

**Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link –
Southern Connection Viaduct Section**

Fortieth Monthly EM&A Report

08 March 2017

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Contract No. HY/2012/07

Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section

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Fortieth Monthly EM&A Report

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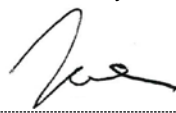


Client: Gammon		Project No: 0215660			
Summary: This document presents the Fortieth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 08 March 2017			
		Approved by: 			
		Mr Craig Reid Partner			
		Certified by: 			
		Mr Jovy Tam ET Leader			
	Fortieth Monthly EM&A Report	VAR	JT	CAR	08/03/17
Revision	Description	By	Checked	Approved	Date
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EXECUTIVE SUMMARY

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct 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). Ramboll Environ Hong Kong Ltd. was employed by the HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (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 southern landfall of TM-CLK Link lies alongside the Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) where a reclamation area is constructed by *Contract No. HY/2010/02* under *Environmental Permit No. EP-353/2009/K* and *EP-354/2009/D*. Upon the agreement and confirmation between the Supervising Officer Representatives and Contractors of *HY/2010/02* and *HY/2012/07* in September 2015, part of the reclamation area for southern landfall under *EP-353/2009/K* and *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07*. Another part of the southern landfall area under *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07* after completion of reclamation works by *Contract No. HY/2010/02* in June 2016.

The construction phase of the Contract commenced on 31 October 2013 and will be tentatively completed by 2018. The impact monitoring of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well as environmental site inspections, commenced on 31 October 2013.

This is the Fortieth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 28 February 2017 for the Southern Connection Viaduct Section 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:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and

- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Road works along North Lantau Highway;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

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

24-hour TSP Monitoring	5 sessions
1-hour TSP Monitoring	5 sessions
Noise Monitoring	5 sessions
Impact Water Quality Monitoring	12 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental Site Inspection	5 sessions

Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Levels was recorded for construction air quality monitoring in the reporting month.

Breaches of Action and Limit Levels for Noise

No exceedance of Action and Limit Levels was recorded for construction noise monitoring in the reporting month.

Breaches of Action and Limit Levels for Water Quality

No exceedance of Action and Limit Levels was recorded for water quality impact monitoring in the reporting period.

Impact Dolphin Monitoring

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between December 2016 and February 2017, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was noticeable from general observations. Due to monthly variation in dolphin occurrence within the Study Area, it would be more appropriate to draw conclusion on whether any

impacts on dolphins have been detected related to the construction activities of the TM-CLKL Southern Connection Viaduct Section in the quarterly EM&A reports, in which comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

Daily marine mammal exclusion zone monitoring was undertaken during the period of marine works under this Contract. No sighting of the Chinese White Dolphin was recorded in February 2017 during the exclusion zone monitoring.

Environmental Complaints, Non-compliance & Summons

There was no environmental complaint, notification of summons or successful prosecution recorded in the reporting period.

Reporting Change

There was no reporting change in the reporting period.

Upcoming Works for the Next Reporting Period

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

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Road works along North Lantau Highway;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

Future Key Issues

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

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 (EP-354/2009/A) was issued on 8 December 2010.

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL ("the Contract") 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) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (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.

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southern landfall area under *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07* after completion of reclamation works by *Contract No. HY/2010/02* in June 2016.

The construction phase of the Contract commenced on 31 October 2013 and will be tentatively completed by 2018. The impact monitoring phase of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well environmental site inspections, commenced on 31 October 2013.

The general layout plan of the Contract components is presented in *Figures 1.1 & 1.2a to l*.

1.2 SCOPE OF REPORT

This is the Fortieth Monthly EM&A Report under the *Contract No. HY/2012/07 Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section*. This report presents a summary of the environmental monitoring and audit works in February 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.

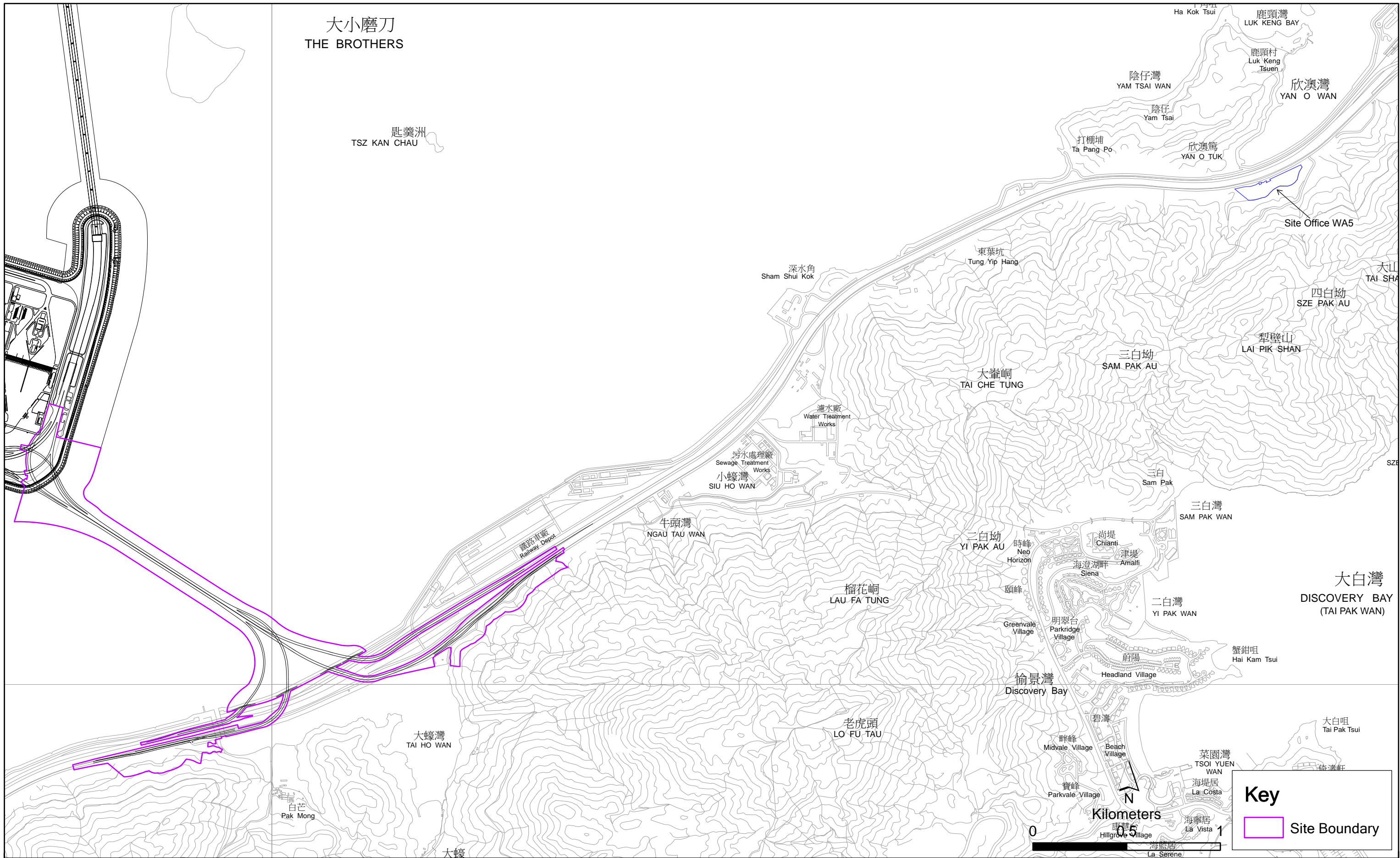


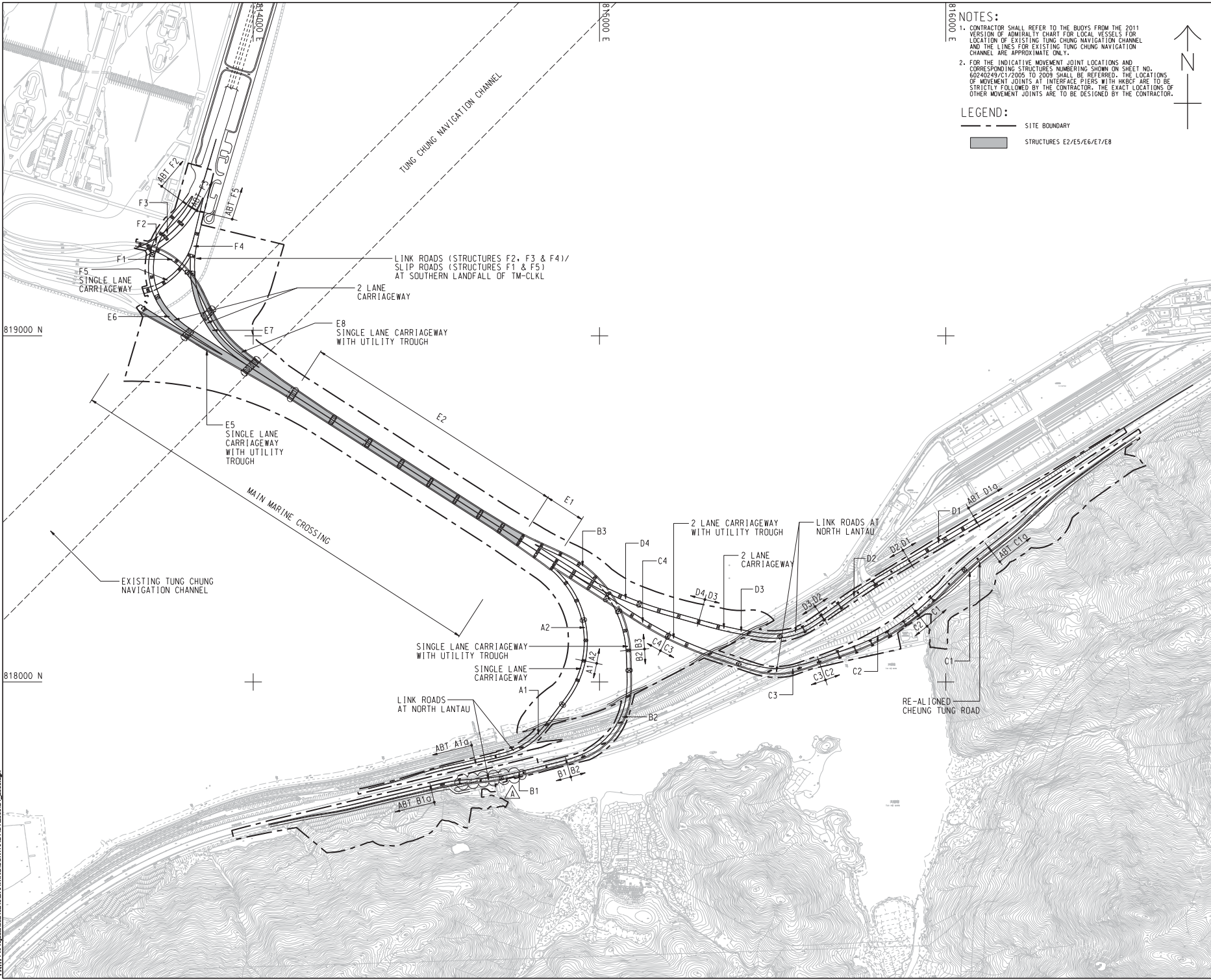
Figure 1.1

General Layout Plan of the Project

Environmental
Resources
Management



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 17



NOTES:

- CONTRACTOR SHALL REFER TO THE BUOYS FROM THE 2011 VERSION OF ADMIRALTY CHART FOR LOCAL VESSELS FOR LOCATION OF EXISTING TUNG CHUNG NAVIGATION CHANNEL AND THE LINES FOR EXISTING TUNG CHUNG NAVIGATION CHANNEL ARE APPROXIMATE ONLY.
- FOR THE INDICATIVE MOVEMENT JOINT LOCATIONS AND CORRESPONDING STRUCTURES NUMBERING SHOWN ON SHEET NO. 60240249/C1/2000 TO 2009 SHALL BE REFERRED. THE LOCATIONS OF MOVEMENT JOINTS AT INTERFACE PIERS WITH HKBCF ARE TO BE STRICTLY FOLLOWED BY THE CONTRACTOR. THE EXACT LOCATIONS OF OTHER MOVEMENT JOINTS ARE TO BE DESIGNED BY THE CONTRACTOR.

LEGEND:

- SITE BOUNDARY
- STRUCTURES E2/E5/E6/E7/E8

AECOM

PROJECT
TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
TUEN MUN - CHEK LAP KOK LINK - SOUTHERN CONNECTION VIADUCT SECTION

CLIENT
路政署
HIGHWAYS DEPARTMENT
香港路政署
Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

Figure 1.2a

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
A	NOV. 12	TENDER ADDENDUM NO. 1	CWN
-	OCT. 12	TENDER DRAWING	CWN
HR	DATE	DESCRIPTION	CHK
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STATUS

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KEY PLAN

PROJECT NO.
60240249

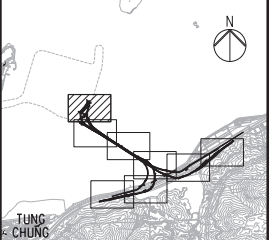
CONTRACT NO.
HY/2012/07

SHEET TITLE
SOUTHERN CONNECTION
GENERAL LAYOUT PLAN

SHEET NUMBER
60240249/C1/2000A

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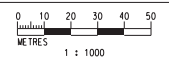


KEY PLAN

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- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
 - EXISTING G.I.-STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I.-STATIONS :
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING

MATCH LINE
 FOR CONTINUATION
 SEE DRG. J3518/P/OAP/04/01101



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C	SUBMISSION	RC	09/13				

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Client: **路政署 HIGHWAYS DEPARTMENT**
 路政署 香港特別行政區 運輸署
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

Supervising Officer: **AECOM**
 Contractor: **Gammon**

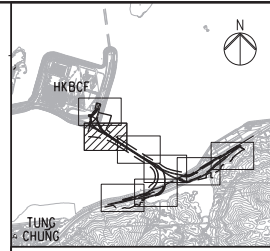
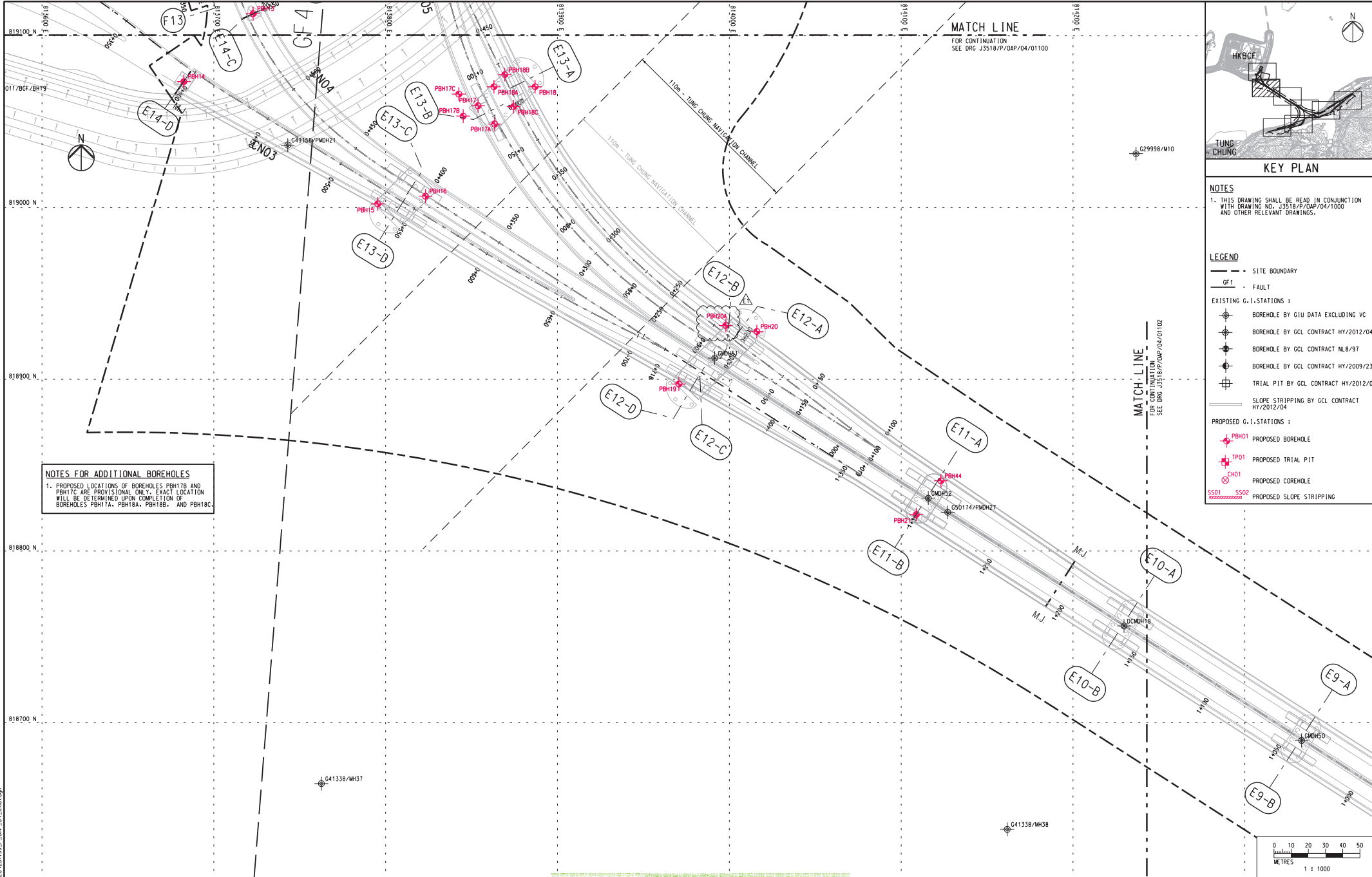
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Contract No. HY/2012/07
Tuen Mun - Chek Lap Kok Link
Southern Connection Viaduct Section

Originator: **ARUP**

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KEY PLAN

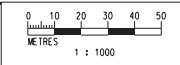
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 - PROPOSED G.I. STATIONS:
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 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING

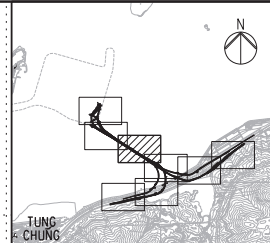
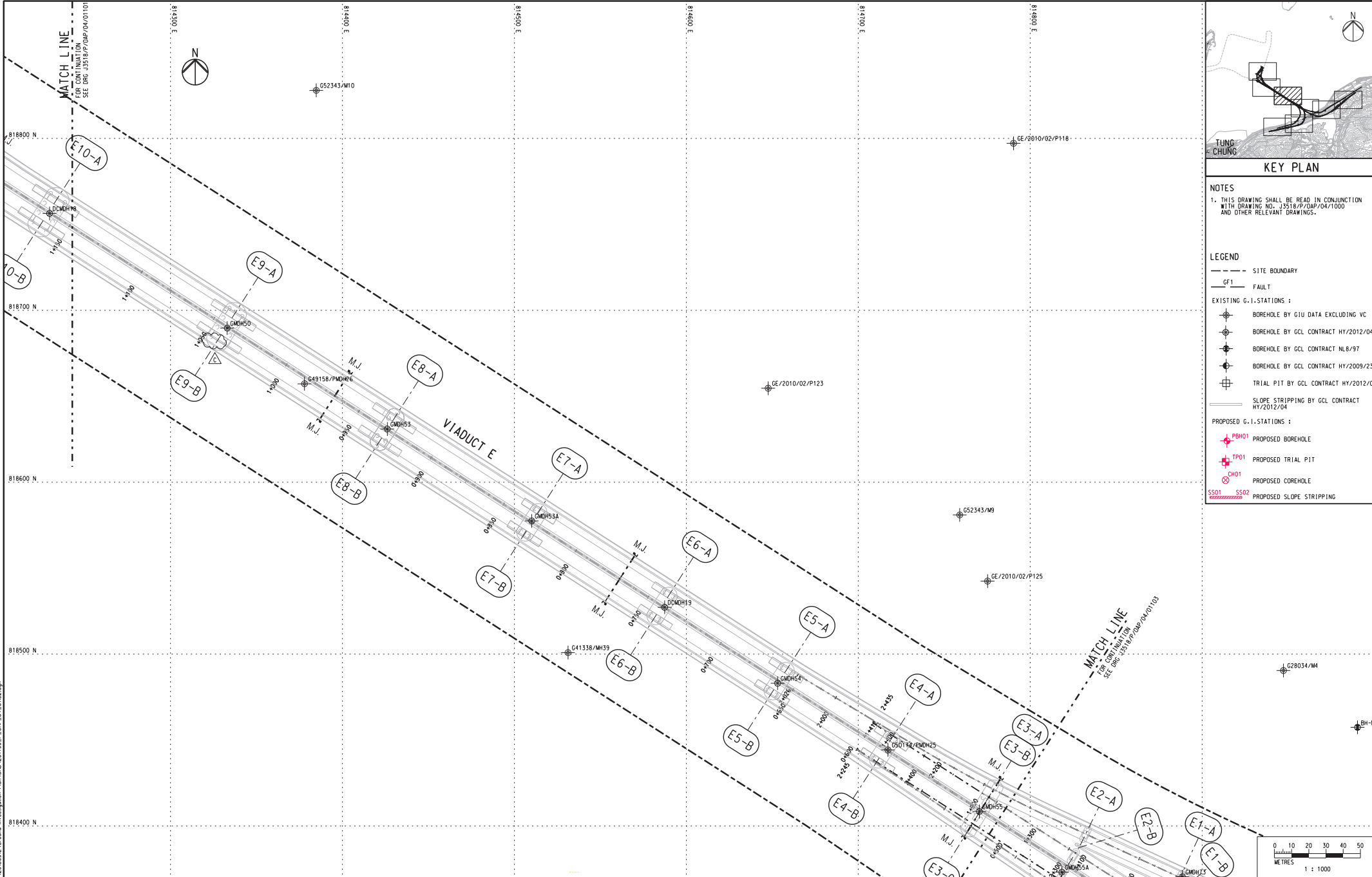
NOTES FOR ADDITIONAL BOREHOLES
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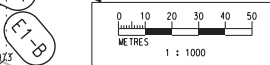
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 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I.-STATIONS :
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING



Rev	Description	By	Date	Rev	Description	By	Date
A	SUBMISSION	RC	07/13				
B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

Drawn	Date	Checked	Approved
RL	07/13	DS	DOP

Scale
1:1000 @ A1 / 1:2000 @ A3

Client

 路政署 HIGHWAYS DEPARTMENT
 香港港大聯合港工程管理局
 Hong Kong Project Management Office

Supervising Officer

Project Title
 Contract No. HY/2012/07
 Tuen Mun - Chek Lap Kok Link
 Southern Connection Viaduct Section

Contractor

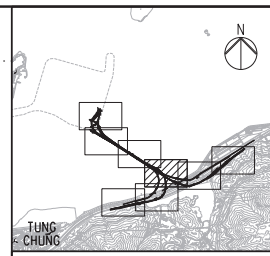
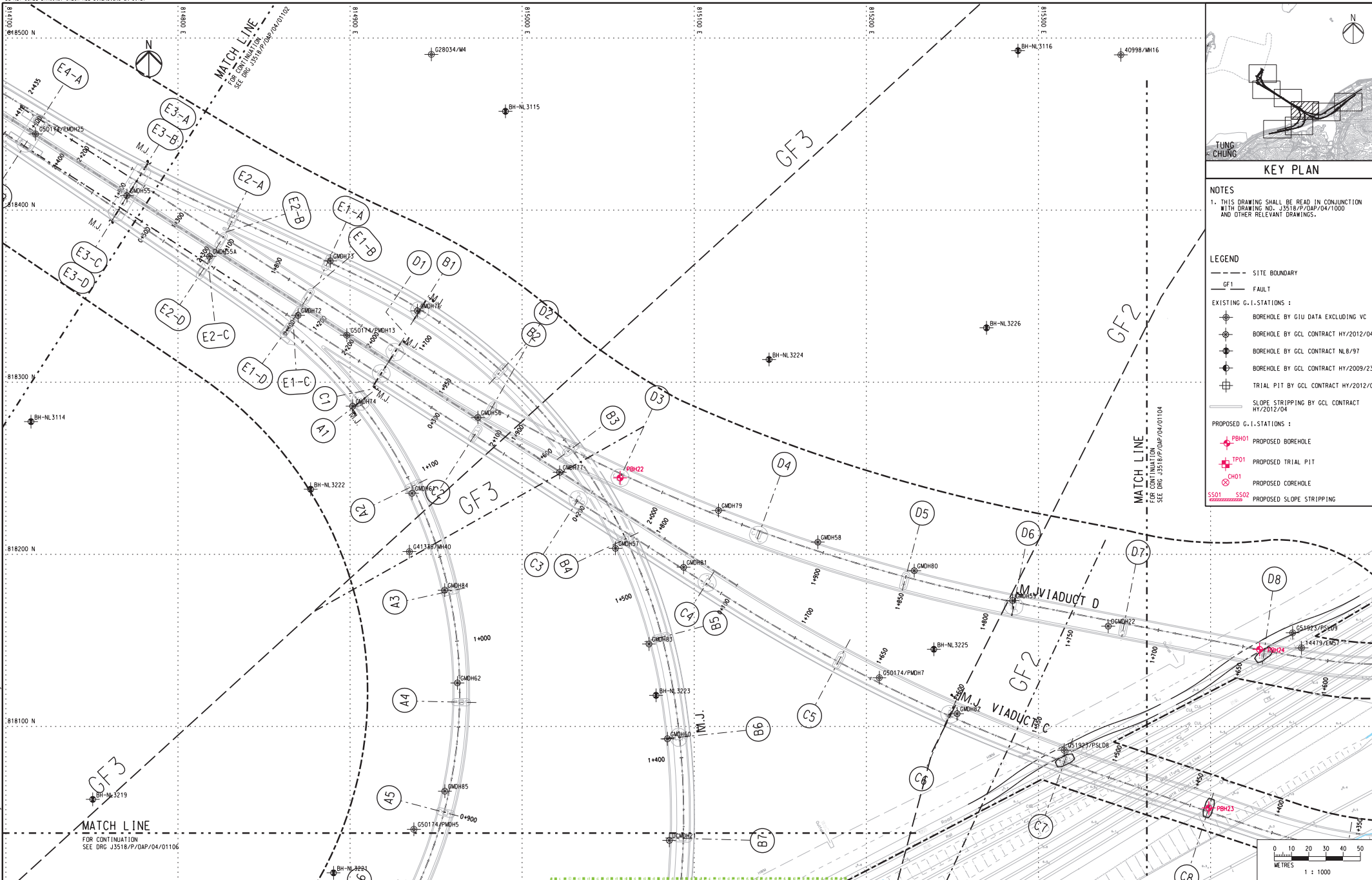
Originator

Drawing title
Figure 1.2d

Drawing no. J3518/P/OAP/04/01102 Rev. C

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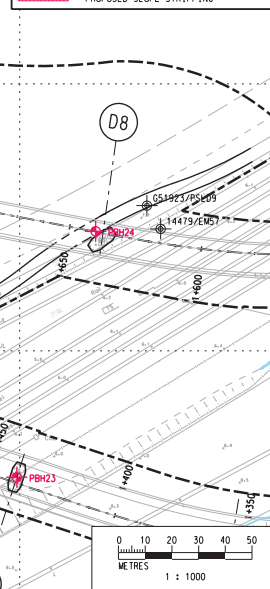
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KEY PLAN

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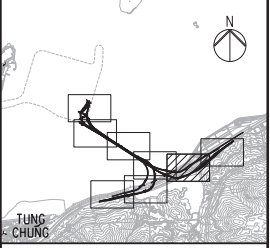
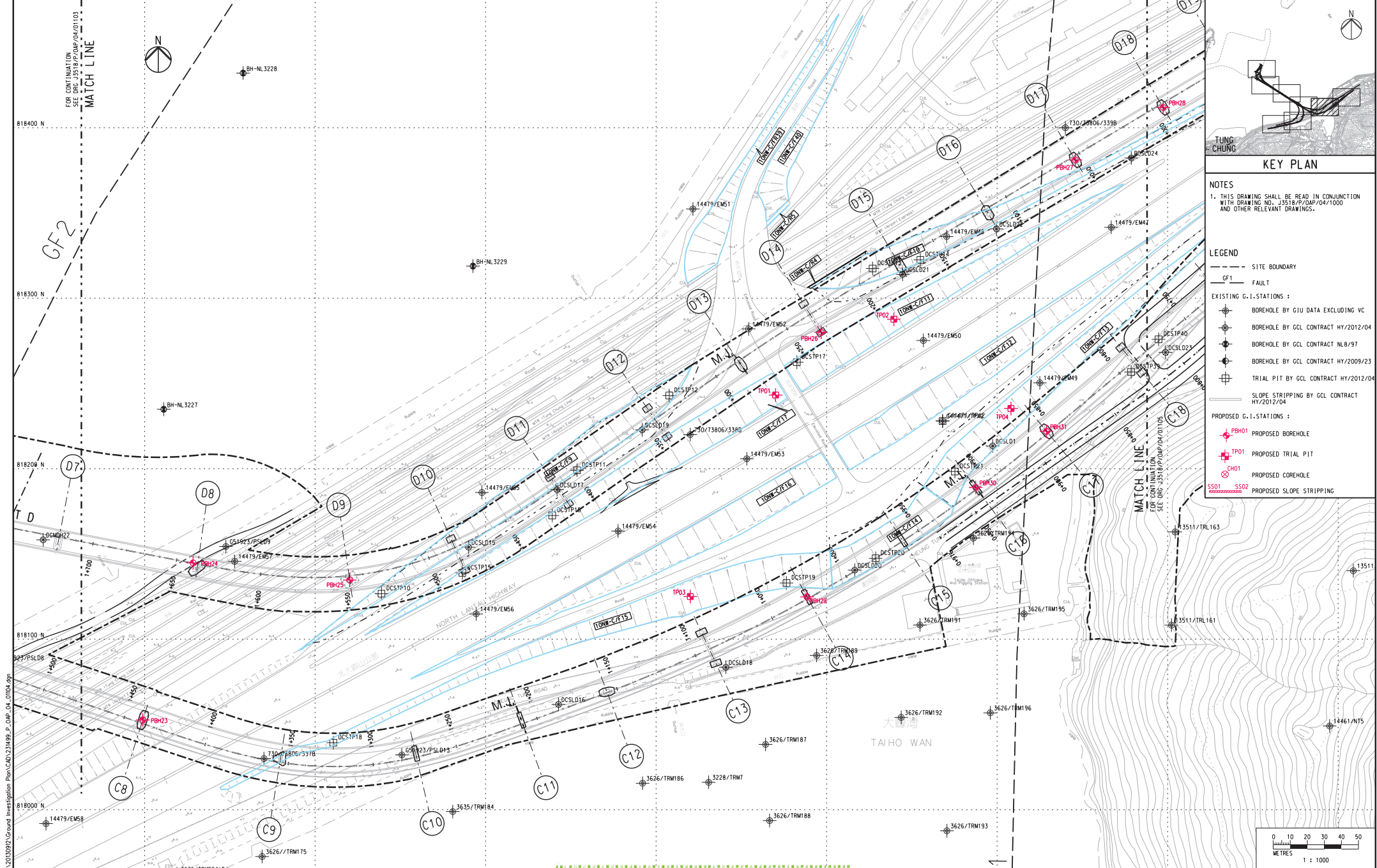
- LEGEND**
- SITE BOUNDARY
 - - - FAULT
 - EXISTING G.I. STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
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 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I. STATIONS :
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 13/9/2013
 File name : J3518/P/OAP/04/1000.dwg
 Recorder : 20130927
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Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date	Client	Project Title	Drawing title		
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B	SUBMISSION	RC	07/13				Checked	Approved						
C	SUBMISSION	RC	09/13				DS	DOP						
								Scale						
								1:1000 @ A1 / 1:2000 @ A3						
								Supervising Officer		Contractor		Originator		
											Drawing no.	J3518/P/OAP/04/01103	Rev.	C

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



NOTES
 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

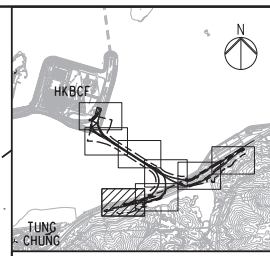
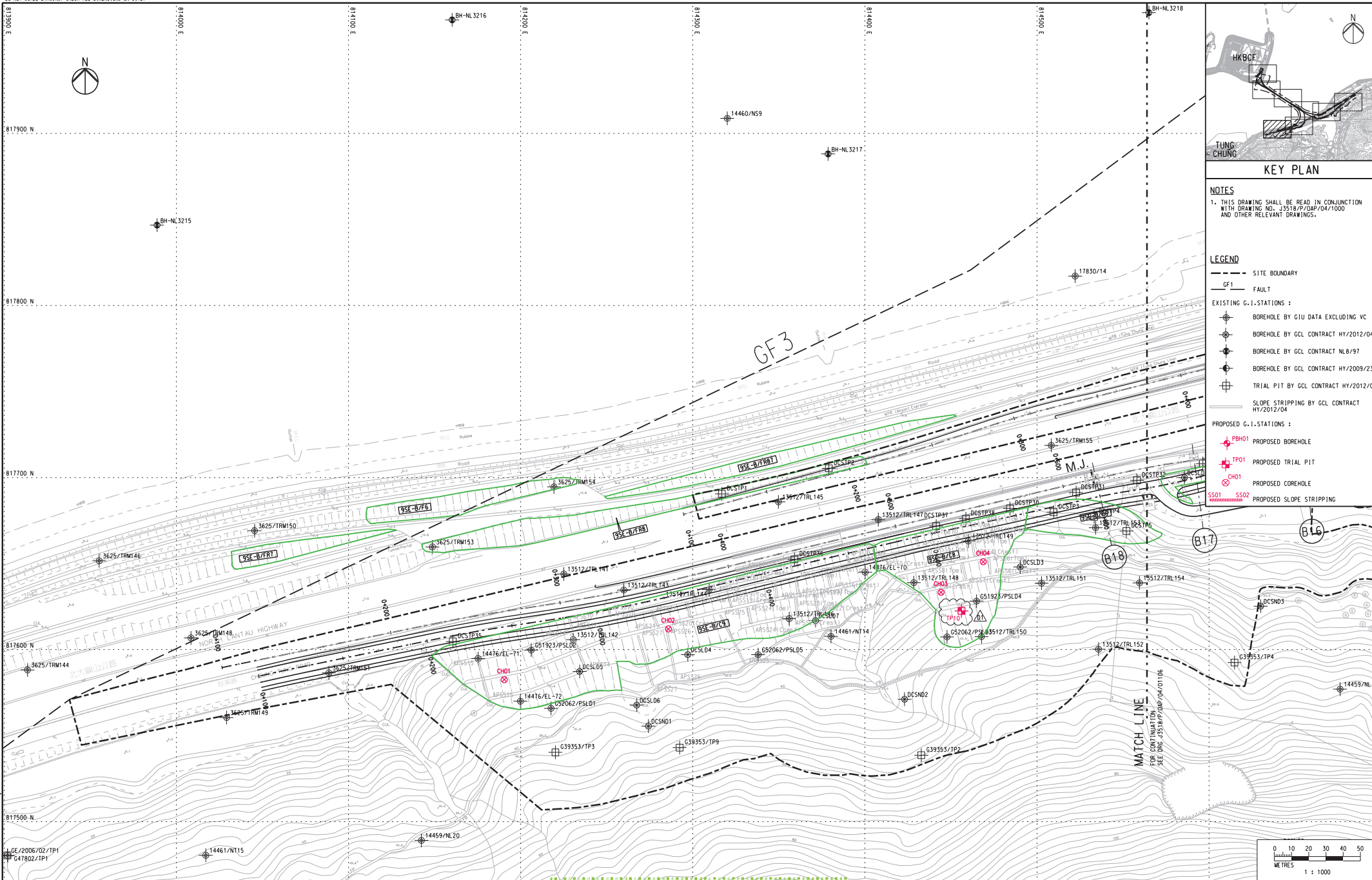
- LEGEND**
- - - SITE BOUNDARY
 - GF1 FAULT
 - EXISTING G.I. STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
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 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING

Printed by : 12/09/2013
 File name : J:\3518\99\RECORD\20130927\Ground Investigation Plan\CAD\231498_P_OAP_04_01100.dwg

Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date	Client	Project Title	Drawing title	
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B	SUBMISSION	RC	07/13				Checked	Approved					
C	SUBMISSION	RC	09/13				DS	DOP					
								Scale					
								1:1000 @ A1 / 1:2000 @ A3					

Supervising Officer AECOM		Contractor Gammon		Originator ARUP	
Drawing no. J3518/P/OAP/04/01104 Rev. C					

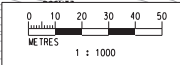
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



KEY PLAN

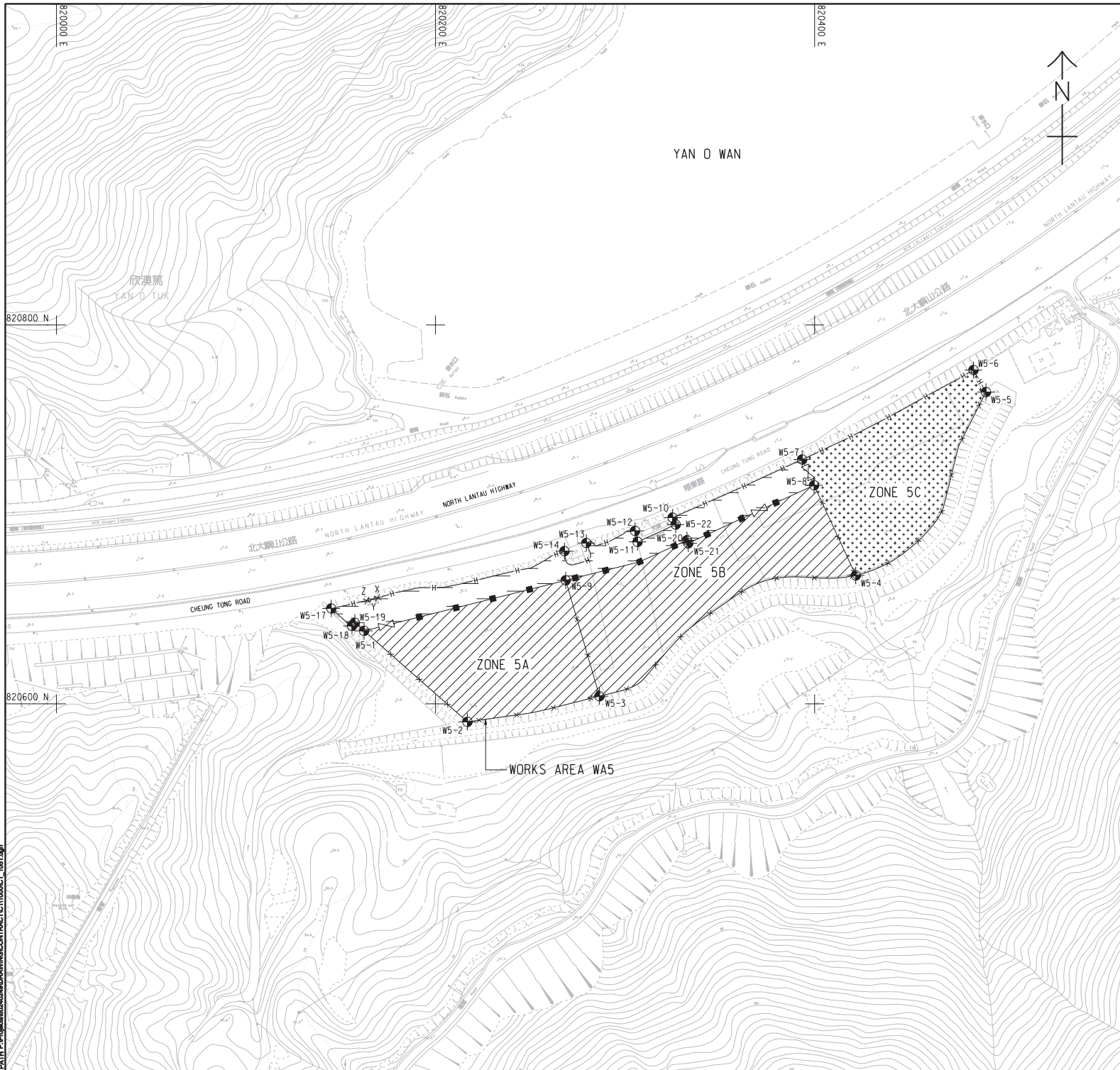
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- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
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 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 07/11/2013
 File name : J:\3518\p\oap\04\1000\dwg

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NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
- THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. T15 619. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
- DEMARCATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6110 AND H6111 FOR DETAILS OF HOARDING.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
- CHAIN LINK FENCE SHALL BE ERECTED ALONG THE WORKS AREA BOUNDARY. THE ALIGNMENT AND EXTENT OF CHAIN LINK FENCE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
- THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
- NO STRUCTURES SHALL BE ERECTED OTHER THAN SUCH STRUCTURES NOT EXCEEDING TWO STOREYS IN HEIGHT, WHICH ARE APPROVED BY THE DISTRICT LANDS OFFICER AS BEING APPROPRIATE FOR THE USE OF THE SITE AS A WORKS AREA.
- THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
- THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TM-CLK RELATED CONTRACTS. THE AREAS HATCHED WITH [diagonal lines] ARE TENTATIVELY ALLOCATED FOR THE USE OF THIS CONTRACT.
- THE COMMON AREA SHALL BE CONCRETE PAVED BY THE CONTRACTOR.

LEGEND:

- WORKS AREA UNDER THIS CONTRACT
- COMMON AREA (MAINTAINED UNDER THIS CONTRACT) TO BE SHARE-USED WITH OTHER CONTRACTS
- WORKS AREA FOR THIS CONTRACT TO BE EARLY HANDED OVER BY THE CONTRACTOR.
- HOARDING AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED BY OTHERS)
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)

SETTING OUT COORDINATES OF WORKS AREA W5

POINT	COORDINATES	
	EASTING	NORTHING
W5-1	820162.308	820638.492
W5-2	820216.839	820590.455
W5-3	820286.496	820603.985
W5-4	820421.757	820667.742
W5-5	820490.425	820764.554
W5-6	820483.839	820776.180
W5-7	820393.451	820728.958
W5-8	820399.746	820715.343
W5-9	820268.674	820665.173
W5-10	820325.075	820698.276
W5-11	820306.587	820685.458
W5-12	820305.269	820691.287
W5-13	820279.580	820684.863
W5-14	820268.027	820680.572
X	820169.407	820655.859
Y	820166.601	820655.172
Z	820163.794	820654.484
W5-17	820144.957	820650.334
W5-18	820155.899	820641.093
W5-19	820157.432	820642.788
W5-20	820332.642	820686.314
W5-21	820333.350	820684.738
W5-22	820326.723	820694.608

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	OCT. 12	TENDER DRAWING	CWN

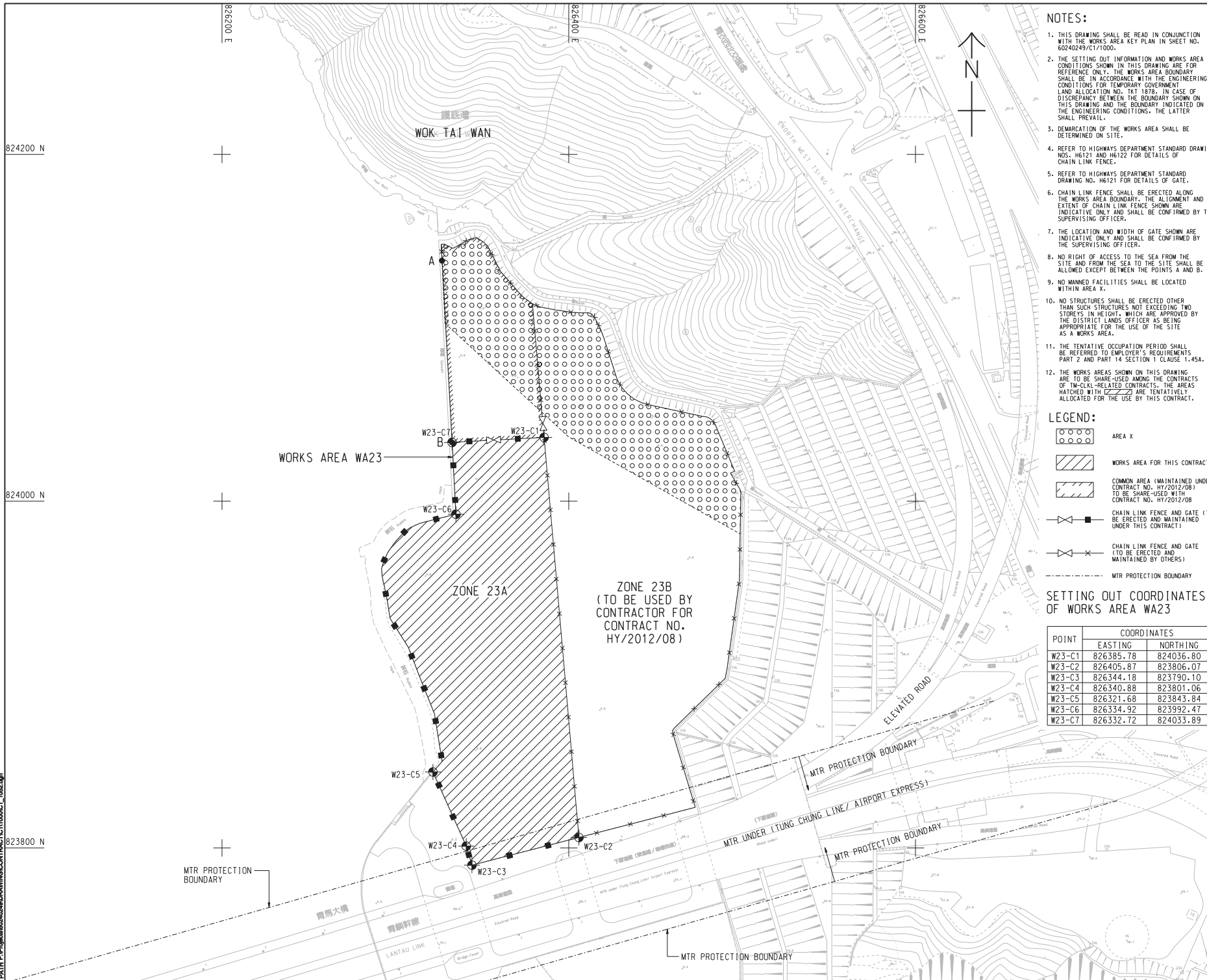
STATUS

SCALE	DIMENSION UNIT
A1:1000	METRES

KEY PLAN

Figure 1.2h

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- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/CT1/000.
 - THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. TKT 1879. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
 - DEMARICATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
 - REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
 - REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
 - CHAIN LINK FENCE SHALL BE ERECTED ALONG THE WORKS AREA BOUNDARY. THE ALIGNMENT AND EXTENT OF CHAIN LINK FENCE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
 - THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
 - NO RIGHT OF ACCESS TO THE SEA FROM THE SITE AND FROM THE SEA TO THE SITE SHALL BE ALLOWED EXCEPT BETWEEN THE POINTS A AND B.
 - NO MANNED FACILITIES SHALL BE LOCATED WITHIN AREA X.
 - NO STRUCTURES SHALL BE ERECTED OTHER THAN SUCH STRUCTURES NOT EXCEEDING TWO STOREYS IN HEIGHT, WHICH ARE APPROVED BY THE DISTRICT LANDS OFFICER AS BEING APPROPRIATE FOR THE USE OF THE SITE AS A WORKS AREA.
 - THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
 - THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH [diagonal lines] ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

- LEGEND:**
- [Circle with dot symbol] AREA X
 - [Diagonal line hatch symbol] WORKS AREA FOR THIS CONTRACT
 - [Cross-hatch symbol] COMMON AREA (MAINTAINED UNDER CONTRACT NO. HY/2012/08) TO BE SHARED WITH CONTRACT NO. HY/2012/08
 - [Chain link symbol] CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
 - [Chain link with gate symbol] CHAIN LINK FENCE AND GATE (TO BE SHARED AND MAINTAINED BY OTHERS)
 - [Dashed line symbol] MTR PROTECTION BOUNDARY

SETTING OUT COORDINATES OF WORKS AREA WA23

POINT	COORDINATES	
	EASTING	NORTHING
W23-C1	826385.78	824036.80
W23-C2	826405.87	823806.07
W23-C3	826344.18	823790.10
W23-C4	826340.88	823801.06
W23-C5	826321.68	823843.84
W23-C6	826354.92	823992.47
W23-C7	826332.72	824033.89

AECOM

PROJECT NO.
60240249

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
TUEN MUN - CHEK LAP KOK LINK - SOUTHERN CONNECTION VIADUCT SECTION

CLIENT
路政署 HIGHWAYS DEPARTMENT
港務局 港務工程管理有限公司
Hong Kong - Zhuhai - Hainan Bridge
Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
[Symbol] [Symbol]

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	OCT. 12	TENDER DRAWING	CWN

STATUS
[Symbol]

SCALE
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DIMENSION UNIT
METRES

KEY PLAN
[Symbol]

PROJECT NO.
60240249

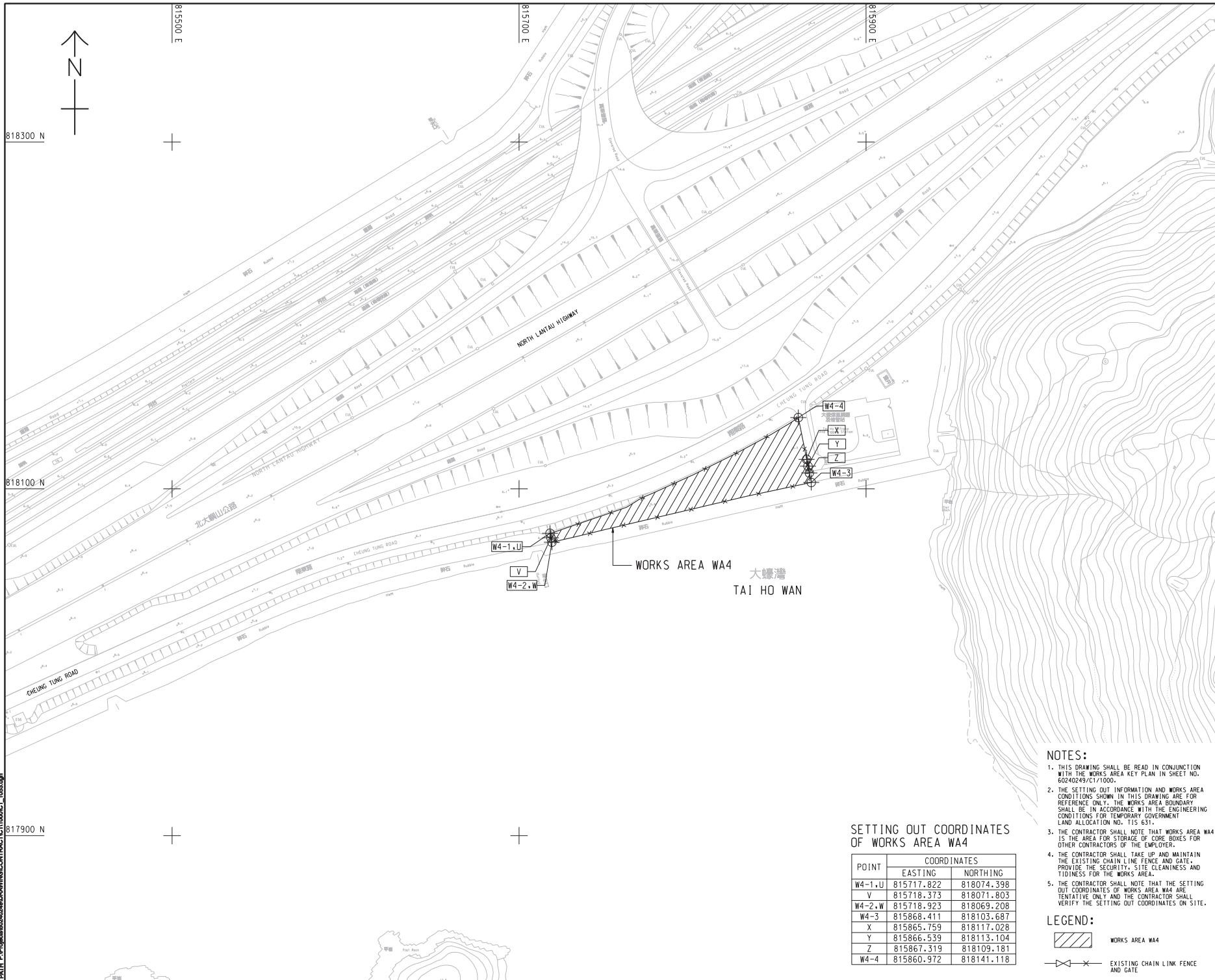
CONTRACT NO.
HY/2012/07

SHEET TITLE
WORKS AREA AND HOARDING PLAN

SHEET NUMBER
60240249/CT1/052

SHEET 2 OF 2

Figure 1.2i



WORKS AREA WA4
 大螺灣
 TAI HO WAN

SETTING OUT COORDINATES OF WORKS AREA WA4

POINT	COORDINATES	
	EASTING	NORTHING
W4-1,U	815717.822	818074.398
V	815718.373	818071.803
W4-2,W	815718.923	818069.208
W4-3	815868.411	818103.687
X	815865.759	818117.028
Y	815866.539	818113.104
Z	815867.319	818109.181
W4-4	815860.972	818141.118

- NOTES:**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/100.
 - THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. T15 631.
 - THE CONTRACTOR SHALL NOTE THAT WORKS AREA WA4 IS THE AREA FOR STORAGE OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER.
 - THE CONTRACTOR SHALL TAKE UP AND MAINTAIN THE EXISTING CHAIN LINK FENCE AND GATE. PROVIDE THE SECURITY, SITE CLEANLINESS AND TIDINESS FOR THE WORKS AREA.
 - THE CONTRACTOR SHALL NOTE THAT THE SETTING OUT COORDINATES OF WORKS AREA WA4 ARE TENTATIVE ONLY AND THE CONTRACTOR SHALL VERIFY THE SETTING OUT COORDINATES ON SITE.

LEGEND:

WORKS AREA WA4

EXISTING CHAIN LINK FENCE AND GATE

AECOM

PROJECT
 TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
 TUEN MUN - CHEK LAP KOK LINK - SOUTHERN CONNECTION VIADUCT SECTION

CLIENT
 路政署 DEPARTMENT OF HIGHWAYS
 港務局 港務工程管理局
 Hong Kong + Zhuhai + Hainan Bridge
 Hong Kong Project Management Office

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 2/11/2012/116

Figure 1.2j

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	NOV. 12	TENDER ADDENDUM NO. 1	C/W

SCALE
 A1 : 1000

DIMENSION UNIT
 METRES

KEY PLAN

PROJECT NO.
 60240249

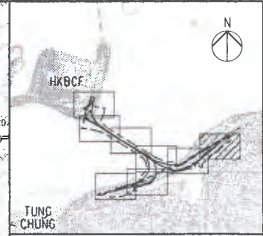
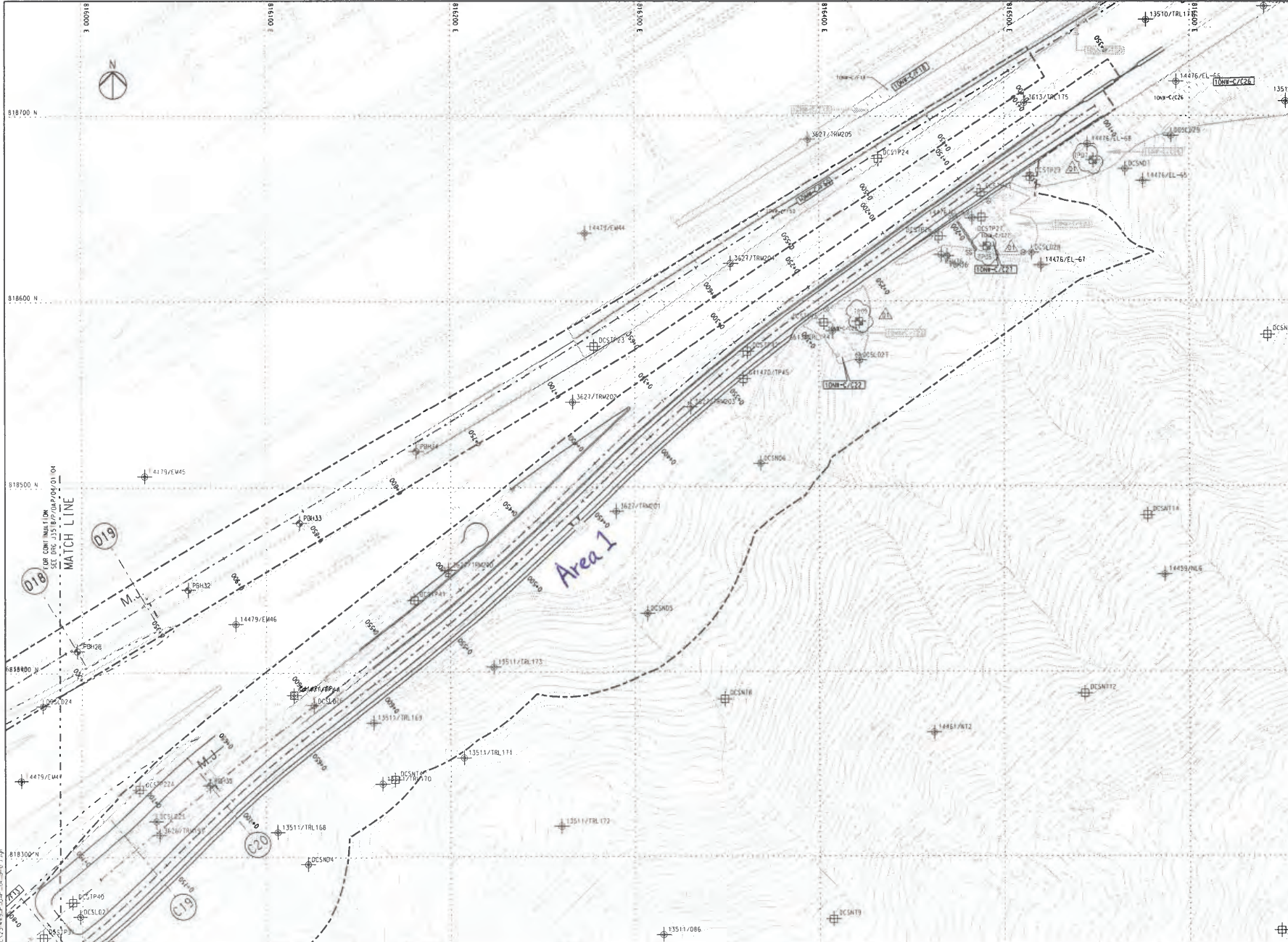
CONTRACT NO.
 HY/2012/07

SHEET TITLE
 WORKS AREA WA4

SHEET NUMBER
 60240249/C1/1053

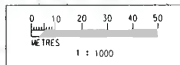
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NOTES
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 - ⊕ BOREHOLE BY GCL CONTRACT N6.8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - ⊕ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
- PROPOSED G.I. STATIONS :
- ⊕ B-0 PROPOSED BOREHOLE
 - ⊕ T-0 PROPOSED TRIAL PIT
 - ⊕ C-01 PROPOSED COREHOLE
 - ⊕ S-01 PROPOSED SLOPE STRIPPING

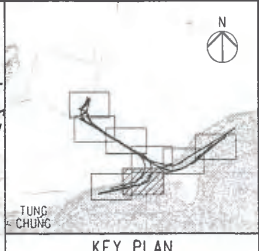
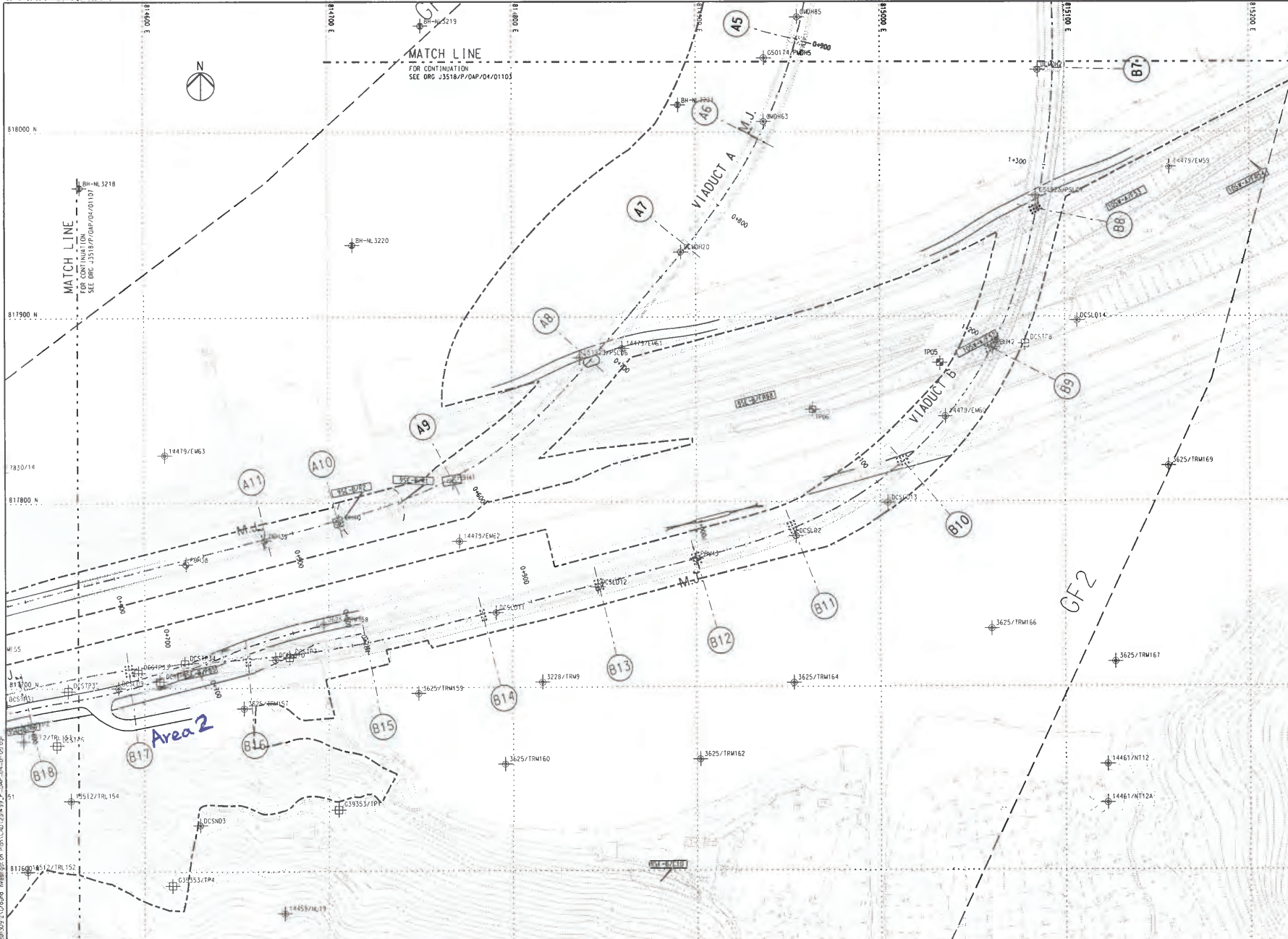


Rev	Description	By	Date	Rev	Description	By	Date
01	ISSUED FOR CONSTRUCTION	RL	31/7/13				
02	ISSUED FOR CONSTRUCTION	RL	27/7/13				
03	ISSUED FOR CONSTRUCTION	RL	29/7/13				
04	ISSUED FOR CONSTRUCTION	RL	19/7/12				

Drawn	Date	Client
RL	07/13	路政署 HIGHWAYS DEPARTMENT
Checked <td>Approved <td>港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office</td> </td>	Approved <td>港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office</td>	港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
DS	DOP	Supervising Officer

Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office		
Project Title: Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section		
Contract No. HY/2012/07		Drawing title: Figure 1.2k
Scale: 1:1000 @ A1 / 1:2000 @ A3		Drawing no. J3518/P/OAP/04/01105 Rev. D1

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



NOTES
 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

LEGEND

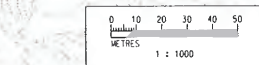
- SITE BOUNDARY
- GF1- FAULT

EXISTING G.I. STATIONS :

- ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
- ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
- ⊕ BOREHOLE BY GCL CONTRACT NL8/97
- ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
- ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
- ▭ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04

PROPOSED G.I. STATIONS :

- ⊕ PROPOSED BOREHOLE
- ⊕ PROPOSED TRIAL PIT
- ⊕ PROPOSED COREHOLE
- ▭ PROPOSED SLOPE STRIPPING



Rev	Description	By	Date	Rev	Description	By	Date
A	SUBMISSION	RL	07/13				
B	SUBMISSION	RL	07/13				
C	SUBMISSION	RL	07/13				

Drawn RL Date 07/13 Checked DS Approved DOP Scale 1:1000 @ A1 / 1:2000 @ A3	Client 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理局 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	Project Title Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section	Drawing Title Figure 1.2I Drawing no. J3518/P/OAP/04/1106

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 Plotted by: RL
 Plot Date: 07/13

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
HyD (Highways Department)	Project Coordinator	Stanley Chan	2762 3406	3188 6614
	Senior Engineer	Steven Shum	2762 4133	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Daniel Ip	3553 3800	2492 2057
	Resident Engineer	Kingman Chan	3691 3950	3691 2899
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 (Gammon Construction Limited)	Environmental Manager	Brian Kam	3520 0387	3520 0486
	Environmental Officer	Roy Leung	3520 0387	3520 0486
	24-hour Complaint Hotline		9738 4332	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of the Contract commenced on 31 October 2013. The three-month rolling construction programme is shown in *Appendix B*.

As informed by the Contractor, details of the major works carried out in this reporting month are listed below:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

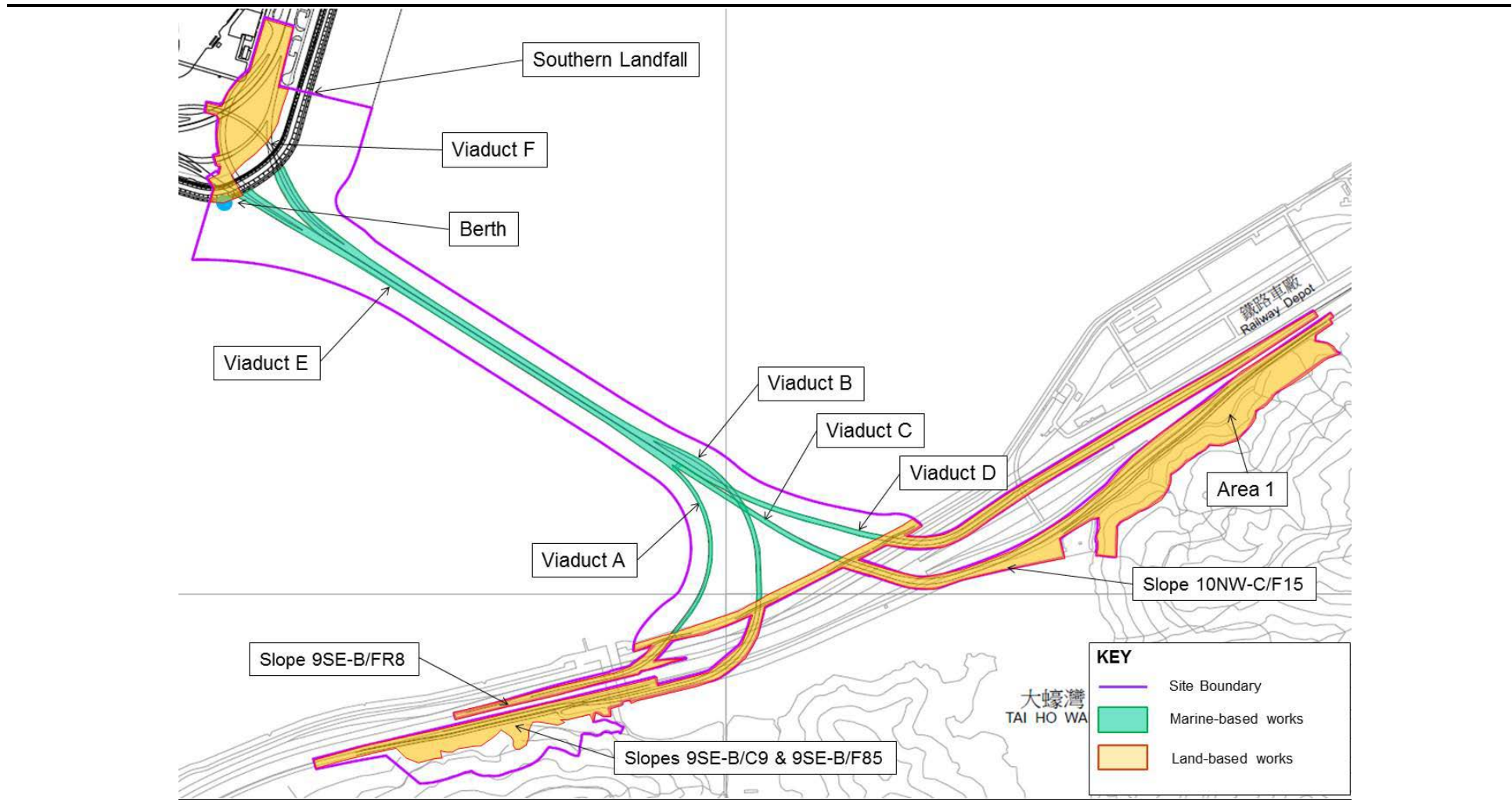
- Pier construction;
- Re-alignment of Cheung Tung Road;
- Road works along North Lantau Highway;

- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

The locations of the construction activities are shown in *Figure 1.3*. The Environmental Sensitive Receivers in the vicinity of the Project are shown in *Figure 1.4*.

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

Figure 1.3 Locations of Major Construction Activities in the Reporting Month



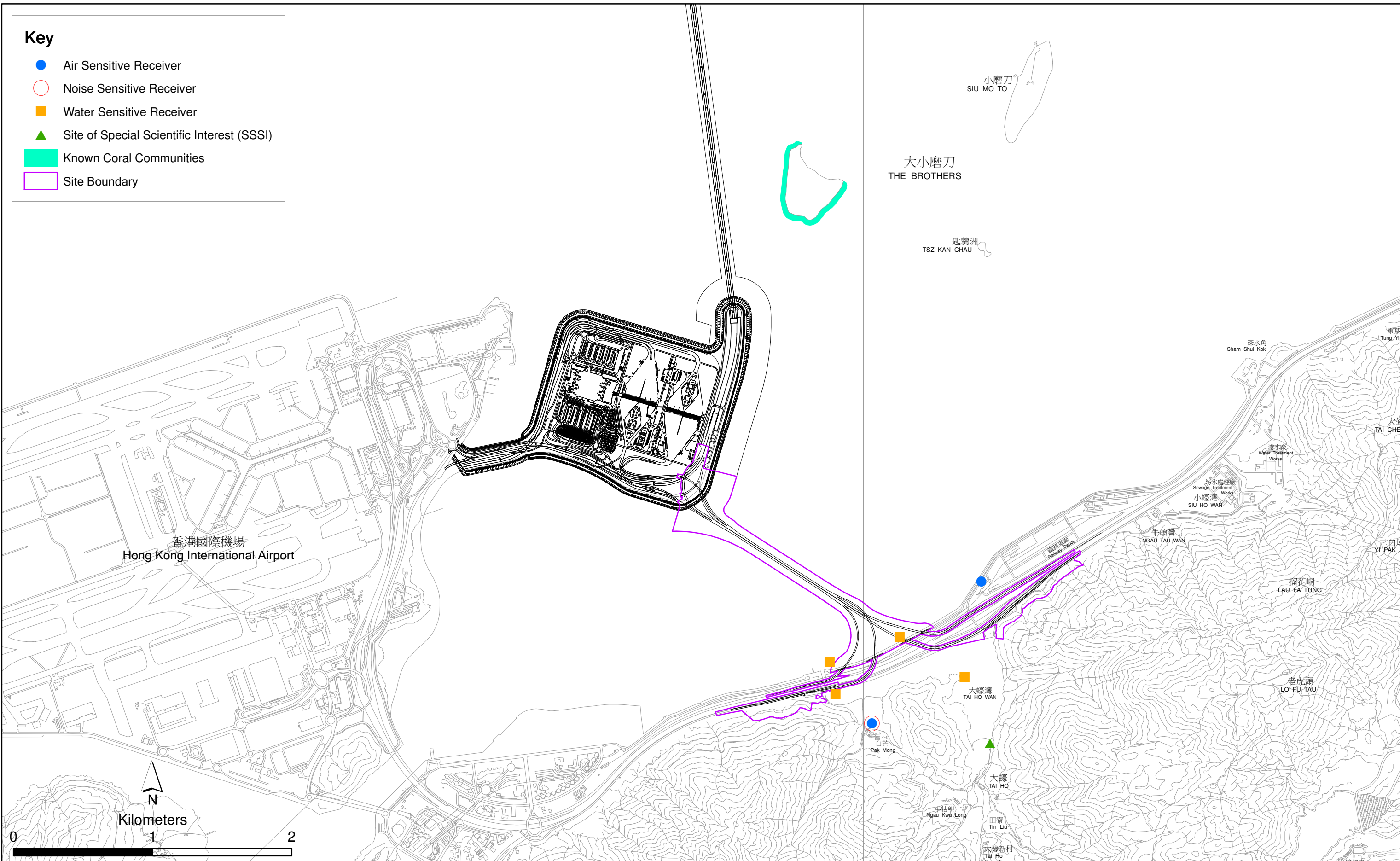


Figure 1.4

Environmental Sensitive Receivers in the Vicinity of Contract No. HY/2012/07
Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section

The EM&A programme required environmental monitoring for air quality, noise, 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, 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. The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*.

Table 2.1 *Locations of Impact Air Quality Monitoring Stations*

Monitoring Station	Location	Description	Monitoring Dates
ASR 9	MTR Depot	On the ground nearby MTR Depot Entrance	2, 8, 14, 20 and 23 February 2017
ASR 8A	Area 4	On ground at the works area, Area 4	2, 8, 14, 20 and 23 February 2017

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 2, 8, 14, 20 and 23 February 2017 at ASR8A and ASR9 in accordance with the requirements of the Updated EM&A Manual. The TSP monitoring stations are illustrated in *Figure 2.1* and detailed in *Table 2.1*. Wind anemometer was deployed at Area 4 for logging wind speed and wind direction. Copies of the calibration certificates for the equipment are presented in *Appendix E*. Details of the deployed equipment are given in *Table 2.2*.

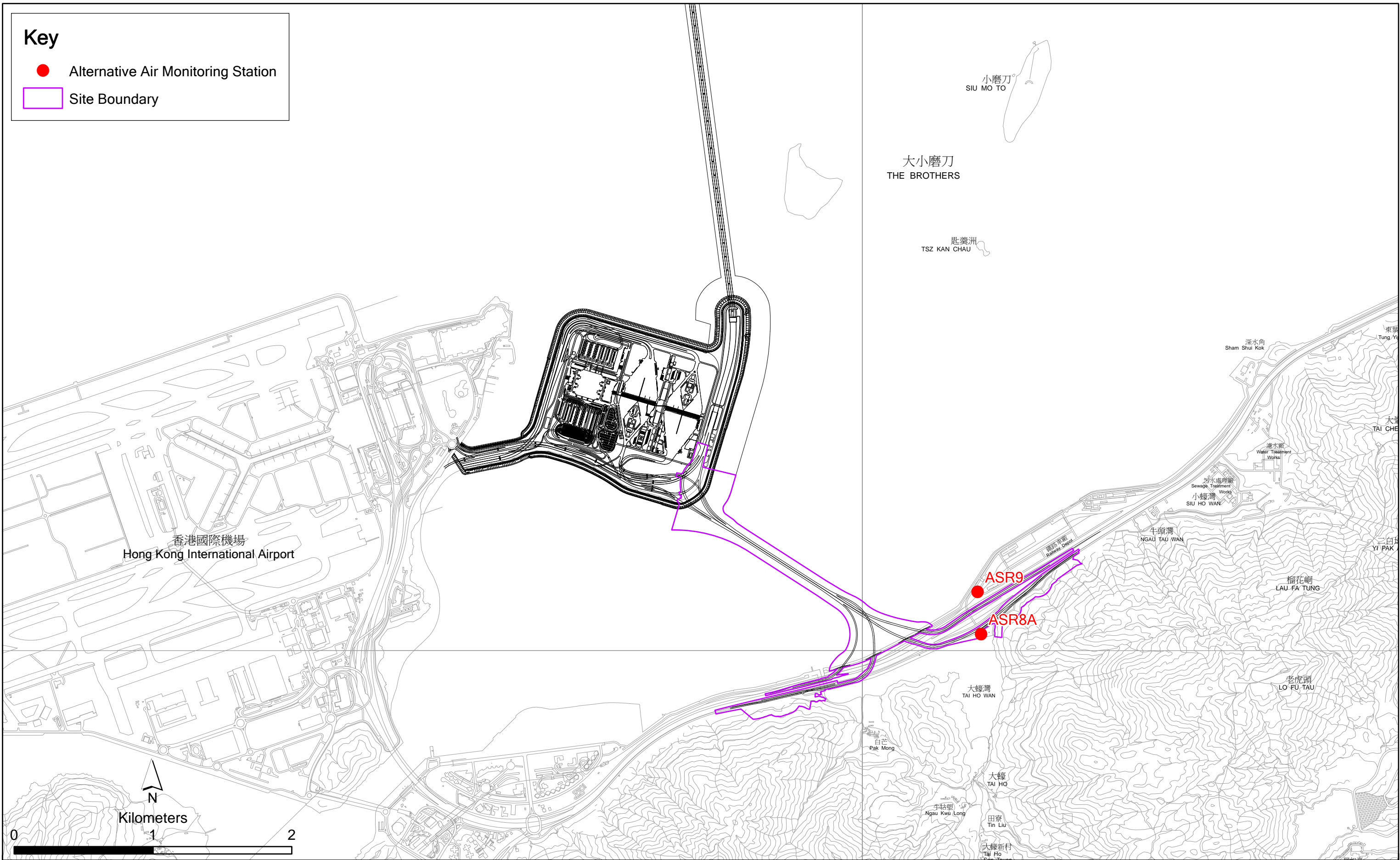


Figure 2.1

Locations of Air Quality Monitoring Stations

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 Sensor	Global Water (Wind Speed Sensor: WE550; Wind Direction Sensor: WE570)
Wind Anemometer for calibration	Lutron (Model No. AM-4201)

2.1.2 Monitoring Schedule for the Reporting Month

The schedule for air quality monitoring in February 2017 is provided in *Appendix F*.

2.1.3 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 are presented in *Appendix G*.

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

Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	73	45-147	394	500
ASR 9	86	46-147	393	500

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

Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	56	47-62	178	260
ASR 9	60	54-68	178	260

The major dust sources in the reporting period included construction activities under the Contract as well as nearby traffic emissions.

All 1-hour and 24-hour TSP results were below the Action and Limit Levels at all monitoring locations in the reporting period. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

Meteorological information collected at ASR8A including wind speed and wind direction is provided in *Appendix H*.

2.2 NOISE MONITORING

2.2.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual, impact noise monitoring was conducted once per week during the construction phase of the Contract. The Action and Limit Level of the noise monitoring is provided in *Appendix D*.

Noise monitoring was performed on 2, 8, 14, 20 and 23 February 2017 using sound level meter at the designated monitoring station NSR1A (*Figure 2.2; Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Details of the deployed equipment are provided in *Table 2.6*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.5 *Location of Impact Noise Monitoring Station*

Monitoring Station	Location	Description	Parameter	Frequency and Duration	Monitoring Dates
NSR 1A	Pak Mong Village Pavilion	On the ground at the village entrance	30-minute measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq} , L_{10} and L_{90} would be recorded.	At least once per week	2, 8, 14, 20 and 23 February 2017

Table 2.6 *Noise Monitoring Equipment*

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31
Acoustic Calibrator	Rion NC-73

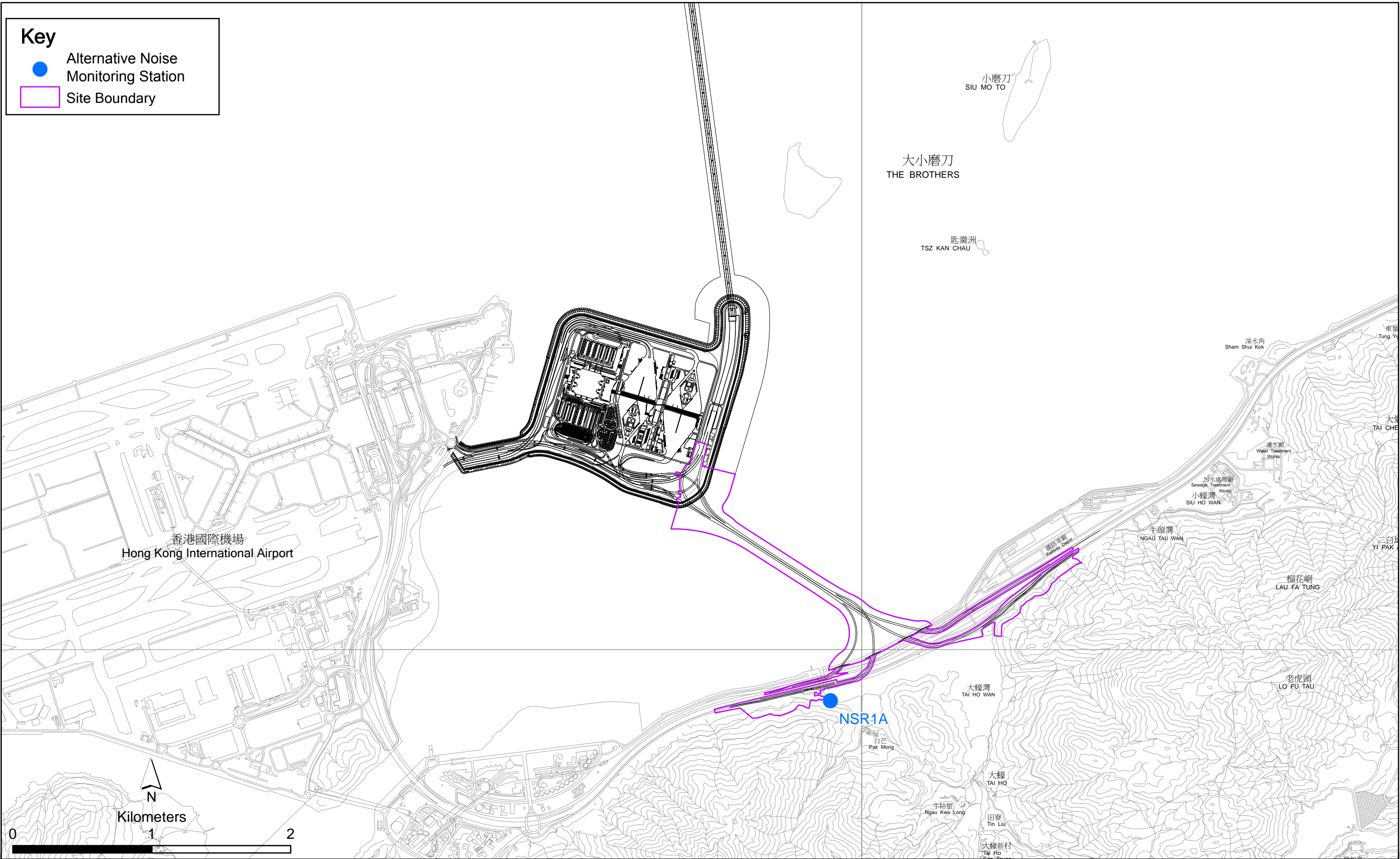


Figure 2.2

Location of Noise Monitoring Station

2.2.2 *Monitoring Schedule for the Reporting Month*

The schedule for construction noise monitoring in the reporting period is provided in *Appendix F*.

2.2.3 *Results and Observations*

Results for noise monitoring are summarized in *Table 2.7* and the monitoring data is provided in *Appendix I*.

Table 2.7 *Summary of Construction Noise Monitoring Results in the Reporting Period*

	Average , dB(A), L _{eq} (30mins)	Range, dB(A), L _{eq} (30mins)	Limit Level, dB(A), L _{eq} (30mins)
NSR 1A	62	61-63	75

No noise Action or Limit Level exceedance was recorded in the reporting month. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

Major noise sources during the noise monitoring included noise from crane operation and excavation works, nearby traffic noise and aircraft noise.

2.3 *WATER QUALITY MONITORING*

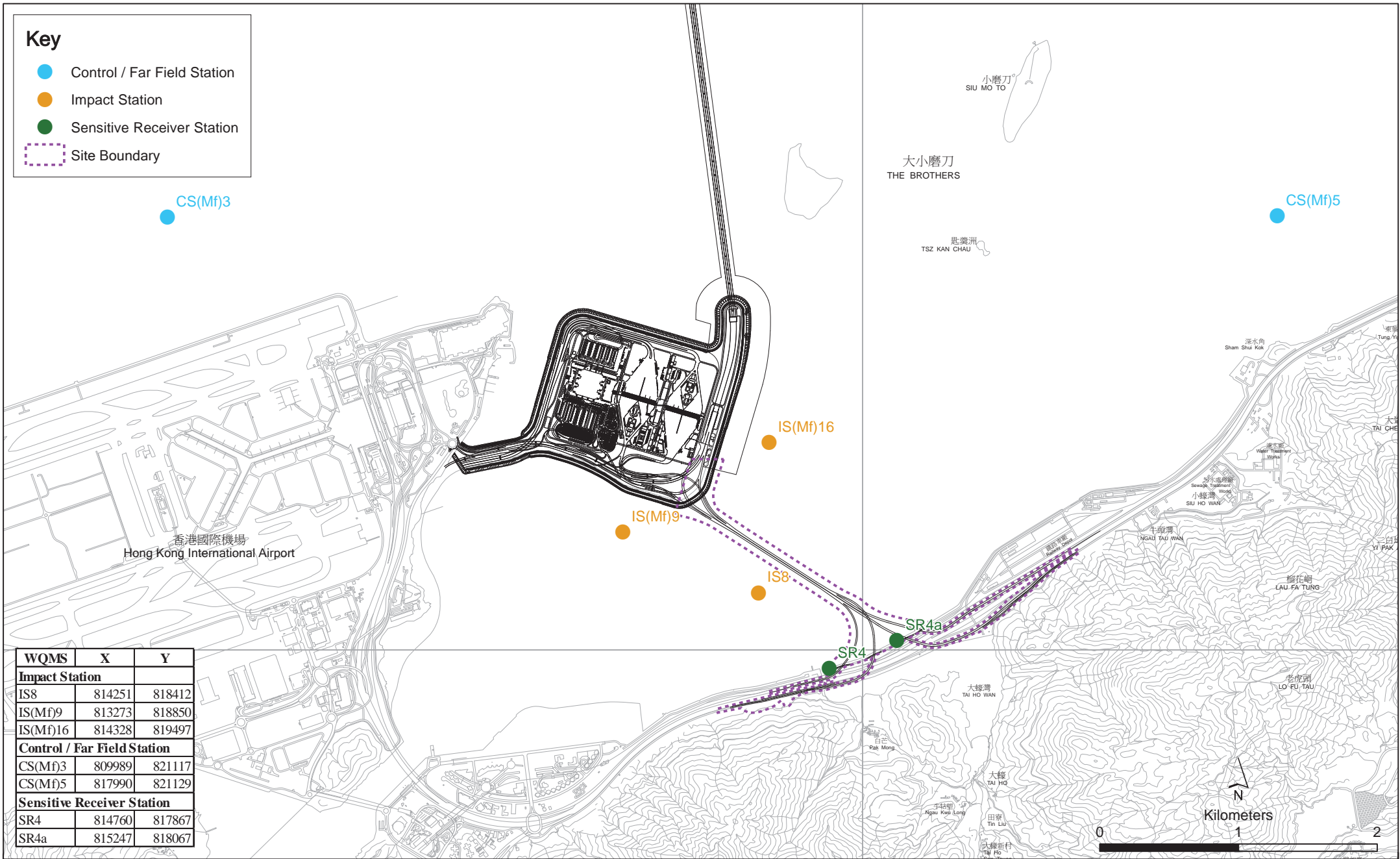
2.3.1 *Monitoring Requirements and Equipment*

Impact water quality monitoring was carried out to ensure that any deterioration of water quality was detected, and that timely action was taken to rectify the situation. Impact water quality monitoring was undertaken three days per week during the construction period in accordance with the Updated EM&A Manual. The Action and Limit Levels of the water quality monitoring are provided in *Appendix D*.

The locations of the monitoring stations under the Contract are shown in *Figure 2.3* and *Table 2.8*.

Key

- Control / Far Field Station
- Impact Station
- Sensitive Receiver Station
- Site Boundary



WQMS	X	Y
Impact Station		
IS8	814251	818412
IS(Mf)9	813273	818850
IS(Mf)16	814328	819497
Control / Far Field Station		
CS(Mf)3	809989	821117
CS(Mf)5	817990	821129
Sensitive Receiver Station		
SR4	814760	817867
SR4a	815247	818067

Figure 2.3

Locations of Water Quality Monitoring Stations

Table 2.8 *Locations of Impact Water Quality Monitoring Stations and its Corresponding Monitoring Requirements*

Station ID	Type	Coordinates		*Parameters, unit	Frequency	Depth
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	<ul style="list-style-type: none"> • Temperature(°C) • pH (pH unit) • Turbidity (NTU) • Water depth (m) • Salinity (ppt) • Dissolved Oxygen (DO) (mg/L and % of saturation) • Suspended Solid (SS) (mg/L) 	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract	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
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497			
IS8	Impact Station (Close to HKBCF construction site)	814251	818412			
SR4	Sensitive receiver (Tai Ho Inlet)	814760	817867			
SR4a	Sensitive receiver	815247	818067			
CS(Mf)3	Control Station	809989	821117			
CS(Mf)5	Control Station	817990	821129			

*Notes:

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

Table 2.9 summarises the equipment used in the impact water quality monitoring programme. Copies of the calibration certificates are attached in Appendix E.

Table 2.9 *Water Quality Monitoring Equipment*

Equipment	Brand and Model
DO and Salinity	YSI Pro2030
Turbidity meter	HACH Model 2100Q
pH meter	HANNA HI9125
Positioning Equipment	Koden913MK2 with KBG-3 DGPS antenna
Water Depth Detector	Speedtech Instrument SM-5
Water Sampler	Kemmerer 1520 (1520-C25) 2.2L with messenger

2.3.2 *Monitoring Schedule for the Reporting Month*

The schedule for water quality monitoring in February 2017 is provided in *Appendix F*.

2.3.3 *Results and Observations*

In total of 12 monitoring events for impact water quality monitoring were conducted at all designated monitoring stations in the reporting month. Impact water quality monitoring results and graphical presentations are provided in *Appendix J*.

Neither Action nor Limit Levels exceedances was recorded at all monitoring stations for impact water quality monitoring in the reporting month. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

2.4 *DOLPHIN MONITORING*

2.4.1 *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 Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) from the Contract. 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.

2.4.2 *Monitoring equipment*

Table 2.10 summarizes the equipment used for the impact dolphin monitoring.

Table 2.10 *Dolphin Monitoring Equipment*

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

2.4.3 *Monitoring Parameter, Frequencies and 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.

2.4.4 *Monitoring Location*

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in *Figure 2.4*. The co-ordinates of all transect lines are shown in *Table 2.11* below.

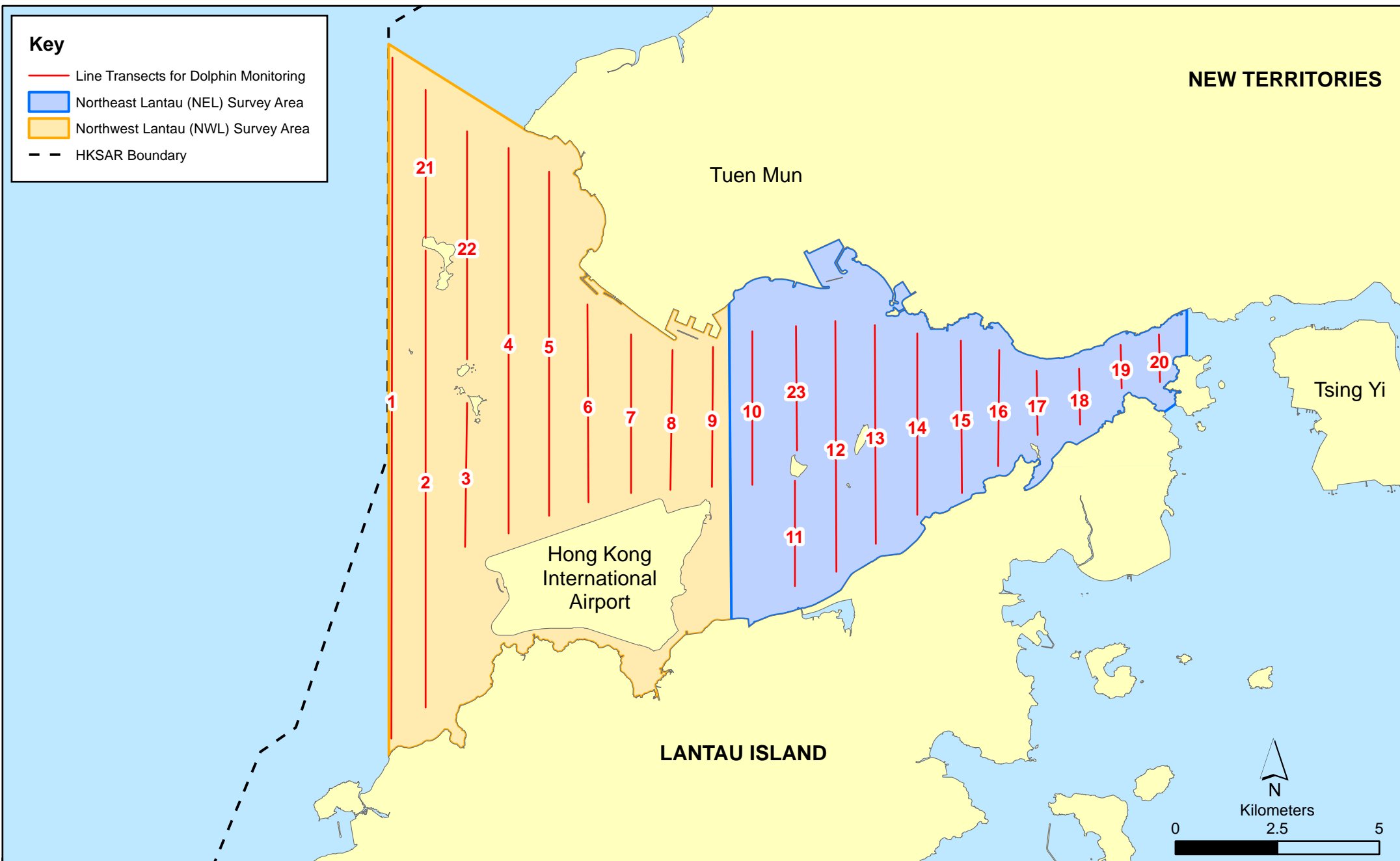


Figure 2.4

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

Table 2.11 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				

2.4.5 Action & Limit Levels

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

2.4.6 *Monitoring Schedule for the Reporting Month*

Dolphin monitoring was carried out on 7, 9, 16 and 21 February 2017 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 288.25 km of survey effort was collected, with 65.0% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) during the surveys in February 2017. Among the two areas, 111.41 km and 176.84 km of survey effort were collected from NEL and NWL survey areas, respectively. The total survey effort conducted on primary and secondary lines were 207.74 km and 80.51 km, respectively. The survey efforts are summarized in *Appendix K*.

Seven (7) groups of 25 Chinese White Dolphins were sighted during the two sets of monitoring surveys in February 2017. All seven (7) dolphin sightings were made in NWL, while none was sighted in NEL. During the surveys in February 2017, five of the seven sightings were made during on-effort search, while four of the five on-effort sightings were made on primary lines. None of the dolphin groups was associated with operating fishing vessel and none of the dolphin groups were sighted in the proximity of the Project's alignment. The distribution of dolphin sighting during the reporting month is shown in *Figure 2.5*.

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 February 2017 are shown in *Tables 2.12 & 2.13*.

Table 2.12 *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: Feb 7 th / 9 th	0.0	0.0
	Set 2: Feb 16 th / 21 st	0.0	0.0
NWL	Set 1: Feb 7 th / 9 th	0.0	0.0
	Set 2: Feb 16 th / 21 st	9.0	42.7

Note: Dolphin Encounter Rates are deduced from the two sets of surveys (two surveys in each set) in February 2017 in Northeast (NEL) and Northwest Lantau (NWL)

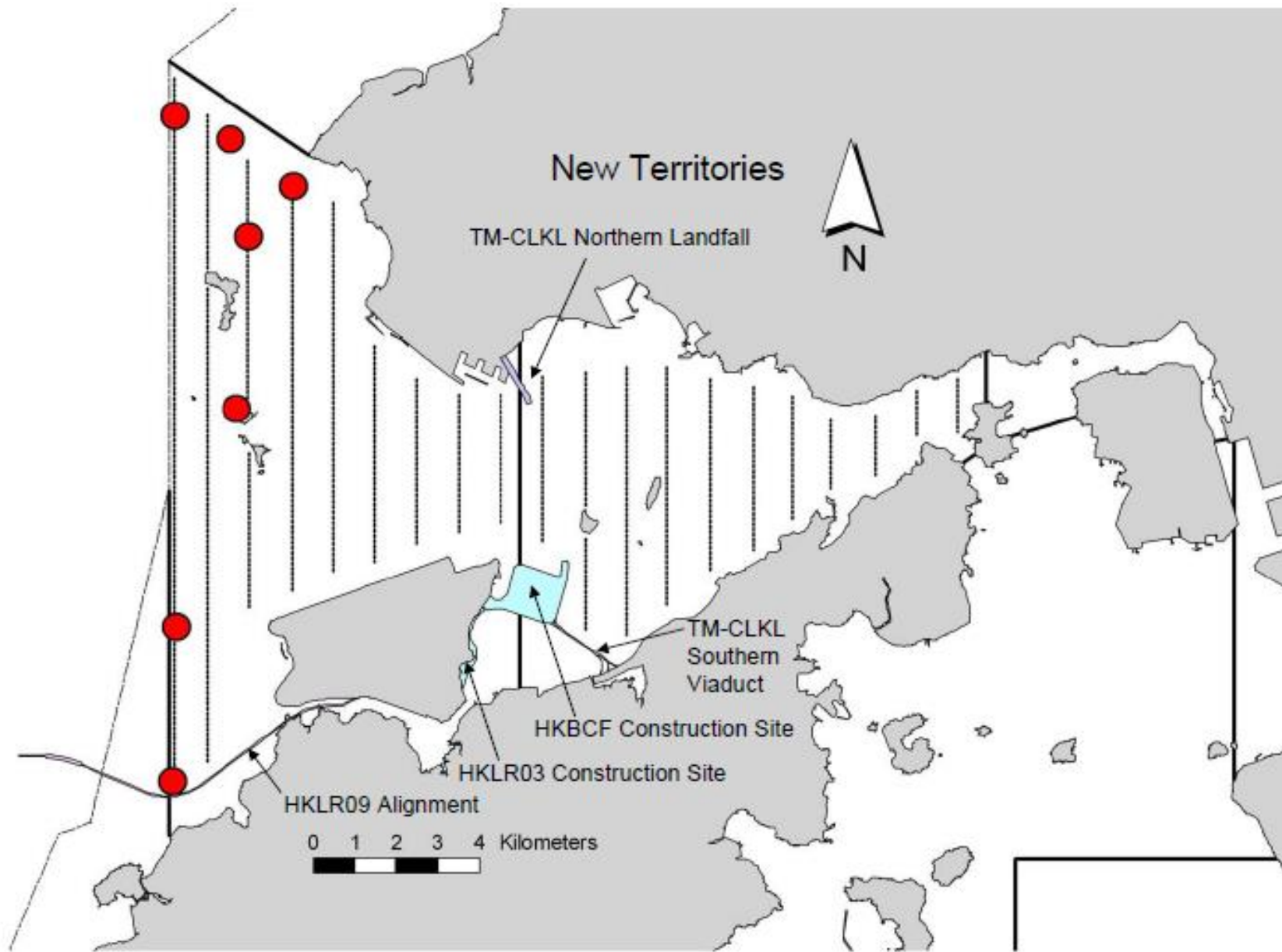


Figure 2.5

Date 7/10/2016

HY/2012/07 TM-CLKL Southern Connection Viaduct Section
 The distribution of dolphin sightings during the reporting period
 (Source: Adopted from HKLR03 Monitoring Survey in February 2017)

Environmental
 Resources
 Management



Table 2.13 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	5.4	3.9	25.7	18.8

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in February 2017 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between December 2016 and February 2017, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was noticeable from general observations. Due to monthly variation in dolphin occurrence within the Study Area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of the TM-CLKL Southern Connection Viaduct Section in the quarterly EM&A reports, in which comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

2.4.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of daytime marine works activities. No sighting of Chinese White Dolphin was recorded in February 2017 during the exclusion zone monitoring.

Passive Acoustic Monitoring (PAM) had been decommissioned as no marine piling works was carried out outside the daylight hours since September 2015.

2.5 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, five (5) site inspections were carried out on 2, 7, 15, 24 and 28 February 2017.

Key observations during the site inspections are summarized in *Table 2.14*.

Table 2.14 Specific Observations Identified during the Weekly Site Inspections in this Reporting Month

Inspection Date	Environmental Observations	Recommendations/ Remarks
02 February 2017	<p>Viaduct D (D13)</p> <ul style="list-style-type: none"> Chemical container was not placed in drip tray. Accumulated general refuse was observed at site. <p>Viaduct D (D18)</p> <ul style="list-style-type: none"> Chemical container was not placed in drip tray. <p>Ramp D</p> <ul style="list-style-type: none"> Better housekeeping should be maintained. Oil leakage was observed nearby excavator. 	<p>Viaduct D (D13)</p> <ul style="list-style-type: none"> The Contractor was reminded to remove the chemical containers and placed them in drip tray. The Contractor was reminded to clear the general refuse. <p>Viaduct D (D18)</p> <ul style="list-style-type: none"> The Contractor was reminded to remove the chemical containers and placed them in drip tray. <p>Ramp D</p> <ul style="list-style-type: none"> The Contractor was reminded to keep better housekeeping at site. The Contractor was reminded to clear oil leakage.
07 February 2017	<p>Southern Landfall (Portion A)</p> <ul style="list-style-type: none"> NRMM label should be displayed properly on drill rig. Chemical container was not placed in drip tray Oil leakage was observed nearby power pack. 	<p>Southern Landfall (Portion A)</p> <ul style="list-style-type: none"> The Contractor was reminded to display NRMM label properly on drill rig. The Contractor was reminded to remove the chemical containers and placed them in drip tray. The Contractor was reminded to clear oil leakage.
15 February 2017	<p>Viaduct B (B16)</p> <ul style="list-style-type: none"> Environmental Permit (EP) should be displayed at site or area nearby sensitive receiver. <p>Viaduct B (B17)</p> <ul style="list-style-type: none"> Watering was not maintained on unpaved area. <p>Ramp B</p> <ul style="list-style-type: none"> NRMM label should be displayed properly on excavator. Oil leakage was observed nearby excavator. Drip tray was observed not properly plugged. 	<p>Viaduct B (B16)</p> <ul style="list-style-type: none"> The Contractor was reminded to display Environmental Permit (EP) at site or area nearby sensitive receiver. <p>Viaduct B (B17)</p> <ul style="list-style-type: none"> The Contractor was reminded to maintain watering on unpaved area. <p>Ramp B</p> <ul style="list-style-type: none"> The Contractor was reminded to clearly display NRMM label on excavator. The Contractor was reminded to clear oil leakage. The Contractor was reminded to properly plug the drip tray.
24 February 2017	<p>Viaduct B (Deck Pier B1)</p> <ul style="list-style-type: none"> NRMM label should be displayed on the generator. Stagnant water was observed in the drip tray near air compressor. <p>Southern Landfall (Portion A)</p> <ul style="list-style-type: none"> Flow direction should be indicated on the pipe. 	<p>Viaduct B (Deck Pier B1)</p> <ul style="list-style-type: none"> The Contractor was reminded to display NRMM label on the generator. The Contractor was reminded to clear stagnant water in the drip tray near air compressor. <p>Southern Landfall (Portion A)</p> <ul style="list-style-type: none"> The Contractor was reminded to provide indication of flow direction on the pipe.

Inspection Date	Environmental Observations	Recommendations/ Remarks
28 February 2017	Viaduct E (E7) <ul style="list-style-type: none"> Chemicals were not placed in drip tray. General refuse was observed at site. Viaduct E (E12) <ul style="list-style-type: none"> Absorption pad should be provided nearby the drip tray of the generator. 	Viaduct E (E7) <ul style="list-style-type: none"> The Contractor was reminded to place chemicals in drip tray. The Contractor was reminded to clear general refuse. Viaduct E (E12) <ul style="list-style-type: none"> The Contractor was reminded to provide absorption pad nearby the drip tray of the generator.

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

2.6

WASTE MANAGEMENT STATUS

The Contractor has 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 include mainly construction wastes (inert and non-inert) and recyclable materials. 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 2.15*.

Table 2.15 Quantities of Different Waste Generated in the Reporting Period

Month/Year	Inert C&D Materials ^(a) (m ³)	Imported Fill (m ³)	Inert Construction Waste Re-used (m ³)	Non-inert Construction Waste ^(b) (kg)	Recyclable Materials ^(c) (kg)	Chemical Wastes (kg)	Marine Sediment (m ³)	
							Category L	Category M (M _p & M _f)
February 2017	4,869	0	166	127,720	91	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, felled trees 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*.

2.7 ENVIRONMENTAL LICENSES AND PERMITS

The status of environmental licensing and permit is summarized in *Table 2.16* below.

Table 2.16 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	N/A	HyD	Tuen Mun- Chek Lap Kok Link
Environmental Permit	EP-353/2009/K	11 April 2016	N/A	HyD	Hong Kong Boundary Crossing Facilities
Construction Dust Notification	361571	5 Jul 2013	N/A	GCL	
Construction Dust Notification	362093	17 Jul 2013	N/A	GCL	For Area 23
Chemical Waste Registration	5213-961-G2380-13	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract No. HY/2012/07 (Area 1 adjacent to Cheng Tung Road, Siu Ho Wan)
Chemical Waste Registration	5213-961-G2380-14	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract No. HY/2012/07 (Area 2 adjacent to Cheung Tung Road, Pak Mong Village)
Chemical Waste Registration	5213-974-G2588-03	4 Nov 2013	N/A	GCL	Chemical waste produced in Contract No. HY/2012/07 (WA5 adjacent to Cheung Tung Road, Yam O)
Chemical Waste Registration	5213-951-G2380-17	12 Jun 2014	N/A	GCL	Viaducts A, B, C, D & E
Construction Waste Disposal Account	7017735	10 Jul 2013	N/A	GCL	-
Construction Waste Disposal Account	7019470	3 Mar 2014	N/A	GCL	Vessel CHIT Account
Waste Water Discharge License	WT00019017-2014	13 May 2014	31 May 2019	GCL	Discharge for marine portion
Waste Water Discharge License	WT00019018-2014	13 May 2014	31 May 2019	GCL	Discharge for land portion
Construction Noise Permit for night works and works in general holidays	GW-RW0708-16	20 Dec 2016	18 Jun 2017	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS1045-16	14 Oct 2016	13 Apr 2017	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RS1309-16	20 Dec 2016	19 Jun 2017	GCL	Broad Permit for Whole Site Areas
Construction Noise Permit for night works and works in general holidays	GW-RS1159-16	24 Nov 2016	28 Feb 2017	GCL	Broad Permit for Segment Launching at Land Portion
Construction Noise Permit for night works and works in general holidays	GW-RS1044-16	14 Oct 2016	13 Apr 2017	GCL	Pre-casted pile cap shell installation at E8-E13
Construction Noise Permit for night works and works in general holidays	GW-RS0082-17	15 Feb 2017	31 Mar 2017	GCL	Water Pipe Works at Tung Chung
Marine Dumping Permit	EP-MD-17-168	01 Feb 2017	28 Feb 2017	GCL	For dumping Type I (Dedicated Site) and Type II

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Marine Dumping Permit	EP-MD-17-153	01 Jan 2017	30 Jun 2017	GCL	sediment For dumping Type I sediment

2.8 *IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES*

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

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

The landscape and visual (L&V) mitigation measures were also monitored on weekly basis in the reporting period. The monitoring status is summarized in *Appendix C*.

2.9 *SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT*

Results for water quality, 1-hour TSP, 24-hour TSP and construction noise monitoring complied with the Action/ Limit levels in the reporting period.

Cumulative statistics on exceedances is provided in *Appendix N*.

2.10 *SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS*

The Environmental Complaint Handling Procedure is provided in *Figure 2.6*.

There was no environmental complaint, notification of summons or successful prosecution recorded in the reporting period.

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

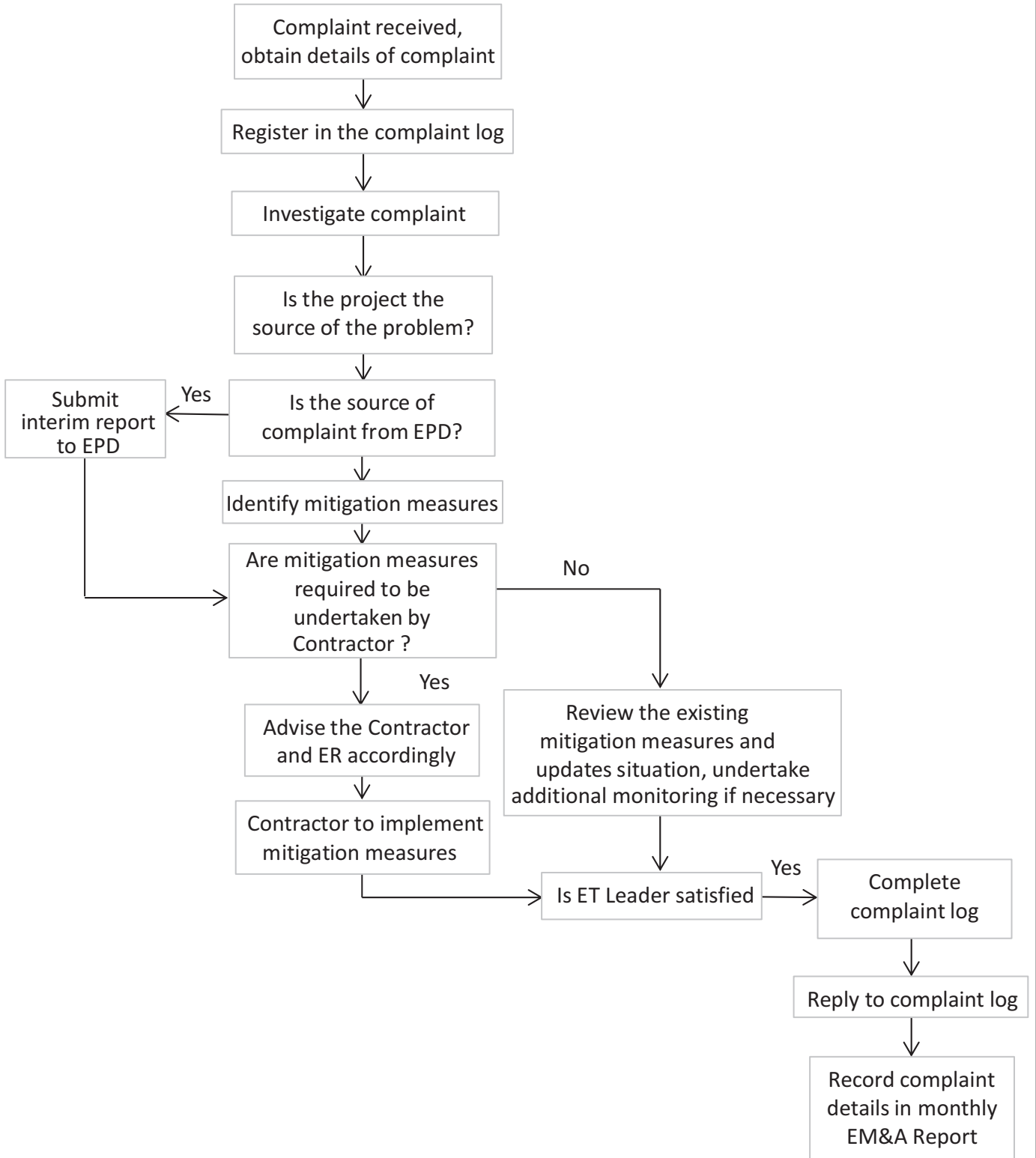


Figure 2.6

Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTH*

As informed by the Contractor, the major works for this Contract in March 2017 will be:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Road works along North Lantau Highway;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

3.2 *KEY ISSUES FOR THE COMING MONTH*

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

3.3 *MONITORING SCHEDULE FOR THE COMING MONTH*

The tentative schedules for environmental monitoring in March 2017 are provided in *Appendix F*.

4.1 CONCLUSIONS

This Fortieth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 28 February 2017 in accordance with the Updated EM&A Manual and the requirements of the Environmental Permits (EP-354/2009/D and EP-353/2009/K).

Air quality (1-hour TSP and 24-hour TSP), noise, water quality (DO, turbidity and SS) and dolphin monitoring were carried out in the reporting month. Results for water quality, air quality and noise monitoring complied with the Action and Limit levels in the reporting period.

Seven (7) groups of 25 Chinese White Dolphins were sighted during the two sets of monitoring surveys in February 2017. One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between December 2016 and February 2017, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was noticeable from general observations. Environmental site inspection was carried out four (4) times in February 2017. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

There was no environmental complaint, notification of summons or successful prosecution recorded in 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



↔ Line of Communication

Appendix B

Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																	
										February					March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
Contract Milestones																											
Key Dates for Completion																											
Stage of the Works																											
Completion Date																											
General																											
KD03	KD3 - Stage 3: TCSS Along NLH Near Viaduct C, D (EoT 5-Apr-16)	0		0	21-Feb-17*		05-Apr-16	-321	0%																		
Portion Handover Dates																											
Possession of the Works Area																											
Access Dates																											
General																											
POS02-6B	Portion A - Area 6B (To be confirmed)	0	21-Feb-17*	0		15-Dec-15		-434	0%																		
Design																											
Detailed Design																											
General Submissions																											
Reports & Manuals																											
General																											
ARDD0037-8	IC/SO Approval of Seismic Performance Report Viaduct F - AP12.03	75	12-Jan-17 A	75	25-May-17	08-Apr-16	08-Jul-16	-260	0%																		
ARDD0040-2	IC/SO Approval of Operation and Maintenance Manual - AP08.00	75	20-Oct-15 A	16	10-Mar-17	20-Jun-16	08-Jul-16	-201	0%																		
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	16	10-Mar-17	20-Jun-16	08-Jul-16	-201	50%																		
Slope Works Near Viaduct A																											
Feature 9SE-B/FR8, B/R1, B/R2																											
Slope Works Design																											
ARDD0596	Preparation of remaining portion of Slope FR8 Combined AIP/DDA - CP11.	35	21-Dec-16 A	11	04-Mar-17	19-Jan-16	30-Jan-16	-322	50%																		
ARDD0596-1	IC/SO Approval of Slope Combined AIP/DDA - CP11.01	60	06-Mar-17	60	20-May-17	01-Feb-16	18-Apr-16	-322	0%																		
Slope Works Near Viaduct C																											
Feature 10NW-C/C22, C/C26, C/C27, C/F13, C/F14, C/F15																											
Slope Works Design																											
ARDD0589-1	Preparation of Slope Combined AIP/DDA - CP13.01	60	21-Feb-17*	60	08-May-17	19-Jul-16	27-Sep-16	-177	0%																		
ARDD0589-2	IC/SO Approval of Combined AIP/DDA - CP13.01	28	08-May-17	28	05-Jun-17	28-Sep-16	25-Oct-16	-223	0%																		
ARDD0590	Newfill slopes PF1 & PF2 Preparation of Combined AIP/DDA - CP13.01	60	21-Feb-17	60	08-May-17	05-Jul-16	12-Sep-16	-189	0%																		
ARDD0590-1	New fill slopes PF1 & PF2 IC/SO Approval of combined AIP/DDA - CP13.0	28	09-May-17	28	10-Jun-17	13-Sep-16	18-Oct-16	-189	0%																		
Slope Works Near Viaduct D																											
Feature 10NW-C/R4, C/F9, C/F10, C/F11, C/F17, C/F50																											
Slope Works Design																											
ARDD0603	IC/SO Approval of Slope Combined AIP/DDA-CP14.01	75	16-Dec-14 A	7	28-Feb-17	17-Feb-16	24-Feb-16	-300	75%																		
ARDD0603-1	IC/SO Approval of Slope Combined AIP/DDA-CP14.01	0		0	28-Feb-17		24-Feb-16	-300	0%																		
Watermain, Drainage & Utility Diversions																											
General																											
Design																											
ARDD0629	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	75	22-Jul-14 A	22	17-Mar-17	01-Mar-16	29-Mar-16	-289	95%																		
ARDD0629-1	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	0		0	17-Mar-17		29-Mar-16	-289	0%																		
ARDD0629-2	Gov't Approval of Submissions for Waterworks, Drainage & Utility Diversior	75	02-Jan-14 A	22	17-Mar-17	01-Mar-16	29-Mar-16	-289	95%																		
Viaduct Approach Ramp Retaining Walls																											
Abutment & Approach Ramp B																											
Design																											
ARDD0664	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	75	14-Oct-14 A	4	24-Feb-17	09-Mar-16	12-Mar-16	-282	95%																		
ARDD0664-1	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	0		0	24-Feb-17		12-Mar-16	-282	0%																		
Abutment & Approach Ramp F																											
Design																											
ARDD0676	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	75	23-Dec-14 A	34	31-Mar-17	13-May-16	23-Jun-16	-231	70%																		
ARDD0676-1	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	0		0	31-Mar-17		23-Jun-16	-231	0%																		
Segment Target Geometry & Erection Engineering																											
Viaduct A																											

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

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3-Month Rolling Programme (Page 1 of 13 Pages)
(Progress as of 21-Feb-17)

Date	Revision	Checked	Approved
03-Jan-17		PKN	GL
26-Jan-17		PKN	GL
28-Feb-17		PKN	GL

DWG. No.:
J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																
										February				March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15
Design																										
ARDD0718	Viaduct A - Target Geometry Analysis	20	21-Dec-16 A	2	22-Feb-17	02-Apr-20	03-Apr-20	923	0%	[Gantt bar: 21-Dec-16 to 22-Feb-17]																
ARDD0719-5	Viaduct A - Issue Erection Manual	20	21-Dec-16 A	2	22-Feb-17	06-Apr-16	07-Apr-16	-262	0%	[Gantt bar: 21-Dec-16 to 07-Apr-16]																
Viaduct E5 & E6																										
Design																										
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	05-May-14 A	10	03-Mar-17	08-Oct-15	19-Oct-15	-406	90%	[Gantt bar: 03-Mar-17 to 19-Oct-15]																
TGP0570	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogue	40	30-Apr-15 A	10	03-Mar-17	08-Oct-15	19-Oct-15	-406	90%	[Gantt bar: 03-Mar-17 to 19-Oct-15]																
TGP0590	Viaduct E5 & E6 - Issue Erection Manual	10	04-Mar-17	10	15-Mar-17	20-Oct-15	31-Oct-15	-406	0%	[Gantt bar: 15-Mar-17 to 31-Oct-15]																
Viaduct E7 & E8																										
Design																										
ARDD0739	Viaduct E7 & E8 - Segment Geometry Schedules	10	05-May-14 A	10	03-Mar-17	08-Oct-15	19-Oct-15	-406	90%	[Gantt bar: 03-Mar-17 to 19-Oct-15]																
TGP0760	Viaduct E7 & E8 - Issue of Optimised Casting Data and Segment Catalogue	40	31-Jul-15 A	10	03-Mar-17	08-Oct-15	19-Oct-15	-406	90%	[Gantt bar: 03-Mar-17 to 19-Oct-15]																
TGP0790	Viaduct E7 & E8 - Issue Erection Manual	10	04-Mar-17	10	15-Mar-17	20-Oct-15	31-Oct-15	-406	0%	[Gantt bar: 15-Mar-17 to 31-Oct-15]																
Viaduct F																										
Design																										
ARDD0752	Viaduct F - Erection Sequence Analysis	13	21-Feb-17*	13	07-Mar-17	09-Oct-15	24-Oct-15	-405	0%	[Gantt bar: 07-Mar-17 to 24-Oct-15]																
ARDD0753	Viaduct F - Target Geometry Analysis	30	08-Mar-17	30	12-Apr-17	26-Oct-15	28-Nov-15	-405	0%	[Gantt bar: 12-Apr-17 to 28-Nov-15]																
ARDD0754	Viaduct F - Segment Geometry Schedules	10	13-Apr-17	10	27-Apr-17	30-Nov-15	10-Dec-15	-405	0%	[Gantt bar: 27-Apr-17 to 10-Dec-15]																
ARDD0754-1	Viaduct F - Issue of Pierhead Segments Bridge F1, F2, F3, F4 & F5	0		0	27-Apr-17		03-Apr-20	872	0%	[Milestone: 03-Apr-20]																
ARDD0754-5	Viaduct F - Issue Erection Manual	30	28-Apr-17	30	05-Jun-17	11-Dec-15	18-Jan-16	-405	0%	[Gantt bar: 05-Jun-17 to 18-Jan-16]																
Procurement																										
Deck Segment Installation Equipment																										
K-Frames																										
Viaduct A to F																										
Equipment Delivery																										
PR67120	Steelworks for K-Frame	0		0	07-Feb-17 A				100%	[Milestone: 07-Feb-17]																
PR67130	Hydraulic for K-Frame	0		0	28-Feb-17*		03-Apr-20	918	0%	[Milestone: 28-Feb-17]																
Strand Jacks																										
Viaduct A to F																										
Equipment Delivery																										
PR67140	Steelworks for 294T Strand Jack module	0		0	07-Feb-17 A				100%	[Milestone: 07-Feb-17]																
PR67150	Hydraulic for 294T Strand Jack	0		0	28-Feb-17*		03-Apr-20	918	0%	[Milestone: 28-Feb-17]																
Crab																										
Viaduct A to F																										
Equipment Delivery																										
PR67160	Steelworks for 294T Crab - Batch 1	0		0	07-Feb-17 A				100%	[Milestone: 07-Feb-17]																
PR67170	Steelworks for 294T Crab - Batch 2	0		0	28-Feb-17*		03-Apr-20	918	0%	[Milestone: 28-Feb-17]																
Travelling Hanging Beams (Self-Launch)																										
Viaduct A to F																										
Equipment Delivery																										
PR67070	Steelworks for Self-Launching System - Batch 1	0		0	28-Feb-17*		07-May-16	-242	0%	[Milestone: 28-Feb-17]																
PR67080	Steelworks for Self-Launching System - Batch 2	0		0	31-Mar-17*		07-May-16	-268	0%	[Milestone: 31-Mar-17]																
PR67090	Steelworks for Self-Launching System - Batch 3	0		0	18-Apr-17*		07-May-16	-279	0%	[Milestone: 18-Apr-17]																
PR67100	2 nos. Hydraulic Cylinder & Associated Accessories for Spare	0		0	18-Apr-17*		07-May-16	-279	0%	[Milestone: 18-Apr-17]																
PR67110	Power Pack for Hydraulic System for Self-Launching System	0		0	18-Apr-17*		07-May-16	-279	0%	[Milestone: 18-Apr-17]																
Precast Deck Segments																										
Preliminaries																										
Viaduct F																										
General																										
MBBE0054	Precast Segment Mould Design (Viaduct F1 to F5)	42	01-Sep-16 A	14	08-Mar-17	06-Oct-16	22-Oct-16	-111	65%	[Gantt bar: 08-Mar-17 to 22-Oct-16]																
MBBE0056	Precast Segment Mould Fabrication & Erection (Viaduct F1 to F5)	52	23-Feb-17	52	28-Apr-17	08-Oct-16	08-Dec-16	-111	0%	[Gantt bar: 28-Apr-17 to 08-Dec-16]																
Viaduct A - Bridge A2-A1																										
Segment Manufacture																										
General																										
MBAE0130-1	A: Progressive Segment Manufacture (179 Nr)	180	13-Jun-16 A	78	29-May-17	12-Feb-16	19-May-16	-304	65%	[Gantt bar: 29-May-17 to 19-May-16]																

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

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										February					March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
Viaduct E - Bridge E2																											
Segment Manufacture																											
General																											
MBEE0130-7	E2: Progressive Segment Manufacture (404 Nr)	376	06-May-15 A	75	25-May-17	31-Dec-15	05-Apr-16	-337	90%																		
Viaduct E - Bridge E5, E6, E7, E8																											
Segment Manufacture																											
General																											
MBEE0130-9	E5-6-7-8: Progressive Segment Manufacture (544Nr)	360	06-May-15 A	167	12-Sep-17	22-Sep-15	18-Apr-16	-418	45%																		
Viaduct F - Bridge F1-F5																											
Segment Manufacture																											
General																											
MBFE0130-1	F: Progressive Segment Manufacture (300 Nr)	252	27-Oct-16 A	197	19-Oct-17	15-Apr-16	08-Dec-16	-254	20%																		
Precast Parapets & Barriers																											
Viaduct A to F																											
Precast Parapet Manufacture																											
General																											
PP6011-01	Viaduct A - Precast Parapets/Barriers Production	90	01-Sep-16 A	130	31-Jul-17	06-Apr-16	08-Sep-16	-262	20%																		
PP6011-02	Viaduct B - Precast Parapets/Barriers Production	120	03-May-16 A	79	31-May-17	07-Jun-16	08-Sep-16	-211	55%																		
PP6011-03	Viaduct C - Precast Parapets/Barriers Production	120	01-Apr-16 A	55	29-Apr-17	04-Mar-16	12-May-16	-286	65%																		
PP6011-04	Viaduct D - Precast Parapets/Barriers Production	120	01-Mar-16 A	55	29-Apr-17	04-Mar-16	12-May-16	-286	65%																		
PP6011-05	Viaduct E - Precast Parapets/Barriers Production	180	02-Jul-16 A	183	30-Sep-17	09-Mar-16	20-Oct-16	-282	30%																		
Bearings																											
Viaduct A																											
Bearing Design & Manufacture																											
General																											
PPBRA5	SO review & comment on design submission - Viaduct A	36	21-Oct-16 A	10	03-Mar-17	12-Nov-16	23-Nov-16	-80	70%																		
PPBRA6	Bearing Design Amendment & re-issue - Viaduct A	12	04-Mar-17	12	17-Mar-17	24-Nov-16	07-Dec-16	-80	0%																		
PPBRA7	Manufacture of Bearing - Viaduct A	54	21-Oct-16 A	28	24-Mar-17	05-Nov-16	07-Dec-16	-86	50%																		
PPBRA8	Testing Bearing - Viaduct A	18	25-Mar-17	18	19-Apr-17	08-Dec-16	30-Dec-16	-86	0%																		
PPBRA9	Bearing Delivery - Viaduct A	48	20-Apr-17	48	17-Jun-17	31-Dec-16	01-Mar-17	-86	0%																		
Viaduct C																											
Bearing Design & Manufacture																											
General																											
PPBRC6	Bearing Design Ammendment & re-issue - Viaduct C	11	21-Feb-17	11	04-Mar-17	06-Feb-16	22-Feb-16	-306	0%																		
PPBRC99	Site preparation Bearings for Viaduct C	6	06-Mar-17	6	11-Mar-17	23-Feb-16	29-Feb-16	-306	0%																		
Viaduct D																											
Bearing Design & Manufacture																											
General																											
PPBRD99	Site preparation Bearings for Viaduct D	38	21-Feb-17	38	06-Apr-17	02-Feb-16	19-Mar-16	-310	0%																		
Viaduct E																											
Bearing Design & Manufacture																											
General																											
PP7290	Site preparation Bearings for Viaduct E2	18	27-Apr-16 A	13	07-Mar-17	10-Mar-16	24-Mar-16	-281	85%																		
PP7360	Site preparation Bearings for Viaduct E1	18	10-Feb-15 A	3	23-Feb-17	08-Dec-15	10-Dec-15	-355	90%																		
PPBRE3	Bearing design and submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	28-Nov-13 A	3	23-Feb-17	08-Dec-15	10-Dec-15	-355	90%																		
PPBRE4	Design check by ICE - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	04-Apr-14 A	3	09-Mar-17	22-Dec-15	24-Dec-15	-355	85%																		
PPBRE5	SO review & comment on design submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	36	26-Sep-14 A	0	23-Mar-17	11-Jan-16	11-Jan-16	-355	80%																		
PPBRE6	Bearing Design Amendment & re-issue - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	24-Mar-17	12	07-Apr-17	12-Jan-16	25-Jan-16	-355	0%																		
PPBRE7	Manufacture of Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	54	02-Jun-14 A	13	07-Apr-17	11-Jan-16	25-Jan-16	-355	70%																		
PPBRE8	Testing Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	03-Aug-15 A	30	25-Apr-17	05-Jan-16	11-Feb-16	-355	60%																		
PPBRE9	Bearing Delivery - Viaduct E (E1, E2, E5, E6, E7 & E8)	48	19-Nov-14 A	59	09-Jun-17	13-Jan-16	24-Mar-16	-355	50%																		
Viaduct F																											
Bearing Design & Manufacture																											
General																											
PPBRF1	Preliminary Design of Bearings - Viaduct F	60	21-Oct-16 A	7	28-Feb-17	29-Sep-15	07-Oct-15	-413	0%																		
PPBRF3	Bearing design and submission - Viaduct F	12	01-Mar-17	12	14-Mar-17	08-Oct-15	22-Oct-15	-413	0%																		

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 3 of 13 Pages)
(Progress as of 21-Feb-17)

Date	Revision	Checked	Approved
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26-Jan-17		PKN	GL
28-Feb-17		PKN	GL

DWG. No.:
J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																	
										February				March				April				May					
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
PPBRF4	Design check by ICE - Viaduct F	12	15-Mar-17	12	28-Mar-17	23-Oct-15	05-Nov-15	-413	0%	[Gantt bar: 15-Mar-17 to 28-Mar-17]																	
PPBRF5	SO review & comment on design submission - Viaduct F	24	29-Mar-17	24	29-Apr-17	04-Dec-15	04-Jan-16	-389	0%	[Gantt bar: 29-Mar-17 to 29-Apr-17]																	
PPBRF6	Bearing Design Amendment & re-issue - Viaduct F	12	02-May-17	12	16-May-17	05-Jan-16	18-Jan-16	-389	0%	[Gantt bar: 02-May-17 to 16-May-17]																	
PPBRF7	Manufacture of Bearing - Viaduct F	48	29-Mar-17	48	31-May-17	06-Nov-15	04-Jan-16	-413	0%	[Gantt bar: 29-Mar-17 to 31-May-17]																	
Movement Joints											[Gantt bar: 15-Mar-17 to 29-Apr-17]						[Gantt bar: 02-May-17 to 16-May-17]					[Gantt bar: 29-Mar-17 to 31-May-17]					
Viaduct A to F																											
MJ Design & Manufacture																											
General																											
PP6MJ01	Design & Submission of MJ	138	08-Feb-14 A	7	28-Feb-17	24-Mar-16	05-Apr-16	-269	30%	[Gantt bar: 08-Feb-14 A to 28-Feb-17]																	
PP6MJ02-1	MJ Design Approval	96	26-May-14 A	31	28-Mar-17	16-Mar-16	25-Apr-16	-276	40%	[Gantt bar: 26-May-14 A to 28-Mar-17]																	
PP6MJ02-2	Manufacture & delivery of MJ	150	01-Mar-17	150	31-Aug-17	24-Mar-16	24-Sep-16	-276	0%	[Gantt bar: 01-Mar-17 to 31-Aug-17]																	
Construction											[Gantt bar: 08-Feb-14 A to 28-Feb-17]						[Gantt bar: 01-Mar-17 to 31-Aug-17]										
Foundation & Substructure Works																											
Viaduct A - Bridge A2																											
Pier A1 (A2e)																											
Pier Head Segment																											
A01-C5210	A1 - PHS - Temporary Platform	12	19-Dec-16 A	0	21-Jan-17 A				100%	[Milestone: 21-Jan-17 A]																	
A01-C5310	A1 - Install PH Segment A1-A2 (1 nr)	2	23-Jan-17 A	0	24-Jan-17 A				100%	[Milestone: 24-Jan-17 A]																	
A01-C5320	A1 - Install PH Segment A1-E1 (1 nr)	2	26-Jan-17 A	0	27-Jan-17 A				100%	[Milestone: 27-Jan-17 A]																	
Pier A2 (A2d)											[Gantt bar: 19-Dec-16 A to 21-Jan-17 A]						[Gantt bar: 23-Jan-17 A to 27-Jan-17 A]										
Pier Head Segment																											
A02-C5210	A2 - PHS - Temporary Platform	12	09-Mar-17	12	22-Mar-17	10-May-16	25-May-16	-248	0%	[Gantt bar: 09-Mar-17 to 22-Mar-17]																	
A02-C5310	A2 - Install PH Segment (1 nr)	2	23-Mar-17*	2	24-Mar-17	25-May-16	27-May-16	-248	0%	[Gantt bar: 23-Mar-17* to 24-Mar-17]																	
A02-C5410	A2 - PHS Diaphragm - Rebar, Formwork, Concreting	30	25-Mar-17	30	05-May-17	27-May-16	04-Jul-16	-248	0%	[Gantt bar: 25-Mar-17 to 05-May-17]																	
A02-C5420	A2 - PHS Diaphragm - Curing & Striking of Forms	6	06-May-17	6	12-May-17	04-Jul-16	11-Jul-16	-247	0%	[Gantt bar: 06-May-17 to 12-May-17]																	
Pier A3 (A2c)											[Gantt bar: 09-Mar-17 to 22-Mar-17]						[Gantt bar: 23-Mar-17* to 24-Mar-17]										
Pier Head Segment																											
A03-C5210	A3 - PHS - Temporary Platform	12	16-Mar-17	12	29-Mar-17	08-Apr-16	21-Apr-16	-280	0%	[Gantt bar: 16-Mar-17 to 29-Mar-17]																	
A03-C5310	A3 - Install PH Segment (1 nr)	2	30-Mar-17*	2	31-Mar-17	22-Apr-16	23-Apr-16	-280	0%	[Gantt bar: 30-Mar-17* to 31-Mar-17]																	
A03-C5410	A3 - PHS Diaphragm - Rebar, Formwork, Concreting	30	01-Apr-17	30	12-May-17	25-Apr-16	31-May-16	-280	0%	[Gantt bar: 01-Apr-17 to 12-May-17]																	
A03-C5420	A3 - PHS Diaphragm - Curing & Striking of Forms	6	13-May-17	6	19-May-17	01-Jun-16	07-Jun-16	-280	0%	[Gantt bar: 13-May-17 to 19-May-17]																	
Pier A4 (A2b)											[Gantt bar: 16-Mar-17 to 29-Mar-17]						[Gantt bar: 01-Apr-17 to 12-May-17]										
Pier Head Segment																											
A04-C5210	A4 - PHS - Temporary Platform	12	10-Jan-17 A	0	23-Jan-17 A				100%	[Milestone: 23-Jan-17 A]																	
A04-C5310	A4 - Install PH Segment (1nr)	2	24-Jan-17 A	0	25-Jan-17 A				100%	[Milestone: 25-Jan-17 A]																	
A04-C5410	A4 - PHS Diaphragm - Rebar, Formwork, Concreting	30	26-Jan-17 A	11	04-Mar-17	13-Apr-16	26-Apr-16	-255	65%	[Gantt bar: 26-Jan-17 A to 04-Mar-17]																	
A04-C5510	A4 - PHS Diaphragm - Curing & Striking of Forms	6	06-Mar-17	6	11-Mar-17	26-Apr-16	05-May-16	-254	0%	[Gantt bar: 06-Mar-17 to 11-Mar-17]																	
Pier A5 (A2a)											[Gantt bar: 10-Jan-17 A to 23-Jan-17 A]						[Gantt bar: 26-Jan-17 A to 04-Mar-17]										
Pier Head Segment																											
A05-C5210	A5 - PHS - Temporary Platform	12	12-Jan-17 A	0	25-Jan-17 A				100%	[Milestone: 25-Jan-17 A]																	
A05-C5310	A5 - Install PH Segment (1 nr)	2	26-Jan-17 A	0	27-Jan-17 A				100%	[Milestone: 27-Jan-17 A]																	
A05-C5410	A5 - PHS Diaphragm - Rebar, Formwork, Concreting	30	01-Feb-17 A	13	07-Mar-17	05-Mar-16	21-Mar-16	-284	60%	[Gantt bar: 01-Feb-17 A to 07-Mar-17]																	
A05-C5420	A5 - PHS Diaphragm - Curing & Striking of Forms	6	08-Mar-17	6	14-Mar-17	21-Mar-16	01-Apr-16	-283	0%	[Gantt bar: 08-Mar-17 to 14-Mar-17]																	
Viaduct A - Bridge A1											[Gantt bar: 12-Jan-17 A to 25-Jan-17 A]						[Gantt bar: 01-Feb-17 A to 07-Mar-17]										
Pier A8 (A1d)											[Gantt bar: 10-Jan-17 A to 23-Jan-17 A]						[Gantt bar: 26-Jan-17 A to 04-Mar-17]										
Pier Head Segment																											
A08-C5410	A8 - PHS Diaphragm - Rebar, Formwork, Concreting	36	02-Dec-16 A	0	02-Feb-17 A				100%	[Milestone: 02-Feb-17 A]																	
A08-C5420	A8 - PHS Diaphragm - Curing & Striking of Forms	12	03-Feb-17 A	0	16-Feb-17 A				100%	[Milestone: 16-Feb-17 A]																	
Pier A9 (A1c)											[Gantt bar: 02-Dec-16 A to 02-Feb-17 A]						[Gantt bar: 03-Feb-17 A to 16-Feb-17 A]										
Pier Head Segment																											
A09-C5210	A9 - PHS - Temporary Platform	12	27-Feb-17	12	11-Mar-17	26-Jan-16	11-Feb-16	-321	0%	[Gantt bar: 27-Feb-17 to 11-Mar-17]																	
A09-C5310	A9 - Install PH Segment (1 nr)	2	13-Mar-17*	2	14-Mar-17	12-Feb-16	13-Feb-16	-321	0%	[Gantt bar: 13-Mar-17* to 14-Mar-17]																	
A09-C5410	A9 - PHS Diaphragm - Rebar, Formwork, Concreting	36	15-Mar-17	36	29-Apr-17	15-Feb-16	30-Mar-16	-321	0%	[Gantt bar: 15-Mar-17 to 29-Apr-17]																	
A09-C5420	A9 - PHS Diaphragm - Curing & Striking of Forms	6	02-May-17	6	09-May-17	31-Mar-16	07-Apr-16	-321	0%	[Gantt bar: 02-May-17 to 09-May-17]																	
Pier A10 (A1b)											[Gantt bar: 27-Feb-17 to 11-Mar-17]						[Gantt bar: 15-Mar-17 to 29-Apr-17]										
Pier Head Segment																											
A10-C5210	A10 - PHS - Temporary Platform	12	07-Apr-17	12	24-Apr-17	16-Apr-16	29-Apr-16	-291	0%	[Gantt bar: 07-Apr-17 to 24-Apr-17]																	

- Actual Work
- Planned Bar
- Critical Bar
- Milestone

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Layout: J3518-DWP-3MRP Submission - M45
Filter: TASK filters: 3-Month Lookahead, No CC
Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 4 of 13 Pages)
(Progress as of 21-Feb-17)

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DWG. No.:
J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																			
										February				March				April				May							
											23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22	
A10-C5310	A10 - Install PH Segment (1 nr)	2	26-Apr-17*	2	27-Apr-17	03-May-16	04-May-16	-291	0%																				
A10-C5410	A10 - PHS Diaphragm - Rebar, Formwork, Concreting	30	28-Apr-17	30	05-Jun-17	05-May-16	10-Jun-16	-291	0%																				
Pier A11 (A1a)																													
Pier Head Segment																													
A11-C5210	A11 - PHS - Temporary Platform	12	28-Mar-17	12	11-Apr-17	18-Jul-16	30-Jul-16	-208	0%																				
A11-C5310	A11 - Install PH Segment (1nr)	2	12-Apr-17*	2	13-Apr-17	01-Aug-16	02-Aug-16	-208	0%																				
Ramp A																													
Abutment & Approach Ramp A																													
Ramp Structure																													
ARA-C6140	Ramp A - Remaining RE & RC Walls	48	02-Mar-17*	48	02-May-17	21-Jan-16	19-Mar-16	-328	0%																				
ARA-C6150	Ramp A - Backfill to Walls	18	25-Apr-17	18	17-May-17	14-Mar-16	07-Apr-16	-328	0%																				
Ramp Finishes, E&M & Roadworks																													
ARA-C7710	Ramp A - Parapet Panels	42	18-May-17	42	07-Jul-17	08-Apr-16	28-May-16	-328	0%																				
Viaduct B - Bridge B1																													
Pier B17 (B1c)																													
Pile Cap																													
B17-C3110	B17 - Pile Cap Excavation / ELS & Break Pile	24	17-Jan-17 A	27	23-Mar-17	12-Dec-15	15-Jan-16	-351	0%																				
B17-C3210	B17 - Pile Cap Blinding, Rebar, Formwork, Concrete	15	24-Mar-17	15	11-Apr-17	16-Jan-16	02-Feb-16	-351	0%																				
B17-C3310	B17 - Pile Cap Curing, Strike Formwork, CJ Prep, Backfill	6	12-Apr-17	6	21-Apr-17	03-Feb-16	12-Feb-16	-351	0%																				
Pier																													
B17-C4110	B17 - Pier Scaffold, Rebar, Formwork, Concrete (1st Lift)	12	22-Apr-17	12	08-May-17	13-Feb-16	26-Feb-16	-351	0%																				
B17-C4210	B17 - Pier Scaffold, Rebar, Formwork, Concrete (2nd Lift)	15	09-May-17	15	25-May-17	27-Feb-16	15-Mar-16	-351	0%																				
Pier B18 (B1b)																													
Pile Cap																													
B18-C3110	B18 - Pile Cap Excavation / ELS & Break Pile	24	24-Mar-17*	24	25-Apr-17	14-Apr-16	12-May-16	-282	0%																				
B18-C3210	B18 - Pile Cap Blinding, Rebar, Formwork, Concrete	15	26-Apr-17	15	15-May-17	13-May-16	31-May-16	-282	0%																				
B18-C3310	B18 - Pile Cap Curing, Strike Formwork, CJ Prep, Backfill	6	16-May-17	6	22-May-17	01-Jun-16	07-Jun-16	-282	0%																				
Ramp B																													
Abutment & Approach Ramp B																													
Ramp Structure																													
ARB-C6110	Ramp B - Erect Fence / Enabling Works	12	16-Jan-17 A	11	04-Mar-17	01-Mar-16	12-Mar-16	-289	75%																				
ARB-C6120	Ramp B - RE Wall - Excavation & Bottom Layer to Grnd Level	36	06-Mar-17	36	20-Apr-17	14-Mar-16	28-Apr-16	-289	0%																				
ARB-C6130	Ramp B - RE Wall - Upper Layer With Backfill in Stages	48	21-Apr-17	48	19-Jun-17	29-Apr-16	27-Jun-16	-289	0%																				
Ramp C																													
Abutment & Approach Ramp C																													
Ramp Structure																													
ARC-C6140	Ramp C - RC Wall - Backfill	12	16-May-16 A	5	25-Feb-17	04-Feb-16	12-Feb-16	-308	90%																				
ARC-C6150	Ramp C - Utility - Termination of 800 Tee	72	21-Sep-16 A	5	25-Feb-17	04-Feb-16	12-Feb-16	-308	0%																				
ARC-C6160	Ramp C - Utility - Remove 800 Tee & Backfill	12	27-Feb-17	12	11-Mar-17	13-Feb-16	26-Feb-16	-308	0%																				
ARC-C6170	Ramp C - RE Wall - Remaining Bays at 800 Tee	36	13-Mar-17	36	27-Apr-17	27-Feb-16	13-Apr-16	-308	0%																				
ARC-C6180	Ramp C - RC Wall - Remaining Bays at 800 Tee	36	28-Apr-17	36	12-Jun-17	14-Apr-16	27-May-16	-308	0%																				
Ramp Finishes, E&M & Roadworks																													
ARC-C7710	Ramp C - Parapet Panels (Initial)	24	26-Sep-16 A	19	14-Mar-17	05-May-16	27-May-16	-238	75%																				
Viaduct D - Bridge D2																													
Pier D13 (D2d)																													
Pier Head Segment																													
D13-C5410	D13 - PHS Diaphragm - Rebar, Formwork, Concreting	42	12-Sep-16 A	0	20-Feb-17 A				100%																				
D13-C5420	D13 - PHS Diaphragm - Curing, Striking of Forms, Remove Scaffold	21	21-Feb-17	21	16-Mar-17	02-Feb-16	29-Feb-16	-310	0%																				
Ramp D																													
Abutment & Approach Ramp D																													
Ramp Structure																													
ARD-C6150	Ramp D - Backfill Embankment	90	02-Nov-15 A	0	20-Feb-17 A				100%																				
Ramp Finishes, E&M & Roadworks																													
ARD-C7710	Ramp D - Parapet Panels	42	15-Oct-16 A	67	16-May-17	20-Feb-16	13-May-16	-297	50%																				
ARD-C7720	Ramp D - Ducting, Gantry & TCSS Provisions (KD4)	36	02-May-17	36	14-Jun-17	29-Apr-16	13-Jun-16	-297	0%																				
Viaduct E - Bridge E2																													

	Actual Work
	Planned Bar
	Critical Bar
	Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
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										February					March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
Pier E4A (E2b2)																											
Pier Head Segment																											
E04A-C5150	E4A - IFS Stitch & Remove Equipment	9	13-Jan-17 A	0	07-Feb-17 A				100%																		
Pier E4B (E2b1)																											
Pier Head Segment																											
E04B-C5130	E4B - Diaphragm of PHS - Formwork, Rebar, Concreting	125	14-Sep-16 A	0	26-Jan-17 A				100%																		
E04B-C5140	E4B - Remove Rail Beams, Megashore Towers	8	27-Jan-17 A	8	01-Mar-17	13-Jul-16	21-Jul-16	-182	60%																		
E04B-C5145	E4B - Install Infill Segments (4 nr) - THB	21	02-Mar-17	21	25-Mar-17	22-Jul-16	15-Aug-16	-182	0%																		
E04B-C5150	E4B - IFS Stitch & Remove Equipment	10	27-Mar-17	10	07-Apr-17	16-Aug-16	26-Aug-16	-182	0%																		
Pier E5A (E2c2)																											
Pier Head Segment																											
E05A-C5150	E5A - IFS Stitch & Remove Equipment	12	03-Jan-17 A	0	01-Feb-17 A				100%																		
Pier E5B (E2c1)																											
Pier Head Segment																											
E05B-C5150	E5B - IFS Stitch & Remove Equipment	12	05-Jan-17 A	0	25-Jan-17 A				100%																		
Pier E6A (E2d2)																											
Pier Head Segment																											
E06A-C5150	E6A - IFS Stitch & Remove Equipment	11	19-Jan-17 A	0	06-Feb-17 A				100%																		
Pier E6B (E2d1)																											
Pier Head Segment																											
E06B-C5145	E6B - Install Infill Segments (4 nr) - THB	17	16-Dec-16 A	0	06-Feb-17 A				100%																		
E06B-C5150	E6B - IFS Stitch & Remove Equipment	10	07-Feb-17 A	0	20-Feb-17 A				100%																		
Pier E7A (E2e2)																											
Pier Head Segment																											
E07A-C5145	E7A - Install Infill Segments (4 nr) - THB	18	07-Jan-17 A	4	24-Feb-17	04-Mar-16	08-Mar-16	-286	75%																		
E07A-C5150	E7A - IFS Stitch & Remove Equipment	10	25-Feb-17	10	08-Mar-17	09-Mar-16	19-Mar-16	-286	0%																		
Pier E7B (E2e1)																											
Pier Head Segment																											
E07B-C5140	E7B - Remove Rail Beams	15	21-Jan-17 A	0	17-Feb-17 A				100%																		
E07B-C5145	E7B - Install Infill Segments (4 nr) - THB	18	18-Feb-17 A	23	18-Mar-17	15-Dec-15	13-Jan-16	-349	25%																		
E07B-C5150	E7B - IFS Stitch & Remove Equipment	10	20-Mar-17	10	30-Mar-17	14-Jan-16	25-Jan-16	-349	0%																		
Pier E8A (E2f2)																											
Pier Head Segment																											
E08A-C5145	E8A - Install Infill Segments (4 nr) - THB	18	18-Jan-17 A	10	03-Mar-17	28-Apr-16	10-May-16	-243	25%																		
E08A-C5150	E8A - IFS Stitch & Remove Equipment	10	04-Mar-17	10	15-Mar-17	11-May-16	23-May-16	-243	0%																		
Pier E8B (E2f1)																											
Pier Head Segment																											
E08B-C5140	E8B - Remove Rail Beams	8	11-Jan-17 A	0	09-Feb-17 A				100%																		
E08B-C5145	E8B - Install Infill Segments (4 nr) - THB	18	26-Jan-17 A	15	09-Mar-17	22-Apr-16	10-May-16	-248	25%																		
E08B-C5150	E8B - IFS Stitch & Remove Equipment	10	10-Mar-17	10	21-Mar-17	11-May-16	23-May-16	-248	0%																		
Pier E9A (E2g2)																											
Pier Head Segment																											
E09A-C5140	E9A - Remove Rail Beams, Crane	14	19-Jan-17 A	0	14-Feb-17 A				100%																		
E09A-C5145	E9A - Install Infill Segments (4 nr) - THB	18	03-Feb-17 A	23	18-Mar-17	24-Feb-16	21-Mar-16	-294	50%																		
E09A-C5150	E9A - IFS Stitch & Remove Equipment	10	20-Mar-17	10	30-Mar-17	22-Mar-16	06-Apr-16	-294	0%																		
Pier E9B (E2g1)																											
Pier Head Segment																											
E09B-C5130	E9B - Diaphragm of PHS - Formwork, Rebar, Concreting	33	17-Oct-16 A	0	25-Jan-17 A				100%																		
E09B-C5140	E9B - Remove Rail Beams	36	26-Jan-17 A	0	18-Feb-17 A				100%																		
E09B-C5145	E9B - Install Infill Segments (4 nr) - THB	19	20-Mar-17*	19	11-Apr-17	05-Apr-16	26-Apr-16	-286	0%																		
E09B-C5150	E9B - IFS Stitch & Remove Equipment	10	12-Apr-17	10	26-Apr-17	27-Apr-16	09-May-16	-286	0%																		
Pier E10A (E2h2)																											
Pier Head Segment																											
E10A-C5140	E10A - Remove Rail Beams, Crane	13	20-Jan-17 A	0	20-Feb-17 A				100%																		
E10A-C5145	E10A - Install Infill Segments (4 nr) - THB	17	03-Mar-17*	17	22-Mar-17	26-May-16	15-Jun-16	-230	0%																		
E10A-C5150	E10A - IFS Stitch & Remove Equipment	12	23-Mar-17	12	06-Apr-17	16-Jun-16	29-Jun-16	-230	0%																		
Pier E10B (E2h1)																											

Actual Work
 Planned Bar
 Critical Bar
 Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
 Filter: TASK filters: 3-Month Lookahead, No CC
 Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 6 of 13 Pages)
(Progress as of 21-Feb-17)

Date	Revision	Checked	Approved
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28-Feb-17		PKN	GL

DWG. No.:
J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																	
										February					March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
Pier E13D (E5c)																											
Pier																											
E13D-C4040	E13D Pier - Curing, CJ, Remove Formwork & Falsework	12	31-Dec-16 A	0	02-Feb-17 A				100%																		
Pier Head Segment / Infill Segment																											
E13D-C5110	E13D - Temp. Work, Grillages, Megashore Towers, Rail Beams	29	03-Feb-17 A	29	25-Mar-17	15-Aug-15	18-Sep-15	-449	35%																		
E13D-C5120	E13D - Install PH Segment (4 nr)	8	27-Mar-17	8	04-Apr-17	19-Sep-15	29-Sep-15	-449	0%																		
E13D-C5130	E13D - Diaphragm of PHS - Formwork, Rebar, Concreting	77	06-Apr-17	77	12-Jul-17	30-Sep-15	02-Jan-16	-449	0%																		
Pier E14A (E8d)																											
Foundation - Bored Piles																											
E14A-C2210	E14A EB Pile - Curing & Sonic Test	18	31-Dec-16 A	0	06-Feb-17 A				100%																		
E14A-C2220	E14A EB Pile - Full Depth Core & Test	12	02-Feb-17 A	0	16-Feb-17 A				100%																		
Pile Cap																											
E14A-C3110	E14A Pile Cap - Excavate, Break Pile Head	15	13-Feb-17 A	18	13-Mar-17	06-Aug-15	26-Aug-15	-457	0%																		
E14A-C3210	E14A Pile Cap - Blinding, Formwork, Rebar, Concrete	19	14-Mar-17	19	04-Apr-17	27-Aug-15	18-Sep-15	-457	0%																		
E14A-C3310	E14A Pile Cap - Curing, Remove Formwork, Backfill	12	06-Apr-17	12	22-Apr-17	19-Sep-15	05-Oct-15	-457	0%																		
Pier																											
E14A-C4110	E14A Pier - Scaffold, Rebar, Formwork, Concrete (1st Lift)	13	24-Apr-17	13	10-May-17	06-Oct-15	20-Oct-15	-457	0%																		
E14A-C4210	E14A Pier - Scaffold, Rebar, Formwork, Concrete (2nd Lift)	18	11-May-17	18	01-Jun-17	22-Oct-15	11-Nov-15	-457	0%																		
Pier E14B (E7d)																											
Foundation - Bored Piles																											
E14B-C2140	E14B EB Pile - Excavate, Rebar, Concrete (3rd) P1	19	19-Dec-16 A	0	21-Jan-17 A				100%																		
E14B-C2210	E14B EB Pile - Curing & Sonic Test	18	12-Jan-17 A	0	07-Feb-17 A				100%																		
E14B-C2220	E14B EB Pile - Full Depth Core & Test	12	01-Feb-17 A	0	15-Feb-17 A				100%																		
Pile Cap																											
E14B-C3110	E14B Pile Cap - Excavate, Break Pile Head	15	16-Feb-17 A	24	20-Mar-17	23-Jul-15	19-Aug-15	-469	0%																		
E14B-C3210	E14B Pile Cap - Blinding, Formwork, Rebar, Concrete	19	21-Mar-17	19	12-Apr-17	20-Aug-15	11-Sep-15	-469	0%																		
E14B-C3310	E14B Pile Cap - Curing, Remove Formwork, Backfill	12	13-Apr-17	12	29-Apr-17	12-Sep-15	25-Sep-15	-469	0%																		
Pier																											
E14B-C4110	E14B Pier - Scaffold, Rebar, Formwork, Concrete (1st Lift)	13	17-May-17*	13	01-Jun-17	26-Sep-15	13-Oct-15	-481	0%																		
Pier E14C (E6d)																											
Foundation - Bored Piles																											
E14C-C2210	E14C EB Pile - Curing & Sonic Test	18	18-Jan-17 A	0	10-Feb-17 A				100%																		
Pile Cap																											
E14C-C3110	E14C Pile Cap - Excavate, Break Pile Head	15	11-Feb-17 A	7	28-Feb-17	05-Nov-15	12-Nov-15	-383	50%																		
E14C-C3210	E14C Pile Cap - Blinding, Formwork, Rebar, Concrete	19	01-Mar-17	19	22-Mar-17	13-Nov-15	04-Dec-15	-383	0%																		
E14C-C3310	E14C Pile Cap - Curing, Remove Formwork, Backfill	12	23-Mar-17	12	06-Apr-17	05-Dec-15	18-Dec-15	-383	0%																		
Pier																											
E14C-C4110	E14C Pier - Scaffold, Rebar, Formwork, Concrete (1st Lift)	13	07-Apr-17	13	25-Apr-17	19-Dec-15	06-Jan-16	-383	0%																		
E14C-C4210	E14C Pier - Scaffold, Rebar, Formwork, Concrete (2nd Lift)	18	26-Apr-17	18	18-May-17	07-Jan-16	27-Jan-16	-383	0%																		
E14C-C4310	E14C Pier - Scaffold, Rebar, Formwork, Concrete (3rd Lift)	18	19-May-17	18	09-Jun-17	28-Jan-16	20-Feb-16	-383	0%																		
Pier E14D (E5d)																											
Foundation - Bored Piles																											
E14D-C2140	E14D EB Pile - Excavate, Rebar, Concrete (3rd) P1	18	13-Jan-17 A	0	18-Feb-17 A				100%																		
E14D-C2150	E14D EB Pile - Excavate, Rebar, Concrete (4th) P3	18	16-Jan-17 A	12	06-Mar-17	05-May-15	18-May-15	-534	15%																		
E14D-C2210	E14D EB Pile - Curing & Sonic Test	18	07-Mar-17	18	27-Mar-17	19-May-15	09-Jun-15	-534	0%																		
Pile Cap																											
E14D-C3110	E14D Pile Cap - Excavate, Break Pile Head	15	28-Mar-17	15	18-Apr-17	10-Jun-15	27-Jun-15	-534	0%																		
E14D-C3210	E14D Pile Cap - Blinding, Formwork, Rebar, Concrete	19	19-Apr-17	19	12-May-17	29-Jun-15	21-Jul-15	-534	0%																		
E14D-C3310	E14D Pile Cap - Curing, Remove Formwork, Backfill	12	13-May-17	12	26-May-17	22-Jul-15	04-Aug-15	-534	0%																		
Viaduct F - Bridge F1																											
Pier F1 (F1b)																											
Foundation - Bored Piles																											
F01-C2210	F1 EB Pile - Curing & Sonic Test	18	15-Dec-16 A	0	16-Feb-17 A				100%																		
Pile Cap																											
F01-C3110	F1 Pile Cap - Excavate, Break Pile Head	15	17-Feb-17 A	12	06-Mar-17	08-Aug-15	21-Aug-15	-455	10%																		
F01-C3210	F1 Pile Cap - Blinding, Formwork, Rebar, Concrete	19	07-Mar-17	19	28-Mar-17	22-Aug-15	14-Sep-15	-455	0%																		
F01-C3310	F1 Pile Cap - Curing, Remove Formwork, Backfill	12	29-Mar-17	12	12-Apr-17	15-Sep-15	29-Sep-15	-455	0%																		
Pier																											

Actual Work
 Planned Bar
 Critical Bar
 Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-Feb-17)

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J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																		
										February				March				April				May						
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22	
Pier F10 (F3c)																												
Foundation - Bored Piles																												
F10-C2140	F10 EB Pile - Excavate, Rebar, Concrete (3rd) P4	18	07-Jan-17 A	0	07-Feb-17 A				100%																			
F10-C2150	F10 EB Pile - Excavate, Rebar, Concrete (4th) P2	14	18-Jan-17 A	0	09-Feb-17 A				100%																			
F10-C2210	F10 EB Pile - Curing & Sonic Test	18	20-Feb-17 A	17	11-Mar-17	19-Jan-16	06-Feb-16	-322	5%																			
Pile Cap																												
F10-C3110	F10 Pile Cap - Excavate, Break Pile Head	24	24-Apr-17*	24	23-May-17	11-Feb-16	09-Mar-16	-354	0%																			
Pier F11 (F3b)																												
Foundation - Bored Piles																												
F11-C2130	F11 EB Pile - Excavate, Rebar, Concrete (2nd) P3	17	19-Dec-16 A	0	23-Jan-17 A				100%																			
F11-C2140	F11 EB Pile - Excavate, Rebar, Concrete (3rd) P1	17	11-Jan-17 A	15	09-Mar-17	15-Mar-16	05-Apr-16	-277	33%																			
F11-C2150	F11 EB Pile - Excavate, Rebar, Concrete (4th) P4	17	06-Feb-17 A	21	16-Mar-17	15-Mar-16	12-Apr-16	-277	33%																			
F11-C2210	F11 EB Pile - Curing & Sonic Test	18	17-Mar-17	18	07-Apr-17	13-Apr-16	04-May-16	-277	0%																			
Pier F12 (F3a)																												
Foundation - Bored Piles																												
F12-C2110	F12 Fr Pile - Set-up Plant & Install Sleeve	8	16-Mar-17*	8	24-Mar-17	10-Dec-15	18-Dec-15	-373	0%																			
F12-C2120	F12 Fr Pile - Excavate, Rebar, Concrete (1st) P1	12	25-Mar-17	12	08-Apr-17	19-Dec-15	05-Jan-16	-373	0%																			
F12-C2130	F12 Fr Pile - Excavate, Rebar, Concrete (2nd) P2	12	18-Apr-17*	12	02-May-17	06-Jan-16	19-Jan-16	-377	0%																			
F12-C2140	F12 Fr Pile - Excavate, Rebar, Concrete (3rd) P3	12	15-May-17*	12	27-May-17	20-Jan-16	02-Feb-16	-386	0%																			
Viaduct F - Bridge F4																												
Pier F16 (F5a/F4a)																												
Foundation - Bored Piles																												
F16-C2120	F16 EB Pile - Excavate, Rebar, Concrete (1st) P3	24	30-Dec-16 A	7	28-Feb-17	08-Oct-15	15-Oct-15	-406	85%																			
F16-C2130	F16 EB Pile - Excavate, Rebar, Concrete (2nd) P1	24	06-Mar-17*	24	01-Apr-17	16-Oct-15	13-Nov-15	-410	0%																			
F16-C2140	F16 EB Pile - Excavate, Rebar, Concrete (3rd) P2	24	06-Apr-17*	24	09-May-17	14-Nov-15	11-Dec-15	-412	0%																			
F16-C2150	F16 EB Pile - Excavate, Rebar, Concrete (3rd) P4	25	16-May-17*	25	14-Jun-17	12-Dec-15	13-Jan-16	-417	0%																			
Pier F17 (F4b)																												
Foundation - Bored Piles																												
F17-C2120	F17 EB Pile - Excavate, Rebar, Concrete (1st) P1	18	07-Jan-17 A	0	13-Feb-17 A				100%																			
F17-C2130	F17 EB Pile - Excavate, Rebar, Concrete (2nd) P2	18	17-Feb-17 A	27	23-Mar-17	14-Dec-15	16-Jan-16	-350	0%																			
F17-C2140	F17 EB Pile - Excavate, Rebar, Concrete (3rd) P3	18	10-Apr-17*	18	05-May-17	18-Jan-16	06-Feb-16	-363	0%																			
F17-C2210	F17 EB Pile - Curing & Sonic Test	18	06-May-17	18	26-May-17	11-Feb-16	02-Mar-16	-363	0%																			
Viaduct F - Bridge F5																												
Pier F13 (F5d)																												
Foundation - Bored Piles																												
F13-C2210	F13 EB Pile - Curing & Sonic Test	18	09-Jan-17 A	0	26-Jan-17 A				100%																			
F13-C2220	F13 EB Pile - Full Depth Core & Test	12	01-Feb-17 A	0	14-Feb-17 A				100%																			
Pile Cap																												
F13-C3110	F13 Pile Cap - ELS/Excavate, Break Pile Head	22	14-Mar-17*	22	08-Apr-17	30-Nov-15	24-Dec-15	-380	0%																			
F13-C3210	F13 Pile Cap - Blinding, Formwork, Rebar, Concrete	19	10-Apr-17	19	06-May-17	28-Dec-15	19-Jan-16	-380	0%																			
F13-C3310	F13 Pile Cap - Curing, Remove Formwork, Backfill	12	08-May-17	12	20-May-17	20-Jan-16	02-Feb-16	-380	0%																			
Pier F14 (F5c)																												
Foundation - Bored Piles																												
F14-C2120	F14 Fr Pile - Excavate, Rebar, Concrete (1st) P2	15	21-Jan-17 A	10	03-Mar-17	23-Feb-16	04-Mar-16	-295	70%																			
F14-C2130	F14 Fr Pile - Excavate, Rebar, Concrete (2nd) P1	15	08-Mar-17*	15	24-Mar-17	05-Mar-16	22-Mar-16	-298	0%																			
F14-C2140	F14 Fr Pile - Excavate, Rebar, Concrete (3rd) P3	15	13-Apr-17*	15	05-May-17	23-Mar-16	13-Apr-16	-313	0%																			
F14-C2210	F14 Fr Pile - Curing & Sonic Test	18	06-May-17	18	26-May-17	14-Apr-16	05-May-16	-313	0%																			
Pier F15 (F5b)																												
Foundation - Bored Piles																												
F15-C2110	F15 Fr Pile - Set-up Plant & Install Sleeve	5	04-Feb-17 A	0	06-Feb-17 A				100%																			
F15-C2120	F15 Fr Pile - Excavate, Rebar, Concrete (1st) P3	15	07-Feb-17 A	18	13-Mar-17	17-Mar-16	11-Apr-16	-275	20%																			
F15-C2130	F15 Fr Pile - Excavate, Rebar, Concrete (2nd) P2	18	30-Mar-17*	18	24-Apr-17	12-Apr-16	03-May-16	-289	0%																			
F15-C2140	F15 Fr Pile - Excavate, Rebar, Concrete (3rd) P1	15	12-May-17*	15	29-May-17	04-May-16	21-May-16	-302	0%																			
Superstructure & Associated Works																												
Viaduct A																												
Bridge A2																												
Deck Span Segment																												

Actual Work
 Planned Bar
 Critical Bar
 Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-Feb-17)

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										February					March				April				May				
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22
A01-C6210	A1 - Install THB	3	22-Mar-17	3	24-Mar-17	02-Mar-16	04-Mar-16	-313	0%																		
A01-C6310	A1 - End Span to A2 (6 nr) - THB	21	25-Mar-17	21	22-Apr-17	05-Mar-16	01-Apr-16	-313	0%																		
A05-C6210	A5 - Install THB	3	24-Apr-17	3	26-Apr-17	02-Apr-16	06-Apr-16	-313	0%																		
A05-C6310	A5 - Cantilever Span at A5 (16 nr) - THB	24	27-Apr-17	24	26-May-17	07-Apr-16	05-May-16	-313	0%																		
A06-C6210	A6 - Install THB	3	11-Feb-17 A	0	14-Feb-17 A				100%																		
A06-C6310	A6 - End Span to A5 (6 nr) - THB	21	15-Feb-17 A	25	21-Mar-17	29-Jan-16	01-Mar-16	-313	5%																		
Bridge A1																											
Deck Span Segment																											
A06-C6320	A6 - End Span to A7 (8 nr) - THB	21	15-Feb-17 A	25	21-Mar-17	29-Jan-16	01-Mar-16	-313	5%																		
A07-C6320	A7 - Install KF	6	20-Jan-17 A	0	23-Jan-17 A				100%																		
A07-C6330	A7 - Cantilever Span (Remaining 9 nr) - KF	18	24-Jan-17 A	7	28-Feb-17	13-Feb-16	20-Feb-16	-303	60%																		
A08-C6310	A8 - Cantilever Span (Initial 3 nr) - Crane	8	10-Apr-17*	8	21-Apr-17	12-Feb-16	20-Feb-16	-344	0%																		
A08-C6410	A8 - Install KF (MTR)	6	22-Apr-17	6	28-Apr-17	22-Feb-16	27-Feb-16	-344	0%																		
A08-C6510	A8 - Cantilever Span (Remaining 23 nr) (MTR) - KF	42	29-Apr-17	42	20-Jun-17	29-Feb-16	21-Apr-16	-344	0%																		
Viaduct B																											
Bridge B3																											
Deck Fnishes, E&M and Roadworks																											
VB3-C7710	Viaduct B3 - Parapet Panels	48	16-Dec-16 A	37	04-Apr-17	29-Jun-16	11-Aug-16	-193	50%																		
Bridge B2																											
Deck Span Segment																											
B11-C6310	B11 - Cantilever Span (Remaining 16 nr) - THB/Crane	52	07-Jan-17 A	0	20-Feb-17 A				100%																		
B12-C6410	B12 - Falsework for End Span to B11	24	09-Mar-17	24	06-Apr-17	11-Jun-16	09-Jul-16	-222	0%																		
B12-C6510	B12 - End Span to B11 (5 nr) - Crane	10	07-Apr-17	10	21-Apr-17	11-Jul-16	21-Jul-16	-222	0%																		
VB2-C6510	Viaduct B2 - Final Stitch & Stressing to Span	24	22-Apr-17	24	22-May-17	22-Jul-16	18-Aug-16	-222	0%																		
Bridge B1																											
Deck Span Segment																											
B12-C6210	B12 - Falsework for End Span to B13	24	01-Feb-17 A	11	04-Mar-17	24-Feb-16	07-Mar-16	-294	70%																		
B12-C6310	B12 - End Span to B13 (7 nr) - Crane	14	06-Mar-17	14	21-Mar-17	08-Mar-16	23-Mar-16	-294	0%																		
B15-C6310	B15 - Cantilever Span (Initial 10 nr) - Crane	20	06-Dec-16 A	7	28-Feb-17	16-Mar-16	23-Mar-16	-276	90%																		
B15-C6320	B15 - Cantilever Span (Remaining 16 nr) - Crane	32	22-Mar-17	32	04-May-17	24-Mar-16	05-May-16	-294	0%																		
B16-C6310	B16 - Cantilever Span (24 nr) - Crane	28	13-Oct-16 A	12	13-May-17	30-Apr-16	16-May-16	-294	85%																		
Viaduct C																											
Bridge C4																											
Deck Span Segment																											
C06-C6410	C6 - Launch LG2 from C9 to C6, C5 (NLH/MTR)	27	18-May-17	27	19-Jun-17	26-Jan-16	29-Feb-16	-384	0%																		
Bridge C3																											
Deck Span Segment																											
C08-C6310	C8 - Cantilever Span (24 nr) (MTR/NLH) - LG2	58	09-Jan-17 A	29	25-Mar-17	14-Nov-15	17-Dec-15	-375	85%																		
C09-C6410	C9 - Launch LG2 from C8 to C9 (NLH)	11	27-Mar-17	11	08-Apr-17	18-Dec-15	02-Jan-16	-375	0%																		
C09-C6510	C9 - Cantilever Span (Remaining 10 nr) (NLH) - LG2 & Crane	19	24-Apr-17*	19	17-May-17	04-Jan-16	25-Jan-16	-384	0%																		
C10-C6310	C10 - Cantilever Span (22 nr) - Crane	28	18-Dec-16 A	22	13-Jun-17	29-Jan-16	26-Feb-16	-381	41%																		
Bridge C2																											
Deck Span Segment																											
C11-C6210	C11 - Falsework for End Span to C12	24	04-Mar-17	24	31-Mar-17	18-Jan-16	17-Feb-16	-333	0%																		
C11-C6310	C11 - End Span to C12 (4 nr) - Crane	8	01-Apr-17	8	11-Apr-17	18-Feb-16	26-Feb-16	-333	0%																		
C16-C6410	C16 - Falsework for End Span to C15	24	18-Jan-17 A	8	01-Mar-17	06-Jan-16	14-Jan-16	-333	0%																		
C16-C6510	C16 - End Span to C15 (4 nr) - Crane	8	02-Mar-17	8	10-Mar-17	15-Jan-16	23-Jan-16	-333	0%																		
VC2-C6510	Viaduct C2 - Final Stitch & Stressing to Span	24	12-Apr-17	24	15-May-17	14-Apr-16	12-May-16	-297	0%																		
Deck Fnishes, E&M and Roadworks																											
VC2-C7710	Viaduct C2 - Parapet Panels	48	16-May-17	48	12-Jul-17	13-May-16	11-Jul-16	-297	0%																		
Bridge C1																											
Deck Span Segment																											
C16-C6210	C16 - Falsework for End Span to C17	24	11-Mar-17	24	08-Apr-17	20-Feb-16	18-Mar-16	-313	0%																		
C16-C6310	C16 - End Span to C17 (9 nr) - Crane	18	10-Apr-17	18	05-May-17	19-Mar-16	13-Apr-16	-313	0%																		
C17-C6320	C17 - Cantilever Span (Remaining 22 nr) - Crane	27	12-Jan-17 A	0	26-Jan-17 A				100%																		
VC1-C6510	Viaduct C1 - Final Stitch & Stressing to Span	24	06-May-17	24	03-Jun-17	14-Apr-16	12-May-16	-313	0%																		
Viaduct D																											
Bridge D2																											

- Actual Work
- Planned Bar
- Critical Bar
- Milestone

Project ID: TMCLK-DWPH-M45
 Layout: J3518-DWP-3MRP Submission - M45
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 11 of 13 Pages)
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Date	Revision	Checked	Approved
03-Jan-17		PKN	GL
26-Jan-17		PKN	GL
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DWG. No.:
J3518/GCL/PGM/3MRP-M45

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Physical % Complete	2017																						
										February				March				April				May										
										23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08	15	22					
At-Grade Works Along North Lantau Highway																																
Slope Works Near Viaduct A																																
Slope 9SE-B/FR8																																
GFX491	9SE-B/FR8 - New wall foundation	72	18-May-17	72	11-Aug-17	07-May-16	02-Aug-16	-304	0%																							
Slope Works Near Viaduct D																																
Slope 10NW-C/F10																																
M201160	10NW-C/F10 - Slope works (incl. L-Shape Ret. Walls)	110	01-Apr-17*	110	16-Aug-17	12-Apr-16	22-Aug-16	-291	0%																							
Slope 10NW-C/R4																																
M201170	10NW-C/R4 - Slope works	80	13-May-17	80	16-Aug-17	19-May-16	22-Aug-16	-291	0%																							
Road Works Along NLH Eastbound																																
General																																
RW20079	NLH E/B (Viaduct D) - Ch650 - 175 - Roadwork	60	11-Jan-17 A	130	31-Jul-17	28-Oct-16	04-Apr-17	-93	15%																							
RW20084	NLH E/B Viaduct A - Ch250 - 370 - Roadwork (SL & HS) & reinstatement c	60	17-Dec-16 A	77	27-May-17	31-Dec-16	04-Apr-17	-40	30%																							
RW21011	NLH E/B (Viaduct A) - Implement TTM for tie-in works	2	24-Apr-17	2	25-Apr-17	05-May-16	06-May-16	-287	0%																							
RW21012	NLH E/B (Gantries 319 - 322) Footing and erection of A frames	60	26-Apr-17	60	08-Jul-17	07-May-16	19-Jul-16	-287	0%																							
At-Grade Works Along Cheung Tung Road																																
Slope Works Near Viaduct C																																
Slope 10NW-C/F14																																
SWVC5000	10NW-C/F14 - Slope works	42	06-May-17*	42	24-Jun-17	06-Aug-16	24-Sep-16	-219	0%																							
Slope 10NW-C/F15																																
SWVC6000	10NW-C/F15 - Slope works	42	06-May-17*	42	24-Jun-17	13-Aug-16	03-Oct-16	-213	0%																							
Re-alignment of CTR Along Viaduct B																																
General																																
RP00064	Ch620-750: telecom, 11KV & 132KV ducting	20	20-Aug-15 A	33	30-Mar-17	24-Mar-16	06-May-16	-269	80%																							
RP00071	Ch620-750: towngas(DN250+DN400) connection	19	10-Mar-17*	19	31-Mar-17	14-Apr-16	06-May-16	-270	0%																							
RP00072	Ch620-700 DN1000 connection	1	09-Mar-17*	1	09-Mar-17	09-Mar-17	09-Mar-17	0	0%																							
RP00075	Ch100-300: duct laying for 11KV	20	01-Apr-17*	20	28-Apr-17	07-May-16	31-May-16	-270	0%																							
RP00076	Ch100-300: lay telecom cable	10	29-Apr-17*	10	12-May-17	01-Jun-16	13-Jun-16	-270	0%																							
RP00077	Ch100-300: street lighting & draw pit	13	13-May-17	13	27-May-17	14-Jun-16	28-Jun-16	-270	0%																							
RP00079	Ch100-300: watermain(DN450+DN1000)	142	29-Apr-15 A	12	06-Mar-17	08-Jul-16	21-Jul-16	-186	90%																							
RP00081-3	Ch100-300 watermain DN1000 remaining pipework and connection	58	23-Dec-16 A	14	08-Mar-17	06-Jul-16	21-Jul-16	-188	85%																							
Re-alignment of CTR Along Viaduct C																																
West Portion																																
RW61012	Realign CTR (West of Abut. C) - tie out drainage	100	03-Feb-17 A	54	28-Apr-17	23-Nov-16	27-Jan-17	-71	15%																							
RW61020	Realign CTR (West of Abut. C) - Utility diversion	90	24-Mar-15 A	48	21-Apr-17	23-Nov-16	20-Jan-17	-71	70%																							
RW61030	Realign CTR (West of Abut. C) - Sub-base work	48	15-Dec-15 A	60	08-May-17	23-Nov-16	07-Feb-17	-71	60%																							
RW61050	Realign CTR (West of Abut. C) - Street Light Poles & street furniture	18	29-Apr-17	18	22-May-17	01-Feb-17	21-Feb-17	-71	0%																							
RW61060	Realign CTR (West of Abut. C) - E&M works & Testing/Commissioning	12	16-May-17	12	29-May-17	15-Feb-17	28-Feb-17	-71	0%																							
East Portion																																
RW60005	Realign CTR (East of Abut. C) - Drainage for tie-in	143	01-Dec-16 A	120	19-Jul-17	20-Feb-16	18-Jul-16	-297	30%																							
RW60030	Realign CTR (East of Abut. C) - Drainage and roadwork for permanent tie	104	03-Jan-17 A	180	27-Sep-17	20-Feb-16	27-Sep-16	-297	20%																							
Watermain from Tung Chung to Southern Landfall																																
Watermain Works																																
General																																
WM00120	Lay DN450 Fresh Water Main at Re-aligned CTR (approx. 500m)	48	22-Apr-15 A	101	26-Jun-17	24-Jun-16	24-Oct-16	-197	40%																							
WM00170	Lay DN450 Watermain Tung Chung to Re-aligned CTR (3rd 500m)	50	01-Jun-16 A	61	09-May-17	11-Aug-16	24-Oct-16	-157	50%																							
WM00180	Lay DN450 Watermain from Tung Chung to Re-aligned CTR (last 400m)	76	21-Oct-16 A	27	23-Mar-17	21-Sep-16	24-Oct-16	-123	80%																							

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

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 Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 13 of 13 Pages)
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J3518/GCL/PGM/3MRP-M45

Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

(In reference to CINOTECH (2011) Agreement No.
CE35/2011 EP Baseline Environmental Monitoring for
Hong Kong-Zhuhai-Macao Bridge Tuen Mun-Chek Lap
Kok Link - Investigation. Updated EM&A Manual for
Tuen Mun-Chek Lap Kok Link)

*Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link
Southern Connection Viaduct 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 eight 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	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		✓

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		✓
NOISE									
5.11	Section 4	Noise monitoring	All existing representative sensitive receivers / during North Lantau Viaduct construction	Contractor	EM&A Manual		Y		✓
WATER QUALITY									
<i>General Marine Works</i>									
6.10	-	Bored piling to be undertaken within a metal casing.	Marine viaducts of TM-CLKL and HKLR/ bored piling	Contractor	TM-EIAO		Y		✓
6.10	-	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		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	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		✓
6.10	-	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
<i>Temporary Staging work</i>									
	5.2	Regular inspection for the accumulation of floating refuse and collection of floating refuse if required	During temporary staging works	Contractor			Y		✓
	5.2	Provision of temporary drainage system on the temporary staging for collection of construction site runoff to allow appropriate treatment before discharge into the sea	During temporary staging works	Contractor			Y		<>
	5.2	Wastewater generated from construction works such as bored / drilling water will be collected, treated, neutralized and de-silted through silt trap or sedimentation tank before disposal	During temporary staging works	Contractor			Y		✓
	5.2	One additional water quality monitoring station is	During temporary	Contractor			Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		proposed at station SR4a In case elevated SS or turbidity is identified during the water quality monitoring, the source of pollution will be tracked down and be removed as soon as possible. In case depletion of dissolved oxygen is identified, artificial aeration will be arranged at the monitoring station SR4a,	staging works						
<i>Land Works</i>									
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	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		✓
6.10	-	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		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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		✓
6.10	-	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 offsite disposal.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	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		✓
6.10	-	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		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	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		✓
6.10	-	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	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	✓
6.10	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		✓
<i>Water Quality Monitoring</i>									
6.10	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	Specification for bored piling monitoring	Detailed Design	Design Consultant	TMEIA	Y			n/a
8.14	6.3	Implement any recommendations of the bored piling monitoring	Southern marine viaduct/Throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			construction during bored piling						
8.14	6.3,6.5	Avoidance of peak CWD calving season in May and June for driving of metal caissons during bored piling works	Southern marine viaduct/ May and June during bored piling	Contractor	TMEIA		Y		n/a
8.14	6.3,6.5	Specification and implementation of 250m dolphin exclusion zone.	All marine bored piling and temporary staging works areas/Detailed Design/during all marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.5	Specification and deployment of an artificial reef of an area of 3,600 m ² 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 enforced by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for marine bored piling and the whole lifespan of temporary staging works.	All areas/ Detailed Design/during marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Tai Ho Wan (donor site) and Yam Tsui Wan (receptor site) /Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		Completed in October 2014
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		n/a

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			season/construction phase						
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. To be approved by AFCD/LCSD
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	Round angle, patterned finishes, and oval shaped pier were considered in the viaduct design, and further details will be developed under ACABAS submission (DM3)	All areas/detailed design	Design Consultant	TMEIA	Y			n/a
10.9	7.6	Details of the street furniture will be developed in the detailed design stage (DM4)	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	Existing trees on boundary of the Project Area shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage) (CM1)							
10.9	7.6	Trees unavoidably affected by the works shall be transplanted where practical. Trees will be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme (CM2)	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓ Tree transplanted as Contract Specification
10.9	7.6	Hillside and roadside screen planting to proposed roads, associated structures and slope works (CM3).	All areas/ detailed design/ during construction/ post construction	Design Consultant/	TMEIA	Y	Y		✓
10.9	7.6	Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone) (CM4)	All areas/ detailed design/ during construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y		<>
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		✓
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		✓

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	Recycle/Reuse all felled trees and vegetation, e.g. mulching (CM9)	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a No felled trees or vegetation suitable for recycle
10.9	7.6	Compensatory tree planting shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006 (CM10).	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Re-vegetation of affected woodland/shrubland with native species (OM1)	All areas/ detailed design/ during construction/ during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by AFCD/HyD/ L CSD
10.9	7.6	Tall buffer screen tree / shrub / climber planting should be incorporated to soften hard engineering structures and facilities (OM2)	All areas/ detailed design/ during construction/ during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a To be implemented by HyD/LCSD
10.9	7.6	Streetscape elements (e.g. paving, signage, street furniture, lighting etc.) shall be sensitively designed in a manner that responds to the local context, and minimises potential negative landscape and visual impacts. Lighting units should be directional and minimise unnecessary light spill (OM3)	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD/LCSD
10.9	7.6	Structure, ornamental tree / shrub / climber planting should be provided along roadside amenity strips, central dividers and newly formed slopes to enhance the townscape quality and further greenery enhancement	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		(OM4)							HyD/LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD
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		✓
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	All areas / throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	construction period						
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			n/a
12.6	8.1	The Contractor shall be prohibited from disposing of C&D materials at any sensitive locations. The Contractor should propose the final disposal sites in the EMP and WMP for approval before implementation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust/ surface run off.	All areas / throughout construction period	Contractor	TMEIA		Y		↔
12.6	8.1	Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	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	All areas / throughout construction period	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		materials should avoid over-ordering and wastage.							
12.6	8.1	The Contractor should recycle as many C&D materials (this is a waste section) as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows: <ul style="list-style-type: none"> - suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; - Having a capacity of <450L unless the specifications have been approved by the EPD; and - Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. Clearly labelled and used solely for the storage of chemical wastes; - Enclosed with at least 3 sides; - 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; 	All areas / throughout construction period	Contractor	TMEIA		Y		↔

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		<ul style="list-style-type: none"> - Adequate ventilation; - Sufficiently covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and - Incompatible materials are adequately separated. 							
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Night soil should be regularly collected by licensed collectors.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
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 hard standing;	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	Site Offices/	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		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.	throughout construction period						
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

Notes:

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

Status:

- ✓ 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

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 $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 394 ASR9C/ASR8/ASR9 = 393	500

Table D2 *Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)*

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	75* dB(A)

Table D3 *Action and Limit Levels for Water Quality*

Parameter	Action Level#	Limit Level#
DO in mg/L ^(a)	<u>Surface and Middle</u> 5.0 mg/L	<u>Surface and Middle</u> 4.2 mg/L
	<u>Bottom</u> 4.7 mg/L	<u>Bottom</u> 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

Parameter	Action Level#	Limit Level#
(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 D4 *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 D5 *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	[STG < 2.4 & ANI < 8.9] and [STG < 3.9 & ANI < 17.9]	

Appendix E

Calibration Certificates of Monitoring Equipments

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR8(A)
 Calibrated by : P.F. Yeung
 Date : 28/01/2017

Sampler

Model : TE-5170
 Serial Number : S/N 3956

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

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

Calibration Condition

Pa (hpa) : 1020
 Ta(K) : 291

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.4	3.429	1.662	56	56.87
2	13 holes	9.5	3.130	1.520	52	52.80
3	10 holes	6.8	2.648	1.291	44	44.68
4	7 holes	4.8	2.225	1.090	38	38.59
5	5 holes	2.7	1.669	0.825	28	28.43

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 33.913 Intercept(b): 0.950 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 04/02/2017

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
 Calibrated by : P.F. Yeung
 Date : 28/01/2017

Sampler

Model : TE-5170
 Serial Number : S/N 3958

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

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

Calibration Condition

Pa (hpa) : 1020
 Ta(K) : 291

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.8	3.488	1.690	55	55.85
2	13 holes	9.2	3.080	1.496	48	48.74
3	10 holes	6.6	2.609	1.272	42	42.65
4	7 holes	4.4	2.130	1.045	35	35.54
5	5 holes	2.7	1.669	0.825	28	28.43

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 31.156 Intercept(b): 2.809 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 04/02/2017



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 14, 2016 Rootsmeter S/N 0438320 Ta (K) - 295
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 745.49

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	1.4020	3.2	2.00
2	NA	NA	1.00	1.0060	6.4	4.00
3	NA	NA	1.00	0.9010	7.9	5.00
4	NA	NA	1.00	0.8590	8.8	5.50
5	NA	NA	1.00	0.7090	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9866	0.7037	1.4078	0.9957	0.7102	0.8896
0.9824	0.9765	1.9909	0.9914	0.9855	1.2581
0.9803	1.0880	2.2259	0.9893	1.0980	1.4066
0.9792	1.1399	2.3345	0.9882	1.1504	1.4753
0.9738	1.3735	2.8155	0.9828	1.3862	1.7792
Qstd slope (m) = 2.10326			Qa slope (m) = 1.31703		
intercept (b) = -0.06696			intercept (b) = -0.04232		
coefficient (r) = 0.99989			coefficient (r) = 0.99989		
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}



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. : C163248
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-1307) Date of Receipt / 收件日期 : 10 June 2016

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10997142
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 : $(23 \pm 2)^{\circ}\text{C}$ Relative Humidity / 相對濕度 : $(55 \pm 20)\%$
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

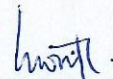
DATE OF TEST / 測試日期 : 15 June 2016

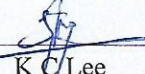
TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By : 
測試 : H T Wong
Technical Officer

Certified By : 
核證 : K C Lee
Project Engineer

Date of Issue : 17 June 2016
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C163248
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C153519
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.7	± 0.5	± 0.2

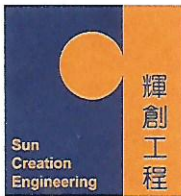
5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.985	1 kHz $\pm 2\%$	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

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.



Certificate of Calibration 校正證書

Certificate No. : C163758
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-1465) Date of Receipt / 收件日期 : 29 June 2016
Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-31
Serial No. / 編號 : 00603867
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 : $(23 \pm 2)^{\circ}\text{C}$ Relative Humidity / 相對濕度 : $(55 \pm 20)\%$
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

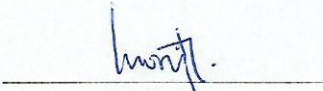
DATE OF TEST / 測試日期 : 11 July 2016


TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By : 
測試 : H T Wong
Technical Officer

Certified By : 
核證 : K C Lee
Project Engineer

Date of Issue : 12 July 2016
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

Certificate of Calibration

校正證書

Certificate No. : C163758
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C160077
CL281	Multifunction Acoustic Calibrator	PA160023

- Test procedure : MA101N.

- Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading	IEC 61672 Class 1 Spec.
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4 (Ref.)
				104.00		103.4
				114.00		113.4

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading	IEC 61672 Class 1 Spec.
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4	Ref.
			Slow			93.4	± 0.3

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate of Calibration

校正證書

Certificate No. : C163758
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _A	A	Fast	94.00	63 Hz	67.1	-26.2 ± 1.5
					125 Hz	77.1	-16.1 ± 1.5
					250 Hz	84.7	-8.6 ± 1.4
					500 Hz	90.1	-3.2 ± 1.4
					1 kHz	93.4	Ref.
					2 kHz	94.7	+1.2 ± 1.6
					4 kHz	94.5	+1.0 ± 1.6
					8 kHz	92.4	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.5	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _C	C	Fast	94.00	63 Hz	92.5	-0.8 ± 1.5
					125 Hz	93.2	-0.2 ± 1.5
					250 Hz	93.4	0.0 ± 1.4
					500 Hz	93.4	0.0 ± 1.4
					1 kHz	93.4	Ref.
					2 kHz	93.3	-0.2 ± 1.6
					4 kHz	92.7	-0.8 ± 1.6
					8 kHz	90.5	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.6	-6.2 (+3.0 ; -6.0)

Remarks : - UUT Microphone Model No. : UC-53A & S/N : 316987

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value : 94 dB : 63 Hz - 125 Hz : ± 0.35 dB
 250 Hz - 500 Hz : ± 0.30 dB
 1 kHz : ± 0.20 dB
 2 kHz - 4 kHz : ± 0.35 dB
 8 kHz : ± 0.45 dB
 12.5 kHz : ± 0.70 dB
 104 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)
 114 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

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.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。



Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/012 Manufacturer : HACH

Model No. : 2100Q Serial No. : 12060 C 018447

Date of Calibration : 24/12/2016 Due Date : 23/03/2017

Ref. No. of Turbidity Standard used (4000NTU)

005/6.1/001/9

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.2	1.0
100	98.5	-1.5
800	780	-2.5

(*) 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 :

Checked by :



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : ET/EW007/008 Manufacturer : HANNA
 Model No. : HI9125 Serial No. : H0040409
 Date of Calibration : 27/01/2017 Calibration Due Date : 26/02/2017

Liquid Junction Error

003/5.2/002/07 (20°C)

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/002/08 (25°C)
 Temperature of Solution : 25.0 / 20.0 $\Delta\text{pH}_{1/2} =$ 0.080 / 0.080
 pH value of diluted buffer : 6.98 / 6.98 $\text{pH (S)} =$ 6.865 / 6.881
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} =$ 0.115 / 0.099 (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} =$ 0.04 / 0.02

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s =$ 6.91 / 6.91
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j =$ 0.01 / 0.01

Noise

Noise, $\Delta\text{pH}_n =$ 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, $|T_R - T_{ATC}|$ 0.1 / 0.1 °C
 Correction +0.1 / +0.1 °C

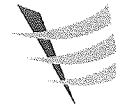
Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpH_j	≤ 0.05
Shift on Stirring	ΔpH_s	≤ 0.02
Noise	ΔpH_n	≤ 0.02
Verification of ATC	Temperature Difference	$\leq 0.5^\circ\text{C}$

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/EW007/008 Manufacturer : HANNA
 Model No. : HI9125 Serial No. : H0040409
 Date of Calibration : 27/02/2017 Calibration Due Date : 26/03/2017

Liquid Junction Error

003/5.2/002/09 (20°C)

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/002/08 (25°C)
 Temperature of Solution : 25.0 / 20.0 $\Delta\text{pH}_{1/2} =$ 0.080 / 0.080
 pH value of diluted buffer : 6.97 / 6.97 $\text{pH (S)} =$ 6.865 / 6.881
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} =$ 0.105 / 0.089 (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} =$ 0.02 / 0.01

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s =$ 6.90 / 6.90
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j =$ 0.01 / 0.01

Noise

Noise, $\Delta\text{pH}_n =$ 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, $|T_R - T_{ATC}|$: 0.1 / 0.1 °C
 Correction : +0.1 / +0.1 °C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpH_j	≤ 0.05
Shift on Stirring	ΔpH_s	≤ 0.02
Noise	ΔpH_n	≤ 0.02
Verification of ATC	Temperature Difference	$\leq 0.5^\circ\text{C}$

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 Report of Dissolved Oxygen Meter

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

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 (Na₂S₂O₃) solution

Reagent No. of Na ₂ S ₂ O ₃ titrant	CPE/012/4.5/001/15	Reagent No. of 0.025N K ₂ Cr ₂ O ₇	CPE/012/4.4/002/16
		Trial 1	Trial 2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)		0.00	10.35
Final Vol. of Na ₂ S ₂ O ₃ (ml)		10.35	20.70
Vol. of Na ₂ S ₂ O ₃ used (ml)		10.35	10.35
Normality of Na ₂ S ₂ O ₃ solution (N)		0.02415	0.02415
Average Normality (N) of Na ₂ S ₂ O ₃ solution (N)		0.02415	
Acceptance criteria, Deviation		Less than ± 0.001N	

Calculation: Normality of Na₂S₂O₃, N = 0.25 / ml Na₂S₂O₃ used

Linearity Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.40	23.00	0.00	6.10	9.90
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.40	23.00	29.60	6.10	9.90	13.80
Vol. (V) of Na ₂ S ₂ O 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			



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 ₂ S ₂ O ₃ (ml)	0.00	10.90	21.80	31.20
Final Vol. of Na ₂ S ₂ O ₃ (ml)	10.90	21.80	31.20	40.60
Vol. (V) of Na ₂ S ₂ O 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: $DO (mg/L) = V \times N \times 8000/298$

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) Difference 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

: Bianco

Approved by:

[Signature]



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

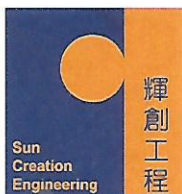
Acceptance Criteria

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 : 

Approved by : 



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 : $(23 \pm 2)^{\circ}\text{C}$ Relative Humidity / 相對濕度 : $(55 \pm 20)\%$
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範


Calibration check

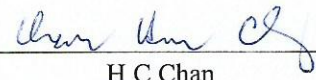
DATE OF TEST / 測試日期 : 27 October 2016

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

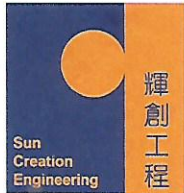
Tested By : 
測試 : _____
T L Shek
Assistant Engineer

Certified By : 
核證 : _____
H C Chan
Engineer

Date of Issue : 28 October 2016
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。



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 :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
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.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

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 – 校正及檢測實驗室

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

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 1 November 2016

Brand of Test Meter: Global Water

Model: Speed Sensor: WE550 (S/N:E1337005099)

Direction Sensor: WE570 (S/N:153500564)

Location : Pak Mong, Siu Ho Wan

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

Global Wate (m/s)	Anemomete (m/s)
1.18	1.3
0.99	1.1
0.67	0.7

Wind Direction Test

Global Wate (o)	Marine Compass (o)
270.46	270
0.07	0
90.25	90
181.13	180

Calibrated by:

Fai
Yeung Ping Fai
(Technical Officer)

Checked by :

Fat
Ho Kam Fat
(Senior Technical Officer)

Appendix F

EM&A Monitoring Schedules

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 28 February 2017)**

Alternative Noise Monitoring at Pak Mong Village Entrance

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 28 February 2017)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 31 March 2017)**

Alternative Noise Monitoring at Pak Mong Village Entrance

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

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/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 31 March 2017)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

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

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/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (February 2017)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Feb	02-Feb	03-Feb	04-Feb
				WQM Mid-Flood 10:50 (09:05 - 12:35) Mid-Ebb 16:56 (15:11 - 18:41)		WQM Mid-Flood 12:22 (10:37 - 14:07) Mid-Ebb 19:11 (17:26 - 20:56)
05-Feb	06-Feb	07-Feb	08-Feb	09-Feb	10-Feb	11-Feb
		WQM Mid-Ebb 10:15 (08:30 - 12:00) Mid-Flood 15:33 (13:48 - 17:18)		WQM Mid-Ebb 12:09 (10:24 - 13:54) Mid-Flood 17:24 (15:39 - 19:09)		WQM Mid-Flood 8:04 (06:19 - 09:49) Mid-Ebb 13:33 (11:48 - 15:18)
12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb
		WQM Mid-Flood 9:31 (07:46 - 11:16) Mid-Ebb 15:10 (13:25 - 16:55)		WQM Mid-Flood 10:22 (08:37 - 12:07) Mid-Ebb 16:22 (14:37 - 18:07)		WQM Mid-Flood 11:28 (09:43 - 13:13) Mid-Ebb 18:10 (16:25 - 19:55)
19-Feb	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb	25-Feb
		WQM Mid-Ebb 9:52 (09:00 - 10:45) Mid-Flood 14:20 (12:35 - 16:05)		WQM Mid-Ebb 11:28 (09:43 - 13:13) Mid-Flood 16:27 (14:42 - 18:12)		WQM Mid-Ebb 12:39 (10:54 - 14:24) Mid-Flood 18:00 (16:15 - 19:45)
26-Feb	27-Feb	28-Feb				
		WQM Mid-Flood 8:28 (06:43 - 10:13) Mid-Ebb 14:19 (12:34 - 16:04)				

HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section Impact Marine Water Quality Monitoring (WQM) Schedule (March 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Mar	02-Mar	03-Mar	04-Mar
				WQM Mid-Flood 9:25 (07:40 - 11:10) Mid-Ebb 15:35 (13:50 - 17:20)		WQM Mid-Flood 10:35 (08:50 - 12:20) Mid-Ebb 17:18 (15:33 - 19:03)
05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar	11-Mar
		WQM Mid-Ebb 8:53 (07:25 - 10:20) Mid-Flood 14:00 (12:15 - 15:45)		WQM Mid-Ebb 11:19 (09:34 - 13:04) Mid-Flood 16:32 (14:47 - 18:17)		WQM Mid-Ebb 12:41 (10:56 - 14:26) Mid-Flood 18:14 (16:29 - 19:59)
12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar
		WQM Mid-Flood 8:17 (06:32 - 10:02) Mid-Ebb 14:08 (12:23 - 15:53)		WQM Mid-Flood 9:04 (07:19 - 10:49) Mid-Ebb 15:11 (13:26 - 16:56)		WQM Mid-Flood 9:58 (08:13 - 11:43) Mid-Ebb 16:27 (14:42 - 18:12)
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
		WQM Mid-Flood 6:55 (05:10 - 08:40) Mid-Ebb 19:45 (18:00 - 21:30)		WQM Mid-Ebb 10:25 (08:50 - 12:00) Mid-Flood 15:02 (13:17 - 16:47)		WQM Mid-Ebb 11:41 (09:56 - 13:26) Mid-Flood 17:00 (15:15 - 18:45)
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	
		WQM Mid-Ebb 13:19 (11:34 - 15:04) Mid-Flood 19:21 (17:36 - 21:06)		WQM Mid-Flood 8:15 (06:30 - 10:00) Mid-Ebb 14:33 (14:48 - 16:18)		

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/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 28 February 2017)**

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 31 March 2017)**

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

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 and
Graphical Presentation

1-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8A

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2017-02-02	ASR8A	9:15	1-hr TSP	45	394	500		
TMCLKL	HY/2012/07	2017-02-02	ASR8A	10:17	1-hr TSP	50				
TMCLKL	HY/2012/07	2017-02-02	ASR8A	11:19	1-hr TSP	51				
TMCLKL	HY/2012/07	2017-02-08	ASR8A	8:52	1-hr TSP	65				
TMCLKL	HY/2012/07	2017-02-08	ASR8A	9:54	1-hr TSP	70				
TMCLKL	HY/2012/07	2017-02-08	ASR8A	10:56	1-hr TSP	51				
TMCLKL	HY/2012/07	2017-02-14	ASR8A	8:26	1-hr TSP	72				
TMCLKL	HY/2012/07	2017-02-14	ASR8A	9:28	1-hr TSP	55				
TMCLKL	HY/2012/07	2017-02-14	ASR8A	10:30	1-hr TSP	48				
TMCLKL	HY/2012/07	2017-02-20	ASR8A	9:00	1-hr TSP	147				
TMCLKL	HY/2012/07	2017-02-20	ASR8A	10:02	1-hr TSP	107				
TMCLKL	HY/2012/07	2017-02-20	ASR8A	11:04	1-hr TSP	69				
TMCLKL	HY/2012/07	2017-02-23	ASR8A	8:20	1-hr TSP	110				
TMCLKL	HY/2012/07	2017-02-23	ASR8A	9:22	1-hr TSP	72				
TMCLKL	HY/2012/07	2017-02-23	ASR8A	10:24	1-hr TSP	77				
					Average	73				
					Min.	45				
					Max.	147				

1-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

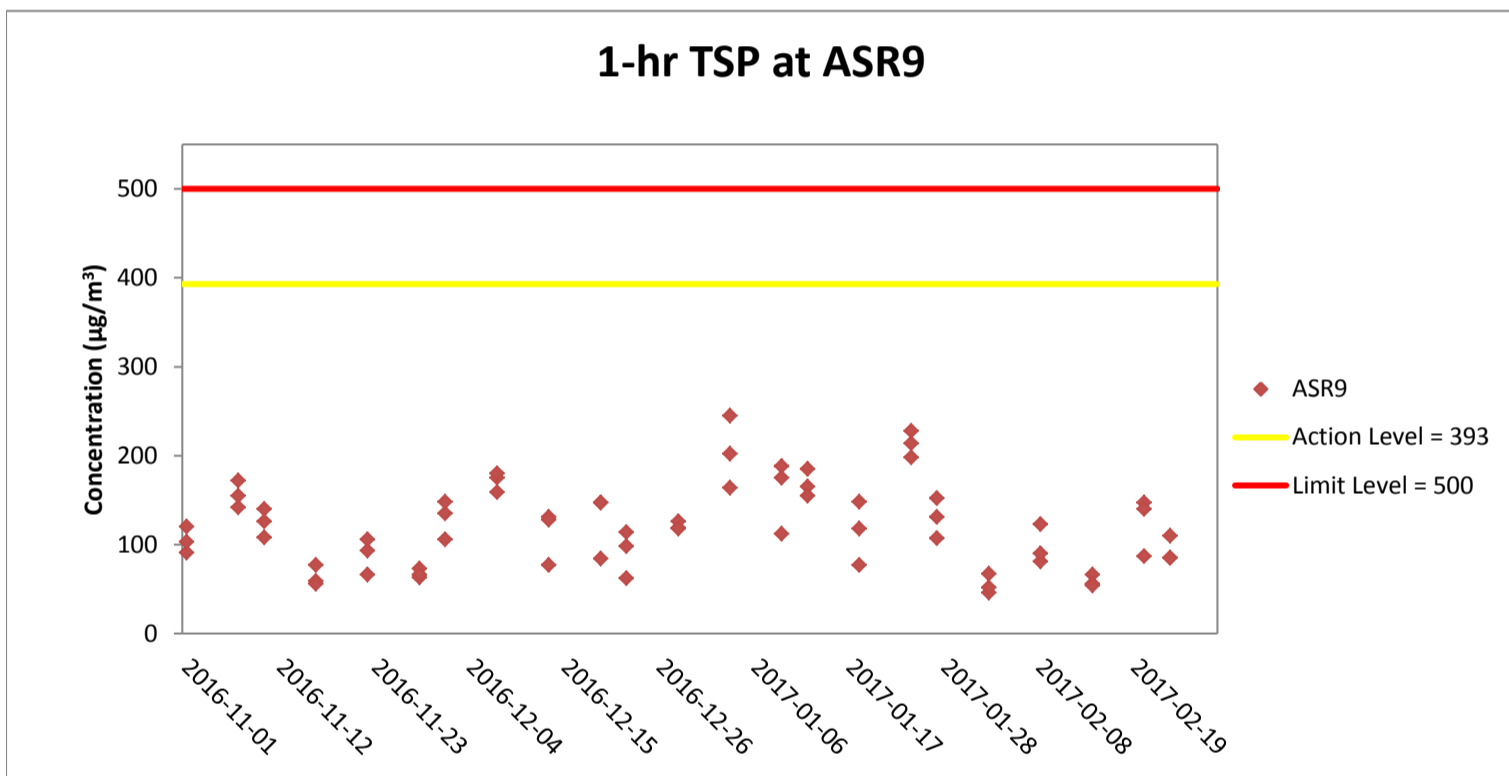
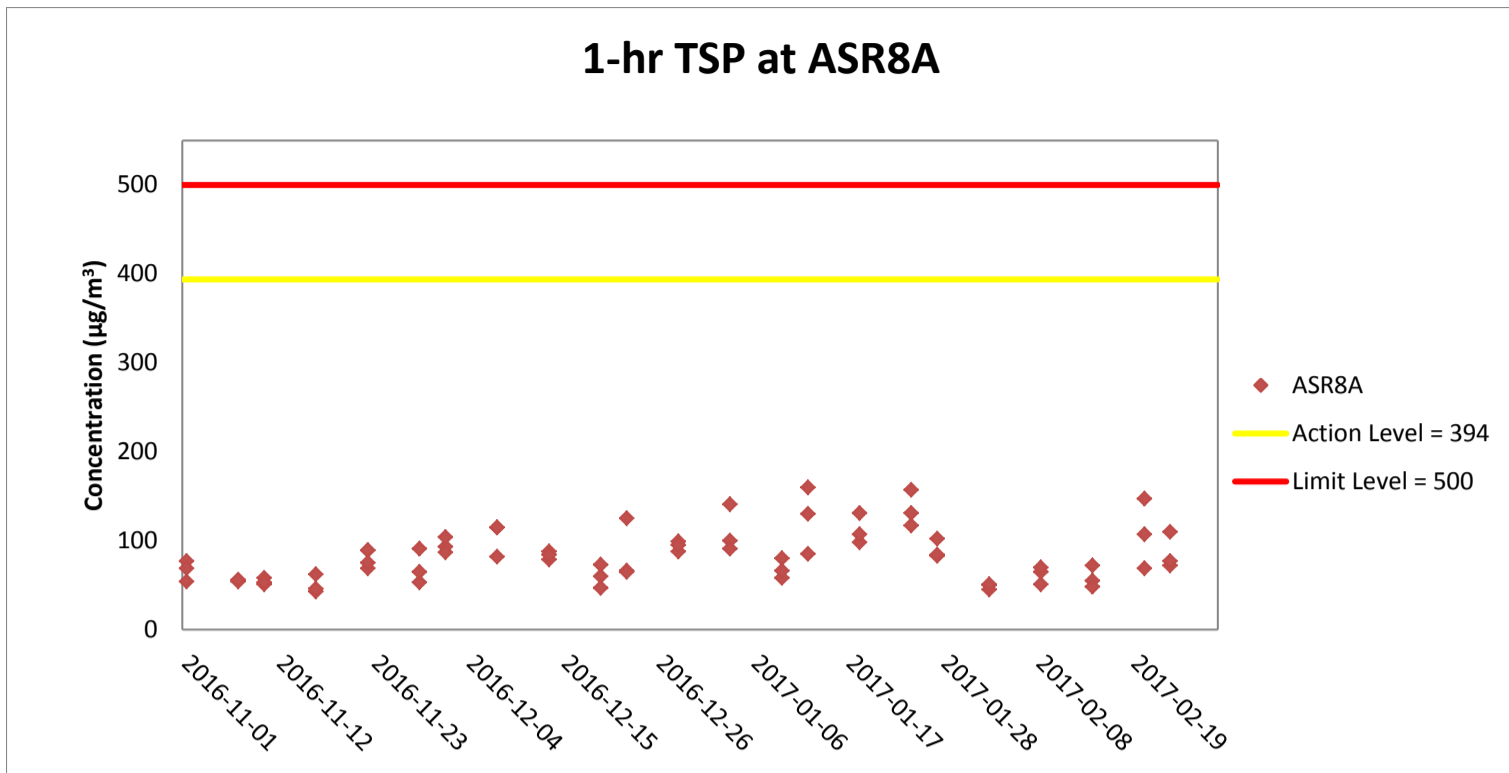
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2017-02-02	ASR9	9:25	1-hr TSP	46	393	500		
TMCLKL	HY/2012/07	2017-02-02	ASR9	10:27	1-hr TSP	67				
TMCLKL	HY/2012/07	2017-02-02	ASR9	11:29	1-hr TSP	52				
TMCLKL	HY/2012/07	2017-02-08	ASR9	9:03	1-hr TSP	81				
TMCLKL	HY/2012/07	2017-02-08	ASR9	10:05	1-hr TSP	123				
TMCLKL	HY/2012/07	2017-02-08	ASR9	11:07	1-hr TSP	90				
TMCLKL	HY/2012/07	2017-02-14	ASR9	8:36	1-hr TSP	66				
TMCLKL	HY/2012/07	2017-02-14	ASR9	9:38	1-hr TSP	56				
TMCLKL	HY/2012/07	2017-02-14	ASR9	10:40	1-hr TSP	54				
TMCLKL	HY/2012/07	2017-02-20	ASR9	9:10	1-hr TSP	87				
TMCLKL	HY/2012/07	2017-02-20	ASR9	10:12	1-hr TSP	147				
TMCLKL	HY/2012/07	2017-02-20	ASR9	11:14	1-hr TSP	140				
TMCLKL	HY/2012/07	2017-02-23	ASR9	8:30	1-hr TSP	110				
TMCLKL	HY/2012/07	2017-02-23	ASR9	9:32	1-hr TSP	85				
TMCLKL	HY/2012/07	2017-02-23	ASR9	10:34	1-hr TSP	85				
					Average	86				
					Min.	46				
					Max.	147				

24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8A

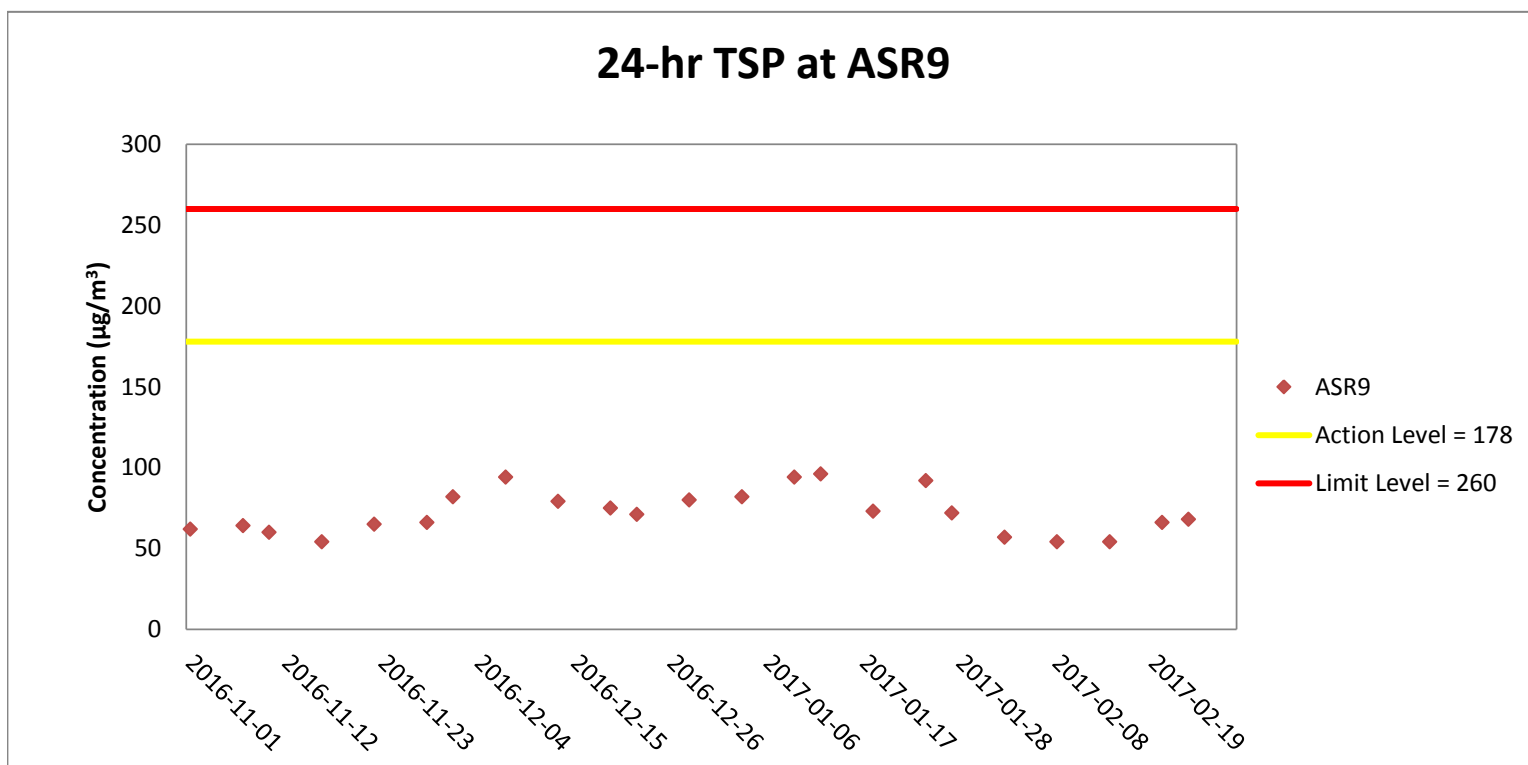
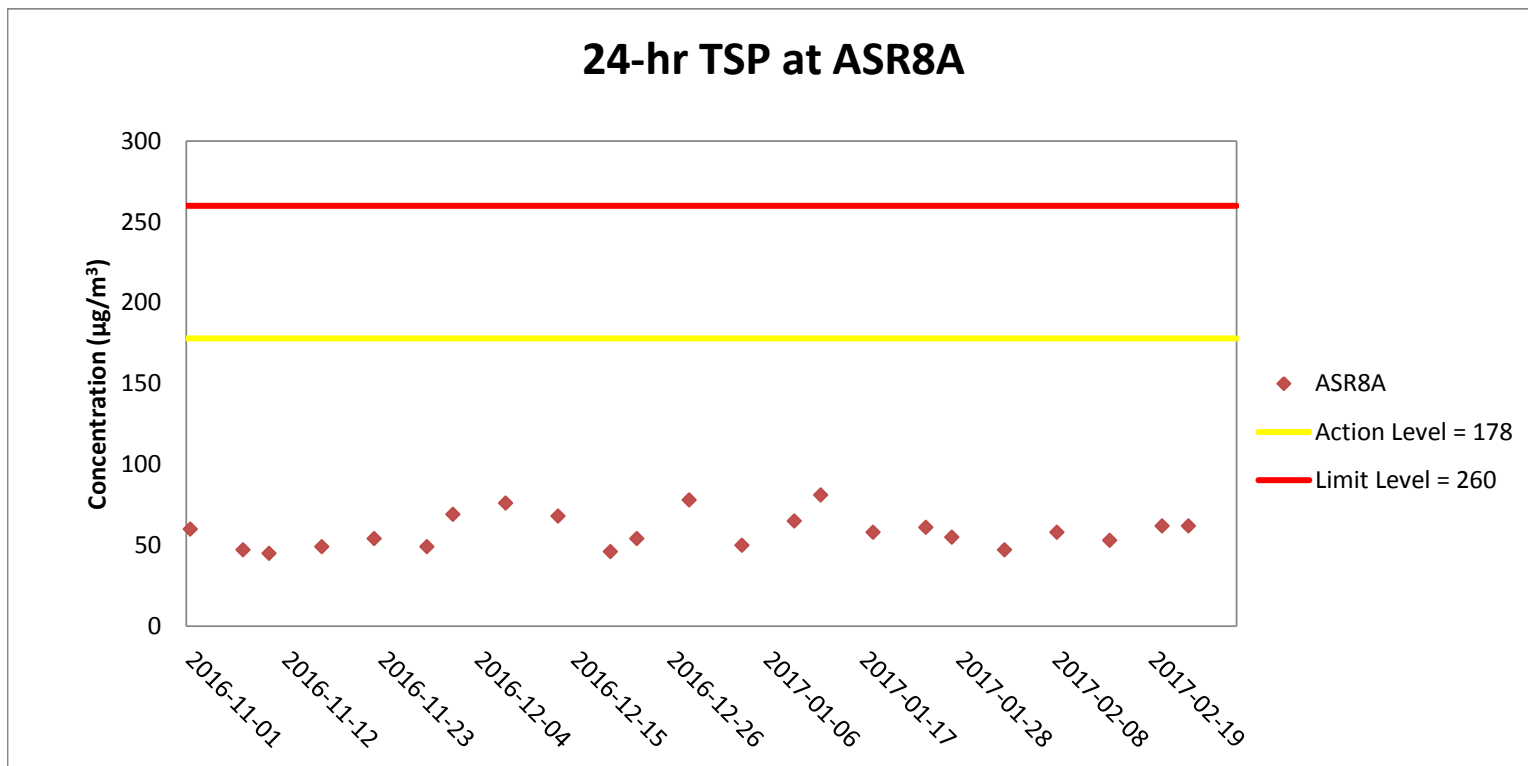
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2017-02-02	ASR8A	12:21	24-hr TSP	47	178	260
TMCLKL	HY/2012/07	2017-02-08	ASR8A	11:58	24-hr TSP	58		
TMCLKL	HY/2012/07	2017-02-14	ASR8A	11:32	24-hr TSP	53		
TMCLKL	HY/2012/07	2017-02-20	ASR8A	12:06	24-hr TSP	62		
TMCLKL	HY/2012/07	2017-02-23	ASR8A	11:26	24-hr TSP	62		
						Average	56	
						Min.	47	
						Max.	62	

24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2017-02-02	ASR9	12:31	24-hr TSP	57	178	260
TMCLKL	HY/2012/07	2017-02-08	ASR9	12:09	24-hr TSP	54		
TMCLKL	HY/2012/07	2017-02-14	ASR9	11:42	24-hr TSP	54		
TMCLKL	HY/2012/07	2017-02-20	ASR9	12:16	24-hr TSP	66		
TMCLKL	HY/2012/07	2017-02-23	ASR9	11:36	24-hr TSP	68		
						Average	60	
						Min.	54	
						Max.	68	



Weather condition within the reporting period varied between sunny to rainy.
 Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Road works along North Lantau Highway;; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.
 Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.



Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Road works along North Lantau Highway; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Appendix H

Meteorological Data for the Reporting Month

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
2017/2/1	0	0.7	162
2017/2/1	1	0.9	188
2017/2/1	2	0.0	180
2017/2/1	3	0.0	180
2017/2/1	4	0.0	64
2017/2/1	5	0.0	30
2017/2/1	6	0.0	62
2017/2/1	7	0.0	151
2017/2/1	8	0.0	126
2017/2/1	9	0.0	221
2017/2/1	10	0.0	276
2017/2/1	11	0.0	181
2017/2/1	12	0.0	204
2017/2/1	13	0.0	164
2017/2/1	14	0.0	208
2017/2/1	15	0.0	121
2017/2/1	16	0.0	202
2017/2/1	17	1.4	183
2017/2/1	18	1.6	181
2017/2/1	19	1.3	141
2017/2/1	20	1.0	119
2017/2/1	21	1.1	165
2017/2/1	22	2.1	178
2017/2/1	23	1.1	169
2017/2/2	0	0.1	142
2017/2/2	1	0.5	150
2017/2/2	2	1.2	158
2017/2/2	3	0.5	162
2017/2/2	4	1.1	168
2017/2/2	5	0.5	155
2017/2/2	6	0.3	122
2017/2/2	7	0.6	157
2017/2/2	8	0.1	120
2017/2/2	9	0.1	115
2017/2/2	10	0.4	162
2017/2/2	11	0.3	150
2017/2/2	12	0.3	140
2017/2/2	13	0.5	134
2017/2/2	14	1.4	153
2017/2/2	15	1.9	163
2017/2/2	16	1.6	160
2017/2/2	17	1.5	134
2017/2/2	18	3.5	165
2017/2/2	19	2.0	166
2017/2/2	20	3.2	158
2017/2/2	21	0.5	158
2017/2/2	22	0.2	135
2017/2/2	23	0.3	131
2017/2/8	0	4.1	160
2017/2/8	1	1.8	168
2017/2/8	2	0.9	168
2017/2/8	3	0.2	187
2017/2/8	4	0.2	161
2017/2/8	5	0.6	155
2017/2/8	6	0.3	177
2017/2/8	7	0.6	181
2017/2/8	8	1.4	185
2017/2/8	9	4.1	163
2017/2/8	10	1.0	181
2017/2/8	11	1.3	187
2017/2/8	12	0.4	95
2017/2/8	13	0.3	176
2017/2/8	14	0.2	217
2017/2/8	15	0.0	134
2017/2/8	16	0.0	114
2017/2/8	17	0.0	41
2017/2/8	18	0.1	283
2017/2/8	19	0.0	188
2017/2/8	20	0.1	187
2017/2/8	21	0.0	335
2017/2/8	22	0.0	299
2017/2/8	23	0.1	300
2017/2/9	0	0.2	304

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
2017/2/9	1	0.2	267
2017/2/9	2	0.1	307
2017/2/9	3	0.0	321
2017/2/9	4	0.1	326
2017/2/9	5	0.1	304
2017/2/9	6	0.1	302
2017/2/9	7	0.1	279
2017/2/9	8	0.0	300
2017/2/9	9	0.1	249
2017/2/9	10	0.1	237
2017/2/9	11	0.0	200
2017/2/9	12	0.0	253
2017/2/9	13	0.0	248
2017/2/9	14	0.1	308
2017/2/9	15	0.1	324
2017/2/9	16	0.1	316
2017/2/9	17	0.1	319
2017/2/9	18	0.1	306
2017/2/9	19	0.3	320
2017/2/9	20	0.1	311
2017/2/9	21	0.3	295
2017/2/9	22	0.2	169
2017/2/9	23	0.1	172
2017-02-14	0	1.7	165
2017-02-14	1	0.8	145
2017-02-14	2	0.2	118
2017-02-14	3	0.5	174
2017-02-14	4	0.1	133
2017-02-14	5	0.2	107
2017-02-14	6	0.1	142
2017-02-14	7	0.0	111
2017-02-14	8	0.2	127
2017-02-14	9	0.7	131
2017-02-14	10	1.1	171
2017-02-14	11	1.1	151
2017-02-14	12	0.9	157
2017-02-14	13	1.9	153
2017-02-14	14	3.9	177
2017-02-14	15	3.2	184
2017-02-14	16	4.1	170
2017-02-14	17	3.5	158
2017-02-14	18	3.1	162
2017-02-14	19	3.8	162
2017-02-14	20	3.1	176
2017-02-14	21	1.8	173
2017-02-14	22	1.4	173
2017-02-14	23	0.8	179
2017/2/15	0	1.1	155
2017/2/15	1	1.0	178
2017/2/15	2	3.2	175
2017/2/15	3	4.7	170
2017/2/15	4	6.1	166
2017/2/15	5	3.0	183
2017/2/15	6	2.7	174
2017/2/15	7	1.3	168
2017/2/15	8	1.6	183
2017/2/15	9	2.0	186
2017/2/15	10	1.8	176
2017/2/15	11	3.4	160
2017/2/15	12	5.0	157
2017/2/15	13	3.5	160
2017/2/15	14	2.6	166
2017/2/15	15	3.6	183
2017/2/15	16	4.0	183
2017/2/15	17	4.3	176
2017/2/15	18	3.5	160
2017/2/15	19	3.4	158
2017/2/15	20	1.1	157
2017/2/15	21	0.7	140
2017/2/15	22	0.2	139
2017/2/15	23	0.1	149
2017/2/20	0	1.4	175
2017/2/20	1	1.0	189

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
2017/2/20	2	0.0	217
2017/2/20	3	0.0	85
2017/2/20	4	0.0	94
2017/2/20	5	0.1	115
2017/2/20	6	0.2	102
2017/2/20	7	0.0	188
2017/2/20	8	0.2	189
2017/2/20	9	0.2	182
2017/2/20	10	0.0	296
2017/2/20	11	0.0	188
2017/2/20	12	0.0	179
2017/2/20	13	0.1	209
2017/2/20	14	0.0	165
2017/2/20	15	0.1	134
2017/2/20	16	0.3	109
2017/2/20	17	0.1	93
2017/2/20	18	0.3	167
2017/2/20	19	1.3	161
2017/2/20	20	2.2	149
2017/2/20	21	2.1	164
2017/2/20	22	0.7	170
2017/2/20	23	2.0	175
2017/2/21	0	1.3	181
2017/2/21	1	2.1	168
2017/2/21	2	2.0	163
2017/2/21	3	2.8	166
2017/2/21	4	3.1	167
2017/2/21	5	2.4	168
2017/2/21	6	1.1	150
2017/2/21	7	2.4	145
2017/2/21	8	3.8	167
2017/2/21	9	5.9	167
2017/2/21	10	4.7	174
2017/2/21	11	4.3	148
2017/2/21	12	3.7	166
2017/2/21	13	6.5	166
2017/2/21	14	7.8	157
2017/2/21	15	5.5	159
2017/2/21	16	2.5	164
2017/2/21	17	4.6	173
2017/2/21	18	4.3	177
2017/2/21	19	3.2	162
2017/2/21	20	2.6	165
2017/2/21	21	2.1	163
2017/2/21	22	1.3	153
2017/2/21	23	0.5	182
2017/2/23	0	0.4	135
2017/2/23	1	0.8	178
2017/2/23	2	0.2	195
2017/2/23	3	0.1	112
2017/2/23	4	0.2	185
2017/2/23	5	0.1	185
2017/2/23	6	0.0	166
2017/2/23	7	0.1	91
2017/2/23	8	0.1	130
2017/2/23	9	0.0	96
2017/2/23	10	0.3	173
2017/2/23	11	0.1	144
2017/2/23	12	0.0	147
2017/2/23	13	0.0	111
2017/2/23	14	0.0	92
2017/2/23	15	0.0	150
2017/2/23	16	0.0	192
2017/2/23	17	0.1	148
2017/2/23	18	0.0	180
2017/2/23	19	0.1	254
2017/2/23	20	0.3	153
2017/2/23	21	0.0	207
2017/2/23	22	0.0	30
2017/2/23	23	0.0	146
2017/2/24	0	0.0	119
2017/2/24	1	0.0	173
2017/2/24	2	0.0	230
2017/2/24	3	0.0	123
2017/2/24	4	0.0	108

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
2017/2/24	5	0.1	101
2017/2/24	6	0.0	159
2017/2/24	7	0.2	86
2017/2/24	8	0.1	177
2017/2/24	9	0.2	228
2017/2/24	10	0.1	253
2017/2/24	11	0.1	281
2017/2/24	12	0.1	284
2017/2/24	13	0.1	279
2017/2/24	14	0.0	304
2017/2/24	15	0.0	114
2017/2/24	16	0.1	144
2017/2/24	17	0.1	97
2017/2/24	18	0.1	71
2017/2/24	19	0.0	132
2017/2/24	20	0.4	43
2017/2/24	21	0.1	83
2017/2/24	22	0.1	43
2017/2/24	23	0.1	168

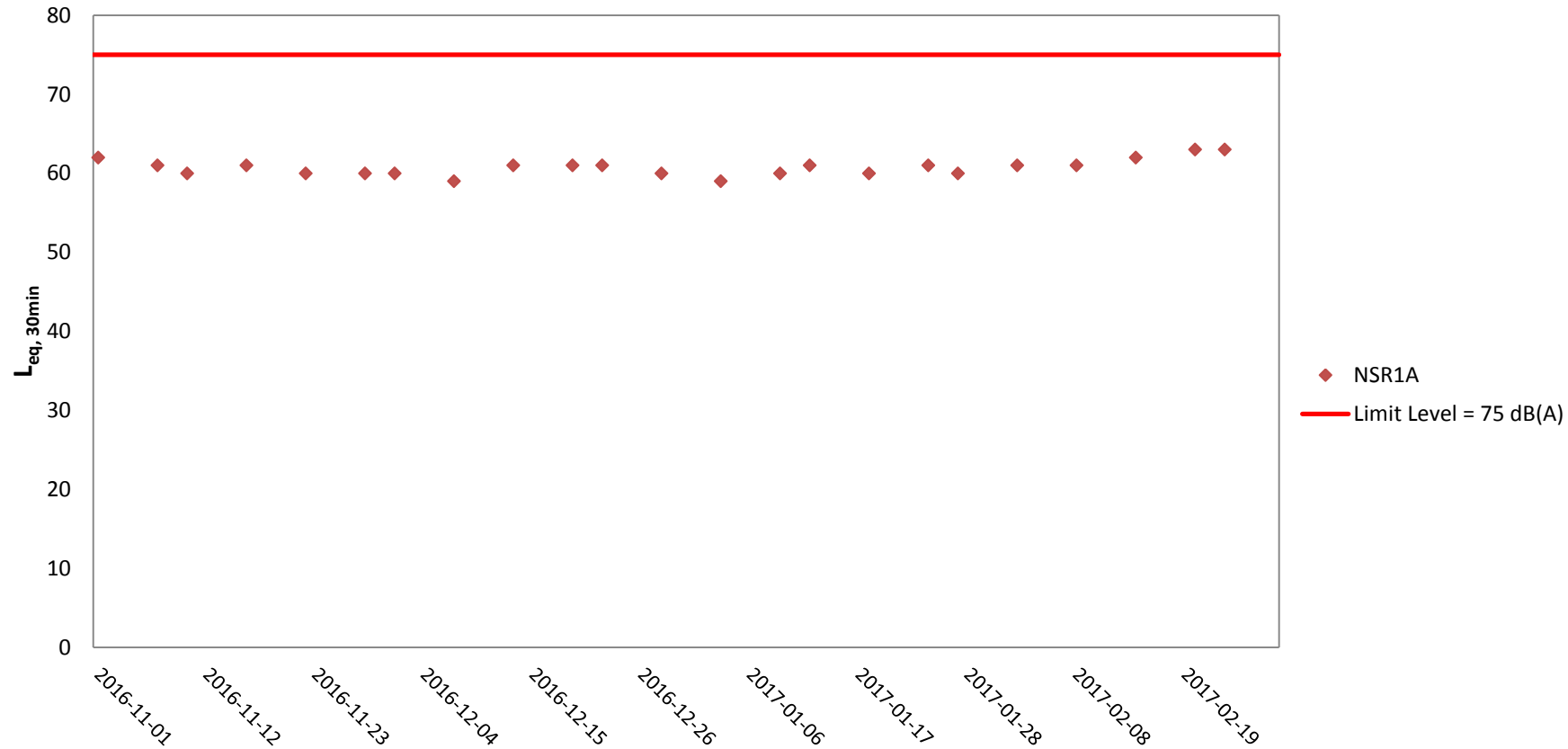
Appendix I

Impact Noise Monitoring
Results and Graphical
Presentation

Appendix I-1 Noise Monitoring Results

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90				
TMCLKL	HY/2012/07	2017-02-02	NSR1A	Sunny	10:38	61	62	59	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2017-02-08	NSR1A	Sunny	10:16	61	63	57	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2017-02-14	NSR1A	Sunny	9:48	62	64	57	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2017-02-20	NSR1A	Sunny	11:24	63	65	58	75	0.4	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2017-02-23	NSR1A	Cloudy	10:44	63	65	60	75	0.5	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	61					
						Max.	63					
						Average	62					

Noise Monitoring Results at NSR 1A ($L_{eq, 30min}$)



Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Road works along North Lantau Highway; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Appendix J

Impact Water Quality Monitoring Results and Graphical Presentation

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Surface	1	1	19	8.16	27.4	7.21	7.36	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Surface	1	2	19	8.19	27.5	7.24	7.38	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Middle	2	1	19.1	8.11	27.6	7.16	7.27	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Middle	2	2	19	8.1	27.5	7.13	7.2	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Bottom	3	1	19.2	8.05	27.8	7.3	7.45	10.4
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)5	10:05	Bottom	3	2	19.1	8.09	27.7	7.28	7.39	10.3
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Surface	1	1	18.9	8.09	27.2	7.05	6.89	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Surface	1	2	19	8.12	27.3	7.08	6.94	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Bottom	3	1	19.1	8.19	27.4	7.17	7.02	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4a	10:30	Bottom	3	2	19	8.23	27.3	7.19	7.11	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Surface	1	1	19	8.13	27.4	7.11	7.19	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Surface	1	2	19.1	8.1	27.3	7.13	7.13	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Bottom	3	1	19.1	8.06	27.4	7.02	7.32	10.3
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	SR4	10:44	Bottom	3	2	19.1	8.08	27.5	7.04	7.38	10.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Surface	1	1	18.9	8.22	27.5	6.96	7.02	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Surface	1	2	19	8.23	27.4	6.94	7.08	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Bottom	3	1	19.1	8.14	27.5	6.83	7.21	10.2
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS8	10:56	Bottom	3	2	19	8.1	27.5	6.84	7.14	10.1
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Surface	1	1	19.1	8.17	27.4	7.18	6.85	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Surface	1	2	19.1	8.14	27.4	7.19	6.92	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Middle	2	1	19.2	8.07	27.5	7.11	7.17	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Middle	2	2	19.1	8.06	27.4	7.08	7.25	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Bottom	3	1	19.3	8.19	27.6	7.27	7.04	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)16	11:10	Bottom	3	2	19.2	8.21	27.5	7.31	7.09	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Surface	1	1	18.9	8.25	27.3	7.25	7.28	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Surface	1	2	19	8.28	27.4	7.27	7.22	9.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Bottom	3	1	19	8.33	27.4	7.13	7.15	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	IS(Mf)9	11:27	Bottom	3	2	19.1	8.3	27.4	7.1	7.07	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Surface	1	1	18.9	8.1	27.4	7.32	7.28	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Surface	1	2	19	8.07	27.5	7.36	7.33	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Middle	2	1	19.2	8.17	27.5	7.24	7.39	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Middle	2	2	19.1	8.19	27.6	7.21	7.31	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Bottom	3	1	19.2	8.24	27.7	7.16	7.19	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Flood	CS(Mf)3	11:50	Bottom	3	2	19.3	8.26	27.7	7.17	7.11	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Surface	1	1	19.1	8.37	27.4	7.3	7.3	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Surface	1	2	19.2	8.39	27.4	7.33	7.28	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Middle	2	1	19.3	8.5	27.5	7.11	7.14	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Middle	2	2	19.3	8.5	27.6	7.13	7.12	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Bottom	3	1	19.4	8.07	27.6	7.36	7.22	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)5	17:16	Bottom	3	2	19.4	8.09	27.7	7.4	7.24	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Surface	1	1	19.1	8.16	27.1	6.81	7.1	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Surface	1	2	19.1	8.18	27.2	6.83	7.15	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Bottom	3	1	19.2	8.25	27.3	6.73	7.21	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4a	16:54	Bottom	3	2	19.2	8.29	27.4	6.76	7.23	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Surface	1	1	19	8.26	27.3	7.01	7.3	9.7
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Surface	1	2	19.1	8.3	27.4	7.05	7.37	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Bottom	3	1	19.2	8.14	27.5	7.2	7.41	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	SR4	16:33	Bottom	3	2	19.2	8.16	27.6	7.16	7.44	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Surface	1	1	19.1	8.37	27.4	6.8	7.19	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Surface	1	2	19.2	8.39	27.3	6.84	7.21	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Bottom	3	1	19.3	8.21	27.5	6.61	7.35	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS8	16:12	Bottom	3	2	19.4	8.23	27.4	6.63	7.33	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Surface	1	1	19.1	8.11	27.3	7.02	7	9.3
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Surface	1	2	19.2	8.14	27.4	6.88	7.04	9.4
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Middle	2	1	19.2	8.26	27.4	6.92	7.1	9.4
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Middle	2	2	19.3	8.28	27.5	6.96	7.16	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Bottom	3	1	19.4	8.36	27.6	6.99	7.08	9.6
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)16	15:57	Bottom	3	2	19.5	8.41	27.6	7.03	7.1	9.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Surface	1	1	18.9	8.5	27.2	7.04	7.38	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Surface	1	2	19	8.5	27.3	7.06	7.4	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Bottom	3	1	19.1	8.5	27.3	7.09	7.27	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	IS(Mf)9	15:35	Bottom	3	2	19.2	8.5	27.4	7.11	7.3	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Surface	1	1	19	8.23	27.3	7.11	7.34	9.8
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Surface	1	2	19.1	8.25	27.3	7.15	7.38	9.9
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Middle	2	1	19.2	8.36	27.4	7.09	7.39	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Middle	2	2	19.3	8.38	27.4	7.07	7.41	10
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Bottom	3	1	19.3	8.3	27.5	7	7.58	10.5
TMCLKL	HY/2012/07	2017-02-02	Mid-Ebb	CS(Mf)3	15:11	Bottom	3	2	19.4	8.36	27.6	7.05	7.6	10.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Surface	1	1	19.4	7.78	27.6	6.77	8.04	10.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Surface	1	2	19.5	7.81	27.6	6.74	8.12	11
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Middle	2	1	19.5	7.74	27.6	6.65	7.83	10.6
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Middle	2	2	19.5	7.77	27.7	6.68	7.77	10.6
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Bottom	3	1	19.5	7.7	27.8	6.57	7.99	11.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)5	11:37	Bottom	3	2	19.6	7.76	27.9	6.6	8.06	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Surface	1	1	19.5	7.78	27.6	6.68	8.46	11.7
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Surface	1	2	19.5	7.74	27.5	6.7	8.38	11.6
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Bottom	3	1	19.5	7.8	27.6	6.63	8.24	11.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4a	12:04	Bottom	3	2	19.5	7.75	27.6	6.61	8.16	11.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Surface	1	1	19.5	7.78	27.6	6.9	8.23	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Surface	1	2	19.6	7.75	27.6	6.86	8.3	11.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Bottom	3	1	19.6	7.7	27.6	6.79	8.09	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	SR4	12:22	Bottom	3	2	19.6	7.74	27.7	6.76	8.01	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Surface	1	1	19.5	7.79	27.6	6.82	8.1	11.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Surface	1	2	19.5	7.81	27.7	6.8	8.05	11.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Bottom	3	1	19.5	7.76	27.7	6.65	7.8	11.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS8	12:40	Bottom	3	2	19.6	7.8	27.6	6.68	7.87	11.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Surface	1	1	19.5	7.68	27.7	6.78	8.06	11.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Surface	1	2	19.6	7.73	27.6	6.75	7.97	11
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Middle	2	1	19.6	7.73	27.7	6.83	7.68	10.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Middle	2	2	19.6	7.7	27.7	6.81	7.74	10.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Bottom	3	1	19.6	7.76	27.8	6.72	8.23	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)16	13:00	Bottom	3	2	19.7	7.72	27.9	6.69	8.31	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Surface	1	1	19.6	7.69	27.7	6.69	7.83	10.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Surface	1	2	19.6	7.74	27.6	6.73	7.78	10.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Bottom	3	1	19.6	7.66	27.7	6.77	7.97	10.8
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	IS(Mf)9	13:22	Bottom	3	2	19.5	7.7	27.8	6.8	8.05	10.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Surface	1	1	19.6	7.73	27.7	6.85	7.85	10.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Surface	1	2	19.6	7.77	27.7	6.82	7.79	10.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Middle	2	1	19.6	7.68	27.8	6.78	7.95	10.7
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Middle	2	2	19.7	7.72	27.9	6.75	8.03	10.8
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Bottom	3	1	19.7	7.64	27.9	6.64	8.08	11.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Flood	CS(Mf)3	13:40	Bottom	3	2	19.7	7.68	27.9	6.61	8.15	11.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Surface	1	1	19.7	7.73	27.1	6.26	8.53	11.7
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Surface	1	2	19.8	7.72	27.2	6.3	8.55	11.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Middle	2	1	19.8	7.71	27.2	6.35	8.72	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Middle	2	2	19.8	7.72	27.3	6.37	8.74	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Bottom	3	1	19.8	7.75	27.3	6.41	8.99	12.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)5	19:20	Bottom	3	2	19.7	7.74	27.4	6.42	8.95	12.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Surface	1	1	19.6	7.78	27.2	6.37	8.82	11.8
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Surface	1	2	19.7	7.76	27.3	6.39	8.84	11.8
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Bottom	3	1	19.7	7.76	27.3	6.42	9.01	12.2
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4a	19:04	Bottom	3	2	19.7	7.74	27.3	6.47	9.02	12.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Surface	1	1	19.7	7.72	27.3	6.44	8.53	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Surface	1	2	19.7	7.7	27.4	6.46	8.59	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Bottom	3	1	19.8	7.76	27.4	6.55	8.72	11.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	SR4	18:49	Bottom	3	2	19.8	7.77	27.5	6.57	8.71	11.6
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Surface	1	1	19.8	7.7	27.2	6.55	8.22	10.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Surface	1	2	19.7	7.71	27.3	6.57	8.25	11
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Bottom	3	1	19.7	7.76	27.4	6.66	8.45	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS8	18:31	Bottom	3	2	19.6	7.77	27.5	6.69	8.47	11.4
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Surface	1	1	19.7	7.73	27.1	6.68	8.46	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Surface	1	2	19.8	7.74	27.3	6.67	8.47	11.3
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Middle	2	1	19.8	7.78	27.3	6.63	8.65	11.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Middle	2	2	19.8	7.79	27.4	6.62	8.67	11.5
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Bottom	3	1	19.9	7.72	27.2	6.52	8.87	12.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)16	18:07	Bottom	3	2	19.8	7.75	27.3	6.54	8.88	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Surface	1	1	19.8	7.72	27.3	6.42	8.92	12
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Surface	1	2	19.8	7.73	27.4	6.44	8.93	12.1
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Bottom	3	1	19.7	7.76	27.5	6.55	8.72	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	IS(Mf)9	17:50	Bottom	3	2	19.7	7.78	27.5	6.54	8.74	12
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Surface	1	1	20	7.76	27.4	6.53	9.7	13
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Surface	1	2	20.1	7.77	27.3	6.56	9.71	13
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Middle	2	1	19.8	7.72	27.4	6.64	8.82	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Middle	2	2	19.9	7.73	27.4	6.66	8.84	11.9
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Bottom	3	1	19.8	7.73	27.4	6.43	8.51	11.7
TMCLKL	HY/2012/07	2017-02-04	Mid-Ebb	CS(Mf)3	17:26	Bottom	3	2	19.8	7.76	27.5	6.41	8.53	11.7
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Surface	1	1	17.4	7.53	27	6.74	5.87	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Surface	1	2	17.5	7.55	27	6.77	5.89	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Middle	2	1	17.5	7.72	27.1	6.77	5.94	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Middle	2	2	17.6	7.75	27	6.74	5.97	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Bottom	3	1	17.5	7.61	27.2	6.44	6.41	9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)5	13:48	Bottom	3	2	17.6	7.64	27.3	6.46	6.44	9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Surface	1	1	17.4	7.68	27.1	6.86	5.66	7.8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Surface	1	2	17.4	7.72	27.1	6.88	5.69	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Bottom	3	1	17.5	7.83	27.2	6.67	5.78	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4a	14:10	Bottom	3	2	17.6	7.86	27.1	6.7	5.82	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Surface	1	1	17.5	7.86	27.1	6.63	5.76	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Surface	1	2	17.5	7.89	27	6.65	5.8	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Bottom	3	1	17.5	7.77	27.2	6.47	6.04	8.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	SR4	14:32	Bottom	3	2	17.6	7.74	27.2	6.49	6.08	8.6
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Surface	1	1	17.5	7.74	27.2	6.68	5.7	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Surface	1	2	17.6	7.76	27.2	6.64	5.73	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Bottom	3	1	17.6	7.63	27.3	6.57	5.94	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS8	14:54	Bottom	3	2	17.7	7.66	27.4	6.59	5.96	8.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Surface	1	1	17.5	7.62	27.1	6.77	5.78	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Surface	1	2	17.6	7.65	27.2	6.8	5.8	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Middle	2	1	17.6	7.72	27.2	6.65	5.92	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Middle	2	2	17.6	7.74	27.3	6.67	5.95	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Bottom	3	1	17.7	7.54	27.3	6.53	6.17	8.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)16	15:16	Bottom	3	2	17.7	7.59	27.4	6.56	6.14	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Surface	1	1	17.5	7.67	27.1	6.55	5.61	7.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Surface	1	2	17.6	7.69	27.2	6.57	5.64	7.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Bottom	3	1	17.6	7.51	27.2	6.34	5.94	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	IS(Mf)9	15:38	Bottom	3	2	17.6	7.54	27.3	6.37	5.96	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Surface	1	1	17.5	7.52	27.2	6.63	5.7	7.6
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Surface	1	2	17.5	7.55	27.3	6.65	5.65	7.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Middle	2	1	17.6	7.63	27.4	6.67	5.9	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Middle	2	2	17.7	7.6	27.3	6.69	5.94	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Bottom	3	1	17.8	7.74	27.5	6.56	6.07	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Flood	CS(Mf)3	16:00	Bottom	3	2	17.9	7.77	27.6	6.59	6.09	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Surface	1	1	17.5	7.62	27.1	6.68	5.96	8.2
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Surface	1	2	17.4	7.58	27.1	6.65	5.89	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Middle	2	1	17.5	7.66	27.1	6.53	5.77	7.8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Middle	2	2	17.5	7.69	27.2	6.5	5.84	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Bottom	3	1	17.6	7.55	27.4	6.39	6.27	8.7
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)5	11:35	Bottom	3	2	17.6	7.6	27.4	6.41	6.33	8.7
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Surface	1	1	17.5	7.73	27.1	6.74	5.86	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Surface	1	2	17.5	7.75	27.2	6.71	5.8	7.7
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Bottom	3	1	17.5	7.66	27.2	6.59	5.99	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4a	11:12	Bottom	3	2	17.5	7.63	27.2	6.61	6.04	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Surface	1	1	17.5	7.73	27.2	6.54	5.96	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Surface	1	2	17.5	7.7	27.2	6.51	6.02	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Bottom	3	1	17.5	7.64	27.2	6.38	6.27	8.3
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	SR4	10:55	Bottom	3	2	17.5	7.7	27.3	6.34	6.34	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Surface	1	1	17.4	7.67	27.2	6.58	5.85	7.8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Surface	1	2	17.5	7.7	27.3	6.62	5.91	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Bottom	3	1	17.5	7.58	27.3	6.43	6.08	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS8	10:37	Bottom	3	2	17.4	7.61	27.3	6.4	6.12	8.3
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Surface	1	1	17.4	7.69	27.2	6.64	5.93	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Surface	1	2	17.4	7.64	27.2	6.61	6	8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Middle	2	1	17.4	7.59	27.2	6.58	6.16	8.2
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Middle	2	2	17.4	7.63	27.3	6.54	6.07	8.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Bottom	3	1	17.5	7.64	27.5	6.39	6.39	8.7
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)16	10:15	Bottom	3	2	17.5	7.7	27.5	6.35	6.44	8.6
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Surface	1	1	17.4	7.58	27.3	6.46	5.77	7.8
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Surface	1	2	17.4	7.63	27.3	6.49	5.84	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Bottom	3	1	17.4	7.54	27.3	6.27	6.07	8.3
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	IS(Mf)9	9:55	Bottom	3	2	17.4	7.58	27.3	6.24	6.15	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Surface	1	1	17.4	7.64	27.3	6.58	5.93	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Surface	1	2	17.5	7.59	27.4	6.61	5.86	7.9
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Middle	2	1	17.5	7.7	27.6	6.43	6.24	8.4
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Middle	2	2	17.5	7.66	27.6	6.4	6.33	8.5
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Bottom	3	1	17.6	7.63	27.8	6.27	6.6	9.1
TMCLKL	HY/2012/07	2017-02-07	Mid-Ebb	CS(Mf)3	9:30	Bottom	3	2	17.7	7.67	27.8	6.25	6.52	8.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Surface	1	1	15.9	7.83	27	6.36	5.94	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Surface	1	2	15.9	7.8	27	6.41	5.88	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Middle	2	1	15.9	7.72	27.1	6.51	5.78	7.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Middle	2	2	16	7.74	27.1	6.58	5.84	7.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Bottom	3	1	16	7.86	27.2	6.34	6.1	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)5	15:39	Bottom	3	2	16.1	7.84	27.3	6.27	6.17	8.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Surface	1	1	16	7.84	27	6.45	5.81	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Surface	1	2	15.9	7.81	27	6.4	5.88	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Bottom	3	1	16	7.9	27.1	6.61	5.97	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4a	15:55	Bottom	3	2	16	7.92	27.1	6.57	5.92	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Surface	1	1	15.9	7.81	26.9	6.37	6.02	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Surface	1	2	15.9	7.79	26.9	6.43	5.95	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Bottom	3	1	16	7.85	27	6.26	6.11	8.6
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	SR4	16:13	Bottom	3	2	16	7.88	27	6.32	6.16	8.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Surface	1	1	15.9	7.78	26.9	6.38	6.05	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Surface	1	2	15.9	7.8	26.8	6.43	5.97	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Bottom	3	1	15.9	7.84	26.9	6.53	6.23	8.8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS8	16:34	Bottom	3	2	16	7.87	26.9	6.58	6.29	8.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Surface	1	1	15.8	7.83	26.8	6.26	6.02	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Surface	1	2	15.8	7.8	26.8	6.31	5.95	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Middle	2	1	15.9	7.91	26.9	6.44	5.82	7.8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Middle	2	2	16	7.89	26.9	6.5	5.88	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Bottom	3	1	16.1	7.87	26.9	6.17	6.2	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)16	16:50	Bottom	3	2	16	7.85	27	6.22	6.27	8.6
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Surface	1	1	15.8	7.78	26.8	6.24	5.76	7.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Surface	1	2	15.8	7.82	26.8	6.3	5.81	7.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Bottom	3	1	15.9	7.86	26.8	6.42	6.03	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	IS(Mf)9	17:08	Bottom	3	2	15.9	7.84	26.9	6.47	6.09	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Surface	1	1	15.8	7.8	26.8	6.35	5.81	7.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Surface	1	2	15.7	7.78	26.9	6.41	5.87	7.8
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Middle	2	1	15.8	7.91	26.9	6.56	5.69	7.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Middle	2	2	15.9	7.88	27	6.62	5.61	7.6
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Bottom	3	1	16.1	7.83	27.1	6.22	6.06	8.4
TMCLKL	HY/2012/07	2017-02-09	Mid-Flood	CS(Mf)3	17:21	Bottom	3	2	16.1	7.85	27.2	6.17	6.13	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Surface	1	1	15.8	7.68	27.2	6.52	6.03	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Surface	1	2	15.8	7.66	27.2	6.5	5.97	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Middle	2	1	15.7	7.62	27.3	6.47	6.1	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Middle	2	2	15.7	7.6	27.3	6.45	6.07	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Bottom	3	1	15.3	7.51	27.5	6.34	6.37	8.8
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)5	13:20	Bottom	3	2	15.3	7.5	27.6	6.32	6.33	8.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Surface	1	1	15.7	7.7	27.2	6.63	5.9	7.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Surface	1	2	15.7	7.68	27.2	6.65	5.94	7.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Bottom	3	1	15.7	7.6	27.2	6.5	6.02	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4a	13:00	Bottom	3	2	15.7	7.58	27.2	6.52	5.98	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Surface	1	1	15.7	7.77	27.1	6.5	6.04	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Surface	1	2	15.7	7.75	27.1	6.48	6.08	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Bottom	3	1	15.7	7.66	27.1	6.32	6.29	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	SR4	12:42	Bottom	3	2	15.7	7.68	27.1	6.3	6.35	8.4
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Surface	1	1	15.7	7.64	27.2	6.51	6.14	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Surface	1	2	15.7	7.66	27.2	6.49	6.1	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Bottom	3	1	15.6	7.53	27.2	6.44	6.47	8.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS8	12:23	Bottom	3	2	15.6	7.55	27.2	6.42	6.43	8.7
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Surface	1	1	15.8	7.7	27.3	6.44	6.06	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Surface	1	2	15.8	7.72	27.3	6.4	6.1	8.2
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Middle	2	1	15.7	7.61	27.3	6.31	6.23	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Middle	2	2	15.7	7.59	27.3	6.33	6.21	8.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Bottom	3	1	15.3	7.6	27.6	6.1	6.57	8.9
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)16	12:05	Bottom	3	2	15.3	7.58	27.6	6.08	6.51	8.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Surface	1	1	15.8	7.6	27.3	6.4	5.94	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Surface	1	2	15.8	7.58	27.3	6.42	5.98	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Bottom	3	1	15.7	7.51	27.3	6.29	6.19	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	IS(Mf)9	11:46	Bottom	3	2	15.7	7.53	27.3	6.31	6.23	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Surface	1	1	15.7	7.62	27.2	6.52	5.99	8
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Surface	1	2	15.7	7.6	27.2	6.5	6.05	8.1
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Middle	2	1	15.5	7.68	27.3	6.34	6.37	8.6
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Middle	2	2	15.5	7.66	27.3	6.32	6.31	8.5
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Bottom	3	1	15.2	7.6	27.6	6.15	6.74	9.3
TMCLKL	HY/2012/07	2017-02-09	Mid-Ebb	CS(Mf)3	11:24	Bottom	3	2	15.2	7.58	27.6	6.13	6.7	9.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Surface	1	1	16.8	8.08	26.7	6.84	5.89	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Surface	1	2	16.9	8.11	27	6.87	5.91	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Middle	2	1	17	7.95	27.1	6.95	6.14	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Middle	2	2	17.1	7.92	27.2	6.98	6.17	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Bottom	3	1	17.1	7.86	27.3	7.14	6.25	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)5	7:19	Bottom	3	2	17.2	7.88	27.4	7.17	6.27	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Surface	1	1	16.9	7.92	26.8	6.74	5.76	7.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Surface	1	2	16.8	7.95	26.9	6.77	5.79	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Bottom	3	1	16.9	8	27	6.94	5.86	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4a	7:41	Bottom	3	2	16.9	8.04	27.1	6.97	5.89	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Surface	1	1	16.8	7.98	27.1	6.85	6.04	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Surface	1	2	16.8	8	27.2	6.88	6.07	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Bottom	3	1	16.9	8.15	27.3	7.15	6.17	8.7
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	SR4	8:03	Bottom	3	2	17	8.17	27.4	7.13	6.19	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Surface	1	1	16.9	8.14	26.9	6.68	5.74	7.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Surface	1	2	17	8.17	27	6.71	5.76	7.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Bottom	3	1	17.2	7.95	27.1	6.94	5.8	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS8	8:25	Bottom	3	2	17.3	7.98	27.2	6.97	5.83	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Surface	1	1	16.8	7.84	26.9	7	5.85	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Surface	1	2	16.9	7.82	26.9	7.03	5.88	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Middle	2	1	17	8	27	7.14	5.94	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Middle	2	2	17	8.04	27.1	7.17	5.97	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Bottom	3	1	17.1	7.95	27.2	7.25	6.13	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)16	8:45	Bottom	3	2	17.2	7.98	27.2	7.28	6.17	8.5
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Surface	1	1	16.8	8.14	26.8	6.75	5.56	7.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Surface	1	2	16.8	8.12	26.7	6.78	5.59	7.5
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Bottom	3	1	16.9	7.93	26.9	6.92	6.05	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	IS(Mf)9	9:10	Bottom	3	2	17	7.91	26.9	6.95	6.08	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Surface	1	1	16.9	7.86	26.8	6.84	5.73	7.6
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Surface	1	2	17	7.89	26.9	6.87	5.76	7.7
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Middle	2	1	17.1	8.04	27	6.99	5.84	7.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Middle	2	2	17.1	8.07	27.1	7.02	5.88	7.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Bottom	3	1	17	8.11	27.2	7.14	5.99	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Flood	CS(Mf)3	9:35	Bottom	3	2	17.1	8.13	27.3	7.17	6.02	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Surface	1	1	16.7	7.73	27	6.75	6.13	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Surface	1	2	16.7	7.68	27	6.71	6.08	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Middle	2	1	16.7	7.74	27.1	6.69	5.93	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Middle	2	2	16.7	7.7	27.1	6.66	6	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Bottom	3	1	16.8	7.74	27.2	6.53	6.48	8.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)5	13:55	Bottom	3	2	16.8	7.71	27.3	6.49	6.53	9
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Surface	1	1	16.7	7.64	27	6.67	6.04	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Surface	1	2	16.8	7.6	26.9	6.64	6	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Bottom	3	1	16.7	7.66	27	6.6	6.24	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4a	13:30	Bottom	3	2	16.7	7.7	27.1	6.56	6.33	8.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Surface	1	1	16.7	7.58	27	6.44	6.18	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Surface	1	2	16.8	7.55	27.1	6.41	6.13	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Bottom	3	1	16.7	7.58	27.1	6.37	6.22	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	SR4	13:14	Bottom	3	2	16.7	7.6	27.1	6.33	6.28	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Surface	1	1	16.7	7.64	27	6.52	6.23	8.3
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Surface	1	2	16.7	7.61	27	6.48	6.16	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Bottom	3	1	16.7	7.66	27	6.4	6.33	8.5
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS8	12:57	Bottom	3	2	16.7	7.62	27.1	6.44	6.26	8.5
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Surface	1	1	16.7	7.59	27	6.58	6.07	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Surface	1	2	16.7	7.57	27.1	6.54	6.11	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Middle	2	1	16.7	7.58	27.1	6.5	6	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Middle	2	2	16.7	7.63	27.1	6.48	5.96	7.9
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Bottom	3	1	16.7	7.66	27.3	6.41	6.48	8.4
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)16	12:35	Bottom	3	2	16.8	7.63	27.3	6.38	6.54	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Surface	1	1	16.7	7.67	26.9	6.43	5.93	8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Surface	1	2	16.6	7.63	27	6.4	6.01	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Bottom	3	1	16.7	7.7	27.2	6.36	6.39	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	IS(Mf)9	12:15	Bottom	3	2	16.7	7.73	27.2	6.33	6.44	8.8
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Surface	1	1	16.7	7.68	27	6.48	6.07	8.1
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Surface	1	2	16.7	7.73	27	6.53	6.15	8.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Middle	2	1	16.7	7.7	27.1	6.57	6.43	8.7
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Middle	2	2	16.7	7.72	27.1	6.6	6.37	8.6
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Bottom	3	1	16.8	7.74	27.3	6.5	6.7	9.2
TMCLKL	HY/2012/07	2017-02-11	Mid-Ebb	CS(Mf)3	11:50	Bottom	3	2	16.8	7.68	27.4	6.46	6.64	9.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Surface	1	1	17.3	7.61	27.2	6.82	6.12	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Surface	1	2	17.4	7.64	27.2	6.84	6.19	8.4
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Middle	2	1	17.5	7.7	27.3	6.95	5.98	8.1

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Middle	2	2	17.5	7.72	27.4	6.92	5.9	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Bottom	3	1	17.6	7.68	27.5	6.76	5.95	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)5	9:01	Bottom	3	2	17.5	7.69	27.6	6.77	5.88	8.2
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Surface	1	1	17.2	7.78	27.1	6.74	5.54	7.6
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Surface	1	2	17.3	7.76	27	6.76	5.61	7.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Bottom	3	1	17.4	7.69	27.2	6.68	5.79	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4a	9:26	Bottom	3	2	17.3	7.72	27.2	6.69	5.72	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Surface	1	1	17.2	7.75	27.2	6.83	5.78	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Surface	1	2	17.3	7.71	27.1	6.8	5.84	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Bottom	3	1	17.3	7.8	27.2	6.74	5.96	8.4
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	SR4	9:43	Bottom	3	2	17.3	7.82	27.2	6.7	5.91	8.4
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Surface	1	1	17.3	7.64	27.1	6.73	5.67	7.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Surface	1	2	17.3	7.68	27	6.75	5.61	7.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Bottom	3	1	17.4	7.73	27.2	6.63	5.82	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS8	10:01	Bottom	3	2	17.3	7.74	27.1	6.62	5.88	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Surface	1	1	17.2	7.69	27.2	6.65	5.77	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Surface	1	2	17.1	7.67	27.1	6.64	5.86	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Middle	2	1	17.3	7.64	27.3	6.72	5.59	7.5
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Middle	2	2	17.2	7.62	27.2	6.73	5.64	7.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Bottom	3	1	17.5	7.78	27.4	6.58	6.03	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)16	10:19	Bottom	3	2	17.4	7.74	27.5	6.57	5.92	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Surface	1	1	17.3	7.64	27.3	6.78	5.92	7.9
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Surface	1	2	17.2	7.67	27.2	6.74	5.97	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Bottom	3	1	17.3	7.7	27.3	6.83	6.08	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	IS(Mf)9	10:39	Bottom	3	2	17.3	7.74	27.3	6.85	6	8.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Surface	1	1	17.2	7.74	27.2	6.82	6.01	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Surface	1	2	17.1	7.76	27.1	6.85	6.09	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Middle	2	1	17.4	7.68	27.3	6.75	5.87	7.9
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Middle	2	2	17.3	7.66	27.3	6.77	5.83	7.9
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Bottom	3	1	17.5	7.81	27.4	6.61	5.72	7.9
TMCLKL	HY/2012/07	2017-02-14	Mid-Flood	CS(Mf)3	11:03	Bottom	3	2	17.4	7.8	27.5	6.63	5.67	7.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Surface	1	1	17	7.79	26.9	6.56	6.31	8.6
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Surface	1	2	17.1	7.81	27	6.59	6.33	8.6
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Middle	2	1	17.2	7.94	27.1	6.64	6.42	8.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Middle	2	2	17.3	7.9	27.2	6.67	6.45	8.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Bottom	3	1	17.3	8.06	27.3	6.85	6.57	9.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)5	15:39	Bottom	3	2	17.3	8.09	27.4	6.88	6.55	9
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Surface	1	1	16.9	8.04	27.1	6.65	5.72	7.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Surface	1	2	17	8.07	27.2	6.68	5.75	7.6
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Bottom	3	1	17.1	7.92	27.3	6.73	6.01	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4a	15:17	Bottom	3	2	17.2	7.93	27.3	6.75	6.03	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Surface	1	1	16.9	7.79	27.1	6.47	5.88	7.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Surface	1	2	16.9	7.81	27.2	6.49	5.9	7.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Bottom	3	1	17	8.15	27.3	6.6	6.14	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	SR4	14:53	Bottom	3	2	17.1	8.13	27.4	6.63	6.11	8.1
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Surface	1	1	17	8.04	26.9	6.56	6	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Surface	1	2	16.9	8.07	27	6.59	6.03	8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Bottom	3	1	17.1	7.95	27.1	6.71	6.12	8.2
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS8	14:37	Bottom	3	2	17.2	7.97	27.2	6.74	6.14	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Surface	1	1	16.9	7.86	27	6.39	5.87	7.8
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Surface	1	2	17	7.88	27	6.42	5.9	7.9
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Middle	2	1	17.1	8.04	27.1	6.54	6.13	8.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Middle	2	2	17.2	8.07	27.2	6.57	6.15	8.2
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Bottom	3	1	17.3	7.99	27.3	6.62	6.27	8.5
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)16	14:14	Bottom	3	2	17.4	8.02	27.4	6.64	6.29	8.4
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Surface	1	1	16.9	7.85	26.9	6.43	6.13	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Surface	1	2	17	7.88	27	6.45	6.15	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Bottom	3	1	17.2	8.14	27.1	6.51	6.33	8.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	IS(Mf)9	13:50	Bottom	3	2	17.2	8.17	27.2	6.53	6.35	8.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Surface	1	1	17	8.05	27	6.6	6.17	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Surface	1	2	17.1	8.08	27	6.63	6.19	8.3
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Middle	2	1	17.2	8.13	27.1	6.77	6.24	8.4
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Middle	2	2	17.3	8.11	27.2	6.79	6.27	8.5
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Bottom	3	1	17.3	7.93	27.3	6.95	6.33	8.7
TMCLKL	HY/2012/07	2017-02-14	Mid-Ebb	CS(Mf)3	13:25	Bottom	3	2	17.4	7.96	27.4	6.93	6.37	8.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Surface	1	1	18	8.09	27	7.31	8.74	11.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Surface	1	2	17.9	8.07	27.1	7.34	8.69	11.8
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Middle	2	1	18.1	8.13	27.2	7.24	8.51	11.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Middle	2	2	18	8.16	27.2	7.21	8.58	11.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Bottom	3	1	17.9	8.2	27.2	7.42	8.54	12
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)5	9:40	Bottom	3	2	17.8	8.14	27.3	7.43	8.63	12.1
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Surface	1	1	17.9	7.96	27.1	7.25	7.96	11
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Surface	1	2	18	7.99	27.1	7.26	7.91	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Bottom	3	1	18.1	8.04	27.2	7.3	8.04	11.2
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4a	10:06	Bottom	3	2	18	8.07	27.1	7.34	8.12	11.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Surface	1	1	17.9	8.11	27.1	7.36	7.69	10.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Surface	1	2	17.9	8.14	27	7.38	7.61	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Bottom	3	1	18	8.02	27.2	7.2	7.82	11
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	SR4	10:23	Bottom	3	2	17.9	7.97	27.1	7.18	7.74	11

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Surface	1	1	18	8.1	27.1	7.31	7.52	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Surface	1	2	17.9	8.07	27.1	7.33	7.5	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Bottom	3	1	18.1	8.04	27.2	7.42	7.69	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS8	10:41	Bottom	3	2	18	8.01	27.1	7.44	7.64	10.8
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Surface	1	1	18	7.95	27	7.25	7.48	10.3
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Surface	1	2	18	7.99	26.9	7.26	7.45	10.3
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Middle	2	1	18.1	8.06	27.1	7.41	7.78	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Middle	2	2	18	8.09	27	7.45	7.96	10.8
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Bottom	3	1	17.8	8.12	27.2	7.18	7.56	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)16	11:01	Bottom	3	2	17.9	8.16	27.3	7.19	7.63	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Surface	1	1	17.9	8.16	27	7.18	7.85	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Surface	1	2	18	8.13	27.1	7.22	7.91	10.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Bottom	3	1	18.1	8.1	27.2	7.38	8.03	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	IS(Mf)9	11:21	Bottom	3	2	18.1	8.11	27.1	7.36	7.98	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Surface	1	1	18	8.05	27	7.32	8.32	11.1
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Surface	1	2	18.1	8.09	26.9	7.34	8.26	11
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Middle	2	1	18	8.12	27.1	7.39	8.16	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Middle	2	2	18	8.13	27	7.41	8.11	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Bottom	3	1	17.8	8.19	27.3	7.24	7.97	11
TMCLKL	HY/2012/07	2017-02-16	Mid-Flood	CS(Mf)3	11:45	Bottom	3	2	17.8	8.21	27.2	7.22	7.92	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Surface	1	1	18	8.1	27.1	7.13	8.56	11.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Surface	1	2	18.1	8.14	27	7.15	8.59	11.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Middle	2	1	18.1	8.16	27.1	7.08	8.43	11.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Middle	2	2	18	8.19	27.2	7.12	8.47	11.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Bottom	3	1	18.1	8.23	27.2	7.21	8.33	11.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)5	16:49	Bottom	3	2	18.2	8.17	27.2	7.24	8.35	11.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Surface	1	1	17.9	8.13	27	7.01	8.02	10.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Surface	1	2	18	8.16	27	7.04	8.06	10.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Bottom	3	1	18.1	8.07	27	7.15	8.07	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4a	16:25	Bottom	3	2	18	8.1	27.1	7.17	8.04	10.8
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Surface	1	1	18	8.14	27	7.21	7.87	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Surface	1	2	18	8.16	27	7.25	7.9	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Bottom	3	1	18.1	8.17	27.1	7.09	7.93	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	SR4	16:04	Bottom	3	2	18	8.2	27	7.11	7.96	10.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Surface	1	1	18	8.07	27.1	7.13	7.67	10.2
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Surface	1	2	18.1	8.1	27	7.17	7.69	10.2
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Bottom	3	1	18.1	8.15	27.2	7.26	7.76	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS8	15:45	Bottom	3	2	18.2	8.18	27.2	7.29	7.8	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Surface	1	1	18.1	8.11	27	7.33	7.77	10.3
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Surface	1	2	18.2	8.14	27.1	7.35	7.79	10.4
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Middle	2	1	18.2	8.14	27.1	7.23	7.9	10.5
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Middle	2	2	18.2	8.18	27.2	7.27	7.98	10.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Bottom	3	1	18.2	8.2	27.3	7.16	7.84	10.7
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)16	15:21	Bottom	3	2	18.3	8.17	27.3	7.2	7.88	10.6
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Surface	1	1	18	8.2	27.1	7.24	8.03	10.8
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Surface	1	2	18	8.23	27.2	7.25	8.1	10.9
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Bottom	3	1	18.1	8.27	27.2	7.36	8.12	11.1
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	IS(Mf)9	15:00	Bottom	3	2	18.2	8.24	27.3	7.39	8.18	11.2
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Surface	1	1	18.1	8.13	27.1	7.21	8.47	11.3
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Surface	1	2	18.1	8.15	27	7.24	8.43	11.3
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Middle	2	1	18	8.27	27.3	7.3	8.26	11.2
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Middle	2	2	18	8.24	27.2	7.36	8.2	11.1
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Bottom	3	1	18.1	8.16	27.1	7.25	8.03	11.1
TMCLKL	HY/2012/07	2017-02-16	Mid-Ebb	CS(Mf)3	14:37	Bottom	3	2	18.2	8.2	27.1	7.29	8.07	11.1

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Surface	1	1	17.8	7.96	27.1	7.46	8.41	11.4
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Surface	1	2	17.9	7.91	27	7.44	8.49	11.5
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Middle	2	1	18	8.02	27.2	7.38	8.56	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Middle	2	2	17.9	8.03	27.1	7.37	8.61	11.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Bottom	3	1	18.1	8.12	27.3	7.3	8.32	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)5	10:43	Bottom	3	2	18	8.11	27.2	7.29	8.27	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Surface	1	1	17.7	7.99	27.1	7.35	7.86	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Surface	1	2	17.8	8.04	27.1	7.38	7.74	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Bottom	3	1	17.8	8.11	27.2	7.22	7.92	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4a	11:09	Bottom	3	2	17.9	8.13	27.1	7.24	7.98	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Surface	1	1	17.9	7.95	26.9	7.49	8.01	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Surface	1	2	17.9	7.98	27	7.45	8.08	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Bottom	3	1	17.9	7.92	27.1	7.36	7.86	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	SR4	11:18	Bottom	3	2	17.8	7.88	27	7.33	7.81	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Surface	1	1	17.8	7.86	27	7.51	7.78	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Surface	1	2	17.8	7.89	27.1	7.5	7.71	10.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Bottom	3	1	17.9	7.93	27.1	7.42	7.95	11.3
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS8	11:36	Bottom	3	2	17.9	7.95	27.2	7.46	8.03	11.4
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Surface	1	1	17.8	7.82	27	7.36	8.04	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Surface	1	2	17.7	7.84	27.1	7.38	8.09	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Middle	2	1	17.9	7.92	27.1	7.45	8.12	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Middle	2	2	17.8	7.96	27.2	7.44	8.19	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Bottom	3	1	17.9	7.99	27.3	7.53	7.82	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)16	11:55	Bottom	3	2	18	8.02	27.2	7.56	7.88	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Surface	1	1	17.8	7.82	27	7.42	8.14	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Surface	1	2	17.9	7.83	27.1	7.45	8.19	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Bottom	3	1	18	7.89	27.1	7.39	8.23	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	IS(Mf)9	12:16	Bottom	3	2	17.9	7.92	27.1	7.37	8.27	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Surface	1	1	17.9	7.96	27	7.56	8.06	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Surface	1	2	18	7.98	27.1	7.59	8.12	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Middle	2	1	18	7.92	27.1	7.41	7.97	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Middle	2	2	18	7.9	27	7.43	7.92	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Bottom	3	1	17.8	7.83	27.2	7.48	8.14	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Flood	CS(Mf)3	12:40	Bottom	3	2	17.7	7.8	27.1	7.49	8.23	11.4
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Surface	1	1	18	7.89	27.1	7.45	8.09	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Surface	1	2	18	7.94	27.1	7.4	8.16	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Middle	2	1	18	7.98	27.1	7.33	8.19	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Middle	2	2	17.9	8.03	27.2	7.3	8.26	11.2
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Bottom	3	1	18.1	8.08	27.3	7.18	8.44	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)5	18:05	Bottom	3	2	18.1	8.11	27.3	7.23	8.39	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Surface	1	1	18	7.87	27.1	7.43	7.96	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Surface	1	2	18	7.94	27.1	7.47	8.03	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Bottom	3	1	18	7.99	27.2	7.4	8.07	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4a	17:44	Bottom	3	2	18	8.03	27.1	7.36	8.14	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Surface	1	1	18	7.89	27	7.55	8.34	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Surface	1	2	18	7.93	27	7.52	8.27	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Bottom	3	1	18	7.9	27	7.4	7.94	10.5
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	SR4	17:30	Bottom	3	2	18	7.94	27.1	7.37	8	10.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Surface	1	1	18	7.84	27	7.58	7.94	10.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Surface	1	2	18	7.8	27.1	7.54	8.03	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Bottom	3	1	18	7.82	27.1	7.49	8.16	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS8	17:16	Bottom	3	2	18	7.86	27.1	7.46	8.22	11.1

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Surface	1	1	18	7.78	27	7.44	8.16	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Surface	1	2	18.1	7.81	27	7.42	8.2	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Middle	2	1	18	7.88	27.1	7.35	8.27	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Middle	2	2	18	7.85	27.1	7.31	8.33	11.1
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Bottom	3	1	18	7.89	27.3	7.21	7.96	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)16	16:59	Bottom	3	2	18	7.92	27.3	7.18	8.01	10.7
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Surface	1	1	18	7.79	27.1	7.37	8.07	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Surface	1	2	18	7.83	27.1	7.41	8.16	11
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Bottom	3	1	18	7.83	27.1	7.26	8.44	11.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	IS(Mf)9	16:45	Bottom	3	2	18	7.8	27.1	7.23	8.37	11.5
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Surface	1	1	18	7.86	27.1	7.34	7.84	10.5
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Surface	1	2	18.1	7.93	27.2	7.38	7.92	10.6
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Middle	2	1	18	7.9	27.1	7.29	8.06	10.9
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Middle	2	2	18	7.94	27.1	7.26	7.99	10.8
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Bottom	3	1	17.9	7.82	27.3	7.32	8.2	11.3
TMCLKL	HY/2012/07	2017-02-18	Mid-Ebb	CS(Mf)3	16:25	Bottom	3	2	17.9	7.87	27.3	7.35	8.27	11.3
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Surface	1	1	17.6	7.63	27.1	7.38	8.16	11.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Surface	1	2	17.6	7.86	27	7.37	8.11	11.3
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Middle	2	1	17.5	7.79	27.2	7.46	7.99	11.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Middle	2	2	17.4	7.78	27.1	7.48	7.92	11.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Bottom	3	1	17.6	7.88	27.3	7.52	8.23	11.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)5	12:35	Bottom	3	2	17.7	7.89	27.2	7.53	8.18	11.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Surface	1	1	17.5	7.92	27.1	7.41	7.95	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Surface	1	2	17.6	7.96	27	7.44	8.04	10.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Bottom	3	1	17.6	7.88	27.2	7.56	8.16	11.2
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4a	13:01	Bottom	3	2	17.5	7.86	27.1	7.52	8.07	11.1
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Surface	1	1	17.7	7.82	27	7.52	7.92	10.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Surface	1	2	17.6	7.8	27.1	7.55	7.86	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Bottom	3	1	17.6	7.89	27.2	7.48	8.07	10.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	SR4	13:16	Bottom	3	2	17.5	7.92	27.1	7.46	8.01	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Surface	1	1	17.6	7.95	27.1	7.61	8.03	10.6
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Surface	1	2	17.5	7.91	27.1	7.63	8.08	10.6
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Bottom	3	1	17.7	7.86	27.1	7.54	8.15	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS8	13:33	Bottom	3	2	17.6	7.88	27.2	7.52	8.21	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Surface	1	1	17.5	7.84	27	7.48	7.97	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Surface	1	2	17.6	7.82	27.1	7.45	7.9	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Middle	2	1	17.6	7.95	27.1	7.52	7.84	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Middle	2	2	17.6	7.94	27.2	7.54	7.92	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Bottom	3	1	17.7	7.89	27.3	7.61	8.11	11.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)16	13:50	Bottom	3	2	17.6	7.86	27.2	7.6	8.03	11.2
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Surface	1	1	17.6	7.78	27.2	7.51	7.96	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Surface	1	2	17.5	7.74	27.1	7.54	7.85	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Bottom	3	1	17.6	7.7	27.2	7.44	8.02	11.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	IS(Mf)9	14:09	Bottom	3	2	17.6	7.68	27.3	7.4	8.09	11.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Surface	1	1	17.5	7.82	27.1	7.44	7.82	10.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Surface	1	2	17.4	7.85	27	7.4	7.88	10.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Middle	2	1	17.5	7.89	27.1	7.51	8.03	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Middle	2	2	17.5	7.9	27.2	7.53	8.09	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Bottom	3	1	17.6	7.76	27.3	7.36	8.11	11.3
TMCLKL	HY/2012/07	2017-02-21	Mid-Flood	CS(Mf)3	14:24	Bottom	3	2	17.5	7.77	27.2	7.33	8.19	11.2
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Surface	1	1	17.4	7.86	26.9	7.04	8.3	11.1
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Surface	1	2	17.5	7.88	27	7.07	8.34	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Middle	2	1	17.6	8.05	27.1	7.18	8.44	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Middle	2	2	17.6	8.08	27.2	7.2	8.47	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Bottom	3	1	17.7	7.94	27.3	7.24	8.59	11.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)5	10:34	Bottom	3	2	17.8	7.96	27.4	7.27	8.62	11.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Surface	1	1	17.5	7.95	27.1	7.25	8.05	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Surface	1	2	17.5	7.98	27.2	7.23	8.08	11.1
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Bottom	3	1	17.6	8.06	27.3	7.36	8.29	11.3
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4a	10:22	Bottom	3	2	17.7	8.09	27.3	7.39	8.31	11.3
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Surface	1	1	17.4	8.04	26.9	7.4	8.07	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Surface	1	2	17.5	8.08	27	7.38	8.07	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Bottom	3	1	17.6	7.95	27.1	7.52	8.14	11.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	SR4	10:10	Bottom	3	2	17.7	7.98	27.2	7.56	8.17	11.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Surface	1	1	17.5	7.95	27	7.37	7.95	11.1
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Surface	1	2	17.5	7.98	27.1	7.39	7.97	11.2
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Bottom	3	1	17.6	8.05	27.2	7.49	8.14	11.6
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS8	9:55	Bottom	3	2	17.7	8.08	27.3	7.47	8.17	11.7
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Surface	1	1	17.4	8.04	26.9	7.28	8.14	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Surface	1	2	17.4	8.07	27	7.3	8.17	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Middle	2	1	17.5	7.97	27.1	7.38	8.25	10.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Middle	2	2	17.6	7.95	27.2	7.41	8.28	10.8
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Bottom	3	1	17.7	8	27.3	7.55	8.35	11.1
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)16	9:35	Bottom	3	2	17.6	8.04	27.3	7.58	8.38	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Surface	1	1	17.4	8.07	26.9	7.35	8.12	10.6
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Surface	1	2	17.5	8.09	27	7.38	8.14	10.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Bottom	3	1	17.7	8.14	27.3	7.52	8.35	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	IS(Mf)9	9:20	Bottom	3	2	17.8	8.17	27.4	7.55	8.37	11
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Surface	1	1	17.5	7.88	27.1	7.09	7.99	10.4
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Surface	1	2	17.5	7.91	27.2	7.11	8.01	10.5
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Middle	2	1	17.6	8.13	27.3	7.14	8.03	10.8

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Middle	2	2	17.6	8.11	27.3	7.18	8.05	10.9
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Bottom	3	1	17.7	8.04	27.4	7.25	8.16	11.2
TMCLKL	HY/2012/07	2017-02-21	Mid-Ebb	CS(Mf)3	9:00	Bottom	3	2	17.8	8.07	27.5	7.23	8.19	11.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Surface	1	1	18	7.82	27.3	7.67	7.94	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Surface	1	2	18.1	7.83	27.3	7.69	7.96	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Middle	2	1	18.1	7.63	27.4	7.45	8.21	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Middle	2	2	18.1	7.65	27.3	7.46	8.2	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Bottom	3	1	18.1	8.13	27.4	7.68	8.03	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)5	14:42	Bottom	3	2	18.2	8.14	27.4	7.66	8.05	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Surface	1	1	18.2	7.67	27.2	7.87	7.55	10.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Surface	1	2	18.1	7.64	27.2	7.88	7.56	10.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Bottom	3	1	18.2	7.96	27.3	8.09	8.11	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4a	15:07	Bottom	3	2	18.2	7.99	27.3	8.11	8.13	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Surface	1	1	18.1	8.12	27.3	7.28	7.1	9.8
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Surface	1	2	18.2	8.13	27.3	7.3	7.15	9.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Bottom	3	1	18.2	8.19	27.4	7.61	8.03	11.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	SR4	15:24	Bottom	3	2	18.3	8.21	27.5	7.59	8.08	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Surface	1	1	18.2	8	27.4	7.28	7.66	10.6
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Surface	1	2	18.2	7.98	27.3	7.3	7.68	10.7
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Bottom	3	1	18.2	8.16	27.4	7.43	8.15	11.6
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS8	15:40	Bottom	3	2	18.3	8.18	27.4	7.45	8.14	11.6
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Surface	1	1	18.2	8.09	27.5	7.69	7.5	10.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Surface	1	2	18.3	8.11	27.4	7.71	7.48	10.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Middle	2	1	18.3	8.13	27.5	7.82	7.66	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Middle	2	2	18.3	8.1	27.6	7.85	7.65	10.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Bottom	3	1	18.3	8.15	27.6	8.06	8	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)16	16:00	Bottom	3	2	18.3	8.18	27.6	8.08	8.03	11

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Surface	1	1	18.3	8.12	27.5	7.23	7.69	10.2
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Surface	1	2	18.4	8.15	27.5	7.27	7.71	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Bottom	3	1	18.4	8.03	27.6	7.86	7.95	10.8
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	IS(Mf)9	16:20	Bottom	3	2	18.4	8.06	27.6	7.87	7.97	10.8
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Surface	1	1	18.2	8.09	27.3	7.66	8.02	10.7
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Surface	1	2	18.3	8.11	27.4	7.68	8	10.6
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Middle	2	1	18.3	8.19	27.4	7.54	8.13	10.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Middle	2	2	18.3	8.21	27.4	7.53	8.15	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Bottom	3	1	18.3	8.12	27.5	7.71	7.96	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Flood	CS(Mf)3	16:44	Bottom	3	2	18.4	8.13	27.5	7.73	7.99	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Surface	1	1	17.8	8.01	27.3	7.59	8.07	11.1
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Surface	1	2	17.8	8.02	27.3	7.55	8.01	11.1
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Middle	2	1	17.9	8.05	27.5	7.62	8.44	11.7
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Middle	2	2	18	8.04	27.4	7.59	8.48	11.8
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Bottom	3	1	18	8.06	27.5	7.41	8.52	11.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)5	12:52	Bottom	3	2	18	8.05	27.5	7.44	8.47	11.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Surface	1	1	17.8	8.03	27.4	7.31	7.82	10.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Surface	1	2	17.8	8.02	27.3	7.35	7.76	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Bottom	3	1	17.9	8.04	27.4	7.19	8.47	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4a	12:25	Bottom	3	2	17.9	8.03	27.4	7.23	8.41	11.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Surface	1	1	17.7	8.01	27.2	7.12	7.43	9.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Surface	1	2	17.8	8.02	27.2	7.15	7.48	9.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Bottom	3	1	17.8	8.04	27.3	7.3	8.37	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	SR4	12:03	Bottom	3	2	17.8	8.05	27.2	7.34	8.31	11.1
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Surface	1	1	17.8	7.98	27.1	7.08	7.96	10.6
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Surface	1	2	17.8	7.99	27.2	7.05	7.92	10.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Bottom	3	1	17.7	8.02	27.4	7.21	8.54	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS8	11:43	Bottom	3	2	17.8	8.04	27.4	7.25	8.5	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Surface	1	1	17.7	8.03	27.2	7.44	7.74	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Surface	1	2	17.7	8.03	27.3	7.47	7.7	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Middle	2	1	17.9	8.04	27.4	7.62	8.12	10.8
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Middle	2	2	17.9	8.04	27.4	7.65	8.17	10.9
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Bottom	3	1	18	8.05	27.5	7.39	8.29	11.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)16	11:22	Bottom	3	2	18	8.04	27.5	7.36	8.25	11.1
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Surface	1	1	17.8	8.02	27.1	7.27	7.67	10.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Surface	1	2	17.8	8.03	27.2	7.31	7.62	10.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Bottom	3	1	17.7	8.05	27.4	7.46	8.01	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	IS(Mf)9	11:03	Bottom	3	2	17.8	8.06	27.5	7.49	8.05	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Surface	1	1	17.8	7.97	27.1	7.33	8.24	11
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Surface	1	2	17.7	7.99	27.2	7.37	8.37	11.2
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Middle	2	1	17.9	8.03	27.3	7.27	8.44	11.4
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Middle	2	2	17.8	8.04	27.3	7.24	8.49	11.5
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Bottom	3	1	17.9	8.06	27.4	7.55	8.22	11.3
TMCLKL	HY/2012/07	2017-02-23	Mid-Ebb	CS(Mf)3	10:43	Bottom	3	2	18	8.05	27.5	7.51	8.18	11.2
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Surface	1	1	16.5	8.13	27.1	7.44	7.69	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Surface	1	2	16.6	8.11	27.2	7.47	7.72	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Middle	2	1	16.7	7.94	27.3	7.58	7.84	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Middle	2	2	16.7	7.96	27.3	7.61	7.88	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Bottom	3	1	16.8	8	27.4	7.73	7.99	11.3
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)5	16:15	Bottom	3	2	16.9	8.03	27.5	7.75	8.01	11.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Surface	1	1	16.6	7.93	26.9	7.37	7.76	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Surface	1	2	16.7	7.95	27	7.39	7.79	10.8
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Bottom	3	1	16.8	8.12	27.1	7.25	7.94	11.2
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4a	16:37	Bottom	3	2	16.8	8.15	27.2	7.23	7.91	11.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Surface	1	1	16.5	7.96	27	7.54	7.69	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Surface	1	2	16.6	7.98	27.1	7.57	7.68	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Bottom	3	1	16.7	8.13	27.2	7.68	7.84	11.1
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	SR4	16:58	Bottom	3	2	16.8	8.17	27.3	7.71	7.88	11.2
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Surface	1	1	16.6	8.13	26.9	7.68	7.6	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Surface	1	2	16.6	8.17	26.9	7.71	7.63	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Bottom	3	1	16.7	7.99	27.1	7.88	7.7	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS8	17:19	Bottom	3	2	16.8	8.01	27.2	7.9	7.72	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Surface	1	1	16.7	8.05	26.9	7.45	7.45	10.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Surface	1	2	16.6	8.03	26.8	7.47	7.47	10.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Middle	2	1	16.8	7.96	27	7.58	7.56	10.1
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Middle	2	2	16.9	7.94	27.1	7.6	7.59	10.3
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Bottom	3	1	17	8.11	27.2	7.66	7.61	10.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)16	17:42	Bottom	3	2	17.1	8.13	27.3	7.69	7.63	10.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Surface	1	1	16.6	7.86	27.1	7.58	7.76	10.3
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Surface	1	2	16.7	7.89	27.2	7.61	7.79	10.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Bottom	3	1	16.8	8.14	27.3	7.43	7.94	10.8
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	IS(Mf)9	18:10	Bottom	3	2	16.9	8.12	27.4	7.46	7.97	10.8
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Surface	1	1	16.7	8.13	26.9	7.45	7.94	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Surface	1	2	16.7	8.1	26.9	7.48	7.92	10.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Middle	2	1	16.8	7.94	27	7.56	8.15	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Middle	2	2	16.9	7.97	27.1	7.59	8.17	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Bottom	3	1	17	8.05	27.3	7.63	8.33	11.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Flood	CS(Mf)3	18:30	Bottom	3	2	17.1	8.07	27.4	7.6	8.37	11.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Surface	1	1	17.1	7.79	26.9	7.33	8.33	11.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Surface	1	2	17.1	7.82	27	7.29	8.27	11.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Middle	2	1	17.1	7.8	27	7.21	8.39	11.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Middle	2	2	17.1	7.77	27.1	7.18	8.44	11.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Bottom	3	1	17.2	7.84	27.2	7.09	8.15	11.4
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)5	13:57	Bottom	3	2	17.3	7.87	27.3	7.11	8.21	11.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Surface	1	1	17.1	7.83	26.9	7.29	8.05	10.8
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Surface	1	2	17.2	7.86	26.9	7.26	7.98	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Bottom	3	1	17.2	7.89	27	7.18	8.1	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4a	13:33	Bottom	3	2	17.2	7.92	27	7.15	8.18	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Surface	1	1	17	7.68	26.9	7.32	8.23	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Surface	1	2	17.1	7.72	26.9	7.27	8.27	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Bottom	3	1	17.1	7.7	27	7.15	8	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	SR4	13:16	Bottom	3	2	17.1	7.74	27	7.12	8.08	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Surface	1	1	17.1	7.73	27	7.4	7.93	10.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Surface	1	2	17.1	7.78	26.9	7.35	7.99	10.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Bottom	3	1	17.1	7.78	27	7.21	8.13	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS8	12:58	Bottom	3	2	17.1	7.8	27	7.17	8.06	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Surface	1	1	17.1	7.84	26.9	7.23	8.34	11.1
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Surface	1	2	17.1	7.8	27	7.2	8.41	11.3
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Middle	2	1	17.1	7.78	27	7.27	8.2	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Middle	2	2	17.1	7.8	27.1	7.31	8.14	10.8
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Bottom	3	1	17.2	7.83	27.2	7.34	8.06	11
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)16	12:36	Bottom	3	2	17.3	7.81	27.3	7.37	8	10.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Surface	1	1	17.1	7.77	26.9	7.48	8.56	11.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Surface	1	2	17.1	7.81	26.9	7.45	8.6	11.6
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Bottom	3	1	17.1	7.8	26.9	7.4	8.4	11.5
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	IS(Mf)9	12:18	Bottom	3	2	17.1	7.83	27	7.37	8.47	11.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Surface	1	1	17.2	7.83	26.9	7.38	8.34	11.2
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Surface	1	2	17.1	7.8	27	7.41	8.41	11.3
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Middle	2	1	17.2	7.81	27	7.44	8.09	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Middle	2	2	17.2	7.78	27	7.47	8.11	10.9
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Bottom	3	1	17.3	7.8	27.1	7.33	8.46	11.7
TMCLKL	HY/2012/07	2017-02-25	Mid-Ebb	CS(Mf)3	11:54	Bottom	3	2	17.4	7.76	27.1	7.3	8.54	11.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Surface	1	1	17	7.87	26.8	7.27	8.31	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Surface	1	2	17.1	7.83	26.9	7.3	8.37	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Middle	2	1	17.2	7.64	27	7.14	8.42	11.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Middle	2	2	17.3	7.68	27	7.17	8.44	11.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Bottom	3	1	17.3	7.7	27.1	7.05	8.11	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)5	8:32	Bottom	3	2	17.4	7.73	27.2	7.09	8.15	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Surface	1	1	17	7.65	26.9	7.22	8.03	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Surface	1	2	17.1	7.69	26.9	7.27	8.07	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Bottom	3	1	17.2	7.74	27	7.13	8.14	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4a	8:49	Bottom	3	2	17.2	7.76	27.1	7.18	8.17	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Surface	1	1	17.1	7.56	26.9	7.35	8.2	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Surface	1	2	17.2	7.59	26.8	7.37	8.24	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Bottom	3	1	17.2	7.84	27	7.07	8.01	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	SR4	9:03	Bottom	3	2	17.3	7.88	27.1	7.1	8.07	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Surface	1	1	17	7.57	26.9	7.44	7.83	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Surface	1	2	17.2	7.53	27	7.47	7.87	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Bottom	3	1	17.2	7.69	27.1	7.12	7.96	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS8	9:17	Bottom	3	2	17.3	7.71	27.2	7.16	7.99	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Surface	1	1	17.1	7.62	26.9	7.33	8.36	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Surface	1	2	17.1	7.67	26.8	7.36	8.39	11.7
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Middle	2	1	17.2	7.9	26.9	7.29	8.11	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Middle	2	2	17.3	7.95	27.1	7.25	8.17	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Bottom	3	1	17.3	7.86	27.1	7.27	8.02	11
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)16	9:30	Bottom	3	2	17.3	7.88	27.2	7.3	8.08	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Surface	1	1	17	7.62	26.9	7.4	8.47	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Surface	1	2	17.1	7.65	27	7.44	8.5	11.4
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Bottom	3	1	17.1	7.73	27	7.31	8.36	11.4
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	IS(Mf)9	9:48	Bottom	3	2	17.2	7.77	27.1	7.35	8.38	11.4
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Surface	1	1	17	7.78	26.9	7.42	8.35	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Surface	1	2	17.1	7.72	26.9	7.45	8.39	11.2
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Middle	2	1	17.1	7.69	27	7.51	8.02	10.7
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Middle	2	2	17.1	7.73	27.1	7.56	8.06	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Bottom	3	1	17.2	7.85	27	7.17	8.47	11.7
TMCLKL	HY/2012/07	2017-02-28	Mid-Flood	CS(Mf)3	10:02	Bottom	3	2	17.1	7.9	27	7.21	8.43	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Surface	1	1	17.3	7.85	27	7.16	8.39	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Surface	1	2	17.2	7.88	27	7.18	8.45	11.7
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Middle	2	1	17.3	7.66	27.2	7.02	8.49	11.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Middle	2	2	17.3	7.7	27.1	7.05	8.46	11.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Bottom	3	1	17.5	7.75	27.3	6.99	8.22	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)5	14:09	Bottom	3	2	17.4	7.71	27.3	6.96	8.17	11.4
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Surface	1	1	17.2	7.71	27.1	7.1	8.12	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Surface	1	2	17.2	7.67	27	7.14	8.17	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Bottom	3	1	17.4	7.77	27.3	7.08	8.24	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4a	13:54	Bottom	3	2	17.3	7.73	27.2	7.04	8.2	11
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Surface	1	1	17.3	7.58	27	7.24	8.31	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Surface	1	2	17.3	7.54	27	7.21	8.27	11
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Bottom	3	1	17.4	7.86	27.2	7.02	8.18	10.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	SR4	13:39	Bottom	3	2	17.3	7.89	27.1	6.99	8.12	10.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Surface	1	1	17.3	7.55	27.1	7.38	8.01	10.7
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Surface	1	2	17.2	7.59	27	7.36	7.96	10.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Bottom	3	1	17.3	7.7	27.2	7.02	8.09	10.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS8	13:25	Bottom	3	2	17.3	7.74	27.2	7.05	8.07	10.9

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Surface	1	1	17.3	7.69	27	7.21	8.48	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Surface	1	2	17.3	7.64	27.1	7.24	8.44	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Middle	2	1	17.4	7.97	27.2	7.15	8.2	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Middle	2	2	17.3	7.91	27.1	7.19	8.25	11
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Bottom	3	1	17.6	7.89	27.2	7.19	8.18	11.1
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)16	13:08	Bottom	3	2	17.5	7.86	27.3	7.15	8.11	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Surface	1	1	17.2	7.63	27	7.31	8.59	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Surface	1	2	17.1	7.67	27	7.29	8.55	11.5
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Middle	2	1						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Middle	2	2						
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Bottom	3	1	17.2	7.78	27.2	7.24	8.48	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	IS(Mf)9	12:52	Bottom	3	2	17.2	7.74	27.1	7.22	8.45	11.6
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Surface	1	1	17.1	7.74	27.1	7.32	8.46	11.3
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Surface	1	2	17.2	7.79	27	7.34	8.51	11.4
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Middle	2	1	17.3	7.74	27.1	7.44	8.15	11
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Middle	2	2	17.2	7.71	27.1	7.39	8.11	10.9
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	1	17.3	7.86	27.2	7.1	8.57	11.8
TMCLKL	HY/2012/07	2017-02-28	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	2	17.3	7.89	27.3	7.07	8.54	11.7

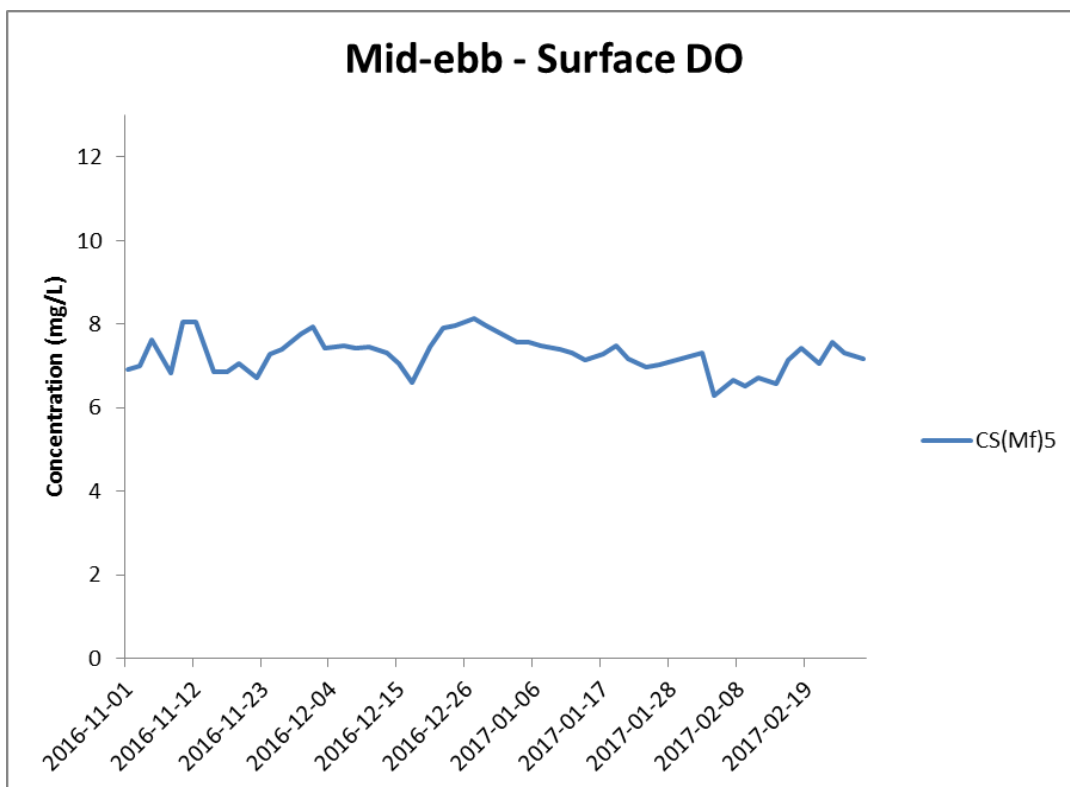
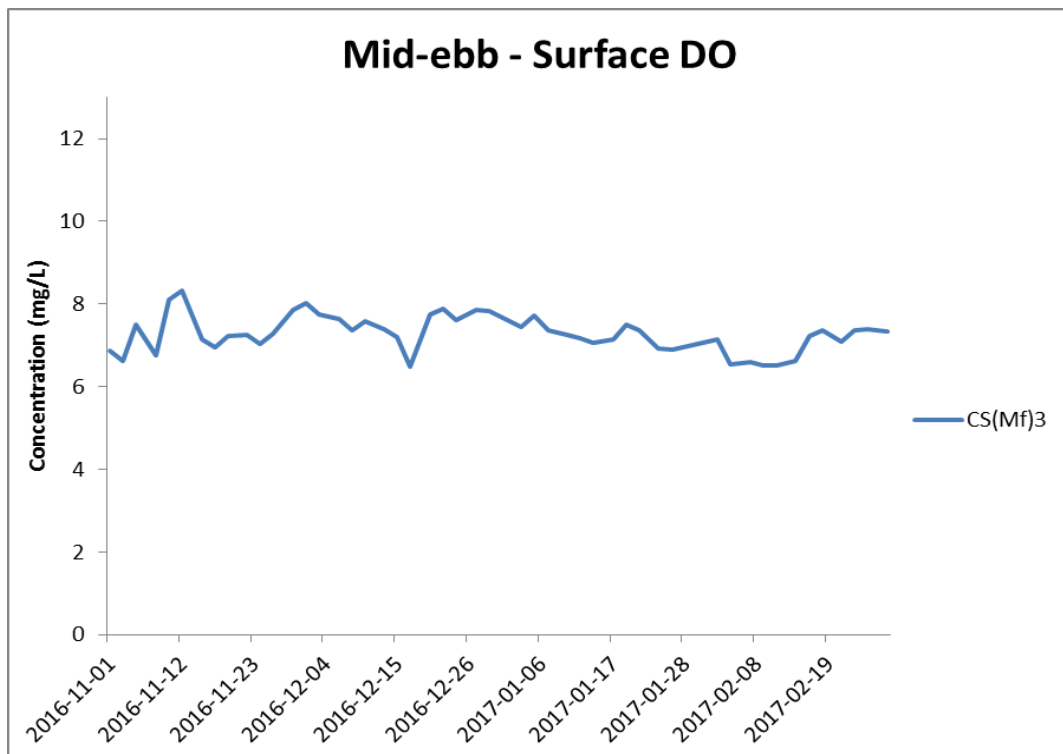


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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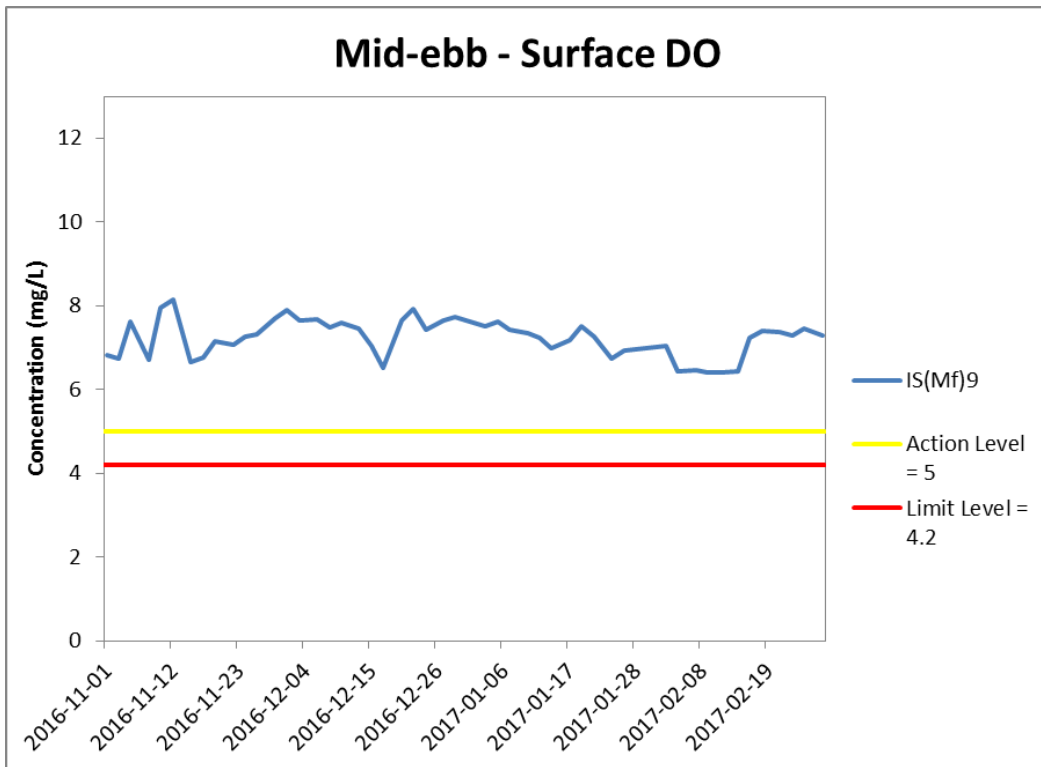
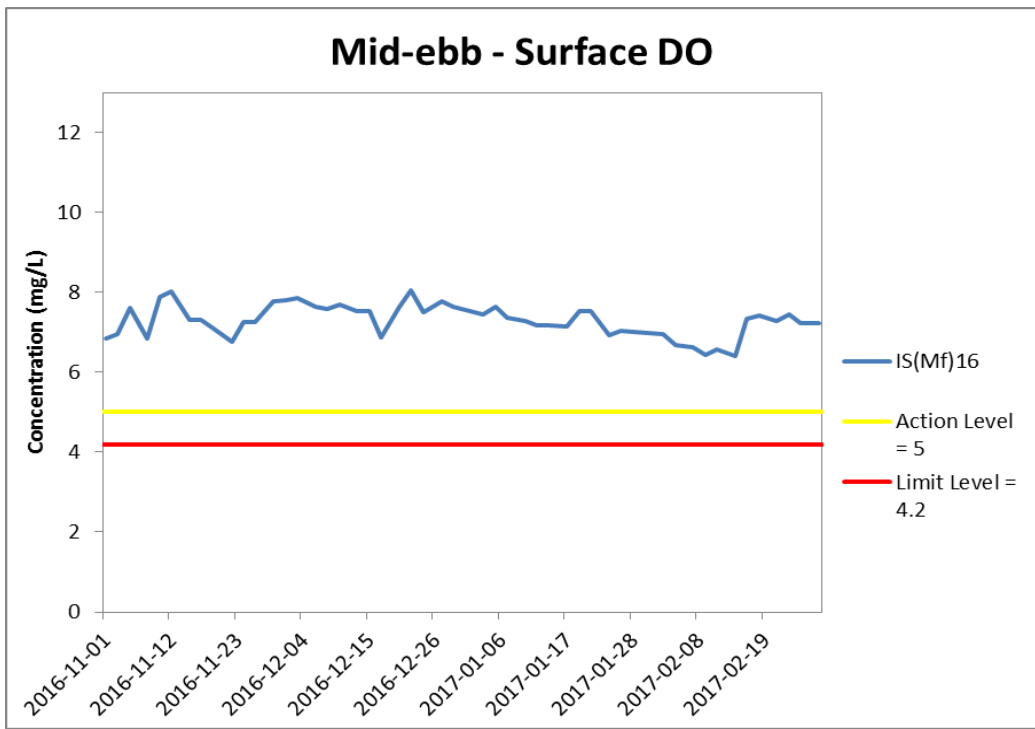


Figure J2 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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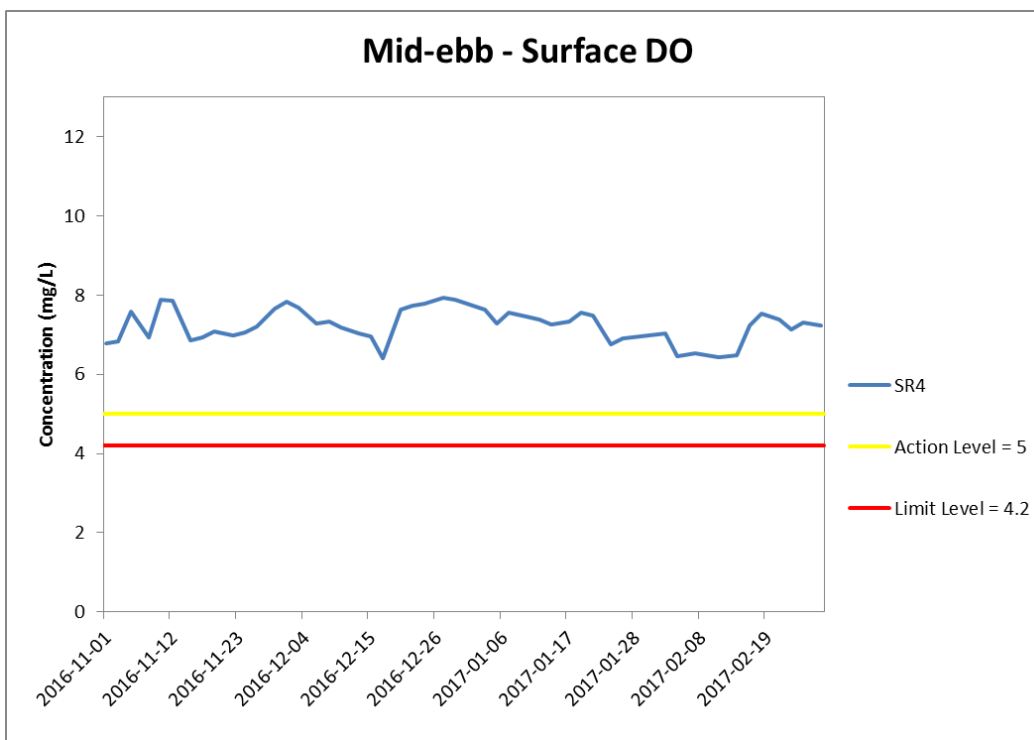
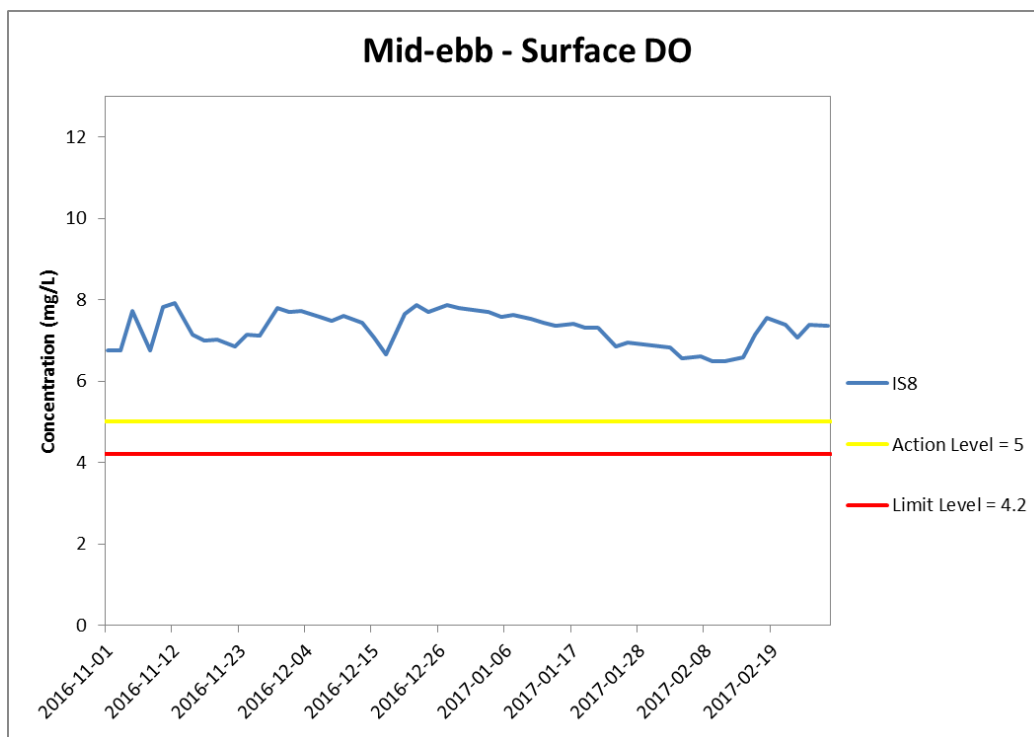


Figure J3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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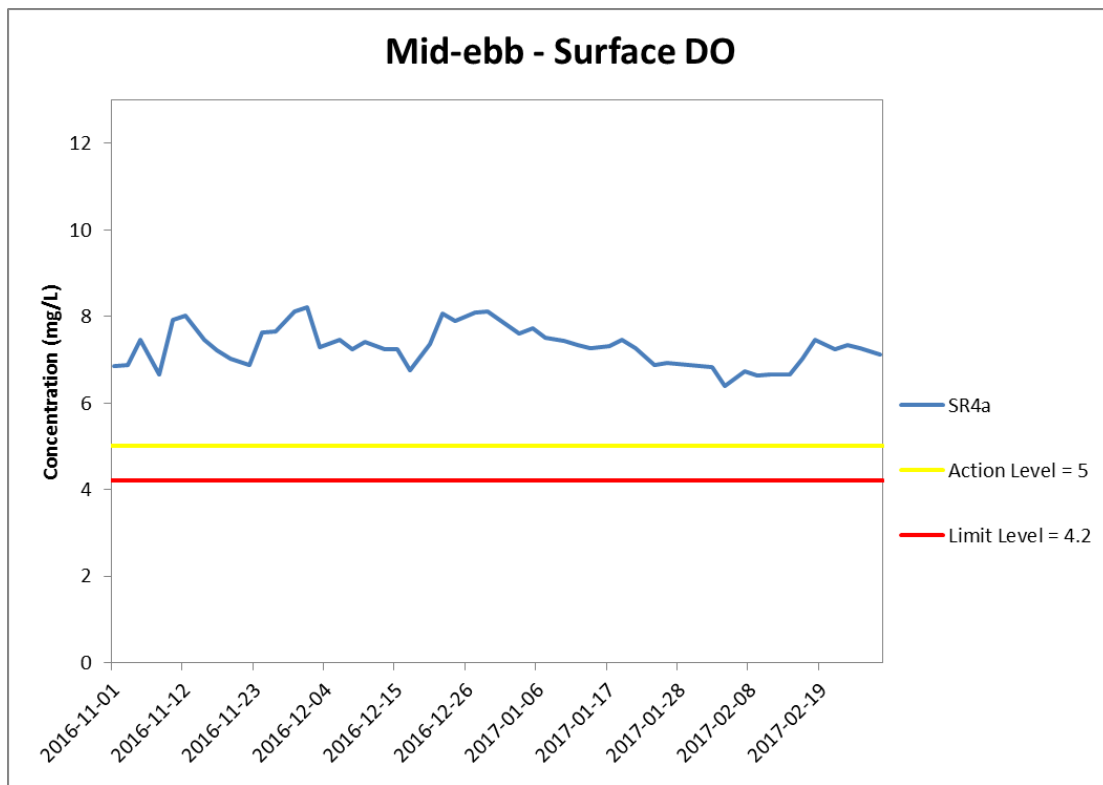


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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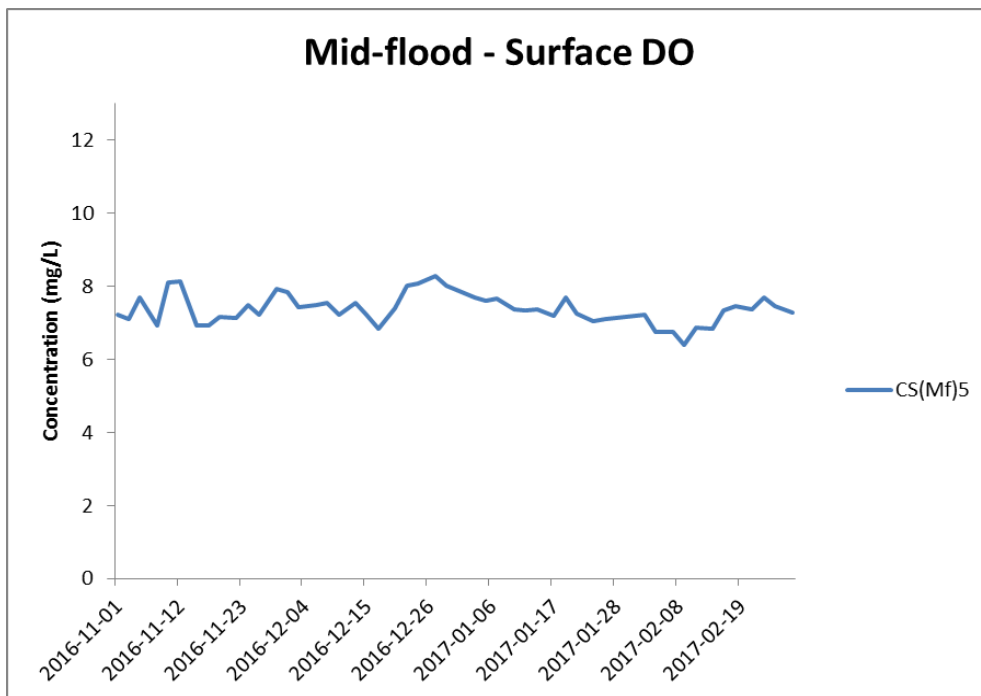
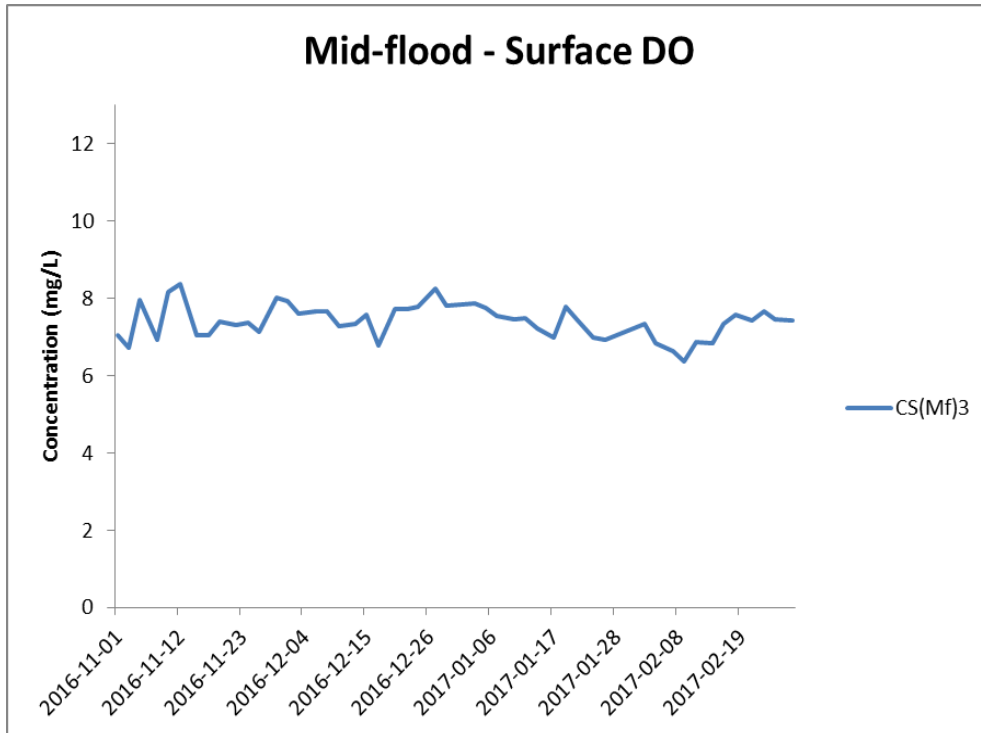


Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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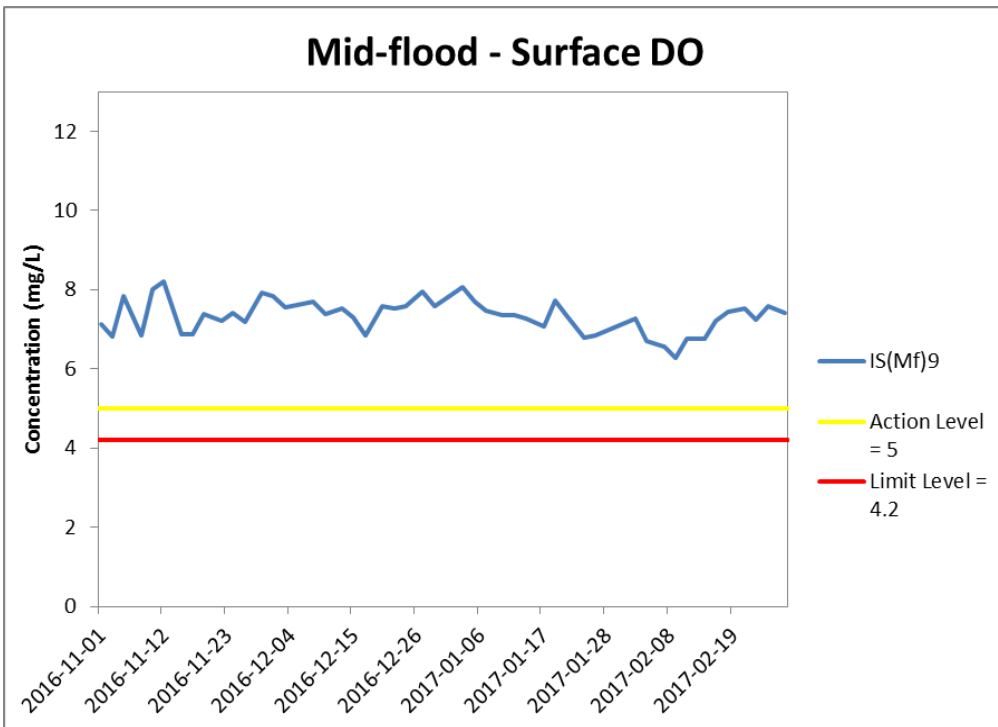
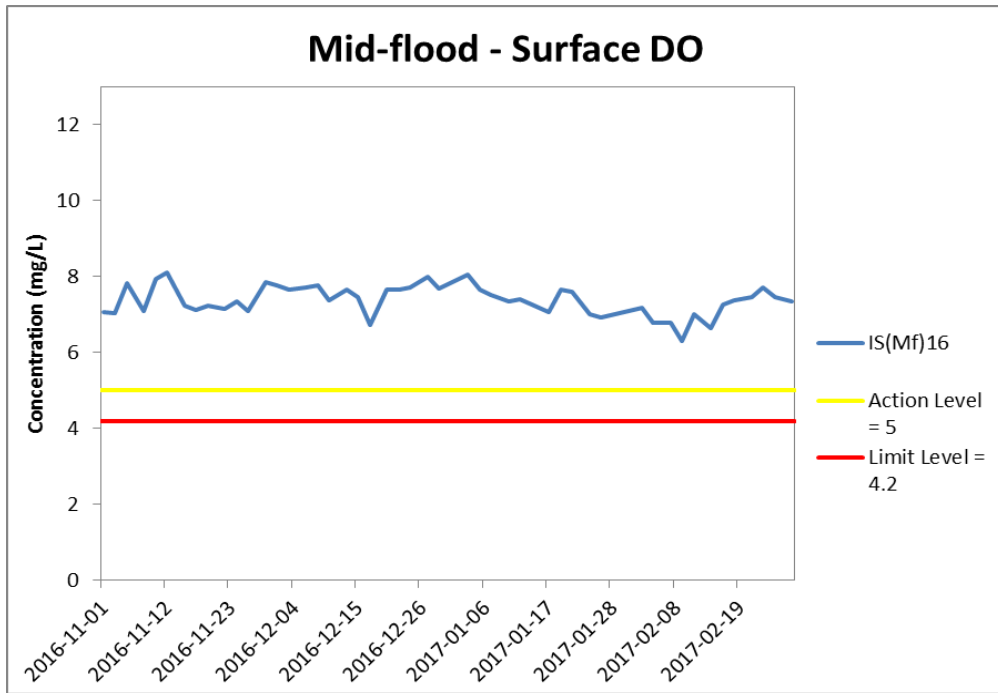


Figure J6 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

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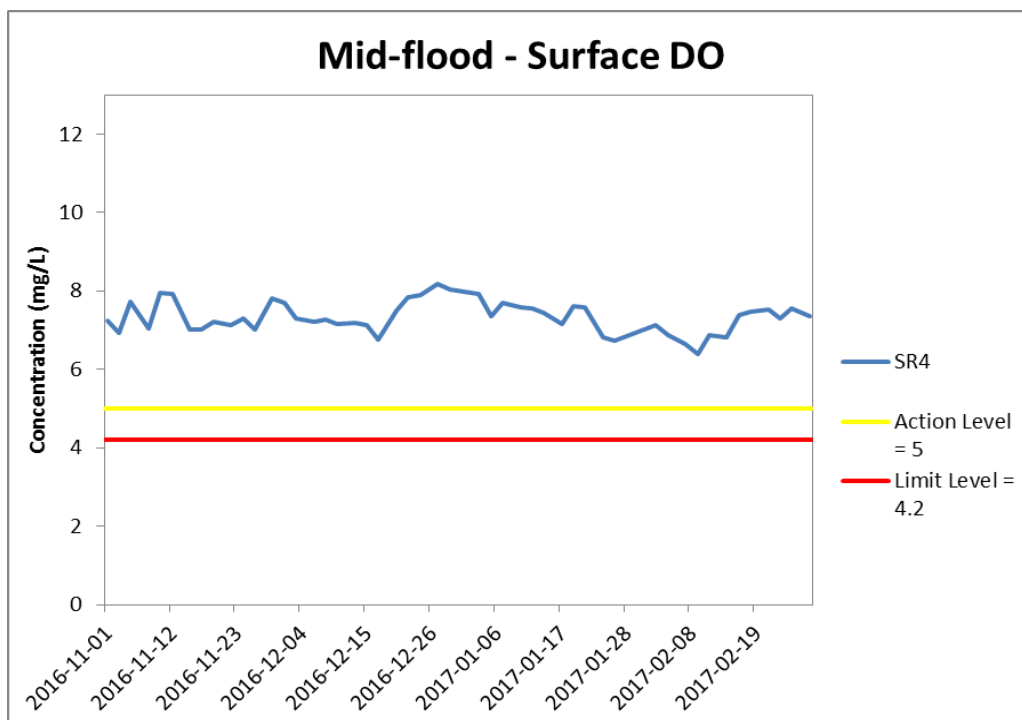
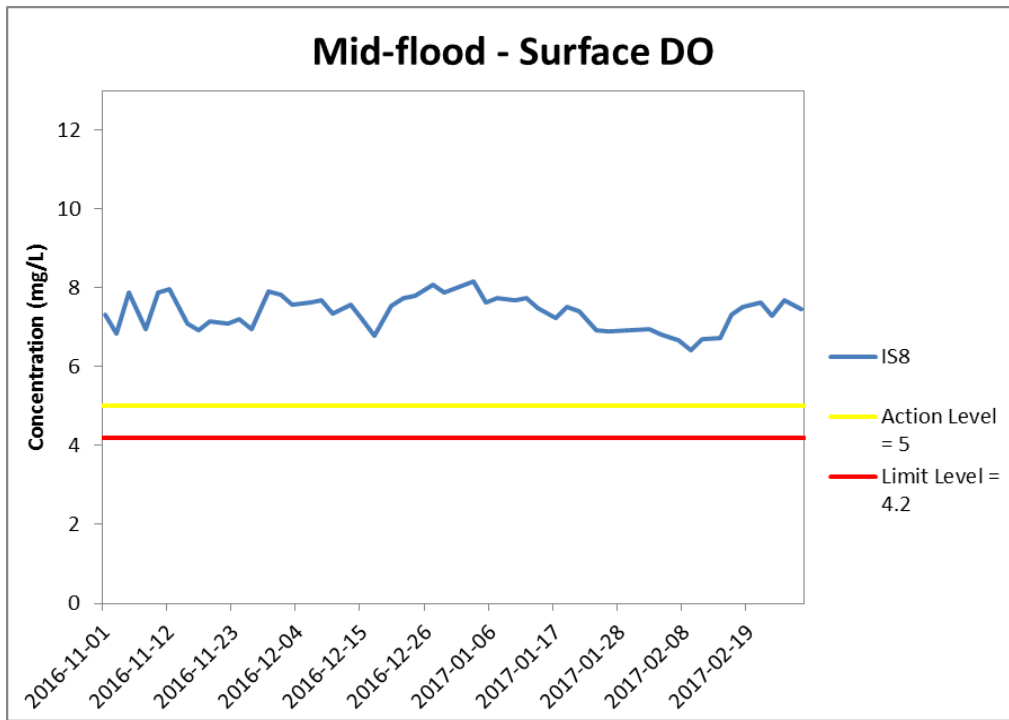


Figure J7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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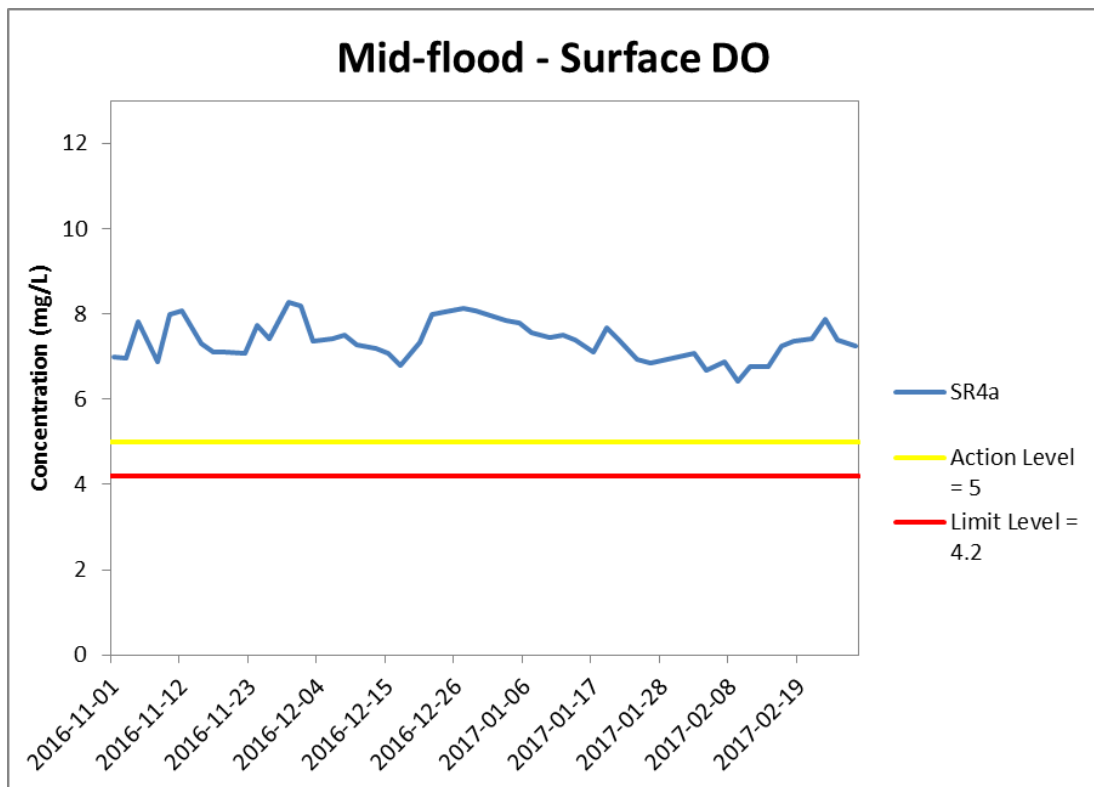


Figure J8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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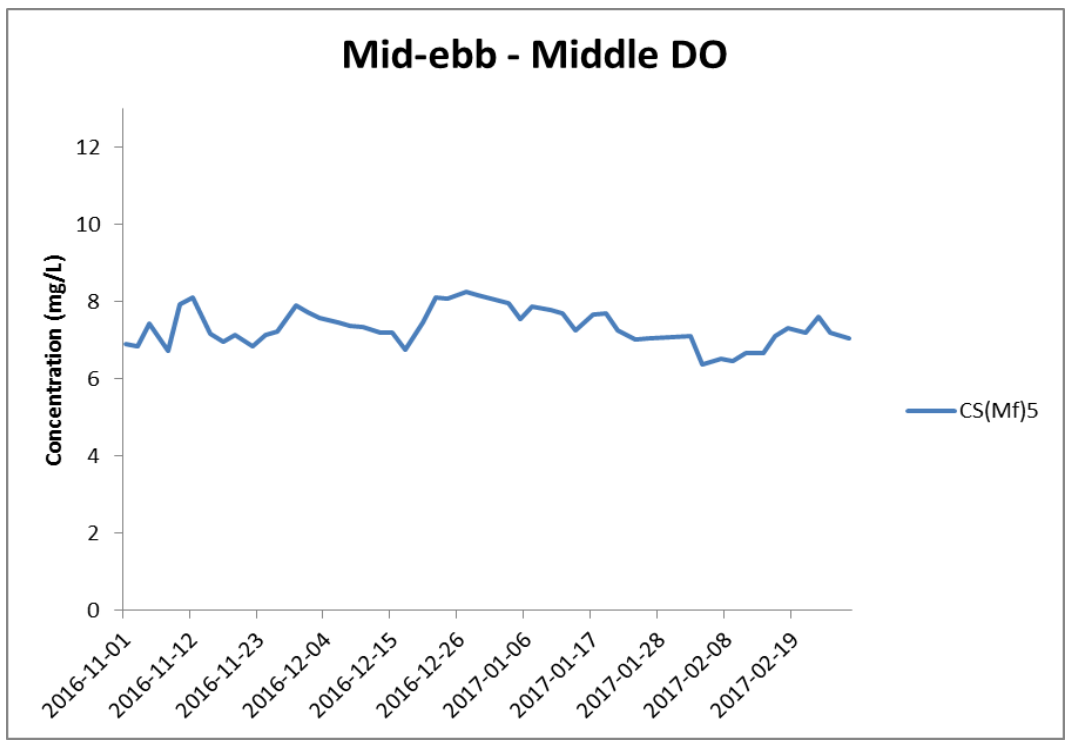
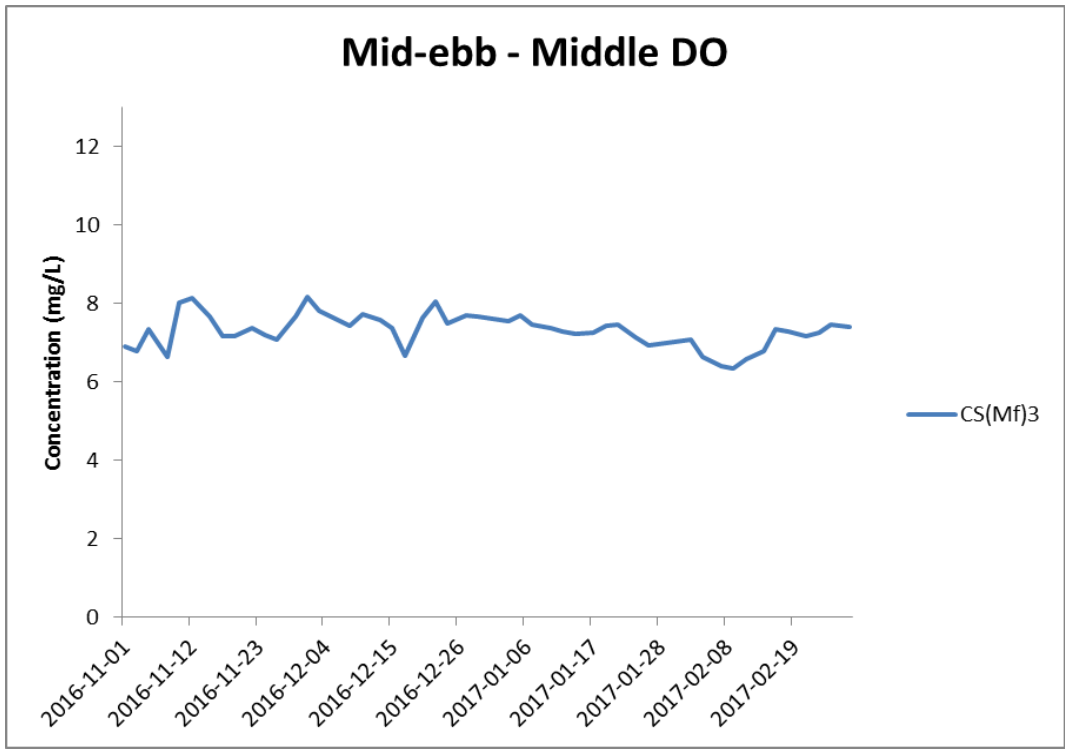


Figure J9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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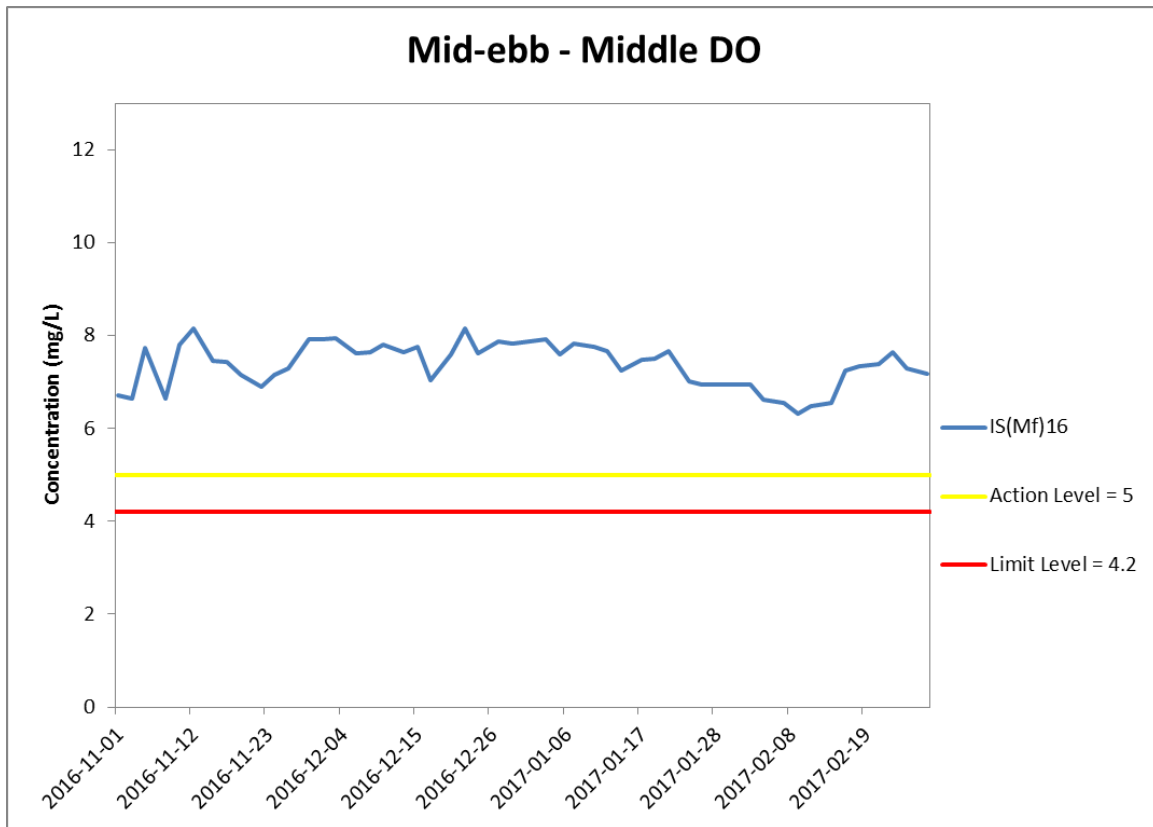


Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS(Mf)16.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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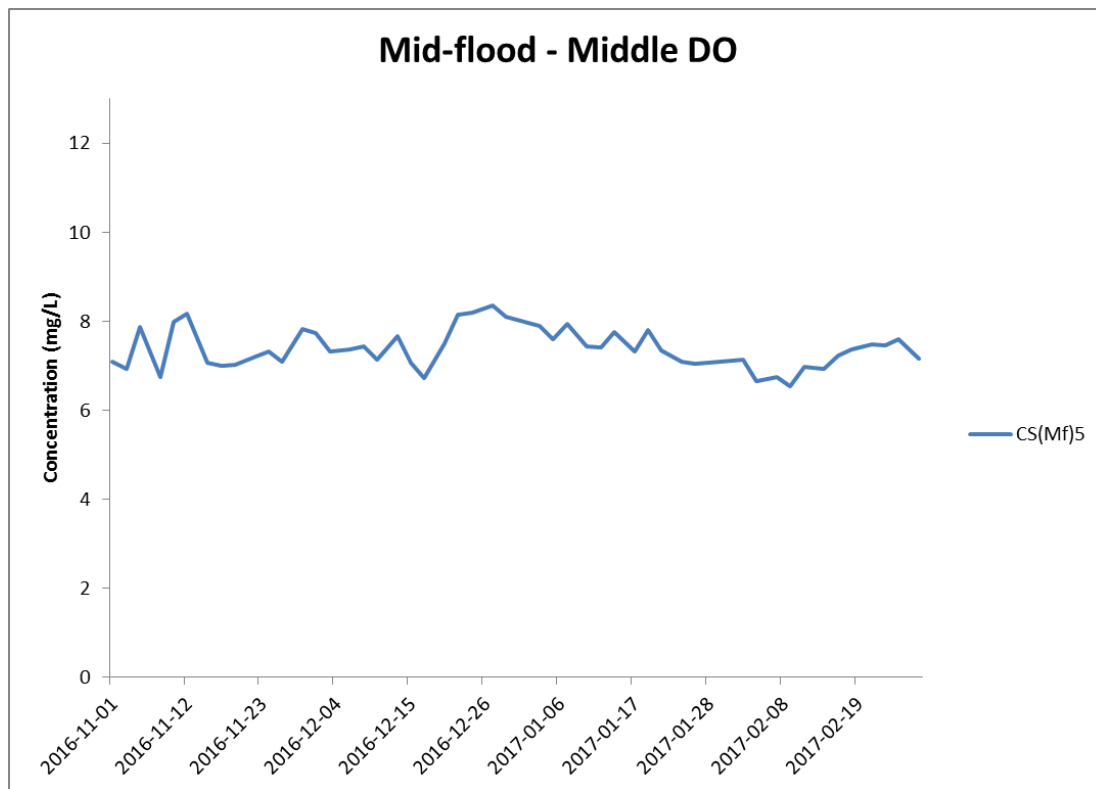
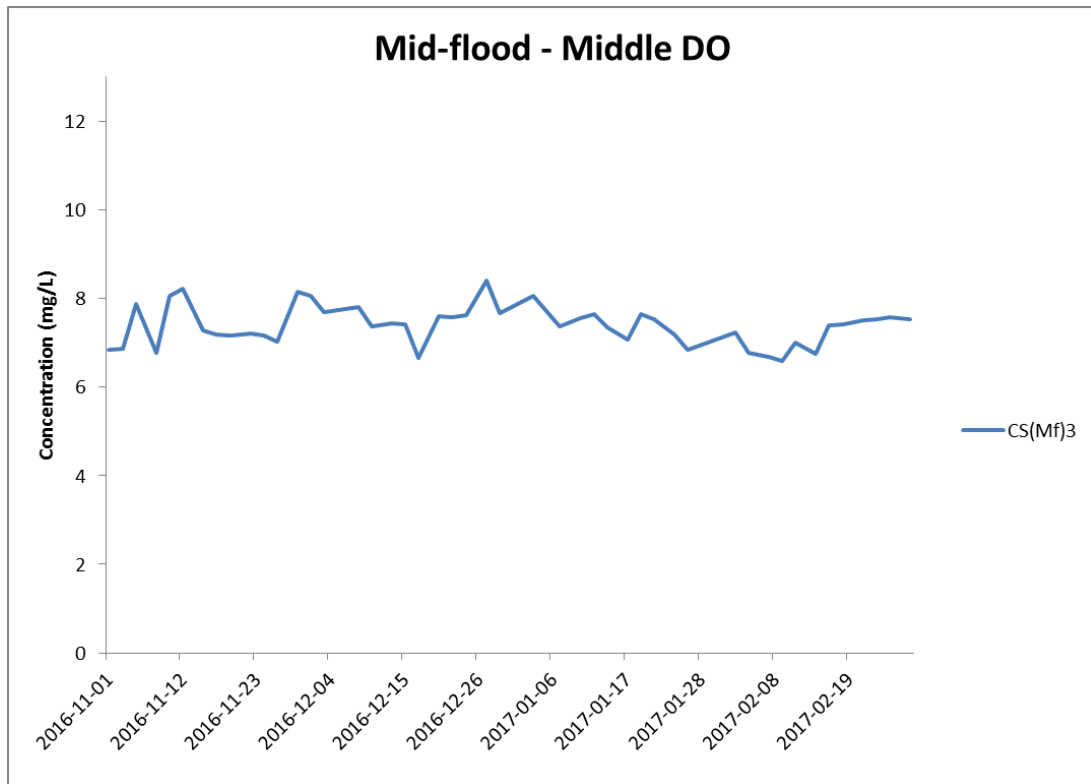


Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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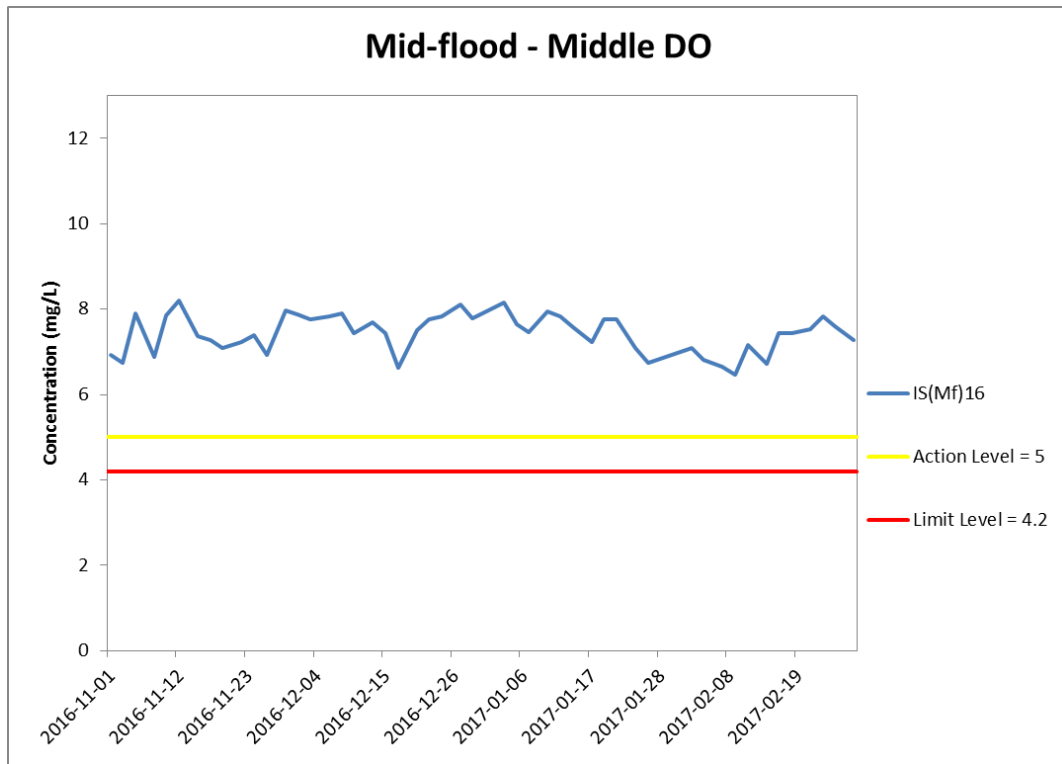


Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 November 2016 and 28 February 2017 at IS(Mf)16.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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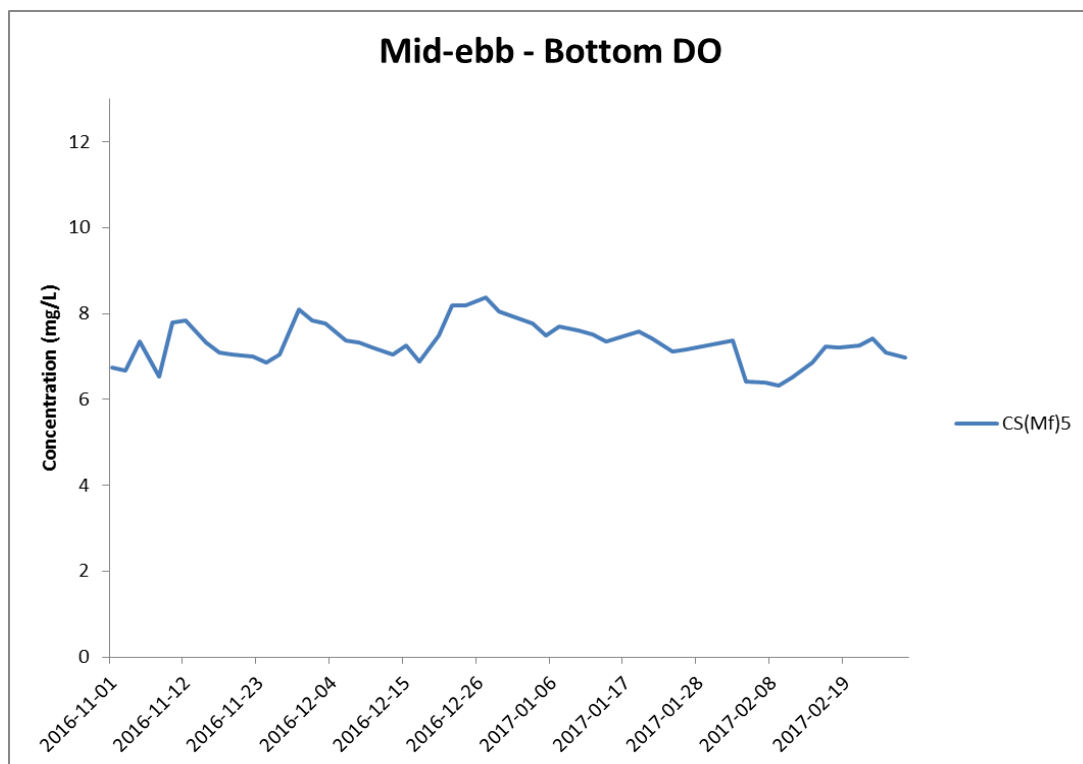
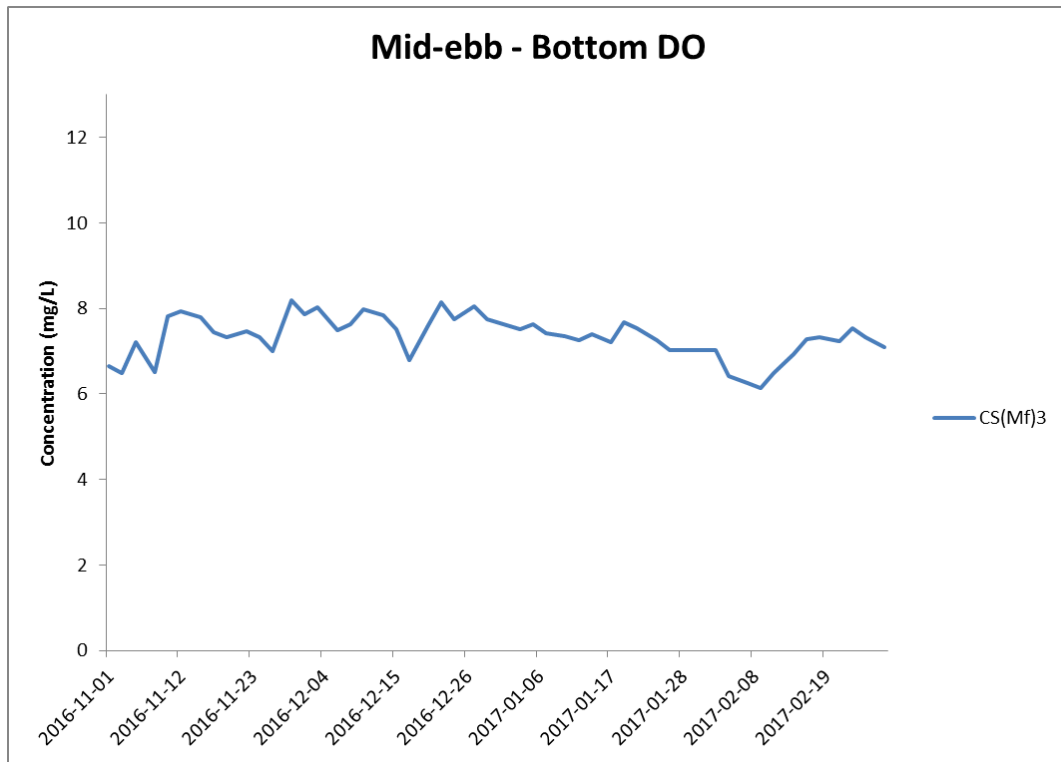


Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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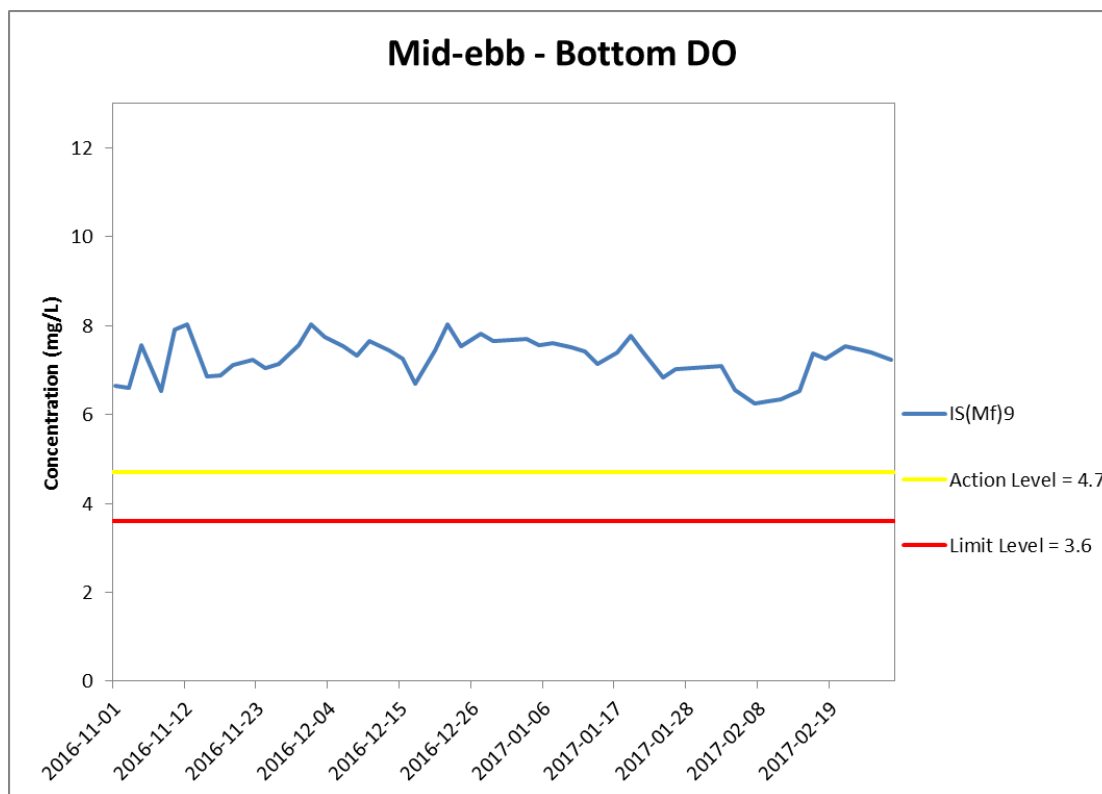
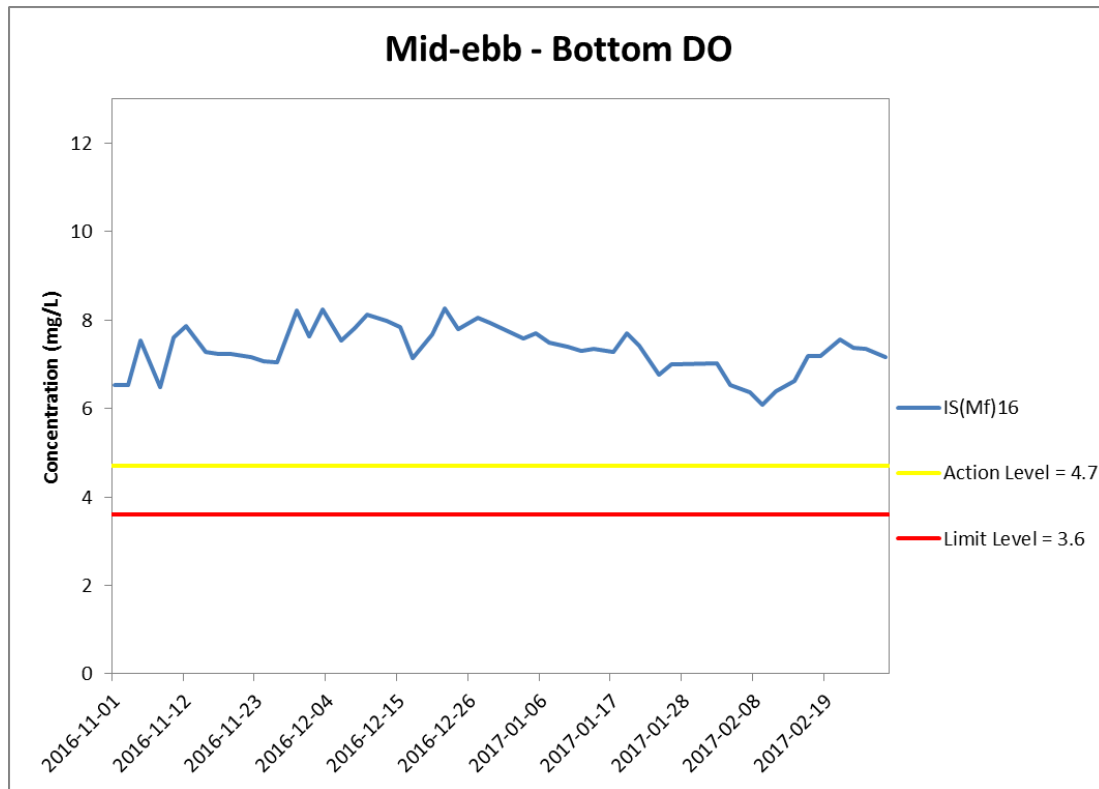


Figure J14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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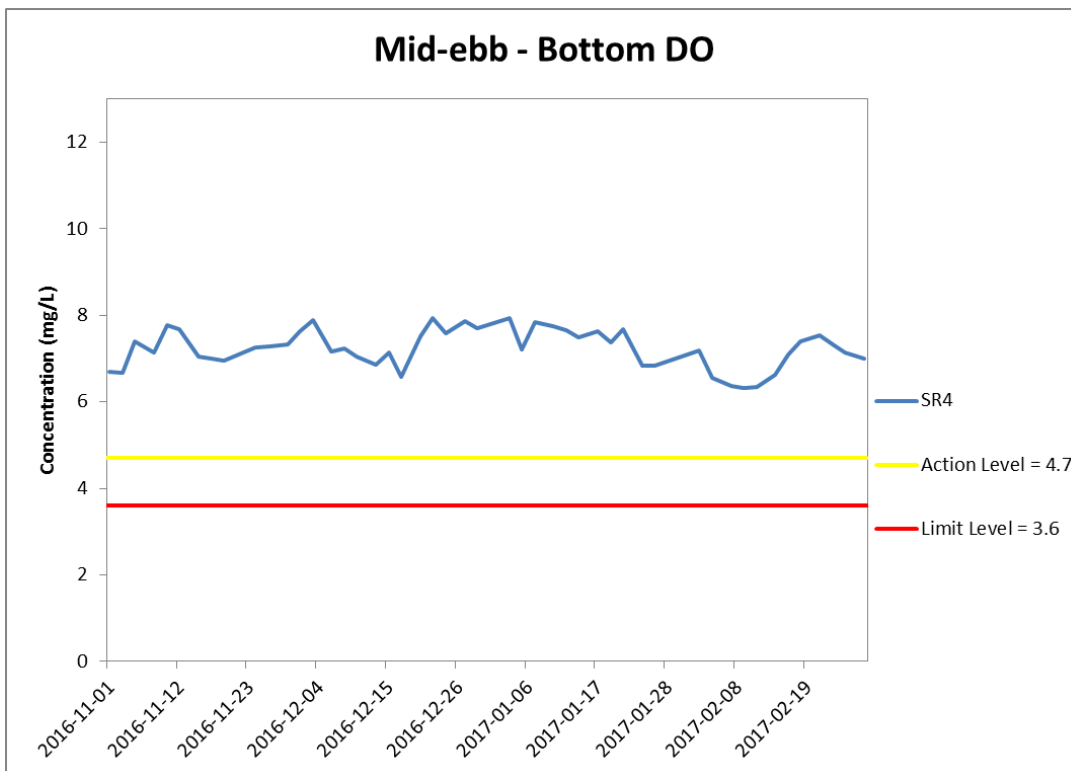
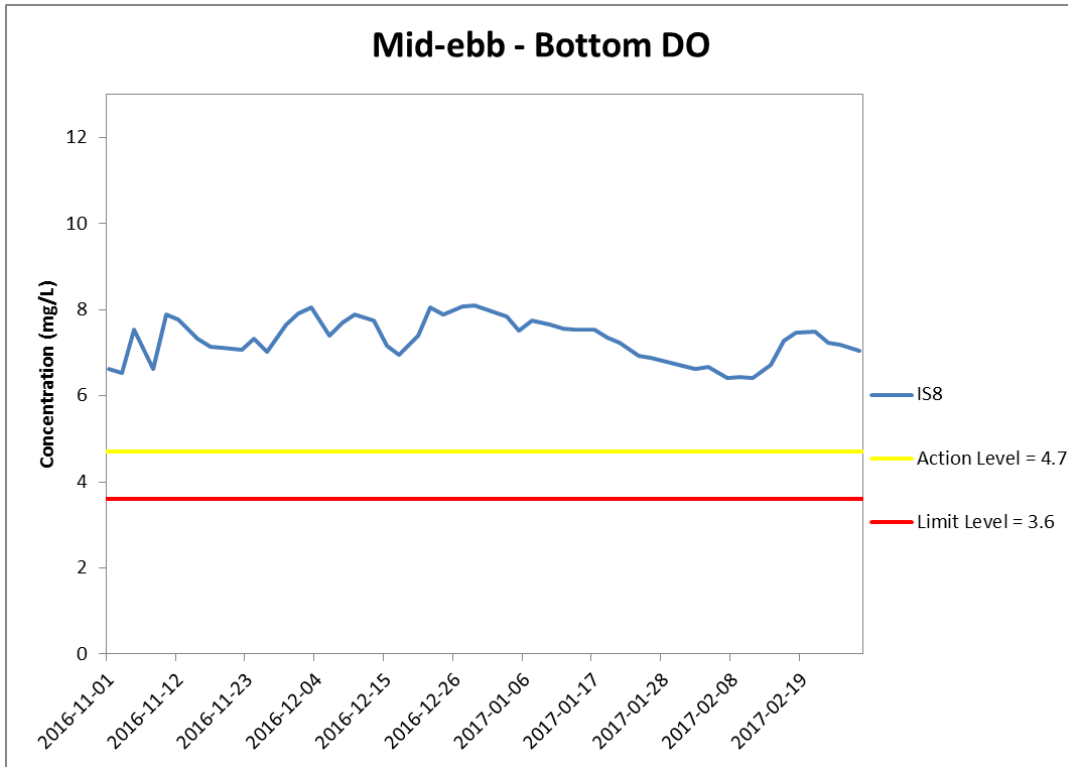


Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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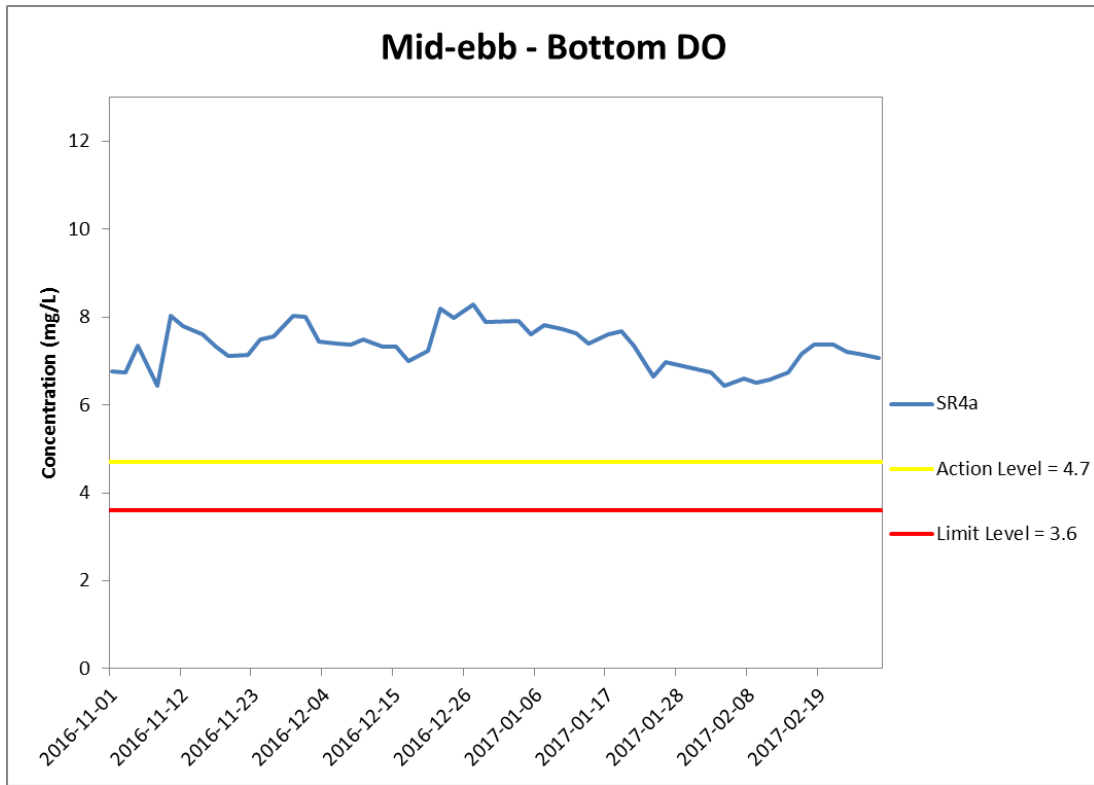


Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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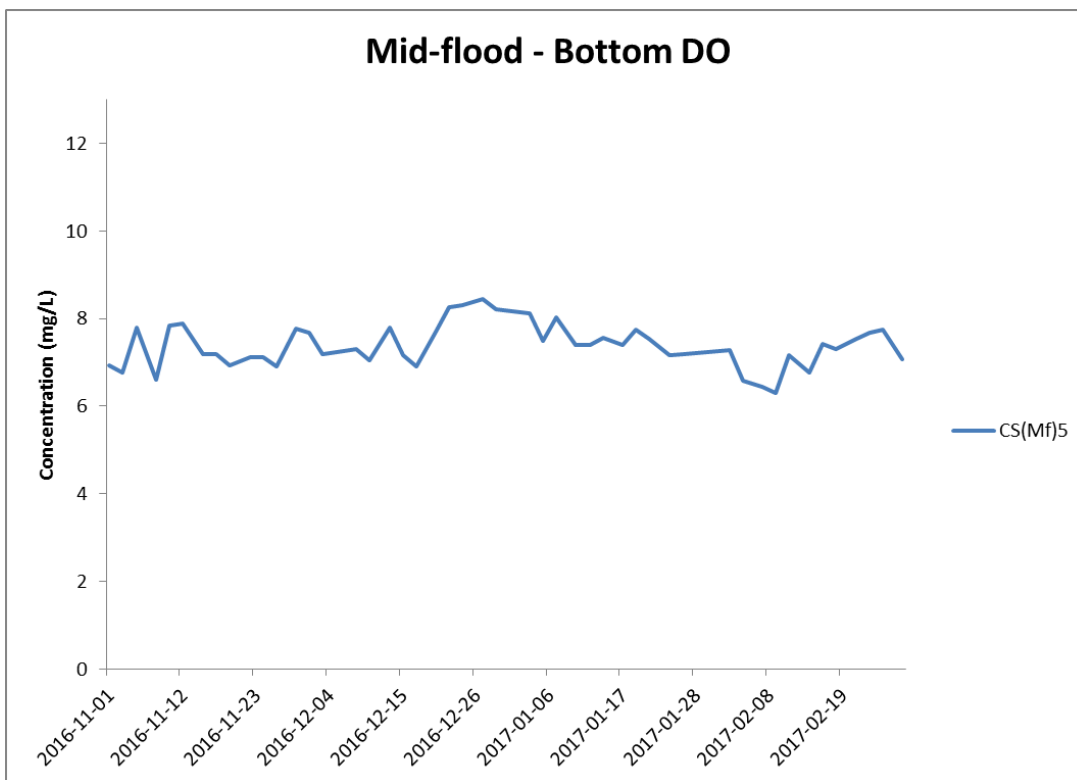
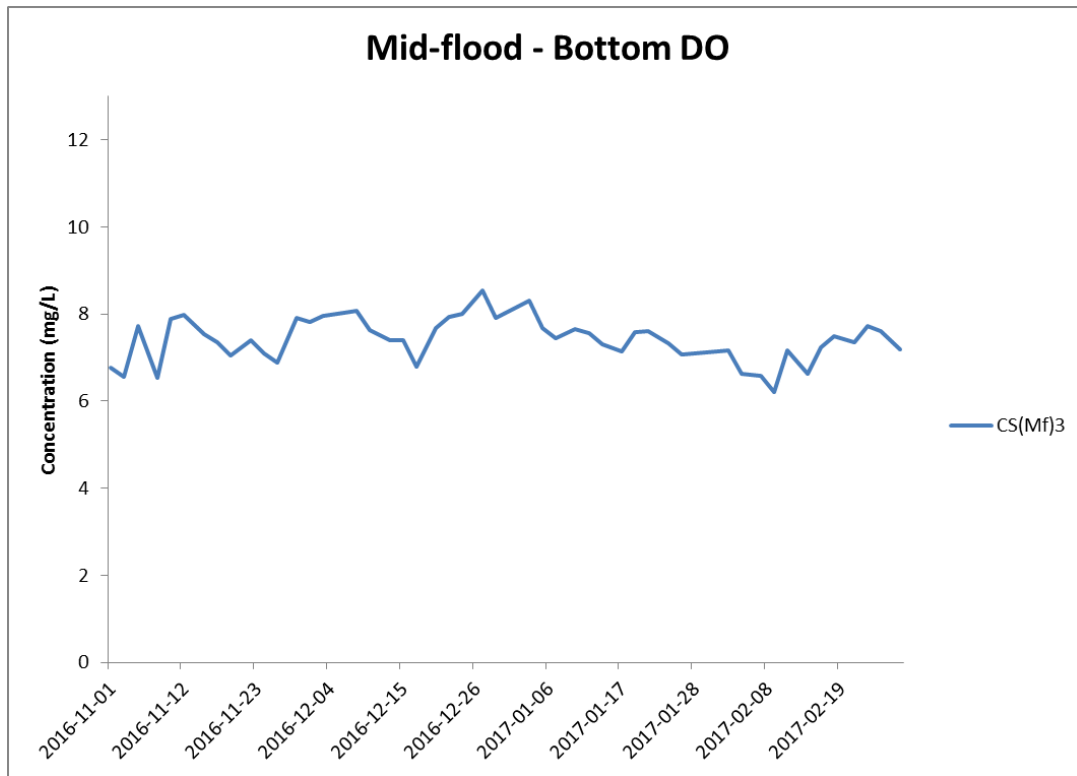


Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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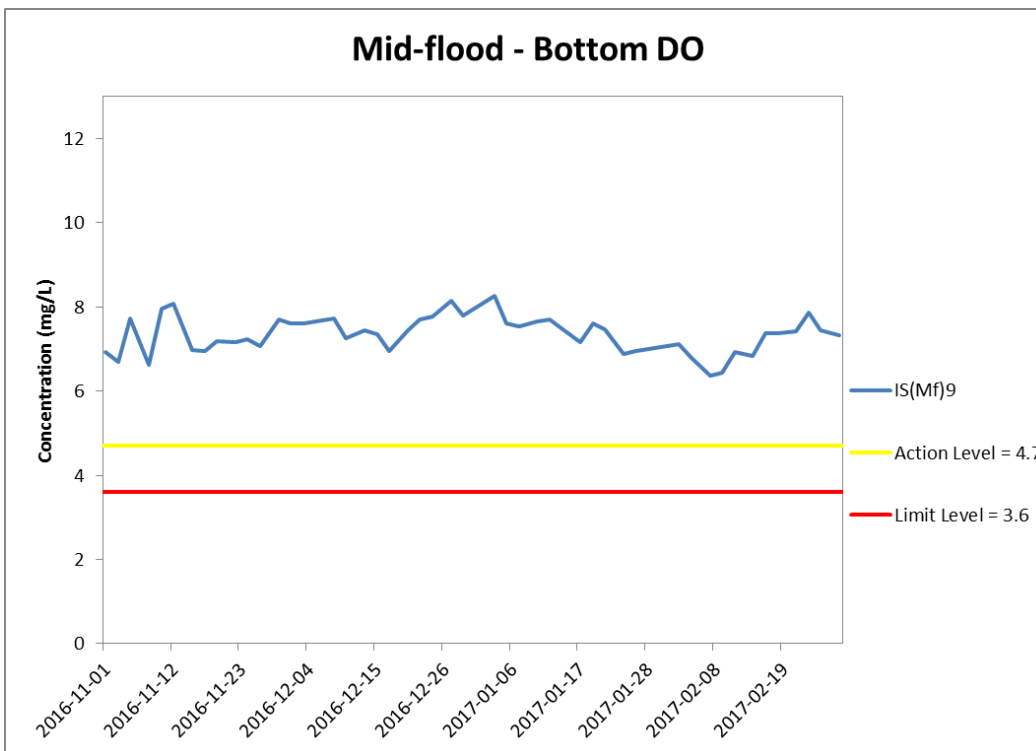
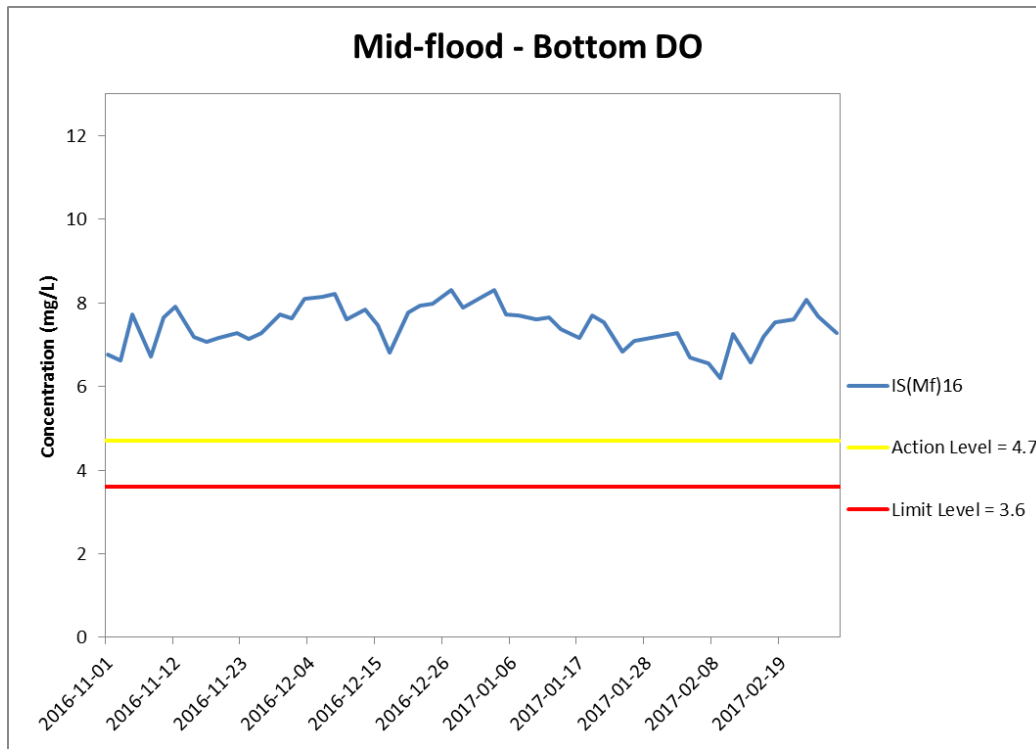


Figure J18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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 Resources
 Management**



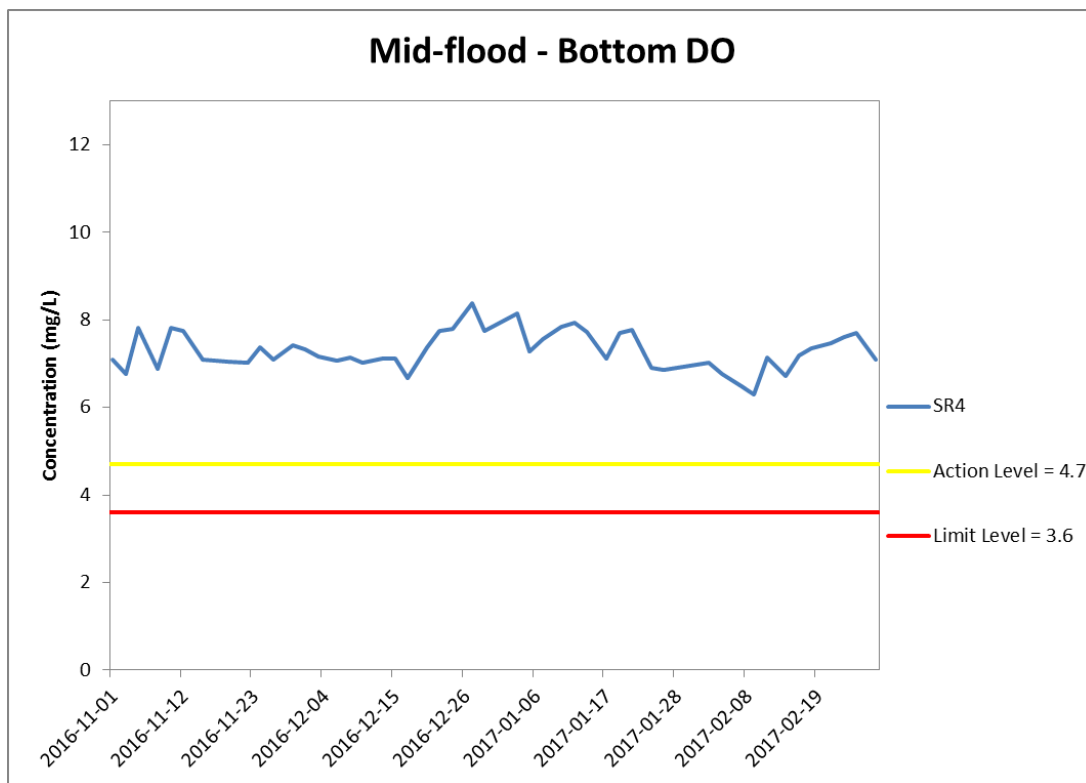
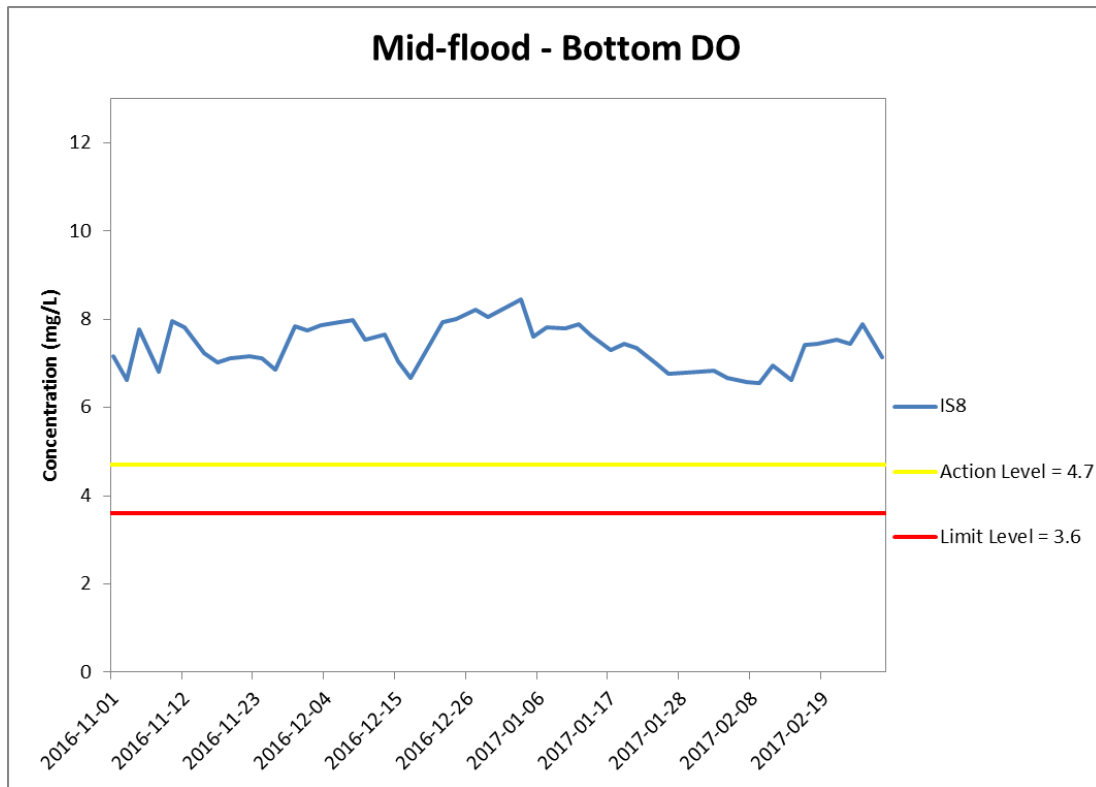


Figure J19 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



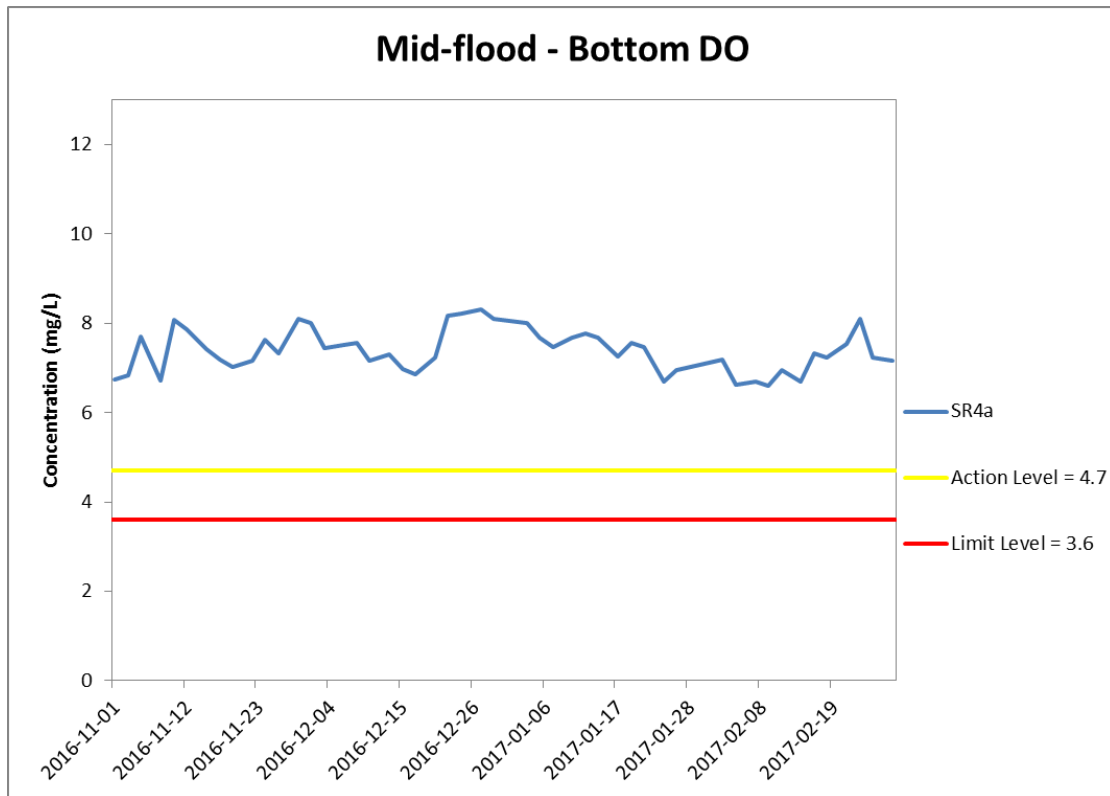


Figure J20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



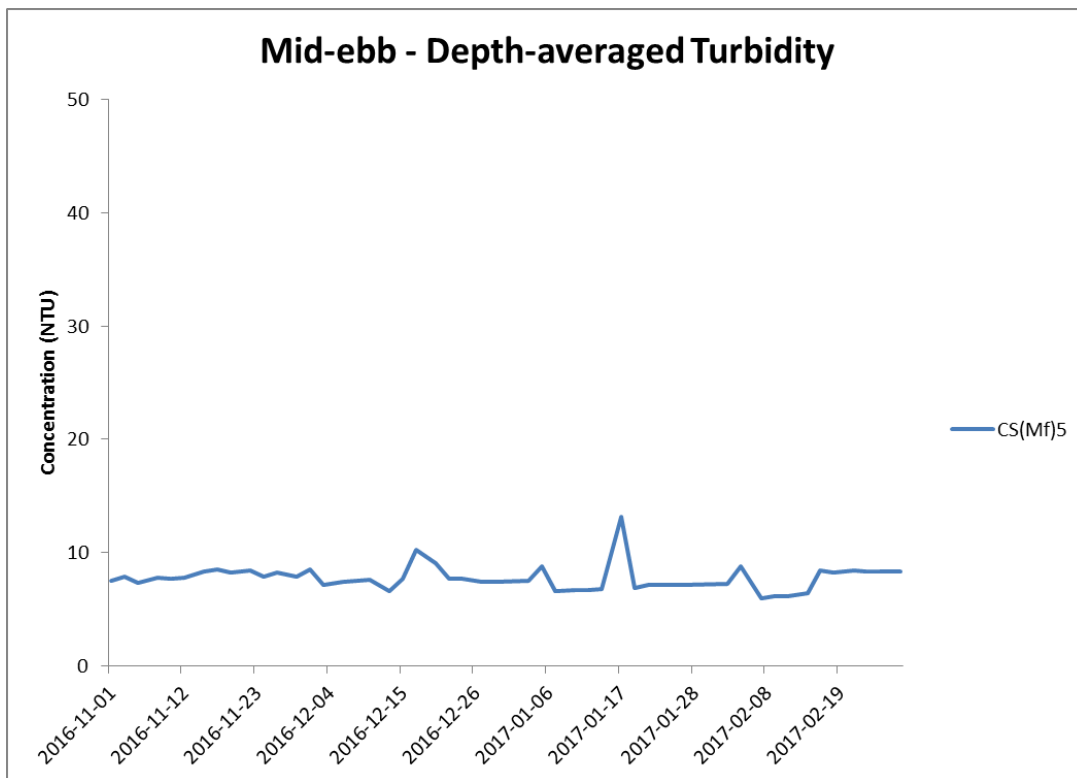
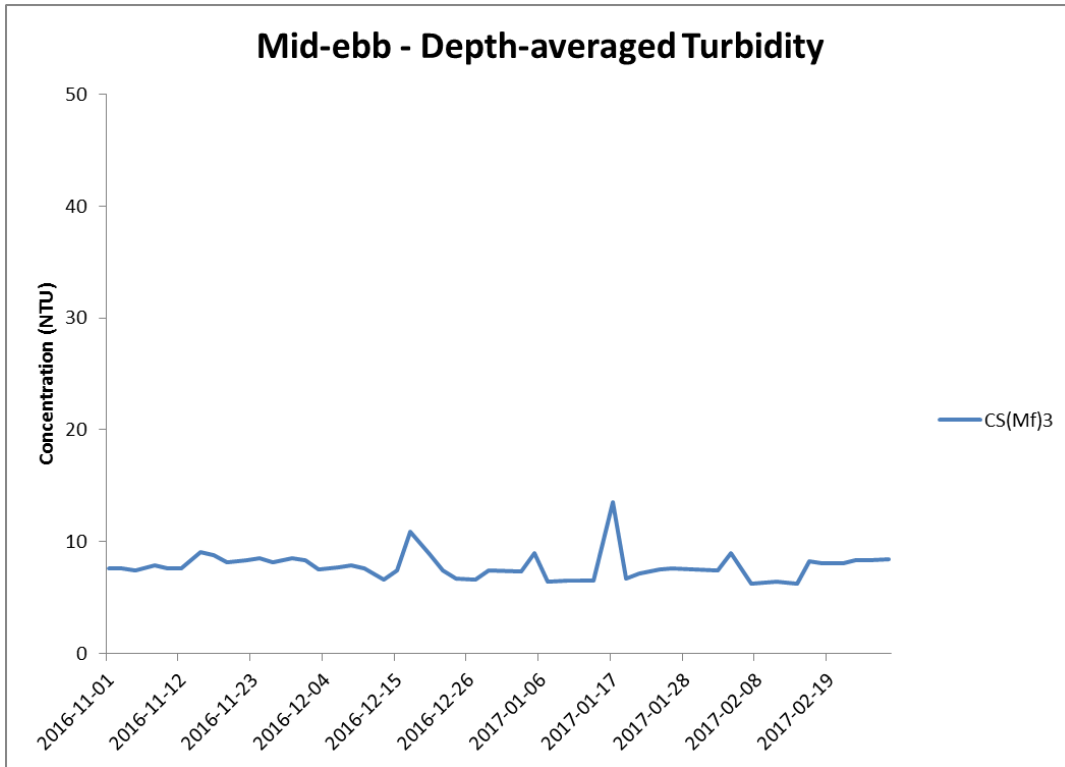


Figure J21 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



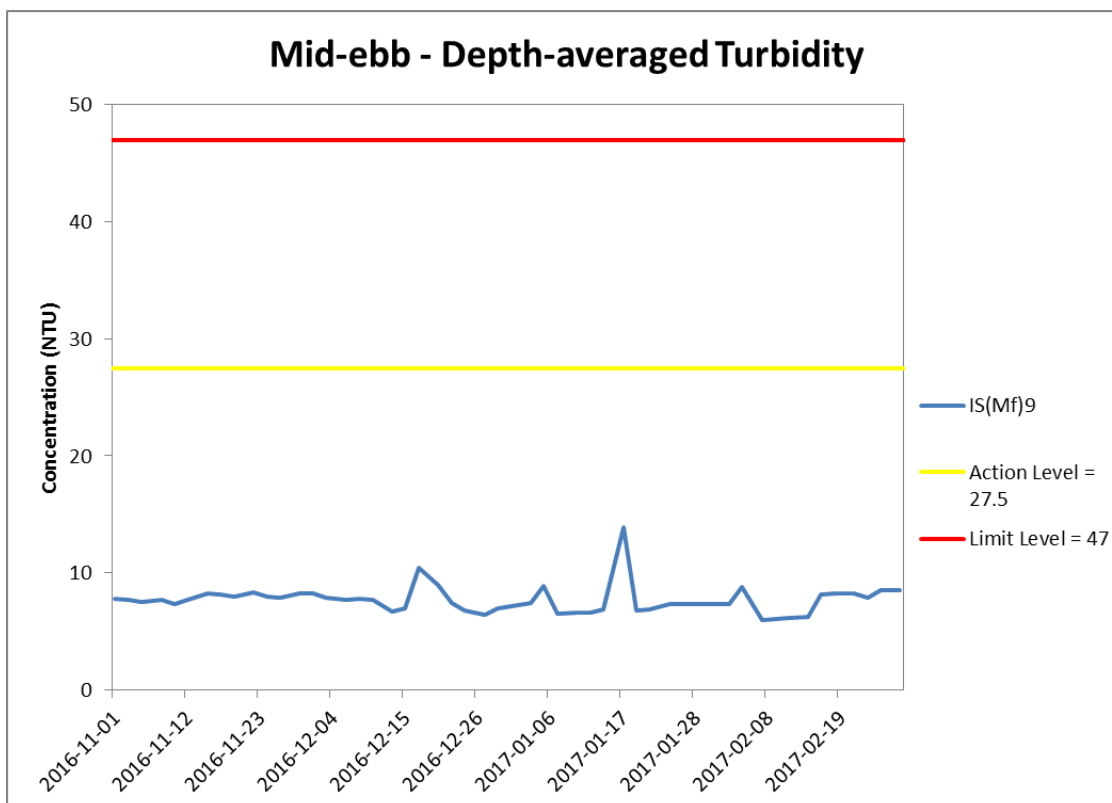
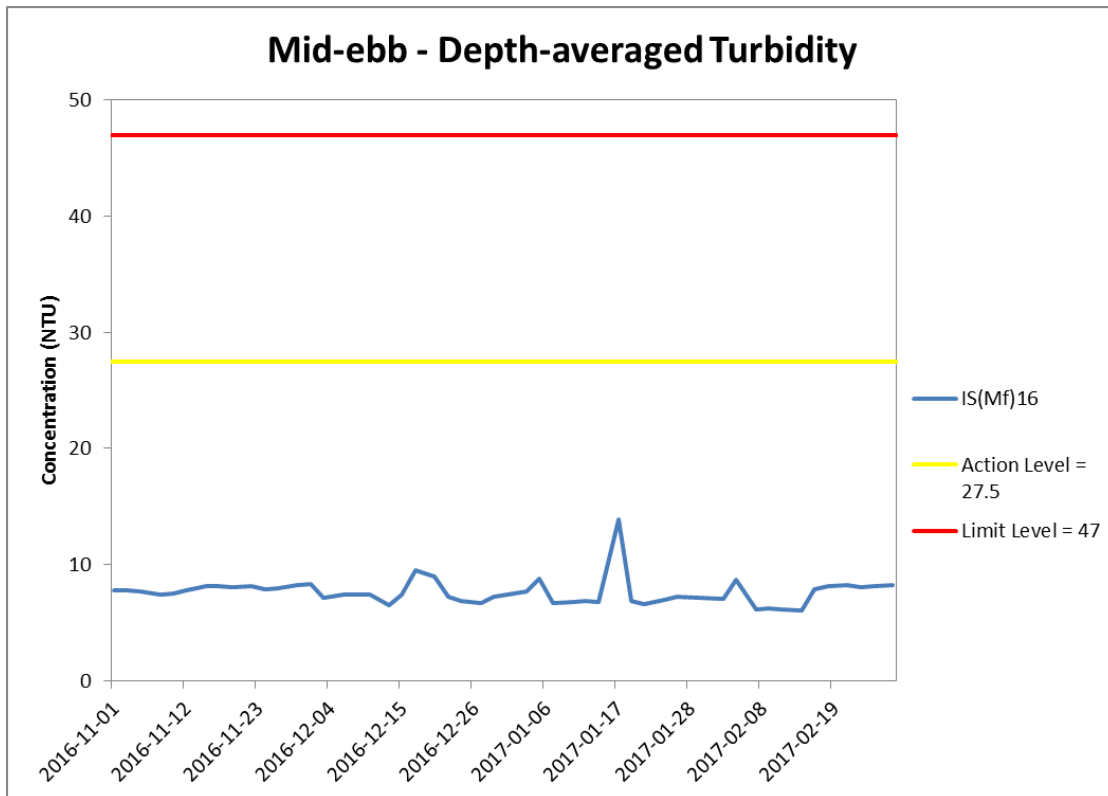


Figure J22 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
Resources
Management**



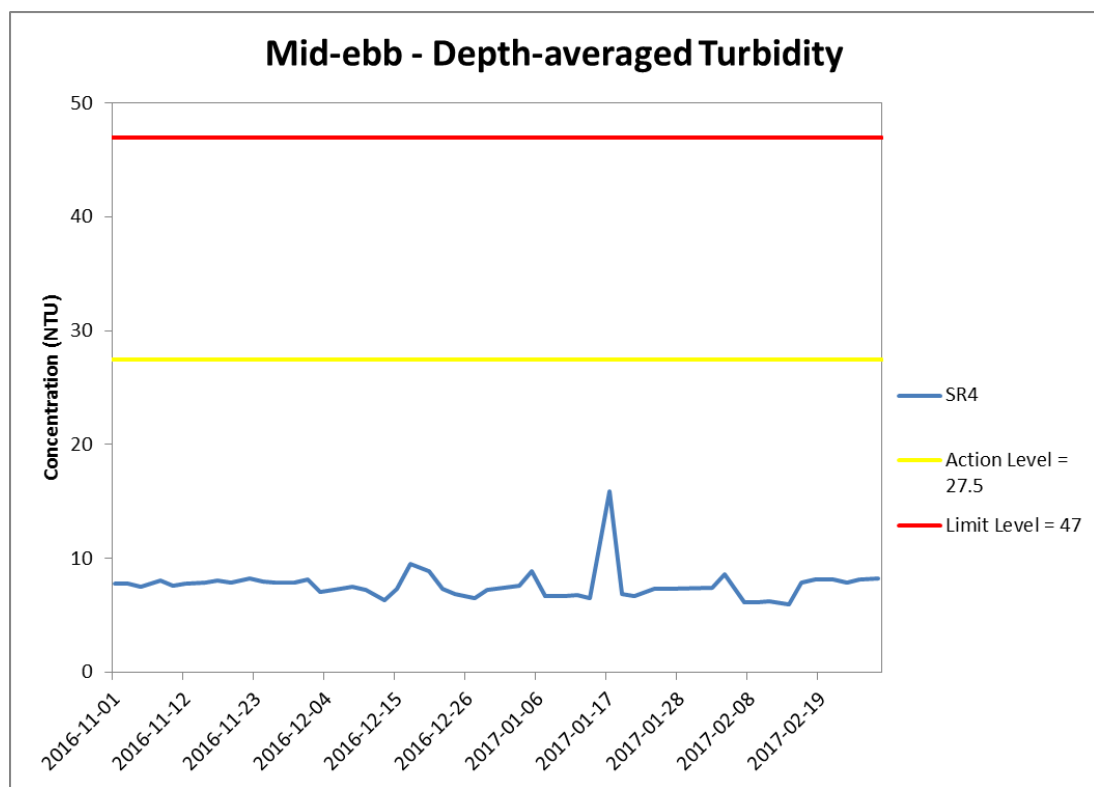
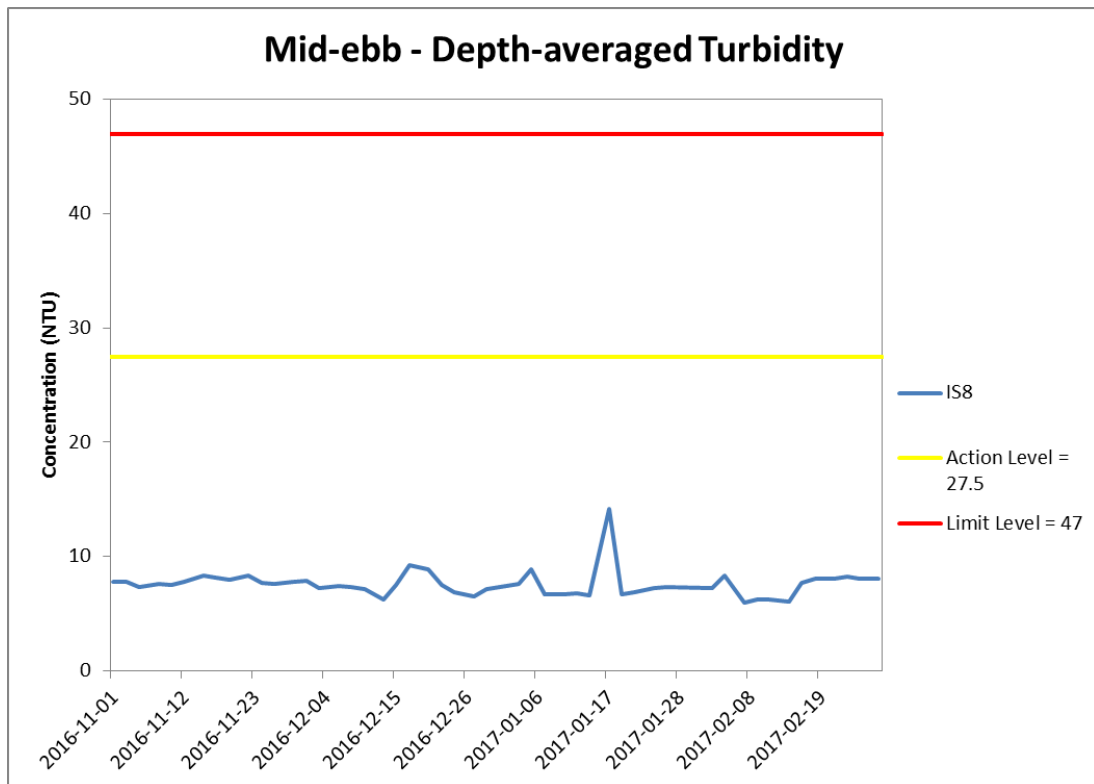


Figure J23 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
Resources
Management**



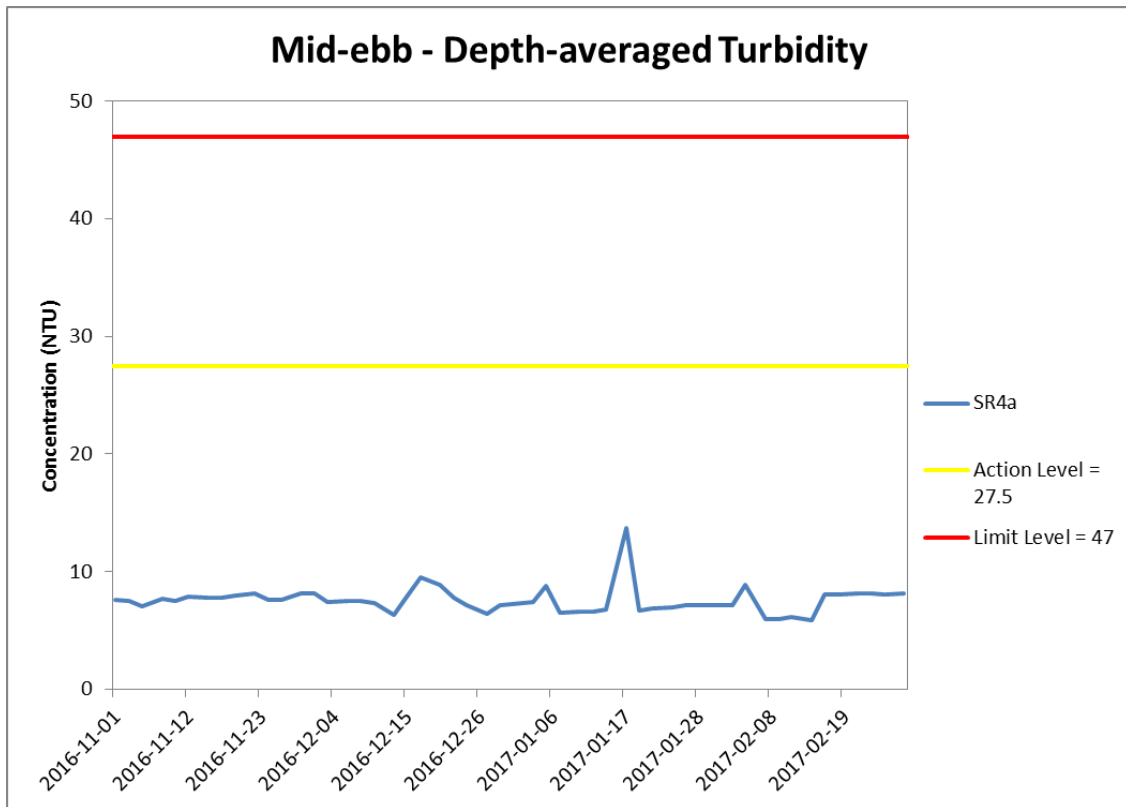


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



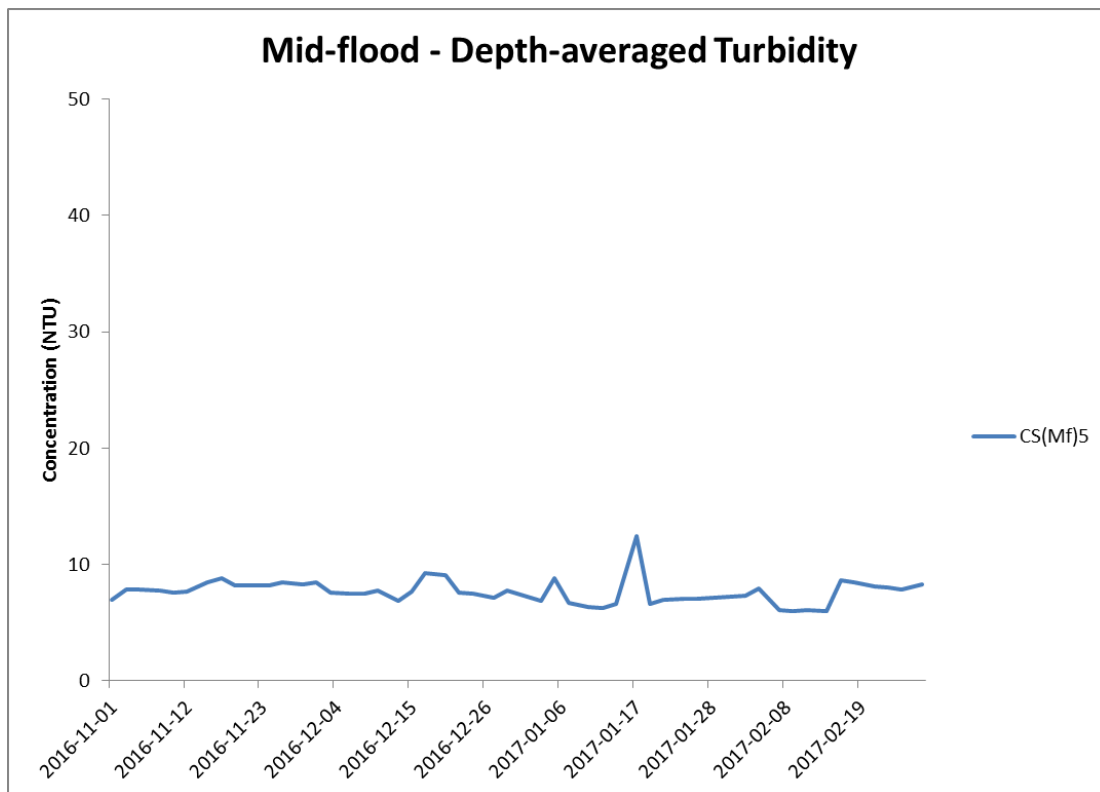
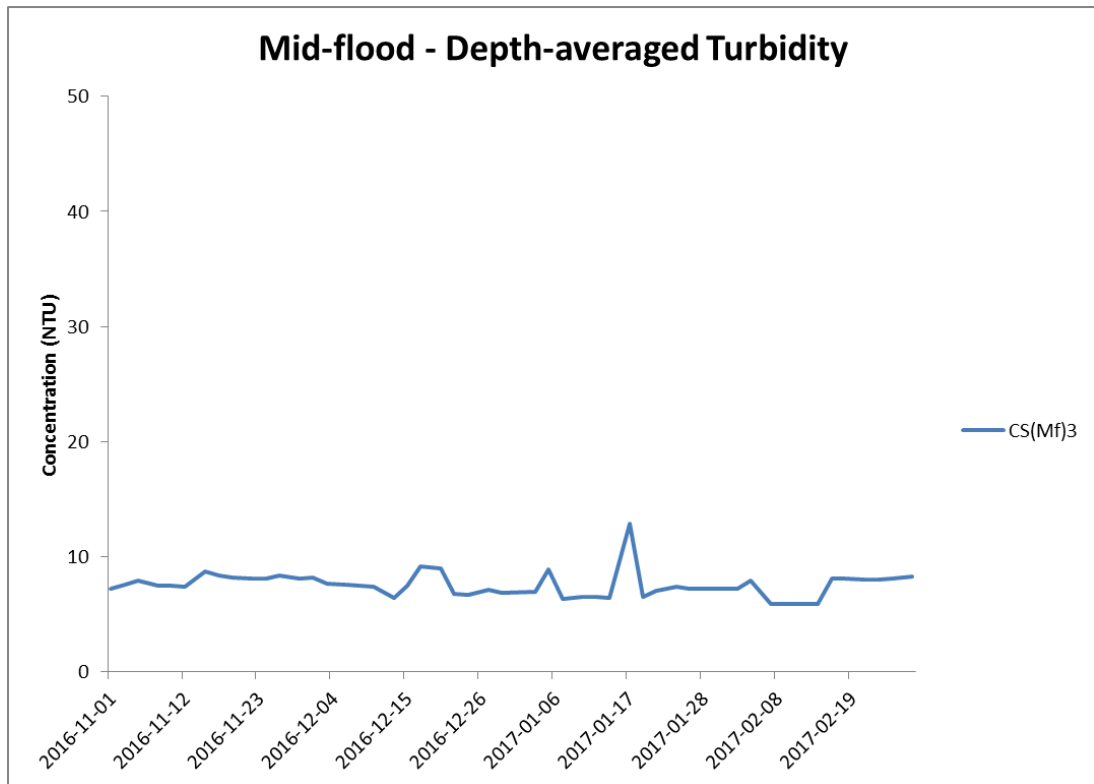


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(MF)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



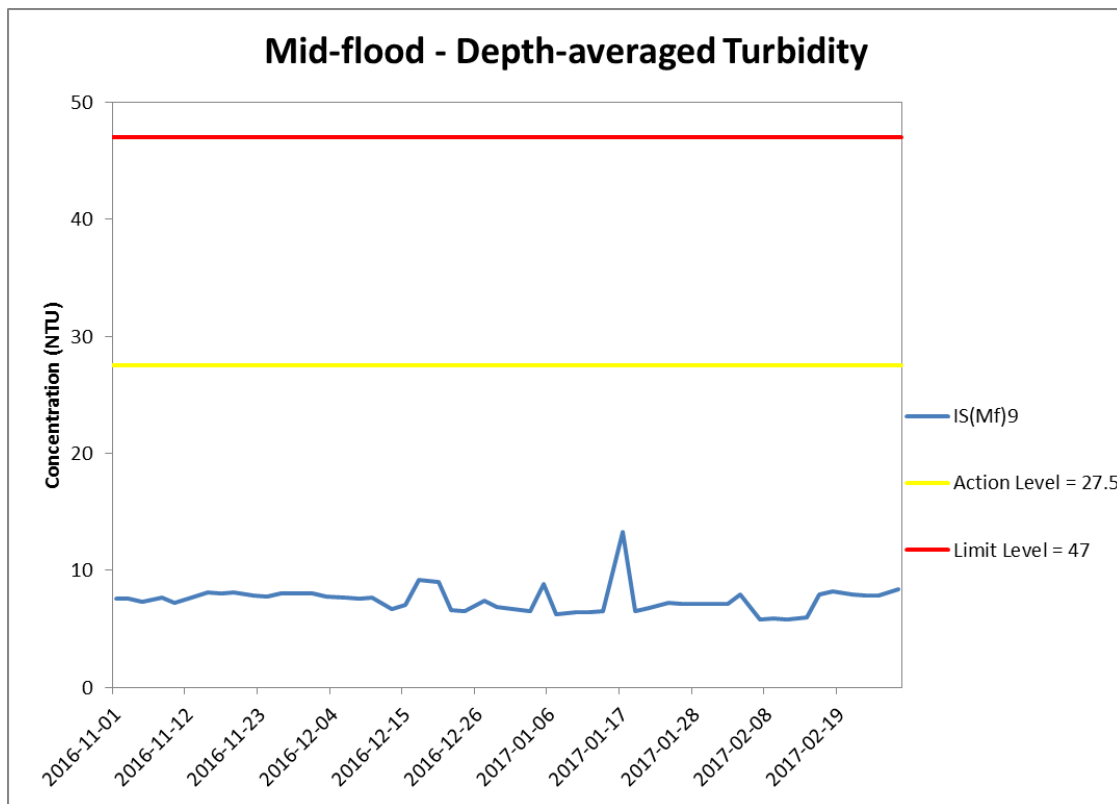
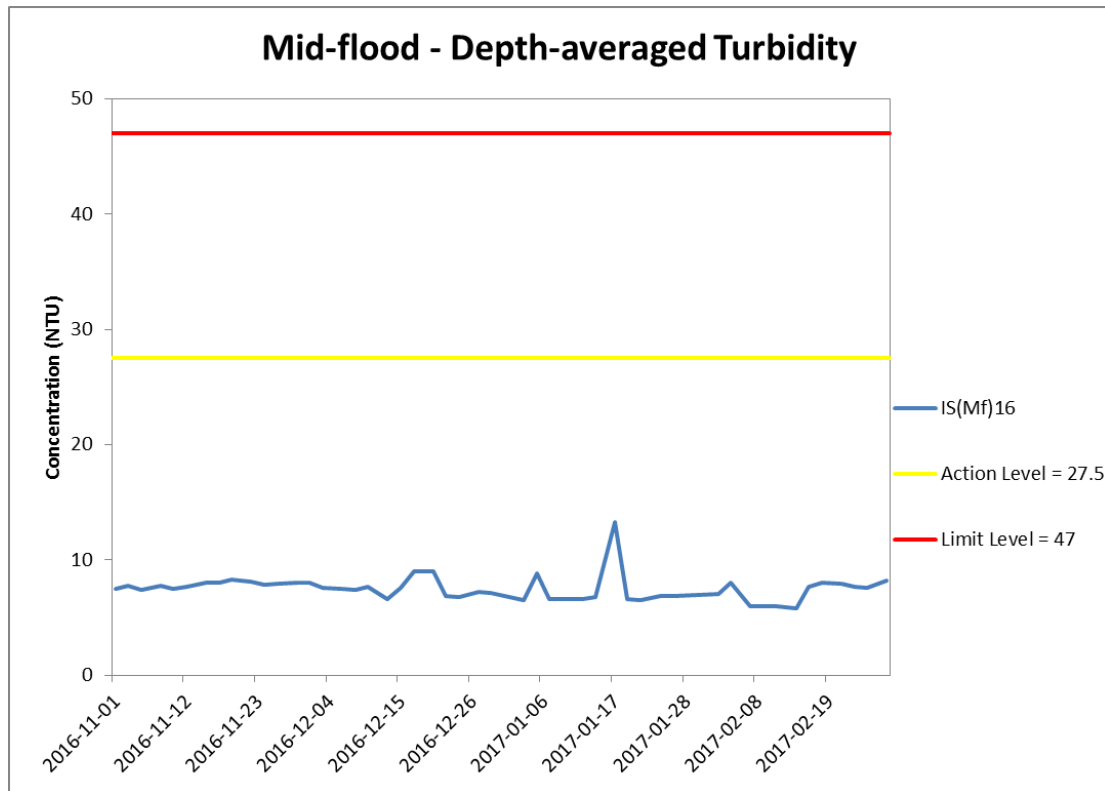


Figure J26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



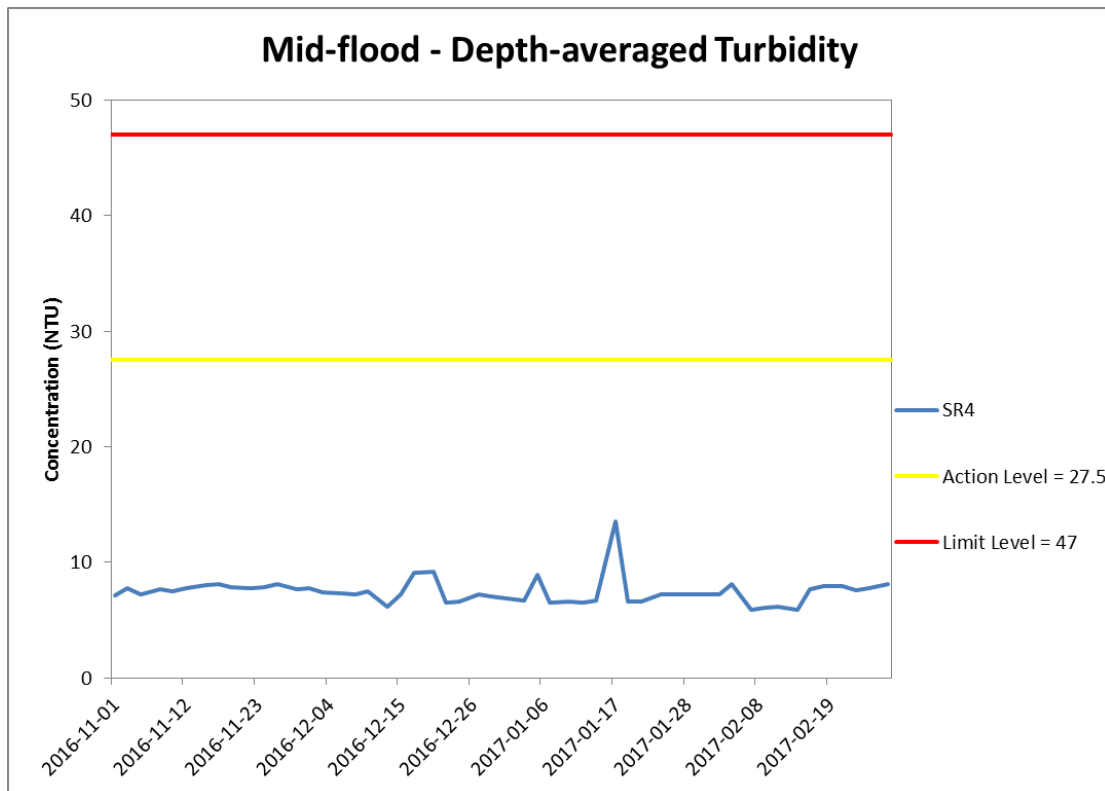
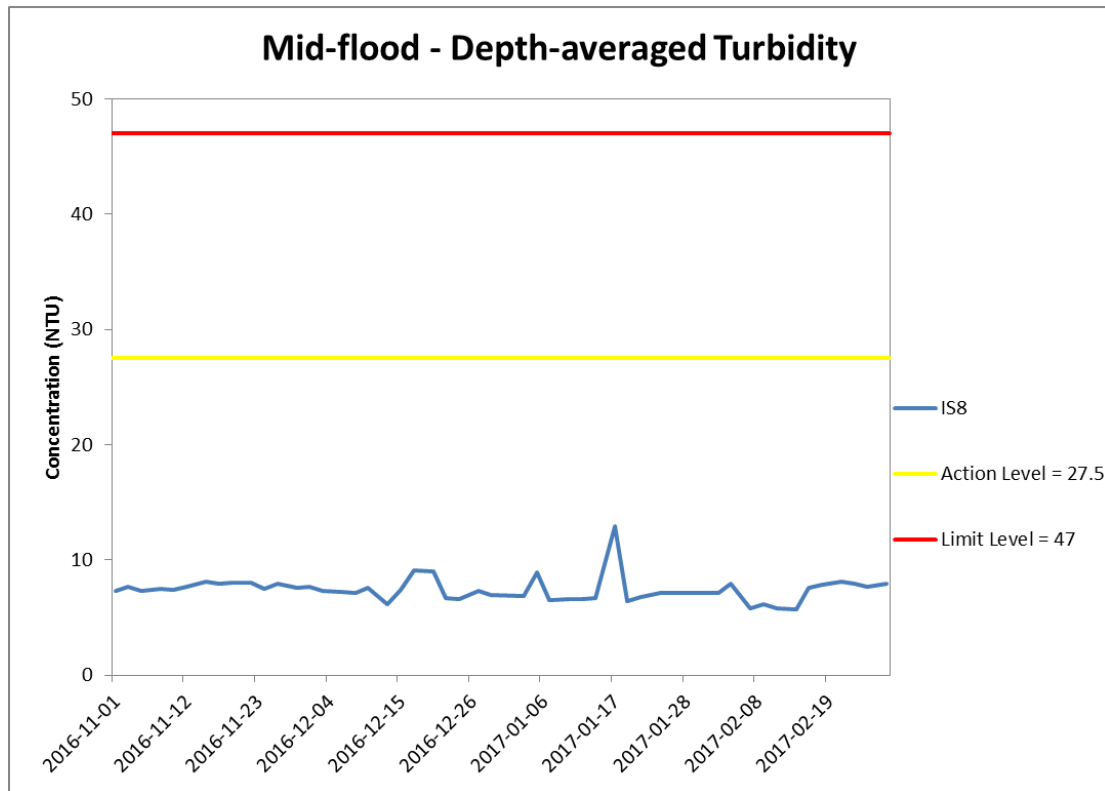


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



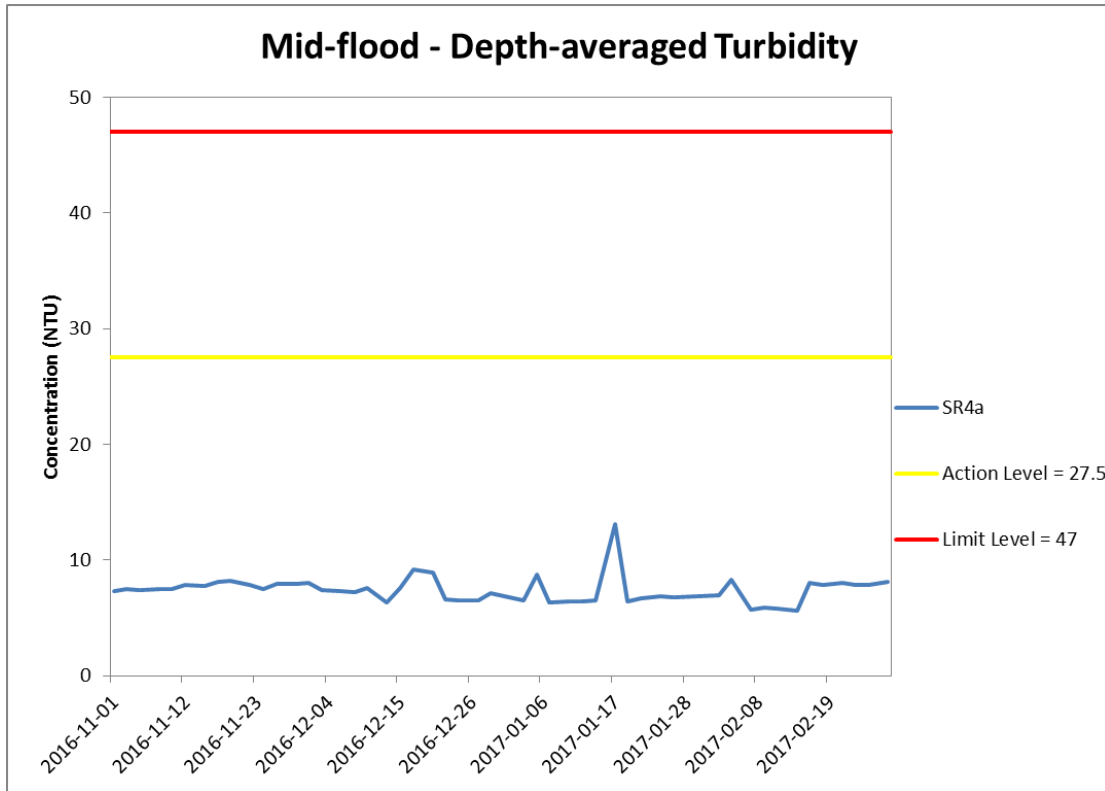


Figure J28 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



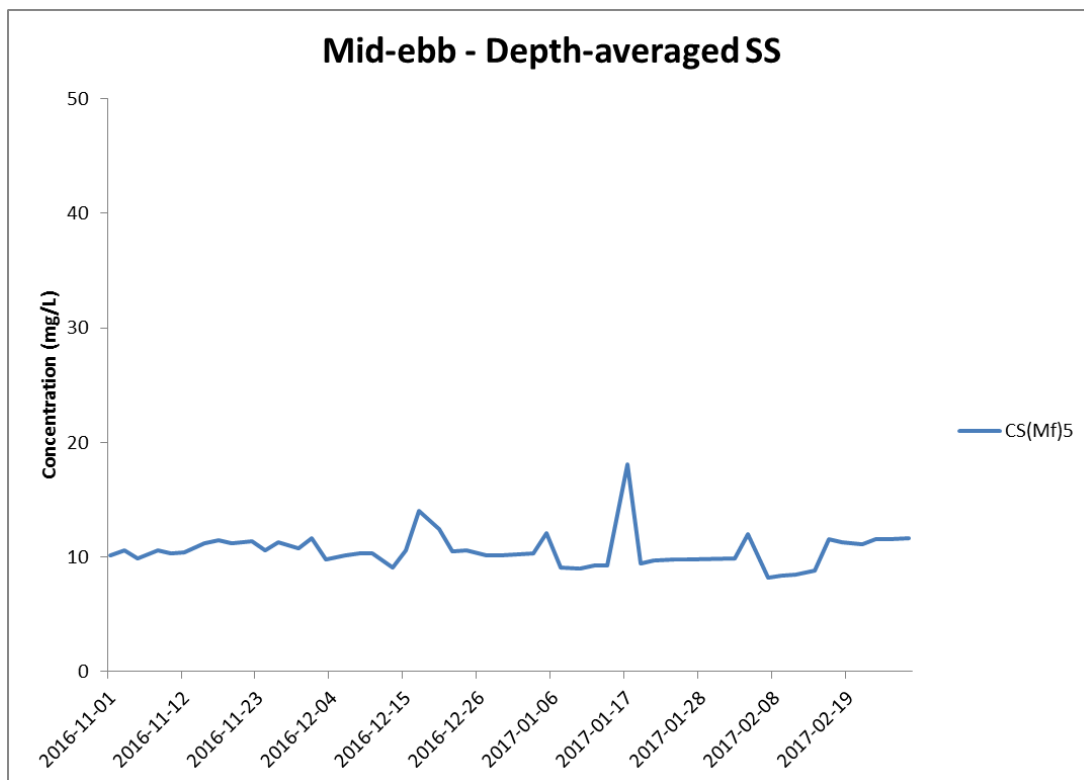
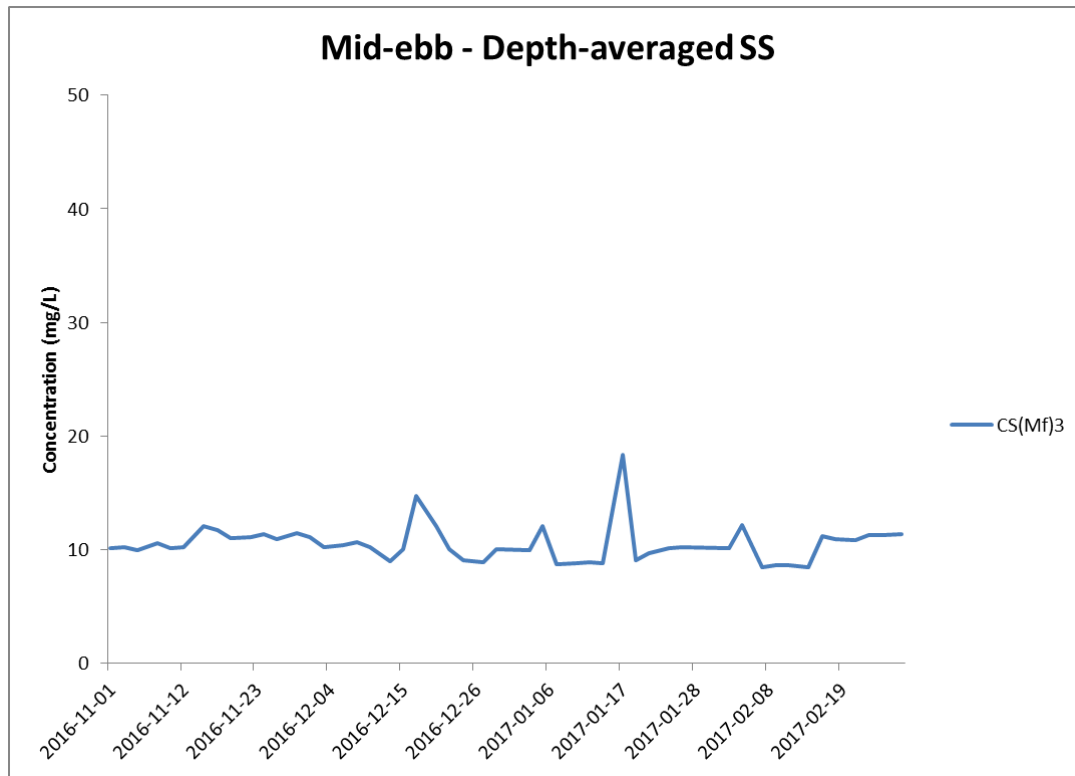


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
Resources
Management**



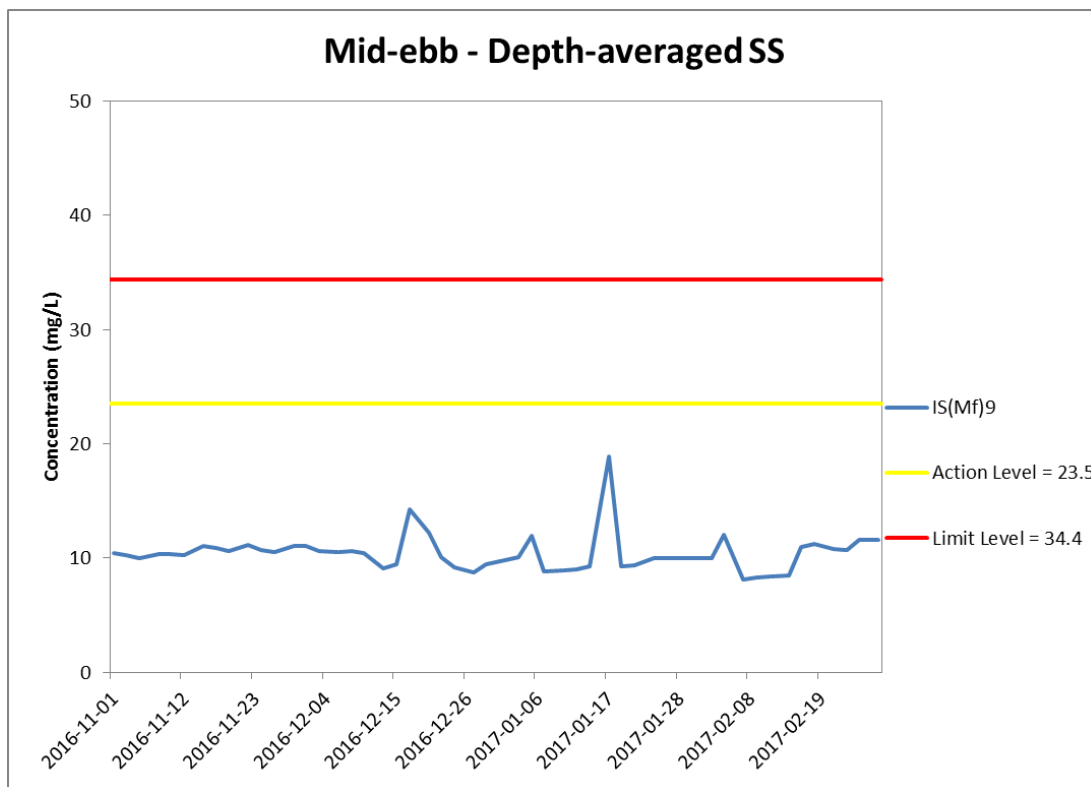
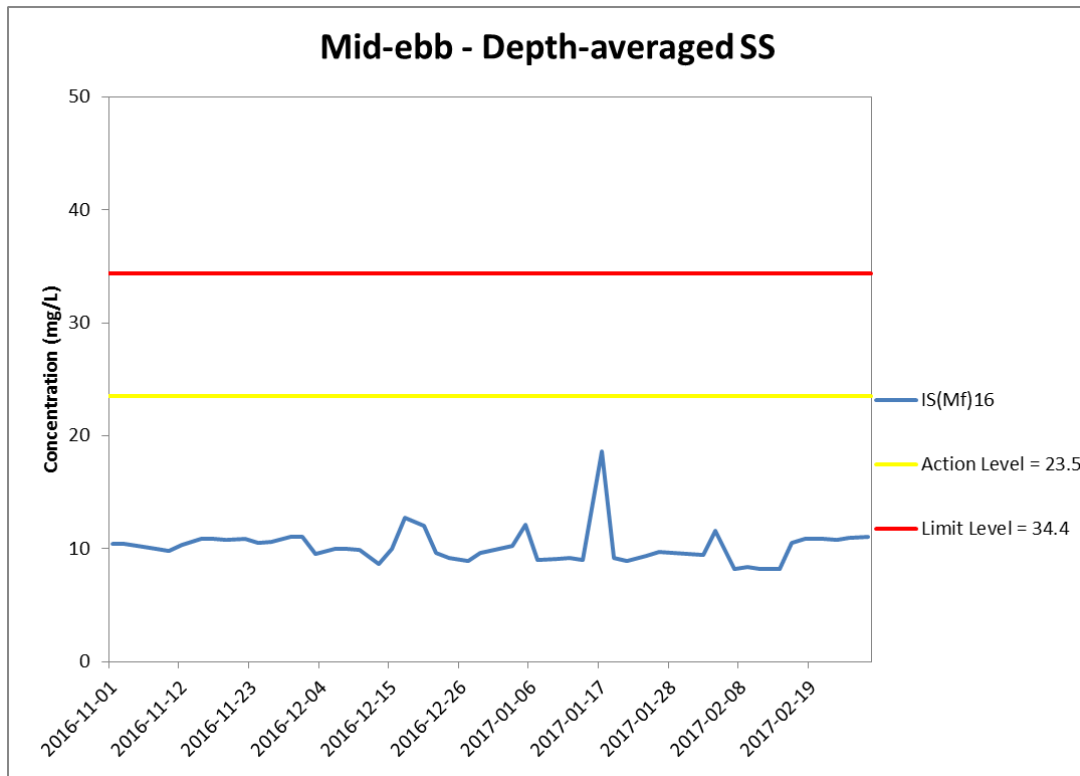


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



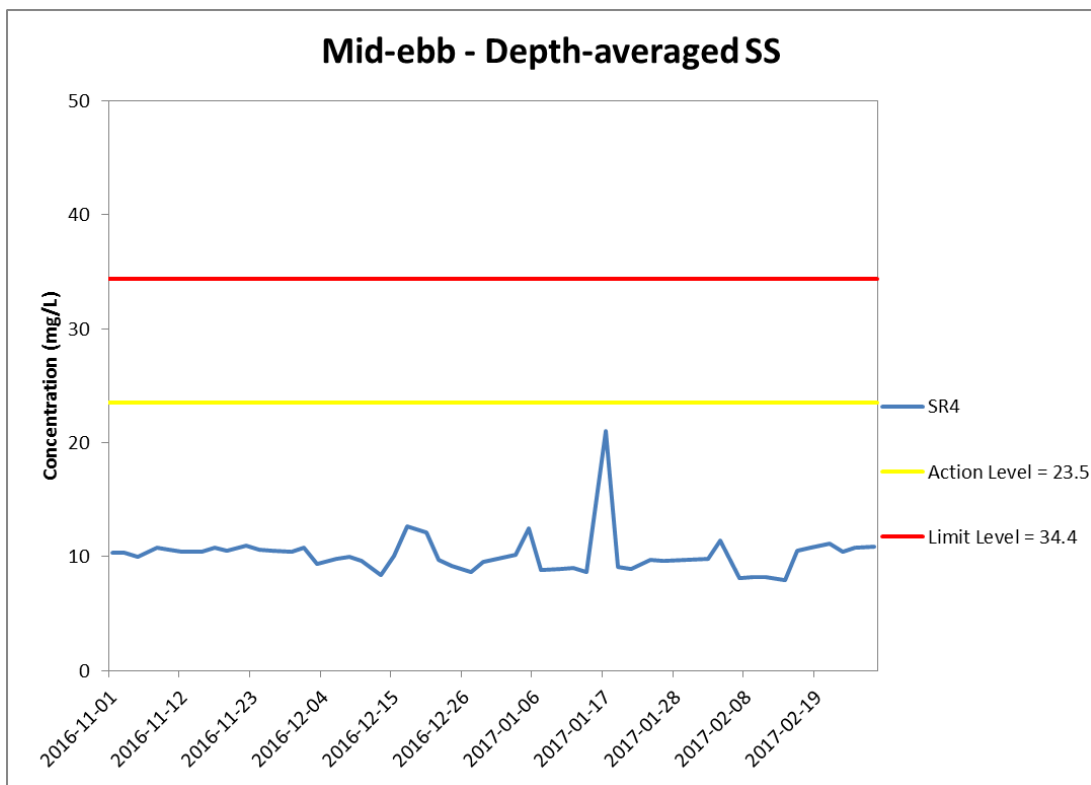
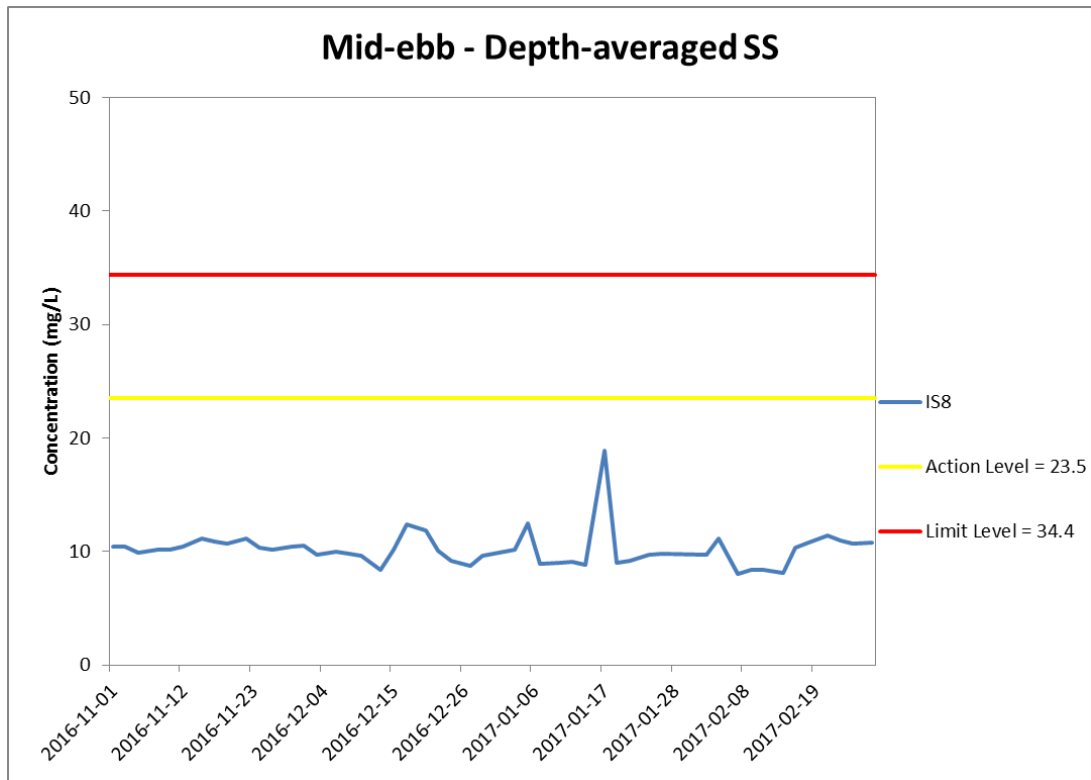


Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



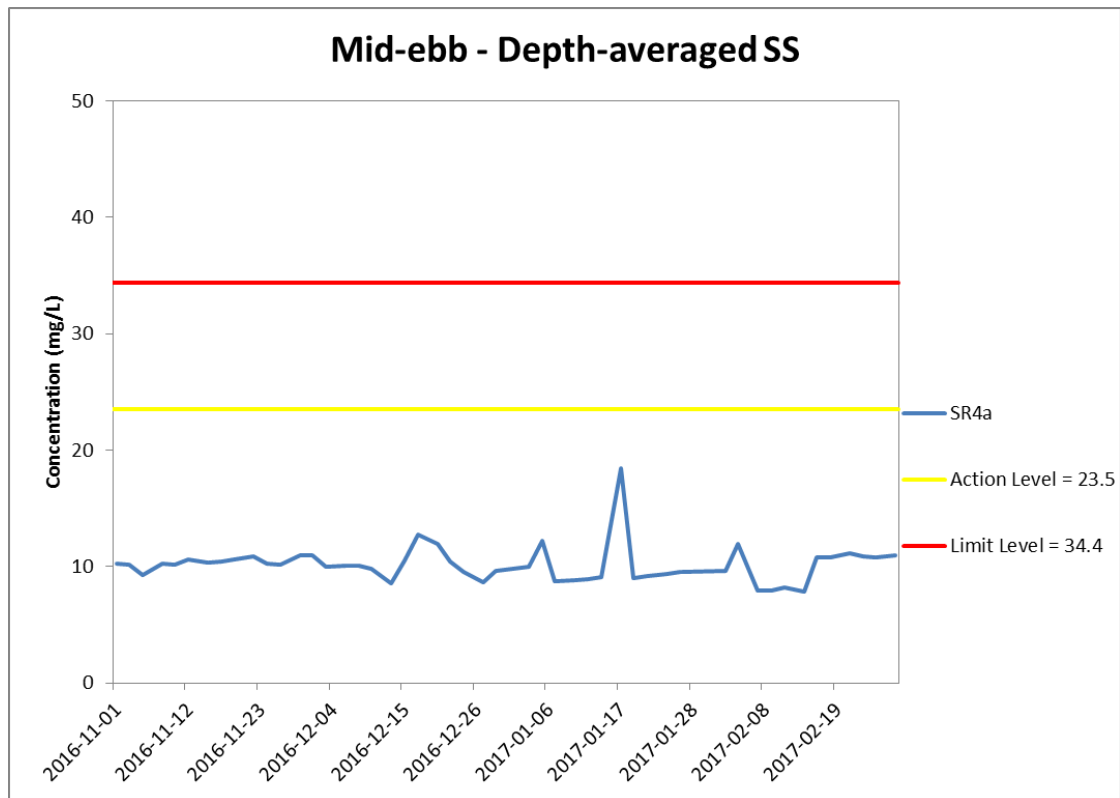


Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



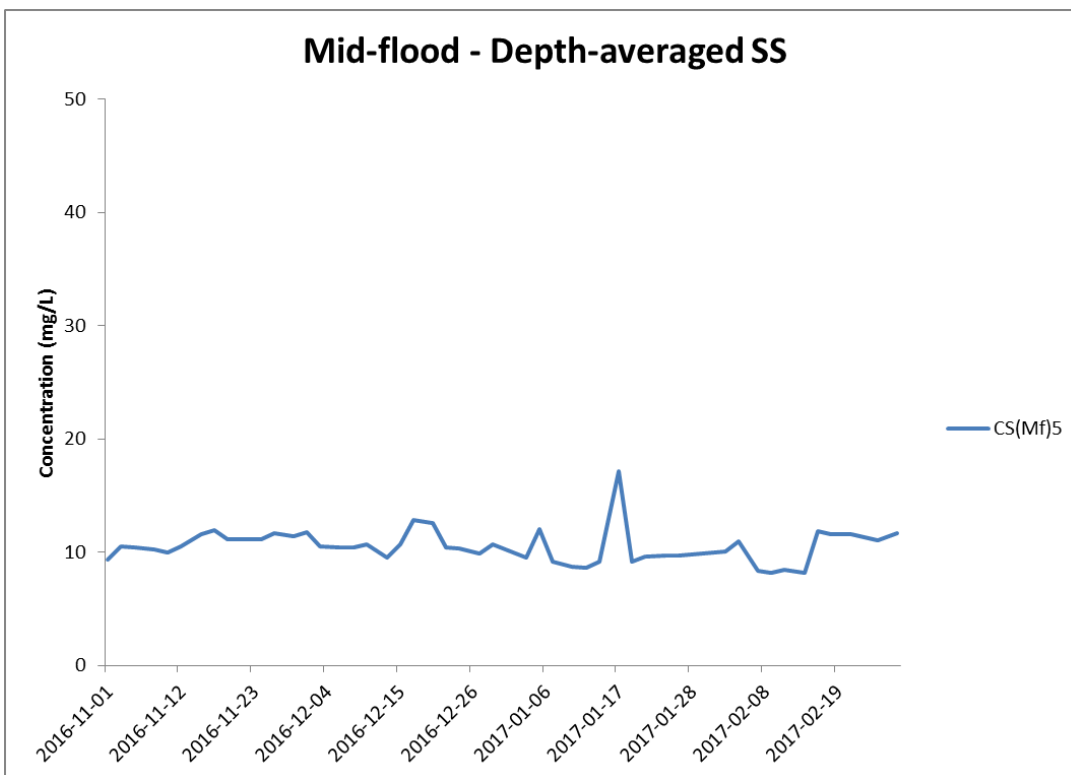
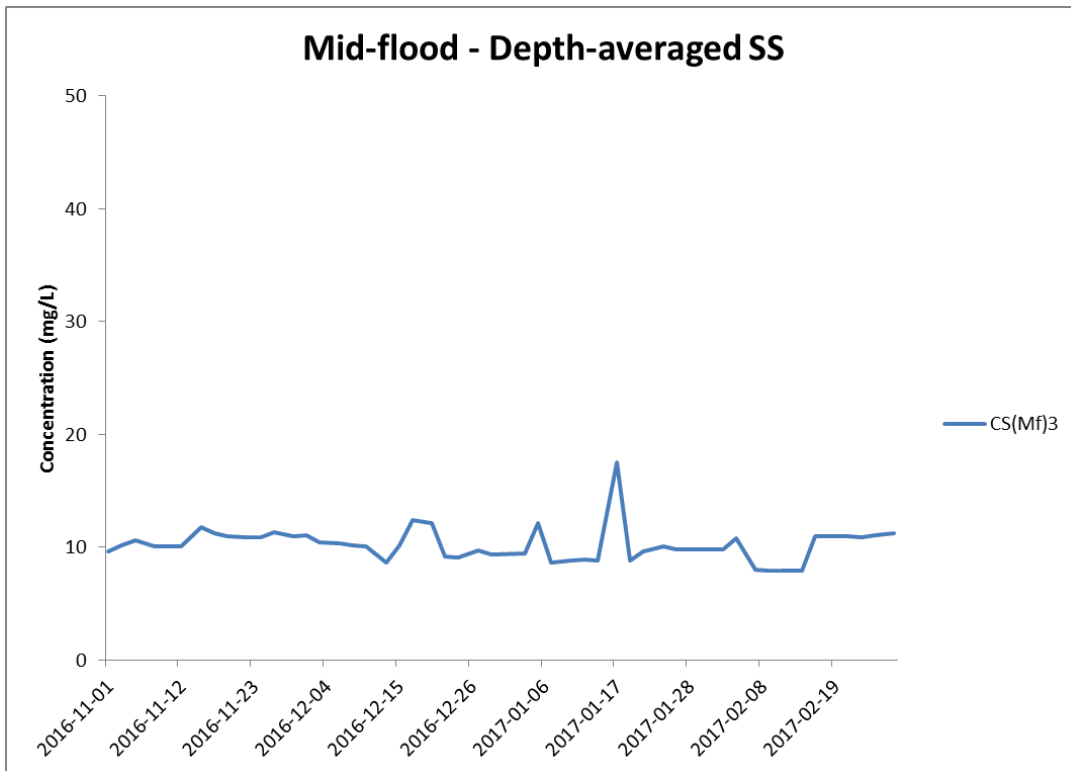


Figure J33 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 November 2016 and 28 February 2017 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



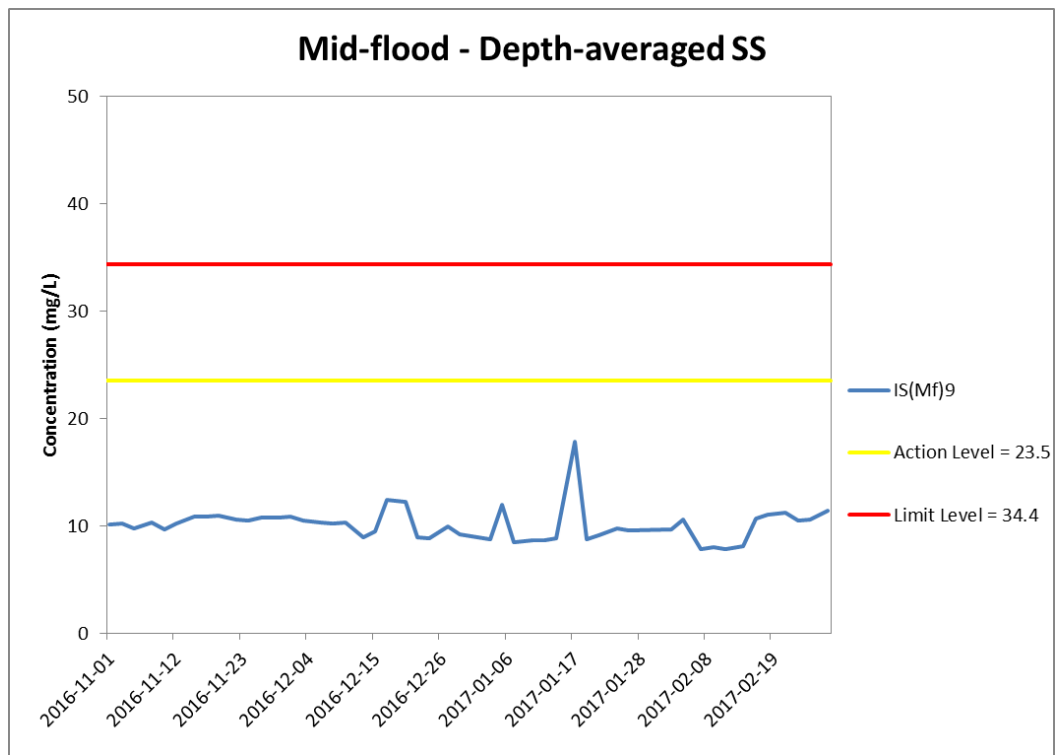
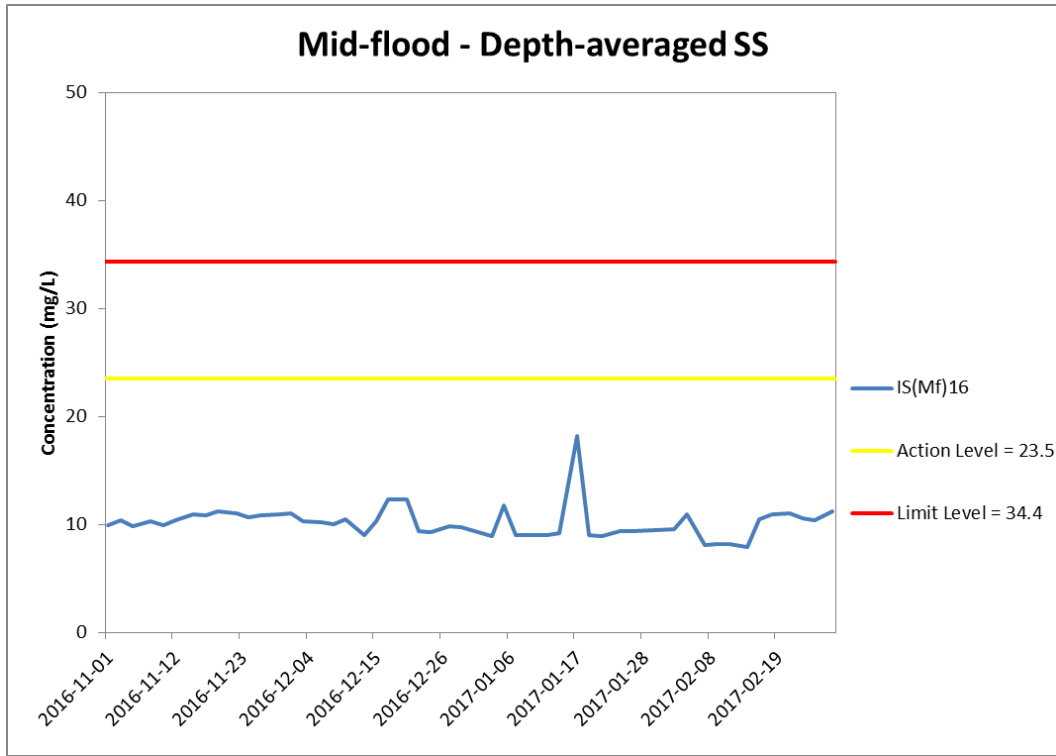


Figure J34 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 November 2016 and 28 February 2017 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



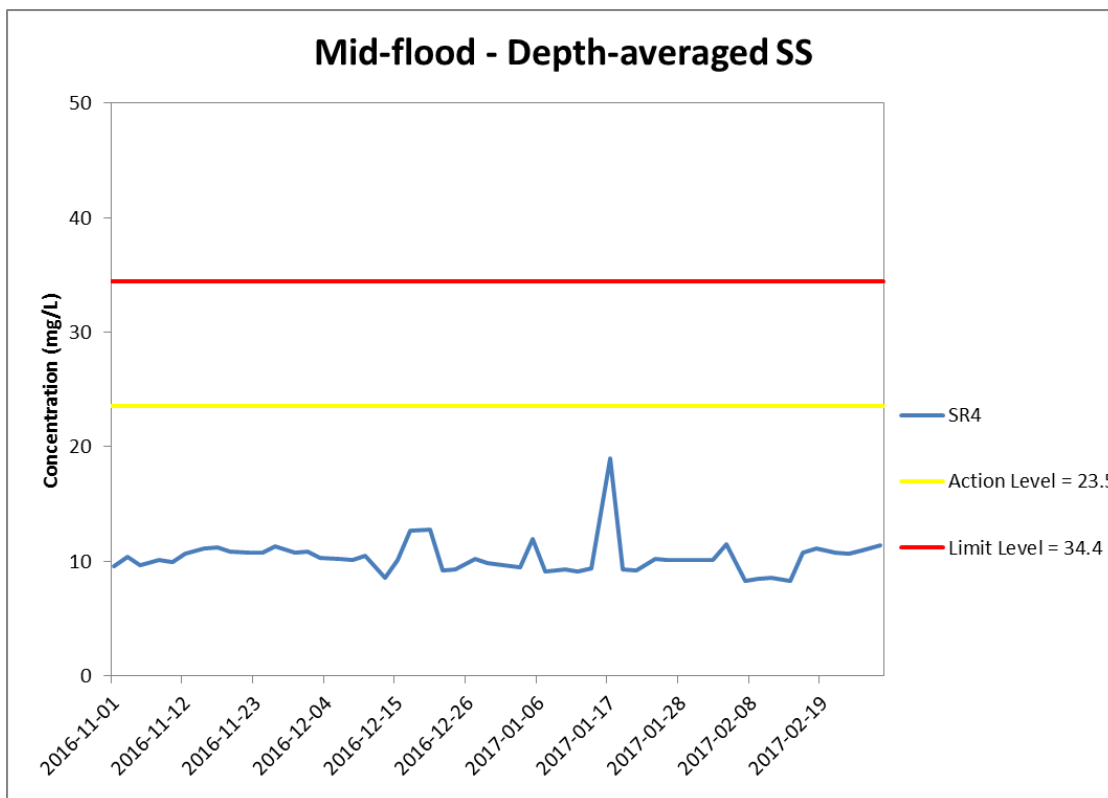
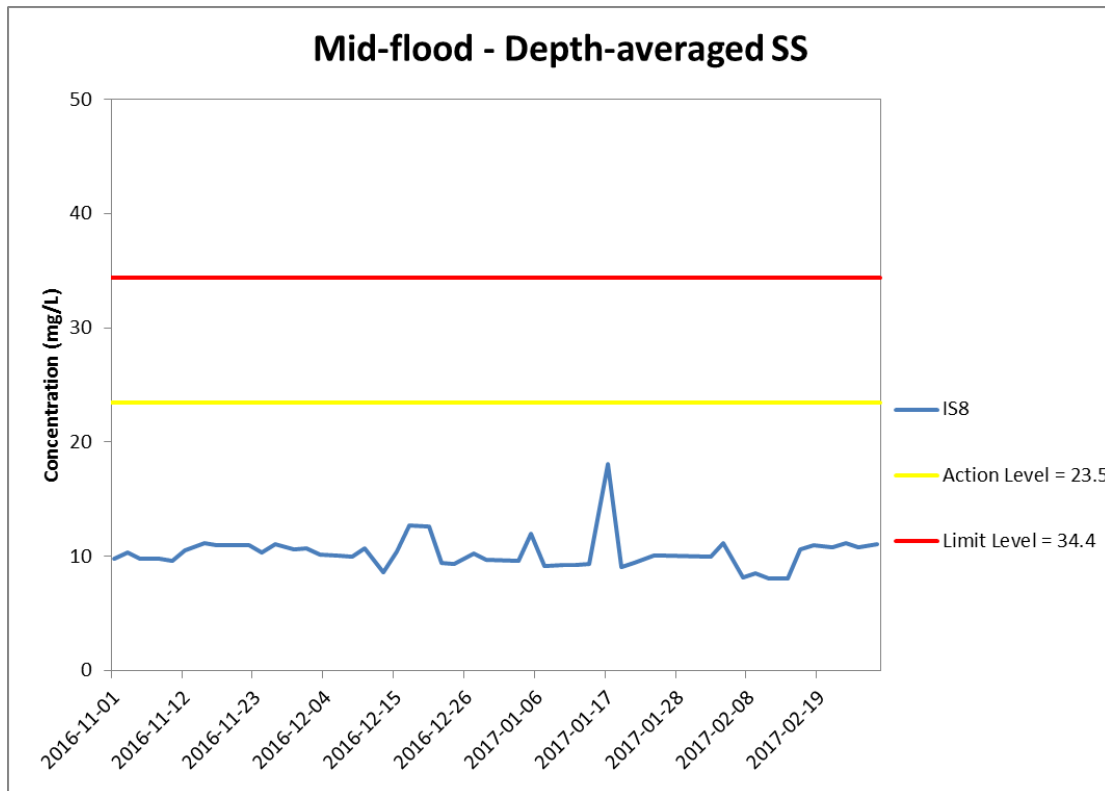


Figure J35 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 November 2016 and 28 February 2017 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



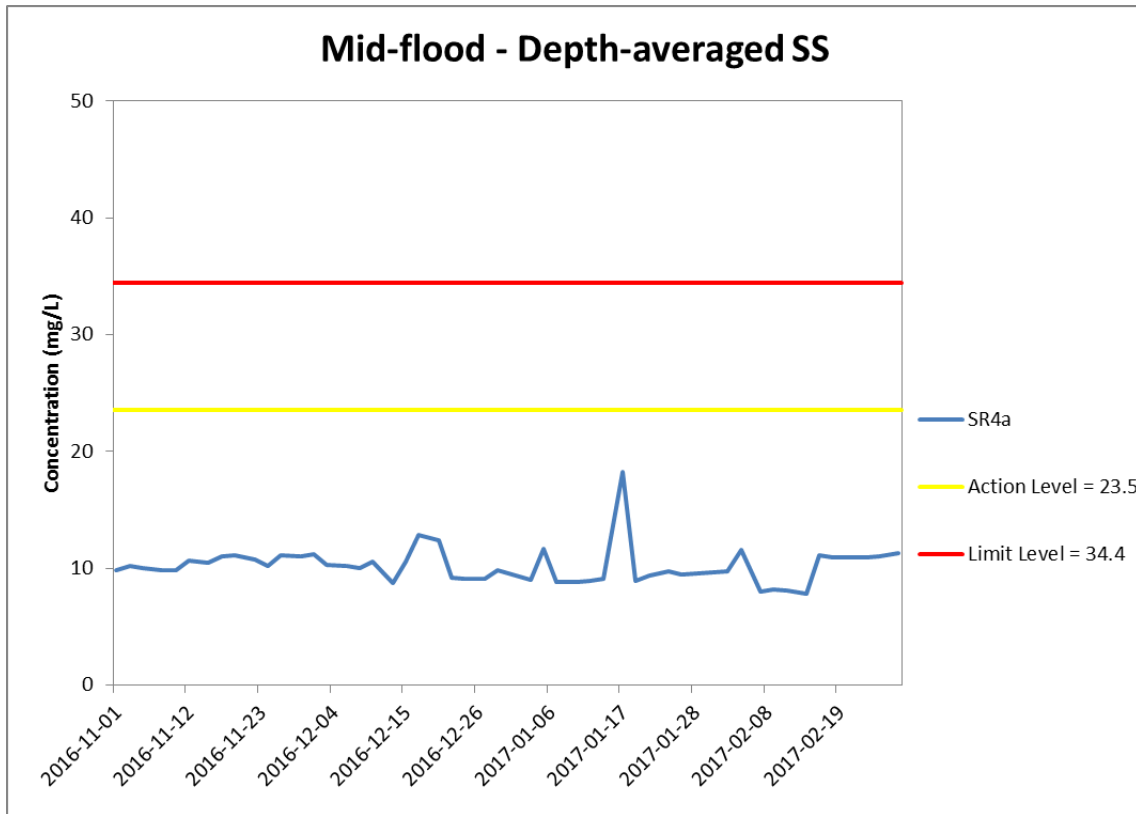


Figure J36 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 November 2016 and 28 February 2017 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



Appendix K

Impact Dolphin Monitoring Survey Results

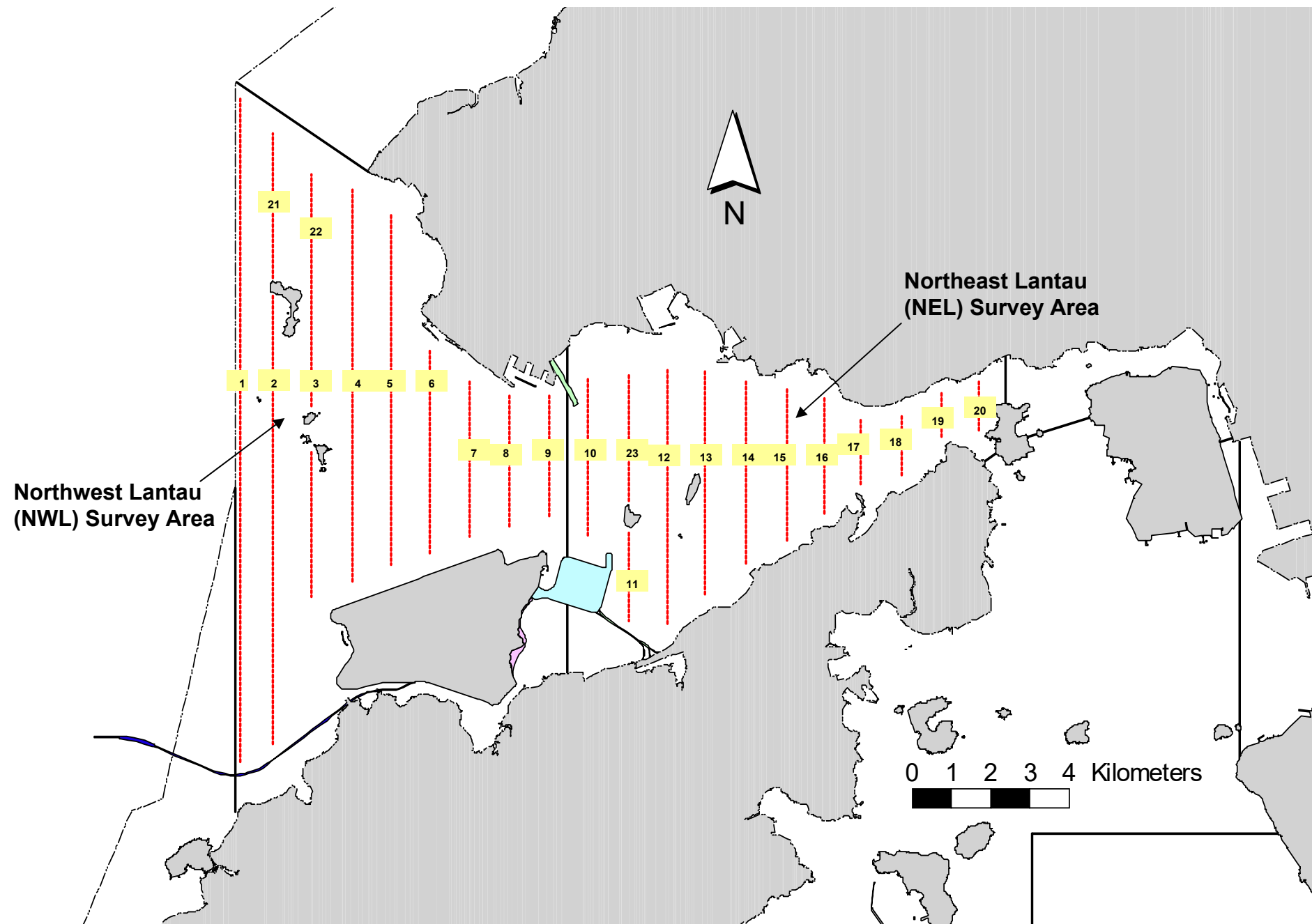


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

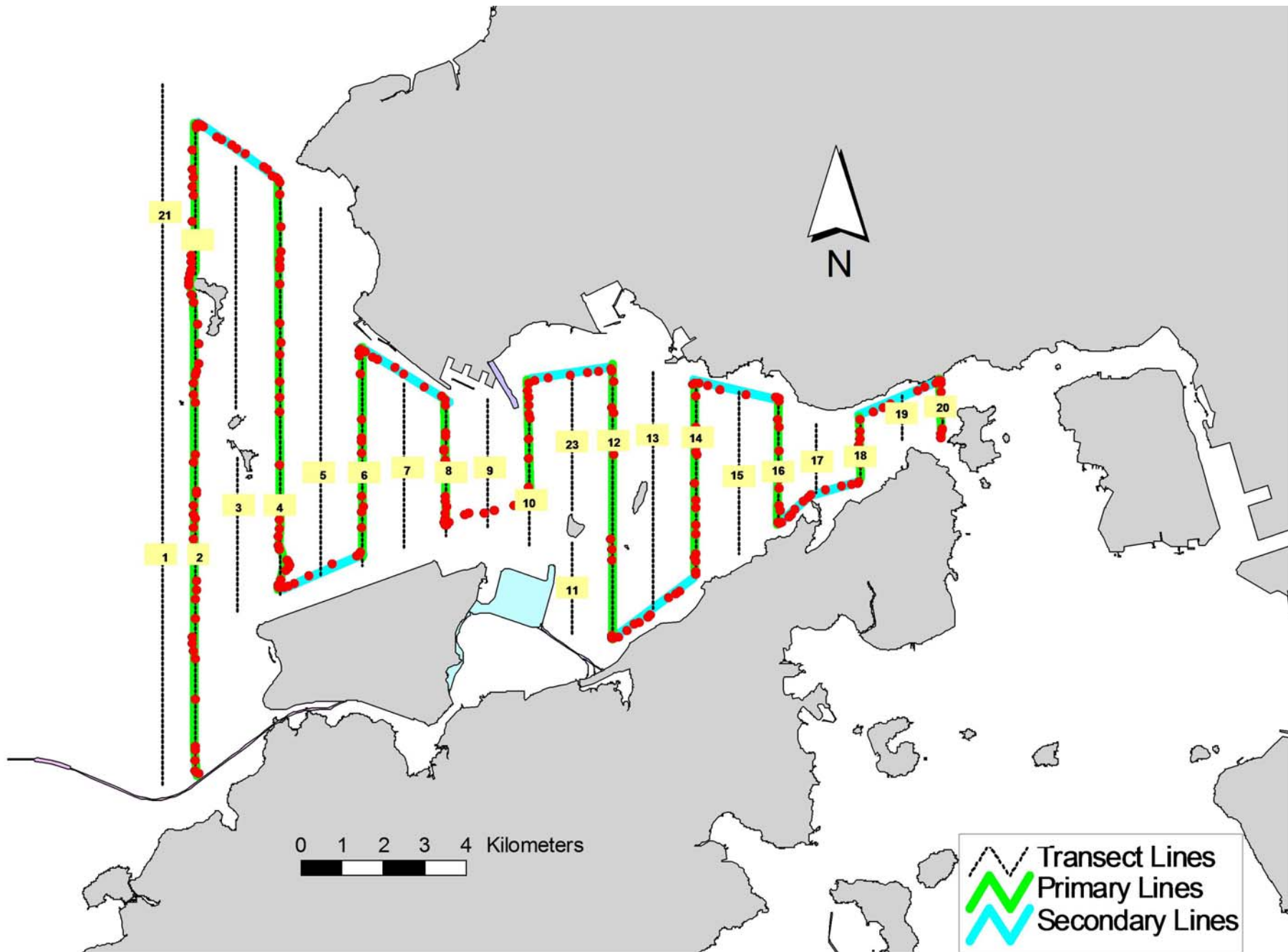


Figure 2. Survey Route on February 7th, 2017 (from HKLR03 survey)

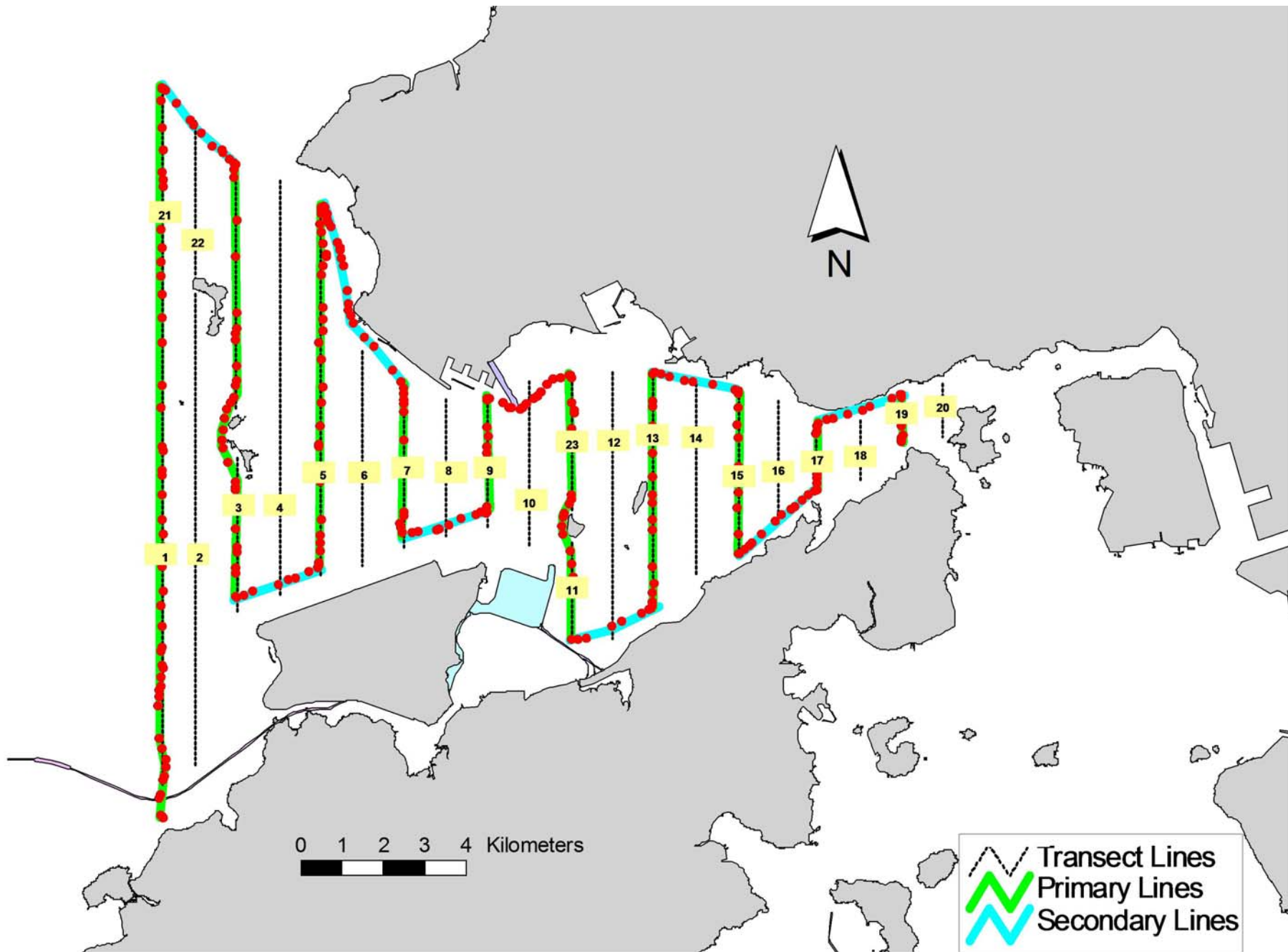


Figure 3. Survey Route on February 9th, 2017 (from HKLR03 survey)

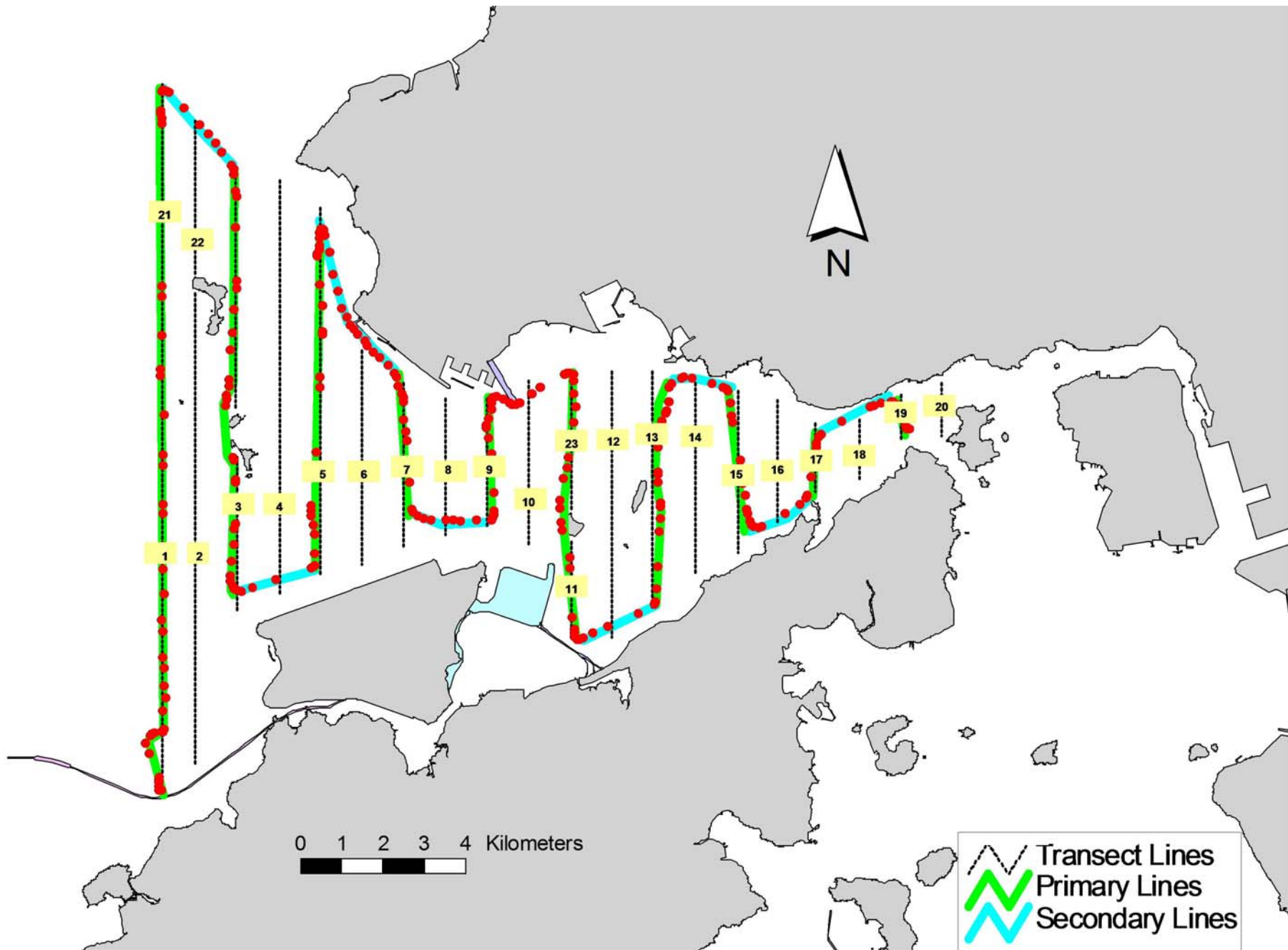


Figure 4. Survey Route on February 16th, 2017 (from HKLR03 survey)

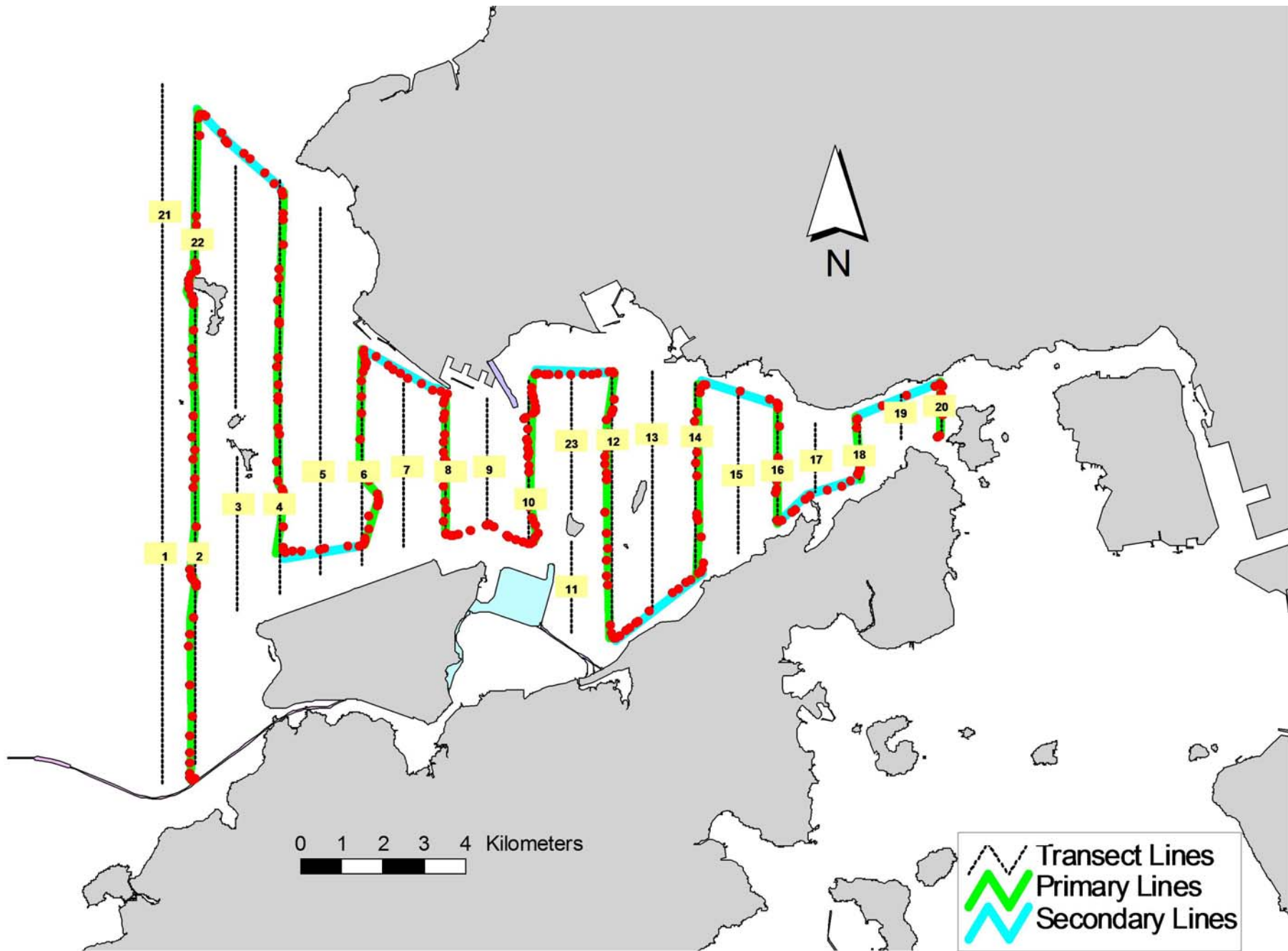


Figure 5. Survey Route on February 21st, 2017 (from HKLR03 survey)

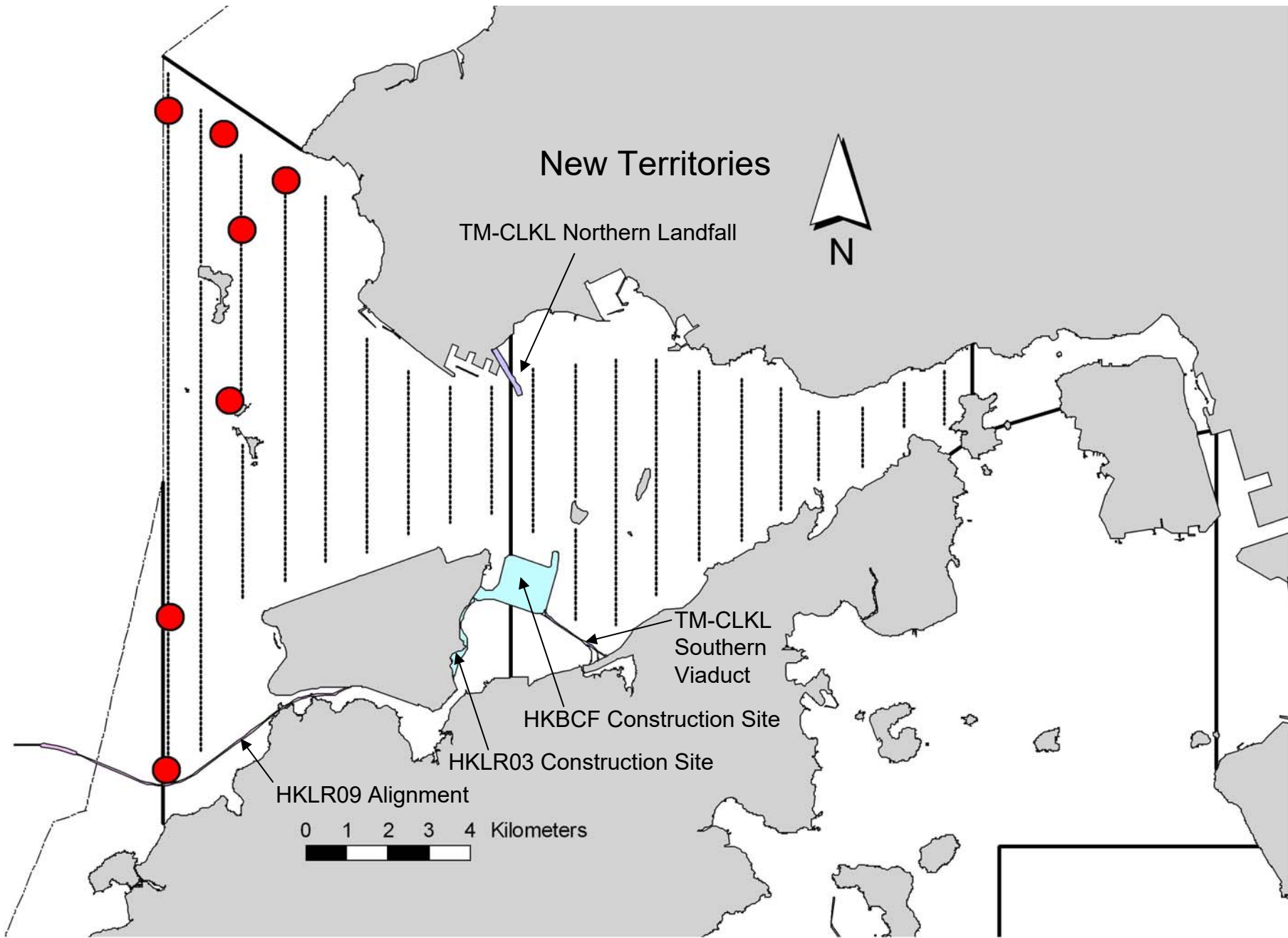


Figure 6. Distribution of Chinese White Dolphin Sightings during February 2017 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (February 2017)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
7-Feb-17	NE LANTAU	2	0.61	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NE LANTAU	3	8.22	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NE LANTAU	4	10.00	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NE LANTAU	2	0.96	WINTER	STANDARD36826	HKLR	S
7-Feb-17	NE LANTAU	3	5.61	WINTER	STANDARD36826	HKLR	S
7-Feb-17	NE LANTAU	4	4.60	WINTER	STANDARD36826	HKLR	S
7-Feb-17	NW LANTAU	2	1.58	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NW LANTAU	3	16.98	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NW LANTAU	4	12.66	WINTER	STANDARD36826	HKLR	P
7-Feb-17	NW LANTAU	3	5.78	WINTER	STANDARD36826	HKLR	S
7-Feb-17	NW LANTAU	4	1.80	WINTER	STANDARD36826	HKLR	S
9-Feb-17	NE LANTAU	2	4.59	WINTER	STANDARD31516	HKLR	P
9-Feb-17	NE LANTAU	3	12.25	WINTER	STANDARD31516	HKLR	P
9-Feb-17	NE LANTAU	2	5.54	WINTER	STANDARD31516	HKLR	S
9-Feb-17	NE LANTAU	3	4.53	WINTER	STANDARD31516	HKLR	S
9-Feb-17	NW LANTAU	2	2.18	WINTER	STANDARD31516	HKLR	P
9-Feb-17	NW LANTAU	3	8.68	WINTER	STANDARD31516	HKLR	P
9-Feb-17	NW LANTAU	4	28.37	WINTER	STANDARD31516	HKLR	P
9-Feb-17	NW LANTAU	3	7.37	WINTER	STANDARD31516	HKLR	S
9-Feb-17	NW LANTAU	4	6.00	WINTER	STANDARD31516	HKLR	S
16-Feb-17	NW LANTAU	2	36.29	WINTER	STANDARD36826	HKLR	P
16-Feb-17	NW LANTAU	2	10.85	WINTER	STANDARD36826	HKLR	S
16-Feb-17	NE LANTAU	1	0.70	WINTER	STANDARD36826	HKLR	P
16-Feb-17	NE LANTAU	2	14.21	WINTER	STANDARD36826	HKLR	P
16-Feb-17	NE LANTAU	2	7.08	WINTER	STANDARD36826	HKLR	S
16-Feb-17	NE LANTAU	3	1.81	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NW LANTAU	3	8.20	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NW LANTAU	4	18.51	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NW LANTAU	5	3.99	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NW LANTAU	2	1.00	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NW LANTAU	3	2.40	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NW LANTAU	4	1.40	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NW LANTAU	5	2.80	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NE LANTAU	2	1.20	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NE LANTAU	3	13.40	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NE LANTAU	4	5.12	WINTER	STANDARD36826	HKLR	P
21-Feb-17	NE LANTAU	2	0.70	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NE LANTAU	3	4.70	WINTER	STANDARD36826	HKLR	S
21-Feb-17	NE LANTAU	4	5.58	WINTER	STANDARD36826	HKLR	S

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

(Abbreviations: 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 Line)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
7-Feb-17	1	1259	3	NW LANTAU	3	ND	OFF	HKLR	828941	807511	WINTER	NONE	
9-Feb-17	1	1510	1	NW LANTAU	4	515	ON	HKLR	829996	805999	WINTER	NONE	S
16-Feb-17	1	1006	2	NW LANTAU	2	325	ON	HKLR	815481	804610	WINTER	NONE	P
16-Feb-17	2	1027	2	NW LANTAU	2	ND	OFF	HKLR	818991	804710	WINTER	NONE	
16-Feb-17	3	1115	2	NW LANTAU	2	1311	ON	HKLR	830541	804672	WINTER	NONE	P
16-Feb-17	4	1139	7	NW LANTAU	2	98	ON	HKLR	827813	806448	WINTER	NONE	P
16-Feb-17	5	1210	8	NW LANTAU	2	4	ON	HKLR	823927	806152	WINTER	NONE	P

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

ID#	DATE	STG#	AREA
CH105	16/02/17	5	NW LANTAU
NL98	16/02/17	5	NW LANTAU
NL104	16/02/17	4	NW LANTAU
NL123	16/02/17	5	NW LANTAU
NL202	16/02/17	4	NW LANTAU
NL210	09/02/17	1	NW LANTAU
NL260	16/02/17	5	NW LANTAU
NL286	16/02/17	4	NW LANTAU
NL320	16/02/17	4	NW LANTAU
NL321	16/02/17	4	NW LANTAU
WL145	16/02/17	1	NW LANTAU
WL179	16/02/17	5	NW LANTAU
WL261	16/02/17	5	NW LANTAU
WL275	07/02/17	1	NW LANTAU
	16/02/17	4	NW LANTAU

WL275_20170207_1



NL210_20170209_1



WL145_20170216_1



NL104_20170216_4



NL202_20170216_4



NL286_20170216_4



NL320_20170216_4



NL321_20170216_4



WL275_20170216_4



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

CH105_20170216_5



NL98_20170216_5



NL123_20170216_5



NL260_20170216_5



WL179_20170216_5



WL261_20170216_5



Appendix IV. (cont'd)

Appendix L

Event Action Plan

Appendix L1 Event/ Action Plan for Air Quality

EVENT	ET ⁽¹⁾	ACTION		
		IEC ⁽¹⁾	SOR ⁽¹⁾	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Discuss with the IEC and the Contractor on remedial actions required. 6. If exceedance continues, arrange meeting with the IEC and the SOR. 7. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check the Contractor's working method. 3. Discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate

EVENT	ET ⁽¹⁾	ACTION		
		IEC ⁽¹⁾	SOR ⁽¹⁾	Contractor
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the SOR and the DEP. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily. 5. Assess effectiveness of Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 3. Discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify the IEC, the SOR, the DEP and the Contractor. 2. Identify the source. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken. 7. Assess effectiveness of the Contractor's remedial actions 	<ol style="list-style-type: none"> 1. Discuss amongst the SOR, ET and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. 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. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.

and keep the IEC, the DEP and
the SOR informed of the results.

8. If the exceedance stops, cease
additional monitoring.

Appendix L2 Event/ Action Plan for Construction Noise

ACTION					
EVENT	ET	IEC	SOR	Contractor	
Action Level	<ol style="list-style-type: none"> 1. Notify the IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC 2. Implement noise mitigation proposals 	
Limit Level	<ol style="list-style-type: none"> 1. Notify the IEC, the SOR, the DEP and the Contractor. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, the SOR and the DEP the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst the SOR, the ET and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 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. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated. 	

Appendix L3 *Event/ Action Plan for Water Quality*

Event	ET Leader	IEC	SOR	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in situ measurement on next day of exceedance to confirm findings; Identify source(s) of impact; Inform IEC, contractor and SOR; Check monitoring data, all plant, equipment and Contractor's working methods. 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working methods. 	<ol style="list-style-type: none"> Confirm receipt of notification of non-compliance in writing; Notify Contractor. 	<ol style="list-style-type: none"> Inform the SOR and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> Repeat measurement on next day of exceedance to confirm findings; Identify source(s) of impact; Inform IEC, contractor, SOR and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, SOR and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Action level; 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working method; Discuss with ET and Contractor on possible remedial actions; Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly; Supervise the implementation of mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures; Ensure mitigation measures are properly implemented; Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the Supervising Officer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR; Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat measurement on next day of exceedance to confirm findings; 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working method; 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; 	<ol style="list-style-type: none"> Inform the SOR and confirm notification of the non-compliance in writing;

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

Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	SOR	Contractor
Action Level	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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.

Event	ET Leader	IEC	SOR	Contractor
Limit Level	<ol style="list-style-type: none"> 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, ER/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, ER/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. 	<ol style="list-style-type: none"> 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, ER/SOR and 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 ER/SOR of the results and findings accordingly; 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly. 	<ol style="list-style-type: none"> 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 ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/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. 	<ol style="list-style-type: none"> 1. Inform the ER/SOR and confirm notification of the non-compliance in writing; 2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other 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.

Appendix L5 Event and Action Plan on Dolphin Acoustic Behaviour

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
<p><u>Action Level</u></p> <p>With the numerical values presented in <i>Table 5.7 of Baseline Monitoring Report</i>, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is 20% lower or higher than that recorded in the baseline monitoring (see <i>Table 5.8 of Baseline Monitoring Report</i>), or when there is a difference of 20% in dolphin acoustic signal detection at nighttime period at Site C1 only, the action level should be triggered</p>	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 	<ol style="list-style-type: none"> 1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SO 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 SO; 3. Implement the agreed measures.

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
<p><u>Limit Level</u></p> <p>With the numerical values presented in Table 5.7 of <i>Baseline Monitoring Report</i>, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is 40% lower or higher than that recorded in the baseline monitoring (see Table 5.8 of <i>Baseline Monitoring Report</i>), or when there is a difference of 40% in dolphin acoustic signal detection at nighttime at Site C1 only, the limit level should be triggered</p>	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 7. Discuss additional dolphin monitoring and any other potential mitigation measures (eg consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly. 	<ol style="list-style-type: none"> 1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SO 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 SO; 3. Implement the agreed measures.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Office, DEP – Director of Environmental Protection

Appendix M

Monthly Summary of Waste Flow Table

Contract No. : HY/2012/07

Tuen Mun Chek Lap Kok Link – Southern Connection Viaduct Section

Monthly Summary Waste Flow Table for 2017 (Year)

Month/Material	Actual Quantities of Inert C&D Materials Generation						Actual Quantities of C&D wastes Generation						Actual Quantities of Recyclables Generation			
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fills	Imported Fill	Marine Sediment, Cat. L	Marine Sediment, Cat. Mp	Marine Sediment, Cat. Mf	Marine Sediment, Cat. H	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)
Jan	4.591	0.717	0.474	-	4.118	-	-	-	-	3.400	99.840	-	-	0.140	-	-
Feb	5.034	1.585	0.166	-	4.869	-	-	-	-	-	127.720	-	-	0.091	-	-
Mar	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apr	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
May	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jun	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUB-TOTAL	9.626	2.302	0.639	-	8.987	0.000	-	-	-	3.400	227.560	-	0.000	0.231	-	-
Jul	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aug	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sep	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oct	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dec	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	9.626	2.302	0.639	-	8.987	-	-	-	-	3.400	227.560	-	-	0.231	-	-

Notes :

- 1 - The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 2 - Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- 3 - Broken concrete for recycling into aggregates.
- 4 - Assumed 5 kg per damaged water-filled barrier.
- 5 - Disposed as Public Fills includes Hard Rock and Large Broken Concrete.

Appendix N

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

Appendix N1 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting month	Total No. recorded since project commencement
1-Hr TSP	Action	0	0
	Limit	0	0
24-Hr TSP	Action	0	2
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water Quality	Action	0	2
	Limit	0	0
Impact Dolphin Monitoring	Action	0	9
	Limit	1	8

Appendix N2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (February 2017)	0	0	0
Total No. received since project commencement	8	0	0