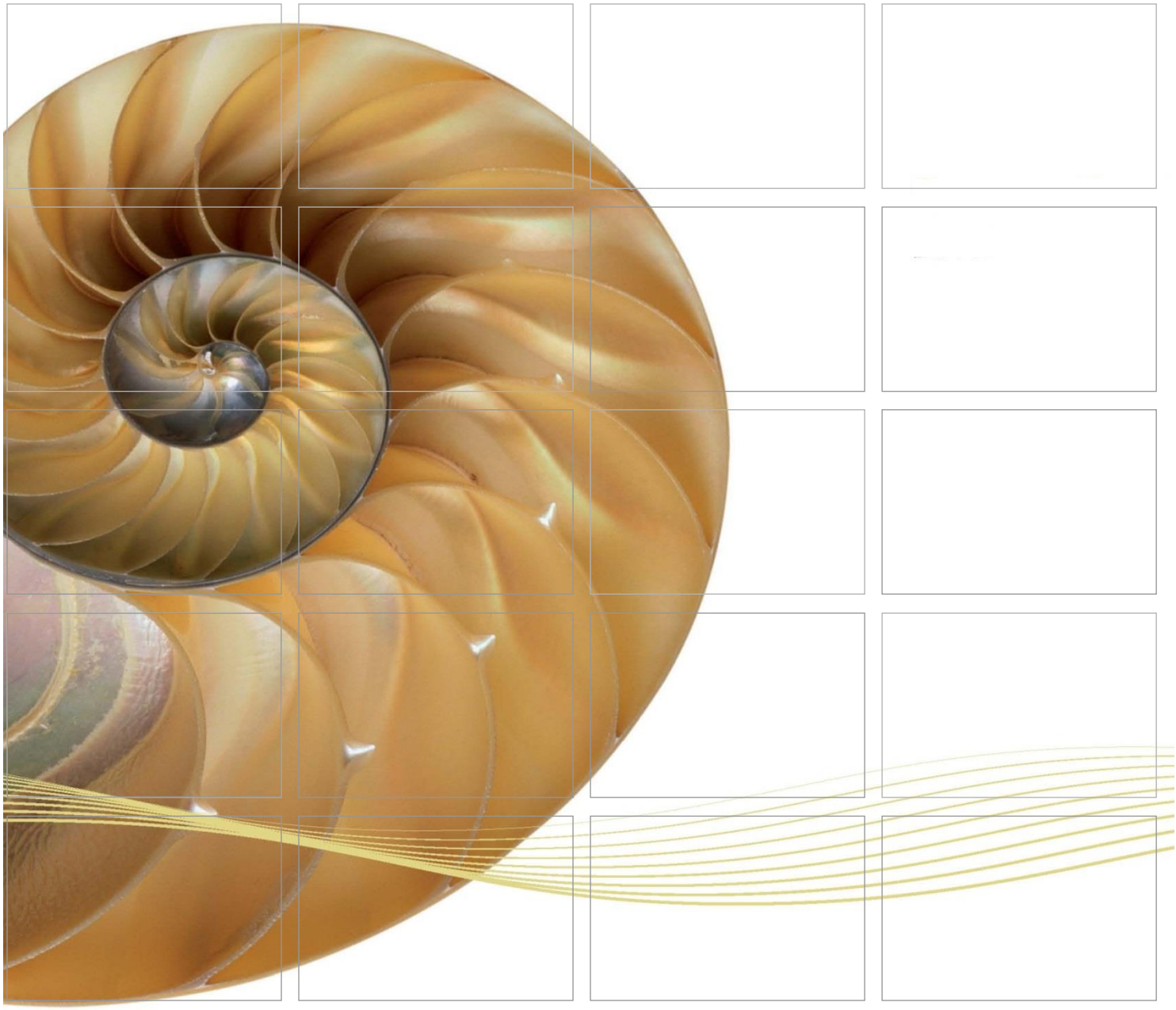
Report



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

Forty-second Monthly Environmental Monitoring & Audit (EM&A) Report

12 May 2017

Environmental Resources Management
16/F, Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
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The business of sustainability

RAMBOLL ENVIRON

Ref.: HYDHZMBEEM00_0_5360L.17

15 May 2017

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

By Fax (2293 6300) and By Post

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
42nd Monthly EM&A Report for April 2017 (EP-354/2009/D)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (April 2017) (ET's ref.: "0212330_42nd Monthly EM&A_20170512.doc" dated 12 May 2017) certified by the ET Leader and provided to us via e-mail on 12 May 2017.

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. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. Vico Cheung (By Fax: 3188 6614)
AECOM – Mr. Conrad Ng (By Fax: 3922 9797)
ERM – Mr. Jovy Tam (By Fax: 2723 5660)
Dragages – Bouygues JV - Mr. C. F. Kwong (By Fax: 2293 7499)

Internal: DY, YH, PSC, ENPO Site

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

Forty-second Monthly Environmental Monitoring & Audit (EM&A) Report

Document Code: 0212330_42nd Monthly EM&A_20170512.doc

Environmental Resources Management

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Client: DBJV	Project No: 0212330
Summary: This document presents the Forty-second Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section.	Date: 12 May 2017 Approved by: *Mr Craig Reid* *Partner* Certified by: *Mr Jovy Tam* *ET Leader*

Revision	Description	By	Checked	Approved	Date
	42nd Monthly EM&A Report	VAR	JT	CAR	12/05/17

Distribution

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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 Environ 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 Project commenced on 1 November 2013 and will tentatively be completed by the end of 2018. 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 Forty-second Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 30 April 2017 for the *Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section* (the "Project") in accordance with the Updated EM&A Manual of the TM-CLK Link Project. As informed by the Contractor, major activities in the reporting period included:

Land-based Works

- Box Culvert Extension at Works Area – Portion N-A;
- Construction of North Ventilation Building – Portion N-C;
- Construction of Cross Passage Tympanum – TBM tunnel;
- Cross Passage Lining Installation – TBM Tunnel;
- Excavation of Sub-sea Tunnel – TBM tunnel;
- Corbel Construction – TBM Tunnel;
- Sub-sea Tunnel Gallery Installation – TBM tunnel;
- Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction – Portion S-A.

Marine-based Works

- Construction of Vertical Seawall at Portion N-A; and
- Filling works at Portion N-A

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

24-hour TSP Monitoring	10 sessions
1-hour TSP Monitoring	10 sessions
Water Quality Monitoring	13 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 dredging, reclamation or marine sheet piling works in open waters under this Contract. Passive Acoustic Monitoring (PAM) was also implemented for the detection of marine mammal when dredging, reclamation or marine sheet piling works were carried out outside the daylight hours under this Contract. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in April 2017 during the exclusion zone monitoring.

Summary of Breaches of Action/Limit Levels

Breaches of Action and Limit Levels for Air Quality

No Action Level or Limit Level of air quality exceedances were recorded in the air quality monitoring of this reporting month.

Breaches of Action and Limit Levels for Water Quality

No Action Level or Limit Level of water quality exceedances were recorded in the water quality monitoring of this reporting month.

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.

One (1) environmental complaint case regarding noise nuisance and water pollution at the site near HKBCF of HZMB was referred by IEC on 28 March 2017. The complaint investigation report is provided in Appendix L.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

Reporting Change

There was no reporting change required in the reporting period.

Upcoming Works for the Next Reporting Month

Works to be undertaken in the next monitoring period of May 2017 include the following:

Marine-based Works

- Construction of Vertical Seawall at Portion N-A; and
- Filling works at Portion N-A

Land-based Works

- Box Culvert Extension at Works Area – Portion N-A;
- Construction of North Ventilation Building – Portion N-C;
- Construction of Cross Passage Tympanum – TBM tunnel;
- Cross Passage Lining Installation – TBM Tunnel;
- Excavation of Sub-sea Tunnel – TBM tunnel;
- Corbel Construction – TBM Tunnel;
- Sub-sea Tunnel Gallery Installation – TBM tunnel;
- CSM Ground Treatment and Bulk excavation – Portion S-A.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of May 2017 are mainly associated with dust, marine water quality, marine ecology and waste management issues.

1 INTRODUCTION

1.1 BACKGROUND

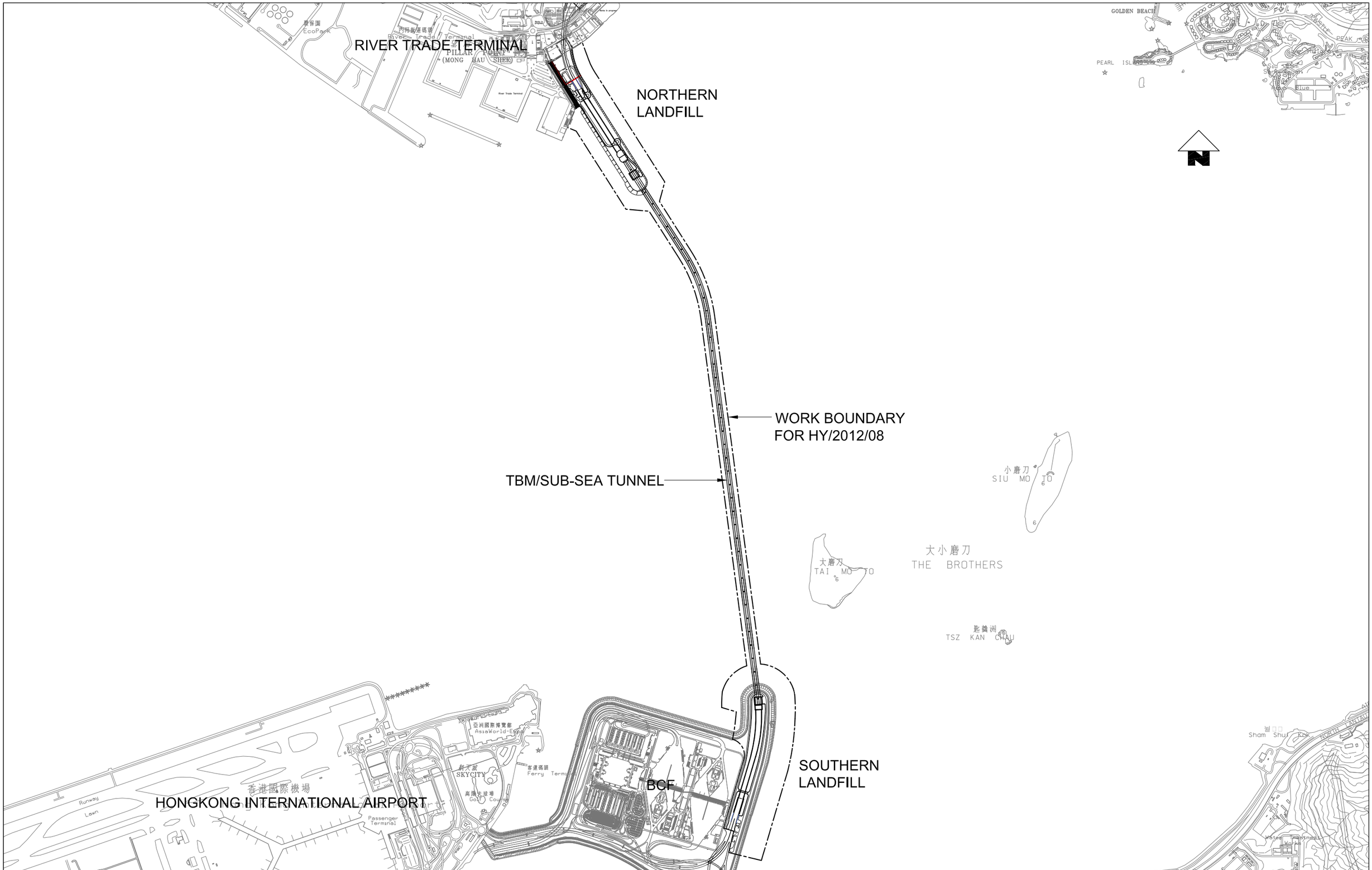
According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated 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 Environ 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 by 2018. 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 Forty-second 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 April 2017.

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 16/HZMB	Kenneth Lee	2762 4996	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 Environ 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)	Environmental Manager	C.F. Kwong	2293 7322	2293 7499
	Environmental Officer	Bryan Lee	2293 7323	2293 7499
	Environmental Officer	David Ho	6628 8684	2293 7499
	24-hour complaint hotline	Rachel Lam	2293 7330	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	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*.

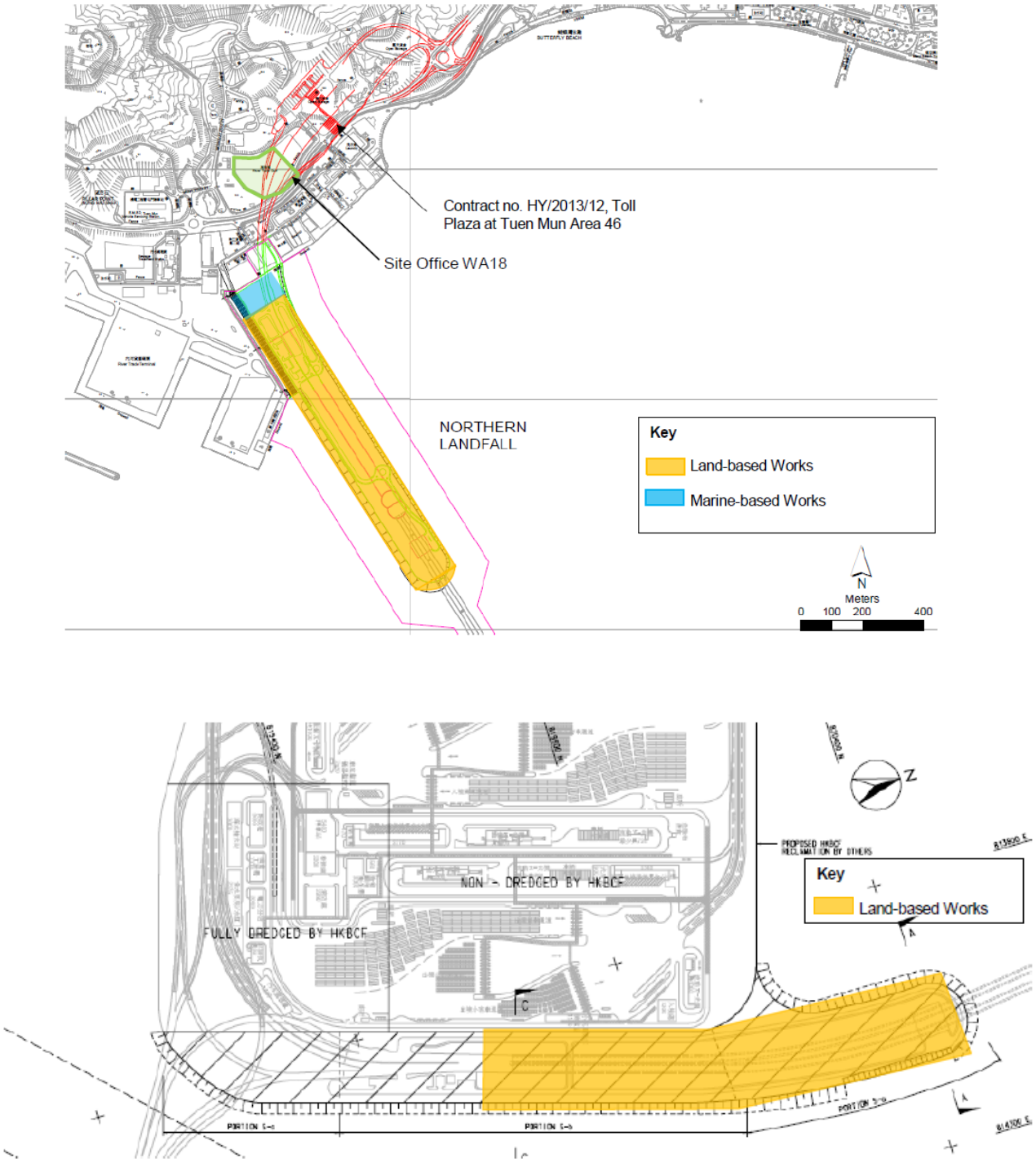
The general layout plan of the site showing the detailed works areas is shown in *Figure 1.2*. The Environmental Sensitive Receivers in the vicinity of the Project are shown in *Figure 1.3*.

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
• Box Culvert Extension at Works Area – Portion N-A; • Construction of North Ventilation Building – Portion N-C; • Construction of Cross Passage Tympanum – TBM tunnel; • Cross Passage Lining Installation – TBM Tunnel; • Excavation of Sub-sea Tunnel – TBM tunnel; • Corbel Construction – TBM Tunnel; • Sub-sea Tunnel Gallery Installation – TBM tunnel; • Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction – Portion S-A.
Marine-based Works • Construction of Vertical Seawall at Portion N-A; and • Filling works at Portion N-A

Figure 1.2 Locations of Construction Activities – April 2017



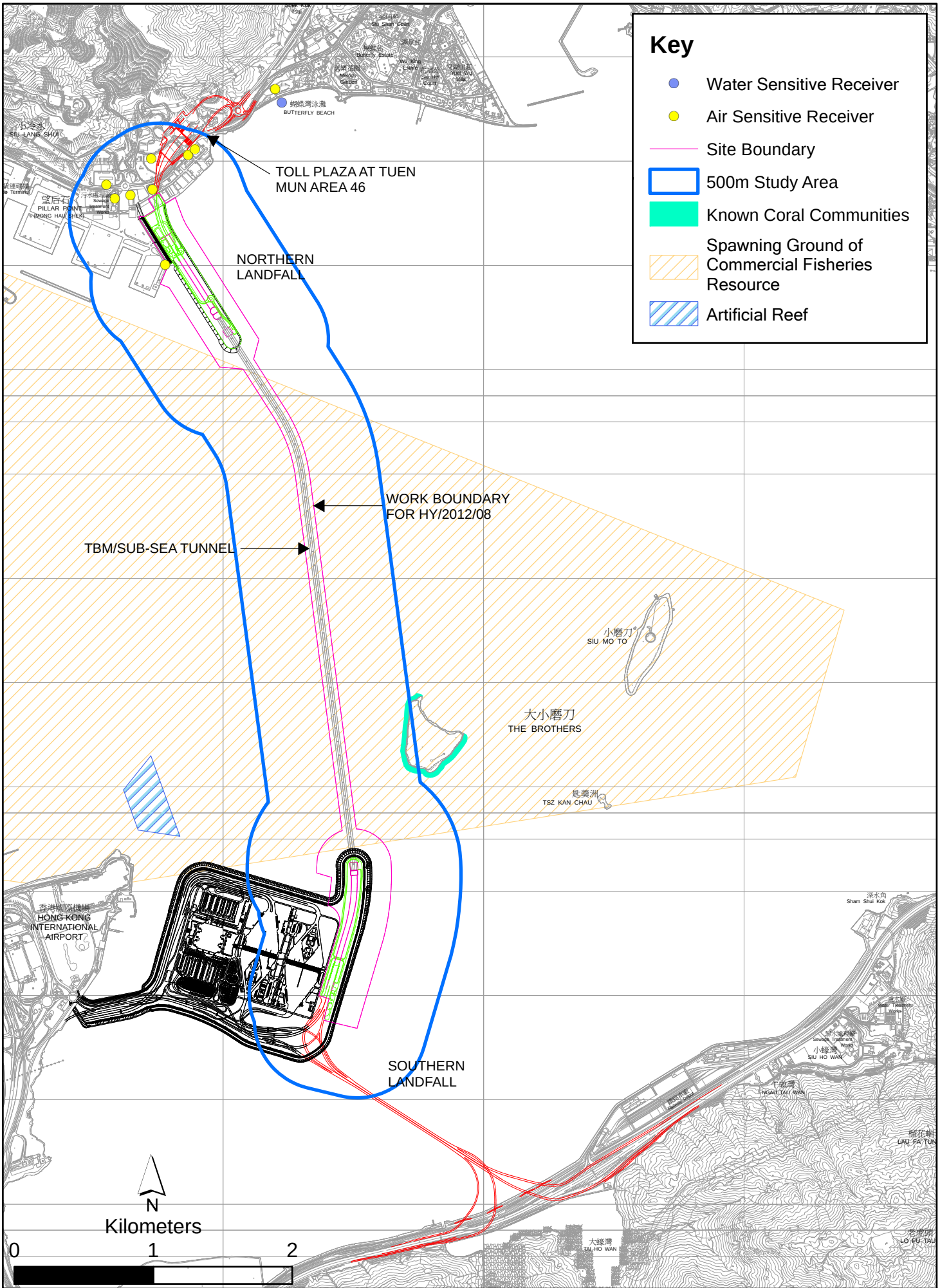


Figure 1.3 Environmental Sensitive Receivers in the vicinity of Contract No. HY/2012/08 Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-Sea Tunnel Section

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Date: 15/4/2014

Environmental Resources Management

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 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 April 2017 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	3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 April 2017	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	

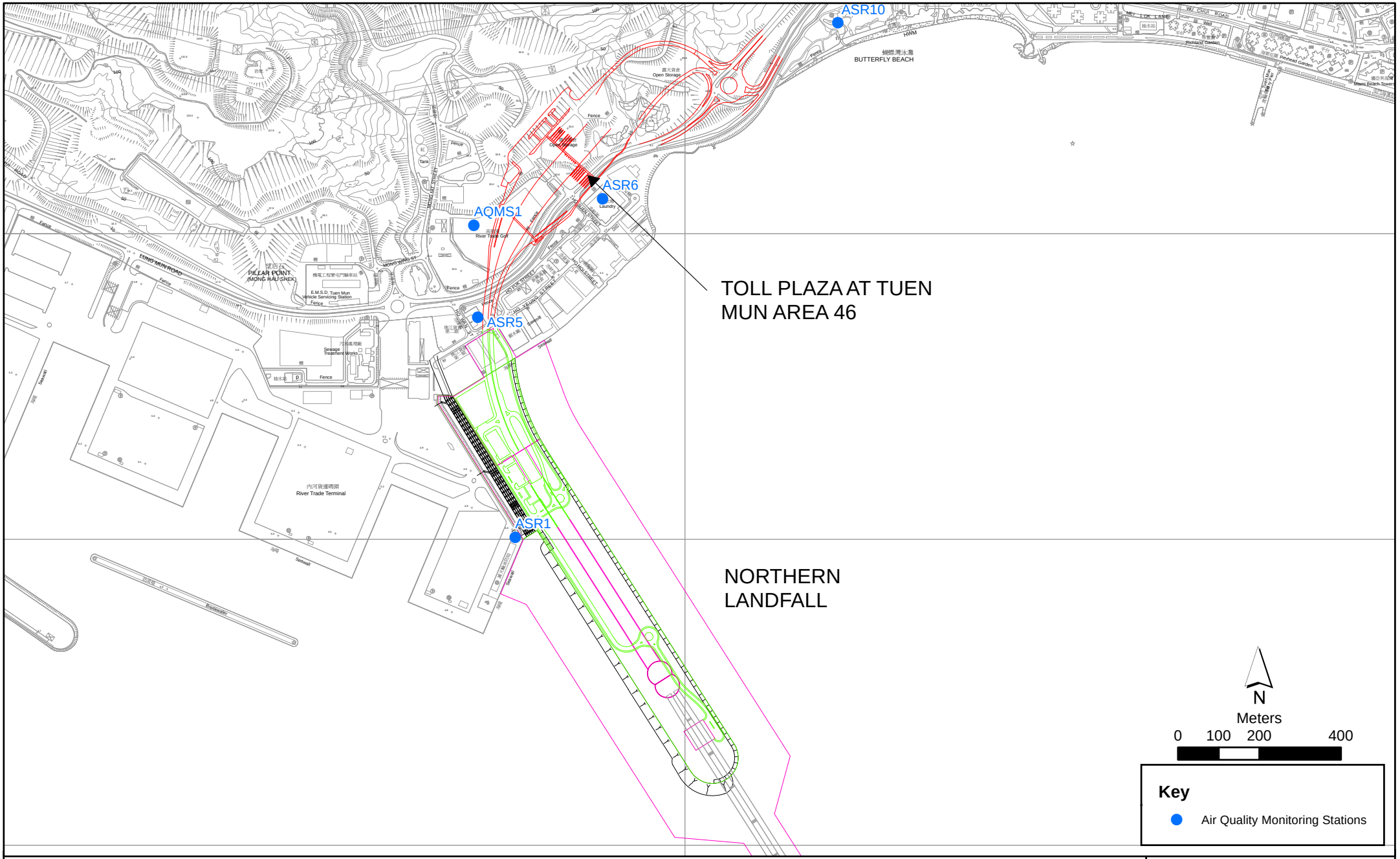

Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring

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Date: 21/2/2014

Environmental Resources Management

ERM

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 April 2017 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	160	57 - 256	331	500
ASR5	174	92 - 270	340	500
AQMS1	123	56 - 256	335	500
ASR6	145	81 - 221	338	500
ASR10	107	60 - 174	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	88	64 - 117	213	260
ASR5	89	60 - 123	238	260
AQMS1	61	45 - 80	213	260
ASR6	72	47 - 103	238	260
ASR10	57	43 - 72	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 10 monitoring events were undertaken in which no Action or Limit Level exceedances of 1-hr TSP were recorded in this reporting month. No Action or Limit Level exceedances for 24-hr TSP were record.

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

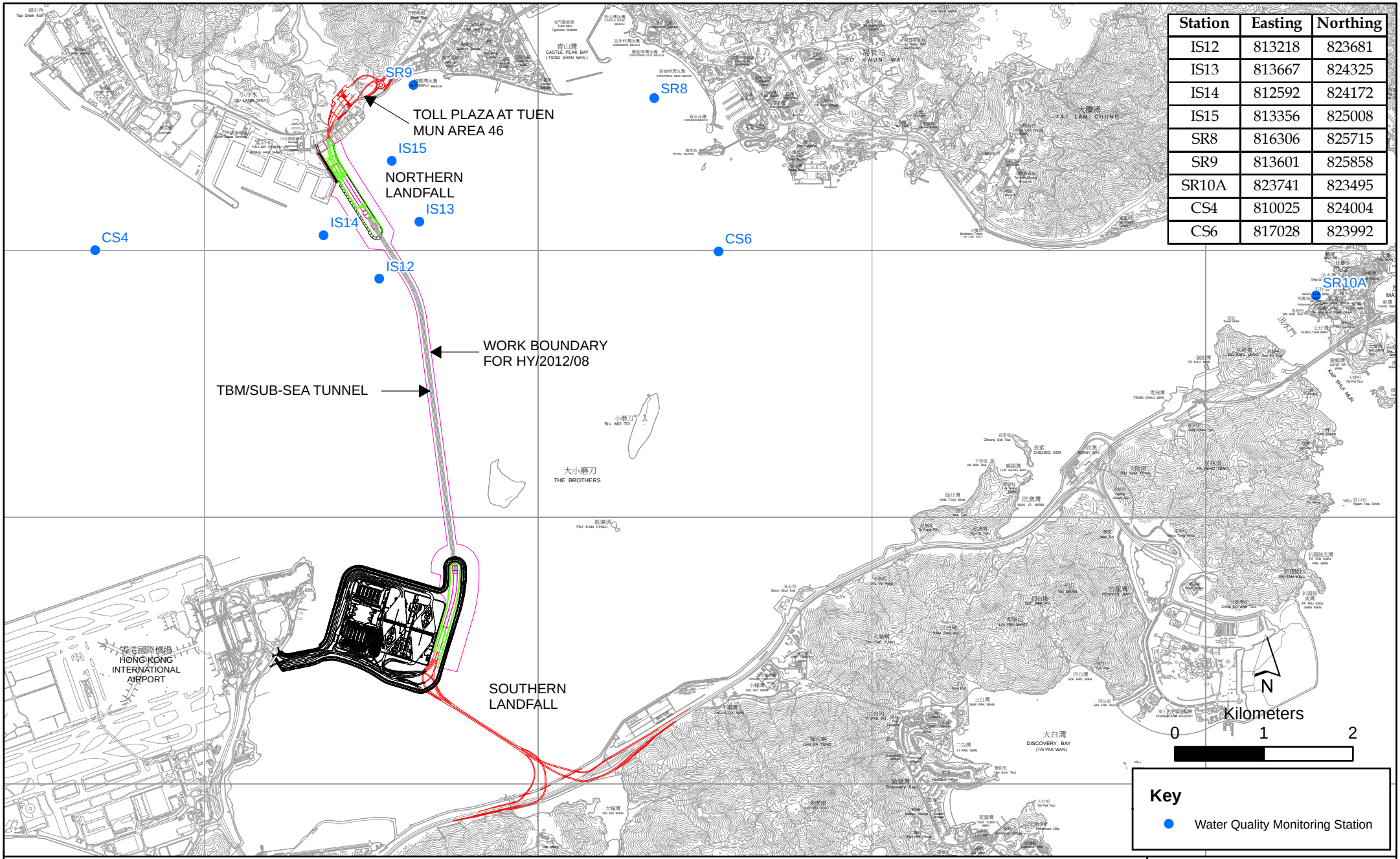
In accordance with the Updated EM&A Manual, impact water quality monitoring was carried out three days per week during the construction period at nine (9) water quality monitoring stations (*Figure 2.2*; *Table 2.5*).

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

Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
		Easting	Northing			
IS12	Impact Station	813218	823681	• Temperature(°C)	3 water depths: 1m below sea surface, mid-depth and 1m above 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.	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract.
IS13	Impact Station	813667	824325	• pH(pH unit)		
IS14	Impact Station	812592	824172	• Turbidity (NTU)		
IS15	Impact Station	813356	825008	• Water depth (m)		
CS4	Control / Far Field Station	810025	824004	• Salinity (ppt)		
CS6	Control / Far Field Station	817028	823992	• DO (mg/L and % of saturation)		
SR8	Sensitive receiver (Gazettal beaches in Tuen Mun)	816306	825715	• SS (mg/L)		
SR9	Sensitive receiver (Butterfly Beach)	813601	825858			
SR10A	Sensitive receiver (Ma Wan FCZ)	823741	823495			

*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.

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



Station	Easting	Northing
IS12	813218	823681
IS13	813667	824325
IS14	812592	824172
IS15	813356	825008
SR8	816306	825715
SR9	813601	825858
SR10A	823741	823495
CS4	810025	824004
CS6	817028	823992

Figure 2.2

Water Quality Monitoring Station

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Date: 15/11/2013

Environmental Resources Management

ERM

Table 2.6 Water Quality Monitoring Equipment

Equipment	Model
Water Sampler	Kahlsico Water-Bottle Model 135DW 150
Dissolved Oxygen Meter	YSI Pro 2030
pH Meter	HANNA HI 9125
Turbidity Meter	HACH 2100Q
Monitoring Position Equipment	"Magellan" Handheld GPS Model explorist GC DGPS Koden KGP913MK2 (1)

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 April 2017 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 I*.

Since marine works for Phase 2 reclamation commenced on 27 December 2016, impact water quality monitoring resumed on 27 December 2016. In this reporting period, a total of thirteen (13) monitoring events were undertaken in which no Action Level or Limit Levels of exceedances for impact water quality monitoring was recorded.

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, the on-going impact line transect dolphin monitoring data collected by HyD's *Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge. Hong Kong Link Road - Section between Scenic Hill and Hong Kong Boundary Crossing Facilities* on the monthly basis is adopted to avoid duplicates of survey effort.

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.

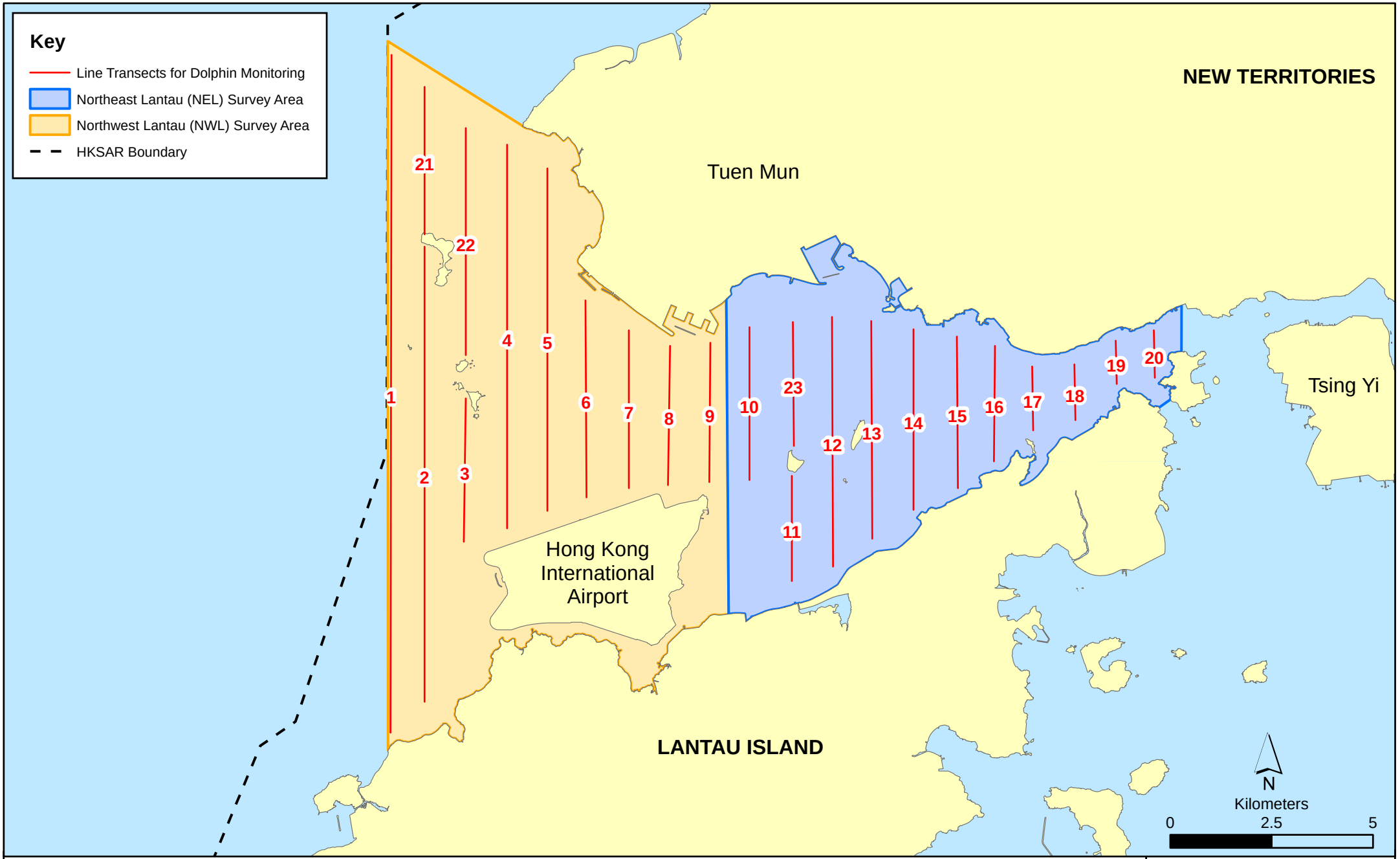

Figure 2.3

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

File: T:\GIS\CONTRACT\0212330\Mxd\0212330_Transect_of_Dolphin_Monitoring.mxd
Date: 29/11/2013

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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	805475	815913	14	Start Point	817537	820220
2	End Point	805477	826654	14	End Point	817537	824613
3	Start Point	806464	819435	15	Start Point	818568	820735
3	End Point	806464	822911	15	End Point	818568	824433
4	Start Point	807518	819771	16	Start Point	819532	821420
4	End Point	807518	829230	16	End Point	819532	824209
5	Start Point	808504	820220	17	Start Point	820451	822125
5	End Point	808504	828602	17	End Point	820451	823671
6	Start Point	809490	820466	18	Start Point	821504	822371
6	End Point	809490	825352	18	End Point	821504	823761
7	Start Point	810499	820880	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	820872	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				
12	End Point	815542	824882				

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 12, 20, 24 and 26 of April 2017. The dolphin monitoring schedule for the reporting month is shown in *Appendix F*.

2.3.7 Results & Observations

A total of 273.33 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 April 2017. Among the two areas, 105.03 km and 168.30 km of survey effort were collected from NEL and NWL survey areas, respectively. The total survey effort conducted on primary and secondary lines were 189.06 km and 84.27 km respectively. The survey efforts are summarized in *Appendix J*.

One group of 2 Chinese White Dolphins sightings was recorded during the two sets of surveys in April 2017. The one dolphin sighting was made in NWL, while none was sighted in NEL. The dolphin sighting was made during on-effort search on primary lines. It was 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 April 2017 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: April 12th / 20th	0.0	0.0
	Set 2: April 24th / 26th	0.0	0.0
NWL	Set 1: April 12th / 20th	1.7	3.4
	Set 2: April 24th / 26th	0.0	0.0

Note: Dolphin Encounter Rates are deduced from the Two Sets of Surveys (Two Surveys in Each Set) in April 2017 in Northeast (NEL) and Northwest Lantau (NWL)

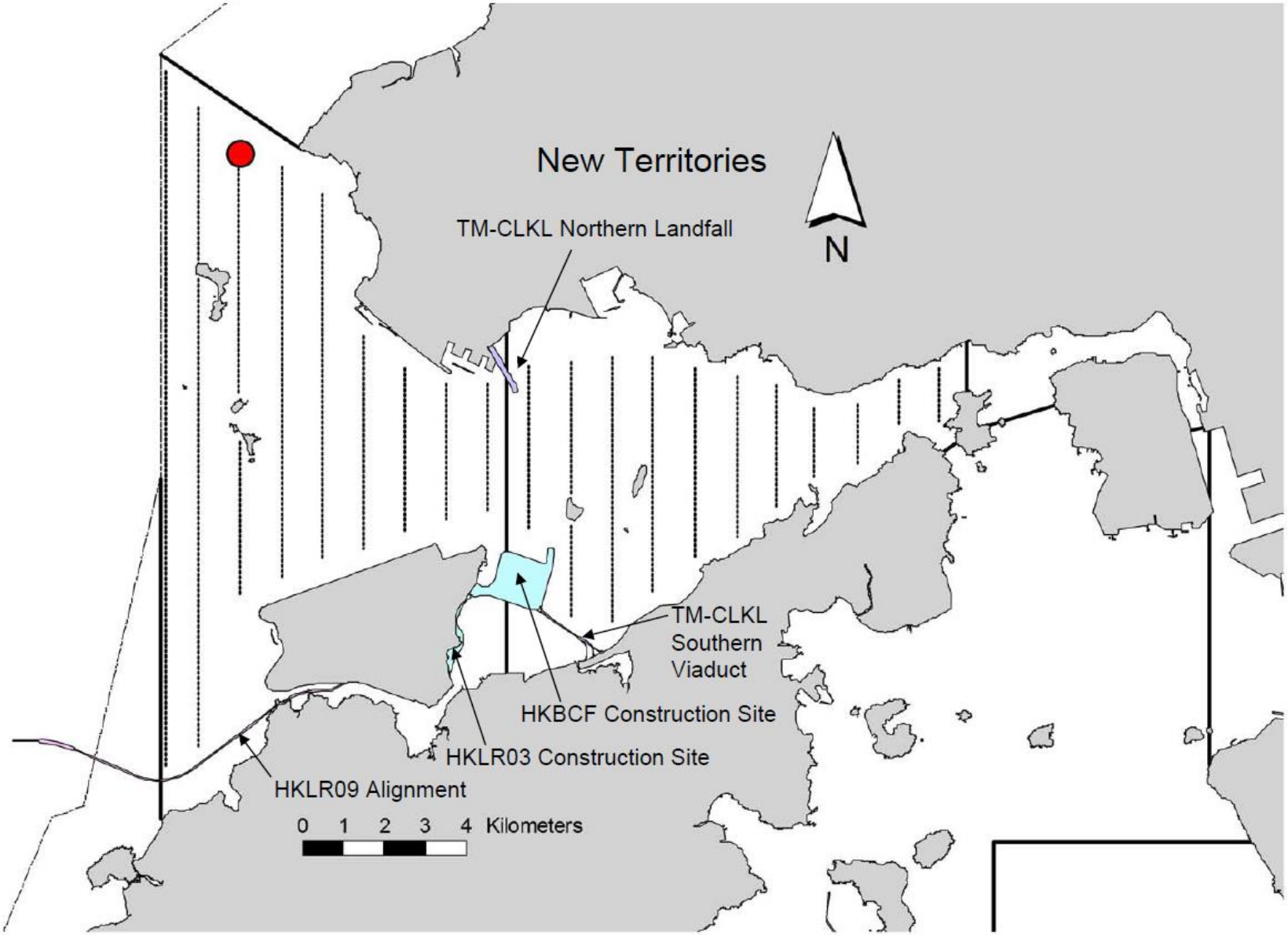

Figure 2.4

HY/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section
The distribution of dolphin sightings during the reporting period
(Source: Adopted from HKLR03 Monitoring Survey in April 2017)

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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	0.8	0.6	1.6	1.2

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in April 2017 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 Project 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 dredging, reclamation or marine sheet piling works in open waters under this Contract. Passive Acoustic Monitoring (PAM) was also implemented for the detection of marine mammal when dredging, reclamation or marine sheet piling works were carried out outside the daylight hours under this Contract. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in April 2017 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 5, 13, 19 and 26 April 2017.

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
5 April 2017	Works Area – Portion S-C • Cement bags should be covered with tarpaulin sheets. • Accumulated rubbish should be removed. Works Area - Portion N-B • Drip tray and chemical labels should be provided to the chemical containers.	Works Area – Portion S-C • The Contractor was reminded to cover the cement bags with tarpaulin sheets. • The Contractor was reminded to remove the accumulated rubbish. Works Area - Portion N-B • The Contractor was reminded to provide drip tray and chemical labels to the chemical containers.
13 April 2017	Works Area - TBM Tunnel • Cement bags should be covered with tarpaulin sheets. • Drip tray should be provided to the chemical containers. Works Area - Portion S-A • Drip tray and chemical labels should be provided to the oil drum. • Oily substances near the generator should be removed.	Works Area - TBM Tunnel • The Contractor was reminded to cover the cement bags with tarpaulin sheets. • The Contractor was reminded to provide drip tray to the chemical containers Works Area - Portion S-A • The Contractor was reminded to provide drip tray and chemical labels to the oil drum. • The Contractor was reminded to remove the oily substances near the generator.
19 April 2017	Works Area – Portion S-A • Drip tray should be provided to the chemical containers. Works Area – Portion N-A • Water spraying should be applied more frequently during dry conditions. • Cement bags should be covered with tarpaulin sheet.	Works Area – Portion S-A • The Contractor was reminded to provide drip tray and chemical labels to the oil drum. Works Area – Portion N-A • The Contractor was reminded to apply water spraying more frequently during dry conditions. • The Contractor was reminded to cover the cement bags with tarpaulin sheet.
26 April 2017	Works Area - Portion S-A • Accumulated waste should be removed. • Drip tray should be provided to the chemical containers.	Works Area - Portion S-A • The Contractor was reminded to remove the accumulated waste. • The Contractor was reminded to provide drip tray and chemical labels to the oil drum.

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)
April 2017	15,603	0	237	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	363510	19 August 2013	Throughout the Contract	DBJV	Northern Landfall
Construction Dust Notification	403620	10 June 2016	Throughout the Contract	DBJV	Southern Landfall
Chemical Waste Registration	5213-422-D2516-01	10 September 2013	Throughout the Contract	DBJV	Northern 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	12 January 2017	12 April 2017	DBJV	Vessel disposal
Waste Water Discharge License	WT00017707-2013	18 November 2013	30 November 2018	DBJV	For site WA18
Waste Water Discharge License	WT00019248-2014	5 June 2014	30 June 2019	DBJV	For site Portion N6 and Reclamation Area E
Waste Water Discharge License	WT00025944-2016	15 December 2016	31 December 2021	DBJV	Southern Landfall
Marine Dumping Permit	EP/MD/17-103	16 December 2016	13 June 2017	DBJV	Northern Landfall
Marine Dumping Permit	EP/MD/18-006	7 May 2017	6 June 2017	DBJV	Southern Landfall
Construction Noise Permit	GW-RW0644-16	30 November 2016	29 May 2017	DBJV	For Urmston Road in front of Pillar Point
Construction Noise Permit	GW-RW0666-16	13 December 2016	12 June 2017	DBJV	For site WA23A+B

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Construction Noise Permit	GW-RW0143-17	29 March 2017	28 September 2017	DBJV	For Portion N6
Construction Noise Permit	GW-RS0121-17	25 February 2017	24 August 2017	DBJV	For 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

No Action Level or Limit Level exceedances were recorded in the air 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*.

One (1) environmental complaint case regarding noise nuisance and water pollution at the site near HKBCF of HZMB was referred by IEC on 28 March 2017. The complaint investigation report is provided in Appendix L.

No notification of summons and prosecution were received in the reporting period.

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

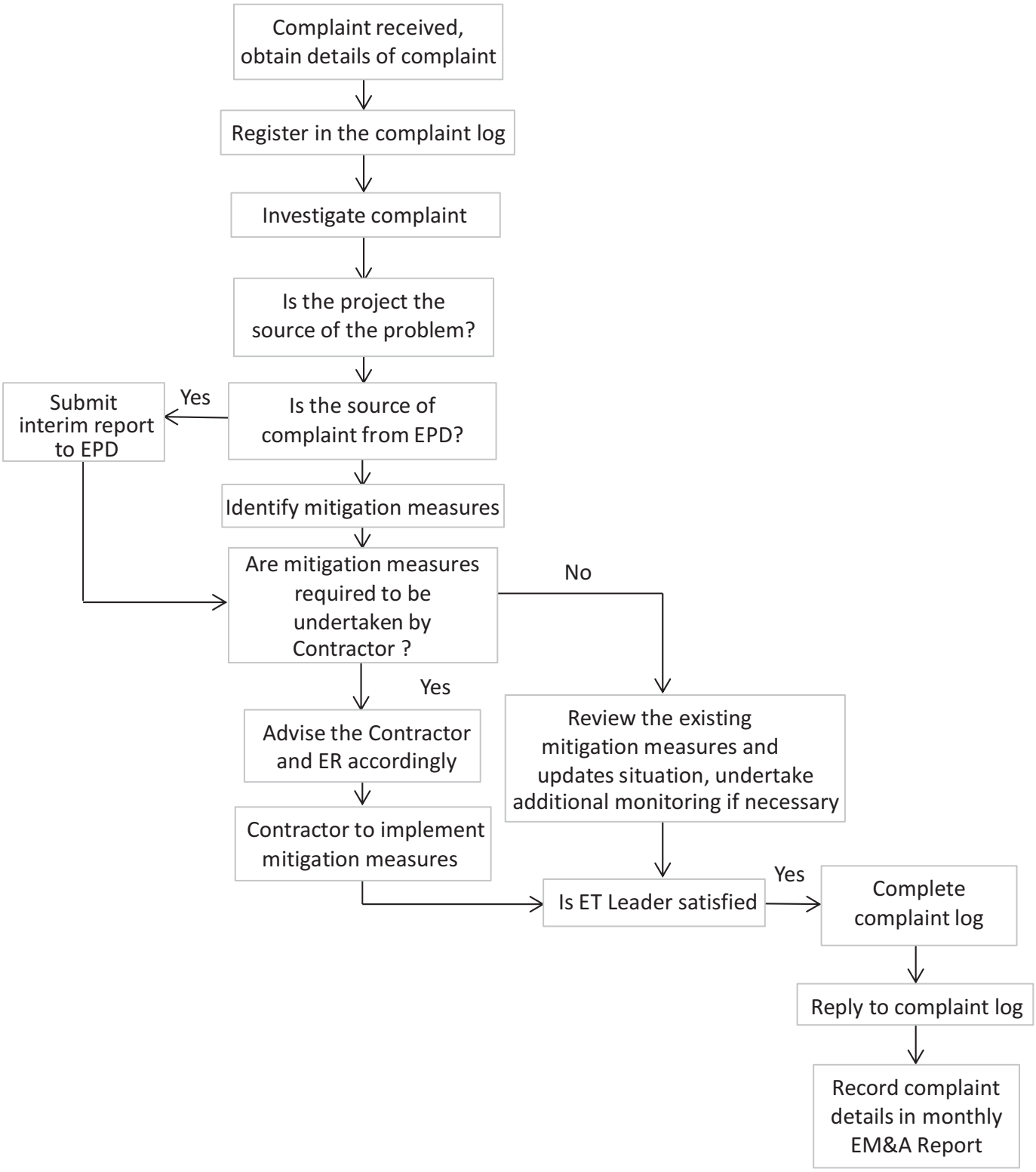

Figure 2.5 Environmental Complaint Handling Procedure

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3 FUTURE KEY ISSUES

3.1 CONSTRUCTION ACTIVITIES FOR THE COMING MONTH

As informed by the Contractor, the major works for the Project in May 2017 are summarized in *Table 3.1*.

Table 3.1 Construction Works to Be Undertaken in the Coming Month

Works to be undertaken
Marine-based Works • Construction of Vertical Seawall at Portion N-A; and • Filling works at Portion N-A *Land-based Works* • Box Culvert Extension at Works Area – Portion N-A; • Construction of North Ventilation Building – Portion N-C; • Construction of Cross Passage Tympanum – TBM tunnel; • Cross Passage Lining Installation – TBM Tunnel; • Excavation of Sub-sea Tunnel – TBM tunnel; • Corbel Construction – TBM Tunnel; • Sub-sea Tunnel Gallery Installation – TBM tunnel; • CSM Ground Treatment and Bulk excavation – Portion S-A.

3.2 KEY ISSUES FOR THE COMING MONTH

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of May 2017 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 May 2017 is provided in *Appendix F*.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This Forty-second Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 30 April 2017, 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), marine water quality and dolphin monitoring were carried out in this reporting month. No Action Level or Limit Level exceedances were recorded in the air quality monitoring of this reporting month.

No Action Level or Limit Level exceedances were recorded in the water quality monitoring of this reporting month.

One group of 2 Chinese White Dolphins sightings was recorded during the two sets of surveys in April 2017. The one dolphin sighting was made in NWL, while none was sighted in NEL. The dolphin sighting was made during on-effort search on primary lines. It was not associated with any operating fishing vessel.

Environmental site inspection was carried out four (4) times in April 2017. 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.

One (1) environmental complaint case regarding noise nuisance and water pollution at the site near HKBCF of HZMB was referred by IEC on 28 March 2017. The complaint investigation report is provided in Appendix L.

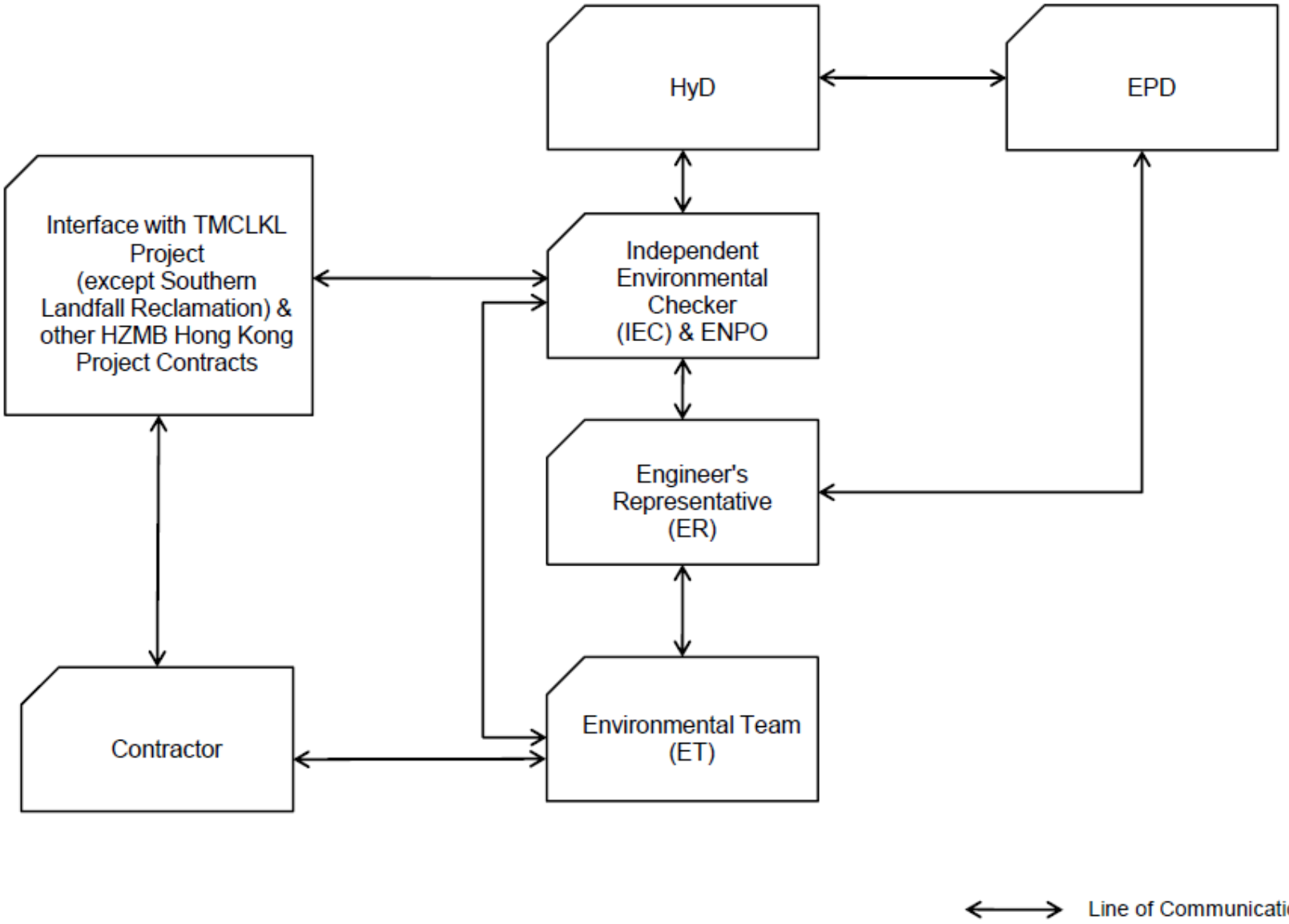
No environmental complaint was received in this reporting period.

No summons/ prosecution was received during the 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

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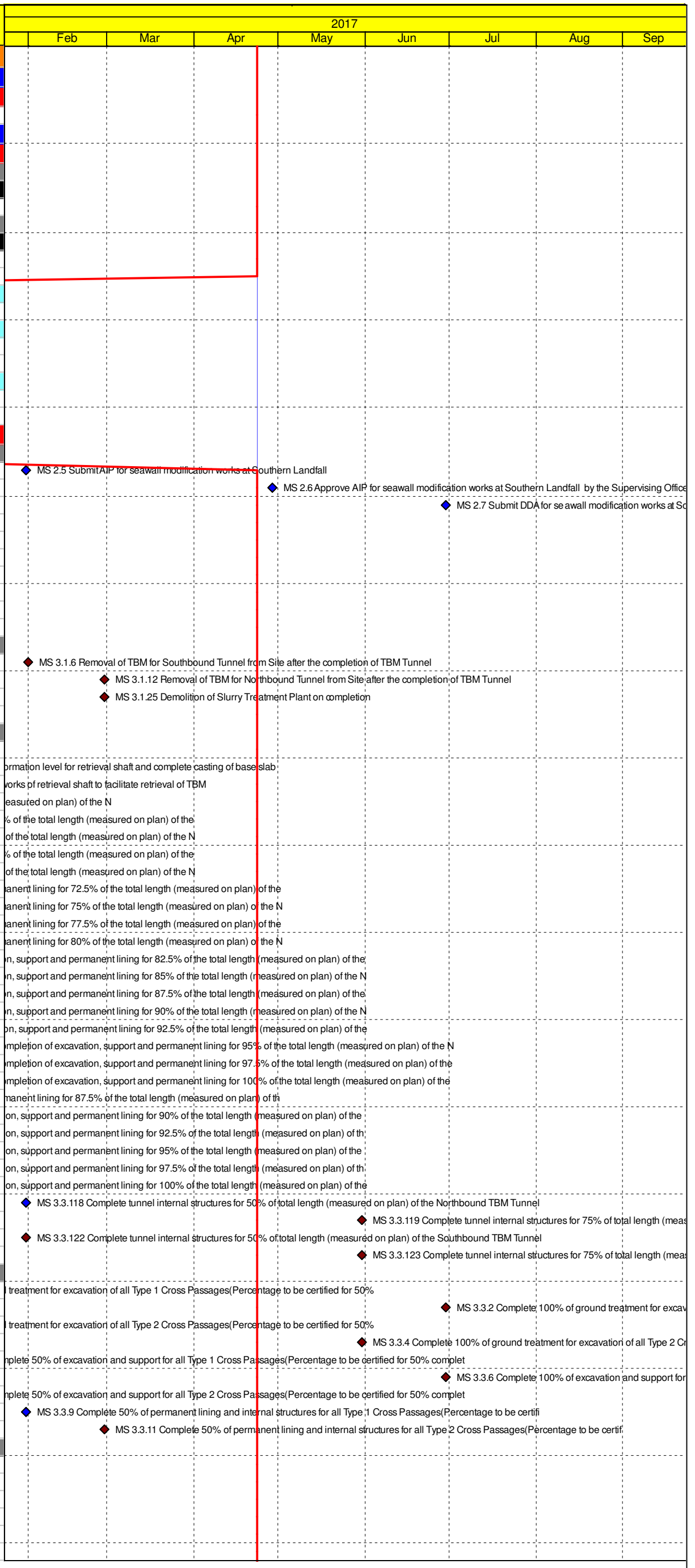
Appendix B

Construction Programme

Activity Name
TMCLK - Northern Connection Sub-Sea Tunnel Section
Contract Dates
Site Possession Date
Portions: X1,(N10,11,13 & 14) - Sth Landfall
General Submissions
Environmental
Environmental Permit Submissions
Supplementary WMP of C&C Tunnel at Sth.Landfall
Supplementary WMP of C&C Tunnel at Sth.Landfall
Sediment Quality Report/Dumping Permit
Southern Landfall
Southern landfall - Commencement of Shaft & C&C Tunnel Dwall
Southern Landfall - Commencement of Retrieval Shaft Excavation
Sediment Sampling & Testing Plan (SSTP) - if required
Complete SSTP and Obtain EPD's approval
Sediment Quality Report (SQR) - if required
Advance Ground Investigation works for Sediment sampling
Sediment Sample Testing & Report preparation
Dumping Permit for Load Dumping (Loading Permit) - if required
Finalize the applivation document and submit to EPD - for Dwall
Notify the results and issue Loading Permit for Local & Cross Boundary Crossing - for Dwall
PAYMENT MILESTONE
Design and Design Checking of the Works
MS 2.5 SubmitAIP for seawall modification works at Southern Landfall
MS 2.6 Approve AIP for seawall modification works at Southern Landfall by the Supervising Officer
MS 2.7 Submit DDA for seawall modification works at Southern Landfall
MS 2.44 Approve DDA for South Ventilation Building by the Supervising Officer
MS 2.52 Approve DDA for Facilities Provision for TCSS by the Supervising Officer
MS 2.60 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Northern Landfall by the Supervis
MS 2.69 Submit draft Operation and Maintenance Manual for all Tunnels and Cross Passgaes
MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgaes by the Supervising
MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes
MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes by the
Tunnel Boring Machine (TBM) and Back-up Equipment for TBM Tunnel
MS 3.1.6 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel
MS 3.1.12 Removal of TBM for Northbound Tunnel from Site after the completion of TBM Tunnel
MS 3.1.25 Demolition of Slurry Treatment Plant on completion
MS 3.1.26 Complete the whole of the activities under this Cost Centre Part to the satisfaction of the Supervisin
TBM Tunnel
MS 3.3.4 Complete walls of retrieval shaft
MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab
MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM
MS 3.3.45 Completion of excavation, support and permanent lining for 60% of the total length (measured on p
MS 3.3.46 Completion of excavation, support and permanent lining for 62.5% of the total length (measured o
MS 3.3.47 Completion of excavation, support and permanent lining for 65% of the total length (measured on p
MS 3.3.48 Completion of excavation, support and permanent lining for 67.5% of the total length (measured o
MS 3.3.49 Completion of excavation, support and permanent lining for 70% of the total length (measured on p
MS 3.3.50 Completion of excavation, support and permanent lining for 72.5% of the total length (measured o
MS 3.3.51 Completion of excavation, support and permanent lining for 75% of the total length (measured on p
MS 3.3.52 Completion of excavation, support and permanent lining for 77.5% of the total length (measured o
MS 3.3.53 Completion of excavation, support and permanent lining for 80% of the total length (measured on p
MS 3.3.54 Completion of excavation, support and permanent lining for 82.5% of the total length (measured o
MS 3.3.55 Completion of excavation, support and permanent lining for 85% of the total length (measured on p
MS 3.3.56 Completion of excavation, support and permanent lining for 87.5% of the total length (measured o
MS 3.3.57 Completion of excavation, support and permanent lining for 90% of the total length (measured on p
MS 3.3.58 Completion of excavation, support and permanent lining for 92.5% of the total length (measured o
MS 3.3.59 Completion of excavation, support and permanent lining for 95% of the total length (measured on p
MS 3.3.60 Completion of excavation, support and permanent lining for 97.5% of the total length (measured o
MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured or
MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured c
MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on
MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured c
MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on
MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured c
MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured o
MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound
MS 3.3.119 Complete tunnel internal structures for 75% of total length (measured on plan) of the Northbound
MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbounc
MS 3.3.123 Complete tunnel internal structures for 75% of total length (measured on plan) of the Southbounc
Cross Passages for TBM Tunnel
MS 3.3.1 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be c
MS 3.3.2 Complete 100% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be
MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be c
MS 3.3.4 Complete 100% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be
MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified f
MS 3.3.6 Complete 100% of excavation and support for all Type 1 Cross Passages(Percentage to be certified
MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified f
MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentag
MS 3.3.11 Complete 50% of permanent lining and internal structures for all Type 2 Cross Passages(Percenta
Cut-and-cover Tunnels at Southern Landfalls
MS 4.1.1 Complete 10% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.2 Complete 20% of total length (measured on plan)of temporary retaining walls for excavation of Cut-
MS 4.1.3 Complete 30% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.4 Complete 40% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.5 Complete 50% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.6 Complete 60% of total length (measured on plan) of temporary retaining walls for excavation of Cut-



Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

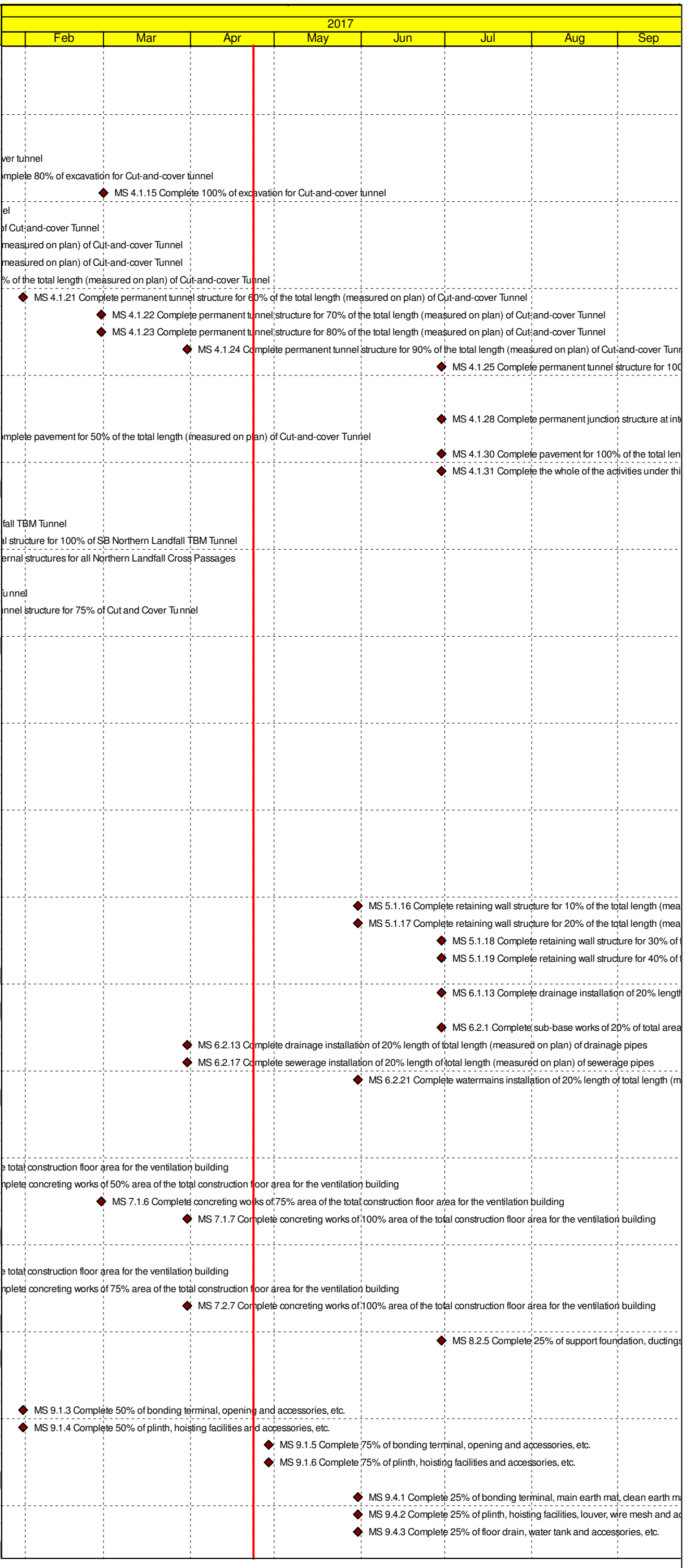
Three Months Rolling Programme

Progress as of 23-Apr-17

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

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJGEN/PRG/98507	WYu	SPo
08-Apr-14	TMCLK/DBJGEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJGEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJGEN/PRG/98507 Rev.F	WYu	

Activity Name
MS 4.1.7 Complete 70% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.8 Complete 80% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.9 Complete 90% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.10 Complete 100% of total length (measured on plan) of temporary retaining walls for excavation of C
MS 4.1.11
MS 4.1.12 Complete 40% of excavation for Cut-and-cover tunnel
MS 4.1.13 Complete 60% of excavation for Cut-and-cover tunnel
MS 4.1.14 Complete 80% of excavation for Cut-and-cover tunnel
MS 4.1.15 Complete 100% of excavation for Cut-and-cover tunnel
MS 4.1.16 Complete permanent tunnel structure for 10% of the total length (measured on plan) of Cut-and-cc
MS 4.1.17 Complete permanent tunnel structure for 20% of the total length (measured on plan) of Cut-and-cc
MS 4.1.18 Complete permanent tunnel structure for 30% of the total length (measured on plan) of Cut-and-cc
MS 4.1.19 Complete permanent tunnel structure for 40% of the total length (measured on plan) of Cut-and-cc
MS 4.1.20 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cc
MS 4.1.21 Complete permanent tunnel structure for 60% of the total length (measured on plan) of Cut-and-cc
MS 4.1.22 Complete permanent tunnel structure for 70% of the total length (measured on plan) of Cut-and-cc
MS 4.1.23 Complete permanent tunnel structure for 80% of the total length (measured on plan) of Cut-and-cc
MS 4.1.24 Complete permanent tunnel structure for 90% of the total length (measured on plan) of Cut-and-cc
MS 4.1.25 Complete permanent tunnel structure for 100% of the total length (measured on plan) of Cut-and-c
MS 4.1.26 Complete excavation for 50% of total length (measured on plan) of all Cross Passages
MS 4.1.27 Complete excavation for 100% of total length (measured on plan) of all Cross Passages
MS 4.1.28 Complete permanent junction structure at interface between Cut-and-cover Tunnel and TBM Tunn
MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel
MS 4.1.30 Complete pavement for 100% of the total length (measured on plan) of Cut-and-cover Tunnel
MS 4.1.31 Complete the whole of the activities under this Cost Centre to the satisfaction of the Supervising Off
Cut-and-cover Tunnel at Northern Landfall
MS 4.2.22 Complete tunnel internal structure for 50% of NB Northern Landfall TBM Tunnel
MS 4.2.23 Complete tunnel internal structure for 100% of NB Northern Landfall TBM Tunnel
MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel
MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passag
MS 4.2.30 Complete Permanent tunnel structure for 25% of Cut and Cover Tunnel
MS 4.2.31 Complete Permanent tunnel structure for 50% of Cut and Cover Tunnel
MS 4.2.32 Complete Permanent tunnel structure for 75% of Cut and Cover Tunnel
MS 4.2.34 Complete Permanent junction structure at interface between Cut-and-cover and TBM Tunnel
Approach Ramp Structures to Cut-and-cover Tunnel at Southern Landfall
MS 5.1.2 Complete 40% of excavation for approach ramp structures
MS 5.1.3 Complete 60% of excavation for approach ramp structures
MS 5.1.4 Complete 80% of excavation for approach ramp structures
MS 5.1.5 Complete 100% of excavation for approach ramp structures
MS 5.1.6 Complete retaining wall foundation for 10% of the total length (measured on plan) of approach ramp
MS 5.1.7 Complete retaining wall foundation for 20% of the total length (measured on plan) of approach ramp
MS 5.1.8 Complete retaining wall foundation for 30% of the total length (measured on plan) of approach ramp
MS 5.1.9 Complete retaining wall foundation for 40% of the total length (measured on plan) of approach ramp
MS 5.1.10 Complete retaining wall foundation for 50% of the total length (measured on plan) of approach rar
MS 5.1.11 Complete retaining wall foundation for 60% of the total length (measured on plan) of approach ran
MS 5.1.12 Complete retaining wall foundation for 70% of the total length (measured on plan) of approach rar
MS 5.1.13 Complete retaining wall foundation for 80% of the total length (measured on plan) of approach rar
MS 5.1.14 Complete retaining wall foundation for 90% of the total length (measured on plan) of approach rar
MS 5.1.15 Complete retaining wall foundation for 100% of the total length (measured on plan) of approach ra
MS 5.1.16 Complete retaining wall structure for 10% of the total length (measured on plan) of approach ramp
MS 5.1.17 Complete retaining wall structure for 20% of the total length (measured on plan) of approach ramp
MS 5.1.18 Complete retaining wall structure for 30% of the total length (measured on plan) of approach ramp
MS 5.1.19 Complete retaining wall structure for 40% of the total length (measured on plan) of approach ramp
At grade Roads at Southern Landfall
MS 6.1.13 Complete drainage installation of 20% length of total length (measured on plan) of drainage pipes
At grade Roads at Northern Landfall
MS 6.2.1 Complete sub-base works of 20% of total area of at grade roads
MS 6.2.13 Complete drainage installation of 20% length of total length (measured on plan) of drainage pipes
MS 6.2.17 Complete sewerage installation of 20% length of total length (measured on plan) of sewerage pipe
MS 6.2.21 Complete watermains installation of 20% length of total length (measured on plan) of watermains
South Ventilation Buildings
MS 7.1.1 Complete 100% of cofferdam for excavation
MS 7.1.2 Complete 100% of excavation to the formation level
MS 7.1.3 Complete 100% of foundation for the ventilation building
MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building
MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building
MS 7.1.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building
MS 7.1.7 Complete concreting works of 100% area of the total construction floor area for the ventilation buildi
North Ventilation Buildings
MS 7.2.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building
MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building
MS 7.2.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building
MS 7.2.7 Complete concreting works of 100% area of the total construction floor area for the ventilation buildi
Facilities Provision for TCSS for At Grade Roads at Northern Landfall
MS 8.2.5 Complete 25% of support foundation, ductings, drawpits for at grade roads
Facilities Provision for E&M Works for TBM Tunnel, Cut & Cover Tunnels and Cı
MS 9.1.1 Complete 25% of bonding terminal, opening and accessories, etc.
MS 9.1.2 Complete 25% of plinth, hoisting facilities and accessories, etc.
MS 9.1.3 Complete 50% of bonding terminal, opening and accessories, etc.
MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.
MS 9.1.5 Complete 75% of bonding terminal, opening and accessories, etc.
MS 9.1.6 Complete 75% of plinth, hoisting facilities and accessories, etc.
Facilities Provision for E&M Works for South Ventilation Building
MS 9.4.1 Complete 25% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal
MS 9.4.2 Complete 25% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.
MS 9.4.3 Complete 25% of floor drain, water tank and accessories, etc.
Facilities Provision for E&M Works for North Ventilation Building



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 23-Apr-17

Dragages Hong Kong 香港寶嘉
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Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

BOUYGUES TRAVAUX PUBLICS

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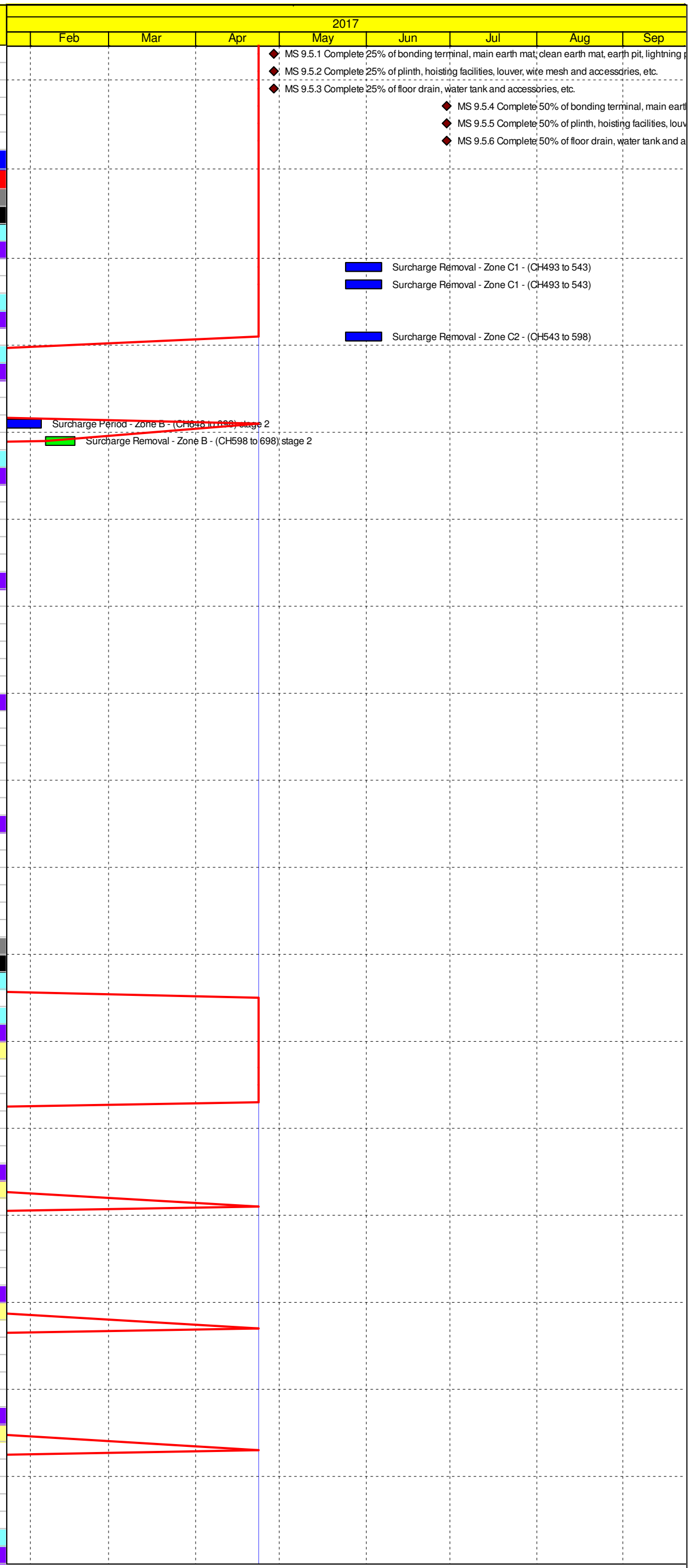
30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

Activity Name
MS 9.5.1 Complete 25% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal
MS 9.5.2 Complete 25% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.
MS 9.5.3 Complete 25% of floor drain, water tank and accessories, etc.
MS 9.5.4 Complete 50% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal
MS 9.5.5 Complete 50% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.
MS 9.5.6 Complete 50% of floor drain, water tank and accessories, etc.
Construction
Northern Landfall
North Reclamation (Phase 1)
Construction
Zone C1
Reclamation
Surcharge Removal - Zone C1 - (CH493 to 543)
Surcharge Removal - Zone C1 - (CH493 to 543)
Zone C2
Reclamation
Surcharge Removal - Zone C2 - (CH543 to 598)
Zone B
Reclamation
Surcharge Removal - Zone B - (CH598 to 648)
Surcharge Removal - Zone B - (CH598 to 698) stage 1
Surcharge Period - Zone B - (CH648 to 698) stage 2
Surcharge Removal - Zone B - (CH598 to 698) stage 2
Zone F
CH184 to CH231
F - Anchor wall Installation - CH184 to CH231
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH184 to CH231
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall- CH184 to CH231
F - Backfilling up to +6.0mPD to Anchor Wall - CH184 to CH231
F - Backfilling to +6.0mPD to Existing Seawall - CH184 to CH231
CH231 to CH278
F - Backfilling up to +6.0mPD - CH231 to CH278
F - Anchor wall Installation - CH231 to CH278
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH231 to CH278
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH231 to CH278
F - Backfilling up to +6.0mPD to Anchor Wall - CH231 to CH278
F - Backfilling to +6.0mPD to Existing Seawall - CH231 to CH278
CH278 to CH327
F - Backfilling up to +6.0mPD - CH278 to CH327
F - Anchor wall Installation - CH278 to CH327
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH278 to CH327
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH278 to CH327
F - Backfilling up to +6.0mPD to Anchor Wall - CH278 to CH327
F - Backfilling to +6.0mPD to Existing Seawall - CH278 to CH327
CH327 to CH381
F - Backfilling up to +6.0mPD - CH327 to CH381
F - Anchor wall Installation - CH327 to CH381
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH327 to CH381
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH327 to CH381
F - Backfilling up to +6.0mPD to Anchor Wall - CH327 to CH381
F - Backfilling to +6.0mPD to Existing Seawall - CH327 to CH381
Box Culvert Extension
Construction
Ch000-010 Culvert Outfall
Removal of temporary bulk head
CH100-150 Land Section
Pile A41/A39 CJ to Pile A39/A37 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Sliding formworks 1st assembly
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A39/A37 CJ to Pile A37/A35 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A37/A35 CJ to Pile A35/A33 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A35/A33 CJ to Pile A33/P117 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Ch150-250 Marine Section
ELS & Structure



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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Three Months Rolling Programme

Progress as of 23-Apr-17

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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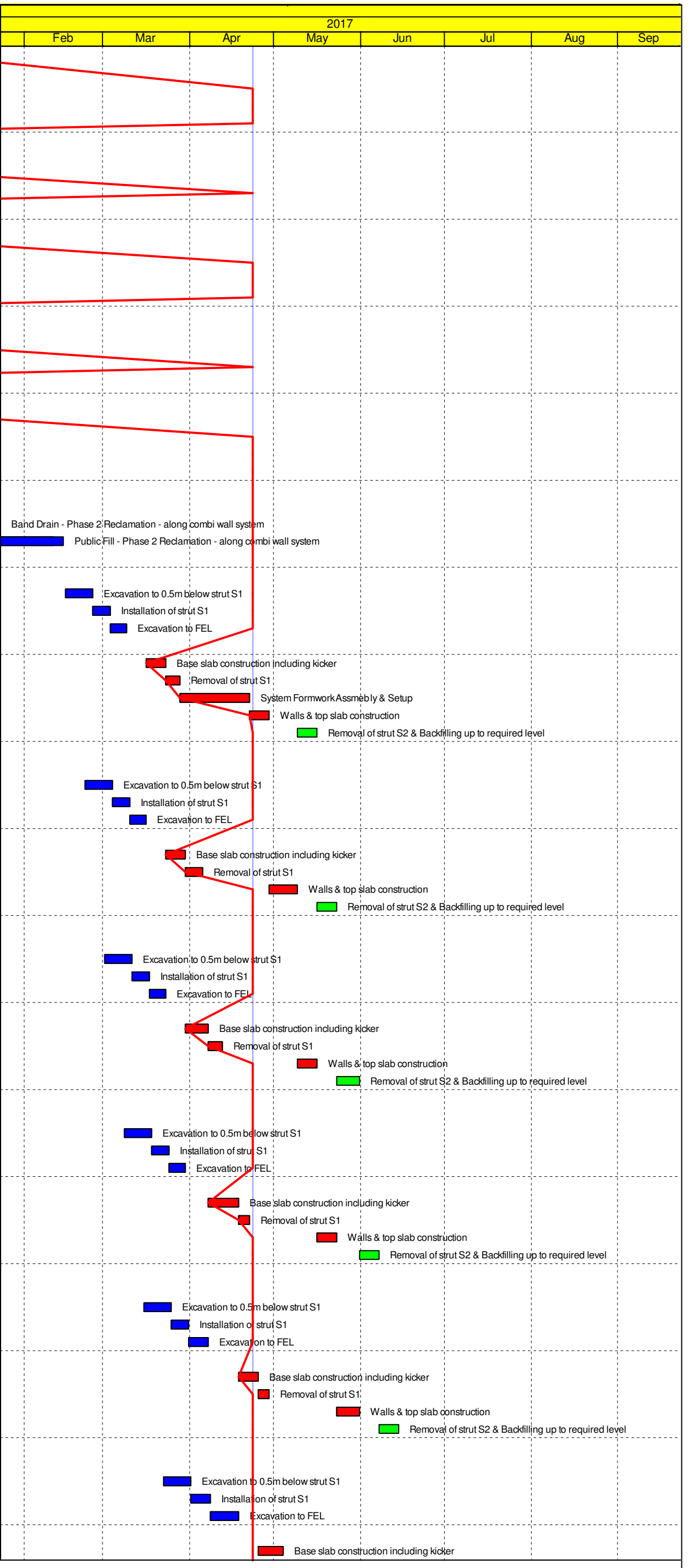
Activity Name
Pile A33/P117 CJ to Pile P113/P109 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P113/P109 CJ to Pile P105/P101 CJ
Box Culvert Structure
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P105/P101 CJ to Pile P97/P93 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P97/P93 CJ to Pile P89/P85 CJ
Box Culvert Structure
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P89/P85 CJ to Pile P81/P77 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Ch250-380 Marine Section
ELS & Structure
Band Drain - Phase 2 Reclamation - along combi wall system
Public Fill - Phase 2 Reclamation - along combi wall system
Pile P73/P69 CJ to Pile P65/P61 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
System Formwork Assmebly & Setup
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P65/P61 CJ to Pile P57/P53 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P57/P53 CJ to Pile P49/P45 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P49/P45 CJ to Pile P41/P37 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P41/P37 CJ to Pile P33/P29 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P33/P29 CJ to Pile P25/P21 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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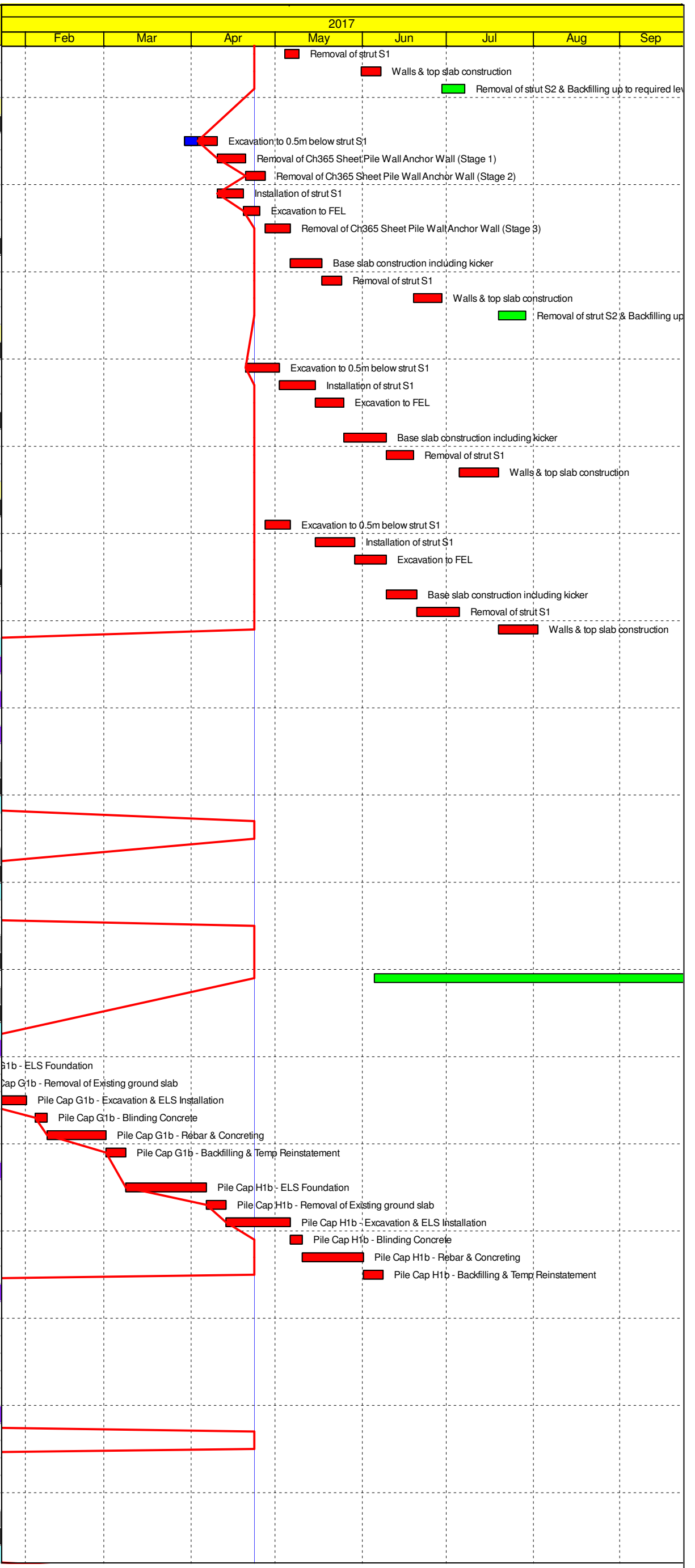
Activity Name
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P25/P21 CJ to Pile P17/P13 CJ
ELS
Excavation to 0.5m below strut S1
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 1)
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 2)
Installation of strut S1
Excavation to FEL
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 3)
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P17/P13 CJ to Pile P09/P05 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Pile P09/P05 CJ to End Wall CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Miscellaneous works
Inspection Manhole (IM)
Inspection Manhole IM-01 to IM-04 & backfilling to +6.0mPD
Stop Log Opening (SLO)
SLO-01 to SLO-05 & backfilling to +6.0mPD
Balance Hole (BH)
BH-01 to BH-03 & backfilling to +6.0mPD
North Launching Shaft
Design Submission
(C1) DDA for North C&C Tunnel Permanent Structure
SO's Review
SO Approval with Condition Received
North Ventilation Shaft
Construction
North Ventilation Shaft Structure
NVS - ML03 Tunnel Structure
NVS - ML02 Tunnel Structure
CLP Temporary Substation
Construction
CLP Substation - Prepare for CLP consent for de-energization
TMCLK VO-008 - Construction of Viaduct Foundations at Portion N6A
Viaduct Pile Cap
Construction
Pier G1b
Pile Cap G1b - ELS Foundation
Pile Cap G1b - Removal of Existing ground slab
Pile Cap G1b - Excavation & ELS Installation
Pile Cap G1b - Blinding Concrete
Pile Cap G1b - Rebar & Concreting
Pile Cap G1b - Backfilling & Temp Reinstatement
Pier H1b
Pile Cap H1b - ELS Foundation
Pile Cap H1b - Removal of Existing ground slab
Pile Cap H1b - Excavation & ELS Installation
Pile Cap H1b - Blinding Concrete
Pile Cap H1b - Rebar & Concreting
Pile Cap H1b - Backfilling & Temp Reinstatement
Pier G1c
Pile Cap G1c - Preparation for ELS
Pile Cap G1c - Removal of Existing ground slab
Pile Cap G1c - Excavation & ELS Installation
Pile Cap G1c - Blinding Concrete
Pile Cap G1c - Rebar & Concreting
Pile Cap G1c - Backfilling & Temp Reinstatement
Pier H1c
Pile Cap H1c - Preparation for ELS
Pile Cap H1c - Removal of Existing ground slab
Pile Cap H1c - Excavation & ELS Installation
Pile Cap H1c - Blinding Concrete
Pile Cap H1c - Rebar & Concreting
North Approach TBM Tunnelling & Cross Passage
Construction
Northern Landfall Surface Setup for TBM operation



Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - 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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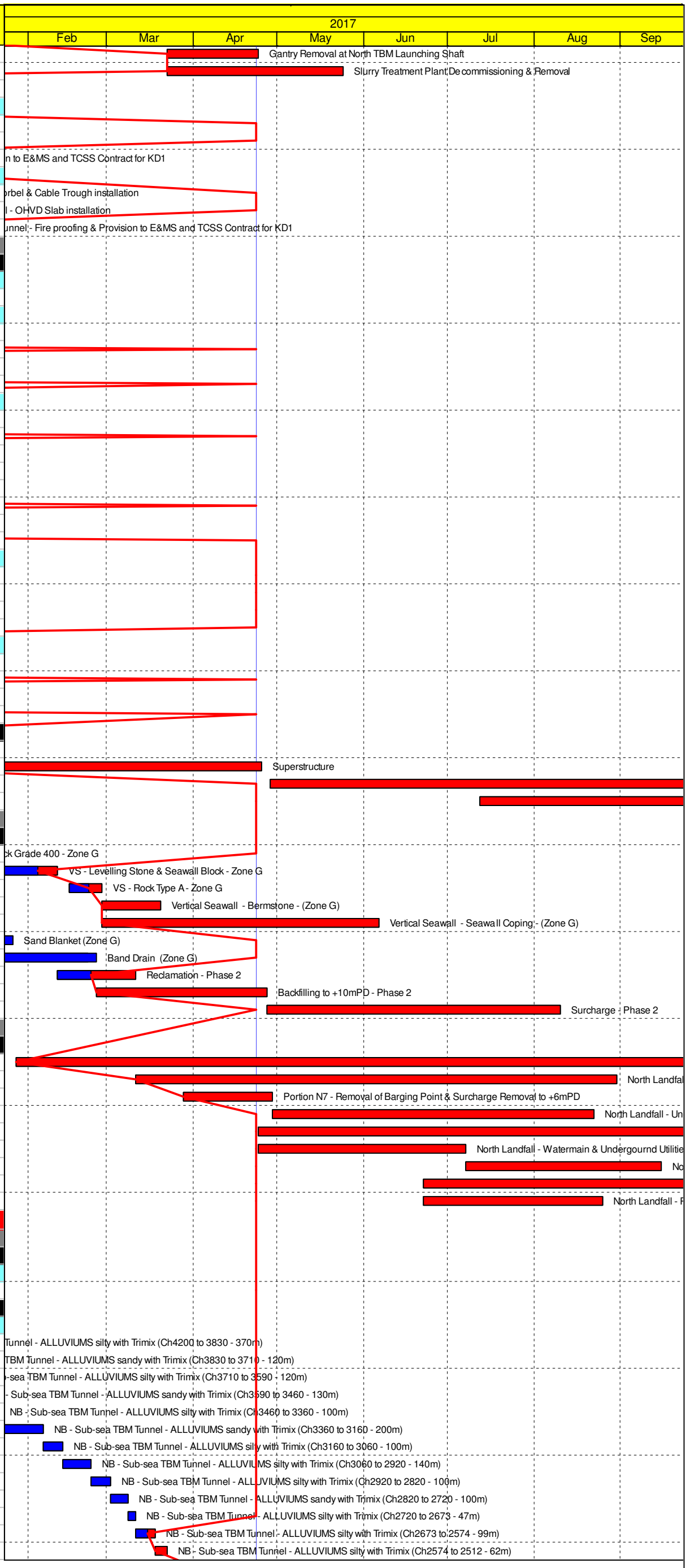
Activity Name
Gantry Removal at North TBM Launching Shaft
Slurry Treatment Plant Decommissioning & Removal
Gantry Removal at North Ventilation Shaft
North Approach Tunnel Internal Structure - NB
NB - North TBM Tunnel - Corbel & Cable Trough installation
NB - North TBM Tunnel - OHVD Slab installation
NB - North TBM Tunnel - Fire proofing and Provision to E&MS and TCSS Contract for KD1
North Approach Tunnel Internal Structure - SB
SB - North TBM Tunnel - Corbel & Cable Trough installation
SB - North TBM Tunnel - OHVD Slab installation
SB - North TBM Tunnel - Fire proofing & Provision to E&MS and TCSS Contract for KD1
North Ventilation Building
Design Submission
(A11) Submissons to Design Advisory Panel of ArchSD
ArchSD's comment
(I1) DDA for North Vent.Bldgs. GBP & Arch.Submission
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I1) DDA for North & South Vent.Bldg. ABWF works
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
Submit ICE Check Cert to SO
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I2) DDA for North Vent.Bldgs.Structural Design incl.Vent.Connections
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I3) DDA for North & South Vent.Bldgs. Service and E&M Provision
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Construction
Substructure
Superstructure
Finishing Works
Civil Provision for E&MS Contract
North Reclamation (Phase 2)
Construction
VS - Rock Grade 400 - Zone G
VS - Levelling Stone & Seawall Block - Zone G
VS - Rock Type A - Zone G
Vertical Seawall - Bermstone - (Zone G)
Vertical Seawall - Seawall Coping - (Zone G)
Sand Blanket (Zone G)
Band Drain (Zone G)
Reclamation - Phase 2
Backfilling to +10mPD - Phase 2
Surcharge - Phase 2
North Surface Roadworks, Utility & Drainage works
Construction
North Landfall - Underground Sewerage & Drainage - Summary
North Landfall - Underground Sewerage & Drainage - Portion N5
Portion N7 - Removal of Barging Point & Surcharge Removal to +6mPD
North Landfall - Underground Sewerage & Drainage - Portion N7
North Landfall - Watermain & Undergournd Utilities - Summary
North Landfall - Watermain & Undergournd Utilities - Zone E
North Landfall - Watermain & Undergournd Utilities - Zone D
North Landfall - Roadworks - Summary
North Landfall - Roadworks - Zone E
Sub-sea Tunnel
Sub-sea TBM Tunnelling
Design Submission
(G3) DDA for TBM Tunnel Internal Structures (Sub-sea)
Sub-sea Tunnel - Precast Gallery Fabrication
Construction
Sub-sea TBM Tunnel - NB ID12.2m - S881
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4200 to 3830 - 370m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3830 to 3710 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3710 to 3590 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3590 to 3460 - 130m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3460 to 3360 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3360 to 3160 - 200m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3160 to 3060 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3060 to 2920 - 140m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2920 to 2820 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2820 to 2720 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2720 to 2673 - 47m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2673 to 2574 - 99m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2574 to 2512 - 62m)



Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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Activity Name
S881 - TBM Removal at Southern Landfall
Sub-sea TBM Tunnel - SB ID12.2m - S882
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2741 to 2694 - 47m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2694 to 2595 - 99m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2595 to 2533 - 62m)
SB - TBM Removal at Southern Landfall
Sub-sea TBM Tunnel - NB - Precast Invert Gallery
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP12
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP11
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP10
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP09
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP08
Sub-sea TBM Tunnel - SB - Precast Invert Gallery
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
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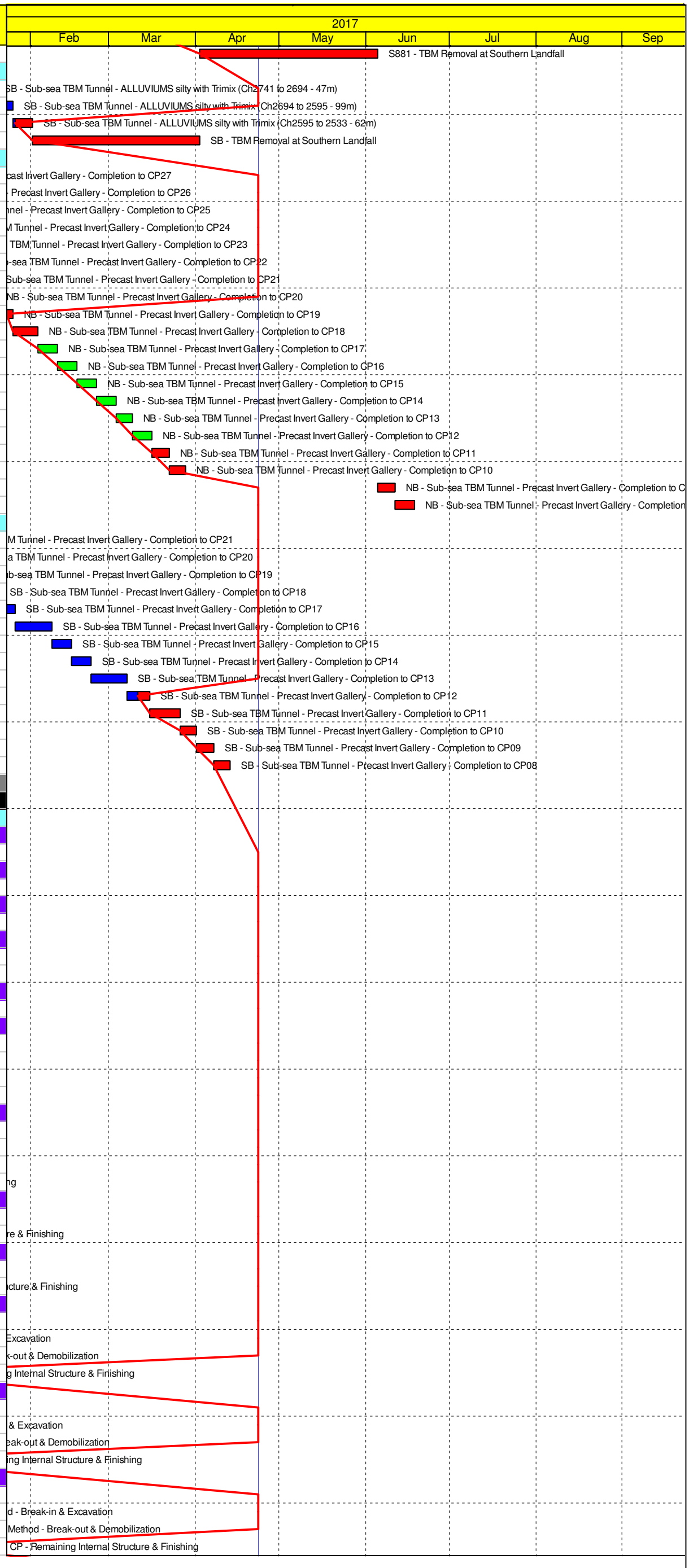
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP12
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP11
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP10
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP09
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP08
Sub-sea Tunnel Cross Passage & Internal Structure Construction
Sub-sea Tunnel Cross Passage
CP48 - ML03 - Ch6489
CP - Remaining Internal Structure & Finishing
CP47 - ML03 - Ch6390
CP - Remaining Internal Structure & Finishing
CP46 - ML03 - Ch6292
CP - Remaining Internal Structure & Finishing
CP44 - ML03 - Ch6095
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP43 - ML03 - Ch5996
CP - Pipe Jacking Method - Break-out & Demobilization
CP42 - ML03 - Ch5898
CP - Pipe Jacking Method - Setup & Assembly
CP - Pipe Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP41 - ML03 - Ch5800
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP40 - ML03 - Ch5703
CP - Pipe Jacking Method - Setup & Assembly
CP - Remaining Internal Structure & Finishing
CP39 - ML03 - Ch5607
CP - Pipe Jacking Method - Setup & Assembly
CP - Remaining Internal Structure & Finishing
CP38 - ML03 - Ch5510
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP37 - ML03 - Ch5413
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP36 - ML03 - Ch5315
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 23-Apr-17

Dragages Hong Kong 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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30-Oct-15	TMCLK/DBJGEN/PRG/98507 Rev.F	WYu	

Activity Name	2017 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
CP35 - ML03 - Ch5217								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP34 - ML03 - Ch5118								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP33 - ML03 - Ch5020								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP32 - ML03 - Ch4921								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP31 - ML03 - Ch4823								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP30 - ML03 - Ch4724								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP29 - ML03 - Ch4626								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP28 - ML03 - Ch4527								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP27 - ML03 - Ch4429								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP26 - ML03 - Ch4330								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP25 - ML03 - Ch4232								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP24 - ML03 - Ch4133								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP23 - ML03 - Ch4035								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP22 - ML03 - Ch3936								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP21 - ML03 - Ch3838								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP20 - ML03 - Ch3739								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP19 - ML03 - Ch3641								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP18 - ML03 - Ch3542								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								

Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

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Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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Activity Name
CP17 - ML03 - Ch3444
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP16 - ML03 - Ch3345
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP15 - ML03 - Ch3247
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP14 - ML03 - Ch3148
CP - Pipe Jacking Method - Setup & Assembly
CP13 - ML03 - Ch3050
CP - Pipe Jacking Method - Setup & Assembly
CP12 - ML03 - Ch2951
CP - Pipe Jacking Method - Setup & Assembly
CP11 - ML03 - Ch2853
CP - Pipe Jacking Method - Setup & Assembly
CP10 - ML03 - Ch2754
CP - Pipe Jacking Method - Setup & Assembly
CP09 - ML03 - Ch2656
CP - Pipe Jacking Method - Setup & Assembly
CP08 - ML03 - Ch2557
CP - Pipe Jacking Method - Setup & Assembly
Sub-sea TBM Tunnel - NB - Remaining Internal Structure
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP34
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP33
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP32
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP31
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP30
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP29
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP28
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NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP20
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP19
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP18
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP17
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP48
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP47
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP46
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP45
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP44
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP43
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP42
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP40
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP39
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37
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NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP28
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP27
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP26
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP25
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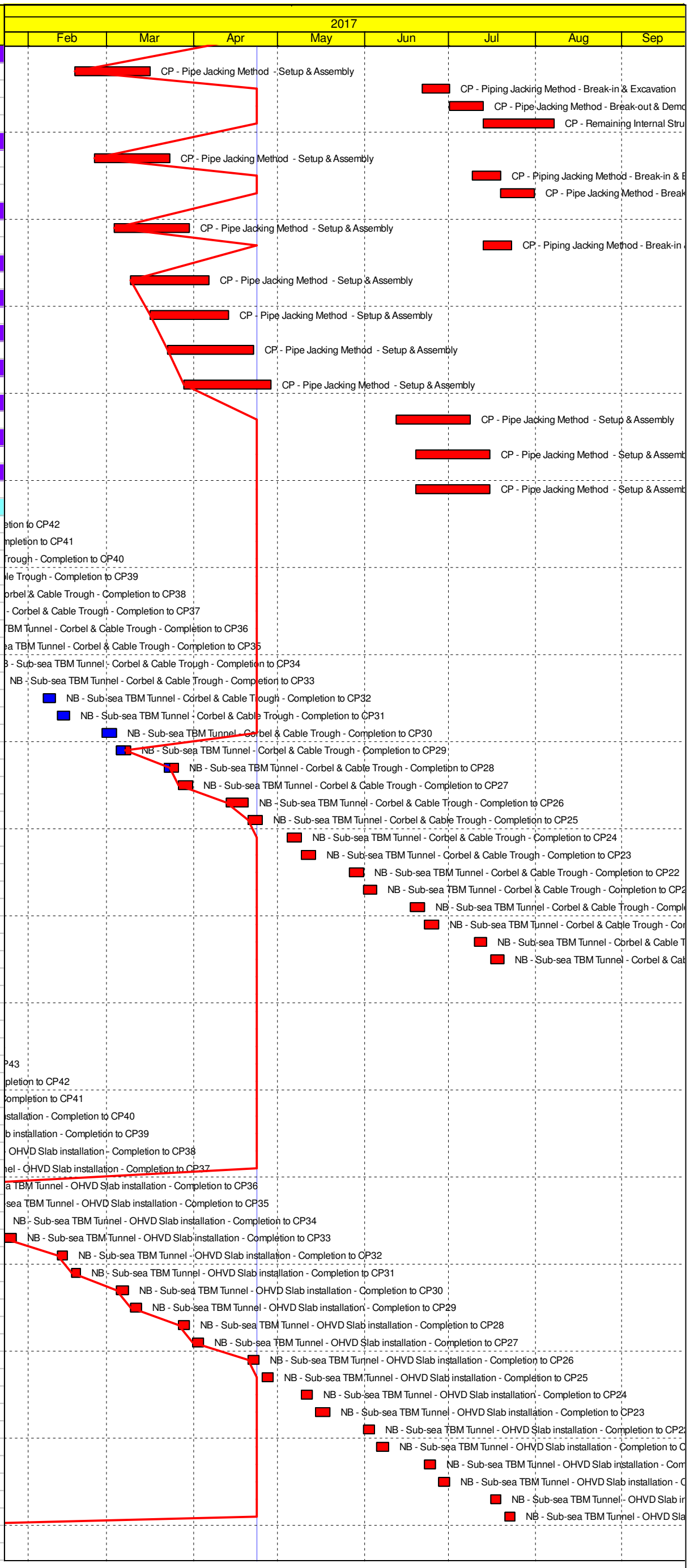
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP23
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP22
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP21
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP20
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP19
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP18
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP17
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP48
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP47



Project ID: TMCLK DWPF 17W16

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Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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Activity Name
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP46
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP45
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
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NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31
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NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP29
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP28
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP27
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP26
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP25
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP24
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP23
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP22
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP21
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP20
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP19
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP18
NB - Sub-sea TBM Tunnel - Road Level Fire Proofing
Sub-sea TBM Tunnel - SB - Remaining Internal Structure
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
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SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP48
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP47
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP46
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP45
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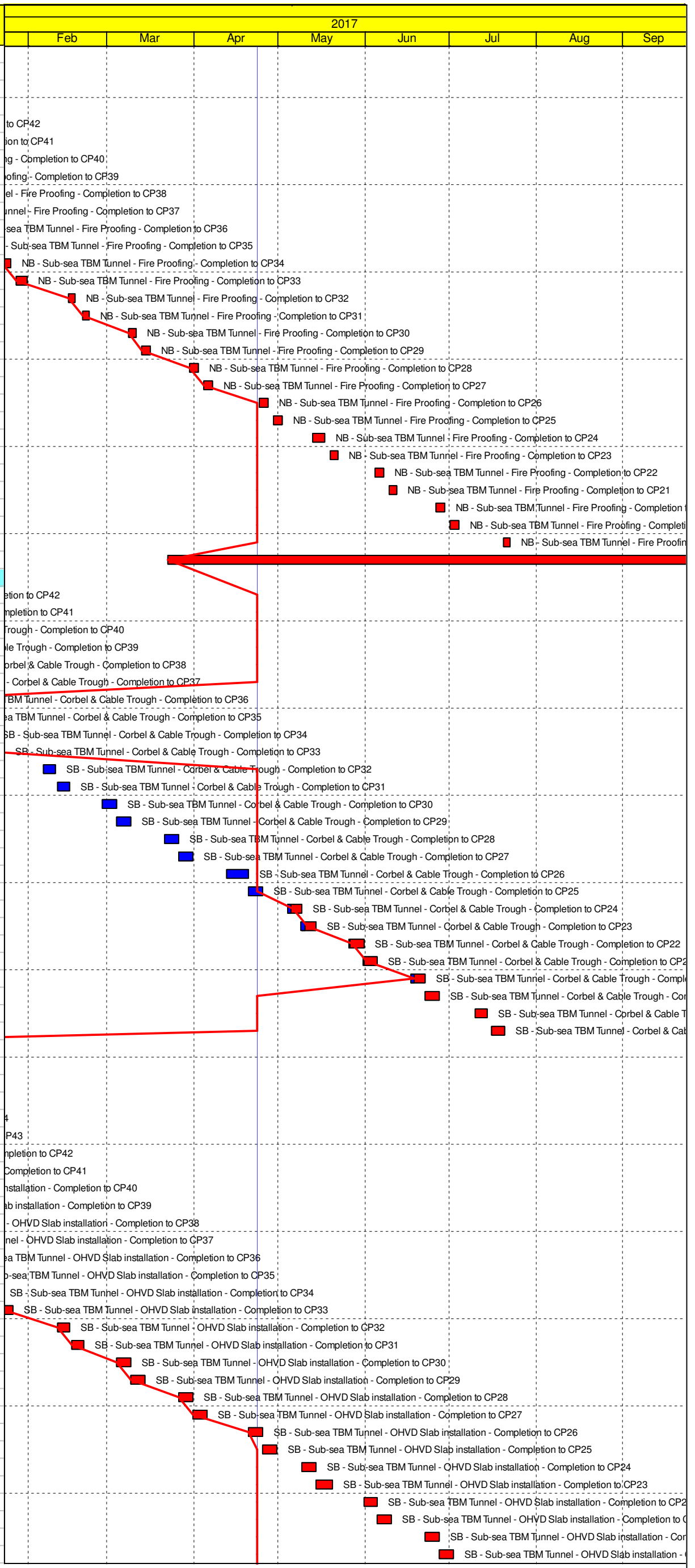
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP19



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Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

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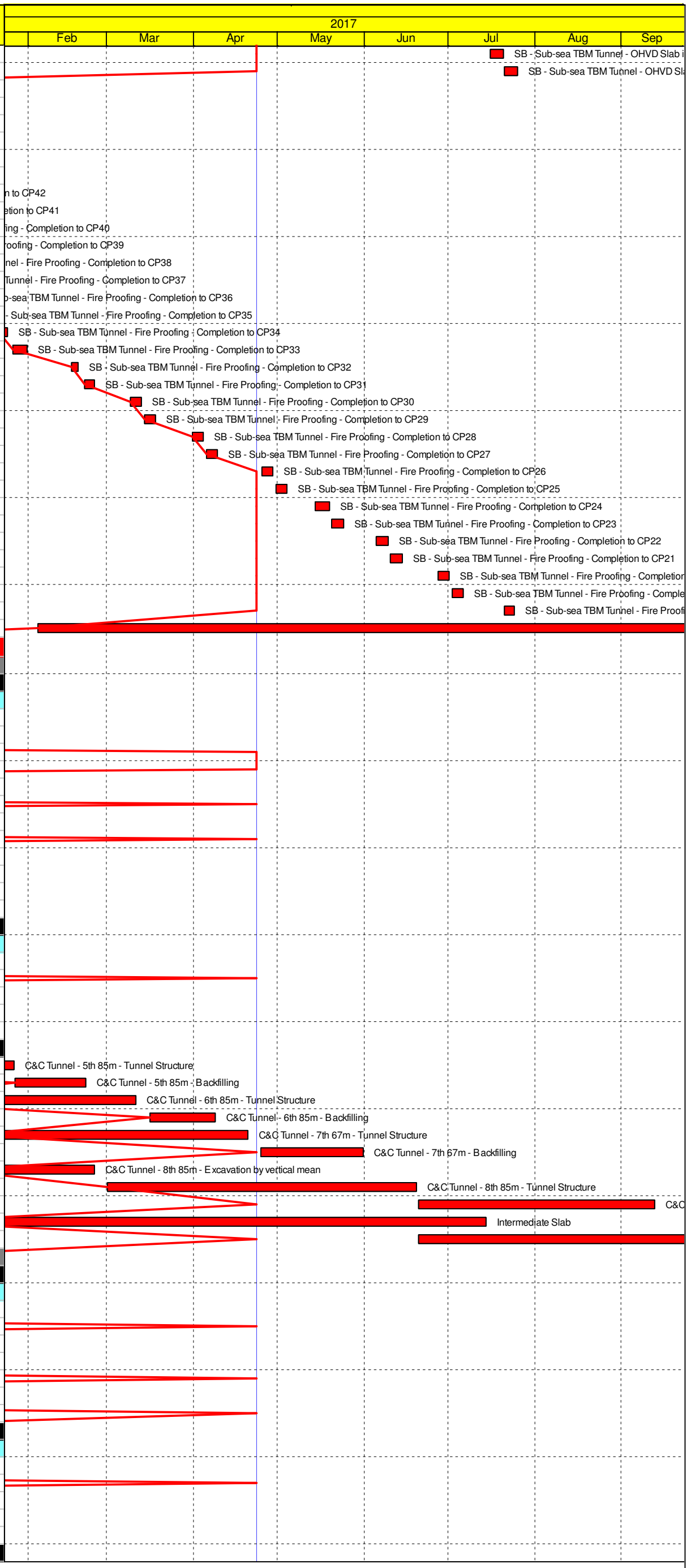
Activity Name
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP18
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP17
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP48
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP47
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP46
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP45
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP30
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP29
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP28
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP27
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP26
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP25
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP24
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP23
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP22
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP21
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP20
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP19
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP18
SB - Remaining Fire Proofing in Tunnel
Southern Landfall
South Cut & Cover Tunnel
Design Submission
(E2) DDA for South C&C Box & Approach Ramp
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
Submit ICE Check Cert to SO
IPs Review
SO's Review
Method Statement Submission
Method Statement of Construction Methodology of C&C Tunnels
Preparation Method Statement for C&C Tunnels
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
Construction
C&C Tunnel - 5th 85m - Tunnel Structure
C&C Tunnel - 5th 85m - Backfilling
C&C Tunnel - 6th 85m - Tunnel Structure
C&C Tunnel - 6th 85m - Backfilling
C&C Tunnel - 7th 67m - Tunnel Structure
C&C Tunnel - 7th 67m - Backfilling
C&C Tunnel - 8th 85m - Excavation by vertical mean
C&C Tunnel - 8th 85m - Tunnel Structure
C&C Tunnel - 8th 85m - Backfilling
Intermediate Slab
Provision for TCSS/E&M for Stage 2
South Retrieval Shaft
Design Submission
(F4) Gantry Crane Support/Foundations in Southern Landfall
Designer to Reply RtC + Update Submission
Submit Updated IFA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Method Statement Submission
Method Statement of Construction Methodology of Retrieval Shaft
Preparation Method Statement for Retrieval Shaft
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
Construction



Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

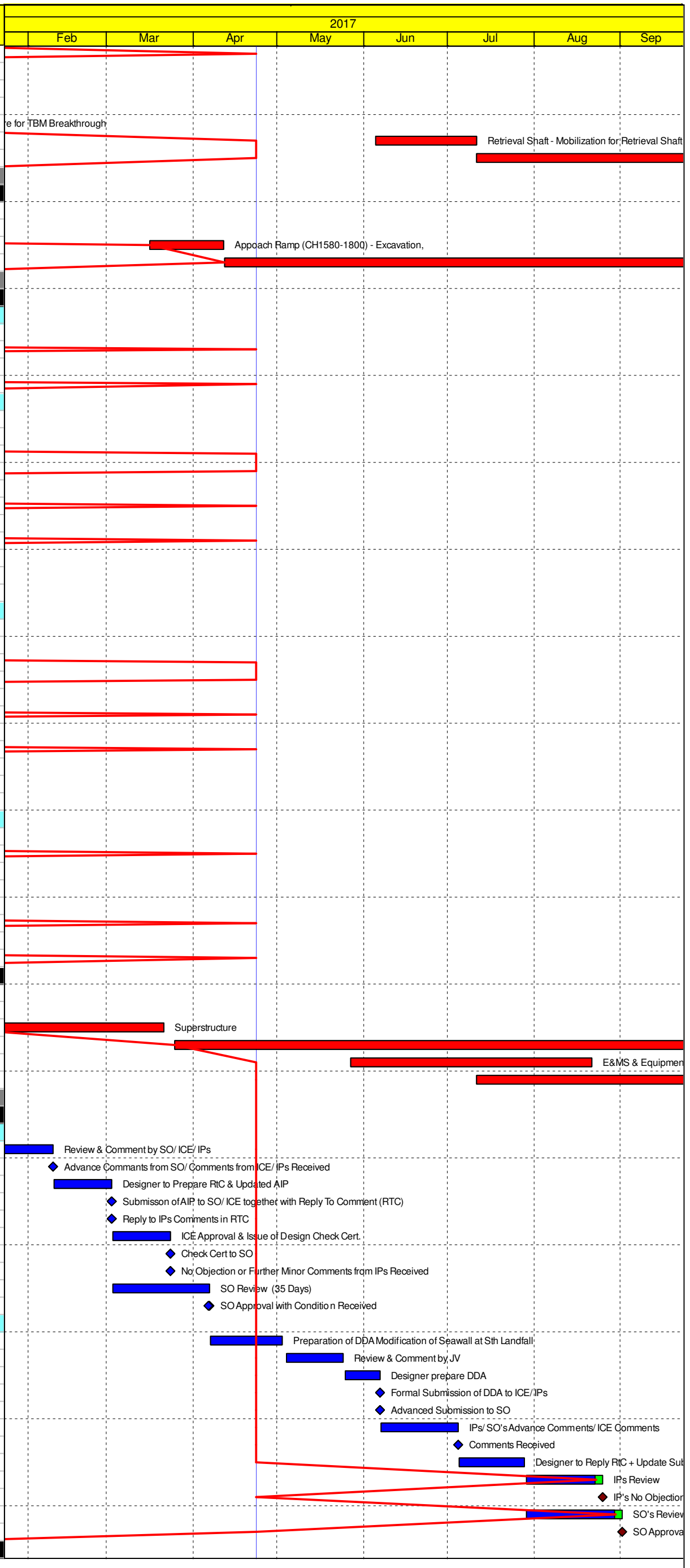
Three Months Rolling Programme

Progress as of 23-Apr-17

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

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJGEN/PRG/98507	WYu	SPo
08-Apr-14	TMCLK/DBJGEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJGEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJGEN/PRG/98507 Rev.F	WYu	

Activity Name
South Retrieval Shaft - Diaphragm Wall
Retrieval Shaft - Excavation - Soft by ramp
Retrieval Shaft - Excavation - Soft by vertical mean (Fill material
Retrieval Shaft - Excavation - Soft (other than Fill)
Retrieval Shaft - Temp. Slab/Prepare for TBM Breakthrough
Retrieval Shaft - Mobilization for Retrieval Shaft Tunnel Structure
Retrieval Shaft - Tunnel Structure
South Approach Ramp
Construction
Appoach Ramp (CH1580-1850) - Pipe Pile/Sheet Piles Wall
Appoach Ramp (CH1580-1850) - Tension Piles
Appoach Ramp (CH1580-1800) - Excavation,
Remaining Approach Tunnel Structure
South Ventilation Building
Design Submission
(I1) DDA for South Vent.Bldg. GBP & Arch.Submission
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I2) DDA for South Vent.Bldg. Foundation Design
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
SO's Review
(I2) DDA for South Vent.Bldg.Structural Design incl.Vent.Connections
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
SO's Review
(J1) DDA Temp.works for Construction of Sth.Vent.Bldg.
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
Submit ICE Check Cert to SO
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Construction
Mobilization & Setting Up Piling Rigs
S -Sheet Piling
Superstructure
Finishing Works
E&MS & Equipments Installation (by Others)
Remaining Finishing Works
South Surface Roadworks, Utility & Drainage works
Design Submission
(E1) AIP - Southern Landfall Seawall Modification
Review & Comment by SO/ ICE/ IPs
Advance Commants from SO/ Comments from ICE/ IPs Received
Designer to Prepare RtC & Updated AIP
Submisson of AIP to SO/ ICE together with Reply To Comment (RTC)
Reply to IPs Comments in RTC
ICE Approval & Issue of Design Check Cert.
Check Cert to SO
No Objection or Further Minor Comments from IPs Received
SO Review (35 Days)
SO Approval with Condition Received
(E1) DDA - Southern Landfall Seawall Modification
Preparation of DDA Modification of Seawall at Sth Landfall
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Method Statement Submission



Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 23-Apr-17

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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08-Apr-14	TMCLK/DBJGEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJGEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJGEN/PRG/98507 Rev.F	WYu	

Activity Name	2017 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Method Statement of Ground Treatment for TBMs Passing under Southern La								
Preparation Method Statement for Ground Improvement in South Landfall								
Submit Method Statement to SO								
SO Reviews & Comments								
Re-submission								
SO's Review								
SO's Approval								
Construction								
Temporary Platform for Ground Treatment for TBM passing under Southern Seawall								
Grouting Treatment for TBM passing under Southern Seawall								
South Landfall - Underground Sewerage & Drainage								
Testing & Commissioning/Inspection & Handover								
Final Inspection & Handover								
Design Submission								
(A12) Maintenance Matrix								
Prepare Re-submission								
2nd Submission								
SO's Condition Approval								
(A13) Operation & Maintenance Manual								
Preparation of Operation and Maintenance Manual								
1st Submission								
SO's Comments for 1st Submission								
Prepare Re-submission								
(A14) As-built & As-fabricated Drawings								
Preparation of As-built and As-fabricated Drawings								
1st Submission								
SO's Comments for 1st Submission								
Prepare Re-submission								
(A15) Health & Safety File incl.As-built Dwgs & Records,Maintenance Schedul								
Preparation of Health and Safety File including as-built drawings and records, maintenance schedules, op								
1st Submission								
SO's Comments for 1st Submission								
Prepare Re-submission								

Project ID: TMCLK DWPF 17W16

Data Date: 23-Apr-17

Planned Bar

Planned Bar - Critical

Planned Milestone

Progress bar

Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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Three Months Rolling Programme

Progress as of 23-Apr-17

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

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		✓
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		✓

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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 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		✓

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 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; - Reclamation filling for Portion D of HKBCF; Reclamation filling for FSD berth of HKBCF; and - Reclamation dredging and filling for Portion 1 of HKLR;	TM-CLKL northern landfall, Portion D of HKBCF and HKLR	Contractor	TM-EIAO		Y		✓
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		✓

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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	
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		✓
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		✓

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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	-	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 adjacent to the works site.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
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		✓

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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	
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		✓
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		✓

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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	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		✓
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		✓

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	
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		✓

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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	-	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									
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		✓

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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, 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		✓
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

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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	
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		✓
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		✓

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	
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		<>
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		✓

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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	
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		✓
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		✓

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	
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 entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and *f* Incompatible materials are adequately separated.	All areas / throughout construction period	Contractor	TMEIA		Y		<>
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

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	
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		✓
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

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

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.

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 Quality Monitoring

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	11/02/2017

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1023
Ta(K)	:	287

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.427	1.661	55	56.32
2	13 holes	9	3.072	1.492	50	51.20
3	10 holes	6.7	2.651	1.292	43	44.03
4	7 holes	4.3	2.123	1.041	36	36.86
5	5 holes	2.7	1.683	0.832	29	29.70

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):32.008 Intercept(b):3.172 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan Date: 15/02/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	11/02/2017

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1023
Ta(K)	:	287

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.577	1.732	54	55.30
2	13 holes	9.8	3.206	1.556	48	49.15
3	10 holes	7.2	2.748	1.338	42	43.01
4	7 holes	4.6	2.196	1.076	34	34.82
5	5 holes	2.5	1.619	0.802	25	25.60

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):31.500 Intercept(b): 0.598 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 15/02/17

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	11/02/2017

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1023
Ta(K)	:	287

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.6	3.488	1.690	57	58.37
2	13 holes	9.4	3.140	1.525	51	52.22
3	10 holes	6.7	2.651	1.292	44	45.06
4	7 holes	4.5	2.172	1.065	37	37.89
5	5 holes	2.8	1.713	0.847	29	29.70

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):33.356 Intercept(b):1.832 Correlation Coefficient(r): 0.9993

Checked by: Magnum Fan Date: 15/02/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	11/02/2017

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1023
Ta(K)	:	287

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.5	3.473	1.683	56	57.34
2	13 holes	9.0	3.072	1.492	50	51.20
3	10 holes	7.0	2.709	1.320	44	45.06
4	7 holes	4.6	2.196	1.076	35	35.84
5	5 holes	2.8	1.713	0.847	28	28.67

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):34.810 Intercept(b): -1.058 correlation Coefficient(r): 0.9995

Checked by: Magnum Fan Date: 15/02/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	11/02/2017

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	14 Mar 2016
Slope (m)	:	2.10326
Intercept (b)	:	-0.06696
Correlation Coefficient(r)	:	0.99989

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1023
Ta(K)	:	287

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.547	1.718	54	55.30
2	13 holes	9.4	3.140	1.525	49	50.18
3	10 holes	6.8	2.670	1.301	43	44.03
4	7 holes	4.5	2.172	1.065	36	36.86
5	5 holes	2.6	1.651	0.817	30	30.72

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):27.603 Intercept(b): 7.943 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 15/02/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	11/04/2017

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	20 March 2017
Slope (m)	:	2.08464
Intercept (b)	:	-0.036840
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.8	3.271	1.587	54	53.74
2	13 holes	7.8	2.779	1.351	46	45.78
3	10 holes	5.5	2.334	1.137	40	39.81
4	7 holes	3.7	1.914	0.936	33	32.84
5	5 holes	2.3	1.509	0.742	26	25.87

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):32.599 Intercept(b):2.104 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan Date: 18/04/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	11/04/2017

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	20 March 2017
Slope (m)	:	2.08464
Intercept (b)	:	-0.036840
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.1	3.316	1.608	58	57.72
2	13 holes	8.3	2.867	1.393	51	50.75
3	10 holes	5.6	2.355	1.147	44	43.79
4	7 holes	3.8	1.940	0.948	37	36.82
5	5 holes	2.2	1.476	0.726	30	29.86

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):31.503 Intercept(b): 7.103 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 18/04/17

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	11/04/2017

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	20 March 2017
Slope (m)	:	2.08464
Intercept (b)	:	-0.036840
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.5	3.519	1.705	52	51.75
2	13 holes	9.6	3.083	1.497	45	44.78
3	10 holes	7.2	2.670	1.299	40	39.81
4	7 holes	4.4	2.088	1.019	32	31.85
5	5 holes	2.3	1.509	0.741	24	23.88

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):25.528 Intercept(b):2.687 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan Date: 18/04/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	11/04/2017

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	20 March 2017
Slope (m)	:	2.08464
Intercept (b)	:	-0.036840
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.2	3.178	1.542	52	51.75
2	13 holes	7.8	2.779	1.351	45	44.78
3	10 holes	5.4	2.313	1.127	38	37.82
4	7 holes	3.6	1.888	0.923	32	31.85
5	5 holes	2.2	1.476	0.726	25	24.88

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):32.340 Intercept(b): 1.545 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan Date: 18/04/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	11/04/2017

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	20 March 2017
Slope (m)	:	2.08464
Intercept (b)	:	-0.036840
Correlation Coefficient(r)	:	0.99994

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.8	3.419	1.658	52	51.75
2	13 holes	9.0	2.986	1.450	46	45.78
3	10 holes	6.2	2.478	1.206	40	39.81
4	7 holes	4.0	1.990	0.972	34	33.84
5	5 holes	2.6	1.605	0.787	28	27.87

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):26.875 Intercept(b): 7.162 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 18/04/2017

TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE
VILLAGE OF CLEVES, OH
45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX

TISCH Environmental

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 20, 2017 Rootsmeter S/N 0438320 Ta (K) - 293
Operator Tisch Orifice I.D. - 2454 Pa (mm) - 759.46

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4390	3.2	2.00
2	NA	NA	1.00	1.0240	6.4	4.00
3	NA	NA	1.00	0.9170	7.9	5.00
4	NA	NA	1.00	0.8730	8.8	5.50
5	NA	NA	1.00	0.7200	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0120	0.7033	1.4257		0.9958	0.6920	0.8784
1.0078	0.9842	2.0163		0.9916	0.9683	1.2423
1.0057	1.0967	2.2543		0.9895	1.0791	1.3889
1.0045	1.1507	2.3643		0.9884	1.1322	1.4567
0.9992	1.3878	2.8514		0.9831	1.3654	1.7568
Qstd slope (m) =		2.08464		Qa slope (m) =		1.30537
intercept (b) =		-0.03684		intercept (b) =		-0.02270
coefficient (r) =		0.99994		coefficient (r) =		0.99994
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{[SQRT(H2O(Pa/760)(298/Ta))]- b}
Qa = 1/m{[SQRT H2O(Ta/Pa)]- b}

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 1 November 2016

Brand of Test Meter: Davis

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

Location : ASR5

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)	Anemomete (m/s)
1.2	1.3
2.5	2.8
3.3	3.6

Wind Direction Test

Davis (o)	Marine Compass (o)
271	270
1	0
91	90
179	180

Calibrated by: Fai

Yeung Ping Fai
(Technical Officer)

Checked by : Fat

Ho Kam Fat
(Senior Technical Officer)

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

Certificate of Calibration
校正證書

Certificate No. : C165934
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-2438) Date of Receipt / 收件日期 : 26 October 2016

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 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 27 October 2016

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 L Shek
Assistant Engineer

Certified By / 核證 : H C Chan
Engineer

Date of Issue / 簽發日期 : 28 October 2016

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

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

Certificate of Calibration
校正證書

Certificate No. : C165934
證書編號

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	S12109

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	0.2	2.0
6.0	5.8	+0.2	0.3	2.0
8.1	8.0	+0.1	0.3	2.0
10.0	10.0	0.0	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, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
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Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/008	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	14M101489
Date of Calibration	:	19/01/2017	Calibration Due Date	:	18/04/2017

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	20.3	Corrected	19.8
DO Meter reading	Measured	19.8	Difference	0.0

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/15	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/16

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.35
Final Vol. of $Na_2S_2O_3$ (ml)	10.35	20.70
Vol. of $Na_2S_2O_3$ used (ml)	10.35	10.35
Normality of $Na_2S_2O_3$ solution (N)	0.02415	0.02415
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02415	
Acceptance criteria, Deviation	Less than ± 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 0.25 / ml $Na_2S_2O_3$ used

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.40	23.00	0.00	6.10	9.90
Final Vol. of $Na_2S_2O_3$ (ml)	11.40	23.00	29.60	6.10	9.90	13.80
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.40	11.60	6.60	6.10	3.80	3.90
Dissolved Oxygen (**DO**), mg/L	7.39	7.52	4.28	3.95	2.46	2.53
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.39	7.48	7.44	7.39	7.52	7.46	0.27
5	4.19	4.14	4.17	4.28	3.95	4.12	1.21
10	2.39	2.42	2.41	2.46	2.53	2.50	3.67
Linear regression coefficient				0.9993			

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/33	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/33

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.90	21.80	31.20
Final Vol. of $Na_2S_2O_3$ (ml)	10.90	21.80	31.20	40.60
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.90	10.90	9.40	9.40
Dissolved Oxygen (**DO**), mg/L	7.07	7.07	6.09	6.09
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.12	7.07	7.1	7.07	7.07	7.07	0.42
30	6.14	6.17	6.16	6.09	6.09	6.09	1.14

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
(2) Linear regression coefficient : >0.99
(3) Zero checking: 0.0mg/L
(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated by : Brian

Approved by :

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. :	ET/EW/008/008	Manufacturer :	YSI
Model No. :	Pro 2030	Serial No. :	14M101489
Date of Calibration :	19/01/2017	Due Date :	18/04/2017

Ref. No. of Salinity Standard used (30ppt)	S/001/9

Salinity Standard Value (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.3	1.00

(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by : Brian W

Approved by : I Z L

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/005	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	12A 100353
Date of Calibration	:	19/01/2017	Calibration Due Date	:	18/04/2017

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	20.3	Corrected	19.8
DO Meter reading	Measured	19.9	Difference	-0.1

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/15	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/16

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.35
Final Vol. of $Na_2S_2O_3$ (ml)	10.35	20.70
Vol. of $Na_2S_2O_3$ used (ml)	10.35	10.35
Normality of $Na_2S_2O_3$ solution (N)	0.02415	0.02415
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02415	
Acceptance criteria, Deviation	Less than $\pm$ 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 0.25 / ml $Na_2S_2O_3$ used

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.40	23.00	0.00	6.10	9.90
Final Vol. of $Na_2S_2O_3$ (ml)	11.40	23.00	29.60	6.10	9.90	13.80
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.40	11.60	6.60	6.10	3.80	3.90
Dissolved Oxygen (**DO**), mg/L	7.39	7.52	4.28	3.95	2.46	2.53
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.35	7.42	7.39	7.39	7.52	7.46	0.94
5	4.24	4.13	4.19	4.28	3.95	4.12	1.68
10	2.51	2.58	2.55	2.46	2.53	2.50	1.98
Linear regression coefficient				0.9998			

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/33	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/33

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.90	21.80	31.20
Final Vol. of $Na_2S_2O_3$ (ml)	10.90	21.80	31.20	40.60
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.90	10.90	9.40	9.40
Dissolved Oxygen (**DO**), mg/L	7.07	7.07	6.09	6.09
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.21	7.18	7.2	7.07	7.07	7.07	1.82
30	6.13	6.18	6.16	6.09	6.09	6.09	1.14

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
(2) Linear regression coefficient : >0.99
(3) Zero checking: 0.0mg/L
(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated by : Bimo

Approved by :

東業環勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/005 Manufacturer : YSI

Model No. : Pro 2030 Serial No. : 12A 100353

Date of Calibration : 19/01/2017 Due Date : 18/04/2017

Ref. No. of Salinity Standard used (30ppt)	S/001/9

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.3	1.00

(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by : Brian W Approved by : C A L

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/004	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	10F 101978
Date of Calibration	:	19/04/2017	Calibration Due Date	:	18/07/2017

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	19.9	Corrected	19.8
DO Meter reading	Measured	19.9	Difference	-0.1

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/15	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/18

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.25
Final Vol. of $Na_2S_2O_3$ (ml)	10.25	20.45
Vol. of $Na_2S_2O_3$ used (ml)	10.25	10.20
Normality of $Na_2S_2O_3$ solution (N)	0.02439	0.02451
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02445	
Acceptance criteria, Deviation	Less than ± 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 0.25 / ml $Na_2S_2O_3$ used

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.70	21.50	0.00	6.70	10.30
Final Vol. of $Na_2S_2O_3$ (ml)	10.70	21.50	28.20	6.70	10.30	13.80
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.70	10.80	6.70	6.70	3.60	3.50
Dissolved Oxygen (DO), mg/L	7.02	7.09	4.40	4.40	2.36	2.30
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.22	7.28	7.25	7.02	7.09	7.06	2.66
5	4.31	4.29	4.30	4.40	4.40	4.40	2.30
10	2.29	2.27	2.28	2.36	2.30	2.33	2.17
Linear regression coefficient				0.9987			

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Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/37	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/37

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.60	21.10	30.30
Final Vol. of $Na_2S_2O_3$ (ml)	10.60	21.10	30.30	39.50
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.60	10.50	9.20	9.20
Dissolved Oxygen (**DO**), mg/L	6.96	6.89	6.04	6.04
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.05	7.00	7.03	6.96	6.89	6.93	1.43
30	5.98	6.01	6	6.04	6.04	6.04	0.66

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C

(2) Linear regression coefficient : >0.99

(3) Zero checking: 0.0mg/L

(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated by : _____ Approved by : _____

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Performance Check of Salinity Meter

Equipment Ref. No. :	ET/EW/008/004	Manufacturer :	YSI
Model No. :	Pro 2030	Serial No. :	10F 101978
Date of Calibration :	19/04/2017	Due Date :	18/07/2017

Ref. No. of Salinity Standard used (30ppt)	S/001/9

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.8	2.7

(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by : _____ Approved by : _____

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/008	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	14M101489
Date of Calibration	:	22/04/2017	Calibration Due Date	:	21/07/2017

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	20.3	Corrected	19.8
DO Meter reading	Measured	19.7	Difference	0.1

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/15	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/18

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.15
Final Vol. of $Na_2S_2O_3$ (ml)	10.15	20.35
Vol. of $Na_2S_2O_3$ used (ml)	10.15	10.20
Normality of $Na_2S_2O_3$ solution (N)	0.02463	0.02451
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02457	
Acceptance criteria, Deviation	Less than $\pm$ 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 0.25 / ml $Na_2S_2O_3$ used

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.90	21.80	0.00	6.80	10.60
Final Vol. of $Na_2S_2O_3$ (ml)	10.90	21.80	28.60	6.80	10.60	14.50
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.90	10.90	6.80	6.80	3.80	3.90
Dissolved Oxygen (**DO**), mg/L	7.19	7.19	4.49	4.49	2.51	2.57
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.23	7.19	7.21	7.19	7.19	7.19	0.28
5	4.43	4.40	4.42	4.49	4.49	4.49	1.57
10	2.48	2.51	2.50	2.51	2.57	2.54	1.59
Linear regression coefficient				0.9998			

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/004/1	Reagent No. of NaCl (30ppt)	CPE/012/4.8/004/1

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.70	21.30	30.70
Final Vol. of $Na_2S_2O_3$ (ml)	10.70	21.30	30.70	40.20
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.70	10.60	9.40	9.50
Dissolved Oxygen (**DO**), mg/L	7.06	6.99	6.20	6.27
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.00	6.97	6.99	7.06	6.99	7.03	0.57
30	6.07	6.11	6.09	6.20	6.27	6.24	2.43

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
(2) Linear regression coefficient : >0.99
(3) Zero checking: 0.0mg/L
(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated by : _____ Approved by : _____

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Performance Check of Salinity Meter

Equipment Ref. No. :	ET/EW/008/008	Manufacturer :	YSI
Model No. :	Pro 2030	Serial No. :	14M101489
Date of Calibration :	22/04/2017	Due Date :	21/07/2017

Ref. No. of Salinity Standard used (30ppt)	S/001/9

Salinity Standard Value (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.8	2.7

(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by : _____ Approved by : _____

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Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/016 Manufacturer : HACH

Model No. : 2100Q Serial No. : 16030C048473

Date of Calibration : 26/01/17 Due Date : 25/04/2017

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.8	4.0
100	99.1	-0.9
800	779	-2.6

(*) Difference = (Measured Value – Theoretical Value) / Theoretical Value x 100

Acceptance Criteria

Difference : -5 % to 5 %

The turbidity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Prepared by : Bianco Checked by :

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Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/014 Manufacturer : HACH

Model No. : 2100Q Serial No. : 13110C029448

Date of Calibration : 25/02/2017 Due Date : 24/05/2017

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.4	2.0
100	98.2	-1.8
800	775	-3.1

(*) Difference = (Measured Value – Theoretical Value) / Theoretical Value x 100

Acceptance Criteria

Difference : -5 % to 5 %

The turbidity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Prepared by : Brenno Checked by :

'Form E/CE/L/15/Issue 2 (1/1) [04/15]

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No.	:	ET/EW007/008	Manufacturer	:	HANNA
Model No.	:	HI9125	Serial No.	:	H0040409
Date of Calibration	:	30/03/2017	Calibration Due Date	:	29/04/2017

Liquid Junction Error

003/5.2/002/09 (20℃)

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/002/10 (25℃)

Temperature of Solution : 25.0 / 20.0 $\Delta pH_{½}$ = 0.080 / 0.080

pH value of diluted buffer : 6.98 / 6.99 pH (S) = 6.865 / 6.881

ΔpH = pH(S) - pH of diluted buffer = 0.115 / 0.109 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ = 0.04 / 0.03

Shift on Stirring

pH of buffer solution (with stirring), pH_s = 6.91 / 6.92

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.01 / 0.01

Noise

Noise, ΔpH_n = difference between max and min reading : 0.01 / 0.01

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/018 / ET/0521/019

Temperature record from the reference thermometer (T_R):	25.0 / 20.0	°C
Temperature record from the ATC (T_{ATC}):	24.9 / 19.9	°C
Temperature Difference, $\lvert T_R - T_{ATC} \rvert$	0.1 / 0.1	°C
Correction	+0.1 / +0.1	°C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpHj	≤0.05
Shift on Stirring	ΔpHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°C

The pH meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

* Delete as appropriate

Calibrated by: _____ Checked by : _____

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No.	:	ET/EW/007/007	Manufacturer	:	HANNA
Model No.	:	HI 8314	Serial No.	:	08500489
Date of Calibration	:	06/04/2017	Calibration Due Date	:	05/05/2017

Liquid Junction Error

003/5.2/002/09 (20℃)

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/002/10 (25℃)

Temperature of Solution : 25.0 / 20.0 $\Delta pH_{½}$ = 0.080 / 0.080

pH value of diluted buffer : 6.97 / 6.99 pH (S) = 6.865 / 6.881

ΔpH = pH(S) - pH of diluted buffer = 0.105 / 0.109 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ = 0.02 / 0.03

Shift on Stirring

pH of buffer solution (with stirring), pH_s = 6.90 / 6.92

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.01 / 0.01

Noise

Noise, ΔpH_n = difference between max and min reading : 0.01 / 0.01

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/018 / ET/0521/019

Temperature record from the reference thermometer (T_R):	25.0 / 20.0	°C
Temperature record from the ATC (T_{ATC}):	24.8 / 19.8	°C
Temperature Difference, $\lvert T_R - T_{ATC} \rvert$	0.2 / 0.2	°C
Correction	+0.2 / +0.2	°C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpHj	≤0.05
Shift on Stirring	ΔpHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°C

The pH meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

* Delete as appropriate

Calibrated by: _____ Checked by : _____

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'Form E/CE/L/15/Issue 2 (1/1) [04/15]

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No.	:	ET/EW/007/008	Manufacturer	:	HANNA
Model No.	:	HI9125	Serial No.	:	H0040409
Date of Calibration	:	29/04/2017	Calibration Due Date	:	28/05/2017

Liquid Junction Error

003/5.2/002/09 (20℃)

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/002/10 (25℃)

Temperature of Solution : 25.0 / 20.0 $\Delta pH_{½}$ = 0.080 / 0.080

pH value of diluted buffer : 6.98 / 7.00 pH (S) = 6.865 / 6.881

ΔpH = pH(S) - pH of diluted buffer = 0.115 / 0.119 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = $\Delta pH - \Delta pH_{½}$ = 0.04 / 0.04

Shift on Stirring

pH of buffer solution (with stirring), pH_s = 6.91 / 6.93

Shift on stirring, $\Delta pH_s = pH_s - pH(S) - \Delta pH_j$ = 0.01 / 0.01

Noise

Noise, ΔpH_n = difference between max and min reading : 0.01 / 0.01

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/018 / ET/0521/019

Temperature record from the reference thermometer (T_R):	25.0 / 20.0	°C
Temperature record from the ATC (T_{ATC}):	24.9 / 19.9	°C
Temperature Difference, $\lvert T_R - T_{ATC} \rvert$	0.1 / 0.1	°C
Correction	+0.1 / +0.1	°C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpHj	≤0.05
Shift on Stirring	ΔpHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°C

The pH meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

* Delete as appropriate

Calibrated by: Beanie Checked by : [signature]

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 - April 2017

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
	1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
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
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
		1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM	
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		
30-Apr						
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 - May 2017

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM
7-May	8-May	9-May	10-May	11-May	12-May	13-May
		1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM	
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM			1-hour TSP - 3 times 24-hour TSP - 1 time Impact AQM		
21-May	22-May	23-May	24-May	25-May	26-May	27-May
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
28-May	29-May	30-May	31-May			
		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 Marine Water Quality Monitoring (WQM) Schedule (April 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	01-Apr
						WQM Mid-Flood 9:21 (07:36 - 11:06) Mid-Ebb 16:03 (14:18 - 17:48)
02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr
		WQM Mid-Flood 11:46 (10:01 - 13:31) Mid-Ebb 19:23 (17:38 - 21:08)		**WQM** Mid-Ebb 10:09 (08:24 - 11:54) Mid-Flood 15:15 (13:30 - 17:00)		**WQM** Mid-Ebb 11:38 (09:53 - 13:23) Mid-Flood 17:20 (15:35 - 19:05)
09-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
		WQM Mid-Ebb 13:11 (11:26 - 14:56) Mid-Flood 19:29 (17:44 - 21:14)		**WQM** Mid-Flood 7:53 (06:08 - 09:38) Mid-Ebb 14:11 (12:26 - 15:56)		**WQM** Mid-Flood 8:44 (06:59 - 10:29) Mid-Ebb 15:17 (13:32 - 17:02)
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
		WQM Mid-Flood 10:02 (08:17 - 11:47) Mid-Ebb 17:27 (15:42 - 19:12)		**WQM** Mid-Flood 7:12 (05:27 - 08:57) Mid-Ebb 19:50 (18:05 - 21:35)		**WQM** Mid-Ebb 10:30 (08:45 - 12:15) Mid-Flood 15:38 (13:53 - 17:23)
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
		WQM Mid-Ebb 12:16 (10:31 - 14:01) Mid-Flood 18:22 (16:37 - 20:07)		**WQM** Mid-Ebb 13:34 (11:49 - 15:19) Mid-Flood 20:04 (18:19 - 21:49)		**WQM** Mid-Flood 8:18 (06:33 - 10:03) Mid-Ebb 15:04 (13:19 - 16:49)
30-Apr						

HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-sea Tunnel Section
Impact Marine Water Quality Monitoring (WQM) Schedule (May 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-May	02-May	03-May	04-May	05-May	06-May
		WQM Mid-Flood 10:25 (08:40 - 12:10) Mid-Ebb 17:45 (16:00 - 19:30)		**WQM** Mid-Ebb 8:37 (06:53 - 10:23) Mid-Flood 13:34 (11:49 - 15:19)		**WQM** Mid-Ebb 10:38 (08:53 - 12:23) Mid-Flood 16:16 (14:31 - 18:01)
07-May	08-May	09-May	10-May	11-May	12-May	13-May
		WQM Mid-Ebb 12:19 (10:34 - 14:04) Mid-Flood 18:43 (16:58 - 20:28)		**WQM** Mid-Ebb 13:22 (11:37 - 15:07) Mid-Flood 20:04 (18:19 - 21:49)		**WQM** Mid-Flood 7:42 (05:57 - 09:27) Mid-Ebb 14:26 (14:19 - 17:49)
14-May	15-May	16-May	17-May	18-May	19-May	20-May
		WQM Mid-Flood 9:09 (07:24 - 10:54) Mid-Ebb 16:16 (14:31 - 18:01)		**WQM** Mid-Flood 10:32 (08:47 - 12:17) Mid-Ebb 17:52 (16:07 - 19:37)		**WQM** Mid-Ebb 8:59 (07:14 - 10:44) Mid-Flood 13:49 (12:04 - 15:34)
21-May	22-May	23-May	24-May	25-May	26-May	27-May
		WQM Mid-Ebb 11:11 (09:26 - 12:56) Mid-Flood 17:16 (15:31 - 19:01)		**WQM** Mid-Ebb 12:35 (10:50 - 14:20) Mid-Flood 19:10 (17:25 - 20:55)		**WQM** Mid-Flood 7:14 (05:29 - 08:59) Mid-Ebb 14:08 (12:23 - 15:53)
28-May	29-May	30-May	31-May			
		WQM Mid-Flood 9:24 (07:39 - 11:09) Mid-Ebb 16:35 (14:50 - 18:20)				

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Impact Dolphin Monitoring Survey Monitoring Schedule - April 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
			Impact Dolphin Monitoring			
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
				Impact Dolphin Monitoring		
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Impact Dolphin Monitoring		**Impact Dolphin Monitoring**			
30-Apr						

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Tentative Impact Dolphin Monitoring Survey Monitoring Schedule - May 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
7-May	8-May	9-May	10-May	11-May	12-May	13-May
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	Impact Dolphin Monitoring			**Impact Dolphin Monitoring**		
21-May	22-May	23-May	24-May	25-May	26-May	27-May
		Impact Dolphin Monitoring			**Impact Dolphin Monitoring**	
28-May	29-May	30-May	31-May			

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.

Appendix G

Impact Air Quality Monitoring Results

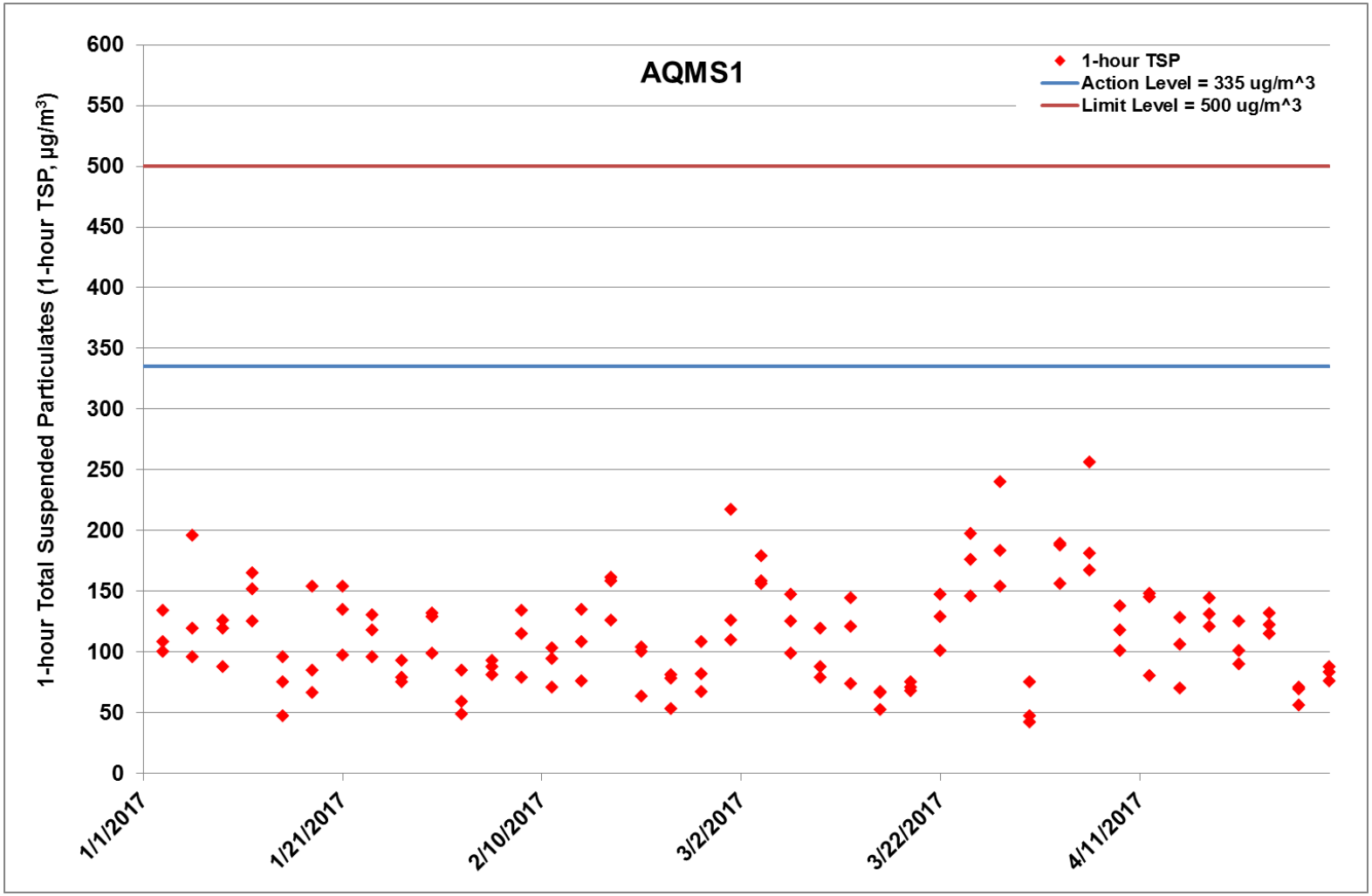


Figure G.1 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

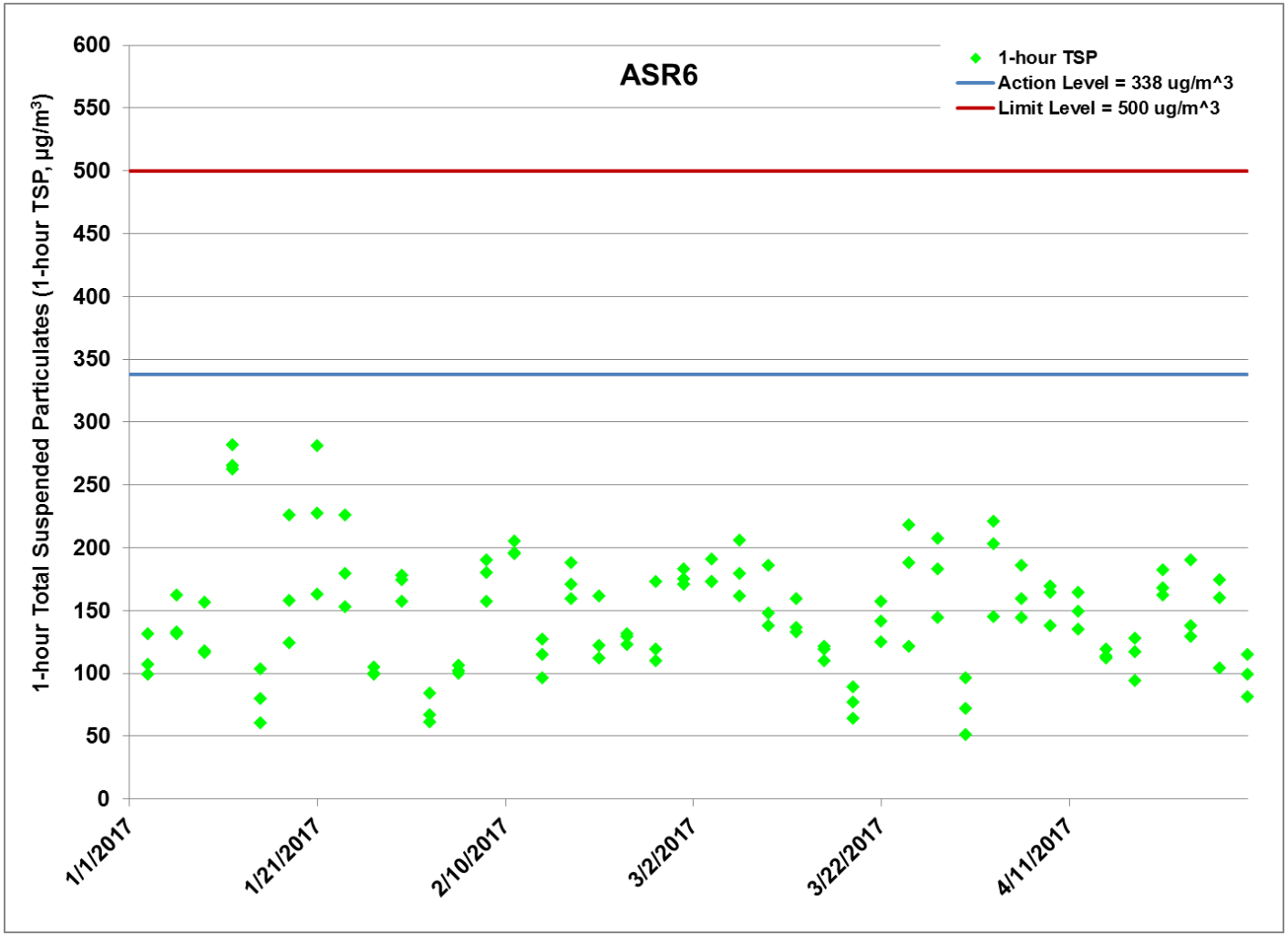


Figure G.2 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR6 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

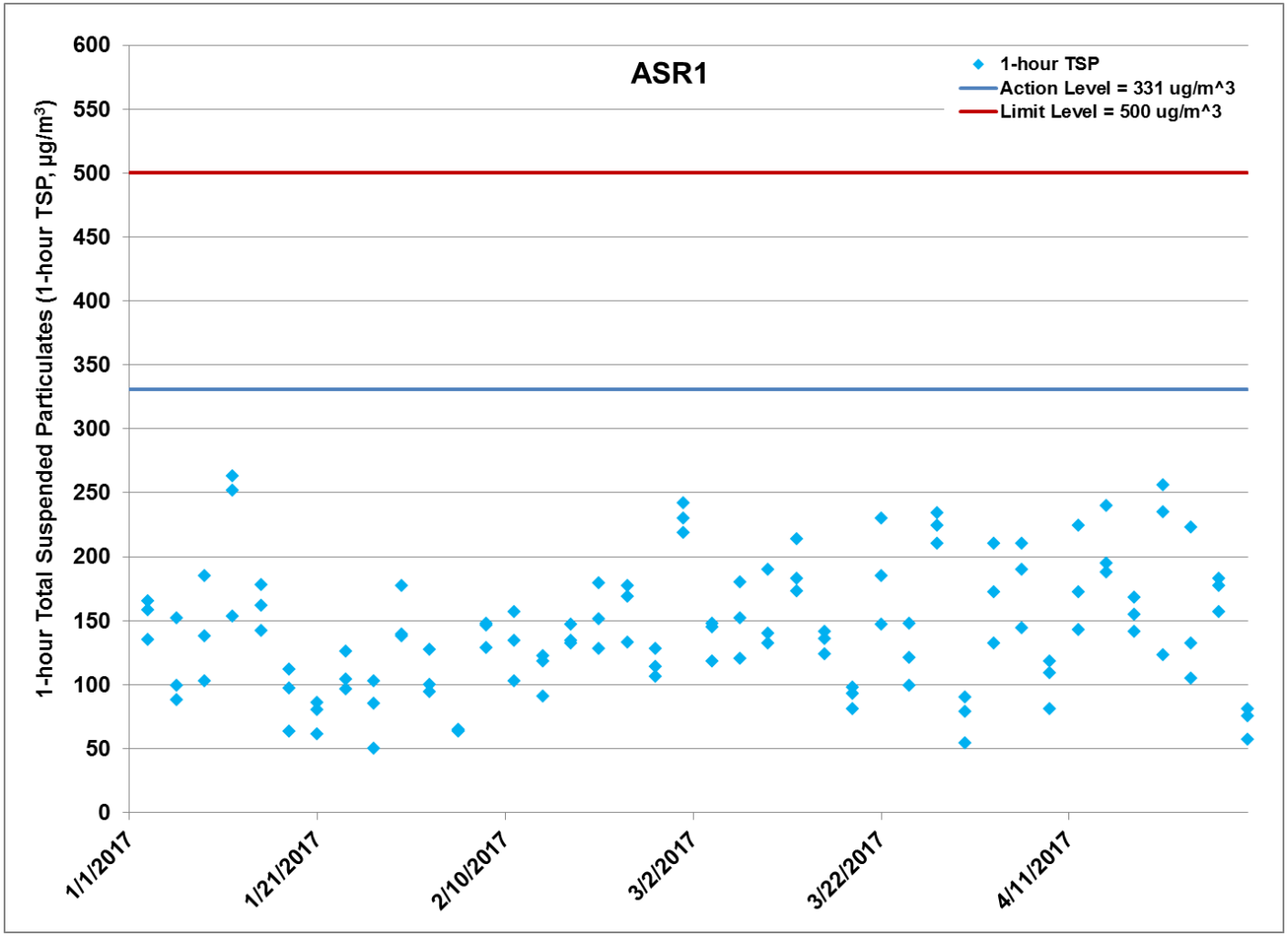


Figure G.3 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

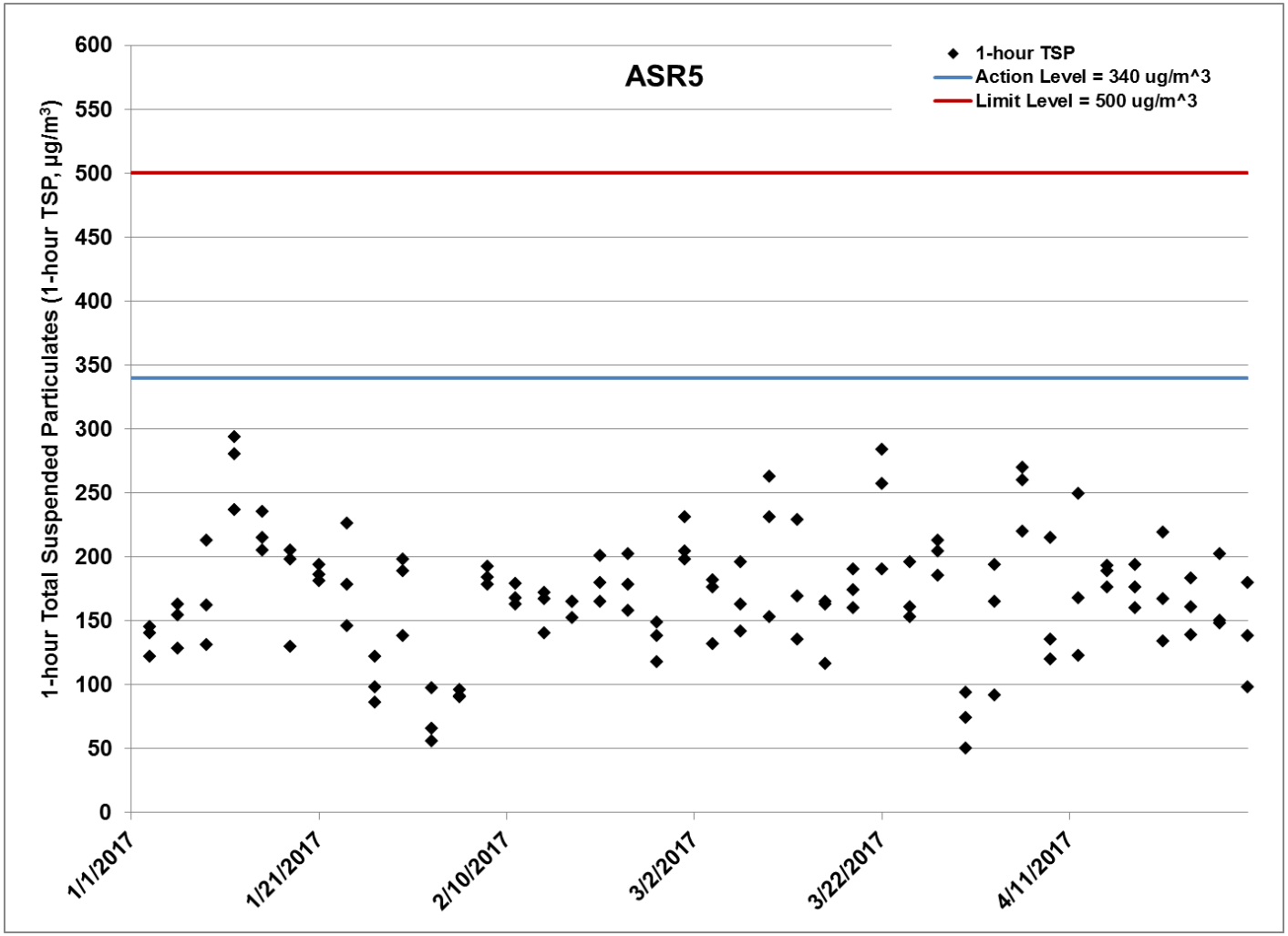


Figure G.4 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

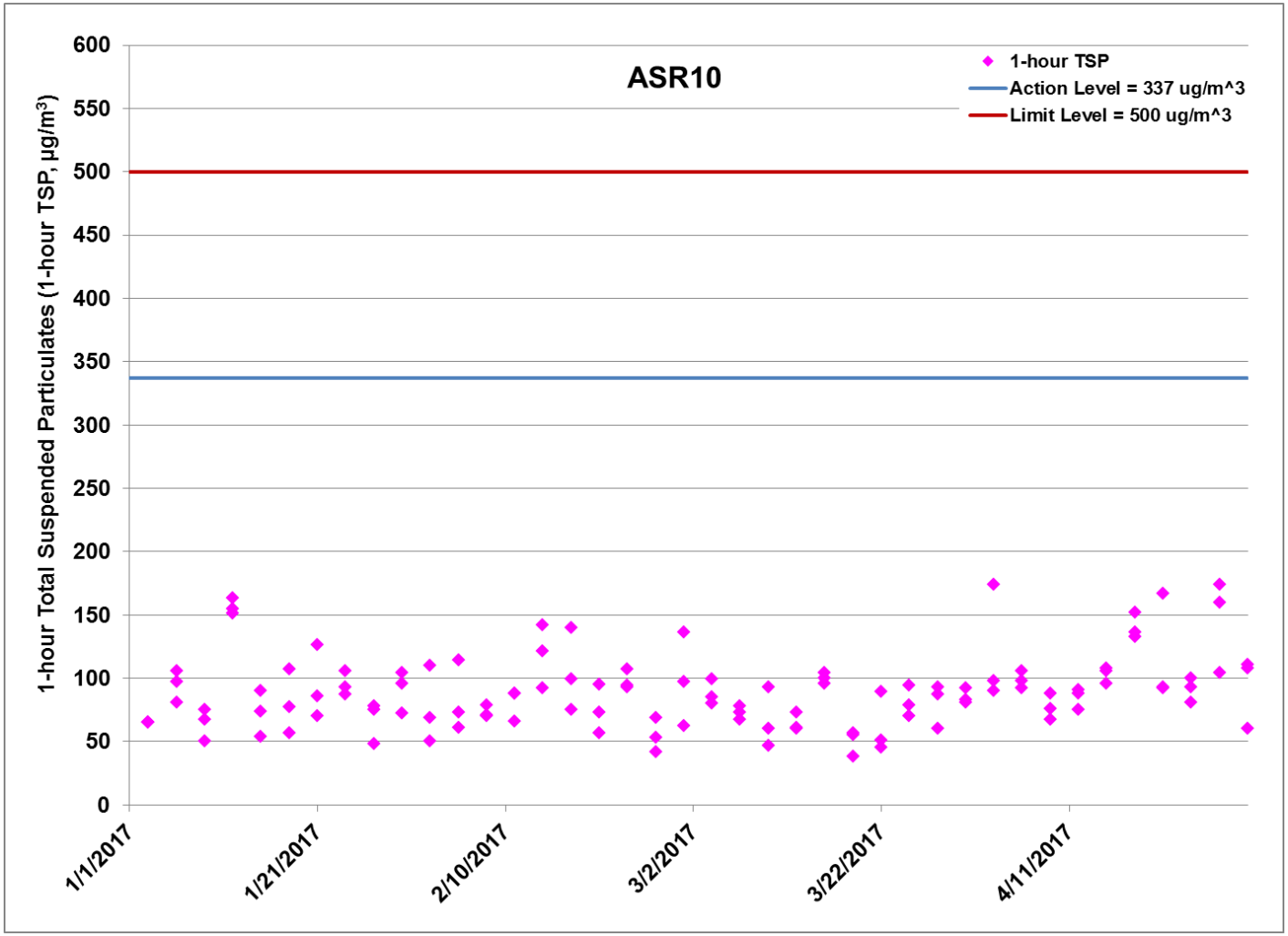


Figure G.5 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

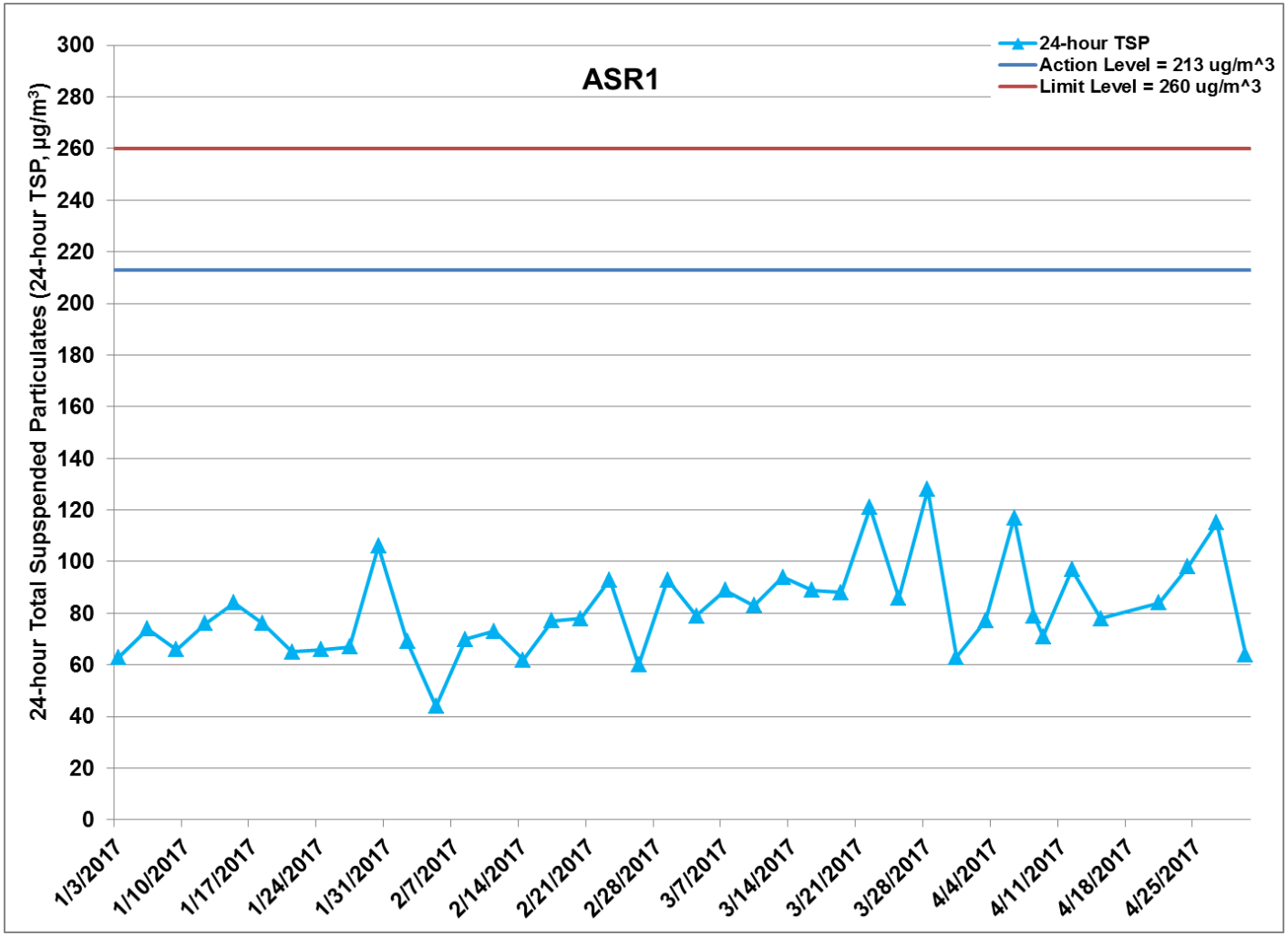


Figure G.6 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

ERM

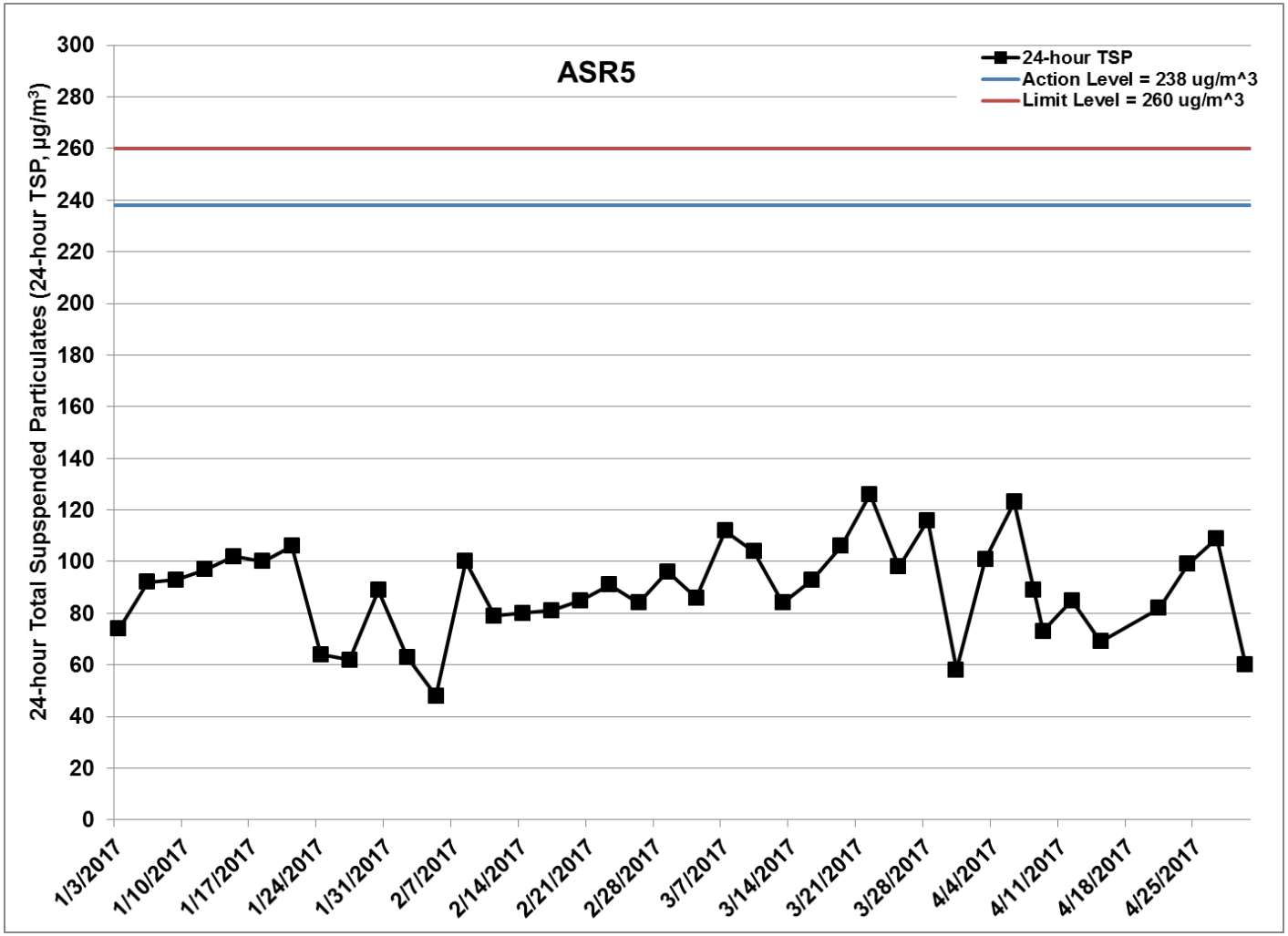


Figure G.7 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

ERM

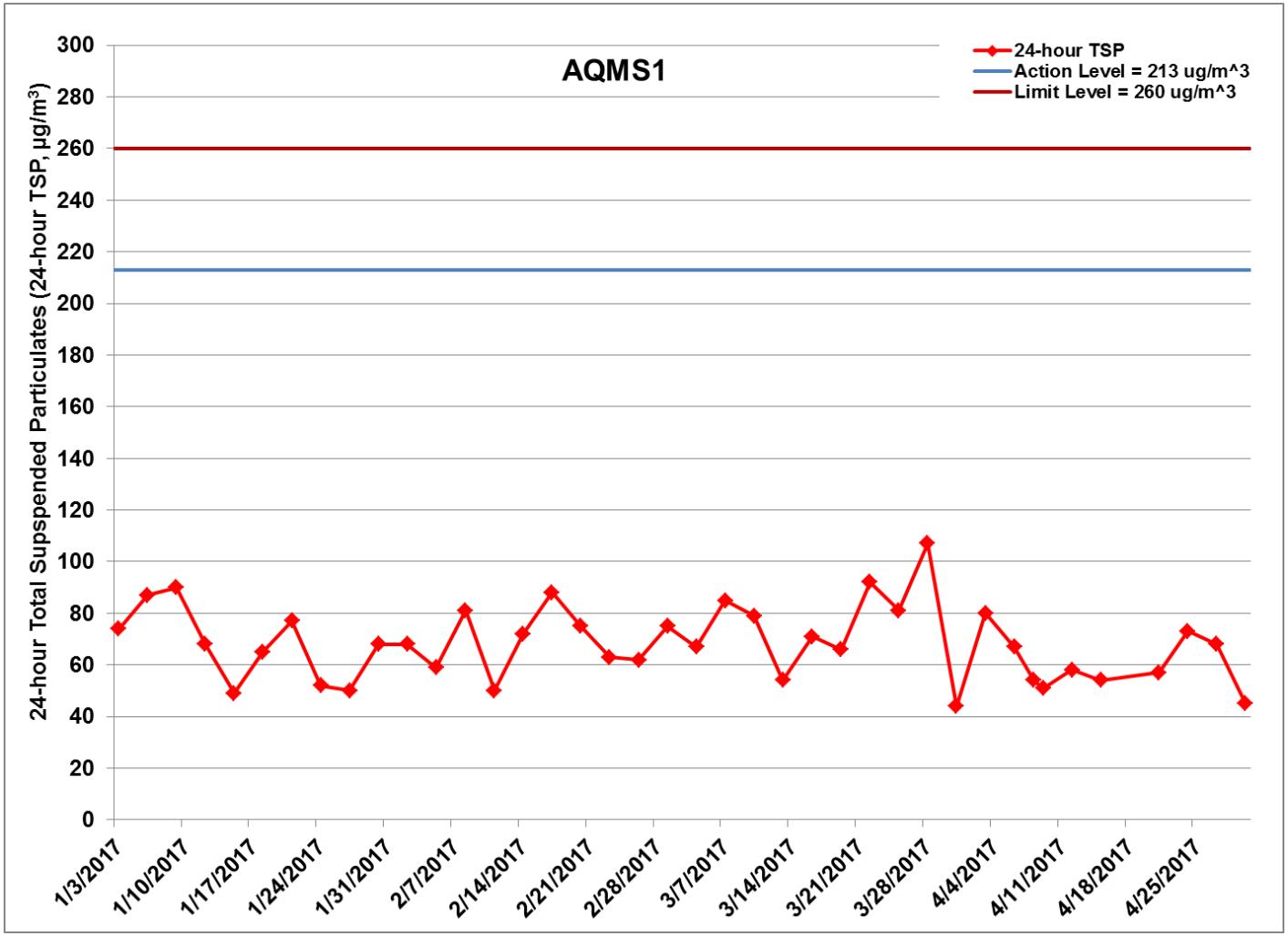


Figure G.8 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

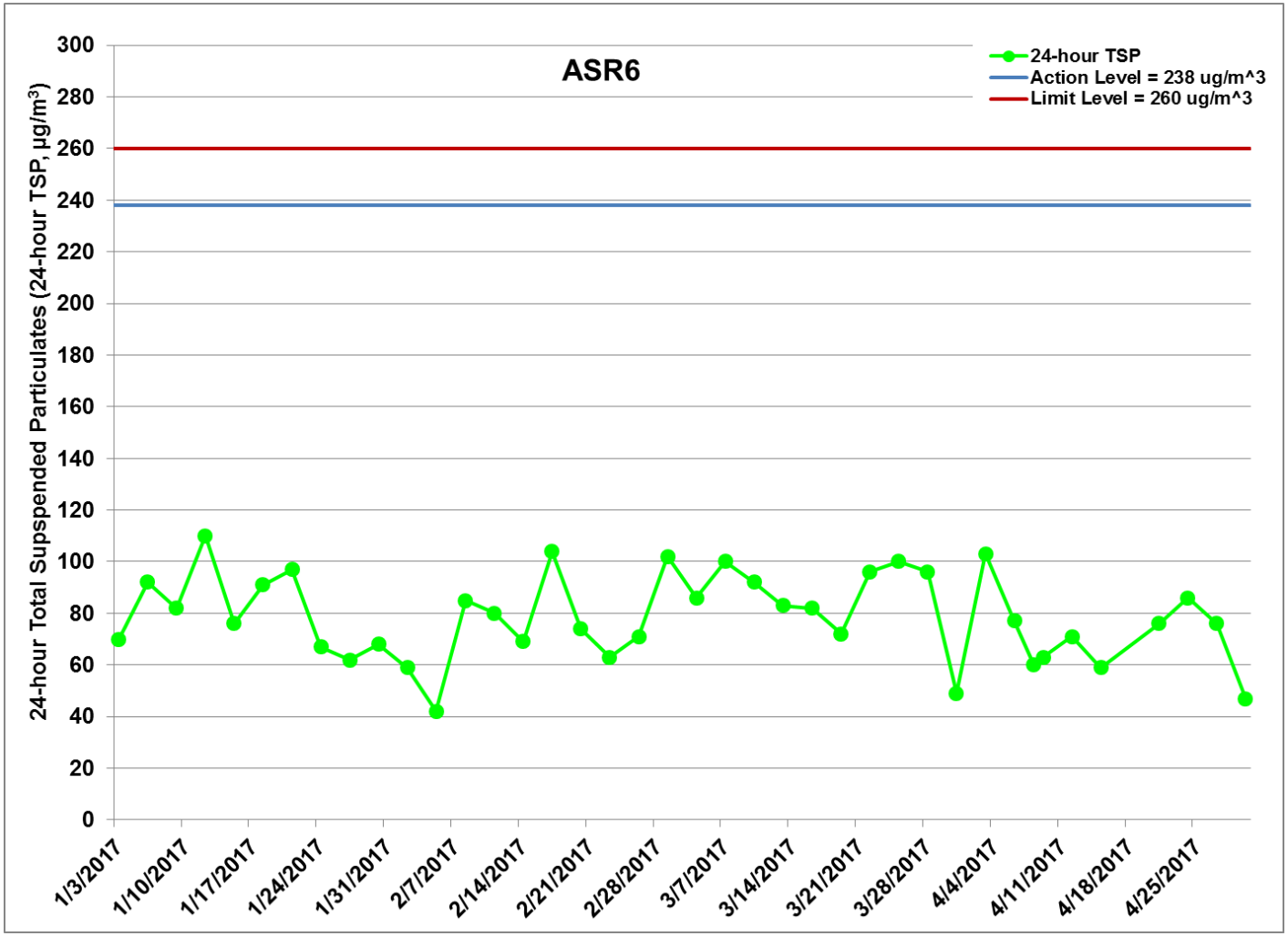


Figure G.9 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR6 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

ERM

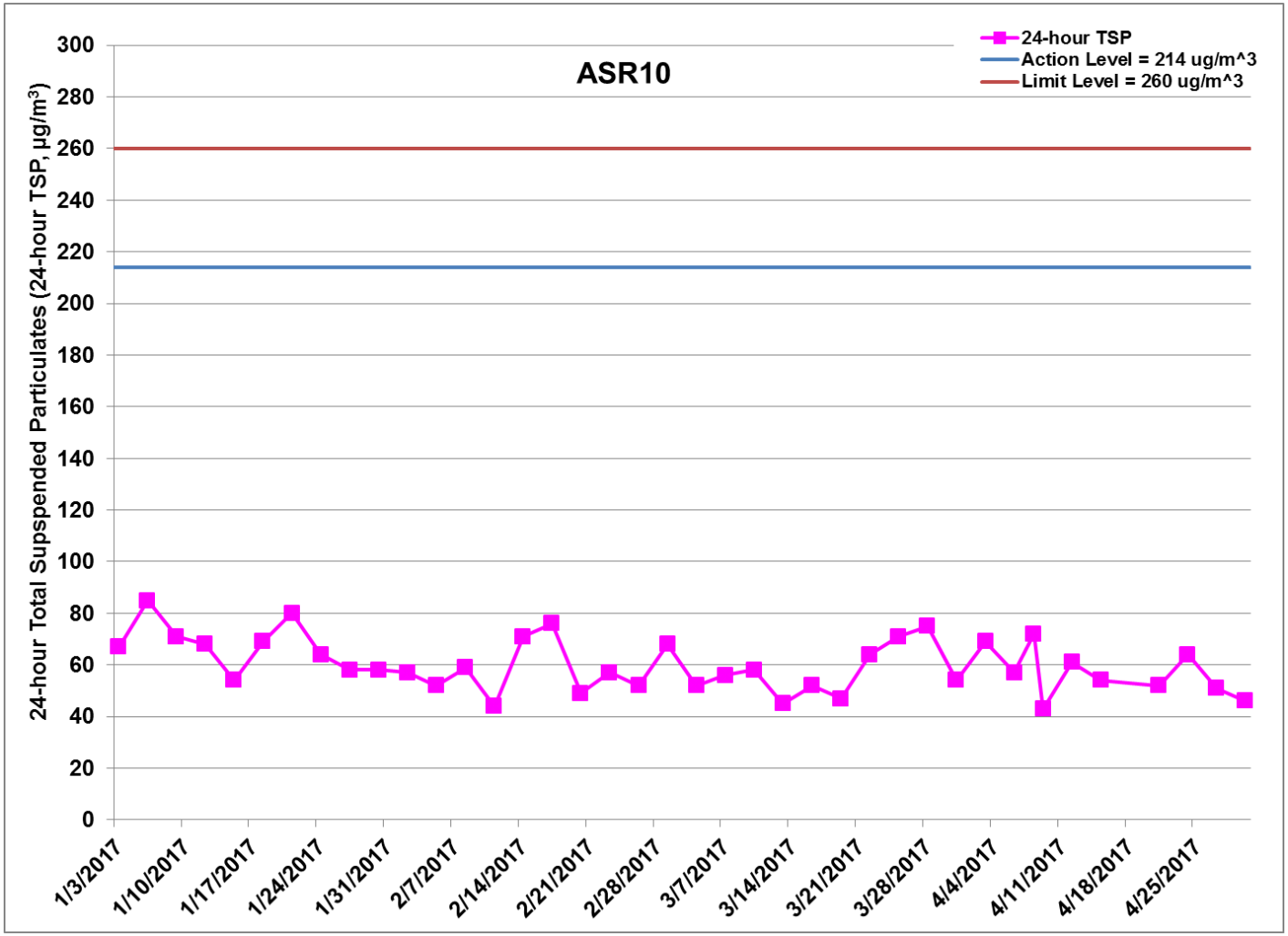


Figure G.10 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 January 2017 and 30 April 2017 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Jet Grouting, CSM Ground Treatment and Diaphragm Wall Construction (1/1/2017 – 30/4/2017) and Box Culvert Extension (1/1/2017 – 30/4/2017). *Ref: 0212330_Impact AQM graphs_ April 2017_REV a.xlsx*

ERM

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-03	AQMS1	Sunny	13:40	1-hour TSP	156	ug/m3
TMCLKL	HY/2012/08	2017-04-03	AQMS1	Sunny	14:42	1-hour TSP	188	ug/m3
TMCLKL	HY/2012/08	2017-04-03	AQMS1	Sunny	15:44	1-hour TSP	189	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR1	Sunny	13:30	1-hour TSP	132	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR1	Sunny	14:32	1-hour TSP	210	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR1	Sunny	15:34	1-hour TSP	172	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR10	Sunny	12:58	1-hour TSP	174	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR10	Sunny	14:00	1-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR10	Sunny	15:02	1-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR5	Sunny	13:20	1-hour TSP	92	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR5	Sunny	14:22	1-hour TSP	194	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR5	Sunny	15:24	1-hour TSP	165	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR6	Sunny	13:09	1-hour TSP	221	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR6	Sunny	14:11	1-hour TSP	203	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR6	Sunny	15:13	1-hour TSP	145	ug/m3
TMCLKL	HY/2012/08	2017-04-06	AQMS1	Sunny	14:00	1-hour TSP	256	ug/m3
TMCLKL	HY/2012/08	2017-04-06	AQMS1	Sunny	15:02	1-hour TSP	167	ug/m3
TMCLKL	HY/2012/08	2017-04-06	AQMS1	Sunny	16:04	1-hour TSP	181	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR1	Sunny	13:49	1-hour TSP	210	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR1	Sunny	14:51	1-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR1	Sunny	15:53	1-hour TSP	144	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR10	Sunny	13:17	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR10	Sunny	14:19	1-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR10	Sunny	15:21	1-hour TSP	92	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR5	Sunny	13:38	1-hour TSP	260	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR5	Sunny	14:40	1-hour TSP	220	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR5	Sunny	15:42	1-hour TSP	270	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR6	Sunny	13:28	1-hour TSP	186	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR6	Sunny	14:30	1-hour TSP	159	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR6	Sunny	15:32	1-hour TSP	144	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-09	AQMS1	Sunny	10:13	1-hour TSP	138	ug/m3
TMCLKL	HY/2012/08	2017-04-09	AQMS1	Sunny	11:15	1-hour TSP	101	ug/m3
TMCLKL	HY/2012/08	2017-04-09	AQMS1	Sunny	12:17	1-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR1	Sunny	10:02	1-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR1	Sunny	11:04	1-hour TSP	109	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR1	Sunny	12:06	1-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR10	Sunny	09:30	1-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR10	Sunny	10:32	1-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR10	Sunny	15:12	1-hour TSP	67	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR5	Sunny	09:51	1-hour TSP	215	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR5	Sunny	10:53	1-hour TSP	135	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR5	Sunny	11:55	1-hour TSP	120	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR6	Sunny	09:40	1-hour TSP	169	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR6	Sunny	10:42	1-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR6	Sunny	11:44	1-hour TSP	138	ug/m3
TMCLKL	HY/2012/08	2017-04-12	AQMS1	Cloudy	14:37	1-hour TSP	148	ug/m3
TMCLKL	HY/2012/08	2017-04-12	AQMS1	Cloudy	15:39	1-hour TSP	145	ug/m3
TMCLKL	HY/2012/08	2017-04-12	AQMS1	Cloudy	16:41	1-hour TSP	80	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR1	Cloudy	14:27	1-hour TSP	143	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR1	Cloudy	15:29	1-hour TSP	224	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR1	Cloudy	16:31	1-hour TSP	172	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR10	Cloudy	13:55	1-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR10	Cloudy	14:57	1-hour TSP	91	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR10	Cloudy	15:59	1-hour TSP	75	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR5	Cloudy	14:16	1-hour TSP	249	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR5	Cloudy	15:18	1-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR5	Cloudy	16:20	1-hour TSP	123	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR6	Cloudy	14:06	1-hour TSP	149	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR6	Cloudy	15:08	1-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR6	Cloudy	16:10	1-hour TSP	135	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-15	AQMS1	Sunny	10:32	1-hour TSP	70	ug/m3
TMCLKL	HY/2012/08	2017-04-15	AQMS1	Sunny	11:34	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	2017-04-15	AQMS1	Sunny	12:36	1-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR1	Sunny	10:21	1-hour TSP	188	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR1	Sunny	11:23	1-hour TSP	240	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR1	Sunny	12:25	1-hour TSP	195	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR10	Sunny	09:50	1-hour TSP	96	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR10	Sunny	10:52	1-hour TSP	108	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR10	Sunny	11:54	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR5	Sunny	10:11	1-hour TSP	189	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR5	Sunny	11:13	1-hour TSP	193	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR5	Sunny	12:15	1-hour TSP	176	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR6	Sunny	10:00	1-hour TSP	119	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR6	Sunny	11:02	1-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR6	Sunny	12:04	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2017-04-18	AQMS1	Sunny	13:53	1-hour TSP	131	ug/m3
TMCLKL	HY/2012/08	2017-04-18	AQMS1	Sunny	14:55	1-hour TSP	144	ug/m3
TMCLKL	HY/2012/08	2017-04-18	AQMS1	Sunny	15:57	1-hour TSP	121	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR1	Sunny	13:42	1-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR1	Sunny	14:44	1-hour TSP	155	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR1	Sunny	15:46	1-hour TSP	141	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR10	Sunny	13:11	1-hour TSP	152	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR10	Sunny	14:13	1-hour TSP	133	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR10	Sunny	15:15	1-hour TSP	136	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR5	Sunny	13:32	1-hour TSP	176	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR5	Sunny	14:34	1-hour TSP	194	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR5	Sunny	15:36	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR6	Sunny	13:22	1-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR6	Sunny	14:24	1-hour TSP	94	ug/m3
TMCLKL	HY/2012/08	2017-04-18	ASR6	Sunny	15:26	1-hour TSP	117	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-21	AQMS1	Sunny	09:55	1-hour TSP	125	ug/m3
TMCLKL	HY/2012/08	2017-04-21	AQMS1	Sunny	10:57	1-hour TSP	101	ug/m3
TMCLKL	HY/2012/08	2017-04-21	AQMS1	Sunny	11:59	1-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR1	Sunny	09:44	1-hour TSP	235	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR1	Sunny	10:46	1-hour TSP	256	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR1	Sunny	11:48	1-hour TSP	123	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR10	Sunny	09:13	1-hour TSP	167	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR10	Sunny	10:15	1-hour TSP	92	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR10	Sunny	11:17	1-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR5	Sunny	09:34	1-hour TSP	219	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR5	Sunny	10:36	1-hour TSP	167	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR5	Sunny	11:38	1-hour TSP	134	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR6	Sunny	09:24	1-hour TSP	182	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR6	Sunny	10:26	1-hour TSP	162	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR6	Sunny	11:28	1-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2017-04-24	AQMS1	Cloudy	14:21	1-hour TSP	132	ug/m3
TMCLKL	HY/2012/08	2017-04-24	AQMS1	Cloudy	15:23	1-hour TSP	122	ug/m3
TMCLKL	HY/2012/08	2017-04-24	AQMS1	Cloudy	16:25	1-hour TSP	115	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR1	Cloudy	14:10	1-hour TSP	132	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR1	Cloudy	15:12	1-hour TSP	105	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR1	Cloudy	16:14	1-hour TSP	223	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR10	Cloudy	13:38	1-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR10	Cloudy	14:40	1-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR10	Cloudy	15:42	1-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR5	Cloudy	14:00	1-hour TSP	139	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR5	Cloudy	15:02	1-hour TSP	161	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR5	Cloudy	16:04	1-hour TSP	183	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR6	Cloudy	13:49	1-hour TSP	138	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR6	Cloudy	14:51	1-hour TSP	129	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR6	Cloudy	15:53	1-hour TSP	190	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-27	AQMS1	Cloudy	13:59	1-hour TSP	71	ug/m3
TMCLKL	HY/2012/08	2017-04-27	AQMS1	Cloudy	15:01	1-hour TSP	56	ug/m3
TMCLKL	HY/2012/08	2017-04-27	AQMS1	Cloudy	16:03	1-hour TSP	69	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR1	Cloudy	13:48	1-hour TSP	183	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR1	Cloudy	14:50	1-hour TSP	177	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR1	Cloudy	15:52	1-hour TSP	157	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR10	Cloudy	13:27	1-hour TSP	174	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR10	Cloudy	14:29	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR10	Cloudy	15:31	1-hour TSP	104	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR5	Cloudy	13:38	1-hour TSP	202	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR5	Cloudy	14:40	1-hour TSP	148	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR5	Cloudy	15:42	1-hour TSP	150	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR6	Cloudy	13:27	1-hour TSP	174	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR6	Cloudy	14:29	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR6	Cloudy	15:31	1-hour TSP	104	ug/m3
TMCLKL	HY/2012/08	2017-04-30	AQMS1	Sunny	09:51	1-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2017-04-30	AQMS1	Sunny	10:53	1-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	2017-04-30	AQMS1	Sunny	11:55	1-hour TSP	83	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR1	Sunny	09:40	1-hour TSP	75	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR1	Sunny	10:42	1-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR1	Sunny	11:44	1-hour TSP	57	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR10	Sunny	09:08	1-hour TSP	111	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR10	Sunny	10:10	1-hour TSP	60	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR10	Sunny	11:12	1-hour TSP	108	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR5	Sunny	09:30	1-hour TSP	180	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR5	Sunny	10:32	1-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR5	Sunny	11:34	1-hour TSP	138	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR6	Sunny	09:19	1-hour TSP	115	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR6	Sunny	10:21	1-hour TSP	99	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR6	Sunny	11:23	1-hour TSP	81	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-03	AQMS1	Sunny	16:46	24-hour TSP	80	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR1	Sunny	16:36	24-hour TSP	77	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR10	Sunny	16:04	24-hour TSP	69	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR5	Sunny	16:26	24-hour TSP	101	ug/m3
TMCLKL	HY/2012/08	2017-04-03	ASR6	Sunny	16:15	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2017-04-06	AQMS1	Sunny	17:06	24-hour TSP	67	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR1	Sunny	16:55	24-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR10	Sunny	16:23	24-hour TSP	57	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR5	Sunny	16:44	24-hour TSP	123	ug/m3
TMCLKL	HY/2012/08	2017-04-06	ASR6	Sunny	16:34	24-hour TSP	77	ug/m3
TMCLKL	HY/2012/08	2017-04-09	AQMS1	Sunny	13:19	24-hour TSP	51	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR1	Sunny	13:08	24-hour TSP	71	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR10	Sunny	12:36	24-hour TSP	43	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR5	Sunny	12:57	24-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	2017-04-09	ASR6	Sunny	12:46	24-hour TSP	63	ug/m3
TMCLKL	HY/2012/08	2017-04-12	AQMS1	Cloudy	17:43	24-hour TSP	58	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR1	Cloudy	17:33	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR10	Cloudy	17:01	24-hour TSP	61	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR5	Cloudy	17:22	24-hour TSP	85	ug/m3
TMCLKL	HY/2012/08	2017-04-12	ASR6	Cloudy	17:12	24-hour TSP	71	ug/m3
TMCLKL	HY/2012/08	2017-04-15	AQMS1	Sunny	13:38	24-hour TSP	54	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR1	Sunny	13:27	24-hour TSP	78	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR10	Sunny	12:56	24-hour TSP	54	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR5	Sunny	13:17	24-hour TSP	69	ug/m3
TMCLKL	HY/2012/08	2017-04-15	ASR6	Sunny	13:06	24-hour TSP	59	ug/m3
TMCLKL	HY/2012/08	2017--04-18	AQMS1	Sunny	16:59	24-hour TSP	54	ug/m3
TMCLKL	HY/2012/08	2017--04-18	ASR1	Sunny	16:48	24-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	2017--04-18	ASR10	Sunny	16:17	24-hour TSP	72	ug/m3
TMCLKL	HY/2012/08	2017--04-18	ASR5	Sunny	16:38	24-hour TSP	89	ug/m3
TMCLKL	HY/2012/08	2017--04-18	ASR6	Sunny	16:28	24-hour TSP	60	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2017-04-21	AQMS1	Sunny	13:01	24-hour TSP	57	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR1	Sunny	12:50	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR10	Sunny	12:19	24-hour TSP	52	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR5	Sunny	12:40	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2017-04-21	ASR6	Sunny	12:30	24-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2017-04-24	AQMS1	Cloudy	17:27	24-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR1	Cloudy	17:16	24-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR10	Cloudy	15:58	24-hour TSP	64	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR5	Cloudy	17:06	24-hour TSP	99	ug/m3
TMCLKL	HY/2012/08	2017-04-24	ASR6	Cloudy	16:55	24-hour TSP	86	ug/m3
TMCLKL	HY/2012/08	2017-04-27	AQMS1	Cloudy	17:05	24-hour TSP	68	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR1	Cloudy	16:54	24-hour TSP	115	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR10	Cloudy	16:23	24-hour TSP	51	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR5	Cloudy	16:44	24-hour TSP	109	ug/m3
TMCLKL	HY/2012/08	2017-04-27	ASR6	Cloudy	16:33	24-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2017-04-30	AQMS1	Sunny	12:57	24-hour TSP	45	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR1	Sunny	12:46	24-hour TSP	64	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR10	Sunny	12:14	24-hour TSP	46	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR5	Sunny	12:36	24-hour TSP	60	ug/m3
TMCLKL	HY/2012/08	2017-04-30	ASR6	Sunny	12:25	24-hour TSP	47	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)**
17/04/03	0:00	0.9	65
17/04/03	1:00	1.3	95
17/04/03	2:00	1.3	71
17/04/03	3:00	1.8	63
17/04/03	4:00	1.8	48
17/04/03	5:00	1.3	52
17/04/03	6:00	1.3	40
17/04/03	7:00	1.3	55
17/04/03	8:00	1.3	41
17/04/03	9:00	1.3	92
17/04/03	10:00	1.3	112
17/04/03	11:00	2.2	104
17/04/03	12:00	3.1	103
17/04/03	13:00	3.1	105
17/04/03	14:00	3.1	117
17/04/03	15:00	4	99
17/04/03	16:00	4	103
17/04/03	17:00	4.5	108
17/04/03	18:00	4	111
17/04/03	19:00	3.6	98
17/04/03	20:00	3.1	100
17/04/03	21:00	2.2	88
17/04/03	22:00	1.8	71
17/04/03	23:00	1.8	68
17/04/04	0:00	1.8	96
17/04/04	1:00	1.8	77
17/04/04	2:00	1.8	81
17/04/04	3:00	1.8	92
17/04/04	4:00	1.3	65
17/04/04	5:00	1.3	101
17/04/04	6:00	0.9	105
17/04/04	7:00	0.4	50
17/04/04	8:00	0.9	93
17/04/04	9:00	1.8	84
17/04/04	10:00	2.2	111
17/04/04	11:00	2.7	106
17/04/04	12:00	2.7	63
17/04/04	13:00	2.7	84
17/04/04	14:00	2.2	85
17/04/04	15:00	3.1	103
17/04/04	16:00	2.7	85
17/04/04	17:00	3.1	112
17/04/04	18:00	3.1	104
17/04/04	19:00	3.1	93
17/04/04	20:00	3.1	111
17/04/04	21:00	3.1	92
17/04/04	22:00	2.2	87
17/04/04	23:00	1.8	88
17/04/06	0:00	4	84
17/04/06	1:00	3.6	92
17/04/06	2:00	2.7	87
17/04/06	3:00	1.3	122
17/04/06	4:00	0.9	92
17/04/06	5:00	0.9	85
17/04/06	6:00	0.4	104

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)**
17/04/06	7:00	0	-
17/04/06	8:00	0.9	109
17/04/06	9:00	1.3	117
17/04/06	10:00	1.8	100
17/04/06	11:00	2.2	112
17/04/06	12:00	2.2	114
17/04/06	13:00	1.8	93
17/04/06	14:00	1.8	109
17/04/06	15:00	1.8	119
17/04/06	16:00	0.9	172
17/04/06	17:00	1.3	108
17/04/06	18:00	1.3	93
17/04/06	19:00	1.3	88
17/04/06	20:00	0.9	87
17/04/06	21:00	0.9	77
17/04/06	22:00	0.9	75
17/04/06	23:00	0.4	104
17/04/07	0:00	1.3	95
17/04/07	1:00	0.4	114
17/04/07	2:00	0.9	102
17/04/07	3:00	0.9	96
17/04/07	4:00	0.9	88
17/04/07	5:00	0.4	111
17/04/07	6:00	0	-
17/04/07	7:00	0.4	81
17/04/07	8:00	0.9	92
17/04/07	9:00	1.8	100
17/04/07	10:00	1.3	85
17/04/07	11:00	1.8	69
17/04/07	12:00	2.2	107
17/04/07	13:00	1.3	125
17/04/07	14:00	0.9	113
17/04/07	15:00	1.8	72
17/04/07	16:00	2.7	68
17/04/07	17:00	2.2	73
17/04/07	18:00	1.8	81
17/04/07	19:00	1.8	69
17/04/07	20:00	1.8	95
17/04/07	21:00	1.8	104
17/04/07	22:00	1.3	62
17/04/07	23:00	1.3	104
17/04/09	0:00	1.3	71
17/04/09	1:00	1.3	72
17/04/09	2:00	0.9	84
17/04/09	3:00	0.9	65
17/04/09	4:00	0.4	83
17/04/09	5:00	0	-
17/04/09	6:00	0.4	72
17/04/09	7:00	0.9	83
17/04/09	8:00	0.9	49
17/04/09	9:00	0.9	52
17/04/09	10:00	1.3	84
17/04/09	11:00	1.3	100
17/04/09	12:00	1.3	142
17/04/09	13:00	0.9	133

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)**
17/04/09	14:00	1.3	171
17/04/09	15:00	1.3	165
17/04/09	16:00	1.3	183
17/04/09	17:00	0.9	164
17/04/09	18:00	0.9	59
17/04/09	19:00	0.9	221
17/04/09	20:00	0.9	215
17/04/09	21:00	1.8	205
17/04/09	22:00	1.8	231
17/04/09	23:00	0.9	227
17/04/10	0:00	0.4	253
17/04/10	1:00	1.8	221
17/04/10	2:00	1.8	216
17/04/10	3:00	1.3	227
17/04/10	4:00	1.8	231
17/04/10	5:00	0.9	219
17/04/10	6:00	0.9	51
17/04/10	7:00	0.9	48
17/04/10	8:00	0.9	43
17/04/10	9:00	0.9	41
17/04/10	10:00	0.9	103
17/04/10	11:00	0.9	113
17/04/10	12:00	1.3	234
17/04/10	13:00	1.8	226
17/04/10	14:00	3.6	219
17/04/10	15:00	3.1	216
17/04/10	16:00	3.1	204
17/04/10	17:00	3.6	221
17/04/10	18:00	3.1	215
17/04/10	19:00	3.1	204
17/04/10	20:00	3.6	207
17/04/10	21:00	3.1	228
17/04/10	22:00	2.7	200
17/04/10	23:00	1.8	211
17/04/12	0:00	2.7	305
17/04/12	1:00	3.1	300
17/04/12	2:00	2.7	341
17/04/12	3:00	1.8	310
17/04/12	4:00	1.3	49
17/04/12	5:00	1.3	223
17/04/12	6:00	0.9	215
17/04/12	7:00	1.8	53
17/04/12	8:00	2.2	54
17/04/12	9:00	2.2	57
17/04/12	10:00	1.3	49
17/04/12	11:00	1.3	340
17/04/12	12:00	1.3	351
17/04/12	13:00	1.8	46
17/04/12	14:00	1.8	51
17/04/12	15:00	1.8	332
17/04/12	16:00	1.8	251
17/04/12	17:00	1.3	340
17/04/12	18:00	3.6	339
17/04/12	19:00	3.1	40
17/04/12	20:00	1.8	43

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)**
17/04/12	21:00	1.3	42
17/04/12	22:00	1.8	57
17/04/12	23:00	1.8	47
17/04/13	0:00	1.8	41
17/04/13	1:00	1.8	351
17/04/13	2:00	1.8	52
17/04/13	3:00	0.9	44
17/04/13	4:00	0.9	93
17/04/13	5:00	1.3	46
17/04/13	6:00	1.3	48
17/04/13	7:00	2.2	41
17/04/13	8:00	1.3	38
17/04/13	9:00	0.9	52
17/04/13	10:00	1.8	54
17/04/13	11:00	1.8	49
17/04/13	12:00	1.3	44
17/04/13	13:00	0.9	225
17/04/13	14:00	1.3	301
17/04/13	15:00	1.3	351
17/04/13	16:00	1.3	349
17/04/13	17:00	0.9	352
17/04/13	18:00	0.4	97
17/04/13	19:00	0.4	300
17/04/13	20:00	0.4	294
17/04/13	21:00	0	-
17/04/13	22:00	0	-
17/04/13	23:00	0	-
17/04/15	0:00	1.8	84
17/04/15	1:00	1.8	62
17/04/15	2:00	2.7	97
17/04/15	3:00	0.9	62
17/04/15	4:00	0.4	73
17/04/15	5:00	0.9	94
17/04/15	6:00	1.8	71
17/04/15	7:00	1.3	88
17/04/15	8:00	1.3	96
17/04/15	9:00	1.3	104
17/04/15	10:00	1.8	115
17/04/15	11:00	1.8	93
17/04/15	12:00	2.7	46
17/04/15	13:00	2.7	41
17/04/15	14:00	3.1	96
17/04/15	15:00	2.7	101
17/04/15	16:00	2.7	84
17/04/15	17:00	2.7	112
17/04/15	18:00	1.8	91
17/04/15	19:00	1.8	85
17/04/15	20:00	1.3	106
17/04/15	21:00	1.3	94
17/04/15	22:00	0.9	88
17/04/15	23:00	0.4	92
17/04/16	0:00	0.9	64
17/04/16	1:00	1.3	95
17/04/16	2:00	1.8	105
17/04/16	3:00	1.8	64

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)**
17/04/16	4:00	1.3	58
17/04/16	5:00	1.8	100
17/04/16	6:00	1.8	95
17/04/16	7:00	1.8	94
17/04/16	8:00	1.3	34
17/04/16	9:00	1.3	84
17/04/16	10:00	1.3	79
17/04/16	11:00	1.3	145
17/04/16	12:00	2.2	115
17/04/16	13:00	1.8	129
17/04/16	14:00	1.3	131
17/04/16	15:00	1.8	225
17/04/16	16:00	1.8	215
17/04/16	17:00	1.3	223
17/04/16	18:00	1.8	92
17/04/16	19:00	1.8	84
17/04/16	20:00	1.8	100
17/04/16	21:00	1.8	52
17/04/16	22:00	1.8	64
17/04/16	23:00	2.2	59
17/04/18	0:00	0.4	323
17/04/18	1:00	0	-
17/04/18	2:00	0.4	183
17/04/18	3:00	0.4	92
17/04/18	4:00	0.4	357
17/04/18	5:00	0	-
17/04/18	6:00	0.4	64
17/04/18	7:00	0	-
17/04/18	8:00	0.4	109
17/04/18	9:00	0.9	174
17/04/18	10:00	1.3	226
17/04/18	11:00	1.3	231
17/04/18	12:00	2.2	240
17/04/18	13:00	3.1	231
17/04/18	14:00	1.8	246
17/04/18	15:00	2.2	229
17/04/18	16:00	2.2	251
17/04/18	17:00	0.9	242
17/04/18	18:00	0.9	291
17/04/18	19:00	1.3	300
17/04/18	20:00	0.9	313
17/04/18	21:00	0.9	64
17/04/18	22:00	0.9	94
17/04/18	23:00	0.4	85
17/04/19	0:00	0.9	93
17/04/19	1:00	0.9	82
17/04/19	2:00	0.4	5
17/04/19	3:00	0.4	357
17/04/19	4:00	0	-
17/04/19	5:00	0.4	349
17/04/19	6:00	0.4	311
17/04/19	7:00	0	-
17/04/19	8:00	0.4	177
17/04/19	9:00	1.3	142
17/04/19	10:00	1.3	139
17/04/19	11:00	1.8	353

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)**
17/04/19	12:00	2.2	351
17/04/19	13:00	1.8	329
17/04/19	14:00	1.8	284
17/04/19	15:00	2.2	231
17/04/19	16:00	2.7	225
17/04/19	17:00	3.1	216
17/04/19	18:00	2.2	224
17/04/19	19:00	1.8	231
17/04/19	20:00	0.9	224
17/04/19	21:00	1.3	96
17/04/19	22:00	1.3	66
17/04/19	23:00	1.8	89
17/04/21	0:00	0.9	70
17/04/21	1:00	0.9	41
17/04/21	2:00	0.9	63
17/04/21	3:00	0.9	58
17/04/21	4:00	0.4	61
17/04/21	5:00	0.4	55
17/04/21	6:00	0	-
17/04/21	7:00	0	-
17/04/21	8:00	0.4	63
17/04/21	9:00	0.9	194
17/04/21	10:00	0.9	231
17/04/21	11:00	1.8	228
17/04/21	12:00	2.2	206
17/04/21	13:00	2.7	214
17/04/21	14:00	2.7	231
17/04/21	15:00	3.1	205
17/04/21	16:00	3.1	157
17/04/21	17:00	0.9	311
17/04/21	18:00	0.9	276
17/04/21	19:00	0.9	263
17/04/21	20:00	0.4	294
17/04/21	21:00	0.4	288
17/04/21	22:00	0	-
17/04/21	23:00	0	-
17/04/22	0:00	0.9	312
17/04/22	1:00	2.2	305
17/04/22	2:00	1.3	354
17/04/22	3:00	0.9	61
17/04/22	4:00	0.9	57
17/04/22	5:00	1.3	13
17/04/22	6:00	0.9	344
17/04/22	7:00	0.9	353
17/04/22	8:00	0.9	311
17/04/22	9:00	0.9	309
17/04/22	10:00	0.9	315
17/04/22	11:00	1.8	348
17/04/22	12:00	1.8	300
17/04/22	13:00	0.9	5
17/04/22	14:00	0.9	352
17/04/22	15:00	0.9	19
17/04/22	16:00	0.9	52
17/04/22	17:00	0.9	47
17/04/22	18:00	0.9	356
17/04/22	19:00	0.4	348
17/04/22	20:00	0.9	339

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)**
17/04/22	21:00	1.3	61
17/04/22	22:00	1.3	52
17/04/22	23:00	1.8	55
17/04/24	0:00	0.9	69
17/04/24	1:00	1.3	65
17/04/24	2:00	1.8	94
17/04/24	3:00	1.3	33
17/04/24	4:00	1.3	41
17/04/24	5:00	1.3	98
17/04/24	6:00	0.9	84
17/04/24	7:00	1.8	85
17/04/24	8:00	1.8	91
17/04/24	9:00	2.7	88
17/04/24	10:00	2.2	112
17/04/24	11:00	1.8	93
17/04/24	12:00	2.7	104
17/04/24	13:00	2.7	112
17/04/24	14:00	3.1	106
17/04/24	15:00	4	109
17/04/24	16:00	3.6	87
17/04/24	17:00	4	103
17/04/24	18:00	3.6	116
17/04/24	19:00	3.6	95
17/04/24	20:00	3.1	87
17/04/24	21:00	3.1	85
17/04/24	22:00	3.6	88
17/04/24	23:00	3.6	91
17/04/25	0:00	3.6	97
17/04/25	1:00	3.6	96
17/04/25	2:00	3.1	103
17/04/25	3:00	2.2	75
17/04/25	4:00	2.7	104
17/04/25	5:00	3.1	103
17/04/25	6:00	4	104
17/04/25	7:00	3.6	115
17/04/25	8:00	4.9	106
17/04/25	9:00	4.9	114
17/04/25	10:00	4	102
17/04/25	11:00	4	95
17/04/25	12:00	4.5	132
17/04/25	13:00	4.5	128
17/04/25	14:00	4	127
17/04/25	15:00	3.6	96
17/04/25	16:00	4	85
17/04/25	17:00	4	122
17/04/25	18:00	3.6	84
17/04/25	19:00	1.8	92
17/04/25	20:00	0.4	111
17/04/25	21:00	0.9	116
17/04/25	22:00	1.8	92
17/04/25	23:00	1.8	98
17/04/27	0:00	0.9	96
17/04/27	1:00	0	-
17/04/27	2:00	0	-
17/04/27	3:00	0	-
17/04/27	4:00	0	-
17/04/27	5:00	0.4	312

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)**
17/04/27	6:00	0.4	169
17/04/27	7:00	0.4	204
17/04/27	8:00	1.3	204
17/04/27	9:00	1.3	322
17/04/27	10:00	1.8	51
17/04/27	11:00	2.2	50
17/04/27	12:00	3.1	1
17/04/27	13:00	2.2	347
17/04/27	14:00	1.3	339
17/04/27	15:00	0.9	54
17/04/27	16:00	0.9	321
17/04/27	17:00	0.9	355
17/04/27	18:00	1.3	303
17/04/27	19:00	0.9	299
17/04/27	20:00	0.9	346
17/04/27	21:00	1.3	342
17/04/27	22:00	1.3	351
17/04/27	23:00	1.3	347
17/04/28	0:00	2.2	12
17/04/28	1:00	2.7	354
17/04/28	2:00	3.1	349
17/04/28	3:00	2.7	24
17/04/28	4:00	2.2	46
17/04/28	5:00	2.2	48
17/04/28	6:00	1.8	42
17/04/28	7:00	2.2	51
17/04/28	8:00	1.8	47
17/04/28	9:00	1.8	53
17/04/28	10:00	1.3	44
17/04/28	11:00	1.8	120
17/04/28	12:00	1.3	184
17/04/28	13:00	1.8	234
17/04/28	14:00	1.8	218
17/04/28	15:00	2.2	233
17/04/28	16:00	2.2	227
17/04/28	17:00	2.2	235
17/04/28	18:00	1.8	126
17/04/28	19:00	2.7	122
17/04/28	20:00	2.2	74
17/04/28	21:00	2.7	82
17/04/28	22:00	2.2	74
17/04/28	23:00	2.7	86
17/04/30	0:00	0.9	62
17/04/30	1:00	0.9	59
17/04/30	2:00	0.4	74
17/04/30	3:00	0	-
17/04/30	4:00	0	-
17/04/30	5:00	0	-
17/04/30	6:00	0	-
17/04/30	7:00	0	-
17/04/30	8:00	0.9	88
17/04/30	9:00	1.3	94
17/04/30	10:00	1.8	116
17/04/30	11:00	2.2	86
17/04/30	12:00	2.2	63
17/04/30	13:00	2.7	123
17/04/30	14:00	2.2	141

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)**
17/04/30	15:00	2.2	132
17/04/30	16:00	3.1	102
17/04/30	17:00	3.1	133
17/04/30	18:00	3.1	127
17/04/30	19:00	2.2	115
17/04/30	20:00	2.7	104
17/04/30	21:00	3.1	124
17/04/30	22:00	2.7	100
17/04/30	23:00	2.7	94

Appendix I

Impact Water Quality Monitoring Results

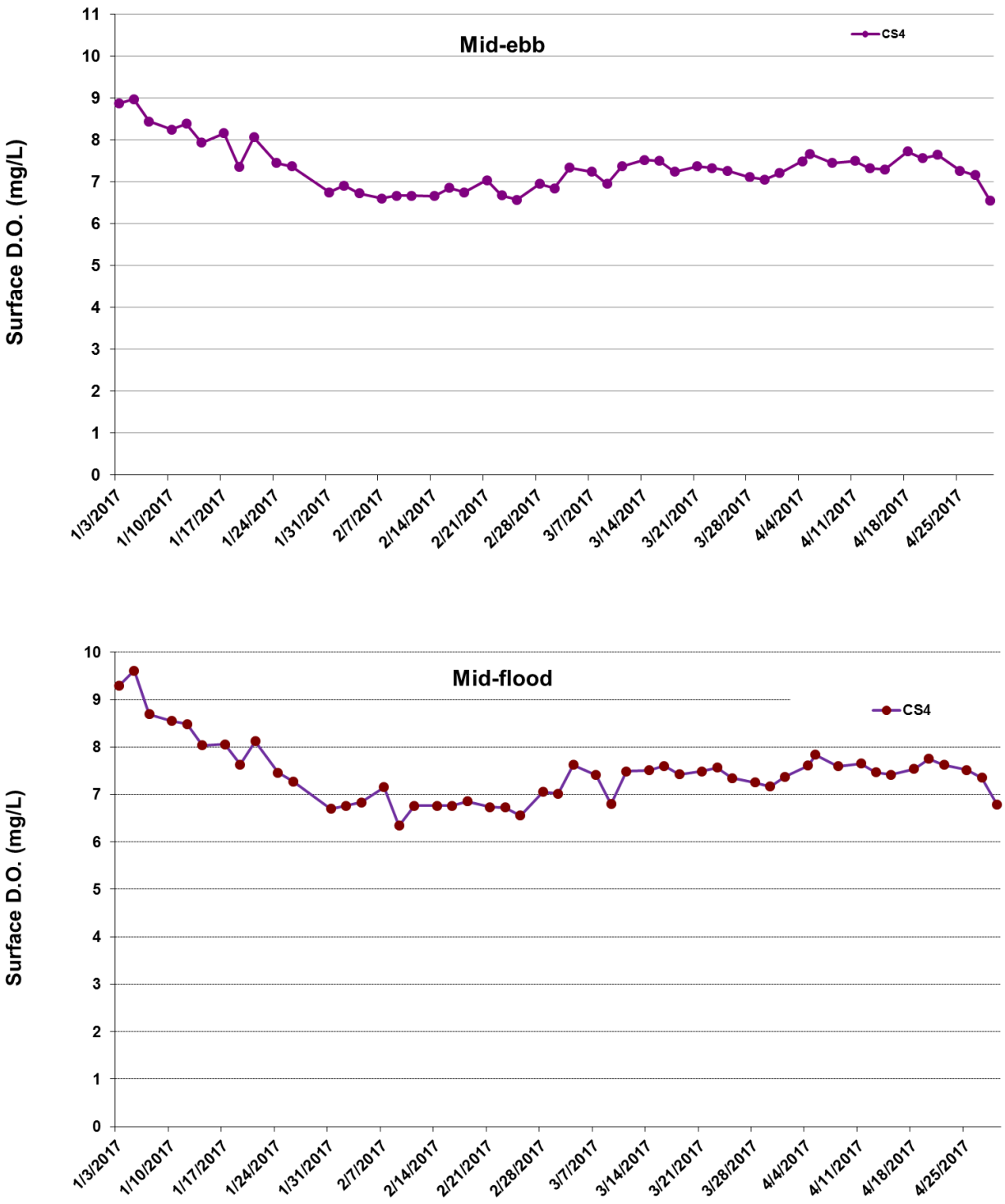


Figure I1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

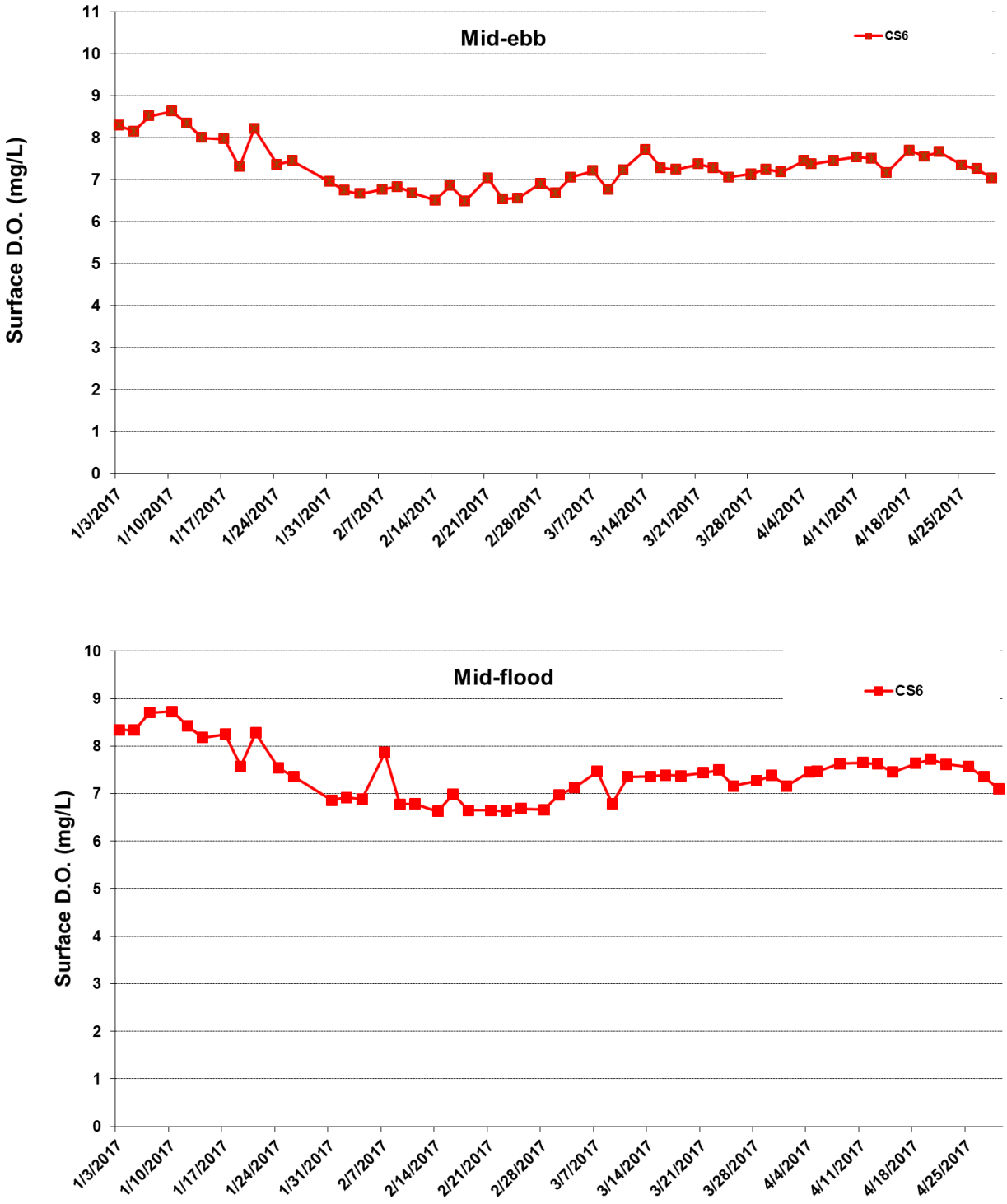
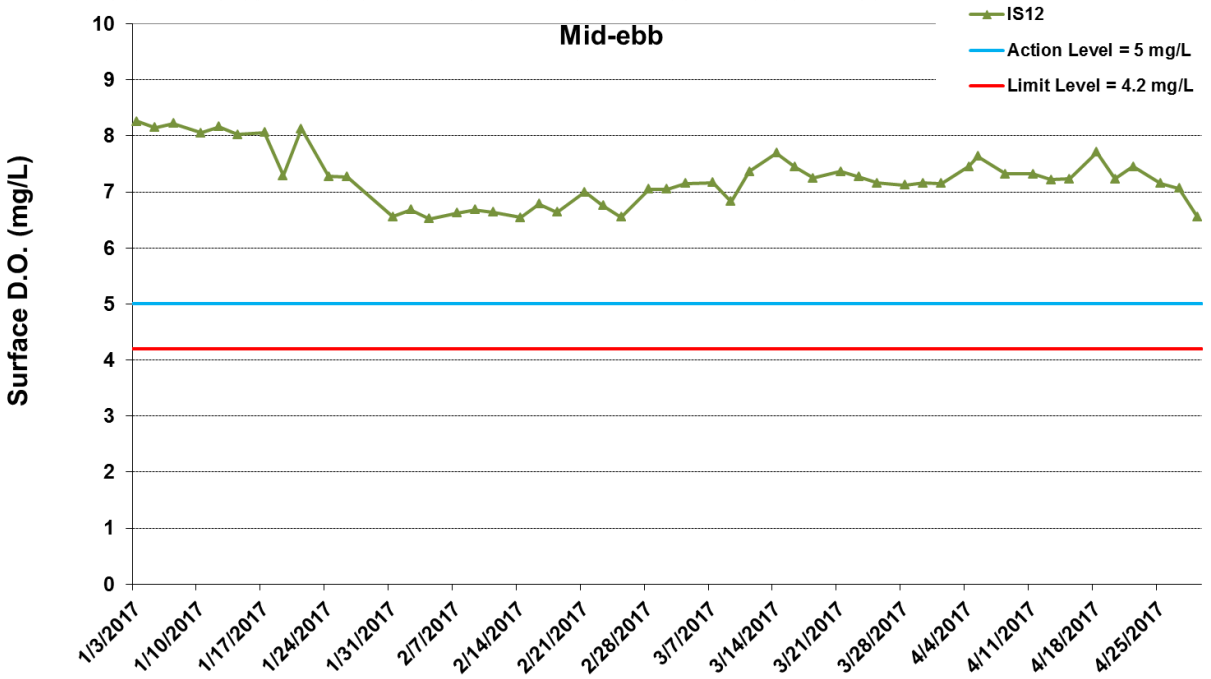


Figure I2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



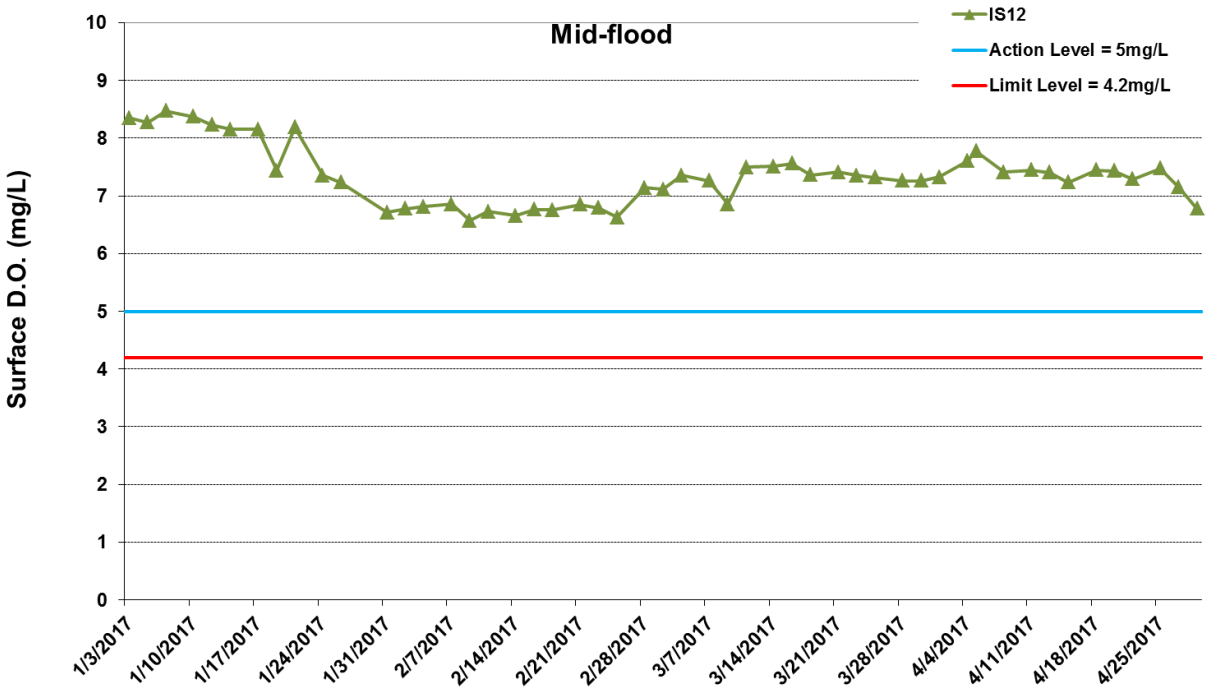
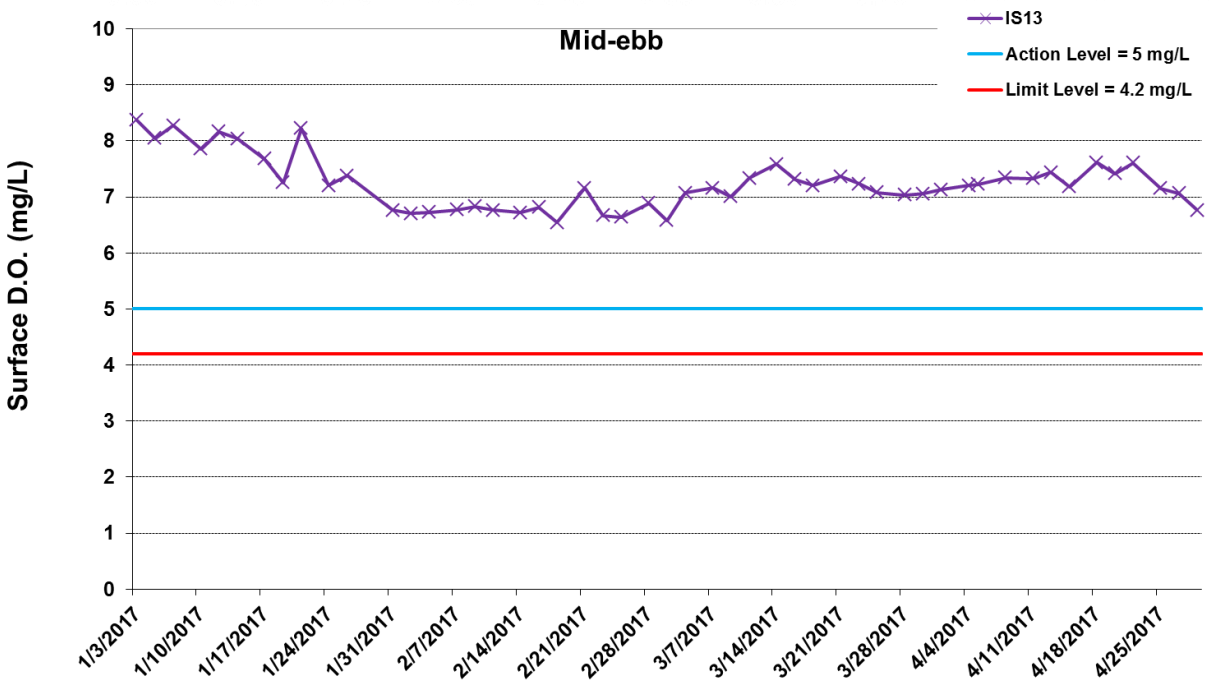


Figure I3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



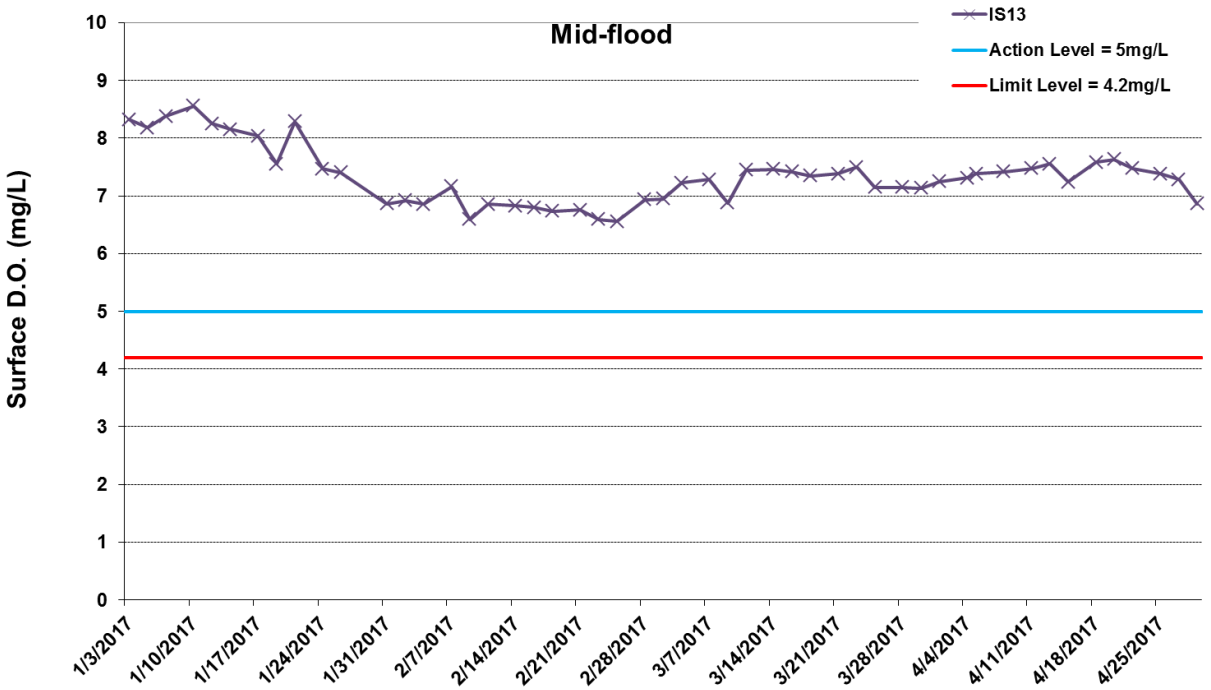
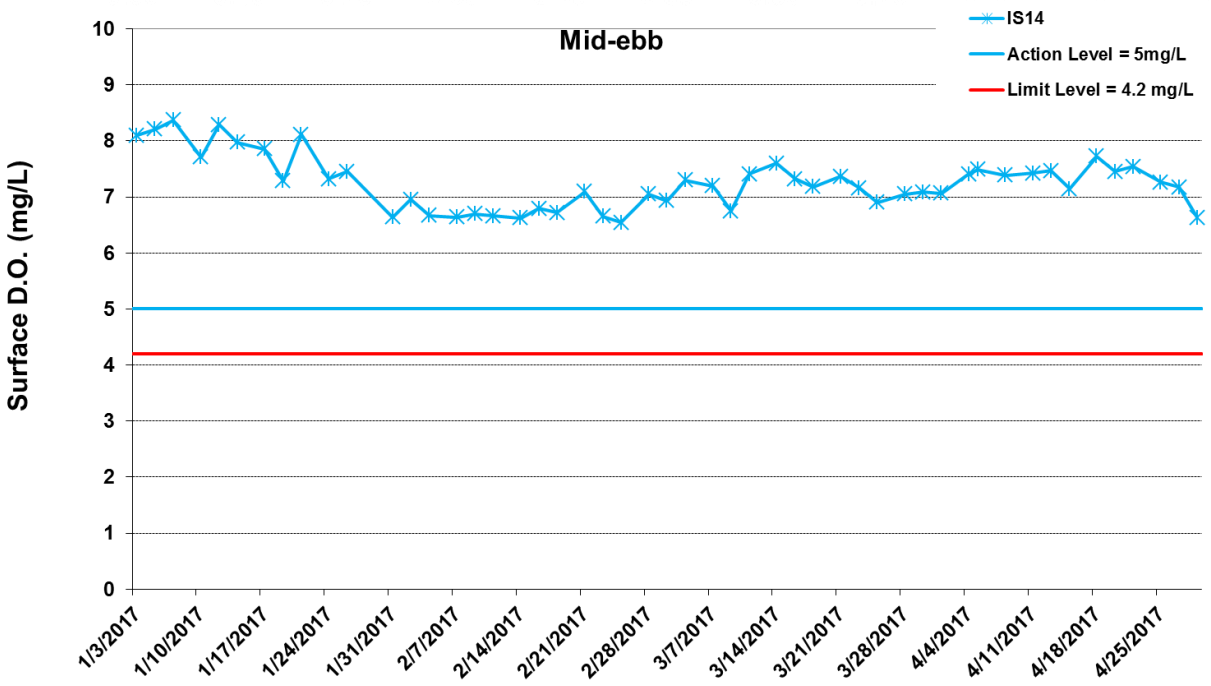


Figure I4 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



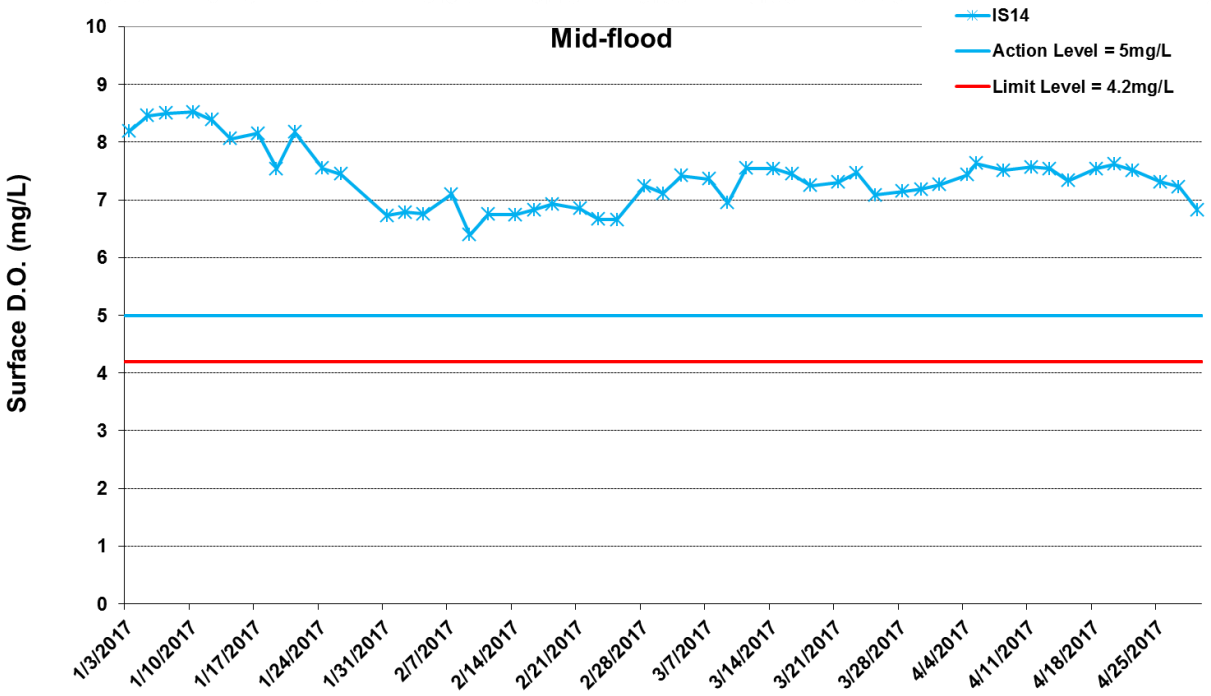
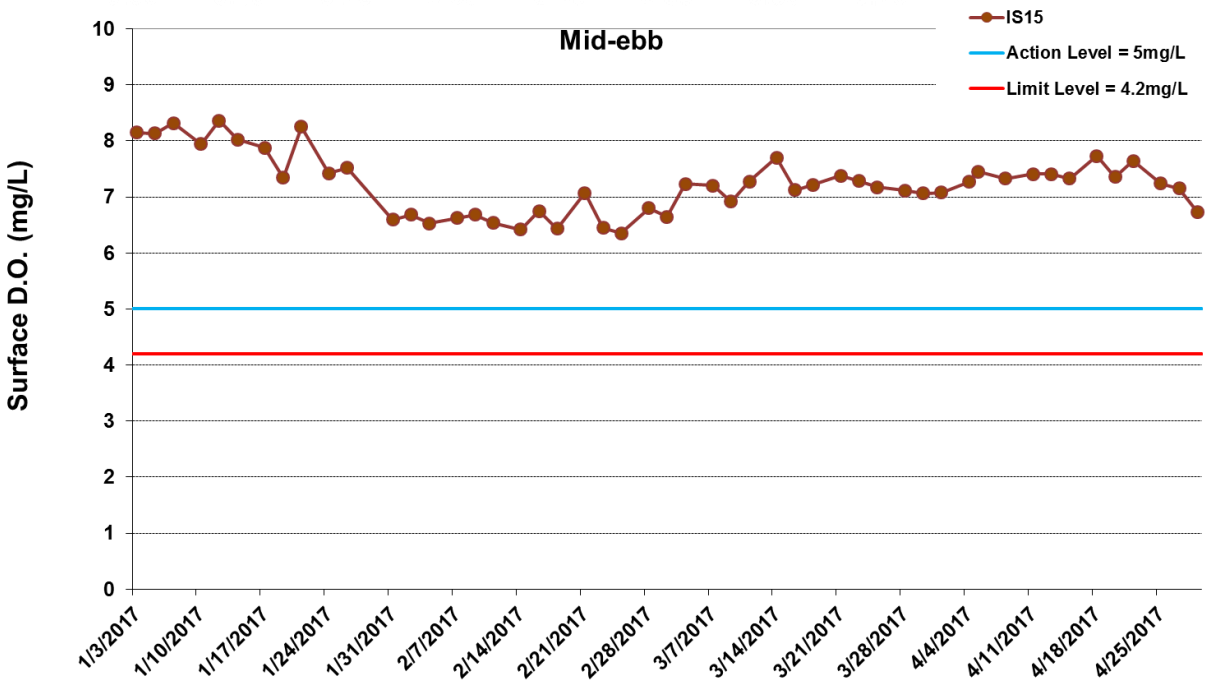


Figure I5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



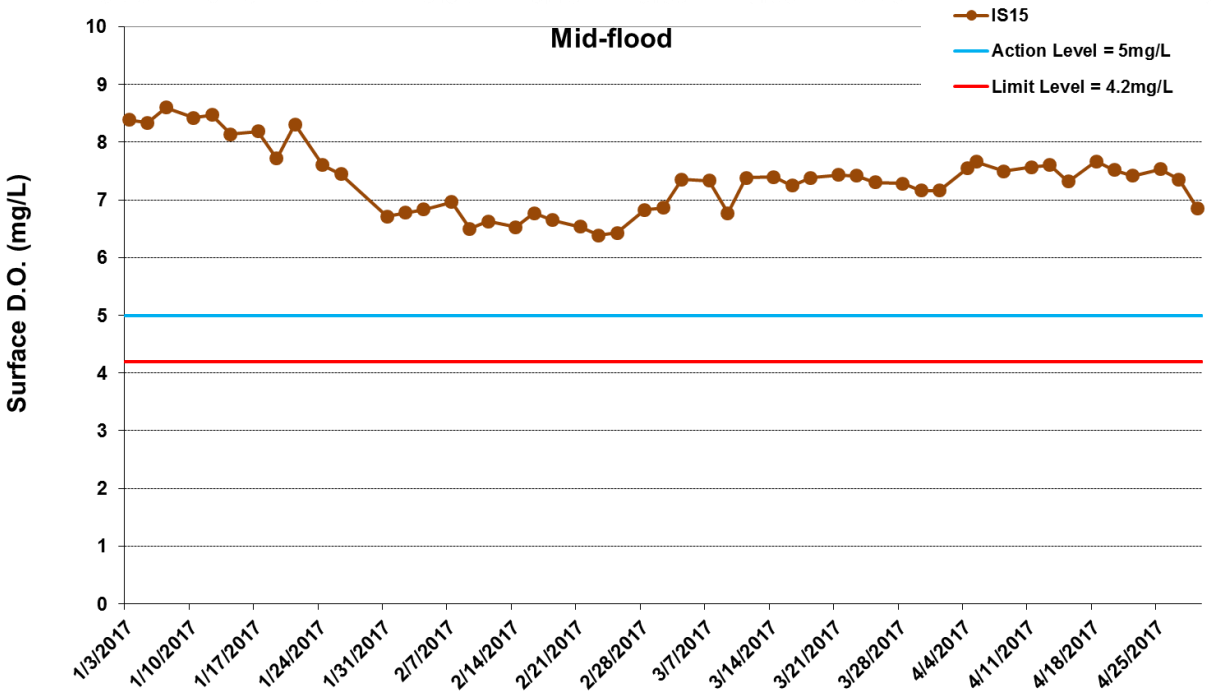
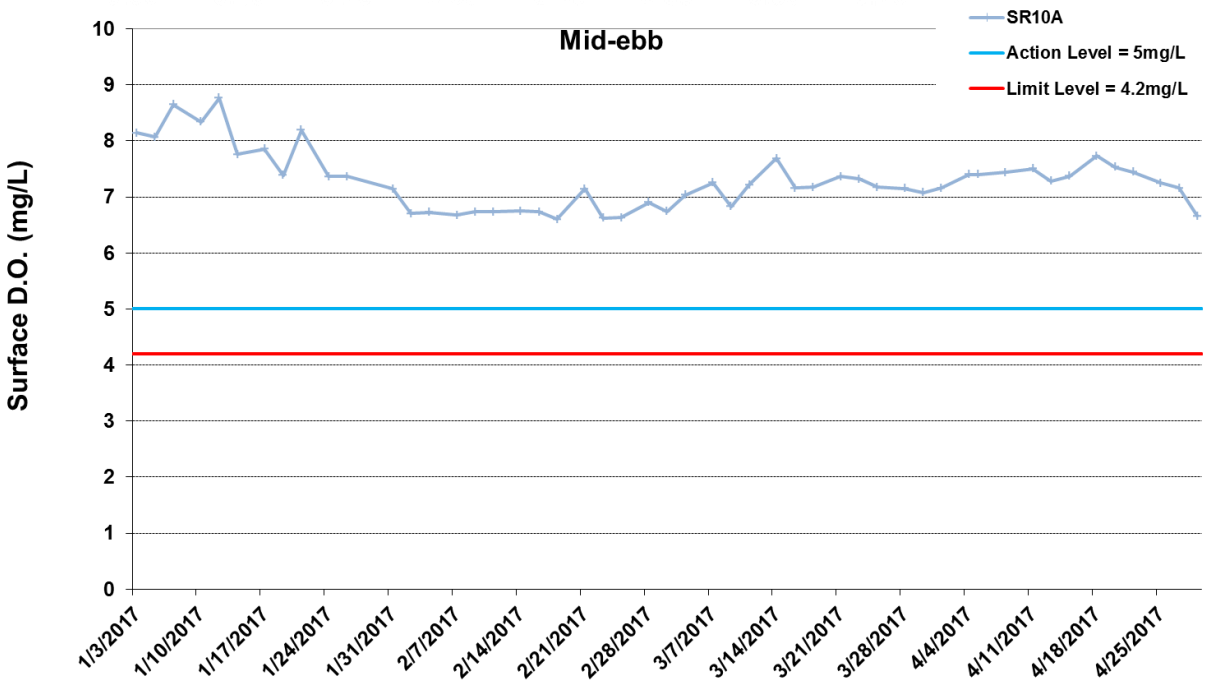


Figure I6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



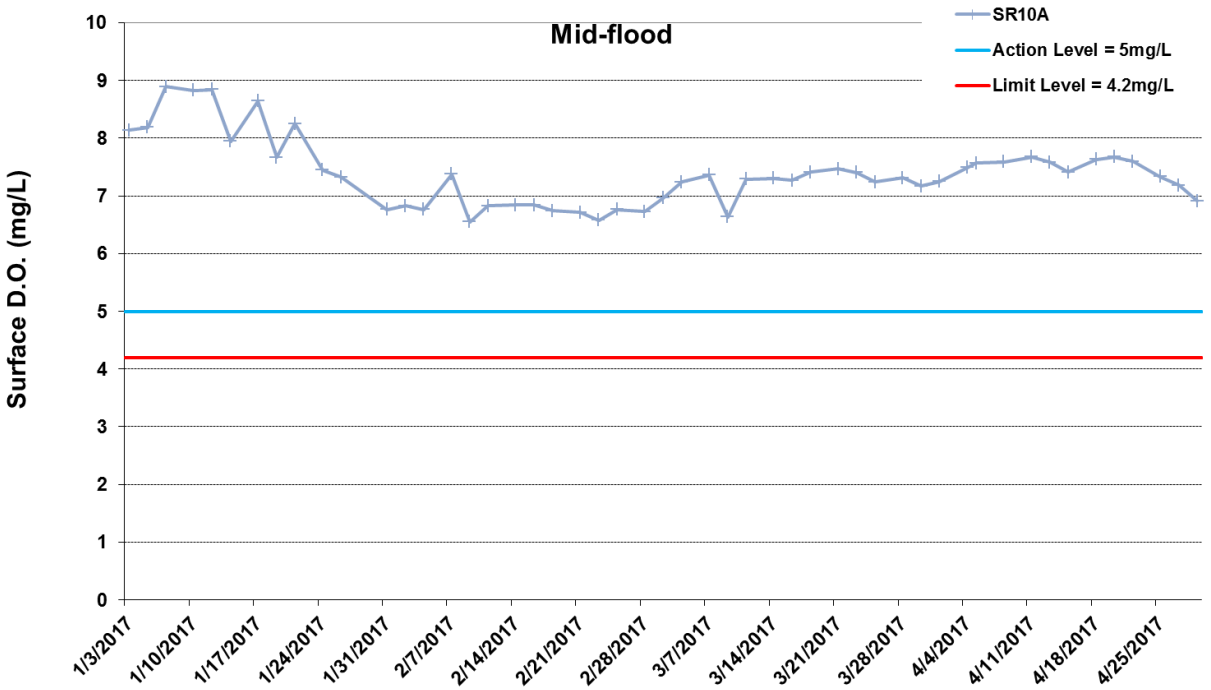
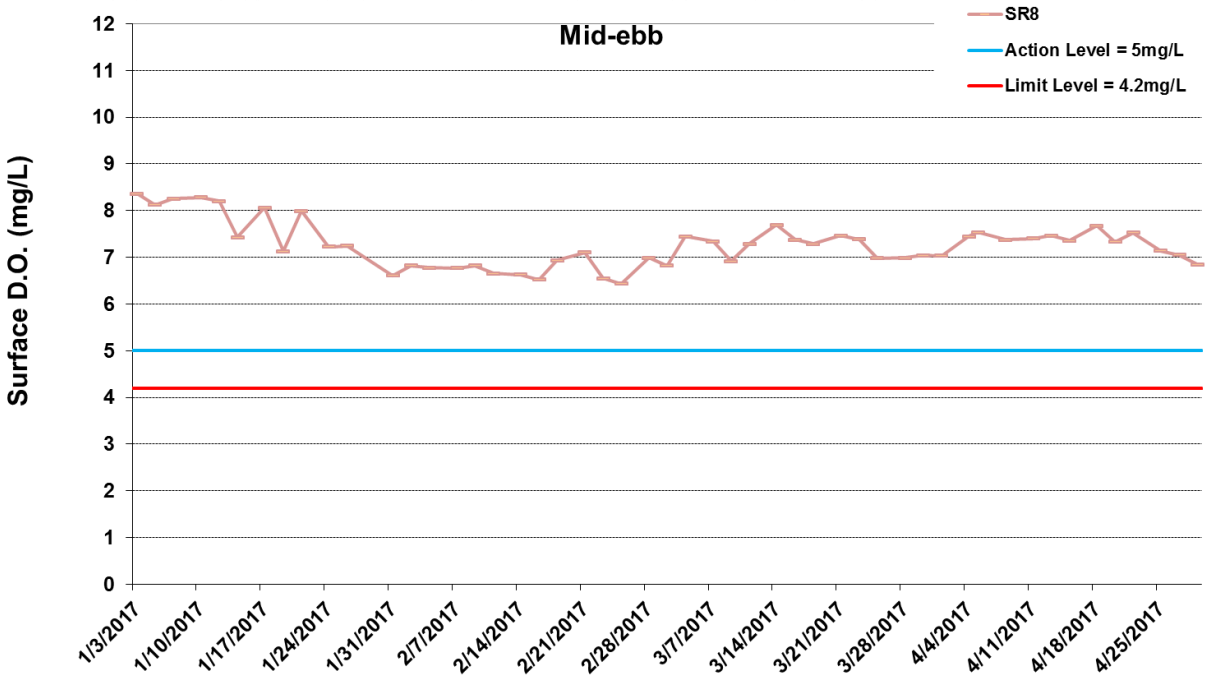


Figure I7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



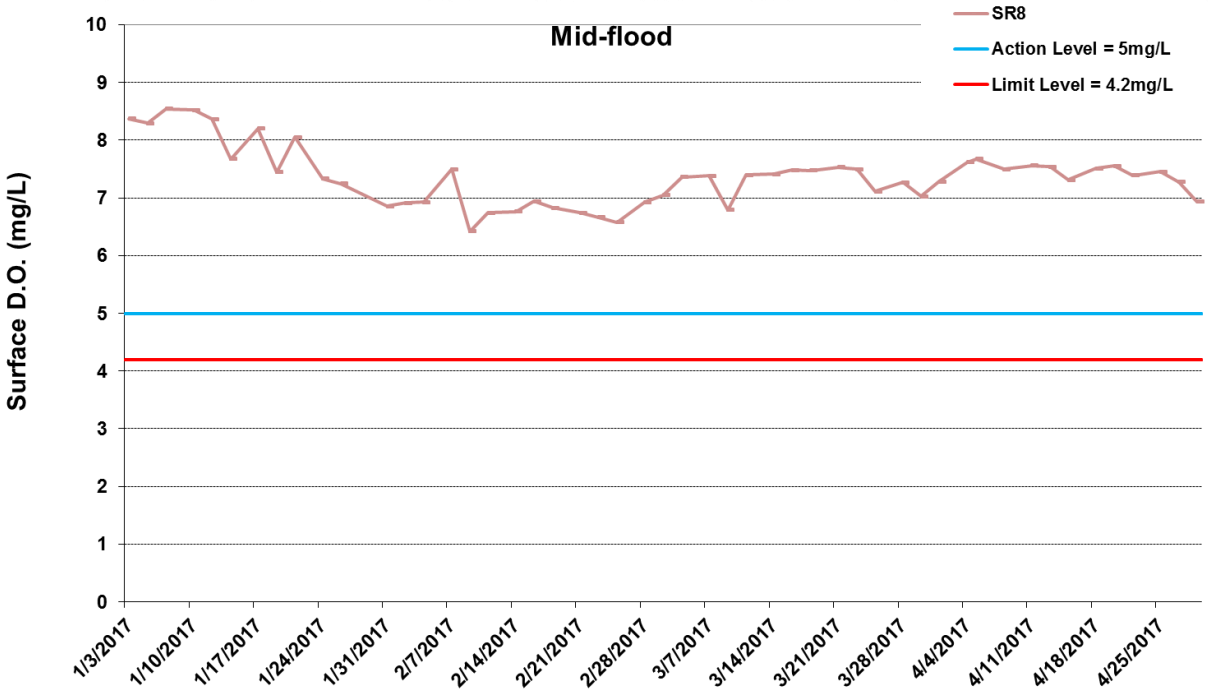
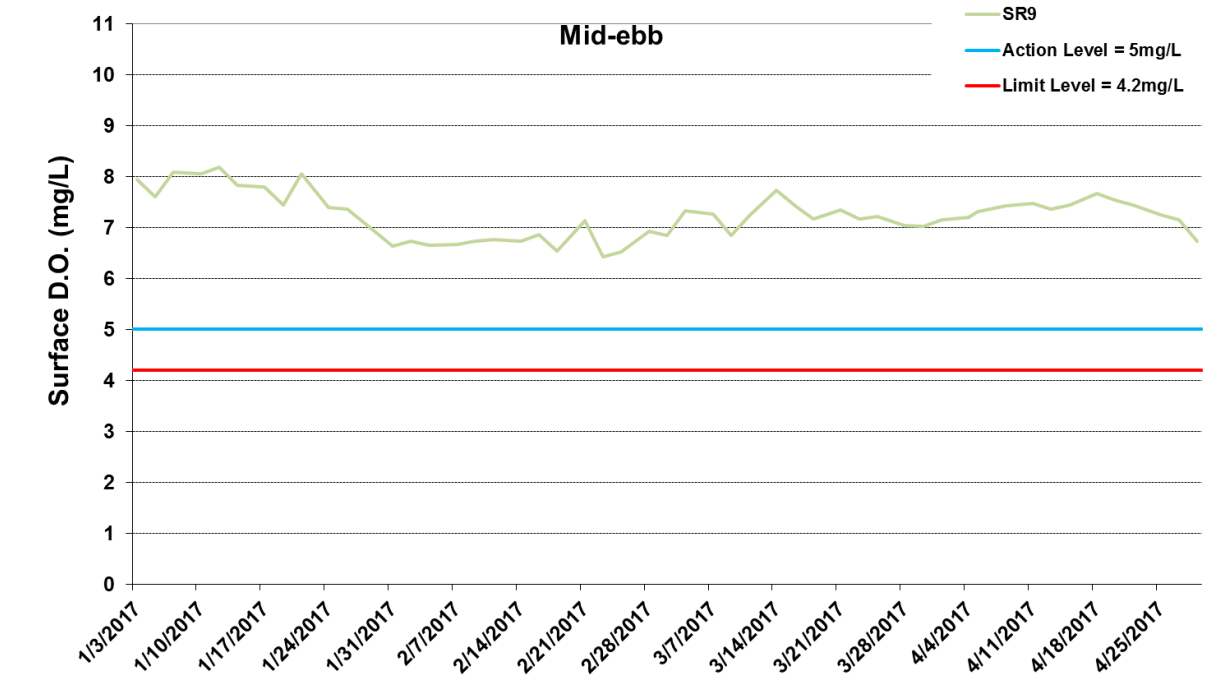


Figure I8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



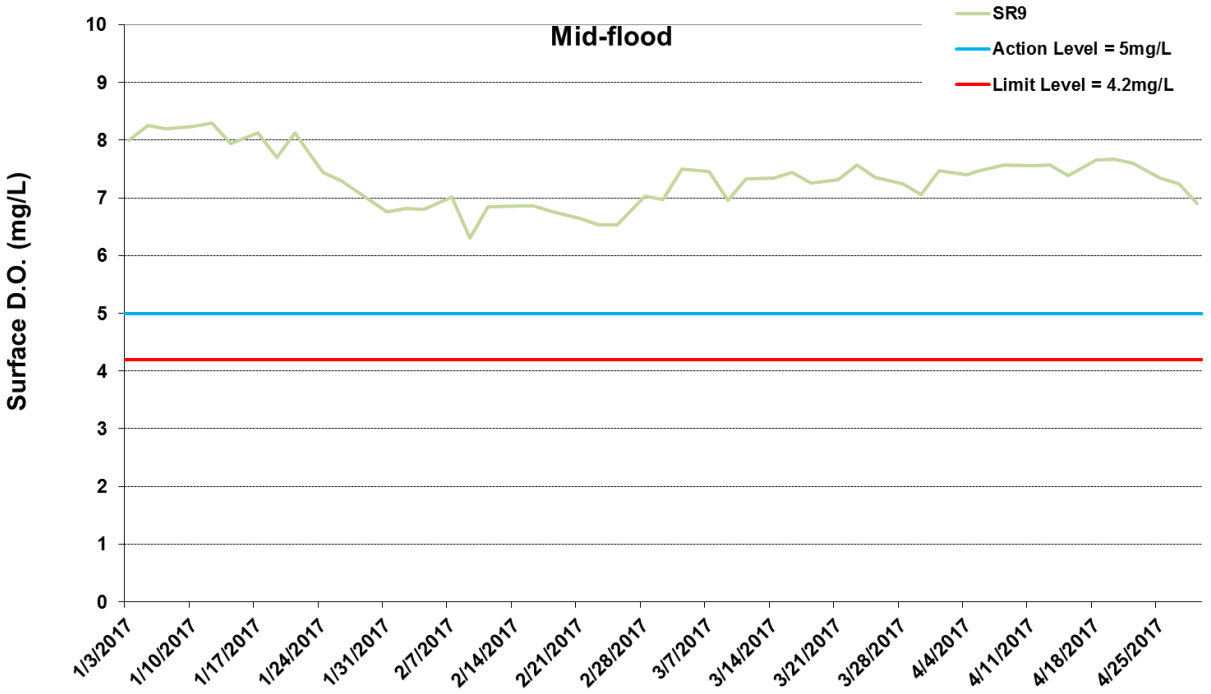
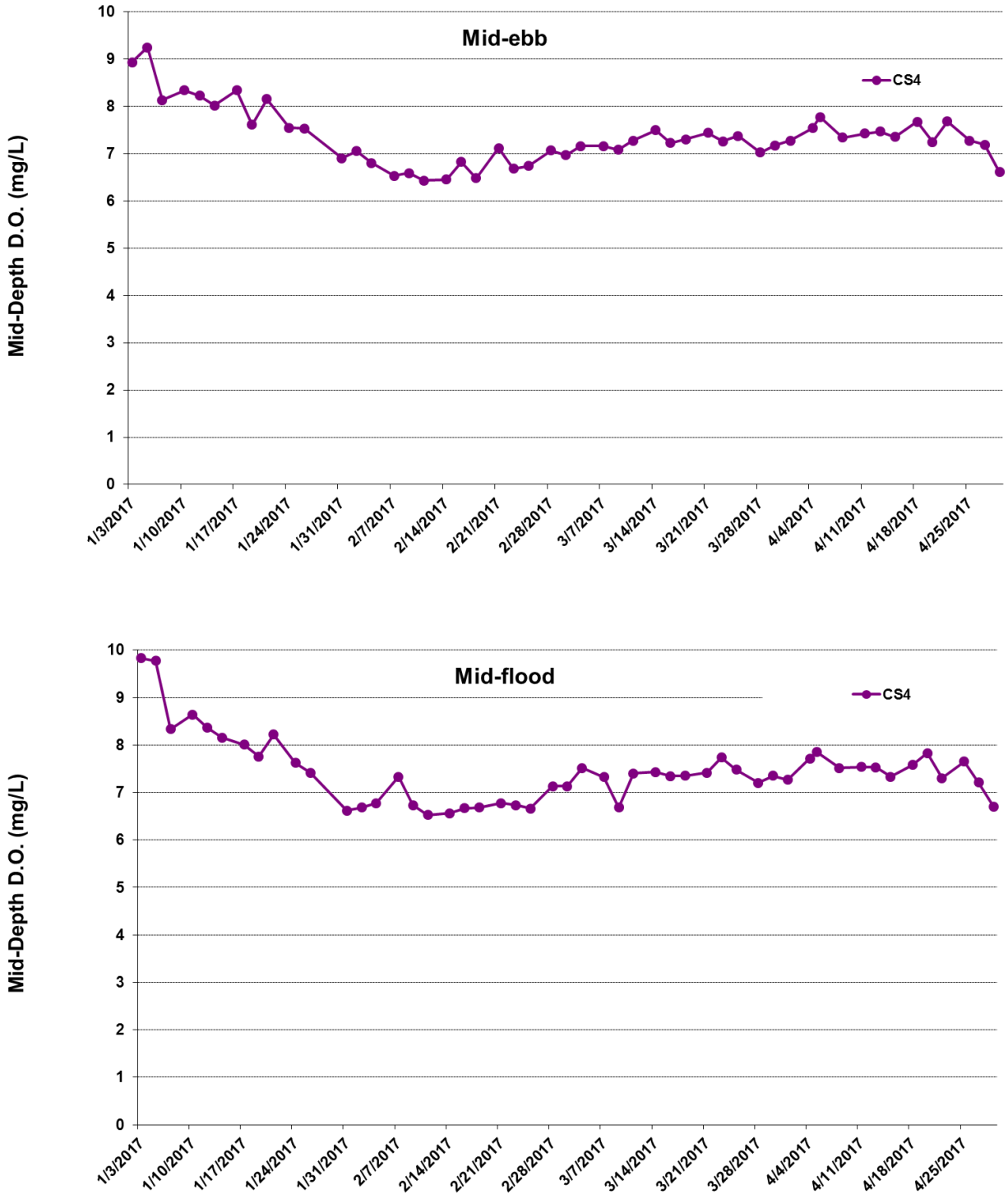


Figure I9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2017 and 30 April 2017 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

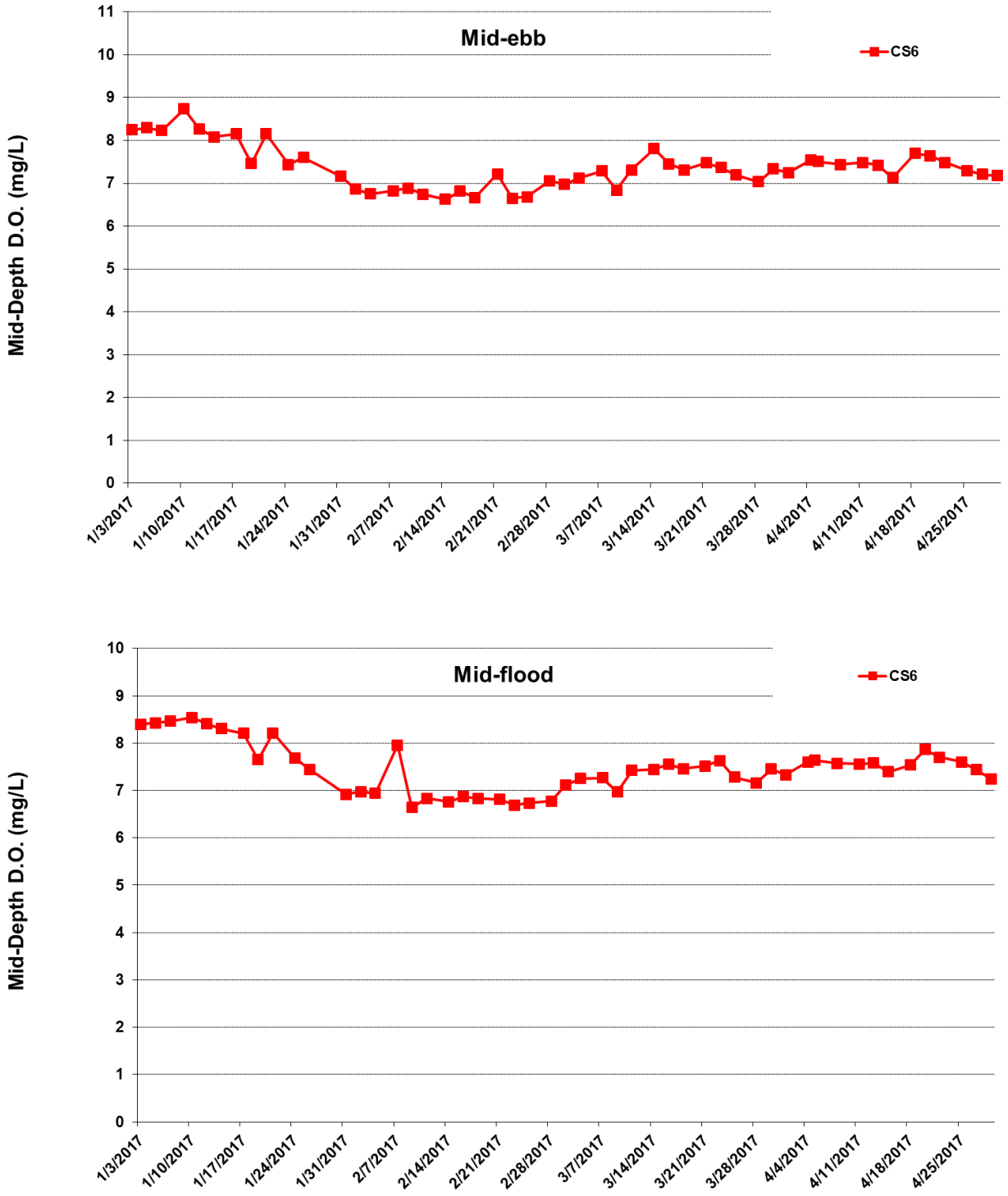
Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

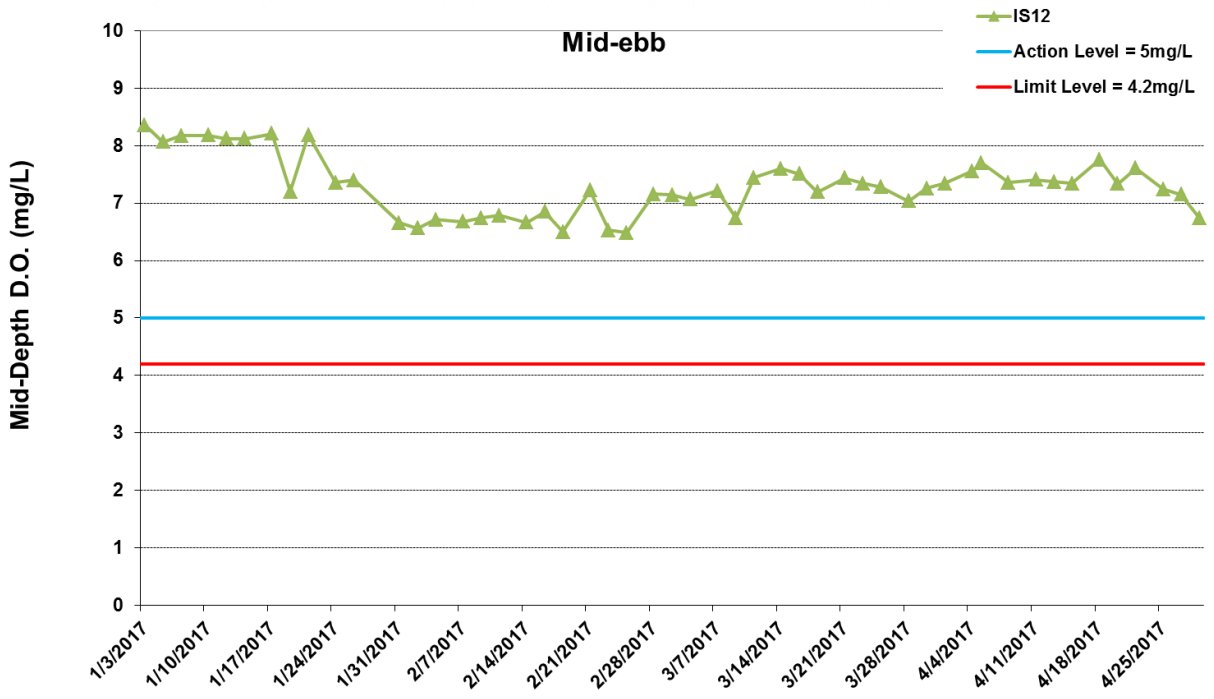
Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

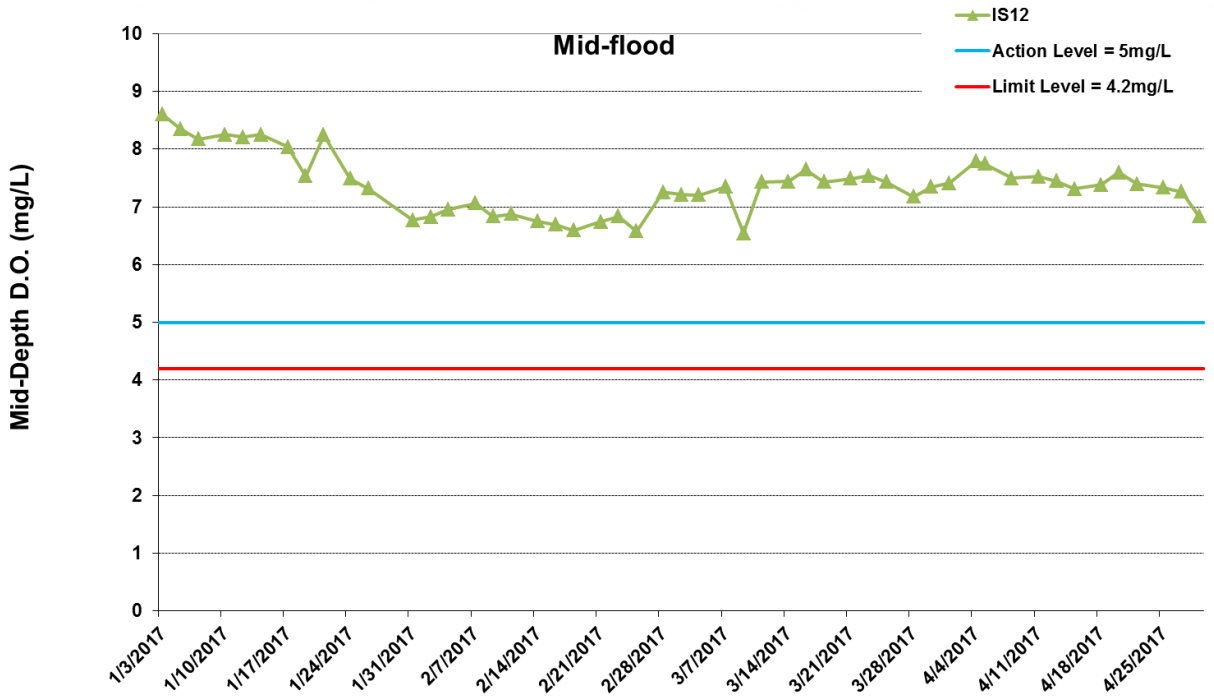


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

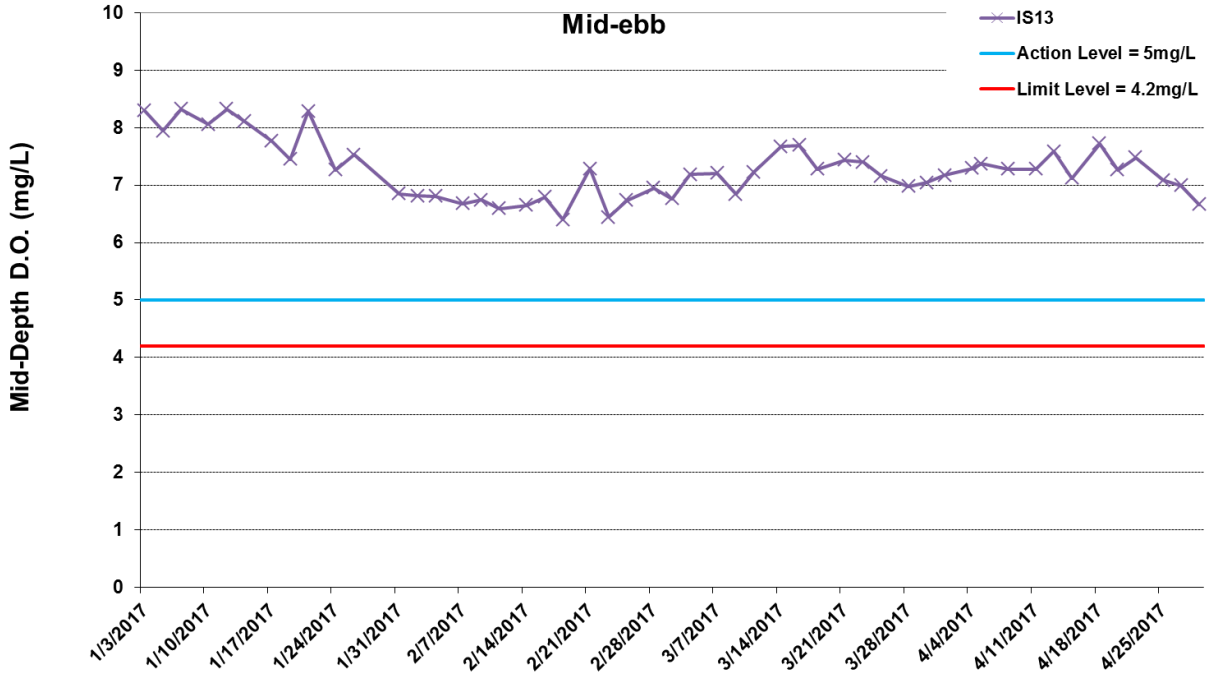


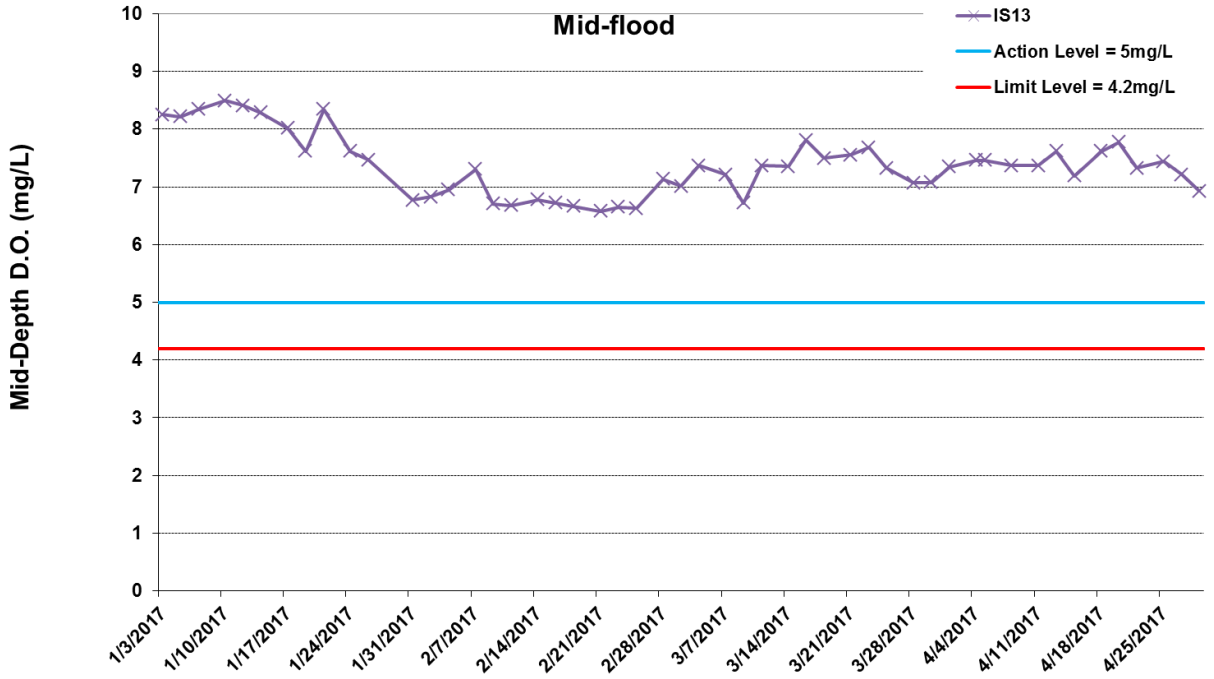


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

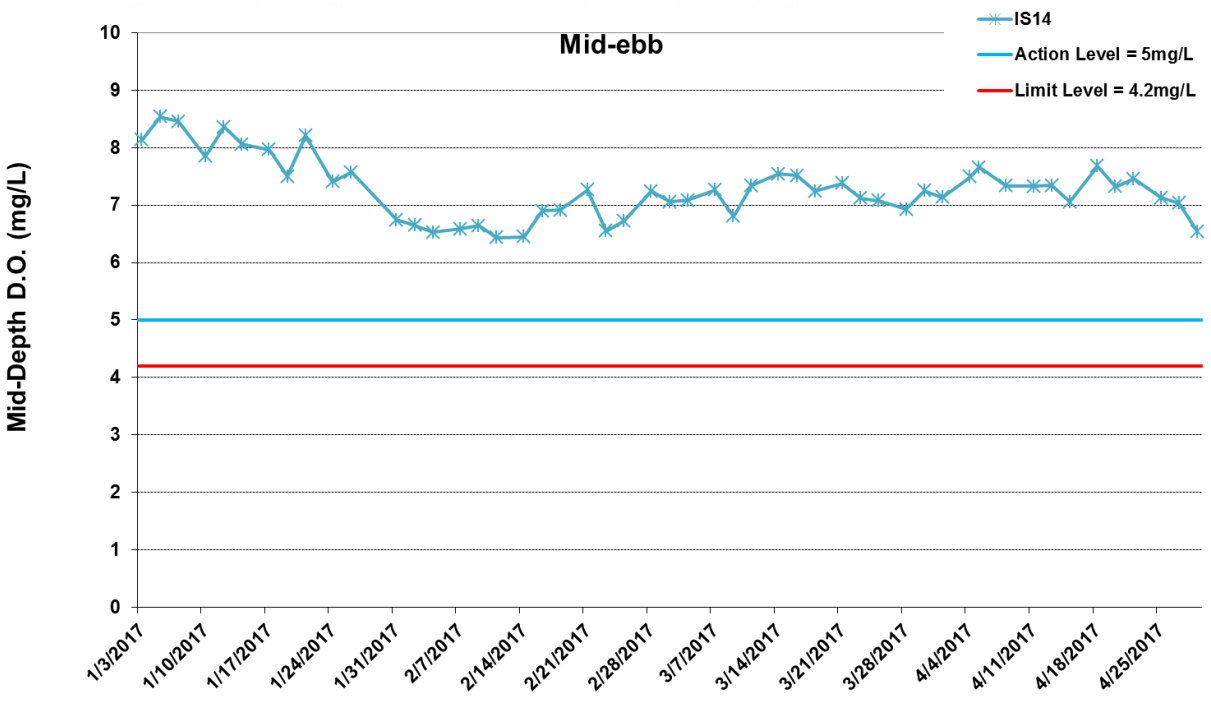


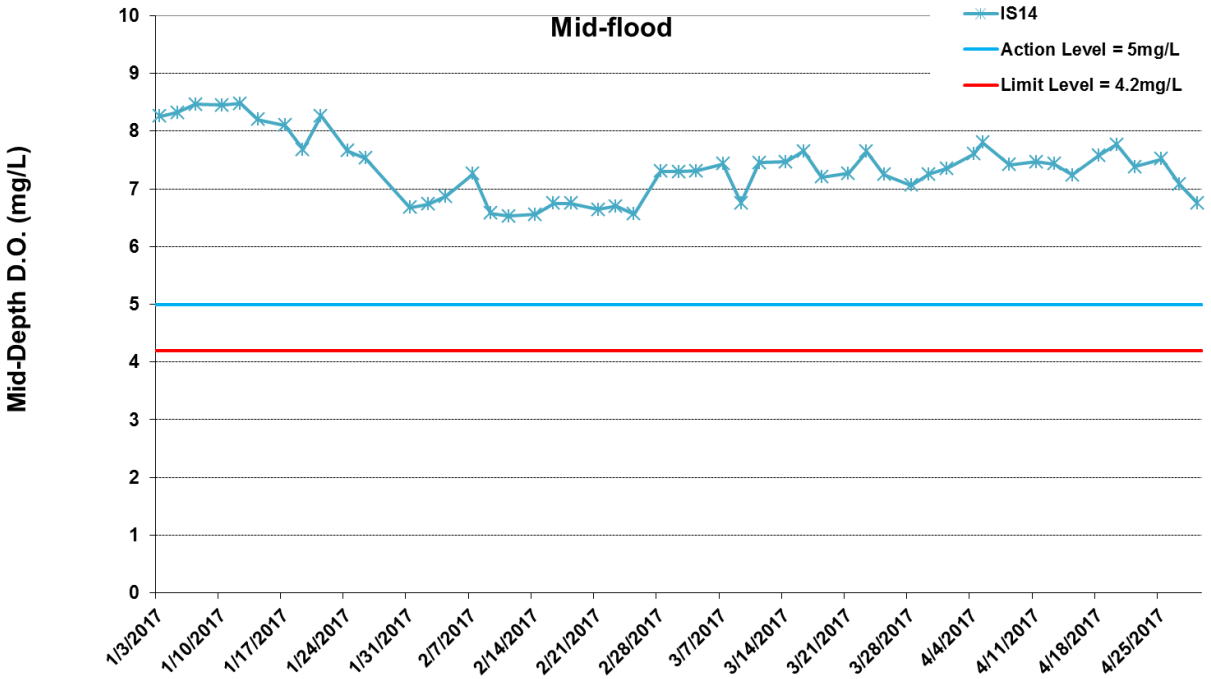


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

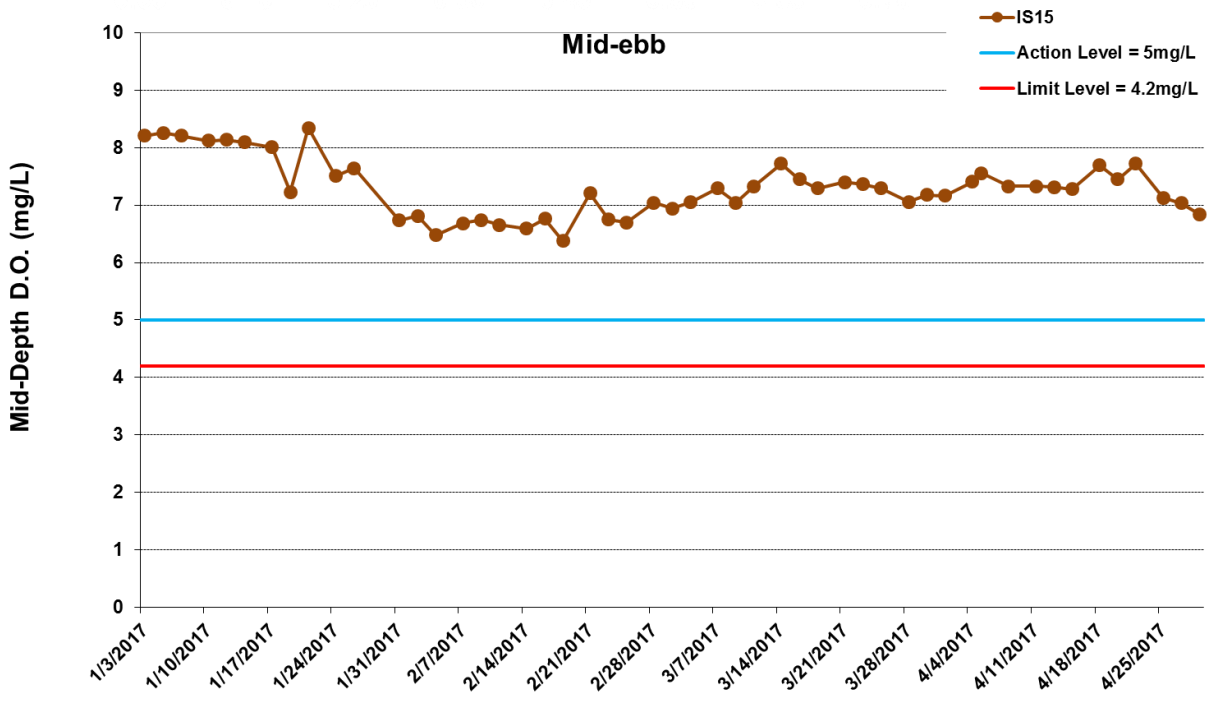


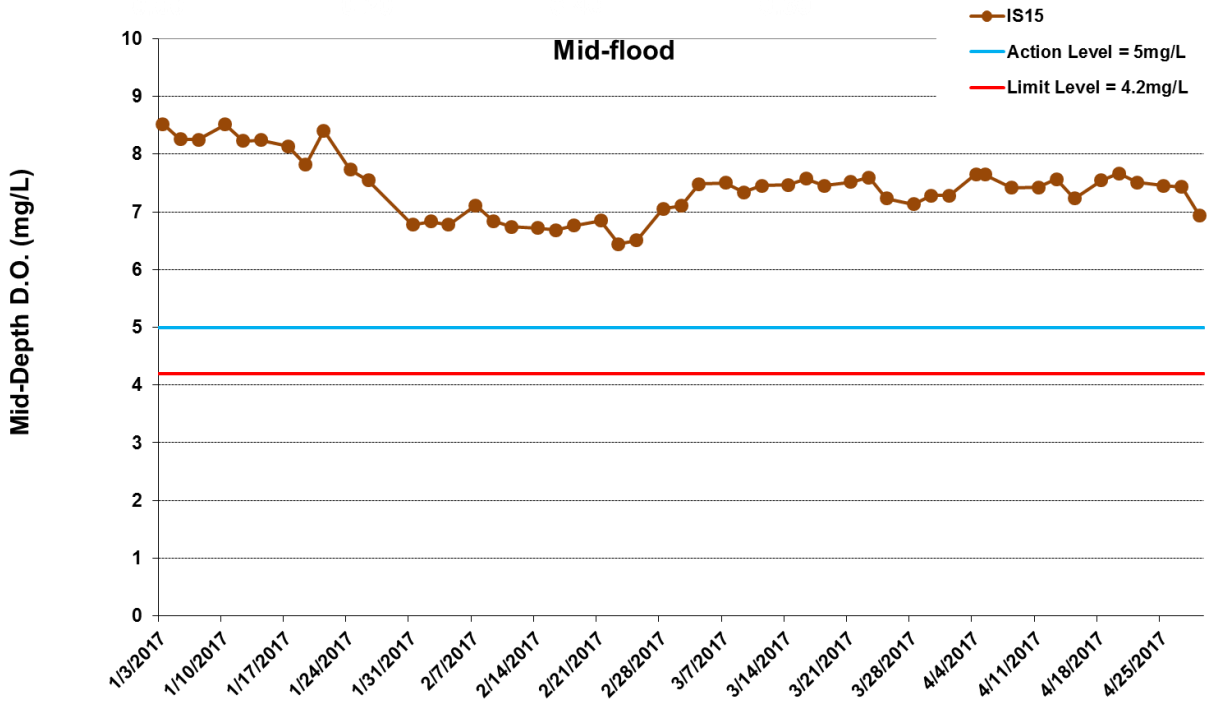


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

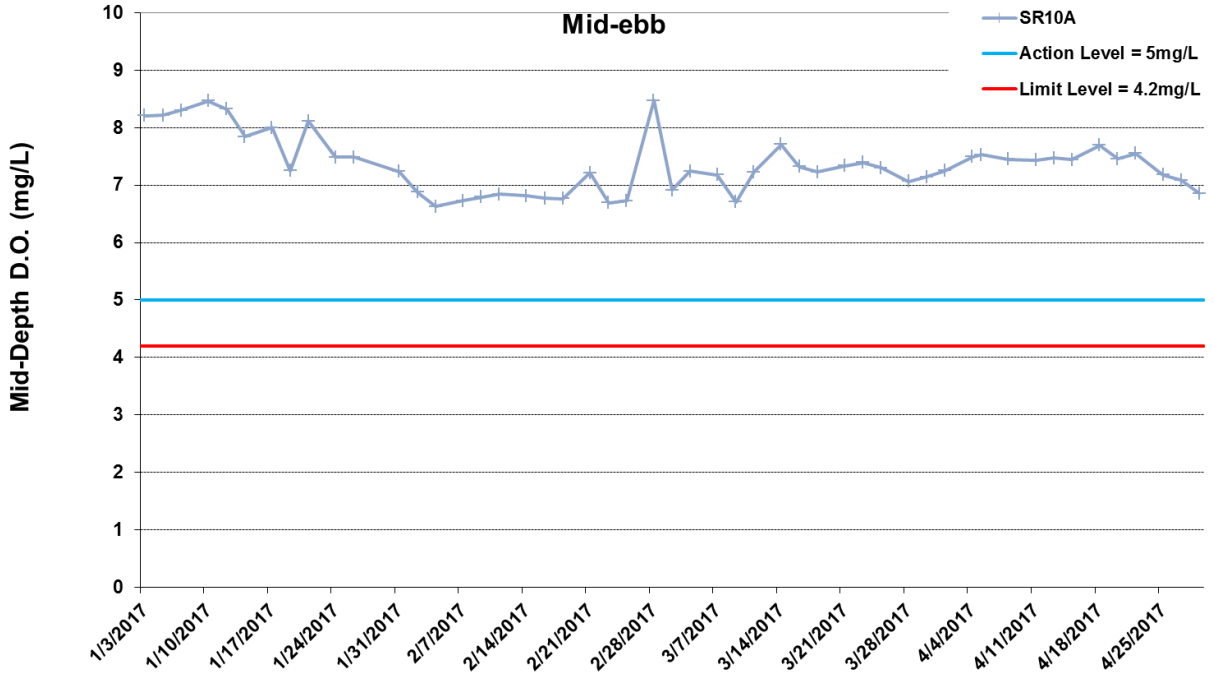


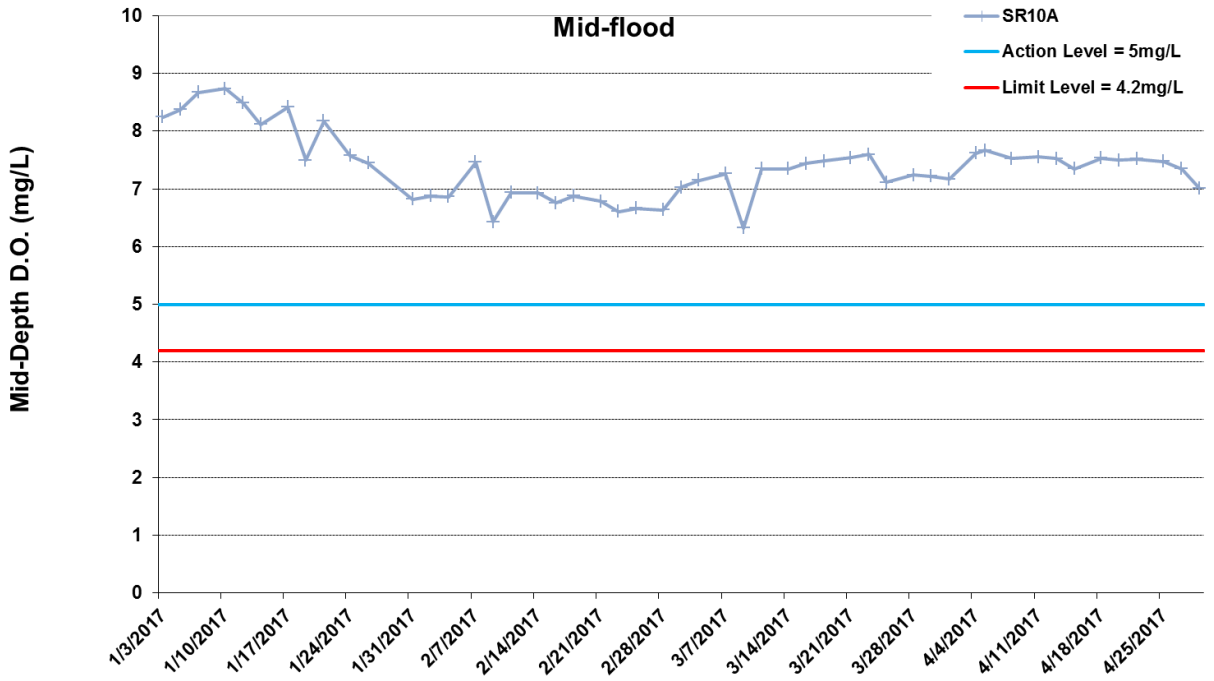


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls





*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2017 and 30 April 2017 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

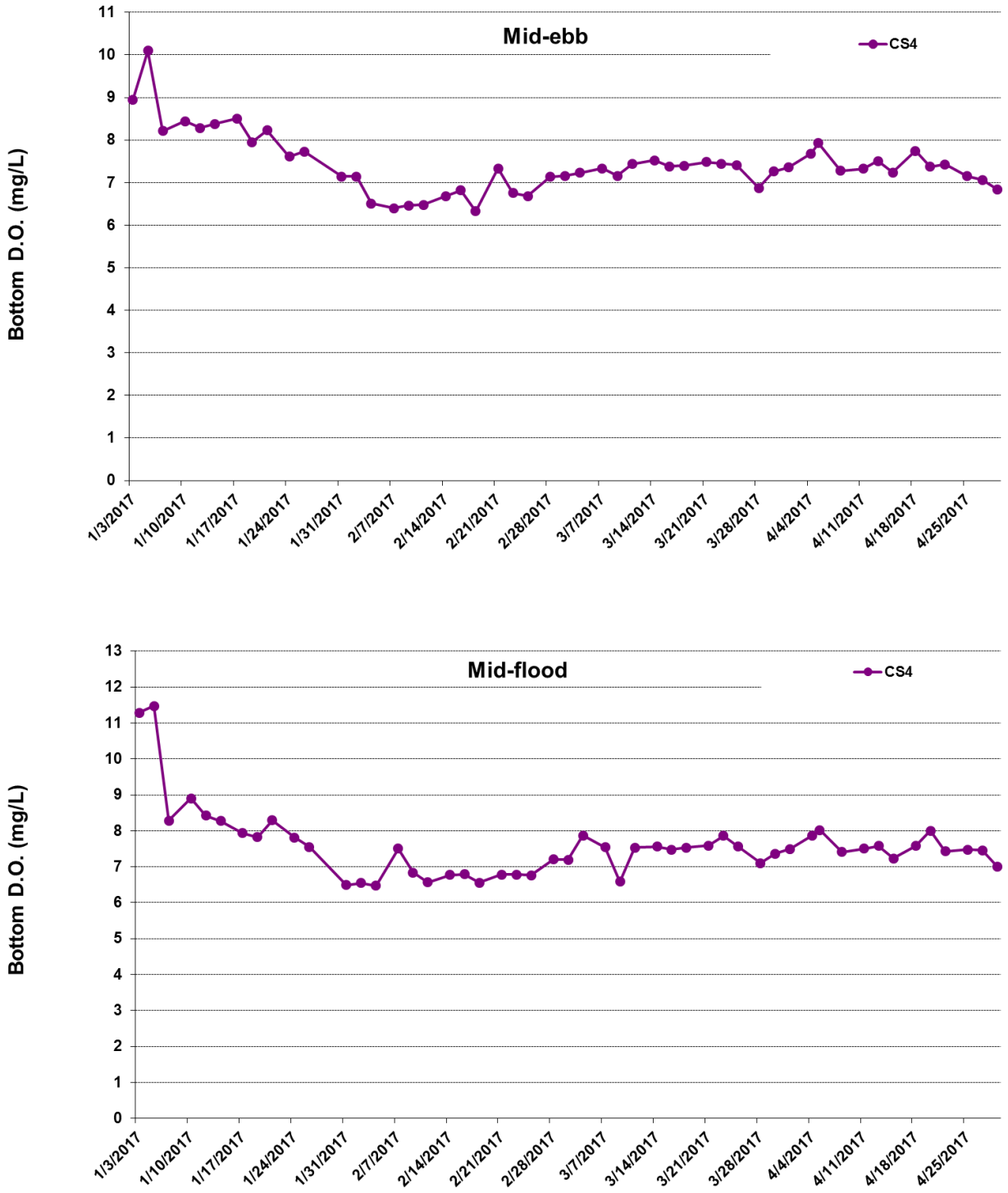


Figure I17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

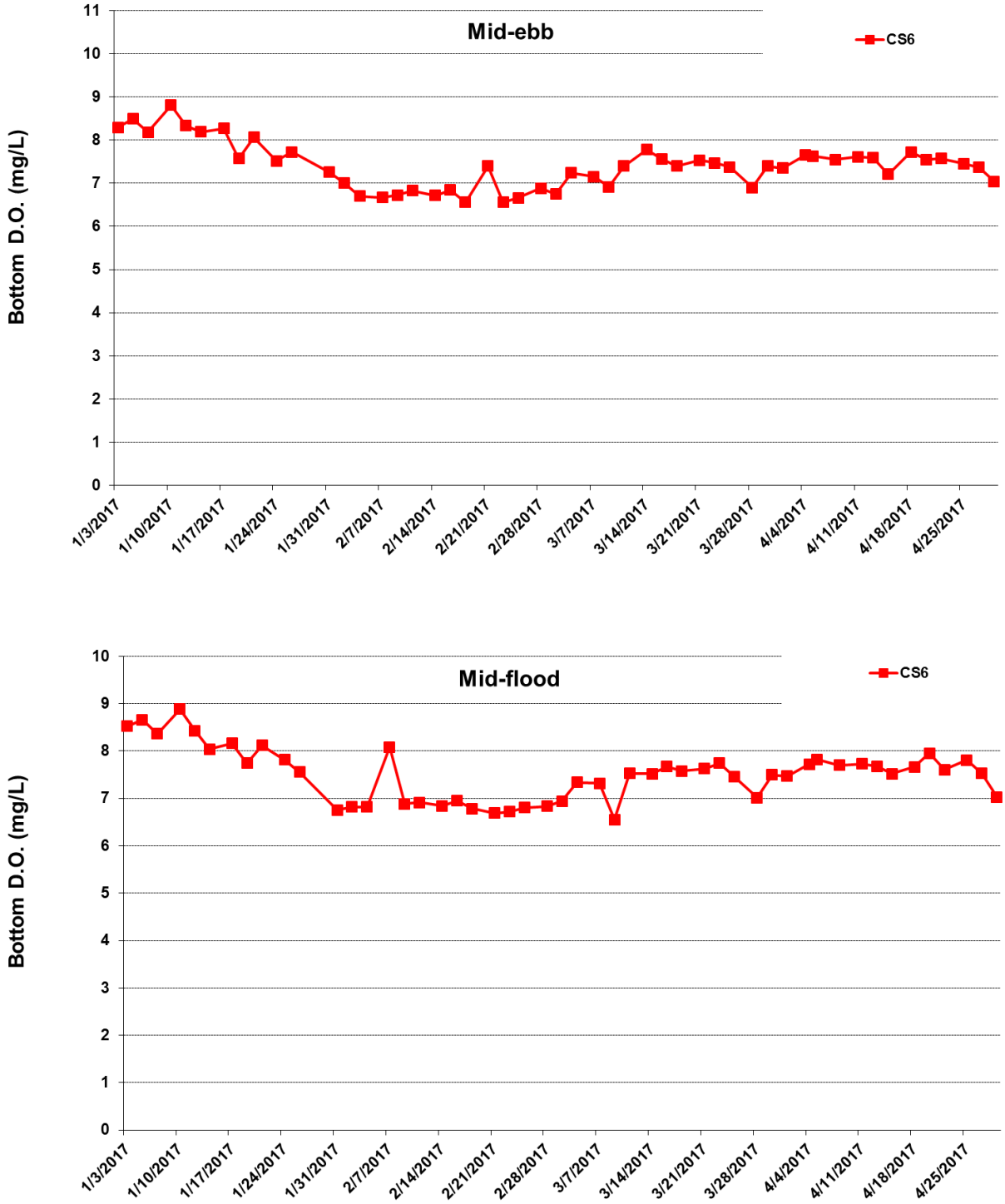
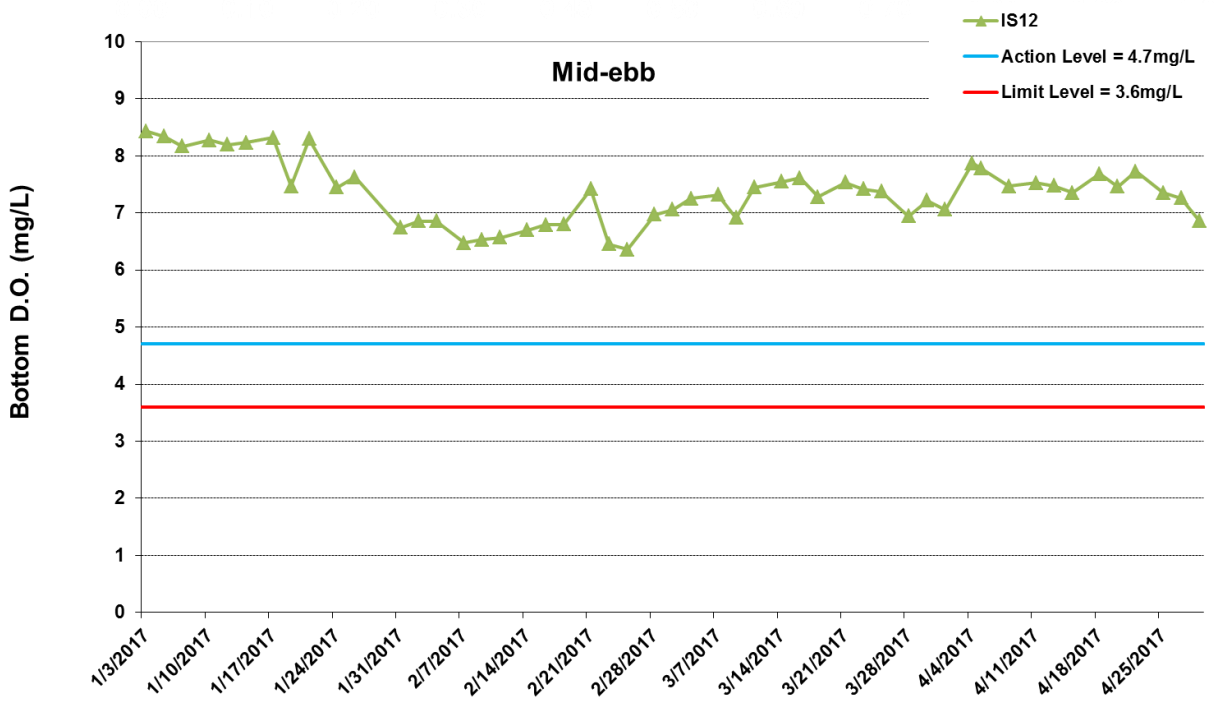


Figure I18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



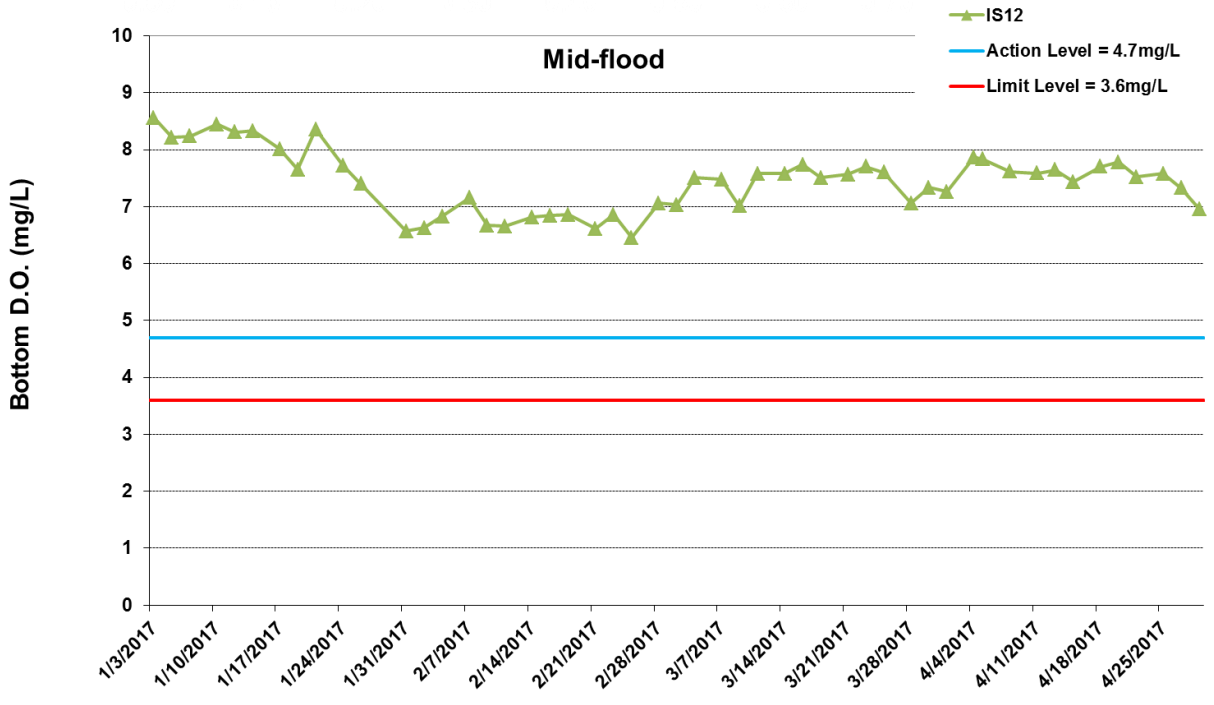
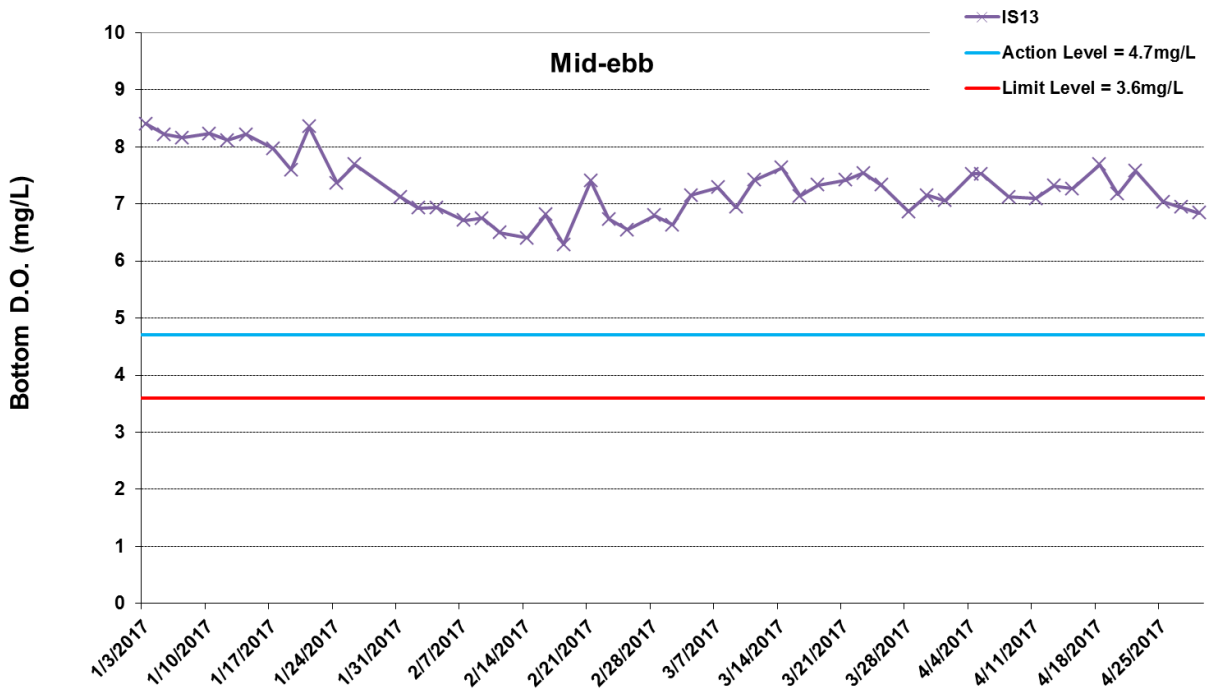


Figure I19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



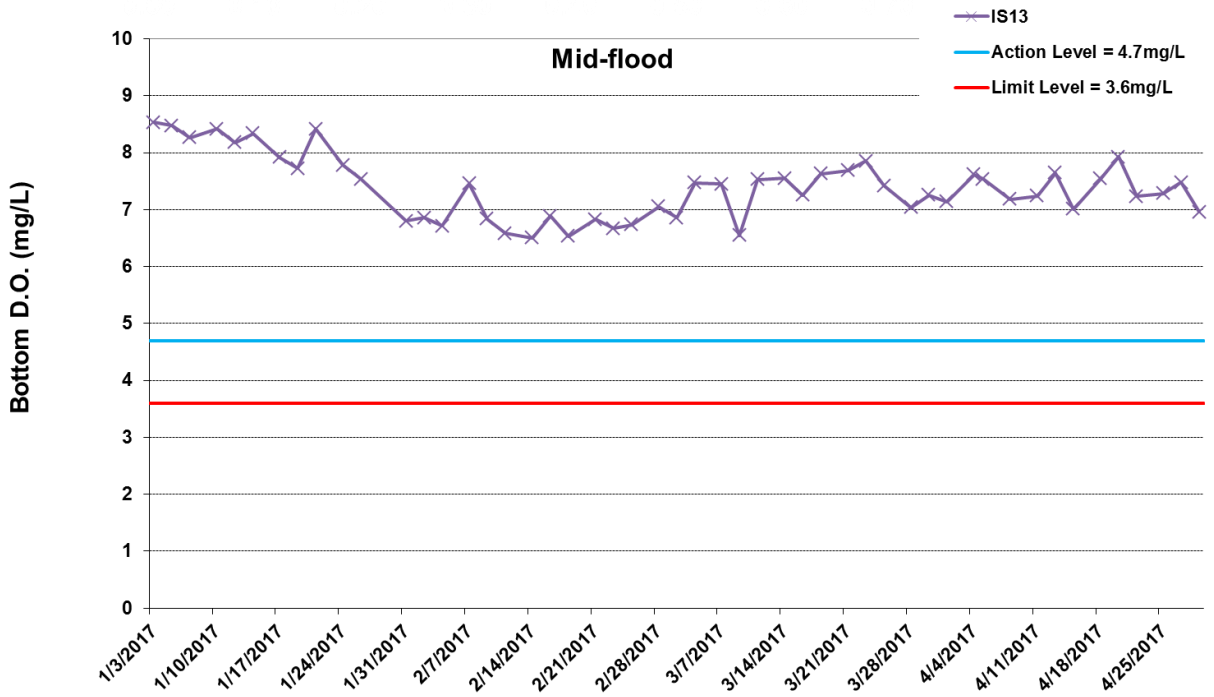


Figure I20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

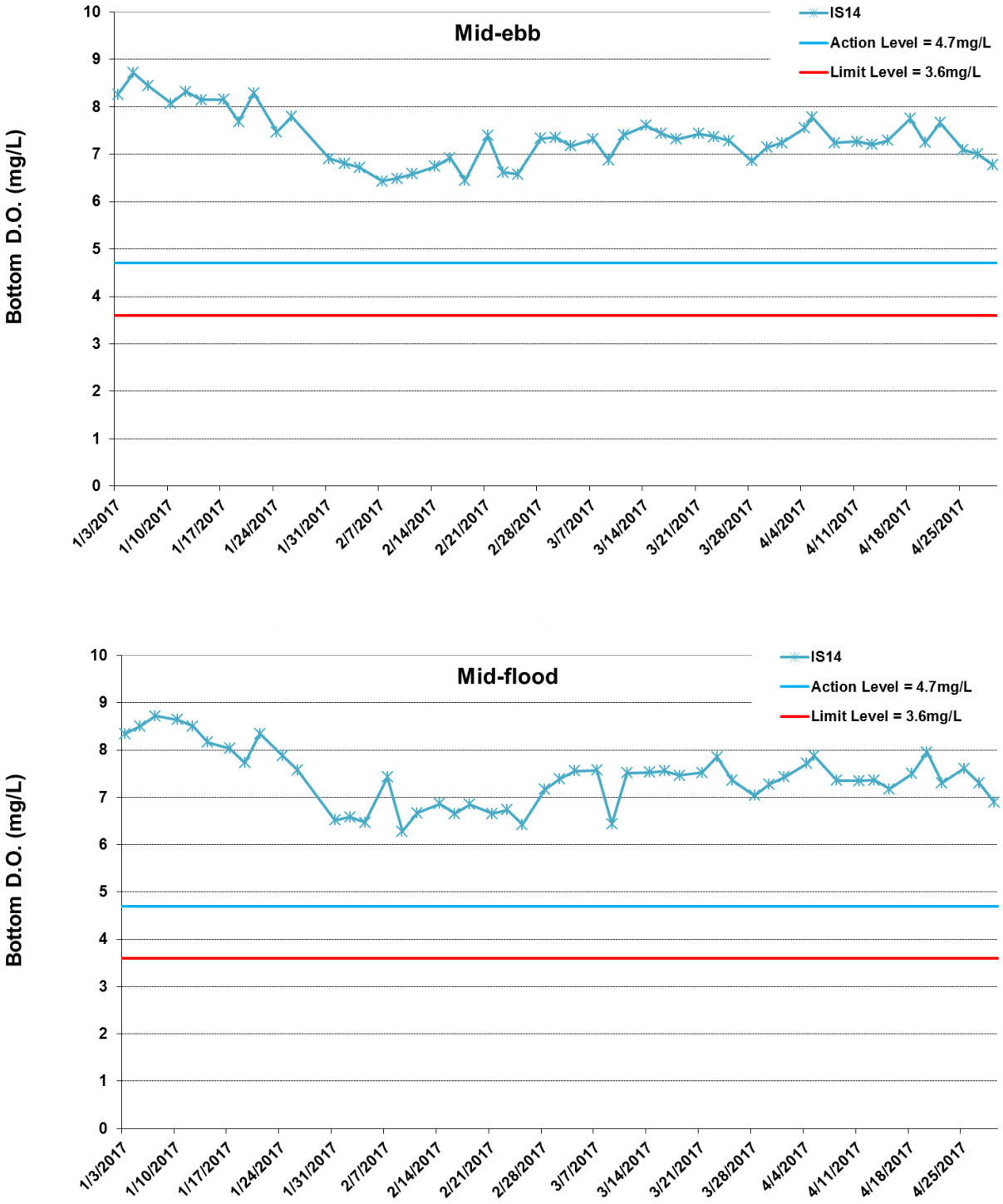
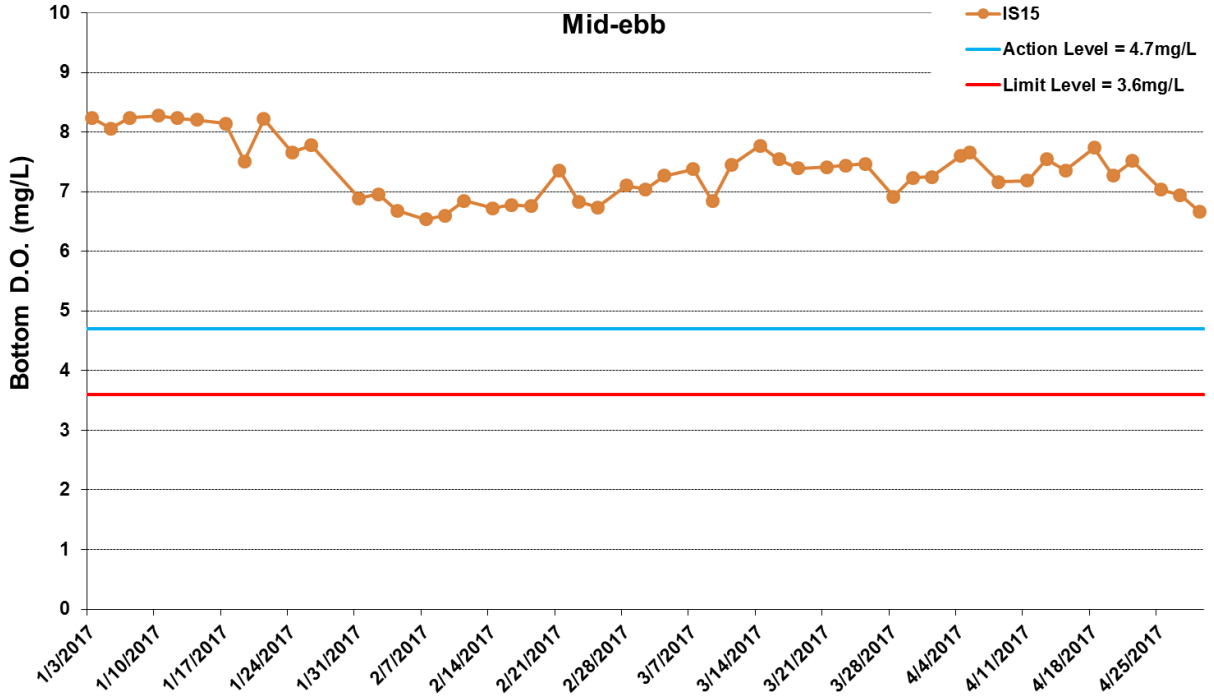


Figure I21 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



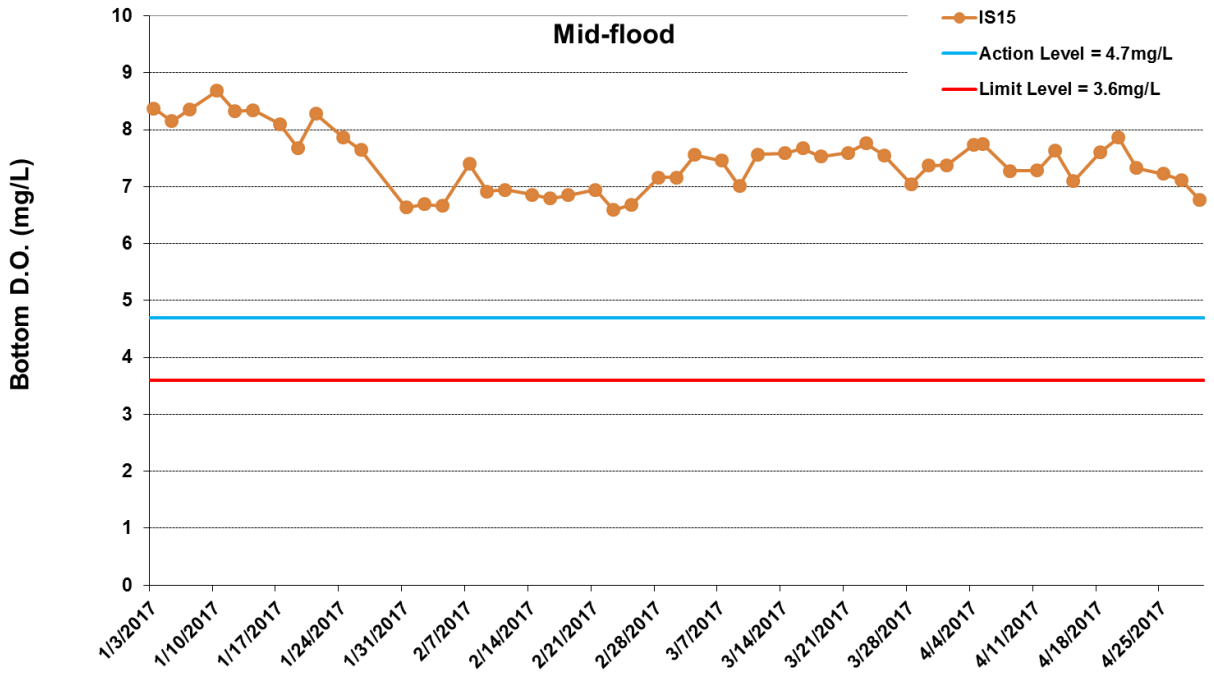


Figure I22 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

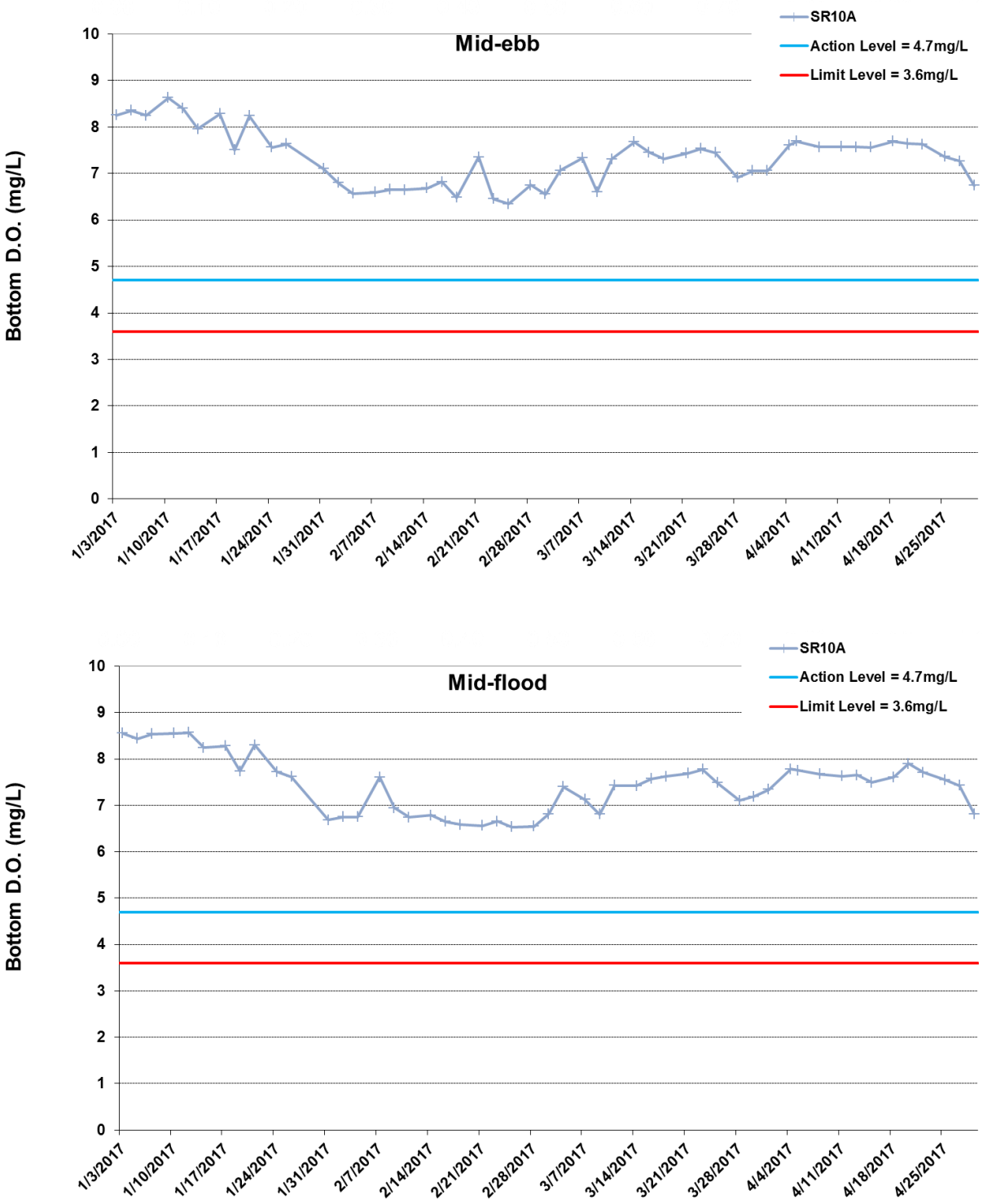
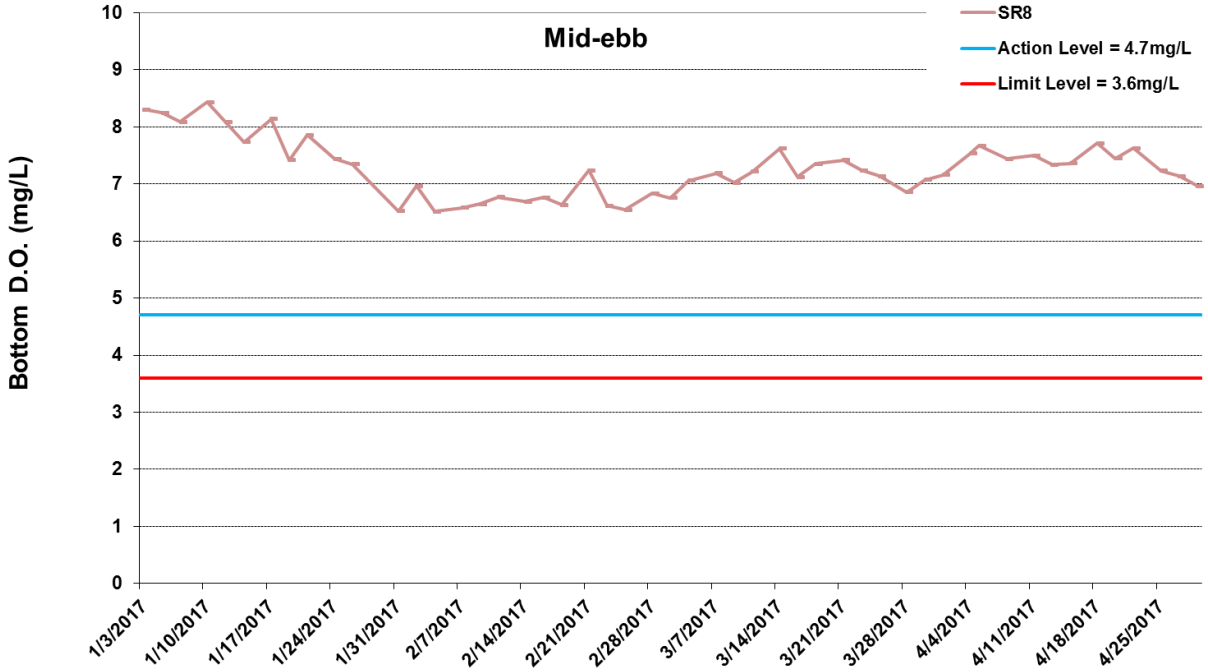


Figure I23 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



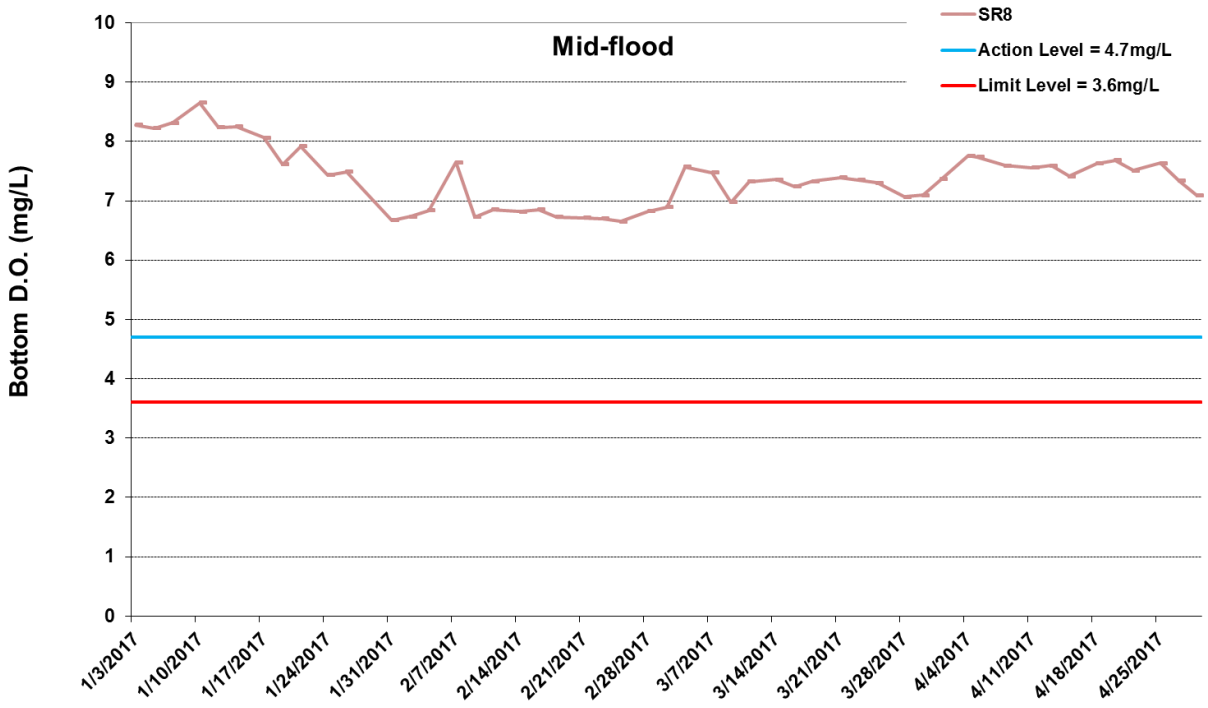


Figure I24 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

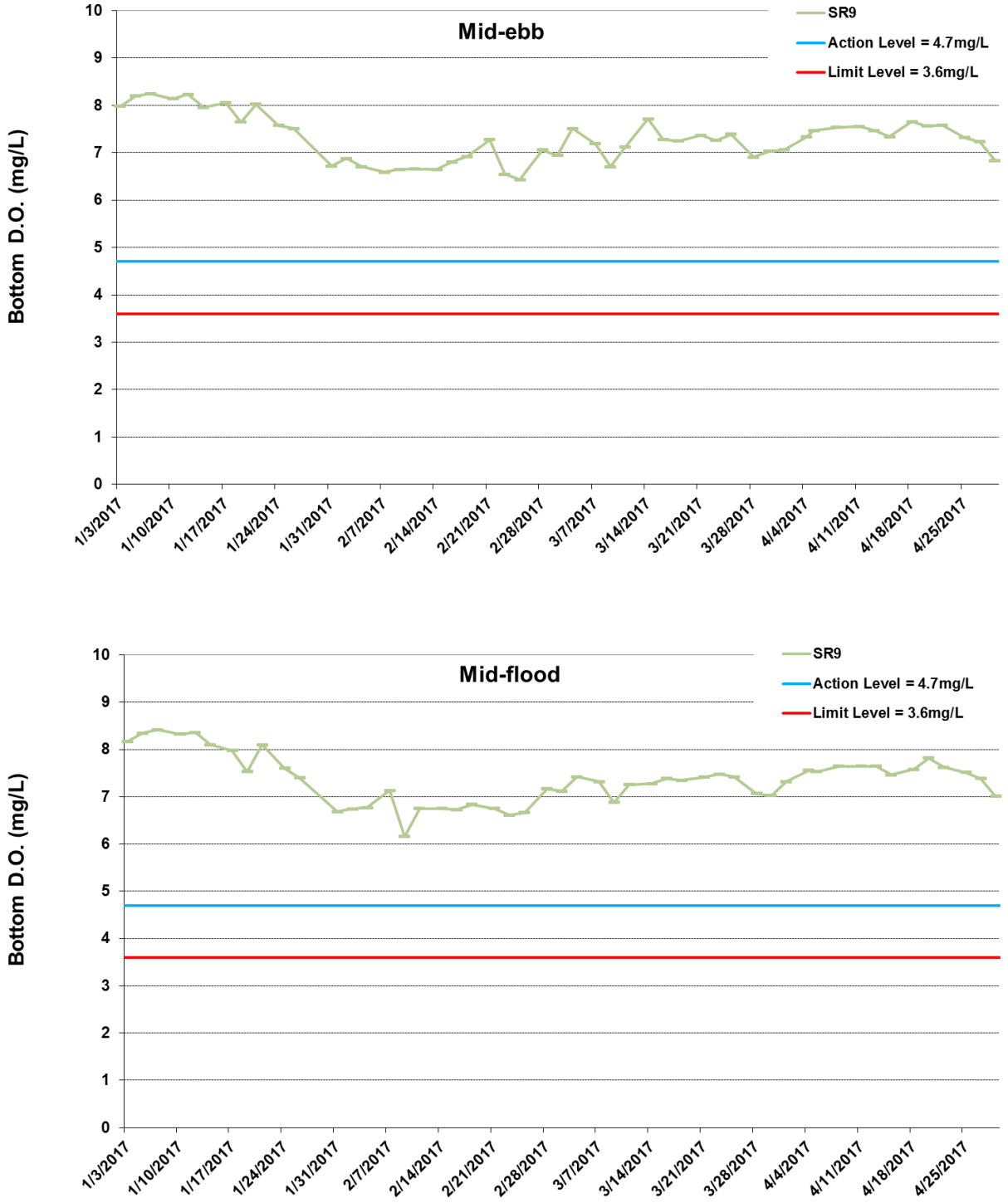
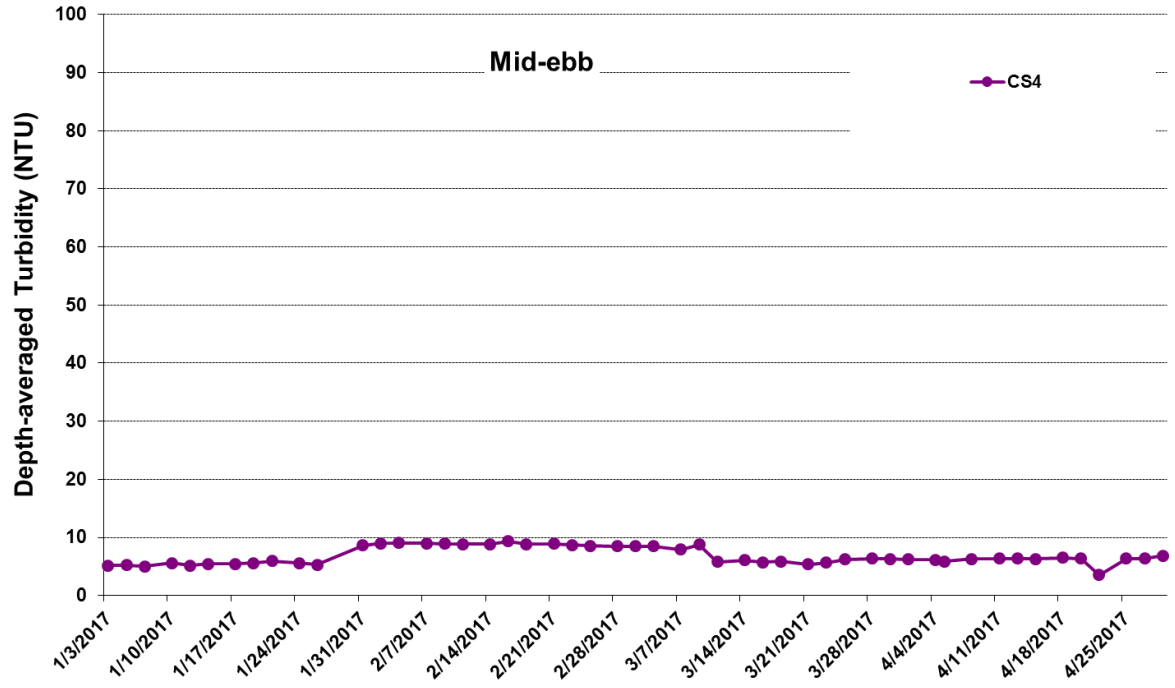


Figure I25 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2017 and 30 April 2017 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



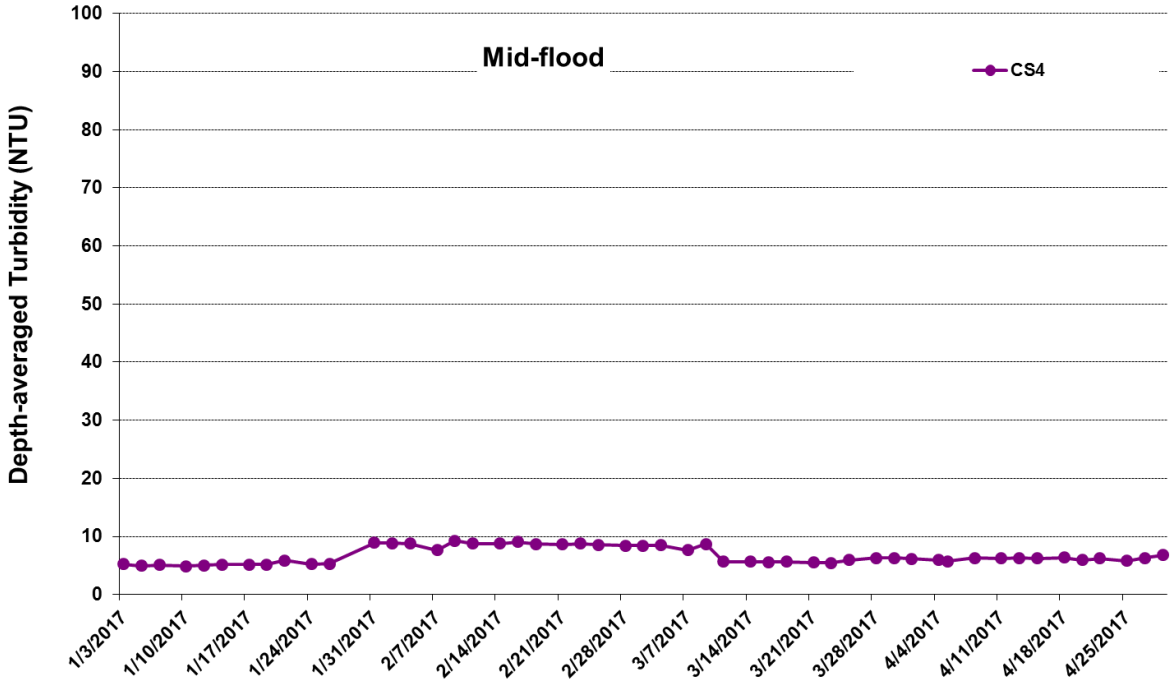


Figure I26 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

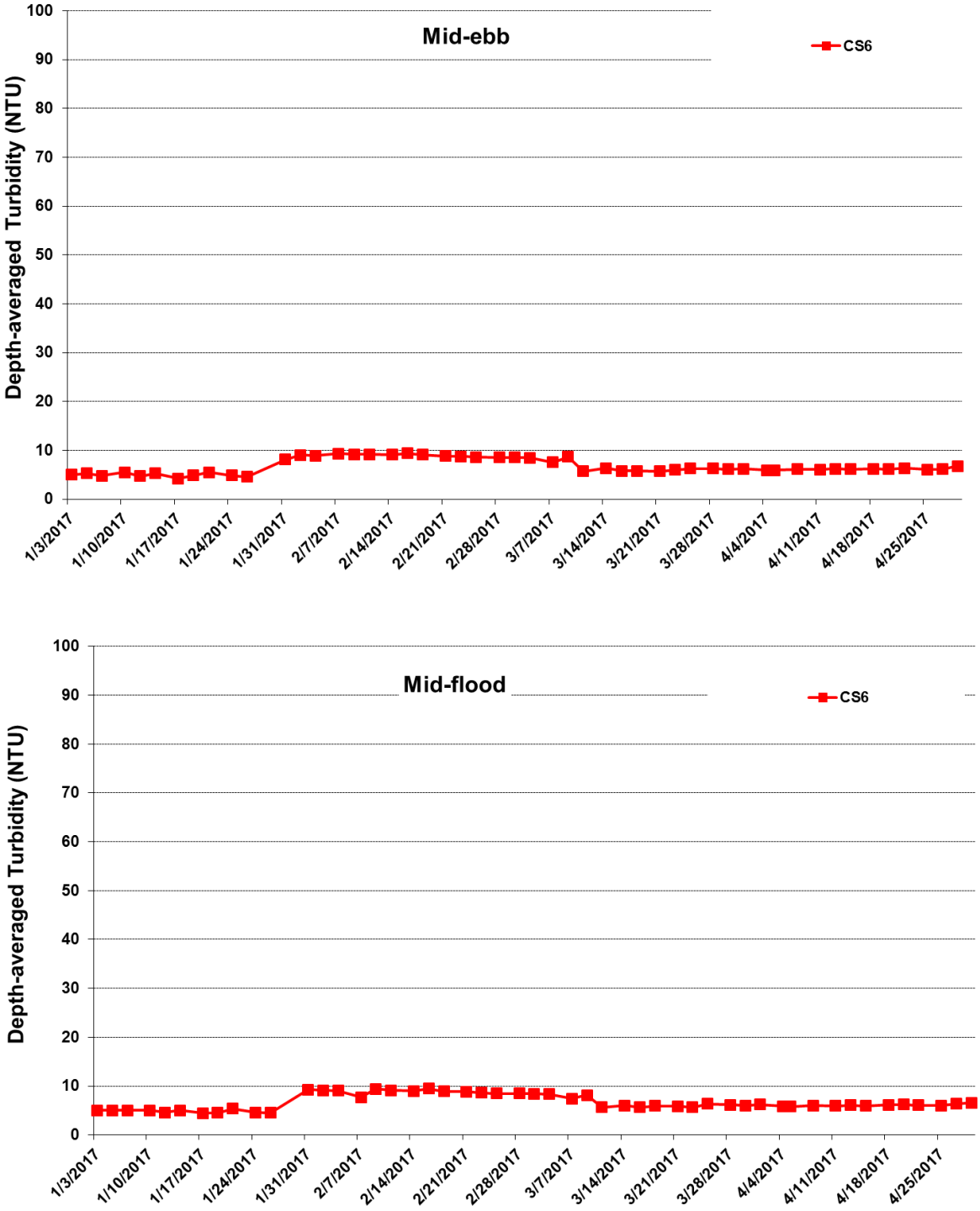
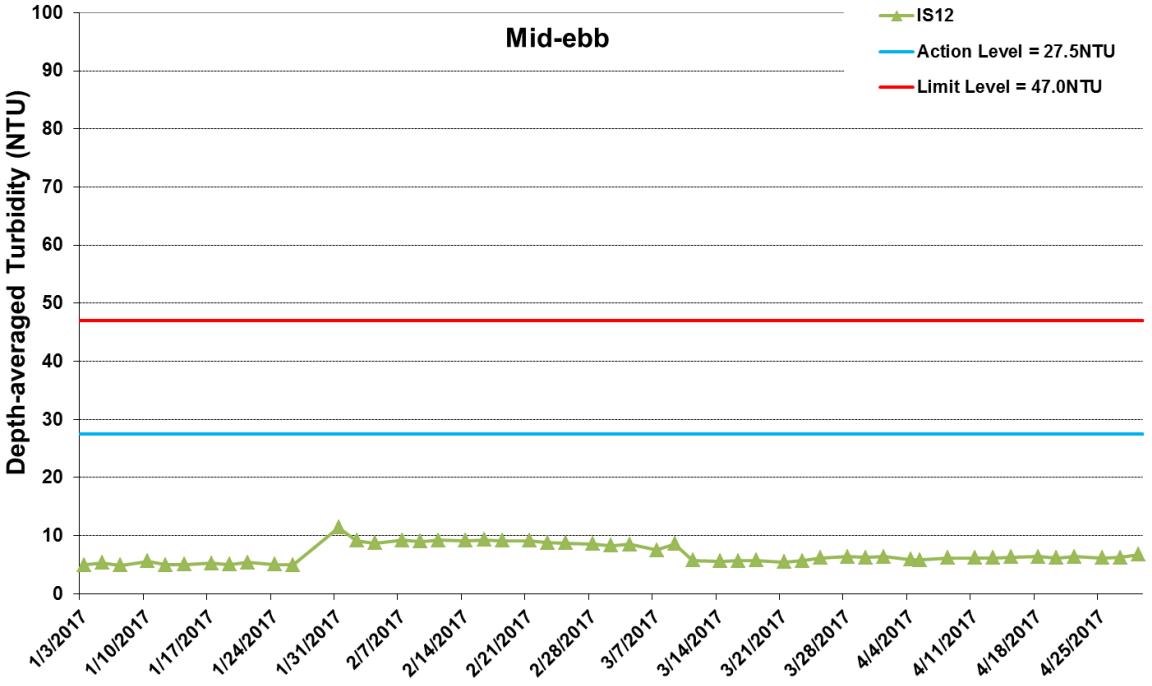


Figure I27 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



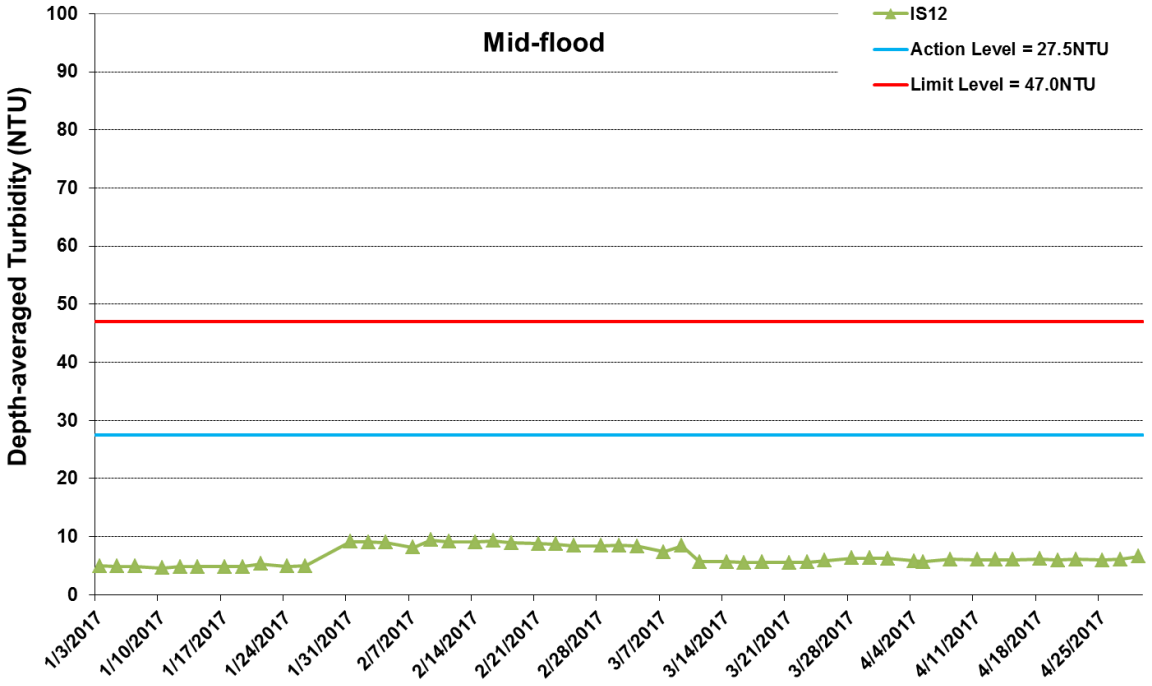
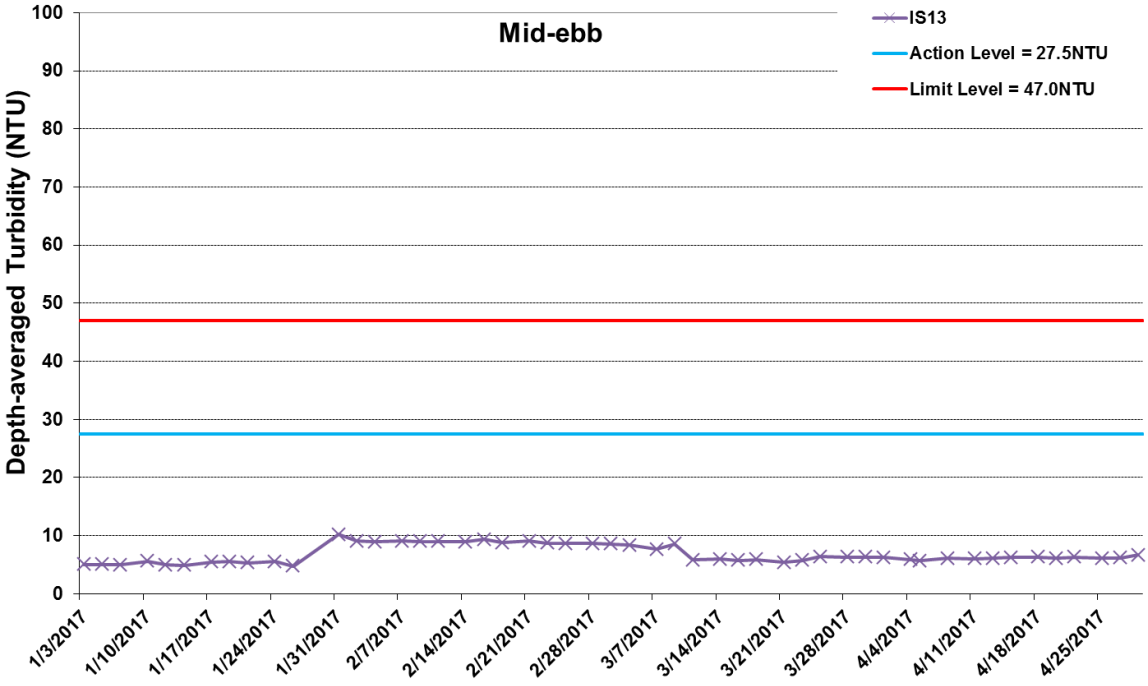


Figure I28 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



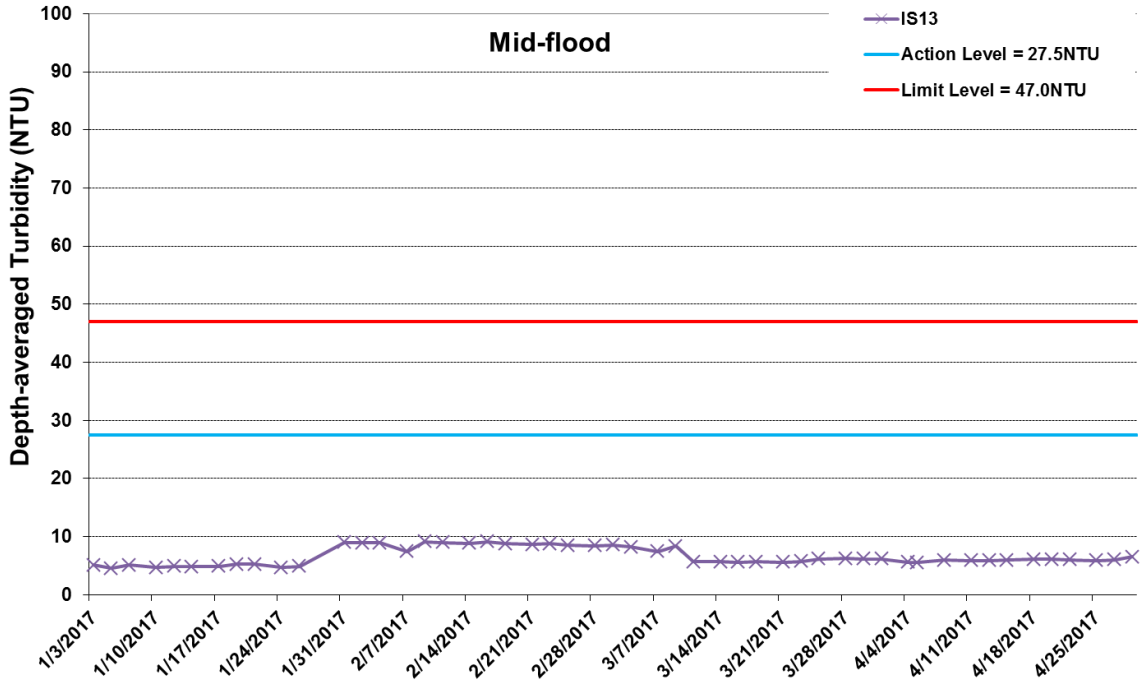
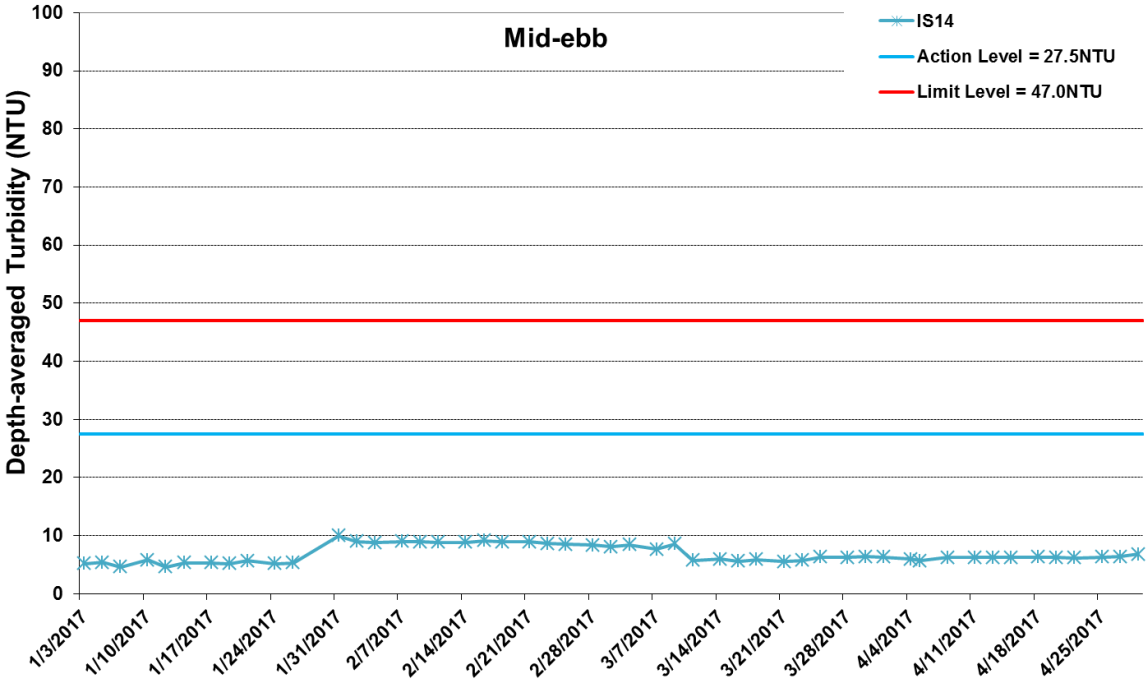


Figure I29 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



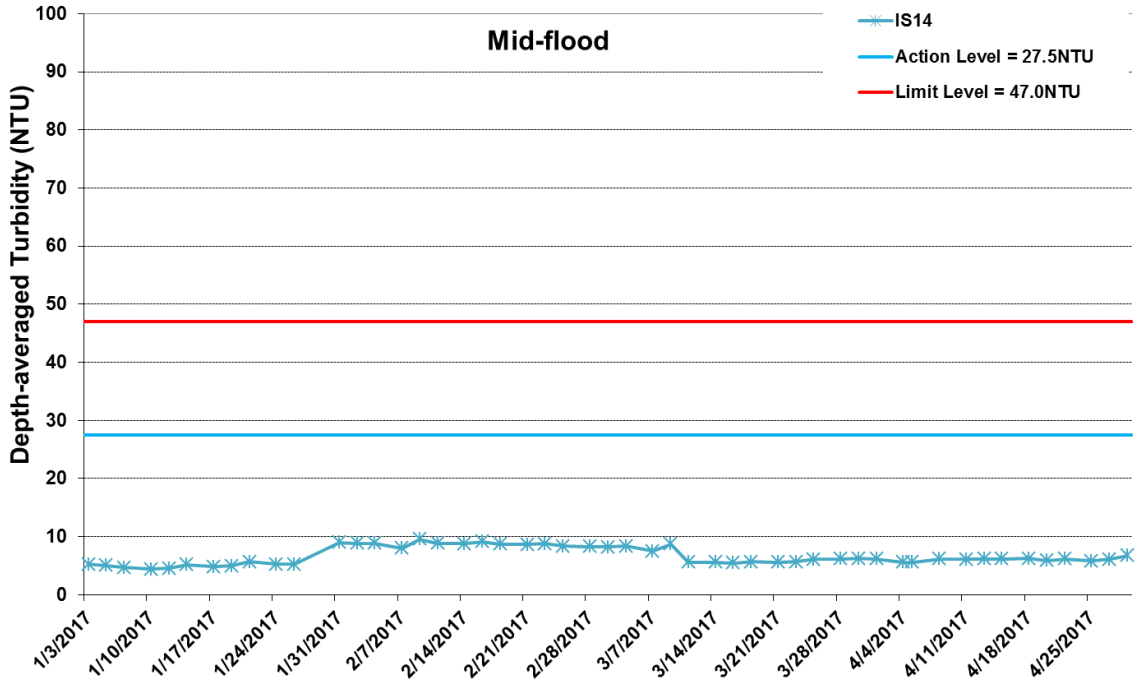
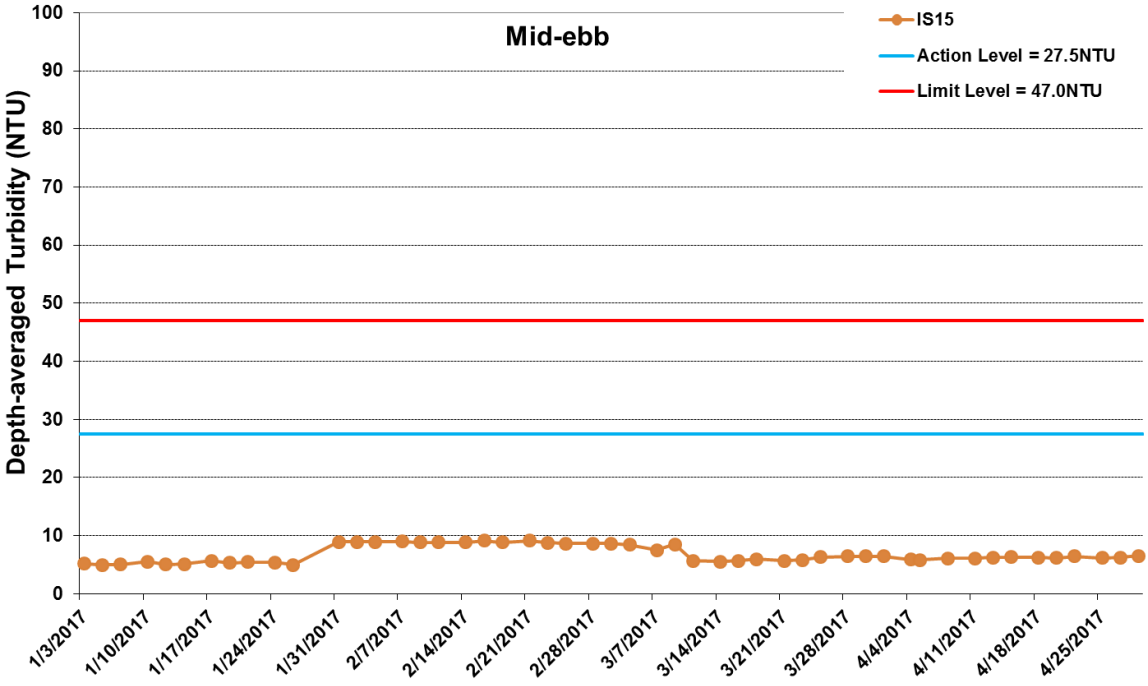


Figure I30 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



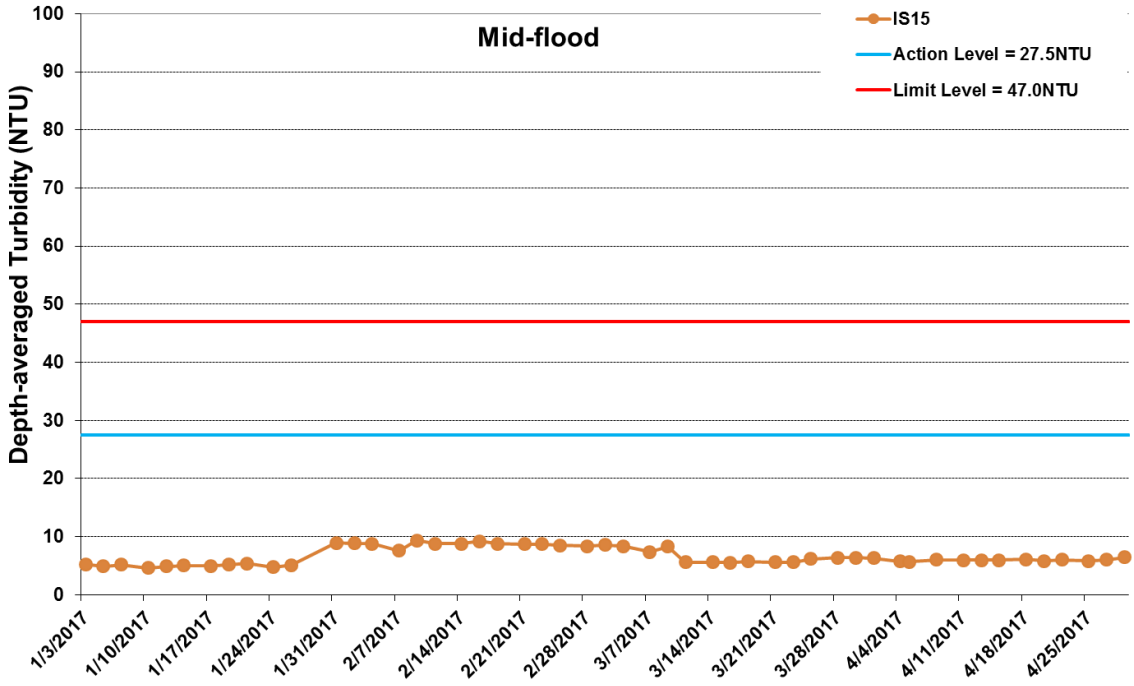
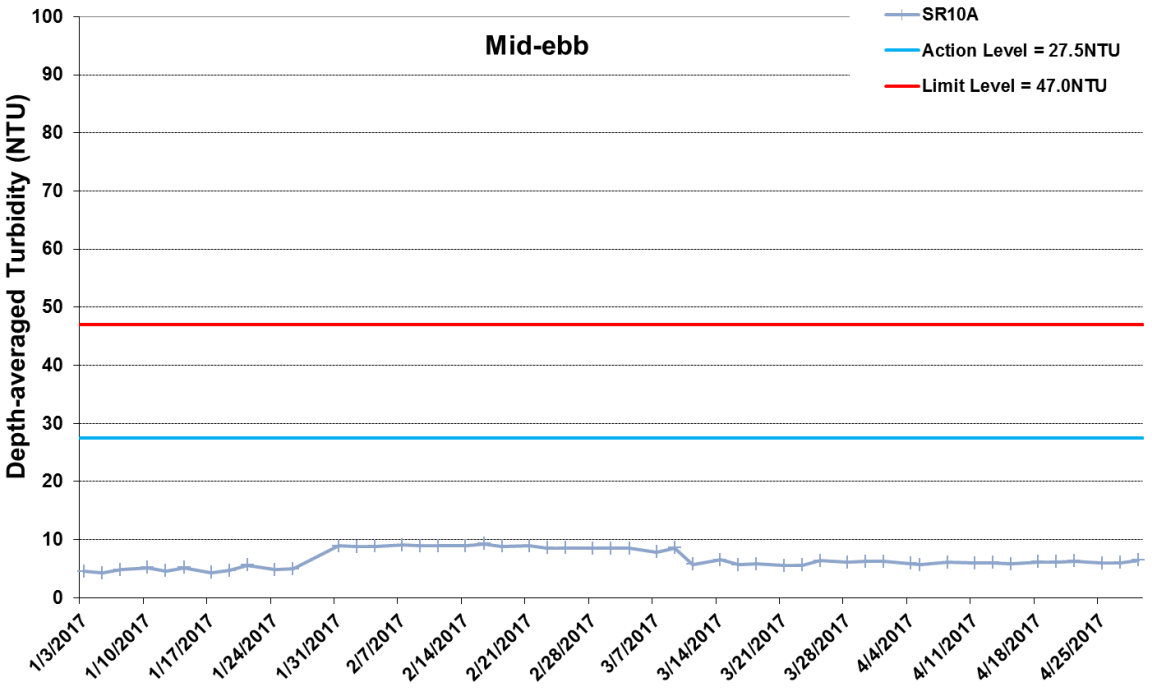


Figure I31 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



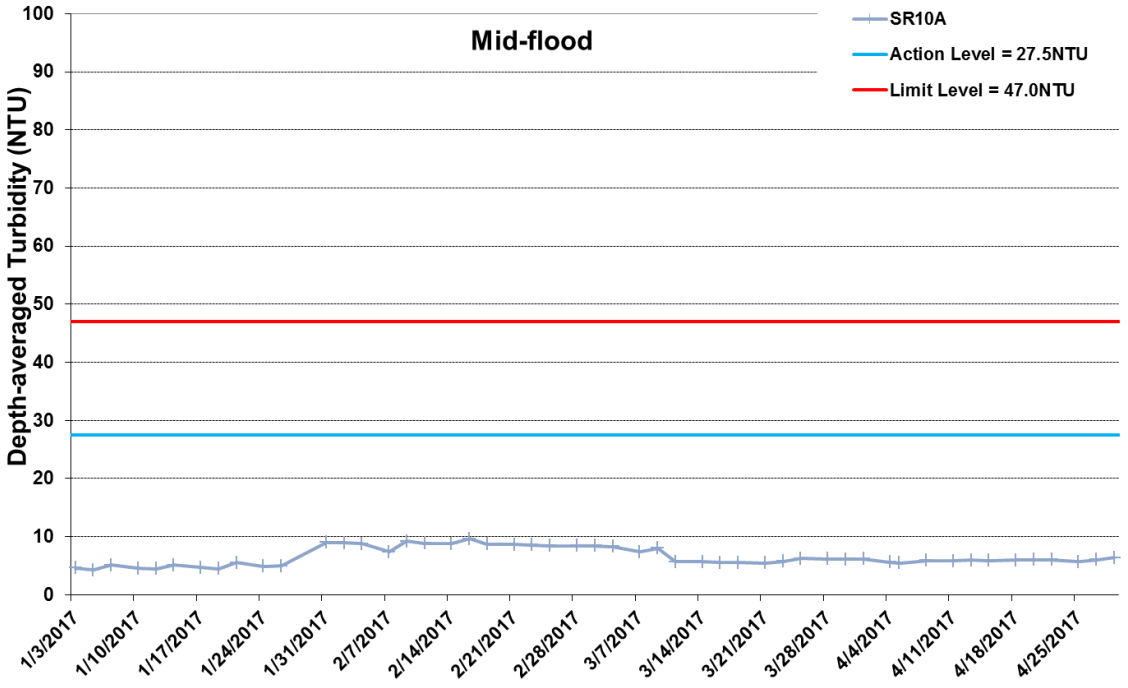
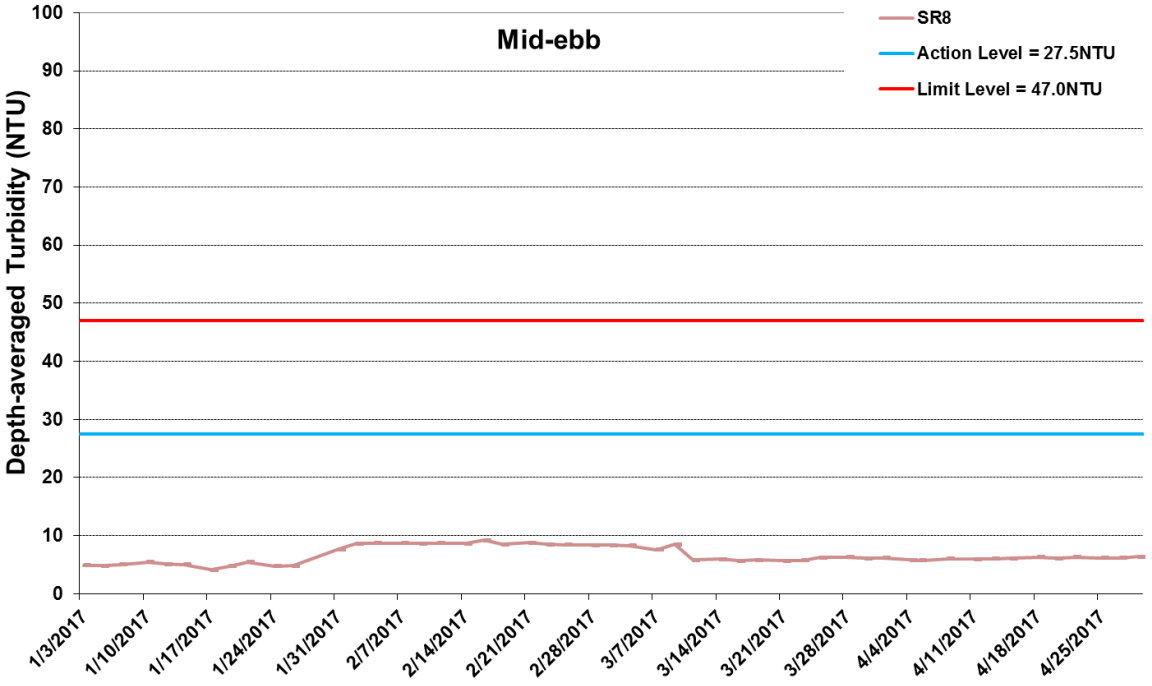


Figure I32 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



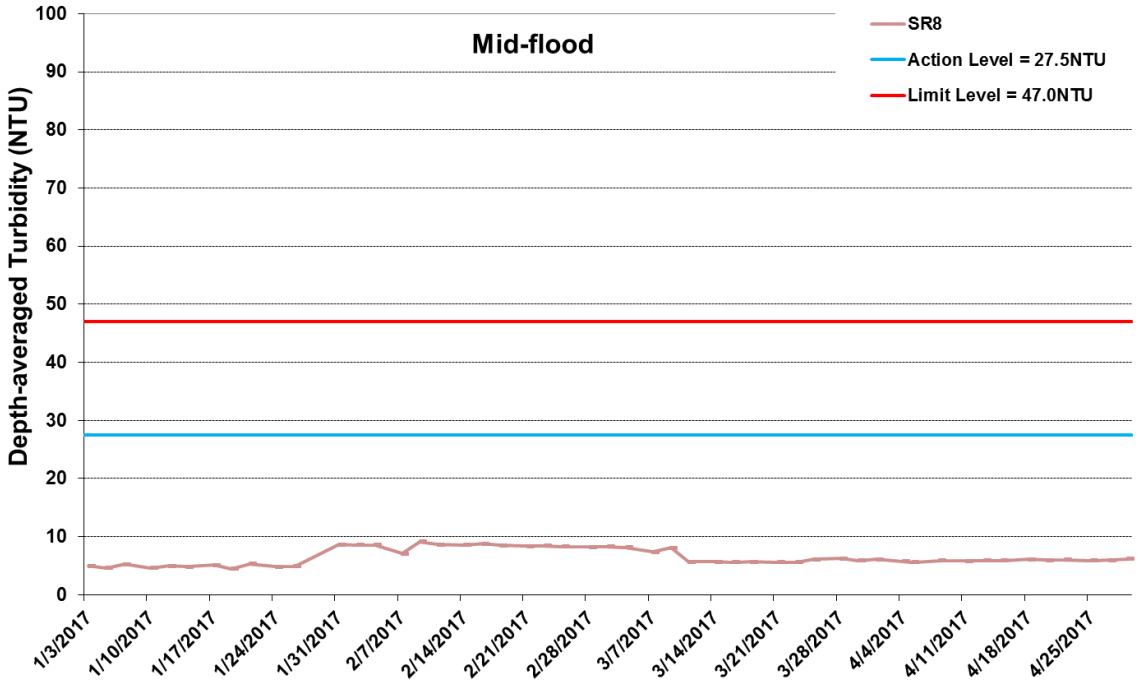
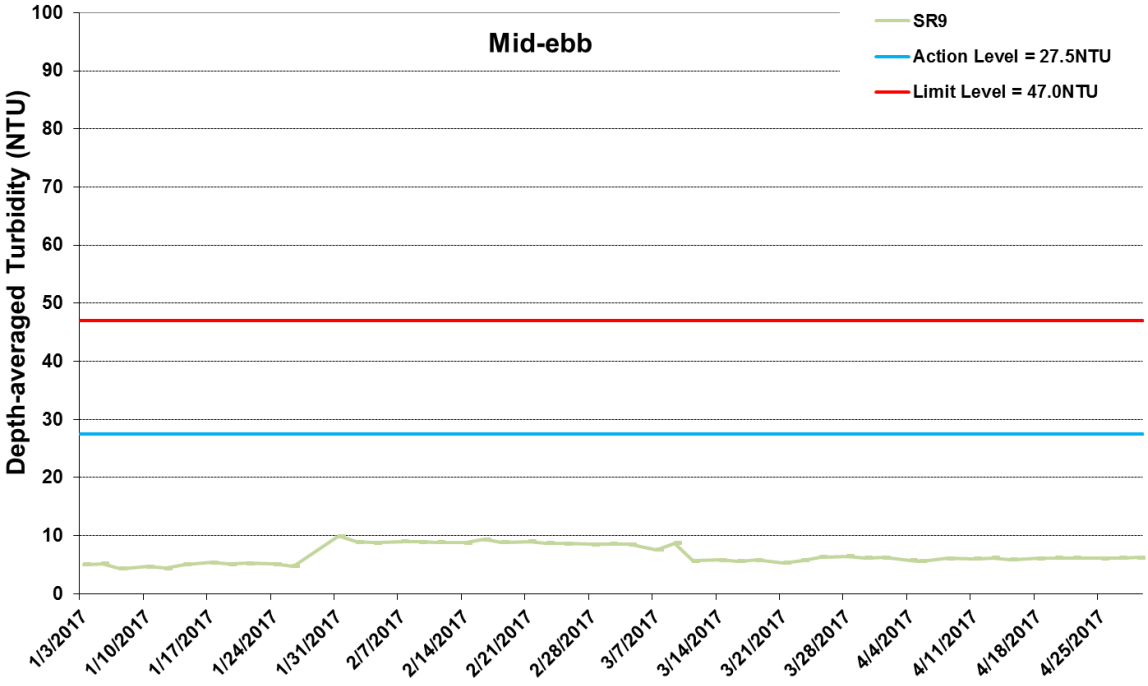


Figure I33 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



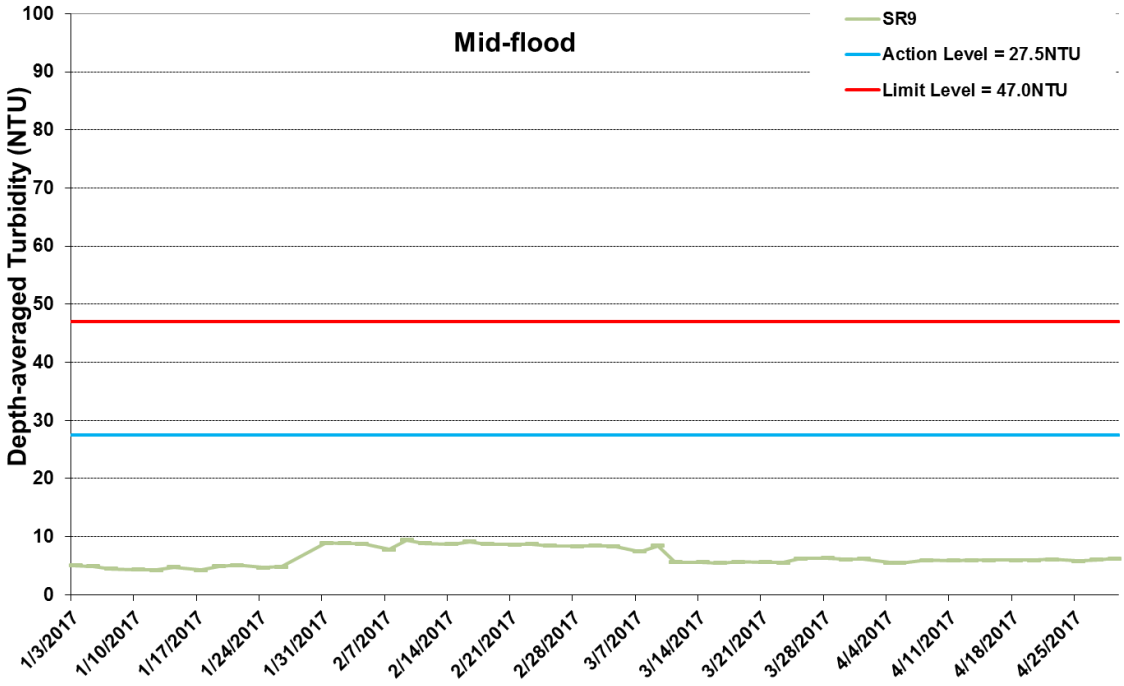


Figure I34 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2017 and 30 April 2017 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

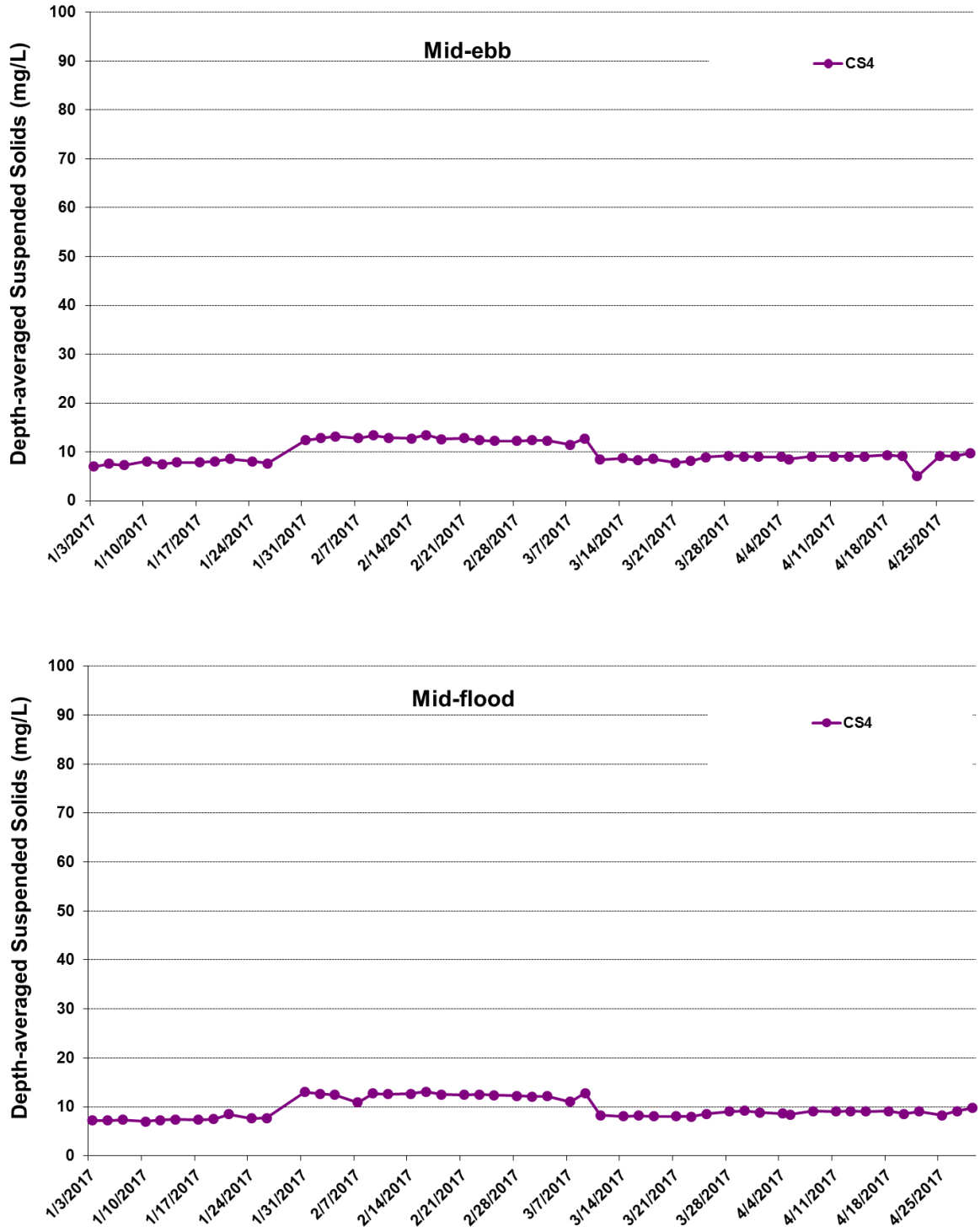
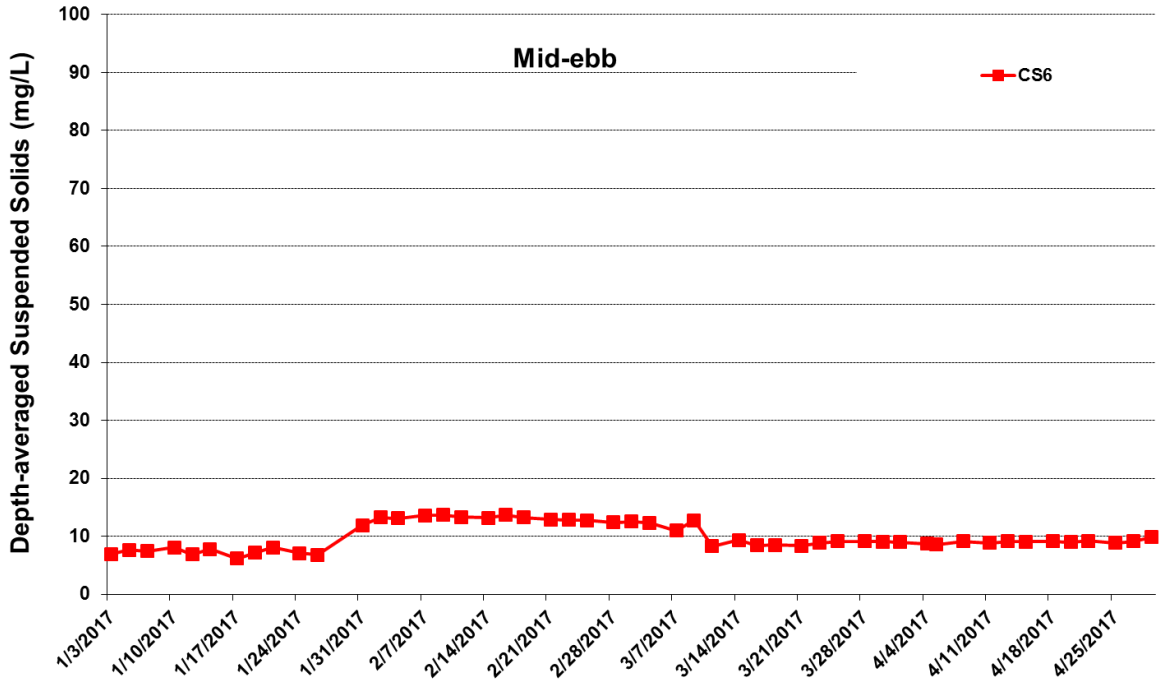


Figure I35 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



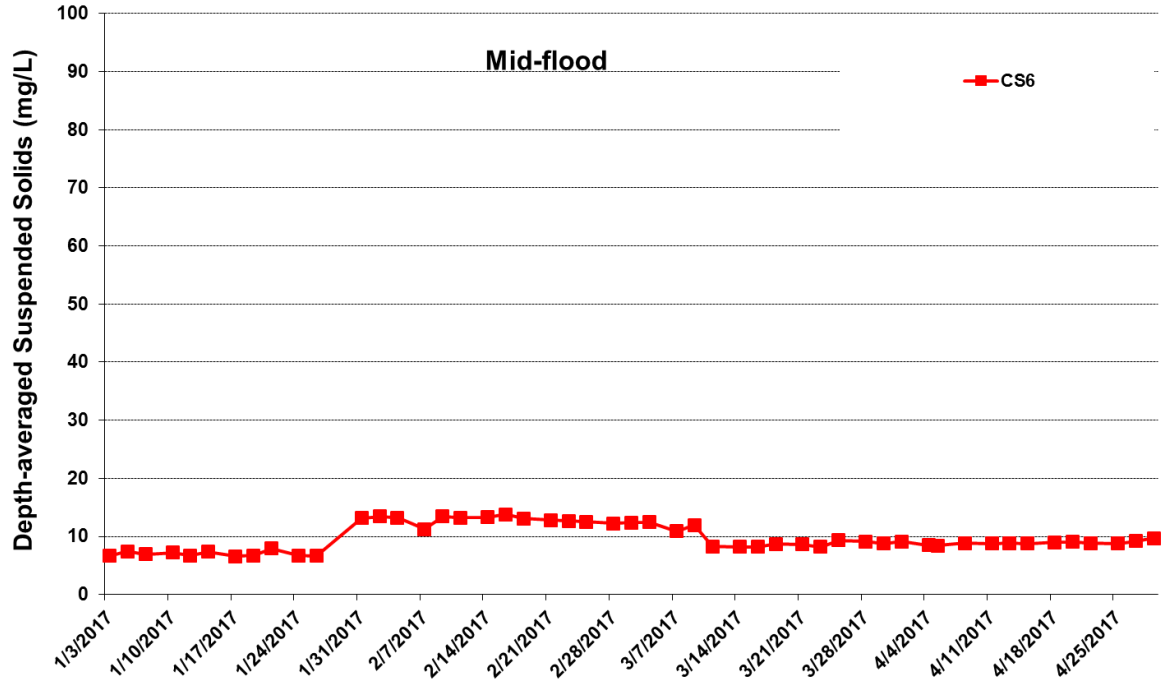
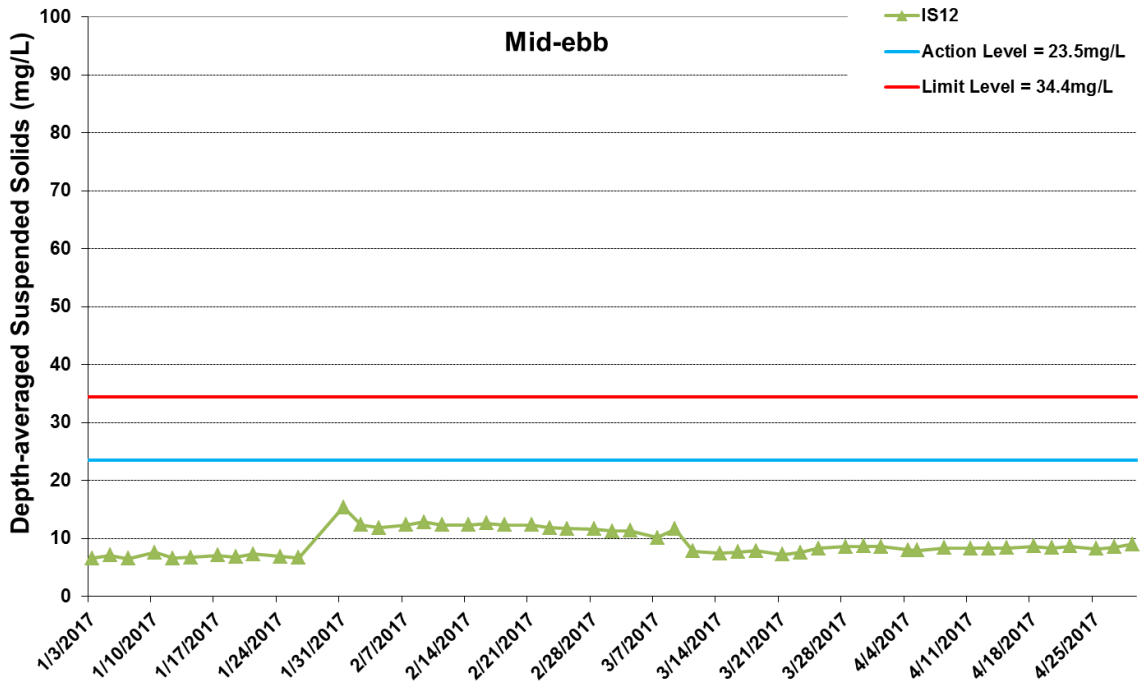


Figure I36 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



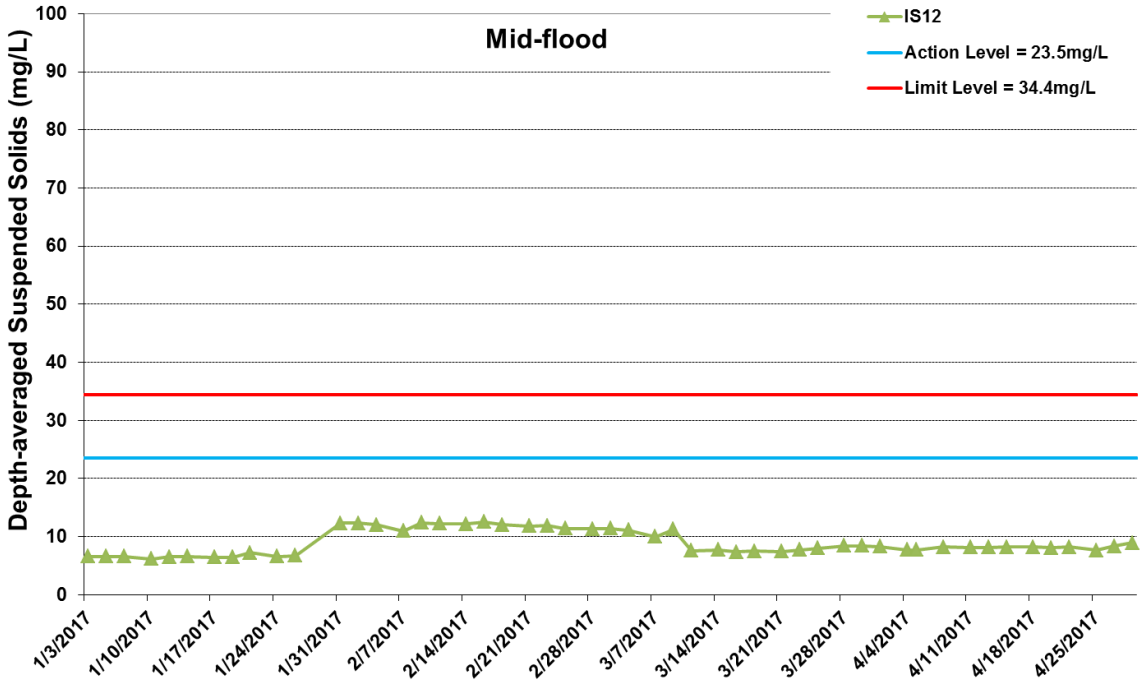
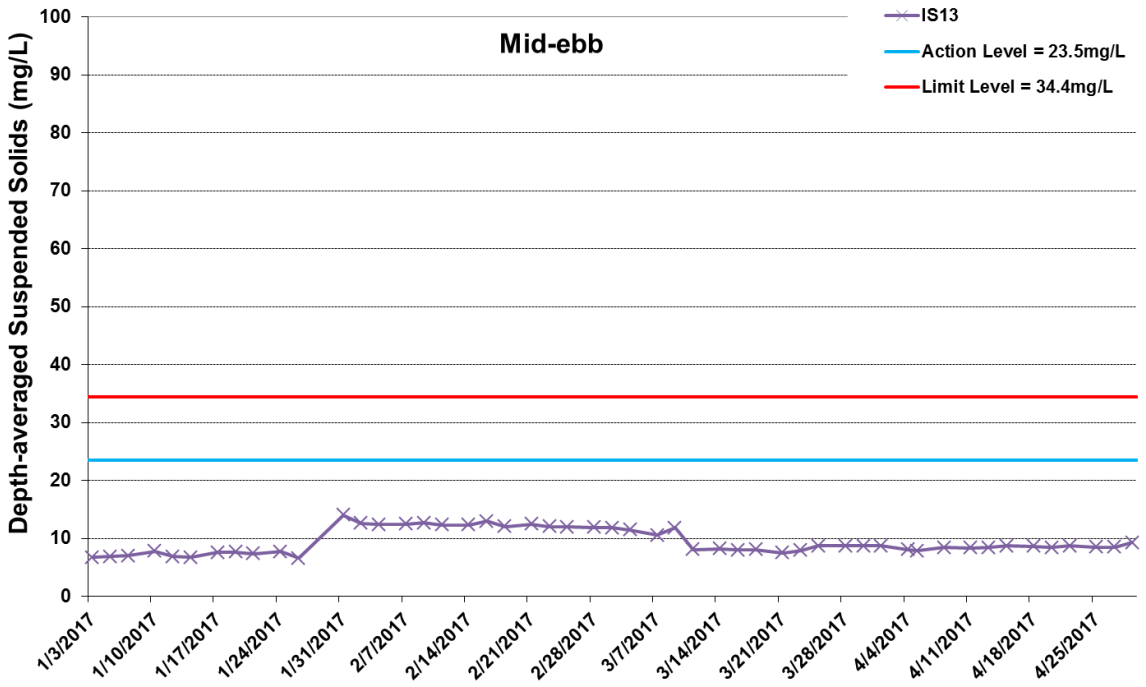


Figure I37 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



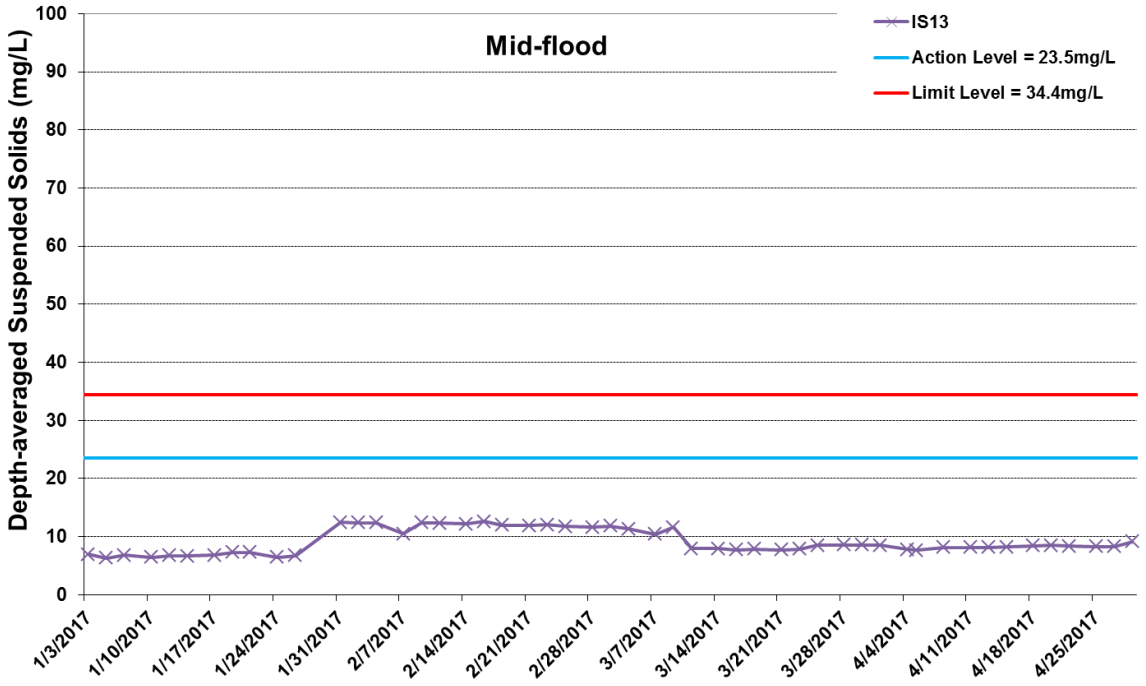
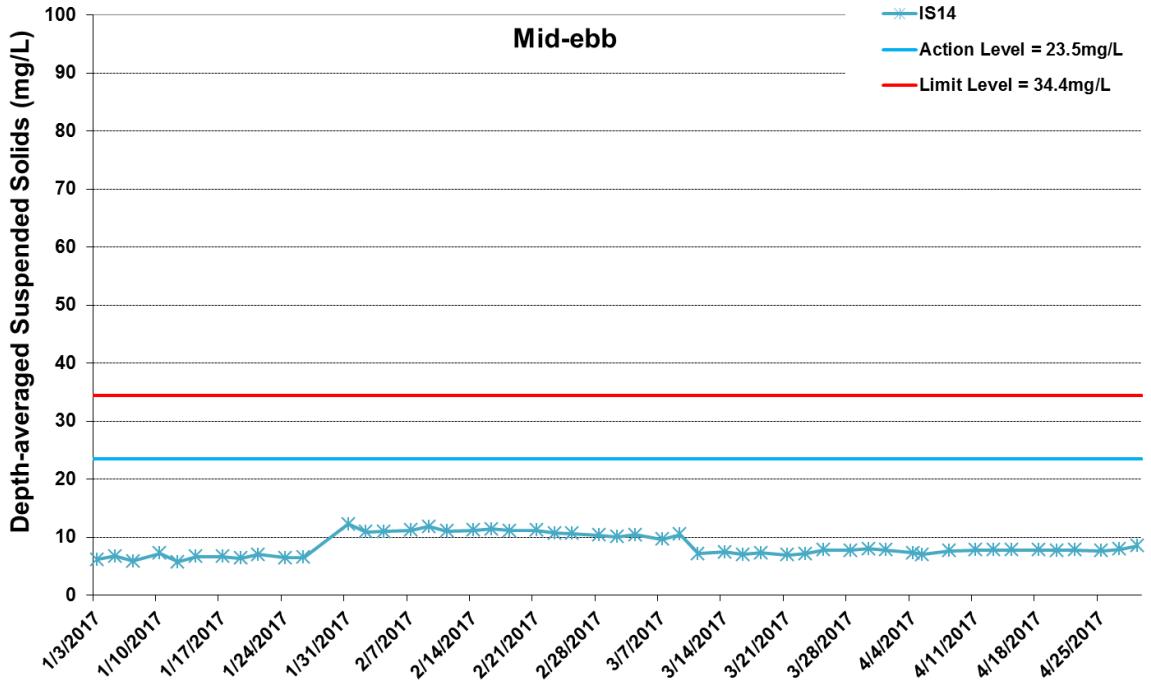


Figure I38 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



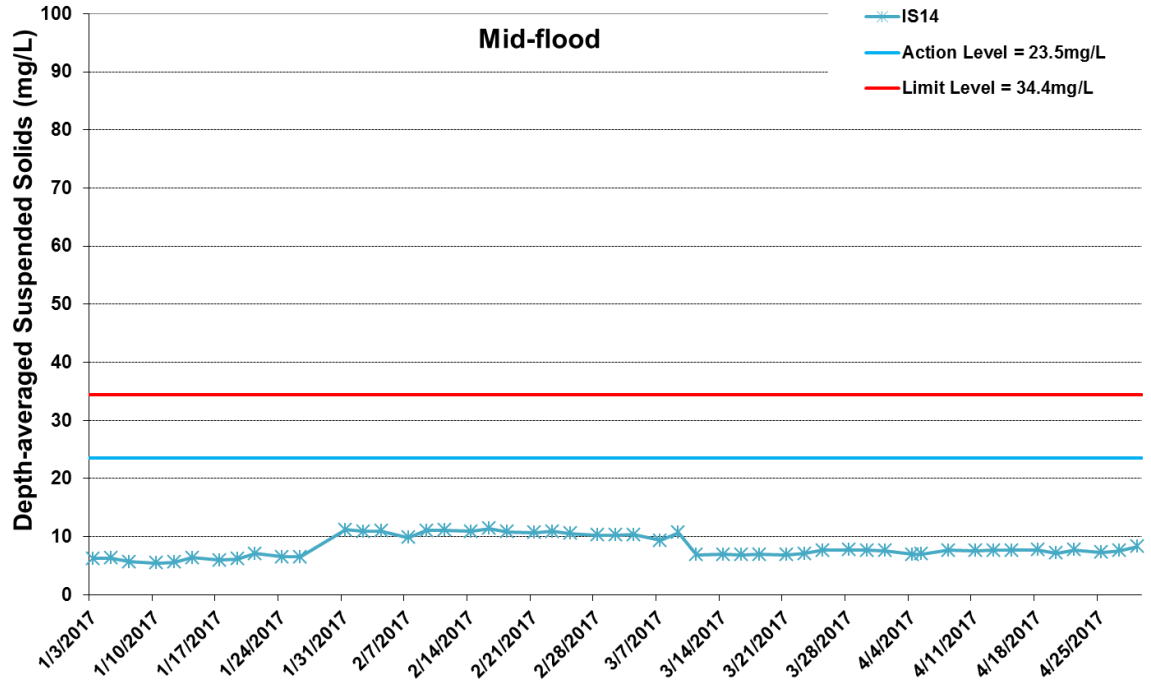
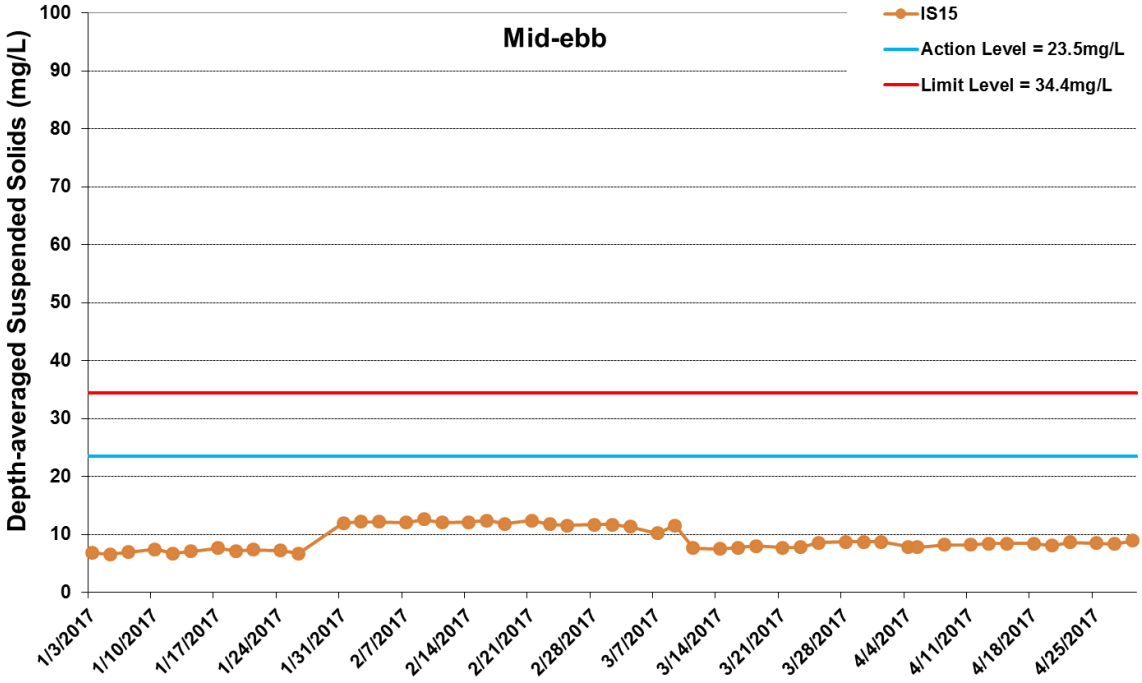


Figure I39 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



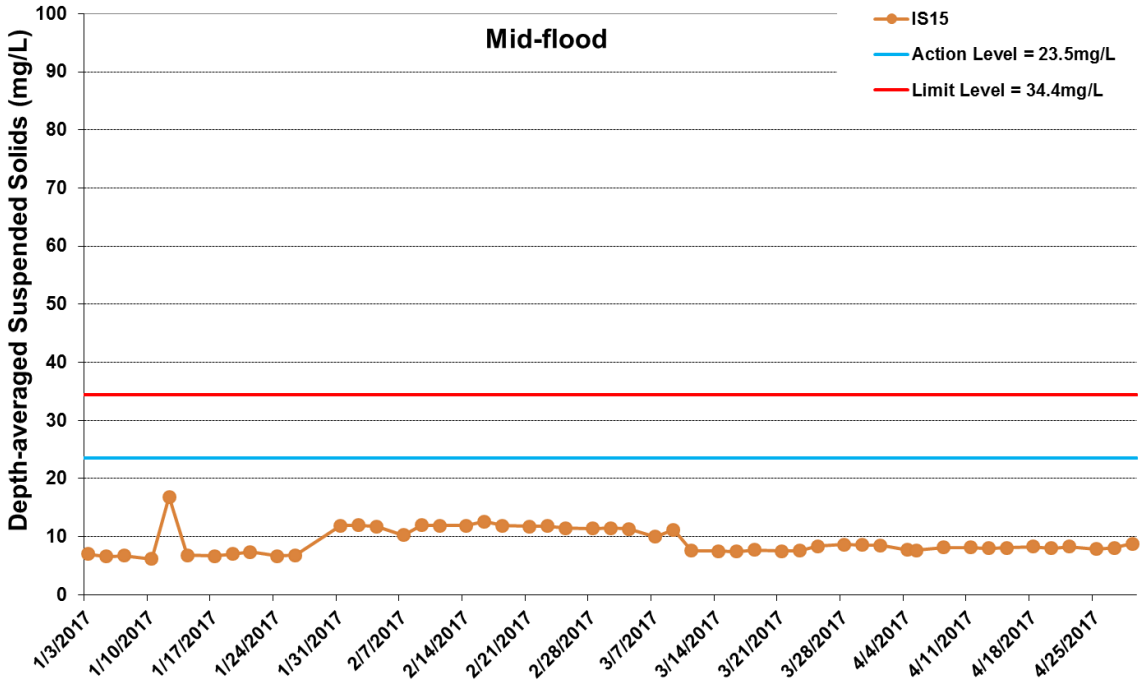
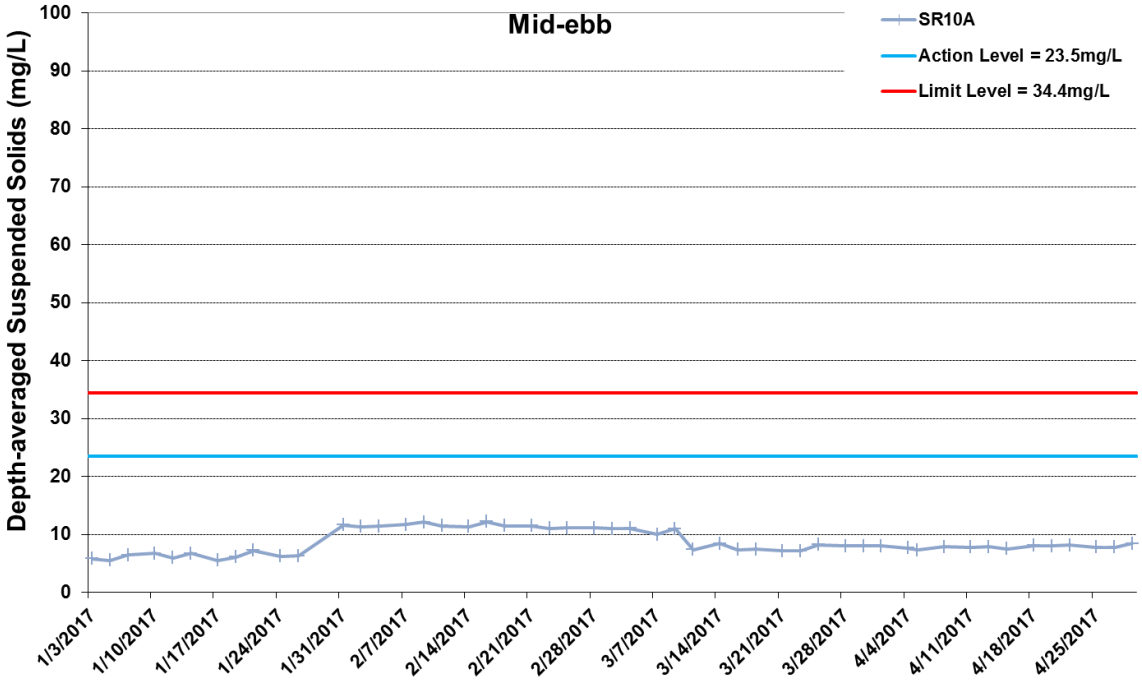


Figure I40 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



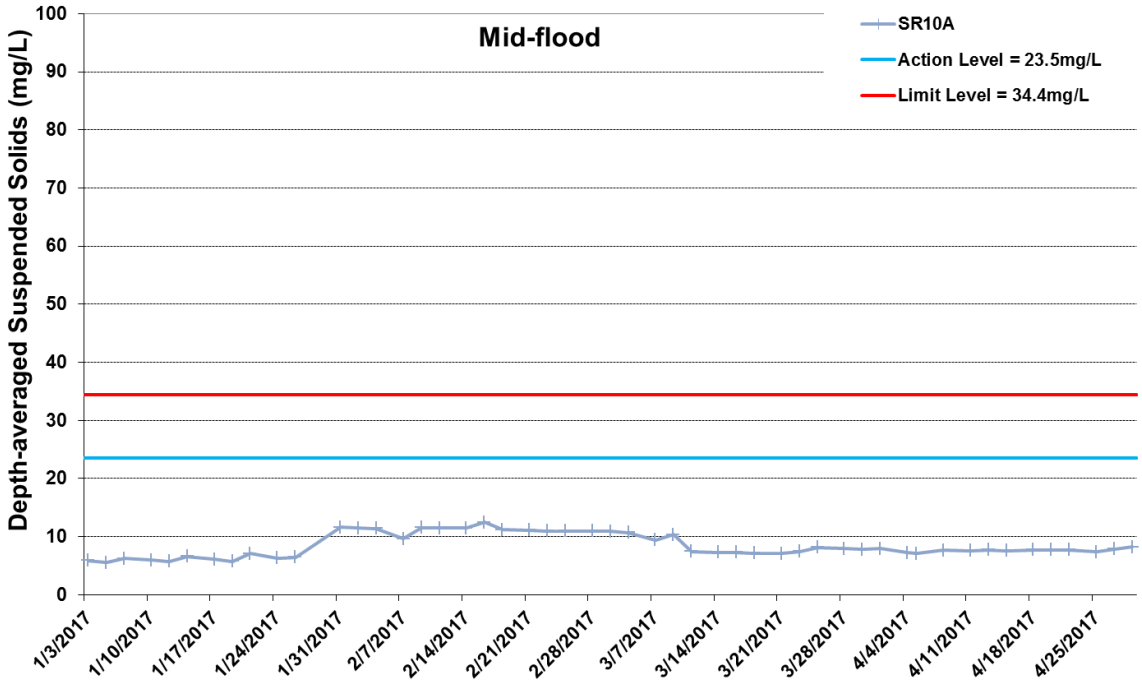
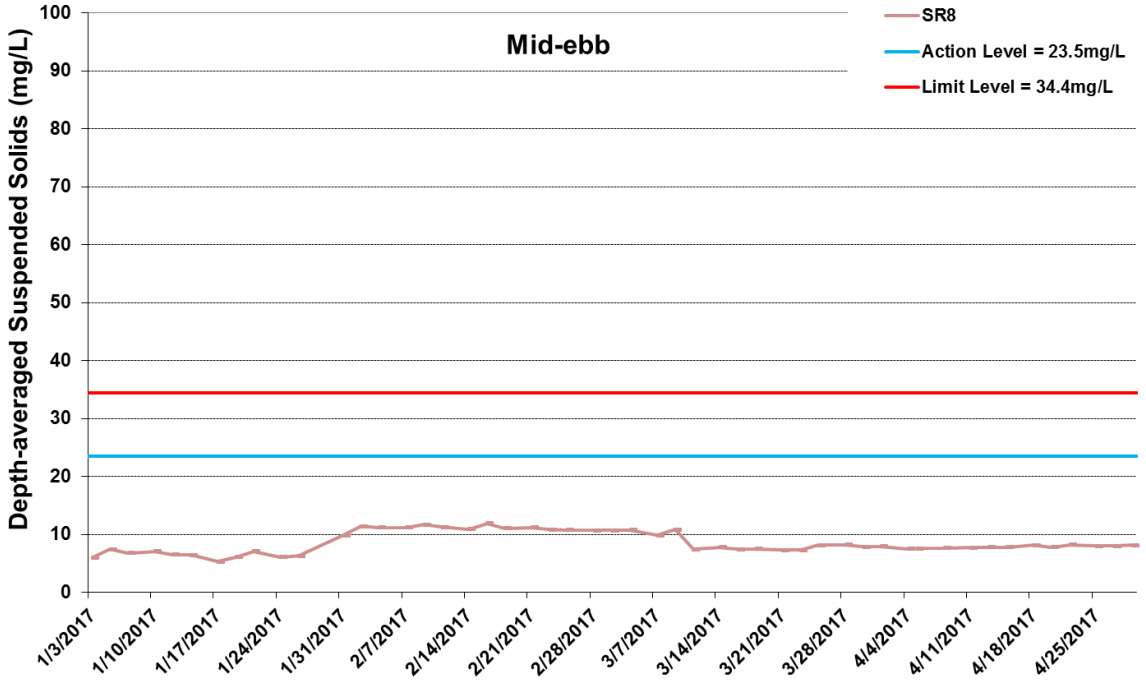


Figure I41 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



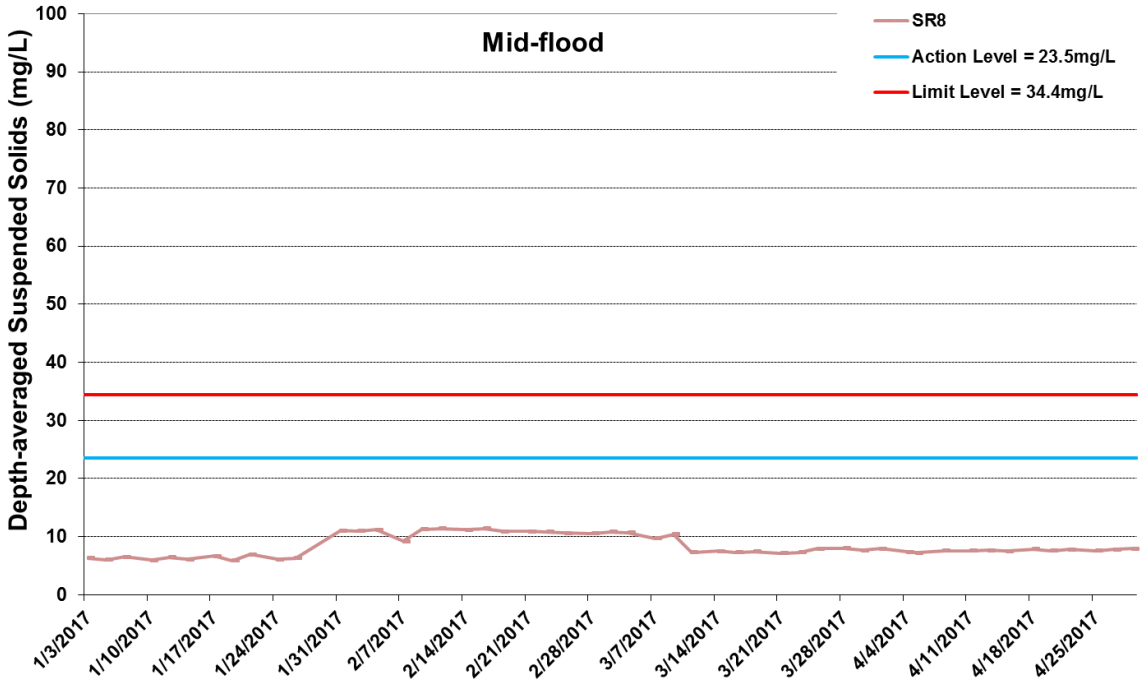
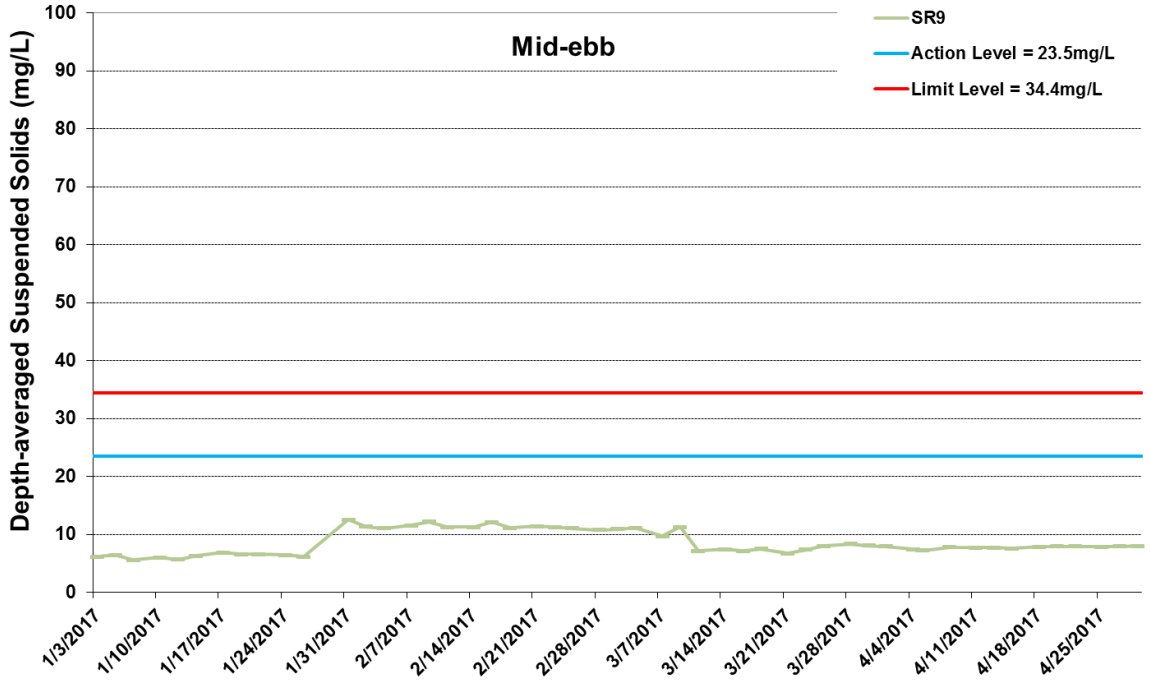


Figure I42 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls



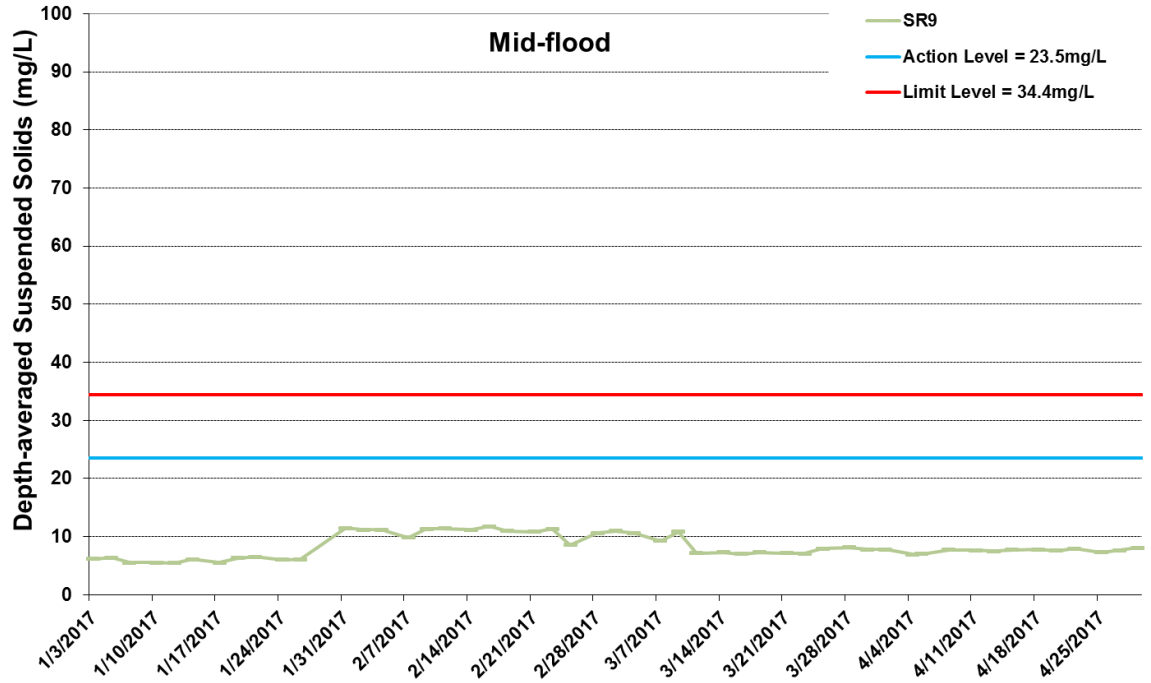


Figure I43 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2017 and 30 April 2017 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine works included: Band drains and Filling works at Portion N-A (1/3/2017 – 30/4/2017).

Ref: 0212330_Impact-WQM_April2017_graphs_Rev a.xls

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	10:33	18.7	7.68	28.1	7.38	6.12	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	10:33	18.6	7.7	28.2	7.37	6.19	9.1
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	1	10:33	18.9	7.72	28.3	7.29	6.04	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	2	10:33	18.8	7.75	28.2	7.25	6.08	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	1	10:33	19	7.78	28.3	7.51	6.22	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	2	10:33	19.1	7.81	28.4	7.48	6.27	9.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	09:01	18.7	7.81	28	7.15	6.21	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	09:01	18.6	7.8	28.1	7.17	6.28	9.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	09:01	18.8	7.72	28.2	7.32	6.02	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	09:01	18.8	7.7	28.1	7.34	6.08	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.7	3	1	09:01	18.9	7.74	28.3	7.46	6.34	9.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.7	3	2	09:01	18.8	7.78	28.2	7.48	6.39	9.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	10:09	18.8	7.74	28.1	7.31	6.03	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	10:09	18.7	7.78	28	7.34	6.09	8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.6	2	1	10:09	18.9	7.82	28.2	7.42	6.31	8.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.6	2	2	10:09	18.8	7.8	28.1	7.4	6.37	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.2	3	1	10:09	18.9	7.72	28.3	7.28	6.24	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.2	3	2	10:09	19	7.7	28.2	7.24	6.19	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	09:58	18.8	7.75	28	7.23	5.96	8.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	09:58	18.8	7.71	27.9	7.26	5.99	8.4
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	1	09:58	18.9	7.82	28.1	7.33	6.17	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	2	09:58	18.8	7.83	28	7.36	6.13	8.4
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.2	3	1	09:58	19	7.88	28.2	7.12	6.35	8.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.2	3	2	09:58	18.9	7.86	28.2	7.16	6.29	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	10:21	18.7	7.69	28	7.27	6.15	7.4
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	10:21	18.7	7.72	28	7.26	6.08	7.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	10:21	18.6	7.83	28.1	7.35	6.11	7.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	10:21	18.5	7.84	28.2	7.36	6.18	7.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.7	3	1	10:21	18.8	7.75	28.3	7.41	6.24	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.7	3	2	10:21	18.8	7.77	28.2	7.44	6.28	7.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	09:47	18.7	7.71	28.1	7.14	6.27	8.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	09:47	18.8	7.72	28	7.18	6.21	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	1	09:47	18.7	7.8	28.2	7.28	6.34	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	2	09:47	18.6	7.77	28.2	7.29	6.41	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	1	09:47	18.9	7.84	28.3	7.36	6.25	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	2	09:47	18.8	7.86	28.3	7.39	6.18	8.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	09:25	18.7	7.78	28	7.27	6.17	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	09:25	18.6	7.79	28.1	7.29	6.21	8.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	09:25						
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	09:25						
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.4	3	1	09:25	18.7	7.83	28.2	7.37	6.05	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.4	3	2	09:25	18.7	7.85	28.1	7.36	6.02	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	09:36	18.7	7.65	28	7.21	6.05	7.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	09:36	18.7	7.69	27.9	7.74	6.11	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	09:36						7.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	09:36						7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.7	3	1	09:36	18.8	7.72	28.1	7.31	6.22	8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.7	3	2	09:36	18.7	7.75	28	7.33	6.14	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	09:13	18.7	7.69	27.9	7.23	6.02	8
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	09:13	18.7	7.73	28	7.26	6.09	7.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Middle	7	2	1	09:13	18.8	7.75	28.1	7.18	6.17	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Middle	7	2	2	09:13	18.7	7.76	28	7.16	6.11	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	13	3	1	09:13	18.9	7.78	28.3	7.35	6.24	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	13	3	2	09:13	18.8	7.81	28.2	7.33	6.2	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	14:18	18.8	7.62	28	7.19	6.07	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	14:18	18.9	7.58	28.1	7.23	6.05	8.6

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	1	14:18	18.9	7.94	27.8	7.26	6.21	9.1
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	2	14:18	19	7.99	28	7.29	6.27	9.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	1	14:18	19.1	7.82	28.2	7.34	6.28	9.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	2	14:18	19.2	7.88	28.2	7.38	6.31	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	15:36	18.8	7.86	28	7.16	6.12	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	15:36	18.9	7.88	28.1	7.19	6.17	8.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	1	15:36	18.9	7.76	28	7.26	6.09	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	2	15:36	19	7.79	27.9	7.24	6.12	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	1	15:36	19.1	7.71	28.1	7.33	6.27	9.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	2	15:36	19.2	7.74	28.2	7.37	6.3	9.4
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	14:52	18.7	7.62	27.9	7.12	6.18	8.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	14:52	18.7	7.66	28	7.18	6.21	8.4
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.4	2	1	14:52	18.7	7.55	28	7.32	6.46	8.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.4	2	2	14:52	18.8	7.58	27.9	7.37	6.49	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	9.8	3	1	14:52	18.9	7.61	28.1	7.03	6.33	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	9.8	3	2	14:52	19	7.67	28.1	7.09	6.38	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	15:09	18.7	7.77	27.9	7.1	6.08	8.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	15:09	18.8	7.81	28	7.16	6.04	8.3
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.4	2	1	15:09	18.8	7.62	28.1	7.14	6.27	8.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.4	2	2	15:09	18.8	7.64	28.1	7.2	6.29	8.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.7	3	1	15:09	18.9	7.81	28.1	7.03	6.44	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.7	3	2	15:09	18.8	7.89	28.2	7.08	6.47	8.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	14:35	18.7	7.84	28	7.04	6.17	7.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	14:35	18.8	7.87	28	7.09	6.2	7.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	1	14:35	18.8	7.65	28.1	7.16	6.28	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	2	14:35	18.9	7.67	28.2	7.11	6.24	7.6
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	1	14:35	19	7.81	28.2	7.23	6.35	8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	2	14:35	19.1	7.88	28.2	7.25	6.4	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	15:29	18.8	7.82	27.9	7.05	6.38	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	15:29	18.7	7.86	27.9	7.1	6.43	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.7	2	1	15:29	18.8	7.53	28	7.14	6.56	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.7	2	2	15:29	18.9	7.56	28.1	7.19	6.59	9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.4	3	1	15:29	19	7.92	28	7.27	6.27	8.7
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.4	3	2	15:29	19	7.88	28.2	7.23	6.3	8.5
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	16:03	18.8	7.58	27.8	7.01	6.11	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	16:03	18.7	7.63	27.9	7.05	6.14	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	16:03						
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	16:03						
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.1	3	1	16:03	18.8	7.82	28	7.13	6.18	8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.1	3	2	16:03	18.9	7.88	28.1	7.19	6.16	8.1
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	15:48	18.7	7.66	27.8	7.15	6.16	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	15:48	18.8	7.68	27.9	7.16	6.2	8.1
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	15:48						
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	15:48						
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.5	3	1	15:48	18.9	7.95	28.1	7.04	6.25	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.5	3	2	15:48	19	7.98	28.2	7.08	6.22	7.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	16:20	18.7	7.67	27.8	7.14	6.19	7.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	16:20	18.8	7.7	27.9	7.18	6.22	7.9
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.8	2	1	16:20	18.8	7.83	28	7.23	6.08	8.1
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.8	2	2	16:20	18.9	7.86	28	7.27	6.12	7.8
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.6	3	1	16:20	18.8	7.67	28.1	7.07	6.36	8.2
TMCLKL	HY/2012/08	2017-04-01	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.6	3	2	16:20	18.8	7.6	28.2	7.04	6.4	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Surface	1	1	1	13:16	18.9	7.76	27.9	7.62	5.84	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Surface	1	1	2	13:16	19.9	7.79	27.9	7.6	5.87	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Middle	9	2	1	13:16	19	7.84	28	7.7	5.94	8.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Middle	9	2	2	13:16	19	7.87	28.1	7.73	5.97	8.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Bottom	16.9	3	1	13:16	19.1	8.07	28.2	7.88	6.04	8.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS4	Bottom	16.9	3	2	13:16	19.2	8.05	28.3	7.86	6.07	8.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Surface	1	1	1	11:01	18.7	8.04	27.9	7.45	5.74	8.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Surface	1	1	2	11:01	18.8	8.07	27.9	7.47	5.72	8.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Middle	6.9	2	1	11:01	18.9	7.92	28	7.59	5.84	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Middle	6.9	2	2	11:01	18.9	7.95	28.1	7.61	5.87	8.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Bottom	12.7	3	1	11:01	19	8.11	28.2	7.73	5.94	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	CS6	Bottom	12.7	3	2	11:01	19.1	8.13	28.2	7.71	5.97	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Surface	1	1	1	12:50	18.8	7.89	28	7.59	5.6	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Surface	1	1	2	12:50	18.9	7.9	28	7.62	5.63	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Middle	6.1	2	1	12:50	19	8.04	28.1	7.78	5.77	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Middle	6.1	2	2	12:50	19.1	8.07	28.2	7.8	5.79	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Bottom	11.1	3	1	12:50	19.2	7.92	28.3	7.88	5.94	8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS12	Bottom	11.1	3	2	12:50	19.2	7.94	28.4	7.85	5.97	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Surface	1	1	1	12:33	18.8	8.06	27.9	7.3	5.39	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Surface	1	1	2	12:33	18.9	8.09	27.9	7.33	5.42	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Middle	5.9	2	1	12:33	19	7.94	28	7.45	5.6	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Middle	5.9	2	2	12:33	19	7.97	28.1	7.47	5.63	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Bottom	10.7	3	1	12:33	19.1	8	28.2	7.6	5.77	7.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS13	Bottom	10.7	3	2	12:33	19.2	8.03	28.1	7.63	5.75	8.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Surface	1	1	1	13:04	18.7	8.04	27.8	7.44	5.45	6.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Surface	1	1	2	13:04	18.8	8.07	27.9	7.42	5.47	6.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Middle	5.8	2	1	13:04	18.9	8.13	27.9	7.59	5.56	7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Middle	5.8	2	2	13:04	19	8.15	27.9	7.61	5.59	6.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Bottom	10.5	3	1	13:04	19.1	7.96	28	7.7	5.77	7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS14	Bottom	10.5	3	2	13:04	19.2	7.98	28.1	7.73	5.79	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Surface	1	1	1	12:12	19	7.87	27.8	7.56	5.64	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Surface	1	1	2	12:12	19	7.89	27.9	7.53	5.67	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Middle	5	2	1	12:12	19.1	8.04	27.9	7.64	5.74	7.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Middle	5	2	2	12:12	19.2	8.07	27.9	7.66	5.77	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Bottom	8.9	3	1	12:12	19.2	8.11	28	7.73	5.8	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	IS15	Bottom	8.9	3	2	12:12	19.2	8.13	28.1	7.75	5.82	7.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Surface	1	1	1	11:46	18.8	7.76	27.9	7.63	5.6	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Surface	1	1	2	11:46	18.9	7.79	28	7.61	5.63	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Middle		2	1	11:46						
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Middle		2	2	11:46						
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Bottom	4.5	3	1	11:46	19	8.04	28.1	7.75	5.8	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR8	Bottom	4.5	3	2	11:46	19.1	8.07	28.2	7.77	5.82	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Surface	1	1	1	12:00	18.9	8.04	27.9	7.39	5.44	6.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Surface	1	1	2	12:00	19	8.07	28	7.41	5.47	7.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Middle		2	1	12:00						
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Middle		2	2	12:00						
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Bottom	3.5	3	1	12:00	19.1	8.11	28.1	7.55	5.6	7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR9	Bottom	3.5	3	2	12:00	19.2	8.09	28.2	7.57	5.63	7.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Surface	1	1	1	11:24	18.9	7.89	28	7.5	5.43	7
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Surface	1	1	2	11:24	18.9	7.91	28	7.48	5.45	6.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Middle	7	2	1	11:24	19	8.04	28.1	7.63	5.63	7.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Middle	7	2	2	11:24	19.1	8.07	28.2	7.61	5.65	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Bottom	12.9	3	1	11:24	19.2	7.84	28.3	7.77	5.7	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Flood	Fine	Small wave	SR10A	Bottom	12.9	3	2	11:24	19.2	7.87	28.3	7.79	5.73	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Surface	1	1	1	17:38	19.3	7.8	28	7.48	6.05	8.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Surface	1	1	2	17:38	19.4	7.79	27.9	7.5	5.98	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Middle	8.8	2	1	17:38	19.4	7.81	28.1	7.53	6.07	9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Middle	8.8	2	2	17:38	19.4	7.83	28.2	7.55	6.16	9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Bottom	16.6	3	1	17:38	19.4	7.77	28.3	7.67	6.34	9.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS4	Bottom	16.6	3	2	17:38	19.5	7.79	28.3	7.69	6.27	9.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Surface	1	1	1	19:50	19.4	7.82	28.1	7.44	5.7	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Surface	1	1	2	19:50	19.4	7.8	28.1	7.47	5.78	8.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Middle	6.7	2	1	19:50	19.4	7.69	28.1	7.53	5.9	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Middle	6.7	2	2	19:50	19.3	7.73	28.2	7.55	5.97	8.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Bottom	12.4	3	1	19:50	19.5	7.76	28.3	7.67	6.24	9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	CS6	Bottom	12.4	3	2	19:50	19.6	7.81	28.3	7.63	6.16	9.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Surface	1	1	1	18:10	19.4	7.76	28	7.49	5.69	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Surface	1	1	2	18:10	19.4	7.81	28	7.42	5.74	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Middle	5.9	2	1	18:10	19.4	7.73	28	7.57	5.83	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Middle	5.9	2	2	18:10	19.4	7.7	28	7.54	5.88	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Bottom	10.8	3	1	18:10	19.4	7.78	28.1	7.86	6.09	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS12	Bottom	10.8	3	2	18:10	19.5	7.75	28.2	7.89	6.19	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Surface	1	1	1	18:27	19.3	7.98	28	7.18	5.67	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Surface	1	1	2	18:27	19.3	7.99	27.9	7.23	5.74	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Middle	5.7	2	1	18:27	19.3	7.89	28.1	7.28	5.9	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Middle	5.7	2	2	18:27	19.4	7.93	28.1	7.31	5.85	8
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Bottom	10.4	3	1	18:27	19.4	7.98	28.2	7.5	5.93	8.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS13	Bottom	10.4	3	2	18:27	19.4	8.01	28.2	7.55	6	8.1
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Surface	1	1	1	17:54	19.3	7.83	27.9	7.39	5.84	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Surface	1	1	2	17:54	19.3	7.8	28	7.42	5.89	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Middle	5.6	2	1	17:54	19.3	7.87	28	7.48	5.91	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Middle	5.6	2	2	17:54	19.4	7.84	28	7.51	5.99	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Bottom	10.2	3	1	17:54	19.4	7.88	28.1	7.53	6.04	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS14	Bottom	10.2	3	2	17:54	19.4	7.85	28.1	7.56	6.13	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Surface	1	1	1	18:43	19.3	7.84	28	7.25	5.83	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Surface	1	1	2	18:43	19.4	7.89	28	7.28	5.91	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Middle	4.8	2	1	18:43	19.4	7.83	28	7.39	5.99	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Middle	4.8	2	2	18:43	19.4	7.85	28.1	7.42	6.04	8.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Bottom	8.5	3	1	18:43	19.4	7.98	28.1	7.58	5.73	7.9
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	IS15	Bottom	8.5	3	2	18:43	19.5	8.01	28.2	7.61	5.68	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Surface	1	1	1	19:12	19.3	7.78	28	7.43	5.8	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Surface	1	1	2	19:12	19.4	7.81	28.1	7.46	5.74	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Middle		2	1	19:12						
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Middle		2	2	19:12						
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Bottom	4.2	3	1	19:12	19.4	7.8	28.1	7.52	5.93	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR8	Bottom	4.2	3	2	19:12	19.4	7.84	28.1	7.54	5.88	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Surface	1	1	1	18:58	19.4	7.96	28	7.18	5.72	7.4
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Surface	1	1	2	18:58	19.4	7.98	28	7.21	5.66	7.2
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Middle		2	1	18:58						
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Middle		2	2	18:58						
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Bottom	3.2	3	1	18:58	19.4	8.03	28.1	7.36	5.8	7.5
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR9	Bottom	3.2	3	2	18:58	19.5	8.07	28.1	7.3	5.88	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Surface	1	1	1	19:28	19.4	7.83	28.1	7.38	5.66	7.3
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Surface	1	1	2	19:28	19.5	7.8	28	7.42	5.73	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Middle	6.8	2	1	19:28	19.5	7.76	28.1	7.48	5.86	7.7
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Middle	6.8	2	2	19:28	19.5	7.79	28.1	7.51	5.91	7.6
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Bottom	12.6	3	1	19:28	19.5	7.77	28.2	7.63	6.08	7.8
TMCLKL	HY/2012/08	2017-04-04	Mid-Ebb	Fine	Small wave	SR10A	Bottom	12.6	3	2	19:28	19.6	7.8	28.3	7.6	6.01	7.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	15:48	19.6	7.88	28.2	7.82	5.66	8.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	15:48	19.7	7.8	28.2	7.86	5.69	8.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	1	15:48	19.8	7.82	28.3	7.83	5.73	8.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	2	15:48	19.9	7.85	28.4	7.87	5.75	8.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	1	15:48	19.9	7.94	28.5	7.99	5.81	8.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	2	15:48	19.8	7.98	28.4	8.06	5.88	8.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	13:30	19.7	7.91	28.2	7.46	5.66	8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	13:30	19.8	7.97	28.2	7.48	5.64	8.3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	13:30	19.8	7.88	28.2	7.62	5.78	8.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	13:30	19.9	7.85	28.3	7.66	5.75	8.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	1	13:30	19.9	7.96	28.4	7.81	5.89	8.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	2	13:30	19.9	7.99	28.5	7.83	5.92	8.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	15:15	19.6	7.8	28	7.76	5.44	7.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	15:15	19.5	7.85	28	7.79	5.49	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	1	15:15	19.6	8.03	28.1	7.72	5.72	7.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	2	15:15	19.7	8.07	28.2	7.77	5.78	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	1	15:15	19.9	7.73	28.3	7.86	5.9	8.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	2	15:15	19.9	7.79	28.4	7.8	5.86	7.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	14:57	19.5	7.95	28.1	7.37	5.28	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	14:57	19.6	7.99	28.1	7.4	5.31	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	1	14:57	19.7	7.9	28	7.44	5.56	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	2	14:57	19.8	7.95	28.2	7.48	5.53	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.7	3	1	14:57	19.9	7.93	28.2	7.55	5.71	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.7	3	2	14:57	19.8	7.95	28.4	7.52	5.77	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	15:32	19.6	7.8	28	7.61	5.4	6.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	15:32	19.7	7.77	28.1	7.66	5.47	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	1	15:32	19.6	7.93	28.2	7.79	5.54	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	2	15:32	19.6	7.95	28.3	7.82	5.57	7.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.5	3	1	15:32	19.9	7.74	28.4	7.86	5.72	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.5	3	2	15:32	19.7	7.78	28.5	7.89	5.77	7.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	14:38	19.5	7.84	28.1	7.65	5.56	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	14:38	19.6	7.88	28	7.67	5.58	7.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	1	14:38	19.6	7.95	28.1	7.63	5.77	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	2	14:38	19.7	7.99	28.2	7.66	5.79	8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	1	14:38	19.7	8.05	28.3	7.78	5.67	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	2	14:38	19.8	8.1	28	7.71	5.71	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	14:07	19.6	7.85	28.1	7.66	5.53	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	14:07	19.6	7.87	28.2	7.69	5.58	7.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	14:07						
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	14:07						
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.4	3	1	14:07	19.7	7.93	28.3	7.77	5.67	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.4	3	2	14:07	19.8	7.97	28.4	7.7	5.7	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	14:22	19.6	8.04	28	7.44	5.32	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	14:22	19.7	8.08	28.1	7.47	5.36	6.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	14:22						
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	14:22						
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	14:22	19.8	8.11	28.2	7.51	5.5	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	14:22	19.8	8.17	28.3	7.55	5.55	7.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	13:48	19.6	7.84	28.2	7.55	5.32	6.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	13:48	19.7	7.86	28.1	7.58	5.38	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Middle	7	2	1	13:48	19.7	7.9	28.2	7.68	5.42	6.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Middle	7	2	2	13:48	19.8	7.94	28.2	7.66	5.47	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.9	3	1	13:48	19.8	7.75	28.3	7.73	5.64	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.9	3	2	13:48	19.9	7.72	28.4	7.77	5.68	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	09:24	19.4	7.82	28.1	7.68	5.75	8.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	09:24	19.5	7.83	28.2	7.66	5.78	8.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	1	09:24	19.5	7.9	28.3	7.76	5.85	8.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	2	09:24	19.6	7.93	28.2	7.79	5.88	8.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.6	3	1	09:24	19.7	8.13	28.3	7.94	5.95	8.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.6	3	2	09:24	19.6	8.11	28.4	7.92	5.98	8.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	11:40	19.7	8.1	28.3	7.36	5.8	8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	11:40	19.8	8.13	28.4	7.38	5.78	8.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	1	11:40	19.8	7.98	28.4	7.5	5.9	8.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	2	11:40	19.7	8.01	28.5	7.52	5.93	8.5

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	1	11:40	19.8	8.17	28.6	7.64	6	8.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	2	11:40	19.9	8.19	28.5	7.62	6.03	8.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	09:58	19.5	7.95	28.1	7.65	5.66	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	09:58	19.4	7.96	28.2	7.62	5.69	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	1	09:58	19.6	8.1	28.2	7.69	5.83	8.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	2	09:58	19.7	8.13	28.3	7.71	5.85	8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.8	3	1	09:58	19.7	7.98	28.3	7.79	6	8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.8	3	2	09:58	19.8	8	28.4	7.76	6.03	8.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	10:15	19.5	8.12	28.2	7.21	5.45	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	10:15	19.6	8.15	28.1	7.24	5.48	7.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	1	10:15	19.7	8	28.3	7.36	5.66	7.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	2	10:15	19.6	8.03	28.4	7.38	5.69	7.6
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.4	3	1	10:15	19.7	8.06	28.4	7.51	5.83	8.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.4	3	2	10:15	19.8	8.09	28.5	7.54	5.81	8.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	09:41	19.5	7.95	28	7.5	5.51	6.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	09:41	19.6	7.98	28.1	7.48	5.53	7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	1	09:41	19.7	8.04	28.1	7.65	5.52	6.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	2	09:41	19.6	8.06	28.2	7.67	5.65	6.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	1	09:41	19.6	7.87	28.3	7.76	5.83	7.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	2	09:41	19.7	7.89	28.2	7.79	5.84	7.1
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	10:32	19.5	7.93	28	7.47	5.7	7.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	10:32	19.4	7.95	28.1	7.44	5.73	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	1	10:32	19.5	8.1	28.1	7.55	5.8	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	2	10:32	19.6	8.13	28.2	7.57	5.83	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	1	10:32	19.7	8.17	28.3	7.64	5.86	7.9
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	2	10:32	19.6	8.19	28.2	7.66	5.88	7.8
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	11:06	19.6	7.82	28.1	7.54	5.66	7.5
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	11:06	19.5	7.85	28.2	7.52	5.69	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	11:06						
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	11:06						
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4	3	1	11:06	19.6	8.1	28.3	7.66	5.86	7.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4	3	2	11:06	19.7	8.13	28.2	7.68	5.88	7.7
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	10:49	19.6	8.1	28.2	7.3	5.5	7.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	10:49	19.7	8.13	28.3	7.32	5.53	7.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	10:49						
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	10:49						
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	1	10:49	19.6	8.17	28.3	7.46	5.66	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	2	10:49	19.5	8.15	28.4	7.48	5.69	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	11:23	19.6	7.95	28.2	7.41	5.49	7.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	11:23	19.7	7.97	28.3	7.39	5.51	7.2
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.8	2	1	11:23	19.7	8.1	28.4	7.54	5.69	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.8	2	2	11:23	19.6	8.13	28.3	7.52	5.71	7.3
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.6	3	1	11:23	19.7	7.9	28.4	7.68	5.76	7.4
TMCLKL	HY/2012/08	2017-04-05	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.6	3	2	11:23	19.8	7.93	28.5	7.7	5.79	7.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	17:44	20.3	7.79	28.1	7.61	6.05	8.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	17:44	20.3	7.83	28.1	7.58	6.11	8.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.1	2	1	17:44	20.3	7.84	28.2	7.53	6.27	9.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.1	2	2	17:44	20.2	7.8	28.3	7.5	6.34	9.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.1	3	1	17:44	20.2	7.77	28.4	7.44	6.4	9.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.1	3	2	17:44	20.1	7.81	28.4	7.39	6.48	9.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	15:35	20.3	8.07	28.1	7.64	5.98	9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	15:35	20.3	8.05	28.1	7.62	6.06	8.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	15:35	20.3	8.01	28.1	7.59	5.79	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	15:35	20.2	7.98	28.1	7.56	5.83	8.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	1	15:35	20.2	8.03	28.2	7.69	6.12	9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	2	15:35	20.2	8.07	28.2	7.71	6.17	9.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	17:06	20.3	7.94	28.1	7.43	5.89	7.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	17:06	20.4	7.99	28.1	7.39	5.95	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.1	2	1	17:06	20.3	7.87	28.1	7.48	6.03	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.1	2	2	17:06	20.3	7.92	28.1	7.51	6.08	8.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.2	3	1	17:06	20.2	7.9	28.2	7.6	6.24	8.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.2	3	2	17:06	20.2	7.94	28.3	7.63	6.29	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	16:49	20.3	7.94	28.1	7.43	6.07	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	16:49	20.4	7.97	28.1	7.41	6.11	8.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	1	16:49	20.3	7.88	28.1	7.38	5.83	8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	2	16:49	20.3	7.93	28.1	7.36	5.78	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	1	16:49	20.2	7.92	28.2	7.17	5.94	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	2	16:49	20.2	7.97	28.2	7.2	5.99	8.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	17:24	20.3	7.88	28.1	7.53	5.93	7.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	17:24	20.3	7.92	28.1	7.49	6.01	7.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	1	17:24	20.3	7.84	28.1	7.44	6.24	8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	2	17:24	20.4	7.87	28.1	7.4	6.18	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.6	3	1	17:24	20.2	7.86	28.2	7.37	6.33	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.6	3	2	17:24	20.2	7.83	28.2	7.34	6.39	7.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	16:32	20.3	7.97	28.1	7.49	5.97	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	16:32	20.3	8	28.1	7.51	6.04	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	1	16:32	20.2	8.04	28.1	7.43	5.88	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	2	16:32	20.3	8.01	28.1	7.4	5.92	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	1	16:32	20.2	7.96	28.2	7.29	6.09	8.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	2	16:32	20.2	7.99	28.2	7.26	6.16	8.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	16:12	20.3	7.84	28	7.48	5.76	7.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	16:12	20.3	7.87	28	7.51	5.82	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	16:12						
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	16:12						
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.6	3	1	16:12	20.3	7.87	28	7.58	6.01	7.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.6	3	2	16:12	20.3	7.89	28	7.6	5.96	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	16:20	20.3	8.01	28	7.58	5.84	7.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	16:20	20.4	8.04	28.1	7.55	5.91	7.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	16:20						
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	16:20						
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	16:20	20.3	7.96	28.1	7.63	6.07	7.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	16:20	20.3	7.99	28.1	7.66	6.02	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	15:56	20.3	7.99	28	7.58	5.87	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	15:56	20.3	7.95	28.1	7.6	5.93	7.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	1	15:56	20.2	7.93	28.1	7.54	5.69	7.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	2	15:56	20.2	7.97	28.1	7.51	5.76	7.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	1	15:56	20.2	7.96	28.2	7.66	6.03	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	2	15:56	20.1	7.99	28.2	7.68	6.09	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	11:52	20.3	7.82	28	7.44	6.03	8.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	11:52	20.3	7.89	28	7.47	6.07	8.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Middle	5.6	2	1	11:52	20.4	7.74	28	7.31	6.3	9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Middle	5.6	2	2	11:52	20.5	7.78	28.1	7.37	6.33	9.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	10.1	3	1	11:52	20.4	7.88	28.2	7.26	6.45	9.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	10.1	3	2	11:52	20.6	7.82	28.3	7.29	6.47	9.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	13:14	20.3	7.85	28	7.44	6.1	9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	13:14	20.4	7.88	28.1	7.48	6.14	9.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	1	13:14	20.4	7.62	28.1	7.41	6.07	9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	2	13:14	20.4	7.66	28.1	7.47	6.09	8.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	1	13:14	20.4	7.73	28.2	7.52	6.25	9.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	2	13:14	20.5	7.77	28.2	7.58	6.28	9.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	12:05	20.3	7.85	28	7.3	6.04	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	12:05	20.4	7.88	28.1	7.34	6.07	8.1

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	1	12:05	20.4	7.69	28.1	7.37	6.09	8.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	2	12:05	20.5	7.66	28.2	7.35	6.12	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.7	3	1	12:05	20.4	7.81	28.2	7.45	6.33	8.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.7	3	2	12:05	20.4	7.87	28.3	7.49	6.37	8.8
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	12:17	20.3	7.86	28.1	7.32	6.14	8.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	12:17	20.2	7.88	28.1	7.36	6.19	8.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	1	12:17	20.3	7.68	28.1	7.26	6.03	8.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	2	12:17	20.3	7.73	28.2	7.3	6.08	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	1	12:17	20.3	7.88	28.2	7.1	6.05	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	2	12:17	20.4	7.85	28.2	7.15	6.07	8.5
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	11:52	20.3	7.63	28	7.37	6.05	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	11:52	20.3	7.66	28.1	7.4	6.07	7.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	1	11:52	20.3	7.78	28.1	7.32	6.19	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.6	2	2	11:52	20.4	7.82	28.2	7.35	6.23	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.1	3	1	11:52	20.4	7.69	28.2	7.22	6.39	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.1	3	2	11:52	20.5	7.71	28.3	7.26	6.42	8
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	12:29	20.3	7.92	28.1	7.31	6.05	8.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	12:29	20.3	7.96	28	7.34	6.08	8.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	1	12:29	20.3	7.82	28.1	7.3	6.01	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	2	12:29	20.4	7.87	28.2	7.36	6.09	8.1
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.5	3	1	12:29	20.4	7.76	28.2	7.15	6.16	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.5	3	2	12:29	20.4	7.77	28.3	7.18	6.2	8.3
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	12:52	20.3	7.76	28.1	7.36	5.87	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	12:52	20.4	7.79	28.2	7.39	5.9	7.4
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	12:52						
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	12:52						
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	1	12:52	20.4	7.83	28.2	7.42	6.09	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	2	12:52	20.4	7.85	28.3	7.46	6.12	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	12:41	20.3	7.91	28	7.42	6.02	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	12:41	20.4	7.95	28.1	7.44	6.07	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	12:41						
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	12:41						
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	1	12:41	20.4	7.86	28.1	7.51	6.12	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	2	12:41	20.5	7.89	28.2	7.56	6.19	8.13
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	13:03	20.3	7.83	28	7.42	6.03	7.6
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	13:03	20.4	7.86	28.1	7.45	6.09	7.7
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	13:03	20.4	7.82	28.1	7.43	6	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	13:03	20.5	7.88	28.1	7.47	6.04	7.9
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	1	13:03	20.5	7.79	28.3	7.56	6.21	8.2
TMCLKL	HY/2012/08	2017-04-08	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	2	13:03	20.5	7.81	28.3	7.58	6.28	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	20:05	21.1	8	28.1	7.67	6.04	8.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	20:05	21.2	8.04	28.2	7.63	6.07	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.2	2	1	20:05	21.2	8.07	28.3	7.51	6.25	8.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.2	2	2	20:05	21.1	8.13	28.4	7.56	6.29	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.3	3	1	20:05	21.1	8.13	28.5	7.48	6.33	9.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.3	3	2	20:05	21.3	8.17	28.4	7.53	6.38	9.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	17:44	21.2	8.05	28.3	7.63	6.02	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	17:44	21.2	8.08	28.4	7.67	6.05	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	1	17:44	21.3	8.1	28.4	7.54	5.71	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	2	17:44	21.2	8.16	28.5	7.58	5.77	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	1	17:44	21.3	8.17	28.5	7.71	6.06	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	2	17:44	21.4	8.19	28.6	7.75	6.1	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	19:34	21.2	8.02	28.2	7.43	5.88	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	19:34	21.3	8.05	28.3	7.46	5.91	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	1	19:34	21.3	8.06	28.3	7.5	6	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	2	19:34	21.3	8.1	28.4	7.55	6.04	8.3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	1	19:34	21.3	8.17	28.5	7.57	6.21	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	2	19:34	21.4	8.11	28.6	7.6	6.27	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	19:14	21.1	8.06	28.1	7.46	6.02	8.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	19:14	21.2	8.09	28.2	7.49	6.03	8.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	1	19:14	21.2	8.01	28.3	7.36	5.77	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	2	19:14	21.3	8.07	28.4	7.38	5.7	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.5	3	1	19:14	21.3	8.04	28.4	7.21	5.89	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.5	3	2	19:14	21.3	8.08	28.3	7.27	5.92	8.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	19:50	21.2	8.07	28	7.56	5.81	7.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	19:50	21.2	8.13	28.1	7.57	5.86	7.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	19:50	21.3	8.03	28.1	7.45	6.22	7.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	19:50	21.2	8.08	28.2	7.49	6.27	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.7	3	1	19:50	21.3	8.14	28.3	7.32	6.26	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.7	3	2	19:50	21.4	8.18	28.4	7.38	6.3	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	18:54	21.2	8.09	28	7.56	5.94	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	18:54	21.3	8.13	28.1	7.58	5.97	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Middle	5	2	1	18:54	21.3	8.16	28.1	7.41	5.82	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Middle	5	2	2	18:54	21.4	8.19	28.2	7.44	5.88	8
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Bottom	5	3	1	18:54	21.4	8.06	28.3	7.27	6.02	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	IS15	Bottom	5	3	2	18:54	21.4	8	28.4	7.3	6.07	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	18:20	21.2	7.87	28.2	7.54	5.67	7.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	18:20	21.3	7.89	28.3	7.58	5.69	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	18:20						
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	18:20						
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	1	18:20	21.2	8.01	28.3	7.57	5.92	7.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	2	18:20	21.2	8.05	28.4	7.55	5.94	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	18:36	21.2	8.1	28.1	7.54	5.74	7.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	18:36	21.3	8.17	28.2	7.58	5.79	7.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	18:36						
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	18:36						
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.7	3	1	18:36	21.3	8.07	28.3	7.61	6.03	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.7	3	2	18:36	21.3	8.11	28.4	7.67	6.07	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	18:03	21.2	8.11	28.2	7.66	5.82	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	18:03	21.2	8.16	28.3	7.69	5.87	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	1	18:03	21.2	8.08	28.4	7.57	5.63	7.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	2	18:03	21.3	8.04	28.5	7.54	5.66	7.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	1	18:03	21.3	8.16	28.5	7.6	5.92	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	2	18:03	21.4	8.2	28.6	7.66	5.98	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	12:26	20.8	7.85	28.2	7.52	6.11	8.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	12:26	20.9	7.89	28.3	7.49	6.17	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.9	2	1	12:26	20.9	7.9	28.5	7.44	6.33	8.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.9	2	2	12:26	21	7.86	28.4	7.41	6.4	9.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.8	3	1	12:26	21.1	7.83	28.5	7.35	6.46	9.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.8	3	2	12:26	21	7.87	28.6	7.3	6.54	9.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	14:43	21.3	8.13	28.5	7.55	6.04	8.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	14:43	21.4	8.11	28.4	7.53	6.12	9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	1	14:43	21.4	8.07	28.5	7.5	5.85	8.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	2	14:43	21.5	8.04	28.6	7.47	5.89	8.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	1	14:43	21.5	8.09	28.6	7.6	6.18	9.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	2	14:43	21.5	8.13	28.7	7.62	6.23	9.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	13:00	21	8	28.3	7.34	5.95	8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	13:00	21	8.05	28.4	7.3	6.01	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	1	13:00	21.1	7.93	28.4	7.39	6.09	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.9	2	2	13:00	21.2	7.98	28.5	7.42	6.14	8.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.8	3	1	13:00	21.3	7.96	28.6	7.51	6.3	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.8	3	2	13:00	21.3	8	28.7	7.54	6.35	8.8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	13:17	21	8	28.2	7.34	6.13	8.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	13:17	20.9	8.03	28.1	7.32	6.17	8.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	1	13:17	21	7.94	28.3	7.29	5.89	8.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	2	13:17	21	7.99	28.4	7.27	5.84	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.2	3	1	13:17	21.2	7.98	28.4	7.08	6	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.2	3	2	13:17	21.3	8.03	28.5	7.11	6.05	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	12:43	20.9	7.94	28.1	7.44	5.99	7.5
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	12:43	21	7.98	28.2	7.4	6.07	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	1	12:43	21.1	7.9	28.2	7.35	6.3	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	2	12:43	21	7.93	28.3	7.31	6.24	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.4	3	1	12:43	21.1	7.92	28.4	7.28	6.39	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.4	3	2	12:43	21.2	7.89	28.3	7.25	6.45	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	13:34	21	8.03	28.2	7.4	6.03	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	13:34	21.2	8.06	28.3	7.42	6.1	8.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	1	13:34	21.4	8.1	28.4	7.34	5.94	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	2	13:34	21.3	8.07	28.3	7.31	5.98	8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	1	13:34	21.4	8.02	28.5	7.2	6.15	8.4
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	2	13:34	21.4	8.05	28.6	7.17	6.22	8.2
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	14:08	21.1	7.9	28.2	7.39	5.82	7.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	14:08	21.2	7.93	28.3	7.42	5.88	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	14:08						
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	14:08						
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.4	3	1	14:08	21.2	7.93	28.4	7.49	6.07	8.1
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.4	3	2	14:08	21.1	7.95	28.3	7.51	6.02	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	13:51	21.2	8.07	28	7.49	5.9	7.3
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	13:51	21.3	8.1	28.1	7.46	5.97	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	13:51						
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	13:51						
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	1	13:51	21.4	8.02	28.3	7.54	6.13	8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	2	13:51	21.5	8.05	28.2	7.57	6.08	7.9
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	14:25	21.3	8.05	28.3	7.49	5.93	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	14:25	21.2	8.01	28.4	7.51	5.99	7.8
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	14:25	21.3	7.99	28.4	7.45	5.75	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	14:25	21.4	8.03	28.3	7.42	5.82	7.6
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.2	3	1	14:25	21.4	8.02	28.4	7.57	6.09	7.7
TMCLKL	HY/2012/08	2017-04-11	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.2	3	2	14:25	21.3	8.05	28.5	7.59	6.15	8.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	09:21	21.3	7.81	28.1	7.48	6.05	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	09:21	21.3	7.78	28.2	7.45	6.11	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.2	2	1	09:21	21.4	7.83	28.3	7.52	6.34	9.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.2	2	2	09:21	21.3	7.86	28.3	7.54	6.28	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.3	3	1	09:21	21.5	7.82	28.5	7.59	6.41	9.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.3	3	2	09:21	21.5	7.87	28.4	7.56	6.47	9.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	07:30	21.4	8.06	28.1	7.63	6.11	8.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	07:30	21.5	8.09	28.2	7.61	6.04	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	1	07:30	21.5	8.01	28.3	7.57	5.93	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	2	07:30	21.5	7.97	28.3	7.59	5.99	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Bottom	13	3	1	07:30	21.6	8.04	28.4	7.69	6.12	9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	CS6	Bottom	13	3	2	07:30	21.5	8.08	28.3	7.66	6.18	9.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	08:52	21.4	7.99	28.2	7.39	5.87	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	08:52	21.3	7.95	28.3	7.42	5.93	8.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	1	08:52	21.3	7.96	28.4	7.44	6.02	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.2	2	2	08:52	21.3	7.92	28.3	7.46	6.08	8.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	1	08:52	21.4	7.95	28.5	7.66	6.24	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.3	3	2	08:52	21.4	7.93	28.4	7.63	6.19	8.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	08:38	21.2	7.83	28.2	7.54	5.74	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	08:38	21.3	7.87	28.1	7.57	5.81	8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	1	08:38	21.4	7.79	28.2	7.63	5.85	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	2	08:38	21.4	7.81	28.2	7.61	5.89	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	1	08:38	21.4	7.85	28.3	7.62	6.09	8.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	2	08:38	21.5	7.83	28.3	7.66	6.03	8.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	09:17	21.3	7.89	28.1	7.551	5.93	7.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	09:17	21.3	7.92	28.1	7.53	5.97	7.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	09:17	21.4	7.85	28.2	7.44	6.21	7.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	09:17	21.3	7.87	28.1	7.42	6.16	7.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	1	09:17	21.5	7.82	28.3	7.35	6.33	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	2	09:17	21.4	7.85	28.2	7.38	6.38	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	08:23	21.3	7.98	28.1	7.59	5.88	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	08:23	21.3	7.96	28.1	7.61	5.92	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	1	08:23	21.4	7.85	28.2	7.55	5.81	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	2	08:23	21.3	7.89	28.1	7.58	5.83	7.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	1	08:23	21.5	7.97	28.3	7.64	6.07	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	2	08:23	21.4	8.02	28.2	7.62	6.05	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	08:01	21.3	7.85	28.2	7.53	5.77	7.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	08:01	21.2	7.89	28.1	7.55	5.83	7.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	08:01						
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	08:01						
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	1	08:01	21.3	7.92	28.3	7.57	6.01	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	2	08:01	21.3	7.88	28.2	7.61	5.96	7.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	08:12	21.2	7.98	28.1	7.58	5.86	7.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	08:12	21.3	8.03	28.1	7.56	5.82	7.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	08:12						
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	08:12						
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	08:12	21.3	8.03	28.3	7.65	6.02	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	08:12	21.3	8.06	28.2	7.63	5.97	7.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	07:47	21.3	7.95	28.1	7.59	5.87	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	07:47	21.3	7.92	28.2	7.57	5.94	7.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	1	07:47	21.4	7.87	28.2	7.51	5.79	7.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	2	07:47	21.3	7.91	28.1	7.54	5.86	7.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.6	3	1	07:47	21.5	7.96	28.3	7.64	6.08	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.6	3	2	07:47	21.4	7.99	28.2	7.66	6.02	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	12:26	21.5	7.85	28.2	7.31	6.35	9.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	12:26	21.4	7.87	28.1	7.34	6.39	9.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.9	2	1	12:26	21.6	7.93	28.3	7.46	6.27	8.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.9	2	2	12:26	21.6	7.91	28.3	7.48	6.24	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.8	3	1	12:26	21.7	8.06	28.4	7.52	6.48	9.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.8	3	2	12:26	21.6	8.07	28.3	7.5	6.4	9.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	14:38	21.6	8.01	28	7.52	6.18	9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	14:38	21.6	8.03	28.1	7.5	6.23	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	1	14:38	21.7	7.92	28.2	7.43	6.22	8.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	2	14:38	21.7	7.95	28.1	7.41	6.28	9.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	1	14:38	21.7	7.89	28.3	7.58	6.31	9.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	2	14:38	21.8	7.86	28.3	7.59	6.25	9.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	12:58	21.5	7.92	28.1	7.2	6.11	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	12:58	21.6	7.89	28	7.24	6.18	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Middle	6	2	1	12:58	21.5	7.95	28.2	7.36	6.01	8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Middle	6	2	2	12:58	21.5	7.96	28.2	7.38	6.06	8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.9	3	1	12:58	21.7	7.99	28.3	7.46	6.25	8.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.9	3	2	12:58	21.6	8.03	28.4	7.49	6.32	8.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	13:13	21.4	7.88	28.1	7.43	5.84	8.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	13:13	21.3	7.89	28	7.44	5.93	8.3
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	1	13:13	21.5	7.83	28.1	7.58	6.12	8.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	2	13:13	21.5	7.86	28.2	7.59	6.05	8.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.1	3	1	13:13	21.6	7.94	28.3	7.32	6.23	8.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.1	3	2	13:13	21.7	7.95	28.2	7.31	6.29	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	12:42	21.4	8.03	28	7.48	5.86	7.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	12:42	21.4	8.06	27.9	7.45	5.92	7.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	1	12:42	21.5	8.12	28.1	7.35	6.34	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	2	12:42	21.4	8.13	28	7.34	6.38	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.4	3	1	12:42	21.6	7.92	28.2	7.21	6.42	8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.4	3	2	12:42	21.5	7.95	28.1	7.19	6.47	8.2
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	13:28	21.5	7.92	28	7.39	6.28	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	13:28	21.4	7.94	28	7.42	6.22	8.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.9	2	1	13:28	21.4	8.01	28	7.33	6.13	8.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.9	2	2	13:28	21.5	8	28.1	7.3	6.18	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.7	3	1	13:28	21.6	8.07	28.2	7.53	6.34	8.4
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.7	3	2	13:28	21.5	8.04	28.1	7.56	6.41	8.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	13:58	21.4	8.02	28	7.45	6.12	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	13:58	21.4	8.03	27.9	7.47	6.08	7.9
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	13:58						
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	13:58						
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	1	13:58	21.4	8.09	28.1	7.32	5.95	7.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	2	13:58	21.5	8.08	28.1	7.36	6.02	7.7
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	13:44	21.4	7.95	28	7.34	6.02	7.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	13:44	21.5	7.91	28.1	7.38	6.09	7.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	13:44						
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	13:44						
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	1	13:44	21.4	7.97	28.1	7.45	6.24	7.8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	2	13:44	21.4	7.99	28.1	7.48	6.21	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	14:12	21.5	7.86	28.1	7.23	6.09	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	14:12	21.4	7.84	28	7.34	6.03	8
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	14:12	21.6	7.91	28.2	7.48	5.92	7.6
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	14:12	21.5	7.94	28.1	7.46	5.97	7.5
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	1	14:12	21.7	7.99	28.3	7.59	6.17	8.1
TMCLKL	HY/2012/08	2017-04-13	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	2	14:12	21.6	8.02	28.2	7.55	6.13	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	10:16	21.9	7.76	28.5	7.43	6.02	8.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	10:16	21.8	7.8	28.6	7.4	6.08	8.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	1	10:16	21.8	7.81	28.7	7.35	6.24	9
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	2	10:16	21.9	7.77	28.8	7.32	6.31	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17	3	1	10:16	21.9	7.74	28.8	7.26	6.37	9.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17	3	2	10:16	22	7.78	28.9	7.21	6.45	9.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	07:59	21.6	8.04	28.3	7.46	5.95	8.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	07:59	21.5	8.02	28.4	7.44	6.03	8.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	07:59	21.6	7.98	28.5	7.41	5.76	8.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	07:59	21.7	7.95	28.4	7.38	5.8	8.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	1	07:59	21.8	8	28.5	7.51	6.09	9.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	2	07:59	21.7	8.04	28.6	7.53	6.14	9.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	09:41	21.7	7.91	28.6	7.25	5.86	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	09:41	21.6	7.96	28.7	7.21	5.92	8.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.8	2	1	09:41	21.7	7.84	28.7	7.3	6	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.8	2	2	09:41	21.8	7.89	28.8	7.33	6.05	8.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.6	3	1	09:41	21.8	7.87	28.9	7.42	6.21	8.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.6	3	2	09:41	21.9	7.91	28.8	7.45	6.26	8.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	09:24	21.7	7.91	28.5	7.25	6.04	8.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	09:24	21.8	7.94	28.4	7.23	6.08	8.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.7	2	1	09:24	21.8	7.85	28.5	7.2	5.8	8.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.7	2	2	09:24	21.9	7.9	28.6	7.18	5.75	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.4	3	1	09:24	22	7.89	28.7	6.99	5.91	8.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.4	3	2	09:24	21.9	7.94	28.8	7.02	5.96	8.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	09:58	21.7	7.85	28.7	7.35	5.9	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	09:58	21.8	7.89	28.8	7.31	5.98	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	09:58	21.8	7.81	28.9	7.26	6.21	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	09:58	21.9	7.84	28.8	7.22	6.15	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	1	09:58	21.9	7.83	28.9	7.19	6.3	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	2	09:58	21.8	7.8	29	7.16	6.36	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	09:07	21.6	7.94	28.5	7.31	5.94	8.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	09:07	21.7	7.93	28.6	7.33	6.01	8.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	1	09:07	21.7	8.01	28.6	7.25	5.85	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.9	2	2	09:07	21.8	8.02	28.7	7.22	5.89	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	1	09:07	21.9	7.93	28.8	7.11	6.06	8.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.8	3	2	09:07	21.8	7.96	28.7	7.08	6.13	8.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	08:33	21.6	7.81	28.5	7.3	5.73	7.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	08:33	21.7	7.84	28.6	7.33	5.79	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	08:33						
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	08:33						
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.6	3	1	08:33	21.7	7.84	28.6	7.4	5.98	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.6	3	2	08:33	21.6	7.86	28.7	7.42	5.93	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	08:50	21.6	7.98	28.5	7.4	5.81	7.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	08:50	21.5	8.01	28.4	7.37	5.88	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	08:50						
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	08:50						
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.4	3	1	08:50	21.6	7.93	28.5	7.45	6.04	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.4	3	2	08:50	21.7	7.96	28.6	7.48	5.99	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	08:16	21.4	7.96	28.4	7.4	5.84	7.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	08:16	21.5	7.92	28.5	7.42	5.9	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.7	2	1	08:16	21.5	7.9	28.6	7.36	5.66	7.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.7	2	2	08:16	21.6	7.94	28.5	7.33	5.73	7.2
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.4	3	1	08:16	21.6	7.93	28.6	7.48	6	7.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.4	3	2	08:16	21.7	7.96	28.7	7.5	6.06	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	13:32	21.8	7.87	28.8	7.32	5.92	8.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	13:32	21.9	7.86	28.7	7.28	5.96	8.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.7	2	1	13:32	21.8	7.82	28.9	7.37	6.43	9.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.7	2	2	13:32	21.7	7.84	28.8	7.34	6.39	9.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.4	3	1	13:32	21.7	7.85	29	7.26	6.57	9.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.4	3	2	13:32	21.8	7.86	29	7.22	6.5	9.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	15:23	22	7.94	28.9	7.19	6.07	9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	15:23	21.9	7.95	28.9	7.15	6.01	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.6	2	1	15:23	21.8	7.9	29	7.15	6.18	9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.6	2	2	15:23	21.8	7.91	29	7.11	6.14	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.2	3	1	15:23	21.8	7.92	28.9	7.22	6.26	9.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.2	3	2	15:23	21.8	7.9	29	7.19	6.21	9.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	14:06	21.9	7.87	28.7	7.21	6.02	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	14:06	22	7.84	28.7	7.25	6.06	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.4	2	1	14:06	21.8	7.82	28.9	7.36	6.34	8.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.4	2	2	14:06	21.9	7.85	28.9	7.32	6.3	8.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	9.8	3	1	14:06	21.8	7.79	28.9	7.34	6.49	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	9.8	3	2	14:06	21.8	7.8	28.9	7.37	6.45	8.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	14:23	22	7.92	28.9	7.17	6.03	8.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	14:23	22	7.91	28.8	7.19	6.06	8.3
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.4	2	1	14:23	21.8	7.87	28.9	7.14	6.41	9.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.4	2	2	14:23	21.9	7.89	29	7.1	6.36	8.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.8	3	1	14:23	21.9	7.86	29	7.28	6.33	9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.8	3	2	14:23	21.9	7.87	29	7.25	6.29	8.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	13:50	21.9	7.82	28.7	7.12	6.07	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	13:50	21.9	7.84	28.7	7.16	6.24	7.6

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.1	2	1	13:50	21.8	7.85	28.8	7.07	6.14	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.1	2	2	13:50	21.7	7.84	28.9	7.04	6.1	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	1	13:50	21.7	7.86	28.9	7.3	6.34	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.2	3	2	13:50	21.7	7.88	29	7.27	6.3	8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	14:41	22	7.85	28.8	7.34	5.93	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	14:41	22	7.84	28.8	7.31	5.9	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.6	2	1	14:41	21.8	7.87	28.9	7.26	6.52	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.6	2	2	14:41	21.7	7.86	28.8	7.29	6.56	8.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.2	3	1	14:41	21.8	7.88	29	7.37	6.46	8.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.2	3	2	14:41	21.9	7.88	29	7.34	6.4	8.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	15:10	22	7.92	29	7.34	6.02	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	15:10	22	7.93	29	7.37	6.06	7.9
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	15:10						
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	15:10						
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	1	15:10	21.9	7.94	29	7.38	6.17	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	2	15:10	21.8	7.94	29	7.34	6.15	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	14:57	22	7.9	28.9	7.42	5.77	7.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	14:57	21.9	7.91	29	7.45	5.71	7.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	14:57						
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	14:57						
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	1	14:57	21.8	7.93	29	7.36	6.06	7.6
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.2	3	2	14:57	21.9	7.93	29	7.32	6.09	7.7
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	15:50	22	7.94	28.8	7.39	5.62	7.1
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	15:50	22	7.95	28.7	7.35	5.66	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.3	2	1	15:50	21.8	7.98	28.9	7.47	5.93	7.8
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.3	2	2	15:50	21.9	7.97	29	7.42	5.97	7.5
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	11.6	3	1	15:50	21.9	7.95	29	7.55	5.89	7.4
TMCLKL	HY/2012/08	2017-04-15	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	11.6	3	2	15:50	21.9	7.97	29	7.58	5.86	7.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	11:12	22.5	7.92	28.2	7.52	6.18	9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	11:12	22.6	7.94	28.3	7.56	6.14	8.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.3	2	1	11:12	22.6	7.8	28.3	7.6	6.3	9.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Middle	9.3	2	2	11:12	22.5	7.83	28.3	7.56	6.36	9.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.6	3	1	11:12	22.5	7.89	28.4	7.6	6.48	9.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS4	Bottom	17.6	3	2	11:12	22.5	7.92	28.3	7.56	6.5	9.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	09:17	22.6	8.07	28.2	7.66	6.26	9.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	09:17	22.5	8.05	28.3	7.62	6.22	9.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Middle	7.1	2	1	09:17	22.5	8.03	28.2	7.53	6.03	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Middle	7.1	2	2	09:17	22.6	8	28.3	7.55	6.06	8.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Bottom	13.2	3	1	09:17	22.4	8.05	28.4	7.68	6.18	9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	CS6	Bottom	13.1	3	2	09:17	22.3	8.06	28.5	7.64	6.22	8.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	10:39	22.6	7.94	28.3	7.44	6.06	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	10:39	22.6	7.98	28.3	7.46	6.02	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.3	2	1	10:39	22.5	7.99	28.2	7.4	6.16	8.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Middle	6.3	2	2	10:39	22.5	8.01	28.3	7.36	6.1	8.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.6	3	1	10:39	22.5	7.96	28.4	7.72	6.28	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS12	Bottom	11.6	3	2	10:39	22.5	7.94	28.3	7.68	6.32	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	10:25	22.6	7.97	28.3	7.56	6.08	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	10:25	22.6	7.93	28.3	7.6	6.12	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	1	10:25	22.6	7.84	28.2	7.64	5.92	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	2	10:25	22.5	7.8	28.3	7.6	5.96	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.8	3	1	10:25	22.6	7.87	28.3	7.53	6.12	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.8	3	2	10:25	22.5	7.88	28.3	7.56	6.16	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	10:54	22.6	7.91	28.3	7.53	6.02	7.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	10:54	22.6	7.94	28.2	7.55	6.04	7.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Middle	6	2	1	10:54	22.6	7.88	28.3	7.56	6.2	7.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Middle	6	2	2	10:54	22.5	7.87	28.3	7.6	6.24	7.9

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Bottom	11	3	1	10:54	22.5	7.84	28.2	7.48	6.35	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS14	Bottom	11	3	2	10:54	22.5	7.86	28.3	7.52	6.36	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	10:10	22.6	7.99	28.3	7.66	6.03	8.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	10:10	22.6	8.02	28.2	7.68	6.07	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.2	2	1	10:10	22.5	7.88	28.3	7.56	6.06	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.2	2	2	10:10	22.6	7.86	28.3	7.54	6.1	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.4	3	1	10:10	22.5	7.95	28.2	7.6	6.14	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.4	3	2	10:10	22.4	7.92	28.3	7.62	6.18	8.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	09:48	22.6	7.87	28.2	7.5	6.04	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	09:48	22.5	7.84	28.2	7.52	6	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	09:48						
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	09:48						
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.8	3	1	09:48	22.5	7.9	28.3	7.63	6.18	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.8	3	2	09:48	22.6	7.92	28.3	7.62	6.16	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	09:59	22.6	7.96	28.3	7.64	5.88	7.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	09:59	22.5	7.92	28.3	7.66	5.84	7.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	09:59						
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	09:59						
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.8	3	1	09:59	22.6	8.02	28.3	7.6	6.08	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.8	3	2	09:59	22.5	8.04	28.3	7.56	6.12	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	09:34	22.5	7.93	28.3	7.64	6.03	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	09:34	22.5	7.9	28.2	7.62	6	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.9	2	1	09:34	22.5	7.86	28.3	7.54	5.9	7.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.9	2	2	09:34	22.6	7.89	28.3	7.52	5.86	7.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.8	3	1	09:34	22.3	7.88	28.2	7.62	6.03	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.8	3	2	09:34	22.4	7.84	28.3	7.6	6.06	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	15:42	22.7	7.88	28.1	7.73	6.4	9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	15:42	22.8	7.87	28.2	7.72	6.42	9.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Middle	9.1	2	1	15:42	22.7	7.85	28.2	7.68	6.5	9.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Middle	9.1	2	2	15:42	22.8	7.87	28.2	7.68	6.47	9.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	17.2	3	1	15:42	22.8	7.8	28.2	7.73	6.53	9.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	17.2	3	2	15:42	22.8	7.81	28.3	7.76	6.51	9.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	17:36	22.8	8	28.2	7.7	6.32	9.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	17:36	22.8	7.98	28.2	7.71	6.34	9.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Middle	7	2	1	17:36	22.7	8.02	28.2	7.69	6.12	8.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Middle	7	2	2	17:36	22.8	8.04	28.3	7.7	6.15	9.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.9	3	1	17:36	22.9	8.05	28.3	7.72	6.24	8.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.9	3	2	17:36	22.8	8.03	28.2	7.73	6.26	9.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	16:16	22.7	7.94	28.1	7.7	6.31	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	16:16	22.8	7.96	28.2	7.72	6.34	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Middle	6.2	2	1	16:16	22.8	7.91	28.2	7.77	6.37	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Middle	6.2	2	2	16:16	22.7	7.88	28.2	7.75	6.39	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	11.3	3	1	16:16	22.7	7.87	28.1	7.68	6.47	8.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	11.3	3	2	16:16	22.7	7.88	28.2	7.69	6.44	8.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	16:30	22.7	7.89	28.3	7.62	6.3	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	16:30	22.6	7.91	28.2	7.6	6.27	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.2	2	1	16:30	22.7	7.88	28.2	7.71	6.27	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.2	2	2	16:30	22.6	7.89	28.2	7.74	6.27	8.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	1	16:30	22.7	7.93	28.2	7.68	6.4	8.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	2	16:30	22.6	7.95	28.3	7.71	6.38	8.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	16:00	22.7	7.93	28.2	7.73	6.21	7.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	16:00	22.7	7.91	28.3	7.72	6.24	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	1	16:00	22.6	7.92	28.2	7.68	6.3	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	2	16:00	22.7	7.91	28.2	7.68	6.31	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.6	3	1	16:00	22.7	7.9	28.3	7.73	6.4	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.6	3	2	16:00	22.6	7.88	28.3	7.76	6.42	8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	16:45	22.7	7.9	28.3	7.72	6.24	8.4
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	16:45	22.7	7.88	28.3	7.74	6.28	8.6
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Middle	5	2	1	16:45	22.6	7.96	28.2	7.68	6.2	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Middle	5	2	2	16:45	22.6	7.97	28.3	7.7	6.21	8.5
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	9	3	1	16:45	22.7	7.95	28.2	7.74	6.25	8.3
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	9	3	2	16:45	22.8	7.92	28.3	7.73	6.27	8.7
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	17:11	22.7	7.87	28.3	7.68	6.22	8.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	17:11	22.6	7.85	28.3	7.67	6.25	8.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	17:11						
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	17:11						
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.4	3	1	17:11	22.6	7.9	28.3	7.71	6.3	8.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.4	3	2	17:11	22.6	7.91	28.2	7.72	6.31	8.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	17:00	22.7	7.93	28.2	7.66	5.99	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	17:00	22.7	7.95	28.2	7.69	6.01	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	17:00						
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	17:00						
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.5	3	1	17:00	22.8	7.96	28.2	7.65	6.19	7.8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.5	3	2	17:00	22.9	7.98	28.2	7.66	6.17	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	17:22	22.6	7.96	28.2	7.72	6.21	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	17:22	22.6	7.93	28.3	7.74	6.2	8.2
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.7	2	1	17:22	22.7	7.94	28.3	7.7	6.11	7.9
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.7	2	2	17:22	22.7	7.9	28.3	7.68	6.12	8
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.4	3	1	17:22	22.7	7.91	28.2	7.69	6.17	8.1
TMCLKL	HY/2012/08	2017-04-18	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.4	3	2	17:22	22.8	7.93	28.3	7.7	6.19	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	08:50	23.5	7.78	28	7.73	5.94	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	08:50	23.5	7.81	28	7.78	5.87	8.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	1	08:50	23.5	7.86	28.1	7.86	5.8	8.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	2	08:50	23.6	7.83	28.2	7.8	5.75	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	1	08:50	23.6	7.76	28.3	7.97	6.04	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	2	08:50	23.7	7.78	28.3	8.04	6.11	9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	07:45	23.4	7.83	28.1	7.69	6.04	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	07:45	23.4	7.8	28.1	7.75	6.08	8.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	1	07:45	23.4	7.87	28.2	7.84	6.18	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	2	07:45	23.5	7.89	28.2	7.89	6.23	9.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	1	07:45	23.5	7.85	28.3	7.98	6.3	9.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	2	07:45	23.5	7.87	28.2	7.92	6.35	9.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	08:33	23.4	7.94	28	7.4	5.8	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	08:33	23.5	7.92	28	7.46	5.75	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	1	08:33	23.5	7.85	28.1	7.63	5.95	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	2	08:33	23.5	7.87	28.1	7.56	5.99	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	1	08:33	23.6	7.82	28.1	7.75	6.13	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	2	08:33	23.5	7.8	28.2	7.81	6.21	8.5
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	08:24	23.4	7.87	28	7.61	5.91	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	08:24	23.4	7.9	28.1	7.66	5.96	8.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	1	08:24	23.5	7.84	28.1	7.74	6.04	8.5
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.9	2	2	08:24	23.5	7.82	28.2	7.81	6.11	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.7	3	1	08:24	23.5	7.92	28.2	7.95	6.23	8.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.7	3	2	08:24	23.6	7.9	28.3	7.9	6.18	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	08:42	23.5	7.83	28	7.59	5.83	7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	08:42	23.4	7.86	28	7.65	5.88	7.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	08:42	23.5	7.81	28.1	7.73	5.72	7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	08:42	23.4	7.79	28	7.8	5.79	7.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	1	08:42	23.6	7.89	28.2	7.92	5.96	7.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	2	08:42	23.6	7.92	28.2	7.99	6.01	7.5
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	08:15	23.4	7.91	28	7.49	5.79	7.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	08:15	23.4	7.89	28	7.55	5.85	8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	1	08:15	23.4	7.79	28.1	7.63	5.68	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	2	08:15	23.5	7.8	28.1	7.7	5.61	7.5
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	1	08:15	23.5	7.87	28.2	7.84	5.95	8.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.1	3	2	08:15	23.5	7.85	28.1	7.88	6.02	8.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	08:03	23.4	7.95	28.1	7.58	5.91	7.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	08:03	23.4	7.92	28	7.53	5.95	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	08:03						
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	08:03						
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	1	08:03	23.4	7.93	28.2	7.71	5.99	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	2	08:03	23.5	7.91	28.2	7.66	5.94	7.4
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	08:09	23.4	7.85	28.1	7.64	5.84	7.5
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	08:09	23.4	7.88	28	7.69	5.89	7.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	08:09						
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	08:09						
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	08:09	23.4	7.82	28.1	7.78	5.99	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	08:09	23.4	7.83	28.1	7.86	6.04	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	07:54	23.4	7.78	28.1	7.64	6.04	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	07:54	23.5	7.81	28.1	7.71	5.97	7.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.6	2	1	07:54	23.5	7.93	28.1	7.52	5.83	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.6	2	2	07:54	23.4	7.91	28.2	7.48	5.88	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.2	3	1	07:54	23.5	7.86	28.3	7.87	6.13	7.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.2	3	2	07:54	23.5	7.88	28.2	7.92	6.16	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	18:05	22.5	7.88	28.3	7.55	6.26	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	18:05	22.6	7.83	28.4	7.58	6.29	8.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	1	18:05	22.6	7.91	28.2	7.22	6.3	9.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	2	18:05	22.7	7.95	28.2	7.27	6.33	9.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.6	3	1	18:05	22.8	7.76	28.4	7.36	6.41	9.4
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.6	3	2	18:05	22.9	7.8	28.5	7.38	6.47	9.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	20:08	22.5	7.78	28.3	7.54	6.16	9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	20:08	22.5	7.76	28.4	7.57	6.19	9.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	1	20:08	22.6	7.86	28.4	7.68	6.04	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	2	20:08	22.7	7.89	28.5	7.6	6.07	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	1	20:08	22.6	7.96	28.6	7.51	6.25	9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.6	3	2	20:08	22.6	7.97	28.6	7.58	6.28	9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	18:35	22.5	7.81	28.2	7.21	6.05	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	18:35	22.6	7.87	28.2	7.25	6.08	8.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.8	2	1	18:35	22.6	7.94	28.2	7.37	6.11	8.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.8	2	2	18:35	22.6	7.98	28.3	7.3	6.18	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.6	3	1	18:35	22.7	7.97	28.3	7.48	6.29	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.6	3	2	18:35	22.8	7.99	28.4	7.44	6.32	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	18:54	22.5	7.83	28.2	7.43	6.08	8.4
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	18:54	22.6	7.86	28.3	7.4	6.11	8.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	1	18:54	22.6	7.92	28.3	7.25	6.02	8.4
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.7	2	2	18:54	22.7	7.99	28.4	7.28	6.07	8.3
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	1	18:54	22.7	7.75	28.4	7.15	6.16	8.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.3	3	2	18:54	22.7	7.7	28.5	7.19	6.18	8.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	18:22	22.5	7.83	28.3	7.43	6.02	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	18:22	22.5	7.86	28.4	7.47	6.05	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	1	18:22	22.5	7.8	28.4	7.31	6.28	7.6
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	2	18:22	22.6	7.84	28.5	7.33	6.31	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.5	3	1	18:22	22.6	7.95	28.5	7.27	6.34	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.5	3	2	18:22	22.7	7.99	28.6	7.22	6.37	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	19:10	22.6	7.95	28.3	7.33	6.01	8.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	19:10	22.7	7.99	28.4	7.38	6.1	7.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.9	2	1	19:10	22.7	7.81	28.4	7.42	6.06	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.9	2	2	19:10	22.7	7.85	28.4	7.48	6.13	8.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.8	3	1	19:10	22.8	7.94	28.5	7.24	6.22	8.4
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.8	3	2	19:10	22.7	7.99	28.6	7.29	6.25	8.2
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	19:38	22.6	7.95	28.2	7.3	6.07	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	19:38	22.6	7.97	28.3	7.36	6	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	19:38						
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	19:38						
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.5	3	1	19:38	22.6	7.84	28.3	7.42	6.12	7.7
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.5	3	2	19:38	22.7	7.8	28.4	7.48	6.15	7.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	19:26	22.5	7.81	28.2	7.51	6.03	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	19:26	22.6	7.88	28.3	7.56	6.07	7.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	19:26						
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	19:26						
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.3	3	1	19:26	22.6	7.97	28.3	7.58	6.21	7.9
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.3	3	2	19:26	22.7	7.93	28.4	7.55	6.28	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	19:51	22.6	7.81	28.2	7.52	6.02	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	19:51	22.5	7.87	28.2	7.55	6.05	7.8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.5	2	1	19:51	22.6	7.76	28.3	7.44	6.09	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.5	2	2	19:51	22.7	7.7	28.4	7.48	6.13	8
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12	3	1	19:51	22.7	7.83	28.5	7.63	6.21	8.1
TMCLKL	HY/2012/08	2017-04-20	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12	3	2	19:51	22.8	7.87	28.6	7.66	6.27	8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	16:01	22.4	7.94	28.1	7.61	6.17	8.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	16:01	22.5	7.89	28.2	7.64	6.2	8.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	1	16:01	22.4	7.97	28.2	7.28	6.21	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	2	16:01	22.3	8.01	28.3	7.33	6.24	9.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	1	16:01	22.3	7.82	28.3	7.42	6.32	9.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	2	16:01	22.3	7.86	28.4	7.44	6.38	9.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	13:53	22.9	7.84	28.2	7.6	6.07	8.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	13:53	23	7.82	28.3	7.63	6.1	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	13:53	22.8	7.92	28.4	7.74	5.95	8.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	13:53	22.9	7.95	28.3	7.66	5.98	8.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	1	13:53	22.9	8.02	28.4	7.57	6.16	8.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.8	3	2	13:53	22.8	8.03	28.5	7.64	6.19	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	15:22	22.6	7.87	28	7.27	5.96	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	15:22	22.7	7.93	28.1	7.31	5.99	8.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Middle	6	2	1	15:22	22.5	8	28.2	7.43	6.02	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Middle	6	2	2	15:22	22.6	8.04	28.1	7.36	6.09	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.9	3	1	15:22	22.6	8.03	28.2	7.54	6.2	8.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.9	3	2	15:22	22.5	8.05	28.3	7.5	6.23	8.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	15:05	22.6	7.89	28.1	7.49	5.99	8.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	15:05	22.7	7.92	28.2	7.46	6.02	8.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	1	15:05	22.7	7.98	28.3	7.31	5.93	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	2	15:05	22.6	8.05	28.4	7.34	5.98	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	1	15:05	22.7	7.81	28.5	7.21	6.07	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.6	3	2	15:05	22.8	7.76	28.4	7.25	6.09	8.58
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	15:39	22.6	7.89	28.2	7.49	5.93	7.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	15:39	22.5	7.92	28.3	7.53	5.96	7.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	1	15:39	22.5	7.86	28.4	7.37	6.19	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.8	2	2	15:39	22.6	7.9	28.3	7.39	6.22	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.6	3	1	15:39	22.5	8.01	28.4	7.33	6.25	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.6	3	2	15:39	22.4	8.05	28.5	7.28	6.28	8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	14:48	22.6	8.01	28.2	7.39	5.92	8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	14:48	22.5	8.05	28.3	7.44	6.01	8.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	1	14:48	22.6	7.87	28.5	7.48	5.97	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Middle	5.1	2	2	14:48	22.6	7.91	28.4	7.54	6.04	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.2	3	1	14:48	22.4	8	28.4	7.3	6.13	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	IS15	Bottom	9.2	3	2	14:48	22.5	8.05	28.5	7.35	6.16	8.3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	14:14	22.7	8.01	28.1	7.36	5.98	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	14:14	22.6	8.03	28.2	7.42	5.91	7.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	14:14						
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	14:14						
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.2	3	1	14:14	22.6	7.9	28.2	7.48	6.03	7.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.2	3	2	14:14	22.7	7.86	28.3	7.54	6.06	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	14:31	22.7	7.87	28.2	7.57	5.94	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	14:31	22.8	7.94	28.1	7.62	5.98	7.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	14:31						
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	14:31						
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	14:31	22.7	8.03	28.2	7.64	6.12	8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	14:31	22.7	7.99	28.3	7.61	6.19	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	14:07	22.9	7.87	28	7.58	5.93	7.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	14:07	22.8	7.93	28.1	7.61	5.96	7.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.4	2	1	14:07	22.8	7.82	28.2	7.5	6	7.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.4	2	2	14:07	22.9	7.76	28.1	7.54	6.04	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	11.8	3	1	14:07	22.8	7.89	28.3	7.69	6.12	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	11.8	3	2	14:07	22.7	7.93	28.4	7.72	6.18	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	09:45	22.7	7.83	28.5	7.63	3.32	4.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	09:45	22.6	7.86	28.4	7.67	3.41	4.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.7	2	1	09:45	22.8	7.81	28.6	7.69	3.56	5.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.7	2	2	09:45	22.7	7.79	28.7	7.68	3.52	5.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.4	3	1	09:45	22.6	7.96	28.9	7.41	3.68	5.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.4	3	2	09:45	22.7	7.99	28.8	7.44	3.62	5.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	11:45	22.7	7.83	28.4	7.67	6.23	9.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	11:45	22.6	7.8	28.5	7.65	6.31	9.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	1	11:45	22.6	7.74	28.6	7.48	6.25	8.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	2	11:45	22.5	7.75	28.6	7.49	6.29	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	1	11:45	22.5	7.88	28.8	7.59	6.46	9.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	2	11:45	22.4	7.89	28.7	7.56	6.53	9.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	10:16	22.7	7.86	28.5	7.46	6.22	8.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	10:16	22.8	7.85	28.4	7.44	6.27	8.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.7	2	1	10:16	22.9	7.79	28.6	7.62	6.34	8.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.7	2	2	10:16	22.8	7.78	28.5	7.6	6.43	8.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.4	3	1	10:16	22.6	7.89	28.8	7.74	6.51	8.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.4	3	2	10:16	22.7	7.92	28.8	7.71	6.58	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	10:33	22.8	7.75	28.5	7.6	6.27	8.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	10:33	22.7	7.77	28.4	7.61	6.22	8.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	1	10:33	22.7	7.8	28.5	7.47	6.33	8.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.6	2	2	10:33	22.7	7.84	28.6	7.49	6.25	8.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.1	3	1	10:33	22.6	7.88	28.8	7.56	6.41	9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10.1	3	2	10:33	22.5	7.89	28.7	7.59	6.48	8.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	10:01	22.8	7.92	28.4	7.52	6.09	8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	10:01	22.7	7.96	28.3	7.56	6.13	7.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	1	10:01	22.6	7.83	28.5	7.44	6.32	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.8	2	2	10:01	22.8	7.8	28.6	7.47	6.25	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.6	3	1	10:01	22.6	7.86	28.7	7.68	6.11	7.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.6	3	2	10:01	22.5	7.88	28.8	7.65	6.18	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	10:48	22.7	7.8	28.4	7.64	6.34	8.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	10:48	22.8	7.82	28.5	7.65	6.42	8.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	1	10:48	22.7	7.86	28.6	7.71	6.38	8.5
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.8	2	2	10:48	22.6	7.86	28.5	7.73	6.33	8.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	1	10:48	22.6	7.79	28.7	7.5	6.56	8.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.6	3	2	10:48	22.6	7.76	28.8	7.53	6.51	8.7
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	11:17	22.7	7.87	28.4	7.51	6.37	8.3
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	11:17	22.6	7.86	28.3	7.54	6.32	8.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	11:17						
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	11:17						
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.6	3	1	11:17	22.6	7.95	28.5	7.62	6.28	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.6	3	2	11:17	22.6	7.93	28.6	7.63	6.21	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	11:04	22.6	7.85	28.5	7.47	6.12	7.6
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	11:04	22.7	7.84	28.6	7.43	6.02	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	11:04						
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	11:04						
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.3	3	1	11:04	22.7	7.92	28.7	7.6	6.34	8.4
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.3	3	2	11:04	22.7	7.95	28.6	7.57	6.28	7.9
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	11:29	22.6	7.74	28.3	7.44	6.14	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	11:29	22.5	7.72	28.3	7.45	6.22	7.8
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	11:29	22.4	7.79	28.4	7.53	6.38	8.2
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	11:29	22.5	7.78	28.3	7.57	6.31	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	1	11:29	22.7	7.85	28.6	7.64	6.45	8.1
TMCLKL	HY/2012/08	2017-04-22	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	2	11:29	22.6	7.88	28.5	7.61	6.41	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	18:40	22.4	7.85	28.5	7.53	5.77	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	18:40	22.5	7.86	28.5	7.5	5.86	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	1	18:40	22.6	7.74	28.7	7.64	5.93	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Middle	9	2	2	18:40	22.6	7.76	28.6	7.67	5.99	8.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	1	18:40	22.8	7.91	28.9	7.49	5.61	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.9	3	2	18:40	22.7	7.93	28.8	7.46	5.65	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	16:37	22.6	7.96	28.6	7.56	6.12	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	16:37	22.5	7.98	28.6	7.58	6.18	8.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	1	16:37	22.7	8.02	28.7	7.61	5.99	8.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	2	16:37	22.6	8.06	28.6	7.6	6.07	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	1	16:37	22.5	7.82	28.8	7.79	5.84	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	2	16:37	22.4	7.85	28.9	7.82	5.91	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	18:07	22.4	7.91	28.6	7.46	5.72	7.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	18:07	22.5	7.93	28.5	7.49	7.76	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.8	2	1	18:07	22.4	7.8	28.7	7.32	5.63	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.8	2	2	18:07	22.4	7.83	28.6	7.34	5.54	7.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.6	3	1	18:07	22.6	7.88	28.7	7.56	5.52	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.6	3	2	18:07	22.5	7.86	28.8	7.59	5.59	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	17:51	22.4	7.83	28.5	7.39	6.1	8.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	17:51	22.4	7.86	28.5	7.38	6.03	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	1	17:51	22.5	7.93	28.6	7.46	5.83	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.8	2	2	17:51	22.4	7.94	28.5	7.42	5.88	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.5	3	1	17:51	22.6	7.97	28.8	7.3	5.74	7.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.5	3	2	17:51	22.5	7.99	28.7	7.27	5.81	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	18:23	22.6	7.83	28.4	7.33	5.91	7.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	18:23	22.5	7.86	28.5	7.3	5.98	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	1	18:23	22.5	7.81	28.6	7.51	5.83	7.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.9	2	2	18:23	22.4	7.8	28.6	7.53	5.89	7.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	1	18:23	22.7	7.96	28.7	7.59	5.67	7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.8	3	2	18:23	22.6	7.97	28.6	7.62	5.75	7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	17:35	22.6	7.78	28.5	7.53	5.68	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	17:35	22.5	7.76	28.4	7.54	5.61	7.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.8	2	1	17:35	22.5	7.82	28.2	7.47	5.74	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.8	2	2	17:35	22.4	7.84	28.4	7.44	5.79	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.6	3	1	17:35	22.6	7.89	28.7	7.21	6.13	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.6	3	2	17:35	22.7	7.93	28.6	7.24	6.08	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	17:08	22.5	7.79	28.5	7.44	5.74	7.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	17:08	22.5	7.77	28.4	7.47	5.79	7.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	17:08						
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	17:08						

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	1	17:08	22.6	7.84	28.6	7.62	5.98	7.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.7	3	2	17:08	22.6	7.86	28.5	7.65	6.03	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	17:21	22.5	7.8	28.6	7.34	5.74	7.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	17:21	22.4	7.83	28.5	7.36	5.69	7.1
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	17:21						
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	17:21						
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	1	17:21	22.6	7.88	28.7	7.52	5.82	7.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.6	3	2	17:21	22.5	7.89	28.6	7.5	5.87	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	16:53	22.5	7.81	28.6	7.32	5.81	7.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	16:53	22.4	7.83	28.5	7.35	5.88	7.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	1	16:53	22.4	7.89	28.6	7.48	5.67	7.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.8	2	2	16:53	22.4	7.88	28.7	7.47	5.63	7.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	1	16:53	22.6	7.96	28.8	7.56	5.53	7.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.5	3	2	16:53	22.5	7.99	28.7	7.54	5.59	7.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	11:45	22.3	7.81	28.3	7.28	6.18	8.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	11:45	22.4	7.87	28.4	7.25	6.23	9.1
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	1	11:45	22.4	7.79	28.4	7.27	6.3	8.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	2	11:45	22.5	7.82	28.5	7.29	6.36	9.1
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	1	11:45	22.6	7.94	28.5	7.13	6.45	9.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	2	11:45	22.7	7.96	28.6	7.17	6.49	9.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	13:52	22.4	7.93	28.4	7.33	6.08	8.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	13:52	22.5	7.99	28.4	7.37	6.11	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	1	13:52	22.5	7.83	28.5	7.28	6.02	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.7	2	2	13:52	22.6	7.88	28.6	7.32	6.08	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	1	13:52	22.6	7.78	28.6	7.43	6.14	8.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.4	3	2	13:52	22.7	7.81	28.7	7.48	6.19	9.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	12:16	22.3	7.89	28.4	7.11	6.08	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	12:16	22.4	7.83	28.5	7.19	6.01	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.6	2	1	12:16	22.5	7.7	28.5	7.26	6.16	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.6	2	2	12:16	22.6	7.74	28.5	7.22	6.12	8.2
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.2	3	1	12:16	22.7	7.93	28.6	7.37	6.35	8.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.2	3	2	12:16	22.7	7.98	28.7	7.33	6.37	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	12:40	22.4	7.81	28.3	7.17	6.18	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	12:40	22.4	7.87	28.3	7.13	6.22	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.5	2	1	12:40	22.4	7.82	28.3	7.1	6.04	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.5	2	2	12:40	22.5	7.78	28.4	7.07	6.09	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10	3	1	12:40	22.6	7.96	28.5	7.02	6.01	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10	3	2	12:40	22.6	7.94	28.6	7.05	6.03	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	12:00	22.3	7.92	28.4	7.24	6.04	7.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	12:00	22.3	7.98	28.4	7.28	6.07	7.3
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	1	12:00	22.3	7.82	28.4	7.15	6.31	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.7	2	2	12:00	22.4	7.86	28.5	7.1	6.36	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.3	3	1	12:00	22.5	7.95	28.5	7.07	6.48	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	10.3	3	2	12:00	22.7	7.99	28.5	7.11	6.44	7.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	12:56	22.3	7.88	28.3	7.22	6.07	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	12:56	22.4	7.82	28.4	7.26	6.04	8.4
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.6	2	1	12:56	22.4	7.83	28.4	7.15	6.13	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.6	2	2	12:56	22.5	7.85	28.5	7.1	6.18	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.2	3	1	12:56	22.6	7.92	28.5	7	6.28	8.5
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.2	3	2	12:56	22.7	7.97	28.5	7.06	6.25	8.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	13:25	22.4	7.73	28.4	7.17	6.08	8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	13:25	22.4	7.7	28.3	7.11	6.05	7.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	13:25						
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	13:25						
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	1	13:25	22.5	7.83	28.5	7.26	6.21	8.1
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	4.2	3	2	13:25	22.6	7.87	28.6	7.2	6.17	8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	13:12	22.4	7.86	28.4	7.21	6.01	7.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	13:12	22.4	7.89	28.5	7.28	6.07	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	13:12						
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	13:12						
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.1	3	1	13:12	22.4	7.81	28.3	7.3	6.17	7.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.1	3	2	13:12	22.5	7.88	28.4	7.34	6.2	8.1
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	13:38	22.4	7.85	28.2	7.27	6.04	7.6
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	13:38	22.5	7.89	28.3	7.22	6.06	7.8
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	13:38	22.5	7.84	28.4	7.16	5.89	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	13:38	22.6	7.88	28.4	7.19	5.92	7.9
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	1	13:38	22.7	7.92	28.5	7.34	5.96	7.7
TMCLKL	HY/2012/08	2017-04-25	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	2	13:38	22.7	7.96	28.6	7.38	6.03	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	20:32	22.6	7.85	28.4	7.32	6.18	9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	20:32	22.5	7.81	28.4	7.38	6.11	9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.8	2	1	20:32	22.7	7.92	28.6	7.22	6.23	9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.8	2	2	20:32	22.6	7.94	28.5	7.2	6.28	8.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.6	3	1	20:32	22.9	7.87	28.8	7.46	6.43	9.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.6	3	2	20:32	22.8	7.89	28.9	7.45	6.36	9.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	18:19	22.7	7.84	28.7	7.35	6.29	9.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	18:19	22.6	7.81	28.8	7.36	6.22	8.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	1	18:19	22.8	7.92	28.9	7.43	6.46	9.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Middle	6.9	2	2	18:19	22.8	7.94	28.9	7.44	6.52	9.6
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.7	3	1	18:19	22.9	7.71	29.1	7.51	6.38	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.7	3	2	18:19	22.8	7.72	29	7.54	6.31	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	19:51	22.6	7.89	28.6	7.13	6.04	8.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	19:51	22.5	7.88	28.5	7.16	5.97	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	1	19:51	22.7	7.93	28.7	7.27	6.01	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	2	19:51	22.6	7.96	28.6	7.25	6.09	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	1	19:51	22.8	7.99	28.8	7.33	6.23	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	2	19:51	22.7	7.97	28.7	7.32	6.27	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	19:37	22.5	7.96	28.6	7.27	6.05	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	19:37	22.6	7.99	28.5	7.29	5.97	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	1	19:37	22.7	8.02	28.7	7.2	6.13	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	2	19:37	22.6	8.03	28.6	7.22	6.19	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.1	3	1	19:37	22.8	7.86	28.9	7.46	5.82	8.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.1	3	2	19:37	22.7	7.84	28.8	7.49	5.88	8.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	20:16	22.5	7.86	28.5	7.21	5.82	7.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	20:16	22.4	7.84	28.6	7.24	5.85	7.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.7	2	1	20:16	22.6	7.91	28.7	7.09	6.09	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.7	2	2	20:16	22.5	7.93	28.6	7.07	6.13	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.3	3	1	20:16	22.7	8.05	28.8	7.29	6.32	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.3	3	2	20:16	22.6	8.07	28.7	7.32	6.38	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	19:18	22.5	7.84	28.4	7.36	5.86	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	19:18	22.4	7.83	28.5	7.35	5.78	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.7	2	1	19:18	22.6	7.52	28.6	7.42	6.03	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.7	2	2	19:18	22.5	7.96	28.5	7.45	6.09	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.4	3	1	19:18	22.7	7.89	28.7	7.12	6.21	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.4	3	2	19:18	22.6	7.87	28.6	7.11	6.27	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	18:51	22.6	7.78	28.7	7.26	5.87	7.6
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	18:51	22.6	7.76	28.6	7.29	5.82	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	18:51						
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	18:51						
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.9	3	1	18:51	22.7	7.84	28.8	7.32	6.02	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4.9	3	2	18:51	22.6	7.86	28.7	7.36	6.07	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	19:05	22.6	7.86	28.5	7.23	5.96	7.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	19:05	22.5	7.85	28.4	7.27	5.92	7.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	19:05						
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	19:05						
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.2	3	1	19:05	22.6	7.92	28.6	7.38	6.18	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.2	3	2	19:05	22.6	7.94	28.5	7.39	6.1	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	18:35	22.7	7.89	28.6	7.19	5.94	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	18:35	22.6	7.87	28.5	7.18	5.89	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.6	2	1	18:35	22.6	7.83	28.7	7.33	6.02	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.6	2	2	18:35	22.5	7.8	28.6	7.36	6.08	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.2	3	1	18:35	22.8	7.95	28.8	7.42	6.17	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.2	3	2	18:35	22.9	7.91	28.9	7.44	6.12	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	12:49	22.4	7.87	28.4	7.19	6.24	9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	12:49	22.5	7.89	28.3	7.14	6.29	8.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.6	2	1	12:49	22.5	7.85	28.5	7.18	6.36	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.6	2	2	12:49	22.6	7.88	28.6	7.2	6.42	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.2	3	1	12:49	22.6	8	28.8	7.04	6.51	9.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.2	3	2	12:49	22.6	8.02	28.7	7.08	6.55	9.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	15:07	22.6	7.99	28.6	7.24	6.14	9.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	15:07	22.7	8.05	28.7	7.28	6.17	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.6	2	1	15:07	22.8	7.89	28.7	7.19	6.08	8.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.6	2	2	15:07	22.7	7.94	28.8	7.23	6.14	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.2	3	1	15:07	22.8	7.84	28.9	7.34	6.2	9.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.2	3	2	15:07	22.9	7.87	28.8	7.39	6.25	9.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	13:23	22.6	7.95	28.4	7.02	6.14	8.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	13:23	22.5	7.89	28.5	7.1	6.08	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.7	2	1	13:23	22.6	7.76	28.6	7.17	6.22	8.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.7	2	2	13:23	22.7	7.8	28.5	7.13	6.18	8.4
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.4	3	1	13:23	22.7	7.99	28.6	7.28	6.41	8.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.4	3	2	13:23	22.8	8.04	28.7	7.24	6.43	8.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	13:40	22.4	7.87	28.3	7.08	6.24	8.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	13:40	22.5	7.93	28.2	7.04	6.28	8.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.3	2	1	13:40	22.5	7.88	28.3	7.01	6.1	8.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.3	2	2	13:40	22.6	7.84	28.4	6.98	6.15	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.6	3	1	13:40	22.7	8.02	28.4	6.93	6.07	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	9.6	3	2	13:40	22.6	8	28.5	6.96	6.09	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	13:06	22.5	7.98	28.6	7.15	6.1	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	13:06	22.6	8.04	28.6	7.19	6.13	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.4	2	1	13:06	22.6	7.88	28.6	7.06	6.37	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.4	2	2	13:06	22.5	7.92	28.7	7.01	6.42	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	9.8	3	1	13:06	22.6	8.01	28.7	6.98	6.54	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	9.8	3	2	13:06	22.7	8.05	28.8	7.02	6.5	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	13:57	22.3	7.94	28.3	7.13	6.13	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	13:57	22.3	7.88	28.4	7.17	6.1	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.4	2	1	13:57	22.4	7.89	28.5	7.06	6.19	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.4	2	2	13:57	22.3	7.91	28.4	7.01	6.24	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	7.8	3	1	13:57	22.3	7.98	28.6	6.91	6.34	8.5
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	7.8	3	2	13:57	22.4	8.03	28.7	6.97	6.31	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	14:31	22.4	7.79	28.5	7.08	6.14	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	14:31	22.5	7.76	28.6	7.02	6.11	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	14:31						
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	14:31						
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	3.6	3	1	14:31	22.5	7.89	28.7	7.17	6.27	8.3
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	3.6	3	2	14:31	22.6	7.93	28.6	7.11	6.23	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	14:14	22.3	7.92	28.3	7.12	6.07	7.8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	14:14	22.4	7.95	28.2	7.19	6.13	8
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	14:14						
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	14:14						

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	2.8	3	1	14:14	22.5	7.87	28.3	7.21	6.23	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	2.8	3	2	14:14	22.6	7.94	28.4	7.25	6.26	8.2
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	14:48	22.6	7.92	28.4	7.18	6.1	8.1
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	14:48	22.5	7.95	28.5	7.13	6.12	7.9
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.4	2	1	14:48	22.6	7.9	28.5	7.07	5.95	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.4	2	2	14:48	22.7	7.94	28.6	7.1	5.98	7.6
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	11.8	3	1	14:48	22.7	7.98	28.6	7.25	6.02	7.7
TMCLKL	HY/2012/08	2017-04-27	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	11.8	3	2	14:48	22.8	8.02	28.7	7.29	6.09	7.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	1	09:50	23	7.77	29	6.77	6.56	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Surface	1	1	2	09:50	23	7.81	29	6.8	6.49	9.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	1	09:50	22.9	7.8	29.2	6.72	6.7	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Middle	8.9	2	2	09:50	22.9	7.84	29.2	6.69	6.78	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	1	09:50	22.9	7.79	29.3	6.99	6.99	10.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS4	Bottom	16.8	3	2	09:50	22.8	7.82	29.4	7.03	7.07	10.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	1	07:40	22.9	7.79	29.1	7.08	6.58	9.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Surface	1	1	2	07:40	22.9	7.83	29.1	7.11	6.64	9.5
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	1	07:40	22.8	7.8	29.3	7.23	6.87	10.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Middle	7	2	2	07:40	22.9	7.84	29.3	7.26	6.92	10.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	1	07:40	22.8	7.87	29.4	7.04	6.27	9.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	CS6	Bottom	12.9	3	2	07:40	22	7.9	29.5	7.01	6.34	9.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	1	09:18	23	7.76	28.9	6.76	6.33	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Surface	1	1	2	09:18	23	7.8	29	6.79	6.41	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	1	09:18	22.9	7.84	29.1	6.82	6.48	8.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Middle	5.9	2	2	09:18	22.9	7.81	29.1	6.85	6.55	8.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	1	09:18	22.8	7.87	29.3	6.97	6.9	9.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS12	Bottom	10.8	3	2	09:18	22.8	7.9	29.3	6.95	6.82	9.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	1	09:00	23	7.86	29	6.88	6.22	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Surface	1	1	2	09:00	23	7.89	28.9	6.84	6.31	8.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	1	09:00	22.9	7.84	29.2	6.9	6.53	9.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Middle	5.6	2	2	09:00	22.9	7.88	29.1	6.96	6.59	9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.2	3	1	09:00	22.9	7.79	29.3	6.98	6.8	9.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS13	Bottom	10.2	3	2	09:00	22.8	7.82	29.4	6.94	6.73	9.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	1	09:34	23	7.82	29	6.85	6.44	7.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Surface	1	1	2	09:34	23	7.85	28.9	6.81	6.5	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.6	2	1	09:34	22.9	7.77	29	6.77	6.73	8.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Middle	5.6	2	2	09:34	22.9	7.81	29.1	6.74	6.66	8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.2	3	1	09:34	22.9	7.86	29.2	6.88	6.94	8.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS14	Bottom	10.2	3	2	09:34	22.8	7.82	29.2	6.92	7.01	9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	1	08:40	22.9	7.84	29	6.84	6.16	8.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Surface	1	1	2	08:40	23	7.87	29.1	6.87	6.24	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.8	2	1	08:40	22.9	7.8	29.1	6.93	6.4	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Middle	4.8	2	2	08:40	22.9	7.77	29.1	6.95	6.48	8.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.5	3	1	08:40	22.8	7.84	29.3	6.78	6.7	9.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	IS15	Bottom	8.5	3	2	08:40	22.8	7.8	29.3	6.76	6.63	9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	1	08:17	22.9	7.84	29	6.96	5.94	7.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Surface	1	1	2	08:17	23	7.8	29.1	6.91	6.01	7.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	1	08:17						
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Middle		2	2	08:17						
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4	3	1	08:17	22.9	7.86	29.1	7.07	6.33	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR8	Bottom	4	3	2	08:17	22.9	7.82	29.1	7.1	6.41	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	1	08:29	22.9	7.78	29	6.89	6.08	8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Surface	1	1	2	08:29	23	7.81	28.8	6.92	6.13	8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	1	08:29						
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Middle		2	2	08:29						
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.4	3	1	08:29	22.9	7.83	28.9	6.99	6.27	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR9	Bottom	3.4	3	2	08:29	27.9	7.85	29	7.03	6.34	8.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	1	08:01	22.9	7.8	29	6.89	6.29	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Surface	1	1	2	08:01	22.9	7.77	29	6.93	6.33	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.7	2	1	08:01	22.9	7.84	29	7	6.58	8.5
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Middle	6.7	2	2	08:01	22.8	7.81	29.1	7.03	6.67	8.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.4	3	1	08:01	22.8	7.86	29.3	6.83	6.2	7.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Flood	Cloudy	Small wave	SR10A	Bottom	12.4	3	2	08:01	22.8	7.89	29.2	6.8	6.14	7.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	1	13:19	23.2	7.76	29.1	6.54	6.71	9.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Surface	1	1	2	13:19	23.2	7.79	29.2	6.57	6.77	9.5
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	1	13:19	23.2	7.84	29.3	6.62	6.85	9.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Middle	8.8	2	2	13:19	23.1	7.86	29.4	6.6	6.89	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	1	13:19	23.1	7.81	29.3	6.83	6.98	9.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS4	Bottom	16.5	3	2	13:19	23.1	7.89	29.4	6.86	7.04	10.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	1	15:35	23.3	7.88	29	7.03	6.87	9.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Surface	1	1	2	15:35	23.2	7.92	29	7.05	6.8	9.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	1	15:35	23.1	7.83	29.1	7.16	6.92	10
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Middle	6.8	2	2	15:35	23	7.86	29.2	7.19	6.99	9.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.5	3	1	15:35	22.9	7.84	29.3	7	6.47	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	CS6	Bottom	12.5	3	2	15:35	22.9	7.88	29.2	7.08	6.44	9.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	1	13:54	23.2	7.89	29.2	6.57	6.44	8.5
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Surface	1	1	2	13:54	23.2	7.93	29.3	6.55	6.5	9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.8	2	1	13:54	23.1	7.75	29.2	6.72	6.59	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Middle	5.8	2	2	13:54	23	7.7	29.1	6.77	6.64	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.5	3	1	13:54	23.1	7.62	29	6.84	6.98	9.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS12	Bottom	10.5	3	2	13:54	23.1	7.68	29.1	6.89	7.07	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	1	14:12	23.2	7.85	28.9	6.75	6.38	8.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Surface	1	1	2	14:12	23.2	7.89	28.9	6.78	6.44	8.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.5	2	1	14:12	23.1	7.61	28.9	6.64	6.67	9.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Middle	5.5	2	2	14:12	23.1	7.64	29	6.68	6.7	9.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10	3	1	14:12	23	7.82	29.1	6.82	6.86	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS13	Bottom	10	3	2	14:12	22.9	7.88	29.2	6.87	6.85	9.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	1	13:37	23.2	7.85	29	6.61	6.53	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Surface	1	1	2	13:37	23.3	7.89	29	6.65	6.58	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.5	2	1	13:37	23.2	7.76	29	6.52	6.82	8.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Middle	5.5	2	2	13:37	23.2	7.77	29.1	6.56	6.84	8.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	9.9	3	1	13:37	23.1	7.91	29.2	6.78	6.99	8.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS14	Bottom	9.9	3	2	13:37	23.1	7.94	29.3	6.76	7.05	9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	1	14:30	23.2	7.88	29	6.72	6.23	8.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Surface	1	1	2	14:30	23.3	7.81	29.1	6.74	6.27	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.7	2	1	14:30	23.3	7.76	29.1	6.88	6.48	8.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Middle	4.7	2	2	14:30	23.3	7.78	29.2	6.8	6.51	8.9
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.3	3	1	14:30	23.2	7.94	29.2	6.65	6.87	9.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	IS15	Bottom	8.3	3	2	14:30	23.1	7.97	29.3	6.68	6.89	9.4
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	1	15:03	23.2	7.86	29.1	6.81	6.1	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Surface	1	1	2	15:03	23.1	7.89	29.2	6.88	6.14	7.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	1	15:03						
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Middle		2	2	15:03						
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	3.8	3	1	15:03	23	7.73	29.2	6.94	6.57	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR8	Bottom	3.8	3	2	15:03	23	7.77	29.3	6.99	6.56	8.3
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	1	14:48	23.2	7.71	28.9	6.7	6.11	7.8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Surface	1	1	2	14:48	23.2	7.79	29	6.77	6.17	8
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	1	14:48						
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Middle		2	2	14:48						
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.1	3	1	14:48	23.1	7.84	29.1	6.81	6.35	8.2
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR9	Bottom	3.1	3	2	14:48	23	7.8	29.2	6.86	6.39	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	1	15:18	23.2	7.75	28.9	6.65	6.38	8.5
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Surface	1	1	2	15:18	23.1	7.79	28.9	6.67	6.36	8.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	1	15:18	23.1	7.85	28.9	6.82	6.75	8.7
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Middle	6.6	2	2	15:18	23.1	7.88	29	6.89	6.73	8.6
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	1	15:18	23	7.93	29	6.77	6.31	8.1
TMCLKL	HY/2012/08	2017-04-29	Mid-Ebb	Cloudy	Small wave	SR10A	Bottom	12.1	3	2	15:18	22.9	7.95	29.1	6.71	6.33	8.2

Appendix J

Impact Dolphin Monitoring Survey

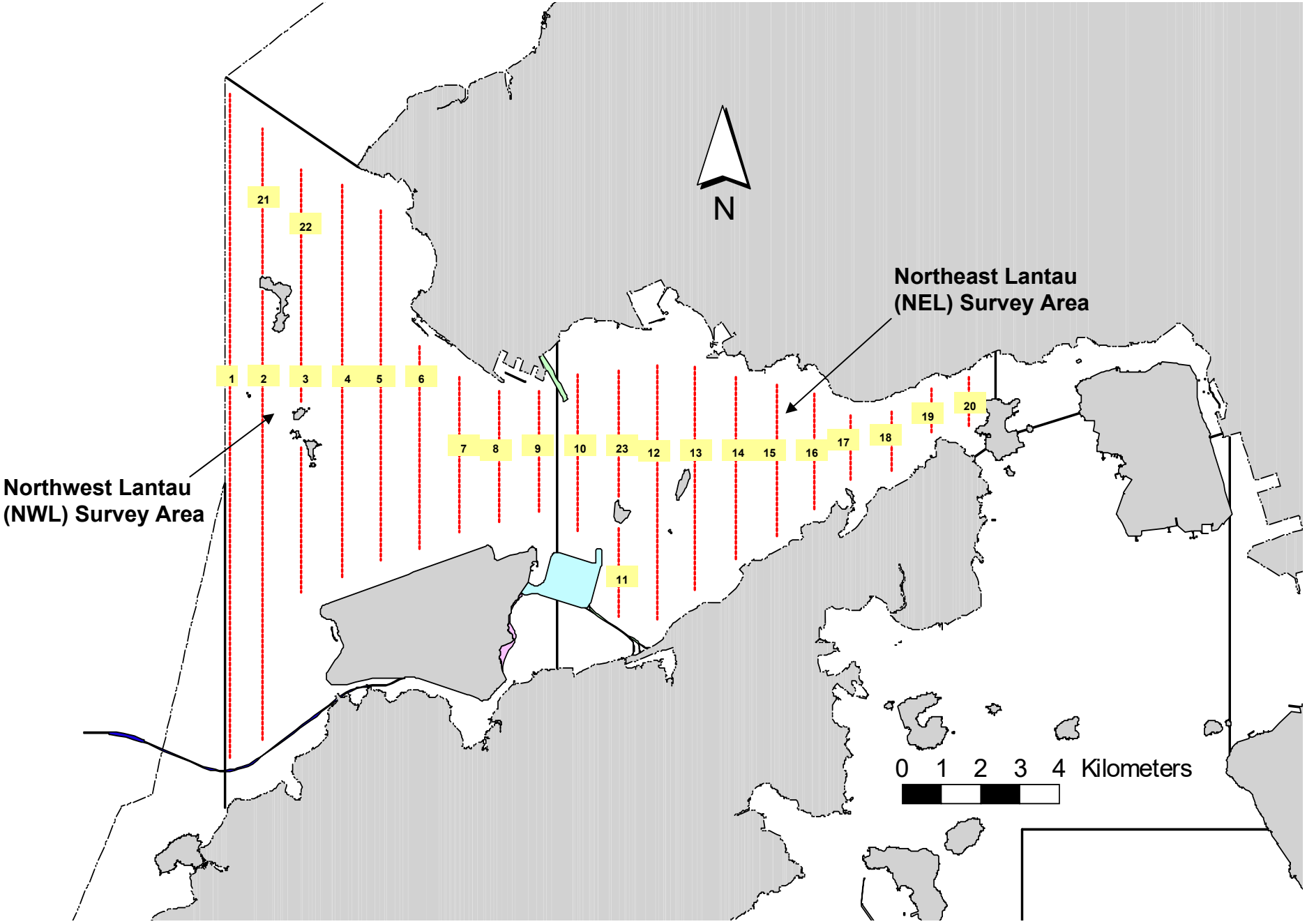


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

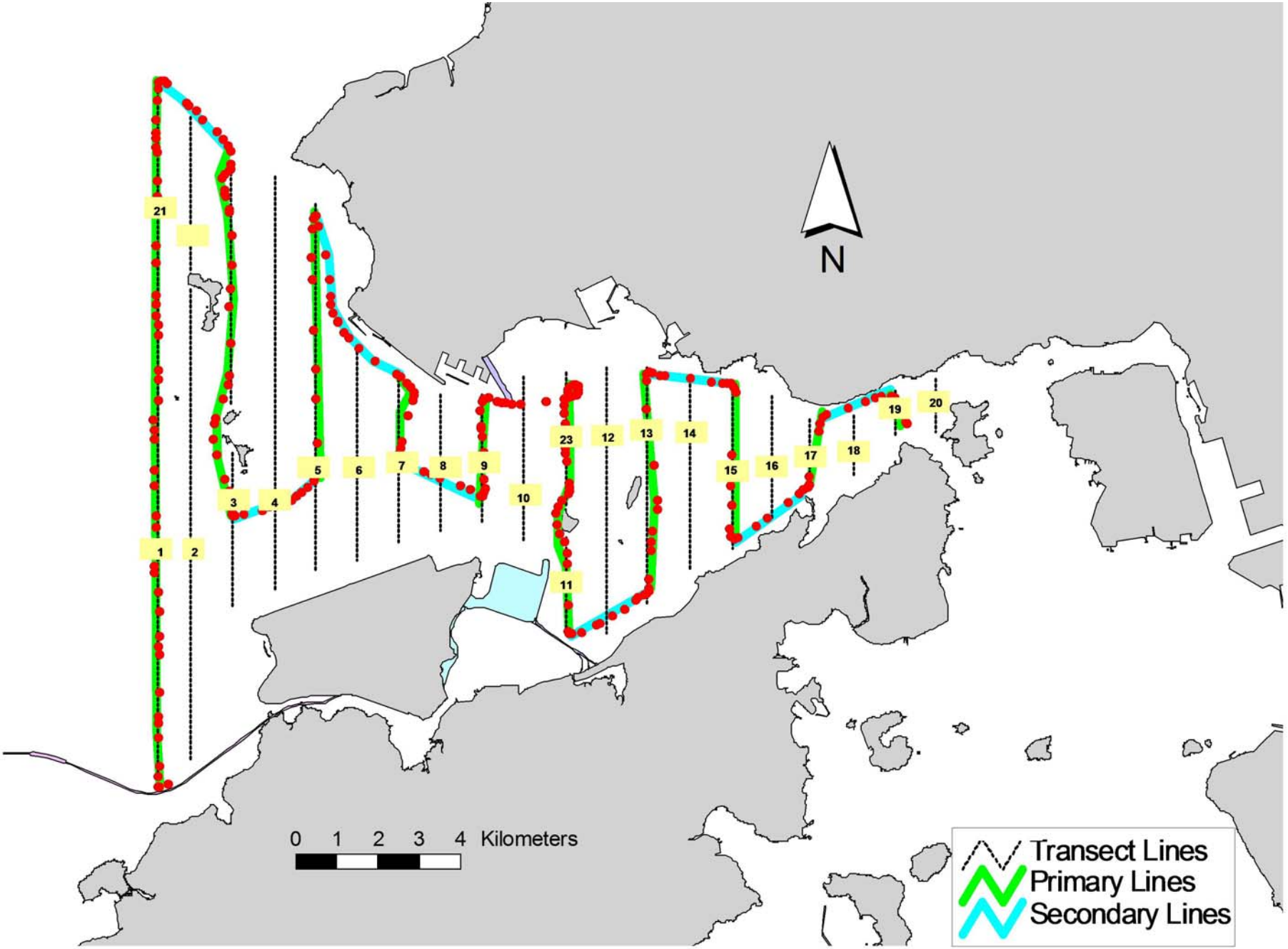


Figure 2. Survey Route on April 12th, 2017 (from HKLR03 project)

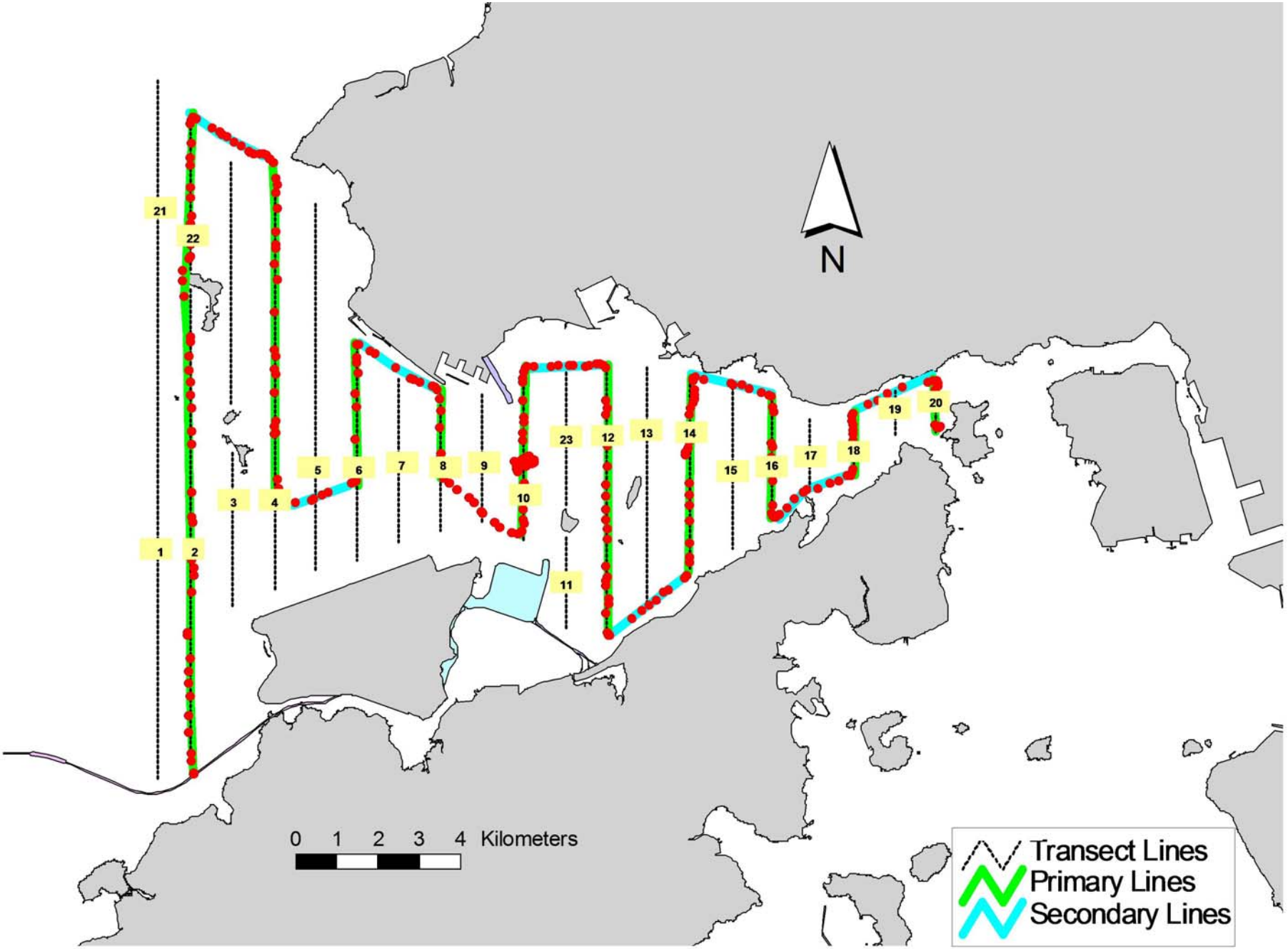


Figure 3. Survey Route on April 20th, 2017 (from HKLR03 project)

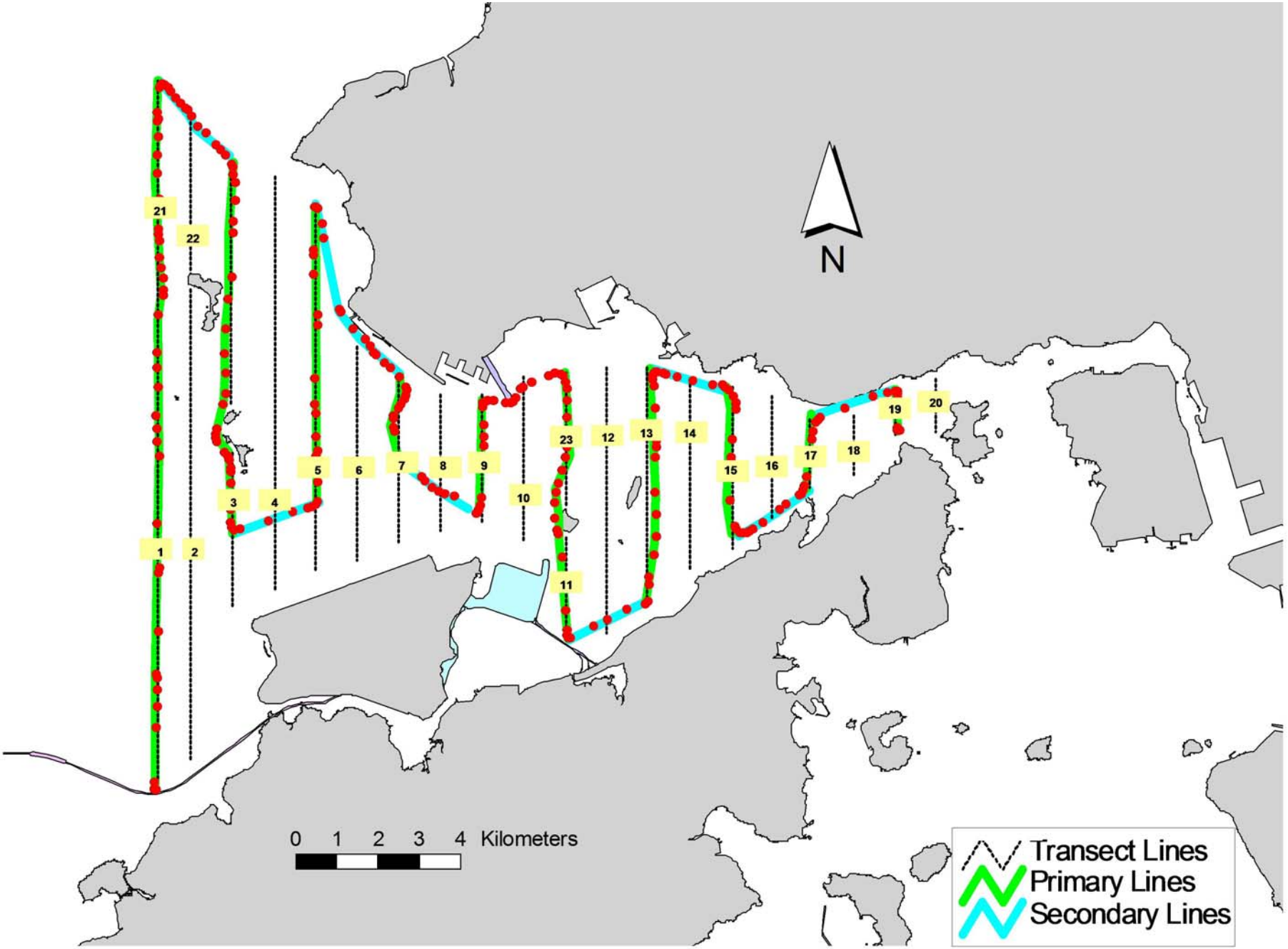


Figure 4. Survey Route on April 24th, 2017 (from HKLR03 project)

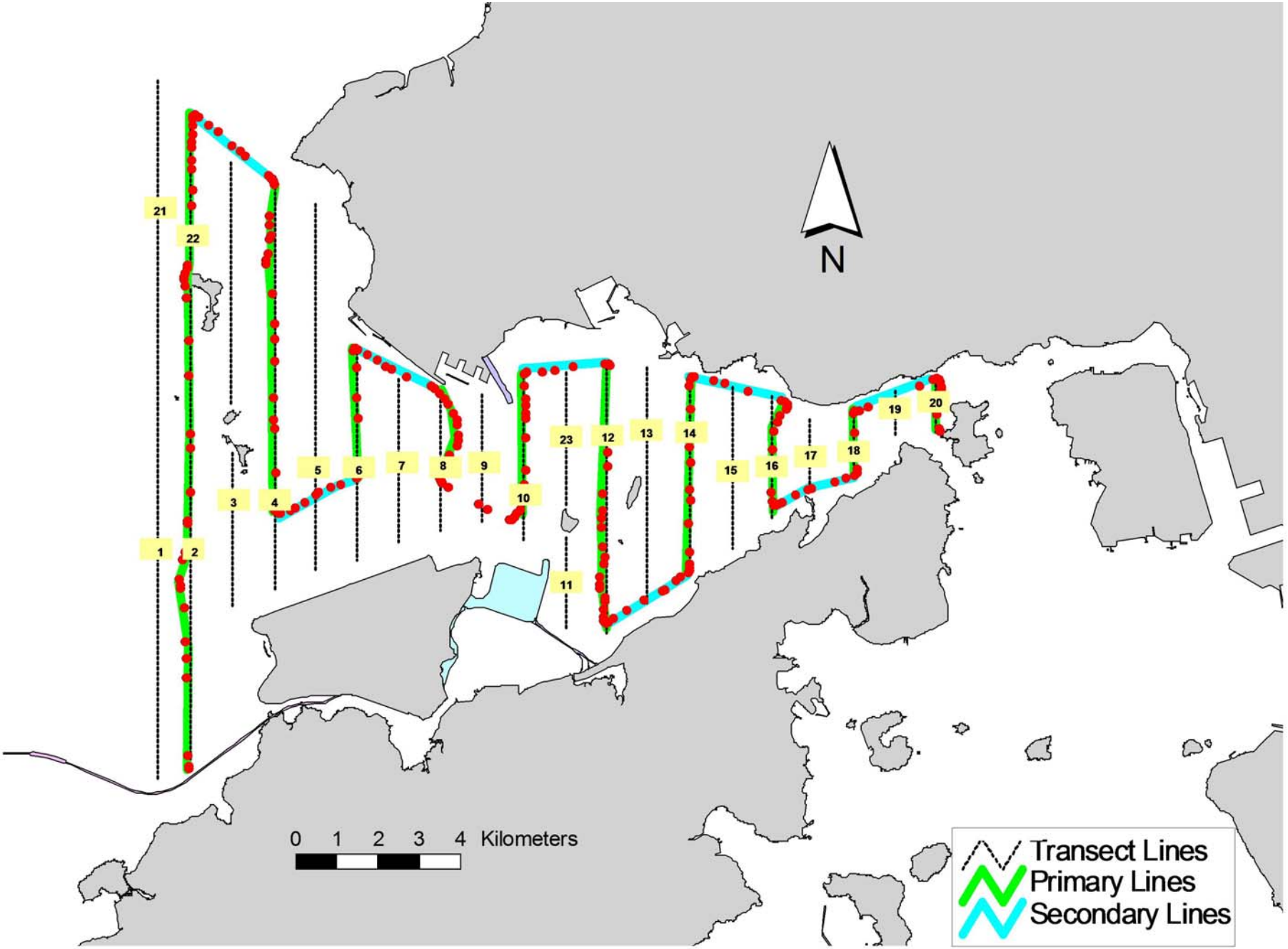


Figure 5. Survey Route on April 26th, 2017 (from HKLR03 project)

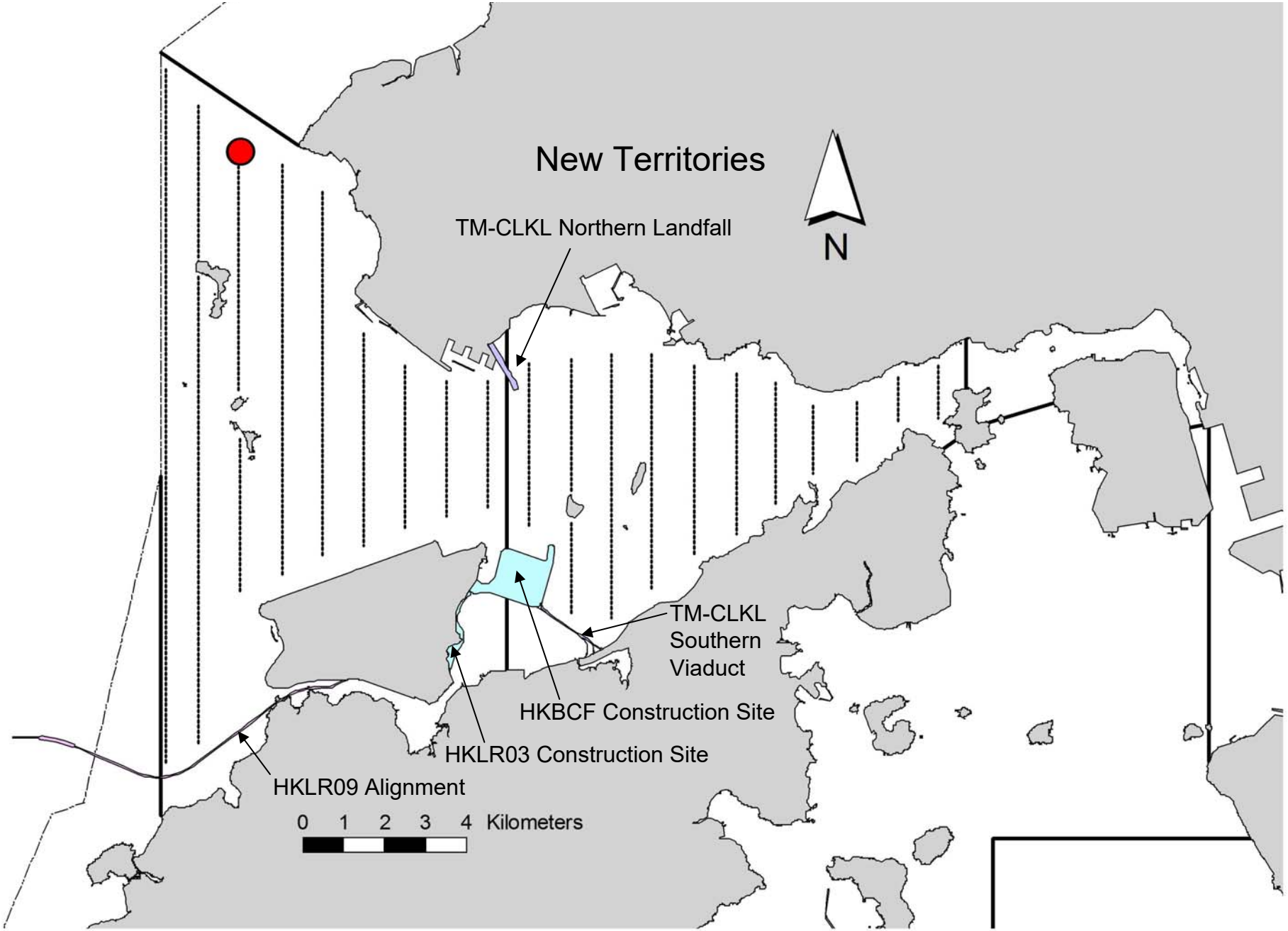


Figure 6. Distribution of Chinese White Dolphin Sightings during April 2017 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (April 2017)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
12-Apr-17	NW LANTAU	2	17.47	SPRING	STANDARD36826	HKLR	P
12-Apr-17	NW LANTAU	3	14.07	SPRING	STANDARD36826	HKLR	P
12-Apr-17	NW LANTAU	2	11.46	SPRING	STANDARD36826	HKLR	S
12-Apr-17	NW LANTAU	3	2.50	SPRING	STANDARD36826	HKLR	S
12-Apr-17	NE LANTAU	2	12.53	SPRING	STANDARD36826	HKLR	P
12-Apr-17	NE LANTAU	3	2.88	SPRING	STANDARD36826	HKLR	P
12-Apr-17	NE LANTAU	1	1.80	SPRING	STANDARD36826	HKLR	S
12-Apr-17	NE LANTAU	2	3.34	SPRING	STANDARD36826	HKLR	S
12-Apr-17	NE LANTAU	3	4.45	SPRING	STANDARD36826	HKLR	S
20-Apr-17	NW LANTAU	2	7.19	SPRING	STANDARD33706	HKLR	P
20-Apr-17	NW LANTAU	3	19.91	SPRING	STANDARD33706	HKLR	P
20-Apr-17	NW LANTAU	2	2.00	SPRING	STANDARD33706	HKLR	S
20-Apr-17	NW LANTAU	3	5.60	SPRING	STANDARD33706	HKLR	S
20-Apr-17	NE LANTAU	2	19.55	SPRING	STANDARD33706	HKLR	P
20-Apr-17	NE LANTAU	1	1.00	SPRING	STANDARD33706	HKLR	S
20-Apr-17	NE LANTAU	2	7.68	SPRING	STANDARD33706	HKLR	S
20-Apr-17	NE LANTAU	3	2.00	SPRING	STANDARD33706	HKLR	S
24-Apr-17	NW LANTAU	1	3.80	SPRING	STANDARD36826	HKLR	P
24-Apr-17	NW LANTAU	2	22.86	SPRING	STANDARD36826	HKLR	P
24-Apr-17	NW LANTAU	3	7.94	SPRING	STANDARD36826	HKLR	P
24-Apr-17	NW LANTAU	2	13.00	SPRING	STANDARD36826	HKLR	S
24-Apr-17	NE LANTAU	2	12.28	SPRING	STANDARD36826	HKLR	P
24-Apr-17	NE LANTAU	3	3.22	SPRING	STANDARD36826	HKLR	P
24-Apr-17	NE LANTAU	2	9.70	SPRING	STANDARD36826	HKLR	S
26-Apr-17	NW LANTAU	2	20.36	SPRING	STANDARD36826	HKLR	P
26-Apr-17	NW LANTAU	3	9.44	SPRING	STANDARD36826	HKLR	P
26-Apr-17	NW LANTAU	2	9.50	SPRING	STANDARD36826	HKLR	S
26-Apr-17	NW LANTAU	3	1.20	SPRING	STANDARD36826	HKLR	S
26-Apr-17	NE LANTAU	2	15.56	SPRING	STANDARD36826	HKLR	P
26-Apr-17	NE LANTAU	2	9.04	SPRING	STANDARD36826	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (April 2017)

(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-Apr-17	1	1123	2	NW LANTAU	2	20	ON	HKLR	829496	806462	SPRING	NONE	P

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in April 2017

ID#	DATE	STG#	AREA
NL210	12/04/17	1	NW LANTAU

Appendix IV. Photographs of Identified Individual Dolphins in April 2017 (HKLR03)

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 project commencement
1-hr TSP	Action	0	30
	Limit	0	2
24-hr TSP	Action	0	5
	Limit	0	1
Water Quality	Action	0	6
	Limit	0	1
Impact Dolphin Monitoring	Action	0	9
	Limit	0	8

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 (April 2017)	0	0	0
Total No. received since project commencement	14	0	0

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

ENVIRONMENTAL COMPLAINT/ENQUIRY INVESTIGATION REPORT

Our Reference: 0212330_Complaint LOG_20170328_13

Basic Information of Complaint/Enquiry

Reference Number:	Not disclosed
Date of Complaint/Enquiry Received	27 March 2017
Location of Complaint/Enquiry	Site near HKBCF of HZMB
Nature of Complaint/Enquiry	Noise nuisance and water pollution
Complaint/Enquiry Received by	EPD
Via	Not disclosed
Complainant/Enquirer	Not disclosed

Details of Complaint/Enquiry

On 27 March 2017, a complaint case was received by EPD regarding intermittent noise nuisance from the site near HKBCF of HZMB from 10:00pm on 26 March 2017 to the mid-night on 27 March 2017 and water pollution at the sea observed in the morning on 27 March 2017. The SOR, the Environmental Team (ET) and the Contractor(DBJV) received the complaint notification from IEC on 28 March 2017. The ET was informed that the case is categorized as complaint in nature upon the investigation, discussion and agreement between relevant parties (i.e. the Contractor (DBJV), SOR and IEC).

Investigation Report

Upon receiving the case notification from IEC on 28 March 2017, the Contractor had promptly checked the construction programme of March 2017.

According to the construction programme provided by the Contractor, the major construction works during the incident period were cutter soil mixing(CSM) ground treatment. Interview with the night time staff has been conducted. Cutter soil mixing rig and grout pump were being used. The construction works and the use of the above powered mechanical equipment were complied with the condition of current construction noise permit GW-RS0165-17. The construction programme is provided in Annex B. As the incident area is about 2.5km from the site, it is expected that there would not be any significant noise impact caused by this Contract.

Moreover, the water pollution at the sea shown in the photo provided by IEC *(Provided in Annex A)* is not likely to be related to this Contract since the site shown in the photo is not the site of this Contract. The incident area is also far away from the site of this Contract. Moreover, no marine works were undertaken at Southern Landfall during the incident period. Site investigation was conducted with SOR and DBJV on 19 April 2017. No improper discharge was observed. Wetsep records are provided in Annex F. A location map showing the distance between this site and the incident area is shown in Annex C. The site drainage plan showing the discharge location is shown in Annex D. Moreover, no contract-related marine traffic in the concerned waters was recorded according to the marine travel route record. The marine travel route record is provided in Annex E.

Based on the above, there is no evidence to prove that the complaint case is related to this Contract.

Mitigation Measures and Follow-Up Actions Recommended to/ Undertaken by Contractor

There is no evidence to prove that the complaint case is related to this Contract.

Nevertheless, The Contractor has been reminded to adhere strictly to implement all relevant mitigation measures of noise impact recommended or specified in the EP (EP-354/2009/D), the approved EIA and the Updated EM&A Manual of this Project to avoid causing noise pollution. No other additional action is required. The Contractor shall also fully comply with the conditions in the approved CNP to carry out construction works under the Contract.

The Contractor has also been reminded to adhere strictly to implement all relevant mitigation measures of water quality impact recommended or specified in the EP (EP-354/2009/D), the approved EIA, Updated EM&A Manual and the Water Discharge License of this Project to avoid causing water pollution. The Contractor shall also fully comply with the conditions in the approved water discharge license to carry out construction works under the Contract.

Date of File Closed : 11 May 2017

Approved and Filed by:

(Jovy Tam, ET Leader)
Date: 11 May 2017

Annex A

Photo record

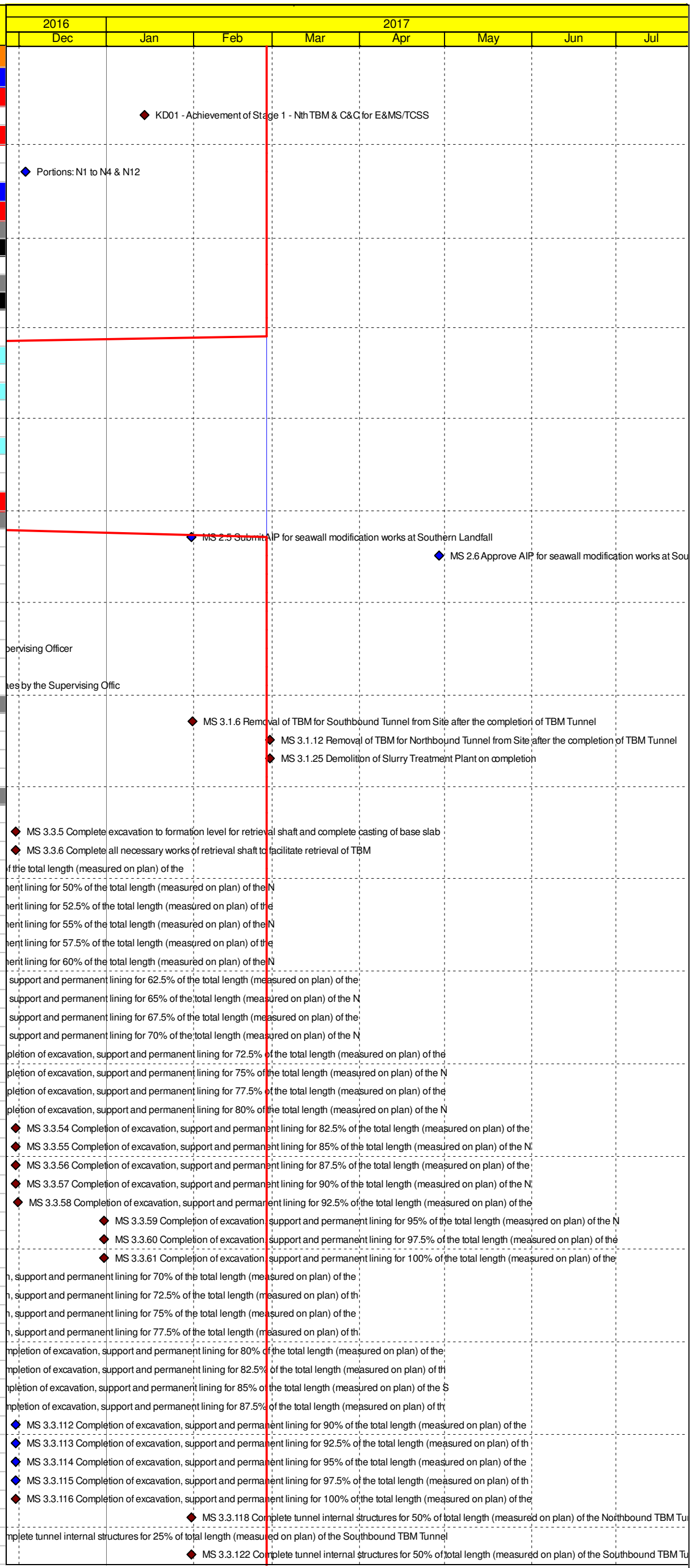
ERM

Annex A Photo provided by IEC

Annex B

Construction Programme

Activity Name
TMCLK - Northern Connection Sub-Sea Tunnel Section
Contract Dates
Commencement and Completion Dates
KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS
Site Possession Date
Portions: X1,(N10,11,13 & 14) - Sth Landfall
Portions: N1 to N4 & N12
General Submissions
Environmental
Environmental Permit Submissions
Supplementary WMP of C&C Tunnel at Sth.Landfall
Supplementary WMP of C&C Tunnel at Sth.Landfall
Sediment Quality Report/Dumping Permit
Southern Landfall
Southern landfall - Commencement of Shaft & C&C Tunnel Dwall
Southern Landfall - Commencement of Retrieval Shaft Excavation
Sediment Sampling & Testing Plan (SSTP) - if required
Complete SSTP and Obtain EPD's approval
Sediment Quality Report (SQR) - if required
Advance Ground Investigation works for Sediment sampling
Sediment Sample Testing & Report preparation
Dumping Permit for Load Dumping (Loading Permit) - if required
Finalize the applivation document and submit to EPD - for Dwall
Notify the results and issue Loading Permit for Local & Cross Boundary Crossing - for Dwall
PAYMENT MILESTONE
Design and Design Checking of the Works
MS 2.5 Submit AIP for seawall modification works at Southern Landfall
MS 2.6 Approve AIP for seawall modification works at Southern Landfall by the Supervising Officer
MS 2.44 Approve DDA for South Ventilation Building by the Supervising Officer
MS 2.52 Approve DDA for Facilities Provision for TCSS by the Supervising Officer
MS 2.60 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Northern Landfall by the Supervis
MS 2.69 Submit draft Operation and Maintenance Manual for all Tunnels and Cross Passgaes
MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgaes by the Supervising
MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes
MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes by the
Tunnel Boring Machine (TBM) and Back-up Equipment for TBM Tunnel
MS 3.1.6 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel
MS 3.1.12 Removal of TBM for Northbound Tunnel from Site after the completion of TBM Tunnel
MS 3.1.25 Demolition of Slurry Treatment Plant on completion
MS 3.1.26 Complete the whole of the activities under this Cost Centre Part to the satisfaction of the Supervisin
TBM Tunnel
MS 3.3.4 Complete walls of retrieval shaft
MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab
MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM
MS 3.3.40 Completion of excavation, support and permanent lining for 47.5% of the total length (measured o
MS 3.3.41 Completion of excavation, support and permanent lining for 50% of the total length (measured on
MS 3.3.42 Completion of excavation, support and permanent lining for 52.5% of the total length (measured o
MS 3.3.43 Completion of excavation, support and permanent lining for 55% of the total length (measured on
MS 3.3.44 Completion of excavation, support and permanent lining for 57.5% of the total length (measured o
MS 3.3.45 Completion of excavation, support and permanent lining for 60% of the total length (measured on
MS 3.3.46 Completion of excavation, support and permanent lining for 62.5% of the total length (measured o
MS 3.3.47 Completion of excavation, support and permanent lining for 65% of the total length (measured on
MS 3.3.48 Completion of excavation, support and permanent lining for 67.5% of the total length (measured o
MS 3.3.49 Completion of excavation, support and permanent lining for 70% of the total length (measured on
MS 3.3.50 Completion of excavation, support and permanent lining for 72.5% of the total length (measured o
MS 3.3.51 Completion of excavation, support and permanent lining for 75% of the total length (measured on
MS 3.3.52 Completion of excavation, support and permanent lining for 77.5% of the total length (measured o
MS 3.3.53 Completion of excavation, support and permanent lining for 80% of the total length (measured on
MS 3.3.54 Completion of excavation, support and permanent lining for 82.5% of the total length (measured o
MS 3.3.55 Completion of excavation, support and permanent lining for 85% of the total length (measured on
MS 3.3.56 Completion of excavation, support and permanent lining for 87.5% of the total length (measured o
MS 3.3.57 Completion of excavation, support and permanent lining for 90% of the total length (measured on
MS 3.3.58 Completion of excavation, support and permanent lining for 92.5% of the total length (measured o
MS 3.3.59 Completion of excavation, support and permanent lining for 95% of the total length (measured on
MS 3.3.60 Completion of excavation, support and permanent lining for 97.5% of the total length (measured o
MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured or
MS 3.3.104 Completion of excavation, support and permanent lining for 70% of the total length (measured or
MS 3.3.105 Completion of excavation, support and permanent lining for 72.5% of the total length (measured
MS 3.3.106 Completion of excavation, support and permanent lining for 75% of the total length (measured or
MS 3.3.107 Completion of excavation, support and permanent lining for 77.5% of the total length (measured
MS 3.3.108 Completion of excavation, support and permanent lining for 80% of the total length (measured or
MS 3.3.109 Completion of excavation, support and permanent lining for 82.5% of the total length (measured
MS 3.3.110Completion of excavation, support and permanent lining for 85% of the total length (measured on
MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured
MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on
MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured
MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on
MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured
MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured o
MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound
MS 3.3.121 Complete tunnel internal structures for 25% of total length (measured on plan) of the Southbound
MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbound



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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Three Months Rolling Programme

Progress as of 26-Feb-17

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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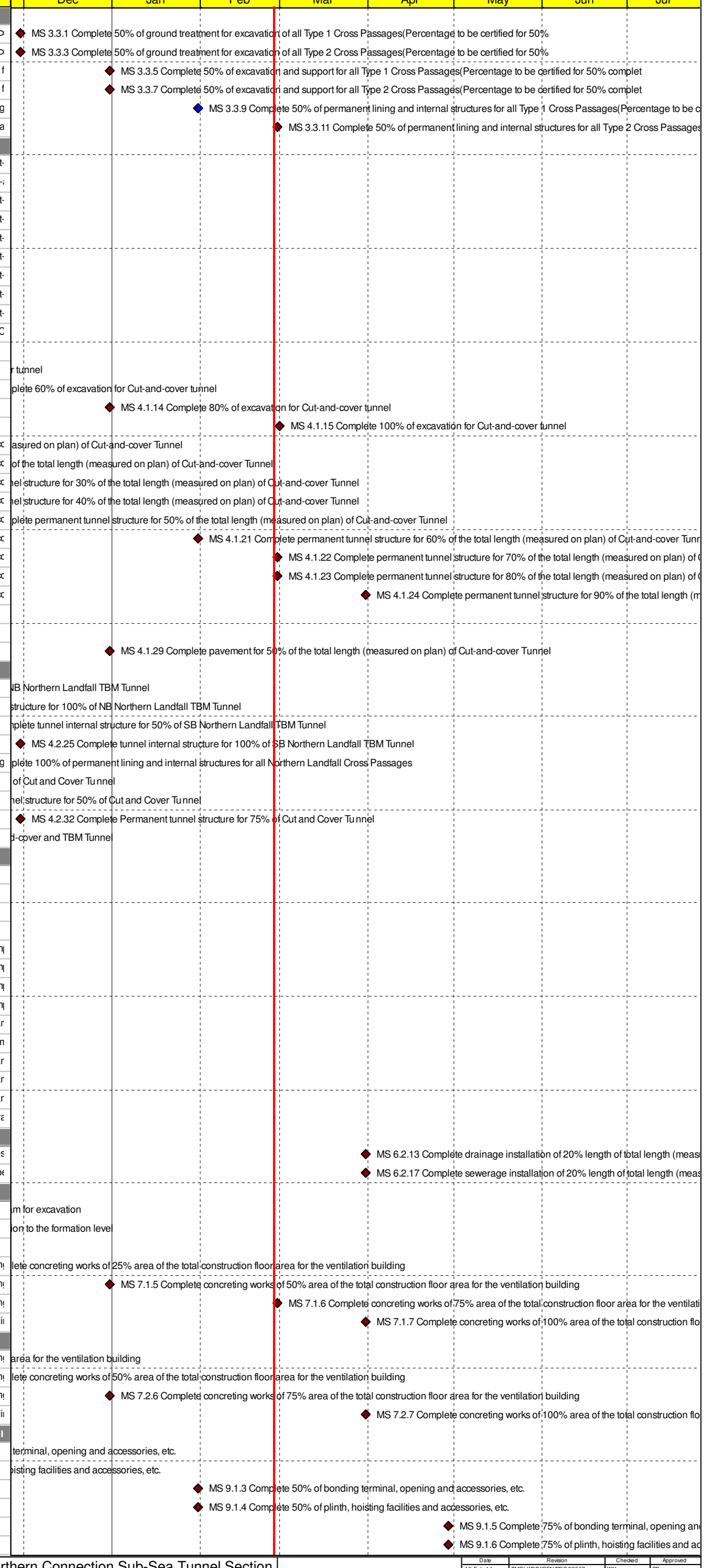
30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

Activity Name
Cross Passages for TBM Tunnel
MS 3.3.1 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be c
MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be c
MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified f
MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified f
MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentag
MS 3.3.11 Complete 50% of permanent lining and internal structures for all Type 2 Cross Passages(Percenta
Cut-and-cover Tunnels at Southern Landfalls
MS 4.1.1 Complete 10% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.2 Complete 20% of total length (measured on plan)of temporary retaining walls for excavation of Cut-
MS 4.1.3 Complete 30% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.4 Complete 40% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.5 Complete 50% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.6 Complete 60% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.7 Complete 70% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.8 Complete 80% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.9 Complete 90% of total length (measured on plan) of temporary retaining walls for excavation of Cut-
MS 4.1.10 Complete 100% of total length (measured on plan) of temporary retaining walls for excavation of C
MS 4.1.11
MS 4.1.12 Complete 40% of excavation for Cut-and-cover tunnel
MS 4.1.13 Complete 60% of excavation for Cut-and-cover tunnel
MS 4.1.14 Complete 80% of excavation for Cut-and-cover tunnel
MS 4.1.15 Complete 100% of excavation for Cut-and-cover tunnel
MS 4.1.16 Complete permanent tunnel structure for 10% of the total length (measured on plan) of Cut-and-cc
MS 4.1.17 Complete permanent tunnel structure for 20% of the total length (measured on plan) of Cut-and-cc
MS 4.1.18 Complete permanent tunnel structure for 30% of the total length (measured on plan) of Cut-and-cc
MS 4.1.19 Complete permanent tunnel structure for 40% of the total length (measured on plan) of Cut-and-cc
MS 4.1.20 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cc
MS 4.1.21 Complete permanent tunnel structure for 60% of the total length (measured on plan) of Cut-and-cc
MS 4.1.22 Complete permanent tunnel structure for 70% of the total length (measured on plan) of Cut-and-cc
MS 4.1.23 Complete permanent tunnel structure for 80% of the total length (measured on plan) of Cut-and-cc
MS 4.1.24 Complete permanent tunnel structure for 90% of the total length (measured on plan) of Cut-and-cc
MS 4.1.26 Complete excavation for 50% of total length (measured on plan) of all Cross Passages
MS 4.1.27 Complete excavation for 100% of total length (measured on plan) of all Cross Passages
MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel
Cut-and-cover Tunnel at Northern Landfall
MS 4.2.22 Complete tunnel internal structure for 50% of NB Northern Landfall TBM Tunnel
MS 4.2.23 Complete tunnel internal structure for 100% of NB Northern Landfall TBM Tunnel
MS 4.2.24 Complete tunnel internal structure for 50% of SB Northern Landfall TBM Tunnel
MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel
MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passag
MS 4.2.30 Complete Permanent tunnel structure for 25% of Cut and Cover Tunnel
MS 4.2.31 Complete Permanent tunnel structure for 50% of Cut and Cover Tunnel
MS 4.2.32 Complete Permanent tunnel structure for 75% of Cut and Cover Tunnel
MS 4.2.34 Complete Permanent junction structure at interface between Cut-and-cover and TBM Tunnel
Approach Ramp Structures to Cut-and-cover Tunnel at Southern Landfall
MS 5.1.2 Complete 40% of excavation for approach ramp structures
MS 5.1.3 Complete 60% of excavation for approach ramp structures
MS 5.1.4 Complete 80% of excavation for approach ramp structures
MS 5.1.5 Complete 100% of excavation for approach ramp structures
MS 5.1.6 Complete retaining wall foundation for 10% of the total length (measured on plan) of approach ramp
MS 5.1.7 Complete retaining wall foundation for 20% of the total length (measured on plan) of approach ramp
MS 5.1.8 Complete retaining wall foundation for 30% of the total length (measured on plan) of approach ramp
MS 5.1.9 Complete retaining wall foundation for 40% of the total length (measured on plan) of approach ramp
MS 5.1.10 Complete retaining wall foundation for 50% of the total length (measured on plan) of approach rar
MS 5.1.11 Complete retaining wall foundation for 60% of the total length (measured on plan) of approach ran
MS 5.1.12 Complete retaining wall foundation for 70% of the total length (measured on plan) of approach rar
MS 5.1.13 Complete retaining wall foundation for 80% of the total length (measured on plan) of approach rar
MS 5.1.14 Complete retaining wall foundation for 90% of the total length (measured on plan) of approach rar
MS 5.1.15 Complete retaining wall foundation for 100% of the total length (measured on plan) of approach ra
At grade Roads at Northern Landfall
MS 6.2.13 Complete drainage installation of 20% length of total length (measured on plan) of drainage pipes
MS 6.2.17 Complete sewerage installation of 20% length of total length (measured on plan) of sewerage pipe
South Ventilation Buildings
MS 7.1.1 Complete 100% of cofferdam for excavation
MS 7.1.2 Complete 100% of excavation to the formation level
MS 7.1.3 Complete 100% of foundation for the ventilation building
MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building
MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building
MS 7.1.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building
MS 7.1.7 Complete concreting works of 100% area of the total construction floor area for the ventilation buildi
North Ventilation Buildings
MS 7.2.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building
MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building
MS 7.2.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building
MS 7.2.7 Complete concreting works of 100% area of the total construction floor area for the ventilation buildi
Facilities Provision for E&M Works for TBM Tunnel, Cut & Cover Tunnels and Cı
MS 9.1.1 Complete 25% of bonding terminal, opening and accessories, etc.
MS 9.1.2 Complete 25% of plinth, hoisting facilities and accessories, etc.
MS 9.1.3 Complete 50% of bonding terminal, opening and accessories, etc.
MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.
MS 9.1.5 Complete 75% of bonding terminal, opening and accessories, etc.
MS 9.1.6 Complete 75% of plinth, hoisting facilities and accessories, etc.



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Planned Milestone
Progress bar
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Dragages HongKong
A member of the Bouygues Construction group
BOUYGUES TRAVAUX PUBLICS
Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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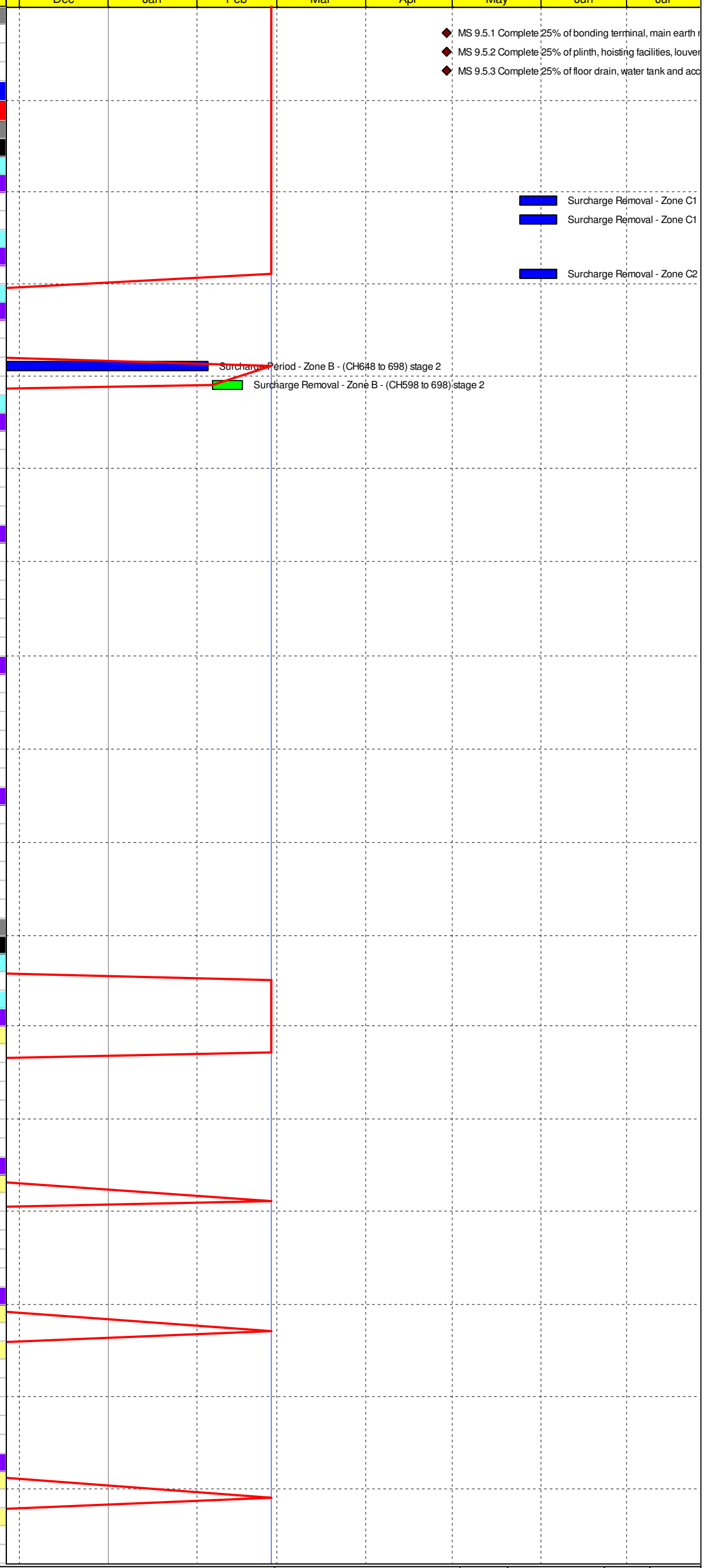
Activity Name
Facilities Provision for E&M Works for North Ventilation Building
MS 9.5.1 Complete 25% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal
MS 9.5.2 Complete 25% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.
MS 9.5.3 Complete 25% of floor drain, water tank and accessories, etc.
Construction
Northern Landfall
North Reclamation (Phase 1)
Construction
Zone C1
Reclamation
Surcharge Removal - Zone C1 - (CH493 to 543)
Surcharge Removal - Zone C1 - (CH493 to 543)
Zone C2
Reclamation
Surcharge Removal - Zone C2 - (CH543 to 598)
Zone B
Reclamation
Surcharge Removal - Zone B - (CH598 to 648)
Surcharge Removal - Zone B - (CH598 to 698) stage 1
Surcharge Period - Zone B - (CH648 to 698) stage 2
Surcharge Removal - Zone B - (CH598 to 698) stage 2
Zone F
CH184 to CH231
F - Anchor wall Installation - CH184 to CH231
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH184 to CH231
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall- CH184 to CH231
F - Backfilling up to +6.0mPD to Anchor Wall - CH184 to CH231
F - Backfilling to +6.0mPD to Existing Seawall - CH184 to CH231
CH231 to CH278
F - Backfilling up to +6.0mPD - CH231 to CH278
F - Anchor wall Installation - CH231 to CH278
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH231 to CH278
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH231 to CH278
F - Backfilling up to +6.0mPD to Anchor Wall - CH231 to CH278
F - Backfilling to +6.0mPD to Existing Seawall - CH231 to CH278
CH278 to CH327
F - Backfilling up to +6.0mPD - CH278 to CH327
F - Anchor wall Installation - CH278 to CH327
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH278 to CH327
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH278 to CH327
F - Backfilling up to +6.0mPD to Anchor Wall - CH278 to CH327
F - Backfilling to +6.0mPD to Existing Seawall - CH278 to CH327
CH327 to CH381
F - Backfilling up to +6.0mPD - CH327 to CH381
F - Anchor wall Installation - CH327 to CH381
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH327 to CH381
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH327 to CH381
F - Backfilling up to +6.0mPD to Anchor Wall - CH327 to CH381
F - Backfilling to +6.0mPD to Existing Seawall - CH327 to CH381
Box Culvert Extension
Construction
Ch000-010 Culvert Outfall
Removal of temporary bulk head
CH100-150 Land Section
Pile A41/A39 CJ to Pile A39/A37 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Sliding formworks 1st assembly
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A39/A37 CJ to Pile A37/A35 CJ
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A37/A35 CJ to Pile A35/A33 CJ
ELS
Excavation to FEL
Box Culvert Structure
Pile cap construction
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile A35/A33 CJ to Pile A33/P117 CJ
ELS
Excavation to FEL
Box Culvert Structure
Pile cap construction
Base slab construction including kicker



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Planned Bar
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Planned Milestone
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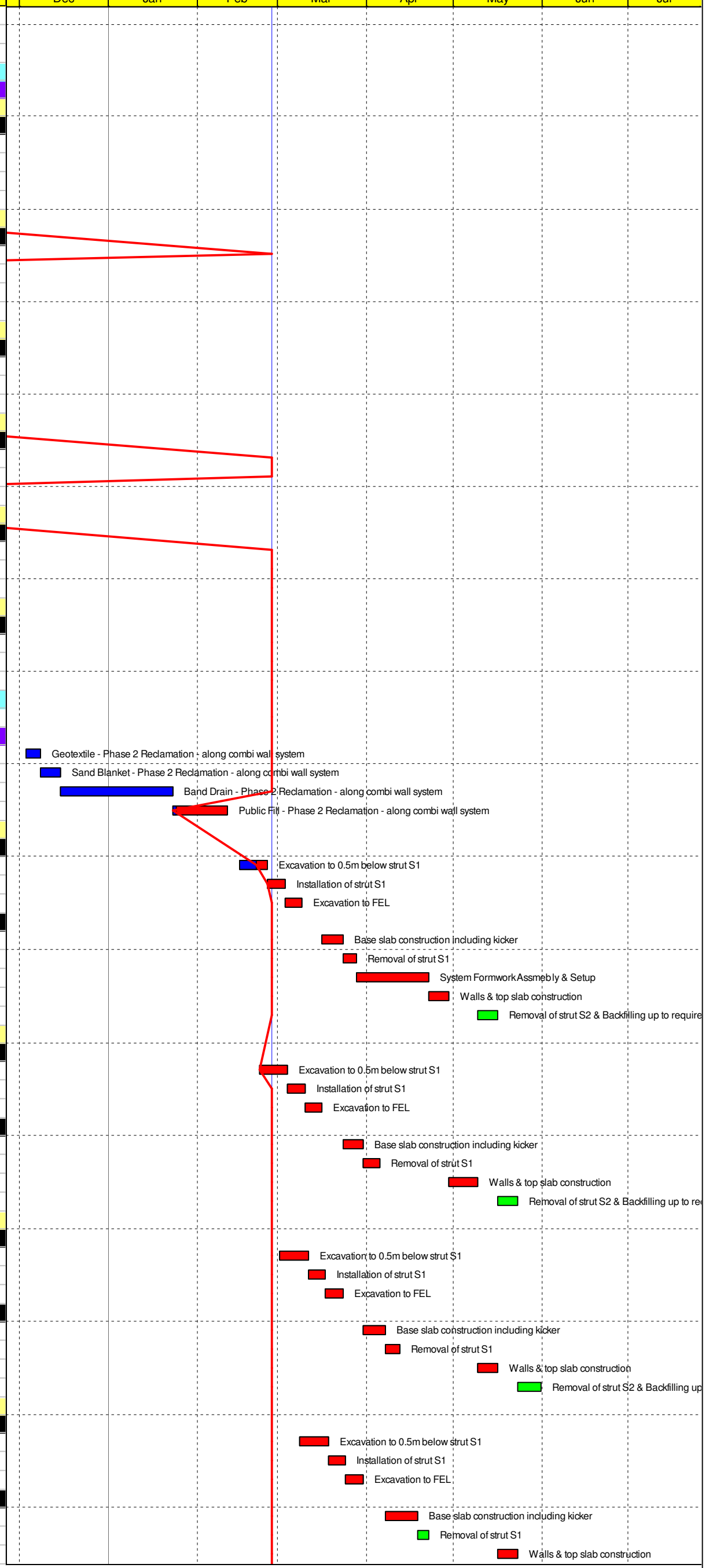
Activity Name
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Ch150-250 Marine Section
ELS & Structure
Pile A33/P117 CJ to Pile P113/P109 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P113/P109 CJ to Pile P105/P101 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P105/P101 CJ to Pile P97/P93 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Pile P97/P93 CJ to Pile P89/P85 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Pile P89/P85 CJ to Pile P81/P77 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Pile P81/P77 CJ to Pile P73/P69 CJ
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Ch250-380 Marine Section
New Activity
ELS & Structure
Geotextile - Phase 2 Reclamation - along combi wall system
Sand Blanket - Phase 2 Reclamation - along combi wall system
Band Drain - Phase 2 Reclamation - along combi wall system
Public Fill - Phase 2 Reclamation - along combi wall system
Pile P73/P69 CJ to Pile P65/P61 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
System Formwork Assmebly & Setup
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P65/P61 CJ to Pile P57/P53 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P57/P53 CJ to Pile P49/P45 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Removal of strut S2 & Backfilling up to required level
Pile P49/P45 CJ to Pile P41/P37 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction



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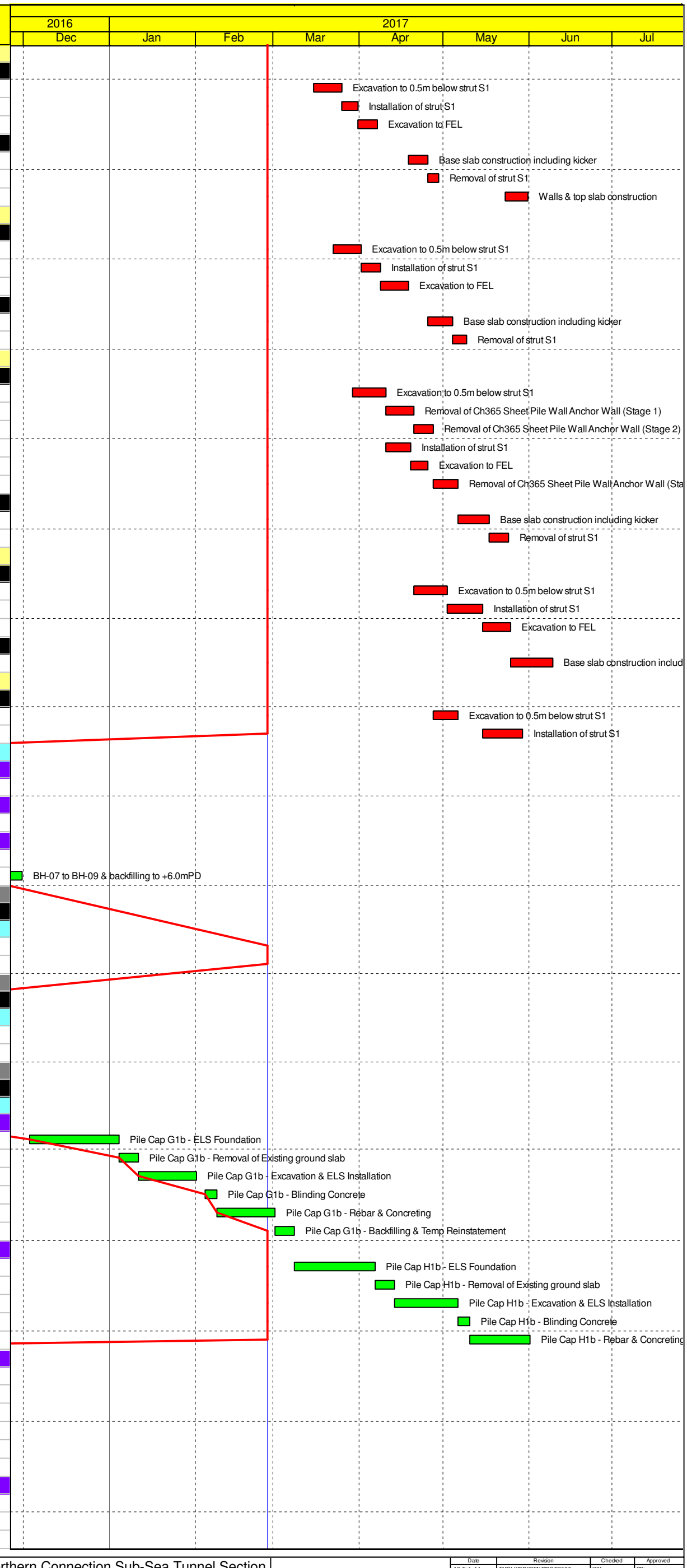
Activity Name
Pile P41/P37 CJ to Pile P33/P29 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Walls & top slab construction
Pile P33/P29 CJ to Pile P25/P21 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Pile P25/P21 CJ to Pile P17/P13 CJ
ELS
Excavation to 0.5m below strut S1
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 1)
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 2)
Installation of strut S1
Excavation to FEL
Removal of Ch365 Sheet Pile Wall Anchor Wall (Stage 3)
Box Culvert Structure
Base slab construction including kicker
Removal of strut S1
Pile P17/P13 CJ to Pile P09/P05 CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Excavation to FEL
Box Culvert Structure
Base slab construction including kicker
Pile P09/P05 CJ to End Wall CJ
ELS
Excavation to 0.5m below strut S1
Installation of strut S1
Miscellaneous works
Inspection Manhole (IM)
Inspection Manhole IM-01 to IM-04 & backfilling to +6.0mPD
Stop Log Opening (SLO)
SLO-01 to SLO-05 & backfilling to +6.0mPD
Balance Hole (BH)
BH-01 to BH-03 & backfilling to +6.0mPD
BH-07 to BH-09 & backfilling to +6.0mPD
North Launching Shaft
Design Submission
(C1) DDA for North C&C Tunnel Permanent Structure
SO's Review
SO Approval with Condition Received
North Ventilation Shaft
Construction
North Ventilation Shaft Structure
NVS - ML03 Tunnel Structure
NVS - ML02 Tunnel Structure
TMCLK VO-008 - Construction of Viaduct Foundations at Portion N6A
Viaduct Pile Cap
Construction
Pier G1b
Pile Cap G1b - ELS Foundation
Pile Cap G1b - Removal of Existing ground slab
Pile Cap G1b - Excavation & ELS Installation
Pile Cap G1b - Blinding Concrete
Pile Cap G1b - Rebar & Concreting
Pile Cap G1b - Backfilling & Temp Reinstatement
Pier H1b
Pile Cap H1b - ELS Foundation
Pile Cap H1b - Removal of Existing ground slab
Pile Cap H1b - Excavation & ELS Installation
Pile Cap H1b - Blinding Concrete
Pile Cap H1b - Rebar & Concreting
Pier G1c
Pile Cap G1c - Preparation for ELS
Pile Cap G1c - Removal of Existing ground slab
Pile Cap G1c - Excavation & ELS Installation
Pile Cap G1c - Blinding Concrete
Pile Cap G1c - Rebar & Concreting
Pile Cap G1c - Backfilling & Temp Reinstatement
Pier H1c
Pile Cap H1c - Preparation for ELS
Pile Cap H1c - Removal of Existing ground slab
Pile Cap H1c - Excavation & ELS Installation



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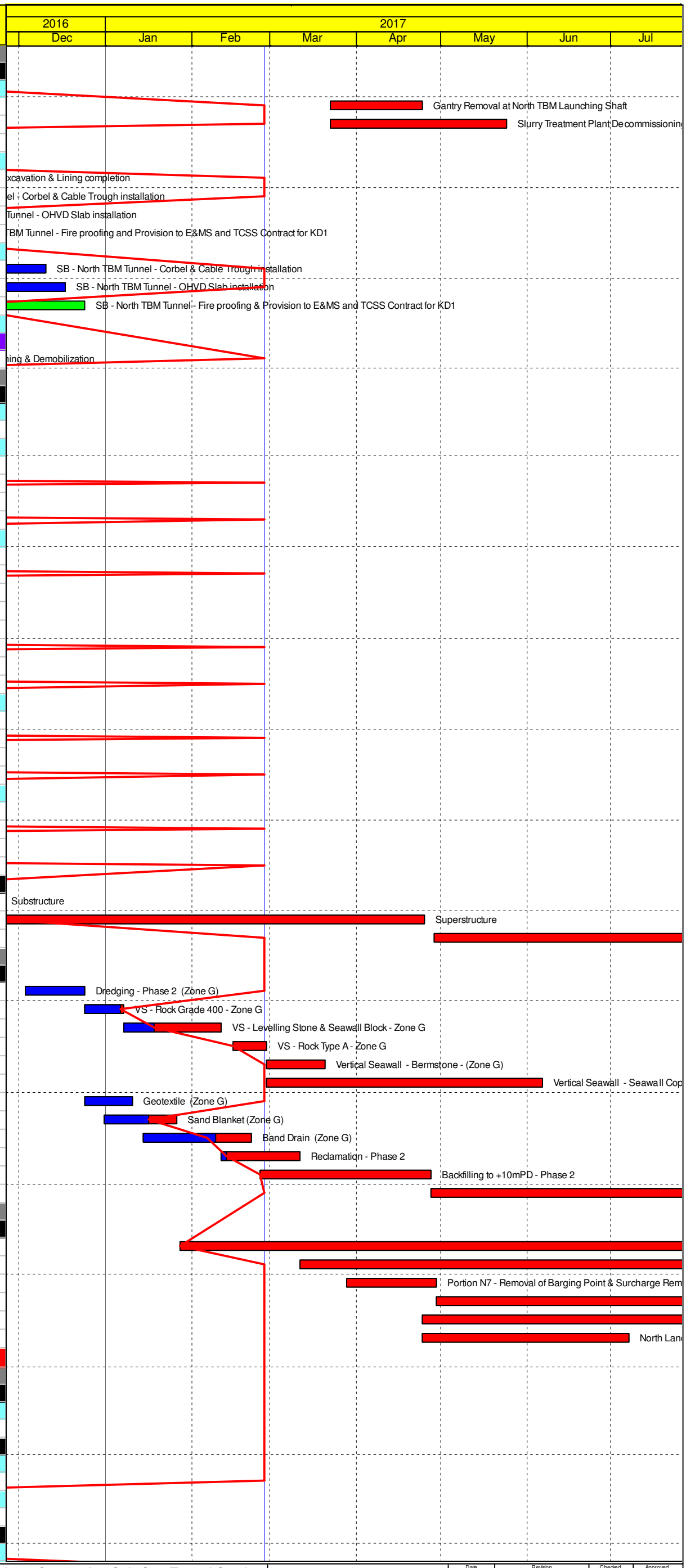
Activity Name
North Approach TBM Tunnelling & Cross Passage
Construction
Northern Landfall Surface Setup for TBM operation
Gantry Removal at North TBM Launching Shaft
Slurry Treatment Plant Decommissioning & Removal
Gantry Removal at North Ventilation Shaft
North Approach Tunnel Internal Structure - NB
CP51 - Excavation & Lining completion
NB - North TBM Tunnel - Corbel & Cable Trough installation
NB - North TBM Tunnel - OHVD Slab installation
NB - North TBM Tunnel - Fire proofing and Provision to E&MS and TCSS Contract for KD1
North Approach Tunnel Internal Structure - SB
SB - North TBM Tunnel - Corbel & Cable Trough installation
SB - North TBM Tunnel - OHVD Slab installation
SB - North TBM Tunnel - Fire proofing & Provision to E&MS and TCSS Contract for KD1
North Approach Cross Passage
CP51 - Traditional Method
CP Finishing & Demobilization
North Ventilation Building
Design Submission
(A11) Submissons to Design Advisory Panel of ArchSD
ArchSD's comment
(I1) DDA for North Vent.Bldgs. GBP & Arch.Submission
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I1) DDA for North & South Vent.Bldg. ABWF works
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
Submit ICE Check Cert to SO
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I2) DDA for North Vent.Bldgs.Structural Design incl.Vent.Connections
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I3) DDA for North & South Vent.Bldgs. Service and E&M Provision
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Construction
Substructure
Superstructure
Finishing Works
North Reclamation (Phase 2)
Construction
Dredging - Phase 2 (Zone G)
VS - Rock Grade 400 - Zone G
VS - Levelling Stone & Seawall Block - Zone G
VS - Rock Type A - Zone G
Vertical Seawall - Bermstone - (Zone G)
Vertical Seawall - Seawall Coping - (Zone G)
Geotextile (Zone G)
Sand Blanket (Zone G)
Band Drain (Zone G)
Reclamation - Phase 2
Backfilling to +10mPD - Phase 2
Surcharge - Phase 2
North Surface Roadworks, Utility & Drainage works
Construction
North Landfall - Underground Sewerage & Drainage - Summary
North Landfall - Underground Sewerage & Drainage - Portion N5
Portion N7 - Removal of Barging Point & Surcharge Removal to +6mPD
North Landfall - Underground Sewerage & Drainage - Portion N7
North Landfall - Watermain & Undergournd Utilities - Summary
North Landfall - Watermain & Undergournd Utilities - Zone E
Sub-sea Tunnel
Sub-sea TBM Tunnelling
Major Procurement
Precast Semgnet ID12.40 - Production for Sub-sea TBM Tunnel
ID12.40 TBM Segment Ring Fabrication - 12 rings per day
Design Submission
(G1) DDA for TBM Tunnel Lining Structural Design - Sub-sea tunnel
Sub-sea TBM Tunnel Segment - Fabrication
(G3) DDA for TBM Tunnel Internal Structures (Sub-sea)
Sub-sea Tunnel - Precast Gallery Fabrication
Construction
Sub-sea TBM Tunnel - NB ID12.2m - S881



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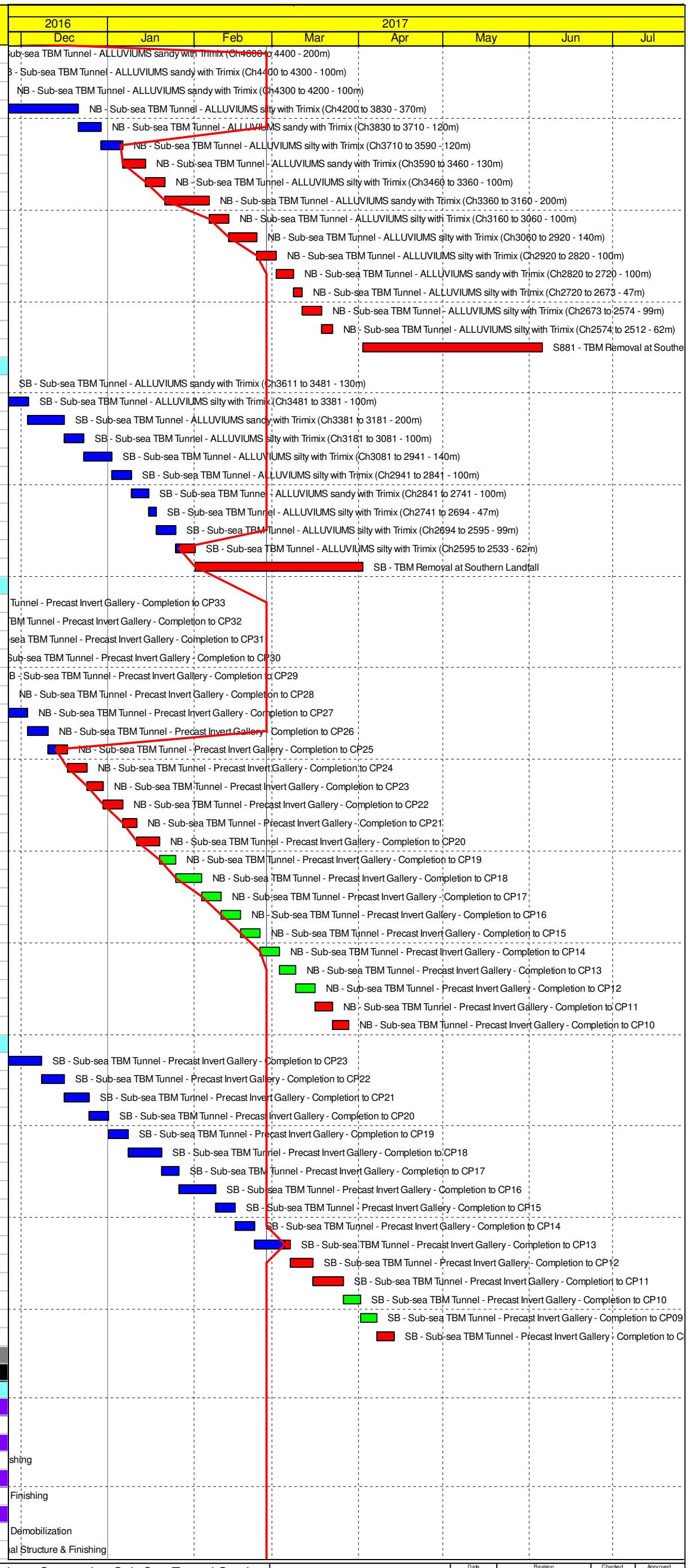
Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	WYu	SPo
08-Apr-14	TMCLK/DBJ/GEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJ/GEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

Activity Name
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4600 to 4400 - 200m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4400 to 4300 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4300 to 4200 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4200 to 3830 - 370m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3830 to 3710 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3710 to 3590 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3590 to 3460 - 130m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3460 to 3360 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3360 to 3160 - 200m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3160 to 3060 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3060 to 2920 - 140m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2920 to 2820 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2820 to 2720 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2720 to 2673 - 47m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2673 to 2574 - 99m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2574 to 2512 - 62m)
S881 - TBM Removal at Southern Landfall
Sub-sea TBM Tunnel - SB ID12.2m - S882
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3611 to 3481 - 130m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3481 to 3381 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3381 to 3181 - 200m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3181 to 3081 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3081 to 2941 - 140m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2941 to 2841 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2841 to 2741 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2741 to 2694 - 47m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2694 to 2595 - 99m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2595 to 2533 - 62m)
SB - TBM Removal at Southern Landfall
Sub-sea TBM Tunnel - NB - Precast Invert Gallery
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP33
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP32
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP31
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP30
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP29
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP28
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP12
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP11
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP10
Sub-sea TBM Tunnel - SB - Precast Invert Gallery
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP12
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP11
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP10
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP09
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP08
Sub-sea Tunnel Cross Passage & Internal Structure
Construction
Sub-sea Tunnel Cross Passage
CP47 - ML03 - Ch6390
CP - Remaining Internal Structure & Finishing
CP46 - ML03 - Ch6292
CP - Remaining Internal Structure & Finishing
CP45 - ML03 - Ch6193
CP - Remaining Internal Structure & Finishing
CP44 - ML03 - Ch6095
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing



Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 26-Feb-17

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

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Activity Name	2016 Dec	2017 Jan	Feb	Mar	Apr	May	Jun	Jul
CP43 - ML03 - Ch5996								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP42 - ML03 - Ch5898								
CP - Remaining Internal Structure & Finishing								
CP40 - ML03 - Ch5703								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP39 - ML03 - Ch5607								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP38 - ML03 - Ch5510								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP37 - ML03 - Ch5413								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP36 - ML03 - Ch5315								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP35 - ML03 - Ch5217								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP34 - ML03 - Ch5118								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP33 - ML03 - Ch5020								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP32 - ML03 - Ch4921								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP31 - ML03 - Ch4823								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP30 - ML03 - Ch4724								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP29 - ML03 - Ch4626								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP28 - ML03 - Ch4527								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP27 - ML03 - Ch4429								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP26 - ML03 - Ch4330								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP25 - ML03 - Ch4232								
CP - Pipe Jacking Method - Setup & Assembly								
CP - Piping Jacking Method - Break-in & Excavation								
CP - Pipe Jacking Method - Break-out & Demobilization								
CP - Remaining Internal Structure & Finishing								
CP24 - ML03 - Ch4133								

Project ID: TMCLK DWPF 16W25

Data Date: 26-Feb-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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

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Activity Name
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP23 - ML03 - Ch4035
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP - Remaining Internal Structure & Finishing
CP22 - ML03 - Ch3936
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP21 - ML03 - Ch3838
CP - Pipe Jacking Method - Setup & Assembly
CP - Piping Jacking Method - Break-in & Excavation
CP - Pipe Jacking Method - Break-out & Demobilization
CP20 - ML03 - Ch3739
CP - Pipe Jacking Method - Setup & Assembly
CP19 - ML03 - Ch3641
CP - Pipe Jacking Method - Setup & Assembly
CP18 - ML03 - Ch3542
CP - Pipe Jacking Method - Setup & Assembly
CP17 - ML03 - Ch3444
CP - Pipe Jacking Method - Setup & Assembly
CP16 - ML03 - Ch3345
CP - Pipe Jacking Method - Setup & Assembly
CP15 - ML03 - Ch3247
CP - Pipe Jacking Method - Setup & Assembly
CP14 - ML03 - Ch3148
CP - Pipe Jacking Method - Setup & Assembly
CP13 - ML03 - Ch3050
CP - Pipe Jacking Method - Setup & Assembly
CP12 - ML03 - Ch2951
CP - Pipe Jacking Method - Setup & Assembly
CP11 - ML03 - Ch2853
CP - Pipe Jacking Method - Setup & Assembly
Sub-sea TBM Tunnel - NB - Remaining Internal Structure
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP48
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP47
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP46
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP45
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
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NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP28
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP27
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP26
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP25
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP24
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP23
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP48
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP47
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP46
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38
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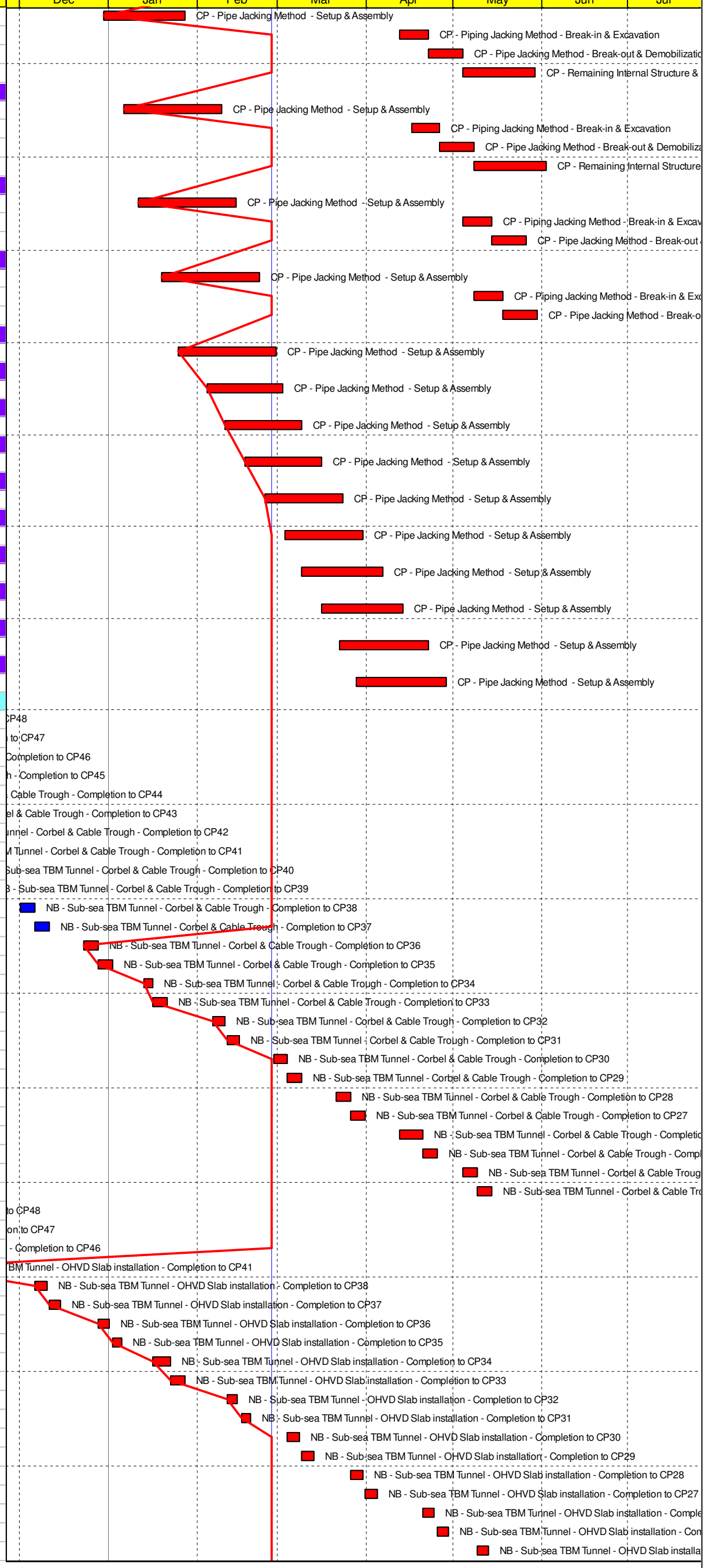
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP27
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP26
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP25
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP24



Project ID: TMCLK DWPF 16W25

Data Date: 26-Feb-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

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Dragages HongKong 香港寶嘉

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

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Activity Name
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP23
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP30
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP29
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP28
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP27
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP26
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP25
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP24
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP23
NB - Sub-sea TBM Tunnel - Road Level Fire Proofing
Sub-sea TBM Tunnel - SB - Remaining Internal Structure
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP48
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP47
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP46
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP45
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35
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SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP24
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP23
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP36
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP35
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SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP23
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35
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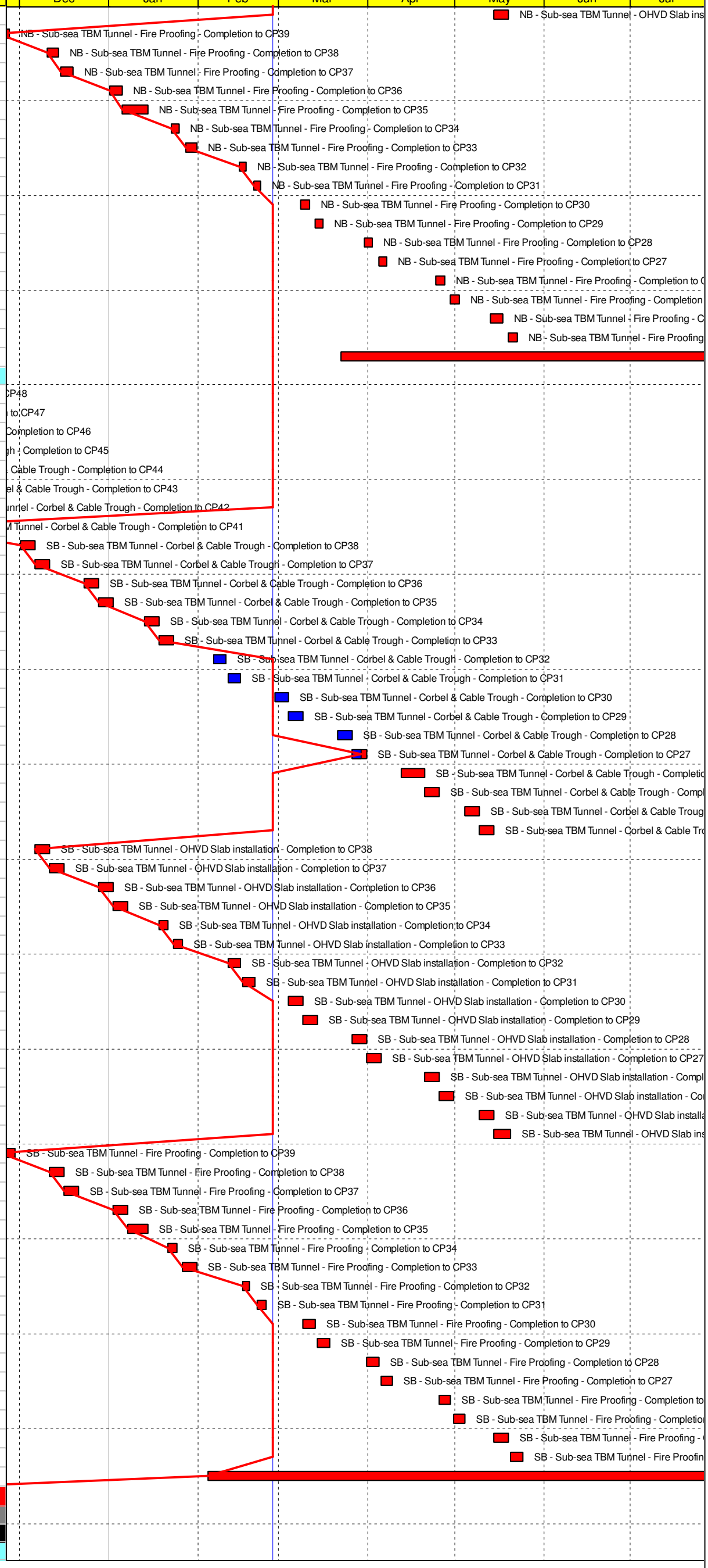
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP25
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP24
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP23
SB - Remaining Fire Proofing in Tunnel
Southern Landfall
South Cut & Cover Tunnel
Design Submission
(E2) DDA for South C&C Box & Approach Ramp



Project ID: TMCLK DWPF 16W25

Data Date: 26-Feb-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

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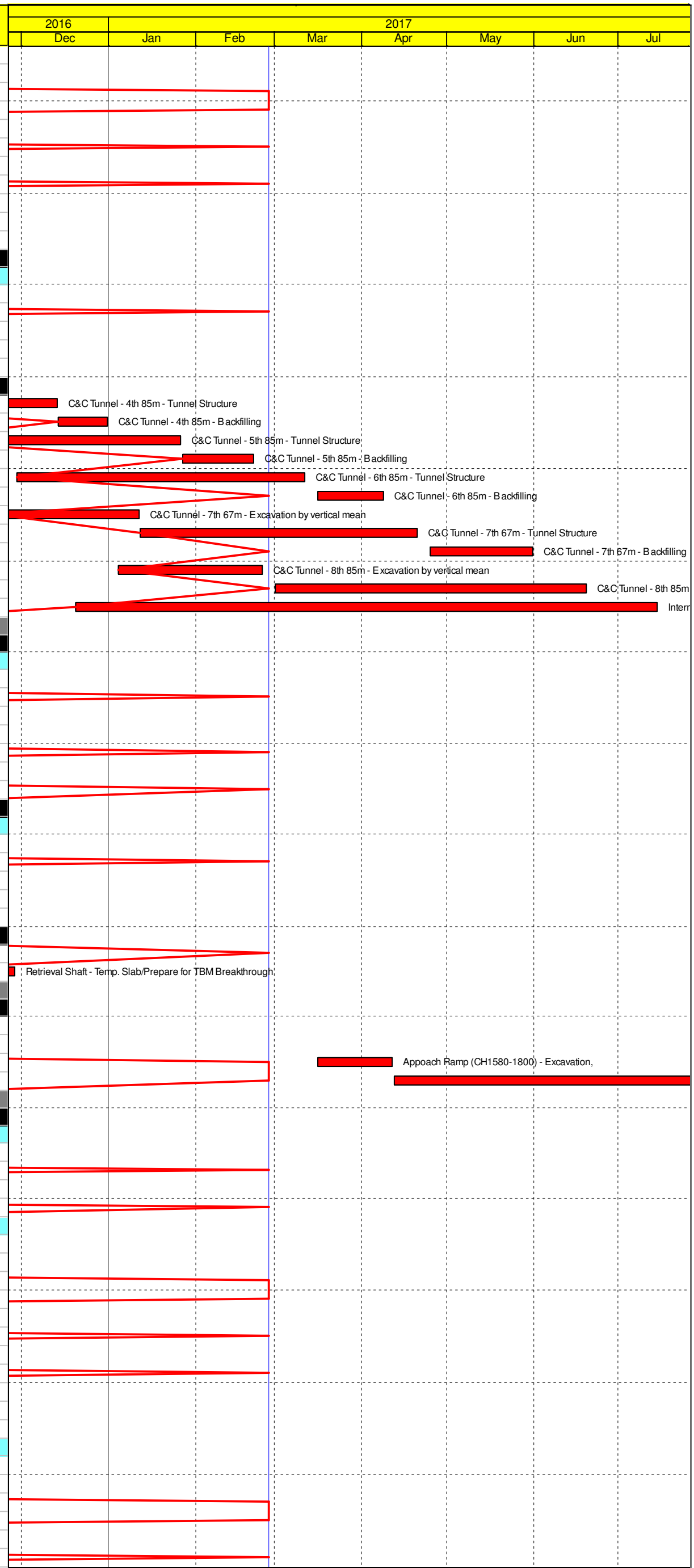
Activity Name
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
SO's Review
Method Statement Submission
Method Statement of Construction Methodology of C&C Tunnels
Preparation Method Statement for C&C Tunnels
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
Construction
C&C Tunnel - 4th 85m - Tunnel Structure
C&C Tunnel - 4th 85m - Backfilling
C&C Tunnel - 5th 85m - Tunnel Structure
C&C Tunnel - 5th 85m - Backfilling
C&C Tunnel - 6th 85m - Tunnel Structure
C&C Tunnel - 6th 85m - Backfilling
C&C Tunnel - 7th 67m - Excavation by vertical mean
C&C Tunnel - 7th 67m - Tunnel Structure
C&C Tunnel - 7th 67m - Backfilling
C&C Tunnel - 8th 85m - Excavation by vertical mean
C&C Tunnel - 8th 85m - Tunnel Structure
Intermediate Slab
South Retrieval Shaft
Design Submission
(F4) Gantry Crane Support/Foundations in Southern Landfall
Designer to Reply RtC + Update Submission
Submit Updated IFA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Method Statement Submission
Method Statement of Construction Methodology of Retrieval Shaft
Preparation Method Statement for Retrieval Shaft
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
Construction
South Retrieval Shaft - Diaphragm Wall
Retrieval Shaft - Temp. Slab/Prepare for TBM Breakthrough
South Approach Ramp
Construction
Appoach Ramp (CH1580-1850) - Pipe Pile/Sheet Piles Wall
Appoach Ramp (CH1580-1850) - Tension Piles
Appoach Ramp (CH1580-1800) - Excavation,
Remaining Approach Tunnel Structure
South Ventilation Building
Design Submission
(I1) DDA for South Vent.Bldg. GBP & Arch.Submission
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(I2) DDA for South Vent.Bldg. Foundation Design
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
SO's Review
(I2) DDA for South Vent.Bldg.Structural Design incl.Vent.Connections
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received



Project ID: TMCLK DWPF 16W25

Data Date: 26-Feb-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

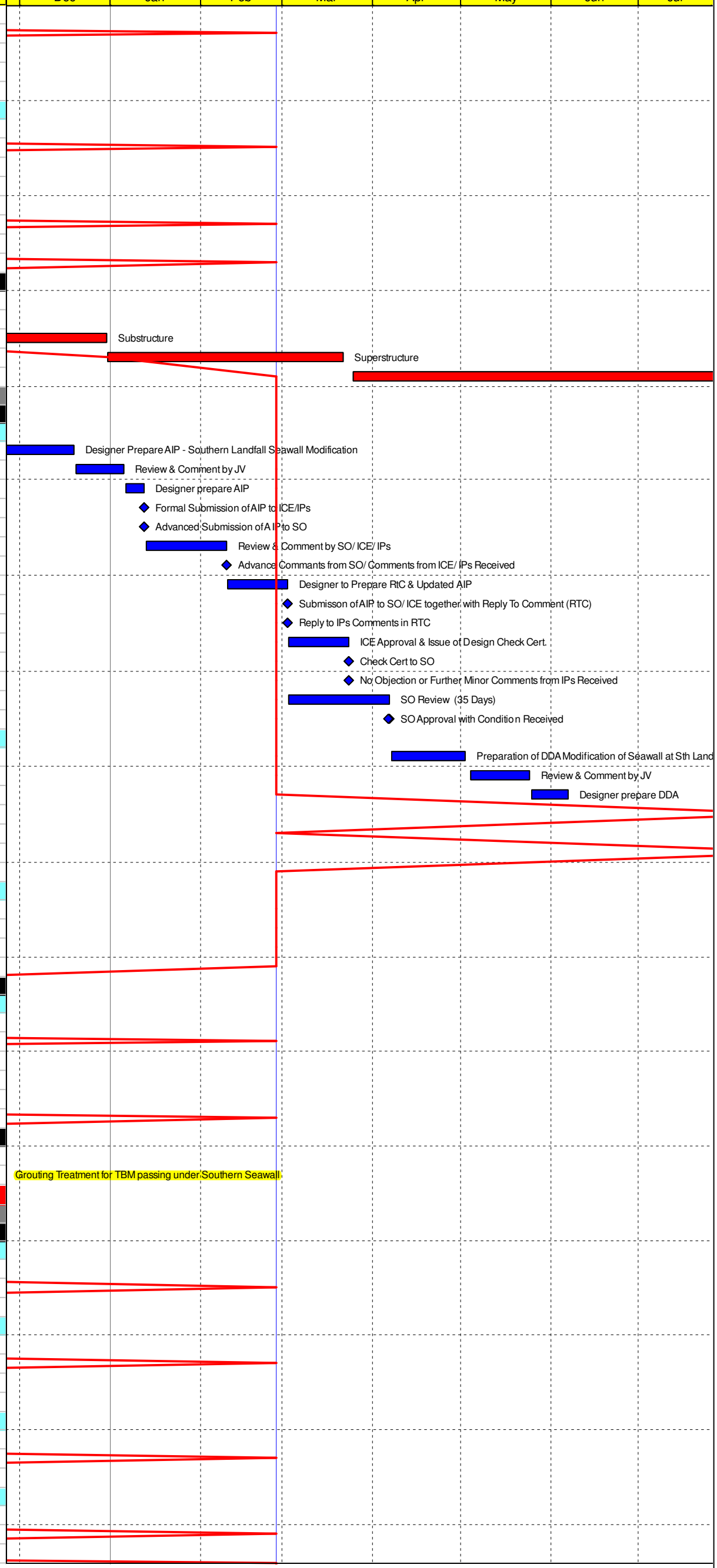
Three Months Rolling Programme

Progress as of 26-Feb-17

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	WYu	SPo
08-Apr-14	TMCLK/DBJ/GEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJ/GEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

Activity Name
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
IPs Review
SO's Review
(J1) DDA Temp.works for Construction of Sth.Vent.Bldg.
Designer to Reply RtC + Update Submission
Submit Updated DDA to SO/ ICE/ IPs
ICE Approval & Issue Check Cert
Submit ICE Check Cert to SO
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Construction
Mobilization & Setting Up Piling Rigs
S -Sheet Piling
Substructure
Superstructure
Finishing Works
South Surface Roadworks, Utility & Drainage works
Design Submission
(E1) AIP - Southern Landfall Seawall Modification
Designer Prepare AIP - Southern Landfall Seawall Modification
Review & Comment by JV
Designer prepare AIP
Formal Submission of AIP to ICE/IPs
Advanced Submission of AIP to SO
Review & Comment by SO/ ICE/ IPs
Advance Commants from SO/ Comments from ICE/ IPs Received
Designer to Prepare RtC & Updated AIP
Submisson of AIP to SO/ ICE together with Reply To Comment (RTC)
Reply to IPs Comments in RTC
ICE Approval & Issue of Design Check Cert.
Check Cert to SO
No Objection or Further Minor Comments from IPs Received
SO Review (35 Days)
SO Approval with Condition Received
(E1) DDA - Southern Landfall Seawall Modification
Preparation of DDA Modification of Seawall at Sth Landfall
Review & Comment by JV
Designer prepare DDA
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
(E3) DDA for Sewerage, Drainage, Waterworks & Utility works for South Landf
IPs Review
IP's No Objection Received
SO's Review
SO Approval with Condition Received
Method Statement Submission
Method Statement of Ground Treatment for TBMs Passing under Southern La
Preparation Method Statement for Ground Improvement in South Landfall
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
SO's Approval
Construction
Temporary Platform for Ground Treatment for TBM passing under Southern Seawall
Grouting Treatment for TBM passing under Southern Seawall
Testing & Commissioning/Inspection & Handover
Final Inspection & Handover
Design Submission
(A12) Maintenance Matrix
Prepare Re-submission
2nd Submission
SO's Condition Approval
(A13) Operation & Maintenance Manual
Preparation of Operation and Maintenance Manual
1st Submission
SO's Comments for 1st Submission
Prepare Re-submission
(A14) As-built & As-fabricated Drawings
Preparation of As-built and As-fabricated Drawings
1st Submission
SO's Comments for 1st Submission
(A15) Health & Safety File incl.As-built Dwgs & Records,Maintenance Schedul
Preparation of Health and Safety File including as-built drawings and records, maintenance schedules, op
1st Submission
SO's Comments for 1st Submission



Project ID: TMCLK DWPF 16W25

Data Date: 26-Feb-17

Planned Bar
Planned Bar - Critical
Planned Milestone
Progress bar
Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 26-Feb-17

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

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	WYu	SPo
08-Apr-14	TMCLK/DBJ/GEN/PRG/98507 Rev.B	SPa	WYu
28-Aug-14	TMCLK/DBJ/GEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DBJ/GEN/PRG/98507 Rev.F	WYu	

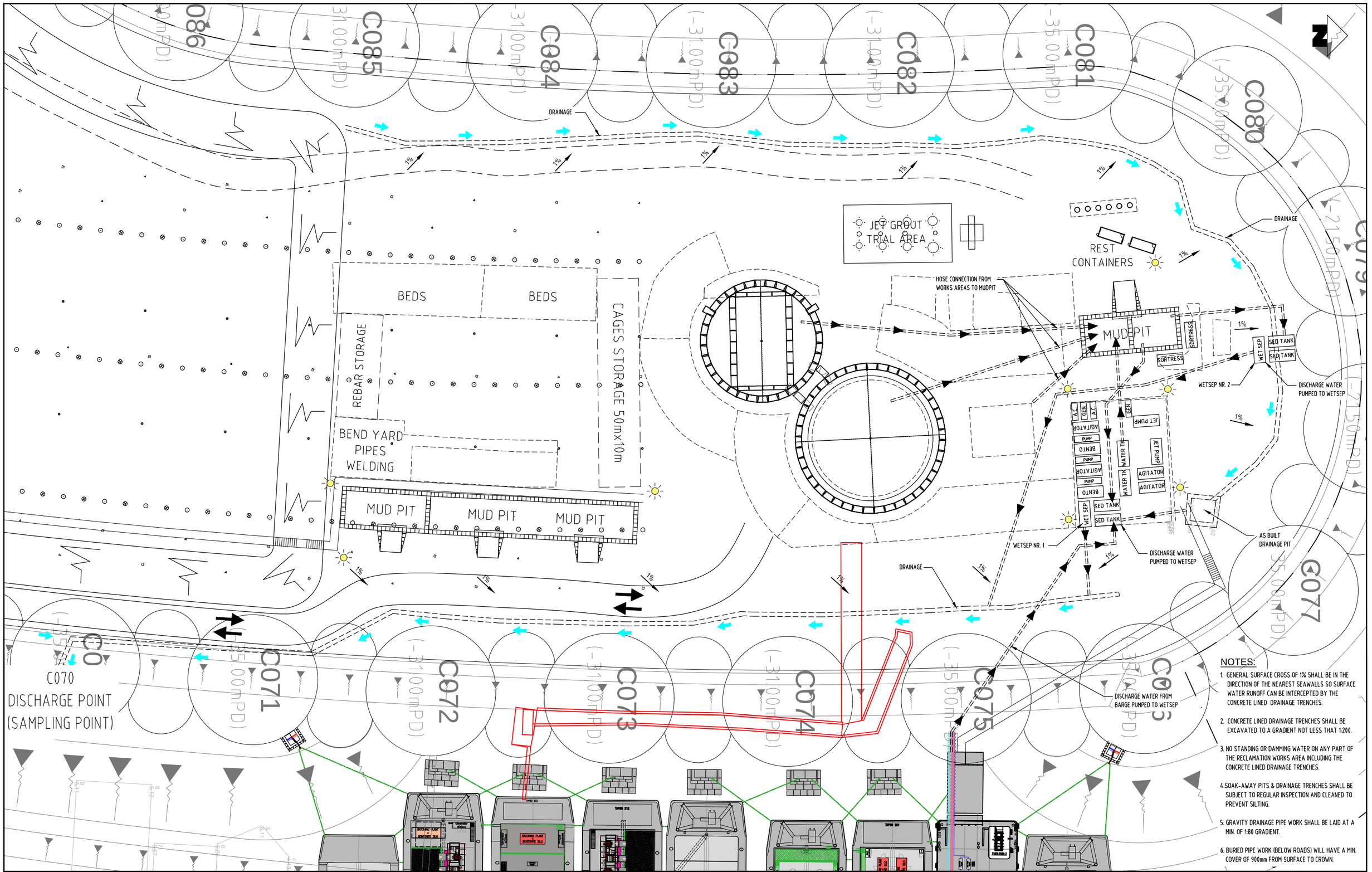
Annex C

Location Map

搜尋 Google 地圖
登入
Site location
Incident area
港珠澳大橋
香港口岸
人工島
1.00 公里
2.46 公里
赤鱲角
北大嶼山公路
東涌
鹿頸村
二白坳
三白坳
白芒
牛牯塱
愉景灣
愉景灣高爾夫球會
稔樹灣村
長沙欄
香港迪士尼樂園度假區
香港迪士尼樂園
大龍村
山頂村
坪洲
逸東邨
測量距離
在地圖上按一下即可新增路徑
總距離：2.46 公里 (1.53 英里)
地球
地圖資料 ©2017 Google
使用條款
提供意見
1 公里

Annex D

Site Drainage Plan



NOTES:

1. GENERAL SURFACE CROSS OF 1% SHALL BE IN THE DIRECTION OF THE NEAREST SEAWALLS SO SURFACE WATER RUNOFF CAN BE INTERCEPTED BY THE CONCRETE LINED DRAINAGE TRENCHES.
2. CONCRETE LINED DRAINAGE TRENCHES SHALL BE EXCAVATED TO A GRADIENT NOT LESS THAT 1:200.
3. NO STANDING OR DAMMING WATER ON ANY PART OF THE RECLAMATION WORKS AREA INCLUDING THE CONCRETE LINED DRAINAGE TRENCHES.
4. SOAK-AWAY PITS & DRAINAGE TRENCHES SHALL BE SUBJECT TO REGULAR INSPECTION AND CLEANED TO PREVENT SILTING.
5. GRAVITY DRAINAGE PIPE WORK SHALL BE LAID AT A MIN. OF 1:80 GRADIENT.
6. BURIED PIPE WORK (BELOW ROADS) WILL HAVE A MIN. COVER OF 900mm FROM SURFACE TO CROWN.

Rev.	Date	Drawn	Designed	Verified	Description	Approved
D	27JUL16	AGM	pkv	BLe	UPDATE	SPo
C	15JUN16	pkv	pkv	ACh	WESTSEP NR. 3 REMOVED	SPo
B	14JUN16	pkv	pkv	ACh	DISCHARGE FROM BARGE ADDED	SPo
A	07JUN16	pkv	pkv	BLe	FIRST ISSUE	SPo

Main Contractor
Dragages Hong Kong
A member of the Bouygues Construction group
Dragages - Bouygues Joint Venture 震嘉 - 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
SOUTHERN LANDFALL
PORTION E1 SURFACE WATER DRAINAGE & DISCHARGE ARRANGEMENT – GENERAL LAYOUT

Drawing no. TMCLKL8–DBJ–SAA–MSI–10026
Scale NTS
CADD Ref. SAA–MSI–10026
Issue Status DFT (DRAFT)
Revision D

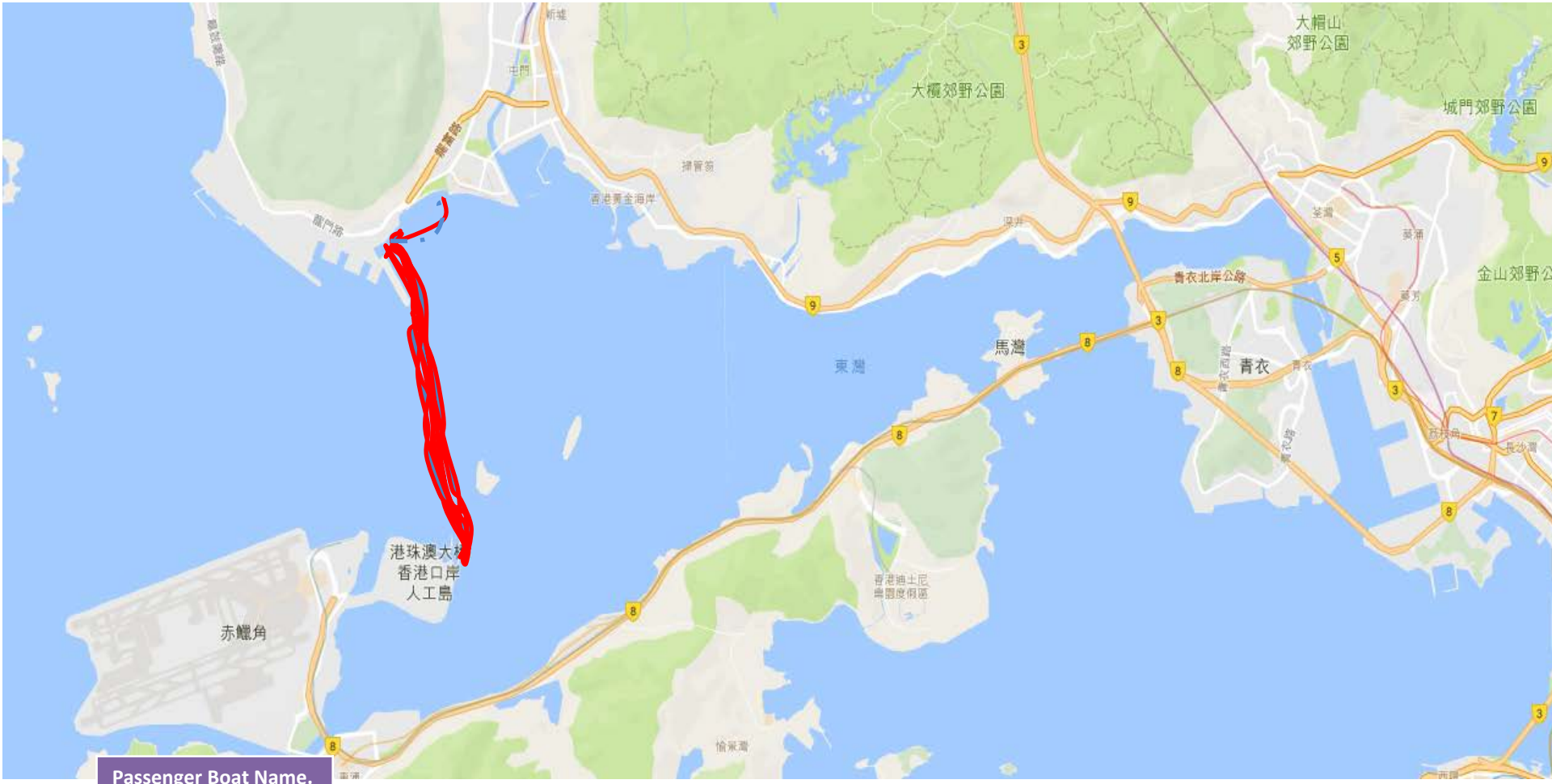
Annex E

Marine Travel Route Record

Contract No. HY/2012/08

Tuen Mun-Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section

Records of Off-site Marine Vessel Routing – March 2017



Passenger Boat Name.
Hung Tai 6
Ming Lee 27
Frantonios

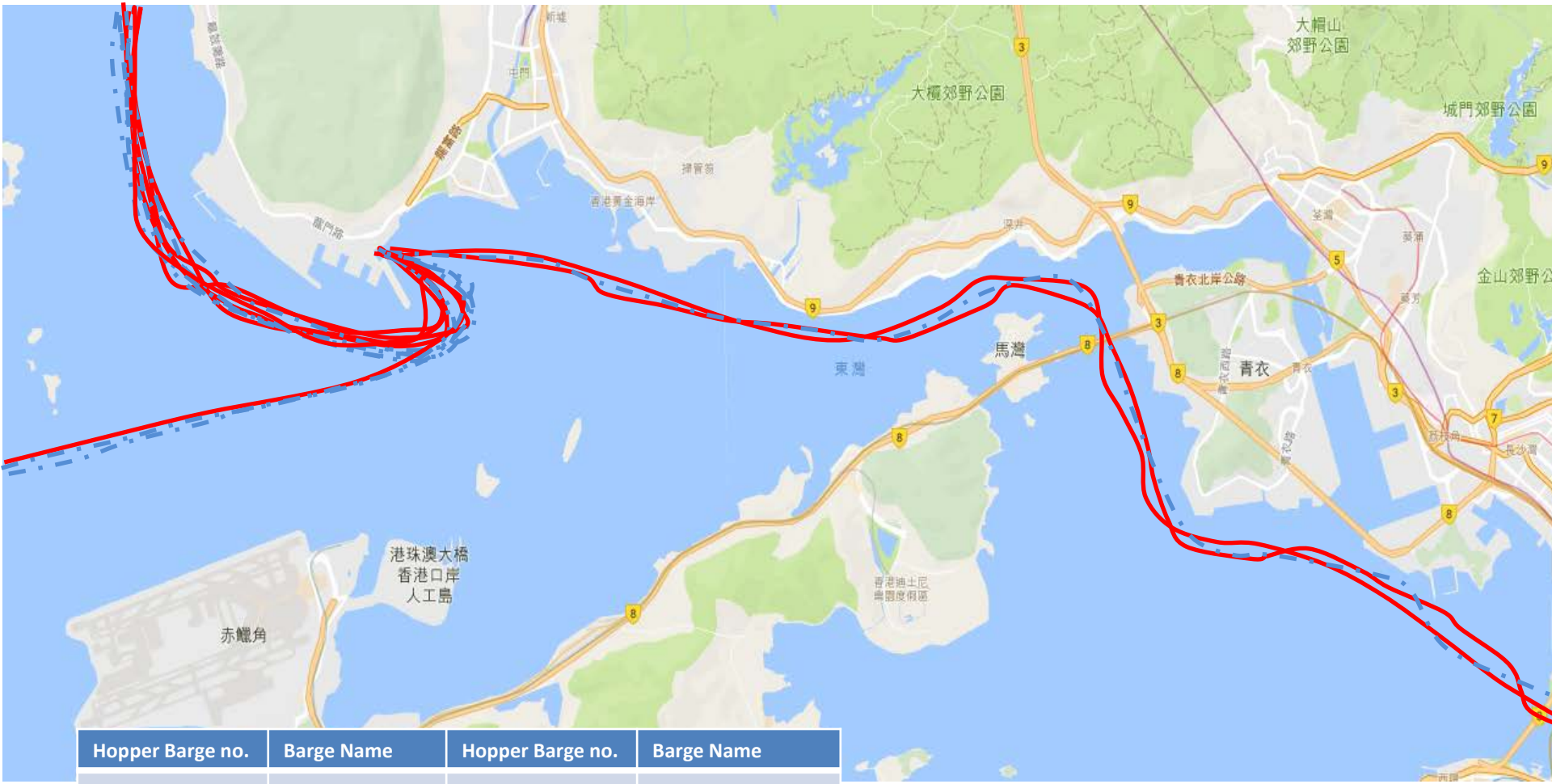
To Works Area

From Works Area

Contract No. HY/2012/08

Tuen Mun-Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section

Records of Off-site Marine Vessel Routing – March 2017

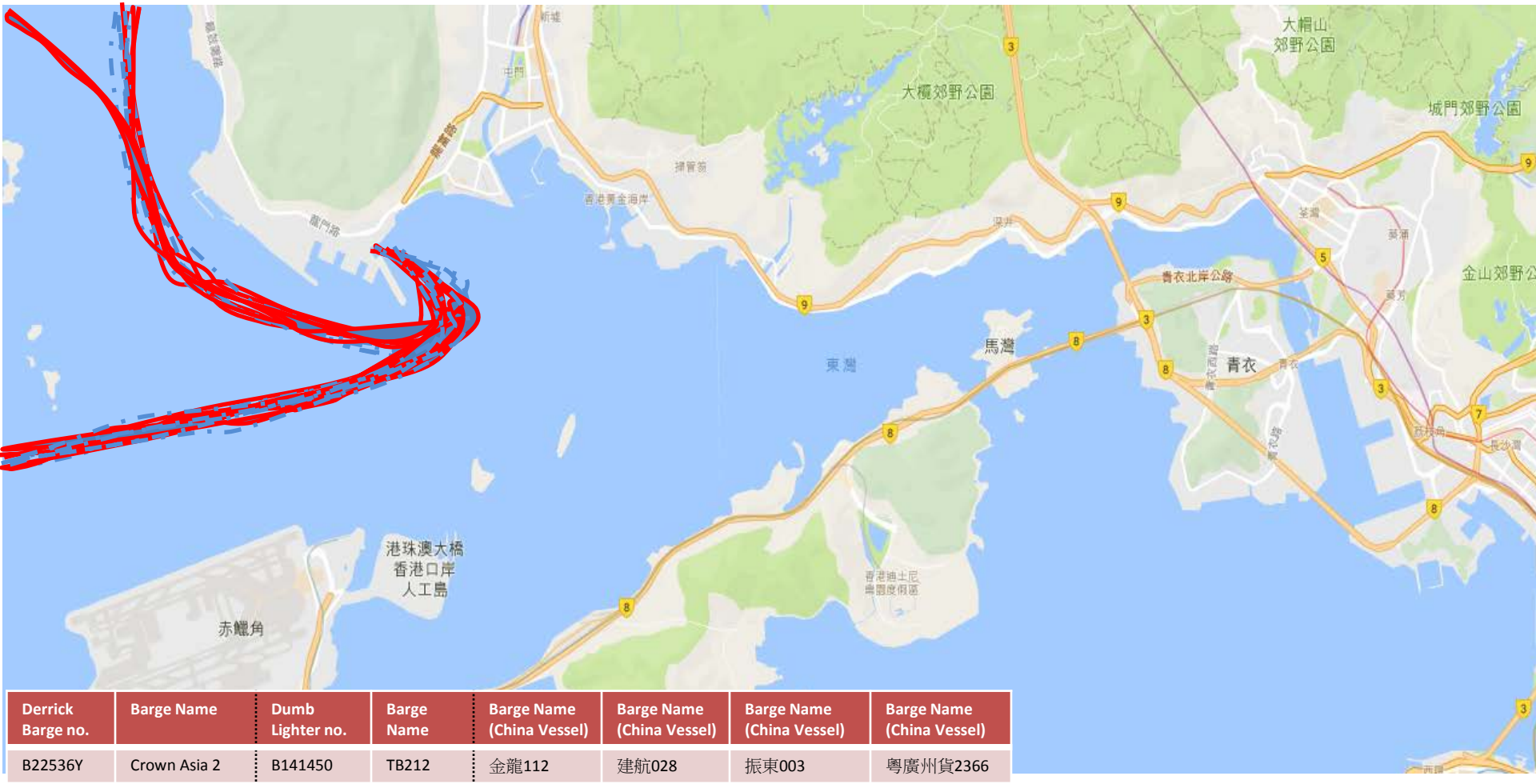


Hopper Barge no.	Barge Name	Hopper Barge no.	Barge Name
B21342V	HB1007S	B21843V	Crown Asia 21
B21396V	SH102		
B21521V	Hang Yang 861		
B21630V	Geoworks SB-1		

Contract No. HY/2012/08

Tuen Mun-Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section

Records of Off-site Marine Vessel Routing – March 2017



Derrick Barge no.	Barge Name	Dumb Lighter no.	Barge Name	Barge Name (China Vessel)	Barge Name (China Vessel)	Barge Name (China Vessel)	Barge Name (China Vessel)
B22536Y	Crown Asia 2	B141450	TB212	金龍112	建航028	振東003	粵廣州貨2366
B22570Y	Crown Asia 11			金龍113	建航036	振東988	粵廣州貨3662
B22600Y	Crown Asia 12			金龍119	建航066	嘉信878	粵廣州貨4866
B21702Y	Crown Asia 13			金龍663	建航118	聯福88	BM40614Y - Leung Ngau Chai
B21507V	Crown Asia 15			金龍883	建航287	粵廣州貨1062	

To Works Area

From Works Area

Annex F

Wetsep Record

Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section	**WETSEP Checking Record** 污水處理機檢查記錄

WETSEP Location 污水處理機位置: 2号

Date 日期: 20-3-2017 to 至 26-3-2017

		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.	WETSEP in Normal Operation? 處理機是否正常運作?	✓	✓	✓	✓	✓	✓	✓
2.	pH Value 酸鹼度 (6.0 – 9.0)	8.6	8.6	8.7	8.6	7.8	7.6	7.9
3.	Electrical Supply OK? 電力供應正常?	✓	✓	✓	✓	✓	✓	✓
4.	Outlet Abnormal? (Any Sludge? Any Colour Change? Flowrate?) 出水口有否異常? (污泥有否積聚? 顏色有否改變? 流量有否異常?)	✓ 有異常	有異常	有異常	有異常	無	無	無
5.	Potion Enough? 藥水是否足夠?	✓	✓	✓	✓	✓	✓	✓
6.	Clean the Sedimentation Tank? 有否清理隔沙缸?	有09:00	有09:00	有09:00	有09:00	有	有	有
7.	Clean the De-silt Basin? 有否清理蓄泥池?	有09:30	有09:30	有09:30	有09:30	有	有	有
8.	Are the Cleansing Records of Sedimentation Tank/ De-silt Basin Stored Properly? 清理蓄泥池記錄是否妥善儲存?	✓	✓	✓	✓	✓	✓	✓
9.	Others 其他情況	一切正常	一切正常	一切正常	一切正常	/	/	/
	Verified by Site Foreman/Supervisor 地盤管工/監督簽署確認	簽	簽	簽	簽	✓	✓	✓

*Please - tick (√) in the box if the condition is normal. *若情況正常, 請於方格內加上剔號(√)。
cross (X) in the box if the condition is abnormal, and write down the non-conformance.
*若情況不尋常, 請於方格內加上交叉(X), 並寫下不尋常狀況。

Remarks:

(1) Please keep the record and send to environmental department in monthly basis.

備註:

(1) 請將記錄妥善保存, 並每月將記錄交回環保部。

24/04/2017

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

WETSEP Checking Record
污水處理機檢查記錄

WETSEP Location 污水處理機位置: 25

Date 日期: 27-3-2017 to 至 2-4-2017

24/04/2017

		Monday 星期一	Tuesday 星期二	Wednesday 星期三	Thursday 星期四	Friday 星期五	Saturday 星期六	
1.	WETSEP In Normal Operation? 處理機是否正常運作?	✓	✓	✓	✓	✓	✓	✓
2.	pH Value 酸鹼度 (6.0 – 9.0)	6.9	7.4	6.7	8.2	8.9	8-6	7.3
3.	Electrical Supply OK? 電力供應正常?	✓	✓	✓	✓	✓	✓	✓
4.	Outlet Abnormal? (Any Sludge? Any Colour Change? Flowrate?) 出水口有否異常? (污泥有否積聚? 顏色有否改變? 流量有否異常?)	無	無	無	無	無	有異常	無
5.	Potion Enough? 藥水是否足夠?	✓	✓	✓	✓	✓	✓	✓
6.	Clean the Sedimentation Tank? 有否清理隔沙缸?	有	有	有	有	有	有	有
7.	Clean the De-silt Basin? 有否清理蓄泥池?	有	有	有	有	有	有 09:00	有
8.	Are the Cleansing Records of Sedimentation Tank/ De-silt Basin Stored Properly? 清理蓄泥池記錄是否妥善儲存?	✓	✓	✓	✓	✓	✓ 09:30	✓
9.	Others 其他情況	✓	✓	✓	✓	✓	一切正常	✓
	Verified by Site Foreman/Supervisor 地盤管工/監督簽署確認	✓	✓	✓	✓	✓	✓	✓

*Please - tick (√) in the box if the condition is normal. *若情況正常, 請於方格內加上剔號(√)。
cross (X) in the box if the condition is abnormal, and write down the non-conformance.
*若情況不尋常, 請於方格內加上交叉(X), 並寫下不尋常狀況。

Remarks:

(1) Please keep the record and send to environmental department in monthly basis.

備註:

(1) 請將記錄妥善保存, 並每月將記錄交回環保部。

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 April 2017 [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	1097.465	0.000	0.000	0.000	1097.465
Jan-2017	60.781	0.000	0.000	0.000	60.781
Feb-2017	17.367	0.000	0.000	0.000	17.367
Mar-2017	7.508	0.000	0.000	0.000	7.508
Apr-2017	15.603	0.000	0.000	0.000	15.603
May-2017					
Jun-2017					
Half Year Sub-total					
Jul-2017					
Aug-2017					
Sep-2017					
Oct-2017					
Nov-2017					
Dec-2017					
Project Total Quantities	1198.724	0.000	0.000	0.000	1198.724

Month	**Actual Quantities of <u>Non-inert</u> 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	1.850	1.850	3.150	3.150	6.870	6.870	9.450	9.450	4.935
Jan-2017	0.000	0.000	0.000	0.000	0.000	0.000	3.400	3.400	0.257
Feb-2017	0.000	0.000	0.200	0.200	0.000	0.000	0.000	0.000	0.340
Mar-2017	0.000	0.000	0.000	0.000	0.000	0.000	6.100	6.100	0.286
Apr-2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.237
May-2017									
Jun-2017									
Half Year Sub-total									
Jul-2017									
Aug-2017									
Sep-2017									
Oct-2017									
Nov-2017									
Dec-2017									
Project Total Quantities	1.850	1.850	3.350	3.350	6.870	6.870	18.950	18.950	6.055

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)
20.000	0.000	0.000	0.000	20.000

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)
0.000	0.000	0.000	0.000	0.100

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).