
526	**Gully / Kerb / Pavement**			
527	Gully / Kerb - West - SVS/SVB	24	07-Nov-19*	04-Dec-19
528	Gully / Kerb - West - Cell 9>1	24	28-Nov-19	27-Dec-19
529	Gully / Kerb - West - SAR>Cell 9	24	30-Dec-19	30-Jan-20
530	Pavement - West - SVS/SVB	18	05-Dec-19	27-Dec-19
531	Pavement - West - Cell 9>1	18	28-Dec-19	18-Jan-20
532	Pavement - West - SAR>Cell 9	18	31-Jan-20	20-Feb-20
533	**Satellite Control Building - Provision for FSI**			
534	**Requirement**			
535	SCB - 11kV Route Provision - DBJV Estimation	0		30-Oct-19
536	SCB - Provision for ELV / Power Cable - DBJV Estimation	0		07-Feb-20
537	SCB - 11kV Route Provision - AECOM	0		30-Oct-19*
538	SCB - Provision for ELV / Power Cable - AECOM	0		01-Feb-20*
539	**Interface Activities**			
540	Cell 12 Backfilled for Access - DBJV Estimation (01-Sep-19)	0		07-Dec-19*
541	**CLP 11kV**			
542	11kV draw pit at SAR entrance - construction	24	02-Oct-19	30-Oct-19
543	CLP 11kV duct & draw pit - Ramp F Crossing	63	18-Jul-19 A	30-Sep-19
544	**Drainage**			
545	Drainage & outfall connection - SCB	24	13-Dec-19	13-Jan-20
546	**Watermain**			
547	Watermain - SCB	18	14-Jan-20	06-Feb-20
548	Watermain connection - SCB	24	07-Feb-20	05-Mar-20
549	**LT/ELV**			
550	LT/ELV Provision - SCB	18	14-Jan-20	07-Feb-20



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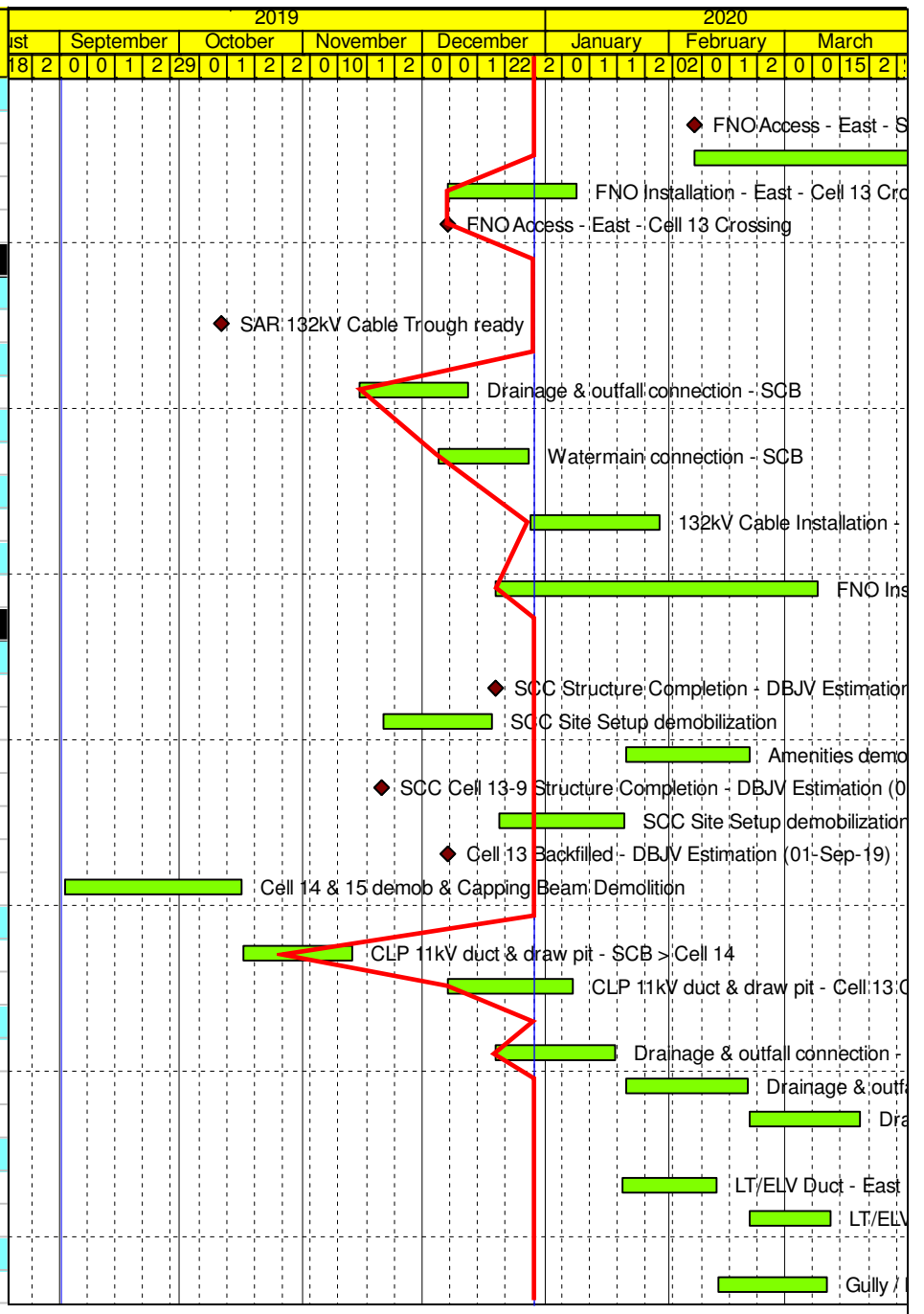
11-Nov-19	Rev. K	SPa	WYu

#	Activity Name	Orig Dur	Start	Finish
551	**Provision for FNO**			
552	FNO Access - East - SCB>Cell 13	0	07-Feb-20	
553	FNO Installation - East - SCB>Cell 13	50	07-Feb-20	06-Apr-20
554	FNO Installation - East - Cell 13 Crossing	25	07-Dec-19	08-Jan-20
555	FNO Access - East - Cell 13 Crossing	0	07-Dec-19	
556	**Remaining - East - SCB to C1**			
557	**Interface Activities**			
558	SAR 132kV Cable Trough ready	0		11-Oct-19
559	**Drainage**			
560	Drainage & outfall connection - SCB	24	15-Nov-19	12-Dec-19
561	**Watermain**			
562	Watermain connection - SCB	18	05-Dec-19	27-Dec-19
563	**CLP 132kV**			
564	132kV Cable Installation - East - C1>SAR	24	28-Dec-19	29-Jan-20
565	**Provision for FNO**			
566	FNO Installation - East - C1>SCB	63	19-Dec-19	09-Mar-20
567	**Remaining - East - Cell 13 to SVB**			
568	**Interface Activities**			
569	SCC Structure Completion - DBJV Estimation (01-Sep-19)	0		19-Dec-19
570	SCC Site Setup demobilization	24	21-Nov-19	18-Dec-19
571	Amenities demobilization - DBJV Estimation	24	21-Jan-20	21-Feb-20
572	SCC Cell 13-9 Structure Completion - DBJV Estimation (01-Sep-19	0		20-Nov-19
573	SCC Site Setup demobilization	24	20-Dec-19	20-Jan-20
574	Cell 13 Backfilled - DBJV Estimation (01-Sep-19)	0		07-Dec-19*
575	Cell 14 & 15 demob & Capping Beam Demolition	36	02-Sep-19 A	16-Oct-19
576	**CLP 11kV**			
577	CLP 11kV duct & draw pit - SCB > Cell 14	24	17-Oct-19	13-Nov-19
578	CLP 11kV duct & draw pit - Cell 13 Crossing	24	07-Dec-19	07-Jan-20
579	**Drainage**			
580	Drainage & outfall connection - East - SAR>Cell 9	24	19-Dec-19	18-Jan-20
581	Drainage & outfall connection - East - Cell 9>1	24	21-Jan-20	20-Feb-20
582	Drainage & outfall connection - East - Amenities	24	21-Feb-20	19-Mar-20
583	**LT/ELV**			
584	LT/ELV Duct - East - SAR>Cell 9	18	20-Jan-20	12-Feb-20
585	LT/ELV Duct - East - Cell 9>1	18	21-Feb-20	12-Mar-20
586	**Gully / Kerb / Pavement**			
587	Gully / Kerb - East - SAR>Cell 9	24	13-Feb-20	11-Mar-20



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Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

Contract No. HY/2012/08
Tuen Mun – Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Environmental Mitigation and Enhancement Measure Implementation Schedule

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
Air Quality									
4.8.1	3.8	An effective watering programme of twice daily watering with complete coverage, is estimated to reduce by 50%. This is recommended for all areas in order to reduce dust levels to a minimum;	All areas / throughout construction period	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	Watering of the construction sites in Lantau for 8 times/day and in Tuen Mun for 12 times/day to reduce dust emissions by 87.5% and 91.7% respectively and shall be undertaken.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	The Contractor shall, to the satisfaction of the Engineer, install effective dust suppression measures and take such other measures as may be necessary to ensure that at the Site boundary and any nearby sensitive receiver, dust levels are kept to acceptable levels.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	The Contractor shall not burn debris or other materials on the works areas.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8. 1	3.8	In hot, dry or windy weather, the watering programme shall maintain all exposed road surfaces and dust sources wet.	All unpaved haul roads / throughout construction period in hot, dry or windy weather	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	Where breaking of oversize rock/concrete is required, watering shall be implemented to control dust. Water spray shall be used during the handling of fill material at the site and at active cuts, excavation and fill sites where dust is likely to be created.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8. 1	3.8	Open dropping heights for excavated materials shall be controlled to a maximum height of 2m to minimise the fugitive dust arising from unloading.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	During transportation by truck, materials shall not be loaded to a level higher than the side and tail boards, and shall be dampened or covered before transport.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓

Legend: D=Design, C=Construction, O=Operation

Note: Funding Agent for all mitigation measures will be the Highways Department of the Hong Kong SAR Government

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
4.8.1	3.8	Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin. The tarpaulin shall be properly secured and shall extend at least 300mm over the edges of the side and tail boards.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		<>
4.8.1	3.8	No earth, mud, debris, dust and the like shall be deposited on public roads. Wheel washing facility shall be usable prior to any earthworks excavation activity on the site.	All site exits / throughout construction period	Contractor	TMEIA Avoid dust		Y		✓
4.8.1	3.8	Areas of exposed soil shall be minimised to areas in which works have been completed shall be restored as soon as is practicable.	All exposed surfaces / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	All stockpiles of aggregate or spoil shall be enclosed or covered and water applied in dry or windy condition.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		<>
4.11	Section 3	EM&A in the form of 1 hour and 24 hour dust monitoring and site audit.	All representative existing ASRs / throughout construction period	Contractor	EM&A Manual		Y		✓
WATER QUALITY									
Marine Works (Sequence A)									
6.1 Figure 6.2a Appendix D6a	Annex A	Construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. The protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2a and detailed in Appendix D6a. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: - TM-CLKL northern reclamation;	All areas/ prior to dredging and backfilling works	Contractor	TM-EIAO		Y		✓

Legend: D=Design, C=Construction, O=Operation

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	a maximum of 50% public fill to be used for all seawall filling below +2.5mPD for TM-CLKL southern and northern landfalls.	TM-CLKL seawall filling	Contractor	TM-EIAO		Y		✓
6.1	-	a maximum of 30% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL southern landfall	TM-CLKL southern landfall reclamation filling	Contractor	TM-EIAO		Y		N/A
6.1	-	a maximum of 100% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL northern landfall	TM-CLKL northern landfall reclamation filling	Contractor	TM-EIAO		Y		✓
6.1	-	Use of cage type silt curtains round allgrab dredgers during the HKBCF, HKLR and TM-CLKL southern reclamation works.	All areas dredging works	Contractor	TM-EIAO		Y		✓
	Figure 1.1 of Annex C	A layer of floating type silt curtain will be applied when dredging and reclamation works are being undertaken at Portion N-a as shown in Figure 1.1 of Annex C of the EM&A Manual.	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.1	-	Trailer suction hopper dredgers shall not allow mud to overflow.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1	-	The use of Lean Material Overboard (LMOB) systems shall be prohibited.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1 Figure 6.2b Appendix D6b	Annex A	For other parts of the reclamation works construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. It should be noted that the protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2b and detailed in Appendices D6b. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: - TM-CLKL northern reclamation;	TM-CLKL northern landfall, Portion D of HKBCF and HKLR	Contractor	TM-EIAO		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
		- Reclamation filling for Portion D of HKBCF; Reclamation filling for FSD berth of HKBCF; and - Reclamation dredging and filling for Portion 1 of HKLR;							
6.1	-	The filling material for the other parts of the works are the same as Sequence A;	All other areas/backfilling works	Contractor	TM-EIAO		Y		N/A
6.1	5.7	Cage type silt curtain (with steel enclosure) shall be used for grab dredgers working in the site of HKBCF and TM- CLKL southern reclamation. Cage type silt curtains will be applied round all grab dredgers at other works area.	HKBCF, HKLR and TM-CLKL grab dredging	Contractor	TM-EIAO		Y		✓
6.1	Annex A	A layer of floating type silt curtain will be applied around all works as defined in Appendix D6b.	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.1	-	TM-CLKL northern landfall: - Reclamation filling shall not proceed until at least 200m section of leading seawall at both the east and west sides of the reclamation are formed above +2.5 mPD, except for 100m gaps for marine access;	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
General Marine Works									
6.1	-	Use of TBM for the construction of the submarine tunnel.	Tunnel works / Construction phase	Contractor	TM-EIAO		Y		N/A
6.1	-	Export dredged spoils from NWWCZ.	All areas as much as possible / dredging activities	Contractor	DASO Permit conditions		Y		✓
6.1	-	Where public fill is proposed for filling below +2.5mPD, the fine content in the public fill will be controlled to 25%	All areas/ backfilling works	Contractor	TM-EIAO		Y		N/A
6.1	-	Where sand fill is proposed for filling below +2.5mPD, the fine content in the sand fill will be controlled to 5%.	All areas/ backfilling works	Contractor	TM-EIAO		Y		N/A
6.1	-	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	Barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1	-	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1	-	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		<>
6.1	-	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1	-	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		N/A
6.1	-	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.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		N/A
6.1	-	The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and	All areas/ throughout construction period	Contractor	Marine Fill Committee		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
		adjacent to the works site.			Guidelines. DASO permit conditions.				
6.1	5.2	Silt curtain shall have proved effectiveness from the producer and shall be fully maintained throughout the works by the contractor.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	The daily maximum production rates shall not exceed those assumed in the water quality assessment.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	The dredging and filling works shall be scheduled to spread the works evenly over a working day.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
Land Works									
6.1	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Sewage effluent and discharges from on- site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	5.8	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		N/A
6.1	-	The Contractor shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	All areas/ throughout construction period	Contractor	TM-EIAO Waste Disposal Ordinance		Y		✓
6.1	-	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Roadside gullies to trap silt and grit shall be provided prior to discharging the stormwater into the marine environment. The sumps will be maintained and cleaned at regular intervals.	Roadside/design and operation	Design Consultant/ Contractor	TM-EIAO	Y		Y	✓
6.1	Section 5	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓
Water Quality Monitoring									
6.1	Section 5	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Nutrients and metal parameters shall also be measured for Mf sediment operations (only HKBCF and HKLR required handling of Mf sediment) during baseline, backfilling and post construction period. One year operation phase water quality monitoring at designated stations.	Designated monitoring stations as defined in EM&A Manual, Section 5/ Before, through-out marine construction period, post construction and monthly operational phase water quality monitoring for a year.	Contractor	EM&A Manual		Y	Y	✓
ECOLOGY									

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
8.14	6.3	Specification for and implement pre, during and post construction dolphin abundance monitoring.	All Areas/Detailed Design/ during construction works/post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓
8.14	6.3,6.5	Specification and implementation of 250m dolphin exclusion zone.	All dredging and reclamation areas/Detailed Design/during all reclamation and dredging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.5	Specification and deployment of an artificial reef of an area of 3,600m2 in an area where fishing activities are prohibited.	Area of prohibited fishing activities/Detailed Design/towards end of construction period	TM-CLKL/ HKBCF Design Consultant/TM-CLKL/ HKBCF Contractor	TMEIA	Y		Y	N/A. To be implemented by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for dredging and reclamation works	All areas/ Detailed Design/during dredging and reclamation works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.5	Audit coral translocation success	Post translocation	Contractor	TMEIA		Y		✓
7.13	6.5	The loss of habitat shall be supplemented by enhancement planting in accordance with the landscape mitigation schedule.	All areas / As soon as accessible	Contractor	TMEIA		Y		N/A
7.13	6.5	Spoil heaps shall be covered at all times.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Avoid damage and disturbance to the remaining and surrounding natural habitat	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Placement of equipment in designated areas within the existing disturbed land	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Disturbed areas to be reinstated immediately after completion of the works.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
7.13	6.5	Construction activities should be restricted to the proposed works boundary.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
LANDSCAPE AND VISUAL									
10.9	7.6	The colour and shape of the toll control buildings, ventilation building and administration building shall adopt a design which could blend it into the vicinity elements, and the details will be developed in detailed design stage (DM2)	All areas/detailed design	Design Consultant	TMEIA	Y			N/A
10.9	7.6	Aesthetic design of the viaduct, retaining wall and other structures will be developed under ACABAS submission (DM5)	All areas/detailed design	Design Consultant	TMEIA	Y			N/A
10.9	7.6	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works (CM5)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Control night-time lighting and glare by hooding all lights (CM6)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Ensure no run-off into water body adjacent to the Project Area (CM7)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (CM8)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities (OM5)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (OM6)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
WASTE									
12.6		The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6		The Contractor shall prepare and implement a Waste Management Plan which specifies procedures such as a ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of wastes does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposed. A recording system for the amount of waste generated, recycled and disposed (locations) should be established.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		✓
12.6		The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures including waste reduction, reuse and recycling.	Contract Mobilisation	Contractor	TMEIA		Y		✓
12.6	8.1	The extent of cutting operation should be optimised where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The surplus surcharge should be transferred to a fill bank	Reclamation areas / after surcharge works	Contractor	TMEIA		Y		N/A
12.6	8.1	Rock armour from the existing seawall should be reused on the new sloping seawall as far as possible	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		<>

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	8.1	No waste shall be burnt on site.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Provisions to be made in contract documents to allow and promote the use of recycled aggregates where appropriate.	Detailed Design	Design Consultant	TMEIA	Y			✓
12.6	8.1	The Contractor shall be prohibited from disposing of C&D materials at any sensitive locations. The Contractor should propose the final disposal sites in the EMP and WMP for approval before implementation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust/ surface run off.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Seas Ordinance.	Reclamation areas / throughout dredging works	Contractor	TMEIA		Y		✓
12.6	8.1	Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork/plastic facing for construction works should be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should avoid over-ordering and wastage.	All areas / throughout construction period	Contractor	TMEIA		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	8.1	The Contractor should recycle as many C&D materials (this is a waste section) as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows: *f* suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; *f* Having a capacity of <450L unless the specifications have been approved by the EPD; and w Chinese according to the instructions prescribed in Schedule 2 of the Regulations. *f* Clearly labelled and used solely for the storage of chemical wastes; *f* Enclosed with at least 3 sides; *f* Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest; *f* Adequate ventilation; *f* Sufficiently covered to prevent rainfall	All areas / throughout construction period	Contractor	TMEIA		Y		<>

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
		entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and *f* Incompatible materials are adequately separated.							
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Night soil should be regularly collected by licensed collectors.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A
12.6	8.1	General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes. Sufficient dustbins shall be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general refuse shall be cleared daily and shall be disposed of to the nearest licensed landfill or refuse transfer station. Burning of refuse on construction sites is prohibited.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.	Site Offices/ throughout construction period	Contractor	TMEIA		Y		✓

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EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	Section 8	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas / throughout construction period	Contractor	EM&A Manual		Y		✓
CULTURAL HERITAGE									
11.8	Section 9	EM&A in the form of audit of the mitigation measures	All areas / throughout construction period	Highways Department	EIAO-TM		Y		N/A

*** Remarks:**

✓	Compliance of Mitigation Measures
<>	Compliance of Mitigation but need improvement
x	Non-compliance of Mitigation Measures
▲	Non-compliance of Mitigation Measures but rectified by Contractor
Δ	Deficiency of Mitigation Measures but rectified by Contractor
N/A	Not Applicable in Reporting Period

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Appendix D

Summary of Action and Limit Levels

Table D1 *Action and Limit Levels for 1-hour and 24-hour TSP*

Parameters	Action	Limit
24 Hour TSP Level in µg/m³	ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214	260
1 Hour TSP Level in µg /m³	ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337	500

Table D2 *Action and Limit Levels for Water Quality*

Parameter	Action Level#	Limit Level#
DO in mg/L [a]	Surface and Middle **5.0 mg/L** Bottom **4.7 mg/L**	Surface and Middle **4.2 mg/L** Bottom **3.6 mg/L**
Turbidity in NTU (Depth-averaged [b], [c])	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., **27.5 NTU**	130% of upstream control station at the same tide of the same day and 99%-ile of baseline data, i.e., **47.0 NTU**
SS in mg/L (Depth-averaged [b], [c])	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., **23.5 mg/L**	130% of upstream control station at the same tide of the same day and 10mg/L for WSD Seawater Intakes at Tuen Mun and 99%-ile of baseline data, i.e., **34.4 mg/L**

Notes:

Baseline data: data from HKZMB Baseline Water Quality Monitoring between 6 and 31 October 2011.

(a) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.

(b) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths

(c) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

(d) All figures given in the table are used for reference only, and EPD may amend the figures whenever it is considered as necessary

(e) The 1%-ile of baseline data for surface and middle DO is 4.2 mg/L, whilst for bottom DO is 3.6 mg/L.

(f) The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Table D3 Action and Limit Levels for Impact Dolphin Monitoring

	North Lantau Social Cluster	
	NEL	**NWL**
Action Level	STG < 70% of baseline & ANI < 70% of baseline	STG < 70% of baseline & ANI < 70% of baseline
Limit Level	[STG < 40% of baseline & ANI < 40% of baseline] and STG < 40% of baseline & ANI < 40% of baseline	

Notes:

1. STG means quarterly encounter rate of number of dolphin sightings, which is **6.00 in NEL** and **9.85 in NWL** during the baseline monitoring period
2. ANI means quarterly encounter rate of total number of dolphins, which is **22.19 in NEL** and **44.66 in NWL** during the baseline monitoring period
3. For North Lantau Social Cluster, AL will be trigger if NEL or NWL fall below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.

Table D4 Derived Value of Action Level (AL) and Limit Level (LL)

	North Lantau Social Cluster	
	NEL	**NWL**
Action Level	STG < 4.2 & ANI< 15.5	STG < 6.9 & ANI < 31.3
Limit Level	NEL = [STG < 2.4 & ANI <8.9] and NWL = [STG < 3.9 & ANI <17.9]	

Appendix E

Copies of Calibration Certificates for Air and Water Quality Monitoring

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	08/10/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 0816

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1016
Ta(K)	:	302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.475	1.692	55	54.72
2	13 holes	9.4	3.050	1.487	50	49.74
3	10 holes	7.0	2.632	1.285	45	44.77
4	7 holes	4.8	2.180	1.067	38	37.80
5	5 holes	2.4	1.541	0.758	30	29.84

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):26.984 Intercept(b):9.432 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 13/10/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	08/10/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 8162

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1016
Ta(K)	:	302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.329	1.622	52	51.73
2	13 holes	9.0	2.984	1.455	48	47.75
3	10 holes	6.4	2.517	1.229	43	42.78
4	7 holes	4.4	2.087	1.022	36	35.81
5	5 holes	2.4	1.541	0.758	28	27.86

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):27.734 Intercept(b): 7.423 Correlation Coefficient(r): 0.9967

Checked by: Magnum Fan Date: 13/10/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	08/10/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 1253

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1016
Ta(K)	:	302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.446	1.678	54	53.72
2	13 holes	9.2	3.017	1.471	50	49.74
3	10 holes	6.6	2.556	1.248	44	43.77
4	7 holes	4.5	2.110	1.033	38	37.80
5	5 holes	2.8	1.665	0.819	30	29.84

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):27.662 Intercept(b):8.404 Correlation Coefficient(r): 0.9939

Checked by: Magnum Fan Date: 13/10/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	08/10/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 0146

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1016
Ta(K)	:	302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.4	3.359	1.636	54	53.72
2	13 holes	9.0	2.984	1.455	49	48.75
3	10 holes	6.5	2.536	1.239	44	43.77
4	7 holes	4.2	2.039	0.999	36	35.81
5	5 holes	2.5	1.573	0.774	28	27.86

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):29.723 Intercept(b):5.704 Correlation Coefficient(r): 0.9966

Checked by: Magnum Fan Date: 13/10/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	08/10/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 3957

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1016
Ta(K)	:	302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.475	1.692	56	55.71
2	13 holes	9.4	3.050	1.487	50	49.74
3	10 holes	6.8	2.594	1.267	45	44.77
4	7 holes	4.6	2.134	1.044	38	37.80
5	5 holes	2.8	1.665	0.818	30	29.84

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):29.086 Intercept(b): 6.876 Correlation Coefficient(r): 0.9971

Checked by: Magnum Fan Date: 13/10/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	08/12/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 0816

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1022
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.544	1.726	56	56.82
2	13 holes	9.4	3.111	1.516	51	51.75
3	10 holes	6.8	2.646	1.292	45	45.66
4	7 holes	4.7	2.200	1.076	37	37.54
5	5 holes	2.4	1.572	0.773	28	28.41

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):30.354 Intercept(b):5.285 Correlation Coefficient(r): 0.9975

Checked by: Magnum Fan Date: 13/12/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	08/12/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 8162

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1022
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.515	1.712	54	54.79
2	13 holes	9.2	3.078	1.500	48	48.71
3	10 holes	6.6	2.607	1.273	43	43.63
4	7 holes	4.4	2.128	1.042	35	35.51
5	5 holes	2.5	1.604	0.789	26	26.38

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):30.463 Intercept(b): 3.326 Correlation Coefficient(r): 0.9959

Checked by: Magnum Fan Date: 13/12/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	08/12/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 1253

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1022
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.515	1.712	54	54.79
2	13 holes	9.4	3.111	1.516	49	49.72
3	10 holes	6.8	2.646	1.292	44	44.65
4	7 holes	4.4	2.128	1.042	38	38.56
5	5 holes	2.6	1.636	0.804	30	30.44

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):26.190 Intercept(b):10.286 Correlation Coefficient(r): 0.9919

Checked by: Magnum Fan Date: 13/12/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	08/12/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 0146

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1022
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.397	1.654	54	54.79
2	13 holes	9.2	3.078	1.500	50	50.74
3	10 holes	6.6	2.607	1.273	46	46.68
4	7 holes	4.4	2.128	1.042	38	38.56
5	5 holes	2.4	1.572	0.773	28	28.41

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):29.190 Intercept(b):6.981 Correlation Coefficient(r): 0.9904

Checked by: Magnum Fan Date: 13/12/2019

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	08/12/2019

Sampler

Model	:	TE-5170
Serial Number	:	S/N 3957

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	25 February 2019
Slope (m)	:	2.07076
Intercept (b)	:	-0.02917
Correlation Coefficient(r)	:	1.00000

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1022
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.544	1.726	55	55.81
2	13 holes	9.4	3.1111	1.516	50	50.74
3	10 holes	6.7	2.626	1.282	45	45.66
4	7 holes	4.5	2.153	1.054	38	38.56
5	5 holes	2.7	1.667	0.819	30	30.44

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):27.678 Intercept(b): 8.828 Correlation Coefficient(r): 0.9952

Checked by: Magnum Fan Date: 13/12/2019

TISCH Environmental

RECALIBRATION DUE DATE:
February 25, 2020

Certificate of Calibration

Calibration Certification Information					
Cal. Date:	February 25, 2019	**Rootsmeter S/N:** 438320	**Ta:** 294	°K
Operator:	Jim Tisch		**Pa:** 762.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **2454**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4400	3.2	2.00
2	3	4	1	1.0200	6.4	4.00
3	5	6	1	0.9120	7.9	5.00
4	7	8	1	0.8700	8.8	5.50
5	9	10	1	0.7180	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0120	0.7028	1.4257	0.9958	0.6915	0.8784
1.0077	0.9880	2.0162	0.9916	0.9722	1.2423
1.0057	1.1028	2.2542	0.9896	1.0851	1.3889
1.0045	1.1546	2.3642	0.9885	1.1362	1.4567
0.9992	1.3916	2.8513	0.9832	1.3694	1.7569
QSTD	**m=**	**2.07076**	**QA**	**m=**	**1.29667**
	b=	**-0.02917**		**b=**	**-0.01797**
	r=	**1.00000**		**r=**	**1.00000**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

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

Certificate of Calibration
校正證書

Certificate No. : C193443
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-1283) Date of Receipt / 收件日期 : 21 June 2019

Description / 儀器名稱 : Anemometer
Manufacturer / 製造商 : Lutron
Model No. / 型號 : AM-4201
Serial No. / 編號 : AF.27513
Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 2 July 2019

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- Testo Industrial Services GmbH, Germany

Tested By 測試 : T F Lee
Assistant Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 5 July 2019

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

Certificate of Calibration
校正證書

Certificate No. : C193443
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1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 10 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL386	Multi-function Measuring Instrument	S16493

4. Test procedure : MA130N.

5. Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.0	1.8	+0.2	0.2	2.0
4.0	3.8	+0.2	0.3	2.0
6.0	5.8	+0.2	0.3	2.0
8.1	7.9	+0.2	0.3	2.0
10.1	10.0	+0.1	0.4	2.0

Remarks : - The Measured Corrections are defined as :
Value = Applied Value - UUT Reading

- The expanded uncertainties are for a level of confidence of 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

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

Sun Creation Engineering Limited - Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里 1號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 15 August 2019

Brand of Test Meter: Davis

Model: Vantage Pro 2 (s/n: AS160104014)

Location : Roof of Tuen Mun Firestation

Procedures :

1. Wind Still Test: The wind speed sensor was hold by hand until it keep still

2.Wind Speed Test: The wind meter was on-site calibrated against the Anemometer

3.Wind Direction Test : The wind meter was on-site calibrated against the marine compass at four directions

Results:

Wind Still Test

Wind Speed (m/s)
0.00

Wind Speed Test

Davis (m/s)	Anemometer (m/s)
3.3	3.7
2.8	2.4
1.1	1.2

Wind Direction Test

Davis (o)	Marine Compass (o)
270	270
0	0
89	90
181	180

Calibrated by: Ho

Yeung Ping Fai
(Technical Officer)

Checked by : Fat

Ho Kam Fat
(Senior Technical Officer)

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI090154
Date of Issue : 02 October 2019

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 ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	16H104233
Date of Received	:	Sep 27, 2019
Date of Calibration	:	Sep 27, 2019
Date of Next Calibration[a]	:	Dec 26, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.06	0.05	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.0	0.0	Satisfactory
22.0	22.1	0.1	Satisfactory
42.0	42.2	0.2	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.
(b) The results relate only to the calibrated equipment as received
(c) The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
(d) "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
(e) The "Tolerance Limit" mentioned is referenced to YSI product specifications.

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI090154
Date of Issue : 02 October 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.75	-0.03	Satisfactory
3.69	3.98	0.29	Satisfactory
5.77	5.4	-0.37	Satisfactory
7.68	7.82	0.14	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	138.9	-5.45	Satisfactory
0.01	1412	1380	-2.27	Satisfactory
0.1	12890	12834	-0.43	Satisfactory
0.5	58670	57663	-1.72	Satisfactory
1.0	111900	109858	-1.82	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.16	1.60	Satisfactory
20	20.38	1.90	Satisfactory
30	30.47	1.57	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[(f)] (NTU)	Tolerance[(g)] (%)	Results
0	0.11	--	Satisfactory
10	9.89	-1.1	Satisfactory
20	19.82	-0.9	Satisfactory
100	97.25	-2.8	Satisfactory
800	780.16	-2.5	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

(f) "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

(g) 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.

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100183
Date of Issue : 30 October 2019

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	:	Oct 28, 2019
Date of Calibration	:	Oct 28, 2019
Date of Next Calibration[a]	:	Jan 27, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	3.95	-0.05	Satisfactory
7.42	7.36	-0.06	Satisfactory
10.01	9.93	-0.08	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
25.0	24.9	-0.1	Satisfactory
35.0	34.9	-0.1	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

(a) *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.*
(b) *The results relate only to the calibrated equipment as received*
(c) *The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.*
(d) *"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.*
(e) *The "Tolerance Limit" mentioned is referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100183
Date of Issue : 30 October 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
1.04	0.80	-0.24	Satisfactory
4.10	4.34	0.24	Satisfactory
5.92	5.94	0.02	Satisfactory
7.81	8.07	0.26	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	140.0	-4.70	Satisfactory
0.01	1412	1394	-1.27	Satisfactory
0.1	12890	12780	-0.85	Satisfactory
0.5	58670	57927	-1.27	Satisfactory
1.0	111900	110880	-0.91	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.90	-1.00	Satisfactory
20	19.88	-0.60	Satisfactory
30	29.89	-0.37	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	9.98	-0.2	Satisfactory
20	19.88	-0.6	Satisfactory
100	100.20	0.2	Satisfactory
800	798.82	-0.1	Satisfactory

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

~ END OF REPORT ~

Remark(s): -
(f) "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.
(g) 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.

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100182
Date of Issue : 30 October 2019

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	:	Oct 28, 2019
Date of Calibration	:	Oct 28, 2019
Date of Next Calibration[a]	:	Jan 27, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.07	0.07	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.05	0.04	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
25.0	25.0	0.0	Satisfactory
35.0	35.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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(c) *The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.*
(d) *"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.*
(e) *The "Tolerance Limit" mentioned is referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100182
Date of Issue : 30 October 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
1.04	0.90	-0.14	Satisfactory
4.10	4.40	0.3	Satisfactory
5.92	6.00	0.08	Satisfactory
7.81	8.10	0.29	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	156	6.19	Satisfactory
0.01	1412	1384	-1.98	Satisfactory
0.1	12890	12810	-0.62	Satisfactory
0.5	58670	57991	-1.16	Satisfactory
1.0	111900	110844	-0.94	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.08	0.80	Satisfactory
20	20.07	0.35	Satisfactory
30	30.1	0.33	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.50	--	Satisfactory
10	10.02	0.2	Satisfactory
20	20.47	2.3	Satisfactory
100	100.16	0.2	Satisfactory
800	798.93	-0.1	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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(g) 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.

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI090155
Date of Issue : 02 October 2019

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 ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	17H105557
Date of Received	:	Sep 27, 2019
Date of Calibration	:	Sep 27, 2019
Date of Next Calibration[a]	:	Dec 26, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.05	0.05	Satisfactory
7.42	7.41	-0.01	Satisfactory
10.01	10.11	0.10	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.0	0.0	Satisfactory
22.0	22.1	0.1	Satisfactory
42.0	42.1	0.1	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

[a] *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.*
[b] *The results relate only to the calibrated equipment as received*
[c] *The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.*
[d] *"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.*
[e] *The "Tolerance Limit" mentioned is referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI090155
Date of Issue : 02 October 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.72	-0.06	Satisfactory
3.69	4.01	0.32	Satisfactory
5.77	5.38	-0.39	Satisfactory
7.68	7.80	0.12	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	138.2	-5.92	Satisfactory
0.01	1412	1394	-1.27	Satisfactory
0.1	12890	12855	-0.27	Satisfactory
0.5	58670	57582	-1.85	Satisfactory
1.0	111900	109780	-1.89	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.08	0.80	Satisfactory
20	20.41	2.05	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	0.10	--	Satisfactory
10	9.94	-0.6	Satisfactory
20	19.86	-0.7	Satisfactory
100	97.43	-2.6	Satisfactory
800	779.37	-2.6	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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(g) 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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QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120101
Date of Issue : 24 December 2019

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 ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	16H104234
Date of Received	:	Dec 23, 2019
Date of Calibration	:	Dec 23, 2019
Date of Next Calibration[a]	:	Mar 22, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.07	0.07	Satisfactory
7.42	7.48	0.06	Satisfactory
10.01	10.20	0.19	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.2	0.2	Satisfactory
30.0	30.1	0.1	Satisfactory
49.0	49.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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(b) *The results relate only to the calibrated equipment as received*
(c) *The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.*
(d) *"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.*
(e) *The "Tolerance Limit" mentioned is referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120101
Date of Issue : 24 December 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.55	0.10	Satisfactory
4.27	4.30	0.03	Satisfactory
6.41	6.55	0.14	Satisfactory
8.20	8.31	0.11	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	154.1	4.90	Satisfactory
0.01	1412	1388	-1.70	Satisfactory
0.1	12890	12817	-0.57	Satisfactory
0.5	58670	59446	1.32	Satisfactory
1.0	111900	110937	-0.86	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.92	-0.80	Satisfactory
20	20.18	0.90	Satisfactory
30	30.41	1.37	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.10	--	Satisfactory
10	10.08	0.8	Satisfactory
20	20.11	0.5	Satisfactory
100	100.37	0.4	Satisfactory
800	798.42	-0.2	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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[g] 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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QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120100
Date of Issue : 24 December 2019

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 ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	17H105557
Date of Received	:	Dec 23, 2019
Date of Calibration	:	Dec 23, 2019
Date of Next Calibration[a]	:	Mar 22, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
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) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.17	0.16	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	14.9	-0.1	Satisfactory
30.0	30.0	0.0	Satisfactory
49.0	49.0	0.0	Satisfactory

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

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Remark(s): -

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[d] *"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.*
[e] *The "Tolerance Limit" mentioned is referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120100
Date of Issue : 24 December 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.58	0.13	Satisfactory
4.27	4.33	0.06	Satisfactory
6.41	6.51	0.10	Satisfactory
8.20	8.29	0.09	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	150.2	2.25	Satisfactory
0.01	1412	1369	-3.05	Satisfactory
0.1	12890	12928	0.29	Satisfactory
0.5	58670	58921	0.43	Satisfactory
1.0	111900	111994	0.08	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.88	-1.20	Satisfactory
20	19.92	-0.40	Satisfactory
30	29.58	-1.40	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.12	--	Satisfactory
10	9.98	-0.2	Satisfactory
20	19.88	-0.6	Satisfactory
100	100.33	0.3	Satisfactory
800	797.84	-0.3	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

(f) "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

(g) 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 F

EM&A Monitoring Schedules

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Air Quality Impact Monitoring Schedule - December 2019

Air quality monitoring stations: ASR1, ASR5, ASR6, ASR10, AQMS1

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-Dec	02-Dec	03-Dec	04-Dec	05-Dec	06-Dec	07-Dec
1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM
08-Dec	09-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
		1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM	
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
	1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		
22-Dec	23-Dec	24-Dec	Public Holiday 25-Dec	Public Holiday 26-Dec	27-Dec	28-Dec
1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM
29-Dec	30-Dec	31-Dec				
		1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM				

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Tentative Air Quality Impact Monitoring Schedule - January 2020

Air quality monitoring stations: ASR1, ASR5, ASR6, ASR10, AQMS1

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			Public Holiday 01-Jan	02-Jan	03-Jan	04-Jan
					1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM	
05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan
	1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM
19-Jan	20-Jan	21-Jan	Public Holiday 22-Jan	Public Holiday 23-Jan	24-Jan	Public Holiday 25-Jan
		1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM	
26-Jan	Public Holiday 27-Jan	Public Holiday 28-Jan	29-Jan	30-Jan	31-Jan	
				1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety,weather etc) conditions.

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Impact Dolphin Monitoring Survey Monitoring Schedule - December 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-Dec	02-Dec	03-Dec	04-Dec	05-Dec	06-Dec	07-Dec
		Impact Dolphin Monitoring				
08-Dec	09-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
		Impact Dolphin Monitoring		**Impact Dolphin Monitoring**		
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
	Impact Dolphin Monitoring					
22-Dec	23-Dec	24-Dec	Public holiday 25-Dec	Public holiday 26-Dec	27-Dec	28-Dec
29-Dec	30-Dec	31-Dec				

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Tentative Impact Dolphin Monitoring Survey Monitoring Schedule - January 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			Public holiday 01-Jan	02-Jan	03-Jan	04-Jan
				Impact Dolphin Monitoring		
05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan
	Impact Dolphin Monitoring			**Impact Dolphin Monitoring**		
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
				Impact Dolphin Monitoring		
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	Public holiday 25-Jan
26-Jan	Public holiday 27-Jan	Public holiday 28-Jan	29-Jan	30-Jan	31-Jan	

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse(safety,weather etc) conditions.

HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Landfall
Impact Marine Water Quality Monitoring (WQM) Schedule (December 2019)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec
	ebb tide 2:35 - 6:05 flood tide 14:54 - 17:23		ebb tide 5:23 - 7:36 flood tide 12:59 - 16:29		ebb tide 6:16 - 9:46 flood tide 13:57 - 17:27	
8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
	ebb tide 9:09 - 12:39 flood tide 15:09 - 18:39		ebb tide 10:33 - 14:03 flood tide 16:01 - 19:15		ebb tide 11:57 - 15:27 flood tide 7:15 - 10:11	
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
	ebb tide 14:15 - 17:45 flood tide 9:07 - 12:37		ebb tide 16:20 - 18:35 flood tide 10:59 - 14:29		ebb tide 6:35 - 8:51 flood tide 12:50 - 16:20	
22-Dec	23-Dec	24-Dec	Public Holiday 25-Dec	Public Holiday 26-Dec	27-Dec	28-Dec
	ebb tide 9:08 - 12:38 flood tide 14:48 - 18:18				ebb tide 12:13 - 15:43 flood tide 7:29 - 10:30	
29-Dec	30-Dec	31-Dec				
	ebb tide 14:09 - 17:39 flood tide 9:01 - 12:31					

Appendix G

Impact Air Quality Monitoring Results

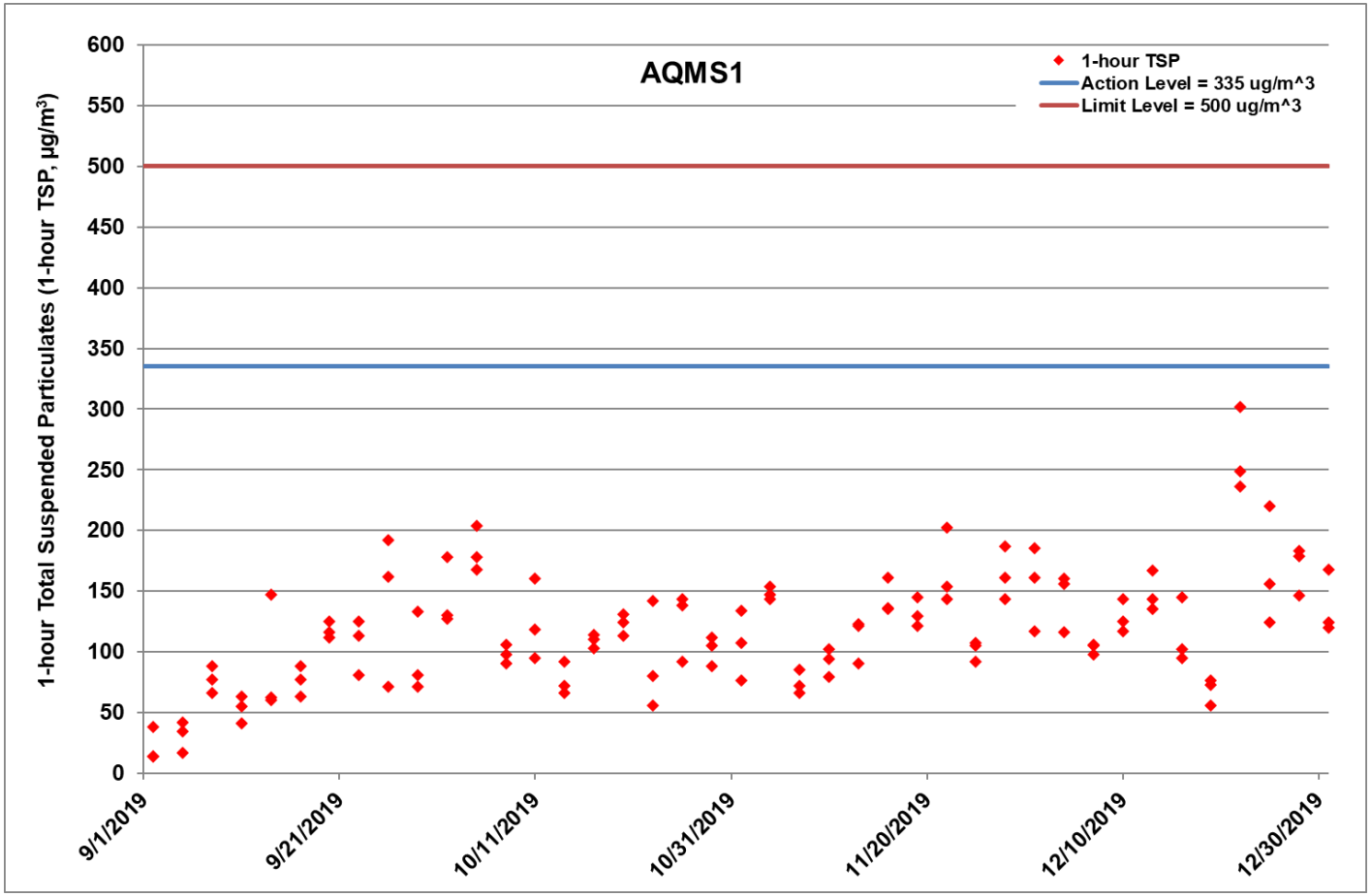


Figure G.1 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

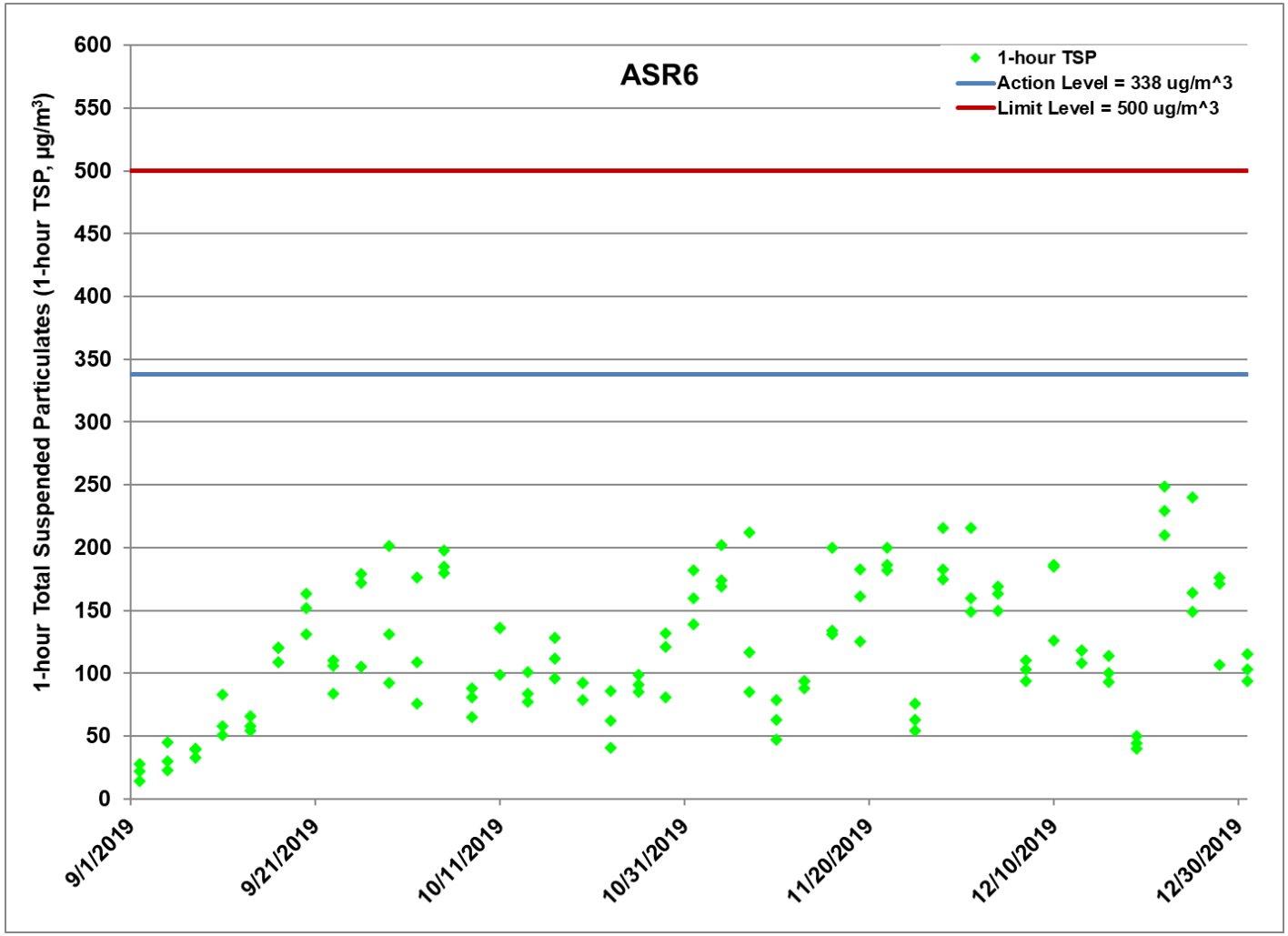


Figure G.2 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR6 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

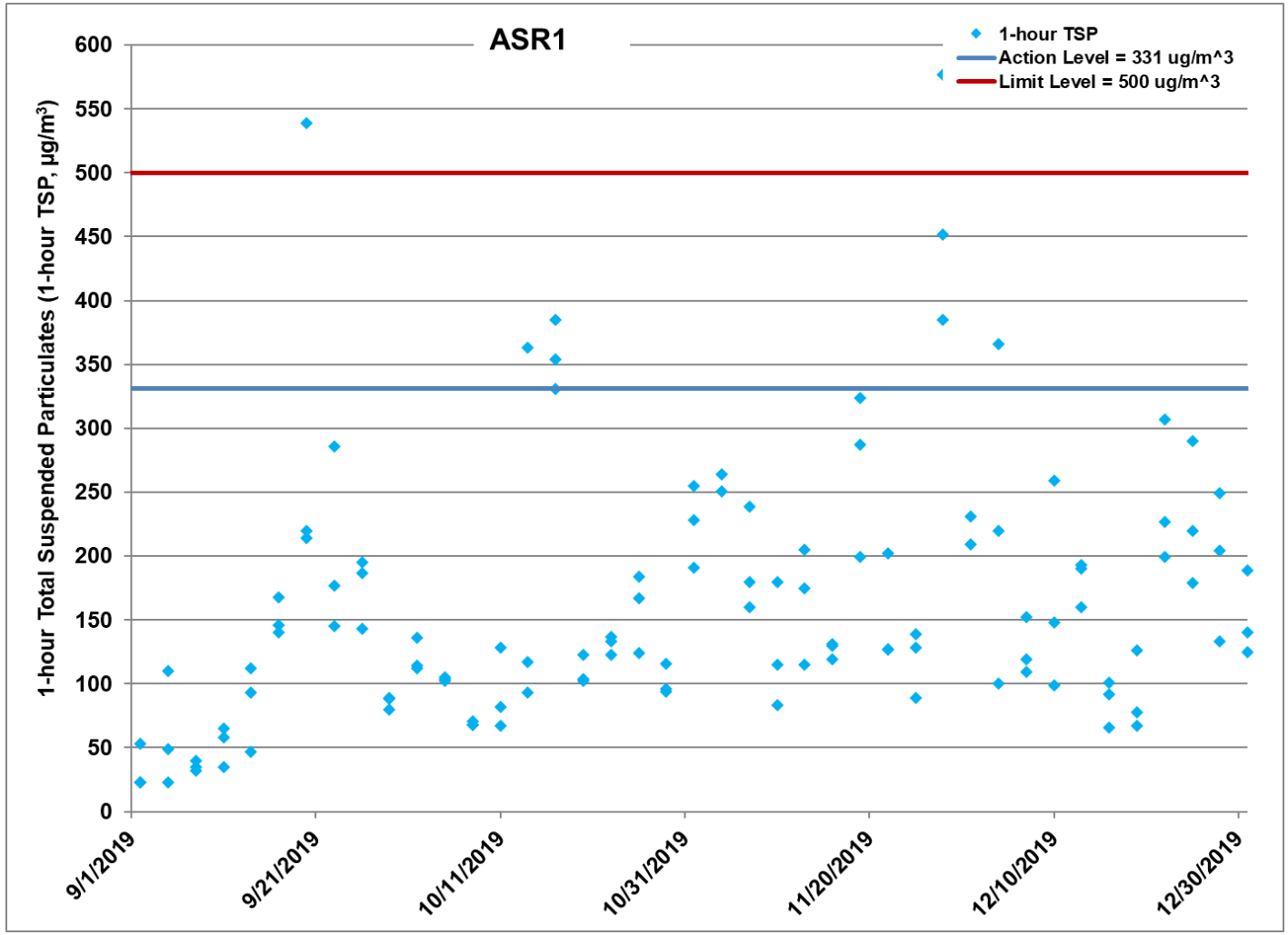


Figure G.3 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

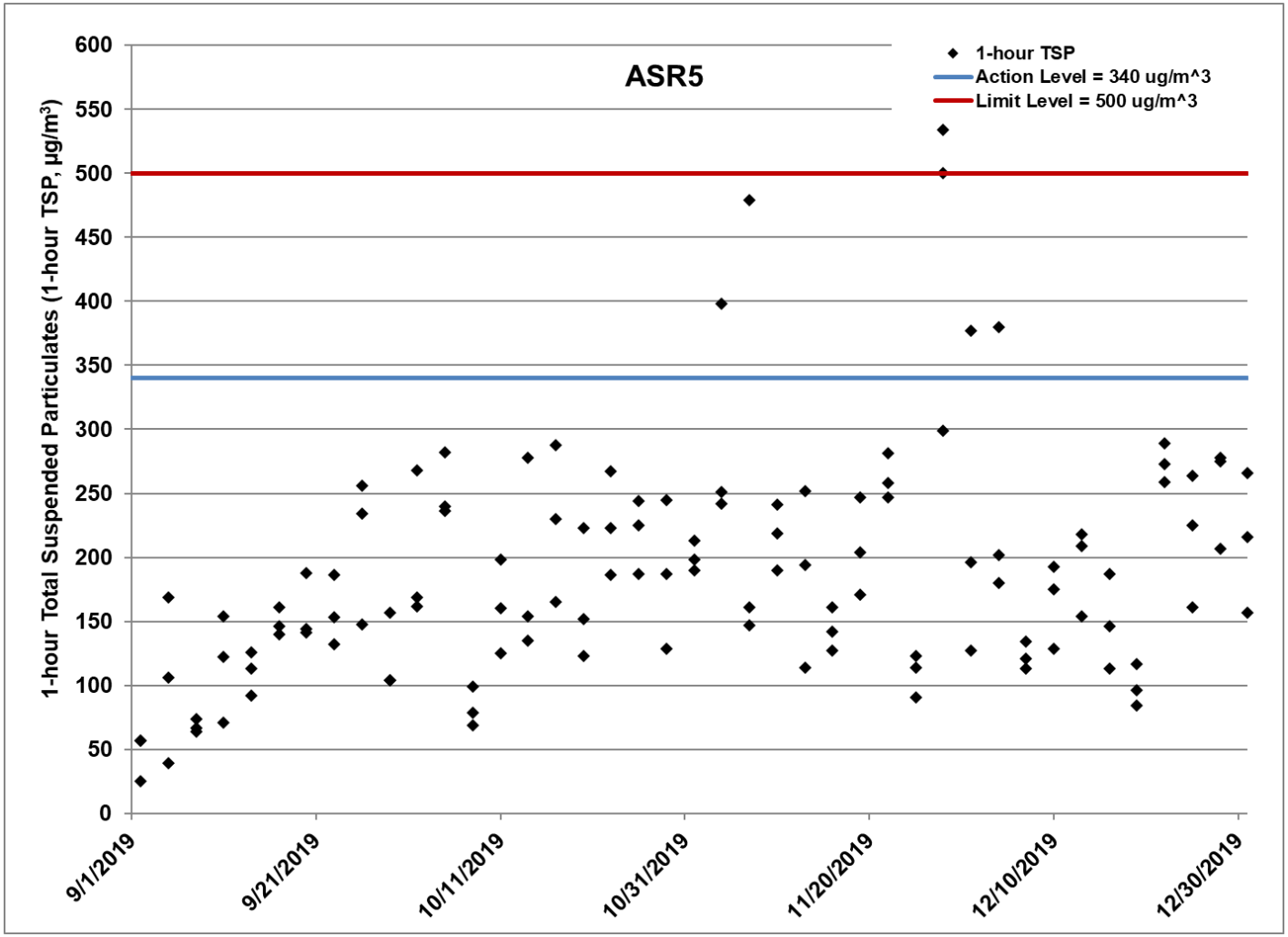


Figure G.4 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

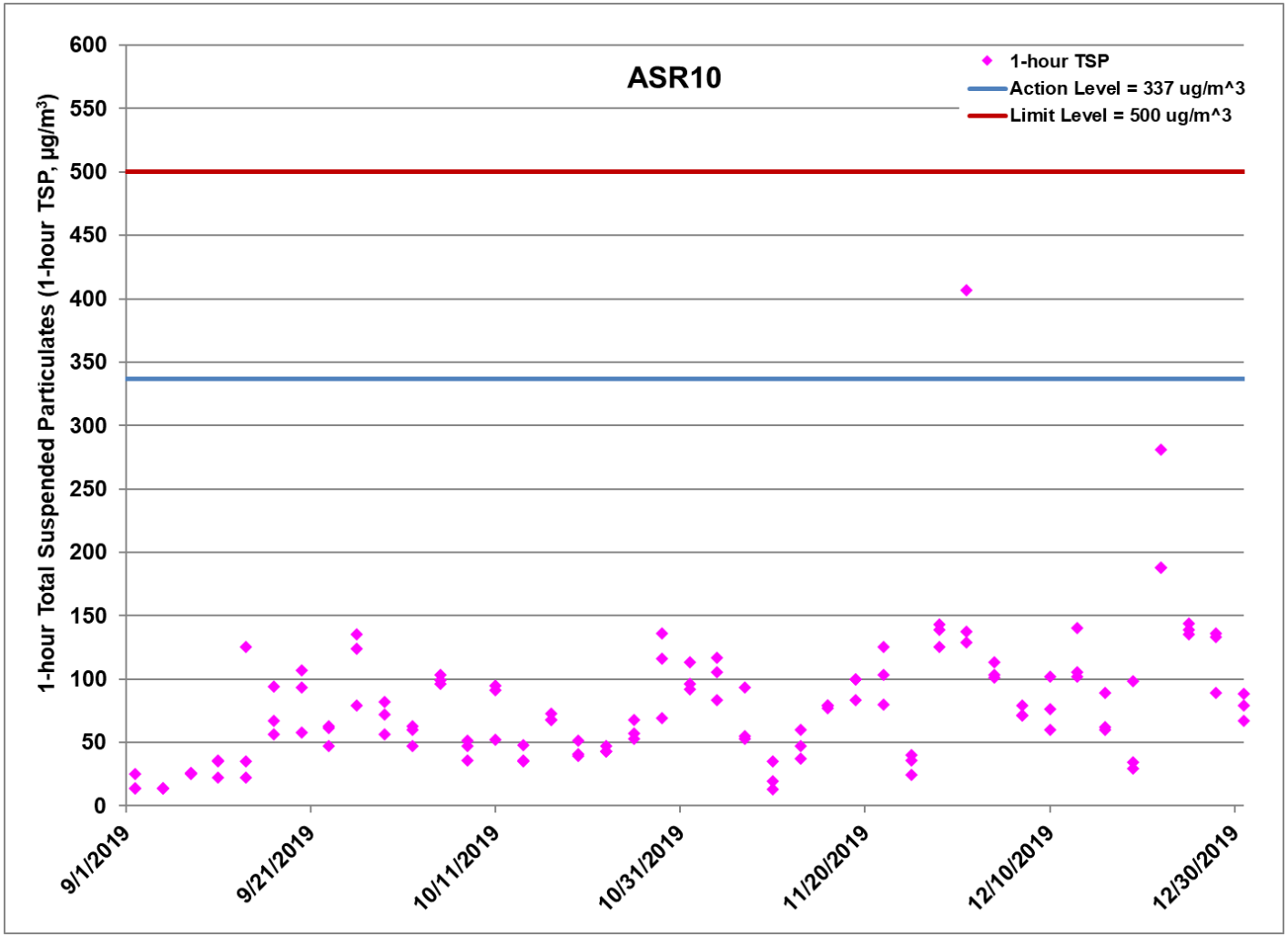


Figure G.5 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

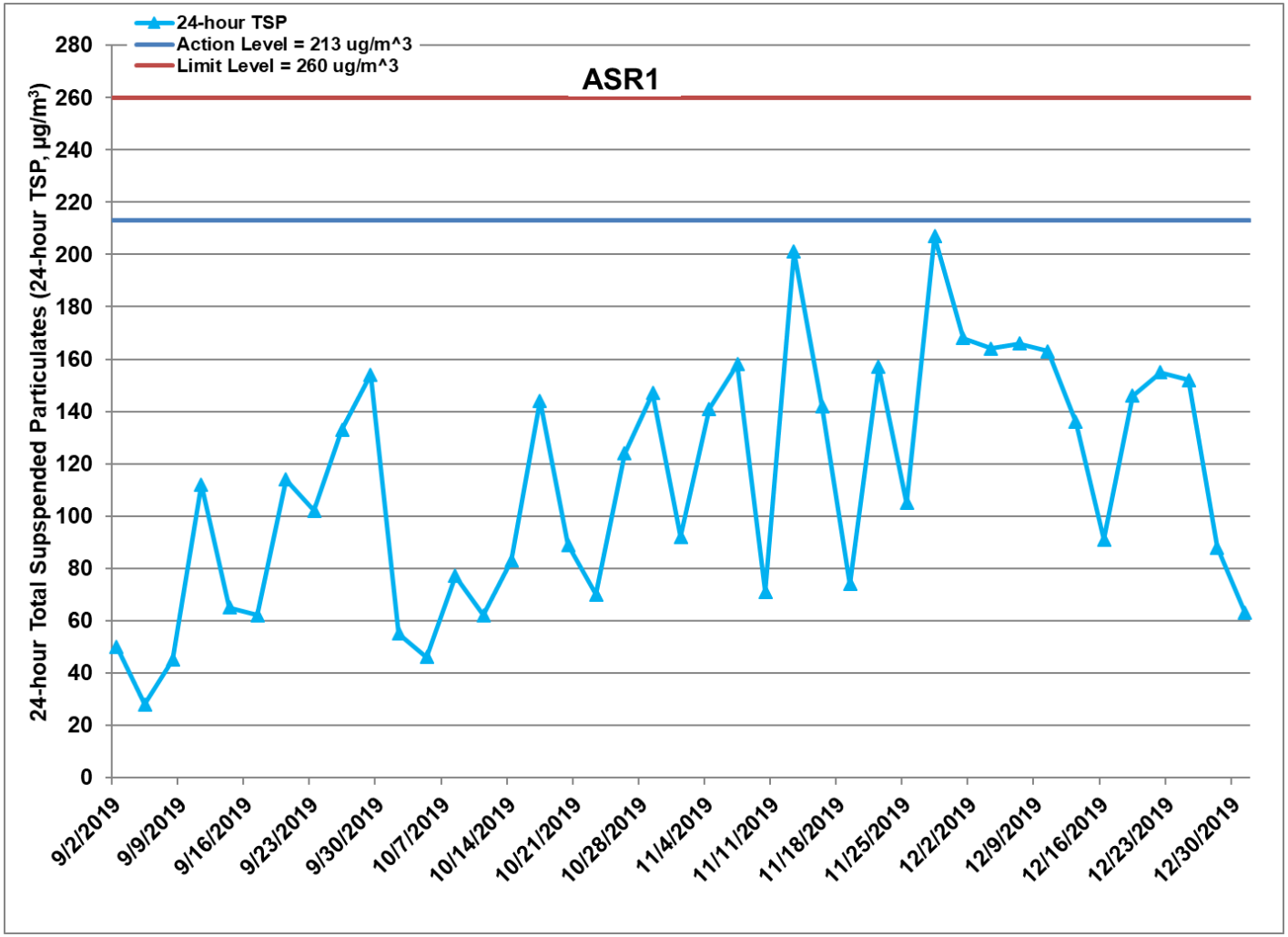


Figure G.6 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

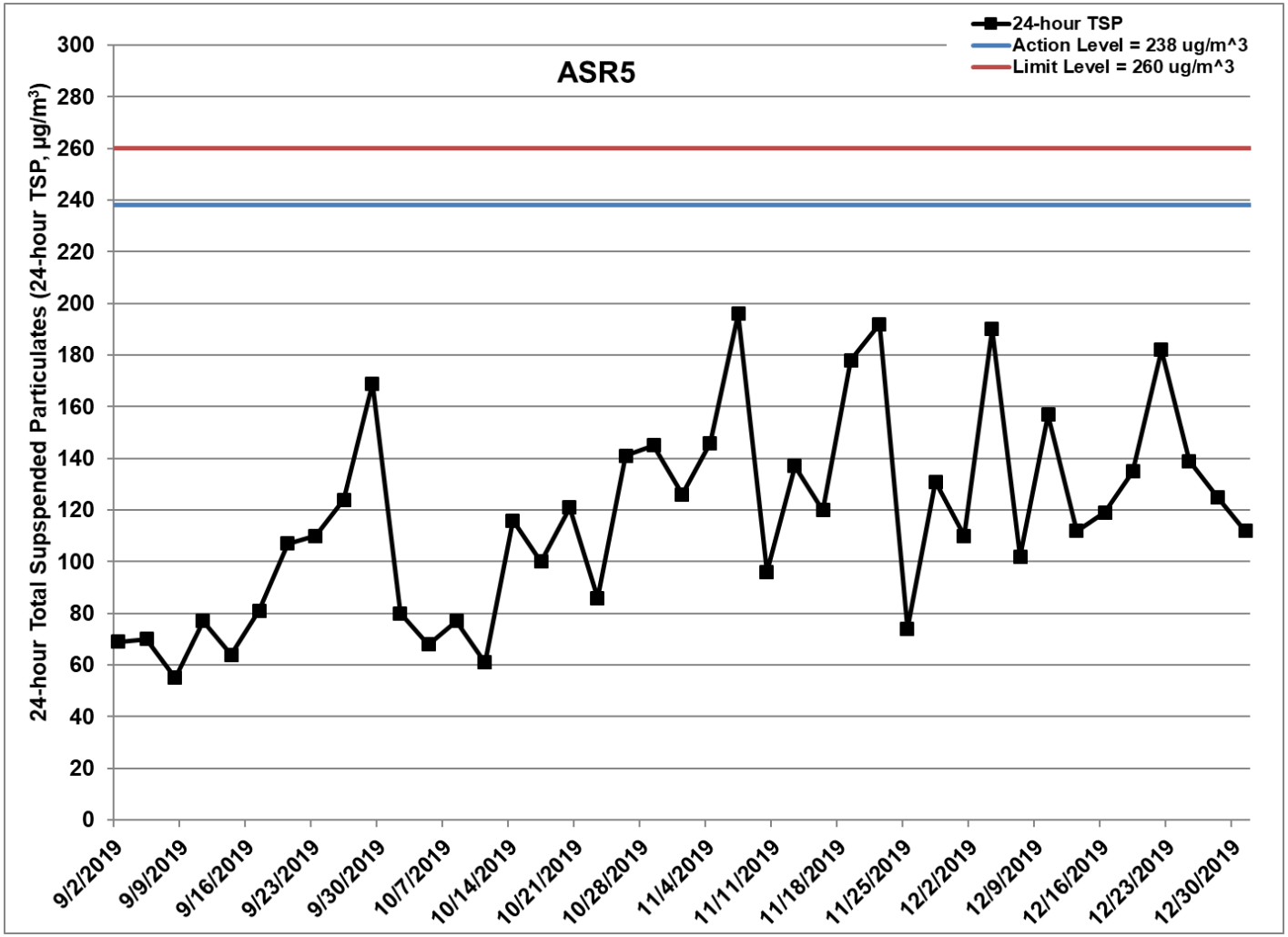


Figure G.7 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

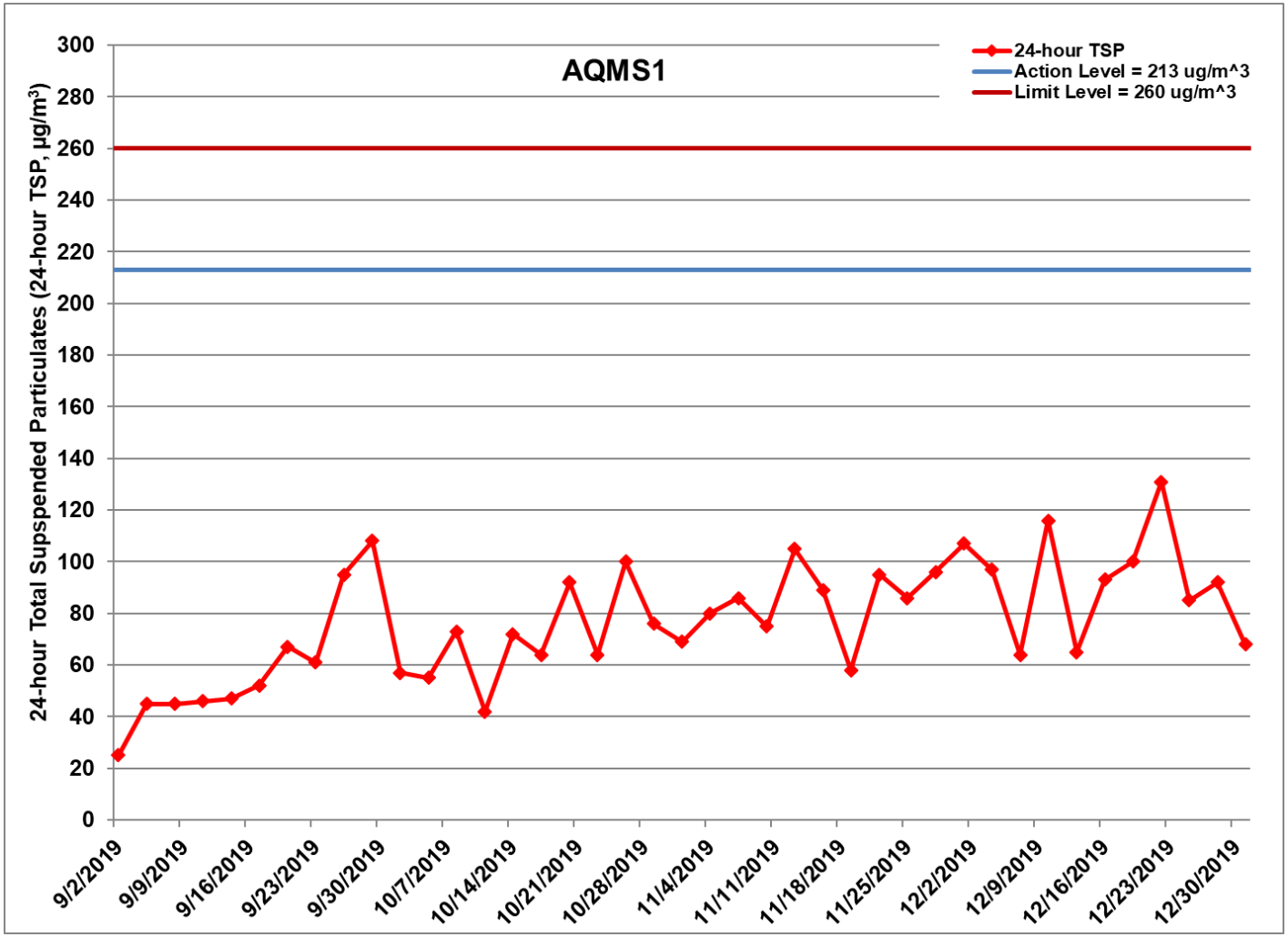


Figure G.8 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

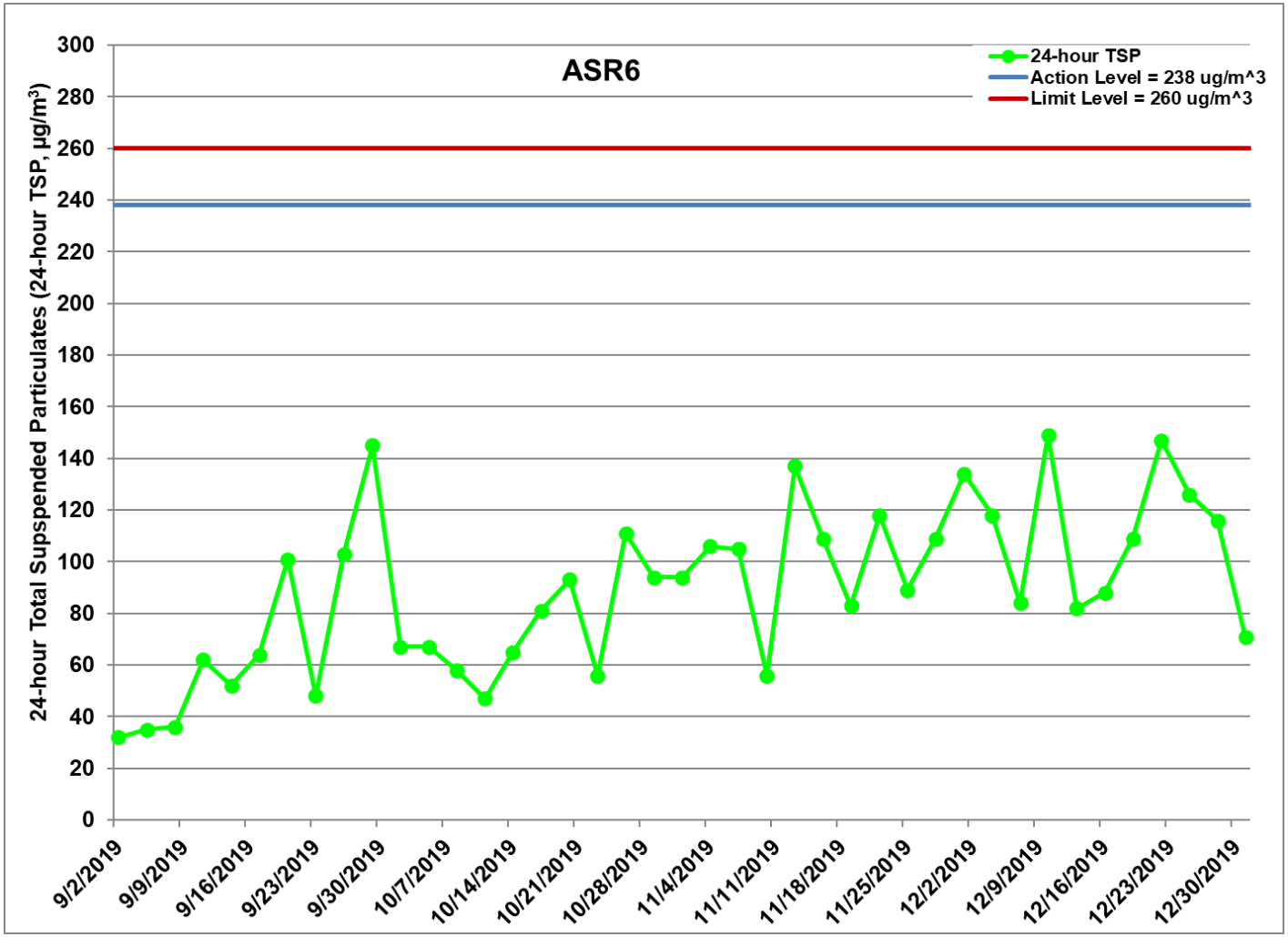


Figure G.9 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR6 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

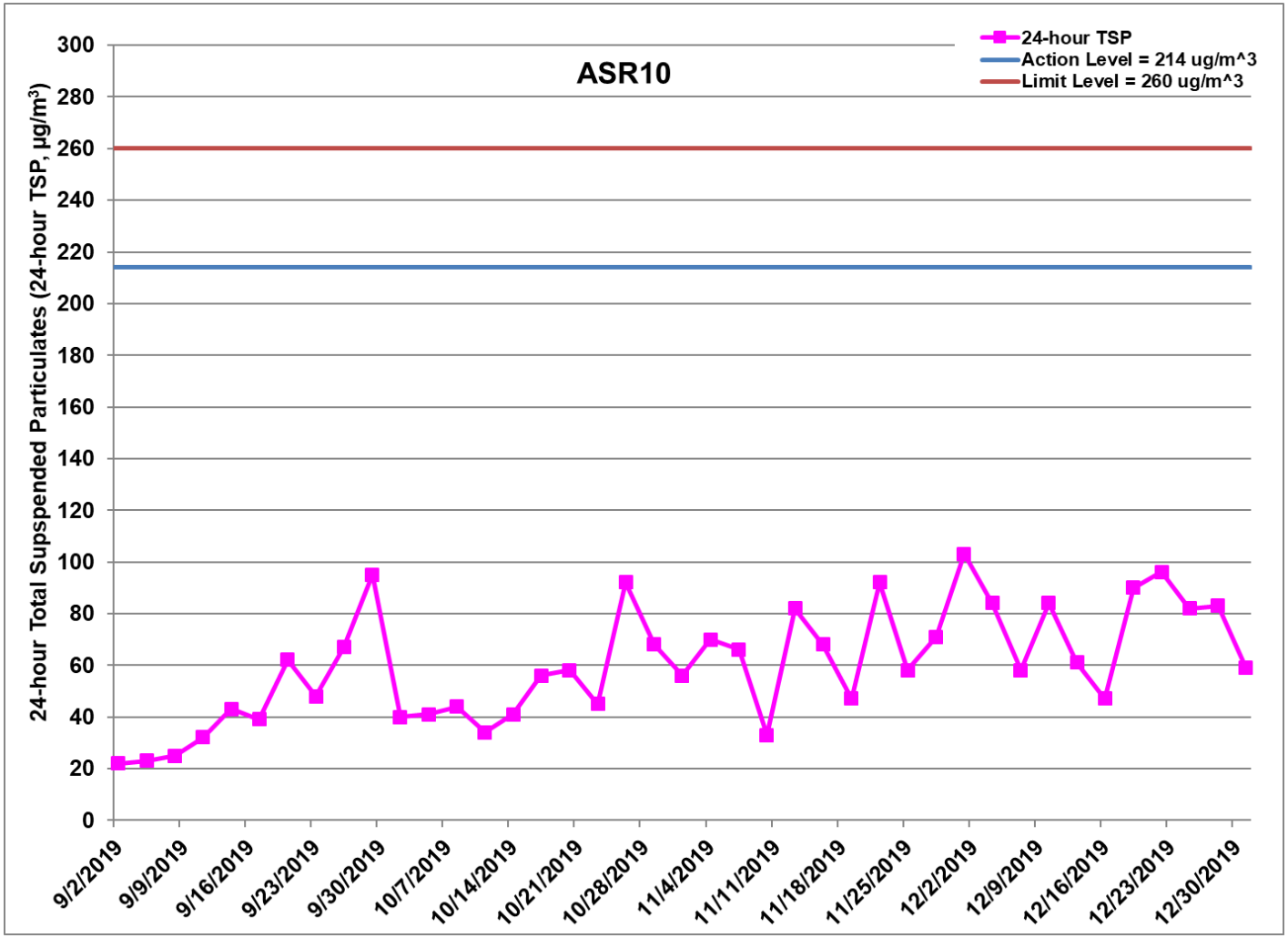


Figure G.10 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 September 2019 and 31 December 2019 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Road & Drainage Works (1/9/2019 – 31/12/2019)

Ref: 0212330_Impact AQM graphs_December 2019_REV a.xlsx

ERM

Project	Contract	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	17:04	24-hour TSP	107	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	16:53	24-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	16:17	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	16:42	24-hour TSP	110	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	16:29	24-hour TSP	134	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	11:55	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	11:43	24-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	11:08	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	11:31	24-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	11:19	24-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2019-12-07	AQMS1	Sunny	12:12	24-hour TSP	64	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR1	Sunny	12:01	24-hour TSP	166	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR10	Sunny	11:27	24-hour TSP	58	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR5	Sunny	11:49	24-hour TSP	102	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR6	Sunny	11:37	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-10	AQMS1	Sunny	11:55	24-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR1	Sunny	11:43	24-hour TSP	163	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR10	Sunny	11:10	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR5	Sunny	11:32	24-hour TSP	157	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR6	Sunny	11:21	24-hour TSP	149	ug/m3
TMCLKL	HY/2012/08	2019-12-13	AQMS1	Sunny	12:09	24-hour TSP	65	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR1	Sunny	11:58	24-hour TSP	136	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR10	Sunny	11:26	24-hour TSP	61	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR5	Sunny	11:47	24-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR6	Sunny	11:36	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2019-12-16	AQMS1	Sunny	16:53	24-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR1	Sunny	16:42	24-hour TSP	91	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR10	Sunny	16:07	24-hour TSP	47	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR5	Sunny	16:30	24-hour TSP	119	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR6	Sunny	16:18	24-hour TSP	88	ug/m3

Project	Contract	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2019-12-19	AQMS1	Sunny	11:55	24-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR1	Sunny	11:43	24-hour TSP	146	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR10	Sunny	11:10	24-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR5	Sunny	11:32	24-hour TSP	135	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR6	Sunny	11:20	24-hour TSP	109	ug/m3
TMCLKL	HY/2012/08	2019-12-22	AQMS1	Sunny	12:06	24-hour TSP	131	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR1	Sunny	11:54	24-hour TSP	155	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR10	Sunny	11:19	24-hour TSP	96	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR5	Sunny	11:41	24-hour TSP	182	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR6	Sunny	11:29	24-hour TSP	147	ug/m3
TMCLKL	HY/2012/08	2019-12-25	AQMS1	Sunny	16:53	24-hour TSP	85	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR1	Sunny	16:41	24-hour TSP	152	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR10	Sunny	16:06	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR5	Sunny	16:30	24-hour TSP	139	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR6	Sunny	16:18	24-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	2019-12-28	AQMS1	Sunny	13:53	1-hour TSP	179	ug/m3
TMCLKL	HY/2012/08	2019-12-28	AQMS1	Sunny	14:55	1-hour TSP	183	ug/m3
TMCLKL	HY/2012/08	2019-12-28	AQMS1	Sunny	15:57	1-hour TSP	146	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR1	Sunny	13:41	1-hour TSP	249	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR1	Sunny	14:43	1-hour TSP	204	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR1	Sunny	15:45	1-hour TSP	133	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR10	Sunny	13:06	1-hour TSP	136	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR10	Sunny	14:08	1-hour TSP	133	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR10	Sunny	15:10	1-hour TSP	89	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR5	Sunny	13:29	1-hour TSP	275	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR5	Sunny	14:31	1-hour TSP	278	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR5	Sunny	15:33	1-hour TSP	207	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR6	Sunny	13:17	1-hour TSP	176	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR6	Sunny	14:19	1-hour TSP	171	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR6	Sunny	15:21	1-hour TSP	107	ug/m3

Project	Contract	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2019-12-31	AQMS1	Sunny	13:47	1-hour TSP	120	ug/m3
TMCLKL	HY/2012/08	2019-12-31	AQMS1	Sunny	14:49	1-hour TSP	124	ug/m3
TMCLKL	HY/2012/08	2019-12-31	AQMS1	Sunny	15:51	1-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR1	Sunny	13:35	1-hour TSP	125	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR1	Sunny	14:37	1-hour TSP	189	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR1	Sunny	15:39	1-hour TSP	140	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR10	Sunny	13:00	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR10	Sunny	14:02	1-hour TSP	67	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR10	Sunny	15:04	1-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR5	Sunny	13:24	1-hour TSP	266	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR5	Sunny	14:26	1-hour TSP	157	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR5	Sunny	15:28	1-hour TSP	216	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR6	Sunny	13:13	1-hour TSP	94	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR6	Sunny	14:15	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR6	Sunny	15:17	1-hour TSP	115	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	17:04	24-hour TSP	107	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	16:53	24-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	16:17	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	16:42	24-hour TSP	110	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	16:29	24-hour TSP	134	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	11:55	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	11:43	24-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	11:08	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	11:31	24-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	11:19	24-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2019-12-07	AQMS1	Sunny	12:12	24-hour TSP	64	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR1	Sunny	12:01	24-hour TSP	166	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR10	Sunny	11:27	24-hour TSP	58	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR5	Sunny	11:49	24-hour TSP	102	ug/m3
TMCLKL	HY/2012/08	2019-12-07	ASR6	Sunny	11:37	24-hour TSP	84	ug/m3

Project	Contract	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2019-12-10	AQMS1	Sunny	11:55	24-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR1	Sunny	11:43	24-hour TSP	163	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR10	Sunny	11:10	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR5	Sunny	11:32	24-hour TSP	157	ug/m3
TMCLKL	HY/2012/08	2019-12-10	ASR6	Sunny	11:21	24-hour TSP	149	ug/m3
TMCLKL	HY/2012/08	2019-12-13	AQMS1	Sunny	12:09	24-hour TSP	65	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR1	Sunny	11:58	24-hour TSP	136	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR10	Sunny	11:26	24-hour TSP	61	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR5	Sunny	11:47	24-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	2019-12-13	ASR6	Sunny	11:36	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2019-12-16	AQMS1	Sunny	16:53	24-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR1	Sunny	16:42	24-hour TSP	91	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR10	Sunny	16:07	24-hour TSP	47	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR5	Sunny	16:30	24-hour TSP	119	ug/m3
TMCLKL	HY/2012/08	2019-12-16	ASR6	Sunny	16:18	24-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2019-12-19	AQMS1	Sunny	11:55	24-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR1	Sunny	11:43	24-hour TSP	146	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR10	Sunny	11:10	24-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR5	Sunny	11:32	24-hour TSP	135	ug/m3
TMCLKL	HY/2012/08	2019-12-19	ASR6	Sunny	11:20	24-hour TSP	109	ug/m3
TMCLKL	HY/2012/08	2019-12-22	AQMS1	Sunny	12:06	24-hour TSP	131	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR1	Sunny	11:54	24-hour TSP	155	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR10	Sunny	11:19	24-hour TSP	96	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR5	Sunny	11:41	24-hour TSP	182	ug/m3
TMCLKL	HY/2012/08	2019-12-22	ASR6	Sunny	11:29	24-hour TSP	147	ug/m3
TMCLKL	HY/2012/08	2019-12-25	AQMS1	Sunny	16:53	24-hour TSP	85	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR1	Sunny	16:41	24-hour TSP	152	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR10	Sunny	16:06	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR5	Sunny	16:30	24-hour TSP	139	ug/m3
TMCLKL	HY/2012/08	2019-12-25	ASR6	Sunny	16:18	24-hour TSP	126	ug/m3

Project	Contract	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2019-12-28	AQMS1	Sunny	16:59	24-hour TSP	92	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR1	Sunny	16:47	24-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR10	Sunny	16:12	24-hour TSP	83	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR5	Sunny	16:35	24-hour TSP	125	ug/m3
TMCLKL	HY/2012/08	2019-12-28	ASR6	Sunny	16:23	24-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	2019-12-31	AQMS1	Sunny	16:53	24-hour TSP	68	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR1	Sunny	16:41	24-hour TSP	63	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR10	Sunny	16:06	24-hour TSP	59	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR5	Sunny	16:30	24-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	2019-12-31	ASR6	Sunny	16:19	24-hour TSP	71	ug/m3

Appendix H

Meteorological Data

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/01	1:00	1.3	304
19/12/01	2:00	1.3	319
19/12/01	3:00	0.9	303
19/12/01	4:00	0.4	290
19/12/01	5:00	0.4	339
19/12/01	6:00	0	-
19/12/01	7:00	0	-
19/12/01	8:00	1.3	28
19/12/01	9:00	1.3	28
19/12/01	10:00	1.8	207
19/12/01	11:00	1.3	210
19/12/01	12:00	1.8	309
19/12/01	13:00	2.7	273
19/12/01	14:00	2.2	288
19/12/01	15:00	1.8	272
19/12/01	16:00	0.9	302
19/12/01	17:00	0.9	319
19/12/01	18:00	0.9	288
19/12/01	19:00	1.3	289
19/12/01	20:00	1.3	315
19/12/01	21:00	2.2	309
19/12/01	22:00	1.8	311
19/12/01	23:00	1.3	318
19/12/02	0:00	1.8	313
19/12/02	1:00	1.3	303
19/12/02	2:00	1.3	312
19/12/02	3:00	1.3	299
19/12/02	4:00	0.9	284
19/12/02	5:00	1.3	283
19/12/02	6:00	1.3	297
19/12/02	7:00	1.3	17
19/12/02	8:00	1.8	354
19/12/02	9:00	2.2	333
19/12/02	10:00	3.6	318
19/12/02	11:00	4	305
19/12/02	12:00	3.6	325
19/12/02	13:00	3.1	342
19/12/02	14:00	3.1	304
19/12/02	15:00	3.1	310
19/12/02	16:00	2.2	335
19/12/02	17:00	2.7	326
19/12/02	18:00	3.1	326
19/12/02	19:00	2.7	330
19/12/02	20:00	3.1	327
19/12/02	21:00	4.5	326
19/12/02	22:00	4.5	14
19/12/02	23:00	4	29
19/12/04	0:00	1.8	328
19/12/04	1:00	2.7	30
19/12/04	2:00	2.2	25
19/12/04	3:00	1.8	13
19/12/04	4:00	1.8	19
19/12/04	5:00	2.7	355
19/12/04	6:00	1.8	339
19/12/04	7:00	1.8	339
19/12/04	8:00	3.1	356
19/12/04	9:00	2.7	14
19/12/04	10:00	2.2	28

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/04	11:00	2.2	16
19/12/04	12:00	1.8	31
19/12/04	13:00	1.8	31
19/12/04	14:00	1.3	306
19/12/04	15:00	2.2	325
19/12/04	16:00	1.8	345
19/12/04	17:00	1.8	341
19/12/04	18:00	0.9	306
19/12/04	19:00	0.4	292
19/12/04	20:00	0.4	311
19/12/04	21:00	1.3	14
19/12/04	22:00	1.3	56
19/12/04	23:00	1.8	28
19/12/05	0:00	2.7	16
19/12/05	1:00	2.7	4
19/12/05	2:00	1.8	2
19/12/05	3:00	2.2	334
19/12/05	4:00	2.7	337
19/12/05	5:00	0.9	330
19/12/05	6:00	0.9	358
19/12/05	7:00	1.3	24
19/12/05	8:00	1.3	24
19/12/05	9:00	1.8	27
19/12/05	10:00	2.2	92
19/12/05	11:00	1.3	19
19/12/05	12:00	1.3	33
19/12/05	13:00	1.3	28
19/12/05	14:00	1.3	24
19/12/05	15:00	1.3	341
19/12/05	16:00	0.9	334
19/12/05	17:00	1.3	330
19/12/05	18:00	1.8	344
19/12/05	19:00	1.8	326
19/12/05	20:00	1.8	6
19/12/05	21:00	1.8	12
19/12/05	22:00	2.2	3
19/12/05	23:00	2.2	13
19/12/07	1:00	4.5	340
19/12/07	2:00	4.5	354
19/12/07	3:00	4.5	351
19/12/07	4:00	4	342
19/12/07	5:00	1.8	330
19/12/07	6:00	2.7	328
19/12/07	7:00	3.1	340
19/12/07	8:00	4	27
19/12/07	9:00	4.9	29
19/12/07	10:00	4.9	15
19/12/07	11:00	4.5	16
19/12/07	12:00	2.7	33
19/12/07	13:00	3.1	23
19/12/07	14:00	3.6	29
19/12/07	15:00	4	21
19/12/07	16:00	2.7	337
19/12/07	17:00	2.7	329
19/12/07	18:00	3.6	334
19/12/07	19:00	2.2	327
19/12/07	20:00	0.4	14
19/12/07	21:00	0.9	358

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/07	22:00	0.9	356
19/12/07	23:00	1.3	355
19/12/08	0:00	2.2	2
19/12/08	1:00	3.1	339
19/12/08	2:00	2.2	5
19/12/08	3:00	2.7	3
19/12/08	4:00	2.2	4
19/12/08	5:00	1.8	16
19/12/08	6:00	1.8	35
19/12/08	7:00	2.2	24
19/12/08	8:00	2.7	15
19/12/08	9:00	3.6	15
19/12/08	10:00	2.2	25
19/12/08	11:00	1.8	21
19/12/08	12:00	1.8	20
19/12/08	13:00	1.3	28
19/12/08	14:00	1.3	15
19/12/08	15:00	1.3	22
19/12/08	16:00	1.3	4
19/12/08	17:00	1.3	121
19/12/08	18:00	0.4	1
19/12/08	19:00	0	-
19/12/08	20:00	0.9	324
19/12/08	21:00	0.9	320
19/12/08	22:00	0.9	304
19/12/08	23:00	0.9	312
19/12/10	0:00	0	-
19/12/10	1:00	0.4	78
19/12/10	2:00	0	-
19/12/10	3:00	0.4	300
19/12/10	4:00	0.9	339
19/12/10	5:00	0.9	327
19/12/10	6:00	0.4	345
19/12/10	7:00	0	-
19/12/10	8:00	0.4	79
19/12/10	9:00	0.9	88
19/12/10	10:00	0.9	122
19/12/10	11:00	0.9	171
19/12/10	12:00	0.9	195
19/12/10	13:00	0.9	259
19/12/10	14:00	1.3	225
19/12/10	15:00	0.9	261
19/12/10	16:00	0.4	209
19/12/10	17:00	0.4	278
19/12/10	18:00	0.9	308
19/12/10	19:00	0.4	308
19/12/10	20:00	0.9	314
19/12/10	21:00	1.8	312
19/12/10	22:00	0.9	321
19/12/10	23:00	0.9	311
19/12/11	0:00	0.4	313
19/12/11	1:00	0.4	321
19/12/11	2:00	0.9	322
19/12/11	3:00	0.9	306
19/12/11	4:00	0.4	315
19/12/11	5:00	0.4	326
19/12/11	6:00	0.9	310
19/12/11	7:00	0.4	94

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/11	8:00	0.9	193
19/12/11	9:00	1.3	12
19/12/11	10:00	1.3	157
19/12/11	11:00	1.3	196
19/12/11	12:00	0.9	202
19/12/11	13:00	1.8	195
19/12/11	14:00	1.3	199
19/12/11	15:00	0.9	265
19/12/11	16:00	0.9	191
19/12/11	17:00	0.9	77
19/12/11	18:00	0.9	52
19/12/11	19:00	0.9	39
19/12/11	20:00	0	-
19/12/11	21:00	0.4	55
19/12/11	22:00	0.4	45
19/12/11	23:00	0.9	77
19/12/13	0:00	1.8	57
19/12/13	1:00	2.2	56
19/12/13	2:00	1.3	70
19/12/13	3:00	1.8	69
19/12/13	4:00	0.9	69
19/12/13	5:00	0.9	48
19/12/13	6:00	1.3	54
19/12/13	7:00	1.3	68
19/12/13	8:00	1.3	58
19/12/13	9:00	2.2	89
19/12/13	10:00	2.2	95
19/12/13	11:00	2.2	96
19/12/13	12:00	2.2	140
19/12/13	13:00	1.3	96
19/12/13	14:00	1.3	96
19/12/13	15:00	0.9	59
19/12/13	16:00	0.9	91
19/12/13	17:00	0	-
19/12/13	18:00	0	-
19/12/13	19:00	0	-
19/12/13	20:00	0	-
19/12/13	21:00	0	-
19/12/13	22:00	0	-
19/12/13	23:00	0.4	42
19/12/14	0:00	0.9	20
19/12/14	1:00	0.9	31
19/12/14	2:00	0.4	46
19/12/14	3:00	0	-
19/12/14	4:00	0	-
19/12/14	5:00	0	-
19/12/14	6:00	0	-
19/12/14	7:00	0	-
19/12/14	8:00	0.4	92
19/12/14	9:00	1.3	142
19/12/14	10:00	0.9	135
19/12/14	11:00	1.3	125
19/12/14	12:00	1.3	127
19/12/14	13:00	1.3	144
19/12/14	14:00	1.3	208
19/12/14	15:00	0.9	248
19/12/14	16:00	0.4	231
19/12/14	17:00	0.4	123
19/12/14	18:00	0.9	79
19/12/14	19:00	1.8	60
19/12/14	20:00	1.8	96

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/14	21:00	0.9	45
19/12/14	22:00	1.3	72
19/12/14	23:00	1.3	78
19/12/16	0:00	1.8	56
19/12/16	1:00	2.7	89
19/12/16	2:00	2.7	88
19/12/16	3:00	1.3	36
19/12/16	4:00	1.3	29
19/12/16	5:00	2.2	77
19/12/16	6:00	2.2	74
19/12/16	7:00	1.8	87
19/12/16	8:00	1.8	81
19/12/16	9:00	1.8	68
19/12/16	10:00	0.9	74
19/12/16	11:00	0.9	45
19/12/16	12:00	0.9	103
19/12/16	13:00	0.4	117
19/12/16	14:00	0.4	208
19/12/16	15:00	0	-
19/12/16	16:00	0.4	194
19/12/16	17:00	0	-
19/12/16	18:00	0.9	79
19/12/16	19:00	1.3	77
19/12/16	20:00	1.3	55
19/12/16	21:00	1.3	50
19/12/16	22:00	0.9	35
19/12/16	23:00	0.4	85
19/12/17	0:00	0.4	42
19/12/17	1:00	0.4	57
19/12/17	2:00	0.4	72
19/12/17	3:00	0.4	63
19/12/17	4:00	0.9	59
19/12/17	5:00	0.9	55
19/12/17	6:00	0.4	32
19/12/17	7:00	0	-
19/12/17	8:00	0	-
19/12/17	9:00	0	-
19/12/17	10:00	0.4	127
19/12/17	11:00	0.9	129
19/12/17	12:00	1.3	199
19/12/17	13:00	1.3	210
19/12/17	14:00	1.8	191
19/12/17	15:00	1.3	214
19/12/17	16:00	1.3	201
19/12/17	17:00	0.4	192
19/12/17	18:00	0	-
19/12/17	19:00	0.9	56
19/12/17	20:00	0.4	47
19/12/17	21:00	0.4	35
19/12/17	22:00	0.4	53
19/12/17	23:00	0.4	40
19/12/19	0:00	3.1	87
19/12/19	1:00	2.7	101
19/12/19	2:00	2.7	101
19/12/19	3:00	2.7	98
19/12/19	4:00	2.7	100
19/12/19	5:00	2.2	87
19/12/19	6:00	2.2	84
19/12/19	7:00	1.8	93
19/12/19	8:00	1.8	112
19/12/19	9:00	1.3	133
19/12/19	10:00	1.8	97
19/12/19	11:00	2.2	84

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/19	12:00	1.3	133
19/12/19	13:00	2.7	293
19/12/19	14:00	3.6	319
19/12/19	15:00	2.7	309
19/12/19	16:00	3.1	312
19/12/19	17:00	0.9	281
19/12/19	18:00	1.3	300
19/12/19	19:00	0.9	303
19/12/19	20:00	0.9	316
19/12/19	21:00	1.3	12
19/12/19	22:00	1.3	358
19/12/19	23:00	0.9	347
19/12/20	0:00	1.3	11
19/12/20	1:00	1.8	3
19/12/20	2:00	1.8	15
19/12/20	3:00	1.8	30
19/12/20	4:00	1.3	329
19/12/20	5:00	1.8	5
19/12/20	6:00	1.8	27
19/12/20	7:00	2.2	12
19/12/20	8:00	1.8	14
19/12/20	9:00	0.9	32
19/12/20	10:00	0.9	98
19/12/20	11:00	0.9	129
19/12/20	12:00	1.3	137
19/12/20	13:00	2.2	261
19/12/20	14:00	2.7	262
19/12/20	15:00	2.7	292
19/12/20	16:00	1.8	294
19/12/20	17:00	0.4	134
19/12/20	18:00	1.3	128
19/12/20	19:00	1.3	126
19/12/20	20:00	0.9	101
19/12/20	21:00	0.9	99
19/12/20	22:00	0.9	31
19/12/20	23:00	0.9	22
19/12/22	0:00	0	-
19/12/22	1:00	0	-
19/12/22	2:00	0	-
19/12/22	3:00	0	-
19/12/22	4:00	0	-
19/12/22	5:00	0	-
19/12/22	6:00	0	-
19/12/22	7:00	0	-
19/12/22	8:00	0.4	199
19/12/22	9:00	0.9	123
19/12/22	10:00	2.2	281
19/12/22	11:00	1.8	282
19/12/22	12:00	1.3	287
19/12/22	13:00	1.8	259
19/12/22	14:00	1.3	268
19/12/22	15:00	0.4	275
19/12/22	16:00	1.3	301
19/12/22	17:00	0.9	301
19/12/22	18:00	0.4	340
19/12/22	19:00	0.4	52
19/12/22	20:00	0.4	309
19/12/22	21:00	0	-
19/12/22	22:00	0.4	328
19/12/22	23:00	0.4	310
19/12/23	0:00	1.3	285
19/12/23	1:00	0.9	309
19/12/23	2:00	0	-

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/23	3:00	0	-
19/12/23	4:00	0	-
19/12/23	5:00	0	-
19/12/23	6:00	0.4	61
19/12/23	7:00	0.9	39
19/12/23	8:00	2.2	84
19/12/23	9:00	2.7	99
19/12/23	10:00	2.2	100
19/12/23	11:00	2.7	90
19/12/23	12:00	2.7	101
19/12/23	13:00	3.1	101
19/12/23	14:00	3.1	90
19/12/23	15:00	2.2	99
19/12/23	16:00	2.7	96
19/12/23	17:00	2.2	82
19/12/23	18:00	2.7	81
19/12/23	19:00	3.1	86
19/12/23	20:00	3.1	82
19/12/23	21:00	2.7	91
19/12/23	22:00	2.7	68
19/12/23	23:00	3.1	85
19/12/25	0:00	1.3	94
19/12/25	1:00	0.9	34
19/12/25	2:00	0.4	31
19/12/25	3:00	0.9	77
19/12/25	4:00	0.9	63
19/12/25	5:00	1.3	74
19/12/25	6:00	0.9	93
19/12/25	7:00	0.9	58
19/12/25	8:00	2.2	87
19/12/25	9:00	1.3	56
19/12/25	10:00	2.2	88
19/12/25	11:00	2.2	136
19/12/25	12:00	1.8	138
19/12/25	13:00	1.8	108
19/12/25	14:00	2.2	142
19/12/25	15:00	1.3	140
19/12/25	16:00	1.3	145
19/12/25	17:00	0.9	92
19/12/25	18:00	0	-
19/12/25	19:00	0.4	6
19/12/25	20:00	0	-
19/12/25	21:00	0	-
19/12/25	22:00	0.4	355
19/12/25	23:00	0.9	312
19/12/26	0:00	0	-
19/12/26	1:00	0	-
19/12/26	2:00	0	-
19/12/26	3:00	0	-
19/12/26	4:00	0	-
19/12/26	5:00	0	-
19/12/26	6:00	0.4	285
19/12/26	7:00	1.3	298
19/12/26	8:00	0.9	119
19/12/26	9:00	0.9	149
19/12/26	10:00	2.2	315
19/12/26	11:00	2.2	302
19/12/26	12:00	3.1	271
19/12/26	13:00	2.2	277
19/12/26	14:00	2.2	308
19/12/26	15:00	3.1	320
19/12/26	16:00	2.2	312
19/12/26	17:00	1.8	266

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/26	18:00	2.2	330
19/12/26	19:00	1.3	317
19/12/26	20:00	1.3	311
19/12/26	21:00	2.7	326
19/12/26	22:00	0.9	347
19/12/26	23:00	1.3	314
19/12/28	0:00	1.3	352
19/12/28	1:00	0.9	342
19/12/28	2:00	1.3	355
19/12/28	3:00	1.3	19
19/12/28	4:00	1.3	19
19/12/28	5:00	0.9	34
19/12/28	6:00	1.3	31
19/12/28	7:00	1.3	23
19/12/28	8:00	1.3	21
19/12/28	9:00	1.3	41
19/12/28	10:00	1.3	93
19/12/28	11:00	1.3	103
19/12/28	12:00	1.8	196
19/12/28	13:00	1.8	263
19/12/28	14:00	1.3	294
19/12/28	15:00	1.3	293
19/12/28	16:00	1.3	283
19/12/28	17:00	1.3	321
19/12/28	18:00	1.3	323
19/12/28	19:00	1.3	307
19/12/28	20:00	0.4	322
19/12/28	21:00	0	-
19/12/28	22:00	0	-
19/12/28	23:00	0	-
19/12/29	0:00	0.4	93
19/12/29	1:00	0.4	351
19/12/29	2:00	0.4	23
19/12/29	3:00	0.9	359
19/12/29	4:00	0.9	354
19/12/29	5:00	0.4	29
19/12/29	6:00	1.3	85
19/12/29	7:00	1.3	98
19/12/29	8:00	0.9	91
19/12/29	9:00	0.4	36
19/12/29	10:00	0.4	53
19/12/29	11:00	0.9	29
19/12/29	12:00	0.4	172
19/12/29	13:00	0	-
19/12/29	14:00	0.4	255
19/12/29	15:00	0	-
19/12/29	16:00	0.4	140
19/12/29	17:00	0.4	91
19/12/29	18:00	0.4	64
19/12/29	19:00	0.4	19
19/12/29	20:00	0.9	14
19/12/29	21:00	0.4	50
19/12/29	22:00	0.9	61
19/12/29	23:00	0.4	87
19/12/31	0:00	0.4	74
19/12/31	1:00	0.4	72
19/12/31	2:00	1.3	89
19/12/31	3:00	0.9	73
19/12/31	4:00	0.4	72
19/12/31	5:00	0	-
19/12/31	6:00	0	-
19/12/31	7:00	0.4	24
19/12/31	8:00	0.9	86

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/31	9:00	0.9	115
19/12/31	10:00	1.8	99
19/12/31	11:00	1.3	67
19/12/31	12:00	1.3	66
19/12/31	13:00	1.8	69
19/12/31	14:00	1.8	90
19/12/31	15:00	0.9	90
19/12/31	16:00	1.8	92
19/12/31	17:00	1.8	93
19/12/31	18:00	1.8	98
19/12/31	19:00	2.7	90
19/12/31	20:00	2.2	75
19/12/31	21:00	2.2	56
19/12/31	22:00	1.3	45
19/12/31	23:00	1.3	63

Appendix I

Impact Dolphin Monitoring Survey

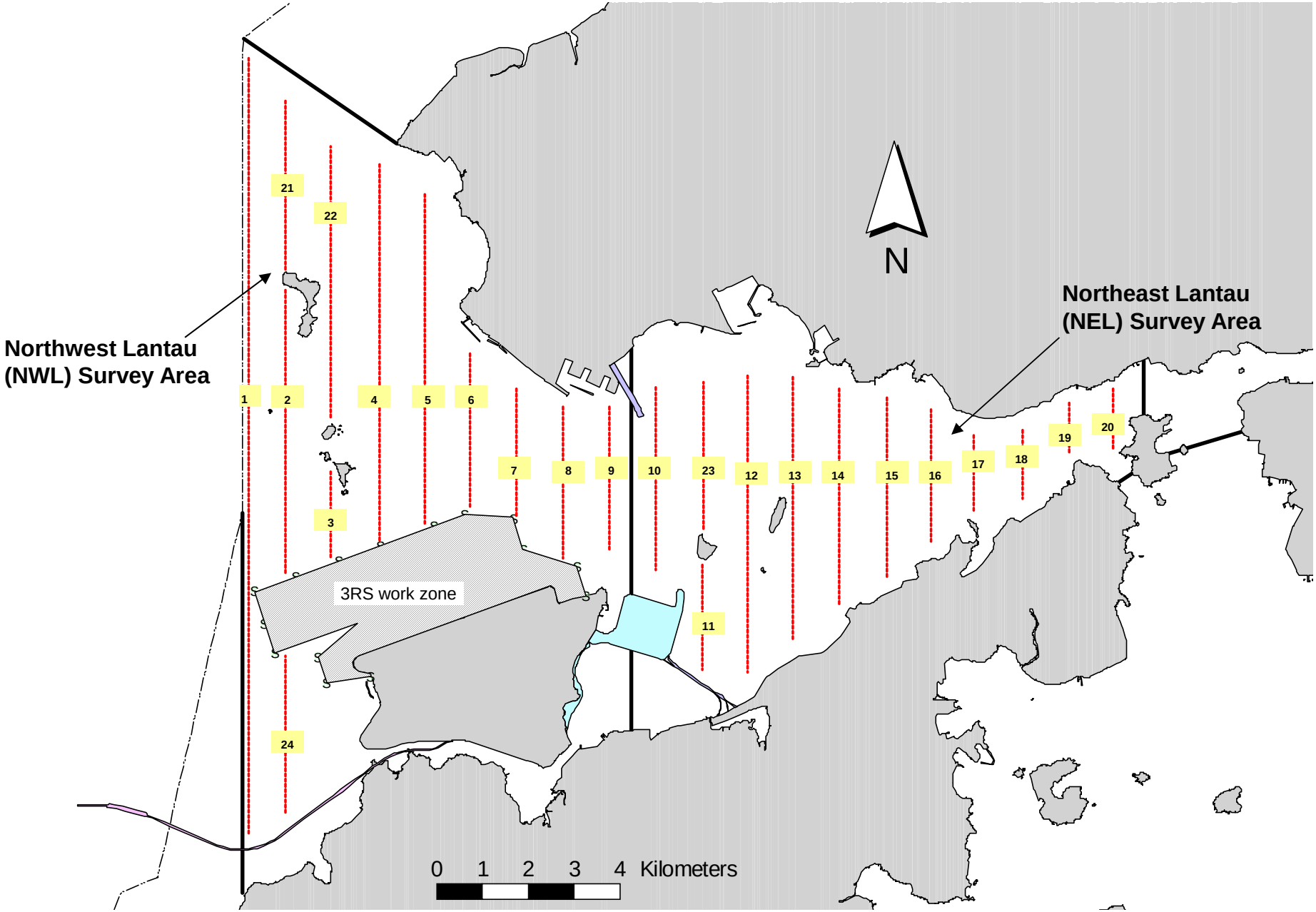


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

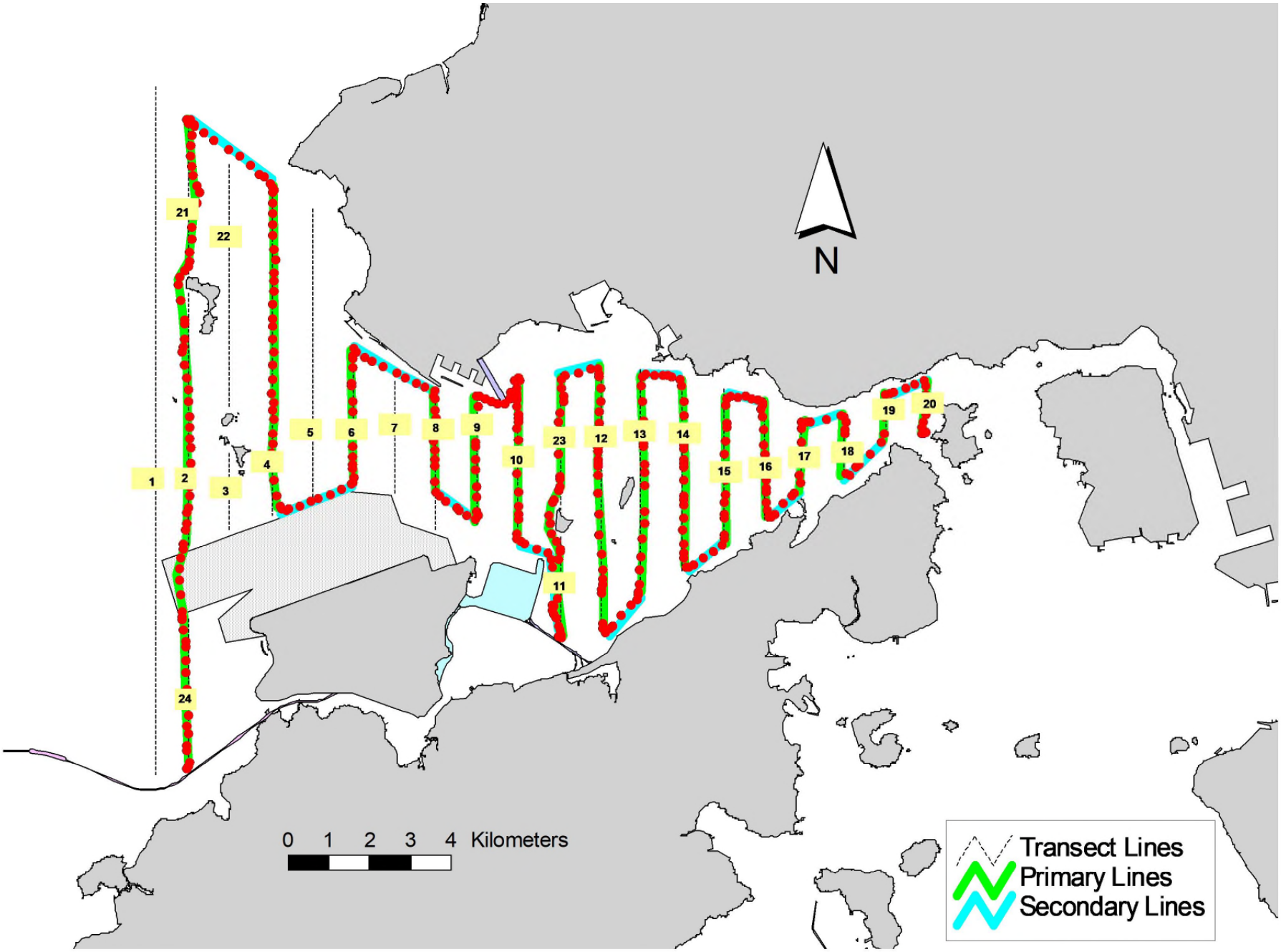


Figure 2. Survey Route on December 3rd, 2019

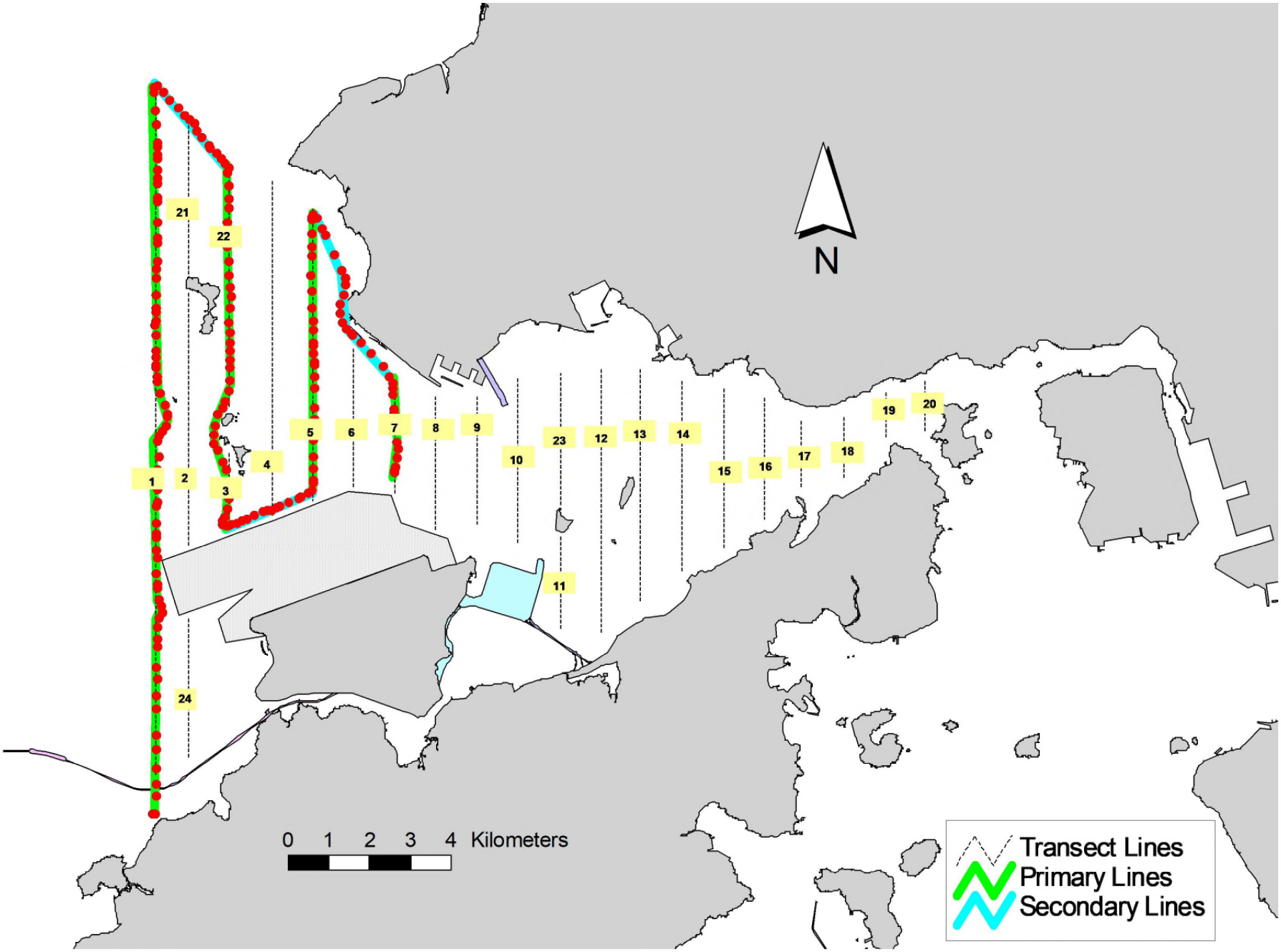


Figure 3. Survey Route on December 10th, 2019

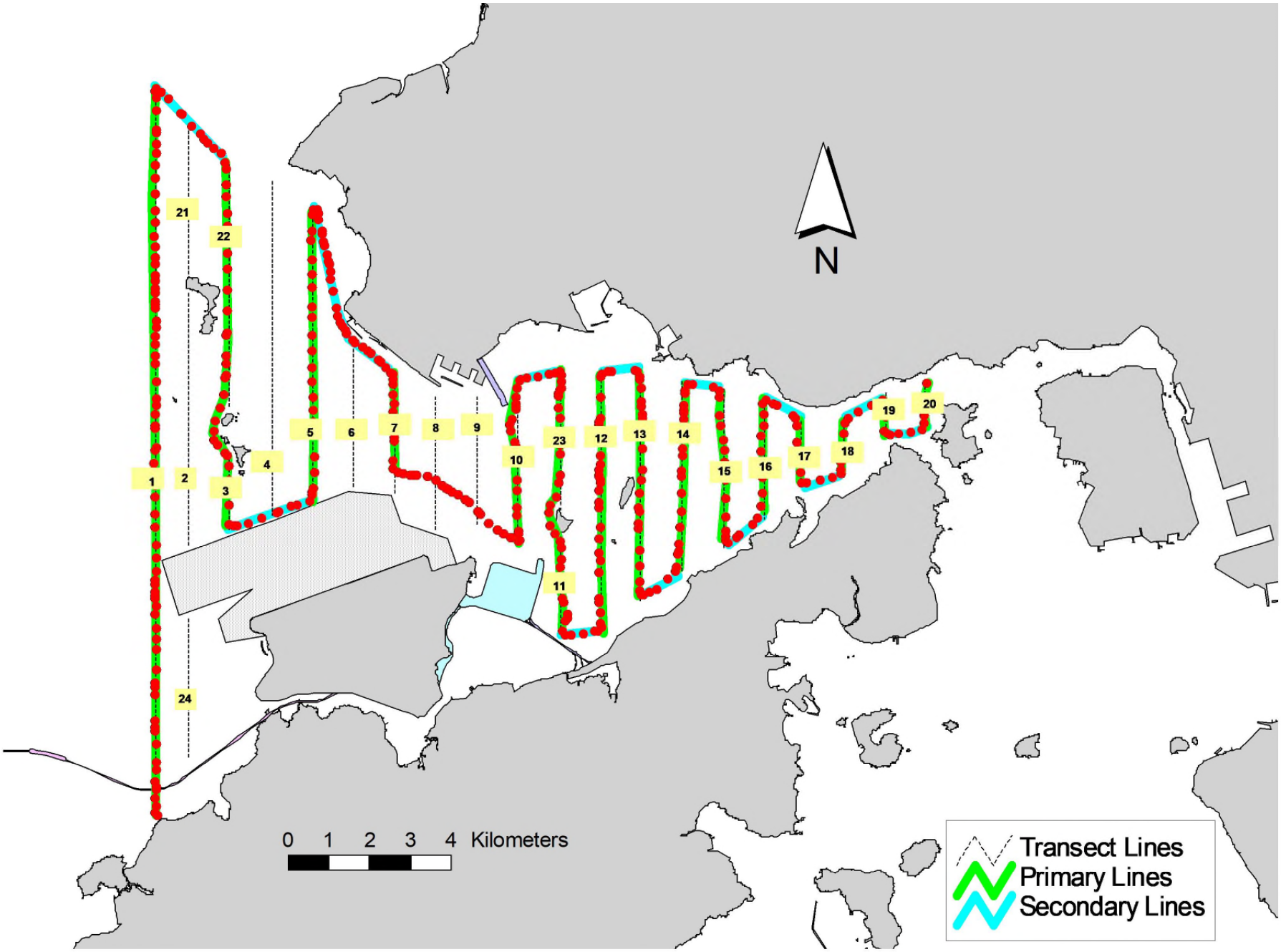


Figure 4. Survey Route on December 12th, 2019

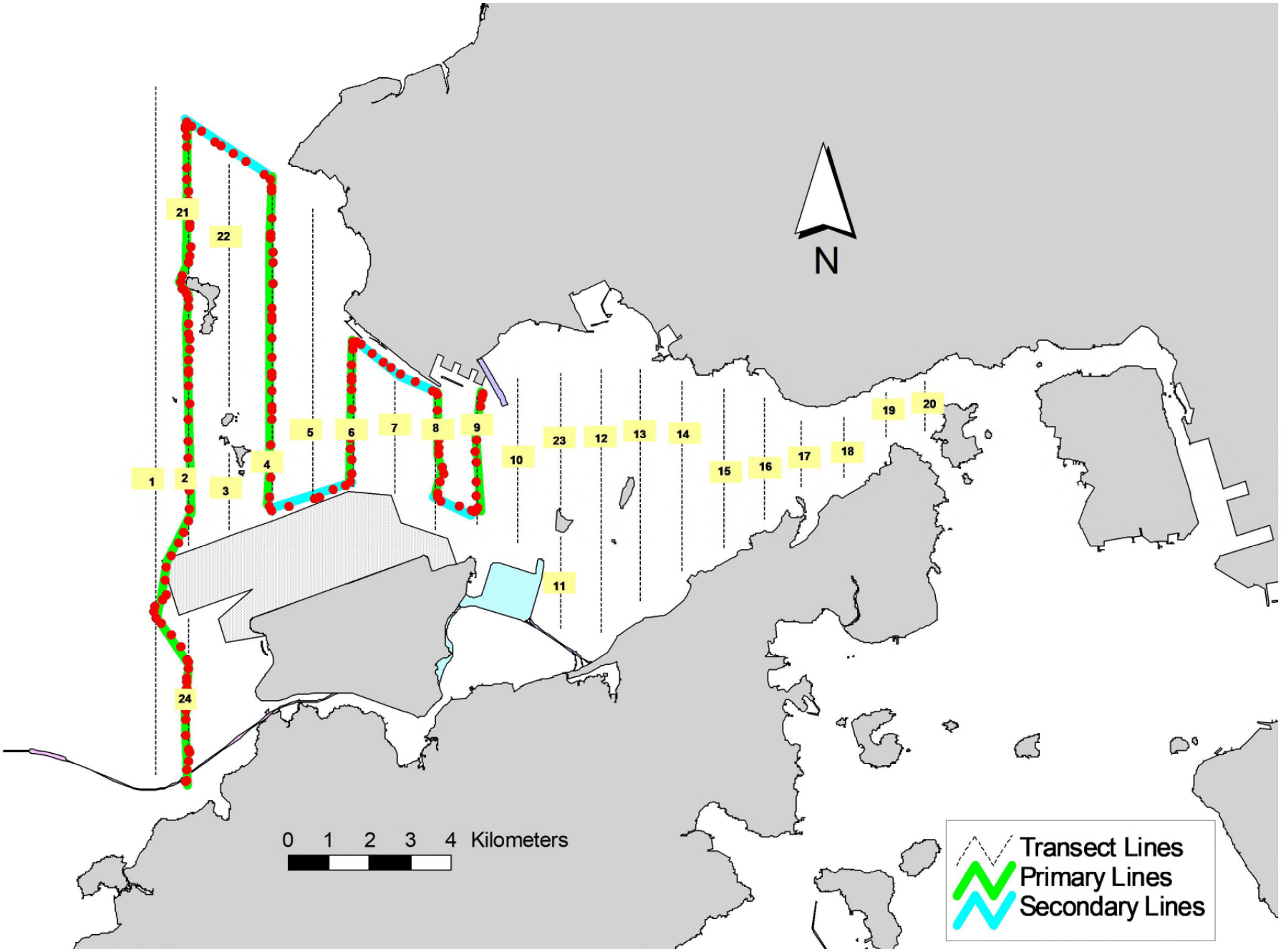


Figure 5. Survey Route on December 16th, 2019

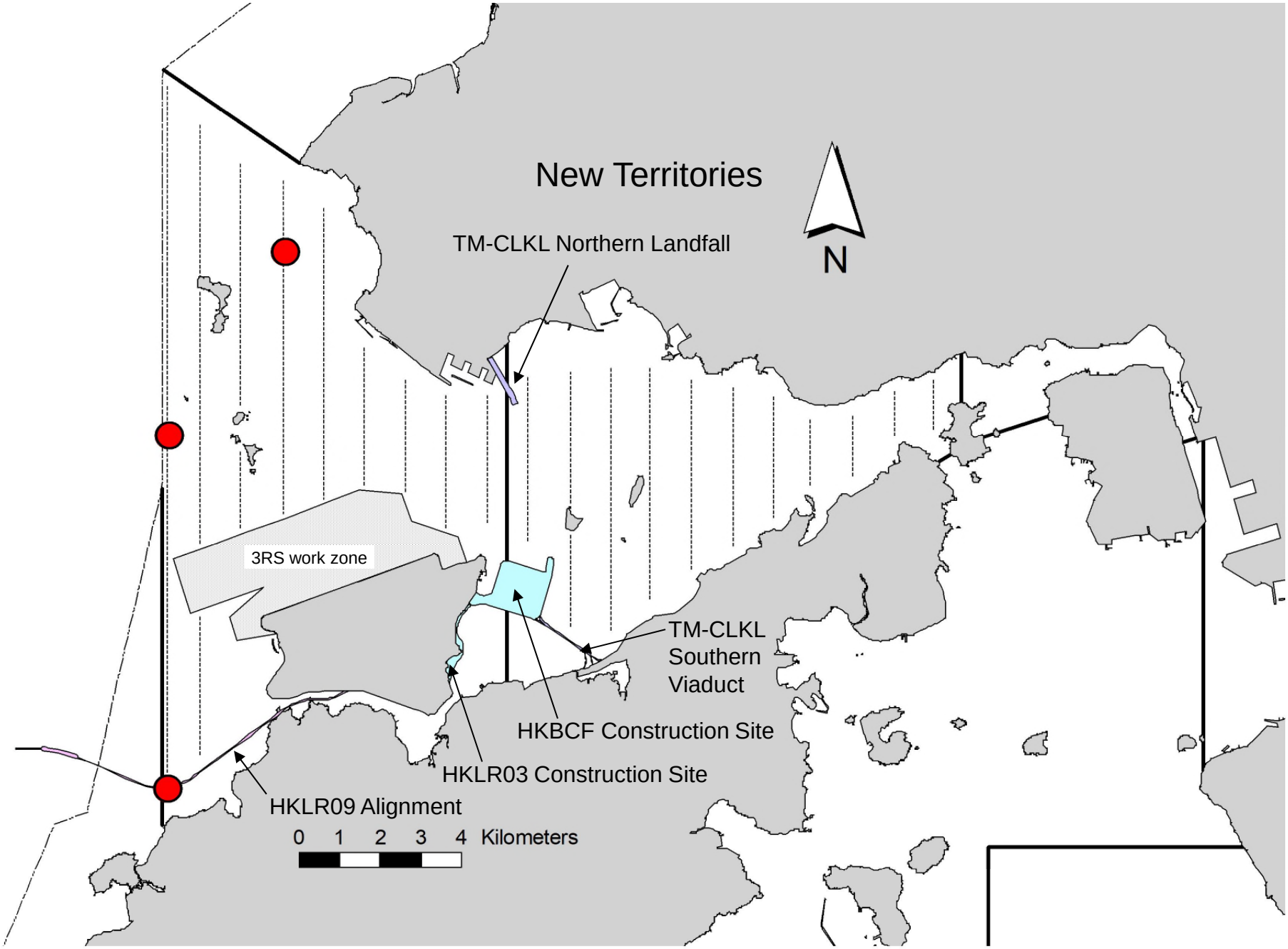


Figure 6. Distribution of Chinese White Dolphin Sightings during December 2019 Monitoring Surveys

Appendix I. TMCLKL Survey Effort Database (December 2019)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
3-Dec-19	NW LANTAU	2	12.20	WINTER	STANDARD36826	TMCLKL	P
3-Dec-19	NW LANTAU	3	14.35	WINTER	STANDARD36826	TMCLKL	P
3-Dec-19	NW LANTAU	2	2.10	WINTER	STANDARD36826	TMCLKL	S
3-Dec-19	NW LANTAU	3	10.85	WINTER	STANDARD36826	TMCLKL	S
3-Dec-19	NE LANTAU	2	35.34	WINTER	STANDARD36826	TMCLKL	P
3-Dec-19	NE LANTAU	2	13.06	WINTER	STANDARD36826	TMCLKL	S
3-Dec-19	NE LANTAU	3	1.20	WINTER	STANDARD36826	TMCLKL	S
10-Dec-19	NW LANTAU	1	2.21	WINTER	STANDARD36826	TMCLKL	P
10-Dec-19	NW LANTAU	2	30.56	WINTER	STANDARD36826	TMCLKL	P
10-Dec-19	NW LANTAU	1	1.72	WINTER	STANDARD36826	TMCLKL	S
10-Dec-19	NW LANTAU	2	9.41	WINTER	STANDARD36826	TMCLKL	S
12-Dec-19	NW LANTAU	1	1.88	WINTER	STANDARD36826	TMCLKL	P
12-Dec-19	NW LANTAU	2	20.64	WINTER	STANDARD36826	TMCLKL	P
12-Dec-19	NW LANTAU	3	9.32	WINTER	STANDARD36826	TMCLKL	P
12-Dec-19	NW LANTAU	2	9.59	WINTER	STANDARD36826	TMCLKL	S
12-Dec-19	NW LANTAU	3	1.29	WINTER	STANDARD36826	TMCLKL	S
12-Dec-19	NE LANTAU	2	35.13	WINTER	STANDARD36826	TMCLKL	P
12-Dec-19	NE LANTAU	2	11.07	WINTER	STANDARD36826	TMCLKL	S
16-Dec-19	NW LANTAU	0	1.25	WINTER	STANDARD36826	TMCLKL	P
16-Dec-19	NW LANTAU	1	7.14	WINTER	STANDARD36826	TMCLKL	P
16-Dec-19	NW LANTAU	2	19.38	WINTER	STANDARD36826	TMCLKL	P
16-Dec-19	NW LANTAU	1	1.60	WINTER	STANDARD36826	TMCLKL	S
16-Dec-19	NW LANTAU	2	10.73	WINTER	STANDARD36826	TMCLKL	S

Appendix II. TMCLKL Chinese White Dolphin Sighting Database (December 2019)

(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Association; P/S: Sighting Made on Primary/Secondary Lines)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
12-Dec-19	1	1016	11	NW LANTAU	2	55	ON	TMCLKL	815115	804650	WINTER	NONE	P
12-Dec-19	2	1112	1	NW LANTAU	3	36	ON	TMCLKL	823299	804678	WINTER	NONE	P
16-Dec-19	1	1126	1	NW LANTAU	2	674	ON	TMCLKL	827556	807529	WINTER	NONE	P

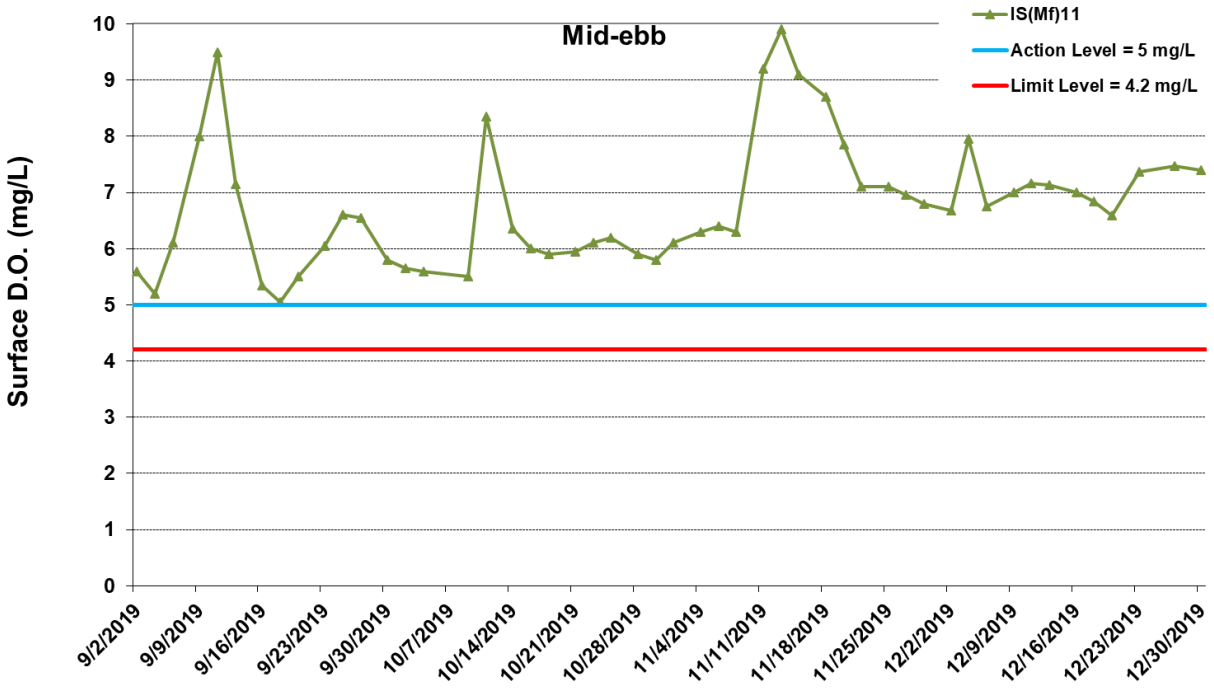
Appendix III. Individual dolphins identified during TMCLKL monitoring surveys in (December 2019)

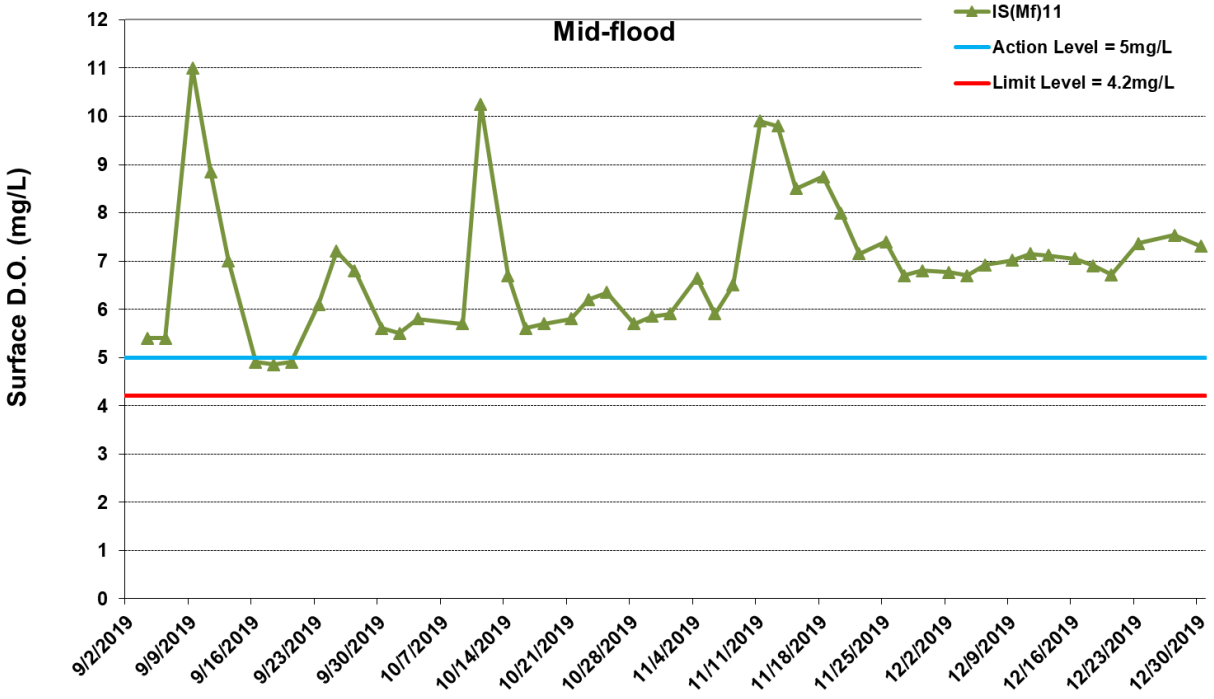
ID#	DATE	STG#	AREA
CH108	12/12/19	1	NW LANTAU
NL33	12/12/19	1	NW LANTAU
NL120	12/12/19	1	NW LANTAU
NL123	16/12/19	1	NW LANTAU
WL100	12/12/19	1	NW LANTAU
WL145	12/12/19	1	NW LANTAU
WL214	12/12/19	1	NW LANTAU
WL268	12/12/19	2	NW LANTAU
WL284	12/12/19	1	NW LANTAU

Appendix IV. Photographs of Identified Individual Dolphins in December 2019 (TMCLKL)

Appendix J

Impact Water Quality Monitoring Results



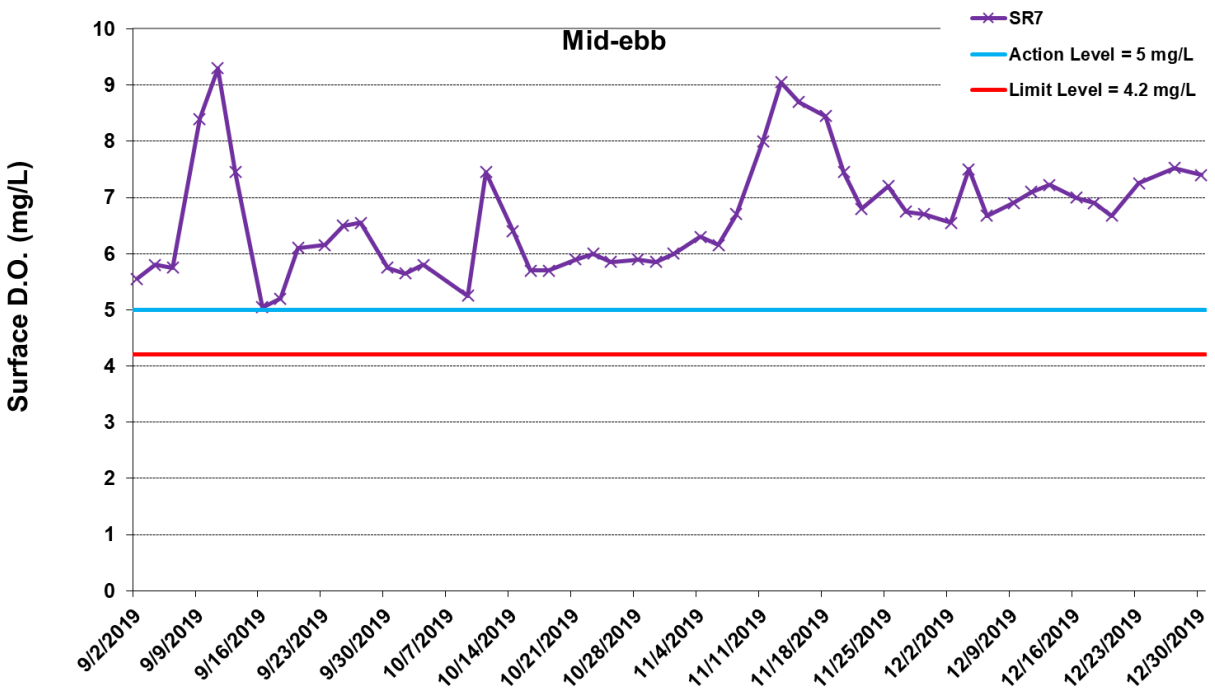


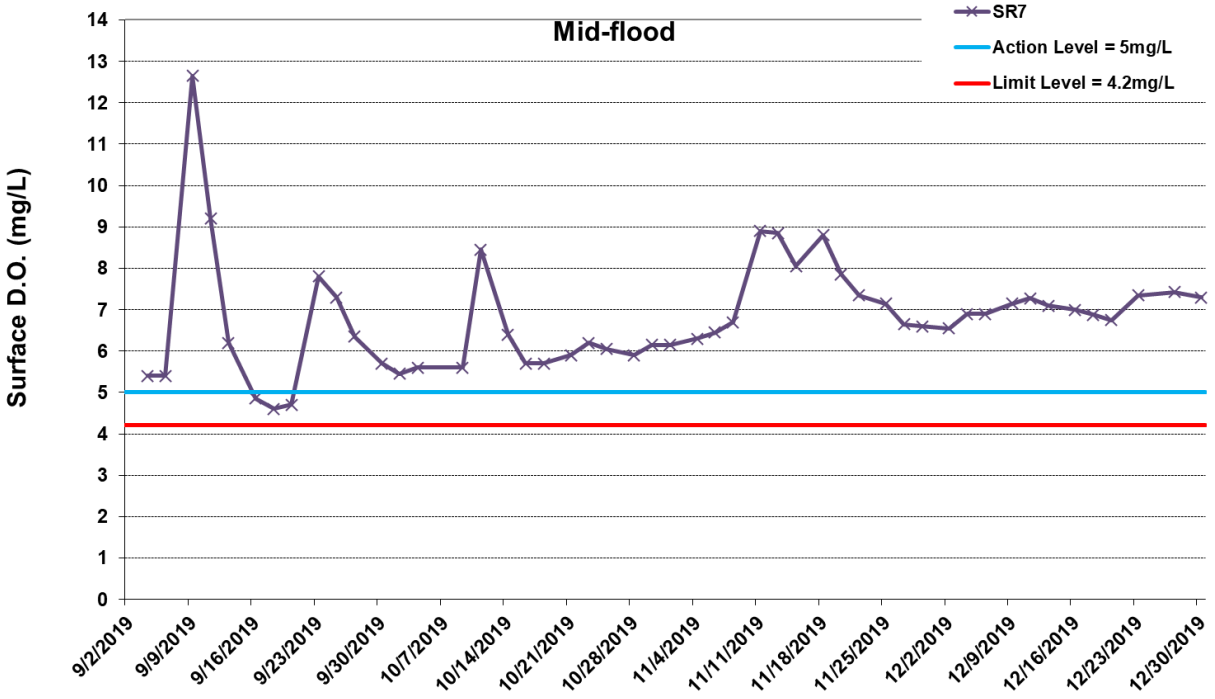
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



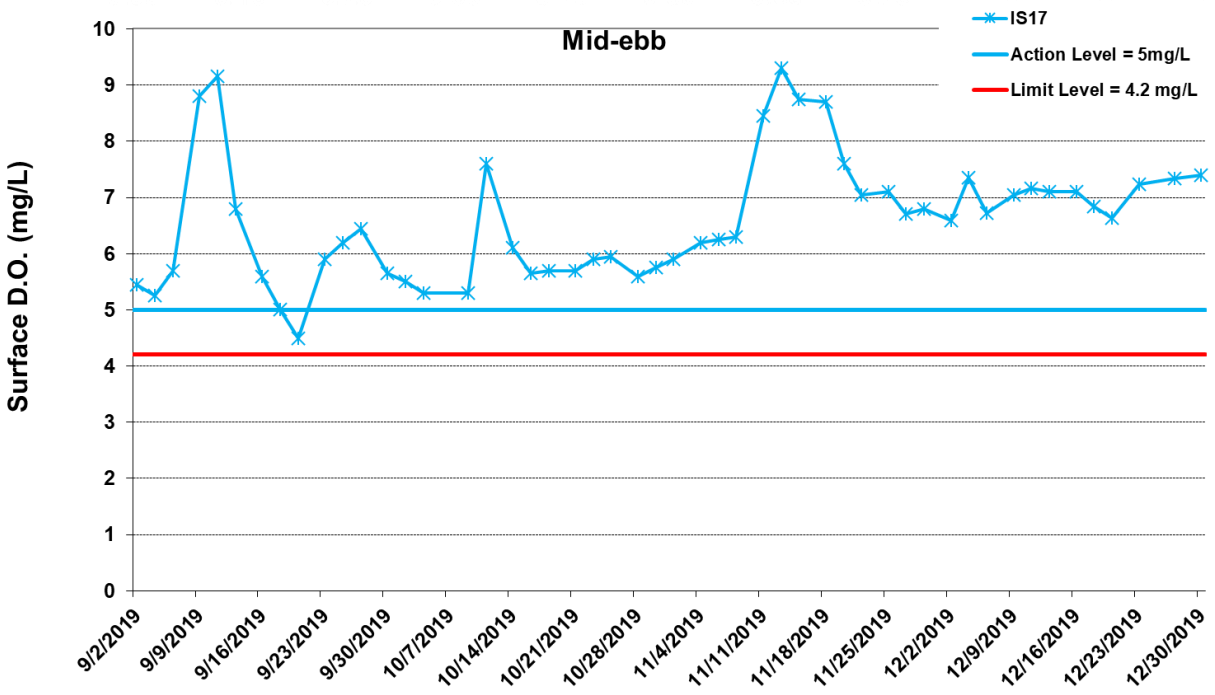


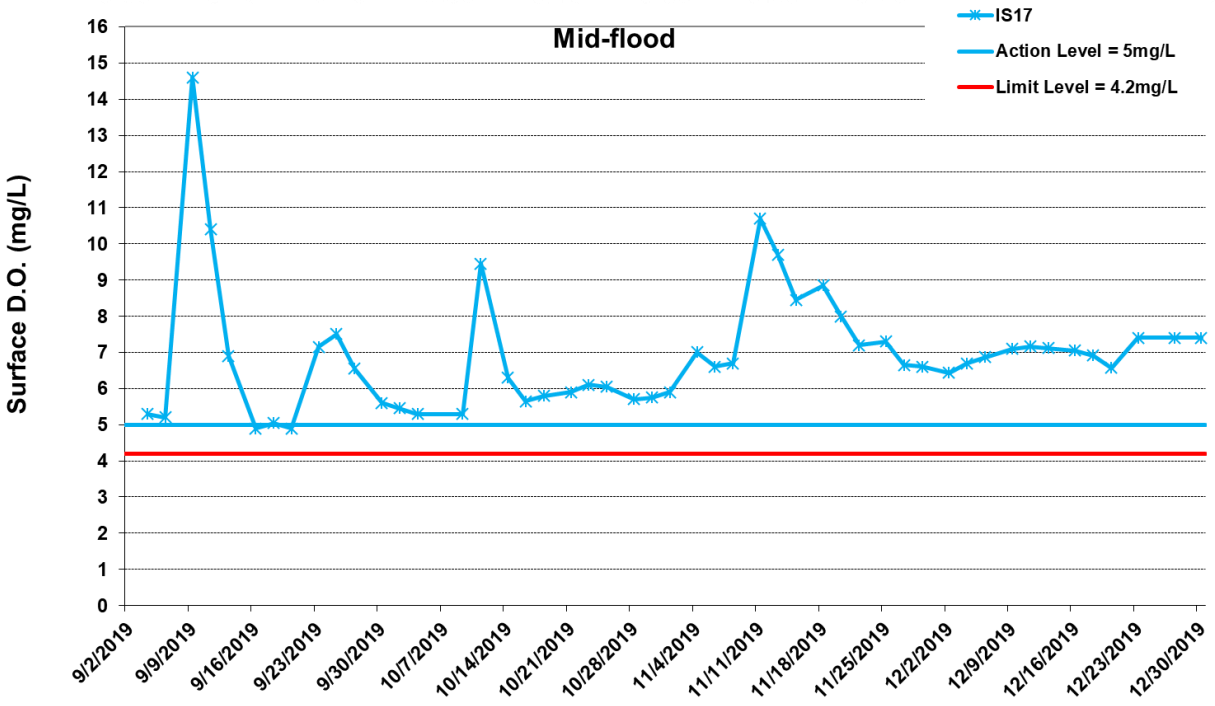
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at SR7. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



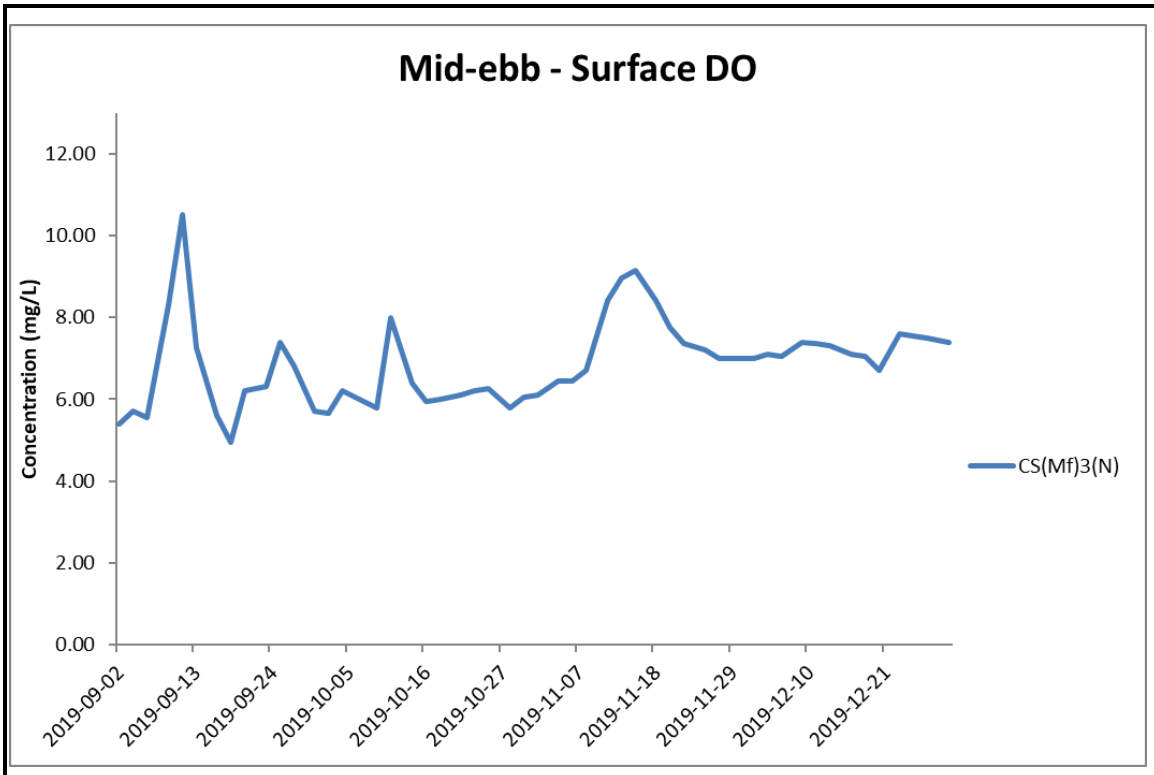


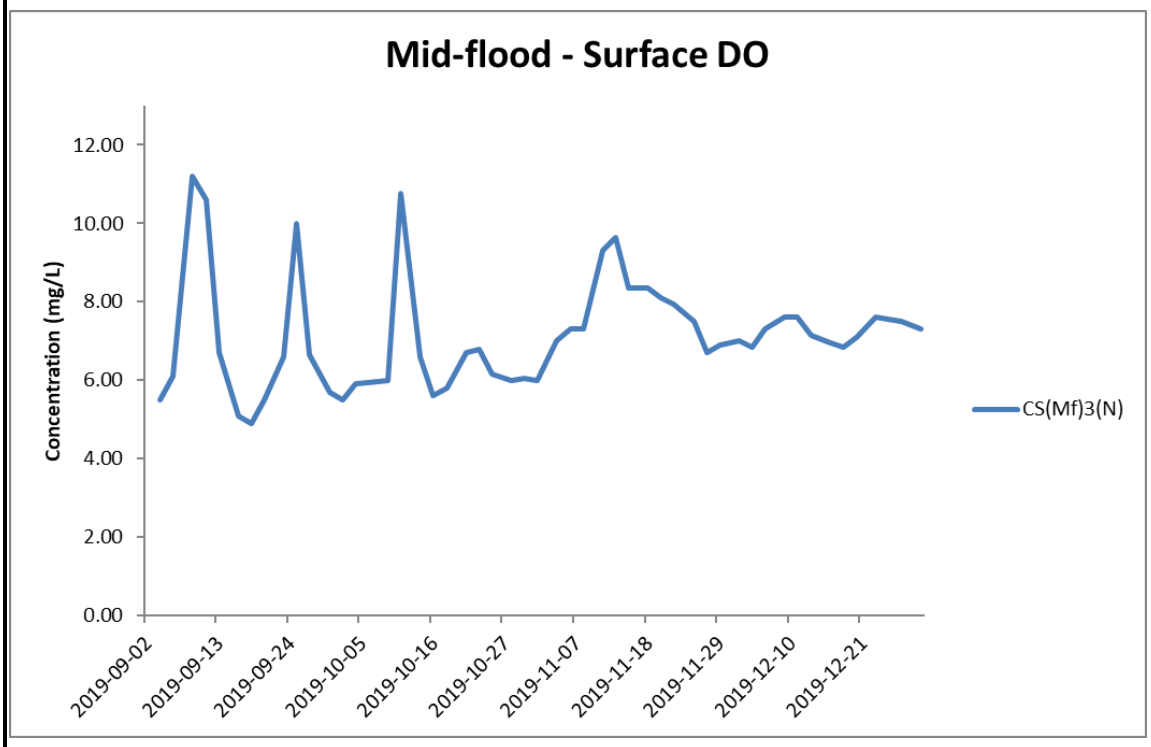
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

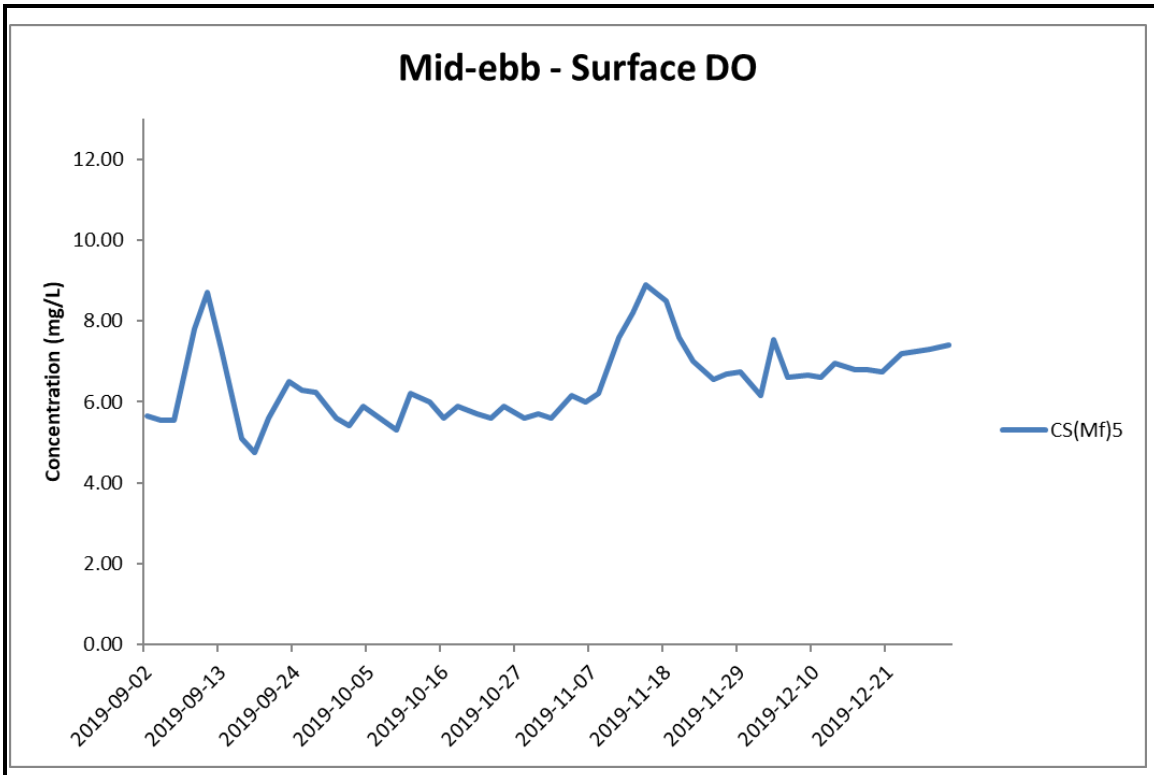


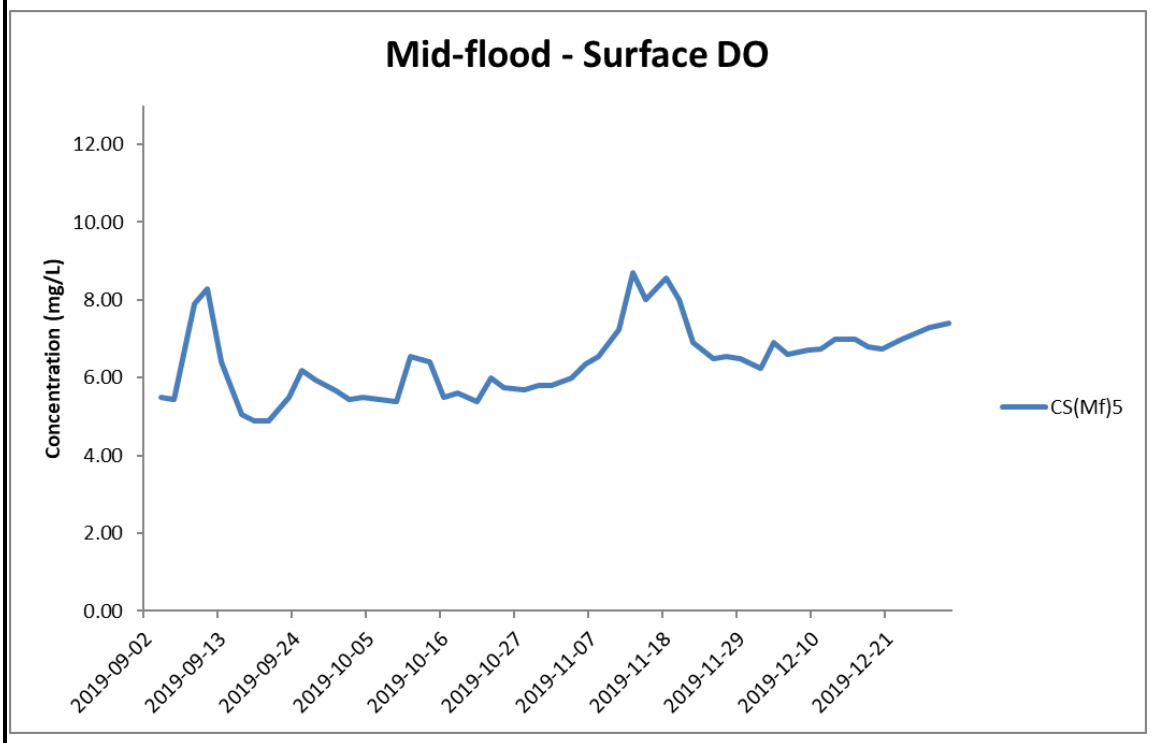


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J4 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at CS(Mf)3(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

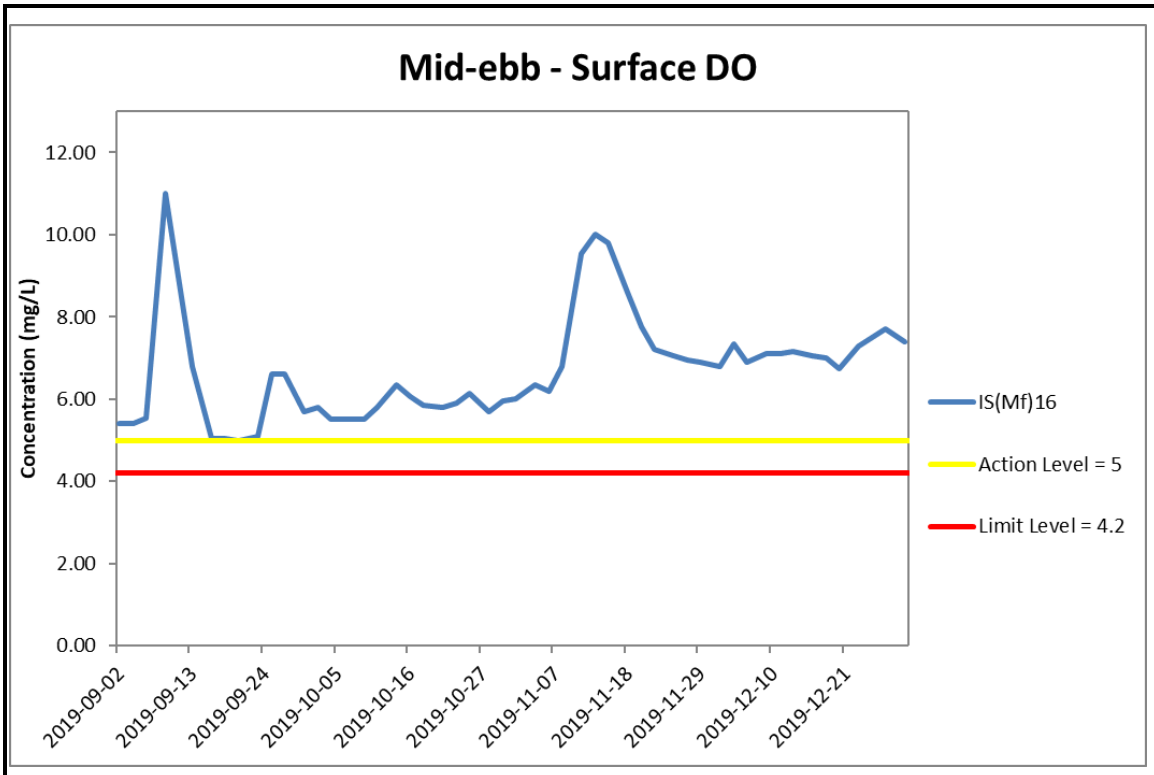


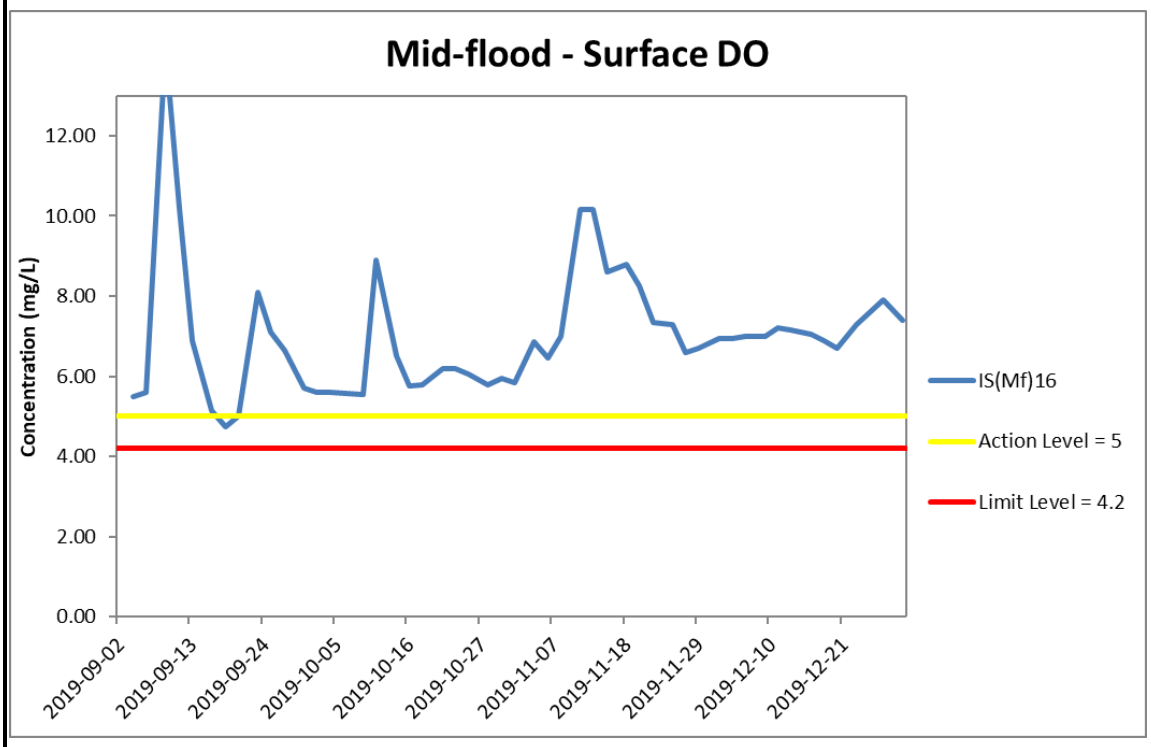


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at CS(Mf)5. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

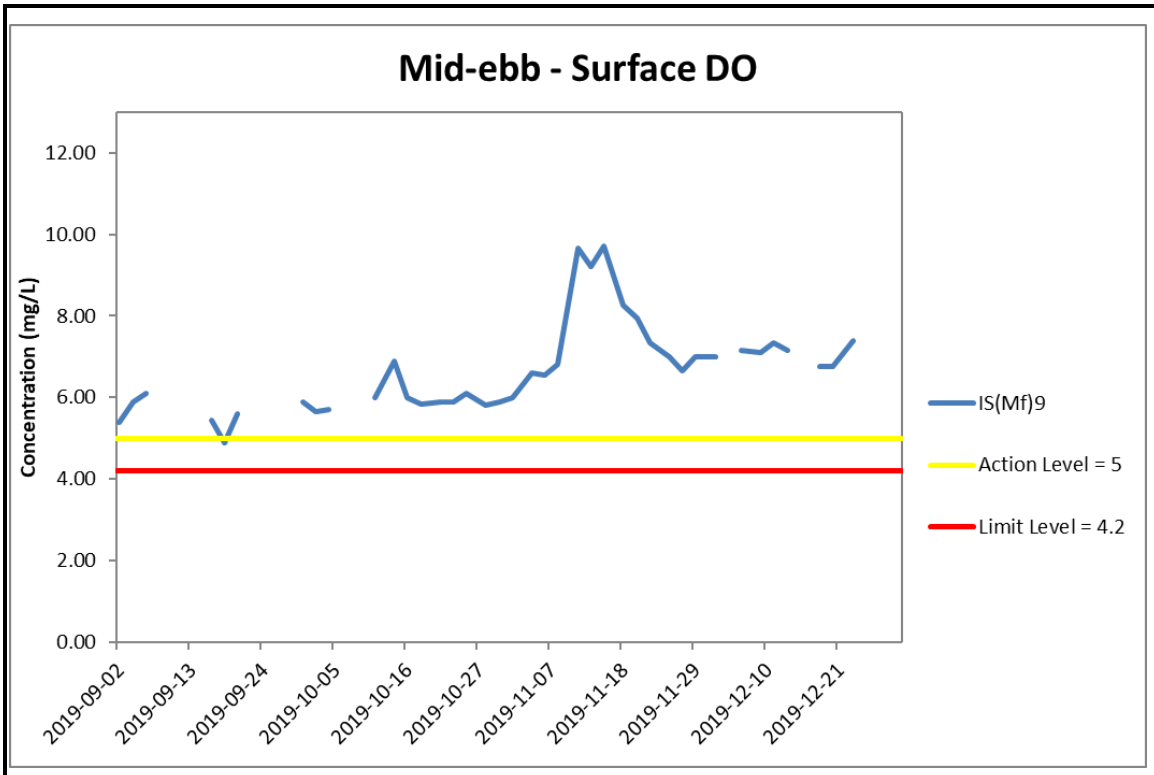


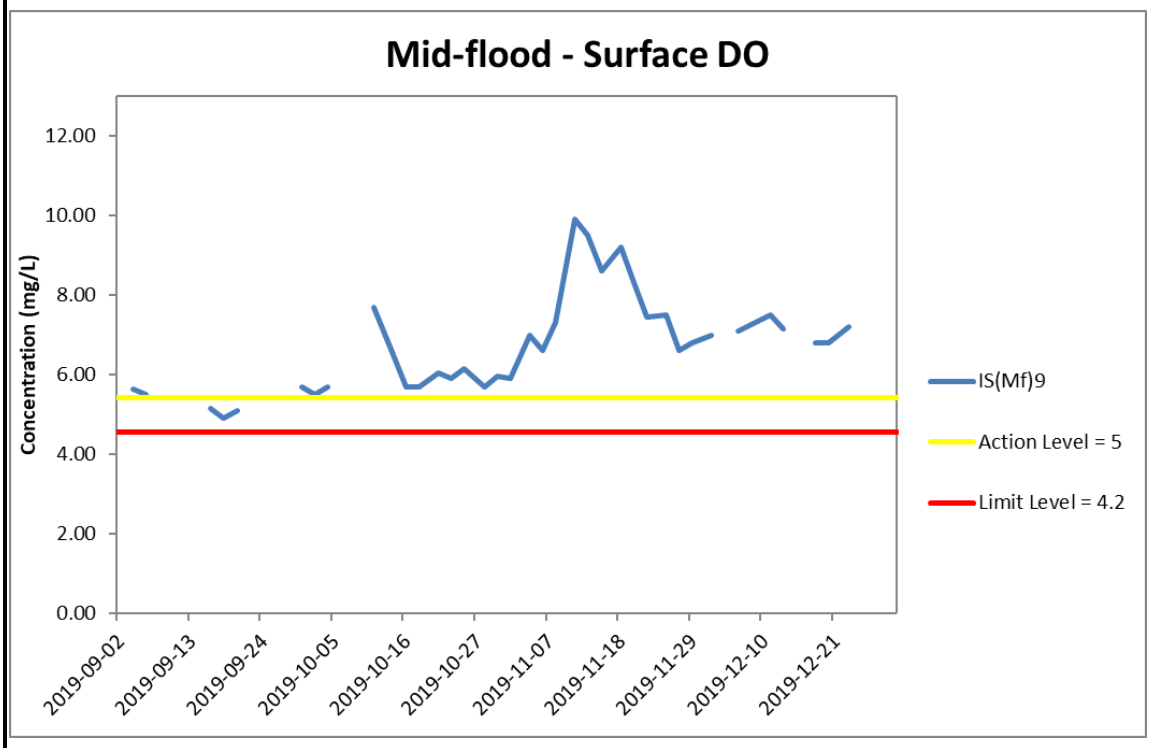


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at IS(Mf)16. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

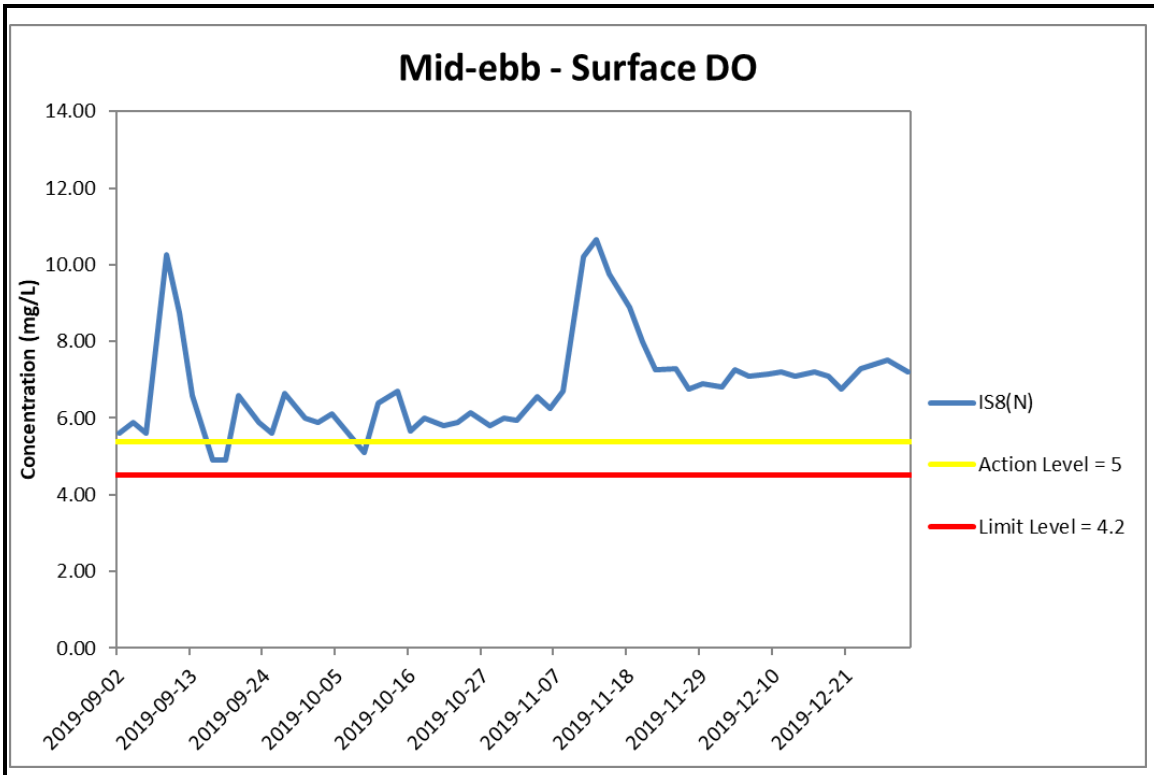


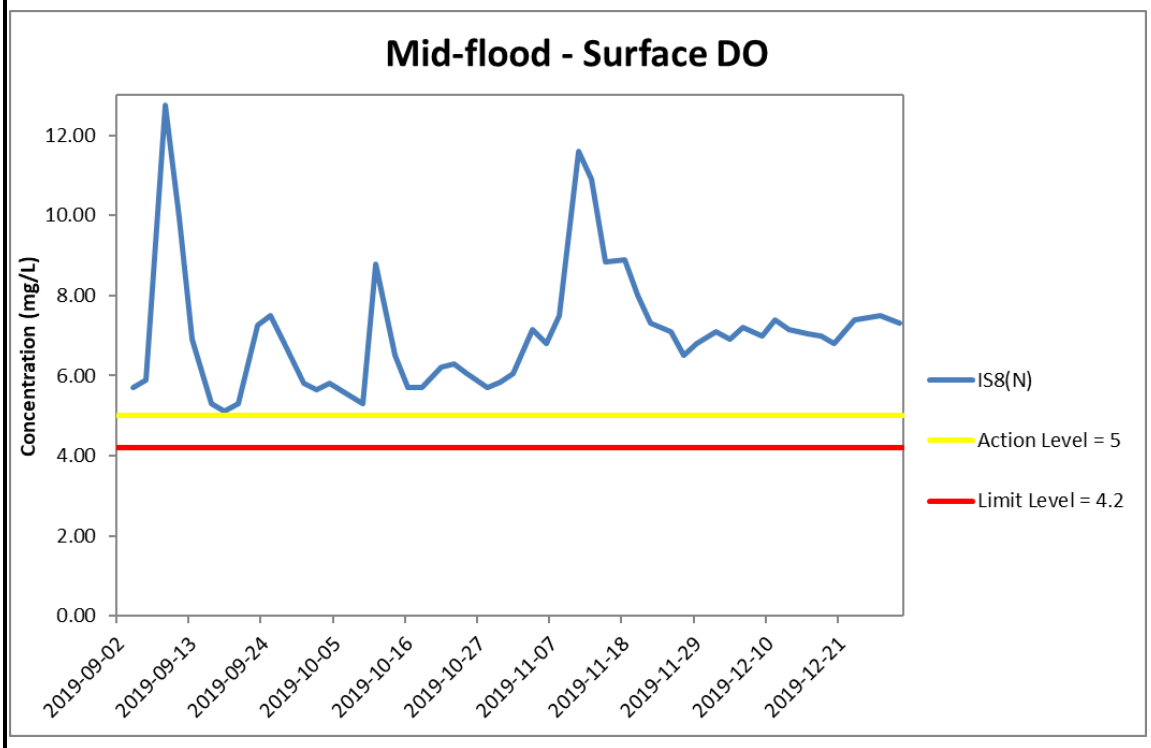


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at IS(Mf)9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

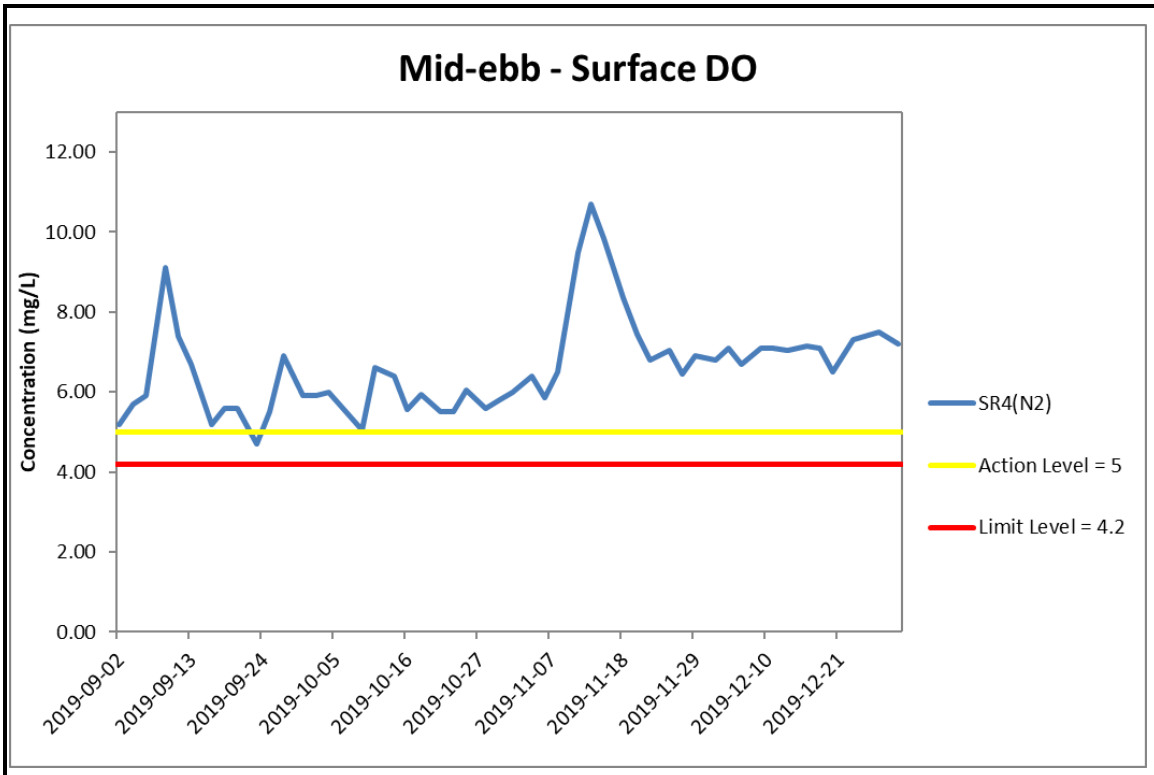


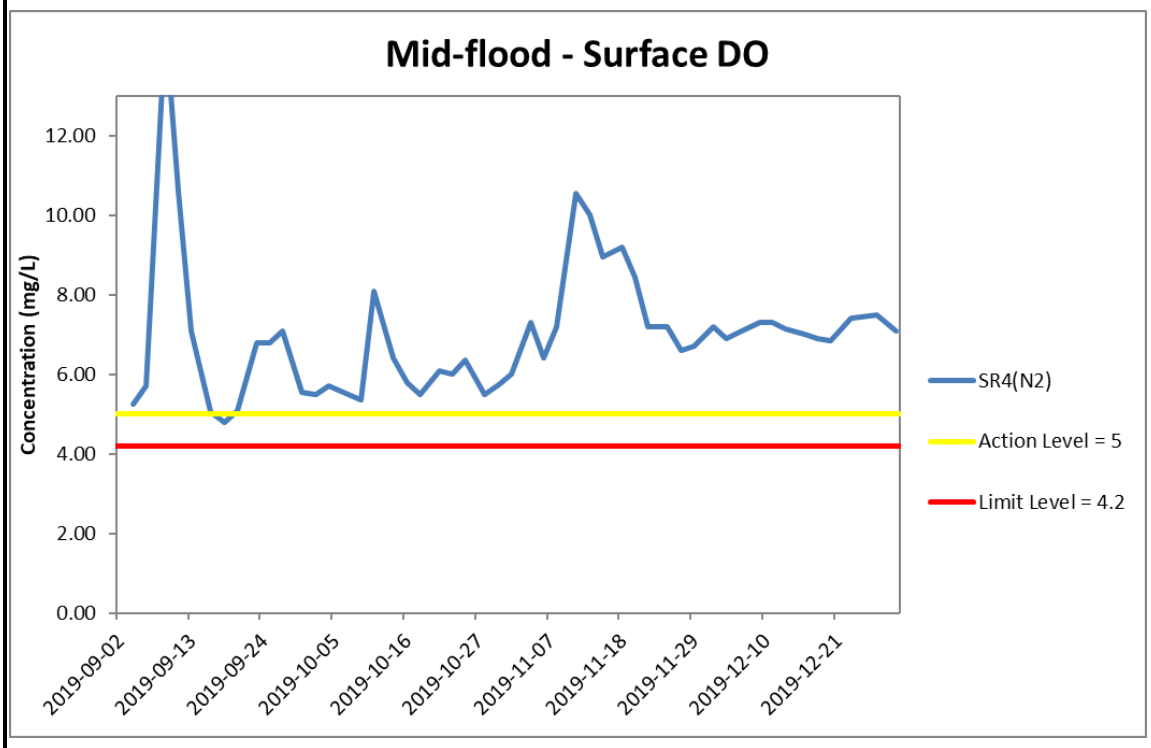


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at IS8(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

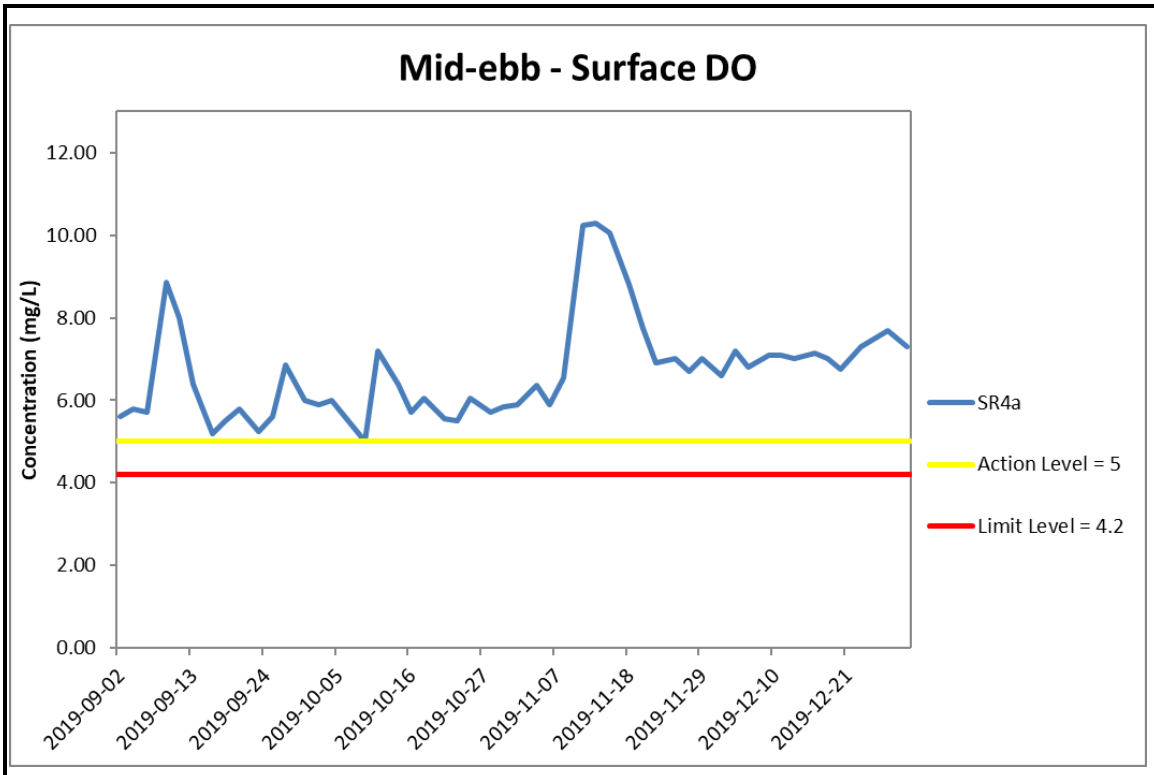


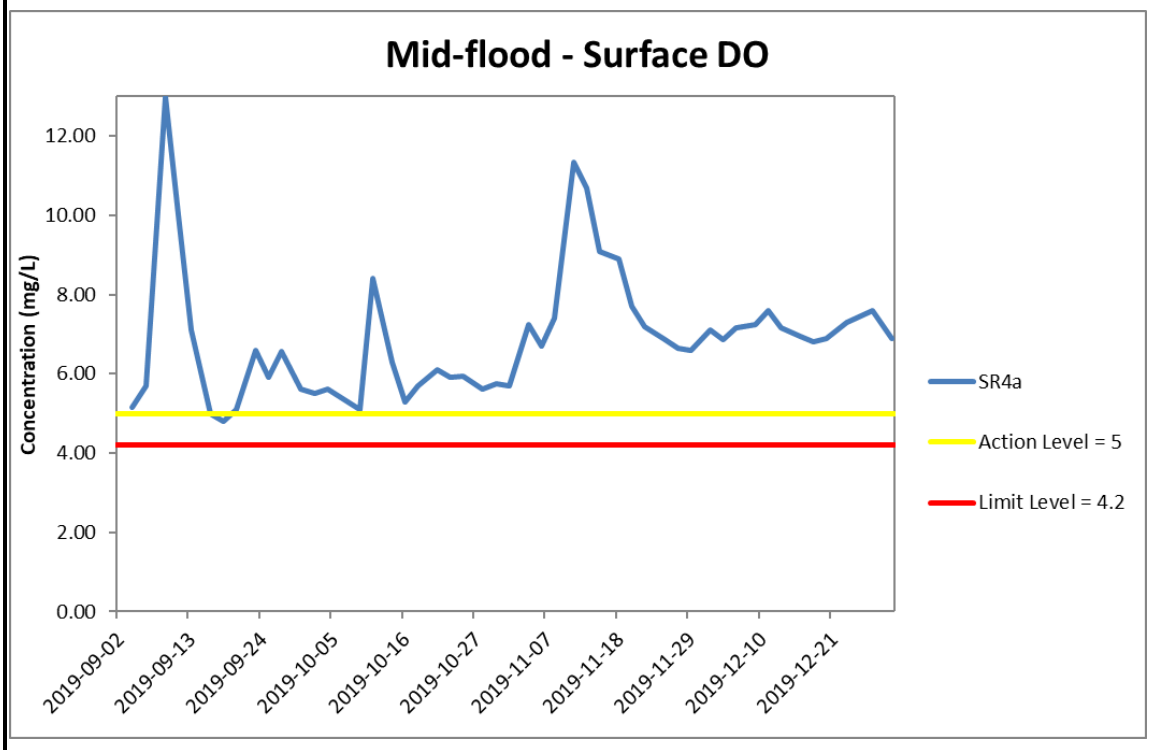


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at SR4(N2). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

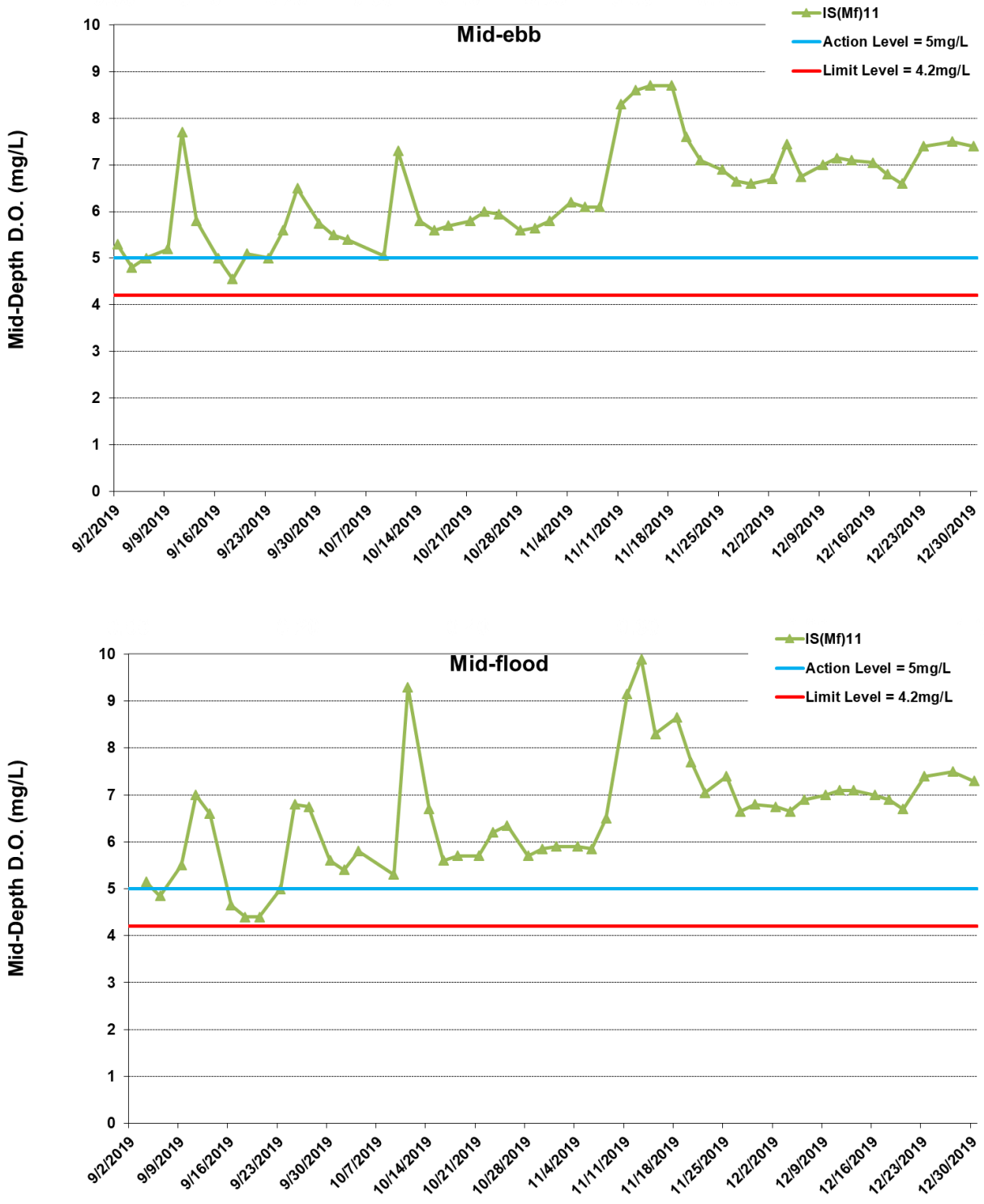




*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 September 2019 and 31 December 2019 at SR4a. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



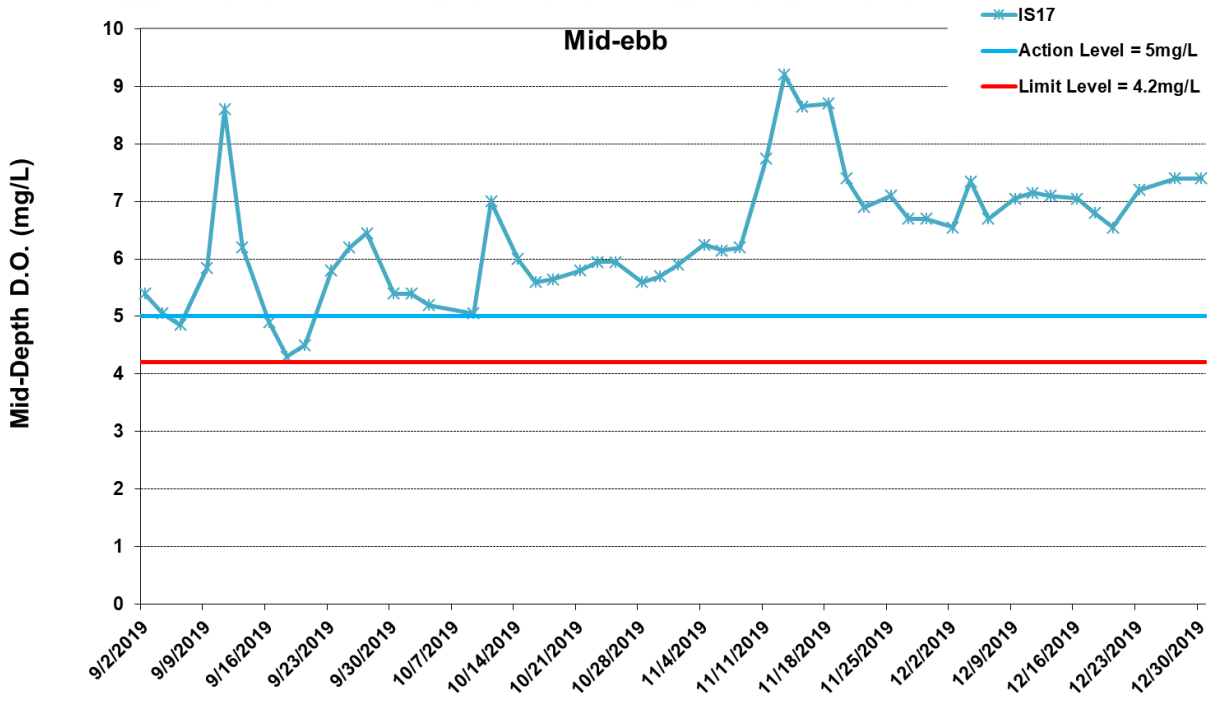
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

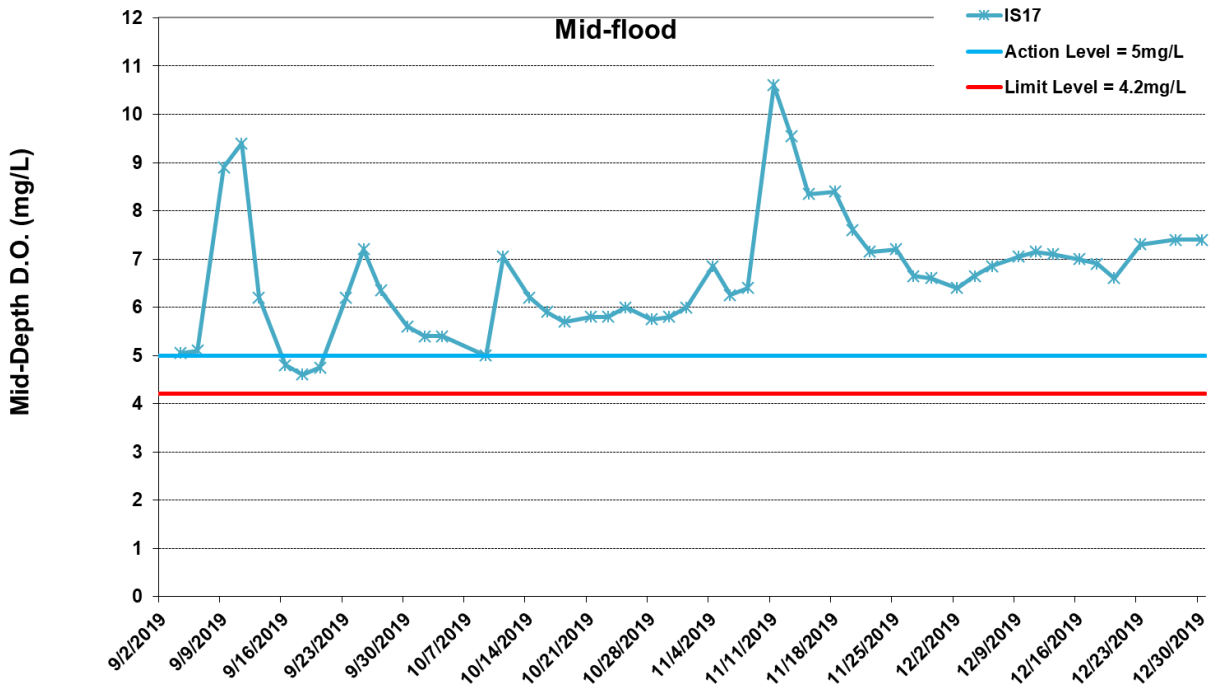
*No data for Stations SR7 due to shallow water depth (< 6m).

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls





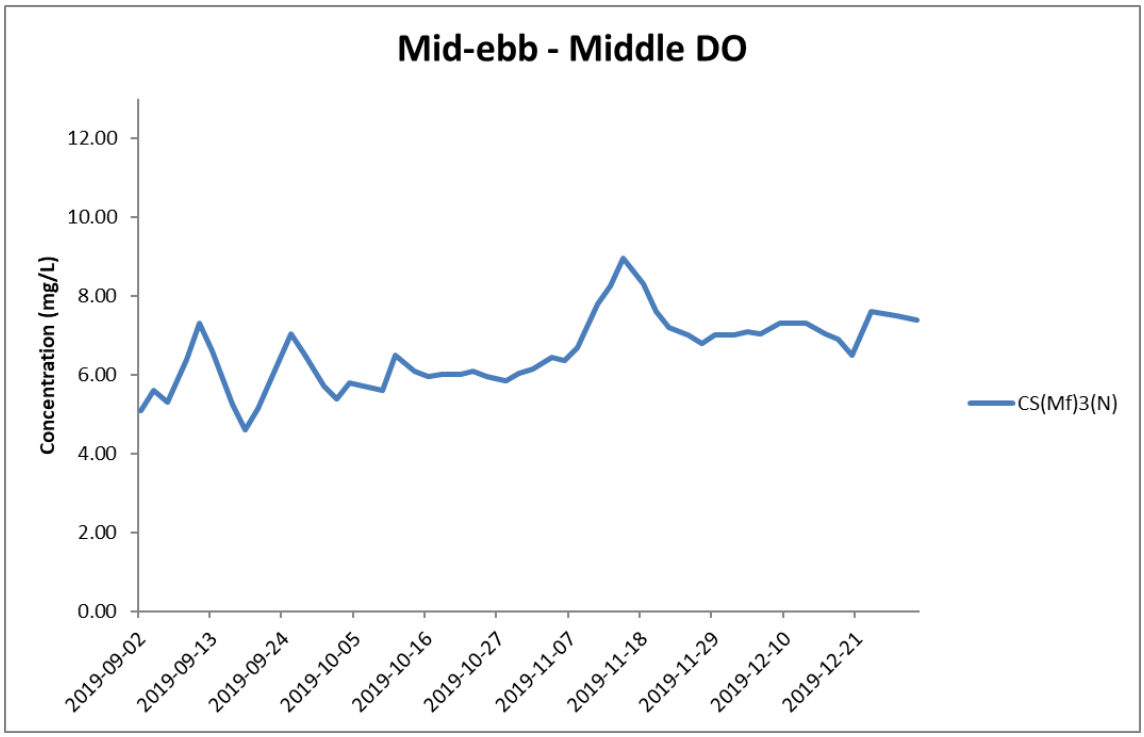
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

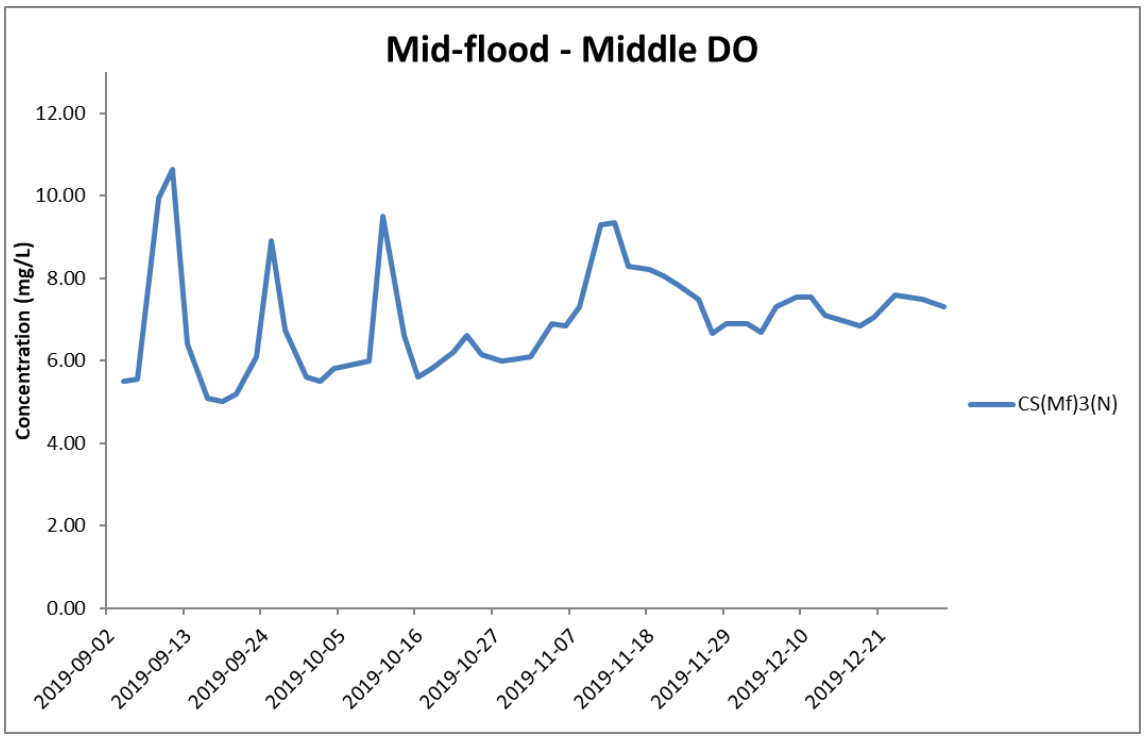
*No data for Stations SR7 due to shallow water depth (< 6m).

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 September 2019 and 31 December 2019 at IS17. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

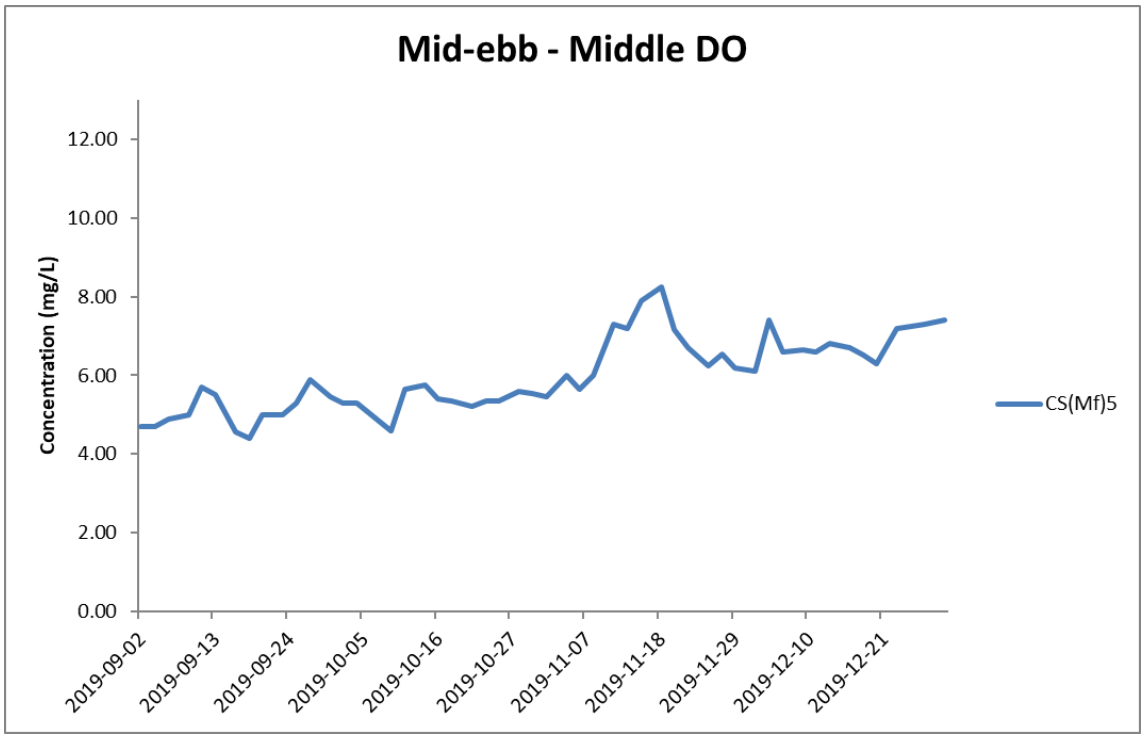


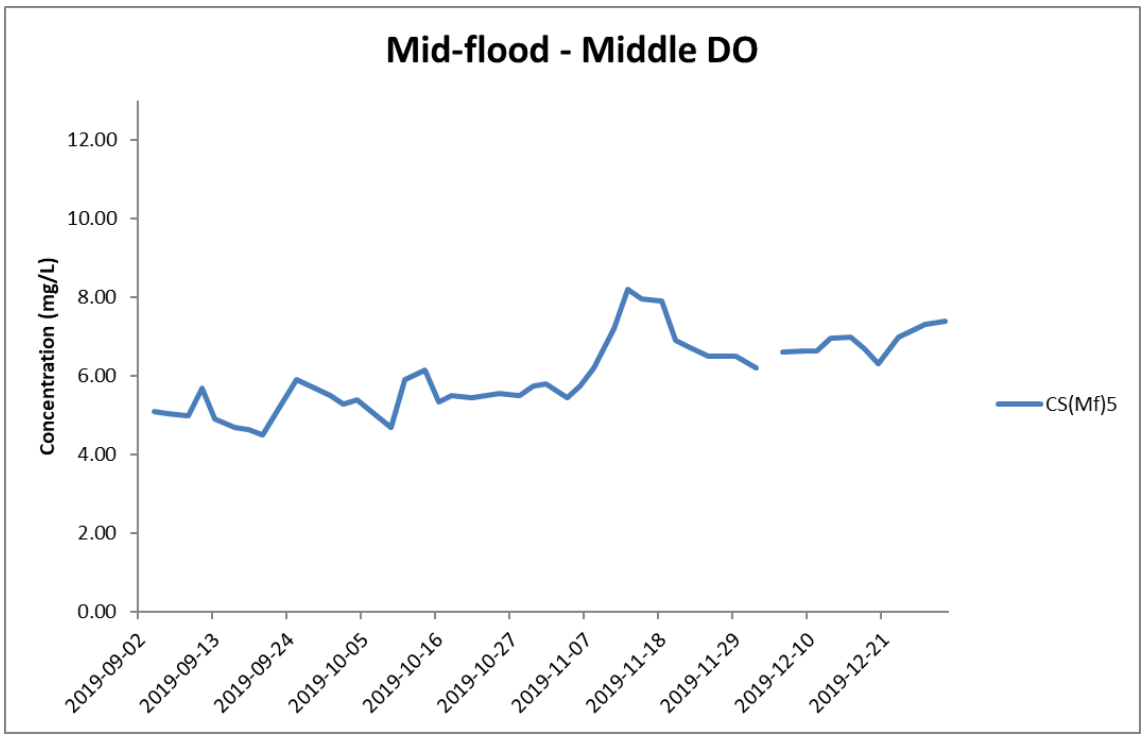


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 September 2019 and 31 December 2019 at CS(Mf)3(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

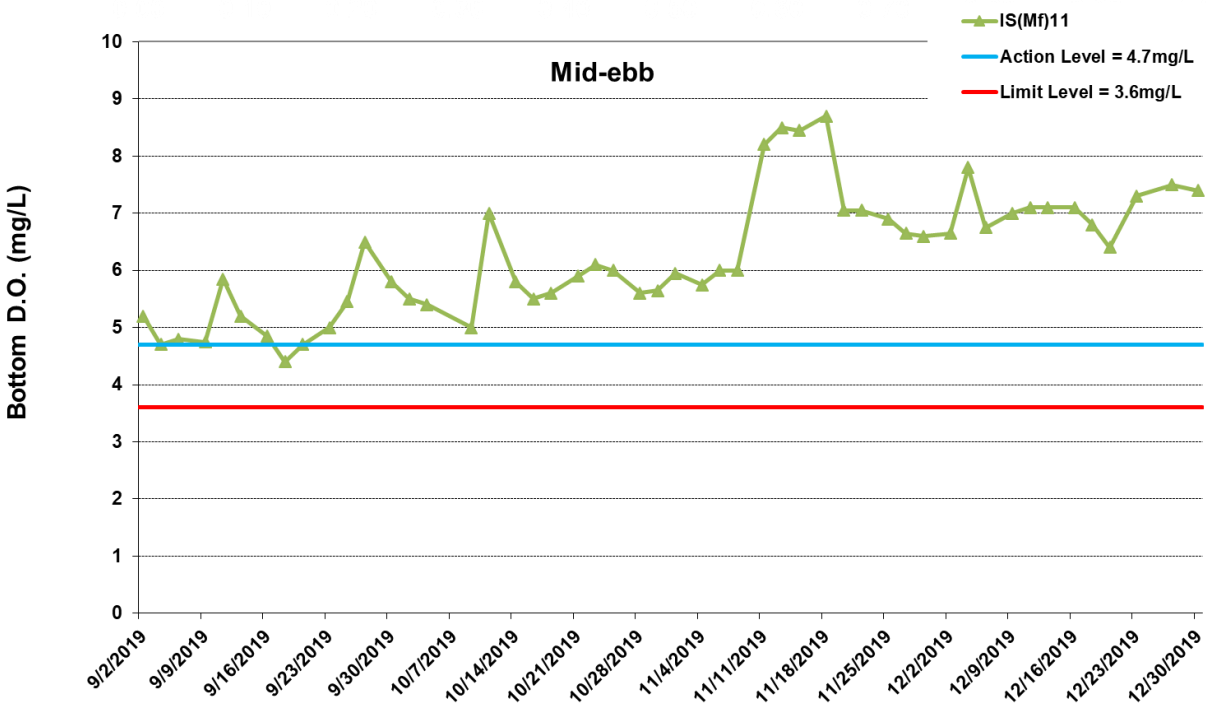


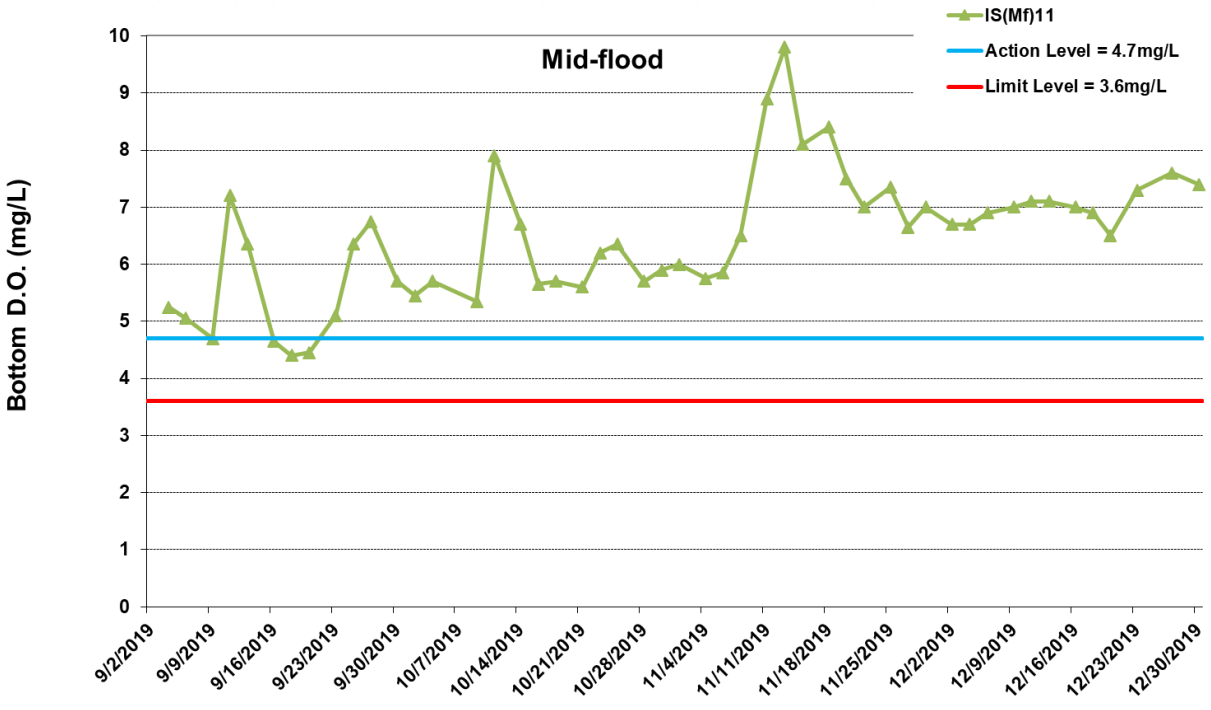


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 September 2019 and 31 December 2019 at CS(Mf)5. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



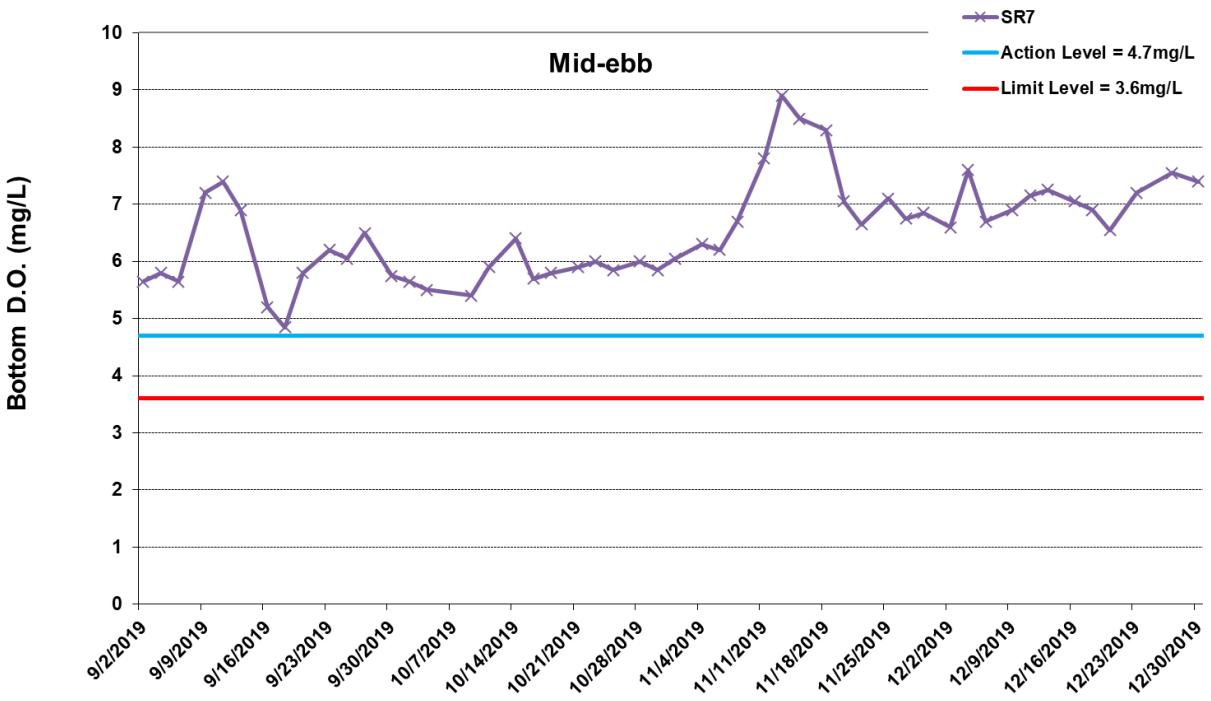


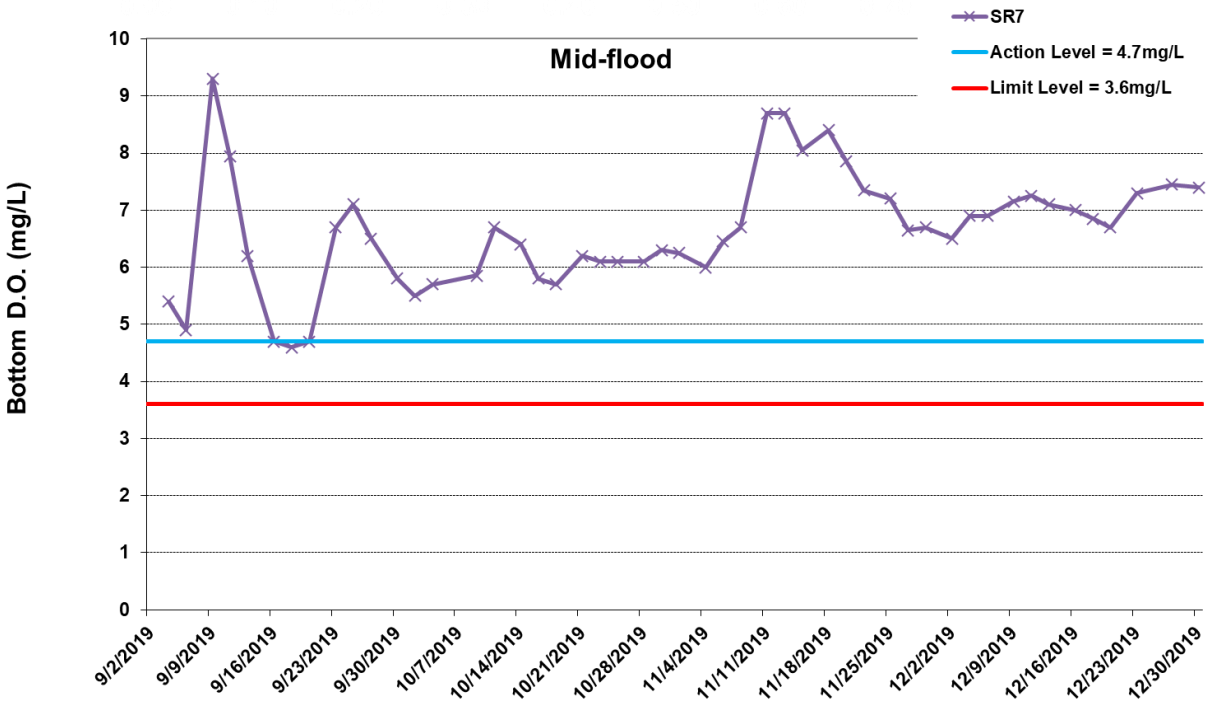
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



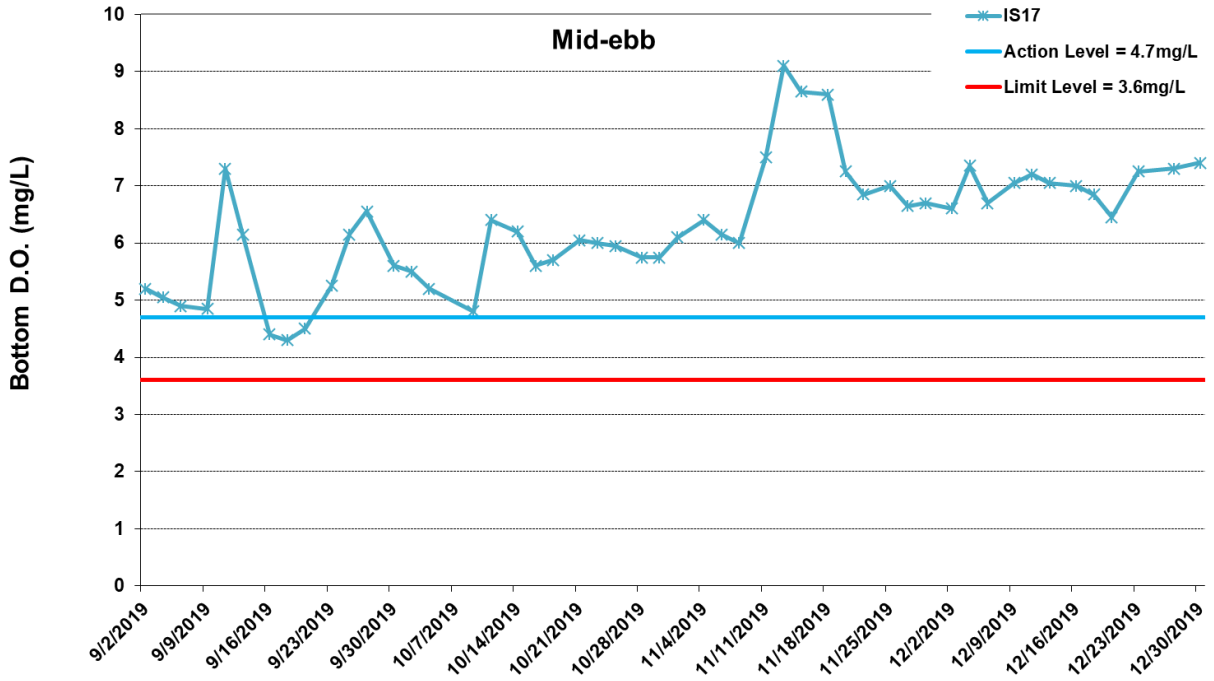


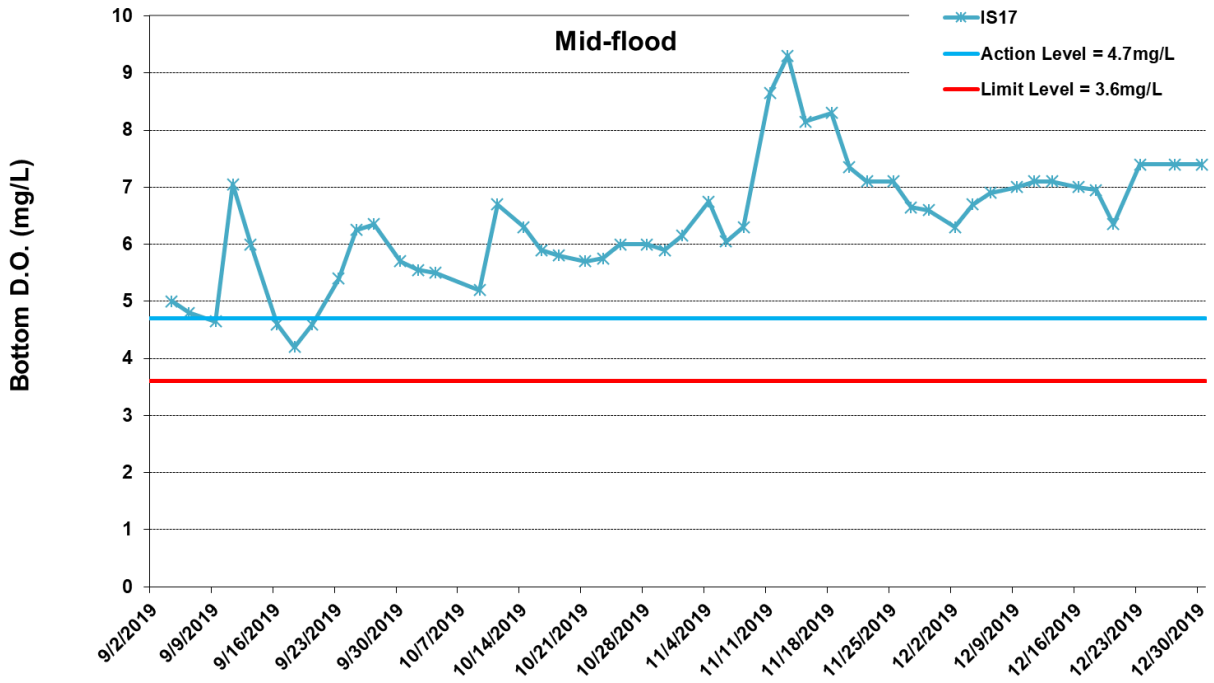
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at SR7. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



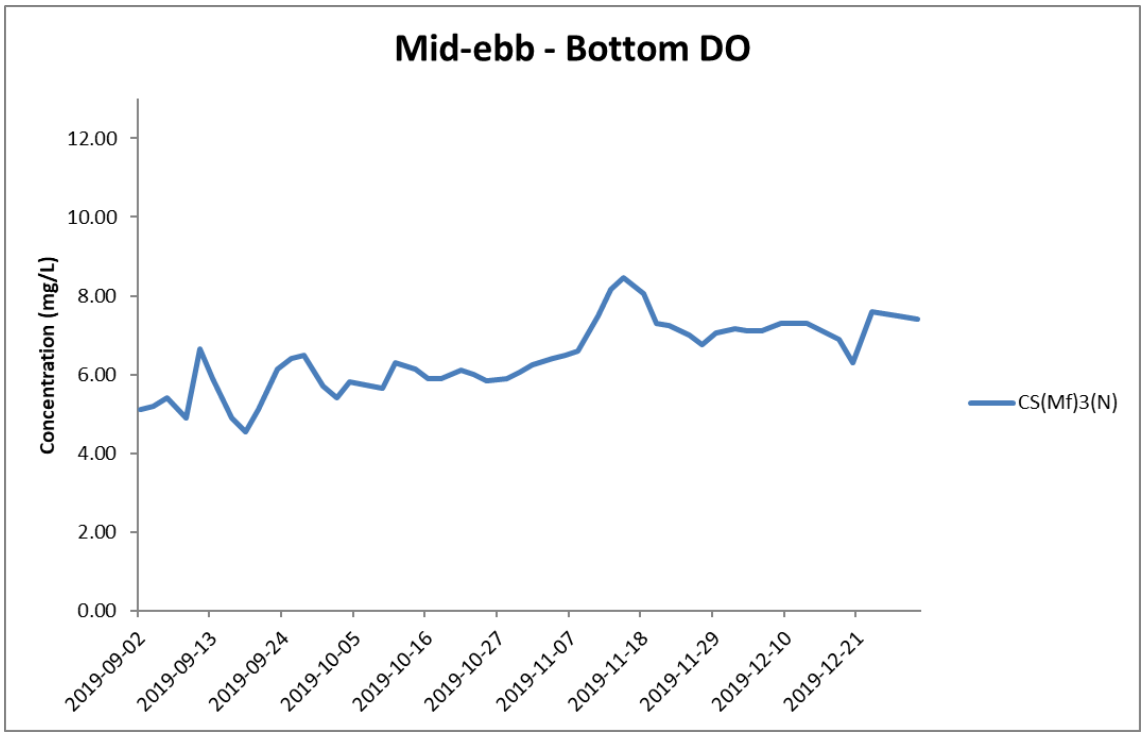


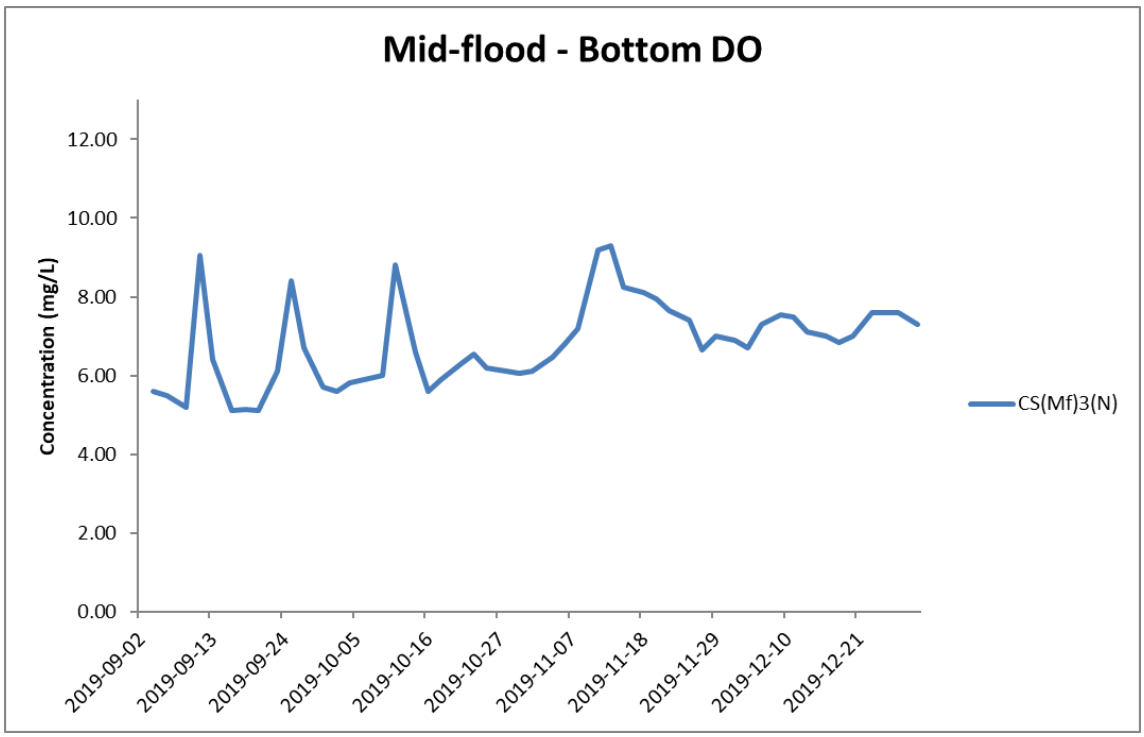
* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at IS17. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

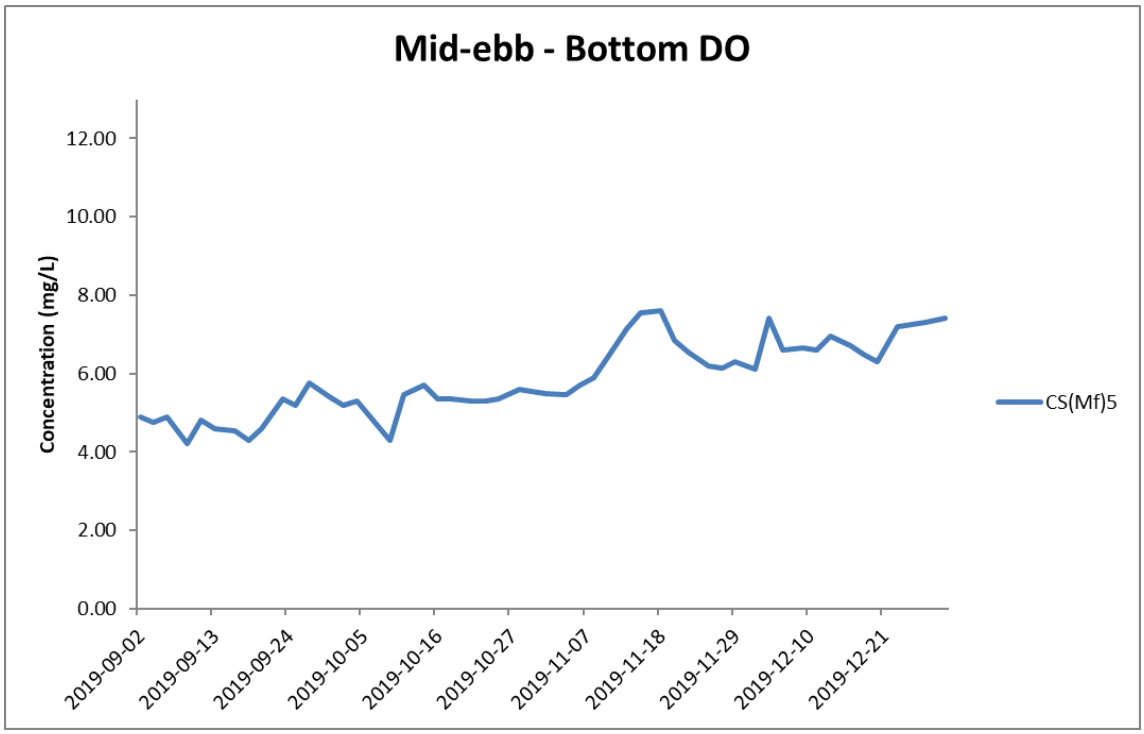


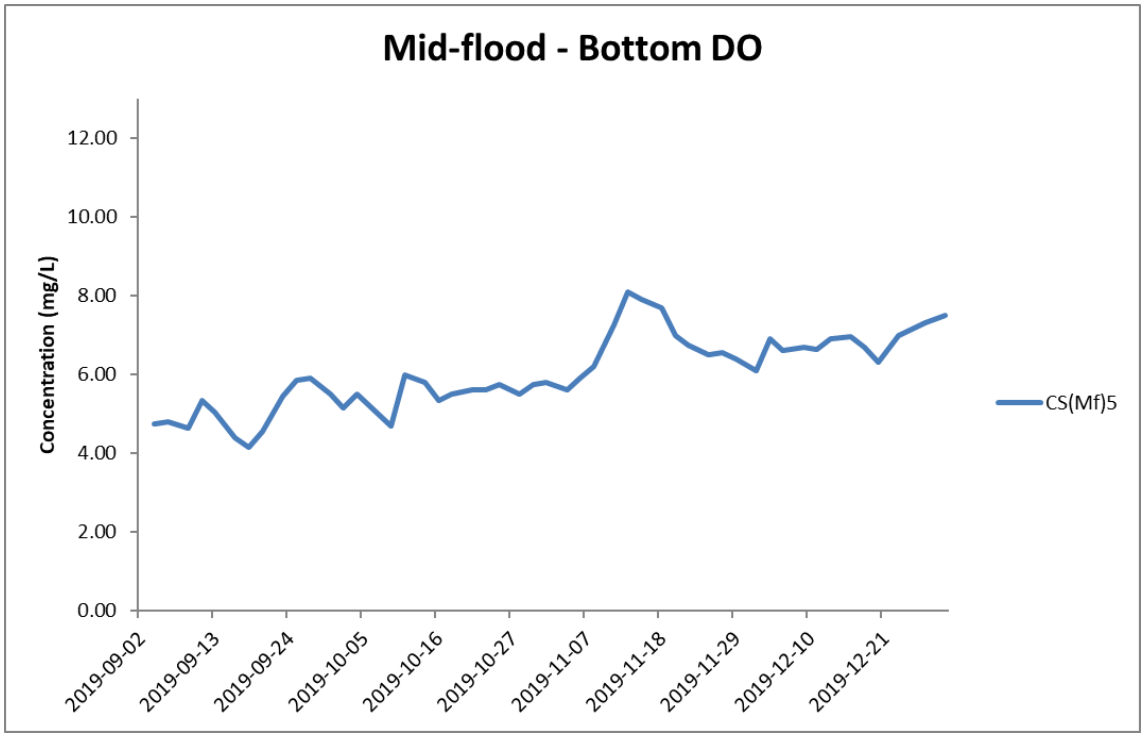


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at CS(Mf)3(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

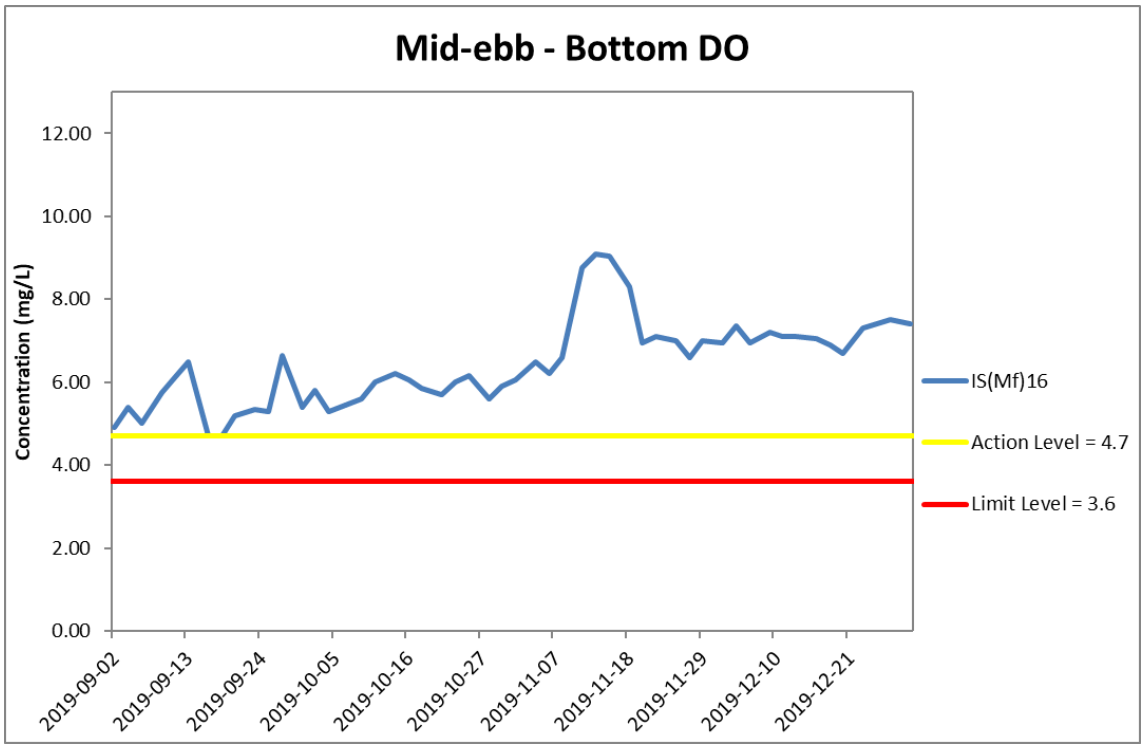


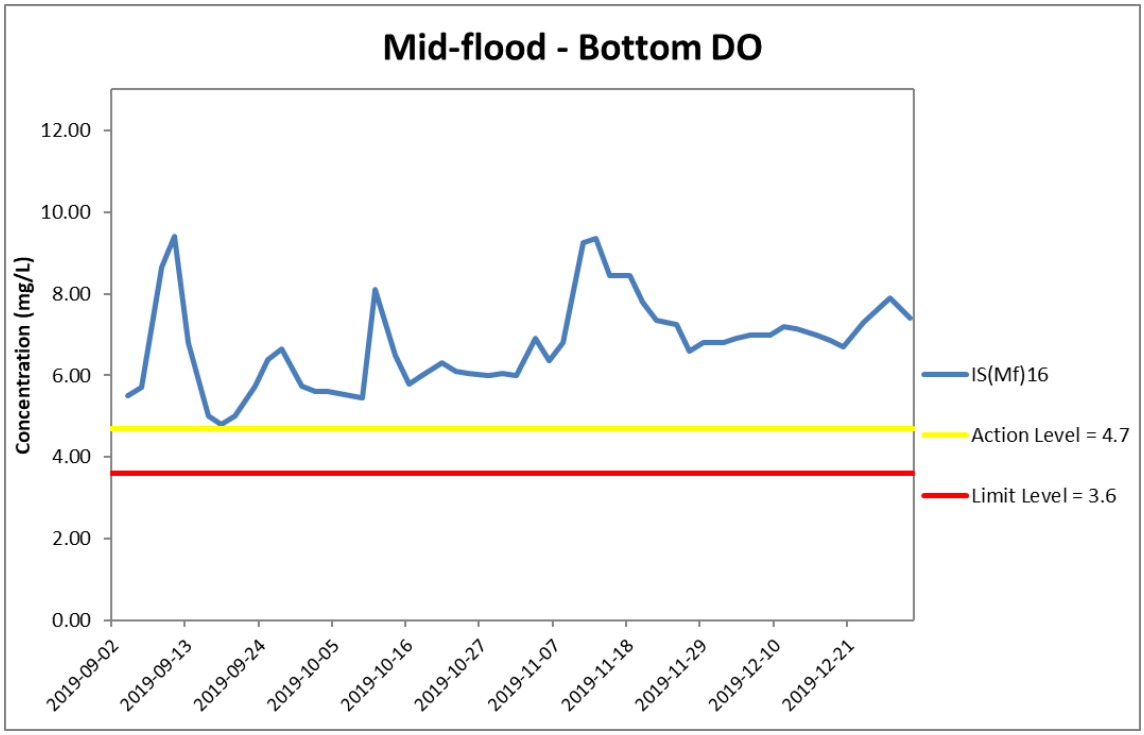


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at CS(Mf)5. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

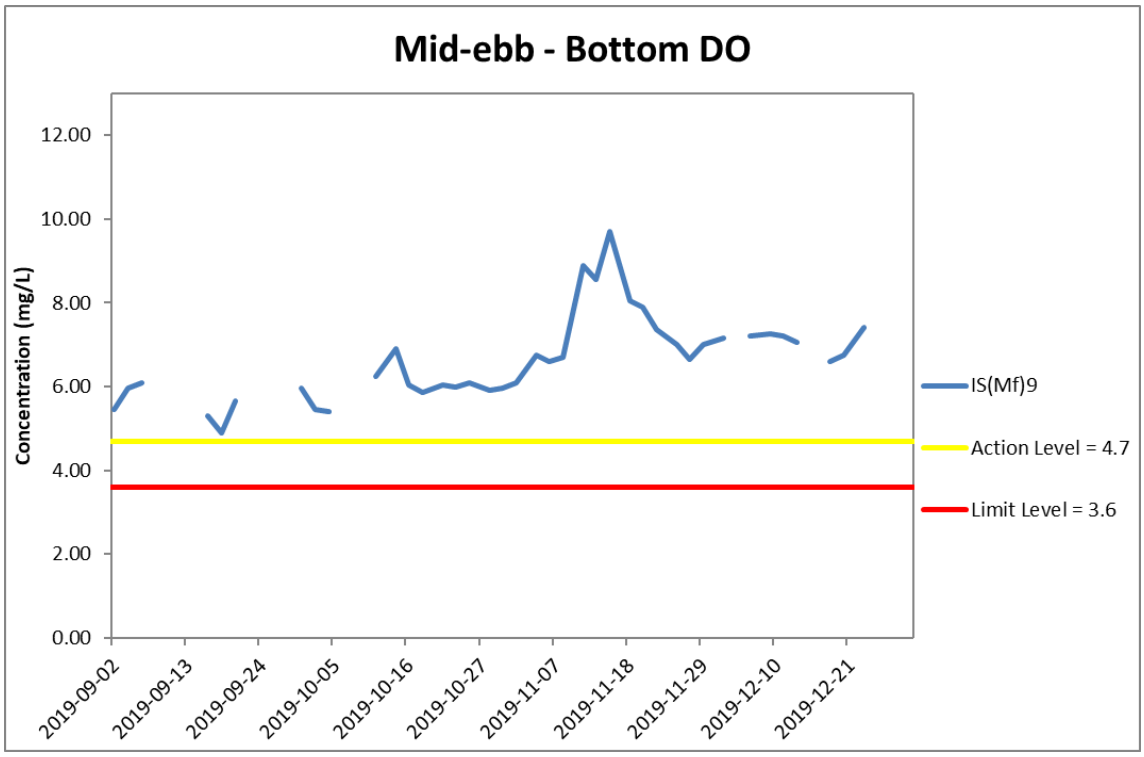


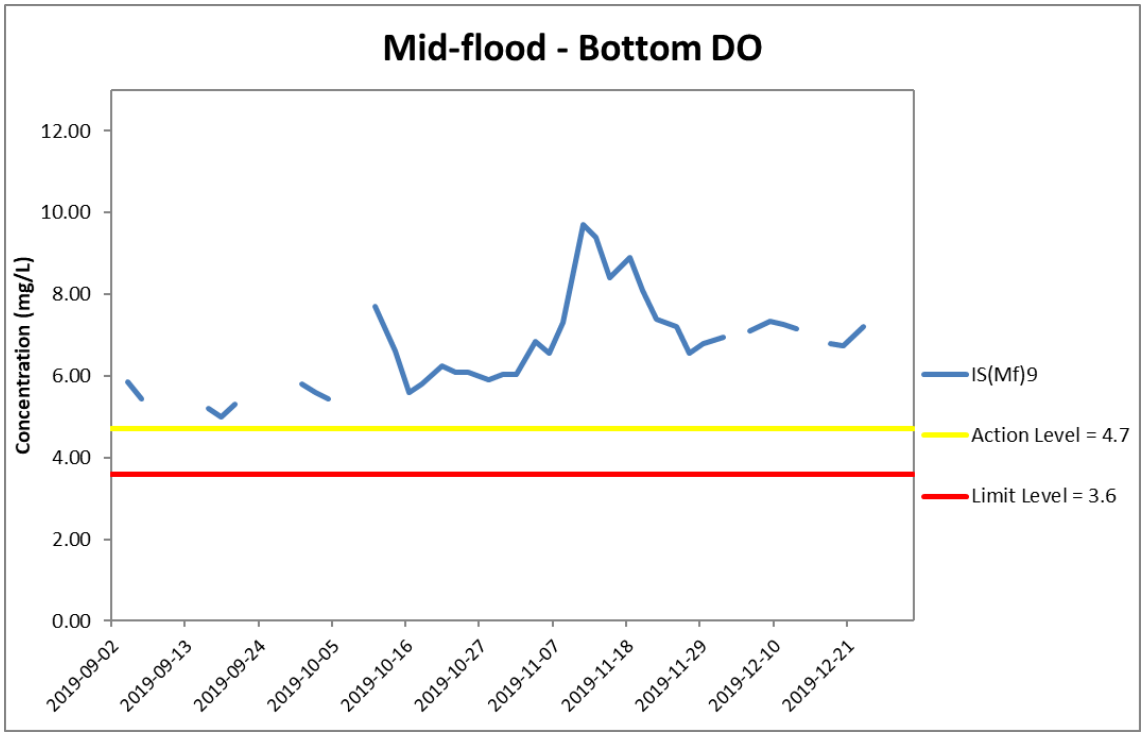


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at IS(Mf)16. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

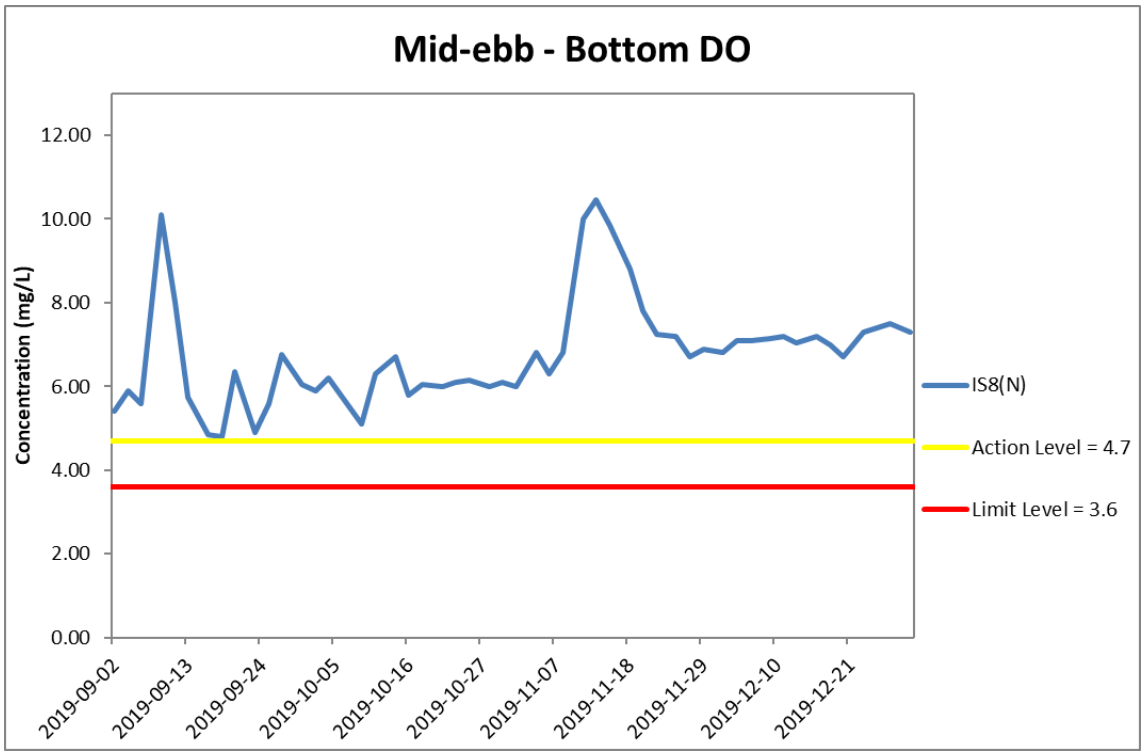


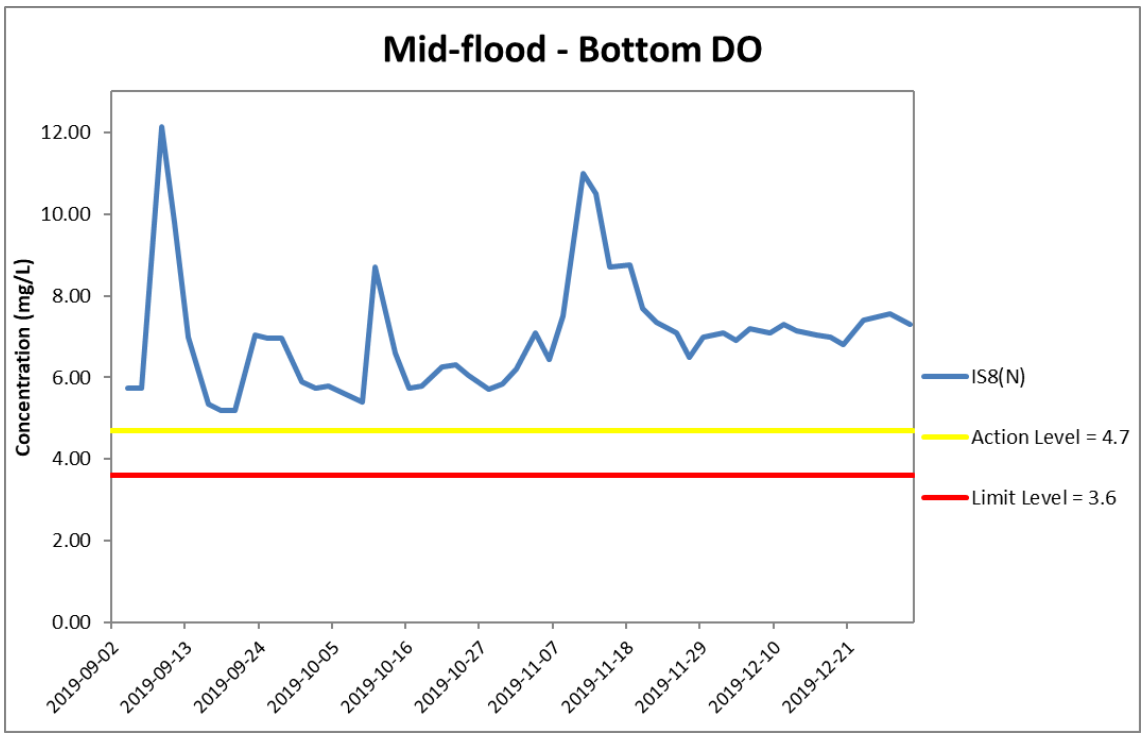


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J21 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at IS(Mf)9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

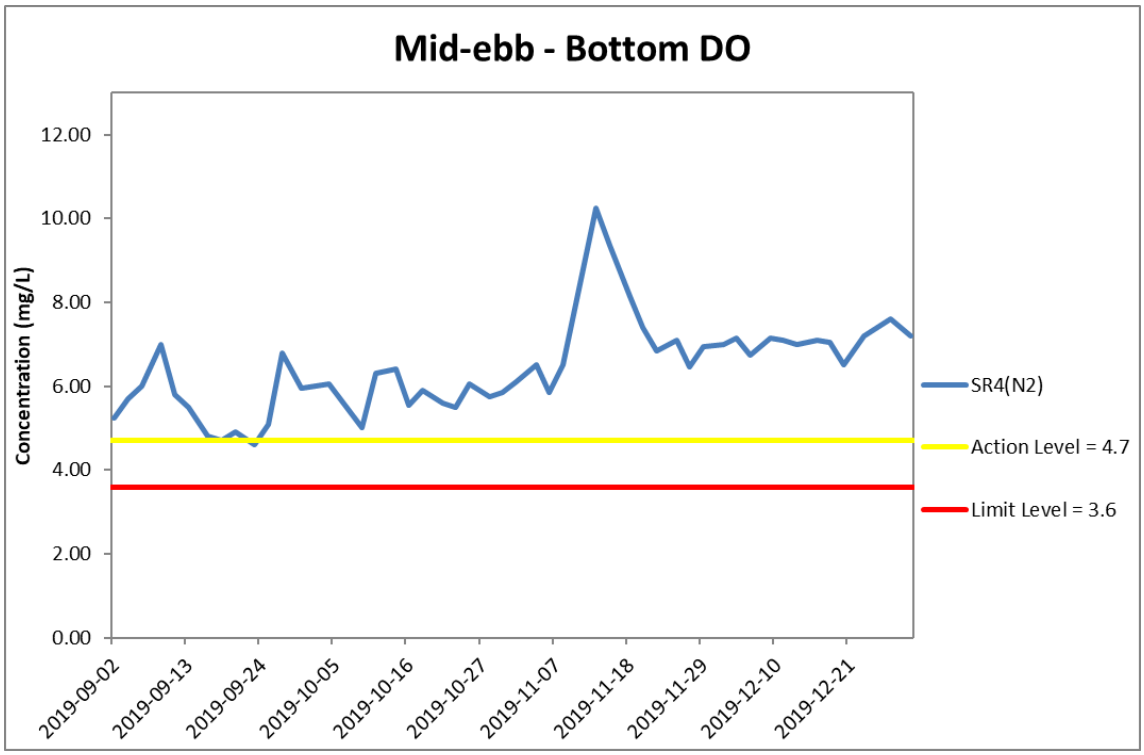


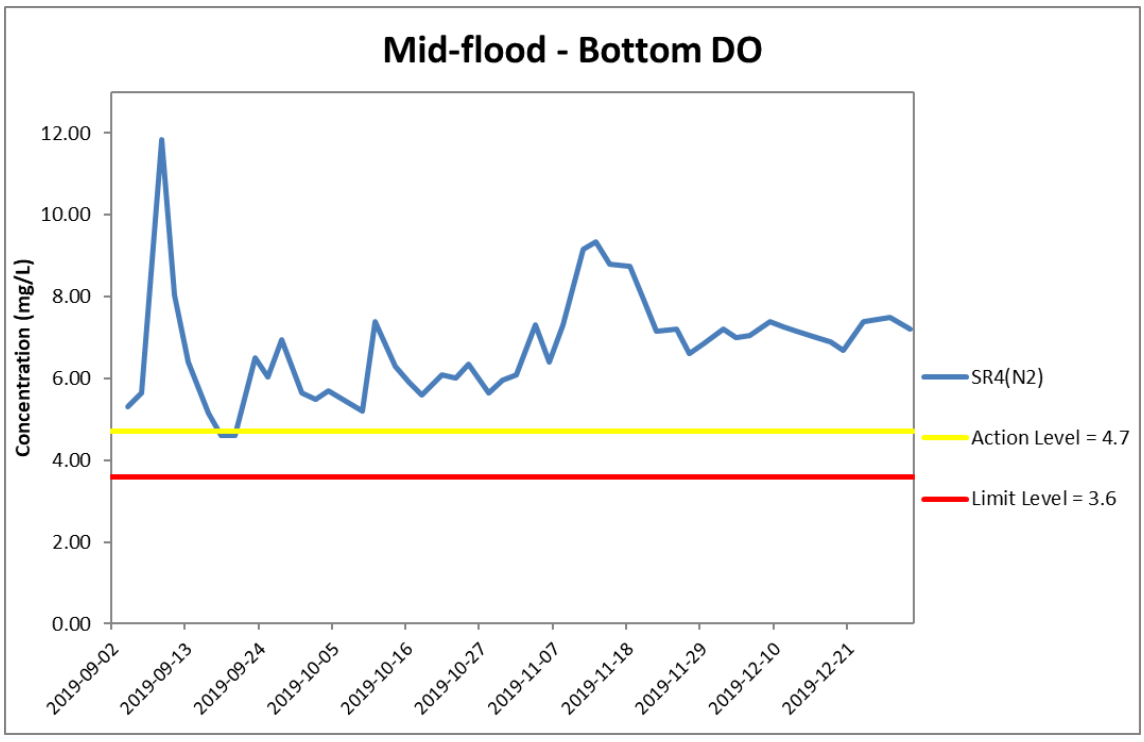


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J22 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at IS8(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

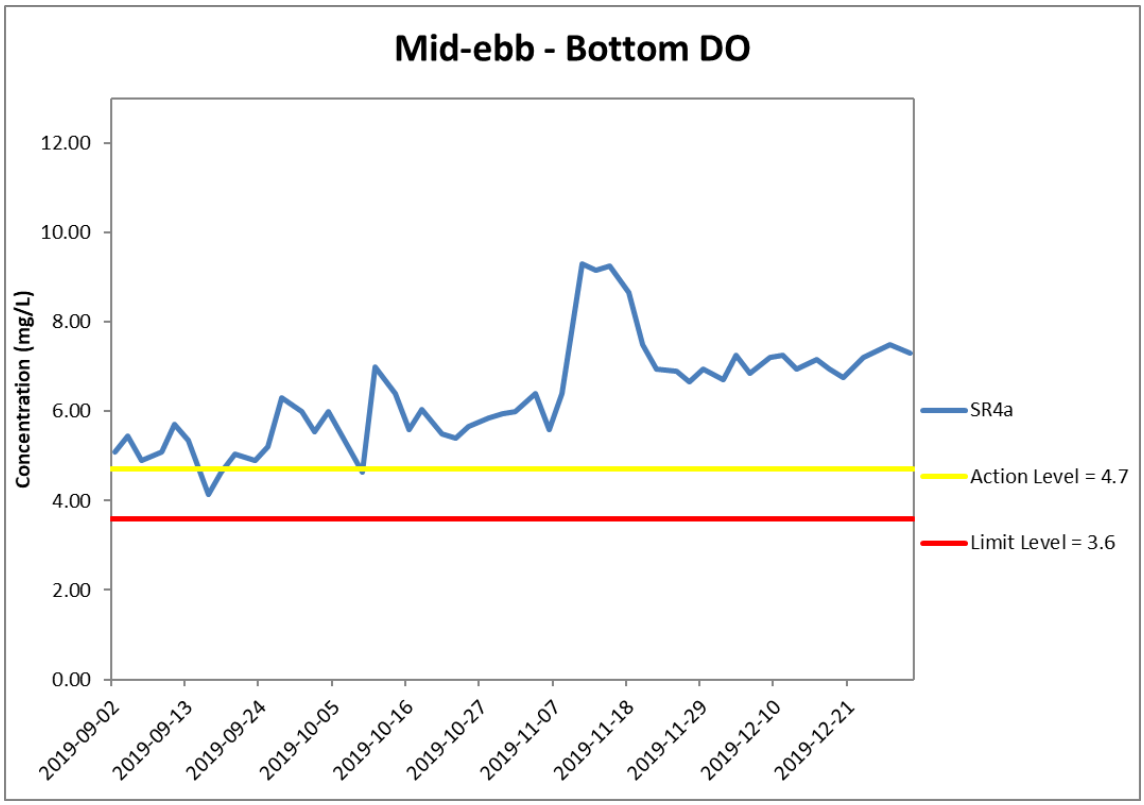


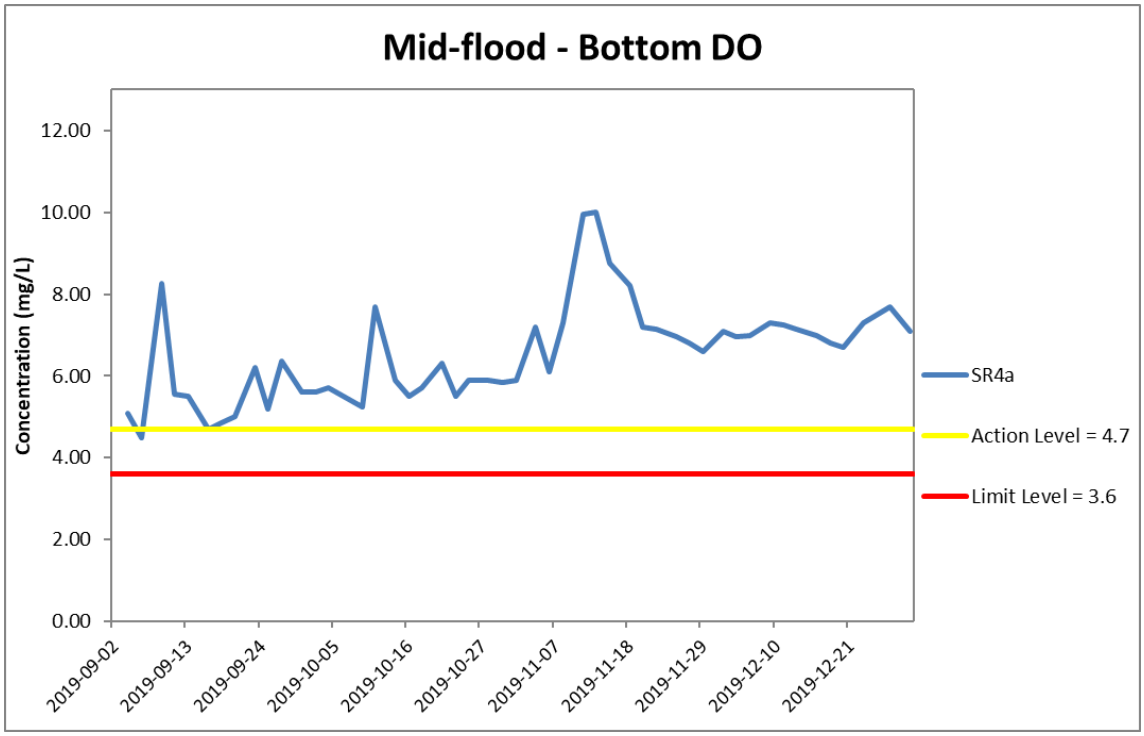


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J23 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at SR4(N2). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

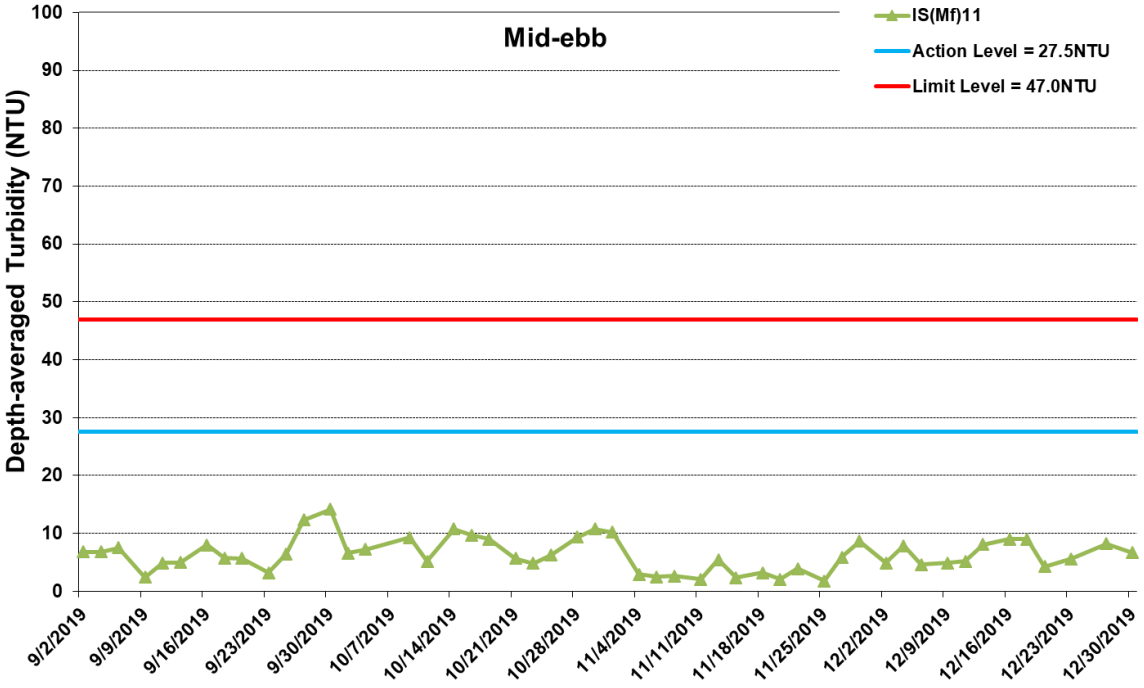


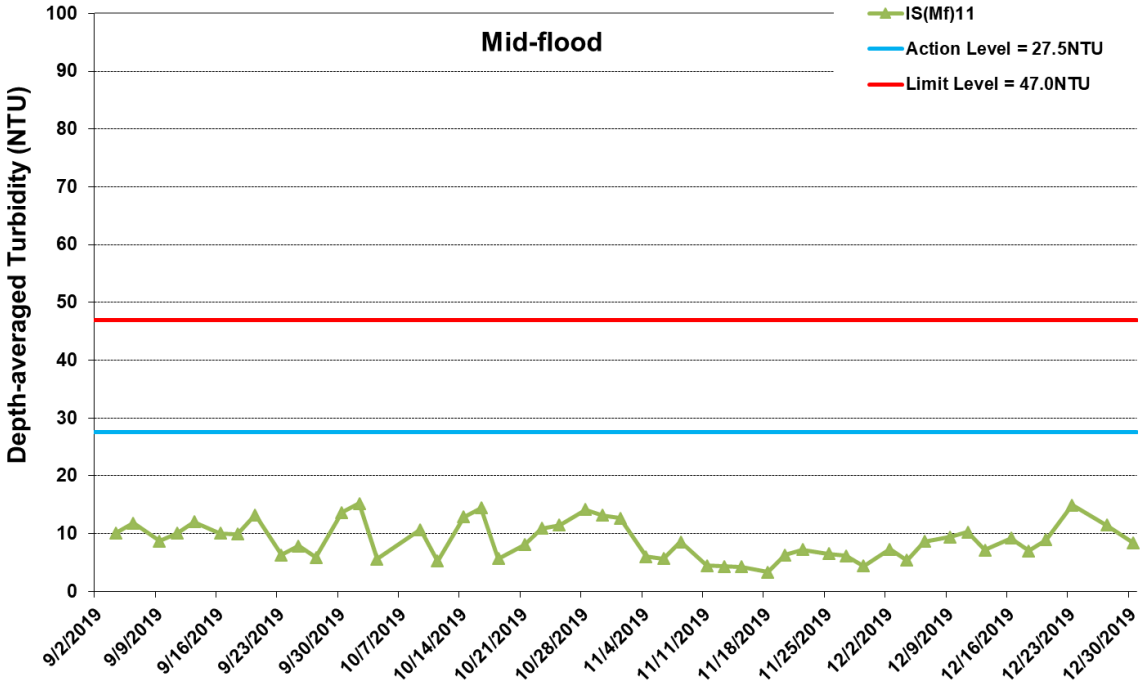


*Exceedances of Dissolved oxygen level are calculated based on average value of data from both Surface and Middle level, and bottom level separately.

Figure J24 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 September 2019 and 31 December 2019 at SR4a. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

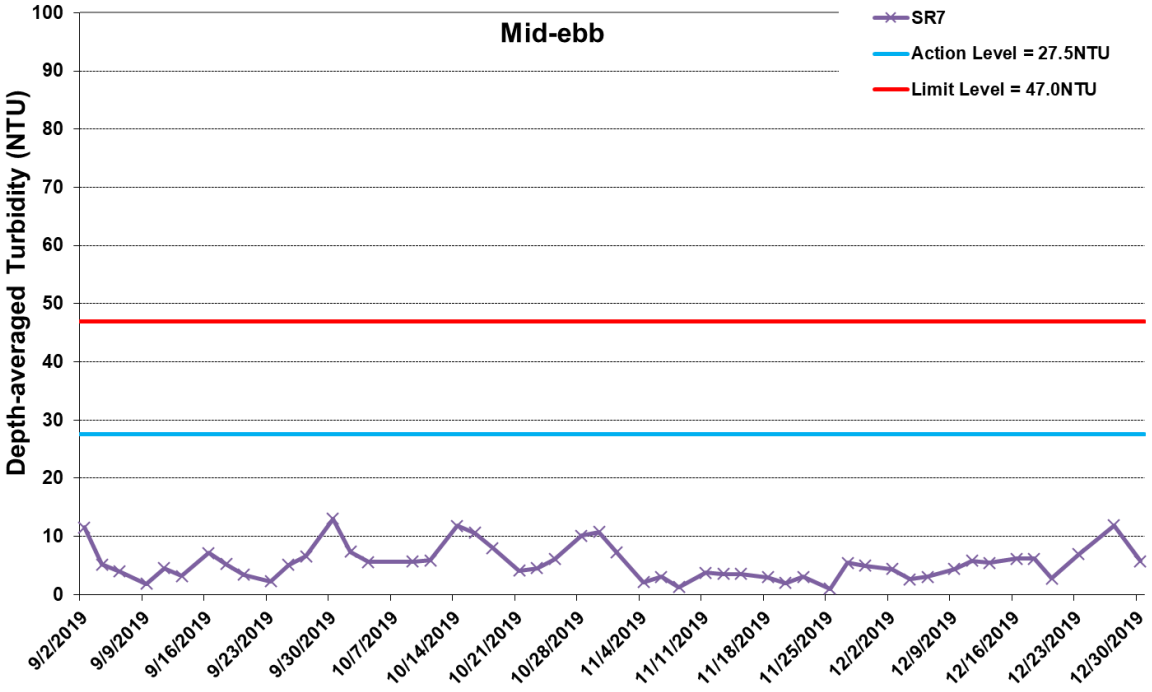


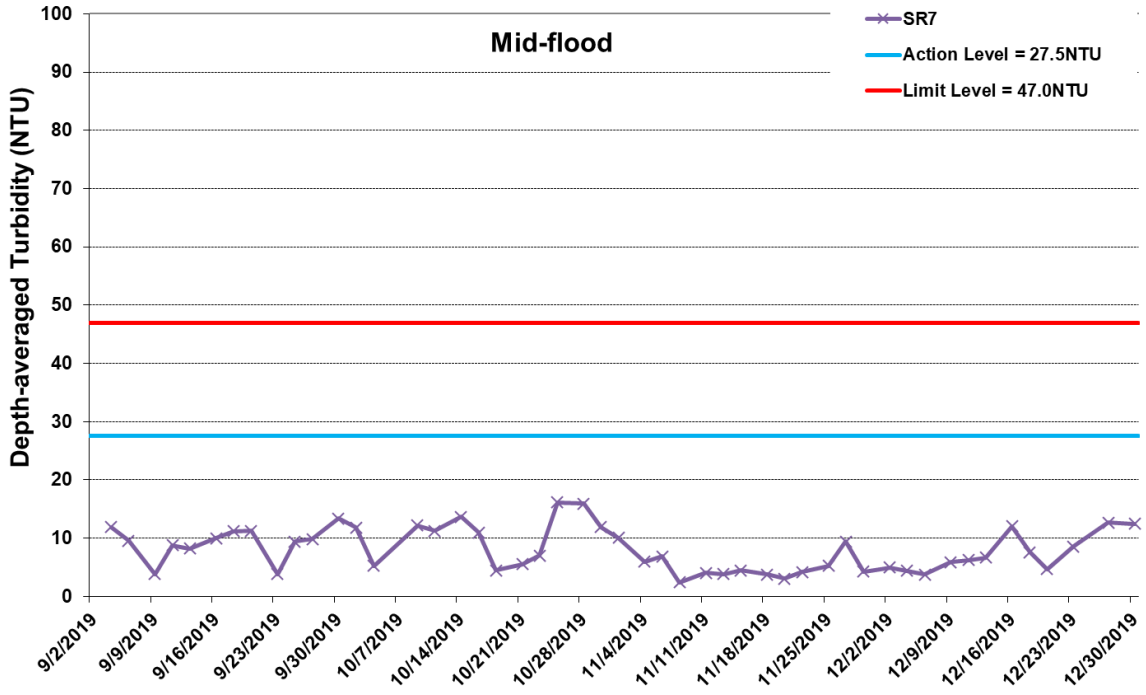


* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J25 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

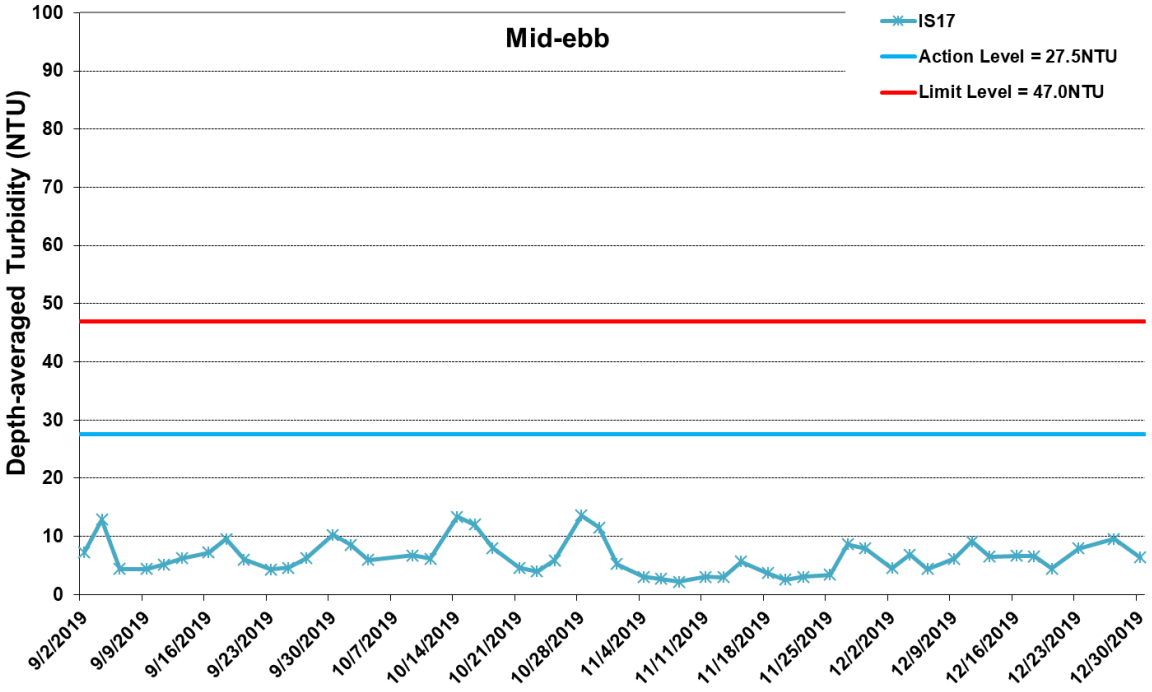


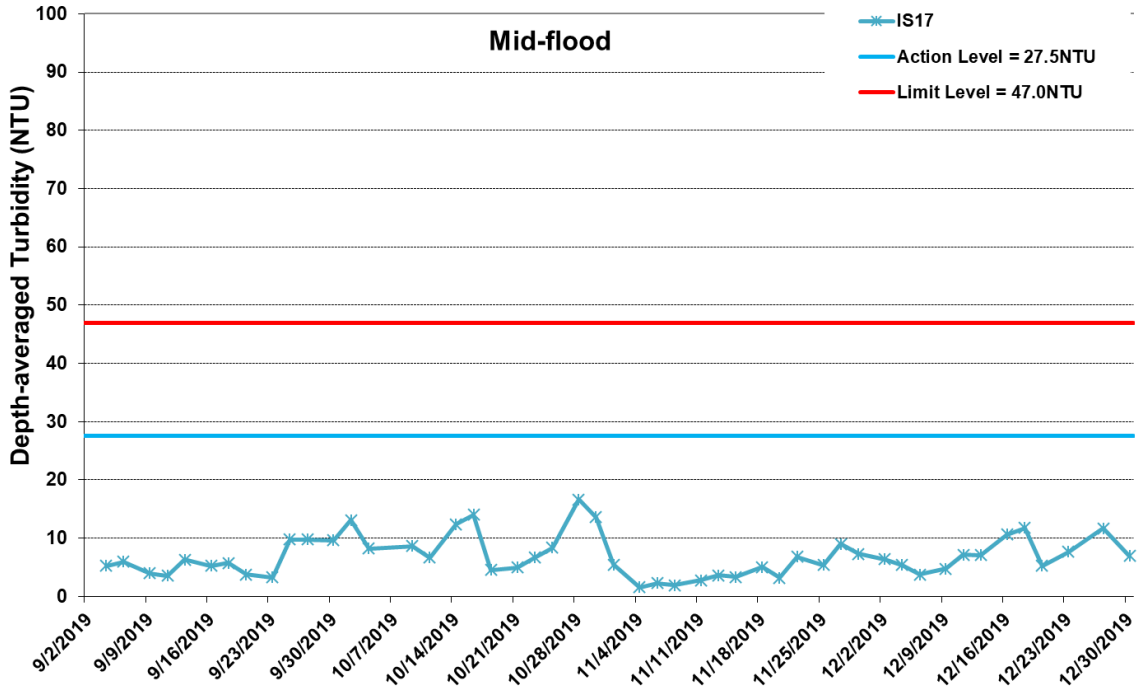


* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J26 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at SR7. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

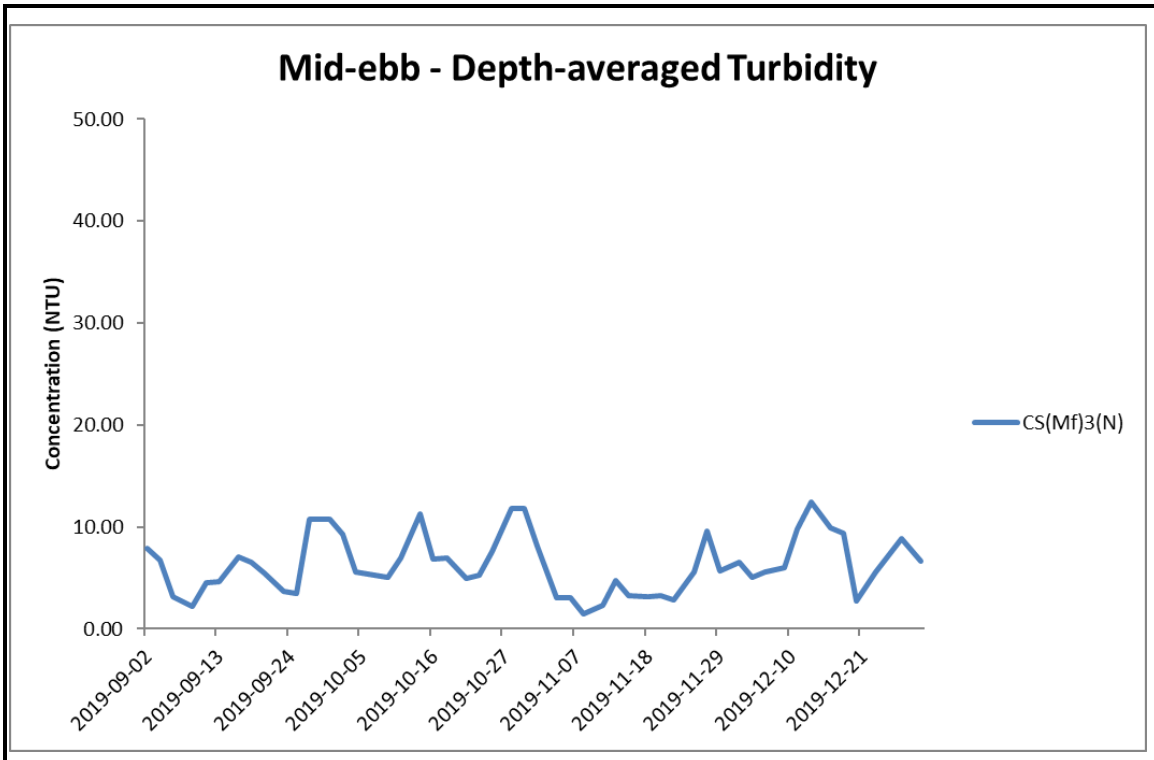




* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J27 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at IS17. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



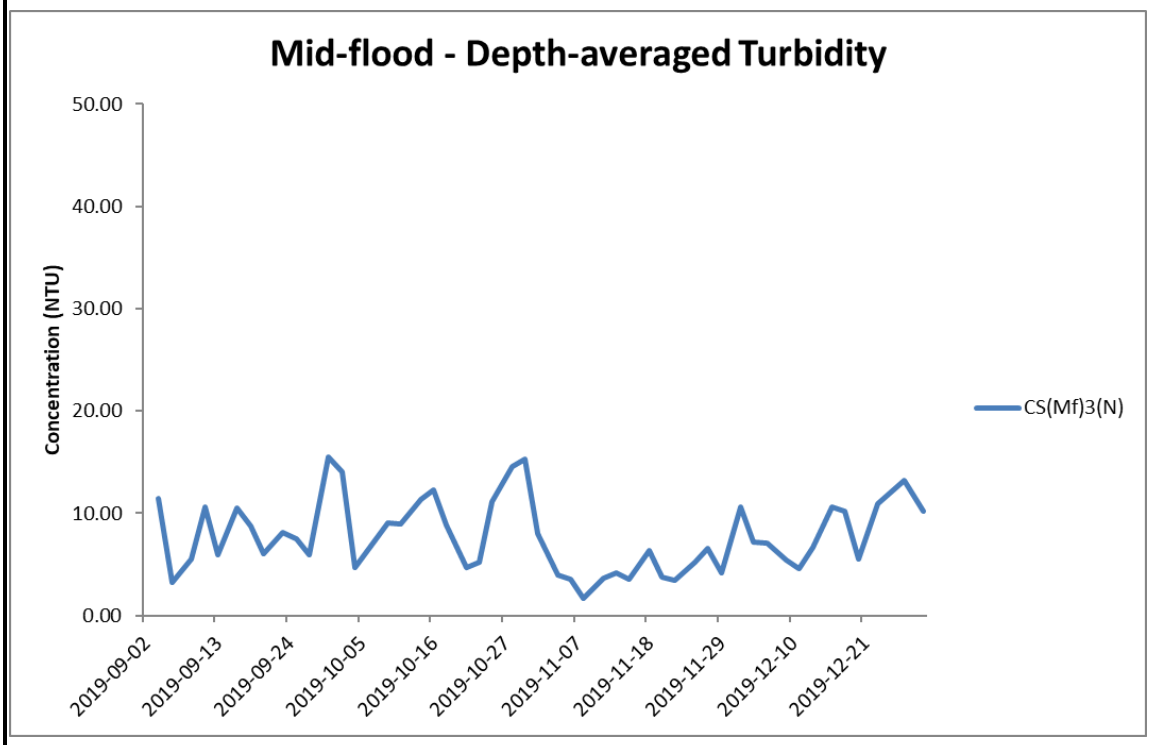
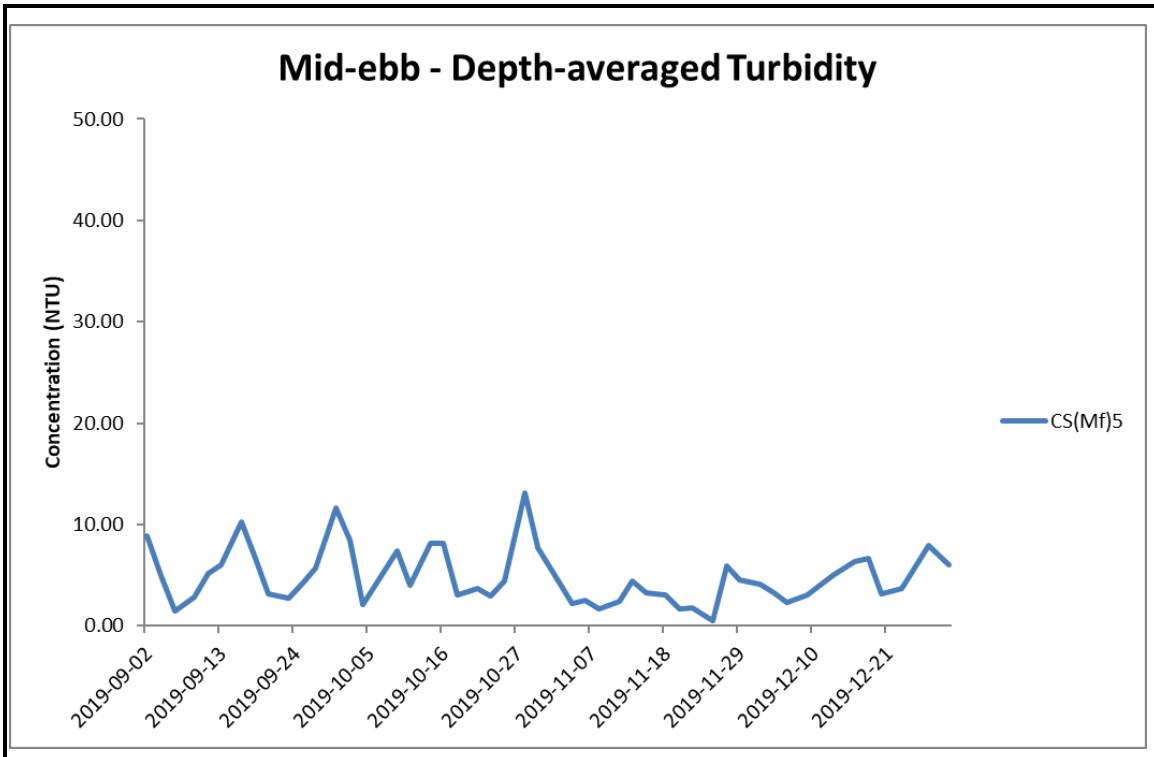


Figure J28 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at CS(Mf)3(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



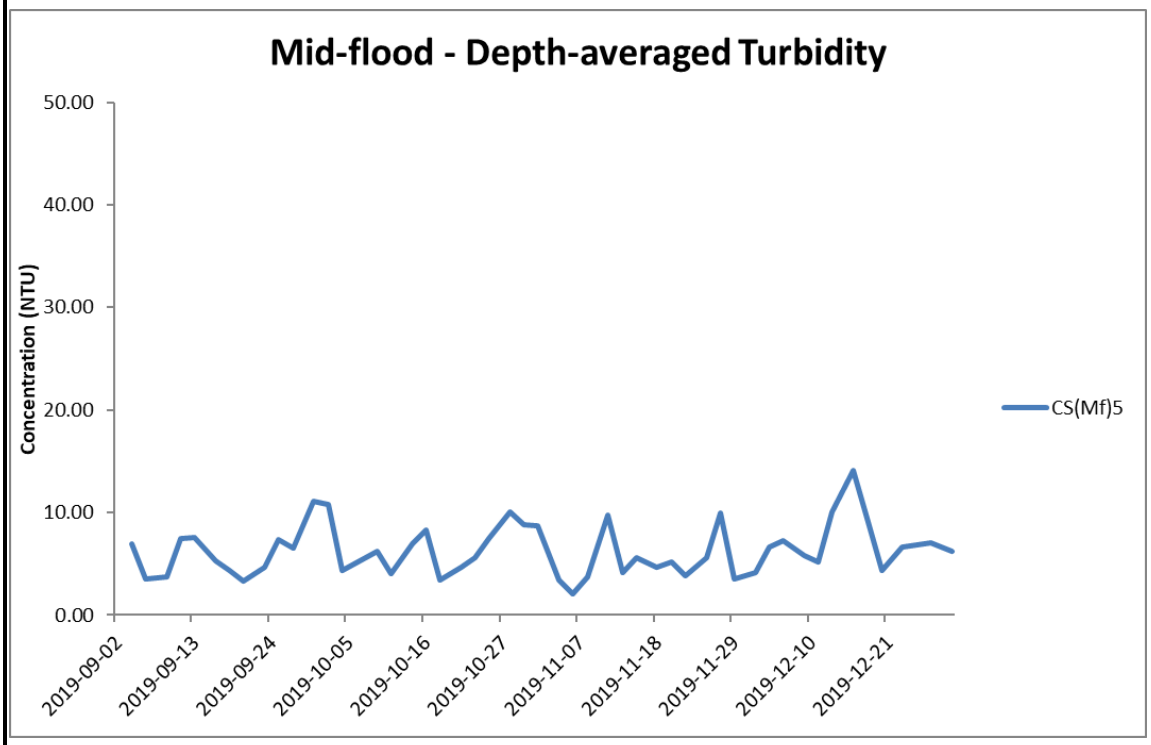


Figure J29 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at CS(Mf)5. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

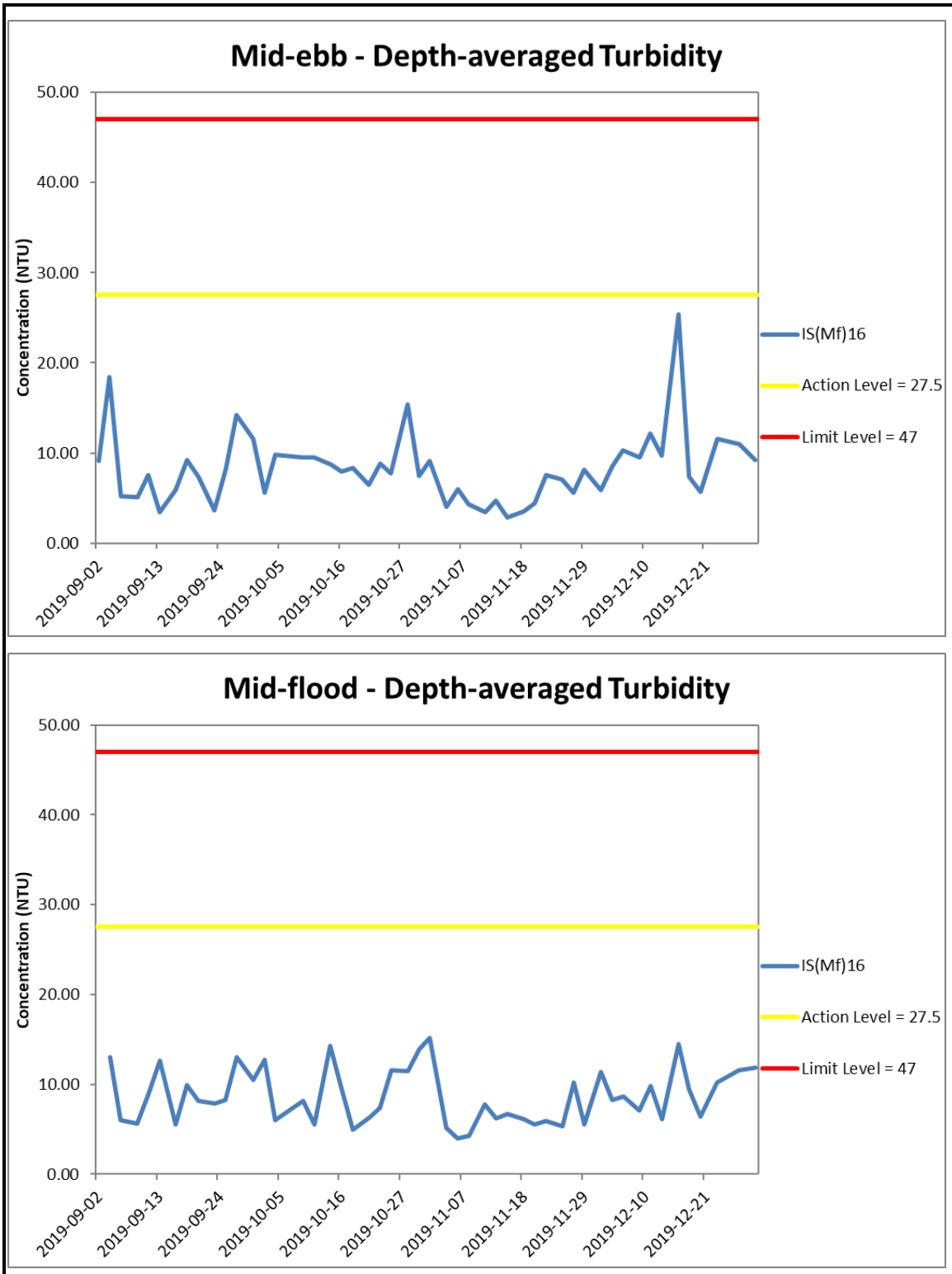
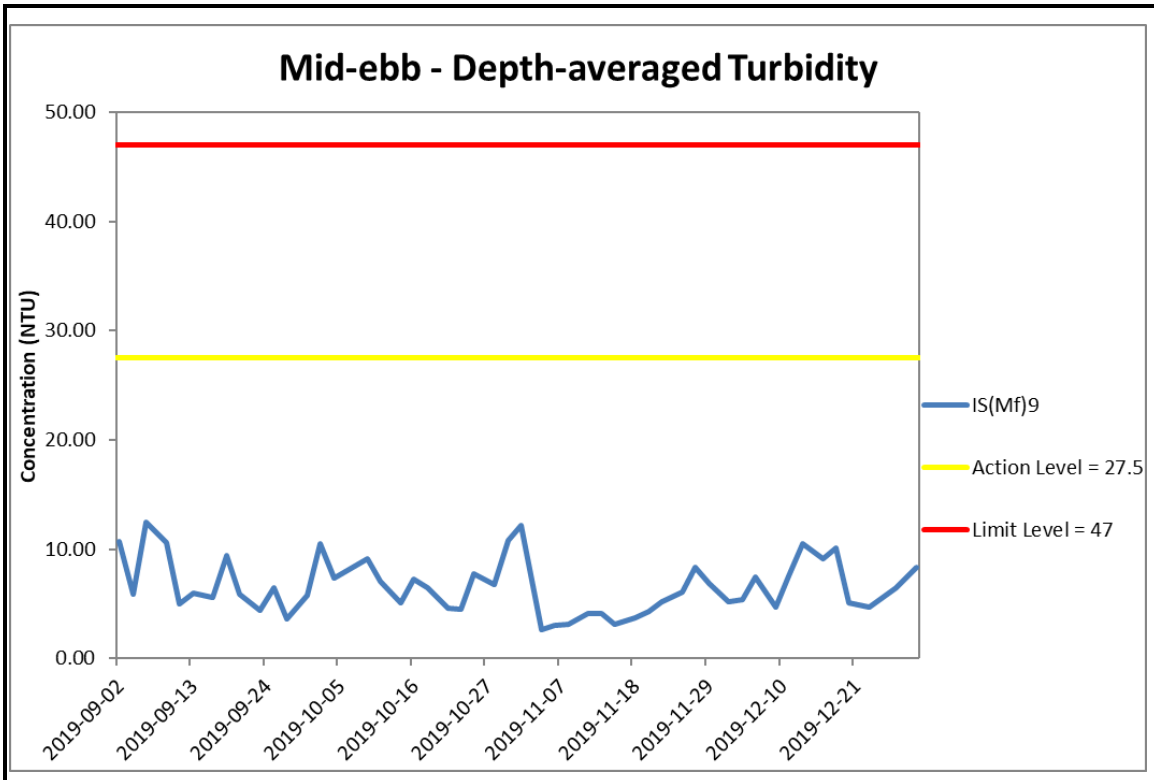


Figure J30 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at IS(Mf)16. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



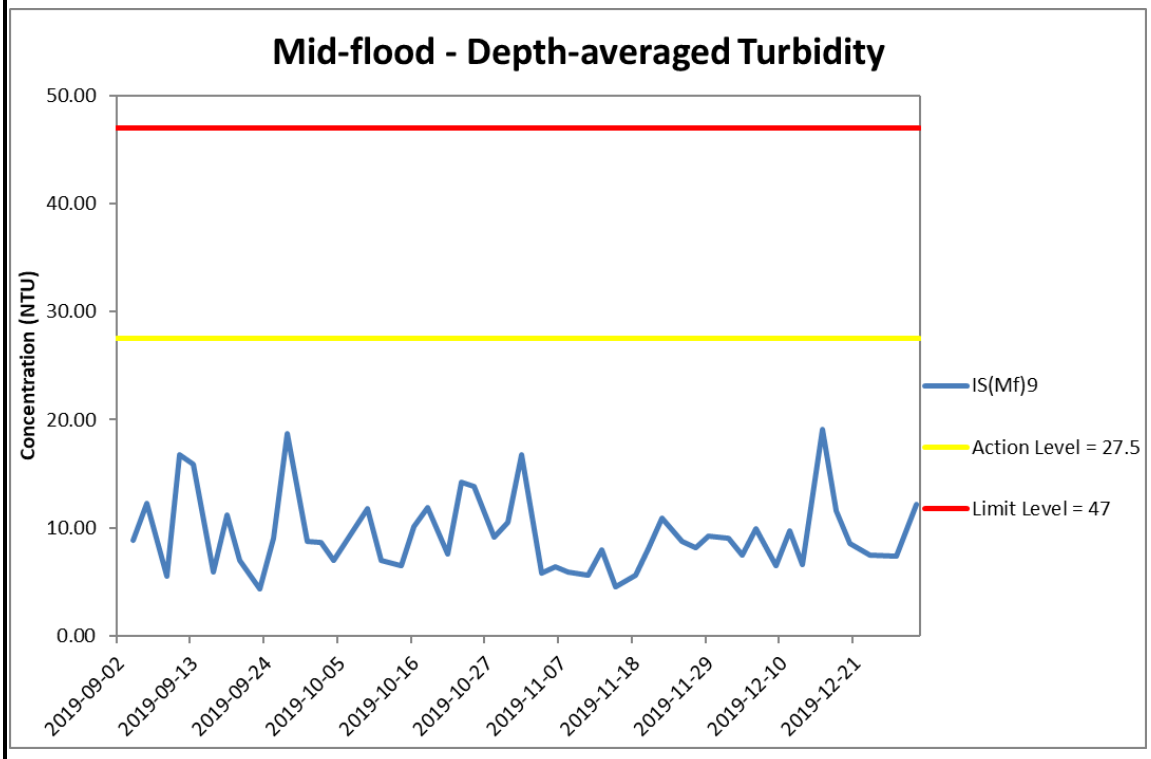


Figure J31 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at IS(Mf)9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

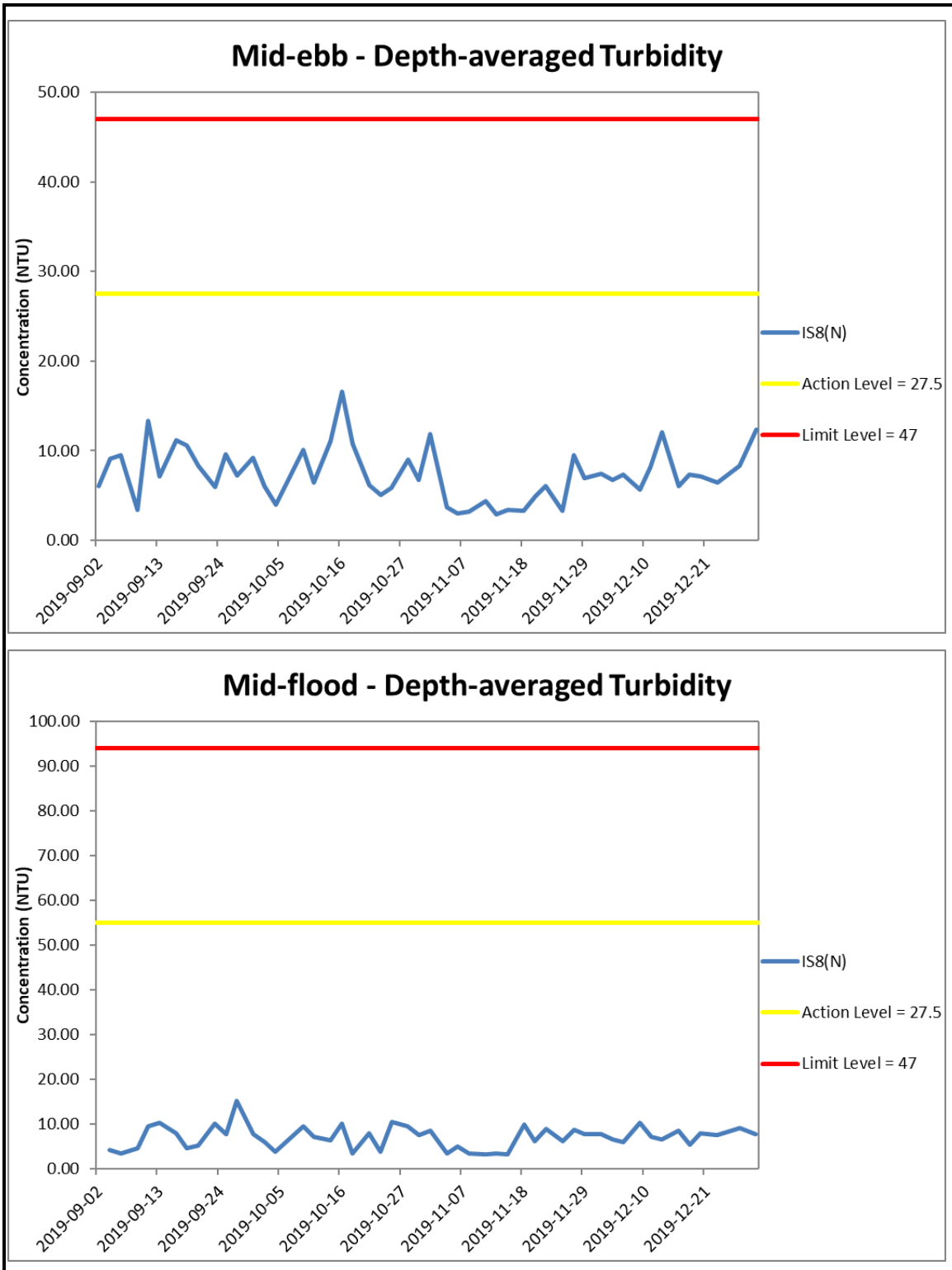
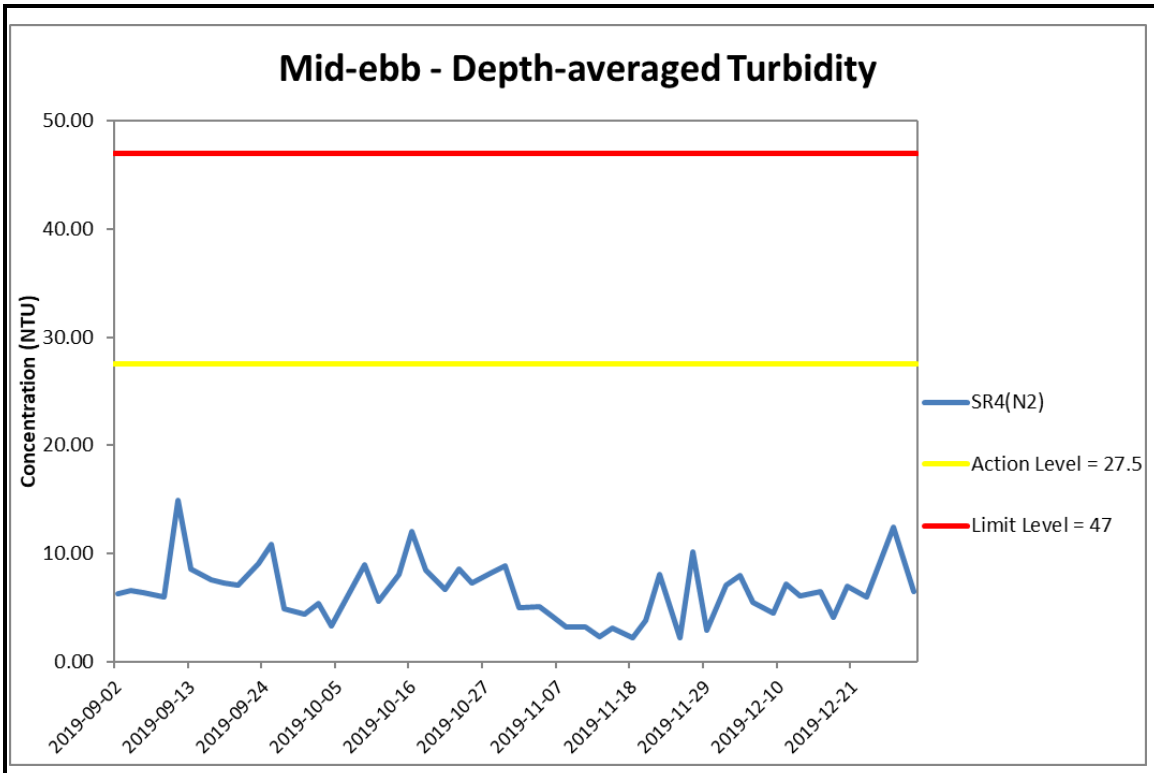


Figure J32 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at IS8(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



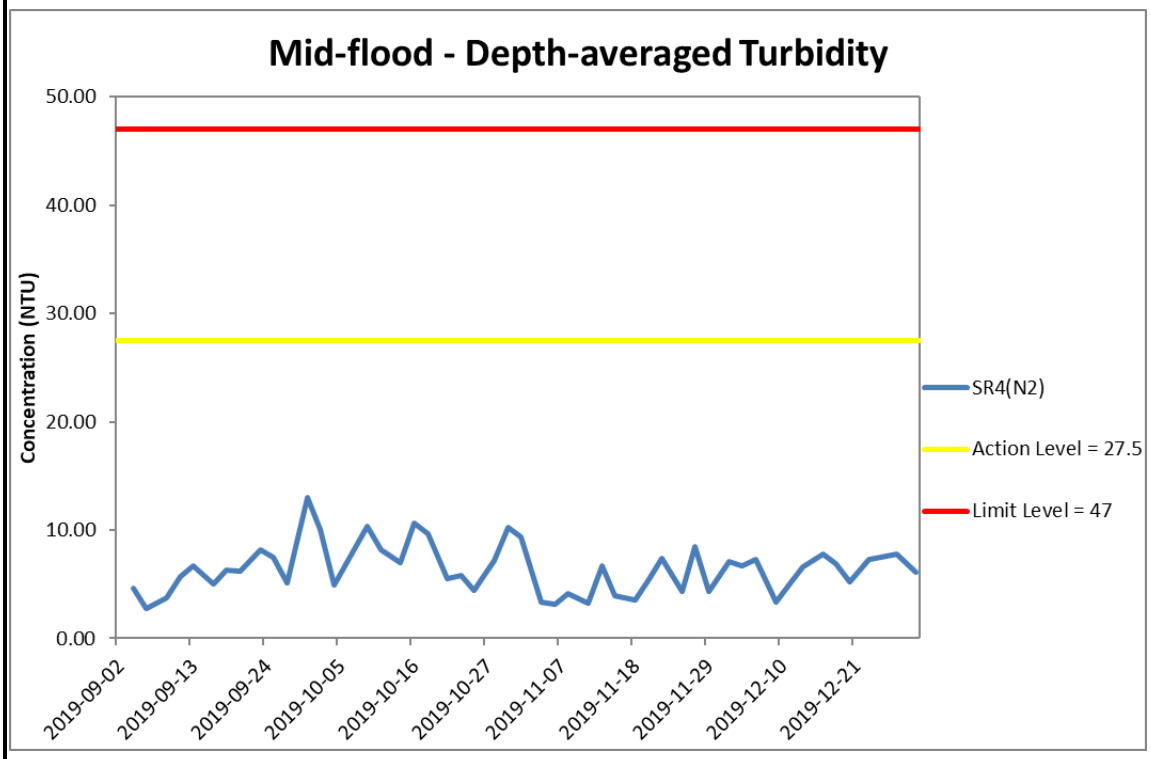
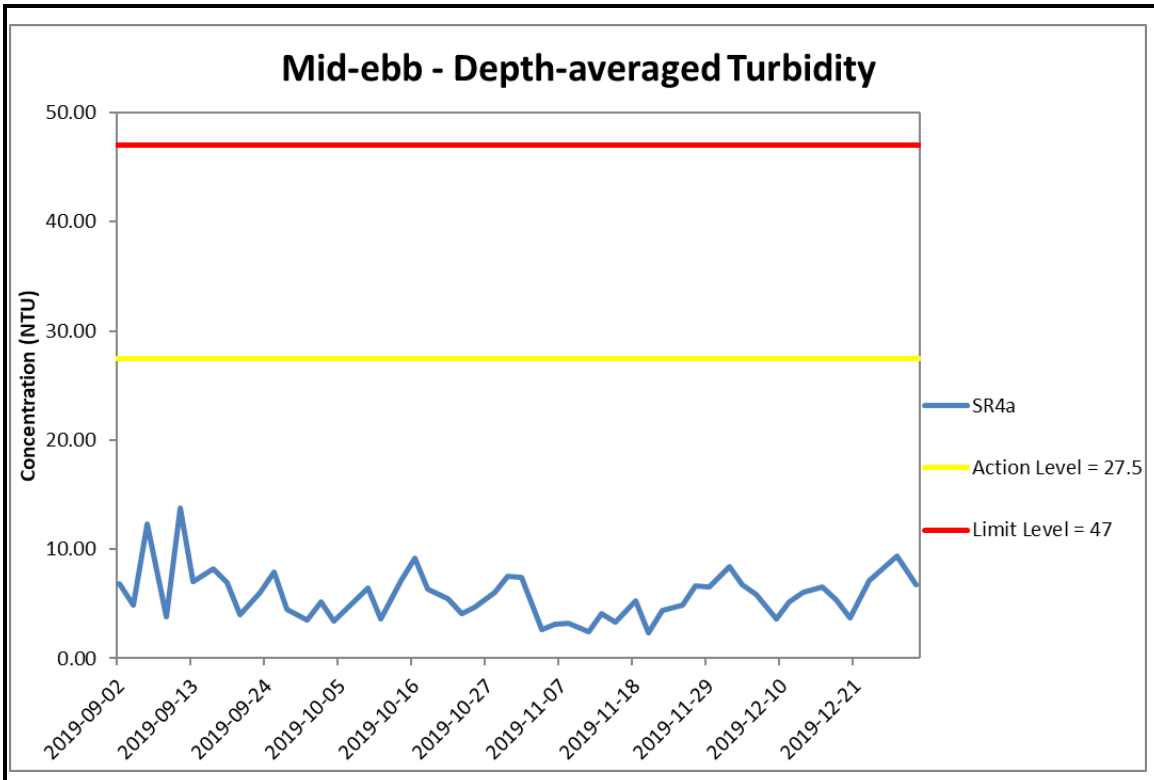


Figure J33 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at SR4(N2). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



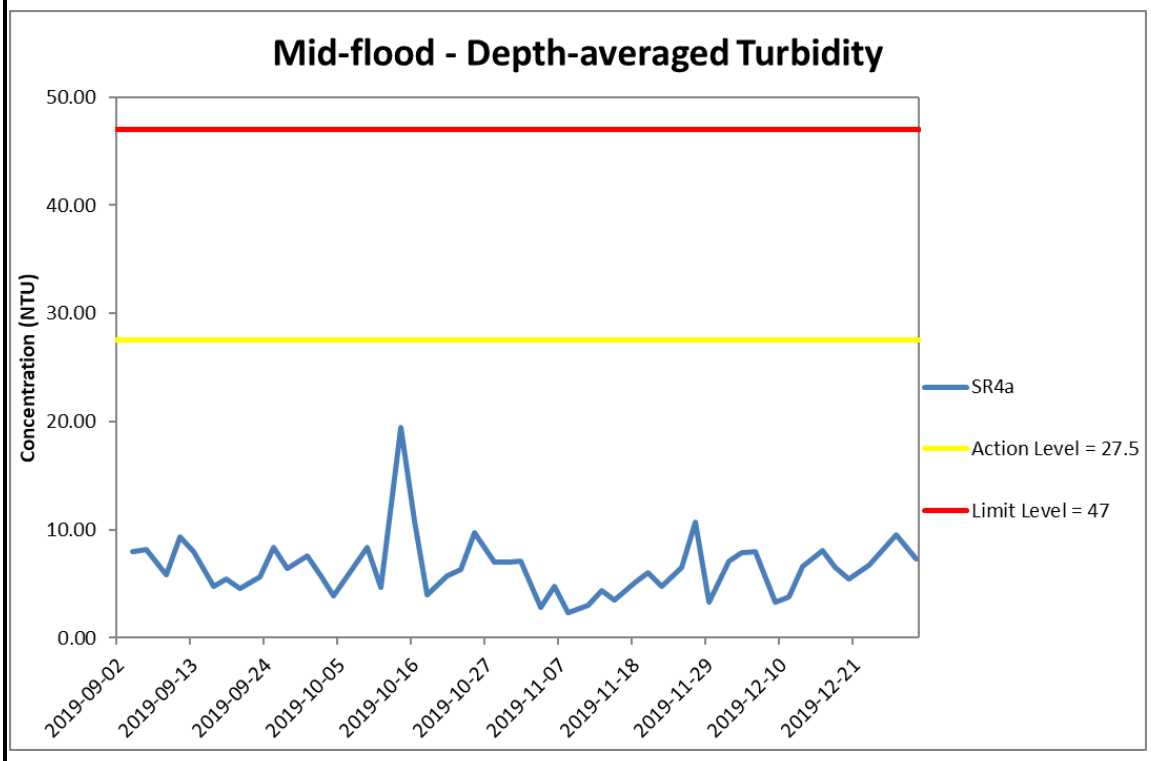
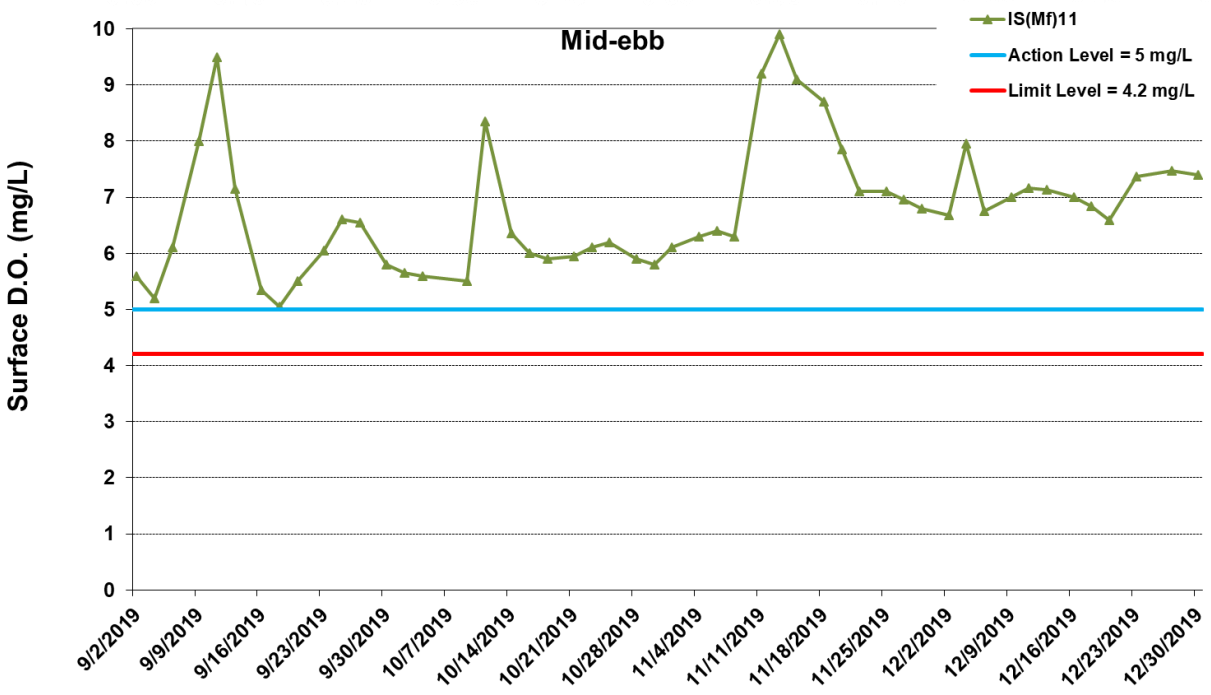
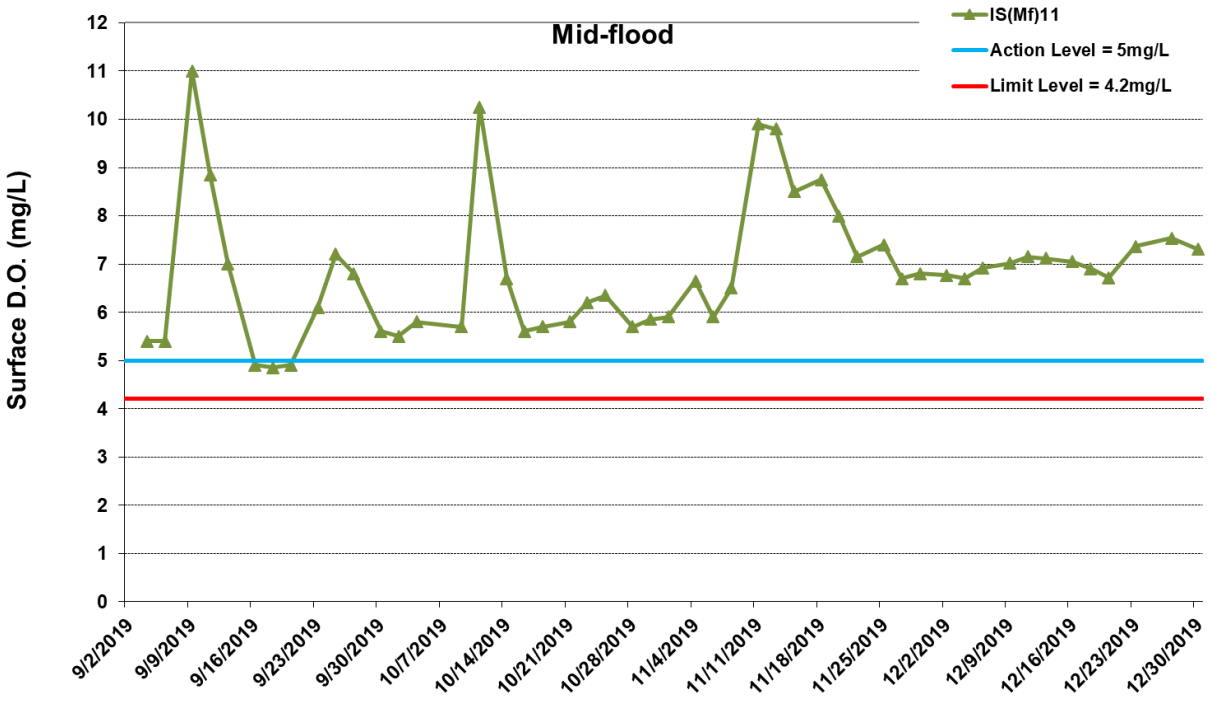


Figure J34 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 September 2019 and 31 December 2019 at SR4a. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

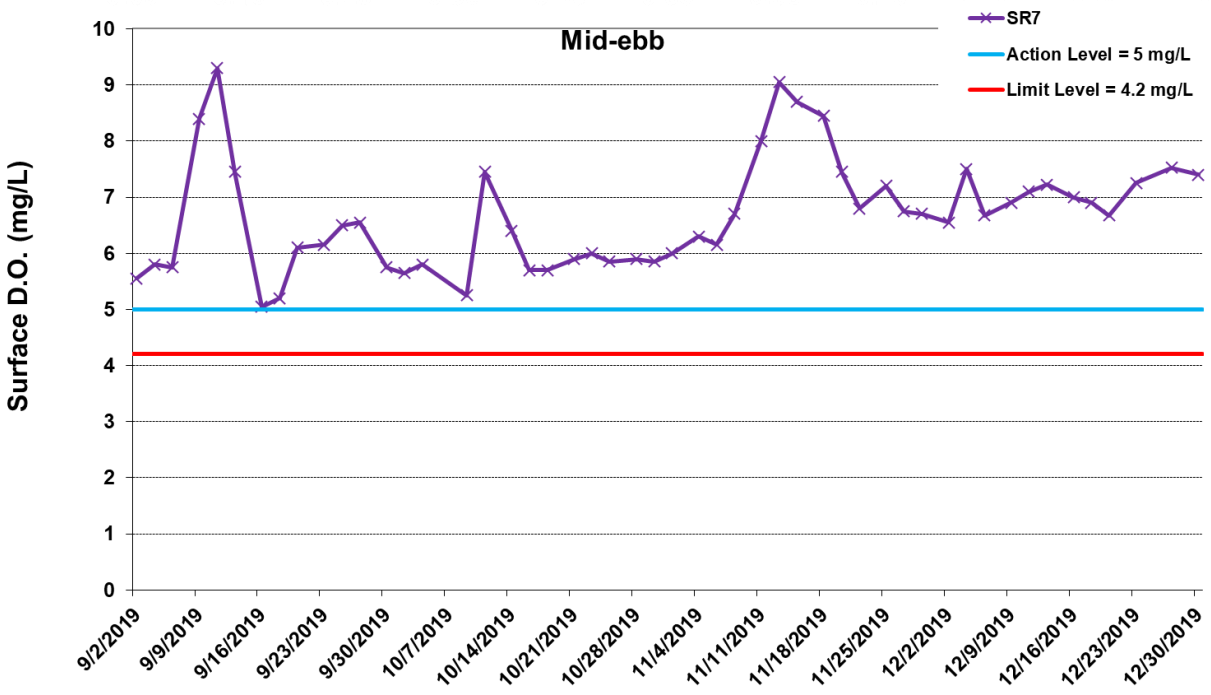


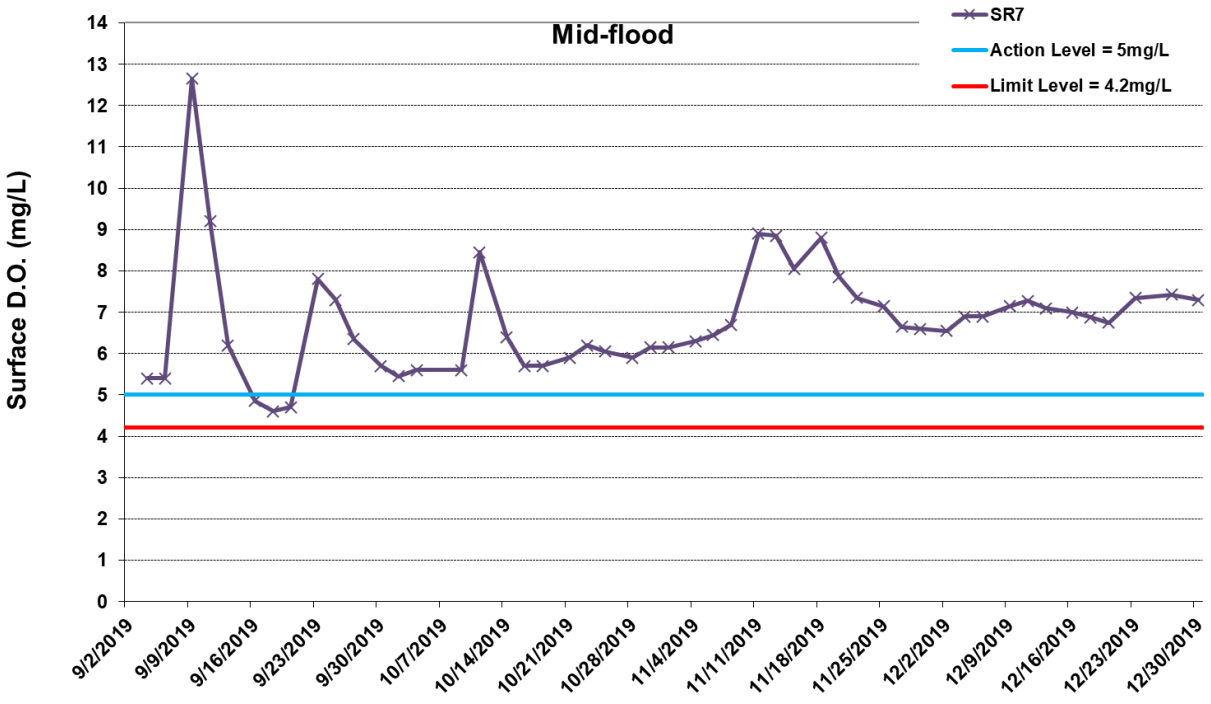


* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J35 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at IS(Mf)11. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

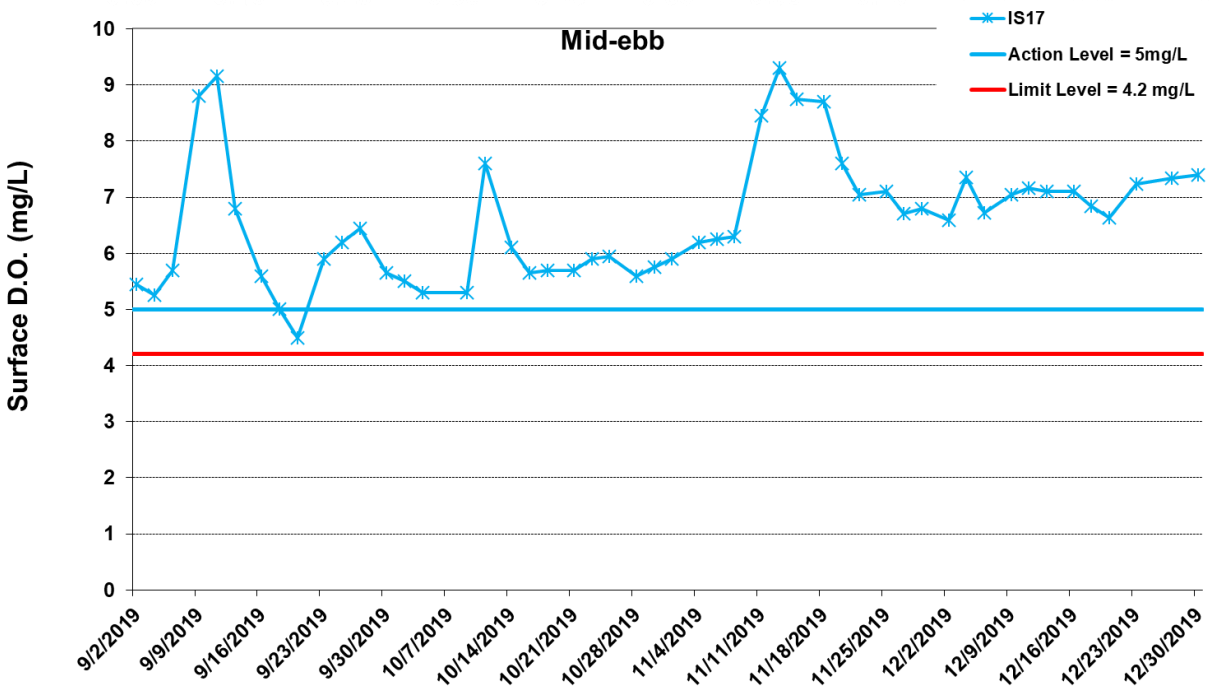


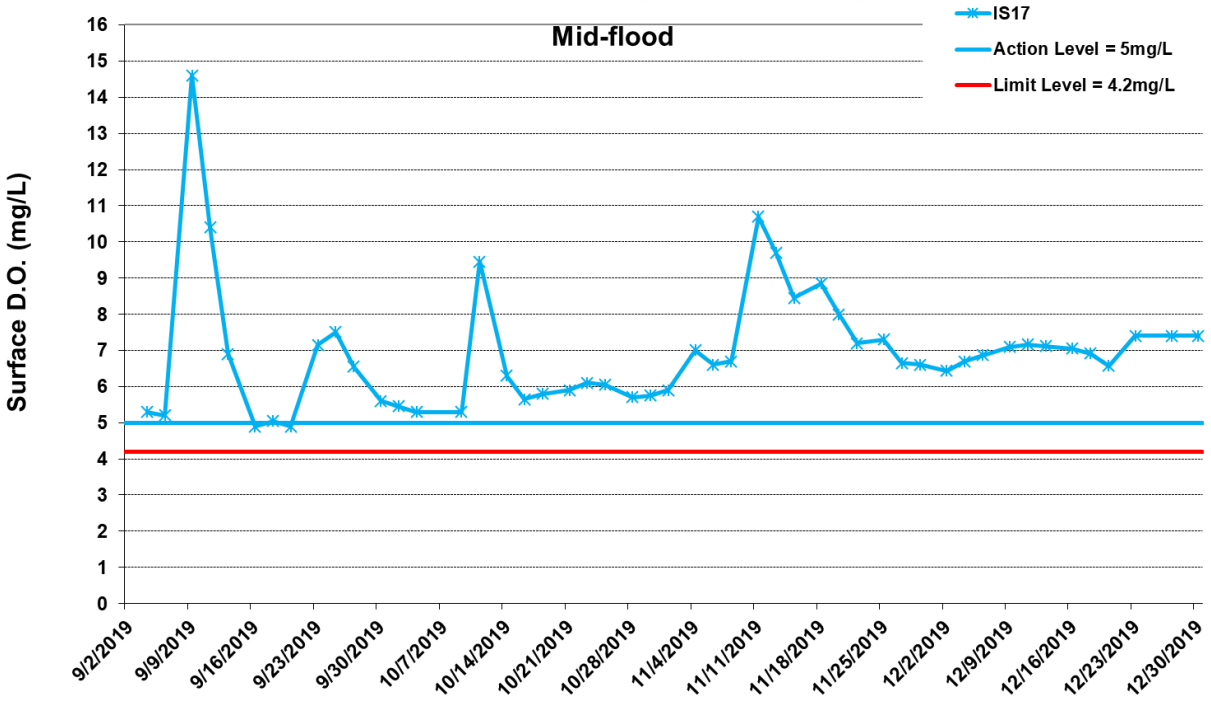


* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J36 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at SR7. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls





* The AL/LL for WQM stations, IS(Mf)11, IS17 and SR7, are adopted from HZMB HKBCF project.

Figure J37 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at IS17. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

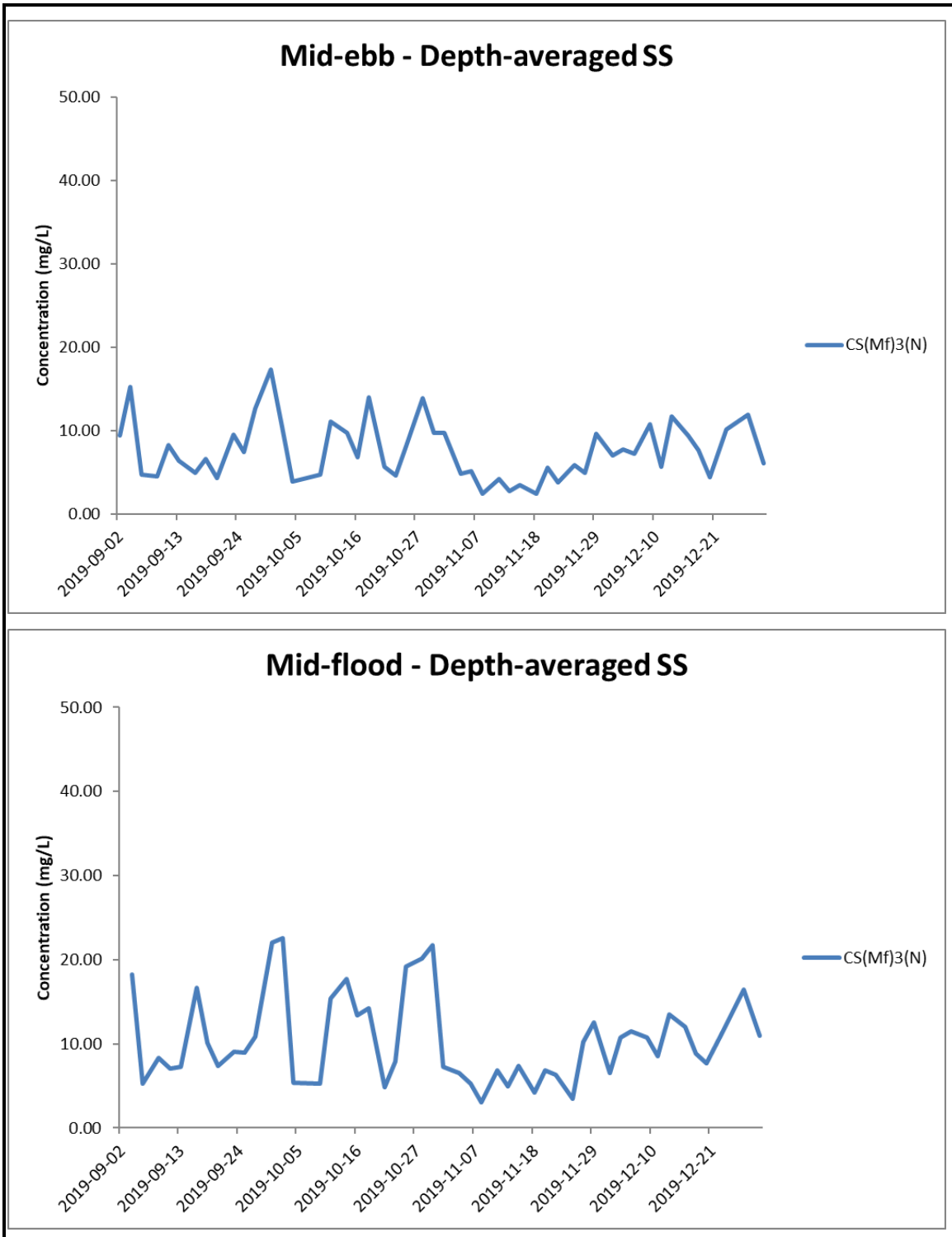
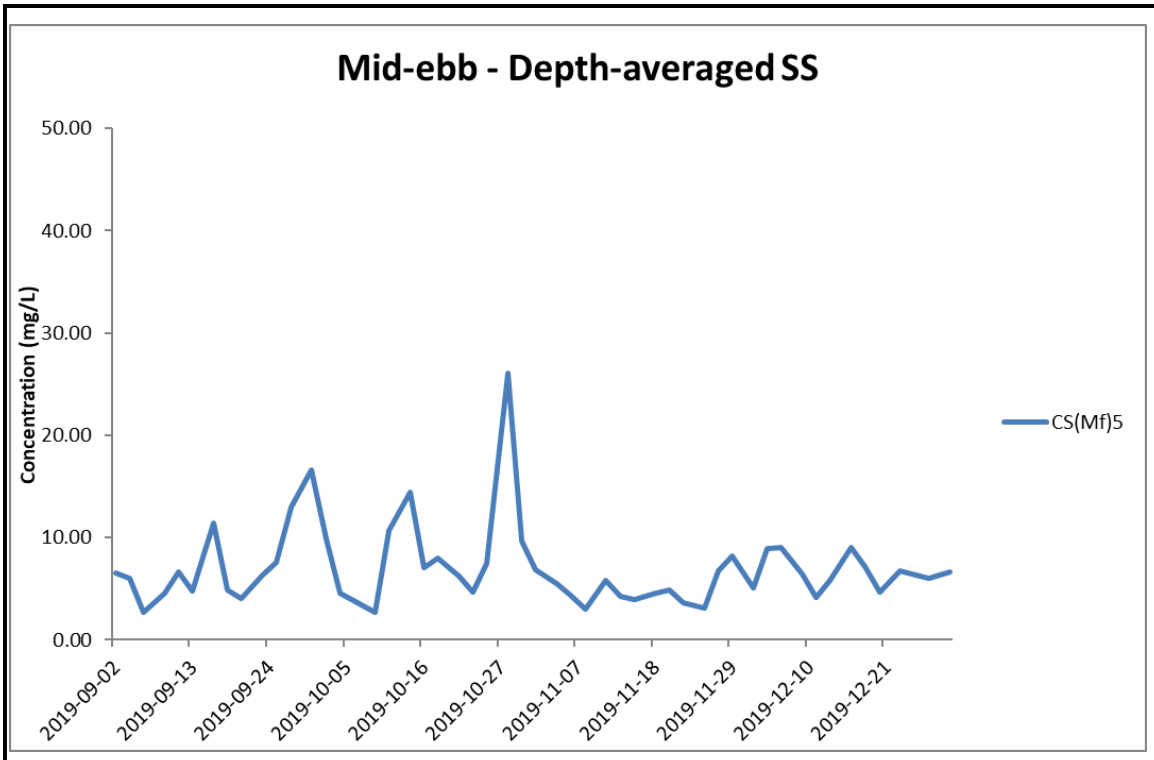


Figure J38 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at CS(Mf)3(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



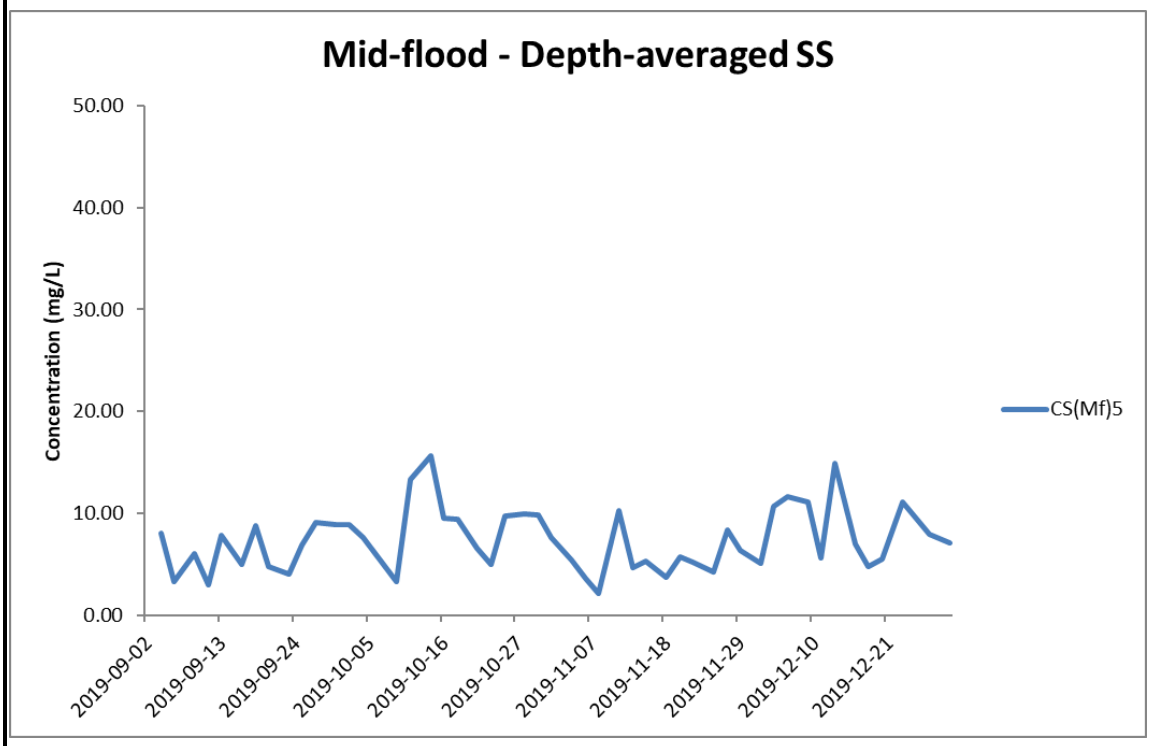
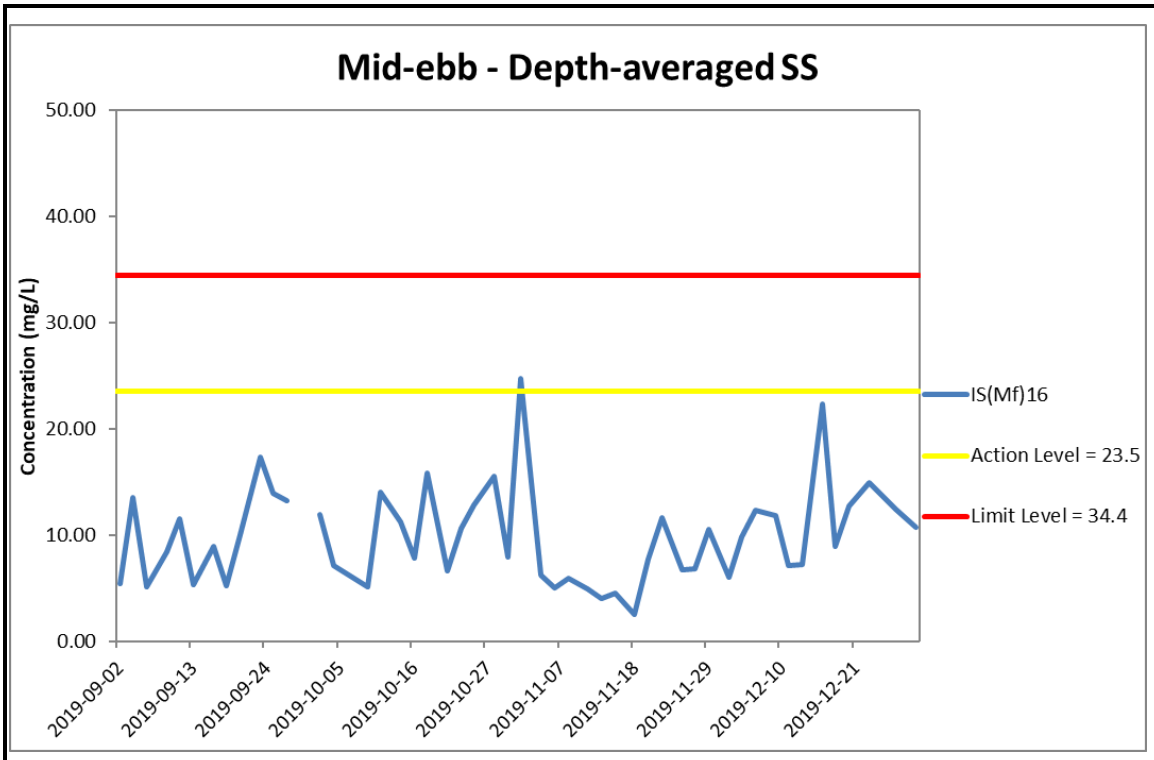


Figure J39 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at CS(Mf)5. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



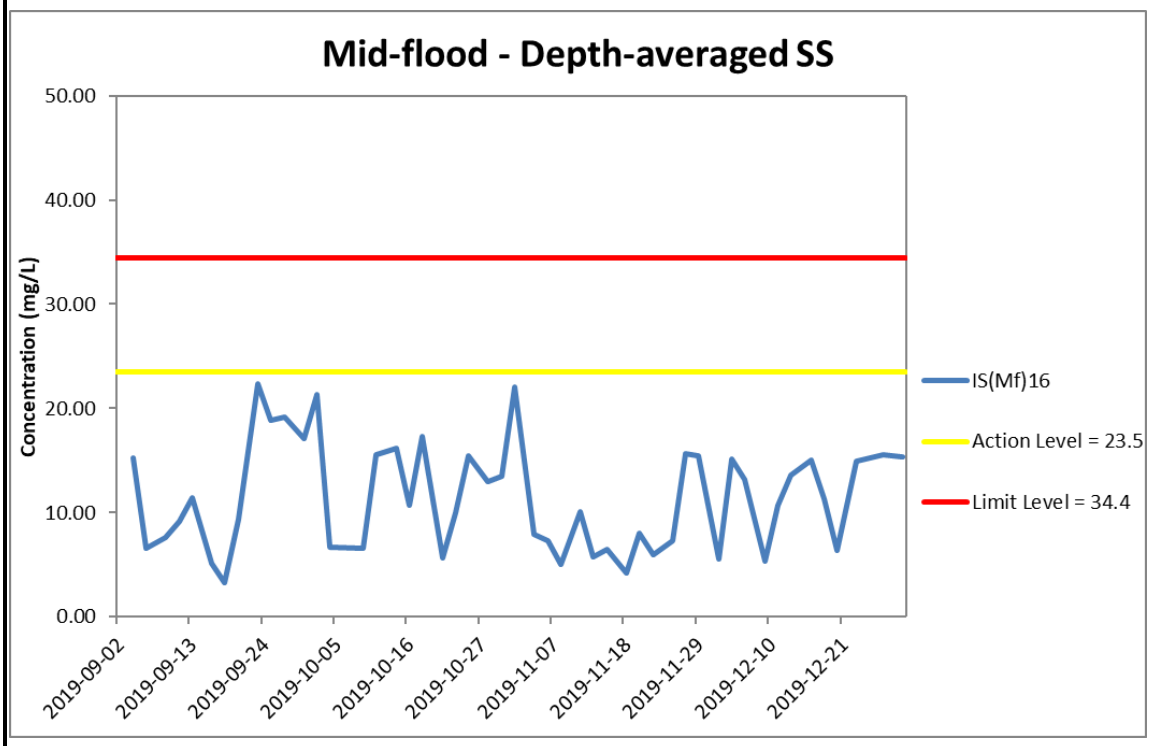
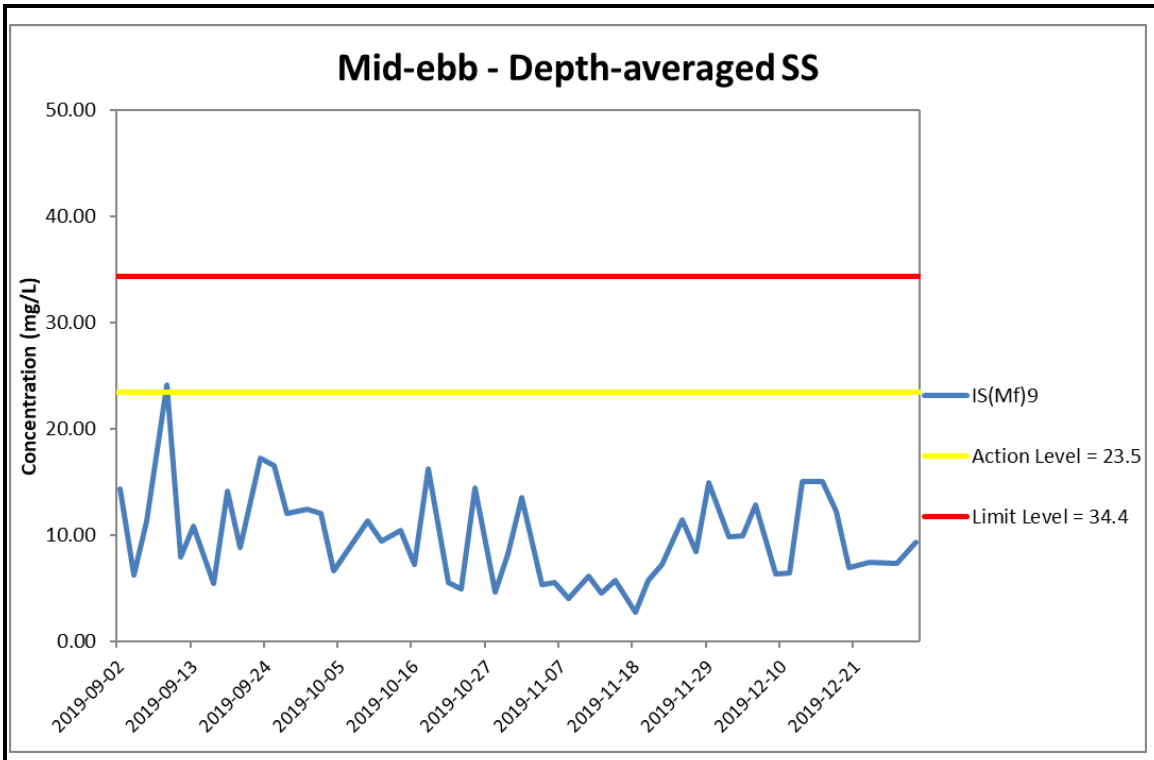


Figure J40 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at IS(Mf)16. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



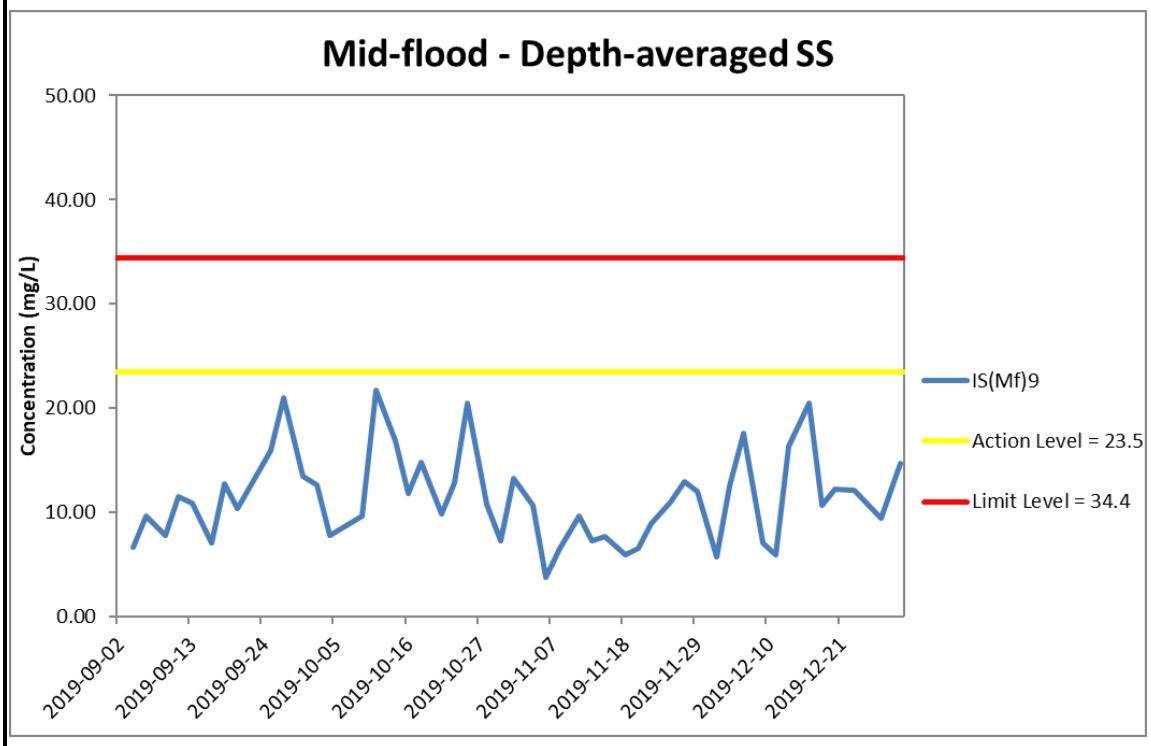
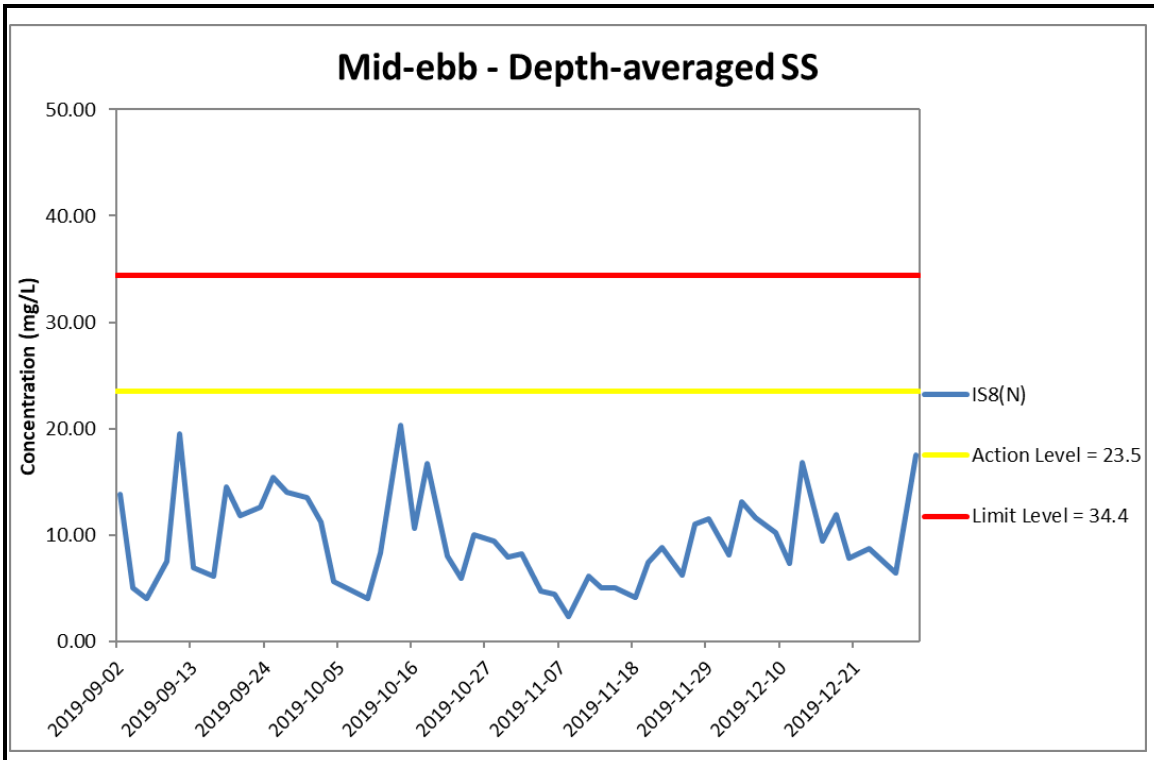


Figure J41 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at IS(Mf)9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



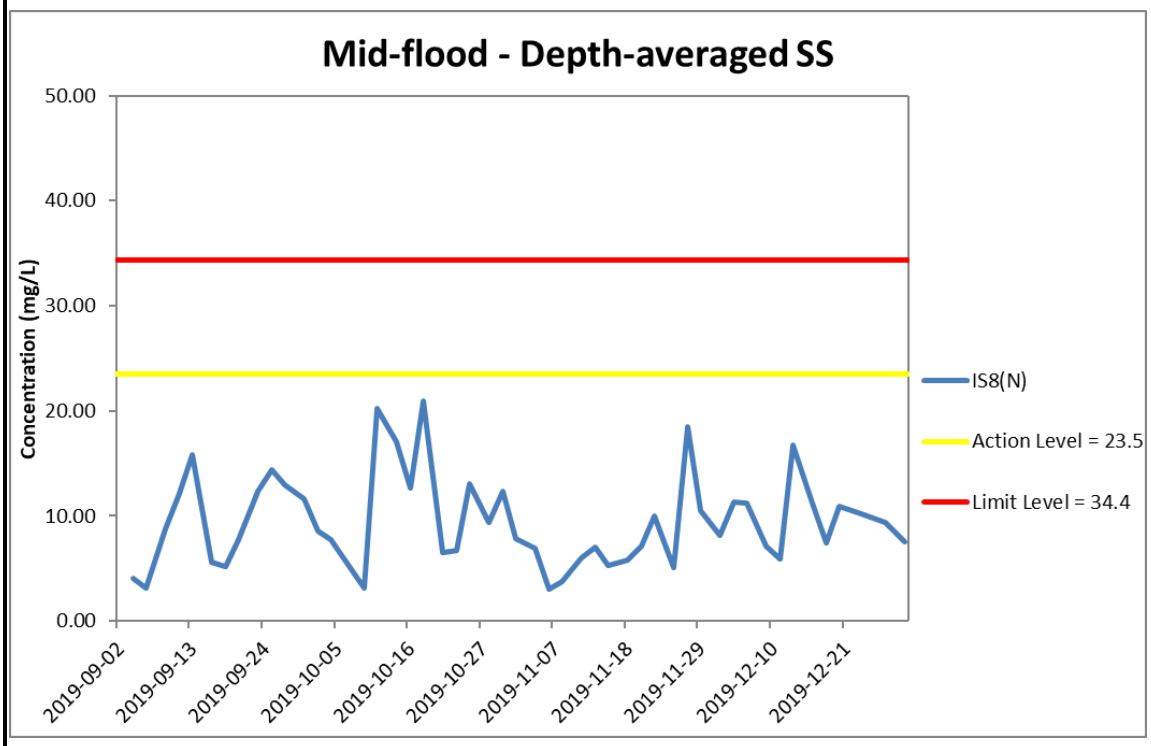
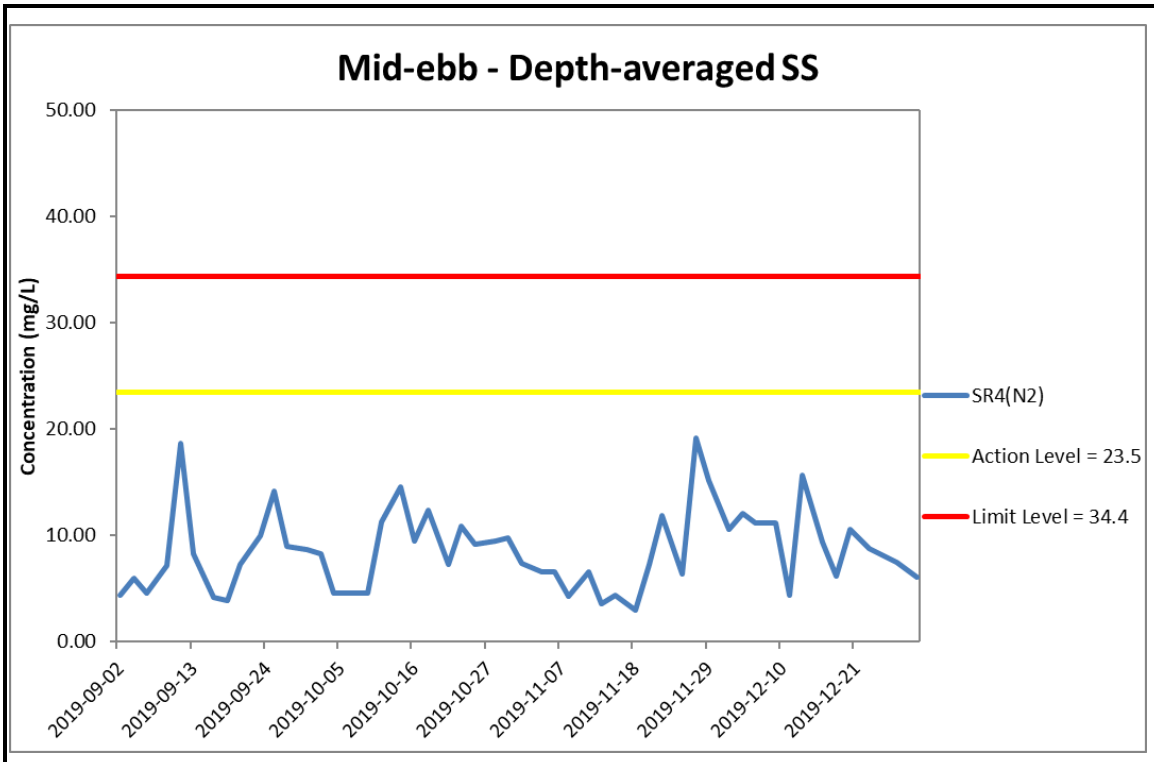


Figure J42 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at IS8(N). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



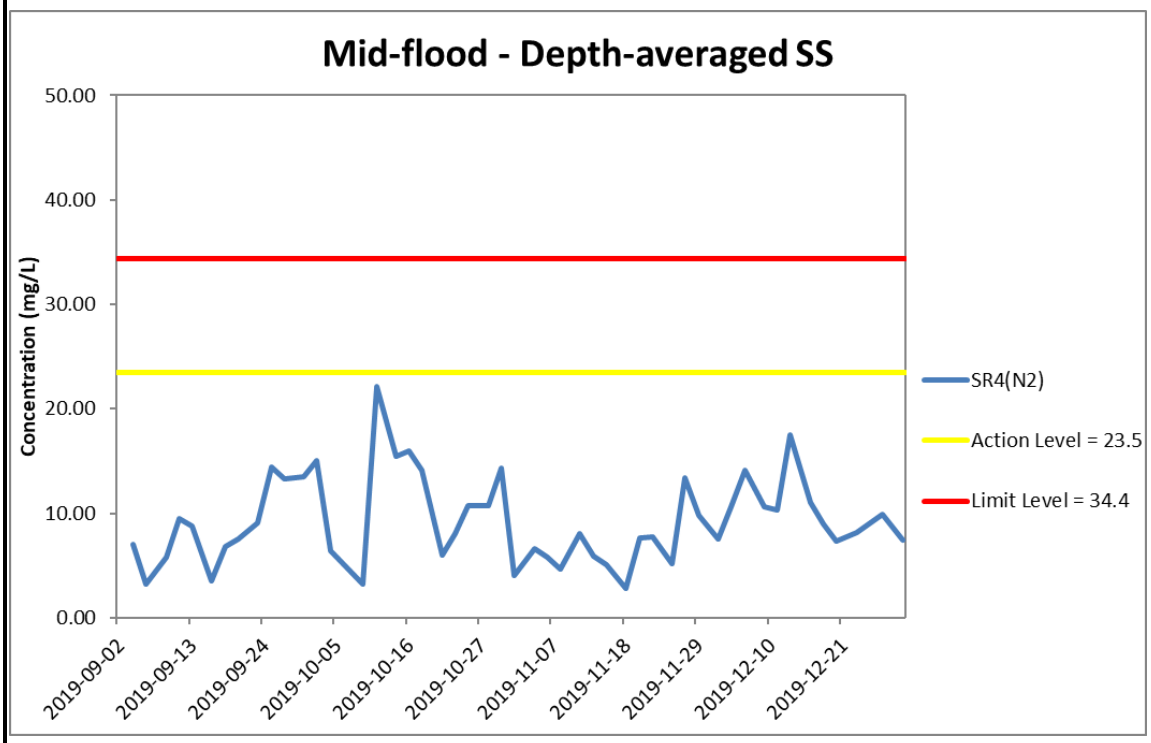
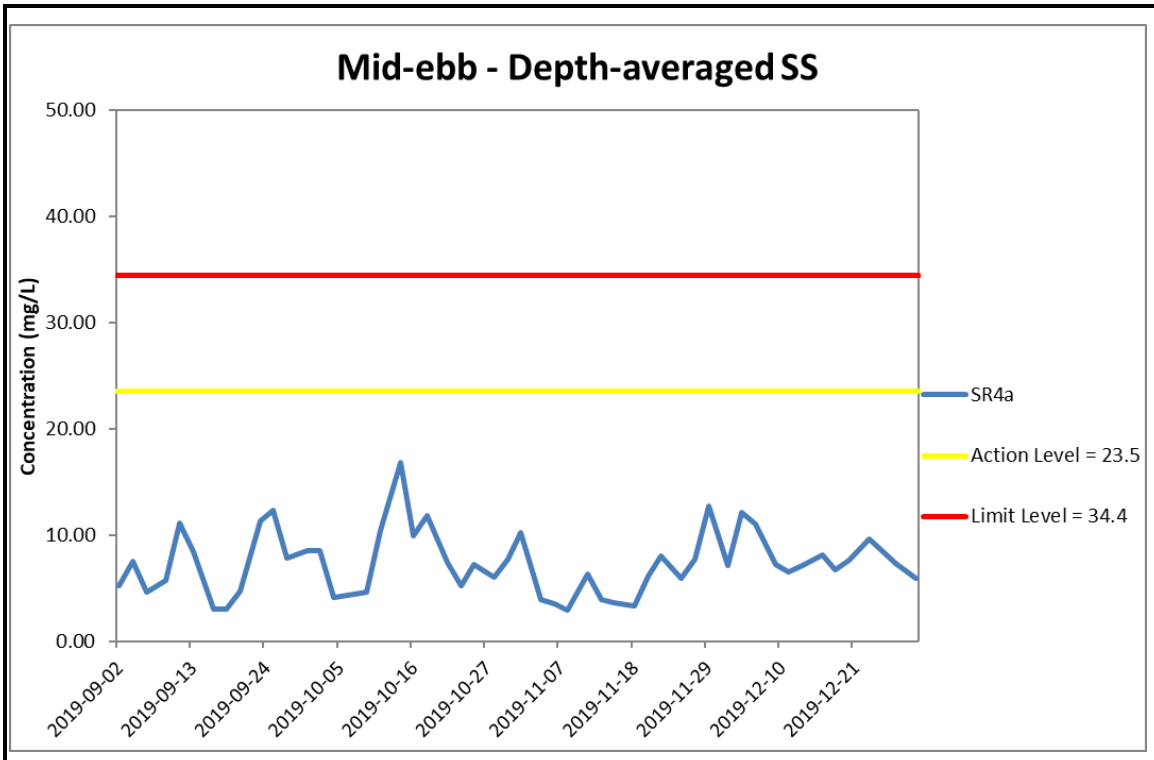


Figure J43 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at SR4(N2). The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls



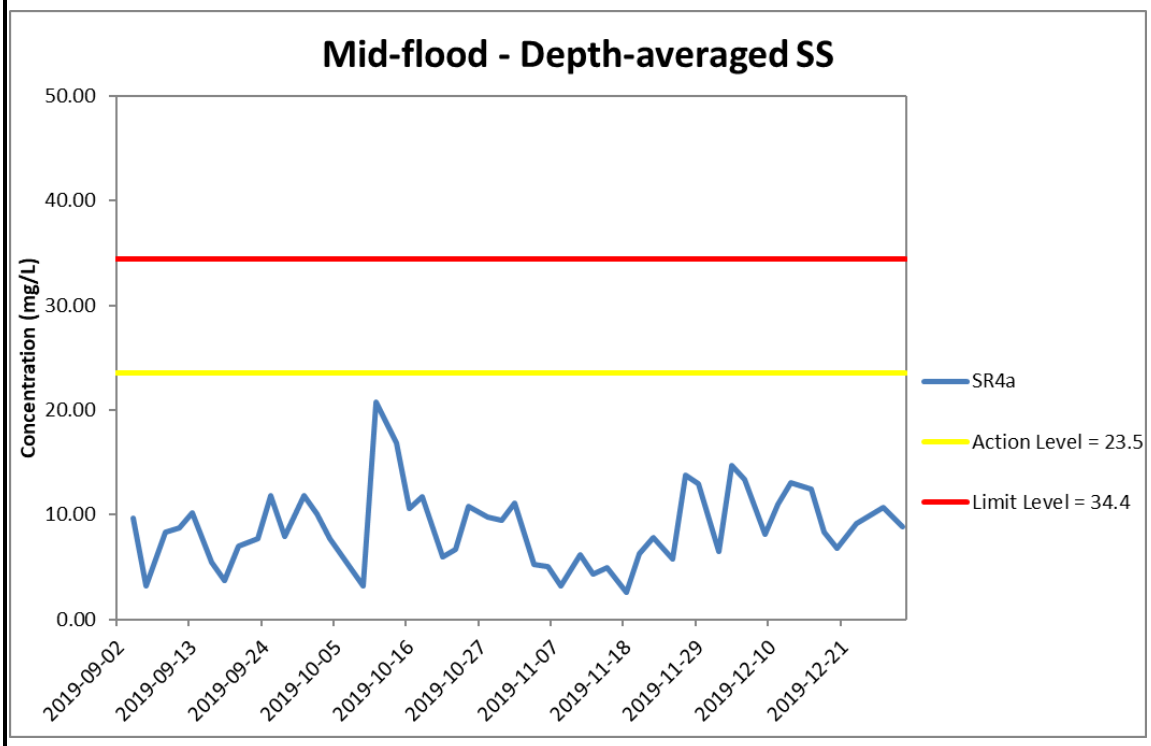


Figure J44 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 September 2019 and 31 December 2019 at SR4a. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Seawall Modification Works at Portion S-B (1/9/2019 – 31/12/2019).

Ref: 0212330_Impact-WQM_December2019_graphs_Rev a.xls

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Surface	1	1	23.4	8.1	32.5	6.1	3.5	4.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Surface	1	2	23.4	8.1	32.4	6.2	3.5	5.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Middle	2	1	23.5	8.1	32.6	6.1	3.9	5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Middle	2	2	23.5	8.1	32.6	6.1	3.6	4.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Bottom	3	1	23.6	8.1	32.7	6.1	5.1	5.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)5	Fine	Moderate	02:47	12.5	Bottom	3	2	23.6	8.1	32.7	6.1	5.2	6.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Surface	1	1	22.6	8.2	30.9	7	6	4.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Surface	1	2	22.6	8.2	30.8	7	5.9	5.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Middle	2	1	22.7	8.2	31.1	7	6.7	8.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Middle	2	2	22.7	8.2	31	7	6.4	7.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Bottom	3	1	22.7	8.2	31.3	7.2	7.2	8.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	03:52	7.2	Bottom	3	2	22.8	8.2	31.3	7.1	7.1	7.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Surface	1	1	22.7	8.2	31.9	6.8	5.8	5.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Surface	1	2	22.7	8.2	31.9	6.8	5.7	5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Bottom	3	1	22.7	8.2	31.9	7	6.2	6.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)16	Fine	Rough	04:36	5.5	Bottom	3	2	22.7	8.2	31.9	6.9	6	7.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Surface	1	1	22.9	8.3	31.9	6.6	7.4	8.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Surface	1	2	22.9	8.3	31.9	6.6	7.5	7.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Bottom	3	1	22.9	8.3	31.9	6.7	9.9	6.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4a	Fine	Calm	04:49	4.7	Bottom	3	2	22.9	8.3	31.9	6.7	8.8	6.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Surface	1	1	22.8	8.3	31.9	6.8	6.9	8.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Surface	1	2	22.9	8.3	31.9	6.8	6.7	7.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Bottom	3	1	22.8	8.3	31.8	7	7.3	13.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR4(N2)	Fine	Calm	05:03	3.2	Bottom	3	2	22.8	8.3	31.8	7	7.3	12.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Surface	1	1	22.8	8.3	31.9	6.8	7.2	7.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Surface	1	2	22.8	8.3	31.9	6.8	7.2	7.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Bottom	3	1	22.8	8.3	31.9	6.8	7.7	8.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS8(N)	Fine	Calm	05:09	3.8	Bottom	3	2	22.8	8.3	31.9	6.8	7.5	8.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Surface	1	1	22.5	8.3	32	7	5.2	9.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Surface	1	2	22.5	8.3	32	7	5.1	10.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Bottom	3	1	22.5	8.3	32	7.2	5.3	9.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)9	Fine	Calm	05:17	3	Bottom	3	2	22.5	8.3	32	7.1	5.3	10.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Surface	1	1	23	8.2	31.4	6.7	4.4	5.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Surface	1	2	23	8.2	31.4	6.7	4.3	5.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Middle	2	1	23	8.2	31.7	6.7	5.3	7.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Middle	2	2	23	8.2	31.6	6.7	5.3	6.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Bottom	3	1	23.2	8.2	32	6.7	5	8.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS(Mf)11	Fine	Rough	04:20	11.2	Bottom	3	2	23.2	8.2	32	6.6	5.1	7.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Surface	1	1	23.1	8.2	32.2	6.5	4.2	4.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Surface	1	2	23.1	8.2	32.2	6.5	4.2	3.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Bottom	3	1	23.1	8.2	32.2	6.6	4.6	5.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	SR7	Fine	Calm	03:18	4.3	Bottom	3	2	23.1	8.2	32.2	6.6	4.6	4.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Surface	1	1	22.9	8.3	31.7	6.6	4.1	5.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Surface	1	2	22.9	8.3	31.7	6.6	4	6.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Middle	2	1	23.1	8.3	31.9	6.5	4.5	5.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Middle	2	2	23.1	8.3	31.9	6.6	4.5	6.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Bottom	3	1	23.1	8.3	32	6.6	5.1	6.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Ebb	IS17	Fine	Rough	04:30	11	Bottom	3	2	23.1	8.3	32	6.6	5.2	5.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Surface	1	1	23.4	8	33.8	6.2	2.7	6.2

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Surface	1	2	23.3	8.2	32.9	6.3	2.8	5.8
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Middle	2	1	23.4	8	33.9	6.2	3	4.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Middle	2	2	23.3	8.2	32.9	6.2	3.2	5.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Bottom	3	1	23.5	8	34	6.1	6.6	4.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)5	Fine	Rough	17:10	12.4	Bottom	3	2	23.4	8.2	33	6.1	6.7	4.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Surface	1	1	22.8	8	32.4	7	10.6	6.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Surface	1	2	22.7	8.2	31.5	7	11.3	7.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Middle	2	1	22.8	8	32.4	6.9	10.7	6.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Middle	2	2	22.7	8.2	31.5	6.9	11.5	5.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Bottom	3	1	22.8	8	32.4	6.9	9.5	6.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	CS(Mf)3(N)	Fine	Rough	16:13	7.2	Bottom	3	2	22.7	8.2	31.5	6.9	10.1	5.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Surface	1	1	22.8	8	32.5	6.9	8	5.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Surface	1	2	22.7	8.2	31.6	7	8.7	6
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Bottom	3	1	22.8	8	32.6	6.8	14	5.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)16	Fine	Moderate	15:27	5.7	Bottom	3	2	22.7	8.2	31.7	6.8	14.8	4.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Surface	1	1	22.7	8	32.8	7.1	6.5	6.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Surface	1	2	22.6	8.2	31.8	7.1	6.9	7.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Bottom	3	1	22.7	8	32.8	7.1	7.2	5.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4a	Fine	Calm	15:14	4.3	Bottom	3	2	22.6	8.2	31.8	7.1	7.8	6.5
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Surface	1	1	22.8	8	32.8	7.2	6.3	7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Surface	1	2	22.8	8.2	31.9	7.2	6.7	8
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Bottom	3	1	22.8	8	32.8	7.2	7.5	7.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR4(N2)	Fine	Calm	15:07	4	Bottom	3	2	22.8	8.2	31.9	7.2	8	8.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Surface	1	1	22.9	8	32.7	7.1	6.8	8.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Surface	1	2	22.8	8.2	31.7	7.1	7	9.1
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Bottom	3	1	22.9	8	32.7	7.1	8.3	7.9
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS8(N)	Fine	Calm	15:01	3.7	Bottom	3	2	22.8	8.2	31.8	7.1	8.8	7.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Surface	1	1	22.8	8	32.7	7	8.5	6.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Surface	1	2	22.8	8.2	31.7	7	9.3	6.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Bottom	3	1	22.8	8	32.7	6.9	9	4.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)9	Fine	Calm	14:54	3.2	Bottom	3	2	22.7	8.2	31.8	7	9.3	5.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Surface	1	1	22.8	8	32.6	6.8	5.5	5.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Surface	1	2	22.8	8.2	31.6	6.9	5.7	5.6
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Middle	2	1	22.9	8	32.6	6.7	6.4	5.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Middle	2	2	22.8	8.2	31.7	6.8	6.4	6.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Bottom	3	1	22.9	8	32.7	6.7	9.3	7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS(Mf)11	Fine	Rough	15:44	11.1	Bottom	3	2	22.9	8.2	31.7	6.7	10.3	6
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Surface	1	1	23	8	33	6.6	4.2	7.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Surface	1	2	22.9	8.2	32.1	6.6	4.8	6.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Bottom	3	1	23.1	8	33.1	6.5	5.3	7.3
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	SR7	Fine	Rough	16:47	4.1	Bottom	3	2	23.1	8.2	32.2	6.5	5.6	8.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Surface	1	1	23.1	8	33	6.6	4.3	6
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Surface	1	2	23	8.2	32	6.6	4.6	5.7
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Middle	2	1	23.2	8	33.1	6.4	5.5	6.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Middle	2	2	23.1	8.2	32.1	6.4	5.8	5.4
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Bottom	3	1	23.3	8	33.3	6.3	8.6	5.2
TMCLKL	HY/2012/08	2019-12-02	Mid-Flood	IS17	Fine	Rough	15:35	10.8	Bottom	3	2	23.2	8.2	32.3	6.3	9.6	5.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Surface	1	1	15.8	8.2	33.7	7.6	3.1	9.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Surface	1	2	15.8	8	34.7	7.5	2.6	9.5

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Middle	2	1	17.1	8.2	33.2	7.4	3.3	8.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Middle	2	2	17.2	8	34.2	7.4	2.9	7.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Bottom	3	1	18.3	8.1	32.2	7.4	3.5	6.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	05:23	12.2	Bottom	3	2	18.4	8	33	7.4	4	12.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Surface	1	1	20.9	8.2	32.2	7.1	4.1	7.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Surface	1	2	20.9	8	33.2	7.1	3.9	7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Middle	2	1	20.9	8.2	32.3	7.1	4.4	7.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Middle	2	2	20.9	8	33.3	7.1	4.2	8.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Bottom	3	1	20.8	8.2	32.5	7.1	7.5	7.3
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	06:19	6.7	Bottom	3	2	20.9	8	33.4	7.1	6.5	7.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Surface	1	1	19.6	8.2	32.5	7.4	12.1	9.2
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Surface	1	2	19.7	8	33.4	7.3	10.9	10.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Bottom	3	1	19.4	8.2	32.2	7.4	6.1	9.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	07:00	5.8	Bottom	3	2	19.5	8	33.1	7.3	5.2	10.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Surface	1	1	20.2	8.2	32.2	7.2	6.3	15.3
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Surface	1	2	20.2	8	33.1	7.2	6.1	14.3
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Bottom	3	1	18.9	8.2	32.4	7.3	7.6	9.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4a	Cloudy	Moderate	07:07	4.5	Bottom	3	2	19	8	33.3	7.2	7.1	10
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Surface	1	1	20.4	8.2	32.2	7.1	8.1	12.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Surface	1	2	20.5	8	33.2	7.1	7.6	12.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Bottom	3	1	20.5	8.2	32.1	7.2	8.5	10.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR4(N2)	Cloudy	Moderate	07:11	3.8	Bottom	3	2	20.5	8	33.1	7.1	7.9	11.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Surface	1	1	19.1	8.2	32.3	7.3	7.1	10.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Surface	1	2	19.1	8	33.3	7.2	6.1	9.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Bottom	3	1	20.2	8.2	32.2	7.1	7.4	16.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS8(N)	Cloudy	Moderate	07:16	3.6	Bottom	3	2	20.3	8	33.2	7.1	6.4	15.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Middle	2	1	20.1	8.2	32.2	7.1	5.8	9.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Middle	2	2	20.1	8	33.2	7	5	10.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)9	Cloudy	Moderate	07:23	2.8	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Surface	1	1	18.6	8	32.1	8	10	10
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Surface	1	2	19	7.9	33.1	7.9	10	11.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Middle	2	1	19.3	8.1	32.1	7.5	7.1	7.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Middle	2	2	19.3	7.9	33.3	7.4	7.2	8.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Bottom	3	1	16.8	8.1	31.7	7.8	6.8	7.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	06:47	11.5	Bottom	3	2	16.7	7.9	32.6	7.8	6.2	6.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Surface	1	1	17.8	8.2	32.8	7.5	2.8	7.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Surface	1	2	17.8	8	33.8	7.5	2.8	8.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Bottom	3	1	15.9	8.2	33.8	7.6	2.6	11.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	SR7	Cloudy	Moderate	05:24	4.6	Bottom	3	2	16	8	34.8	7.6	2.4	10
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Surface	1	1	19.4	8.2	32.2	7.4	5.9	12.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Surface	1	2	19.6	8	33.1	7.3	5.4	14.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Middle	2	1	19.1	8.2	32.6	7.4	7.1	11.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Middle	2	2	19.1	8	33.7	7.3	7.5	10.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Bottom	3	1	18.9	8.2	32.2	7.4	7.2	9.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Ebb	IS17	Cloudy	Moderate	06:54	7.9	Bottom	3	2	19	8	33.3	7.3	8.1	9.2
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Surface	1	1	21.5	8.1	32.5	6.9	7	12.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Surface	1	2	21.6	7.9	33.5	6.9	6.4	11.2
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Middle	2	1						10.7

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Middle	2	2						9.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Bottom	3	1	21.5	8.1	32.6	6.9	6.9	9.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)5	Cloudy	Moderate	15:12	12.4	Bottom	3	2	21.6	7.9	33.6	6.9	6.3	10.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Surface	1	1	21.7	8.1	32.7	6.9	5.5	12.3
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Surface	1	2	21.8	8	33.6	6.8	5.1	10.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Middle	2	1	21.8	8.1	32.8	6.7	6.9	11.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Middle	2	2	21.8	8	33.7	6.7	6.4	10.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Bottom	3	1	21.8	8.1	32.8	6.7	9.7	9.2
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	13:47	7.6	Bottom	3	2	21.9	8	33.8	6.7	9.5	9.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Surface	1	1	21.7	8.1	32.5	7	9.1	13.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Surface	1	2	21.7	8	33.5	6.9	9.2	14.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Bottom	3	1	21.8	8.1	32.8	6.9	7.6	15.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)16	Cloudy	Moderate	13:30	5.8	Bottom	3	2	21.9	8	33.8	6.9	7.2	17
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Surface	1	1	21.4	8.1	32.4	6.9	7.6	15.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Surface	1	2	21.5	7.9	33.4	6.8	7	14.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Bottom	3	1	21.5	8.1	32.6	7	8.4	15.2
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4a	Cloudy	Moderate	13:18	4.6	Bottom	3	2	21.6	7.9	33.6	6.9	8.6	13.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Surface	1	1	21.2	8.1	32.3	6.9	6.6	12.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Surface	1	2	21.3	7.9	33.3	6.9	5.9	11.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Bottom	3	1	21.2	8	32.3	7	7.2	10
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR4(N2)	Cloudy	Moderate	13:14	3.5	Bottom	3	2	21.3	7.9	33.3	7	7.1	9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Surface	1	1	21.5	8.1	32.5	6.9	7	9.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Surface	1	2	21.6	7.9	33.5	6.9	6.4	10.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Bottom	3	1	21.5	8.1	32.6	6.9	6.9	12.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS8(N)	Cloudy	Moderate	13:07	3.7	Bottom	3	2	21.6	7.9	33.6	6.9	6.3	12.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Middle	2	1	21.8	8	32.8	6.9	7.8	13.1
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Middle	2	2	21.8	7.9	33.7	6.9	7.2	11.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)9	Cloudy	Moderate	13:00	2.8	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Surface	1	1	21.8	8.1	32.8	6.7	4.4	11.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Surface	1	2	21.9	8	33.7	6.7	4.2	12.6
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Middle	2	1	21.8	8.1	32.8	6.7	5.2	11.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Middle	2	2	21.8	8	33.8	6.6	5.7	13.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Bottom	3	1	21.8	8.1	32.8	6.7	6.6	15.5
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS(Mf)11	Cloudy	Moderate	13:40	11.1	Bottom	3	2	21.8	8	33.8	6.7	6	15.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Surface	1	1	21.9	8.1	32.9	6.9	4.3	10.3
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Surface	1	2	21.9	8	33.9	6.9	4.1	9.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Bottom	3	1	21.9	8.1	32.9	6.9	4.5	10.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	SR7	Cloudy	Moderate	14:47	4.6	Bottom	3	2	21.9	8	33.9	6.9	4.7	11
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Surface	1	1	21.8	8.1	32.8	6.7	4.4	18.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Surface	1	2	21.9	8	33.7	6.7	4.2	16.9
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Middle	2	1	21.8	8.1	32.8	6.7	5.2	10.4
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Middle	2	2	21.8	8	33.8	6.6	5.7	11.8
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Bottom	3	1	21.8	8	32.8	6.7	6.6	10.7
TMCLKL	HY/2012/08	2019-12-04	Mid-Flood	IS17	Cloudy	Moderate	13:39	7.6	Bottom	3	2	21.8	8	33.8	6.7	6	9.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Surface	1	1	21.8	8.1	33.6	6.6	2.5	10.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Surface	1	2	21.8	8	34.6	6.6	2.4	11.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Middle	2	1	21.8	8.1	33.6	6.6	2.2	8.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Middle	2	2	21.8	7.9	34.6	6.6	2.3	8.3

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Bottom	3	1	21.7	8.1	33.6	6.6	2.3	7.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:53	12.6	Bottom	3	2	21.8	7.9	34.6	6.6	2.2	7.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Surface	1	1	20.1	8.1	33.1	7.1	5.6	8.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Surface	1	2	20.1	8.1	34.1	7	5.2	8.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Middle	2	1	20.1	8.1	33.1	7.1	5.6	7.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Middle	2	2	20.1	8.1	34.1	7	5.2	7.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Bottom	3	1	19.9	8.1	33.1	7.1	6.1	6.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:50	7.1	Bottom	3	2	20	8	34.1	7.1	5.7	5.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Surface	1	1	20.1	8.1	33.1	6.9	8.3	11.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Surface	1	2	20.2	8	34.1	6.9	7.5	11.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Bottom	3	1	20.1	8.1	33.1	7	12.7	13.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)16	Fine	Moderate	08:38	5.4	Bottom	3	2	20.2	8	34.1	6.9	12.8	13.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Surface	1	1	19.9	8.1	33	6.8	6.3	8.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Surface	1	2	20	8	34	6.8	5.7	8.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Bottom	3	1	19.9	8.1	33	6.9	5.8	13.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4a	Fine	Calm	08:50	4.3	Bottom	3	2	20	8	34	6.8	5.5	13.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Surface	1	1	19.4	8.1	32.4	6.7	5.9	11.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Surface	1	2	19.5	8	33.4	6.7	5.2	11.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Bottom	3	1	19.7	8.1	32.6	6.8	5.6	10.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR4(N2)	Fine	Calm	08:56	4	Bottom	3	2	19.7	8	33.6	6.7	5.4	10.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Surface	1	1	19.3	8.2	32.5	7.1	7.2	11.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Surface	1	2	19.4	8.1	33.5	7.1	6.6	12.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Bottom	3	1	19.4	8.2	32.5	7.1	8.3	10.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS8(N)	Fine	Calm	09:06	3.7	Bottom	3	2	19.5	8.1	33.5	7.1	7.1	11.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Surface	1	1	19.5	8.1	32.5	7.2	8	11.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Surface	1	2	19.6	8.1	33.5	7.1	7.6	12.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Bottom	3	1	19.5	8.1	32.5	7.2	7.4	13.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)9	Fine	Calm	09:16	3.2	Bottom	3	2	19.5	8	33.5	7.2	6.9	13.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Surface	1	1	20.8	8.1	33.3	6.8	4.6	7.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Surface	1	2	20.9	8.1	34.3	6.7	4.4	7.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Middle	2	1	20.8	8.1	33.3	6.8	4.9	8.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Middle	2	2	20.9	8.1	34.3	6.7	4.4	9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Bottom	3	1	20.8	8.1	33.3	6.8	4.8	9.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS(Mf)11	Cloudy	Rough	08:19	10.8	Bottom	3	2	20.9	8	34.3	6.7	4.4	9.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Surface	1	1	21.3	8.1	33.5	6.7	3	6.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Surface	1	2	21.4	8	34.5	6.6	3	6.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Bottom	3	1	21.3	8.1	33.5	6.7	3.3	8.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	SR7	Cloudy	Rough	07:20	4.5	Bottom	3	2	21.4	8	34.6	6.7	3	8.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Surface	1	1	21	8.1	33.4	6.8	4.1	7.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Surface	1	2	21	8	34.4	6.7	3.8	7.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Middle	2	1	21	8.1	33.4	6.7	4.4	8
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Middle	2	2	21.1	8	34.4	6.7	4.1	8.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Bottom	3	1	21	8.1	33.4	6.7	5	9
TMCLKL	HY/2012/08	2019-12-06	Mid-Ebb	IS17	Cloudy	Moderate	08:30	10.6	Bottom	3	2	21.1	8	34.4	6.7	4.8	9.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Surface	1	1	21.7	8.1	33.6	6.6	6.7	11.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Surface	1	2	21.8	8	34.5	6.6	6.1	11.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Middle	2	1	21.7	8.1	33.6	6.6	6.2	11.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Middle	2	2	21.8	8	34.5	6.6	5.7	11.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Bottom	3	1	21.7	8.1	33.6	6.6	9.6	11.9

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)5	Fine	Moderate	16:16	12.5	Bottom	3	2	21.8	8	34.5	6.6	9.4	12.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Surface	1	1	20.2	8.1	33.2	7.3	7.2	14.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Surface	1	2	20.2	8.1	34.2	7.3	6.2	14.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Middle	2	1	20.2	8.1	33.2	7.3	7.3	11
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Middle	2	2	20.2	8	34.2	7.3	6.6	10.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Bottom	3	1	20.1	8.1	33.2	7.3	8	9.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	CS(Mf)3(N)	Fine	Rough	15:17	7	Bottom	3	2	20.1	8	34.2	7.3	7.4	9
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Surface	1	1	20.9	8.1	33.4	7	5.6	11.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Surface	1	2	21	8	34.4	7	5.2	12.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Bottom	3	1	20.9	8.1	33.4	7	12.2	13.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)16	Fine	Moderate	14:33	5.7	Bottom	3	2	21	8	34.4	7	11.5	14.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Surface	1	1	20	8.1	32.9	7.2	8.6	14
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Surface	1	2	20.1	8	33.9	7.1	8.1	14.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Bottom	3	1	20	8.1	33	7	7.6	12.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4a	Fine	Calm	14:21	4.4	Bottom	3	2	20.1	8	34	7	7.4	12.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Surface	1	1	19.9	8.1	32.6	7.1	6.5	12.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Surface	1	2	19.9	8	33.6	7	6	12.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Bottom	3	1	20	8.1	33	7.1	8.5	15.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR4(N2)	Fine	Calm	14:14	4.1	Bottom	3	2	20	8	34	7	8	16.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Surface	1	1	20	8.1	32.9	7.2	5.6	10.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Surface	1	2	20	8	33.9	7.2	5.1	10.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Bottom	3	1	20	8.1	33	7.2	6.7	12
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS8(N)	Fine	Calm	14:06	3.6	Bottom	3	2	20.1	8	34	7.2	6.4	11.4
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Surface	1	1	20	8.1	32.9	7.1	10	16.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Surface	1	2	20	8	33.8	7.1	9.4	16.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Bottom	3	1	19.9	8.1	32.8	7.1	10.7	18.8
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)9	Fine	Calm	13:57	3.3	Bottom	3	2	20	8	33.9	7.1	9.7	18.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Surface	1	1	20.7	8.1	33.3	7	7.8	17
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Surface	1	2	20.7	8	34.2	6.9	7.2	16.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Middle	2	1	20.7	8.1	33.3	6.9	9.4	14.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Middle	2	2	20.7	8	34.3	6.9	8.7	14.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Bottom	3	1	20.6	8.1	33.2	6.9	9.7	12.9
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS(Mf)11	Fine	Rough	14:51	11.1	Bottom	3	2	20.6	8	34.2	6.9	9.1	12.3
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Surface	1	1	21.5	8.1	33.6	6.9	3.6	12.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Surface	1	2	21.5	8	34.6	6.9	3.5	12.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Bottom	3	1	21.5	8.1	33.6	6.9	4.1	11.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	SR7	Fine	Rough	15:51	4.5	Bottom	3	2	21.5	8	34.6	6.9	3.8	11.1
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Surface	1	1	21.5	8.1	33.5	6.9	2.7	13.5
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Surface	1	2	21.5	8	34.5	6.8	2.6	13.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Middle	2	1	21.4	8.1	33.5	6.9	3.6	12.2
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Middle	2	2	21.4	8	34.5	6.8	3.4	11.6
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Bottom	3	1	21.2	8.1	33.5	6.9	5.2	13.7
TMCLKL	HY/2012/08	2019-12-06	Mid-Flood	IS17	Fine	Moderate	14:42	10.9	Bottom	3	2	21.2	8	34.5	6.9	4.9	14
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Surface	1	1	20.7	8	34.6	6.6	2.8	5.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Surface	1	2	20.7	8.2	33.6	6.7	3	6.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Middle	2	1	20.7	8	34.6	6.6	3	6.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Middle	2	2	20.6	8.2	33.6	6.7	3.2	6.6
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Bottom	3	1	20.7	8	34.6	6.6	2.8	6.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)5	Sunny	Moderate	09:34	12.5	Bottom	3	2	20.6	8.2	33.6	6.7	3.3	7

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Surface	1	1	19.3	8	34.6	7.4	5.2	12.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Surface	1	2	19.2	8.2	33.6	7.4	5.7	11.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Middle	2	1	19.2	8	34.6	7.3	5.9	10.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Middle	2	2	19.2	8.2	33.6	7.3	6.2	10.7
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Bottom	3	1	19.2	8	34.6	7.3	5.7	9.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:34	7.3	Bottom	3	2	19.1	8.2	33.6	7.3	7.2	10
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Surface	1	1	19.8	8	34.4	7.1	8.9	11.7
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Surface	1	2	19.7	8.2	33.4	7.1	8.4	10.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Bottom	3	1	19.8	8	34.4	7.2	10.6	13.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)16	Sunny	Calm	11:12	5.4	Bottom	3	2	19.7	8.2	33.4	7.2	10.1	11.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Surface	1	1	20.1	8	34.5	7.1	3.3	6.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Surface	1	2	20.1	8.2	33.5	7.1	3.6	7.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Bottom	3	1	19.9	8	34.5	7.2	3.6	7.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4a	Sunny	Calm	11:21	4.4	Bottom	3	2	19.9	8.2	33.4	7.2	4	8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Surface	1	1	19.6	8	34.2	7.1	4.7	9.6
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Surface	1	2	19.6	8.2	33.2	7.1	5.1	9.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Bottom	3	1	19.7	8	34.3	7.1	4	13.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR4(N2)	Sunny	Calm	11:27	3.3	Bottom	3	2	19.7	8.2	33.3	7.2	4.3	12.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Surface	1	1	19.9	8	34.5	7.1	5.1	8.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Surface	1	2	19.8	8.2	33.5	7.2	5.6	10.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Bottom	3	1	19.8	8	34.4	7.1	5.7	11.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS8(N)	Sunny	Calm	11:33	4	Bottom	3	2	19.7	8.2	33.4	7.2	6.4	11
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Surface	1	1	19.8	8	34.4	7.1	4.4	8.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Surface	1	2	19.7	8.2	33.4	7.1	4.9	8.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Bottom	3	1	19.6	8	34.4	7.2	4.5	4.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)9	Sunny	Calm	11:41	3.1	Bottom	3	2	19.5	8.2	33.3	7.3	5.1	3.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Surface	1	1	20.3	8	34.6	7	3.2	6.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Surface	1	2	20.3	8.2	33.6	7	3.2	6.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Middle	2	1	20	8	34.6	7	5	10.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Middle	2	2	20	8.2	33.6	7	5.2	10.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Bottom	3	1	19.9	8	34.6	7	5.9	10.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS(Mf)11	Cloudy	Rough	10:58	11.2	Bottom	3	2	19.8	8.2	33.5	7	6.8	11
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Surface	1	1	20.1	8	34.5	6.9	4.1	8.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Surface	1	2	20.1	8.2	33.5	6.9	4.4	9.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Bottom	3	1	20.1	8	34.6	6.9	4.4	5.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	SR7	Cloudy	Rough	10:01	4.5	Bottom	3	2	20.1	8.2	33.5	6.9	4.8	4.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Surface	1	1	20.2	8	34.5	7	4.1	5.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Surface	1	2	20.1	8.2	33.5	7.1	4.8	6.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Middle	2	1	19.8	8	34.5	7	5.9	9
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Middle	2	2	19.8	8.2	33.5	7.1	6.7	8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Bottom	3	1	19.8	8	34.5	7	7.6	8
TMCLKL	HY/2012/08	2019-12-09	Mid-Ebb	IS17	Sunny	Moderate	11:05	10.1	Bottom	3	2	19.7	8.2	33.5	7.1	8	8.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Surface	1	1	20.7	8.2	33.6	6.7	5.1	12.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Surface	1	2	20.8	8	34.5	6.7	5.3	12.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Middle	2	1	20.7	8.2	33.6	6.7	6	10.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Middle	2	2	20.7	8	34.6	6.6	5.2	10.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Bottom	3	1	20.7	8.2	33.6	6.7	6.9	10.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)5	Fine	Moderate	17:09	12.5	Bottom	3	2	20.7	8	34.6	6.7	6.1	11
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Surface	1	1	19.6	8.2	33.5	7.6	6	11.8

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Surface	1	2	19.7	8	34.5	7.6	5.2	12.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Middle	2	1	19.6	8.2	33.5	7.6	6	10.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Middle	2	2	19.7	8	34.5	7.5	5.2	10.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Bottom	3	1	19.6	8.2	33.5	7.6	5.5	8.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	16:11	7	Bottom	3	2	19.7	8	34.6	7.5	4.9	9.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Surface	1	1	20.4	8.2	33.5	7	6.5	5.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Surface	1	2	20.5	8	34.5	7	6	5.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Bottom	3	1	20.4	8.2	33.5	7	8.3	5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)16	Fine	Moderate	15:35	5.3	Bottom	3	2	20.4	8	34.6	7	7.7	6
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Surface	1	1	20.6	8.2	33.4	7.3	3	6.7
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Surface	1	2	20.6	8	34.4	7.2	2.9	6.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Bottom	3	1	20.2	8.2	33.4	7.3	3.6	9.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4a	Fine	Calm	15:25	4.2	Bottom	3	2	20.2	8	34.5	7.3	3.5	10.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Surface	1	1	20.1	8.2	33.4	7.3	3.5	9.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Surface	1	2	20.2	8	34.4	7.3	3.4	8.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Bottom	3	1	20.1	8.2	33.5	7.4	3.4	11.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR4(N2)	Fine	Calm	15:21	3.2	Bottom	3	2	20.2	8	34.5	7.4	3.3	12.7
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Surface	1	1	20.2	8.2	33.5	7	11	5.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Surface	1	2	20.3	8	34.5	7	10	6.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Bottom	3	1	20.2	8.2	33.5	7.1	10.3	8.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS8(N)	Fine	Calm	15:15	3.7	Bottom	3	2	20.3	8	34.5	7.1	9.5	8.8
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Surface	1	1	19.7	8.2	33.3	7.4	6.6	8.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Surface	1	2	19.8	8	34.3	7.3	6	8.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Bottom	3	1	19.7	8.2	33.3	7.4	7	5.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)9	Fine	Calm	15:10	3	Bottom	3	2	19.8	8	34.3	7.3	6.2	6.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Surface	1	1	20.2	8.2	33.5	7.1	9.9	9.6
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Surface	1	2	20.2	8	34.5	7	8.6	8.7
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Middle	2	1	20.2	8.2	33.5	7	9.9	18.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Middle	2	2	20.2	8	34.5	7	9.2	17
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Bottom	3	1	20.1	8.2	33.5	7	10	14.9
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS(Mf)11	Fine	Moderate	15:48	11	Bottom	3	2	20.2	8	34.5	7	9	14.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Surface	1	1	20.4	8.2	33.6	7.1	6.3	11.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Surface	1	2	20.4	8	34.5	7.2	5.5	10.2
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Bottom	3	1	20.4	8.2	33.6	7.1	6	11.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	SR7	Fine	Moderate	16:45	4.3	Bottom	3	2	20.4	8	34.5	7.2	5.6	12
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Surface	1	1	20.3	8.2	33.6	7.3	2.9	7.1
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Surface	1	2	20.4	8	34.6	7.2	2.8	6.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Middle	2	1	20.1	8.2	33.5	7.1	5.7	7.3
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Middle	2	2	20.2	8	34.5	7	5.1	7.5
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Bottom	3	1	20.1	8.2	33.5	7	6.2	7.4
TMCLKL	HY/2012/08	2019-12-09	Mid-Flood	IS17	Fine	Moderate	15:42	9.9	Bottom	3	2	20.2	8	34.5	7	5.9	6.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Surface	1	1	20.5	8.2	33.6	6.6	3.4	4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Surface	1	2	20.5	8.1	34.6	6.6	3.4	3.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Middle	2	1	20.4	8.2	33.5	6.6	4.4	3.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Middle	2	2	20.4	8	34.6	6.6	4.3	4.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Bottom	3	1	20.3	8.2	33.5	6.6	4.6	4.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)5	Sunny	Calm	10:55	14.2	Bottom	3	2	20.4	8	34.6	6.6	4.5	4.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Surface	1	1	19.7	8.2	33.1	7.4	5.9	4.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Surface	1	2	19.8	8	34.1	7.3	5.9	5

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Middle	2	1	19.6	8.2	33.3	7.3	9.4	6.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Middle	2	2	19.6	8	34.3	7.3	9.3	5.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Bottom	3	1	19.5	8.2	33.5	7.3	14.1	6.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	11:51	7	Bottom	3	2	19.5	8	34.5	7.3	14	5.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Surface	1	1	20	8.2	33.5	7.1	11.8	7.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Surface	1	2	20.1	8	34.5	7.1	11.7	6.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Bottom	3	1	20	8.2	33.5	7.1	12.6	7.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:30	4.6	Bottom	3	2	20	8	34.5	7.1	12.6	6.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Surface	1	1	19.9	8.2	33.5	7	6.8	7.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Surface	1	2	20.6	8	34.5	7.2	6.8	6.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Bottom	3	1	20.5	8.2	33.5	7.3	3.5	6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4a	Sunny	Calm	12:41	4.3	Bottom	3	2	20.2	8	34.5	7.2	3.5	6.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Surface	1	1	20	8.2	33.5	7.1	6.7	4.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Surface	1	2	20	8	34.4	7.1	6.7	5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Bottom	3	1	20	8.2	33.5	7.1	7.6	4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR4(N2)	Sunny	Calm	12:48	3.5	Bottom	3	2	20	8	34.5	7.1	7.7	4.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Surface	1	1	20.1	8.2	33.4	7.2	8.8	4.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Surface	1	2	20.1	8.1	34.4	7.2	8	12.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Bottom	3	1	20	8.2	33.5	7.2	8.1	6.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS8(N)	Sunny	Calm	12:54	3.6	Bottom	3	2	20.1	8	34.4	7.2	8.1	6.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Surface	1	1	20.1	8.2	33.5	7.4	5.6	6.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Surface	1	2	20.2	8	34.4	7.3	5.5	5.7
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Bottom	3	1	19.7	8.2	33.4	7.2	9.6	6.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)9	Sunny	Calm	13:03	3.4	Bottom	3	2	19.7	8	34.4	7.2	9.5	6.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Surface	1	1	20.1	8.2	33.6	7.3	3.7	6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Surface	1	2	20.2	8	34.6	7.2	3.8	7
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Middle	2	1	19.8	8.2	33.6	7.2	4.6	6.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Middle	2	2	19.9	8	34.6	7.1	4.6	5.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Bottom	3	1	19.7	8.2	33.6	7.1	7.1	5.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:15	12.3	Bottom	3	2	19.8	8	34.6	7.1	7.1	5.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Surface	1	1	19.9	8.2	33.6	7.1	5.6	4.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Surface	1	2	20	8	34.6	7	5.5	5.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Bottom	3	1	19.7	8.2	33.6	7.2	6.1	5.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	SR7	Sunny	Calm	11:18	4.8	Bottom	3	2	19.7	8	34.6	7.1	6.1	6.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Surface	1	1	19.8	8.2	33.5	7.2	8.1	8.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Surface	1	2	19.9	8	34.5	7.1	8.1	7.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Middle	2	1	19.8	8.2	33.5	7.2	8.2	6
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Middle	2	2	19.9	8	34.5	7.1	8.2	6.7
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Bottom	3	1	19.8	8.2	33.5	7.2	11	5.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Ebb	IS17	Sunny	Calm	12:24	7.5	Bottom	3	2	19.9	8	34.6	7.2	11	6.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Surface	1	1	20.7	8.2	33.5	6.8	2.1	5.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Surface	1	2	20.7	8.2	34.5	6.7	2.2	4.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Middle	2	1	20.5	8.2	33.5	6.7	4	5.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Middle	2	2	20.5	8.1	34.5	6.6	3.9	5.7
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Bottom	3	1	20.4	8.2	33.5	6.7	9.6	6.7
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)5	Sunny	Calm	18:14	14.2	Bottom	3	2	20.4	8.1	34.5	6.6	9	5.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Surface	1	1	19.8	8.2	33.1	7.6	4.6	11.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Surface	1	2	19.9	8	34.1	7.6	4.6	11.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Middle	2	1	19.8	8.2	33.1	7.6	4.6	7.1

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Middle	2	2	19.9	8	34.1	7.5	4.5	8.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Bottom	3	1	19.8	8.2	33.2	7.5	5	7
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	CS(Mf)3(N)	Sunny	Calm	17:15	7.1	Bottom	3	2	19.9	8	34.1	7.5	4.6	6.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Surface	1	1	20.1	8.2	33.5	7.2	6.1	11.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Surface	1	2	20.2	8	34.5	7.2	6.2	10.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Bottom	3	1	20.1	8.2	33.5	7.2	13.4	11.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)16	Sunny	Calm	16:36	5.5	Bottom	3	2	20.2	8	34.5	7.2	13.4	10
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Surface	1	1	20.7	8.2	33.5	7.6	3.3	10.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Surface	1	2	20.7	8	34.5	7.6	3.3	11.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Bottom	3	1	20.2	8.2	33.5	7.3	4.2	11.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4a	Sunny	Calm	16:26	3.5	Bottom	3	2	20.3	8	34.5	7.2	4.2	10.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Surface	1	1	20.3	8.2	33.4	7.3	4.4	8
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Surface	1	2	20.4	8	34.4	7.3	4.4	9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Bottom	3	1	20.2	8.2	33.5	7.3	5.5	11.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR4(N2)	Sunny	Calm	16:21	4	Bottom	3	2	20.2	8	34.5	7.2	5.4	12.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Surface	1	1	20.3	8.1	33.5	7.4	6.7	4.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Surface	1	2	20.4	8	34.5	7.4	6.7	5.3
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Bottom	3	1	20.2	8.1	33.5	7.3	7.6	7.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS8(N)	Sunny	Calm	16:13	4.4	Bottom	3	2	20.2	8.1	34.5	7.3	7.6	6.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Surface	1	1	20.3	8.2	33.4	7.5	6.6	6.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Surface	1	2	20.3	8	34.4	7.5	6.5	6.4
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Bottom	3	1	19.8	8.2	33.4	7.3	13	5.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)9	Sunny	Calm	16:04	3.9	Bottom	3	2	19.8	8	34.4	7.2	12.9	5.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Surface	1	1	20	8.2	33.5	7.3	7.1	7.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Surface	1	2	20.1	8	34.5	7.2	7.1	7.2
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Middle	2	1	20	8.2	33.5	7.1	10.6	7
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Middle	2	2	20	8	34.5	7.1	10.6	6.8
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Bottom	3	1	20	8.2	33.5	7.1	13.6	7.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS(Mf)11	Sunny	Calm	16:50	11.3	Bottom	3	2	20	8	34.5	7.1	12.5	6.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Surface	1	1	19.9	8.2	33.5	7.3	5.8	5.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Surface	1	2	20	8	34.5	7.3	5.8	6.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Bottom	3	1	19.9	8.2	33.5	7.3	6.7	6.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	SR7	Sunny	Calm	17:50	4.3	Bottom	3	2	20	8	34.5	7.2	6.6	6.1
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Surface	1	1	20.1	8.2	33.5	7.3	8.1	11.9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Surface	1	2	20.2	8	34.5	7.2	8.2	12.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Middle	2	1	19.9	8.2	33.6	7.2	6.7	9.5
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Middle	2	2	20	8	34.6	7.1	6.7	9.6
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Bottom	3	1	19.9	8.2	33.6	7.1	6.7	9
TMCLKL	HY/2012/08	2019-12-11	Mid-Flood	IS17	Sunny	Calm	16:43	11.9	Bottom	3	2	19.9	8	34.6	7.1	6.5	9.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Surface	1	1	20.3	8	34.3	6.9	4.2	5.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Surface	1	2	20.2	8.2	33.3	7	4.6	5.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Middle	2	1	20.2	8	34.3	6.8	4.7	5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Middle	2	2	20.2	8.2	33.4	6.8	4.8	5.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Bottom	3	1	20.2	8	34.4	6.9	5.8	5.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)5	Sunny	Calm	13:51	14.2	Bottom	3	2	20.2	8.2	33.4	7	6	6.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Surface	1	1	19.8	8	33.8	7.3	9.3	10.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Surface	1	2	19.8	8.2	32.9	7.3	10.1	10.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Middle	2	1	19.6	8	33.9	7.3	14	11.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Middle	2	2	19.6	8.2	32.9	7.3	13.9	13.2

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Bottom	3	1	19.6	8	33.9	7.3	13.7	13.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	CS(Mf)3(N)	Sunny	Calm	13:08	7.2	Bottom	3	2	19.6	8.2	32.9	7.3	13.8	11.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Surface	1	1	19.8	8	34.1	7.1	8.3	7
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Surface	1	2	19.7	8.2	33.2	7.2	9.1	8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Bottom	3	1	19.7	8	34.1	7.1	10.3	6.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)16	Sunny	Calm	12:28	5.5	Bottom	3	2	19.6	8.2	33.2	7.1	11.3	7.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Surface	1	1	19.9	8	34.3	7	5.6	7.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Surface	1	2	19.8	8.2	33.4	7	5.9	6.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Bottom	3	1	19.8	8	34.3	6.9	6.1	6.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4a	Sunny	Calm	12:19	4.4	Bottom	3	2	19.8	8.2	33.4	7	6.8	7.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Surface	1	1	19.9	8	34.3	7	5.7	16.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Surface	1	2	19.8	8.2	33.3	7.1	6.1	17.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Bottom	3	1	19.8	8	34.3	7	6.1	13.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR4(N2)	Sunny	Calm	12:15	3.3	Bottom	3	2	19.8	8.2	33.3	7	6.6	15.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Surface	1	1	19.8	8	34.3	7.1	11.1	17.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Surface	1	2	19.7	8.2	33.3	7.1	12.2	17.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Bottom	3	1	19.8	8	34.3	7	12.3	15.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS8(N)	Sunny	Calm	12:11	3.7	Bottom	3	2	19.7	8.2	33.3	7.1	12.7	16.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Surface	1	1	19.8	8.2	34.3	7.1	9.6	14
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Surface	1	2	19.7	8.2	33.4	7.2	10.3	14.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Bottom	3	1	19.7	8.2	34.4	7	10.7	14.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)9	Sunny	Calm	12:00	3	Bottom	3	2	19.7	8.2	33.4	7.1	11.3	16.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Surface	1	1	19.8	8	34.1	7.2	5.5	15.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Surface	1	2	19.7	8.2	33.2	7.2	5.8	15.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Middle	2	1	19.7	8	34.1	7.1	8.1	14.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Middle	2	2	19.7	8.2	33.2	7.1	8.3	15.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Bottom	3	1	19.7	8	34.1	7.1	9.9	9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS(Mf)11	Sunny	Calm	12:42	11	Bottom	3	2	19.7	8.2	33.2	7.1	11	8.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Surface	1	1	19.8	8.1	34.1	7.2	5.1	13.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Surface	1	2	19.7	8.2	33.1	7.2	5.5	12.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Bottom	3	1	19.7	8.1	34.1	7.3	5.3	12.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	SR7	Sunny	Calm	13:08	4.3	Bottom	3	2	19.7	8.2	33.1	7.2	5.8	12.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Surface	1	1	19.9	8	34.1	7.1	5.2	11.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Surface	1	2	19.8	8.2	33.2	7.2	5.7	10.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Middle	2	1	19.7	8	34.1	7.1	6.4	14.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Middle	2	2	19.7	8.2	33.2	7.1	7	13.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Bottom	3	1	19.7	8	34.1	7	7.1	16.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Ebb	IS17	Sunny	Rough	12:34	11.5	Bottom	3	2	19.7	8.2	33.2	7.1	7.7	15.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Surface	1	1	19.8	8.2	33.2	7	6.9	14.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Surface	1	2	19.9	8	34.2	7	6.6	13.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Middle	2	1	19.8	8.2	33.3	7	10.4	13.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Middle	2	2	19.9	8	34.2	6.9	9.9	14.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Bottom	3	1	19.8	8.2	33.3	6.9	13.8	16.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)5	Cloudy	Moderate	08:11	12.2	Bottom	3	2	19.9	8	34.2	6.9	12.5	17.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Surface	1	1	19.4	8.2	33.3	7.2	6.6	12.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Surface	1	2	19.5	8	34.3	7.1	6.1	13.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Middle	2	1	19.4	8.2	33.3	7.1	7	13.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Middle	2	2	19.4	8	34.3	7.1	6.5	12.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Bottom	3	1	19.4	8.2	33.3	7.1	7.2	14.7

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	08:56	7	Bottom	3	2	19.5	8	34.3	7.1	6.8	14.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Surface	1	1	19.4	8.2	33.3	7.2	6.1	15.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Surface	1	2	19.5	8	34.3	7.1	5.8	13.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Bottom	3	1	19.4	8.2	33.3	7.2	6.4	12.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)16	Sunny	Calm	09:32	5	Bottom	3	2	19.5	8	34.3	7.1	6.2	12.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Surface	1	1	19.4	8.2	33.3	7.2	6.5	11.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Surface	1	2	19.5	8	34.3	7.1	6	13.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Bottom	3	1	19.4	8.2	33.3	7.2	7.2	12.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4a	Sunny	Calm	09:41	4.7	Bottom	3	2	19.5	8	34.3	7.1	6.6	14.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Surface	1	1	19.4	8.2	33.3	7.2	6.9	23.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Surface	1	2	19.5	8	34.3	7.1	6.6	21.2
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Bottom	3	1	19.4	8.2	33.3	7.2	6.8	6.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR4(N2)	Sunny	Calm	09:46	3.1	Bottom	3	2	19.5	8	34.3	7.1	6.3	19.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Surface	1	1	19.4	8.2	33.3	7.2	6.7	17.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Surface	1	2	19.5	8	34.3	7.1	6	19.6
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Bottom	3	1	19.4	8.2	33.3	7.2	7.1	15.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS8(N)	Sunny	Calm	09:52	3.8	Bottom	3	2	19.5	8	34.3	7.1	6.4	14.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Surface	1	1	19.4	8.2	33.3	7.2	6.9	16.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Surface	1	2	19.5	8.2	34.3	7.1	6.3	18.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Bottom	3	1	19.4	8.2	33.3	7.2	6.9	15.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)9	Sunny	Calm	09:57	3	Bottom	3	2	19.5	8.2	34.3	7.1	6.4	14.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Surface	1	1	19.4	8.2	33.3	7.2	6.6	10.4
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Surface	1	2	19.5	8	34.2	7.1	6.1	11.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Middle	2	1	19.4	8.2	33.3	7.1	7.8	11.5
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Middle	2	2	19.4	8	34.3	7.1	6.5	12.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Bottom	3	1	19.4	8.2	33.3	7.1	8	13.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS(Mf)11	Cloudy	Moderate	09:21	11.4	Bottom	3	2	19.4	8	34.3	7.1	7.8	14.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Surface	1	1	19.4	8.2	33.3	7.1	6.8	10.7
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Surface	1	2	19.5	8.1	34.3	7.1	6.3	10
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Bottom	3	1	19.4	8.2	33.3	7.1	7	13.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	SR7	Cloudy	Calm	08:29	4.3	Bottom	3	2	19.5	8.1	34.3	7.1	6.6	13.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Surface	1	1	19.4	8.2	33.3	7.2	6.6	15.9
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Surface	1	2	19.5	8	34.3	7.1	6	14.8
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Middle	2	1	19.4	8.2	33.3	7.1	7.1	15.3
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Middle	2	2	19.5	8	34.3	7.1	6.5	15.1
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Bottom	3	1	19.4	8.2	33.3	7.1	7.2	13
TMCLKL	HY/2012/08	2019-12-13	Mid-Flood	IS17	Cloudy	Moderate	09:26	9.1	Bottom	3	2	19.5	8	34.3	7.1	9	12.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Surface	1	1	20.2	8	33.4	6.8	3.9	7.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Surface	1	2	20.1	8.2	32.4	6.8	4.3	7.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Middle	2	1	20.1	8	33.6	6.7	5	9.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Middle	2	2	20.1	8.2	32.6	6.7	5.7	9.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Bottom	3	1	20.1	8	33.8	6.7	9.2	10.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	16:23	12.9	Bottom	3	2	20.1	8.2	32.9	6.7	10.1	10.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Surface	1	1	20.1	8	32.6	7.1	7.8	11
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Surface	1	2	20.1	8.2	31.7	7.1	8.3	11.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Middle	2	1	20	8	32.9	7	9.9	9.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Middle	2	2	20	8.2	32	7.1	9.8	8.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Bottom	3	1	20	8	33.1	7	11.5	8.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	CS(Mf)3(N)	Cloudy	Moderate	15:41	7.4	Bottom	3	2	20	8.2	32.1	7.1	12.4	8.4

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Surface	1	1	20.1	8	33.1	7	18.1	17.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Surface	1	2	20.1	8.2	32.2	7.1	20.1	18.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Bottom	3	1	20.1	8	33.1	7	28.9	26
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)16	Cloudy	Calm	14:42	5.7	Bottom	3	2	20	8.2	32.2	7.1	34.5	27.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Surface	1	1	20.1	8	33.3	7.1	5.9	7.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Surface	1	2	20.1	8.2	32.4	7.2	6.8	7.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Bottom	3	1	20.1	8	33.3	7.1	6.6	8.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4a	Cloudy	Calm	14:33	4.4	Bottom	3	2	20.1	8.2	32.4	7.2	6.9	8.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Surface	1	1	20.2	8	33.3	7.1	5.7	10.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Surface	1	2	20.2	8.2	32.3	7.2	6.1	10.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Bottom	3	1	20.1	8	33.4	7.1	6.7	8.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR4(N2)	Cloudy	Calm	14:29	4	Bottom	3	2	20.1	8.2	32.4	7.1	7.4	8.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Surface	1	1	20.2	8	33.3	7.2	5.7	9.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Surface	1	2	20.2	8.2	32.4	7.2	6.4	9.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Bottom	3	1	20.2	8	33.3	7.2	5.8	8.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS8(N)	Cloudy	Calm	14:24	3.7	Bottom	3	2	20.2	8.2	32.4	7.2	6.4	8.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Middle	2	1	20.1	8	33.5	7.1	8.8	15.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Middle	2	2	20	8.2	32.5	7.1	9.4	14.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)9	Cloudy	Calm	14:16	2.9	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Surface	1	1	20	8	33.1	7	7.5	9.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Surface	1	2	20	8.2	32.2	7	8.3	9.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Middle	2	1	20	8	33.1	7	8.7	10.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Middle	2	2	20	8.2	32.2	7.1	9.4	10.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Bottom	3	1	20	8	33.1	7.1	9.6	12.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS(Mf)11	Cloudy	Calm	15:08	11.9	Bottom	3	2	20	8.2	32.2	7.1	10.3	12.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Surface	1	1	20.1	8	33.2	7	5.8	8.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Surface	1	2	20	8.2	32.2	7	6	8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Bottom	3	1	20.1	8	33.2	7.1	6.1	10.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	SR7	Cloudy	Calm	15:00	4.5	Bottom	3	2	20	8.2	32.2	7	6.7	11.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Surface	1	1	20.2	8	33.1	7.1	5.6	13
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Surface	1	2	20.1	8.2	32.2	7.1	6	12.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Middle	2	1	20	8	33.1	7	6.6	11.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Middle	2	2	20	8.2	32.2	7.1	7	11.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Bottom	3	1	20	8	33.1	7	7.1	9.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Ebb	IS17	Cloudy	Calm	14:50	10.2	Bottom	3	2	19.9	8.2	32.2	7	7.8	8.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Surface	1	1	20	8.1	33.1	7	5.2	6.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Surface	1	2	20	8.2	32.1	7	5.7	6.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Middle	2	1	20	8	33.1	7	6.8	6.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Middle	2	2	19.9	8.2	32.1	7	7.2	7.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Bottom	3	1	19.9	8	33.3	6.9	31.9	8.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)5	Cloudy	Moderate	09:29	11.8	Bottom	3	2	19.9	8.2	32.3	7	27.9	7.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Surface	1	1	20.1	8	32.2	6.9	8.8	14.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Surface	1	2	20	8.2	31.3	7	9.6	14.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Middle	2	1	20.1	8	32.2	6.9	9.4	12.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Middle	2	2	20	8.2	31.3	7	10	12.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Bottom	3	1	20.1	7.9	32.2	7	12.4	9.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	10:18	7.2	Bottom	3	2	20	8.1	31.3	7	13.4	9.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Surface	1	1	20	8	33.1	7	11.6	14.7

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Surface	1	2	19.9	8.2	32.2	7.1	9.5	14
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Bottom	3	1	19.9	8	33.3	7	17.4	15.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)16	Cloudy	Moderate	11:04	5.6	Bottom	3	2	19.9	8.2	32.3	7	19.3	16
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Surface	1	1	20	8	33.5	6.9	7.6	11.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Surface	1	2	19.9	8.2	32.6	7	8.4	11.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Bottom	3	1	20	8	33.5	7	7.6	13.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4a	Cloudy	Calm	11:17	4.3	Bottom	3	2	19.9	8.2	32.6	7	8.6	13.5
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Surface	1	1	20	8	33.5	7	7.3	11.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Surface	1	2	19.9	8.2	32.6	7	7.9	12.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Bottom	3	1	20	8	33.5	7	7.7	10.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR4(N2)	Cloudy	Calm	11:22	3.9	Bottom	3	2	19.9	8.2	32.6	7	8.1	9.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Surface	1	1	20	8	33.2	7	7.6	10.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Surface	1	2	19.9	8.2	32.3	7.1	8.1	10.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Bottom	3	1	20	8	33.3	7	8.8	12
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS8(N)	Cloudy	Calm	11:29	4.2	Bottom	3	2	19.9	8.2	32.3	7.1	9.5	12.2
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Middle	2	1	20	8	33.3	7	17.9	20.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Middle	2	2	19.9	8.2	32.3	7	20.3	20.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)9	Cloudy	Calm	11:34	2.7	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Surface	1	1	20	8	33.1	7	6.2	10.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Surface	1	2	19.9	8.2	32.2	7.1	6.3	10.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Middle	2	1	19.9	8	33.2	7	9.3	11.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Middle	2	2	19.9	8.2	32.2	7	9.8	11.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Bottom	3	1	19.9	8	33.3	7	13.2	13.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS(Mf)11	Cloudy	Moderate	10:49	11.3	Bottom	3	2	19.9	8.2	32.3	7	10.6	13.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Surface	1	1	19.9	8.1	33.1	7	9.9	12.4
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Surface	1	2	19.9	8.2	32.1	7	10.7	11.6
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Bottom	3	1	19.9	8.1	33.1	7	13.2	9.9
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	SR7	Cloudy	Moderate	09:52	4.1	Bottom	3	2	19.9	8.2	32.1	7	14.3	10.1
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Surface	1	1	19.9	8	33	7	7.2	10.8
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Surface	1	2	19.8	8.2	32.1	7.1	7.9	11.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Middle	2	1	19.9	8	33.1	7	11.2	13.3
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Middle	2	2	19.8	8.2	32.1	7	12	13
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Bottom	3	1	19.9	8	33.1	7	12.2	16.7
TMCLKL	HY/2012/08	2019-12-16	Mid-Flood	IS17	Cloudy	Moderate	10:57	9.2	Bottom	3	2	19.8	8.2	32.1	7	13.2	16.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Surface	1	1	20.5	8.1	31.3	6.9	5.3	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Surface	1	2	20.5	7.9	32.2	6.7	5	7.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Middle	2	1	20.3	8.1	32.2	6.5	6.3	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Middle	2	2	20.3	8	33.2	6.5	5.8	7.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Bottom	3	1	20.3	8.1	32.4	6.5	8.9	7.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)5	Fine	Moderate	18:28	12.4	Bottom	3	2	20.3	8	33.3	6.5	8.6	7.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Surface	1	1	21	8.1	29.8	7.1	5.2	7.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Surface	1	2	21	8	30.7	7	4.9	8.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Middle	2	1	20.5	8.2	30.8	6.9	11.6	7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Middle	2	2	20.5	8.1	31.7	6.9	10.8	7.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Bottom	3	1	20.5	8.2	30.8	6.9	12.2	7.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	17:40	7	Bottom	3	2	20.6	8.1	31.7	6.9	11.7	8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Surface	1	1	20.8	8.2	31	7	6	8.6
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Surface	1	2	20.9	8	31.9	7	6	7.7

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Bottom	3	1	20.7	8.2	31.3	6.9	9	10
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)16	Fine	Moderate	16:53	5.6	Bottom	3	2	20.7	8	32.2	6.9	8.4	9.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Surface	1	1	21	8.2	31.3	7	5.1	7.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Surface	1	2	21	8	32.2	7	4.8	7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Bottom	3	1	20.9	8.2	31.5	7	5.9	6.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4a	Fine	Moderate	16:41	4.6	Bottom	3	2	20.9	8	32.5	6.9	5.6	5.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Surface	1	1	21.2	8.2	31.1	7.1	4.2	6.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Surface	1	2	21.2	8	32	7.1	4	5.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Bottom	3	1	21.1	8.2	31.1	7.1	4.4	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR4(N2)	Fine	Moderate	16:35	3.6	Bottom	3	2	21.2	8	32.1	7	4	6.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Surface	1	1	21.2	8.2	31.1	7.1	5.6	14.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Surface	1	2	21.2	8	31.9	7.1	5.2	13.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Bottom	3	1	21.2	8.2	31.4	7	9.5	9.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS8(N)	Fine	Moderate	16:27	3.6	Bottom	3	2	21.2	8	32.3	7	8.9	10.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Surface	1	1	20.8	8.2	31.8	6.8	9.1	13.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Surface	1	2	20.8	8	32.7	6.7	8.5	11.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Bottom	3	1	20.5	8.2	31.9	6.6	11.9	12.6
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)9	Fine	Moderate	16:20	3.2	Bottom	3	2	20.6	8	32.8	6.6	11	11.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Surface	1	1	20.5	8.1	31	6.9	6.5	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Surface	1	2	20.6	8	31.9	6.9	6.3	7.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Middle	2	1	20.5	8.2	31.1	6.8	9.5	7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Middle	2	2	20.5	8	32.1	6.8	8.6	7.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Bottom	3	1	20.4	8.2	31.2	6.8	12.1	5.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS(Mf)11	Fine	Moderate	17:11	11.1	Bottom	3	2	20.5	8	32.2	6.8	11.1	6.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Surface	1	1	20.5	8.2	31.1	6.9	5.7	7.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Surface	1	2	20.6	8	32	6.9	5.5	8.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Bottom	3	1	20.5	8.2	31.1	6.9	6.7	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	SR7	Fine	Moderate	18:09	4.3	Bottom	3	2	20.6	8	32.1	6.9	6.8	7.6
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Surface	1	1	20.5	8.1	31.1	6.9	6.8	12.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Surface	1	2	20.5	8	32	6.8	6.5	11.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Middle	2	1	20.5	8.2	31.2	6.8	7	9.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Middle	2	2	20.5	8.1	32.2	6.8	6.6	9.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Bottom	3	1	20.4	8.2	31.4	6.9	6.2	9.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Ebb	IS17	Fine	Moderate	17:01	7.9	Bottom	3	2	20.5	8.2	32.3	6.8	6.4	10
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Surface	1	1	20.3	8.1	31.3	6.8	5.9	4.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Surface	1	2	20.4	7.9	32.2	6.8	6.4	5.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Middle	2	1	20.3	8.1	31.5	6.7	9.7	4.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Middle	2	2	20.3	7.9	32.5	6.7	9.4	5.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Bottom	3	1	20.3	8.1	31.5	6.7	12.7	4.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)5	Fine	Moderate	11:11	12	Bottom	3	2	20.3	8	32.5	6.7	12.5	5.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Surface	1	1	20.5	8.1	29.7	6.9	8.7	9.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Surface	1	2	20.5	7.9	30.6	6.8	7.8	10
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Middle	2	1	20.4	8.1	29.9	6.9	8.5	9
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Middle	2	2	20.4	7.9	30.8	6.8	8.8	8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Bottom	3	1	20.4	8.1	29.9	6.9	13.4	7.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	12:00	6.8	Bottom	3	2	20.4	7.9	30.9	6.8	14	8.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Surface	1	1	20.5	8.2	31	6.9	9.7	12.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Surface	1	2	20.5	8	31.9	6.9	9.2	11.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Middle	2	1						

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Bottom	3	1	20.5	8.2	31.5	6.9	9.7	11
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)16	Fine	Moderate	12:49	5.6	Bottom	3	2	20.5	8	32.5	6.8	9.2	10.3
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Surface	1	1	20.6	8.2	31.6	6.8	6.7	7.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Surface	1	2	20.7	8	32.5	6.8	6.2	8.6
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Bottom	3	1	20.5	8.2	31.7	6.8	6.3	8.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4a	Fine	Moderate	13:01	4.3	Bottom	3	2	20.6	8	32.6	6.8	6.7	8.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Surface	1	1	20.8	8.2	31.4	6.9	7.1	9.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Surface	1	2	20.8	8	32.4	6.9	6.5	8.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Bottom	3	1	20.8	8.2	31.5	6.9	7.2	9.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR4(N2)	Fine	Moderate	13:07	3.5	Bottom	3	2	20.8	8	32.5	6.9	6.9	8.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Surface	1	1	20.7	8.2	31	7	5.6	7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Surface	1	2	20.7	8	32	7	5.2	6.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Bottom	3	1	20.7	8.2	31.1	7	5.7	8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS8(N)	Fine	Moderate	13:14	3.3	Bottom	3	2	20.7	8	32	7	5.4	7.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Surface	1	1	20.5	8.2	31.5	6.8	11.3	10.6
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Surface	1	2	20.6	8	32.5	6.8	10.3	9.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Bottom	3	1	20.5	8.2	31.6	6.8	12.7	11.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)9	Fine	Moderate	13:22	3.1	Bottom	3	2	20.5	8	32.5	6.8	11.9	10.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Surface	1	1	20.4	8.2	30.7	6.9	6.1	5.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Surface	1	2	20.4	8	31.6	6.9	6.6	6
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Middle	2	1	20.4	8.2	30.8	6.9	7	6.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Middle	2	2	20.4	8	31.8	6.9	6.9	6.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Bottom	3	1	20.4	8.2	30.9	6.9	8.2	8.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS(Mf)11	Fine	Moderate	12:32	11.8	Bottom	3	2	20.4	8.1	31.8	6.9	7.3	9.4
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Surface	1	1	20.4	8.1	30.8	6.9	7.9	15.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Surface	1	2	20.5	7.9	31.7	6.9	7.4	16.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Bottom	3	1	20.4	8.2	31.2	6.9	7.8	12.9
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	SR7	Fine	Moderate	11:33	4	Bottom	3	2	20.4	7.9	32.1	6.8	7.2	11.7
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Surface	1	1	20.3	8.2	31.1	6.9	11.7	10.5
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Surface	1	2	20.3	8	32	6.9	10.6	10.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Middle	2	1	20.3	8.2	31.1	6.9	12.6	9.8
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Middle	2	2	20.3	8	32.1	6.9	11.2	10.2
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Bottom	3	1	20.3	8.2	31.1	6.9	12.8	13.1
TMCLKL	HY/2012/08	2019-12-18	Mid-Flood	IS17	Fine	Moderate	12:42	8.5	Bottom	3	2	20.3	8	32.1	7	11.8	12
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Surface	1	1	20.1	8	32.4	6.7	3.1	4.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Surface	1	2	20	8.1	31.5	6.8	3.1	4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Middle	2	1	20.4	8	33.4	6.3	2.9	4.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Middle	2	2	20.3	8	32.4	6.3	2.8	4.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Bottom	3	1	20.4	8	33.5	6.3	3.5	5.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)5	Cloudy	Moderate	06:35	12.8	Bottom	3	2	20.4	8	32.5	6.3	3.5	5.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Surface	1	1	20	8.1	31.4	6.7	3.6	5.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Surface	1	2	20	8	32.3	6.7	3.3	4.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Middle	2	1	20.2	8.1	32.2	6.5	2.4	3.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Middle	2	2	20.2	8	33.1	6.5	2.3	4.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Bottom	3	1	20.4	8.1	32.5	6.3	2.3	4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	07:26	7.1	Bottom	3	2	20.4	8	33.5	6.3	2.3	4.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Surface	1	1	20.5	8	32.2	6.7	4.4	11.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Surface	1	2	20.5	8.1	31.3	6.8	4.4	11.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Middle	2	2						

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Bottom	3	1	20.5	8	32.3	6.7	6.9	14
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	08:02	5	Bottom	3	2	20.4	8.1	31.4	6.7	7.2	14.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Surface	1	1	20.2	8	32	6.7	3.7	6.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Surface	1	2	20.2	8.1	31.1	6.8	3.7	7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Bottom	3	1	20.2	8	32	6.7	3.7	8.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4a	Cloudy	Calm	08:15	4.2	Bottom	3	2	20.2	8.1	31.1	6.8	3.9	8.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Surface	1	1	20.4	8	32.1	6.5	6.6	9.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Surface	1	2	20.4	8.1	31.2	6.5	7.3	9.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Bottom	3	1	20.4	8	32.1	6.5	6.7	11.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR4(N2)	Cloudy	Calm	08:21	3.9	Bottom	3	2	20.4	8.1	31.2	6.5	7.4	11.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Surface	1	1	20.2	8	31.9	6.7	5.2	7.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Surface	1	2	20.2	8.1	31	6.8	5.6	7.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Bottom	3	1	20.4	8	32.1	6.7	8.5	7.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS8(N)	Cloudy	Calm	08:28	3.6	Bottom	3	2	20.4	8.2	31.2	6.7	9.1	8
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Surface	1	1	20.4	8	32.1	6.7	5	6.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Surface	1	2	20.3	8.1	31.2	6.8	5.2	6.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Bottom	3	1	20.4	8	32.1	6.7	4.9	7.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)9	Cloudy	Calm	08:37	3.1	Bottom	3	2	20.3	8.1	31.2	6.8	5.3	7.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Surface	1	1	20.1	8.1	30.7	6.8	3.3	4.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Surface	1	2	20.2	8	31.6	6.7	3.2	4.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Middle	2	1	20.3	8.1	31.4	6.6	3.3	5.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Middle	2	2	20.4	8	32.3	6.6	3.2	5.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Bottom	3	1	20.4	8.1	31.7	6.4	6.6	6.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	07:47	11.1	Bottom	3	2	20.5	8	32.6	6.4	6	7.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Surface	1	1	20	8.1	31.4	6.8	3.4	5.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Surface	1	2	20	8	32.3	6.8	3.2	4.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Bottom	3	1	20.2	8.1	32.2	6.6	2.2	6.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	SR7	Cloudy	Moderate	06:56	4.3	Bottom	3	2	20.2	8	33.1	6.5	2.3	6.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Surface	1	1	20.2	8	31.5	6.9	3.2	5.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Surface	1	2	20.1	8.1	30.6	6.9	3.2	4.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Middle	2	1	20.4	8	32.4	6.5	3.5	4.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Middle	2	2	20.4	8.1	31.5	6.6	3.6	4.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Bottom	3	1	20.5	8	32.6	6.4	6.6	4.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Ebb	IS17	Cloudy	Moderate	07:57	10.4	Bottom	3	2	20.4	8.1	31.7	6.5	6.9	4.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Surface	1	1	20.5	8	32.6	6.7	2.4	4.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Surface	1	2	20.5	8.1	31.7	6.8	2.4	4.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Middle	2	1	20.4	8	33.4	6.3	3.7	5.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Middle	2	2	20.3	8.1	32.5	6.3	4	6.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Bottom	3	1	20.4	8	33.5	6.3	6.6	6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)5	Fine	Moderate	15:07	12.2	Bottom	3	2	20.3	8.1	32.5	6.3	7.2	5.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Surface	1	1	20.5	8	31.2	7.1	5.1	6.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Surface	1	2	20.4	8.1	30.3	7.1	5.2	7.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Middle	2	1	20.4	8	31.2	7	5.1	7.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Middle	2	2	20.4	8.1	30.3	7.1	5.6	7.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Bottom	3	1	20.3	8	31.2	7	6.1	9.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	CS(Mf)3(N)	Fine	Rough	14:11	7	Bottom	3	2	20.3	8.1	30.3	7	6.4	8.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Surface	1	1	20.6	8	32.3	6.7	4.5	6.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Surface	1	2	20.6	8.1	31.4	6.7	4.6	6.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Bottom	3	1	20.6	8	32.3	6.7	8.2	6.4

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)16	Fine	Moderate	13:26	5.5	Bottom	3	2	20.6	8.1	31.4	6.7	8.4	6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Surface	1	1	20.8	8	32	6.9	3.8	6.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Surface	1	2	20.7	8.1	31.1	6.9	4	6.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Bottom	3	1	20.4	8	32.1	6.7	6.7	7.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4a	Fine	Calm	13:12	4.4	Bottom	3	2	20.3	8.1	31.2	6.7	7.4	7.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Surface	1	1	20.8	8	32	6.8	4.5	7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Surface	1	2	20.7	8.1	31.1	6.9	4.8	6.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Bottom	3	1	20.5	8	32.1	6.7	5.5	7.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR4(N2)	Fine	Calm	13:06	4.1	Bottom	3	2	20.4	8.1	31.2	6.7	6	8
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Surface	1	1	20.6	8	32.1	6.8	7.1	9.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Surface	1	2	20.5	8.1	31.2	6.8	7	9.8
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Bottom	3	1	20.6	8	32.1	6.8	8.1	12.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS8(N)	Fine	Calm	12:57	3.7	Bottom	3	2	20.5	8.1	31.2	6.8	9.2	12.1
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Surface	1	1	20.7	8	32.2	6.8	7.8	13.5
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Surface	1	2	20.6	8.2	31.3	6.8	8.4	13.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Bottom	3	1	20.6	8.1	32.2	6.7	8.4	11.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)9	Fine	Calm	12:50	3.2	Bottom	3	2	20.5	8.2	31.3	6.8	9.8	10.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Surface	1	1	20.6	8	31.7	6.9	5.5	7.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Surface	1	2	20.6	8.1	30.8	7	6.3	7.6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Middle	2	1	20.5	8	32	6.7	8.3	8
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Middle	2	2	20.5	8.1	31.1	6.7	9.6	7.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Bottom	3	1	20.5	8	32.5	6.5	12	8.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS(Mf)11	Fine	Rough	13:44	11.2	Bottom	3	2	20.4	8.1	31.5	6.5	12	8.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Surface	1	1	20.6	8	32	6.8	3.8	7.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Surface	1	2	20.5	8.1	31.1	6.8	4	8.3
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Bottom	3	1	20.5	8	32.2	6.7	5.4	6.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	SR7	Fine	Rough	14:45	4.1	Bottom	3	2	20.5	8.1	31.3	6.7	5.6	6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Surface	1	1	20.5	8	32	6.7	3.6	4.7
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Surface	1	2	20.5	8.1	31.1	6.8	3.8	4.4
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Middle	2	1	20.4	8	32.3	6.6	4	5.9
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Middle	2	2	20.4	8.1	31.4	6.6	4.3	6
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Bottom	3	1	20.5	8	32.7	6.3	7.8	6.2
TMCLKL	HY/2012/08	2019-12-20	Mid-Flood	IS17	Fine	Rough	13:34	10.8	Bottom	3	2	20.4	8.1	31.8	6.4	8	6.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Surface	1	1	19.3	8.2	33.5	7.2	3.6	7.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Surface	1	2	19.3	8	33.5	7.2	3.6	7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Middle	2	1	19.3	8.2	33.5	7.2	3.7	6.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Middle	2	2	19.3	8	33.5	7.2	3.7	6.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Bottom	3	1	19.3	8.2	33.5	7.2	3.8	6.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)5	Foggy	Moderate	09:28	12.5	Bottom	3	2	19.3	8	33.5	7.2	3.8	6.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Surface	1	1	19.3	8.2	32.2	7.6	4.4	8.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Surface	1	2	19.3	8	32.2	7.6	4.4	7.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Middle	2	1	19.3	8.2	32.2	7.6	4.3	9.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Middle	2	2	19.3	8	32.2	7.6	4.3	9
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Bottom	3	1	19.2	8.2	32.6	7.6	8.1	13.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	CS(Mf)3(N)	Cloudy	Rough	10:18	7.1	Bottom	3	2	19.2	8	32.6	7.6	8.2	13.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Surface	1	1	19.3	8.2	33.2	7.3	8.7	13.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Surface	1	2	19.3	8	33.2	7.3	8.8	13.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Bottom	3	1	19.3	8.2	33.1	7.3	14.5	16.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)16	Cloudy	Moderate	11:07	5.2	Bottom	3	2	19.3	8	33.1	7.3	14.3	16.4

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Surface	1	1	19.6	8.2	33.2	7.3	4.8	7.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Surface	1	2	19.6	8	33.2	7.3	4.8	7.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Bottom	3	1	19.4	8.2	33.2	7.2	9.1	11.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4a	Cloudy	Calm	11:21	4.3	Bottom	3	2	19.4	8	33.2	7.2	9.8	11.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Surface	1	1	19.5	8.2	33	7.3	5.8	8.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Surface	1	2	19.5	8	33	7.3	5.9	8.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Bottom	3	1	19.5	8.2	33	7.2	6.1	9.2
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR4(N2)	Cloudy	Calm	11:29	4	Bottom	3	2	19.5	8	33	7.2	6.2	9
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Surface	1	1	19.5	8.2	33.1	7.3	6.3	9.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Surface	1	2	19.5	8	33.1	7.3	6.4	9.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Bottom	3	1	19.5	8.2	33.1	7.3	6.5	7.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS8(N)	Cloudy	Calm	11:36	3.7	Bottom	3	2	19.5	8	33.1	7.3	6.6	7.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Surface	1	1	19.5	8.2	33.1	7.4	4.2	6.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Surface	1	2	19.5	8.2	33.1	7.4	4.2	6.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Bottom	3	1	19.6	8.2	33.1	7.4	5.1	8.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)9	Cloudy	Calm	11:46	3.3	Bottom	3	2	19.6	8.2	33.1	7.4	5.2	8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Surface	1	1	19.4	8.2	33.2	7.4	5.1	6.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Surface	1	2	19.4	8	33.2	7.4	5.2	6.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Middle	2	1	19.4	8.2	33.2	7.4	5	6.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Middle	2	2	19.4	8	33.2	7.4	5.4	7.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Bottom	3	1	19.4	8.2	33.1	7.3	6.4	8.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS(Mf)11	Cloudy	Moderate	10:52	11.2	Bottom	3	2	19.3	8	33.1	7.3	6.6	8.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Surface	1	1	19.2	8.2	33.3	7.3	5.1	9.2
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Surface	1	2	19.2	8.1	33.3	7.3	5.1	8.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Bottom	3	1	19.2	8.2	33.2	7.2	8.9	10.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	SR7	Foggy	Moderate	09:48	4.4	Bottom	3	2	19.2	8.1	33.2	7.2	8.8	10.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Surface	1	1	19.3	8.2	33.2	7.3	7.6	10.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Surface	1	2	19.3	8	33.2	7.2	7.7	10.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Middle	2	1	19.3	8.2	33.2	7.2	7.9	12.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Middle	2	2	19.3	8	33.2	7.2	7.9	12.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Bottom	3	1	19.3	8.2	33.2	7.2	8.2	14.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Ebb	IS17	Cloudy	Rough	11:00	10.8	Bottom	3	2	19.3	8	33.2	7.3	8.4	13.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Surface	1	1	19.3	8	34	7	5	8.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Surface	1	2	19.3	8.2	34	7	5	8.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Middle	2	1	19.3	8	34	7	6.2	11.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Middle	2	2	19.3	8.2	34	7	6.1	11.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Bottom	3	1	19.4	8	33.9	7	8.8	13.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)5	Cloudy	Moderate	17:15	12.8	Bottom	3	2	19.4	8.2	33.9	7	8.9	13.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Surface	1	1	19.5	8	32.6	7.6	9.3	10
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Surface	1	2	19.5	8.2	32.6	7.6	9.9	9.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Middle	2	1	19.5	8	32.6	7.6	14	11.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Middle	2	2	19.5	8.2	32.6	7.6	13.4	11.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Bottom	3	1	19.6	8	32.6	7.6	9.3	12.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	CS(Mf)3(N)	Cloudy	Moderate	16:15	7.2	Bottom	3	2	19.6	8.2	32.6	7.6	9.9	12.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Surface	1	1	19.4	8	33.2	7.3	9.3	15.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Surface	1	2	19.4	8.2	33.2	7.3	9.3	16.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Bottom	3	1	19.5	8	33.2	7.3	11.3	14
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)16	Cloudy	Moderate	15:31	5.3	Bottom	3	2	19.5	8.2	33.2	7.3	11.1	13.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Surface	1	1	19.6	8	33.2	7.3	5.7	8

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Surface	1	2	19.6	8.2	33.2	7.3	5.7	8.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Bottom	3	1	19.6	8	33.2	7.3	7.7	9.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4a	Cloudy	Calm	15:20	4.2	Bottom	3	2	19.6	8.2	33.2	7.3	7.8	10.2
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Surface	1	1	19.7	8	33.1	7.4	6	7.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Surface	1	2	19.7	8.2	33.1	7.4	5.9	6.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Bottom	3	1	19.6	8	33.1	7.4	8.8	9.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR4(N2)	Cloudy	Calm	15:13	4.1	Bottom	3	2	19.6	8.2	33.1	7.4	8.5	9.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Surface	1	1	19.7	8	33.2	7.4	7.2	11.2
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Surface	1	2	19.7	8.2	33.2	7.4	7.1	11.1
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Bottom	3	1	19.7	8	33.2	7.4	7.9	9.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS8(N)	Cloudy	Calm	15:02	3.8	Bottom	3	2	19.7	8.2	33.2	7.4	8	9.3
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Surface	1	1	19.7	8.2	33.1	7.2	7.1	10.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Surface	1	2	19.7	8.2	33.1	7.2	7.3	10.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Bottom	3	1	19.6	8.2	33.1	7.2	8	13.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)9	Cloudy	Calm	14:49	3.2	Bottom	3	2	19.7	8.2	33.1	7.2	7.5	13.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Surface	1	1	19.4	8	33.1	7.4	10.6	15
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Surface	1	2	19.4	8.2	33.1	7.4	10.6	15.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Middle	2	1	19.5	8.1	33.1	7.4	19.7	17.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Middle	2	2	19.5	8.2	33.1	7.4	18.9	18.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Bottom	3	1	19.5	8.1	33.1	7.3	14.8	20.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS(Mf)11	Cloudy	Rough	15:52	11.2	Bottom	3	2	19.5	8.2	33.1	7.3	14.8	20.5
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Surface	1	1	19.5	8	33.2	7.4	7.5	10.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Surface	1	2	19.5	8.2	33.2	7.4	7.5	10.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Bottom	3	1	19.5	8	33.2	7.3	9.6	13.8
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	SR7	Cloudy	Moderate	16:51	4.2	Bottom	3	2	19.5	8.2	33.2	7.3	9.6	14
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Surface	1	1	19.4	8	33.1	7.5	7.5	8.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Surface	1	2	19.4	8.2	33.1	7.5	7.3	8.9
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Middle	2	1	19.4	8	33.2	7.3	6.8	9.6
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Middle	2	2	19.4	8.2	33.2	7.3	6.8	9.7
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Bottom	3	1	19.4	8	33.1	7.4	8.7	13.4
TMCLKL	HY/2012/08	2019-12-23	Mid-Flood	IS17	Cloudy	Rough	15:39	10.9	Bottom	3	2	19.4	8.2	33.1	7.4	8.6	13.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Surface	1	1	21.2	8	30.4	7.3	4.6	6.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Surface	1	2	21.3	8	30.4	7.3	4.6	6.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Middle	2	1	21.2	8	30.3	7.3	4.4	5.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Middle	2	2	21.2	8	30.4	7.3	4.4	6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Bottom	3	1	21.3	8	30.3	7.3	14.8	5.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)5	Fine	Moderate	14:00	11.8	Bottom	3	2	21.3	8	30.3	7.3	14.8	5.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Surface	1	1	20.2	8.1	29.3	7.5	9	13
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Surface	1	2	20.2	8.1	29.3	7.5	9.1	13
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Middle	2	1	20.3	8	29.3	7.5	8.1	12.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Middle	2	2	20.3	8	29.3	7.5	8	12
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Bottom	3	1	20.2	8	29.2	7.5	9.4	11
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	CS(Mf)3(N)	Fine	Moderate	13:16	8	Bottom	3	2	20.3	8	29.2	7.5	9.3	10.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Surface	1	1	20.8	8.1	26.9	7.7	9.2	10.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Surface	1	2	20.8	8.1	26.9	7.7	9.2	11.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Bottom	3	1	21	8.1	28.7	7.5	12.8	13.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)16	Fine	Moderate	12:36	5.2	Bottom	3	2	21	8.1	28.7	7.5	12.8	14.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Surface	1	1	20.8	8.1	26.8	7.7	12.3	6.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Surface	1	2	20.8	8.1	26.7	7.7	12.3	6

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Bottom	3	1	21.3	8.1	29.8	7.5	6.5	8.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4a	Fine	Calm	12:26	4.5	Bottom	3	2	21.3	8.1	29.8	7.5	6.5	8.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Surface	1	1	21.2	8.1	29.8	7.5	15.6	8.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Surface	1	2	21.2	8.1	29.8	7.5	15.6	8.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Bottom	3	1	21.2	8.1	29.7	7.6	9.4	6.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR4(N2)	Fine	Calm	12:22	3.2	Bottom	3	2	21.2	8.1	29.7	7.6	9.3	6.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Surface	1	1	21.6	8.1	29.7	7.5	5.4	6.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Surface	1	2	21.6	8.1	29.7	7.5	5.6	6.7
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Bottom	3	1	21.7	8.1	29.7	7.5	11.2	6.2
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS8(N)	Fine	Calm	12:17	4	Bottom	3	2	21.7	8.1	29.7	7.5	11.1	6.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Middle	2	1	20.7	7.7	29.1	7.5	6.4	7.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Middle	2	2	20.7	7.7	29.1	7.5	6.5	7.7
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)9	Fine	Calm	12:14	2.9	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Surface	1	1	20.7	8	29.5	7.4	6	6.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Surface	1	2	20.7	8	29.5	7.4	5.8	6.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Middle	2	1	20.7	7.9	29.7	7.5	8.5	7.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Middle	2	2	20.7	7.9	29.7	7.5	8.1	7.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Bottom	3	1	20.6	7.9	29.7	7.5	10.4	8.7
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS(Mf)11	Fine	Moderate	12:50	11.1	Bottom	3	2	20.6	7.9	29.7	7.5	10.5	8.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Surface	1	1	21.3	8	29.9	7.5	10.2	6.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Surface	1	2	21.2	8	29.9	7.5	10.5	5.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Bottom	3	1	21.8	8.1	29.7	7.5	13.5	6.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	SR7	Fine	Calm	13:40	4.2	Bottom	3	2	21.7	8.1	29.8	7.6	13.4	6.9
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Surface	1	1	20.6	8	29.9	7.3	8.1	10.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Surface	1	2	20.6	8	29.9	7.3	7.9	11.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Middle	2	1	20.6	8	29.3	7.4	9	10.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Middle	2	2	20.6	8	29.3	7.4	8.8	10
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Bottom	3	1	20.6	8	29.8	7.3	11.3	8.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Ebb	IS17	Fine	Calm	12:41	9.9	Bottom	3	2	20.5	8	29.8	7.3	12.3	8.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Surface	1	1	20	8	30	7.3	6.3	7.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Surface	1	2	20	8	30	7.3	6.2	7.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Middle	2	1	20	8	30	7.3	6.4	7.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Middle	2	2	20	8	30	7.3	5.9	7.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Bottom	3	1	19.8	7.9	29.9	7.3	8.9	9.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)5	Fine	Moderate	07:57	12	Bottom	3	2	19.9	7.9	29.9	7.3	8.7	8.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Surface	1	1	19.5	8	29.5	7.5	11.9	13.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Surface	1	2	19.5	8	29.4	7.5	12.1	13
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Middle	2	1	19.1	7.9	29.4	7.5	11.9	17.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Middle	2	2	19.1	7.9	29.4	7.5	11.8	17.9
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Bottom	3	1	18.9	7.7	28.8	7.6	15.7	19.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	CS(Mf)3(N)	Fine	Moderate	08:39	7	Bottom	3	2	18.9	7.7	28.8	7.6	15.7	18
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Surface	1	1	19.1	8.1	23	7.9	11.3	15.2
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Surface	1	2	19.1	8.1	23	7.9	11.2	15.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Bottom	3	1	19.2	8.1	23.3	7.9	11.9	16
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)16	Fine	Moderate	09:23	5.4	Bottom	3	2	19.2	8.1	23.3	7.9	11.8	15.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Surface	1	1	19.7	8.1	27.3	7.6	9.5	9.9
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Surface	1	2	19.6	8.1	27.3	7.6	9.4	10.2
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Middle	2	1						

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Bottom	3	1	19.7	8.1	27.4	7.7	9.6	11
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4a	Fine	Moderate	09:33	4.6	Bottom	3	2	19.7	8.1	27.4	7.7	9.5	11.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Surface	1	1	19.9	8	29	7.5	7.4	10.6
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Surface	1	2	19.9	8	29	7.5	7.4	10.9
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Bottom	3	1	19.9	8	29.1	7.5	8.2	9.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR4(N2)	Fine	Moderate	09:38	3.2	Bottom	3	2	19.9	8	29.1	7.5	8.1	8.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Surface	1	1	20	8	29.4	7.5	6.6	10.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Surface	1	2	20	8	29.4	7.5	6.7	10.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Bottom	3	1	19.9	8	29.3	7.6	11.5	8.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS8(N)	Fine	Calm	09:42	4.1	Bottom	3	2	19.9	8	29.4	7.5	11.6	8.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Middle	2	1	19.5	8.1	29.5	7.5	7.6	9.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Middle	2	2	19.5	8.1	29.5	7.5	7.2	9.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)9	Fine	Calm	09:49	2.8	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Surface	1	1	20.2	8.1	29.6	7.5	10.3	13.2
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Surface	1	2	20.2	8.1	29.6	7.5	10.2	13.3
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Middle	2	1	20.1	8.1	29.6	7.5	11.4	14
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Middle	2	2	20.1	8.1	29.6	7.5	11.3	13.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Bottom	3	1	20.1	8.1	29.7	7.6	12.9	14.9
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS(Mf)11	Fine	Moderate	09:09	11.2	Bottom	3	2	20.1	8.1	29.7	7.6	12.9	15.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Surface	1	1	20	8	29.7	7.4	12.4	16.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Surface	1	2	20	8	29.7	7.4	12.4	16.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Bottom	3	1	19.6	7.9	29.6	7.5	13	17.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	SR7	Fine	Moderate	08:14	4.3	Bottom	3	2	19.6	7.9	29.6	7.4	13	17.7
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Surface	1	1	20.3	8.1	29.7	7.4	9.4	12.4
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Surface	1	2	20.3	8.1	29.7	7.4	9.2	12.7
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Middle	2	1	20.2	8.1	29.7	7.4	10	12.5
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Middle	2	2	20.2	8.1	29.7	7.4	10	12.1
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Bottom	3	1	20.4	8	29.7	7.4	15.7	10.8
TMCLKL	HY/2012/08	2019-12-27	Mid-Flood	IS17	Fine	Moderate	09:17	10.2	Bottom	3	2	20.3	8	29.7	7.4	15.9	11.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Surface	1	1	20.5	8	30.1	7.4	4.7	8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Surface	1	2	20.5	8	30.1	7.4	4.7	7.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Middle	2	1	20.8	7.9	30	7.4	8.2	6.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Middle	2	2	20.8	8	30	7.4	8.2	6.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Bottom	3	1	21	7.9	29.7	7.4	5.1	6.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)5	Foggy	Rough	16:09	14.1	Bottom	3	2	21	7.9	29.7	7.4	5	5.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Surface	1	1	20.8	8	29.5	7.4	5.6	6.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Surface	1	2	20.8	8	29.5	7.4	5.6	7.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Middle	2	1	20.7	7.9	29.3	7.4	8.1	5.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Middle	2	2	20.7	7.9	29.3	7.4	8.1	5.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Bottom	3	1	21	7.9	29.5	7.4	6.2	5.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	CS(Mf)3(N)	Foggy	Moderate	15:21	7.3	Bottom	3	2	21	7.9	29.5	7.4	6.2	5.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Surface	1	1	20.8	8	30.1	7.4	10	8.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Surface	1	2	20.8	8	30.1	7.4	9.8	8.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Bottom	3	1	20.7	7.9	29.9	7.4	8.6	13
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)16	Foggy	Rough	14:46	5.2	Bottom	3	2	20.7	8	30	7.4	8.6	13.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Surface	1	1	20.5	8	30.1	7.3	6.3	6.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Surface	1	2	20.5	8	30.1	7.3	6.3	6.1
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Middle	2	2						

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Bottom	3	1	20.6	8	30	7.3	7.2	5.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4a	Foggy	Rough	14:31	4.4	Bottom	3	2	20.7	8	30	7.3	7.2	5.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Surface	1	1	20.7	8	30.1	7.2	7.3	5.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Surface	1	2	20.7	8	30.1	7.2	7.3	5.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Bottom	3	1	20.7	8	30.1	7.2	5.6	6.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR4(N2)	Foggy	Rough	14:27	4.5	Bottom	3	2	20.7	8	30.1	7.2	5.6	6.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Surface	1	1	20.7	8	30.1	7.2	7.1	26.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Surface	1	2	20.7	8	30.1	7.2	7.1	25.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Bottom	3	1	20.9	8	30.1	7.3	17.7	8.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS8(N)	Foggy	Rough	14:22	4.3	Bottom	3	2	20.9	8	30.1	7.3	17.7	8.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Surface	1	1	21.2	8	30.2	7.3	9.4	9.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Surface	1	2	21.2	8	30.2	7.3	9.5	10.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Bottom	3	1	21.6	7.9	30.2	7.3	7.2	8.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)9	Foggy	Rough	14:10	3.8	Bottom	3	2	21.6	7.9	30.2	7.3	7.1	8.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Surface	1	1	20.3	8	30	7.4	6.2	5.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Surface	1	2	20.3	8	30	7.4	6.2	6.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Middle	2	1	20.3	8	30	7.4	6.2	6.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Middle	2	2	20.3	8	30	7.4	6.2	6.1
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Bottom	3	1	20.5	7.9	30	7.4	7.5	7.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS(Mf)11	Foggy	Moderate	14:54	11.1	Bottom	3	2	20.5	7.9	30	7.4	7.6	6.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Surface	1	1	20.6	8	29.9	7.4	6.1	7.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Surface	1	2	20.7	8	29.9	7.4	6.1	6.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Bottom	3	1	20.5	8	29.9	7.4	5.4	5.1
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	SR7	Foggy	Moderate	15:48	4.1	Bottom	3	2	20.5	8	29.9	7.4	5.4	5.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Surface	1	1	20.3	8	30	7.4	5.8	7.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Surface	1	2	20.3	8	30	7.4	5.9	8.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Middle	2	1	20.3	8	30	7.4	6.4	6.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Middle	2	2	20.3	8	30	7.4	6.4	6.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Bottom	3	1	20.4	8	30	7.4	6.9	6
TMCLKL	HY/2012/08	2019-12-30	Mid-Ebb	IS17	Foggy	Rough	14:48	10.2	Bottom	3	2	20.4	8	30	7.4	6.9	6.1
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Surface	1	1	20.1	8	29.9	7.4	6.6	6.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Surface	1	2	20.1	8	29.9	7.4	6.6	6.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Middle	2	1	20.1	8	29.9	7.4	6.2	7.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Middle	2	2	20.1	8	29.9	7.4	6.2	7.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Bottom	3	1	20.1	8	29.9	7.5	6	7.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)5	Foggy	Moderate	09:06	14.3	Bottom	3	2	20.1	8	29.9	7.5	6	7.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Surface	1	1	20.3	7.9	29.3	7.3	10.6	10.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Surface	1	2	20.3	7.9	29.3	7.3	10.6	11
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Middle	2	1	20.3	7.9	29.2	7.3	9.6	10.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Middle	2	2	20.3	7.9	29.2	7.3	9.5	10.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Bottom	3	1	20.3	7.9	29.3	7.3	10.3	11.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	CS(Mf)3(N)	Foggy	Rough	09:50	7.1	Bottom	3	2	20.3	7.9	29.3	7.3	10.5	11.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Surface	1	1	20.1	8	30	7.4	12	15.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Surface	1	2	20.1	8	30	7.4	12	15.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Bottom	3	1	20.1	8	29.9	7.4	11.8	15
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)16	Foggy	Moderate	10:33	5.5	Bottom	3	2	20.1	8	29.9	7.4	11.8	15.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Surface	1	1	20.5	7.9	30	6.9	6.8	8.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Surface	1	2	20.5	7.9	30	6.9	6.7	8.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Bottom	3	1	20.4	7.9	29.9	7.1	7.9	8.8

Project	Contract	Date	Tide	Stat	Weather	Sea Condition	Time	Water Depth	Level	Lev_Cod	Replicate	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4a	Foggy	Moderate	10:42	3.8	Bottom	3	2	20.4	7.9	29.9	7.1	7.8	9
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Surface	1	1	20.4	8	30	7.1	5.8	6.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Surface	1	2	20.4	8	30	7.1	5.8	6.3
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Bottom	3	1	20.4	7.9	29.8	7.2	6.5	8.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR4(N2)	Foggy	Moderate	10:47	4.2	Bottom	3	2	20.4	7.9	29.8	7.2	6.5	8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Surface	1	1	20.2	8	30.1	7.3	6.9	7.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Surface	1	2	20.2	8	30.1	7.3	6.9	8.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Bottom	3	1	20.2	8	30	7.3	8.5	7.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS8(N)	Foggy	Moderate	10:52	3.5	Bottom	3	2	20.2	8	30	7.3	8.5	6.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Surface	1	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Surface	1	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Middle	2	1	20.2	7.9	30	7.3	12.2	14.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Middle	2	2	20.2	7.9	30	7.3	12.2	14.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Bottom	3	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)9	Foggy	Moderate	10:59	2.7	Bottom	3	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Surface	1	1	20.2	8	30.1	7.3	9.9	12
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Surface	1	2	20.2	8	30.1	7.3	9.9	12.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Middle	2	1	20.3	7.9	30.1	7.3	8	10.7
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Middle	2	2	20.3	8	30.1	7.3	7.9	10.1
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Bottom	3	1	20.2	7.8	29.8	7.4	7.4	8.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS(Mf)11	Foggy	Rough	10:19	11.3	Bottom	3	2	20.2	7.8	29.8	7.4	7.4	8.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Surface	1	1	20.1	8	30	7.3	11.2	12.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Surface	1	2	20.1	8	30	7.3	11.2	12.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Middle	2	1						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Middle	2	2						
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Bottom	3	1	20.1	7.9	29.9	7.4	13.8	14.6
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	SR7	Foggy	Rough	09:25	4.3	Bottom	3	2	20.1	7.9	29.9	7.4	13.7	14.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Surface	1	1	20.1	8	29.9	7.4	6.2	6.4
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Surface	1	2	20.1	8	29.9	7.4	6.3	6.5
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Middle	2	1	20.1	8	29.9	7.4	6.1	6.8
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Middle	2	2	20.1	8	29.9	7.4	6	7.2
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Bottom	3	1	20.1	8	29.9	7.4	8.6	8.9
TMCLKL	HY/2012/08	2019-12-30	Mid-Flood	IS17	Foggy	Moderate	10:27	10.5	Bottom	3	2	20.1	8	29.9	7.4	8.6	8.4

Appendix K

Event and Action Plan

Event and Action Plan for Impact Air Monitoring

	Action			
	ET [(a)]	**IEC [(a)]**	**SOR [(a)]**	**Contractor(s)**
Action Level Exceedance				
	1. Identify the source. 2. Repeat measurement to confirm finding. If two consecutive measurements exceed Action Level, the exceedance is then confirmed. 3. Inform the IEC and the SOR. 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6. Discuss with the IEC and the Contractor on remedial actions required. 7. If exceedance continues, arrange meeting with the IEC and the SOR. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working method. 3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Rectify any unacceptable practice 2. Amend working methods if appropriate 3. If the exceedance is confirmed to be Project related, submit proposals for remedial actions to IEC within 3 working days of notification 4. Implement the agreed proposals 5. Amend proposal if appropriate

	Action			
	ET [(a)]	**IEC [(a)]**	**SOR [(a)]**	**Contractor(s)**
Limit Level Exceedance				
	1. Identify the source. 2. Repeat measurement to confirm finding. If two consecutive measurements exceed Limit Level, the exceedance is then confirmed. 3. Inform the IEC, the SOR, the DEP and the Contractor. 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 7. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken. 8. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 9. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. If the exceedance is confirmed to be Project related after investigation, in consultation with the IEC, agree with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. If the exceedance is confirmed to be Project related after investigation, submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Amend proposal if appropriate. 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.

Note: (a) ET – Environmental Team; IEC – Independent Environmental Checker; SOR – Supervising Officer's Representative

Event & Action Plan for Impact Water Quality Monitoring

Event	ET Leader	IEC	SOR	Contractor
Action level being exceeded by one sampling day	1. Repeat *in situ* measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor and SOR; 4. Check monitoring data, all plant, equipment and Contractor's working methods.	1. Check monitoring data submitted by ET and Contractor's working methods.	1. Confirm receipt of notification of non-compliance in writing; 2. Notify Contractor.	1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling days	1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor, SOR and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, SOR and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Action level;	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly; 4. Supervise the implementation of mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Ensure mitigation measures are properly implemented; 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Supervising Officer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR; 5. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	1. Repeat measurement on next day of exceedance to confirm findings;	1. Check monitoring data submitted by ET and	1. Confirm receipt of notification of failure in	1. Inform the SOR and confirm notification of the

Event	ET Leader	IEC	SOR	Contractor
	2. Identify source(s) of impact; 3. Inform IEC, Contractor, SOR and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, SOR and Contractor;	Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly.	writing; 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to review the working methods.	non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR.
Limit level being exceeded by two or more consecutive sampling days	1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, SOR and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, SOR and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days;	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SOR accordingly; 4. Supervise the implementation of mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Ensure mitigation measures are properly implemented; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.	1. Take immediate action to avoid further exceedance; 2. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR; 3. Implement the agreed mitigation measures; 4. Resubmit proposals of mitigation measures if problem still not under control; 5. As directed by the Supervising Officer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Officer's Representative

Event / Action Plan for Impact Dolphin Monitoring

EVENT	ACTION			
	ET	**IEC**	**SOR**	**Contractor**
Action Level	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SOR and Contractor; 5. Check monitoring data. 6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and finding with the ET and the Contractor.	1. Discuss monitoring with the IEC and any other measures proposed by the ET; 2. If SOR is satisfied with the proposal of any other measures, SOR to signify the agreement in writing on the measures to be implemented.	1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR; 3. Implement the agreed measures.
Limit Level	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor; 3. Attend the meeting to discuss with ET, SOR and	1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 2. If SOR is satisfied with the	1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Attend the meeting to discuss with ET, IEC and SOR the necessity of additional dolphin monitoring and any other

EVENT	ACTION			
	ET	IEC	SOR	Contractor
	3. Identify source(s) of impact; 4. Inform the IEC, SOR and Contractor of findings; 5. Check monitoring data; 6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary. 7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.	Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise SOR of the results and findings accordingly. 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise SOR the results and findings accordingly.	proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, SOR to signify the agreement in writing on such proposals and any other mitigation measures. 3. Supervise the implementation of additional monitoring and/or any other mitigation measures.	potential mitigation measures. 3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary. 4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Officer's Representative

Appendix L

Cumulative Statistics on Exceedances, Complaints, Notifications of Summons and Successful Prosecutions

Table L1 Cumulative Statistics on Exceedances

Parameters	Level of Exceedance	Total No. recorded in this reporting month	Total No. recorded since Contract commencement
1-hr TSP	Action	4	105
	Limit	1	12
24-hr TSP	Action	0	10
	Limit	0	4
Water Quality	Action	0	167
	Limit	0	19
Impact Dolphin Monitoring	Action	0	11
	Limit	0	17

Table L2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (December 2019)	0	0	0
Total No. received since Contract commencement	17	1	0

Email message

Environmental Resources Management

2507, 25/F One Harbourfront
18 Tak Fung Street
Hunghom, Kowloon
Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660

To	Ramboll Hong Kong, Limited (ENPO)
From	ERM- Hong Kong, Limited
Ref/Project number	Contract No. HY/2012/08 Tuen Mun–Chek Lap Kok Link–Northern Connection Sub-sea Tunnel Section
Subject	Notification of Exceedance for Air Quality Impact Monitoring
Date	21 December 2019

ERM

Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following Log no.:

0212330_1December2019_1hrTSP_Station ASR1
0212330_1December2019_1hrTSP_Station ASR10
0212330_1December2019_1hrTSP_Station ASR5

One Limit Level and Two Action Level Exceedances were recorded on 1 December 2019.

Regards,

Dr Jasmine Ng
Environmental Team Leader

ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08
TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring
Notification of Exceedance

Log No.	**Action Level Exceedance** **0212330_1December2019_1hrTSP_Station ASR10** **0212330_1December2019_1hrTSP_Station ASR5** **Limit Level Exceedance** **0212330_1December2019_1hrTSP_Station ASR1** **[Total No. of Exceedances = 3]**	
Date	1 December 2019 (Measured) 16 December 2019 (Laboratory results received by ERM)	
Monitoring Station	ASR1, ASR5, ASR6, ASR10 and AQMS1	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	24-hr TSP (µg/m³)	ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214
	1-hr TSP (µg/m³)	ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337
Limit Levels	1-hr TSP (µg/m³)	500
	24-hr TSP (µg/m³)	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR10 (407 µg/m³) during 1515- 1615. Action Level Exceedance for 1-hr TSP is observed at ASR5 (377 µg/m³) during 1540- 1640. Limit Level Exceedance for 1-hr TSP is observed at ASR1 (747 µg/m³) during 1551- 1651.	
Works Undertaken (at the time of monitoring event)	On 1 December 2019, no construction works were carried out on site.	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedance is unlikely to be due to this Contract, in view of the following: • According to the construction information provided by the Contractor, no construction works were carried out on site on 1 December 2019. • The exceedance is unlikely to be due to this Contract as dust suppression measures were implemented properly on site. Water spraying was applied on site to prevent dust. Water spraying was also applied on exposed soil within the Contract site and associated works areas. • With reference to the recorded wind direction (ranged between 272° and 302°, blowing from a north-westerly direction) and wind speed (0.9 – 1.8 m/s) during the works period, Stations ASR5 and ASR1 are located upstream to the site. Stations ASR10 are located downstream to the site. However, since there were no construction works carried out on site, the exceedances are unlikely to be due to the site activities of this contract. Based on the above, the exceedance is unlikely to be due to this Contract.	

Actions Taken / To Be Taken	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the Contract site throughout the construction period.
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached.

Air quality monitoring results on 1/12/2019								
Project	Contract	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	13:58	1-hour TSP	185	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	15:00	1-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	16:02	1-hour TSP	161	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	13:47	1-hour TSP	231	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	14:49	1-hour TSP	209	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	15:51	1-hour TSP	747	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	13:11	1-hour TSP	137	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	14:13	1-hour TSP	129	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	15:15	1-hour TSP	407	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	13:36	1-hour TSP	196	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	14:38	1-hour TSP	127	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	15:40	1-hour TSP	377	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	13:23	1-hour TSP	216	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	14:25	1-hour TSP	149	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	15:27	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	Sunny	17:04	24-hour TSP	107	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	Sunny	16:53	24-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	Sunny	16:17	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	Sunny	16:42	24-hour TSP	110	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	Sunny	16:29	24-hour TSP	134	ug/m3

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/01	1:00	1.3	304
19/12/01	2:00	1.3	319
19/12/01	3:00	0.9	303
19/12/01	4:00	0.4	290
19/12/01	5:00	0.4	339
19/12/01	6:00	0	-
19/12/01	7:00	0	-
19/12/01	8:00	1.3	28
19/12/01	9:00	1.3	28
19/12/01	10:00	1.8	207
19/12/01	11:00	1.3	210
19/12/01	12:00	1.8	309
19/12/01	13:00	2.7	273
19/12/01	14:00	2.2	288
19/12/01	15:00	1.8	272
19/12/01	16:00	0.9	302
19/12/01	17:00	0.9	319
19/12/01	18:00	0.9	288
19/12/01	19:00	1.3	289
19/12/01	20:00	1.3	315
19/12/01	21:00	2.2	309
19/12/01	22:00	1.8	311
19/12/01	23:00	1.3	318

Figure 1

Indicative Construction Works Area on 1 December 2019

DATE: 06/03/2013

Environmental Resources Management

ERM

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營	Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section	**Weekly Water Spraying Record** **每週灑水檢查記錄**

Site Location 地盤位置: Northern Landfall

Date 日期: 25 Nov 2019 to 至 01 Dec 2019

	Time 時間	Monday 星期一	Tuesday 星期二	Wednesday 星期三	Thursday 星期四	Friday 星期五	Saturday 星期六	Sunday 星期日
1	8:00 – 8:45	√	√	√	√	√	√	√
2	8:45 – 9:30	√	√	√	√	√	√	√
3	9:30 – 10:15	√	√	√	√	√	√	√
4	10:15 – 11:00	√	√	√	√	√	√	√
5	11:00 – 11:45	√	√	√	√	√	√	√
6	11:45 – 12:30	√	√	√	√	√	√	√
7	12:30 – 13:15	√	√	√	√	√	√	√
8	13:15 – 14:00	√	√	√	√	√	√	√
9	14:00 – 14:45	√	√	√	√	√	√	√
10	14:45 – 15:30	√	√	√	√	√	√	√
11	15:30 – 16:45	√	√	√	√	√	√	√
12	16:45 – 17:30	√	√	√	√	√	√	√
	Verified by Site Foreman 地盤科文簽署確認	子	子	子	子	子	子	子

Night shift 夜間工作 (if necessary 如需要)								
	17:30 – 19:00							
	19:00 – 20:30							
	20:30 – 22:00							
	22:00 – 23:00							

*Please - tick (√) in the box if complete the spraying of water.
circle (O) in the box if it is raining.

*如果 - 已經完成灑水, 請於方格內加上剔號(√)。
是下雨天, 請於方格內加上圓圈(O)。

Remarks:

(1) Pursuant to EP Clause 3.15, the Permit Holder shall undertake watering at least 12 times per day on all exposed soil within the Project site and associated work areas in Tuen Mun area throughout the construction phase.
(2) Spraying position includes the main haul road, open area, slopes, stockpiles and any other dusty materials.
(3) If it is raining, no water spraying is needed.
(4) The no of spraying will be increased due to site condition.

備註:

(1) 根據環境許可證 3.15 條例, 在整個施工階段內, 許可證持有人須每天至少 12 次在屯門區項目工地和相關的工作區域內的所有暴露土壤灑水。
(2) 灑水位置包括主要運輸道路, 空曠地帶, 斜坡, 存料堆, 以及任何其他產生塵埃物料。
(3) 當下雨時, 地盤將不需要灑水。
(4) 如果地盤情況更改或有需要時, 灑水次數會相應增加。

Email message

Environmental Resources Management

2507, 25/F One Harbourfront
18 Tak Fung Street
Hunghom, Kowloon
Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660

To	Ramboll Hong Kong, Limited (ENPO)
From	ERM- Hong Kong, Limited
Ref/Project number	Contract No. HY/2012/08 Tuen Mun–Chek Lap Kok Link–Northern Connection Sub-sea Tunnel Section
Subject	Notification of Exceedance for Air Quality Impact Monitoring
Date	21 December 2019

ERM

Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following Log no.:

0212330_4December2019_1hrTSP_Station ASR1
0212330_4December2019_1hrTSP_Station ASR5

Two Action Level Exceedances were recorded on 4 December 2019.

Regards,

Dr Jasmine Ng
Environmental Team Leader

ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08
TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring
Notification of Exceedance

Log No.	**<u>Action Level Exceedance</u> 0212330_4December2019_1hrTSP_Station ASR1 0212330_4December2019_1hrTSP_Station ASR5 [Total No. of Exceedances = 2]**	
Date	4 December 2019 (Measured) 16 December 2019 (Laboratory results received by ERM)	
Monitoring Station	ASR1, ASR5, ASR6, ASR10 and AQMS1	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	24-hr TSP (µg/m³)	ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214
	1-hr TSP (µg/m³)	ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337
Limit Levels	1-hr TSP (µg/m³)	500
	24-hr TSP (µg/m³)	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR1 (366 µg/m³) during 0837 - 0937. Action Level Exceedance for 1-hr TSP is observed at ASR5 (380 µg/m³) during 0825 - 0925.	
Works Undertaken (at the time of monitoring event)	On 4 December 2019, Road and Drainage Works were carried out on site.	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedance is unlikely to be due to this Contract, in view of the following: • According to the construction information provided by the Contractor, only Road and Drainage Works were carried out on site on 4 December 2019. • The exceedance is unlikely to be due to this Contract as dust suppression measures were implemented properly on site. Water spraying was applied on site to prevent dust. Water spraying was also applied on exposed soil within the Contract site and associated works areas. • With reference to the recorded wind direction (ranged between 356° and 14°, blowing from a northern direction) and wind speed (2.7 – 3.1 m/s) during the works period, Stations ASR5 are located upstream to the construction works at Portion N-A. Stations ASR1 are located downstream to the construction works at Portion N-A. However, Road & Drainage Works carried out at Portion N-A with implementation of dust mitigation measures are unlikely to cause significant dust impact. Based on the above, the exceedance is unlikely to be due to this Contract.	

Actions Taken / To Be Taken	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the Contract site throughout the construction period.
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached.

Air quality monitoring results on 4/12/2019								
Project	Contract	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	8:44	1-hour TSP	156	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	9:51	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	10:53	1-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	8:37	1-hour TSP	366	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	9:39	1-hour TSP	220	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	10:41	1-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	8:02	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	9:04	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	10:06	1-hour TSP	101	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	8:25	1-hour TSP	380	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	9:27	1-hour TSP	180	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	10:29	1-hour TSP	202	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	8:13	1-hour TSP	150	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	9:15	1-hour TSP	163	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	10:17	1-hour TSP	169	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	Sunny	11:55	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	Sunny	11:43	24-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	Sunny	11:08	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	Sunny	11:31	24-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	Sunny	11:19	24-hour TSP	118	ug/m3

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	**Time (24hrs)**	**Average of Wind Speed (m/s)**	**Average of Wind Direction(degree)**
19/12/04	0:00	1.8	328
19/12/04	1:00	2.7	30
19/12/04	2:00	2.2	25
19/12/04	3:00	1.8	13
19/12/04	4:00	1.8	19
19/12/04	5:00	2.7	355
19/12/04	6:00	1.8	339
19/12/04	7:00	1.8	339
19/12/04	8:00	3.1	356
19/12/04	9:00	2.7	14
19/12/04	10:00	2.2	28
19/12/04	11:00	2.2	16
19/12/04	12:00	1.8	31
19/12/04	13:00	1.8	31
19/12/04	14:00	1.3	306
19/12/04	15:00	2.2	325
19/12/04	16:00	1.8	345
19/12/04	17:00	1.8	341
19/12/04	18:00	0.9	306
19/12/04	19:00	0.4	292
19/12/04	20:00	0.4	311
19/12/04	21:00	1.3	14
19/12/04	22:00	1.3	56
19/12/04	23:00	1.8	28

Figure 1

Indicative Construction Works Area on 4 December 2019

DATE: 06/03/2013

Environmental Resources Management

ERM

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營	Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section	**Weekly Water Spraying Record** **每週灑水檢查記錄**

Site Location 地盤位置: Northern Landfall

Date 日期: 02 Dec 2019 to 至 08 Dec 2019

	Time 時間	Monday 星期一	Tuesday 星期二	Wednesday 星期三	Thursday 星期四	Friday 星期五	Saturday 星期六	Sunday 星期日
1	8:00 – 8:45	√	√	√	√	√	√	√
2	8:45 – 9:30	√	√	√	√	√	√	√
3	9:30 – 10:15	√	√	√	√	√	√	√
4	10:15 – 11:00	√	√	√	√	√	√	√
5	11:00 – 11:45	√	√	√	√	√	√	√
6	11:45 – 12:30	√	√	√	√	√	√	√
7	12:30 – 13:15	√	√	√	√	√	√	√
8	13:15 – 14:00	√	√	√	√	√	√	√
9	14:00 – 14:45	√	√	√	√	√	√	√
10	14:45 – 15:30	√	√	√	√	√	√	√
11	15:30 – 16:45	√	√	√	√	√	√	√
12	16:45 – 17:30	√	√	√	√	√	√	√
	Verified by Site Foreman 地盤科文簽署確認							

Night shift 夜間工作 (if necessary 如需要)								
	17:30 – 19:00							
	19:00 – 20:30							
	20:30 – 22:00							
	22:00 – 23:00							

*Please - tick (√) in the box if complete the spraying of water.
circle (O) in the box if it is raining.

*如果 - 已經完成灑水, 請於方格內加上剔號(√)。
是下雨天, 請於方格內加上圓圈(O)。

Remarks:

(1) Pursuant to EP Clause 3.15, the Permit Holder shall undertake watering at least 12 times per day on all exposed soil within the Project site and associated work areas in Tuen Mun area throughout the construction phase.
(2) Spraying position includes the main haul road, open area, slopes, stockpiles and any other dusty materials.
(3) If it is raining, no water spraying is needed.
(4) The no of spraying will be increased due to site condition.

備註:

(1) 根據環境許可證 3. 15 條例, 在整個施工階段內, 許可證持有人須每天至少 12 次在屯門區項目工地和相關的工作區域內的所有暴露土壤灑水。
(2) 灑水位置包括主要運輸道路, 空曠地帶, 斜坡, 存料堆, 以及任何其他產生塵埃物料。
(3) 當下雨時, 地盤將不需要灑水。
(4) 如果地盤情況更改或有需要時, 灑水次數會相應增加。

Appendix M

Waste Flow Table

Monthly Summary Waste Flow Table

Name of Department: HyD **Contract No. / Works Order No.: HY/2012/08**

Monthly Summary Waste Flow Table for December 2019 [to be submitted not later than the 15th day of each month following reporting month] (All quantities shall be rounded off to 3 decimal places.)

Month	Monthly Break-down of Inert Construction & Demolition Materials (i.e. Public Fill Materials)				
	(a)=(b)+(c)+(d)+(e) Total Quantity Generated	(b) Hard Rock and Large Broken Concrete	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill
	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)
Sub-total	2224.407	0.000	76.754	585.369	1562.284
Jan-2019	299.831	0.000	53.419	215.427	30.985
Feb-2019	133.335	0.000	46.021	67.707	19.607
Mar-2019	120.224	0.000	50.455	20.964	48.805
Apr-2019	130.329	0.000	58.956	0.000	71.373
May-2019	67.355	0.000	51.297	0.000	16.058
Jun-2019	4.134	0.000	0.000	0.000	4.134
Half Year Sub-total	755.208	0.000	260.148	304.098	190.962
Jul-2019	3.821	0.000	0.000	0.000	3.821
Aug-2019	2.388	0.000	0.000	0.000	2.388
Sep-2019	4.191	0.000	0.000	0.000	4.191
Oct-2019	8.366	0.000	0.000	0.000	8.366
Nov-2019	6.215	0.000	0.000	0.000	6.215
Dec-2019	4.216	0.000	0.000	0.000	4.216
Project Total Quantities	3008.822	0.000	336.902	889.467	1782.443

Month	**Actual Quantities of Non-inert Construction Waste Generated Monthly**								
	Metals		Paper/ cardboard packaging		Plastics (see Note 3)		Chemical Waste		Others, e.g. General Refuse disposed at Landfill
	(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000ton)
	generated	recycled	generated	recycled	generated	recycled	generated	Disposed	generated
Sub-total	6763.82	6763.82	7.74	7.74	8.70	8.70	60.35	60.35	13.989
Jan-2019	394.55	394.55	0.00	0.00	0.00	0.00	0.00	0.00	0.538
Feb-2019	103.72	103.72	0.62	0.62	0.00	0.00	1.672	1.672	0.578
Mar-2019	88.20	88.20	0.46	0.46	0.00	0.00	0.00	0.00	0.692
Apr-2019	260.89	260.89	0.00	0.00	3.90	3.90	1.045	1.045	0.707
May-2019	0.66	0.66	1.46	1.46	0.00	0.00	0.00	0.00	0.798
Jun-2019	136.75	136.75	0.66	0.66	0.00	0.00	4.14	4.14	0.751
Half Year Sub-total	984.77	984.77	3.20	3.20	3.90	3.90	6.857	6.857	4.064
Jul-2019	444.37	444.37	1.20	1.20	0.00	0.00	0.00	0.00	0.730
Aug-2019	505.93	505.93	0.00	0.00	1.58	1.58	3.80	3.80	0.703
Sep-2019	397.10	397.10	0.60	0.60	1.62	1.62	8.00	8.00	0.737
Oct-2019	523.05	523.05	0.00	0.00	1.04	1.04	5.80	5.80	0.754
Nov-2019	271.73	271.73	1.90	1.90	0.00	0.00	1.00	1.00	0.525
Dec-2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.441
Project Total Quantities	9890.77	9890.77	14.64	14.64	16.84	16.84	85.807	85.807	21.943

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*				
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed of as Public Fill
(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)
3200.000	0.000	350.000	1000.000	2000.000

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*				
Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	General Refuse disposed of at Landfill
(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 ton)
10500.00	20.00	20.00	100.00	30.000

Notes:
(1) The performance targets are given in the **ER Appendix 8J Clause 14** and the EM & A Manual(s).
(2) The waste flow table shall also include C&D materials to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3. (**ER Part 8 Clause 8.8.5 (d) (ii)** refers).