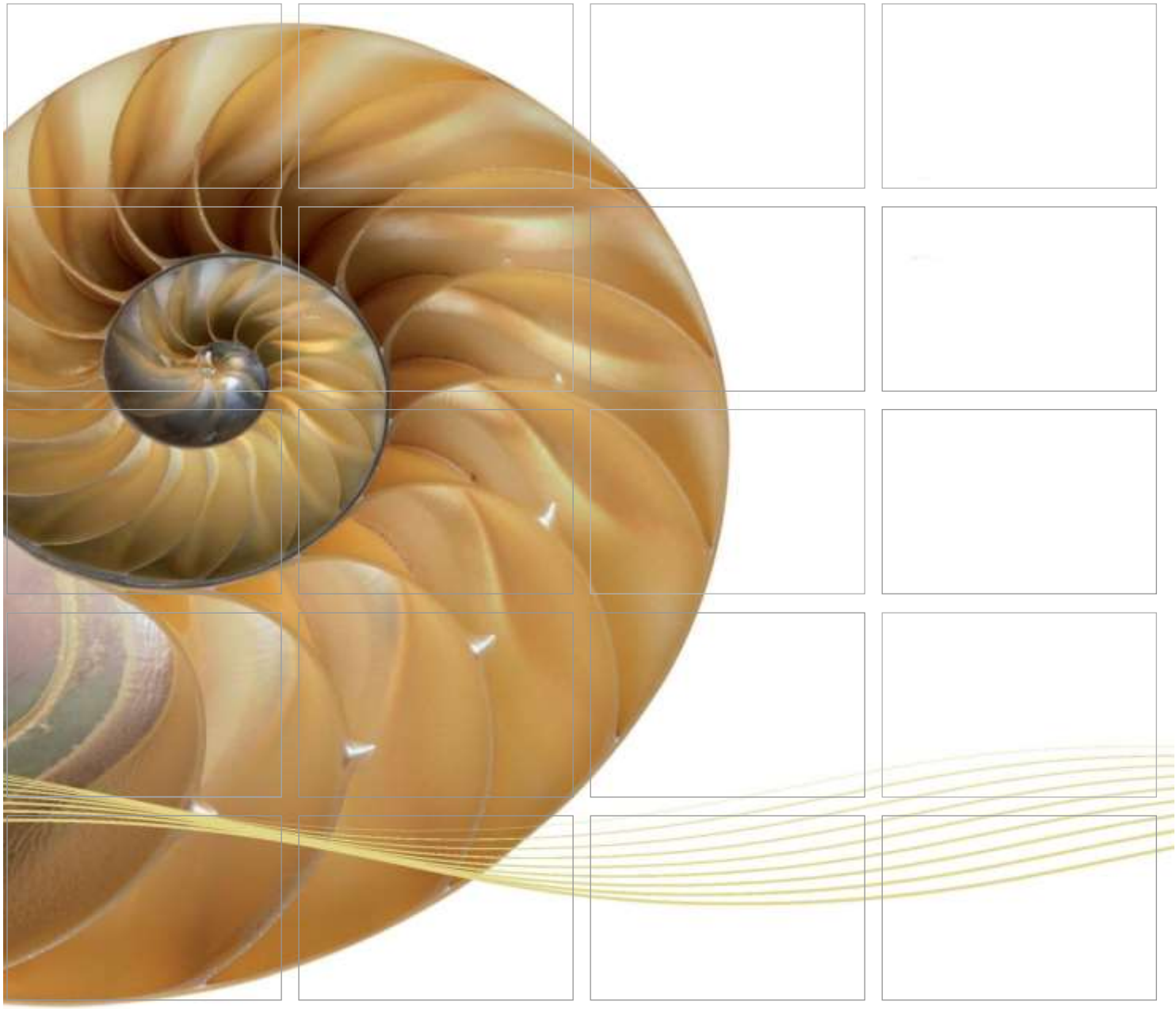
REPORT



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

Thirty-first Monthly EM&A Report

08 June 2016

Environmental Resources Management
16/F, Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
Telephone 2271 3000
Facsimile 2723 5660

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ERM

The world's leading sustainability consultancy

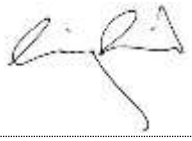
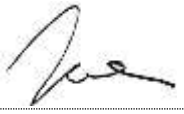
Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section

Thirty-first Monthly EM&A Report

Environmental Resources Management

16/F, Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

Document Code: 0215660_31st Monthly EM&A_20160607.doc

Client:	Project No:
Gammon	0215660
Summary:	Date: 08 June 2016
This document presents the Thirty-first Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.	Approved by:  *Mr Craig Reid* *Partner*
	Certified by:  *Mr Jovy Tam* *ET Leader*

Revision	Description	By	Checked	Approved	Date
	Thirty-first Monthly EM&A Report	VAR	JT	CAR	08/06/16

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RAMBOLL ENVIRON

Ref.: HYDHZMBEEM00_0_4272L.16 14 June 2016

AECOM By Fax (3691 2899) and By Post
Supervising Officer's Representative's Office
780 Cheung Tung Road, Lantau, N.T.

Attention: Mr. Daniel Ip

Dear Mr. Ip,

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

Contract No. HY/2012/07 TM-CLKL Southern Connection Viaduct Section
31st Monthly EM&A Report for May 2016 (EP-354/2009/D)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (May 2016) (ET's ref.: "0215660_31st Monthly EM&A_20160607.doc" dated 8 June 2016) certified by the ET Leader and provided to us via e-mail on 13 June 2016.

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

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

Yours sincerely,

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

c.c. HyD – Mr. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. Matthew Fung (By Fax: 3188 6614)
AECOM – Mr. Conrad Ng (By Fax: 3922 9797)
ERM – Mr. Jovy Tam (By Fax: 2723 5660)
Gammon – Mr. Roy Leung (By Fax: 3520 0486)

Internal: DY, YH, ENPO Site

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Ramboll Environ Hong Kong Limited 英環香港有限公司
Room 2403, 24/F., Jubilee Centre, 18 Fenwick Street, Wanchai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.Ramboll-Environ.com

TABLE OF CONTENTS

List of Appendices

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.

Part of the Southern Landfall of TM-CLK Link lies alongside the Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) where is a reclamation area constructed by *Contract HY/2010/02* under *Environmental Permit No. EP/353/2009/I*. 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/I* was subsequently handed-over to *Contract No. HY/2012/07*.

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 Thirty-first Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 May 2016 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

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pier construction;
- Construction of marine section of berth at Southern Landfall;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;

- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- 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	13 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental Site Inspection	4 sessions

Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Levels was recorded for construction air 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 March 2016 and May 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins 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, where 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 Indo-Pacific

humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in May 2016 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 June 2016 include the following:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Construction of marine section of berth at Southern Landfall;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

F**uture Key Issues**

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of June 2016 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

1 INTRODUCTION

1.1 BACKGROUND

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

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process* (*EIAO-TM*). The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-146/2009), an Environmental Permit (*EP-354/2009*) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variation (*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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reclamation area for southern landfall under *EP/353/2009/I* was subsequently handed-over to *Contract No. HY/2012/07*.

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 Thirty-first 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 May 2016.

1.3 ORGANIZATION STRUCTURE

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

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
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	3547 2133	3465 2899
	IEC	Dr. F.C. Tsang	3547 2134	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

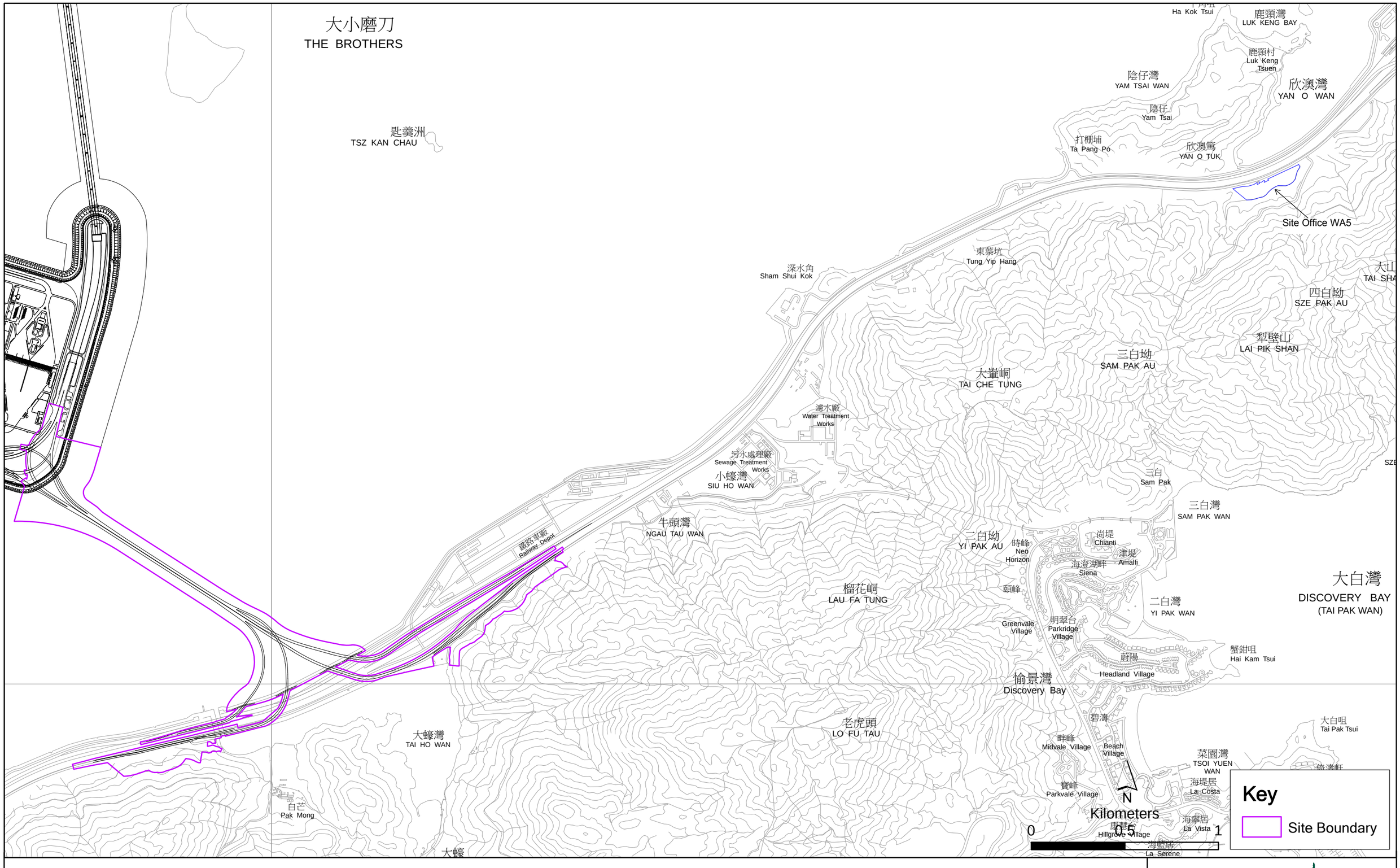

Figure 1.1

General Layout Plan of the Project

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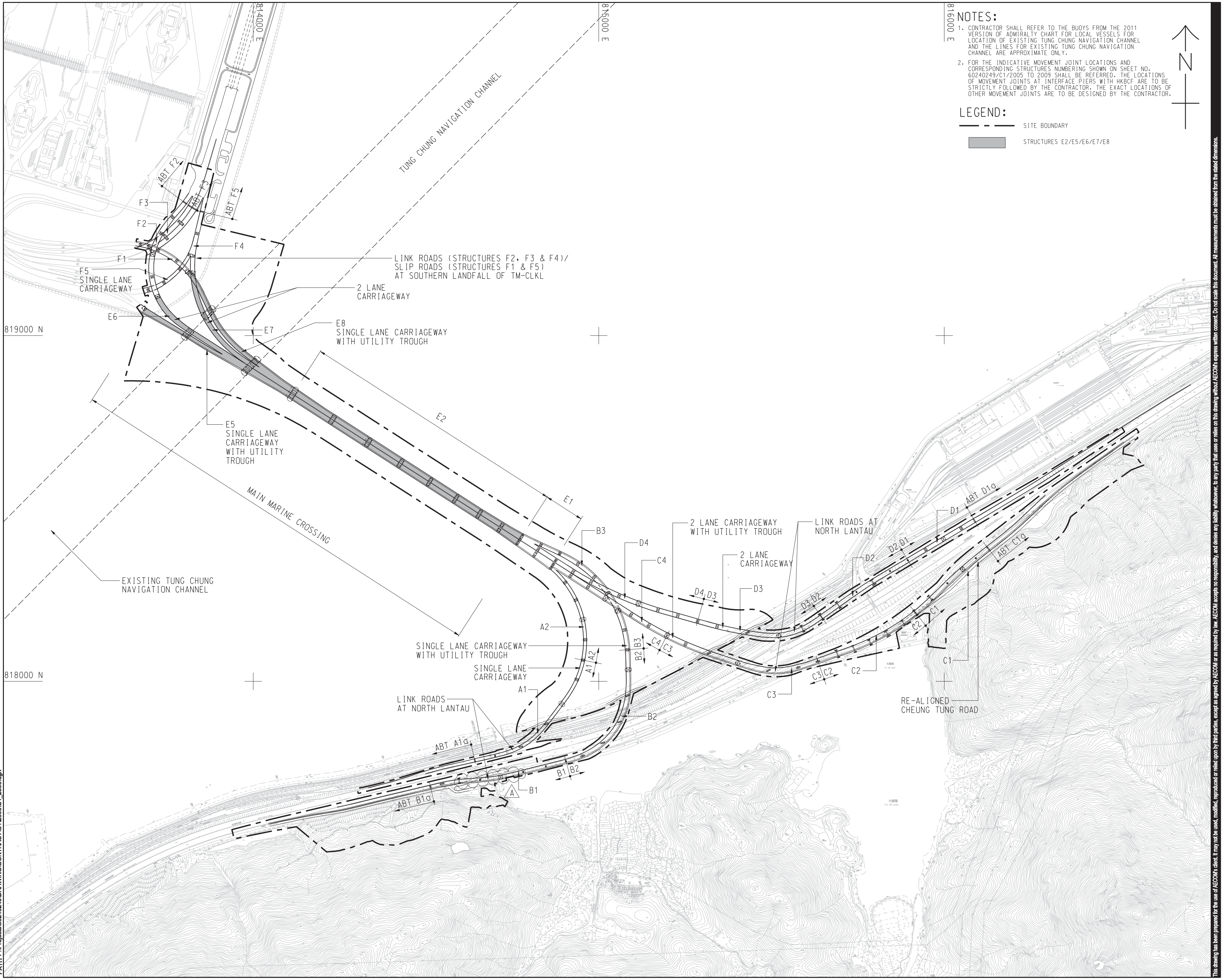
Environmental Resources Management

ERM



AECOM

PROJECT 項目

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE

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

CLIENT 業主

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

Figure 1.2a

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
A	NOV. 12	TENDER ADDENDUM NO. 1	CWN
-	OCT. 12	TENDER DRAWING	CWN

STATUS 階段

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KEY PLAN 索引圖

PROJECT NO. 項目編號: 60240249

CONTRACT NO. 合約編號: HY/2012/07

SHEET TITLE 圖紙名稱

SOUTHERN CONNECTION GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號

60240249/C1/2000A

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KEY PLAN

NOTES

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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

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

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Checked: DS — Approved: DOP
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Client: 路政署 HIGHWAYS DEPARTMENT, Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

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

Drawing title: **Figure 1.2b**

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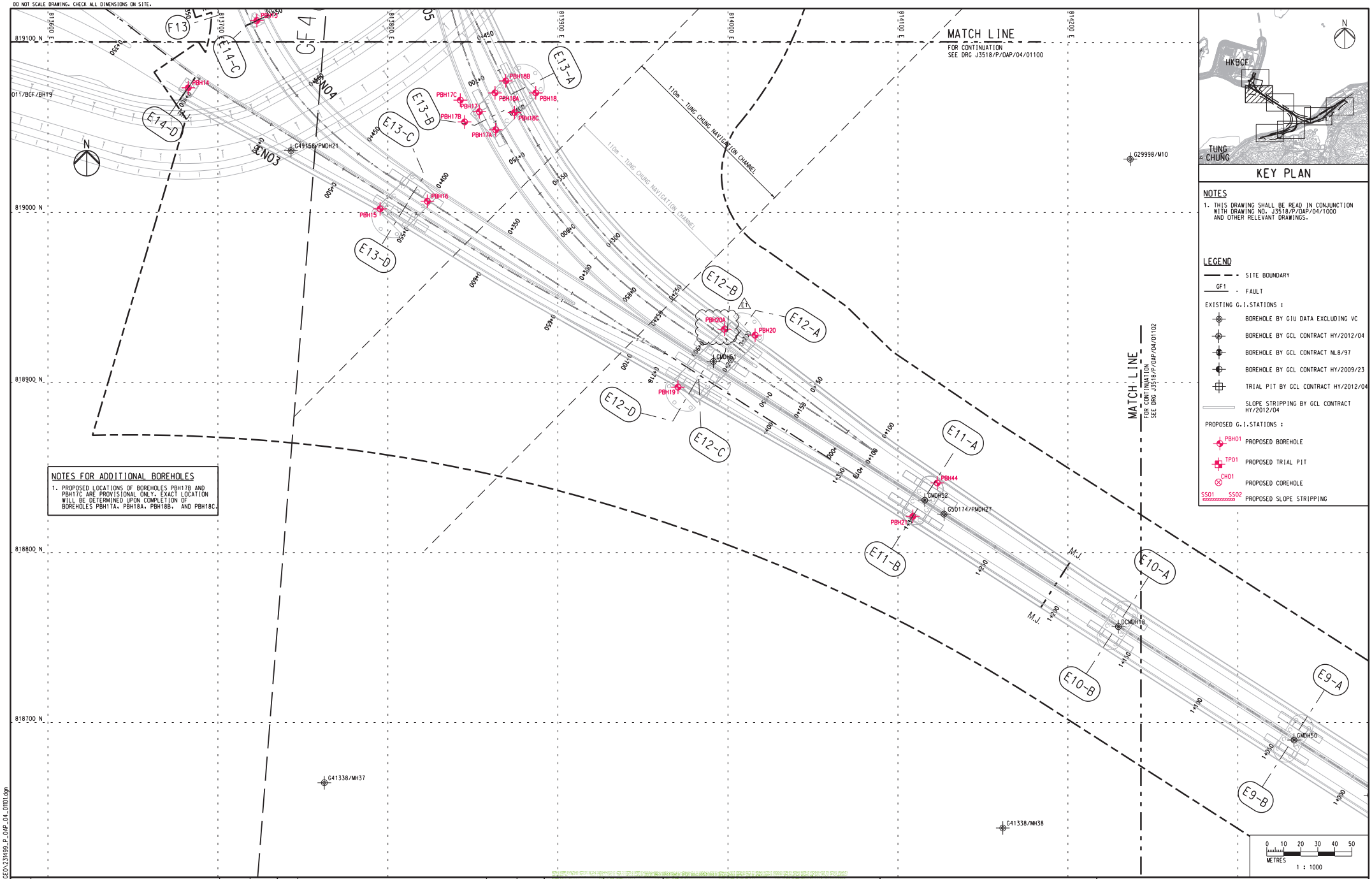

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C	SUBMISSION	RC	09/13				
D	SUBMISSION	RC	10/13				
E1	FOR INTERNAL REVIEW	RC	11/13				

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Checked: DS — Approved: DOP
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Client: 路政署 HIGHWAYS DEPARTMENT 香港項大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

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

Drawing title: **Figure 1.2c**

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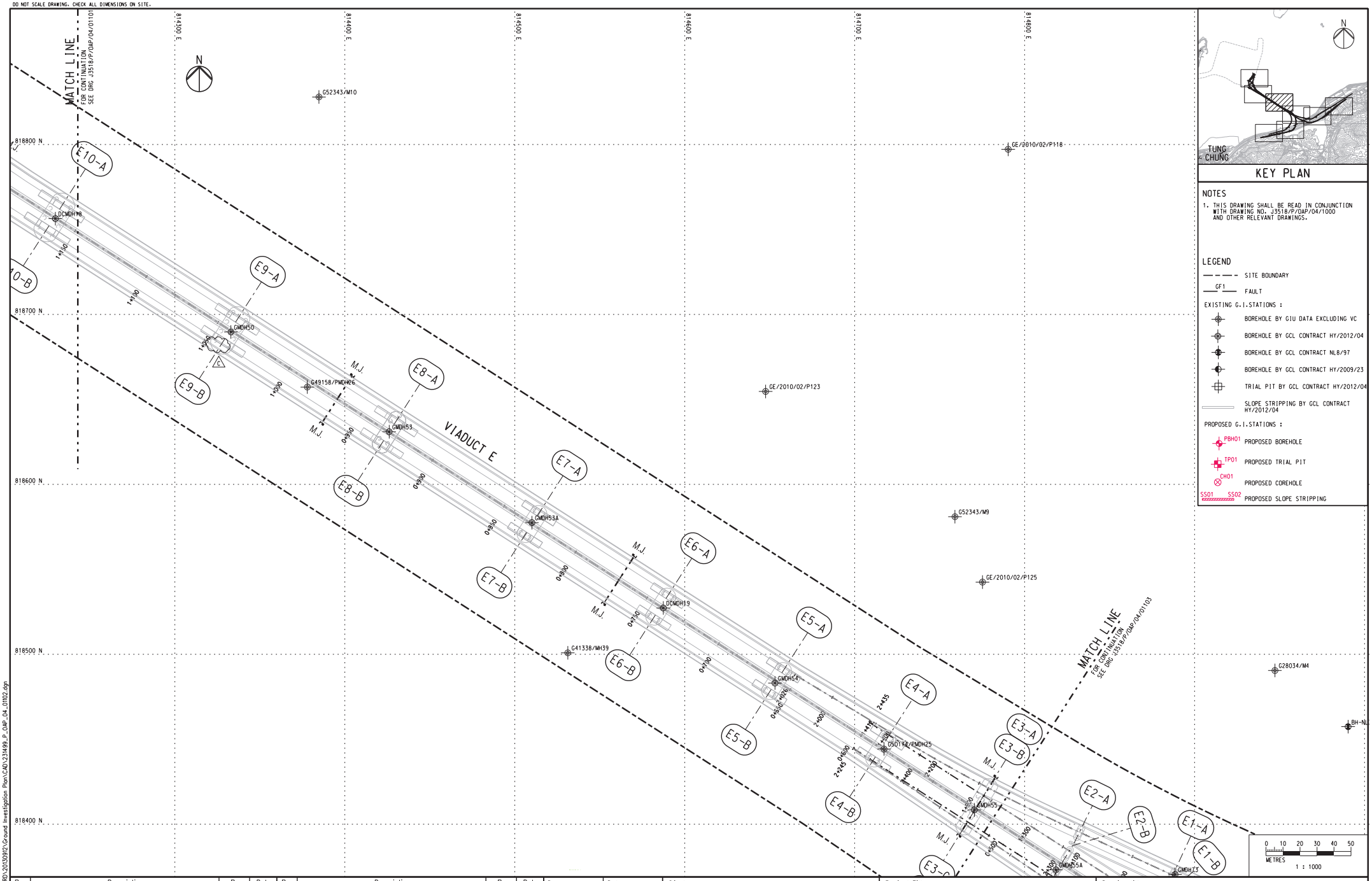

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C	SUBMISSION	RC	09/13

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Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 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

Supervising Officer: AECOM
Contractor: Gammon
Originator: ARUP

Drawing title: **Figure 1.2d**

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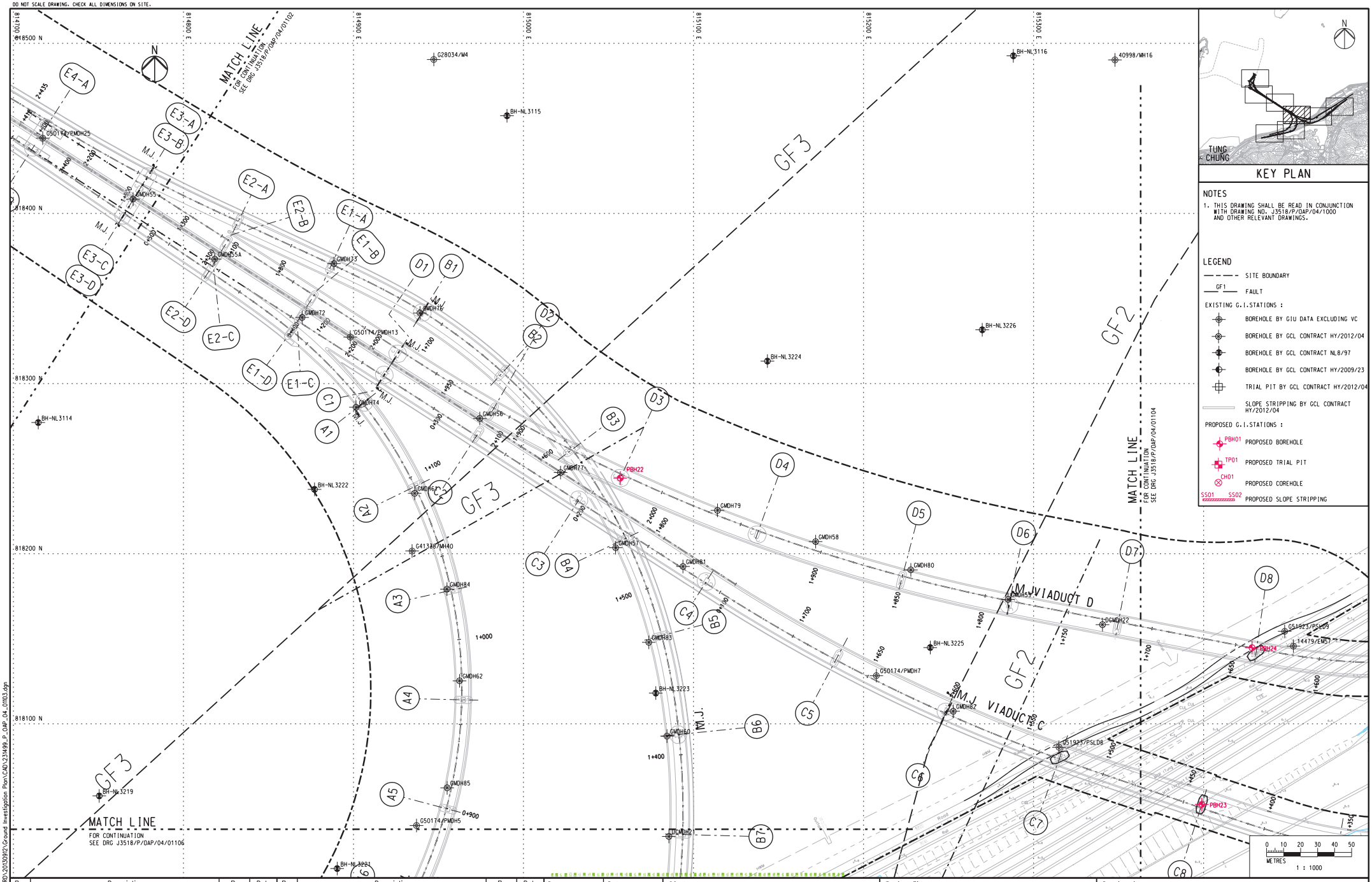

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C	SUBMISSION	RC	09/13				

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Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 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

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

Drawing title: **Figure 1.2e**

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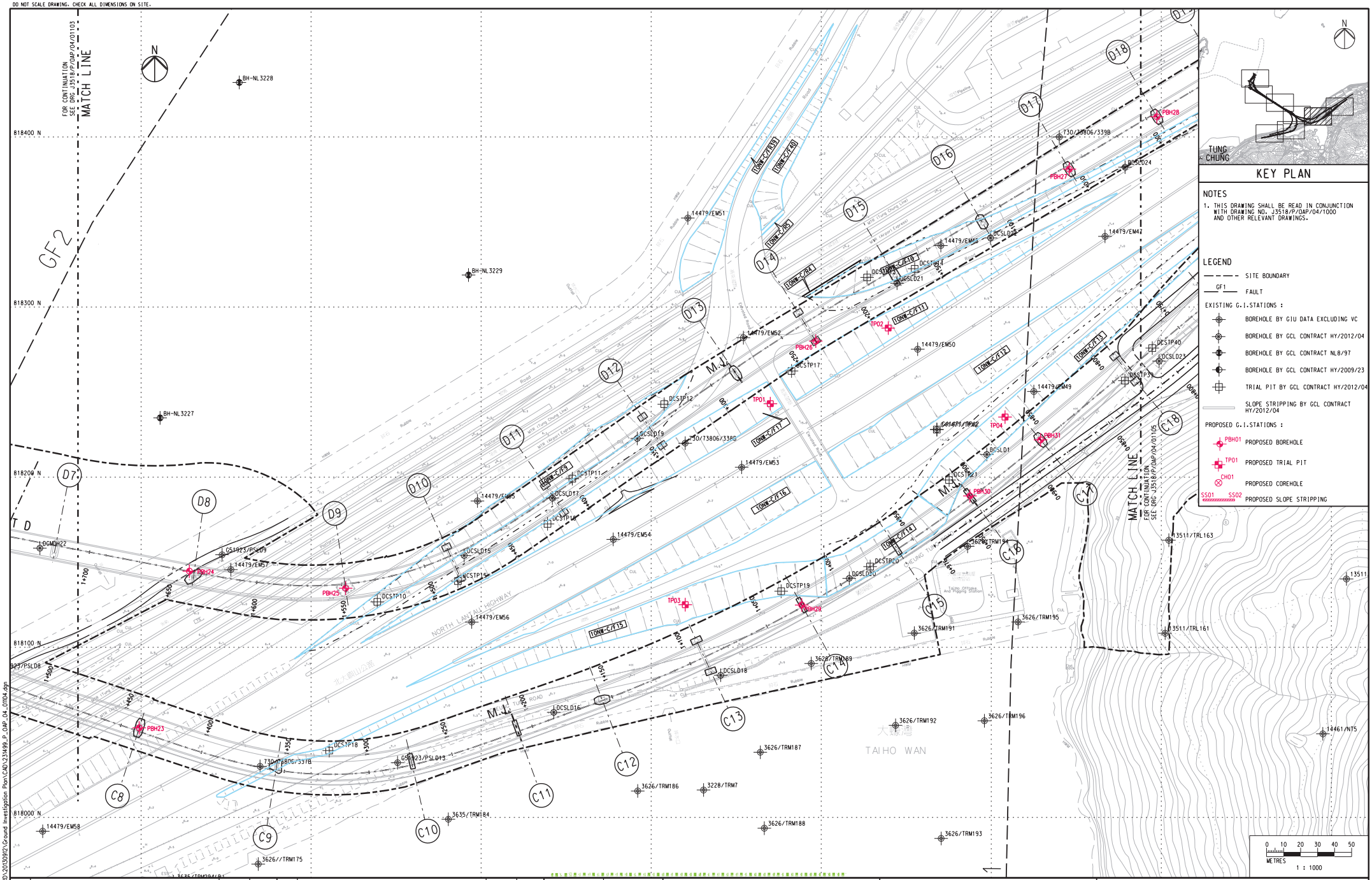

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Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

Drawing title: **Figure 1.2f**

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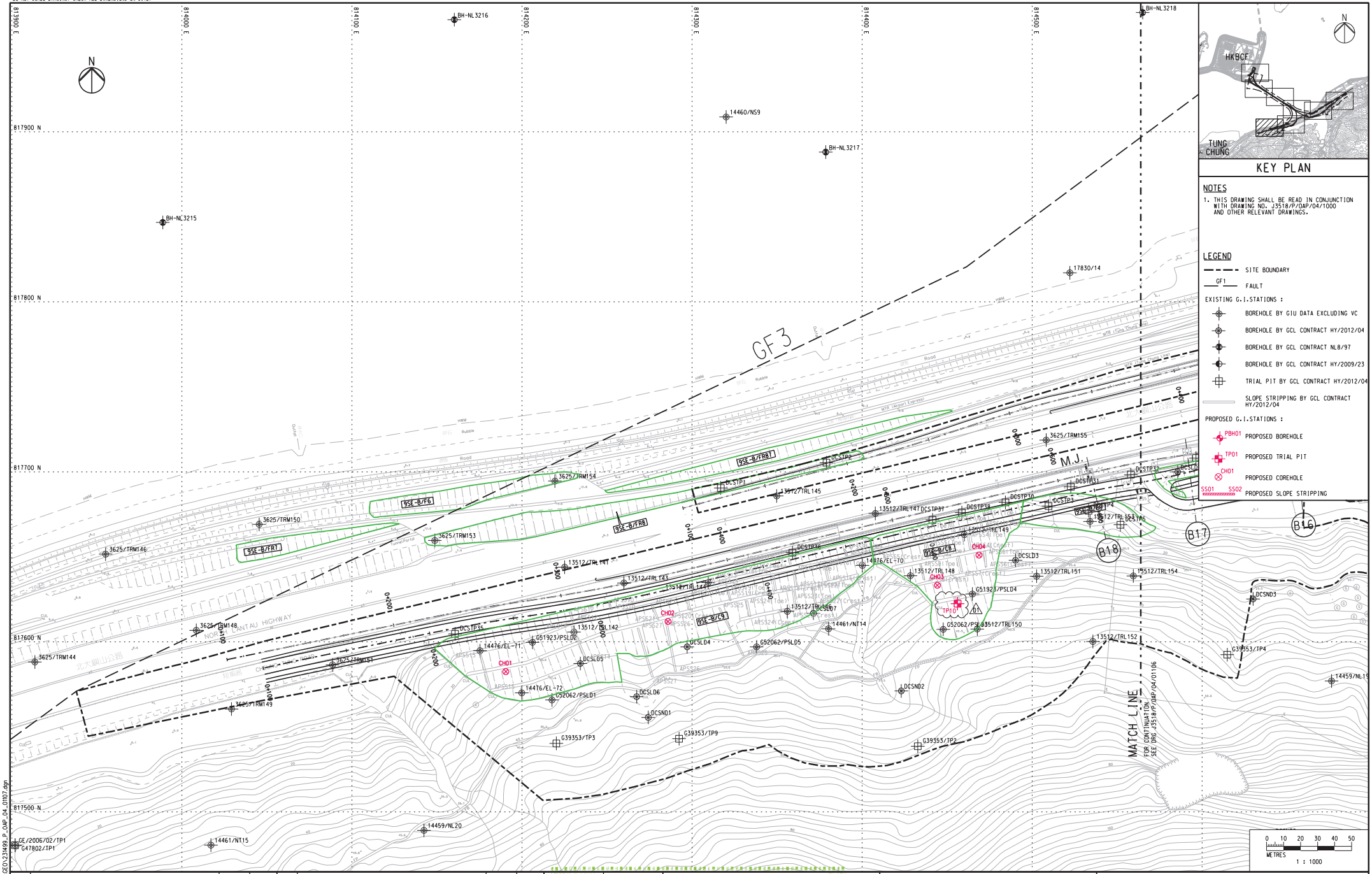

KEY PLAN

NOTES

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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

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1 : 1000

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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				
D1	FOR INTERNAL REVIEW	RC	11/13				

Drawn: RL — Date: 07/13

Checked: DS — Approved: DOP

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Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 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

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

Drawing title: **Figure 1.2g**

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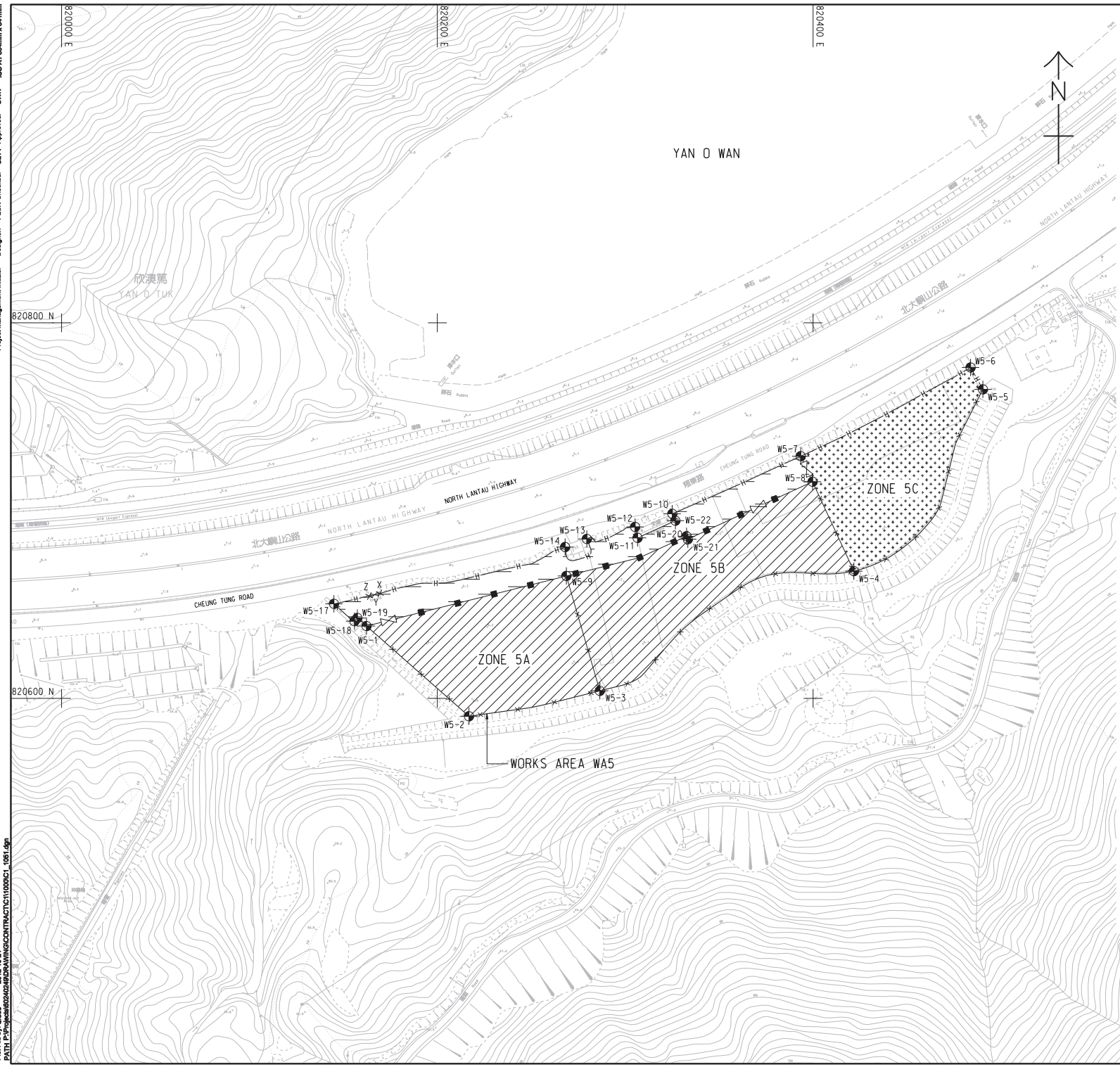


NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
2. 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. TIS 619. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
3. DEMARCATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
4. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6110 AND H6111 FOR DETAILS OF HOARDING.
5. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
6. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
7. 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.
8. THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
9. 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.
10. THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
11. THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TM-CLKL RELATED CONTRACTS. THE AREAS HATCHED WITH ▨ ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.
12. 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.
- H — 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 WA5

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

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
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

VR	DATE	DESCRIPTION	CHK.
-	OCT. 12	TENDER DRAWING	CWN

STATUS

SCALE: A1 1 : 1000
DIMENSION UNIT: METRES

KEY PLAN

Figure 1.2h

PROJECT NO.: 60240249
CONTRACT NO.: HY/2012/07

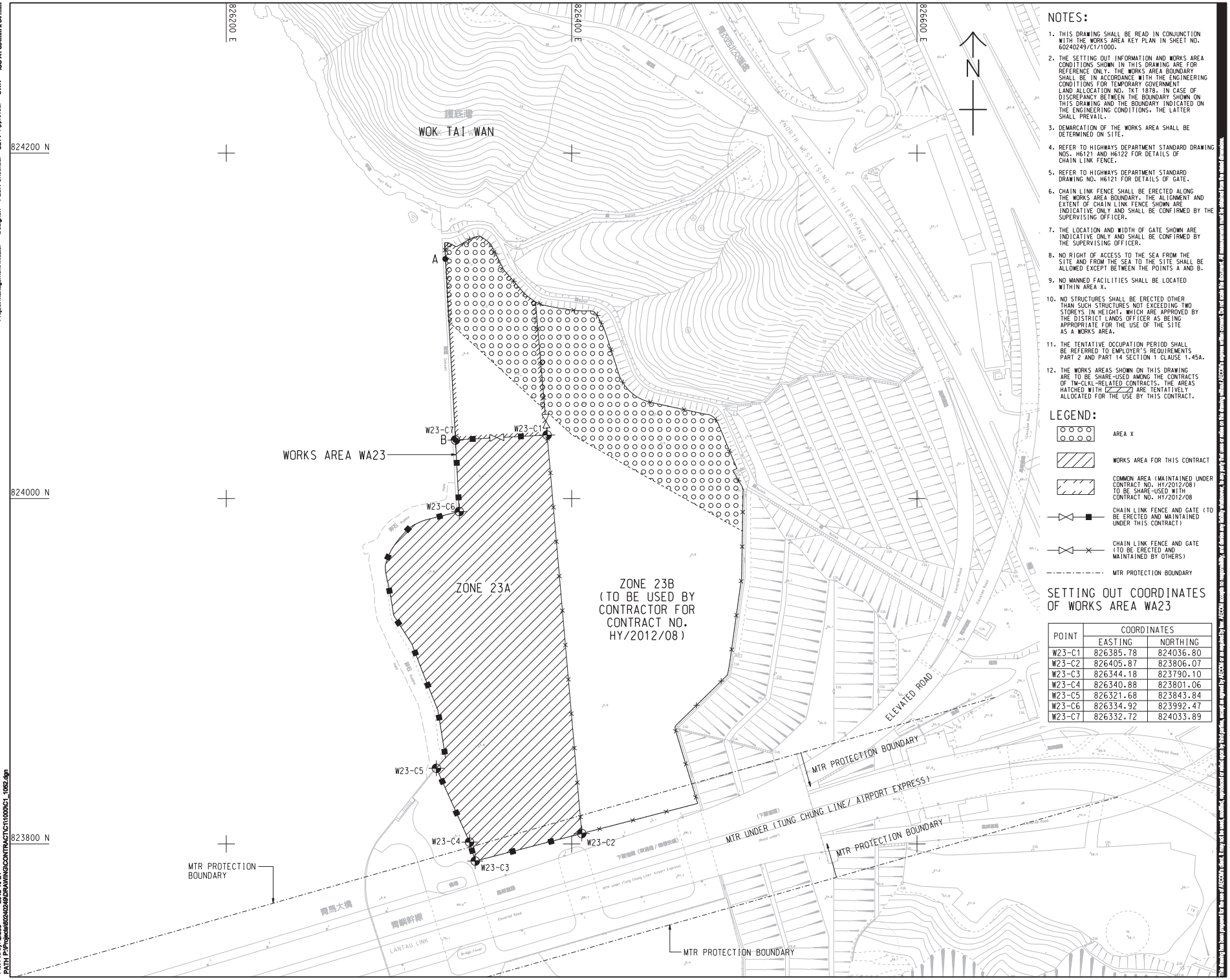
SHEET TITLE
WORKS AREA AND HOARDING PLAN

SHEET 1 OF 2

SHEET NUMBER
60240249/C1/1051

Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012-10-24
PATH: P:\Projects\60240249\DRAWING\CONTRACT\C1\1000\C1_1051.dgn



NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
2. 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 1878. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
3. DEMARCATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
4. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
5. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
6. 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.
7. THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
8. 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.
9. NO MANNED FACILITIES SHALL BE LOCATED WITHIN AREA X.
10. 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.
11. THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
12. THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH ▨ ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

LEGEND:

- AREA X
- WORKS AREA FOR THIS CONTRACT
- COMMON AREA (MAINTAINED UNDER CONTRACT NO. HY/2012/08) TO BE SHARE-USED WITH CONTRACT NO. HY/2012/08
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED BY OTHERS)
- 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	826334.92	823992.47
W23-C7	826332.72	824033.89

AECOM

PROJECT
TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
HIGHWAYS DEPARTMENT
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

VR	DATE	DESCRIPTION	CHK.
-	OCT. 12	TENDER DRAWING	CWN

STATUS

SCALE: A1 1 : 1000
DIMENSION UNIT: METRES

KEY PLAN

Figure 1.2i

PROJECT NO.: 60240249
CONTRACT NO.: HY/2012/07

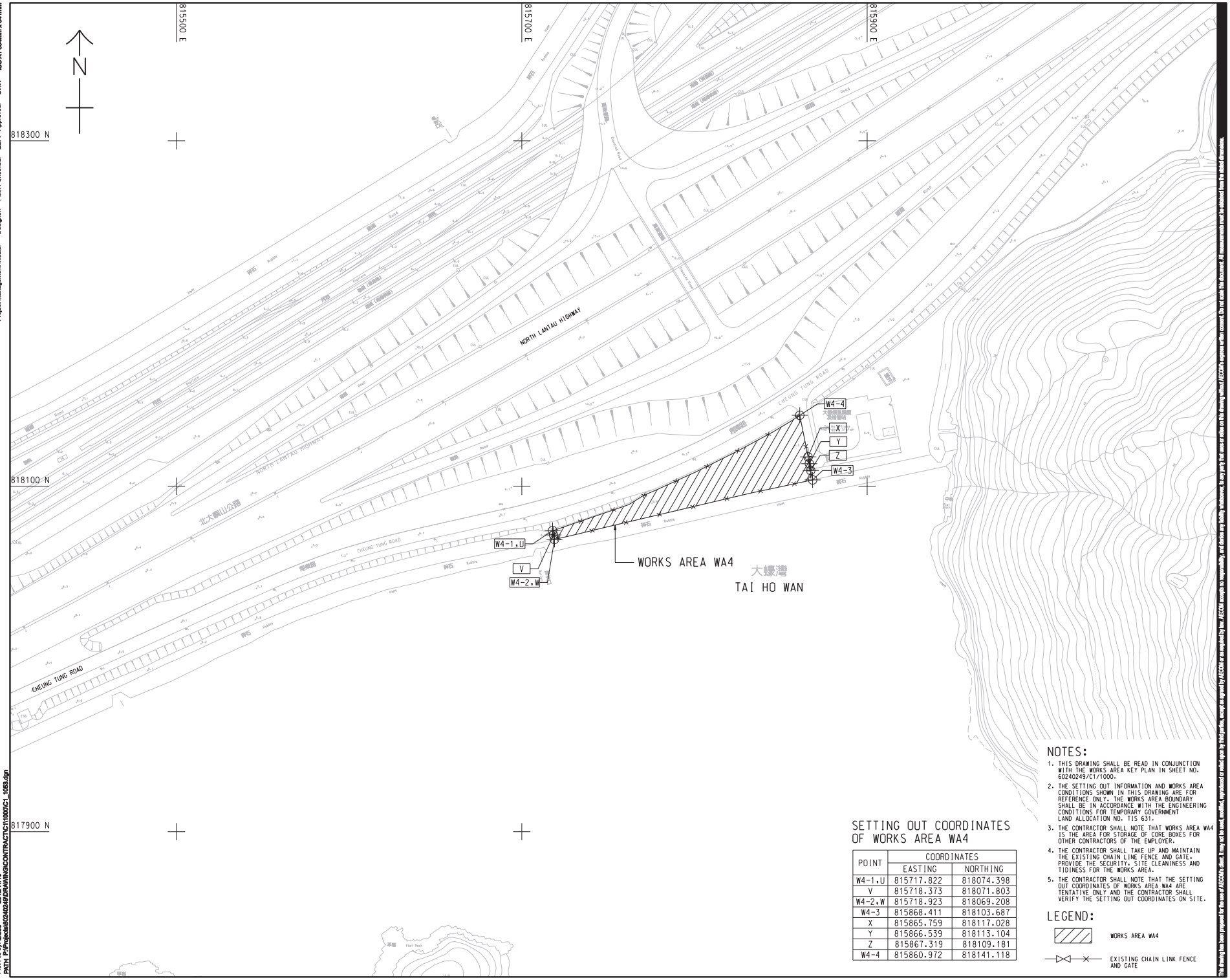
SHEET TITLE
WORKS AREA AND HOARDING PLAN

SHEET 2 OF 2

SHEET NUMBER
60240249/C1/1052

Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012-10-24
PATH: P:\Projects\60240249\DRAWING\CONTRACT\C1\1000\C1_1052.dgn



Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012/11/16
PATH: P:\Projects\60240249\DRAWING\CONTRACT\C1\1000\C1_1053.dgn

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:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
2. 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. TIS 631.
3. THE CONTRACTOR SHALL NOTE THAT WORKS AREA WA4 IS THE AREA FOR STORAGE OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER.
4. THE CONTRACTOR SHALL TAKE UP AND MAINTAIN THE EXISTING CHAIN LINE FENCE AND GATE. PROVIDE THE SECURITY, SITE CLEANINESS AND TIDINESS FOR THE WORKS AREA.
5. 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 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
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Figure 1.2j

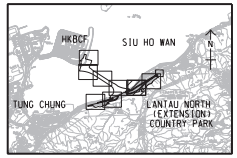
ISSUE/REVISION

VR	DATE	DESCRIPTION	CHK.
-	NOV. 12	TENDER ADDENDUM NO. 1	CWN

STATUS

SCALE: A1 1 : 1000
DIMENSION UNIT: METRES

KEY PLAN

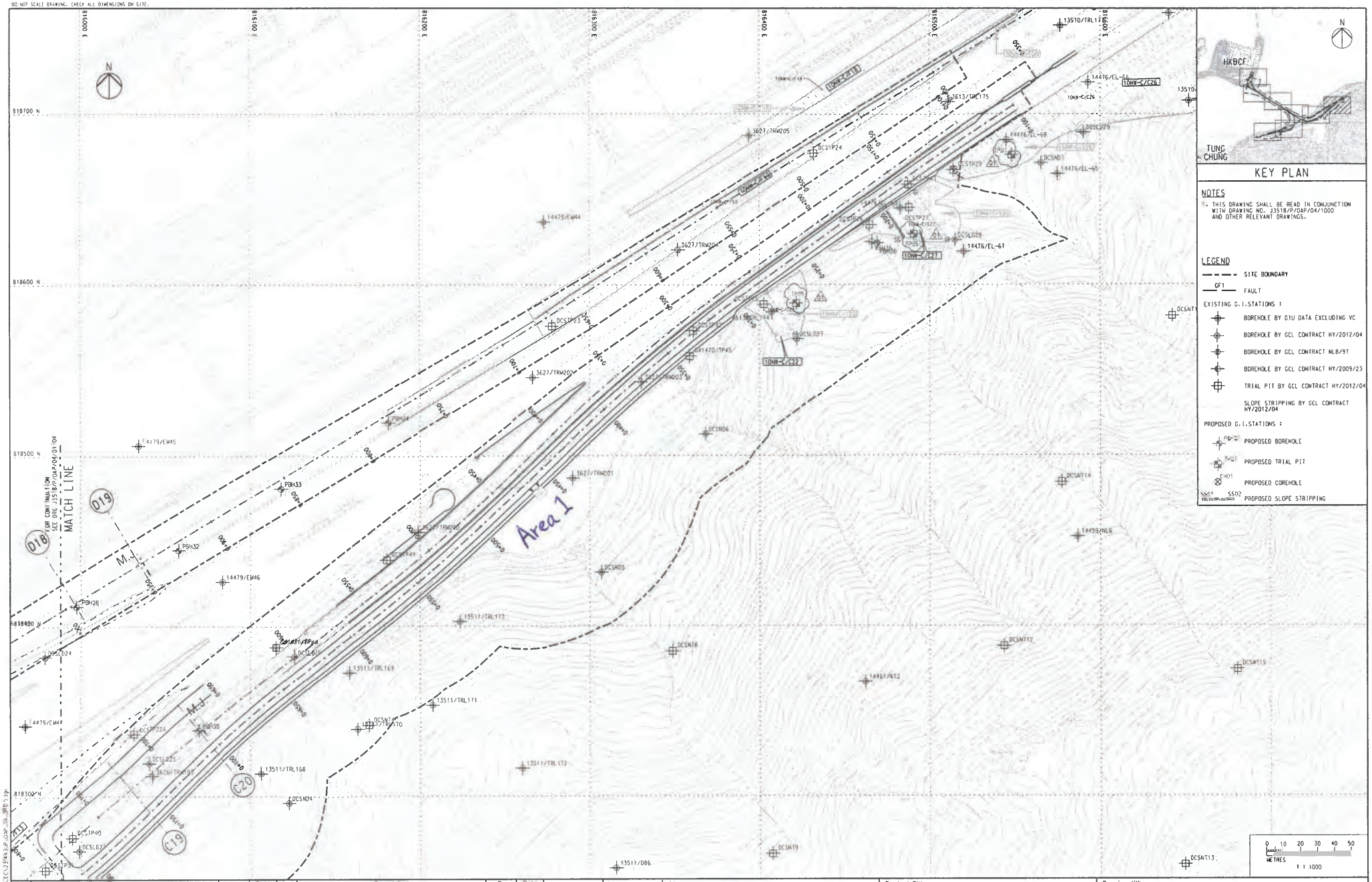


PROJECT NO.: 60240249
CONTRACT NO.: HY/2012/07

SHEET TITLE
WORKS AREA WA4

SHEET NUMBER
60240249/C1/1053

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



KEY PLAN

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 :

- PBH01 PROPOSED BOREHOLE
- TP01 PROPOSED TRIAL PIT
- CH01 PROPOSED COREHOLE
- SS01 SS02 PROPOSED SLOPE STRIPPING

Rev.	Description	By	Date	Rev.	Description	By	Date
A	[illegible]	RL	07/13				
B	[illegible]	RL	07/13				
C	[illegible]	RL	09/13				
D1	ETA INTERNAL REVIEW	RL	10/13				

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處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

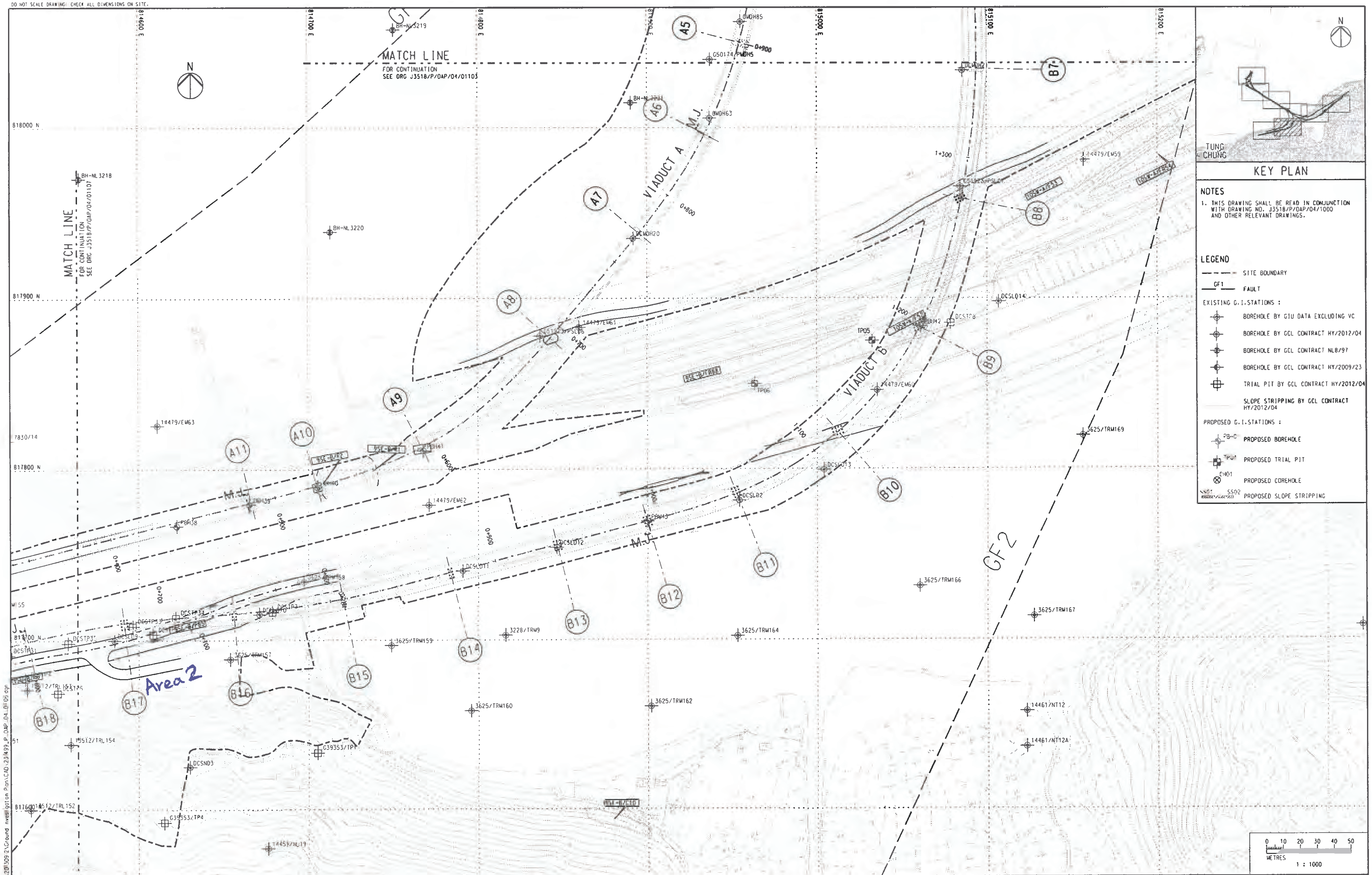
Project Title: Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section

Supervising Officer: AECOM | Contractor: Gammon | Originator: ARUP

Drawing title: **Figure 1.2k**

Drawing no. J3518/P/OAP/04/01105 | Rev. D1

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



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

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處
Hong Kong - Zhuhai - Macao Bridge
Hong Kong Project Management Office

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

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/04/01106 Rev C

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of the Contract was 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

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pier construction;
- Construction of marine section of berth at Southern Landfall;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

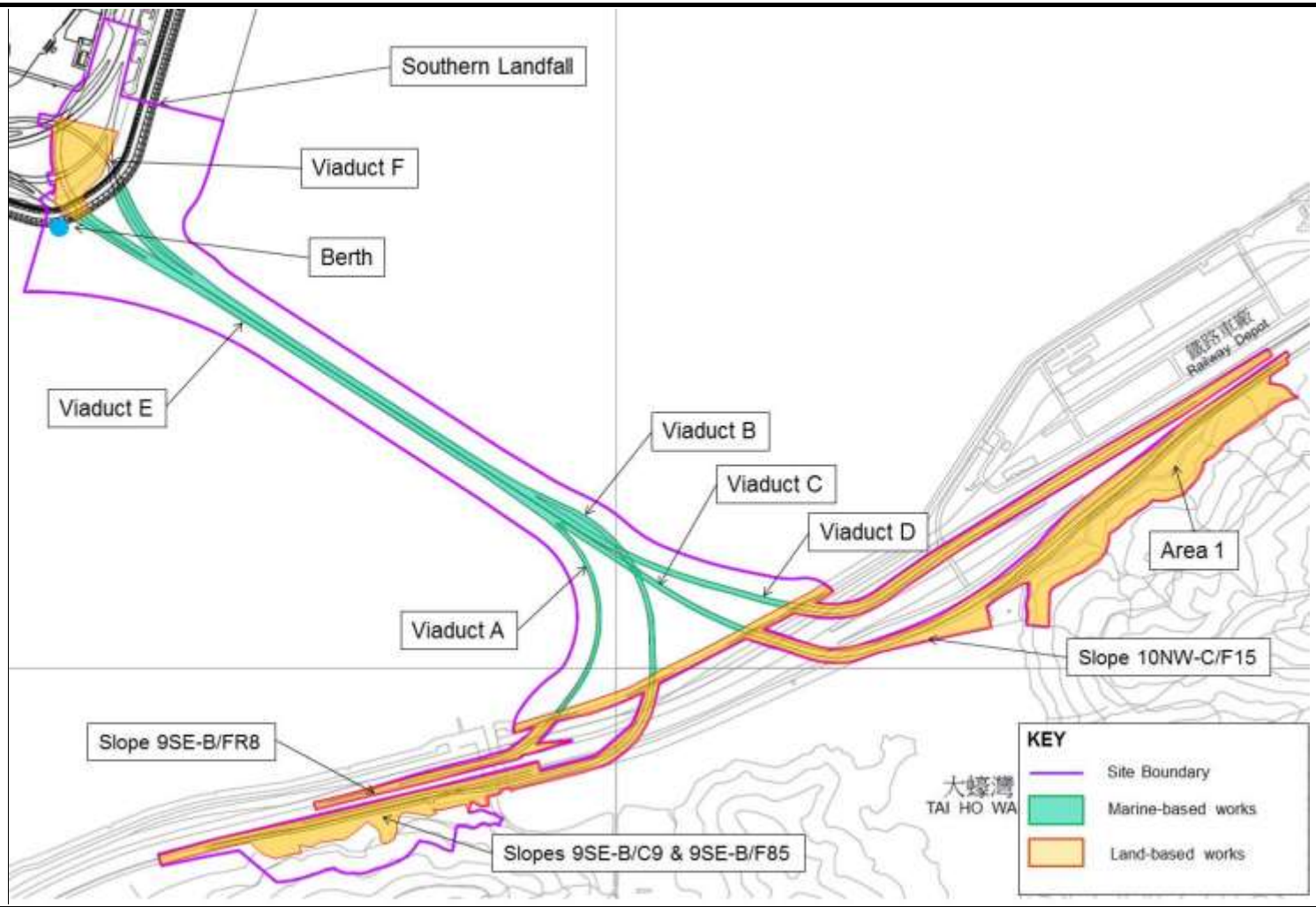
Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- 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 Construction Activities in the Reporting Month



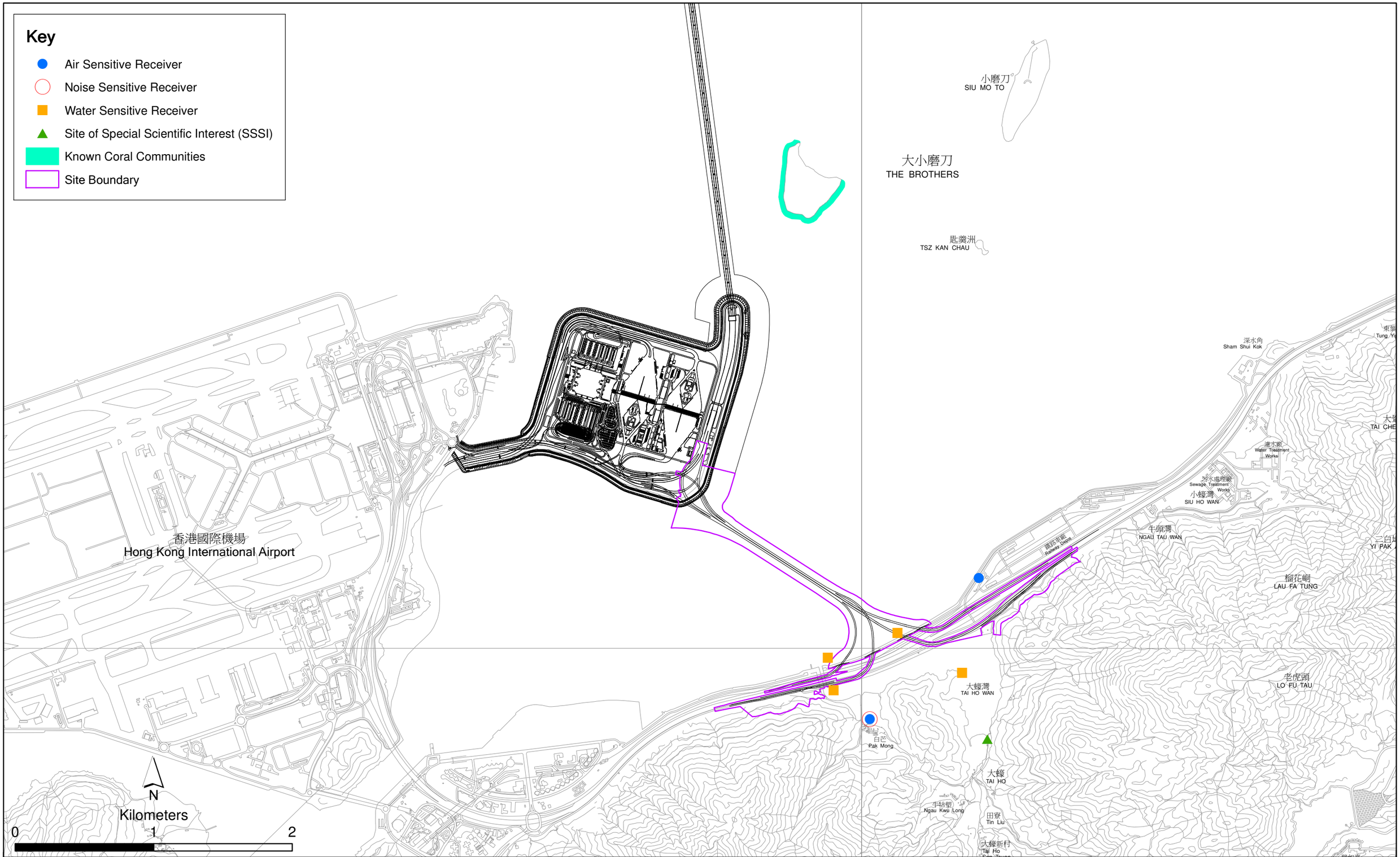


Figure 1.4

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

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_Environmental_Sensitive_Receiver.mxd
Date: 18/5/2015

Environmental Resources Management

ERM

2 EM&A RESULTS

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	5, 11, 17, 23 and 27 May 2016
ASR 8A	Area 4	On ground at the works area, Area 4	5, 11, 17, 23 and 27 May 2016

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 5, 11, 17, 23 and 27 May 2016 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*.

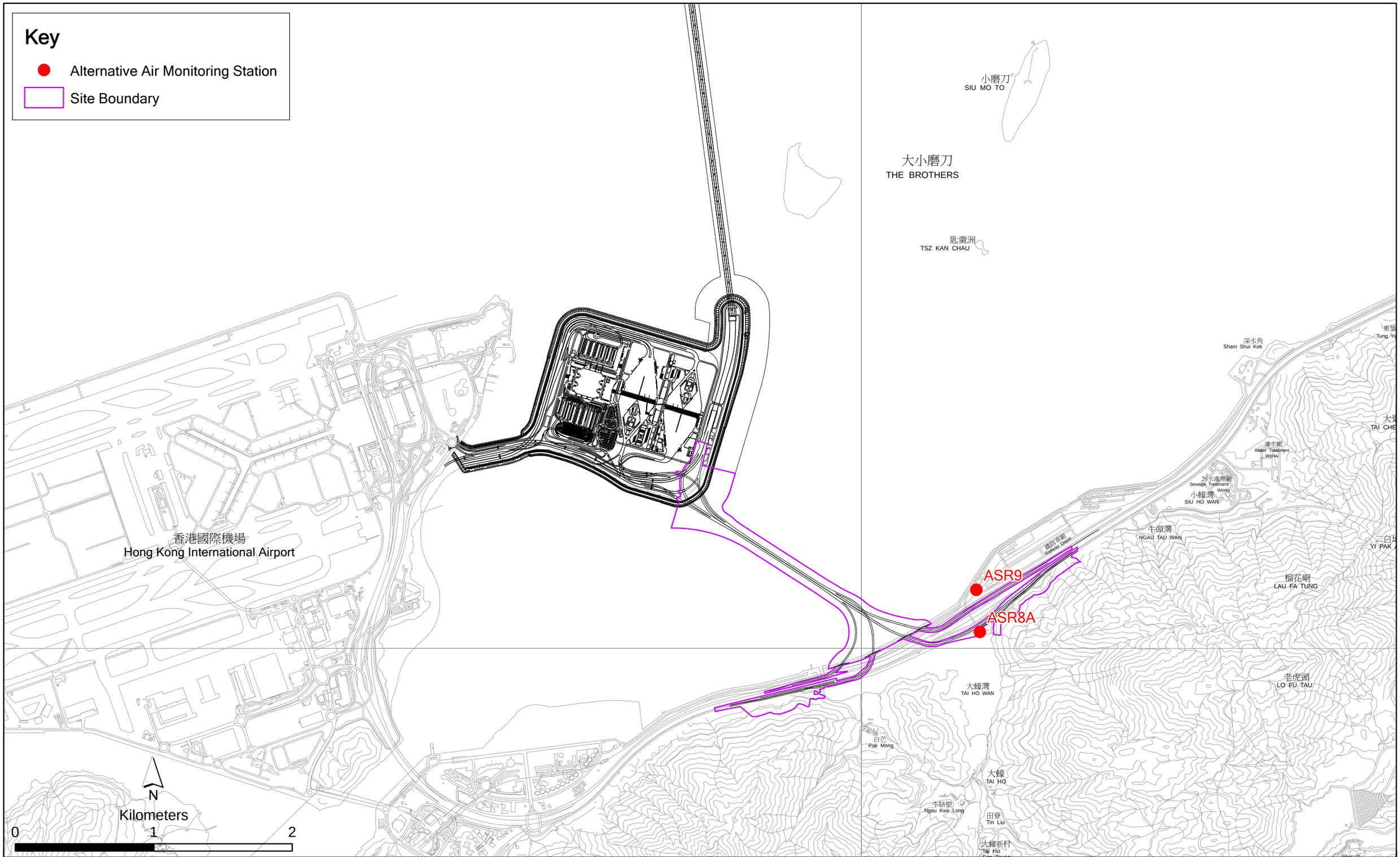


Figure 2.1

Locations of Air Quality Monitoring Stations

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_AQMS.mxd
Date: 7/1/2015

Environmental Resources Management

ERM

Table 2.2 Air Quality Monitoring Equipment

Equipment	Brand and Model
High Volume Sampler (1-hour TSP and 24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Sampler (Model No. TE-5170)
Wind 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 May 2016 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 (μg/m³)	Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
ASR 8A	82	44 - 187	394	500
ASR 9	95	62 - 146	393	500

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

Monitoring Station	Average (μg/m³)	Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
ASR 8A	55	44 – 71	178	260
ASR 9	60	50 – 73	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 5, 11, 17, 23 and 27 May 2016 by 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	5, 11, 17, 23 and 27 May 2016

Table 2.6 Noise Monitoring Equipment

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

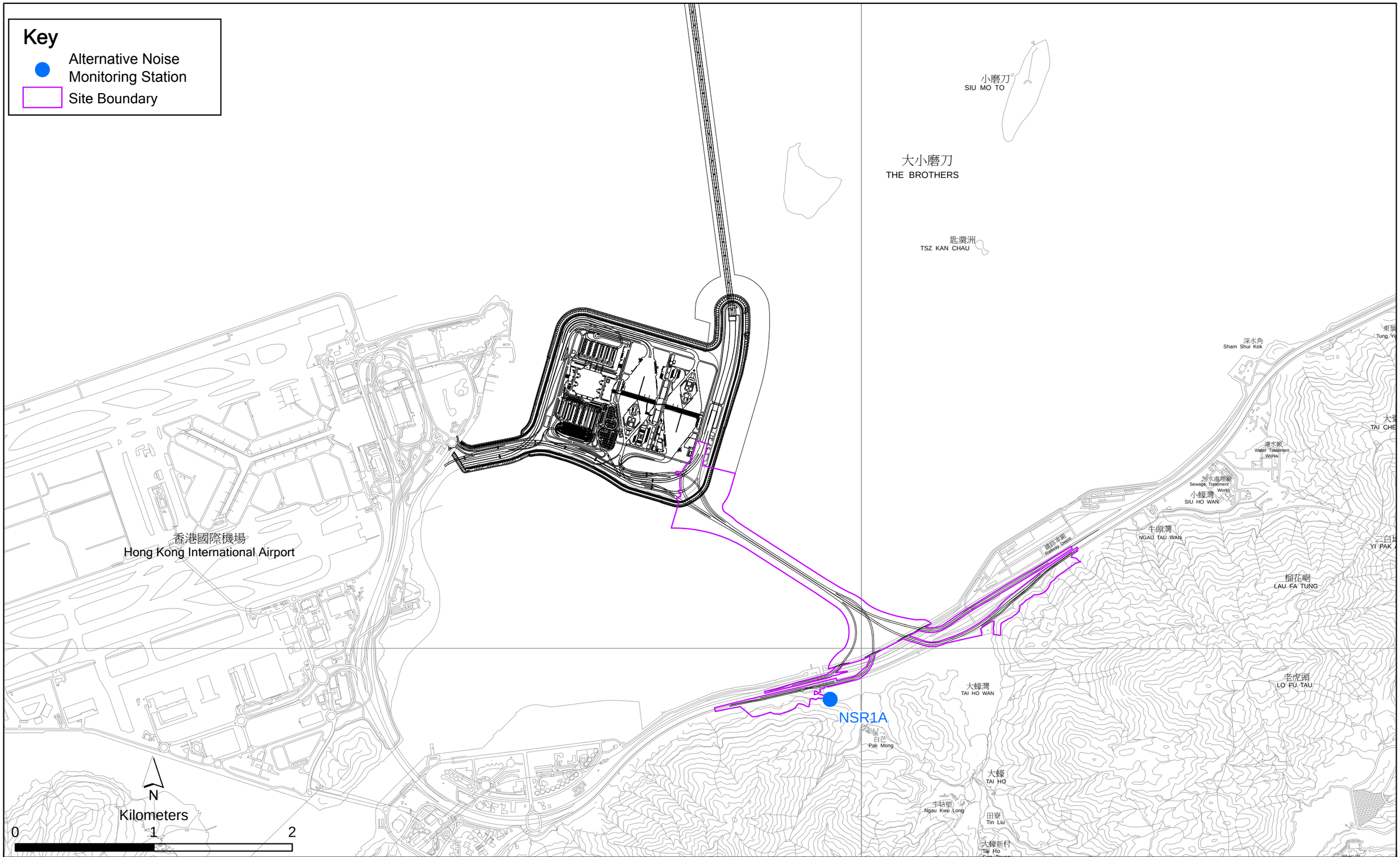


Figure 2.2

Location of Noise Monitoring Station

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_NMS.mxd
Date: 7/1/2015

Environmental Resources Management

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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	60	59 - 61	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.*

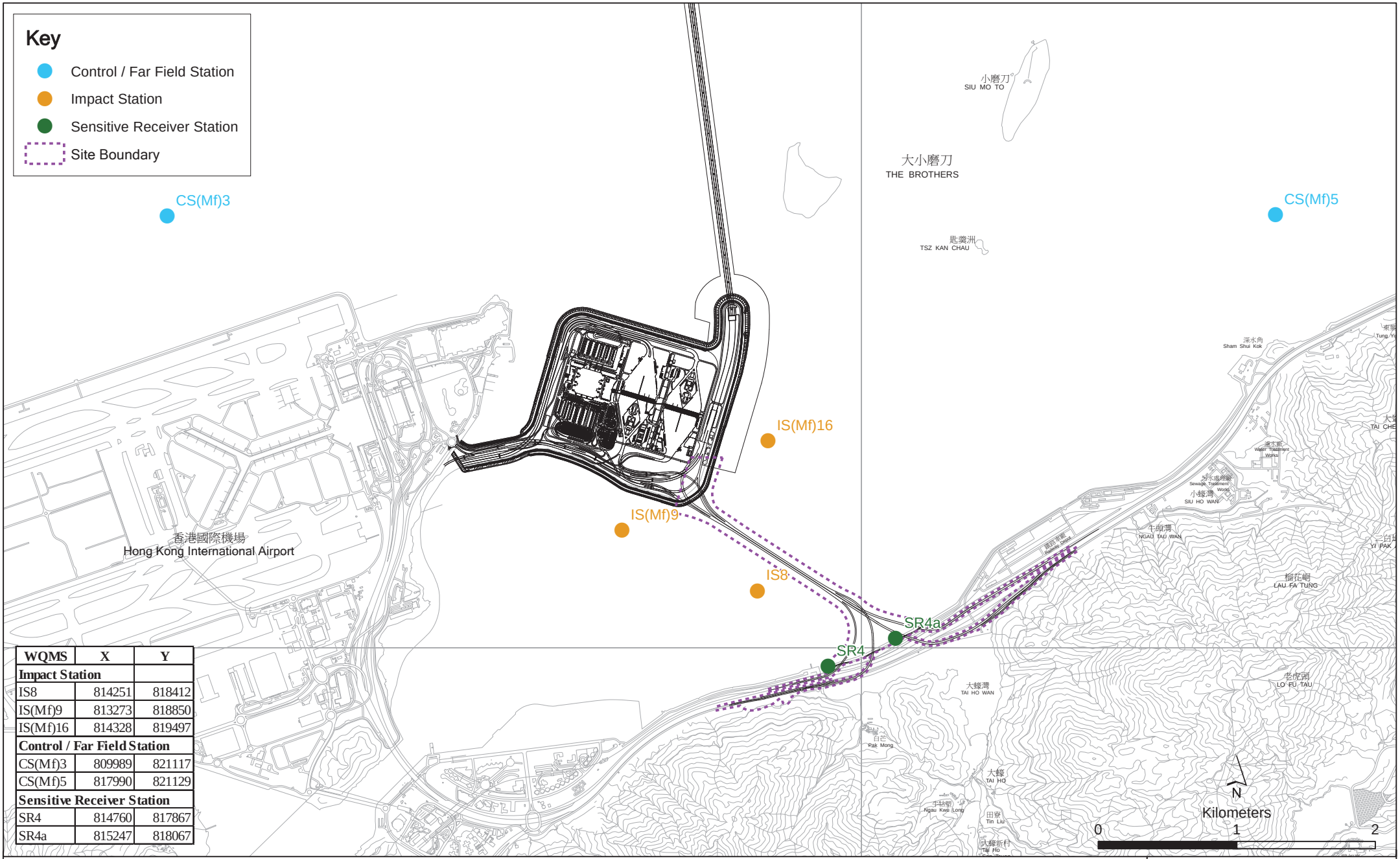
Major noise sources during the noise monitoring included noise from crane operation and excavation works, nearby traffic noise and aircraft noise.

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.*



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

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_WQMS.mxd
Date: 6/12/2013

Environmental Resources Management

ERM

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	• Temperature(°C) • pH (pH unit) • Turbidity (NTU) • Water depth (m) • Salinity (ppt) • DO (mg/L and % of saturation) • 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	Thermo Scientific Orion 2 Star
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 May 2016 is provided in *Appendix F*.

2.3.3 *Results and Observations*

In total of 13 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 dolphins. In order to fulfil the EM&A requirements and make good use of available resources, the on-going impact line transect dolphin monitoring data collected by HyD's *Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge. Hong Kong Link Road - Section between Scenic Hill and Hong Kong Boundary Crossing Facilities* on the monthly basis is adopted to avoid duplicates of survey effort.

2.4.2 *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
	Geo One Phottix
Camera	Nikon D90 300m 2.8D fixed focus
	Nikon D90 20-300m zoom lens
Laser Binoculars	Infinitor LRF 1000
Marine Binocular	Bushell 7 x 50 marine binocular with compass and reticules
Vessel for Monitoring	65 foot single engine motor vessel with viewing platform 4.5m above water level

2.4.3 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.

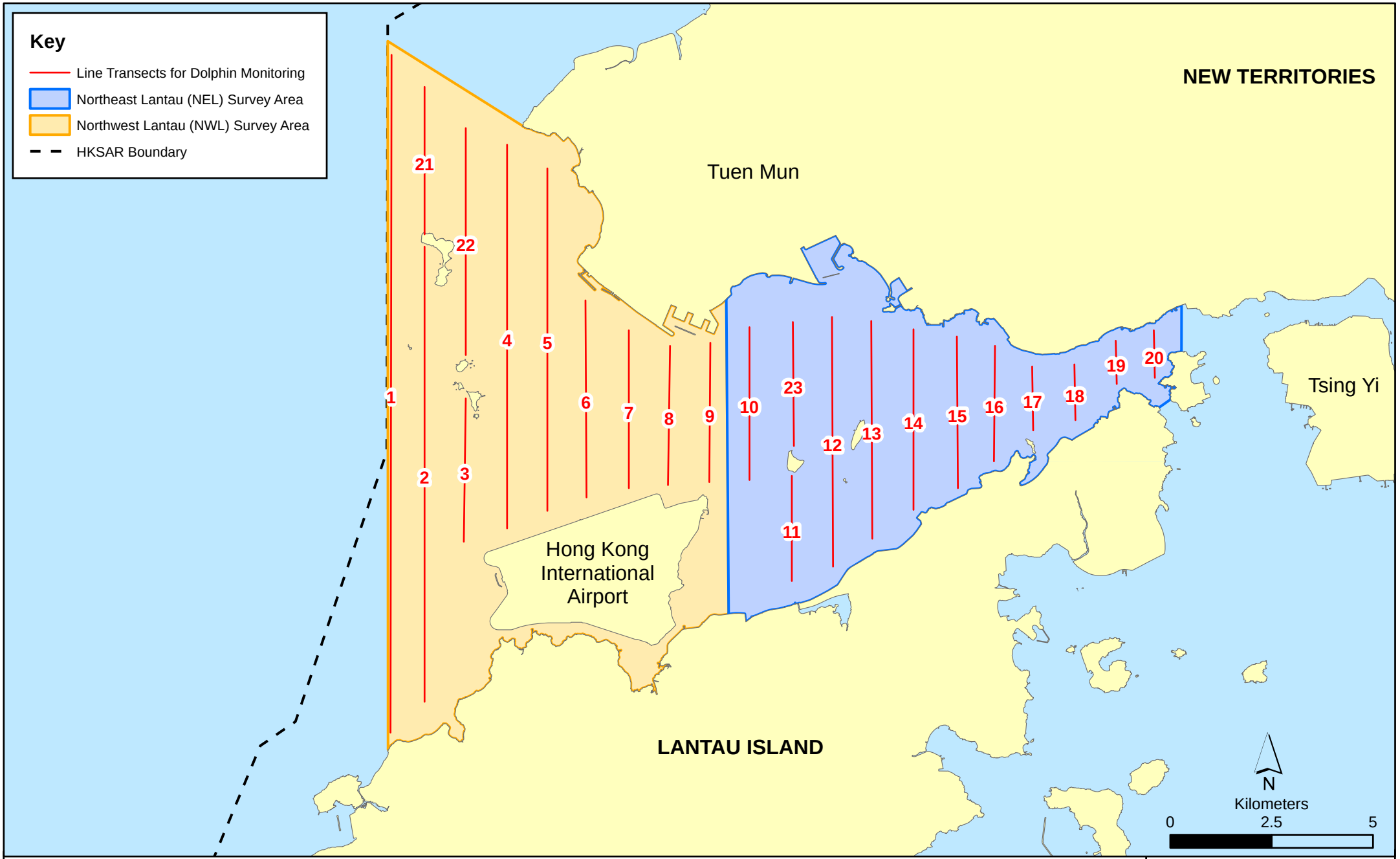


Figure 2.4

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

File: T:\GIS\CONTRACT\0212330\Mxd\0212330_Transect_of_Dolphin_Monitoring.mxd
Date: 10/12/2013

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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 3, 12, 17 and 26 May 2016 (*Appendix F*).

2.4.7 Results and Observations

A total of 300.96 km of survey effort was collected, with 99.7% 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 May 2016. Among the two areas, 115.56 km and 185.40 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 217.8 km and 83.16 km respectively. The survey efforts are summarized in *Appendix K*.

No Chinese White Dolphins were sighted during the two sets of monitoring surveys in May 2016.

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March 2016 and May 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins 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, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

2.4.8 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 Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in May 2016 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, four (4) site inspections were carried out on 4, 11, 18 and 26 May 2016.

Key observations during the site inspections are summarized in *Table 2.12*.

Table 2.12 Specific Observations Identified during the Weekly Site Inspections in this Reporting Month

Inspection Date	Environmental Observations	Recommendations/ Remarks
4 May 2016	Pier E13AB • Waste was not properly disposed. Pier E6 Drip tray for generator was not plugged..	Pier E13AB • Waste should be properly stored and disposed. Pier E6 • Drip tray should be plugged..
11 May 2016	Area 1 • Checklist of a wetsep was not displayed. • Soil Stockpile was not well covered by tarpaulin sheet. Area 2 • The unpaved area was partially dry.	Area 1 • Checklist of the wetsep should be displayed. • Soil Stockpile should be well covered Area 2 • Watering should be applied regularly to avoid dust emission.
18 May 2016	Pier E13AB • Waste was improperly stored on marine platform. • A chemical container was not placed in drip tray.	Pier E13AB • Waste should be properly stored and cleaned up regularly. • Chemical containers should be placed in drip tray.
26 May 2016	Area 2 • Soil stockpile was not well covered by tarpaulin sheet. Pier E1 • Surface runoff control was insufficient. • An air compressor was not placed in drip tray. • A chemical container was not placed in drip tray.	Area 2 • Soil stockpile should be well covered by tarpaulin sheet. Pier E1 • Surface runoff control should be provided. • Air compressor should be placed in drip tray. • Chemical container should be placed in drip tray.

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 chemical waste. 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 2.13*.

Table 2.13 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)
May 2016	440	0	581	75,620	0	3,000	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 2.14* below.

Table 2.14 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/I	17 July 2015	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 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 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 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-RW0045-16	27 Jan 2016	25 Jul 2016	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS0383-16	20 Apr 2016	19 Oct 2016	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RS0279-16	29 Mar 2016	30 May 2016	GCL	Broad Permit for Segmen. Launching at Land Portion
Construction Noise Permit for night works and works in general holidays	GW-RS0109-16	5 Feb 2016	14 Aug 2016	GCL	Pre-casted pile cap shell installation at E10-E13
Marine Dumping Permit	EP/MD/17-028	31 May 2016	30 Jun 2016	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/16-138	10 Dec 2015	13 Jun 2016	GCL	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.

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March 2016 and May 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

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 2.5*.

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*.

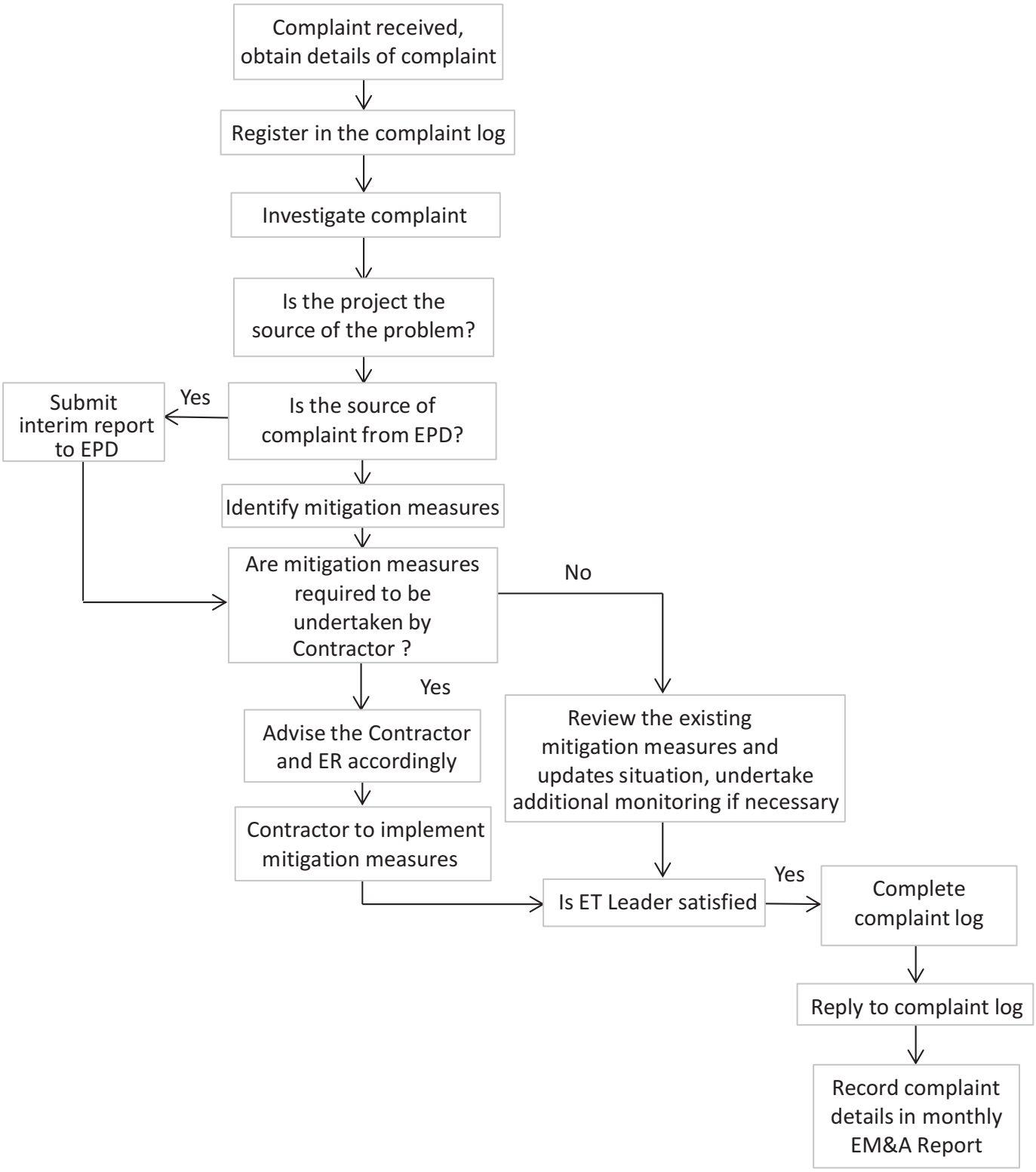

Figure 2.5 Environmental Complaint Handling Procedure

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DATE: 06/12/2013

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3 FUTURE KEY ISSUES

3.1 CONSTRUCTION PROGRAMME FOR THE COMING MONTH

As informed by the Contractor, the major works for this Contract in June 2016 will be:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Construction of marine section of berth at Southern Landfall;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- 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 June 2016 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 June 2016 are provided in *Appendix F*.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This Thirty-first Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 May 2016 in accordance with the Updated EM&A Manual and the requirements of the Environmental Permits (*EP-354/2009/D* and *EP-353/2009/I*).

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.

No Chinese White Dolphins were sighted during the two sets of monitoring surveys in May 2016. There was no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins noticeable from general observations during the dolphin monitoring in this reporting month. One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March 2016 and May 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

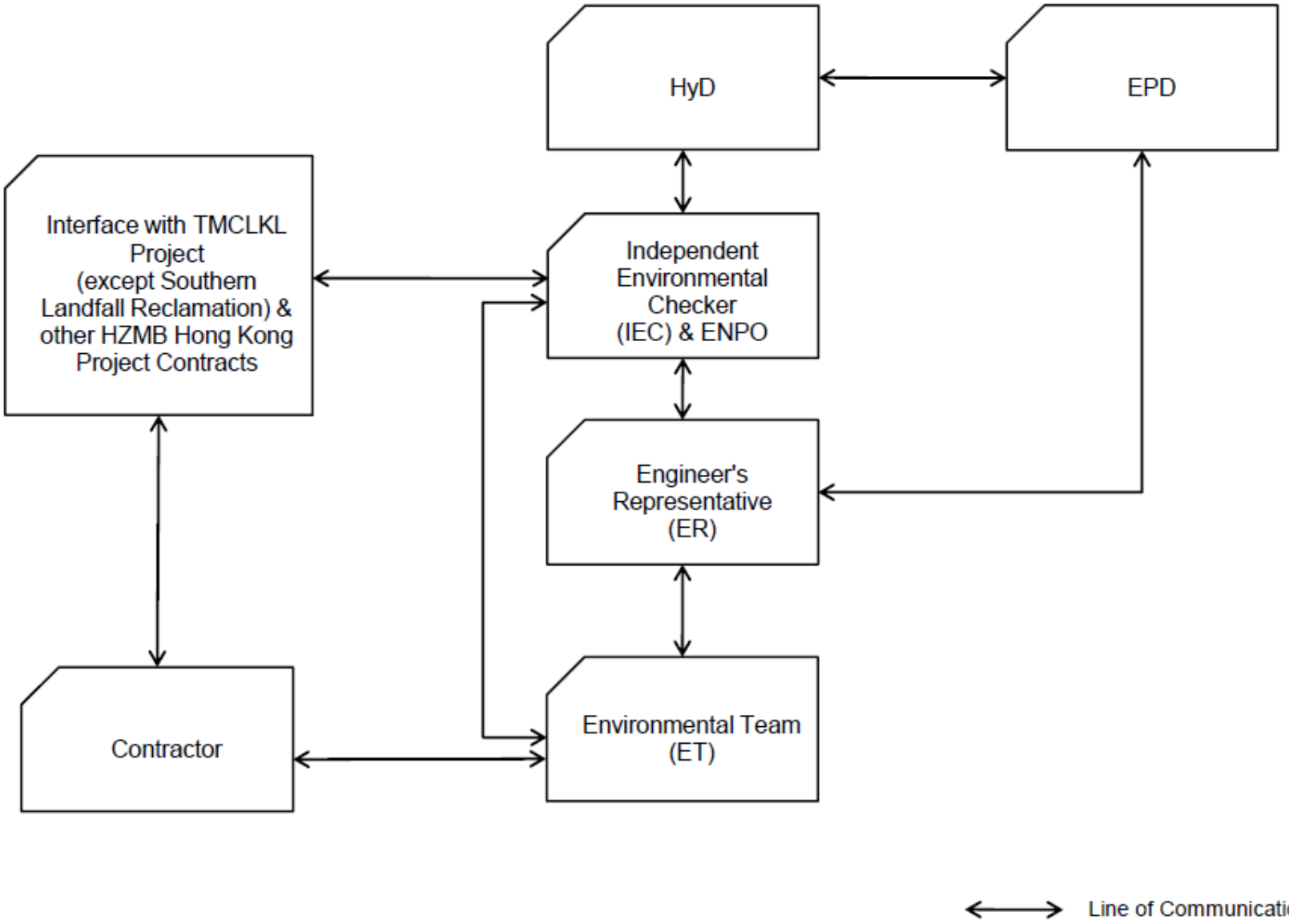
Environmental site inspection was carried out four (4) times in May2016. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

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



Appendix A1

Contract No. HY/2012/07 Southern Connection Viaduct Section
Project Organization

DATE: 06/03/2013

Environmental Resources Management

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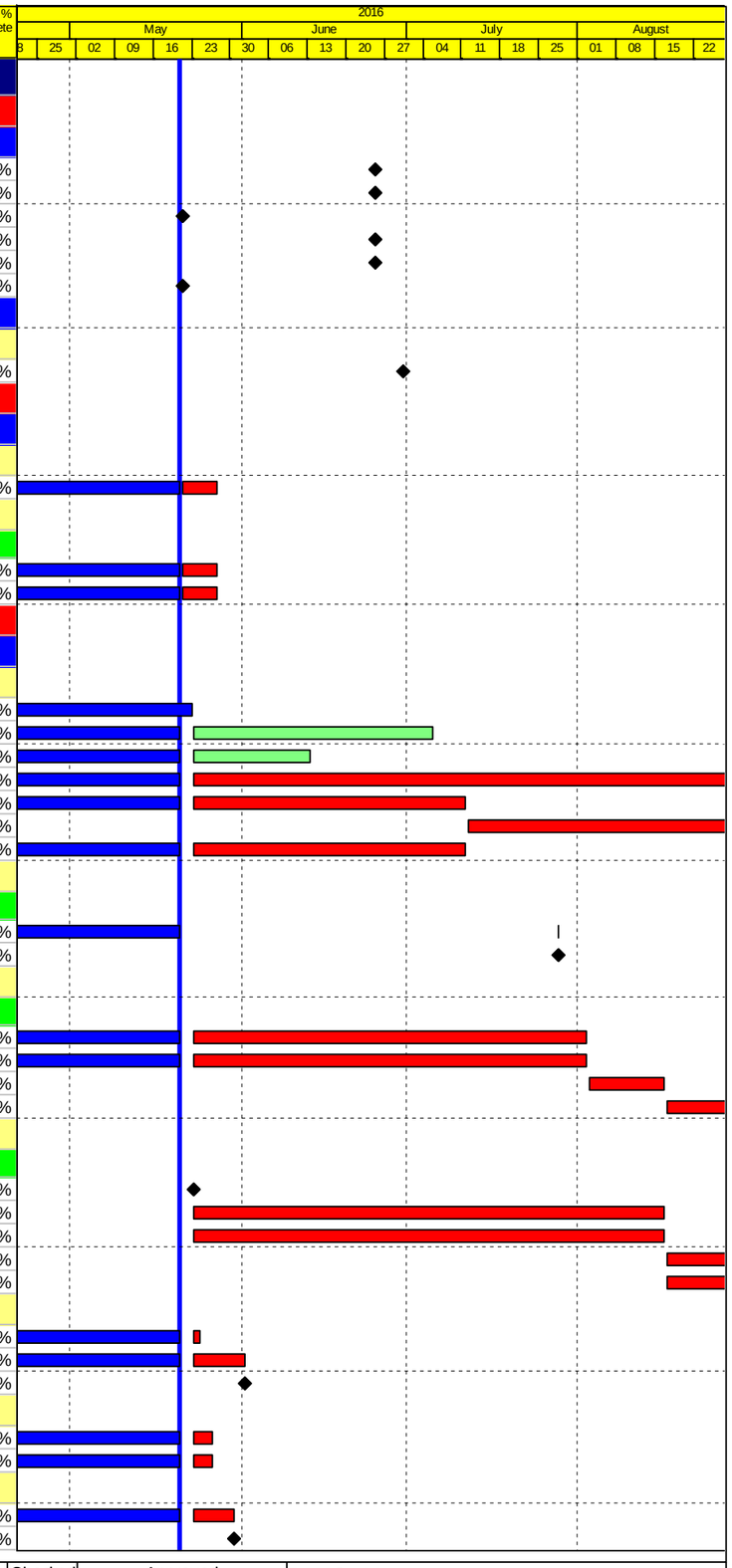
Appendix B

Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
HY/2012/07 - TM-CLK Link-SC [DWP Revision G] - Status Update 21-05-2016											
Contract Key Dates											
Possession Dates / Access Period											
POS02-3	Portion A - Area 3	0	25-Jun-16*	0%	0		25-Jun-16		0	0	0%
POS02-4	Portion A - Area 4	0	25-Jun-16*	0%	0		25-Jun-16		0	0	0%
POS02-5	Portion A - Area 5	0	21-May-16*	0%	0		17-May-16		-4	0	0%
POS02-6	Portion A - Area 6	0	25-Jun-16*	0%	0		25-Jun-16		0	0	0%
POS03-7	Portion B - Area 7	0	25-Jun-16*	0%	0		25-Jun-16		0	0	0%
POS03-8	Portion B - Area 8	0	21-May-16*	0%	0		17-May-16		-4	0	0%
Section Completion Dates											
Vacate Works Area											
VAC05	Vacate Works Area WA5 (Zone 5C) (CoW + 758 days) - Letter D06850	0		0%	0	30-Jun-16*		29-Jun-16	0	1281	0%
General Submissions											
General Requirements											
Temporary Works Design											
PR00130	Unloading Jetty at HKBCF - Working Platform design and approval	90	02-Jun-14 A	93.33%	6	27-May-16	18-Jan-16	23-Jan-16	-98	8	75%
Land Works											
Land GI Works											
PR02204	SQR Sampling & Testing and Approval	110	14-Aug-14 A	94.55%	6	27-May-16	30-Mar-15	09-Apr-15	-336	75	95%
PR03110	Trial Pits along Cheung Tung Road	20	21-Oct-13 A	70%	6	27-May-16	09-Jul-15	15-Jul-15	-257	100	95%
Design Submissions											
Detailed Design (v18.8 18-08-14)											
General Submissions											
ARDD0037-1	Preparation of Seismic Performance Report Viaduct A,B,C,D - AP12.01	50	21-Aug-15 A	100%	0	23-May-16 A					100%
ARDD0037-2	IC/SO Approval of Seismic Performance Report Viaduct A,B,C,D - AP12.01	75	22-Feb-16 A	60%	30	05-Jul-16	25-May-16	07-Jul-16	2	361	60%
ARDD0037-5	IC/SO Approval of Seismic Performance Report Viaduct E - AP12.02	75	22-Feb-16 A	80%	15	13-Jun-16	16-Jun-16	07-Jul-16	17	376	80%
ARDD0037-7	Preparation of Seismic Performance Report Viaduct F - AP12.03	160	21-Aug-15 A	5%	152	28-Dec-16	06-Aug-15	16-Mar-16	-195	0	5%
ARDD0040-1	Preparation of Operation and Maintenance Manual - AP08.00	30	01-Sep-15 A	0%	34	11-Jul-16	26-Jan-16	16-Mar-16	-77	0	0%
ARDD0040-2	IC/SO Approval of Operation and Maintenance Manual - AP08.00	75	12-Jul-16	0%	75	26-Oct-16	17-Mar-16	07-Jul-16	-77	282	0%
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	54.67%	34	11-Jul-16	26-Jan-16	16-Mar-16	-77	0	50%
Viaduct A											
Viaduct Design											
ARDD0435-8	Viaduct A - IC/SO Consent of Supplemental Working Drawings Viaduct A	10	10-Sep-15 A	98%	0	28-Jul-16	30-May-16	30-May-16	-41	0	98%
ARDD0435-9	Viaduct A - IC/SO Consent of Supplemental Working Drawings Viaduct A	0		0%	0	28-Jul-16		30-May-16	-41	0	0%
Viaduct F1 & F3											
Viaduct Design											
ARDD0486-2	Viaduct F1 & F3 - Coordination and Further Issue of Construction Method a	60	02-Mar-15 A	16.67%	50	02-Aug-16	22-Dec-15	07-Mar-16	-100	0	16.7%
ARDD0486-3	Viaduct F1 & F3 - Preparation of Draft Working Drawing Set	60	02-Mar-15 A	16.67%	50	02-Aug-16	22-Dec-15	07-Mar-16	-100	0	16.7%
ARDD0486-5	Viaduct F1 & F3 - Preparation and Coordination of DDA/Working Drawing	10	03-Aug-16	0%	10	16-Aug-16	08-Mar-16	21-Mar-16	-100	0	0%
ARDD0486-7	Viaduct F1 & F3 - IC/SO Consent of Supplemental Working Drawings Viad	10	17-Aug-16	0%	10	30-Aug-16	22-Mar-16	07-Apr-16	-100	0	0%
Viaduct F2, F4 and F5											
Viaduct Design											
ARDD0530-2	Viaduct F2, F4 & F5 - GCL/FRE Issue of Construction Method/Temporary	0		0%	0	23-May-16		05-Nov-15	-132	0	0%
ARDD0530-3	Viaduct F2, F4 & F5 - Coordination and Further Issue of Construction Meth	60	23-May-16	0%	60	16-Aug-16	06-Nov-15	01-Feb-16	-132	0	0%
ARDD0530-4	Viaduct F2, F4 & F5 - Preparation of Draft Working Drawing Set	60	23-May-16	0%	60	16-Aug-16	06-Nov-15	01-Feb-16	-132	0	0%
ARDD0530-6	Viaduct F2, F4 & F5 - Preparation and Coordination of DDA/Working Draw	10	17-Aug-16	0%	10	30-Aug-16	02-Feb-16	18-Feb-16	-132	0	0%
ARDD0530-8	Viaduct F2, F4 & F5 - IC/SO Consent of Supplemental Drawings of Viaduc	10	17-Aug-16	0%	10	30-Aug-16	22-Mar-16	07-Apr-16	-100	0	0%
Parapet and Utility Trough											
ARDD0562-4	IC/SO Approval of DDA -DP30.01	75	31-Jul-14 A	98%	2	24-May-16	15-Feb-16	16-Feb-16	-66	32	98%
ARDD0566	IC/SO Approval of DDA -DP31.01	75	24-Oct-14 A	89.33%	8	01-Jun-16	02-Feb-16	16-Feb-16	-72	0	80%
ARDD0566-1	IC/SO Approval of DDA -DP31.01	0		0%	0	01-Jun-16		16-Feb-16	-72	92	0%
Slopeworks for Viaduct B: 9SE- B/C8, B/C9, B/F9, B/F85+ 10SW-A/F52, A/F53											
ARDD0580-5	Preparation of Slope A/F52 Submission - CP12.03	20	10-Feb-15 A	80%	4	26-May-16	02-Oct-15	07-Oct-15	-156	0	100%
ARDD0580-6	IC/SO Approval of Slope - CP12.03	75	21-Sep-15 A	95%	4	26-May-16	02-Oct-15	07-Oct-15	-156	0	95%
Slopeworks for Viaduct D: 10NW -C/R4, C/F9, C/F10, C/F11, C/F17, C/F50											
ARDD0603	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	75	16-Dec-14 A	92%	6	30-May-16	18-Jun-15	25-Jun-15	-229	0	95%
ARDD0603-1	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	0		0%	0	30-May-16		25-Jun-15	-229	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

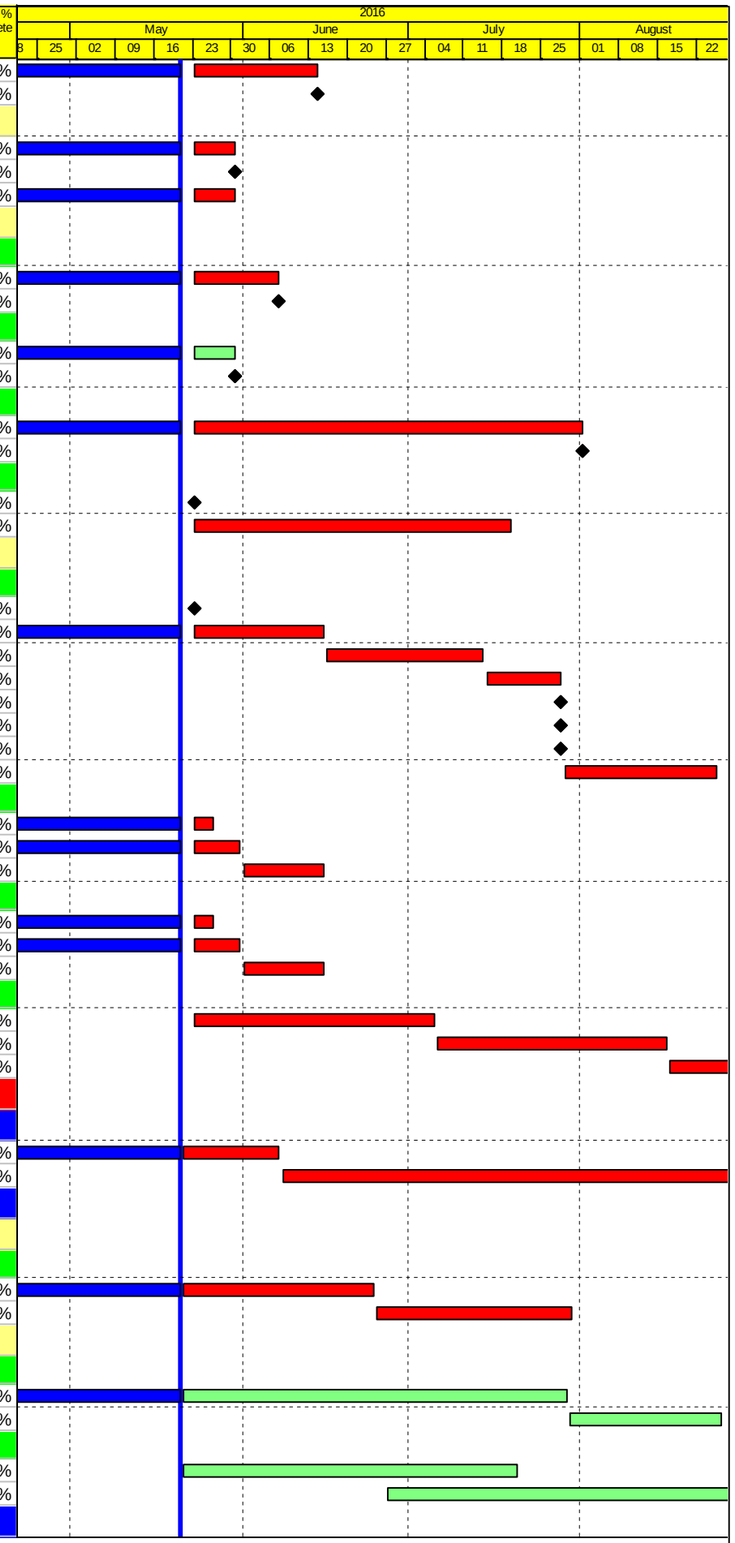
Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 1 of 13 Pages)
(Progress as of 21-May-16)

Date	Revision	Checked	Approved
29-Mar-16		PKN	HF
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
ARDD0604-2	IC/SO Approval of Slope Combined AIP/DDA-CP14.02	75	23-May-15 A	78.67%	16	14-Jun-16	13-Oct-15	04-Nov-15	-149	0	75%
ARDD0604-3	IC/SO Approval of Revised Slope Combined AIP/DDA-CP14.02	0		0%	0	14-Jun-16		04-Nov-15	-149	80	0%
Waterworks, Drainage & Utility Diversions											
ARDD0629	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	75	22-Jul-14 A	92%	6	30-May-16	26-Jan-16	02-Feb-16	-77	0	95%
ARDD0629-1	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	0		0%	0	30-May-16		02-Feb-16	-77	295	0%
ARDD0629-2	Gov't Approval of Submissions for Waterworks, Drainage & Utility Diversior	75	02-Jan-14 A	92%	6	30-May-16	26-Jan-16	02-Feb-16	-77	0	95%
Viaduct Approach Ramp Retaining Walls											
Approach Ramp B											
ARDD0664	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	75	14-Oct-14 A	84%	12	07-Jun-16	15-Jan-16	01-Feb-16	-84	0	80%
ARDD0664-1	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	0		0%	0	07-Jun-16		01-Feb-16	-84	25	0%
Approach A											
ARDD0670	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	75	03-Oct-14 A	92%	6	30-May-16	20-Dec-19	31-Dec-19	887	0	95%
ARDD0670-1	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	0		0%	0	30-May-16		31-Dec-19	887	887	0%
Approach F											
ARDD0676	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	75	23-Dec-14 A	34.67%	49	01-Aug-16	16-Jan-15	27-Mar-15	-331	0	70%
ARDD0676-1	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	0		0%	0	01-Aug-16		17-Mar-16	-91	189	0%
Landscape											
ARDD0701	Water Supply Application to WSD	0		0%	0	23-May-16		17-Dec-15	-102	0	0%
ARDD0702	Gov't Approval of LVIA	40	23-May-16	0%	40	19-Jul-16	18-Dec-15	18-Feb-16	-102	126	0%
Segment Target Geometry And Erection Engineering											
Viaduct A											
ARDD0716	Viaduct A - Confirmation of Erection Sequence from Freyssinet	0		0%	0	23-May-16		31-Dec-19	893	893	0%
ARDD0717	Viaduct A - Erection Sequence Analysis	31	23-Jan-16 A	45.16%	17	15-Jun-16	15-Feb-16	08-Mar-16	-66	0	40%
ARDD0718	Viaduct A - Target Geometry Analysis	20	16-Jun-16	0%	20	14-Jul-16	09-Mar-16	08-Apr-16	-66	0	0%
ARDD0719	Viaduct A - Segment Geometry Schedules	10	15-Jul-16	0%	10	28-Jul-16	11-Apr-16	22-Apr-16	-66	0	0%
ARDD0719-1	Viaduct A - Issue of Pierhead Segments Bridge A1, A2	0		0%	0	28-Jul-16		30-May-16	-41	0	0%
ARDD0719-3	Viaduct A - Issue of Casting Data and Segment Catalogue Bridge A2 (Final	0		0%	0	28-Jul-16		30-May-16	-41	0	0%
ARDD0719-4	Viaduct A - Issue of Casting Data and Segment Catalogue Bridge A1 (Final	0		0%	0	28-Jul-16		22-Apr-16	-66	0	0%
ARDD0719-5	Viaduct A - Issue Erection Manual	20	29-Jul-16	0%	20	25-Aug-16	25-Apr-16	23-May-16	-66	0	0%
Viaduct E5 and E6											
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	05-May-14 A	60%	4	26-May-16	22-Mar-16	29-Mar-16	-40	3	90%
TGP0570	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogu	40	30-Apr-15 A	82.5%	7	31-May-16	17-Mar-16	29-Mar-16	-43	0	90%
TGP0590	Viaduct E5 & E6 - Issue Erection Manual	10	01-Jun-16	0%	10	15-Jun-16	30-Mar-16	13-Apr-16	-43	221	0%
Viaduct E7 & E8											
ARDD0739	Viaduct E7 & E8 - Segment Geometry Schedules	10	05-May-14 A	60%	4	26-May-16	22-Mar-16	29-Mar-16	-40	3	90%
TGP0760	Viaduct E7 & E8 - Issue of Optimised Casting Data and Segment Catalogu	40	31-Jul-15 A	82.5%	7	31-May-16	17-Mar-16	29-Mar-16	-43	0	90%
TGP0790	Viaduct E7 & E8 - Issue Erection Manual	10	01-Jun-16	0%	10	15-Jun-16	30-Mar-16	13-Apr-16	-43	221	0%
Viaduct F											
ARDD0752	Viaduct F - Erection Sequence Analysis	30	23-May-16	0%	30	05-Jul-16	06-Nov-15	17-Dec-15	-132	0	0%
ARDD0753	Viaduct F - Target Geometry Analysis	30	06-Jul-16	0%	30	16-Aug-16	18-Dec-15	01-Feb-16	-132	0	0%
ARDD0754	Viaduct F - Segment Geometry Schedules	10	17-Aug-16	0%	10	30-Aug-16	02-Feb-16	18-Feb-16	-132	0	0%
Major Procurement											
Marine Permanent Navigaion Aids											
PR65011	Design & Approvals for Marine Navigation Aids	150	23-Oct-13 A	90%	15	07-Jun-16	30-Nov-15	16-Dec-15	-137	0	90%
PR65012	Procure & Deliver Marine Navigation Aids	240	08-Jun-16	0%	240	27-Mar-17	17-Dec-15	11-Oct-16	-137	0	0%
Deck Segment Installation Equipment											
Lifting Frames											
Lifting Frames 3 & 4											
PR68017	Lifting Frame 3&4 Fabrication	85	29-Sep-14 A	65.88%	29	24-Jun-16	06-Aug-15	08-Sep-15	-233	0	67%
PR68018	Lifting Frame 3&4 Delivery	30	25-Jun-16	0%	30	30-Jul-16	09-Sep-15	15-Oct-15	-233	41	0%
Unloading Frames											
Type 1 (at B6 and D6)											
PR69110	Unloading Frame Type 1 Fabrication	80	23-Feb-15 A	27.5%	58	29-Jul-16	25-Nov-16	07-Feb-17	156	0	28%
PR69120	Unloading Frame Type 1 Delivery (UF-1A & UF-1B)	24	30-Jul-16	0%	24	26-Aug-16	08-Feb-17	07-Mar-17	156	0	0%
Type 2 (at Bridge E1)											
PR69170	Unloading Frame Type 2 Design	50	21-May-16	0%	50	20-Jul-16	11-Jul-19	06-Sep-19	929	0	0%
PR69180	Unloading Frame Type 2 Fabrication	80	27-Jun-16	0%	80	29-Sep-16	15-Aug-19	19-Nov-19	929	0	0%
Deck Segments & Precast Pile Cap Shells											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-May-16)

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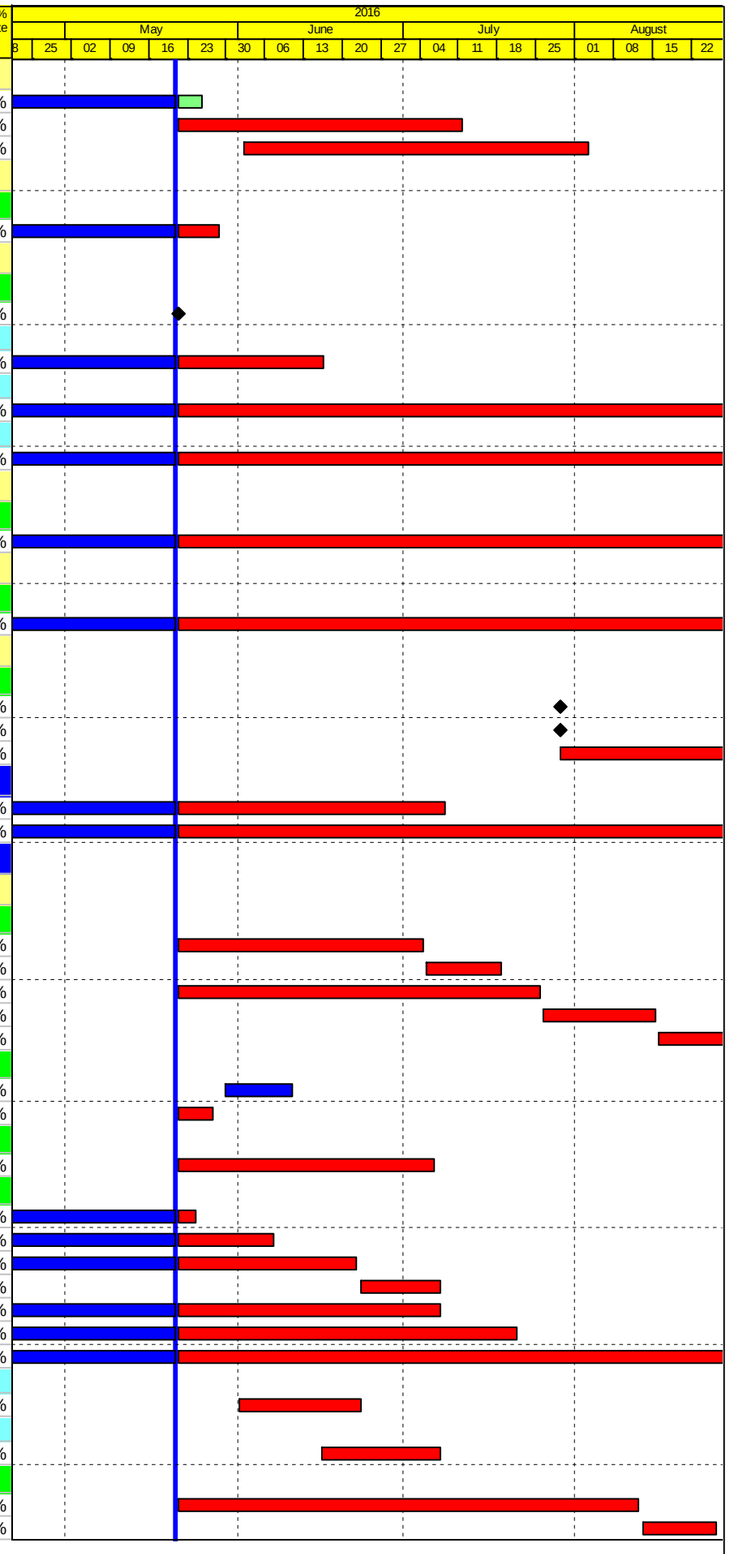
DWG. No.:
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Preliminaries											
MBBE0050	Precast Segment Mould Fabrication & Erection (Viaduct A)	52	24-Dec-14 A	92.31%	4	25-May-16	31-May-16	03-Jun-16	8	1069	100%
MBBE0054	Precast Segment Mould Design (Viaduct F1 to F5)	42	21-May-16*	0%	42	11-Jul-16	29-Feb-16	21-Apr-16	-65	0	0%
MBBE0056	Precast Segment Mould Fabrication & Erection (Viaduct F1 to F5)	52	02-Jun-16	0%	52	03-Aug-16	11-Mar-16	17-May-16	-65	55	0%
Viaduct B											
Precast Deck Segments											
MBBE130-1	B: Progressive Match Cast Segment Manufacture & Delivery remaining seg	597	24-Oct-14 A	98.83%	7	28-May-16	18-Mar-16	29-Mar-16	-49	225	99.4%
Viaduct E											
Precast Deck Segments											
MBE00014	Viaduct E2 - Pier Head Segment Casting	0	21-May-16	0%	0		31-Dec-19		1073	1073	0%
Viaduct E1											
MBEE0130-5	E1: Progressive Segment Manufacture & Delivery remaining segments (18	456	08-Apr-15 A	95.2%	22	16-Jun-16	04-Jul-15	29-Jul-15	-261	1051	95.2%
Viaduct E2											
MBEE0130-7	E2: Progressive Segment Manufacture & Delivery remaining segments (41	376	06-May-15 A	34.57%	246	16-Mar-17	17-Nov-15	14-Sep-16	-148	827	34.8%
Viaduct E5, E6, E7 & E8											
MBEE0130-9	E5-6-7-8: Progressive Segment Manufacture & Delivery remaining segmer	360	06-May-15 A	11.2%	320	19-Jun-17	06-Feb-16	08-Mar-17	-81	753	11.2%
Viaduct D											
Precast Deck Segments											
MBDE0130-7	D: Progressive Match Cast Segment Manufacture & Delivery (311 Nr)	315	05-May-15 A	56.9%	136	01-Nov-16	23-Oct-15	09-Apr-16	-169	204	56.9%
Viaduct C											
Precast Deck Segments											
MBCE0130-1	C: Progressive Segment Manufacture & Delivery remaining segments (388	265	19-May-15 A	41%	156	25-Nov-16	11-Sep-15	22-Mar-16	-202	77	41%
Viaduct A											
Precast Deck Segments											
MBAA1100	Viaduct A - Pier Head Segment Casting	0	29-Jul-16	0%	0		31-May-16		-49	0	0%
MBAE0120	A: Commence Segment Casting on Approval of DDA	0	29-Jul-16	0%	0		31-May-16		-49	0	0%
MBAE0130-1	A: Progressive Segment Manufacture & Delivery remaining segments (179	122	29-Jul-16	0%	122	21-Dec-16	31-May-16	25-Oct-16	-49	30	0%
Parapets											
PP6010	Procure Sub-Contractor for Precast Parapets/Barriers	40	21-Aug-15 A	0%	40	08-Jul-16	28-Dec-15	16-Feb-16	-115	80	37.5%
PP6011	Precast Parapets/Barriers Detail Design & Procure Moulds	120	06-Oct-15 A	0%	120	13-Oct-16	29-Jul-15	18-Dec-15	-240	0	37.5%
Materials											
Bearings											
Viaduct A											
PPBRA5	SO review & comment on design submission - Viaduct A	36	21-May-16	0%	36	04-Jul-16	22-Apr-16	04-Jun-16	-23	0	0%
PPBRA6	Bearing Design Amendment & re-issue - Viaduct A	12	05-Jul-16	0%	12	18-Jul-16	14-Jun-16	27-Jun-16	-17	6	0%
PPBRA7	Manufacture of Bearing - Viaduct A	54	21-May-16	0%	54	25-Jul-16	22-Apr-16	27-Jun-16	-23	0	0%
PPBRA8	Testing Bearing - Viaduct A	18	26-Jul-16	0%	18	15-Aug-16	28-Jun-16	19-Jul-16	-23	0	0%
PPBRA9	Bearing Delivery - Viaduct A	48	16-Aug-16	0%	48	13-Oct-16	20-Jul-16	13-Sep-16	-23	0	0%
Viaduct C											
PPBRC6	Bearing Design Ammendment & re-issue - Viaduct C	12	30-May-16 A	100%	0	11-Jun-16 A					100%
PPBRC99	Site preparation Bearings for Viaduct C	6	21-May-16	0%	6	27-May-16	16-Sep-15	22-Sep-15	-198	0	0%
Viaduct D											
PPBRD99	Site preparation Bearings for Viaduct D	38	21-May-16	0%	38	06-Jul-16	26-Oct-15	08-Dec-15	-167	0	0%
Viaduct E											
PPBRE3	Bearing design and submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	28-Nov-13 A	75%	3	24-May-16	04-Jan-16	06-Jan-16	-110	0	100%
PPBRE4	Design check by ICE - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	04-Apr-14 A	37.5%	15	07-Jun-16	04-Jan-16	20-Jan-16	-110	0	100%
PPBRE5	SO review & comment on design submission - Viaduct E (E1, E2, E5, E6, E	36	26-Sep-14 A	25%	27	22-Jun-16	04-Jan-16	03-Feb-16	-110	0	100%
PPBRE6	Bearing Design Amendment & re-issue - Viaduct E (E1, E2, E5, E6, E7 & E	12	23-Jun-16	0%	12	07-Jul-16	04-Feb-16	20-Feb-16	-110	0	0%
PPBRE7	Manufacture of Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	54	02-Jun-14 A	27.78%	39	07-Jul-16	04-Jan-16	20-Feb-16	-110	0	100%
PPBRE8	Testing Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	03-Aug-15 A	0%	51	21-Jul-16	04-Jan-16	05-Mar-16	-110	0	100%
PPBRE9	Bearing Delivery - Viaduct E (E1, E2, E5, E6, E7 & E8)	48	19-Nov-14 A	0%	87	01-Sep-16	04-Jan-16	21-Apr-16	-110	0	100%
Bridge E1											
PP7360	Site preparation Bearings for Viaduct E1	18	01-Jun-16	0%	18	23-Jun-16	23-Mar-16	16-Apr-16	-54	8	0%
Bridge E2											
PP7290	Site preparation Bearings for Viaduct E2	18	16-Jun-16	0%	18	07-Jul-16	31-Mar-16	21-Apr-16	-62	48	0%
Viaduct F											
PPBRF1	Preliminary Design of Bearings - Viaduct F	70	21-May-16	0%	70	12-Aug-16	07-Aug-15	30-Oct-15	-232	0	0%
PPBRF3	Bearing design and submission - Viaduct F	12	13-Aug-16	0%	12	26-Aug-16	31-Oct-15	13-Nov-15	-232	0	0%



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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 3 of 13 Pages)
(Progress as of 21-May-16)

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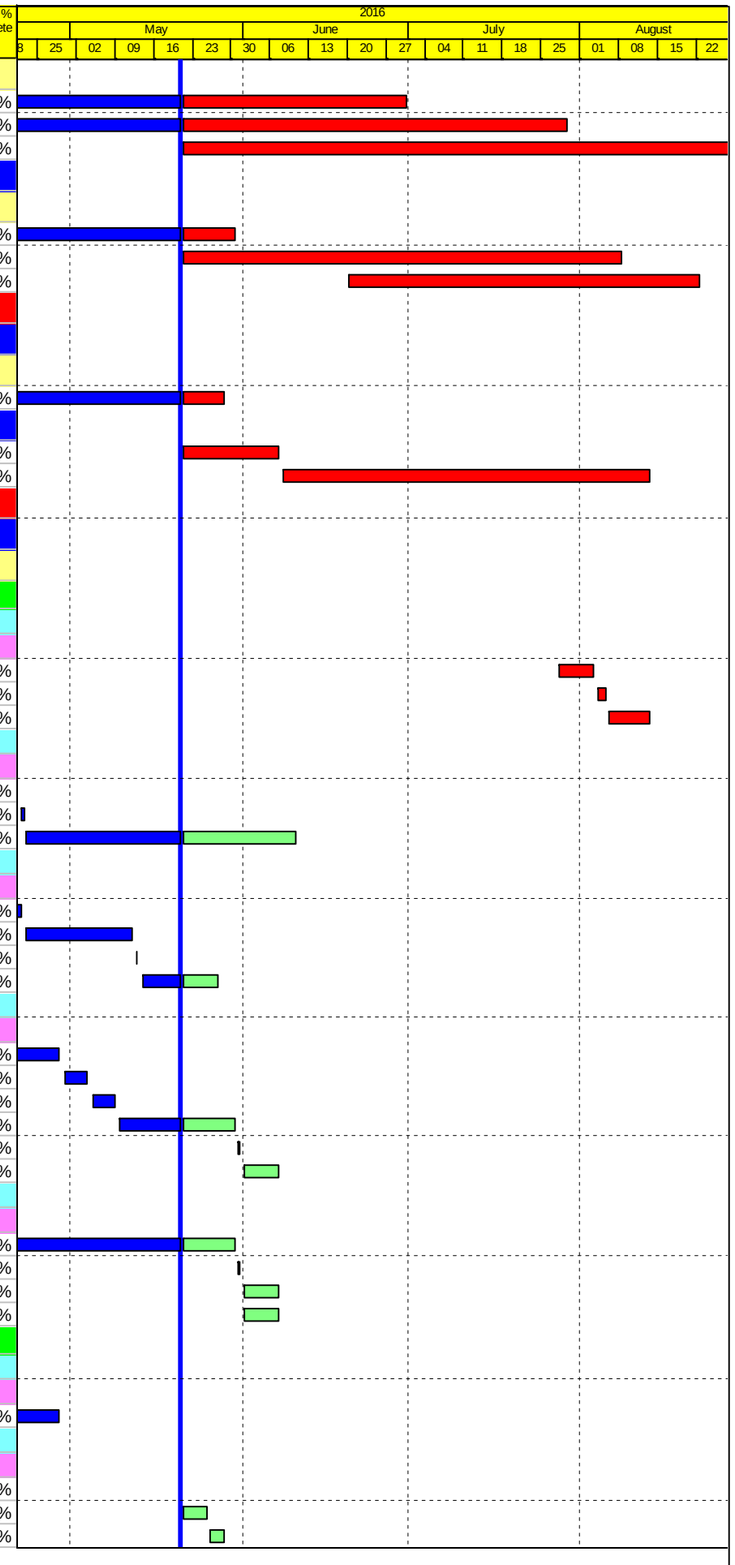
DWG. No.:

J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Movement Joints											
PPMJ01	Design & Submission of MJ	138	08-Feb-14 A	75.36%	34	30-Jun-16	19-Oct-15	27-Nov-15	-172	1039	30%
PPMJ02-1	MJ Design Approval	96	26-May-14 A	39.58%	58	29-Jul-16	19-Oct-15	28-Dec-15	-172	0	40%
PPMJ02-2	Manufacture & delivery of MJ	188	21-May-16	0%	188	04-Jan-17	19-Oct-15	08-Jun-16	-172	0	0%
Other Sub-Contract Procurement											
Structural Health Monitoring System (SHMS)											
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	73.33%	8	30-May-16	30-Jul-15	07-Aug-15	-239	0	75%
PP7780	SHMS - Prepare Civil Work Provision	66	21-May-16	0%	66	08-Aug-16	30-Jul-15	16-Oct-15	-239	0	0%
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	20-Jun-16	0%	54	22-Aug-16	27-Aug-15	31-Oct-15	-239	100	0%
Site Preparation / Mobilisations											
Tree Felling / Transplant											
Approved Trees in Contract											
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	17-Feb-14 A	92.22%	7	28-May-16	02-Feb-16	12-Feb-16	-85	1066	96%
Unloading Jetty at HKBCF											
PR09060	Unloading Jetty at HKBCF - Conditional survey & temp jetty formation	15	21-May-16	0%	15	07-Jun-16	08-Jan-16	25-Jan-16	-106	0	0%
PR09070	Unloading Jetty at HKBCF - Install Unloading Frame incl. testing/commissio	56	08-Jun-16	0%	56	13-Aug-16	26-Jan-16	07-Apr-16	-106	215	0%
CONSTRUCTION											
PILING AND SUBSTRUCTURE											
Viaduct A											
Bridge A2											
Pier A1 (A2e)											
Pier Head Segments											
SA2E0380	A1 (A2e) - Pier Head Segment - Temporary Platform	6	28-Jul-16*	0%	6	03-Aug-16	09-Jul-16	15-Jul-16	-16	0	0%
SA2E0381	A1 (A2e) - Pier Head Segment Bearings	2	04-Aug-16	0%	2	05-Aug-16	16-Jul-16	18-Jul-16	-16	0	0%
SA2E0382	A1 (A2e) - Pier Head Segment Lift & Temp Support (2 seg)	7	06-Aug-16	0%	7	13-Aug-16	19-Jul-16	26-Jul-16	-16	63	0%
Pier A2 (A2d)											
Pier Works											
SA2D0310	A2 (A2d) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	29-Mar-16 A	100%	0	21-Apr-16 A					100%
SA2D0330	A2 (A2d) - Type 4B Pier Head Concreting	1	22-Apr-16 A	100%	0	22-Apr-16 A					100%
SA2D0340	A2 (A2d) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	23-Apr-16 A	0%	17	10-Jun-16	06-Jun-16	27-Jun-16	13	80	80%
Pier A4 (A2b)											
Pier Works											
SA2B0300	A4 (A2b) - Type 4B Pier Head Scaffolding	4	19-Apr-16 A	100%	0	22-Apr-16 A					100%
SA2B0310	A4 (A2b) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	23-Apr-16 A	100%	0	12-May-16 A					100%
SA2B0330	A4 (A2b) - Type 4B Pier Head Concreting	1	13-May-16 A	100%	0	13-May-16 A					100%
SA2B0340	A4 (A2b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	14-May-16 A	0%	6	27-May-16	08-Jul-16	15-Jul-16	40	147	80%
Pier A5 (A2a)											
Pier Works											
SA2A0220	A5 (A2a) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	18-Apr-16 A	100%	0	29-Apr-16 A					100%
SA2A0240	A5 (A2a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	30-Apr-16 A	100%	0	04-May-16 A					100%
SA2A0300	A5 (A2a) - Type 4B Pier Head Scaffolding	4	05-May-16 A	100%	0	09-May-16 A					100%
SA2A0310	A5 (A2a) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	10-May-16 A	20%	8	30-May-16	14-Jul-16	23-Jul-16	45	0	60%
SA2A0330	A5 (A2a) - Type 4B Pier Head Concreting	1	31-May-16	0%	1	31-May-16	23-Jul-16	25-Jul-16	45	0	0%
SA2A0340	A5 (A2a) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	01-Jun-16	0%	6	07-Jun-16	25-Jul-16	01-Aug-16	45	108	0%
Pier A6 (A1f)											
Pier Works											
SA1F0310	A6 (A1f) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	9	08-Apr-16 A	11.11%	8	30-May-16	27-Aug-16	05-Sep-16	82	0	90%
SA1F0330	A6 (A1f) - Type 4B-MJ Pier Head Concreting	1	31-May-16	0%	1	31-May-16	06-Sep-16	06-Sep-16	82	0	0%
SA1F0340	A6 (A1f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffo	6	01-Jun-16	0%	6	07-Jun-16	07-Sep-16	13-Sep-16	82	80	0%
SA1F0350	A6 (A1f) - Type 4B-Bearing Plinth	6	01-Jun-16	0%	6	07-Jun-16	07-Sep-16	13-Sep-16	82	80	0%
Bridge A1											
Pier A7 (A1e)											
Pier Works											
SA1E0340	A7 (A1e) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	08-Apr-16 A	100%	0	29-Apr-16 A					100%
Pier A9 (A1c)											
Pier Works											
SA1C0190	A9 (A1c) - Type 5B Pier Head Scaffolding	3	18-Apr-16 A	100%	0	21-Apr-16 A					100%
SA1C0200	A9 (A1c) - Type 5B Pier Head Rebarwork	4	21-May-16	0%	4	25-May-16	01-Jun-16	04-Jun-16	9	0	0%
SA1C0210	A9 (A1c) - Type 5B Pier Head Formwork & Prep for Concreting	3	26-May-16	0%	3	28-May-16	06-Jun-16	08-Jun-16	9	0	0%



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Tuen Mun - Chek Lap Kok Link - Southern Connection
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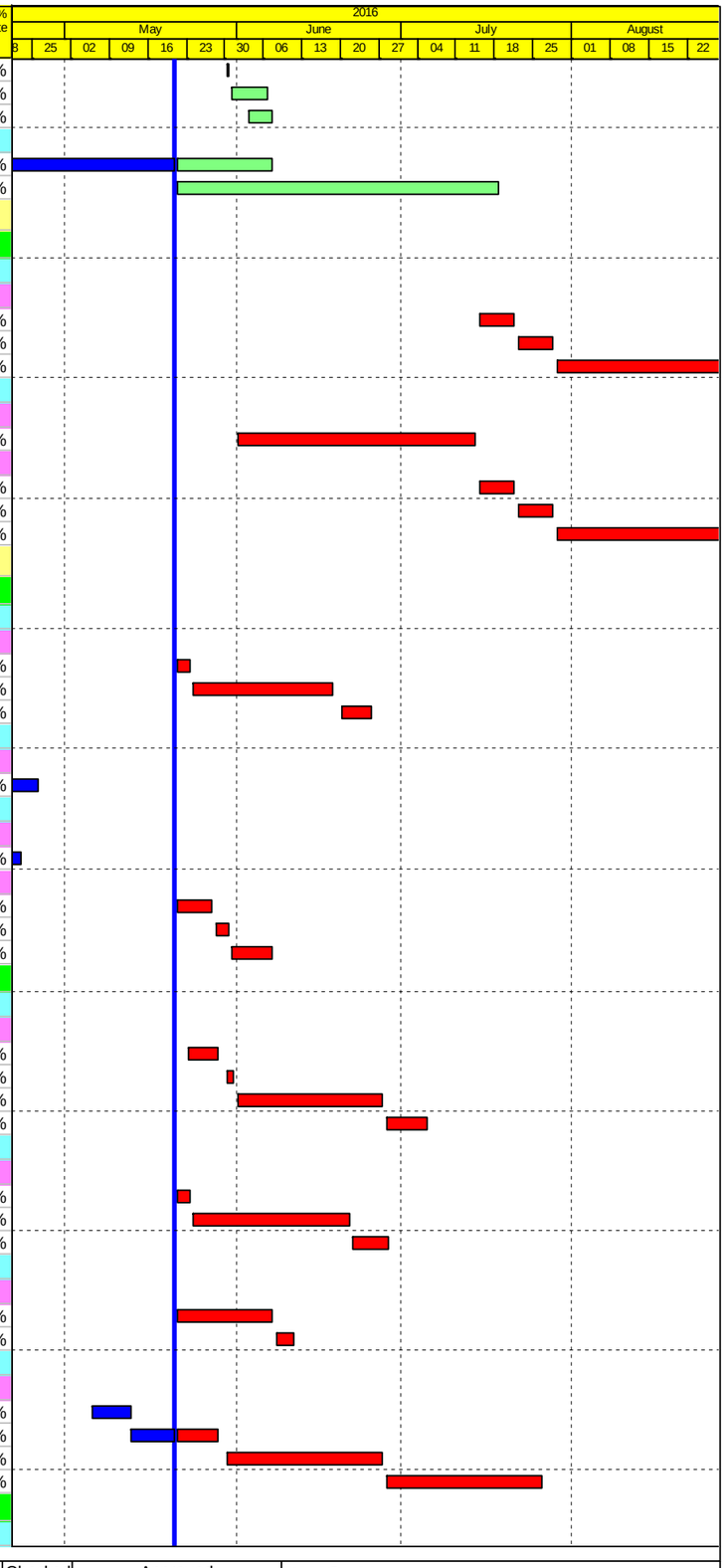
Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
SA1C0220	A9 (A1c) - Type 5B Pier Head Concreting	1	30-May-16	0%	1	30-May-16	10-Jun-16	10-Jun-16	9	0	0%
SA1C0270	A9 (A1c) - Type 5B Pier Head Curing & Striking of Forms & Remove Scaff	6	31-May-16	0%	6	06-Jun-16	11-Jun-16	17-Jun-16	9	0	0%
SA1C0280	A9 (A1c) - Type 5B Pier Backfilling Works	4	03-Jun-16	0%	4	07-Jun-16	15-Jun-16	18-Jun-16	9	66	0%
Abutment & Approach Ramp A											
SA1A0250	AR-A - RE Walls - Excavation/formation/drainage fillter & bottom layer to g	72	14-Mar-16 A	79.17%	15	07-Jun-16	12-Dec-19	31-Dec-19	1058	1058	10%
SA1A0290	AR-A - RC Walls construction	48	21-May-16	0%	48	18-Jul-16	08-Jul-16	01-Sep-16	39	142	0%
Viaduct B											
Bridge B1											
Pier B17 (B1c)											
Socketted H-Pile Installation											
GFXX324-3	B17 (B1c) - Predrilling	6	15-Jul-16	0%	6	21-Jul-16	02-Mar-16	08-Mar-16	-108	0	0%
GFXX324-5	B17 (B1c) - Confirm Rockhead Levels	6	22-Jul-16	0%	6	28-Jul-16	09-Mar-16	15-Mar-16	-108	0	0%
GFXX325-3	B17 (B1c) - Install SH Pile (10 nr) (incl. proof drilling)	45	29-Jul-16	0%	45	20-Sep-16	16-Mar-16	12-May-16	-108	0	0%
Pier B18 (B1b) & Abutment B											
Preliminary Works for Land Piling											
PB180030	B18 (B1b) - Install Geo. Instru. & Baseline Monitoring	36	01-Jun-16	0%	36	14-Jul-16	18-Dec-15	01-Feb-16	-130	0	0%
Socketted H-Pile Installation											
GFXX324-4	B18 (B1b) - Predrilling	6	15-Jul-16	0%	6	21-Jul-16	02-Feb-16	11-Feb-16	-130	0	0%
GFXX324-6	B18 (B1b) - Confirm Rockhead Levels	6	22-Jul-16	0%	6	28-Jul-16	12-Feb-16	18-Feb-16	-130	0	0%
GFXX325-4	B18 (B1b) - Install SH Pile (6 no.) (incl. proof drilling)	27	29-Jul-16	0%	27	29-Aug-16	19-Feb-16	21-Mar-16	-130	0	0%
Viaduct C											
Bridge C4											
Pier C3 (C4c)											
Pier Head Segments											
SC4C0372	C3 (C4c) - Pier Head Segment Lift & Fix (1 seg)	2	21-May-16*	0%	2	23-May-16	11-Sep-15	12-Sep-15	-202	0	0%
SC4C0378	C3 (C4c) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	24-May-16	0%	22	18-Jun-16	14-Sep-15	10-Oct-15	-202	0	0%
SC4C0380	C3 (C4c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	20-Jun-16	0%	6	25-Jun-16	12-Oct-15	19-Oct-15	-201	62	0%
Pier C5 (C4a)											
Pier Head Segments											
SC4A0380	C5 (C4a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Apr-16 A	100%	0	26-Apr-16 A					100%
Pier C6 (C3f)											
Pier Works											
SC3F0340	C6 (C3f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaff	4	05-Mar-16 A	100%	0	23-Apr-16 A					100%
Pier Head Segments											
SC3F0370	C6 (C3f) - Pier Head Segment - Temporary Platform	6	21-May-16	0%	6	27-May-16	16-Sep-15	22-Sep-15	-198	0	0%
SC3F0371	C6 (C3f) - Pier Head Segment Bearings	2	28-May-16	0%	2	30-May-16	23-Sep-15	24-Sep-15	-198	0	0%
SC3F0372	C6 (C3f) - Pier Head Segment Lift & Temp Support (2 seg)	7	31-May-16	0%	7	07-Jun-16	25-Sep-15	05-Oct-15	-198	65	0%
Bridge C3											
Pier C8 (C3d)											
Pier Head Segments											
SC3D0370	C8 (C3d) - Pier Head Segment - Temporary Platform	6	23-May-16	0%	6	28-May-16	14-Dec-15	19-Dec-15	-126	0	0%
SC3D0372	C8 (C3d) - Pier Head Segment Lift & Fix (1 seg)	2	30-May-16	0%	2	31-May-16	21-Dec-15	22-Dec-15	-126	0	0%
SC3D0378	C8 (C3d) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	01-Jun-16	0%	22	27-Jun-16	23-Dec-15	20-Jan-16	-126	0	0%
SC3D0380	C8 (C3d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	28-Jun-16	0%	6	05-Jul-16	21-Jan-16	27-Jan-16	-126	95	0%
Pier C10 (C3b)											
Pier Head Segments											
SC3B0372	C10 (C3b) - Pier Head Segment Lift & Fix (1 seg)	2	21-May-16	0%	2	23-May-16	01-Apr-16	02-Apr-16	-40	0	0%
SC3B0378	C10 (C3b) - Pier Head Segment Diaphragm - Rebar, Formwork, Concretir	24	24-May-16	0%	24	21-Jun-16	05-Apr-16	03-May-16	-40	0	0%
SC3B0380	C10 (C3b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	22-Jun-16	0%	6	28-Jun-16	04-May-16	10-May-16	-40	181	0%
Pier C9 (C3c)											
Pier Head Segments											
SC3C0378	C9 (C3c) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	15	21-May-16	0%	15	07-Jun-16	07-Mar-16	23-Mar-16	-59	0	0%
SC3C0380	C9 (C3c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	3	08-Jun-16	0%	3	11-Jun-16	24-Mar-16	30-Mar-16	-59	0	0%
Pier C11 (C3a)											
Pier Head Segments											
SC3A0371	C11 (C3a) - Pier Head Segment Bearings	2	06-May-16 A	100%	0	13-May-16 A					100%
SC3A0372	C11 (C3a) - Pier Head Segment Lift & Fix (2 seg)	7	13-May-16 A	0%	7	28-May-16	02-Apr-16	11-Apr-16	-39	0	0%
SC3A380	C11 (C3a) - C11-A Diaphragm	24	30-May-16	0%	24	27-Jun-16	12-Apr-16	10-May-16	-39	0	0%
SC3A382	C11 (C3a) - C11-B Diaphragm	24	28-Jun-16	0%	24	26-Jul-16	11-May-16	08-Jun-16	-39	182	0%
Bridge C2											
Pier C13 (C2e) Portal											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
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 5 of 13 Pages)
(Progress as of 21-May-16)

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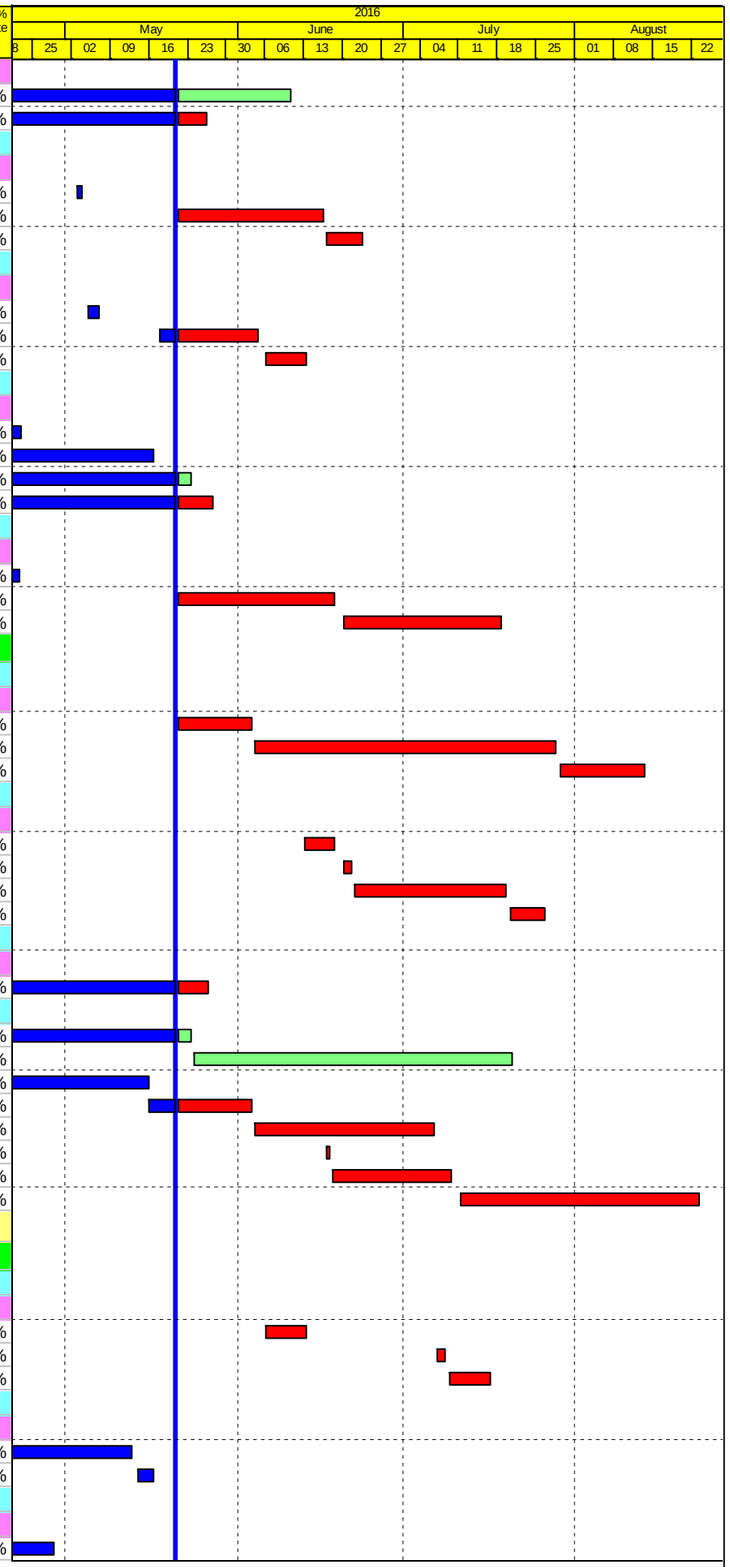
31-May-...		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Portal											
SC2ER310	C13 (C2e) - Portal Beam Concreting	1	17-Mar-16 A	0%	17	10-Jun-16	10-Dec-19	31-Dec-19	1056	1056	70%
SC2ER320	C13 (C2e) - Portal Beam Curing/Striking of Forms/Remove Scaffolding	14	18-Mar-16 A	66%	5	26-May-16	10-Mar-16	15-Mar-16	-56	16	66%
Pier C15 (C2c)											
Pier Head Segments											
SC2C0372	C15 (C2c) - Pier Head Segment Lift & Fix (1 seg)	2	03-May-16 A	100%	0	04-May-16 A					100%
SC2C0378	C15 (C2c) - Pier Head Segment Diaphragm - Rebar, Formwork, Concretir	22	21-May-16	0%	22	16-Jun-16	14-Apr-16	10-May-16	-30	0	0%
SC2C0380	C15 (C2c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	17-Jun-16	0%	6	23-Jun-16	11-May-16	18-May-16	-30	43	0%
Pier C12 (C2f)											
Pier Head Segments											
SC2F0372	C12 (C2f) - Pier Head Segment Lift & Fix (1 seg)	2	05-May-16 A	100%	0	07-May-16 A					100%
SC2F0378	C12 (C2f) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	18-May-16 A	40.91%	13	04-Jun-16	05-May-16	20-May-16	-13	0	40%
SC2F0380	C12 (C2f) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	06-Jun-16	0%	6	13-Jun-16	21-May-16	27-May-16	-13	0	0%
Pier C14 (C2d)											
Pier Head Segments											
SC2D0374	C14 (C2d) - Pier Head Segment Diaphragm - Rebar	8	09-Mar-16 A	100%	0	23-Apr-16 A					100%
SC2D0376	C14 (C2d) - Pier Head Segment Diaphragm - Formwork & Prep for Concr	8	15-Mar-16 A	100%	0	17-May-16 A					100%
SC2D0378	C14 (C2d) - Pier Head Segment Diaphragm - Concreting	2	16-Mar-16 A	0%	2	23-May-16	30-Dec-19	31-Dec-19	1071	1071	50%
SC2D0380	C14 (C2d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	17-Mar-16 A	0%	6	27-May-16	12-Apr-16	18-Apr-16	-32	12	50%
Pier C16 (C2b)											
Pier Head Segments											
SC2B0372	C16 (C2b) - Pier Head Segment Lift & Fix (2 seg)	7	15-Apr-16 A	100%	0	22-Apr-16 A					100%
SC2B380	C16 (C2b) - C16A Diaphragm	24	21-May-16	0%	24	18-Jun-16	15-Feb-16	12-Mar-16	-77	0	0%
SC2B382	C16 (C2b) - C16B Diaphragm	24	20-Jun-16	0%	24	18-Jul-16	14-Mar-16	14-Apr-16	-77	23	0%
Bridge C1											
Pier C18 (C3d) Portal											
Portal											
SC1ER280	C18 (C1e) - Portal Beam Scaffolding	12	21-May-16*	0%	12	03-Jun-16	11-Dec-15	24-Dec-15	-127	0	0%
SC1ER310	C18 (C1e) - Portal Beam Rebar, Formwork, Concreting	45	04-Jun-16	0%	45	28-Jul-16	28-Dec-15	22-Feb-16	-127	0	0%
SC1ER320	C18 (C1e) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	29-Jul-16	0%	14	13-Aug-16	23-Feb-16	09-Mar-16	-127	0	0%
Pier C17 (C2a)											
Pier Head Segments											
SC2A0370	C17 (C2a) - Pier Head Segment - Temporary Platform	6	13-Jun-16*	0%	6	18-Jun-16	15-Dec-15	21-Dec-15	-142	0	0%
SC2A0372	C17 (C2a) - Pier Head Segment Lift & Fix (1 seg)	2	20-Jun-16	0%	2	21-Jun-16	22-Dec-15	23-Dec-15	-142	0	0%
SC2A0378	C17 (C2a) - Pier Head Segment Diaphragm - Rebar, Formwork, Concretir	23	22-Jun-16	0%	23	19-Jul-16	24-Dec-15	22-Jan-16	-142	0	0%
SC2A0380	C17 (C2a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	20-Jul-16	0%	6	26-Jul-16	23-Jan-16	29-Jan-16	-142	0	0%
Pier C19 (C1d)											
Pier Head Segments											
SC1D0380	C19 (C1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	19-Mar-16 A	16.67%	5	26-May-16	03-May-16	07-May-16	-15	0	16%
Abutment & Approach Ramp C											
SC1C0250	AR-C - RE Walls - Erect fencing, Excavation/formation/ drainage filter & bo	12	22-Apr-15 A	83.33%	2	23-May-16	01-Nov-19	02-Nov-19	1023	0	90%
SC1C0251	AR-C - RE Walls - Upper layers with backfill in stages (exclude 800dia Tcc a	48	24-May-16	0%	48	20-Jul-16	04-Nov-19	31-Dec-19	1023	1023	0%
SC1C0253	AR-C - RC Walls - Side Walls	48	14-Mar-16 A	100%	0	16-May-16 A					100%
SC1C0254	AR-C - RC Walls - Backfill	12	16-May-16 A	0%	12	03-Jun-16	25-Apr-16	09-May-16	-21	0	0%
SC1C0256	AR-C - RC Walls - Concrete Parapets	26	04-Jun-16	0%	26	06-Jul-16	10-May-16	10-Jun-16	-21	77	0%
SC1C0257	ARC - Utility work - Termination of 800 dia Tcc	1	17-Jun-16*	0%	1	17-Jun-16	16-Feb-16	16-Feb-16	-98	0	0%
SC1C0258	ARC - Utility work - Remove 800 dia Tcc and backfill	18	18-Jun-16	0%	18	09-Jul-16	17-Feb-16	08-Mar-16	-98	0	0%
SC1C0259	ARC - RE Walls - Remaining bay @800 Tcc	38	11-Jul-16	0%	38	23-Aug-16	09-Mar-16	26-Apr-16	-98	0	0%
Viaduct D											
Bridge D3											
Pier D6 (D4a)											
Pier Head Segments											
SD4A0370	D6 (D4a) - Pier Head Segment - Temporary Platform	6	06-Jun-16*	0%	6	13-Jun-16	02-Dec-15	08-Dec-15	-148	19	0%
SD4A0371	D6 (D4a) - Pier Head Segment Bearings	2	07-Jul-16	0%	2	08-Jul-16	09-Dec-15	10-Dec-15	-167	0	0%
SD4A0372	D6 (D4a) - Pier Head Segment Lift & Temp Support (2 seg)	7	09-Jul-16	0%	7	16-Jul-16	11-Dec-15	18-Dec-15	-167	96	0%
Pier D5 (D4b)											
Pier Head Segments											
SD4B0378	D5 (D4b) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	06-Apr-16 A	100%	0	13-May-16 A					100%
SD4B0380	D5 (D4b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	14-May-16 A	100%	0	17-May-16 A					100%
Pier D1 (D4f)											
Pier Head Segments											
SD4F0372	D1 (D4f) - Pier Head Segment Lift & Temp Support (2 seg)	7	28-Mar-16 A	100%	0	29-Apr-16 A					100%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
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-May-16)

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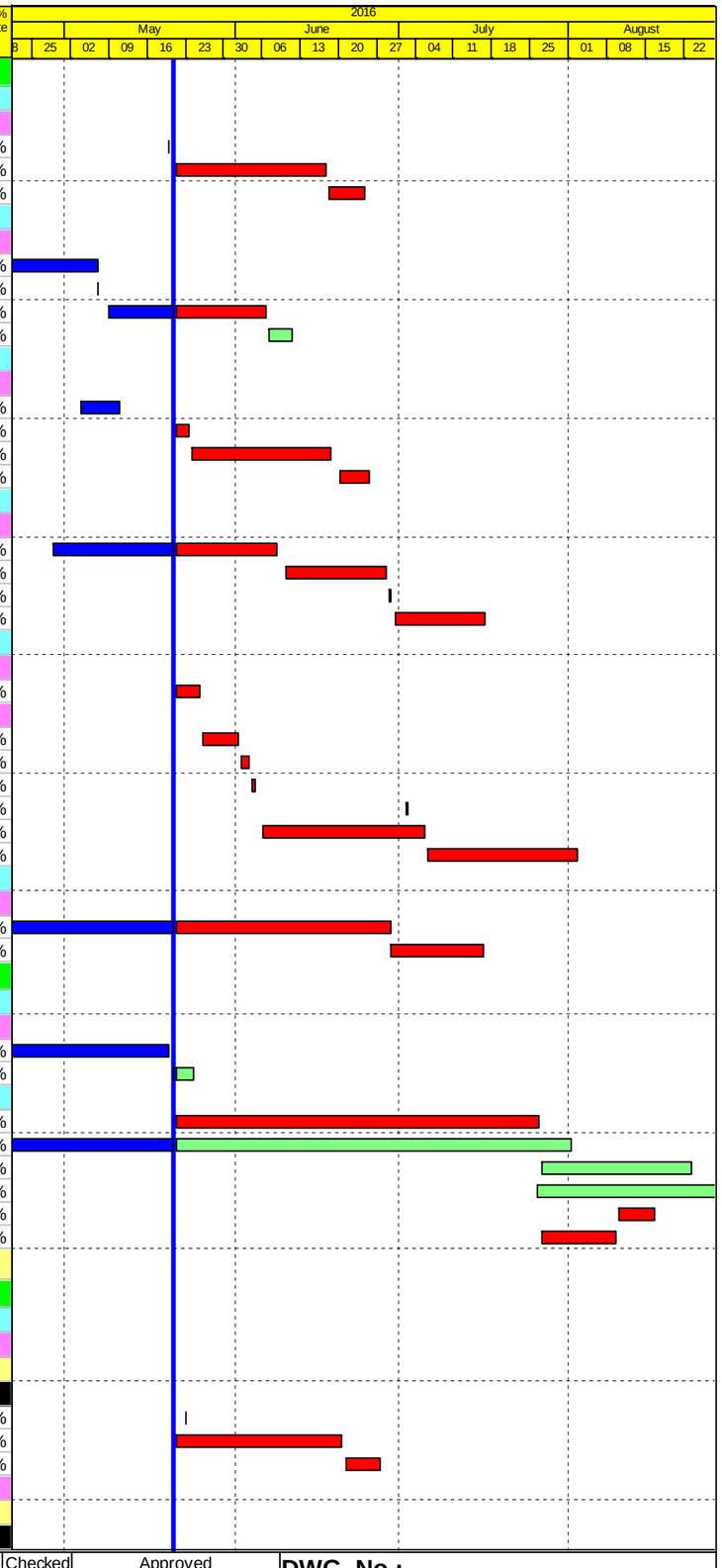
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:

J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Bridge D2											
Pier D8 (D3d)											
Pier Head Segments											
SD3D0372	D8 (D3d) - Pier Head Segment Lift & Fix (1 seg)	2	20-May-16 A	100%	0	20-May-16 A					100%
SD3D0378	D8 (D3d) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	23	21-May-16	0%	23	17-Jun-16	30-Nov-15	28-Dec-15	-137	0	0%
SD3D0380	D8 (D3d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	18-Jun-16	0%	6	24-Jun-16	29-Dec-15	06-Jan-16	-136	127	0%
Pier D12 (D2e)											
Portal											
SD2ER300	D12 (D2e) - Portal Beam Rebarwork & Inserts	22	05-Mar-16 A	100%	0	07-May-16 A					100%
SD2ER310	D12 (D2e) - Portal Beam Concreting	1	07-May-16 A	100%	0	07-May-16 A					100%
SD2ER320	D12 (D2e) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	09-May-16 A	0%	14	06-Jun-16	12-Apr-16	27-Apr-16	-32	0	0%
SD2ER325	D12 (D2e) - Pier Backfilling Works	4	07-Jun-16	0%	4	11-Jun-16	13-Jun-16	16-Jun-16	4	207	0%
Pier D9 (D3c)											
Pier Head Segments											
SD3C0370	D9 (D3c) - Pier Head Segment - Temporary Platform	6	04-May-16 A	100%	0	11-May-16 A					100%
SD3C0372	D9 (D3c) - Pier Head Segment Lift & Fix (1 seg)	2	21-May-16	0%	2	23-May-16	31-Dec-15	02-Jan-16	-112	0	0%
SD3C0378	D9 (D3c) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	24-May-16	0%	22	18-Jun-16	04-Jan-16	28-Jan-16	-112	0	0%
SD3C0380	D9 (D3c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	20-Jun-16	0%	6	25-Jun-16	29-Jan-16	04-Feb-16	-112	0	0%
Pier D10 (D3b)											
Portal											
SD3BR300	D10 (D3b) - Portal Beam Rebarwork & Inserts	16	29-Apr-16 A	0%	16	08-Jun-16	28-Dec-15	15-Jan-16	-115	0	0%
SD3BR305	D10 (D3b) - Portal Beam Side Formwork & Prep for Concreting	16	10-Jun-16	0%	16	28-Jun-16	16-Jan-16	03-Feb-16	-115	0	0%
SD3BR310	D10 (D3b) - Portal Beam Concreting	1	29-Jun-16	0%	1	29-Jun-16	04-Feb-16	04-Feb-16	-115	0	0%
SD3BR320	D10 (D3b) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	30-Jun-16	0%	14	16-Jul-16	05-Feb-16	24-Feb-16	-115	0	0%
Pier D13 (D2d)											
Pier Works											
SD2D0360	D13 (D2d) - Type 5B-MJ Pier Backfilling Works	4	21-May-16	0%	4	25-May-16	19-Feb-16	23-Feb-16	-73	0	0%
Pier Head Segments											
SD2D0370	D13 (D2d) - Pier Head Segment - Temporary Platform	6	26-May-16*	0%	6	01-Jun-16	24-Feb-16	01-Mar-16	-73	0	0%
SD2D0371	D13 (D2d) - Pier Head Segment Bearings	2	02-Jun-16	0%	2	03-Jun-16	02-Mar-16	03-Mar-16	-73	0	0%
SD2D0372	D13 (D2d) - D13A - Pier Head Segment Lift & Fix (1 seg)	1	04-Jun-16	0%	1	04-Jun-16	04-Mar-16	04-Mar-16	-73	0	0%
SD2D380	D13 (D2d) - D13B - Pier Head Segment Lift & Fix (1 seg)	1	02-Jul-16	0%	1	02-Jul-16	02-Apr-16	02-Apr-16	-73	0	0%
SD2D382	D13 (D2d) - D13A - Diaphragm	24	06-Jun-16	0%	24	05-Jul-16	05-Mar-16	06-Apr-16	-73	0	0%
SD2D384	D13 (D2d) - D13B - Diaphragm	24	06-Jul-16	0%	24	02-Aug-16	07-Apr-16	05-May-16	-73	69	0%
Pier D11 (D3a)											
Portal											
SD3AR310	D11 (D3a) - Portal Beam Rebar, Formwork, Concreting	45	08-Apr-16 A	27%	33	29-Jun-16	15-Apr-16	25-May-16	-29	0	27%
SD3AR320	D11 (D3a) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	29-Jun-16	0%	14	16-Jul-16	26-May-16	11-Jun-16	-29	83	0%
Bridge D1											
Pier D15 (D2b)											
Pier Head Segments											
SD2B0378	D15 (D2b) - Pier Head Segment Diaphragm - Rebar, Formwork, Concretir	22	12-Apr-16 A	100%	0	20-May-16 A					100%
SD2B0380	D15 (D2b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	3	21-May-16 A	0%	3	24-May-16	23-May-16	25-May-16	1	72	0%
Abutment & Approach Ramp D											
SD1B0252	AR-D - Box structure - Bay 1 & Bay 8	55	21-May-16*	0%	55	26-Jul-16	24-Mar-16	02-Jun-16	-44	0	0%
SD1B0290	AR-D - Backfill embankment	90	02-Nov-15 A	33.33%	60	01-Aug-16	08-Oct-16	17-Dec-16	116	0	0%
SD1B0300	AR-D - RC Walls - Concrete parapets / Profile barriers	24	27-Jul-16	0%	24	23-Aug-16	11-Aug-16	07-Sep-16	13	0	0%
SD1B0400	AR-D - Drainage	45	26-Jul-16	0%	45	15-Sep-16	12-Dec-16	08-Feb-17	116	0	0%
SD1B0402	AR-D - Subbase	6	10-Aug-16	0%	6	16-Aug-16	18-Jun-16	24-Jun-16	-44	6	0%
SD1B0420	AR-D - Ductings for TCSS civil work provisions (for KD4)	12	27-Jul-16	0%	12	09-Aug-16	03-Jun-16	17-Jun-16	-44	0	0%
Viaduct E											
Viaduct E1											
Bridge E1 - Piling & Substructure											
E1A, E1B, E1C & E1D (E1a1-2-3-4)											
Pier Head Segments - E1A, E1B, E1C & E1D											
Pier Head Segments - E1D (E1a1)											
SE1A1372	E1D (E1a1) - Pier Head Segment Lift & Fix (1 seg)	2	23-May-16 A	100%	0	23-May-16 A					100%
SE1A1378	E1D (E1a1) - Pier Head Segment Diaphragm - Rebar, Formwork, Concret	25	21-May-16	0%	25	20-Jun-16	27-Apr-16	27-May-16	-19	0	0%
SE1A1380	E1D (E1a1) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Jun-16	0%	6	27-Jun-16	28-May-16	03-Jun-16	-19	82	0%
E2A, E2B, E2C & E2D (E1b1-2-3-4)											
Pier Head Segments - E2A, E2B, E2C & E2D											
Pier Head Segments - E2D (E1b1)											



Actual Work
Planned Bar
Critical Bar
Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-May-16)

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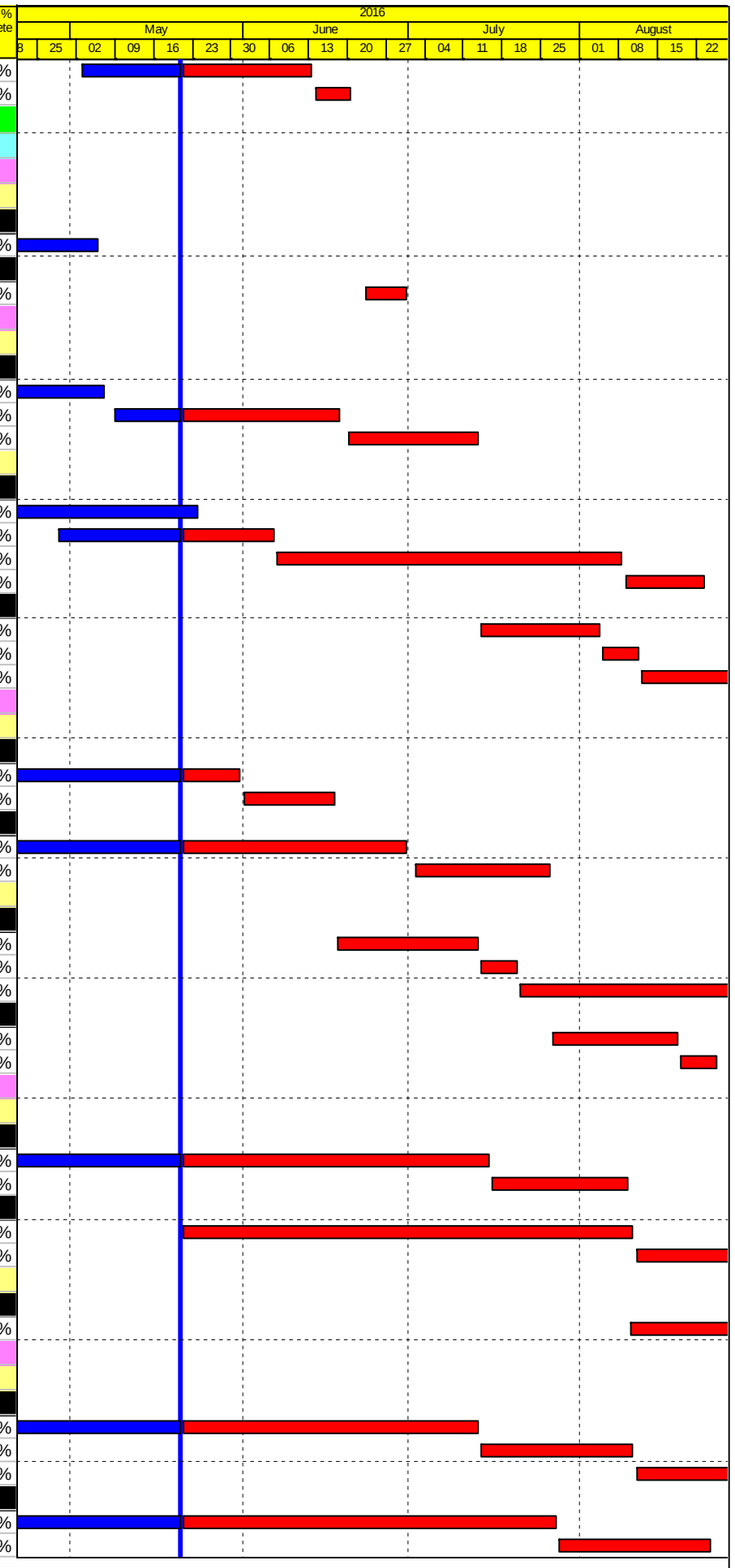
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
SE1B1378	E2D (E1b1) - Pier Head Segment Diaphragm - Rebar, Formwork, Concret	22	03-May-16 A	13.64%	19	13-Jun-16	23-Apr-16	17-May-16	-22	0	50%
SE1B1380	E2D (E1b1) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	14-Jun-16	0%	6	20-Jun-16	18-May-16	24-May-16	-22	50	0%
Viaduct E2											
Bridge E2 - Piling & Substructure											
E3A,E3B, E3C & E3D (E2a - 1/2/3/4)											
Pier Head Segements - E3A,E3B, E3C & E3D											
Pier Head Segment - E3C (E2a2)											
SE2A2372	E3C (E2a2) - Pier Head Segment Lift & Temp Support (2 seg)	10	31-Mar-16 A	100%	0	06-May-16 A					100%
Pier Head Segment - E3D (E2a1)											
SE2A1372	E3D (E2a1) - Pier Head Segment Lift & Temp Support (2 seg)	7	23-Jun-16*	0%	7	30-Jun-16	16-May-16	24-May-16	-31	97	0%
E4A & E4B (E2b - 1/2)											
Pier Works - E4A & E4B											
Pier Works - E4B (E2b1)											
E4B2020	E4B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Hollo	41	02-Mar-16 A	100%	0	07-May-16 A					100%
E4B2030	E4B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Upper Diaj	24	09-May-16 A	0%	24	18-Jun-16	03-Jul-15	30-Jul-15	-262	0	10%
E4B2040	E4B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	20-Jun-16	0%	20	13-Jul-16	31-Jul-15	22-Aug-15	-262	0	0%
Pier Head Segements - E4A & E4B											
Pier head Segment - E4A (E2b2)											
E4A3110	E4A - Temp. Work, Grillages, Megashore Towers, Rail Beams	22	11-Mar-16 A	100%	0	24-May-16 A					100%
E4A3120	E4A - Install Pierhead Segments (4 nr)	6	29-Apr-16 A	0%	14	06-Jun-16	17-Jun-15	04-Jul-15	-274	0	50%
E4A3130	E4A - Diaphragm of PHS - Formwork, Rebar, Concreting	52	07-Jun-16	0%	52	08-Aug-16	06-Jul-15	03-Sep-15	-274	0	0%
E4A3140	E4A - Remove Rail Beams, Megashore Towers	13	09-Aug-16	0%	13	23-Aug-16	04-Sep-15	18-Sep-15	-274	0	0%
Pier head Segment - E4B (E2b1)											
E4B3110	E4B - Temp. Work, Grillages, Megashore Towers, Rail Beams	19	14-Jul-16	0%	19	04-Aug-16	24-Aug-15	14-Sep-15	-262	0	0%
E4B3120	E4B - Install Pierhead Segments (4 nr)	6	05-Aug-16	0%	6	11-Aug-16	15-Sep-15	21-Sep-15	-262	0	0%
E4B3130	E4B - Diaphragm of PHS - Formwork, Rebar, Concreting	53	12-Aug-16	0%	53	15-Oct-16	22-Sep-15	25-Nov-15	-262	0	0%
E5A & E5B (E2c - 1/2)											
Pier Works - E5A & E5B											
Pier Works - E5A (E2c2)											
E5A2020	E5A - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solic	38	23-Feb-16 A	76.32%	9	31-May-16	10-Dec-15	19-Dec-15	-128	0	70%
E5A2030	E5A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	14	01-Jun-16	0%	14	17-Jun-16	21-Dec-15	08-Jan-16	-128	0	0%
Pier Works - E5B (E2c1)											
E5B2020	E5B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solid	73	19-Mar-16 A	53.42%	34	30-Jun-16	16-Mar-16	28-Apr-16	-51	0	50%
E5B2030	E5B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	02-Jul-16	0%	21	26-Jul-16	29-Apr-16	25-May-16	-51	0	0%
Pier Head Segements - E5A & E5B											
Pier head Segment - E5A (E2c2)											
E5A3110	E5A - Temp. Work, Rail Beams	21	18-Jun-16	0%	21	13-Jul-16	09-Jan-16	02-Feb-16	-128	0	0%
E5A3120	E5A - Install Pierhead Segments (4 nr)	6	14-Jul-16	0%	6	20-Jul-16	03-Feb-16	12-Feb-16	-128	0	0%
E5A3130	E5A - Diaphragm of PHS - Formwork, Rebar, Concreting	41	21-Jul-16	0%	41	06-Sep-16	13-Feb-16	05-Apr-16	-128	0	0%
Pier head Segment - E5B (E2c1)											
E5B3110	E5B - Temp. Work, Rail Beams	20	27-Jul-16	0%	20	18-Aug-16	26-May-16	18-Jun-16	-51	0	0%
E5B3120	E5B - Install Pierhead Segments (4 nr)	6	19-Aug-16	0%	6	25-Aug-16	20-Jun-16	25-Jun-16	-51	0	0%
E6A & E6B (E2d - 1/2)											
Pier Works - E6A & E6B											
Pier Works - E6A (E2d2)											
E6A2020	E6A - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solid	59	27-Feb-16 A	22.03%	46	15-Jul-16	15-May-15	10-Jul-15	-301	0	60%
E6A2030	E6A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	16-Jul-16	0%	21	09-Aug-16	11-Jul-15	04-Aug-15	-301	0	0%
Pier Works - E6B (E2d1)											
E6B2020	E6B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solid	68	25-May-16 A	0%	68	10-Aug-16	28-Jan-16	23-Apr-16	-89	0	30%
E6B2030	E6B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	11-Aug-16	0%	21	03-Sep-16	25-Apr-16	20-May-16	-89	0	0%
Pier head Segment - E6A & E6B											
Pier head Segment - E6A (E2d2)											
E6A3110	E6A - Temp. Work, Rail Beams	20	10-Aug-16	0%	20	01-Sep-16	05-Aug-15	27-Aug-15	-301	0	0%
E7A & E7B (E2e - 1/2)											
Pier Works - E7A & E7B											
Pier Works - E7A (E2e2)											
E7A2020	E7A - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Hollo	44	29-Mar-16 A	0%	44	13-Jul-16	03-Nov-15	23-Dec-15	-160	0	50%
E7A2030	E7A - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Upper Diaj	24	14-Jul-16	0%	24	10-Aug-16	24-Dec-15	23-Jan-16	-160	0	0%
E7A2040	E7A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	11-Aug-16	0%	20	02-Sep-16	25-Jan-16	19-Feb-16	-160	0	0%
Pier Works - E7B (E2e1)											
E7B2020	E7B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Hollo	66	12-Apr-16 A	15.15%	56	27-Jul-16	04-Jun-15	10-Aug-15	-285	0	30%
E7B2030	E7B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Upper Diaj	24	28-Jul-16	0%	24	24-Aug-16	11-Aug-15	07-Sep-15	-285	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

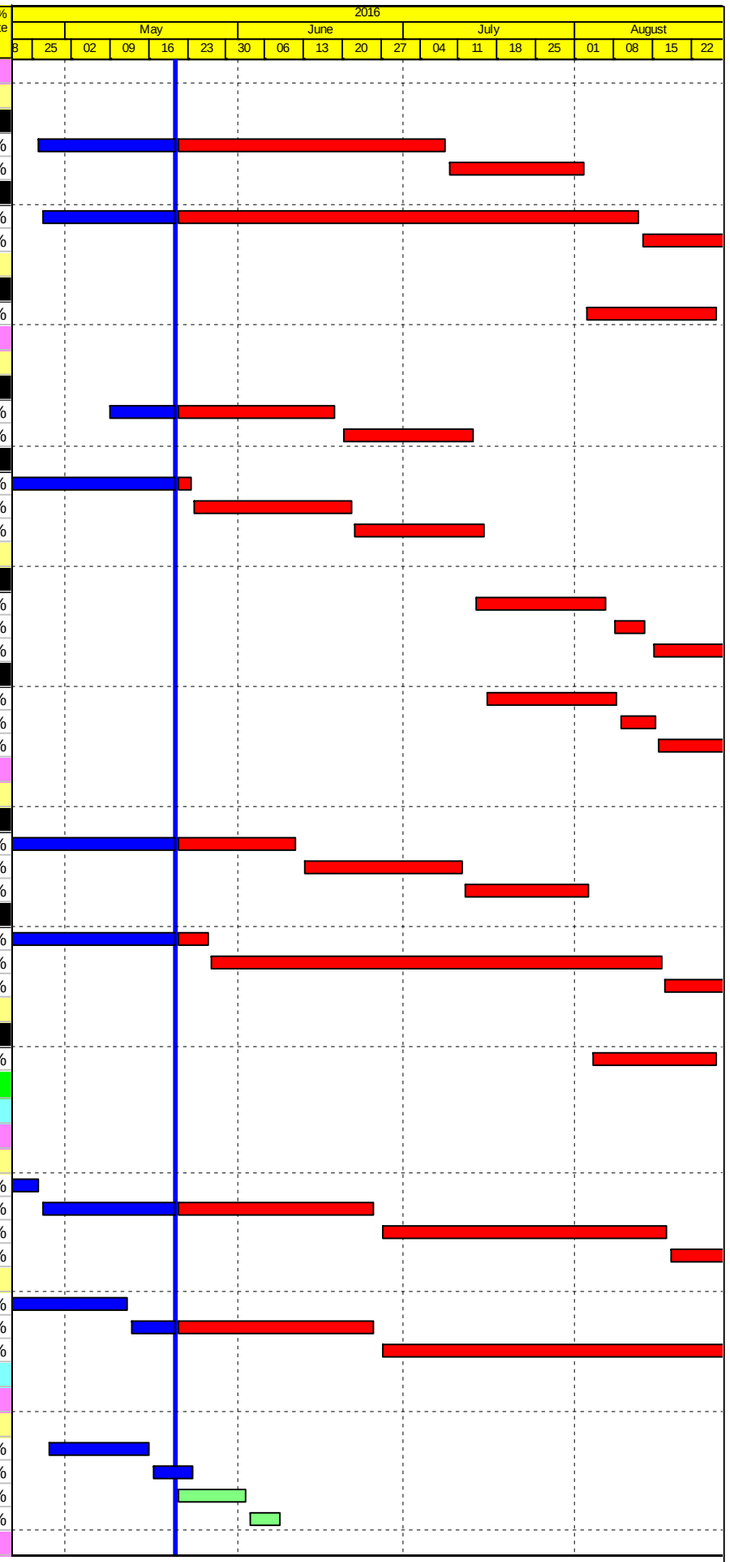
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 8 of 13 Pages)
(Progress as of 21-May-16)

Date	Revision	Checked	Approved
29-Mar-16		PKN	HF
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:

J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
E8A & E8B (E2f - 1/2)											
Pier Works - E8A & E8B											
Pier Works - E8A (E2f2)											
E8A2020	E8A - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solid)	50	26-Apr-16 A	20%	40	08-Jul-16	26-Feb-16	16-Apr-16	-67	0	70%
E8A2030	E8A - Seagull Pier Temp. Work, Curing, CJ, Remove Formwork & Falsewo	21	09-Jul-16	0%	21	02-Aug-16	18-Apr-16	12-May-16	-67	0	0%
Pier Works - E8B (E2f1)											
E8B2020	E8B - Seagull Pier Temp. Work, Rebar, Formwork,Concreting - Arm (Solid)	70	27-Apr-16 A	0%	70	12-Aug-16	09-Dec-15	05-Mar-16	-129	0	10%
E8B2030	E8B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	13-Aug-16	0%	21	06-Sep-16	07-Mar-16	02-Apr-16	-129	0	0%
Pier head Segment - E8A & E8B											
Pier head Segment - E8A (E2f2)											
E8A3110	E8A - Temp. Work, Rail Beams	21	03-Aug-16	0%	21	26-Aug-16	13-May-16	07-Jun-16	-67	0	0%
E9A & E9B (E2g - 1/2)											
Pier Works - E9A & E9B											
Pier Works - E9A (E2g2)											
E9A2040	E9A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Dia	24	09-May-16 A	0%	24	18-Jun-16	11-Feb-16	09-Mar-16	-80	0	5%
E9A2050	E9A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	20-Jun-16	0%	20	13-Jul-16	10-Mar-16	06-Apr-16	-80	0	0%
Pier Works - E9B (E2g1)											
E9B2030	E9B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Hollo	62	19-Feb-16 A	96.77%	2	23-May-16	07-Mar-16	08-Mar-16	-59	0	100%
E9B2040	E9B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Dia	24	24-May-16	0%	24	21-Jun-16	09-Mar-16	09-Apr-16	-59	0	0%
E9B2050	E9B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	22-Jun-16	0%	20	15-Jul-16	11-Apr-16	04-May-16	-59	0	0%
Pier head Segment - E9A & E9B											
Pier head Segment - E9A (E2g2)											
E9A3110	E9A - Temp. Work, Rail Beams	21	14-Jul-16	0%	21	06-Aug-16	07-Apr-16	30-Apr-16	-80	0	0%
E9A3120	E9A - Install Pierhead Segments (4 nr)	6	08-Aug-16	0%	6	13-Aug-16	03-May-16	09-May-16	-80	0	0%
E9A3130	E9A - Diaphragm of PHS - Formwork, Rebar, Concreting	48	15-Aug-16	0%	48	12-Oct-16	10-May-16	07-Jul-16	-80	0	0%
Pier head Segment - E9B (E2g1)											
E9B3110	E9B - Temp. Work, Rail Beams	20	16-Jul-16	0%	20	08-Aug-16	05-May-16	28-May-16	-59	0	0%
E9B3120	E9B - Install Pierhead Segments (4 nr)	6	09-Aug-16	0%	6	15-Aug-16	30-May-16	04-Jun-16	-59	0	0%
E9B3130	E9B - Diaphragm of PHS - Formwork, Rebar, Concreting	48	16-Aug-16	0%	48	13-Oct-16	06-Jun-16	02-Aug-16	-59	0	0%
E10A & E10B (E2h - 1/2)											
Pier Works - E10A & E10B											
Pier Works - E10A (E2h2)											
E10A2030	E10A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Hol	44	23-Mar-16 A	59.09%	18	11-Jun-16	17-Feb-16	08-Mar-16	-75	0	50%
E10A2040	E10A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Di	24	13-Jun-16	0%	24	11-Jul-16	09-Mar-16	09-Apr-16	-75	0	0%
E10A2050	E10A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	12-Jul-16	0%	20	03-Aug-16	11-Apr-16	04-May-16	-75	0	0%
Pier Works - E10B (E2h1)											
E10B2020	E10B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	19	11-Mar-16 A	73.68%	5	26-May-16	09-Oct-15	14-Oct-15	-180	0	0%
E10B2030	E10B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Hol	68	27-May-16	0%	68	16-Aug-16	15-Oct-15	06-Jan-16	-180	0	0%
E10B2040	E10B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper D	24	17-Aug-16	0%	24	13-Sep-16	07-Jan-16	03-Feb-16	-180	0	0%
Pier head Segments - E10A & E10B											
Pier head Segments - E10A (E2h2)											
E10A3110	E10A - Temp. Work, Rail Beams	20	04-Aug-16	0%	20	26-Aug-16	05-May-16	28-May-16	-75	0	0%
Viaduct E5, E6, E7 & E8											
E11A & E11B (E5E6a/E7E8a)											
Pier Works - E11A & E11B											
Pier Works - E11A (E7E8a)											
E11A2020	E11A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Di	24	22-Mar-16 A	100%	0	26-Apr-16 A					100%
E11A2030	E11A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	30	27-Apr-16 A	0%	30	25-Jun-16	28-Apr-15	03-Jun-15	-315	0	15%
E11A2040	E11A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	44	27-Jun-16	0%	44	17-Aug-16	04-Jun-15	27-Jul-15	-315	0	0%
E11A2050	E11A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	18-Aug-16	0%	21	10-Sep-16	28-Jul-15	20-Aug-15	-315	0	0%
Pier Works - E11B (E5E6a)											
E11B2020	E11B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Di	19	14-Apr-16 A	100%	0	12-May-16 A					100%
E11B2030	E11B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	30	13-May-16 A	0%	30	25-Jun-16	06-May-15	10-Jun-15	-309	0	5%
E11B2040	E11B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	64	27-Jun-16	0%	64	09-Sep-16	11-Jun-15	26-Aug-15	-309	0	0%
E12A, E12B, E12C & E12D (E8b/E7b/E6b/E5b)											
Pile Cap Works - E12A, E12B, E12C & E12D											
Pile Cap Works - Dolphin E12A (E8b)											
SE8BD070	E12A (E8b) Dolphin - Marine Pile Cap - Collar frame to perm. casing of Boi	3	28-Apr-16 A	100%	0	16-May-16 A					100%
SE8BD080	E12A (E8b) Dolphin - Marine Pile Cap - Install precast shell in position	24	17-May-16 A	100%	0	24-May-16 A					100%
SE8BD130	E12A (E8b)- Dolphin - Marine Pile Cap - Fixings, Dewatering & Trimming o	11	21-May-16	0%	11	02-Jun-16	10-Feb-17	22-Feb-17	216	0	0%
SE8BD150	E12A (E8b) - Dolphin - Marine Pile Cap - Rebar, Concreting	5	03-Jun-16	0%	5	08-Jun-16	23-Feb-17	28-Feb-17	216	319	0%
Bridge E8 - Pier E12A (E8b)											



Actual Work
Planned Bar
Critical Bar
Milestone

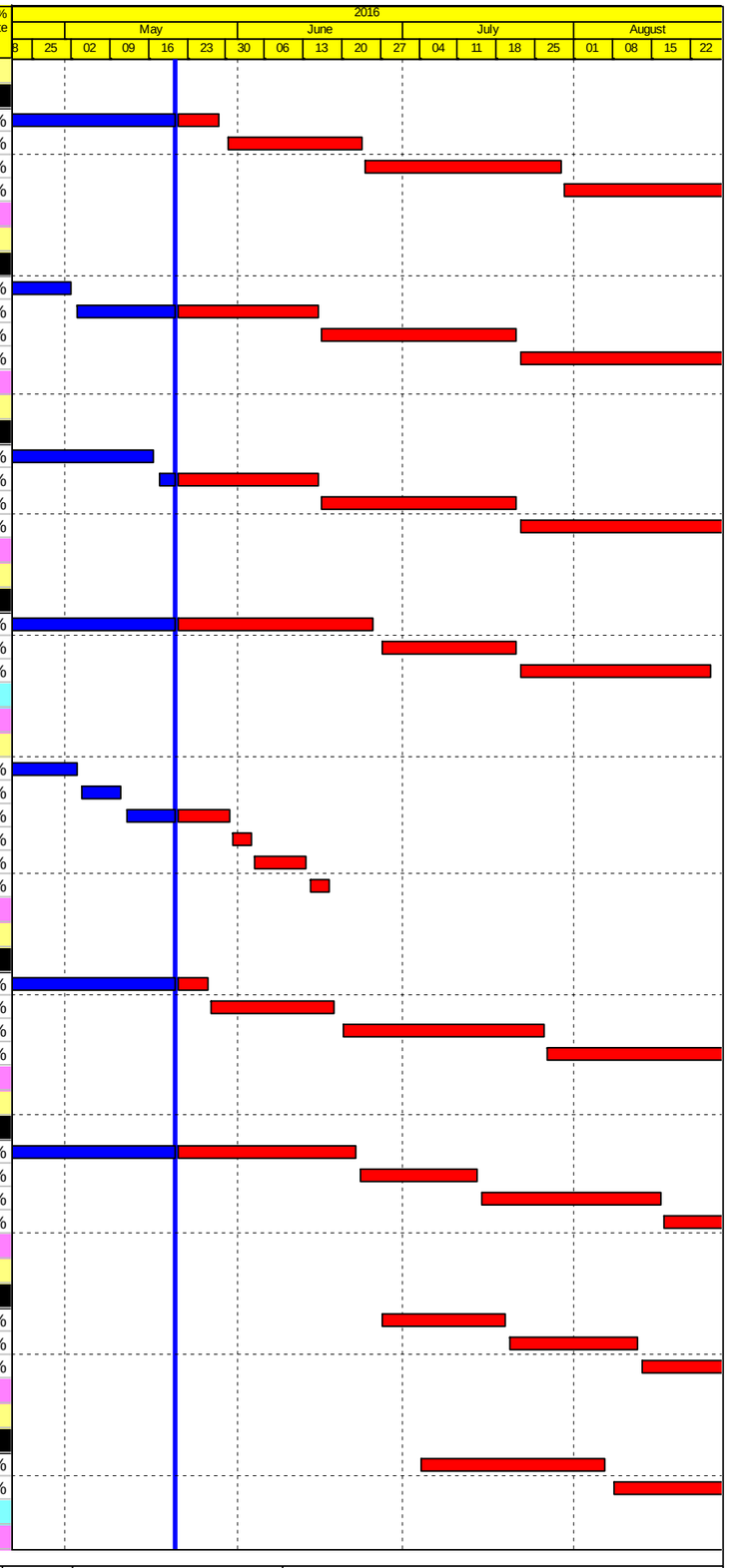
Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 9 of 13 Pages)
(Progress as of 21-May-16)

Date	Revision	Checked	Approved
29-Mar-16		PKN	HF
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Pier Works - E12A											
Pier Works											
E12A2010	E12A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper St	31	02-Apr-16 A	77.42%	7	28-May-16	11-Apr-15	18-Apr-15	-329	0	80%
E12A2020	E12A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Di	21	30-May-16	0%	21	23-Jun-16	20-Apr-15	14-May-15	-329	0	0%
E12A2030	E12A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	30	24-Jun-16	0%	30	29-Jul-16	15-May-15	19-Jun-15	-329	0	0%
E12A2040	E12A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	44	30-Jul-16	0%	44	20-Sep-16	22-Jun-15	12-Aug-15	-329	0	0%
Bridge E7 - Pier E12B (E7b)											
Pier Works - E12B											
Pier Works											
E12B2010	E12B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Sl	31	17-Mar-16 A	100%	0	02-May-16 A					100%
E12B2030	E12B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	03-May-16 A	0%	21	15-Jun-16	28-Feb-15	24-Mar-15	-361	0	80%
E12B2040	E12B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	30	16-Jun-16	0%	30	21-Jul-16	25-Mar-15	04-May-15	-361	0	0%
E12B2050	E12B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	44	22-Jul-16	0%	44	10-Sep-16	05-May-15	26-Jun-15	-361	0	0%
Bridge E6 - Pier E12C (E6b)											
Pier Works - E12C											
Pier Works											
E12C2010	E12C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper S	28	25-Mar-16 A	100%	0	17-May-16 A					100%
E12C2020	E12C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	18-May-16 A	0%	21	15-Jun-16	18-Jul-15	11-Aug-15	-249	0	20%
E12C2030	E12C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ai	30	16-Jun-16	0%	30	21-Jul-16	12-Aug-15	15-Sep-15	-249	0	0%
E12C2040	E12C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ai	44	22-Jul-16	0%	44	10-Sep-16	16-Sep-15	09-Nov-15	-249	0	0%
Bridge E5 - Pier E12D (E5b)											
Pier Works - E12D											
Pier Works											
E12D2010	E12D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper S	30	18-Apr-16 A	0%	30	25-Jun-16	28-Jul-15	31-Aug-15	-241	0	30%
E12D2020	E12D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	27-Jun-16	0%	21	21-Jul-16	01-Sep-15	24-Sep-15	-241	0	0%
E12D2030	E12D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ai	30	22-Jul-16	0%	30	25-Aug-16	25-Sep-15	02-Nov-15	-241	0	0%
E13A, E13B, E13C & E13D (E8c/E7c/E6c/E5c)											
Pile Cap Works - E13C & E13D											
Pile Cap Works											
SE5C0140	E13C/D (E6c/E5c) - Marine Pile Cap - Rebar, Concreting (1st pour)	15	11-Apr-16 A	100%	0	03-May-16 A					100%
SE5C0150	E13C/D (E6c/E5c) - Marine Pile Cap - CJ preparation	4	04-May-16 A	100%	0	11-May-16 A					100%
SE5C0152	E13C/D (E6c/E5c) - Marine Pile Cap - Rebar, Concreting (2nd pour)	15	12-May-16 A	46.67%	8	30-May-16	06-Mar-15	14-Mar-15	-356	0	80%
SE5C0154	E13C/D (E6c/E5c) - Marine Pile Cap - CJ preparation	4	31-May-16	0%	4	03-Jun-16	16-Mar-15	19-Mar-15	-356	0	0%
SE5C0162	E13C/D (E6c/E5c) - Marine Pile Cap - Rebar, Concreting (Final pour)	7	04-Jun-16	0%	7	13-Jun-16	20-Mar-15	27-Mar-15	-356	0	0%
SE5C0164	E13C/D (E6c/E5c) - Marine Pile Cap - Curing incl. CJ preparation	4	14-Jun-16	0%	4	17-Jun-16	28-Mar-15	01-Apr-15	-356	0	0%
Bridge E8 - Pier E13A (E8c)											
Pier Works - E13A											
Pier Works											
E13A2010	E13A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper St	30	13-Apr-16 A	83.33%	5	26-May-16	20-Mar-15	25-Mar-15	-344	0	50%
E13A2020	E13A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Di	19	27-May-16	0%	19	18-Jun-16	26-Mar-15	21-Apr-15	-344	0	0%
E13A2030	E13A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	31	20-Jun-16	0%	31	26-Jul-16	22-Apr-15	29-May-15	-344	0	0%
E13A2040	E13A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	44	27-Jul-16	0%	44	15-Sep-16	30-May-15	22-Jul-15	-344	0	0%
Bridge E7 - Pier E13B (E7c)											
Pier Works - E13B											
Pier Works											
E13B2000	E13B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Stem	19	05-Mar-16 A	0%	27	22-Jun-16	26-Jan-15	28-Feb-15	-387	0	70%
E13B2010	E13B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	18	23-Jun-16	0%	18	14-Jul-16	02-Mar-15	21-Mar-15	-387	0	0%
E13B2020	E13B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ar	28	15-Jul-16	0%	28	16-Aug-16	23-Mar-15	28-Apr-15	-387	0	0%
E13B2030	E13B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Ar	40	17-Aug-16	0%	40	04-Oct-16	29-Apr-15	16-Jun-15	-387	0	0%
Bridge E6 - Pier E13C (E6c)											
Pier Works - E13C											
Pier Works											
E13C2000	E13C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Stem	19	27-Jun-16	0%	19	19-Jul-16	15-Apr-15	07-May-15	-356	0	0%
E13C2010	E13C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	20-Jul-16	0%	21	12-Aug-16	08-May-15	02-Jun-15	-356	0	0%
E13C2020	E13C - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower Ai	30	13-Aug-16	0%	30	17-Sep-16	03-Jun-15	09-Jul-15	-356	0	0%
Bridge E5 - Pier E13D (E5c)											
Pier Works - E13D											
Pier Works											
E13D2000	E13D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Stem	30	04-Jul-16	0%	30	06-Aug-16	08-May-15	12-Jun-15	-342	0	0%
E13D2010	E13D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	08-Aug-16	0%	21	31-Aug-16	13-Jun-15	09-Jul-15	-342	0	0%
E14A, E14B, E14C & E14D (E8d/E7d/E6d/E5d)											
Foundation Works - E14											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
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 10 of 13 Pages)
(Progress as of 21-May-16)

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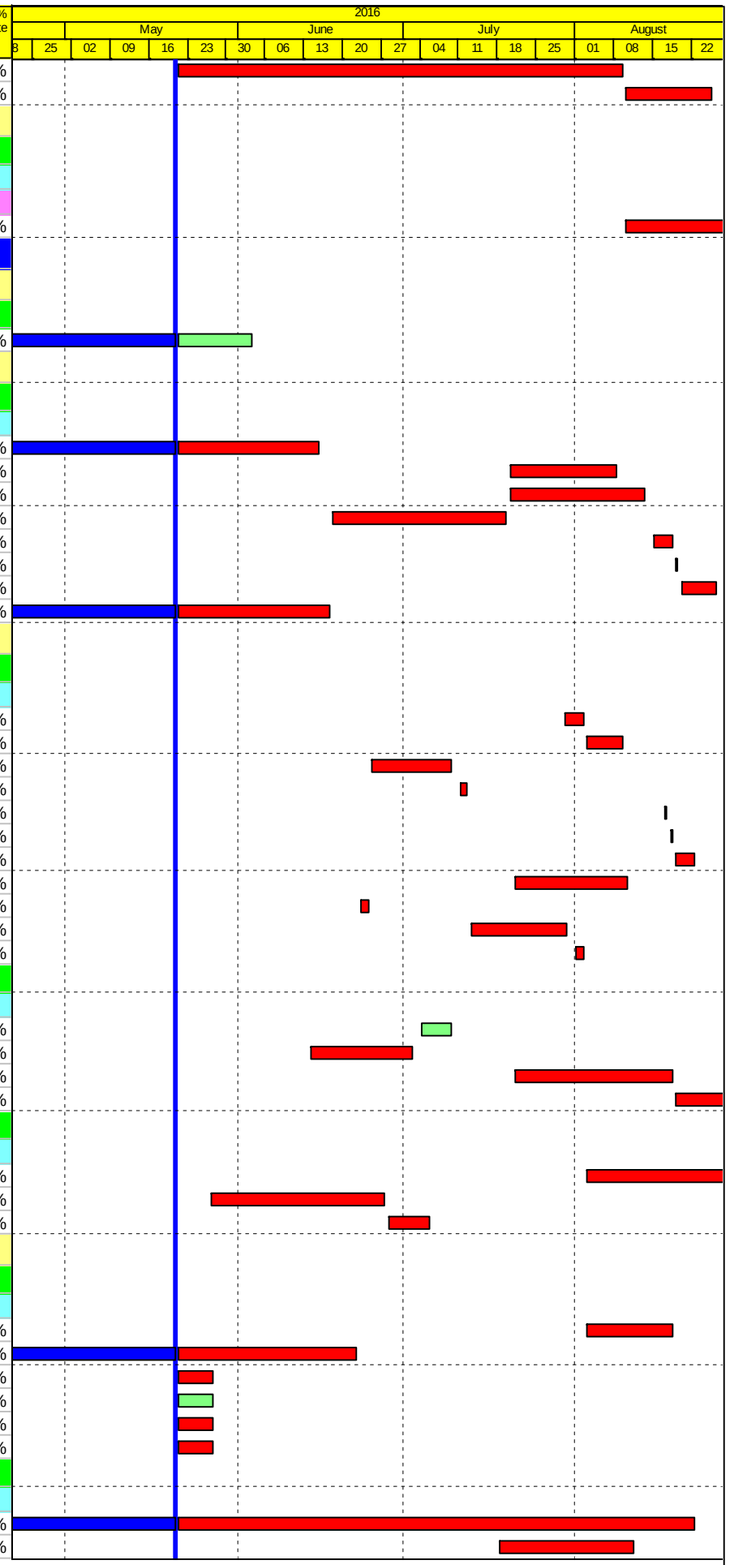
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:

J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
GFXX540	Review BCF Foundation Design, Pile Test & Finalize Design	67	21-May-16	0%	67	09-Aug-16	17-Sep-14	05-Dec-14	-494	0	0%
GFXX545	Mobilization & Assembling Bored Pile Plant & Equipment for Viaducts in HKI	14	10-Aug-16	0%	14	25-Aug-16	06-Dec-14	22-Dec-14	-494	0	0%
Viaduct F											
Approach Ramp F											
Approach Ramp Land Foundation - HKBCF											
Approach Ramp F Piling											
GFXX593	AR-F - Pre-drilling for Piles (25 nos)	24	10-Aug-16	0%	24	06-Sep-16	17-Feb-15	19-Mar-15	-435	0	0%
SUPERSTRUCTURE											
Assembling, relocation and dismantle of lifting equipment											
Launching Gantry 2											
FR000099	Assembly of Launching Gantry LG2 on Temp.Loading Platform	12	06-May-15 A	0%	12	03-Jun-16	16-Dec-19	31-Dec-19	1061	1061	0%
Viaduct B Superstructure											
Bridge B2 Superstructure											
Deck installation											
FR000011	Viaduct B2 - Cantilever at Pier B10 (B2c) 1st pair by crane	10	09-Mar-16 A	0%	21	15-Jun-16	23-Apr-16	19-May-16	-22	50	0%
FR000011B	Viaduct B2 - Cantilever at Pier B10 (B2c) (16 seg) - by crane	17	20-Jul-16*	0%	17	08-Aug-16	20-Jun-16	09-Jul-16	-25	1007	0%
FR000011C	Viaduct B2 - Complete stitches and launch to B11	22	20-Jul-16	0%	22	13-Aug-16	22-Apr-16	19-May-16	-72	0	0%
FR000012	Viaduct B2 - Cantilever at Pier B9 (B2d) (20 seg) - MTR Crossing - LG1	26	18-Jun-16	0%	26	19-Jul-16	18-Mar-16	21-Apr-16	-72	0	0%
FR000014	Viaduct B2 - Cantilever at Pier B11 (B2b) (16 seg) - LG1 (2 shifts)	4	15-Aug-16	0%	4	18-Aug-16	20-May-16	24-May-16	-72	0	0%
FR000014A	Viaduct B2 - Launching LG1 B11 to B12 - 2 shifts	1	19-Aug-16	0%	1	19-Aug-16	25-May-16	25-May-16	-72	0	0%
FR000015	Viaduct B2 - End Span at Pier B12 (B2a) (6 seg) - LG1 (2 shifts)	6	20-Aug-16	0%	6	26-Aug-16	26-May-16	01-Jun-16	-72	0	0%
FR0000211	Viaduct B2 - Complete B6/B7/B8 stitches & stressing & transport segments	49	13-Jan-16 A	52.58%	23	17-Jun-16	20-Feb-16	17-Mar-16	-72	0	100%
Viaduct C Superstructure											
Bridge C4 Superstructure											
Deck installation											
FR000041B	Viaduct C4 - Launching LG2 E3C to C1 - 2 shifts	3	30-Jul-16	0%	3	02-Aug-16	08-Sep-15	10-Sep-15	-263	0	0%
FR000049	Viaduct C4 - End Span at Pier C1 (C4e) (8 seg) - LG2	6	03-Aug-16	0%	6	09-Aug-16	11-Sep-15	17-Sep-15	-263	0	0%
FR000050	Viaduct C4 - Cantilever at Pier C2 (C4d) (12 seg) - ALF 1/2	12	25-Jun-16	0%	12	09-Jul-16	19-Sep-15	05-Oct-15	-224	0	0%
FR000050A	Viaduct C4 - Relocate ALF 1/2 C2 to C5	2	11-Jul-16	0%	2	12-Jul-16	06-Oct-15	07-Oct-15	-224	0	0%
FR000051-1	Viaduct C4 - Launching LG2 C1 to C2	1	17-Aug-16	0%	1	17-Aug-16	25-Sep-15	25-Sep-15	-263	0	0%
FR000051-2	Viaduct C4 - Cantilever at C2 remaining (4 seg) -2 shifts	1	18-Aug-16	0%	1	18-Aug-16	26-Sep-15	26-Sep-15	-263	0	0%
FR000051-3	Viaduct C4 - Launching C2 to C5 - 2 shifts	3	19-Aug-16	0%	3	22-Aug-16	29-Sep-15	02-Oct-15	-263	0	0%
FR000053	Viaduct C4 - Cantilever at Pier C4 (C4b) (18 seg) - THB	18	21-Jul-16	0%	18	10-Aug-16	26-May-16	16-Jun-16	-46	136	0%
FR000053-1	Viaduct C4 - Relocate ALF 1/2 pier D4 to pier C2	2	23-Jun-16	0%	2	24-Jun-16	17-Sep-15	18-Sep-15	-224	0	0%
FR000054	Viaduct C4 - Cantilever at Pier C5 (C4a) (16 seg) - ALF 1/2	16	13-Jul-16	0%	16	30-Jul-16	08-Oct-15	27-Oct-15	-224	0	0%
FR000054-1	Viaduct C4 - Relocate ALF 1/2 pier C5 to pier D5	2	01-Aug-16	0%	2	02-Aug-16	28-Oct-15	29-Oct-15	-224	0	0%
Bridge C2 Superstructure											
Deck installation											
FR000061	Viaduct C2 - End Span at Pier C11 (C3a) (up) (6 seg) - Crane	6	04-Jul-16	0%	6	09-Jul-16	12-Jul-16	18-Jul-16	7	165	0%
FR000062	Viaduct C2 - Cantilever at Pier C12 (C2f) (16 seg) - crane	16	14-Jun-16*	0%	16	02-Jul-16	28-May-16	16-Jun-16	-13	0	0%
FR000064	Viaduct C2 - Cantilever at Pier C13 (C2e) (17 seg) - Crane	25	21-Jul-16*	0%	25	18-Aug-16	16-Mar-16	18-Apr-16	-101	0	0%
FR000065	Viaduct C2 - Cantilever at Pier C14 (C2d) (16 seg) - Crane	24	19-Aug-16	0%	24	15-Sep-16	19-Apr-16	18-May-16	-101	0	0%
Bridge C1 Superstructure											
Deck installation											
FR000068	Viaduct C1 - Cantilever at Pier C17 (C2a) (24 seg) - Crane	25	03-Aug-16*	0%	25	31-Aug-16	06-Feb-16	09-Mar-16	-142	0	0%
FR000071	Viaduct C1 - Cantilever at Pier C19 (C1d) (20 seg) - Crane	26	27-May-16	0%	26	27-Jun-16	09-May-16	08-Jun-16	-15	0	0%
FR000072	Viaduct C1 - Abutment End Span at Pier C20 (C1c) (7 seg) - Crane	6	28-Jun-16	0%	6	05-Jul-16	10-Jun-16	16-Jun-16	-15	143	0%
Viaduct D Superstructure											
Bridge D3 Superstructure											
Deck installation											
FR001212	Viaduct D3 - Cantilever at Pier D5 (D4b) (14 seg) - ALF 1/2	14	03-Aug-16	0%	14	18-Aug-16	30-Oct-15	16-Nov-15	-223	51	0%
FR001234	Viaduct D3 - Cantilever at Pier D4 (D4c) (14 seg) - ALF 1/2	18	04-Mar-16 A	0%	27	22-Jun-16	17-Aug-15	16-Sep-15	-224	0	85%
FR100058	Viaduct D3 - Pier D3 (D4d) (2 seg)	6	21-May-16	0%	6	27-May-16	11-Apr-16	16-Apr-16	-33	230	0%
FR100059	Viaduct D3 - Pier D4 (D4c) (2 seg)	6	21-May-16	0%	6	27-May-16	23-Dec-19	31-Dec-19	1067	1067	0%
FR100059-1	Viaduct D3 - Pier D5 (D4b) (2 seg)	6	21-May-16	0%	6	27-May-16	23-Oct-15	29-Oct-15	-169	55	0%
FR100070	Viaduct D3 - Pier D2 (D4e) (2 seg)	6	21-May-16	0%	6	27-May-16	20-Apr-16	26-Apr-16	-25	238	0%
Bridge D2 Superstructure											
Deck installation											
FR000103	Viaduct D2 - Cantilever at Pier D7 (D3e) (14 seg) - K Frame	33	26-Feb-16 A	0%	78	22-Aug-16	20-Aug-15	21-Nov-15	-221	0	20%
FR000108	Viaduct D2 - Cantilever at Pier D10 (D3b) (14 seg) - THB	22	18-Jul-16*	0%	22	11-Aug-16	25-Feb-16	21-Mar-16	-115	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

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Layout: J3518-DWP-3MRP Submission - M36
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-May-16)

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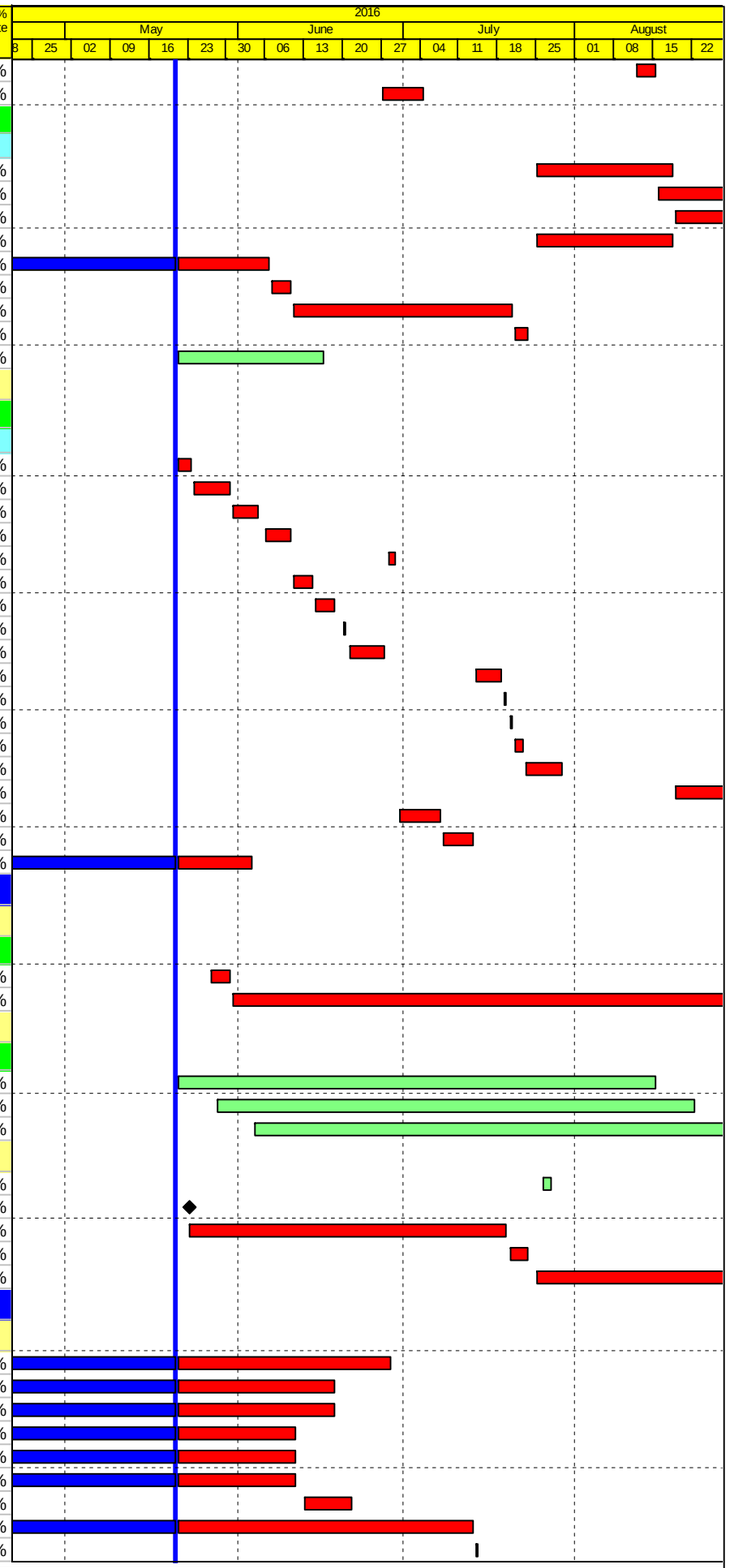
31-May-...		PKN	HF

DWG. No.:

J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
FR000108A	Viaduct D2 - Relocate D10 to D14	3	12-Aug-16	0%	3	15-Aug-16	22-Mar-16	24-Mar-16	-115	0	0%
FR10062	Viaduct D2 - Pier D9 (D3c) (2 seg)	6	27-Jun-16	0%	6	04-Jul-16	05-Feb-16	16-Feb-16	-111	152	0%
Bridge D1 Superstructure											
Deck installation											
FR000073	Viaduct D1 - Cantilever at D16 (4 seg) - Crane	22	25-Jul-16	0%	22	18-Aug-16	28-Apr-16	25-May-16	-71	0	0%
FR000112	Viaduct D1 - Cantilever at Pier D14 (D2c) (12 seg) - THB	22	16-Aug-16	0%	22	09-Sep-16	29-Mar-16	23-Apr-16	-115	0	0%
FR000114	Viaduct D1 - Cantilever at Pier D15 (D2b) (14 seg) - Crane	25	19-Aug-16	0%	25	17-Sep-16	26-May-16	24-Jun-16	-71	59	0%
FR000115-1	Viaduct D1 - Cantilever at Pier D16 (D2a) (14 seg) - THB	22	25-Jul-16	0%	22	18-Aug-16	30-May-16	24-Jun-16	-46	110	0%
FR000116	Viaduct D1 - Cantilever at Pier D17 (D1d) (14 seg) - THB	31	02-Mar-16 A	54.84%	14	06-Jun-16	22-Feb-16	08-Mar-16	-71	0	60%
FR000116-1	Viaduct D1 - Relocate THB from Pier D17 to Pier D18	3	07-Jun-16	0%	3	10-Jun-16	09-Mar-16	11-Mar-16	-71	0	0%
FR000117	Viaduct D1 - Cantilever at Pier D18 (D1c) (14 seg) - THB	33	11-Jun-16	0%	33	20-Jul-16	12-Mar-16	23-Apr-16	-71	0	0%
FR000117-1	Viaduct D1 - Relocate THB from Pier D18 to Pier D16	3	21-Jul-16	0%	3	23-Jul-16	25-Apr-16	27-Apr-16	-71	0	0%
FR100068	Viaduct D1 - Abutment End Span at Pier D19 (D1b) (3 seg) - Crane	22	21-May-16*	0%	22	16-Jun-16	30-May-16	24-Jun-16	7	163	0%
Viaduct E											
Bridge E1 Superstructure											
Deck Installation											
FR000026A	Viaduct E1 - Launching LG2 B1 to E3A - 2 shifts	2	21-May-16	0%	2	23-May-16	02-Jul-15	03-Jul-15	-263	0	0%
FR000033	Viaduct E1 - End Span at Pier E3-A (E2a4) (5 seg) - LG2 (2 shifts)	6	24-May-16	0%	6	30-May-16	04-Jul-15	10-Jul-15	-263	0	0%
FR000033-T	Viaduct E1 - Launching LG2 E3A to E1B & 1st pair	5	31-May-16	0%	5	04-Jun-16	11-Jul-15	16-Jul-15	-263	0	0%
FR000035	Viaduct E1 - Cantilever at Pier E1-B (E1a3) (14 seg) - LG2 (2 shifts)	4	06-Jun-16	0%	4	10-Jun-16	17-Jul-15	21-Jul-15	-263	0	0%
FR000035-T	Viaduct E1 - Launching LG2 E3B to D1 - 2 shifts	2	28-Jun-16	0%	2	29-Jun-16	07-Aug-15	08-Aug-15	-263	0	0%
FR000035A	Viaduct E1 - Launching E1B to E2B & 1st pair - 2 shifts	3	11-Jun-16	0%	3	14-Jun-16	22-Jul-15	24-Jul-15	-263	0	0%
FR000037	Viaduct E1 - Cantilever at Pier E2-B (E1b3) (16 seg) - LG2 (2 shifts)	4	15-Jun-16	0%	4	18-Jun-16	25-Jul-15	29-Jul-15	-263	0	0%
FR000037A	Viaduct E1 - Launching LG2 E2B to E3B - 2 shifts	1	20-Jun-16	0%	1	20-Jun-16	30-Jul-15	30-Jul-15	-263	0	0%
FR000038	Viaduct E1 - End Span at Pier E3-B (E2a3) (6 seg) - LG2 (2 shifts)	6	21-Jun-16	0%	6	27-Jun-16	31-Jul-15	06-Aug-15	-263	0	0%
FR000040	Viaduct E1 - Cantilever at Pier E2-C (E1b2) (16 seg) - 2 shifts	4	14-Jul-16	0%	4	18-Jul-16	22-Aug-15	26-Aug-15	-263	0	0%
FR000040A	Viaduct E1 - Launching E2C to E1C - 2 shifts	1	19-Jul-16	0%	1	19-Jul-16	27-Aug-15	27-Aug-15	-263	0	0%
FR000040B	Viaduct E1 - Cantilever at E1C remaining (4 seg) - 2 shifts	1	20-Jul-16	0%	1	20-Jul-16	28-Aug-15	28-Aug-15	-263	0	0%
FR000040C	Viaduct E1 - Launching LG2 E1C to E3C - 2 shifts	2	21-Jul-16	0%	2	22-Jul-16	29-Aug-15	31-Aug-15	-263	0	0%
FR000041	Viaduct E1 - End Span at Pier E3-C (E2a2) (6 seg) - LG2 (2 shifts)	6	23-Jul-16	0%	6	29-Jul-16	01-Sep-15	07-Sep-15	-263	0	0%
FR000043	Viaduct E1 - Cantilever at Pier E2-D (E1b1) (16 seg) - THB	21	19-Aug-16	0%	21	12-Sep-16	25-May-16	18-Jun-16	-72	191	0%
FR000123	Viaduct E1 - End Span at Pier D1 (D4f) (dwn) (7 seg) - LG2 (2 shifts)	6	30-Jun-16	0%	6	07-Jul-16	10-Aug-15	15-Aug-15	-263	0	0%
FR000123A	Viaduct E1 - Launching LG2 D1 to E2C & 1st pair - 2 shifts	5	08-Jul-16	0%	5	13-Jul-16	17-Aug-15	21-Aug-15	-263	0	0%
FR000159	Viaduct E1 - Cantilever E1C (10 seg) - THB	41	08-Jan-16 A	70.73%	12	03-Jun-16	14-Aug-15	27-Aug-15	-226	37	0%
At-Grade Roadworks & Other Works along NLH											
Viaduct B Slope Works											
Slope 10SW-A/F52											
GFXX483	10SW-A/F52 - Mobilization for soldier piling	3	27-May-16	0%	3	30-May-16	08-Oct-15	10-Oct-15	-186	0	0%
GFXX484	10SW-A/F52 - Installation of Soldier Pile (260nos., 2rigs)	126	31-May-16	0%	126	29-Oct-16	12-Oct-15	14-Mar-16	-186	0	0%
Viaduct A Slope Works											
Slope 9SE-B/FR8											
GFXX491	9SE-B/FR8 - New wall foundation	72	21-May-16	0%	72	15-Aug-16	22-Jun-16	14-Sep-16	26	0	0%
M110010	9SE-B/FR8 - demolish existing Ret. wall	72	28-May-16	0%	72	22-Aug-16	29-Jun-16	22-Sep-16	26	0	0%
M110020	9SE-B/FR8 - Wall construction	78	04-Jun-16	0%	78	05-Sep-16	07-Jul-16	07-Oct-16	26	0	0%
At-Grade Roadworks along NLH Eastbound											
RW20011	NLH E/B (Viaduct D) - Implement TTM for tie-in works	2	26-Jul-16	0%	2	27-Jul-16	12-Dec-16	13-Dec-16	116	39	0%
RW20072	NLH E/B (Gantries footing 324 - 328) - T&TC meeting	0	23-May-16*	0%	0		10-Nov-15		-155	0	0%
RW20074	NLH E/B (Gantries 324 - 328) - Gazette	48	23-May-16	0%	48	19-Jul-16	10-Nov-15	07-Jan-16	-155	0	0%
RW20076	NLH E/B (Gantries 324 - 328) - Implement TTA	4	20-Jul-16	0%	4	23-Jul-16	08-Jan-16	12-Jan-16	-155	0	0%
RW20078	NLH E/B (Gantries 324 - 328) - Construction footing (10am to 5pm)	60	25-Jul-16	0%	60	04-Oct-16	13-Jan-16	29-Mar-16	-155	0	0%
At-Grade Roadworks and Other Works along Cheung Tung Road											
Re-alignment of Cheung Tung Road adjacent to Viaduct B											
RP00051	Ch300-620: watermain (DN1000+DN450)	101	15-Apr-15 A	68.32%	32	28-Jun-16	08-Dec-15	16-Jan-16	-130	0	80%
RP00052	Ch300-620: road drainage	102	04-May-15 A	76.47%	24	18-Jun-16	17-Dec-15	16-Jan-16	-122	8	80%
RP00053	Ch300-620: towngas(DN250+DN400)	70	10-Nov-15 A	65.71%	24	18-Jun-16	17-Dec-15	16-Jan-16	-122	8	80%
RP00054	Ch300-620: duct laying 11KV	15	14-Nov-15 A	0%	18	11-Jun-16	24-Dec-15	16-Jan-16	-116	14	80%
RP00055	Ch300-650: telecom cables	15	12-Nov-15 A	0%	18	11-Jun-16	24-Dec-15	16-Jan-16	-116	14	80%
RP00056	Ch300-650: street lighting cable & draw pit	17	12-Nov-15 A	0%	18	11-Jun-16	15-Dec-15	07-Jan-16	-124	0	33%
RP00057	Ch300-650: relocate street lighting pillar box	8	13-Jun-16	0%	8	21-Jun-16	08-Jan-16	16-Jan-16	-124	6	0%
RP00058	Ch300-650: Roadwork new CTR with tie in	19	15-Feb-16 A	0%	44	13-Jul-16	08-Dec-15	30-Jan-16	-130	0	25%
RP00059	Ch300-650: TTA to new CTR	1	14-Jul-16	0%	1	14-Jul-16	01-Feb-16	01-Feb-16	-130	0	0%



Actual Work
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Critical Bar
Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 12 of 13 Pages)
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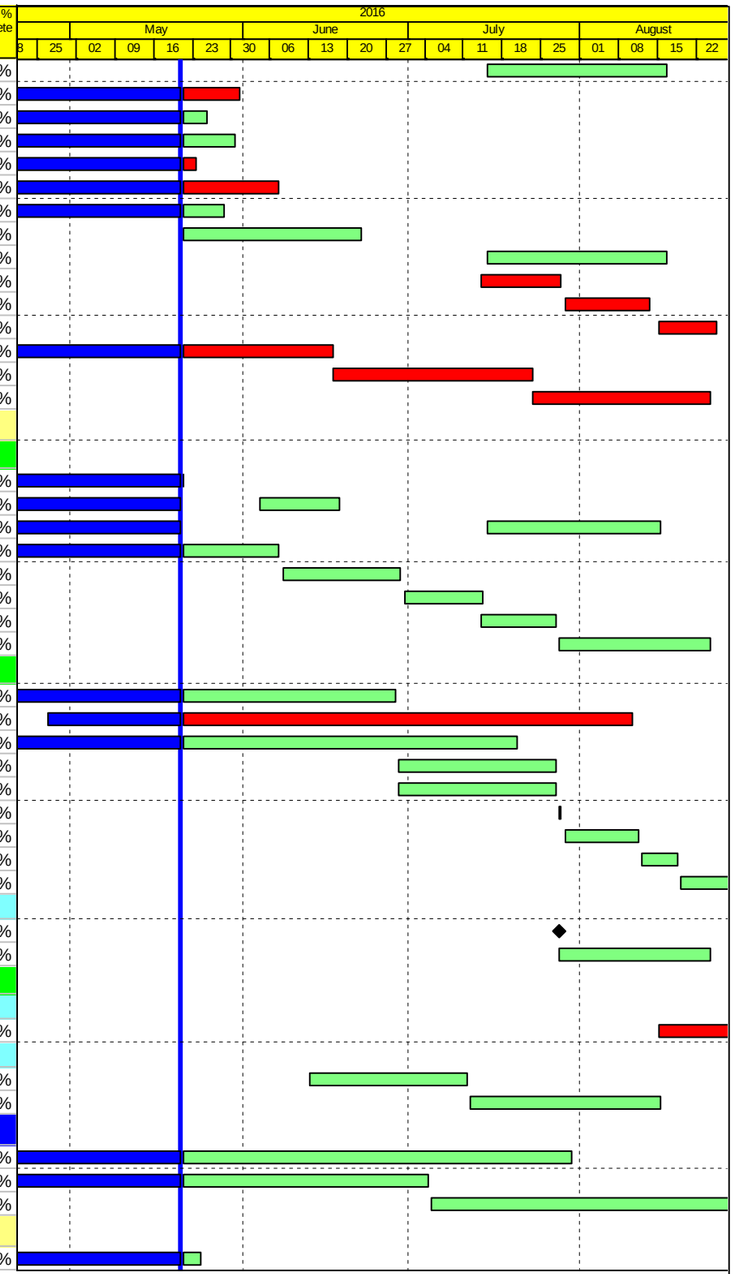
DWG. No.:
J3518/GCL/PGM/3MRP-M36

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
RP00060	Ch300-650: towngas(DN250+DN400) connection	28	15-Jul-16	0%	28	16-Aug-16	03-Mar-17	04-Apr-17	189	342	0%
RP00063	Ch620-750: backfilling for roadwork	29	06-May-15 A	68.97%	9	31-May-16	21-Dec-15	02-Jan-16	-119	6	70%
RP00064	Ch620-750: telecom, 11KV & 132KV ducting	20	20-Aug-15 A	80%	4	25-May-16	04-Aug-16	08-Aug-16	62	5	80%
RP00065	Ch620-750: cross road duct for WM, 11KV, telecom & lighting	16	05-May-15 A	50%	8	30-May-16	30-Jul-16	08-Aug-16	58	1	50%
RP00066	Ch620-750: Towngas(DN250+DN400)	14	01-Feb-16 A	85.71%	2	23-May-16	31-Dec-15	02-Jan-16	-112	13	90%
RP00067	Ch620-750: road drainage	18	15-Aug-15 A	16.67%	15	07-Jun-16	14-Dec-15	02-Jan-16	-125	5	20%
RP00069	Ch620-750: cross road duct for 11KV, telecom & street light cable	14	15-Feb-16 A	50%	7	28-May-16	08-Aug-16	15-Aug-16	65	8	50%
RP00070	Ch620-750: roadwork for new CTR	27	21-May-16	0%	27	22-Jun-16	29-Jul-16	29-Aug-16	57	18	0%
RP00071	Ch620-750: towngas(DN250+DN400) connection	28	15-Jul-16	0%	28	16-Aug-16	03-Mar-17	04-Apr-17	189	342	0%
RP00073	Ch100-300: trench excavationin on footpath	13	14-Jul-16	0%	13	28-Jul-16	03-May-16	18-May-16	-59	0	0%
RP00075	Ch100-300: duct laying for 11KV	14	29-Jul-16	0%	14	13-Aug-16	19-May-16	03-Jun-16	-59	0	0%
RP00076	Ch100-300: lay telecom cable	10	15-Aug-16	0%	10	25-Aug-16	04-Jun-16	16-Jun-16	-59	0	0%
RP00079	Ch100-300: watermain(DN450+DN1000)	142	29-Apr-15 A	84%	23	17-Jun-16	03-May-16	30-May-16	-15	0	84%
RP00080	Ch100-300: towngas(DN250)	30	17-Jun-16	0%	30	23-Jul-16	31-May-16	06-Jul-16	-15	0	0%
RP00081	Ch100-300: towngas(DN400)	27	23-Jul-16	0%	27	24-Aug-16	07-Jul-16	06-Aug-16	-15	33	0%
Re-alignment of Cheung Tung Road adjacent to Viaduct C											
West Portion											
RW61000	Realign CTR (West of Abut. C) - Site Clearance	42	03-Sep-14 A	100%	0	21-May-16	06-Jan-17	06-Jan-17	190	0	100%
RW61010	Realign CTR (West of Abut. C) - Road drainage works	60	15-Jan-15 A	80%	12	18-Jun-16	21-Jan-17	07-Feb-17	190	0	80%
RW61020	Realign CTR (West of Abut. C) - Utilily diversion	90	24-Mar-15 A	70%	27	15-Aug-16	04-Mar-17	04-Apr-17	190	343	70%
RW61030	Realign CTR (West of Abut. C) - Sub-base work	48	15-Dec-15 A	68.75%	15	07-Jun-16	28-Dec-16	14-Jan-17	182	0	70%
RW61050	Realign CTR (West of Abut. C) - Street Light Poles & street furniture	18	08-Jun-16	0%	18	29-Jun-16	16-Jan-17	08-Feb-17	182	0	0%
RW61060	Realign CTR (West of Abut. C) - E&M works & Testing/Commissioning	12	30-Jun-16	0%	12	14-Jul-16	09-Feb-17	22-Feb-17	182	0	0%
RW61070	Realign CTR (West of Abut. C) - Flexible surfacing / road markings/ tempo	12	14-Jul-16	0%	12	27-Jul-16	22-Feb-17	07-Mar-17	182	0	0%
RW61080	Close old CTR adj. to Viaduct C & modify road	24	28-Jul-16	0%	24	24-Aug-16	08-Mar-17	04-Apr-17	182	335	0%
East Portion											
RW60005	Realign CTR (East of Abut. C) - Drainage & Road formation with temporar	66	02-Oct-15 A	51.52%	32	28-Jun-16	07-Oct-16	14-Nov-16	115	0	70%
RW60010	Realign CTR (East of Abut. C) - GT325 footing + A frame erection	36	27-Apr-16 A	0%	68	10-Aug-16	09-Jan-16	05-Apr-16	-105	50	30%
RW60020	Realign CTR (East of Abut. C) - Utilily + TCSS ducting	70	02-Jan-16 A	28.57%	50	20-Jul-16	01-Nov-19	31-Dec-19	1023	1023	70%
RW60030	Realign CTR (East of Abut. C) - Drainage and roadwork for permanent tie	24	29-Jun-16	0%	24	27-Jul-16	15-Nov-16	12-Dec-16	115	0	0%
RW60050	Realign CTR (East of Abut. C) - Street Light Poles & street furniture	24	29-Jun-16	0%	24	27-Jul-16	15-Nov-16	12-Dec-16	115	0	0%
RW60052	Realign CTR (East of Abut C) - Divert traffic onto new CTR	1	28-Jul-16	0%	1	28-Jul-16	13-Dec-16	13-Dec-16	115	0	0%
RW60054	Realign CTR (East of Abut C) - 2nd phase drainage	12	29-Jul-16	0%	12	11-Aug-16	14-Dec-16	29-Dec-16	115	0	0%
RW60056	Realign CTR (East of Abut C) - 2nd phase TCSS duct from GT325	6	12-Aug-16	0%	6	18-Aug-16	30-Dec-16	06-Jan-17	115	0	0%
RW60058	Realign CTR (East of Abut C) - Roadwork and reinstatement	42	19-Aug-16	0%	42	08-Oct-16	07-Jan-17	28-Feb-17	115	0	0%
Emergency Gates G6 & G7											
RP10100	Open re-aligned CTR & activate new gates G6 & G7	0	28-Jul-16	0%	0		08-Mar-17		182	0	0%
RP10110	Remove old gates G6 & G7 and reprovision Expressway Fence	24	28-Jul-16	0%	24	24-Aug-16	08-Mar-17	04-Apr-17	182	335	0%
Viaduct C Slope Works											
Slope 10NW-C/F14											
SWVC5000	10NW-C/F14 - Slope works	30	15-Aug-16	0%	30	19-Sep-16	30-Jul-16	02-Sep-16	-13	0	0%
Slope 10NW-C/F15											
SWVC6000	10NW-C/F15 - Slope works	24	13-Jun-16	0%	24	11-Jul-16	03-Sep-16	03-Oct-16	70	0	0%
SWVC6005	10NW-C/F15 - Install Geo. Instru. & Baseline Monitoring	30	12-Jul-16	0%	30	15-Aug-16	04-Oct-16	08-Nov-16	70	343	0%
Watermains & All Assoc Works from Tung Chung to Southern Landfall											
WM00120	Lay DN450 Fresh Water Main along re-aligned CTR (app. 500 m at 12m/d	48	22-Apr-15 A	0%	59	30-Jul-16	22-Oct-19	31-Dec-19	1014	1014	80%
WM00160	Lay DN450 watermain from Tung Chung to realigned CTR (2nd 500m - 2	50	28-Dec-15 A	28%	36	04-Jul-16	17-Dec-16	03-Feb-17	175	0	28%
WM00170	Lay DN450 watermain from Tung Chung to realigned CTR (3rd 500m - 2 v	50	05-Jul-16	0%	50	31-Aug-16	04-Feb-17	03-Apr-17	175	0	0%
Pressure Testing											
TC00010	Pressure Test DN450 Fresh Water Main along re-aligned CTR (app. 520 n	12	18-Sep-15 A	80%	2	24-May-16	08-Jun-17	10-Jun-17	311	602	80%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrG-M36
Layout: J3518-DWP-3MRP Submission - M36
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 13 of 13 Pages)
(Progress as of 21-May-16)

Date	Revision	Checked	Approved
29-Mar-16		PKN	HF
29-Apr-16		PKN	HF
31-May-...		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M36

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-Chep Lap Kok Link – Investigation. Updated EM&A Manual for Tuen Mun-Chek Lap Kok Link)

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									
General Marine Works									
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		✓
Temporary Staging work									
	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						
Land Works									
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		✓
Water Quality Monitoring									
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 (donar 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 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 (OM4)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD/LCSD

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	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 where possible. Earth retaining structures and bored	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	
		pile walls should be proposed to minimise the extent of cutting.							
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 materials should avoid over-ordering and wastage.	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	
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: - 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; - Adequate ventilation;	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	
		- 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 paper if such volume is sufficiently large to	Site Offices/ 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	
		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.	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 μg/m³	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in μg /m³	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)]	Surface and Middle **5.0 mg/L** Bottom **4.7 mg/L**	Surface and Middle **4.2 mg/L** Bottom **3.6 mg/L**
Turbidity in NTU (Depth-averaged [(b), (c)])	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., **27.5 NTU**	130% of upstream control station at the same tide of the same day and 99%-ile of baseline data, i.e., **47.0 NTU**
SS in mg/L (Depth-averaged [(b), (c)])	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., **23.5 mg/L**	130% of upstream control station at the same tide of the same day and 10mg/L for WSD Seawater Intakes at Tuen Mun and 99%-ile of baseline data, i.e., **34.4 mg/L**

Notes:

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

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

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

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

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

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	:	30/03/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1014
Ta(K)	:	295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.365	1.632	55	55.31
2	13 holes	9.2	3.050	1.482	51	51.28
3	10 holes	7.0	2.660	1.297	45	45.25
4	7 holes	4.6	2.157	1.057	38	38.21
5	5 holes	2.8	1.683	0.832	30	30.17

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):31.363 Intercept(b): 4.528 Correlation Coefficient(r): 0.9991

Checked by: Magnum Fan Date: 04/04/2016

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR9
Calibrated by	:	P.F.Yeung
Date	:	30/03/2016

Sampler

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

Calibration Orfice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1014
Ta(K)	:	295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.6	3.425	1.660	58	58.32
2	13 holes	9.0	3.017	1.466	51	51.28
3	10 holes	6.8	2.622	1.279	44	44.25
4	7 holes	4.6	2.157	1.057	36	36.20
5	5 holes	2.8	1.683	0.832	26	26.14

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):38.511 Intercept(b):-5.238 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan Date: 04/04/2016

TISCH Environmental

TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE
VILLAGE OF CLEVES, 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)
0.9866	0.7037	1.4078
0.9824	0.9765	1.9909
0.9803	1.0880	2.2259
0.9792	1.1399	2.3345
0.9738	1.3735	2.8155

Qstd slope (m) = 2.10326
intercept (b) = -0.06696
coefficient (r) = 0.99989

y axis = SQRT[H2O(Pa/760)(298/Ta)]

Va	(x axis) Qa	(y axis)
0.9957	0.7102	0.8896
0.9914	0.9855	1.2581
0.9893	1.0980	1.4066
0.9882	1.1504	1.4753
0.9828	1.3862	1.7792

Qa slope (m) = 1.31703
intercept (b) = -0.04232
coefficient (r) = 0.99989

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. : C153241
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1330) Date of Receipt / 收件日期 : 10 June 2015

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.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 June 2015

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within 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 : K C Lee, Project Engineer

Certified By 核證 : H C Chan, Engineer

Date of Issue 簽發日期 : 16 June 2015

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
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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. : C153241
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 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C143868
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

4. Test procedure : MA100N.

5. 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	0.986	1 kHz ± 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.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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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. : C153940
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1557) Date of Receipt / 收件日期 : 13 July 2015

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. Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 22 July 2015

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within 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
Assistant Technical Officer

Certified By 核證 : K C Lee
Project Engineer

Date of Issue 簽發日期 : 22 July 2015

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
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Certificate of Calibration
校正證書

Certificate No. : C153940
證書編號

1. 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.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C150014
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.5	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L_A	A	Fast	94.00	1	93.5 (Ref.)
				104.00		103.5
				114.00		113.5

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 (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.5	Ref.
			Slow			93.5	± 0.3

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Certificate of Calibration
校正證書

Certificate No. : C153940
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	77.2	-16.1 ± 1.5
					250 Hz	84.7	-8.6 ± 1.4
					500 Hz	90.2	-3.2 ± 1.4
					1 kHz	93.5	Ref.
					2 kHz	94.7	+1.2 ± 1.6
					4 kHz	94.6	+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	93.3	-0.2 ± 1.5
					250 Hz	93.4	0.0 ± 1.4
					500 Hz	93.5	0.0 ± 1.4
					1 kHz	93.5	Ref.
					2 kHz	93.4	-0.2 ± 1.6
					4 kHz	92.8	-0.8 ± 1.6
					8 kHz	90.5	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.7	-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.

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東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidity Meter

Equipment Ref. No.	: ET/0505/012	Manufacturer	: HACH
Model No.	: 2100Q	Serial No.	: 12060 C 018447
Date of Calibration	: 29/03/2016	Due Date	: 28/06/2016

Ref. No. of Turbidity Standard used (4000NTU)	005/6.1/001/9

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.5	-2.50
100	98.2	-1.80
800	768	-4.00

(*) 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/EW007/004	Manufacturer :	Thermo Scientific
Model No. :	Orion 2 Star	Serial No. :	B29792
Date of Calibration :	05/04/2016	Calibration Due Da :	04/05/2016

Liquid Junction Error

			003/5.2/002/01 (20℃)
Primary Standard Solution Used :	Phosphate	lo. of Primary Solution:	003/5.2/002/02 (25℃)
Temperature of Solution :	25.0 / 20.0	$\Delta pH_{½}$ =	+0.01 / +0.01
pH value of diluted buffer :	6.91 / 6.92	pH (S) =	6.86 / 6.88
ΔpH = pH(S) - pH of diluted buffer =	0.05 / 0.04	(Observed Deviation)	
Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ =	0.04 / 0.03		

Shift on Stirring

pH of buffer solution (with stirring), pH_s =	6.90 / 6.91
Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j =	0.00 / 0.00

Noise

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

Verification of ATC

Ref. No. of reference thermometer used:	ET/0521/019	
Temperature record from the reference thermometer (T_R):	25 / 20.0	°C
Temperature record from the ATC (T_{ATC}):	24.8 / 19.8	°C
Temperature Difference, $\lvert T_R - T_{ATC} \rvert$	0.2 / 0.2	°C
Correction	+0.2 / +0.2	°C

Acceptance Criteria

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

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

Calibrated by: _____ Checked by : _____

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. :	ET/EW007/005	Manufacturer :	Thermo Scientific
Model No. :	Orion 2 Star	Serial No. :	B29792
Date of Calibration :	05/05/2016	Calibration Due Date :	04/06/2016

Liquid Junction Error

			003/5.2/002/01 (20℃)
Primary Standard Solution Used :	Phosphate	Ref No. of Primary Solution:	003/5.2/002/02 (25℃)
Temperature of Solution :	25.0 / 20.0	$\Delta pH_{½}$ =	+0.01 / +0.01
pH value of diluted buffer :	6.90 / 6.91	pH (S) =	6.86 / 6.88
ΔpH = pH(S) - pH of diluted buffer =	0.04 / 0.03	(Observed Deviation)	
Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ =	0.03 / 0.02		

Shift on Stirring

pH of buffer solution (with stirring), pH_s =	6.91 / 6.9
Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j =	0.02 / 0.00

Noise

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

Verification of ATC

Ref. No. of reference thermometer used:	ET/0521/019	/ ET/0521/019	
Temperature record from the reference thermometer (T_R)	25.0	/ 20.0	°C
Temperature record from the ATC (T_{ATC}):	24.8	/ 19.9	°C
Temperature Difference, $\lvert T_R - T_{ATC} \rvert$	0.2	/ 0.1	°C
Correction	0.2	/ 0.1	°C

Acceptance Criteria

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

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

Calibrated by: _____ Checked by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/004	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	10F 101978
Date of Calibration	:	26/04/2016	Calibration Due Date	:	25/07/2016

Temperature Verification

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

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	19.9	Corrected	19.8
DO Meter reading	Measured	20.0	Difference	-0.2

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/13	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/09

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.20
Final Vol. of $Na_2S_2O_3$ (ml)	10.20	20.40
Vol. of $Na_2S_2O_3$ used (ml)	10.20	10.20
Normality of $Na_2S_2O_3$ solution (N)	0.02451	0.02451
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02451	
Acceptance criteria, Deviation	Less than $\pm$ 0.001N	

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

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.90	21.90	0.00	6.80	10.50
Final Vol. of $Na_2S_2O_3$ (ml)	10.90	21.90	28.50	6.80	10.50	14.10
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.90	11.00	6.60	6.80	3.70	3.60
Dissolved Oxygen (DO), mg/L	7.17	7.24	4.34	4.47	2.43	2.37
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	7.42	7.34	7.38	7.17	7.24	7.21	2.33
5	4.56	4.59	4.58	4.34	4.47	4.41	3.78
10	2.35	2.22	2.29	2.43	2.37	2.40	4.69
Linear regression coefficient				0.9986			

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/14	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/14

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.30	22.70	32.30
Final Vol. of $Na_2S_2O_3$ (ml)	11.30	22.70	32.30	41.90
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.30	11.40	9.60	9.60
Dissolved Oxygen (**DO**), mg/L	7.44	7.50	6.32	6.32
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.18	7.25	7.22	7.44	7.50	7.47	3.40
30	6.58	6.54	6.56	6.32	6.32	6.32	3.73

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by : _____ Approved by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. :	ET/EW/008/004	Manufacturer :	YSI
Model No. :	Pro 2030	Serial No. :	10F 101978
Date of Calibration :	26/04/2016	Due Date :	25/07/2016

Ref. No. of Salinity Standard used (30ppt)	S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	29.4	-2.00

(*) 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 : _____

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 02 May 2016

Brand of Test Meter: Global Water

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

Direction Senor: 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)
0.52	0.6
1.68	1.8
2.73	2.9

Wind Direction Test

Global Wate (o)	Marine Compass (o)
270.89	270
0.05	0
90.82	90
179.65	180

Calibrated by: Yeung Ping Fai (Technical Officer)

Checked by : Ho Kam Fat (Senior Technical Officer)

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

Certificate of Calibration
校正證書

Certificate No. : C160461
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-0158) Date of Receipt / 收件日期 : 19 January 2016

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

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 27 January 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 : M T Leung
Assistant Technical Officer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 27 January 2016

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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c/o 香港新界屯門興安里一號青山灣機樓四樓
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Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C160461
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

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

3. Test equipment :

Equipment ID	Description	Certificate No.
CL386	Multi-function Measuring Instrument	S12109

4. Test procedure : MA130N.

5. Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.0	1.8	+0.2	0.2	2.0
4.1	3.9	+0.2	0.3	2.0
6.0	5.9	+0.1	0.3	2.0
8.0	8.0	0.0	0.3	2.0
10.0	10.2	-0.2	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 :
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.

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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 31 May 2016)

Alternative Noise Monitoring at Pak Mong Village Entrance

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

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 31 May 2016)

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-May	02-May	03-May	04-May	05-May	06-May	07-May
				1-hr TSP Monitoring 24-hr TSP Monitoring		
08-May	09-May	10-May	11-May	12-May	13-May	14-May
			1-hr TSP Monitoring 24-hr TSP Monitoring			
15-May	16-May	17-May	18-May	19-May	20-May	21-May
		1-hr TSP Monitoring 24-hr TSP Monitoring				
22-May	23-May	24-May	25-May	26-May	27-May	28-May
	1-hr TSP Monitoring 24-hr TSP Monitoring				1-hr TSP Monitoring 24-hr TSP Monitoring	
29-May	30-May	31-May				

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 30 June 2016)

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jun	02-Jun	03-Jun	04-Jun
			Noise Impact Monitoring			
05-Jun	06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun
		Noise Impact Monitoring				
12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
	Noise Impact Monitoring			Noise Impact Monitoring		
19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
			Noise Impact Monitoring			
26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
		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 30 June 2016)

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jun	02-Jun	03-Jun	04-Jun
			1-hr TSP Monitoring 24-hr TSP Monitoring			
05-Jun	06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun
		1-hr TSP Monitoring 24-hr TSP Monitoring				
12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
			1-hr TSP Monitoring 24-hr TSP Monitoring			
26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
		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 (May 2016)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-May	02-May	03-May	04-May	05-May	06-May	07-May
		WQM Mid-Ebb 10:37 (08:52 - 12:22) Mid-Flood 16:11 (14:26 - 17:56)		**WQM** Mid-Ebb 11:56 (10:11 - 13:41) Mid-Flood 18:07 (16:22 - 19:52)		**WQM** Mid-Ebb 13:20 (11:35 - 15:05) Mid-Flood 20:01 (18:16 - 21:46)
08-May	09-May	10-May	11-May	12-May	13-May	14-May
		WQM Mid-Flood 8:41 (06:56 - 10:26) Mid-Ebb 15:37 (13:52 - 17:22)		**WQM** Mid-Flood 10:08 (08:23 - 11:53) Mid-Ebb 17:18 (15:33 - 19:03)		**WQM** Mid-Flood 12:51 (11:06 - 14:36) Mid-Ebb 19:35 (17:50 - 21:20)
15-May	16-May	17-May	18-May	19-May	20-May	21-May
		WQM Mid-Ebb 10:46 (09:01 - 12:31) Mid-Flood 16:42 (14:57 - 18:27)		**WQM** Mid-Ebb 11:50 (10:05 - 13:35) Mid-Flood 18:15 (16:30 - 20:00)		**WQM** Mid-Ebb 12:51 (11:06 - 14:36) Mid-Flood 19:36 (17:51 - 21:21)
22-May	23-May	24-May	25-May	26-May	27-May	28-May
		WQM Mid-Flood 7:44 (05:59 - 09:29) Mid-Ebb 14:29 (12:44 - 16:14)		**WQM** Mid-Flood 8:54 (07:09 - 10:39) Mid-Ebb 15:47 (14:02 - 17:32)		**WQM** Mid-Flood 10:27 (08:42 - 12:12) Mid-Ebb 17:24 (15:39 - 19:09)
29-May	30-May	31-May				
		WQM Mid-Ebb 9:15 (07:30 - 11:00) Mid-Flood 14:43 (12:58 - 16:28)				

HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (June 2016)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jun	02-Jun	03-Jun	04-Jun
				WQM Mid-Ebb 10:51 (09:06 - 12:36) Mid-Flood 17:02 (15:17 - 18:47)		**WQM** Mid-Ebb 12:21 (10:36 - 14:06) Mid-Flood 19:06 (17:21 - 20:51)
05-Jun	06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun
		WQM Mid-Flood 7:39 (05:54 - 09:24) Mid-Ebb 14:37 (12:52 - 16:22)		**WQM** Mid-Flood 9:04 (07:19 - 10:49) Mid-Ebb 16:07 (14:22 - 17:52)		**WQM** Mid-Flood 10:45 (09:00 - 12:30) Mid-Ebb 17:40 (15:55 - 19:25)
12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
		WQM Mid-Ebb 9:20 (07:35 - 11:05) Mid-Flood 15:11 (13:26 - 16:56)		**WQM** Mid-Ebb 10:48 (09:03 - 12:33) Mid-Flood 17:15 (15:30 - 19:00)		**WQM** Mid-Ebb 11:56 (10:01 - 13:41) Mid-Flood 18:47 (17:02 - 20:32)
19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
		WQM Mid-Ebb 13:39 (11:54 - 15:24) Mid-Flood 20:45 (19:00 - 22:30)		**WQM** Mid-Flood 8:02 (06:17 - 09:47) Mid-Ebb 14:53 (13:08 - 16:38)		**WQM** Mid-Flood 9:31 (07:46 - 11:16) Mid-Ebb 16:16 (14:31 - 18:01)
26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
		WQM Mid-Flood 12:59 (11:14 - 14:44) Mid-Ebb 19:06 (17:21 - 20:51)		**WQM** Mid-Ebb 9:37 (07:52 - 11:22) Mid-Flood 15:50 (14:05 - 17:35)		

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 31 May 2016)

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

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 30 June 2016)

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

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	2016-05-05	ASR8A	8:20	1-hr TSP	53	394	500
TMCLKL	HY/2012/07	2016-05-05	ASR8A	9:22	1-hr TSP	63		
TMCLKL	HY/2012/07	2016-05-05	ASR8A	10:24	1-hr TSP	44		
TMCLKL	HY/2012/07	2016-05-11	ASR8A	8:23	1-hr TSP	58		
TMCLKL	HY/2012/07	2016-05-11	ASR8A	9:25	1-hr TSP	81		
TMCLKL	HY/2012/07	2016-05-11	ASR8A	10:27	1-hr TSP	82		
TMCLKL	HY/2012/07	2016-05-17	ASR8A	8:40	1-hr TSP	69		
TMCLKL	HY/2012/07	2016-05-17	ASR8A	9:42	1-hr TSP	93		
TMCLKL	HY/2012/07	2016-05-17	ASR8A	10:44	1-hr TSP	61		
TMCLKL	HY/2012/07	2016-05-23	ASR8A	8:50	1-hr TSP	83		
TMCLKL	HY/2012/07	2016-05-23	ASR8A	9:52	1-hr TSP	176		
TMCLKL	HY/2012/07	2016-05-23	ASR8A	10:54	1-hr TSP	187		
TMCLKL	HY/2012/07	2016-05-27	ASR8A	8:18	1-hr TSP	53		
TMCLKL	HY/2012/07	2016-05-27	ASR8A	9:20	1-hr TSP	61		
TMCLKL	HY/2012/07	2016-05-27	ASR8A	10:22	1-hr TSP	66		
					Average	82		
					Min.	44		
					Max.	187		

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	2016-05-05	ASR9	8:30	1-hr TSP	108	393	500
TMCLKL	HY/2012/07	2016-05-05	ASR9	9:32	1-hr TSP	106		
TMCLKL	HY/2012/07	2016-05-05	ASR9	10:34	1-hr TSP	79		
TMCLKL	HY/2012/07	2016-05-11	ASR9	8:34	1-hr TSP	134		
TMCLKL	HY/2012/07	2016-05-11	ASR9	9:36	1-hr TSP	88		
TMCLKL	HY/2012/07	2016-05-11	ASR9	10:38	1-hr TSP	100		
TMCLKL	HY/2012/07	2016-05-17	ASR9	8:50	1-hr TSP	131		
TMCLKL	HY/2012/07	2016-05-17	ASR9	9:52	1-hr TSP	91		
TMCLKL	HY/2012/07	2016-05-17	ASR9	10:54	1-hr TSP	146		
TMCLKL	HY/2012/07	2016-05-23	ASR9	8:39	1-hr TSP	65		
TMCLKL	HY/2012/07	2016-05-23	ASR9	9:41	1-hr TSP	62		
TMCLKL	HY/2012/07	2016-05-23	ASR9	10:43	1-hr TSP	73		
TMCLKL	HY/2012/07	2016-05-27	ASR9	8:28	1-hr TSP	62		
TMCLKL	HY/2012/07	2016-05-27	ASR9	9:30	1-hr TSP	106		
TMCLKL	HY/2012/07	2016-05-27	ASR9	10:32	1-hr TSP	72		
					Average	95		
					Min.	62		
					Max.	146		

Action Level Exceedance
Limit Level Exceedance

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

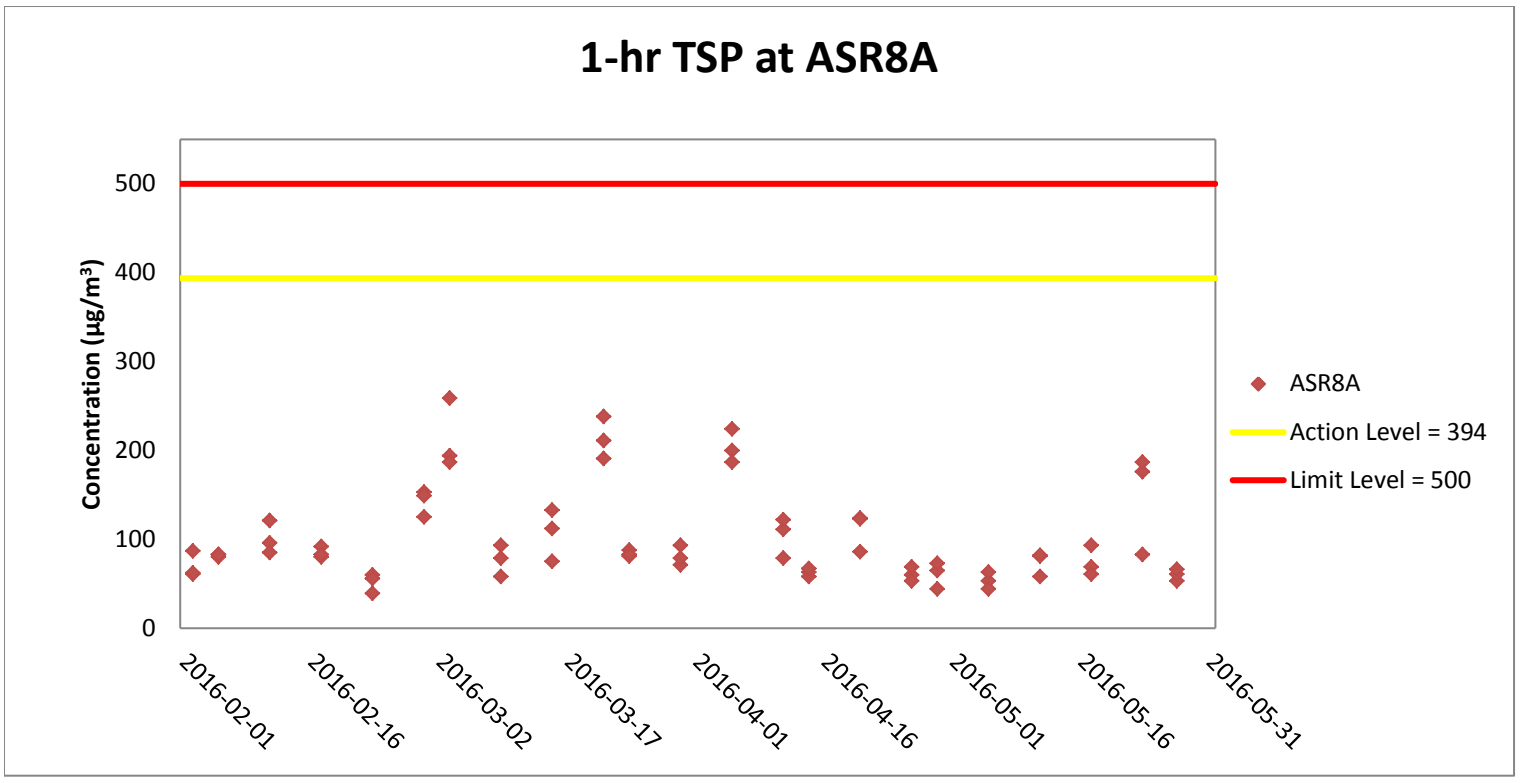
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2016-05-05	ASR8A	11:26	24-hr TSP	47	178	260
TMCLKL	HY/2012/07	2016-05-11	ASR8A	11:29	24-hr TSP	58		
TMCLKL	HY/2012/07	2016-05-17	ASR8A	11:46	24-hr TSP	55		
TMCLKL	HY/2012/07	2016-05-23	ASR8A	11:56	24-hr TSP	71		
TMCLKL	HY/2012/07	2016-05-27	ASR8A	11:24	24-hr TSP	44		
					Average	55		
					Min.	44		
					Max.	71		

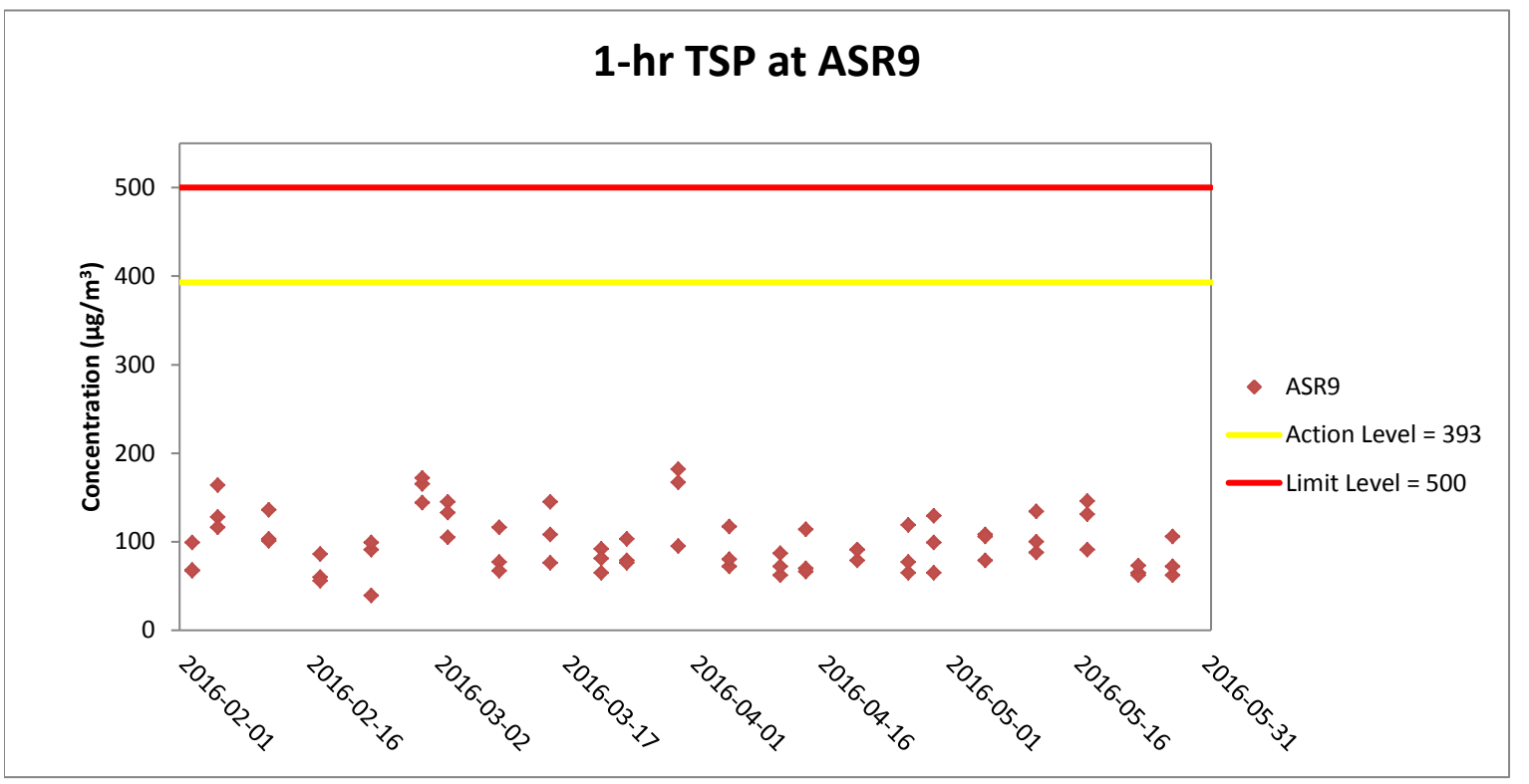
24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

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	2016-05-05	ASR9	11:36	24-hr TSP	64	178	260
TMCLKL	HY/2012/07	2016-05-11	ASR9	11:40	24-hr TSP	60		
TMCLKL	HY/2012/07	2016-05-17	ASR9	11:56	24-hr TSP	73		
TMCLKL	HY/2012/07	2016-05-23	ASR9	11:45	24-hr TSP	55		
TMCLKL	HY/2012/07	2016-05-27	ASR9	11:34	24-hr TSP	50		
					Average	60		
					Min.	50		
					Max.	73		

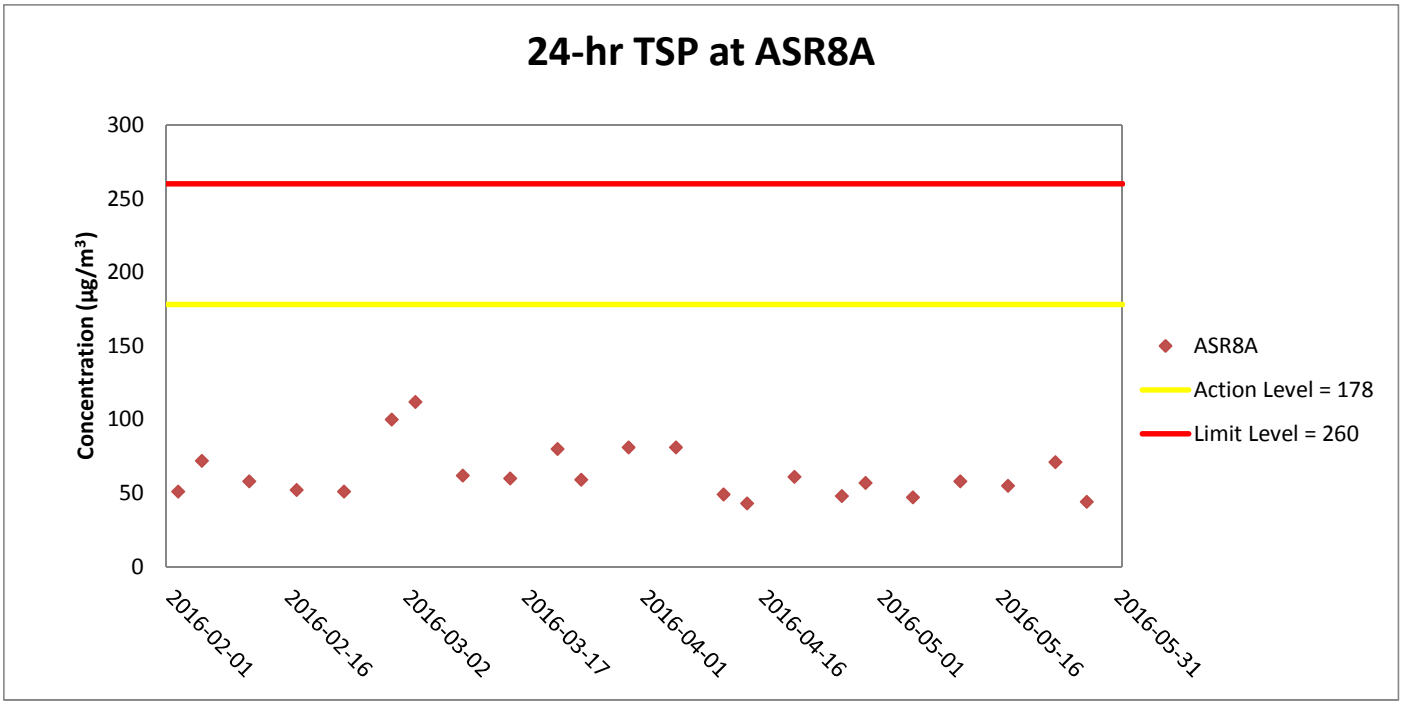
Action Level Exceedance

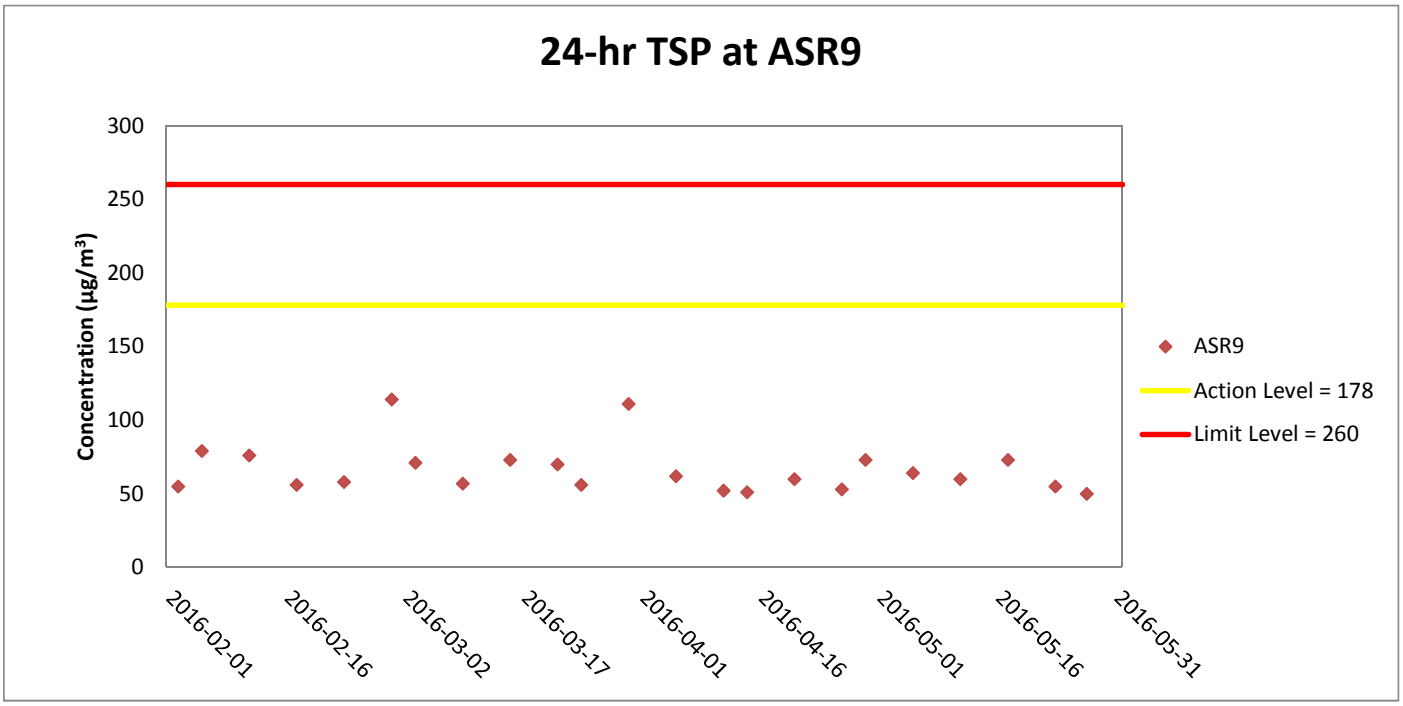
Limit Level Exceedance





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; Construction of land section of berth at Southern Landfall; 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; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.





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Appendix H

Meteorological Data for the Reporting Month

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
05-05-2016	7	3.2	157
05-05-2016	8	2.3	150
05-05-2016	9	2.9	162
05-05-2016	10	3.8	160
05-05-2016	11	4.2	167
05-05-2016	12	4.2	161
05-05-2016	13	4.2	156
05-05-2016	14	5.2	159
05-05-2016	15	4.0	156
05-05-2016	16	2.8	172
05-05-2016	17	2.9	164
05-05-2016	18	2.9	157
05-05-2016	19	2.7	166
05-05-2016	20	3.2	158
05-05-2016	21	2.6	166
05-05-2016	22	1.5	157
05-05-2016	23	2.3	159
06-05-2016	0	2.7	162
06-05-2016	1	2.8	160
06-05-2016	2	2.3	167
06-05-2016	3	1.7	175
06-05-2016	4	0.8	174
06-05-2016	5	0.8	178
06-05-2016	6	2.3	150
06-05-2016	7	2.6	163
06-05-2016	8	2.5	146
06-05-2016	9	3.0	161
06-05-2016	10	2.7	163
06-05-2016	11	2.1	160
06-05-2016	12	2.9	160
11-05-2016	7	0.1	162
11-05-2016	8	0.0	267
11-05-2016	9	0.0	289
11-05-2016	10	0.0	293
11-05-2016	11	0.0	261
11-05-2016	12	0.0	307
11-05-2016	13	1.2	222
11-05-2016	14	4.0	169
11-05-2016	15	3.8	158
11-05-2016	16	3.0	144
11-05-2016	17	2.2	146
11-05-2016	18	3.3	153
11-05-2016	19	2.2	149
11-05-2016	20	3.6	151
11-05-2016	21	1.8	170
11-05-2016	22	1.9	157
11-05-2016	23	3.1	150
12-05-2016	0	3.5	154
12-05-2016	1	2.8	168

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
12-05-2016	2	1.8	162
12-05-2016	3	2.2	174
12-05-2016	4	2.2	158
12-05-2016	5	0.7	151
12-05-2016	6	1.0	138
12-05-2016	7	1.4	128
12-05-2016	8	0.8	146
12-05-2016	9	2.1	163
12-05-2016	10	1.7	114
12-05-2016	11	1.6	146
12-05-2016	12	1.3	150
17-05-2016	7	2.0	151
17-05-2016	8	3.5	148
17-05-2016	9	2.1	153
17-05-2016	10	1.9	151
17-05-2016	11	2.1	139
17-05-2016	12	3.2	157
17-05-2016	13	2.3	140
17-05-2016	14	2.3	156
17-05-2016	15	1.4	157
17-05-2016	16	1.7	144
17-05-2016	17	1.7	167
17-05-2016	18	2.1	154
17-05-2016	19	2.4	160
17-05-2016	20	1.4	161
17-05-2016	21	0.5	175
17-05-2016	22	2.0	190
17-05-2016	23	2.9	164
18-05-2016	0	1.0	154
18-05-2016	1	1.4	152
18-05-2016	2	1.8	159
18-05-2016	3	2.4	157
18-05-2016	4	1.8	158
18-05-2016	5	3.0	163
18-05-2016	6	3.5	154
18-05-2016	7	2.8	158
18-05-2016	8	2.4	159
18-05-2016	9	2.2	179
18-05-2016	10	2.2	163
18-05-2016	11	2.5	159
18-05-2016	12	2.8	147
23-05-2016	7	0.0	187
23-05-2016	8	0.0	316
23-05-2016	9	0.1	307
23-05-2016	10	0.1	317
23-05-2016	11	0.2	317
23-05-2016	12	0.0	235
23-05-2016	13	0.0	191
23-05-2016	14	0.0	263

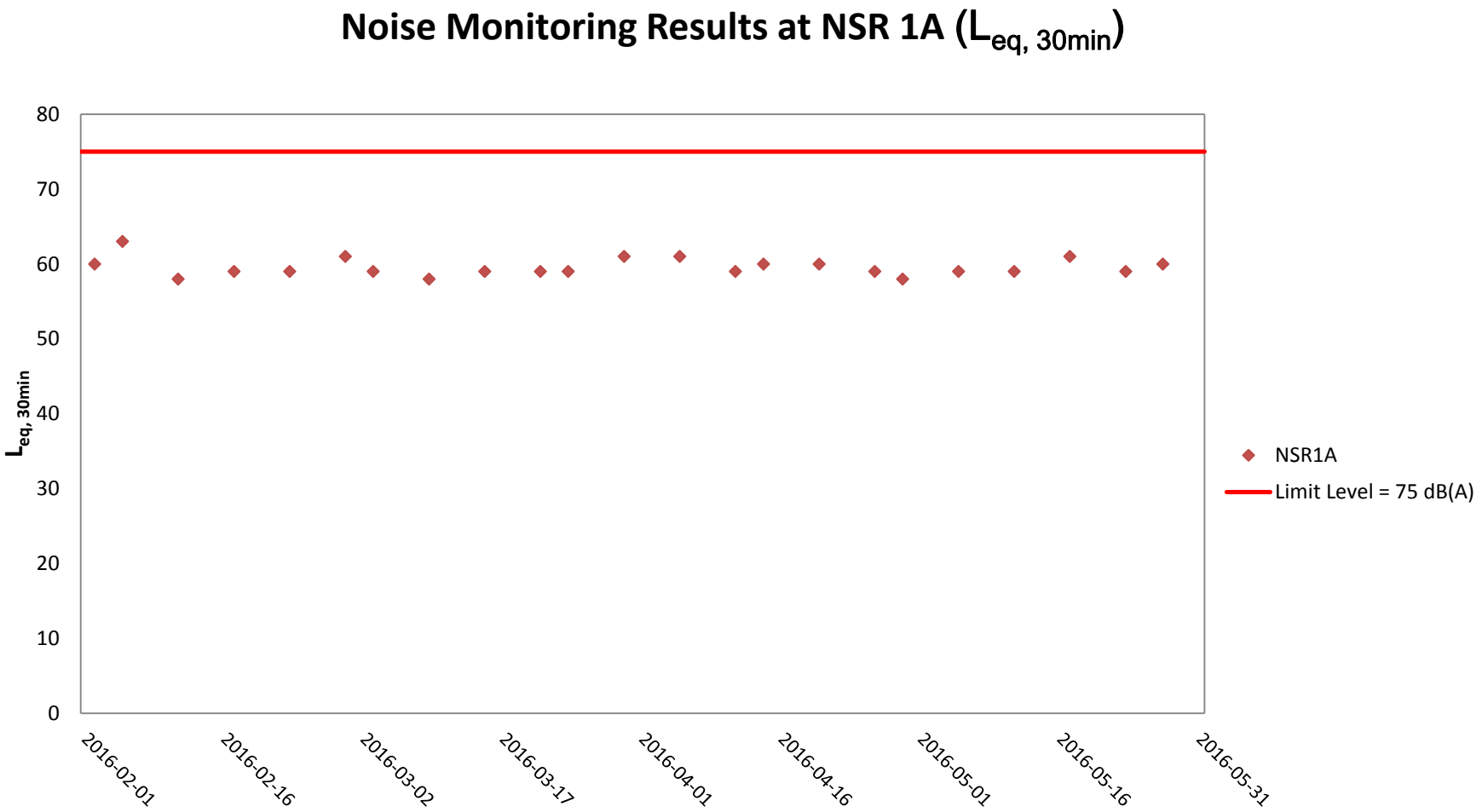
Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
23-05-2016	15	0.6	154
23-05-2016	16	2.3	169
23-05-2016	17	2.3	165
23-05-2016	18	1.7	148
23-05-2016	19	1.1	115
23-05-2016	20	0.3	167
23-05-2016	21	0.3	171
23-05-2016	22	0.4	179
23-05-2016	23	0.4	175
24-05-2016	0	0.2	160
24-05-2016	1	0.1	182
24-05-2016	2	0.2	188
24-05-2016	3	0.2	178
24-05-2016	4	0.3	177
24-05-2016	5	0.2	182
24-05-2016	6	0.0	179
24-05-2016	7	0.0	179
24-05-2016	8	0.1	327
24-05-2016	9	0.1	291
24-05-2016	10	0.0	295
24-05-2016	11	0.0	282
24-05-2016	12	0.9	268
27-05-2016	7	0.3	67
27-05-2016	8	0.6	53
27-05-2016	9	0.6	119
27-05-2016	10	1.4	114
27-05-2016	11	0.8	108
27-05-2016	12	2.4	124
27-05-2016	13	1.1	126
27-05-2016	14	2.2	151
27-05-2016	15	1.6	121
27-05-2016	16	1.7	145
27-05-2016	17	3.6	154
27-05-2016	18	4.7	152
27-05-2016	19	5.4	148
27-05-2016	20	4.9	160
27-05-2016	21	5.9	162
27-05-2016	22	3.4	173
27-05-2016	23	4.3	158
28-05-2016	0	4.1	165
28-05-2016	1	4.0	153
28-05-2016	2	3.6	175
28-05-2016	3	1.6	179
28-05-2016	4	1.6	187
28-05-2016	5	3.7	191
28-05-2016	6	4.5	170
28-05-2016	7	3.7	166
28-05-2016	8	4.3	179
28-05-2016	9	4.0	171

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
28-05-2016	10	4.1	171
28-05-2016	11	4.0	154
28-05-2016	12	2.6	164

Appendix I

Impact Noise Monitoring Results and Graphical Presentation

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	2016-05-05	NSR1A	Sunny	9:43	59	61	53	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-05-11	NSR1A	Sunny	9:47	59	62	54	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-05-17	NSR1A	Cloudy	10:04	61	63	56	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-05-23	NSR1A	Cloudy	10:03	59	61	54	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-05-27	NSR1A	Cloudy	9:40	60	62	54	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
					Min.	59						
					Max.	61						
					Average	60						



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; Construction of land section of berth at Southern Landfall; 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; Construction of marine section of berth at Southern Landfall; 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	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Surface	1	1	23.1	8.13	27.4	7.39	7.85	11
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Surface	1	2	23	8.11	27.4	7.41	7.87	11.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Middle	2	1	22.9	7.95	27.5	7.32	7.94	10.3
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Middle	2	2	22.8	7.93	27.6	7.3	7.96	11.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Bottom	3	1	22.7	7.86	27.7	7.25	8.13	12.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)5	14:26	Bottom	3	2	22.7	7.88	27.8	7.23	8.15	10.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Surface	1	1	23	7.92	27.5	7.46	8.02	9.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Surface	1	2	22.9	7.94	27.6	7.44	8.04	11.3
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Bottom	3	1	22.6	7.83	27.7	7.35	8.16	10.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4a	14:45	Bottom	3	2	22.7	7.85	27.8	7.33	8.18	11.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Surface	1	1	23	8.02	27.6	7.34	7.48	10.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Surface	1	2	22.9	8	27.6	7.32	7.5	9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Bottom	3	1	22.7	7.85	27.8	7.16	7.56	10.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	SR4	15:04	Bottom	3	2	22.6	7.87	27.9	7.14	7.58	12.1
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Surface	1	1	23.1	7.65	27.4	7.46	7.65	11.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Surface	1	2	23	7.67	27.5	7.48	7.67	9.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Bottom	3	1	22.8	7.74	27.6	7.3	7.84	11
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS8	15:25	Bottom	3	2	22.7	7.76	27.7	7.28	7.82	10.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Surface	1	1	22.9	8.14	27.5	7.31	7.35	9.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Surface	1	2	22.8	8.16	27.5	7.33	7.37	11.1
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Middle	2	1	22.7	8.04	27.6	7.2	7.43	11.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Middle	2	2	22.6	8.06	27.7	7.22	7.45	9.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Bottom	3	1	22.5	7.92	27.8	7.05	7.6	9.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)16	15:40	Bottom	3	2	22.4	7.94	27.9	7.03	7.62	11.4
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Surface	1	1	23	8.16	27.4	7.18	7.83	10.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Surface	1	2	23	8.14	27.5	7.16	7.85	10.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Bottom	3	1	22.7	7.92	27.6	6.92	7.92	10.3
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	IS(Mf)9	16:10	Bottom	3	2	22.8	7.9	27.7	6.9	7.94	11.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Surface	1	1	23.1	7.92	27.6	7.48	8.14	11.4

Appendix J1 WQM Results

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	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Surface	1	2	23	7.9	27.6	7.5	8.16	12.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Middle	2	1	22.7	7.85	27.7	7.35	8.37	11.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Middle	2	2	22.8	7.87	27.8	7.37	8.39	10.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Bottom	3	1	22.5	8.14	27.9	7.22	8.44	12.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Flood	CS(Mf)3	16:35	Bottom	3	2	22.6	8.16	28	7.2	8.46	10.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Surface	1	1	22.9	7.79	27.8	7.28	8.3	11.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Surface	1	2	23	7.77	27.7	7.32	8.39	10.1
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Middle	2	1	22.8	7.83	27.9	7.2	9	14.4
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Middle	2	2	22.7	7.79	28	7.16	9.07	12.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Bottom	3	1	22.7	7.8	28	6.83	9.33	14.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)5	12:06	Bottom	3	2	22.6	7.83	28.1	6.78	9.26	12
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Surface	1	1	23	7.82	27.6	7	8.8	10.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Surface	1	2	22.9	7.83	27.7	6.95	8.72	12.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Bottom	3	1	22.9	7.83	27.7	6.74	9.03	11.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4a	11:42	Bottom	3	2	22.8	7.85	27.8	6.68	9.09	12.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Surface	1	1	22.9	7.69	27.4	7.18	8.2	9.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Surface	1	2	22.8	7.72	27.5	7.15	8.28	10.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Bottom	3	1	22.8	7.79	27.5	6.81	8.73	11.3
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	SR4	11:20	Bottom	3	2	22.7	7.76	27.6	6.77	8.78	13.2
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Surface	1	1	23	7.81	27.5	7.11	8.34	12.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Surface	1	2	22.9	7.79	27.6	7.08	8.4	11.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Bottom	3	1	22.9	7.83	27.6	6.86	8.93	11.6
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS8	11:14	Bottom	3	2	22.8	7.82	27.7	6.82	9.01	11.7
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Surface	1	1	22.9	7.79	27.6	7.2	8.54	12.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Surface	1	2	23	7.77	27.7	7.24	8.46	11
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Middle	2	1	22.8	7.83	27.5	7.09	9.05	11.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Middle	2	2	22.7	7.8	27.4	7.12	8.96	12.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Bottom	3	1	22.6	7.83	27.7	6.77	9.33	14
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)16	10:36	Bottom	3	2	22.5	7.86	27.8	6.72	9.26	14.8
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Surface	1	1	22.9	7.82	27.4	6.98	8.49	11
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Surface	1	2	22.8	7.84	27.5	6.95	8.43	12.6

Appendix J1 WQM Results

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	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Middle	2	1						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Middle	2	2						
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Bottom	3	1	22.7	7.84	27.6	6.7	9	13.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	IS(Mf)9	10:14	Bottom	3	2	22.8	7.86	27.7	6.74	9.09	10.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Surface	1	1	23	7.84	27.6	7.17	8.3	10
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Surface	1	2	22.9	7.81	27.7	7.13	8.37	10.9
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Middle	2	1	22.6	7.83	27.9	7	8.85	11.5
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Middle	2	2	22.7	7.86	27.8	6.98	8.94	13.4
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Bottom	3	1	22.6	7.8	27.9	6.75	9.32	14
TMCLKL	HY/2012/07	03-05-2016	Mid-Ebb	CS(Mf)3	9:52	Bottom	3	2	22.5	7.82	28	6.78	9.4	14.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Surface	1	1	23.3	7.8	27.6	7.35	8.31	11.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Surface	1	2	23.2	7.77	27.6	7.3	8.25	11.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Middle	2	1	23.1	7.79	27.8	7.27	8.57	10.3
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Middle	2	2	23.1	7.82	27.8	7.29	8.65	10.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Bottom	3	1	22.9	7.84	28.1	7.04	9.11	13.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)5	16:22	Bottom	3	2	22.9	7.83	28	7	9.03	11.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Surface	1	1	23.2	7.84	27.5	7.15	8.46	11
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Surface	1	2	23.2	7.8	27.6	7.11	8.55	12
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Bottom	3	1	23.2	7.88	27.6	7.07	8.7	12.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4a	16:45	Bottom	3	2	23.2	7.86	27.6	7.04	8.64	13
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Surface	1	1	23.2	7.69	27.4	7.13	8.07	11.3
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Surface	1	2	23.2	7.72	27.5	7.16	8.13	12.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Bottom	3	1	23.1	7.77	27.5	7.01	8.35	13.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	SR4	17:05	Bottom	3	2	23.1	7.79	27.5	7.05	8.41	12.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Surface	1	1	23.1	7.8	27.5	7.09	8.27	12.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Surface	1	2	23	7.78	27.5	7.12	8.33	12.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Bottom	3	1	22.9	7.84	27.7	6.88	8.56	11.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS8	17:22	Bottom	3	2	22.9	7.87	27.7	6.85	8.61	12.9
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Surface	1	1	23.2	7.8	27.6	7.24	8.49	12.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Surface	1	2	23.1	7.77	27.5	7.2	8.41	13.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Middle	2	1	23.1	7.81	27.6	7.05	8.83	13.2

Appendix J1 WQM Results

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	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Middle	2	2	23	7.84	27.6	7	8.92	13.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Bottom	3	1	22.8	7.83	27.8	6.81	9.19	11.9
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)16	17:33	Bottom	3	2	22.8	7.86	27.8	6.78	9.03	14.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Surface	1	1	23.1	7.83	27.4	6.94	8.33	11.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Surface	1	2	23	7.81	27.5	6.98	8.41	10.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Bottom	3	1	22.8	7.89	27.6	7.19	8.75	13.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	IS(Mf)9	17:55	Bottom	3	2	22.9	7.85	27.6	7.22	8.81	10.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Surface	1	1	23.1	7.8	27.3	7.21	8.24	11.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Surface	1	2	23.1	7.78	27.4	7.17	8.32	10
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Middle	2	1	23	7.83	27.5	6.98	8.75	13.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Middle	2	2	22.9	7.81	27.5	6.98	8.83	13.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Bottom	3	1	22.6	7.9	27.7	6.85	9.07	13.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Flood	CS(Mf)3	18:07	Bottom	3	2	22.7	7.88	27.9	6.81	8.99	11.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Surface	1	1	23.1	7.85	27.8	7.19	8.36	10
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Surface	1	2	23	7.83	27.9	7.23	8.45	11
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Middle	2	1	22.9	7.89	28	7.11	9.06	13.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Middle	2	2	22.8	7.85	28.1	7.07	9.13	11.9
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Bottom	3	1	22.8	7.86	28.1	6.74	9.39	15
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)5	13:25	Bottom	3	2	22.7	7.89	28.2	6.69	9.32	13
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Surface	1	1	23	7.86	27.7	6.91	8.86	11.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Surface	1	2	23.1	7.89	27.8	6.86	8.78	13.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Bottom	3	1	23	7.89	27.8	6.65	9.06	11.8
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4a	13:01	Bottom	3	2	22.9	7.91	27.9	6.59	9.15	11
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Surface	1	1	23	7.75	27.5	7.09	8.26	12.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Surface	1	2	22.9	7.78	27.6	7.06	8.34	10
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Bottom	3	1	22.9	7.85	27.7	6.72	8.79	10.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	SR4	12:39	Bottom	3	2	22.8	7.82	27.6	6.68	8.84	12.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS8	12:17	Surface	1	1	23	7.87	27.6	7.02	8.4	13.4
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS8	12:17	Surface	1	2	23.1	7.85	27.7	6.99	8.46	12.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS8	12:17	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS8	12:17	Middle	2	2						

Appendix J1 WQM Results

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	05-05-2016	Mid-Ebb	IS8	12:17	Bottom	3	1	22.9	7.89	27.7	6.77	8.99	12.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS8	12:17	Bottom	3	2	23	7.88	27.8	6.73	9.07	11.8
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Surface	1	1	23.1	7.85	27.7	7.11	8.6	11.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Surface	1	2	23	7.83	27.8	7.15	8.52	12.8
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Middle	2	1	22.8	7.89	27.9	7	9.11	13.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Middle	2	2	22.9	7.86	27.8	7.03	9.02	12.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Bottom	3	1	22.7	7.89	27.9	6.68	9.39	14.1
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)16	11:55	Bottom	3	2	22.6	7.92	28	6.63	9.32	13
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Surface	1	1	23	7.88	27.5	6.89	8.55	12.8
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Surface	1	2	22.9	7.9	27.6	6.86	8.49	12.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Bottom	3	1	22.9	7.9	27.7	6.61	9.06	14.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	IS(Mf)9	11:33	Bottom	3	2	22.8	7.92	27.8	6.65	9.15	13.7
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Surface	1	1	23.1	7.9	27.7	7.08	8.36	12.5
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Surface	1	2	23	7.87	27.8	7.04	8.43	11.8
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Middle	2	1	22.8	7.89	27.9	6.91	8.91	14.3
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Middle	2	2	22.7	7.92	28	6.89	9	12.6
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Bottom	3	1	22.6	7.86	28.1	6.66	9.38	12.2
TMCLKL	HY/2012/07	05-05-2016	Mid-Ebb	CS(Mf)3	11:11	Bottom	3	2	22.7	7.88	28	6.69	9.46	13.2
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Surface	1	1	26.3	7.72	28	7.23	8.29	11.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Surface	1	2	26.3	7.7	28	7.19	8.33	11.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Middle	2	1	26.1	7.77	28.2	7.13	8.95	11.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Middle	2	2	26.1	7.74	28.2	7.1	8.87	11.5
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Bottom	3	1	25.8	7.7	28.4	6.84	9.09	13.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)5	18:16	Bottom	3	2	25.8	7.73	28.3	6.81	9.16	12.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Surface	1	1	26.4	7.84	27.9	7.08	8.85	11.5
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Surface	1	2	26.3	7.8	28	7.05	8.94	13.4
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Bottom	3	1	26.3	7.79	28.2	6.67	9.23	13.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4a	18:40	Bottom	3	2	26.3	7.81	28.1	6.7	9.15	11
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4	18:57	Surface	1	1	26.3	7.68	27.8	7.07	8.09	9.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4	18:57	Surface	1	2	26.2	7.65	27.7	7.04	8.15	12.2
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4	18:57	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4	18:57	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	SR4	18:57	Bottom	3	1	26.2	7.67	27.8	6.83	8.6	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	07-05-2016	Mid-Flood	SR4	18:57	Bottom	3	2	26.2	7.7	27.8	6.79	8.53	12.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Surface	1	1	26.3	7.68	27.9	7.01	8.24	12.4
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Surface	1	2	26.3	7.73	27.8	6.98	8.15	10.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Bottom	3	1	26.3	7.7	27.9	6.74	8.75	13.1
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS8	19:14	Bottom	3	2	26.2	7.72	27.8	6.7	8.66	11.3
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Surface	1	1	26.3	7.74	28	6.95	8.09	9.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Surface	1	2	26.4	7.7	27.9	6.91	8.16	12.2
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Middle	2	1	26.3	7.68	28.2	7.03	8.98	11.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Middle	2	2	26.3	7.71	28.1	7	9.05	14.5
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Bottom	3	1	26.3	7.7	28.4	6.73	9.24	13.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)16	19:31	Bottom	3	2	26.2	7.67	28.3	6.68	9.18	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Surface	1	1	26.3	7.74	27.7	6.95	8.37	12.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Surface	1	2	26.4	7.7	27.8	6.9	8.3	10.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Bottom	3	1	26.3	7.77	27.8	6.67	8.96	10.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	IS(Mf)9	19:50	Bottom	3	2	26.3	7.8	27.8	6.6	9.03	11.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Surface	1	1	26.3	7.79	27.8	7.04	8.14	9.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Surface	1	2	26.3	7.81	27.8	7	8.22	10.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Middle	2	1	26.3	7.75	27.9	6.87	8.85	10.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Middle	2	2	26.2	7.77	28	6.9	8.76	13.1
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Bottom	3	1	26	7.69	28.2	6.64	9.09	12.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Flood	CS(Mf)3	20:10	Bottom	3	2	25.9	7.73	28.1	6.61	9.16	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Surface	1	1	26.2	7.76	27.9	7.1	8.42	10.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Surface	1	2	26.2	7.74	28	7.14	8.51	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Middle	2	1	26	7.8	28.1	7.02	9.12	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Middle	2	2	25.9	7.76	28.2	6.98	9.19	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Bottom	3	1	25.9	7.77	28.2	6.65	9.45	12.3
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)5	14:49	Bottom	3	2	25.8	7.8	28.3	6.6	9.38	14.1
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Surface	1	1	26.1	7.77	27.8	6.82	8.92	12.5
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Surface	1	2	26.2	7.8	27.9	6.77	8.84	13.3
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Bottom	3	1	26.1	7.8	28	6.56	9.12	12.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4a	14:25	Bottom	3	2	26.1	7.82	27.9	6.5	9.21	12

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	07-05-2016	Mid-Ebb	SR4	14:03	Surface	1	1	26.1	7.66	27.6	7	8.32	11.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4	14:03	Surface	1	2	26	7.69	27.7	6.97	8.4	12.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4	14:03	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4	14:03	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4	14:03	Bottom	3	1	26	7.76	27.7	6.63	8.85	10.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	SR4	14:03	Bottom	3	2	25.9	7.73	27.8	6.59	8.9	12.5
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Surface	1	1	26.2	7.78	27.7	6.93	8.46	11.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Surface	1	2	26.1	7.76	27.8	6.9	8.52	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Bottom	3	1	26.1	7.8	27.8	6.68	9.05	13.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS8	13:41	Bottom	3	2	26	7.79	27.9	6.64	9.13	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Surface	1	1	26.1	7.76	27.9	7.02	8.66	13
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Surface	1	2	26.2	7.74	27.8	7.06	8.58	12
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Middle	2	1	26	7.8	27.9	6.91	9.17	13.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Middle	2	2	25.9	7.77	28	6.94	9.08	12.7
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Bottom	3	1	25.8	7.8	28	6.59	9.45	12.3
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)16	13:19	Bottom	3	2	25.7	7.83	28.1	6.54	9.38	15
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Surface	1	1	26.1	7.79	27.6	6.8	8.61	11.2
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Surface	1	2	26	7.81	27.7	6.77	8.55	10.3
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Bottom	3	1	26	7.81	27.8	6.52	9.12	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	IS(Mf)9	12:57	Bottom	3	2	25.9	7.83	27.9	6.56	9.21	13.8
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Surface	1	1	26.2	7.81	27.8	6.99	8.42	12.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Surface	1	2	26.1	7.78	27.9	6.95	8.49	11.9
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Middle	2	1	25.9	7.8	28	6.82	8.97	12.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Middle	2	2	25.8	7.83	28.1	6.8	9.06	13.6
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Bottom	3	1	25.8	7.77	28.2	6.57	9.44	14.2
TMCLKL	HY/2012/07	07-05-2016	Mid-Ebb	CS(Mf)3	12:35	Bottom	3	2	25.7	7.79	28.1	6.6	9.52	14.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Surface	1	1	23	8.13	27	7.39	6.43	9.6
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Surface	1	2	22.9	8.15	27.1	7.41	6.45	9
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Middle	2	1	22.7	7.92	27.2	7.23	6.51	9.8
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Middle	2	2	22.6	7.94	27.3	7.21	6.53	8.5
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Bottom	3	1	22.5	7.73	27.4	7.03	6.67	10
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)5	7:50	Bottom	3	2	22.4	7.75	27.4	7.05	6.69	8
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4a	8:15	Surface	1	1	22.9	7.92	26.9	7.44	7	10.5

Appendix J1 WQM Results

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	10-05-2016	Mid-Flood	SR4a	8:15	Surface	1	2	22.8	7.9	27	7.42	7.02	10.5
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4a	8:15	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4a	8:15	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4a	8:15	Bottom	3	1	22.5	7.84	27.3	7.11	7.23	10.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4a	8:15	Bottom	3	2	22.5	7.82	27.4	7.09	7.25	10.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Surface	1	1	23.1	8.14	27.5	7.29	6.62	10.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Surface	1	2	23	8.12	27.6	7.31	6.6	10.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Bottom	3	1	22.7	7.92	27.7	7.04	6.79	8.6
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	SR4	8:34	Bottom	3	2	22.8	7.94	27.8	7.06	6.81	9.9
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Surface	1	1	23	7.98	27.5	8.33	7.13	10.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Surface	1	2	23	8	27.6	8.35	7.15	10.9
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Bottom	3	1	22.6	8.16	27.7	7.92	6.84	10
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS8	8:35	Bottom	3	2	22.7	8.18	27.8	7.94	6.82	9.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Surface	1	1	22.9	8.14	27.6	8.13	6.84	9.6
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Surface	1	2	22.8	8.12	27.6	8.15	6.86	8.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Middle	2	1	22.7	7.92	27.8	8.03	6.99	9.8
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Middle	2	2	22.6	7.94	27.8	8.01	7.01	8.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Bottom	3	1	22.5	7.84	27.7	7.85	7.13	9.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)16	9:15	Bottom	3	2	22.4	7.82	27.9	7.83	7.11	10.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Surface	1	1	22.9	7.92	26.9	7.29	7.92	11.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Surface	1	2	22.8	7.9	27	7.31	7.94	11.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Bottom	3	1	22.7	8.14	27.1	6.75	8.13	12.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	IS(Mf)9	9:35	Bottom	3	2	22.6	8.16	27.2	6.77	8.15	13
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Surface	1	1	23	8.14	27.1	7.19	8	11.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Surface	1	2	22.9	8.16	27.2	7.21	8.02	12
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Middle	2	1	22.7	7.91	27.3	7.03	7.89	11
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Middle	2	2	22.6	7.93	27.3	7.05	7.87	11.8
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Bottom	3	1	22.5	8	27.4	6.92	7.64	10.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Flood	CS(Mf)3	9:50	Bottom	3	2	22.5	8.02	27.5	6.94	7.66	9.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Surface	1	1	24.3	7.81	27.6	7.12	8.61	10.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Surface	1	2	24.2	7.78	27.5	7.14	8.54	12.8

Appendix J1 WQM Results

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	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Middle	2	1	24.1	7.74	27.8	7.03	8.89	12.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Middle	2	2	24.2	7.76	27.7	7.04	9.08	12.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Bottom	3	1	24	7.79	27.9	6.82	9.16	11
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)5	16:01	Bottom	3	2	24	7.74	27.8	6.84	9.21	12
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Surface	1	1	24.1	7.79	27.6	7.08	8.45	10.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Surface	1	2	24.2	7.76	27.5	7.06	8.51	12.8
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Bottom	3	1	24.1	7.74	27.6	6.95	8.96	14.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4a	15:36	Bottom	3	2	24.1	7.73	27.6	6.93	8.92	14.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Surface	1	1	24.1	7.72	27.4	7.09	8.39	10.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Surface	1	2	24.2	7.7	27.5	7.06	8.44	11
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Bottom	3	1	24.1	7.79	27.6	6.87	8.65	13
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	SR4	15:19	Bottom	3	2	24	7.78	27.7	6.92	8.72	11.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Surface	1	1	24.2	7.82	27.6	7.17	8.21	9.9
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Surface	1	2	24.1	7.8	27.5	7.14	8.28	11.6
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Bottom	3	1	24.1	7.77	27.7	7.05	8.76	10.5
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS8	15:03	Bottom	3	2	24.1	7.74	27.6	7.08	8.83	13.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Surface	1	1	24.2	7.84	27.3	7.13	8.34	11.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Surface	1	2	24.3	7.81	27.4	7.14	8.42	10.9
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Middle	2	1	24.4	7.79	27.5	7.06	8.75	11.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Middle	2	2	24.3	7.75	27.4	7.05	8.81	13.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Bottom	3	1	24	7.73	27.8	6.82	8.96	13.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)16	14:36	Bottom	3	2	24.1	7.71	27.7	6.85	8.91	13.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Surface	1	1	24.2	7.74	27.4	6.92	8.34	13.3
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Surface	1	2	24.3	7.76	27.5	6.94	8.39	11.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Middle	2	1						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Middle	2	2						
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Bottom	3	1	24.2	7.72	27.6	6.85	8.86	14.2
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	IS(Mf)9	14:18	Bottom	3	2	24.1	7.7	27.5	6.82	8.92	13.4
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Surface	1	1	24.2	7.82	27.3	7.05	8.56	13.7
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Surface	1	2	24.3	7.83	27.4	7.03	8.63	12.9
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Middle	2	1	24.2	7.76	27.5	6.94	8.96	13.4

Appendix J1 WQM Results

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	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Middle	2	2	24.1	7.79	27.4	6.91	9.05	13.6
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Bottom	3	1	24.1	7.71	27.7	6.81	9.28	12.1
TMCLKL	HY/2012/07	10-05-2016	Mid-Ebb	CS(Mf)3	13:52	Bottom	3	2	24	7.73	27.6	6.79	9.22	14.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Surface	1	1	24.4	7.87	27.6	7.18	8.52	11.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Surface	1	2	24.3	7.84	27.7	7.2	8.45	12.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Middle	2	1	24.3	7.8	27.8	7.09	8.8	14.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Middle	2	2	24.2	7.82	27.9	7.1	8.99	11.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Bottom	3	1	24.1	7.85	27.9	6.88	9.07	11.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)5	9:23	Bottom	3	2	24	7.8	28	6.9	9.12	11.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Surface	1	1	24.3	7.85	27.6	7.14	8.36	10.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Surface	1	2	24.3	7.82	27.7	7.12	8.42	10.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Bottom	3	1	24.1	7.8	27.7	7.01	8.87	12.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4a	9:45	Bottom	3	2	24.2	7.79	27.8	6.99	8.83	14.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Surface	1	1	24.2	7.78	27.5	7.15	8.3	12.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Surface	1	2	24.1	7.76	27.6	7.12	8.35	11.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Bottom	3	1	24.1	7.85	27.8	6.95	8.56	12.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	SR4	10:07	Bottom	3	2	24	7.84	27.7	6.98	8.63	13.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Surface	1	1	24.3	7.88	27.6	7.23	8.12	13
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Surface	1	2	24.2	7.86	27.7	7.2	8.19	11.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Bottom	3	1	24.2	7.83	27.8	7.11	8.67	13
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS8	10:29	Bottom	3	2	24.2	7.8	27.7	7.14	8.74	12.2
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Surface	1	1	24.4	7.9	27.4	7.19	8.25	12.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Surface	1	2	24.3	7.87	27.5	7.2	8.33	11.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Middle	2	1	24.3	7.85	27.6	7.12	8.66	10.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Middle	2	2	24.2	7.81	27.5	7.1	8.72	11.3
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Bottom	3	1	24.2	7.79	27.8	6.88	8.87	12.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)16	10:51	Bottom	3	2	24.1	7.77	27.9	6.91	8.82	11.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)9	11:13	Surface	1	1	24.3	7.8	27.5	6.98	8.25	10.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)9	11:13	Surface	1	2	24.3	7.82	27.6	7	8.3	10
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)9	11:13	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)9	11:13	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	12-05-2016	Mid-Flood	IS(Mf)9	11:13	Bottom	3	1	24.1	7.78	27.6	6.91	8.77	12.3
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	IS(Mf)9	11:13	Bottom	3	2	24	7.76	27.7	6.88	8.83	11.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Surface	1	1	24.4	7.88	27.4	7.11	8.47	13.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Surface	1	2	24.3	7.89	27.5	7.09	8.54	12.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Middle	2	1	24.2	7.82	27.6	7	8.87	12.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Middle	2	2	24.3	7.85	27.5	6.97	8.96	13.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Bottom	3	1	24.2	7.77	27.7	6.87	9.19	13.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Flood	CS(Mf)3	11:37	Bottom	3	2	24.1	7.79	27.8	6.85	9.13	11
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Surface	1	1	24.8	7.73	27.6	7.04	8.55	11.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Surface	1	2	24.8	7.74	27.7	7.08	8.5	10.2
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Middle	2	1	24.6	7.8	27.9	6.92	8.98	13.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Middle	2	2	24.5	7.79	27.8	6.95	8.92	10.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Bottom	3	1	24.5	7.81	27.9	6.81	9.29	12.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)5	17:45	Bottom	3	2	24.4	7.8	28	6.84	9.21	14.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Surface	1	1	24.7	7.82	27.5	6.95	8.76	10.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Surface	1	2	24.8	7.79	27.6	6.92	8.72	12.2
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Bottom	3	1	24.5	7.8	27.7	6.83	9.11	10.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4a	17:24	Bottom	3	2	24.5	7.8	27.7	6.85	9.15	11.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Surface	1	1	24.7	7.75	27.6	6.96	8.64	12.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Surface	1	2	24.7	7.74	27.5	6.92	8.6	12.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Bottom	3	1	24.5	7.76	27.7	6.74	8.96	10.8
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	SR4	16:54	Bottom	3	2	27.5	7.79	27.8	6.77	8.92	11.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Surface	1	1	24.8	7.71	27.6	7.05	8.72	13.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Surface	1	2	24.7	7.72	27.7	7.01	8.76	11.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Bottom	3	1	24.6	7.76	27.8	6.89	9.05	13.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS8	16:30	Bottom	3	2	24.7	7.76	27.8	6.93	9.01	11.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Surface	1	1	24.8	7.79	27.7	7.11	8.81	14.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Surface	1	2	24.8	7.78	27.6	7.06	8.86	12.4
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Middle	2	1	24.5	7.8	27.8	6.98	9.12	11.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Middle	2	2	24.4	7.81	27.7	6.95	9.16	13.7
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Bottom	3	1	24.4	7.82	27.9	6.75	9.37	13.1

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	12-05-2016	Mid-Ebb	IS(Mf)16	16:10	Bottom	3	2	24.5	7.81	27.9	6.71	9.3	14.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Surface	1	1	24.7	7.76	27.7	6.82	8.75	13.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Surface	1	2	24.8	7.75	27.6	6.79	8.7	13.1
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Bottom	3	1	24.4	7.79	27.8	6.74	9.04	13.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	IS(Mf)9	15:53	Bottom	3	2	24.5	7.77	27.7	6.7	9.08	14.5
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Surface	1	1	24.6	7.84	27.7	7.05	8.29	11.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Surface	1	2	24.7	7.83	27.7	7.09	8.25	11.6
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Middle	2	1	24.4	7.88	27.8	6.92	8.68	13.9
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Middle	2	2	24.4	7.88	27.8	6.96	8.65	11.2
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Bottom	3	1	24.3	7.85	27.8	6.88	9.43	12.3
TMCLKL	HY/2012/07	12-05-2016	Mid-Ebb	CS(Mf)3	15:33	Bottom	3	2	24.4	7.85	27.9	6.85	9.37	15
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Surface	1	1	25.1	8	26.4	7.31	6.93	9
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Surface	1	2	25	7.98	26.5	7.29	6.95	9
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Middle	2	1	24.9	8.13	26.6	7.16	7.13	11.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Middle	2	2	24.8	8.15	26.7	7.13	7.15	11.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Bottom	3	1	24.7	7.93	26.8	7.02	7.3	9.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)5	12:06	Bottom	3	2	24.6	7.95	26.9	7	7.32	9.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Surface	1	1	25	7.83	26.5	7.13	7.13	9.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Surface	1	2	24.9	7.85	26.6	7.11	7.15	10.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Bottom	3	1	24.7	8.13	26.7	7.04	7.33	9.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4a	12:28	Bottom	3	2	24.8	8.15	26.8	7.06	7.35	8.8
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Surface	1	1	25.1	7.94	26.5	7.23	7.8	9.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Surface	1	2	25	7.96	26.5	7.25	7.82	10.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Bottom	3	1	24.8	8.13	26.6	7.03	7.95	11.1
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	SR4	12:47	Bottom	3	2	24.7	8.15	26.7	7.05	7.97	9.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Surface	1	1	25	8.14	26.6	7.13	7.39	10.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Surface	1	2	24.9	8.16	26.7	7.15	7.41	8.9
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Bottom	3	1	24.7	7.93	26.8	7.02	7.62	9.9
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS8	13:07	Bottom	3	2	24.6	7.95	26.9	7	7.6	9.9

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	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Surface	1	1	24.9	7.83	26.4	7.33	8.11	11.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Surface	1	2	24.8	7.85	26.5	7.35	8.13	12.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Middle	2	1	24.7	8.16	26.6	7.19	8.36	10
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Middle	2	2	24.7	8.14	26.6	7.21	8.38	10.1
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Bottom	3	1	24.6	7.73	26.7	6.93	8.44	12.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)16	13:27	Bottom	3	2	24.5	7.75	26.8	6.95	8.46	11
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Surface	1	1	25	8.14	26.5	7.16	6.94	10.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Surface	1	2	24.9	8.16	26.6	7.18	6.96	8.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Bottom	3	1	24.7	7.87	26.7	7.04	7.16	10.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	IS(Mf)9	13:48	Bottom	3	2	24.6	7.89	26.7	7.06	7.18	11.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Surface	1	1	25.1	7.93	26.4	7.24	7.91	12.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Surface	1	2	25	7.95	26.6	7.22	7.93	10.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Middle	2	1	24.9	8.02	26.7	7.15	8.14	12.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Middle	2	2	24.8	8.04	26.7	7.13	8.16	11.4
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Bottom	3	1	24.7	8.15	26.8	7	7.86	10.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Flood	CS(Mf)3	14:16	Bottom	3	2	24.7	8.17	26.9	7.02	7.84	11.8
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Surface	1	1	25.1	7.94	26.6	7.21	7.08	11.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Surface	1	2	25.1	7.99	26.6	7.17	7.16	10.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Middle	2	1	25	8.08	26.7	7.08	7.29	9.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Middle	2	2	25	8.1	26.7	7.04	7.34	10.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Bottom	3	1	24.8	7.77	26.9	6.95	7.58	10.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)5	19:58	Bottom	3	2	24.9	7.8	26.9	6.91	7.66	10
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Surface	1	1	25.1	7.8	26.6	7.04	7.34	11
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Surface	1	2	25	7.81	26.7	7.08	7.4	11.8
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Bottom	3	1	25	7.99	26.7	7	7.6	10.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4a	19:34	Bottom	3	2	25	8.03	26.8	7.01	7.69	9.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Surface	1	1	25.1	7.89	26.6	7.18	7.94	11.1
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Surface	1	2	25.1	7.85	26.7	7.21	8.02	12
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Bottom	3	1	25	7.99	26.5	7.09	8.06	10.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	SR4	19:15	Bottom	3	2	25	8.04	26.6	7.06	8.13	13
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS8	18:55	Surface	1	1	25	8.13	26.7	7.08	7.49	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	14-05-2016	Mid-Ebb	IS8	18:55	Surface	1	2	25.1	8.11	26.6	7.13	7.55	11.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS8	18:55	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS8	18:55	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS8	18:55	Bottom	3	1	25	8.1	26.8	7.14	7.77	11.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS8	18:55	Bottom	3	2	25	8.07	26.8	7	7.86	12.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Surface	1	1	25	7.79	26.6	7.24	8.24	9.9
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Surface	1	2	24.9	7.8	26.5	7.2	8.33	11.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Middle	2	1	24.8	8.09	26.7	7.13	8.53	11.9
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Middle	2	2	24.9	8	26.6	7.11	8.47	12.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Bottom	3	1	24.7	7.93	26.8	7.02	8.6	12.9
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)16	18:33	Bottom	3	2	24.8	7.89	26.9	6.97	8.71	13.1
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Surface	1	1	25.1	8.07	26.7	7.07	7.08	9.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Surface	1	2	25.1	8	26.8	7.11	7.13	9.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Bottom	3	1	25	7.98	26.8	7.16	7.44	11.2
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	IS(Mf)9	18:13	Bottom	3	2	24.9	8.01	26.8	7.13	7.52	10.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Surface	1	1	25.2	7.69	26.6	7.17	8.07	10.5
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Surface	1	2	25.1	7.66	26.6	7.14	7.98	9.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Middle	2	1	25	7.64	26.6	7.08	8.34	11.7
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Middle	2	2	25	7.67	26.5	7.1	8.26	11.6
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Bottom	3	1	24.8	7.67	26.9	6.96	8.06	11.3
TMCLKL	HY/2012/07	14-05-2016	Mid-Ebb	CS(Mf)3	17:50	Bottom	3	2	24.8	7.7	26.8	6.93	7.95	11.9
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Surface	1	1	25.5	8.16	26.6	7.43	6.95	10.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Surface	1	2	25.6	8.14	26.5	7.41	6.97	8.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Middle	2	1	25.4	7.93	26.7	7.27	7.14	8.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Middle	2	2	25.3	7.95	26.7	7.29	7.16	10
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Bottom	3	1	25.2	7.81	26.8	7.09	7.33	9.5
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)5	14:57	Bottom	3	2	25.1	7.83	26.5	7.11	7.35	11
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Surface	1	1	25.5	7.92	26.4	7.2	7.04	9.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Surface	1	2	25.4	7.94	26.5	7.22	7.06	10.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Bottom	3	1	25.3	8.13	26.6	7.11	7.24	9.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4a	15:26	Bottom	3	2	25.2	8.15	26.7	7.09	7.22	10.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4	15:47	Surface	1	1	25.4	8.16	26.4	7.33	7.29	9.5
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4	15:47	Surface	1	2	25.3	8.14	26.5	7.35	7.31	10.2

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	17-05-2016	Mid-Flood	SR4	15:47	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4	15:47	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4	15:47	Bottom	3	1	25.2	7.91	26.7	7.13	7.45	11.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	SR4	15:47	Bottom	3	2	25.1	7.93	26.7	7.11	7.47	9.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Surface	1	1	25.5	7.84	26.6	7.24	7.03	10.5
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Surface	1	2	25.6	7.86	26.5	7.22	7.05	9.9
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Bottom	3	1	25.4	8.11	26.7	7.04	7.11	9.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS8	16:08	Bottom	3	2	25.3	8.09	26.8	7.06	7.13	11.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Surface	1	1	25.6	8.17	26.4	7.47	7.14	10
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Surface	1	2	25.5	8.19	26.5	7.49	7.16	9.3
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Middle	2	1	25.4	7.93	26.6	7.27	7.3	10.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Middle	2	2	25.4	7.91	26.7	7.25	7.32	11
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Bottom	3	1	25.3	7.84	26.8	7.04	7.44	9.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)16	16:29	Bottom	3	2	25.2	7.86	26.9	7.06	7.46	9.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Surface	1	1	25.5	7.92	26.5	7.24	6.73	8.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Surface	1	2	25.4	7.94	26.6	7.22	6.75	10.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Bottom	3	1	25.3	8.16	26.7	7.16	6.92	10.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	IS(Mf)9	16:51	Bottom	3	2	25.3	8.14	26.7	7.14	6.94	11.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Surface	1	1	25.6	8.03	26.4	7.13	7.24	10.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Surface	1	2	25.5	8.05	26.5	7.15	7.26	8.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Middle	2	1	25.4	7.92	26.6	7.02	7.34	10.3
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Middle	2	2	25.3	7.94	26.7	7.04	7.36	11
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Bottom	3	1	25.2	7.81	26.8	6.91	7.55	12.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Flood	CS(Mf)3	17:12	Bottom	3	2	25.1	7.83	26.9	6.93	7.56	11.3
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Surface	1	1	25.3	8	26.6	7.12	7.14	10.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Surface	1	2	25.2	8.05	26.7	7.08	7.22	10.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Middle	2	1	25.2	8.14	26.7	6.99	7.35	8.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Middle	2	2	25.2	8.16	26.8	6.95	7.4	11.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Bottom	3	1	25	7.83	27	6.86	7.64	10.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)5	12:15	Bottom	3	2	24.9	7.86	26.9	6.82	7.72	11.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4a	11:51	Surface	1	1	25.2	7.86	26.7	6.95	7.4	10.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4a	11:51	Surface	1	2	25.1	7.87	26.8	6.99	7.46	11.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4a	11:51	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	17-05-2016	Mid-Ebb	SR4a	11:51	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4a	11:51	Bottom	3	1	25.1	8.05	26.8	6.91	7.66	10
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4a	11:51	Bottom	3	2	25	8.09	26.9	6.92	7.75	11.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Surface	1	1	25.1	7.95	26.5	7.09	8	12.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Surface	1	2	25.1	7.91	26.6	7.12	8.08	12.9
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Bottom	3	1	25	8.05	26.7	7	8.12	11.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	SR4	11:29	Bottom	3	2	25.1	8.1	26.6	6.97	8.19	13.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Surface	1	1	25.2	8.19	26.7	6.99	7.55	10.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Surface	1	2	25.1	8.17	26.8	7.04	7.61	10.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Bottom	3	1	25.1	8.16	26.8	6.95	7.83	11.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS8	11:07	Bottom	3	2	25	8.13	26.9	6.91	7.92	11.9
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Surface	1	1	25.1	7.85	26.6	7.15	8.3	12.5
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Surface	1	2	25	7.86	26.7	7.11	8.39	11.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Middle	2	1	25	8.15	26.7	7.04	8.59	12
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Middle	2	2	24.9	8.06	26.8	7.02	8.53	11.1
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Bottom	3	1	24.8	7.99	27	6.93	8.66	13
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)16	10:45	Bottom	3	2	24.9	7.95	26.9	6.88	8.77	13.2
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Surface	1	1	25.2	8.13	26.8	6.98	7.14	10.7
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Surface	1	2	25.1	8.06	26.9	7.02	7.19	9.3
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Middle	2	1						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Middle	2	2						
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Bottom	3	1	25	8.04	26.9	7.07	7.5	9.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	IS(Mf)9	10:23	Bottom	3	2	25.1	8.07	27	7.04	7.58	11.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Surface	1	1	25.3	7.75	26.6	7.08	8.13	13
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Surface	1	2	25.2	7.72	26.7	7.05	8.04	12.9
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Middle	2	1	25	7.7	26.7	6.99	8.4	11.8
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Middle	2	2	25.1	7.73	26.8	7.01	8.32	11.6
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Bottom	3	1	24.9	7.73	26.9	6.87	8.12	11.4
TMCLKL	HY/2012/07	17-05-2016	Mid-Ebb	CS(Mf)3	10:01	Bottom	3	2	24.8	7.76	27	6.84	8.01	9.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Surface	1	1	25.6	8.03	26.6	7.12	7.16	10
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Surface	1	2	25.7	8.06	26.6	7.14	7.1	9.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Middle	2	1	25.5	8.07	26.6	6.96	7.38	8.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Middle	2	2	25.6	8.04	26.5	6.92	7.42	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	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Bottom	3	1	25.3	7.93	26.6	6.78	7.58	10.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)5	16:30	Bottom	3	2	25.5	7.97	26.6	6.82	7.62	10.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Surface	1	1	25.4	7.96	26.5	6.96	7.37	11.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Surface	1	2	25.3	7.99	26.6	6.93	7.39	10.3
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Bottom	3	1	25.3	8.09	26.7	6.86	7.52	9.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4a	16:50	Bottom	3	2	25.4	8.13	26.6	6.83	7.56	9.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Surface	1	1	25.4	8.04	26.7	7.04	8.02	12
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Surface	1	2	25.5	8.06	26.6	7.02	8.01	11.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Bottom	3	1	25.3	8.1	26.5	6.96	8.1	13
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	SR4	17:04	Bottom	3	2	25.4	8.09	26.6	6.99	8.06	12.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Surface	1	1	25.4	8.23	26.5	6.93	7.59	12.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Surface	1	2	25.5	8.2	26.4	6.94	7.62	10.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Bottom	3	1	25.4	8.21	26.5	6.87	7.81	10.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS8	17:14	Bottom	3	2	25.5	8.24	26.4	6.9	7.84	12.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Surface	1	1	25.3	7.96	26.5	7.04	8.31	11.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Surface	1	2	25.4	7.99	26.4	7.08	8.27	13.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Middle	2	1	25.3	7.23	26.5	6.97	8.62	13.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Middle	2	2	25.4	7.27	26.4	6.99	8.66	12.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Bottom	3	1	25.3	8.02	26.4	6.87	8.67	13
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)16	17:28	Bottom	3	2	25.4	7.05	26.5	6.86	8.69	11.3
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Surface	1	1	25.4	8.21	26.6	6.92	7.21	9.4
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Surface	1	2	25.4	8.22	26.7	6.95	7.17	10.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Bottom	3	1	25.3	8.17	26.8	6.97	7.48	11.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	IS(Mf)9	17:48	Bottom	3	2	25.3	8.19	26.9	6.98	7.52	9
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Surface	1	1	25.4	7.84	26.8	6.99	8.19	10.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Surface	1	2	25.3	7.86	26.7	7.02	8.23	11.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Middle	2	1	25.3	7.79	26.5	6.94	8.38	11.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Middle	2	2	25.3	7.78	26.6	6.91	8.4	11.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Bottom	3	1	25.3	7.8	26.6	6.82	8.12	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	19-05-2016	Mid-Flood	CS(Mf)3	18:03	Bottom	3	2	25.2	7.82	26.7	6.84	8.15	12.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Surface	1	1	25.4	8.06	26.7	7.03	7.2	9.4
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Surface	1	2	25.3	8.11	26.8	6.99	7.28	10.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Middle	2	1	25.2	8.2	26.8	6.9	7.41	11.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Middle	2	2	25.3	8.22	26.9	6.86	7.46	10.4
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Bottom	3	1	25.1	7.89	27	6.77	7.7	10
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)5	13:19	Bottom	3	2	25	7.92	27.1	6.73	7.78	9.3
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Surface	1	1	25.3	7.92	26.8	6.86	7.46	11.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Surface	1	2	25.2	7.93	26.9	6.9	7.52	10.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Bottom	3	1	25.1	8.11	26.9	6.82	7.72	11.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4a	12:55	Bottom	3	2	25.2	8.15	27	6.83	7.81	10.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Surface	1	1	25.2	8.01	26.6	7	8.06	11.3
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Surface	1	2	25.2	7.97	26.7	7.03	8.14	11.4
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Bottom	3	1	25.1	8.11	26.7	6.91	8.18	11.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	SR4	12:33	Bottom	3	2	25	8.16	26.8	6.88	8.25	10.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Surface	1	1	25.3	8.25	26.8	6.9	7.61	10.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Surface	1	2	25.2	8.23	26.9	6.95	7.67	9.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Bottom	3	1	25.2	8.22	26.9	6.86	7.89	9.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS8	12:11	Bottom	3	2	25.1	8.19	27	6.82	7.98	10.4
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Surface	1	1	25.1	7.91	26.7	7.06	8.36	10.9
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Surface	1	2	25.2	7.92	26.8	7.02	8.45	13.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Middle	2	1	25.1	7.21	26.8	6.95	8.65	12.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Middle	2	2	25	7.12	26.9	6.93	8.59	13.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Bottom	3	1	25	8.05	27	6.84	8.72	12.2
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)16	11:49	Bottom	3	2	24.9	8.01	27.1	6.79	8.83	10.6
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Surface	1	1	25.3	8.19	26.9	6.89	7.2	10.8
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Surface	1	2	25.2	8.12	27	6.93	7.25	8.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Bottom	3	1	25.1	8.1	27	6.98	7.56	9.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	IS(Mf)9	11:27	Bottom	3	2	25.2	8.13	27.1	6.95	7.64	11.5

Appendix J1 WQM Results

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	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Surface	1	1	25.4	7.81	26.7	6.99	8.19	12.3
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Surface	1	2	25.3	7.78	26.8	6.96	8.1	9.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Middle	2	1	25.2	7.76	26.8	6.9	8.46	13.5
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Middle	2	2	25.1	7.79	26.9	6.92	8.38	11.7
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Bottom	3	1	24.9	7.79	27	6.78	8.18	13.1
TMCLKL	HY/2012/07	19-05-2016	Mid-Ebb	CS(Mf)3	11:05	Bottom	3	2	25	7.82	27.1	6.75	8.07	11.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Surface	1	1	24.6	7.89	23.5	7.24	8.43	11
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Surface	1	2	24.5	7.92	23.6	7.2	8.55	12
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Middle	2	1	24.5	7.94	23.7	7.09	8.54	12
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Middle	2	2	24.5	8	23.6	7.11	8.63	11.2
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Bottom	3	1	24.5	7.76	23.8	6.96	9.87	13.8
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)5	17:51	Bottom	3	2	24.4	7.8	23.9	6.91	9.8	15.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Surface	1	1	24.6	7.87	23.4	7.05	8.69	12.2
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Surface	1	2	24.6	7.81	23.4	7.01	8.73	12.2
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Bottom	3	1	24.7	7.96	23.4	6.98	9.63	13.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4a	18:17	Bottom	3	2	24.6	7.98	23.5	6.95	9.56	13.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Surface	1	1	24.6	7.88	23.4	7.14	8.94	13.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Surface	1	2	24.7	7.94	23.4	7.11	8.86	13.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Bottom	3	1	24.6	7.97	23.5	7.03	9.34	11.2
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	SR4	18:34	Bottom	3	2	24.6	8	23.6	7	9.41	14.1
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Surface	1	1	24.6	7.99	23.4	7.08	8.78	10.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Surface	1	2	24.6	8.04	23.5	7.05	8.85	11.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Bottom	3	1	24.4	8.08	23.6	6.94	9.56	11.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS8	18:51	Bottom	3	2	24.5	8.03	23.7	6.91	9.63	13.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Surface	1	1	24.6	7.8	23.4	7.18	8.63	10.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Surface	1	2	24.6	7.77	23.4	7.14	8.77	12.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Middle	2	1	24.6	7.34	23.6	7.09	8.94	14.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Middle	2	2	24.6	7.27	23.6	7.03	8.86	11.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Bottom	3	1	24.5	7.86	23.8	6.84	9.86	14.8
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)16	19:08	Bottom	3	2	24.4	7.9	23.9	6.81	9.77	11.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Surface	1	1	24.6	8.05	24.2	7.05	8.38	12.6

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	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Surface	1	2	24.7	8.03	24.1	7.09	8.43	11
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Bottom	3	1	24.7	7.97	24.2	7.01	9.6	14.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	IS(Mf)9	19:28	Bottom	3	2	24.7	8	24.1	7.03	9.52	13.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Surface	1	1	24.7	7.78	23.9	7.2	8.86	12.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Surface	1	2	24.7	7.83	24.1	7.17	8.78	11.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Middle	2	1	24.7	7.74	24.1	7.04	8.97	13.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Middle	2	2	24.7	7.72	24	7.01	9.06	10.9
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Bottom	3	1	24.6	7.7	24.2	6.87	9.3	13
TMCLKL	HY/2012/07	21-05-2016	Mid-Flood	CS(Mf)3	19:38	Bottom	3	2	24.5	7.76	24.2	6.9	9.22	13.8
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Surface	1	1	24.9	7.97	23.7	7.09	8.11	11.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Surface	1	2	24.8	8.02	23.8	7.05	8.19	11.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Middle	2	1	24.7	8.11	24	6.96	8.32	11.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Middle	2	2	24.6	8.13	23.9	6.92	8.37	11.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Bottom	3	1	24.6	7.8	24	6.83	9.61	15.5
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)5	14:20	Bottom	3	2	24.5	7.83	24.1	6.79	9.69	14.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Surface	1	1	24.8	7.83	23.5	6.92	8.37	12.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Surface	1	2	24.7	7.84	23.6	6.96	8.43	12.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Bottom	3	1	24.7	8.02	23.7	6.88	9.63	11.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4a	13:56	Bottom	3	2	24.6	8.06	23.6	6.89	9.72	13.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Surface	1	1	24.7	7.92	23.4	7.06	8.93	11.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Surface	1	2	24.7	7.88	23.5	7.09	9.05	13.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Bottom	3	1	24.5	8.02	23.6	6.97	9.09	13.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	SR4	13:34	Bottom	3	2	24.4	8.07	23.5	6.94	9.16	11.9
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Surface	1	1	24.5	8.16	23.6	6.96	8.52	13.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Surface	1	2	24.6	8.14	23.7	7.01	8.58	13.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Bottom	3	1	24.3	8.13	23.8	6.92	9.8	13.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS8	13:12	Bottom	3	2	24.2	8.1	23.7	6.88	9.89	11.9
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Surface	1	1	24.7	7.82	23.5	7.12	8.27	10.8
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Surface	1	2	24.6	7.83	23.6	7.08	8.3	10.8

Appendix J1 WQM Results

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	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Middle	2	1	24.5	7.12	23.7	7.01	8.56	13.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Middle	2	2	24.4	7.03	23.8	6.99	8.5	11.9
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Bottom	3	1	24.3	7.96	23.9	6.9	9.63	15.4
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)16	12:50	Bottom	3	2	24.4	7.94	24	6.85	9.74	12.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Surface	1	1	24.9	8.1	23.6	6.95	8.11	13
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Surface	1	2	24.8	8.03	23.7	6.99	8.16	13.1
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Bottom	3	1	24.6	8.01	23.9	7.04	9.47	12.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	IS(Mf)9	12:28	Bottom	3	2	24.7	8.04	23.8	7.01	9.55	14.3
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Surface	1	1	24.9	7.72	23.7	7.05	9.1	14.6
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Surface	1	2	25	7.69	23.8	7.02	9.01	11.7
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Middle	2	1	24.9	7.67	23.9	6.96	9.37	12.2
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Middle	2	2	24.8	7.7	23.8	6.98	9.29	13
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Bottom	3	1	24.6	7.7	24	6.84	9.09	10.9
TMCLKL	HY/2012/07	21-05-2016	Mid-Ebb	CS(Mf)3	12:06	Bottom	3	2	24.7	7.73	24.1	6.81	8.98	11.7
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Surface	1	1	25.3	8.12	24.4	6.94	8.26	12.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Surface	1	2	25.2	8.17	24.5	6.9	8.34	11.7
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Middle	2	1	25.1	8.26	24.6	6.81	8.47	10.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Middle	2	2	25.2	8.28	24.5	6.77	8.52	11.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Bottom	3	1	25.2	7.95	24.6	6.68	8.76	12.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)5	7:29	Bottom	3	2	25.1	7.98	24.7	6.64	8.84	14.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Surface	1	1	25.3	7.98	24.6	6.77	7.52	10.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Surface	1	2	25.4	7.99	24.7	6.81	7.58	10.6
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Bottom	3	1	25.4	8.17	24.7	6.73	7.78	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4a	7:46	Bottom	3	2	25.3	8.21	24.8	6.74	7.87	10.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Surface	1	1	25.6	8.07	24.6	6.91	7.12	9.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Surface	1	2	25.5	8.03	24.7	6.94	7.2	8.6
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Bottom	3	1	25.4	8.17	24.7	6.82	7.24	9.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	SR4	8:04	Bottom	3	2	25.5	8.22	24.8	6.79	7.31	10.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS8	8:18	Surface	1	1	25.4	8.31	24.5	6.81	7.67	11.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS8	8:18	Surface	1	2	25.5	8.29	24.6	6.86	7.73	12.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS8	8:18	Middle	2	1						

Appendix J1 WQM Results

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	24-05-2016	Mid-Flood	IS8	8:18	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS8	8:18	Bottom	3	1	25.4	8.28	24.7	6.77	7.95	11.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS8	8:18	Bottom	3	2	25.3	8.25	24.6	6.73	8.04	10.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Surface	1	1	25.4	7.97	24.3	6.97	7.42	8.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Surface	1	2	25.3	7.98	24.4	6.93	7.51	9.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Middle	2	1	25.3	7.27	24.5	6.86	7.71	10.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Middle	2	2	25.2	7.18	24.4	6.84	7.65	9.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Bottom	3	1	25.2	8.11	24.6	6.75	7.78	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)16	8:36	Bottom	3	2	25.1	8.07	24.7	6.7	7.89	10.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Surface	1	1	25.5	8.01	24.7	6.8	7.02	10.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Surface	1	2	25.4	7.94	24.8	6.84	7.07	8.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Bottom	3	1	25.4	7.92	24.8	6.89	7.38	11.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	IS(Mf)9	8:54	Bottom	3	2	25.3	7.95	24.9	6.86	7.46	10.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Surface	1	1	25.5	7.87	24.5	6.9	7.25	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Surface	1	2	25.6	7.84	24.6	6.87	7.16	11.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Middle	2	1	25.4	7.82	24.7	6.81	7.52	11.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Middle	2	2	25.3	7.85	24.6	6.83	7.44	11.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Bottom	3	1	25.2	7.85	24.8	6.69	7.24	9.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Flood	CS(Mf)3	9:14	Bottom	3	2	25.1	7.88	24.9	6.66	7.13	10
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Surface	1	1	25.4	8.07	24.3	6.87	7.56	9.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Surface	1	2	25.3	8.11	24.2	6.85	7.63	9.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Middle	2	1	25.3	8.17	24.5	6.78	7.78	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Middle	2	2	25.2	8.12	24.4	6.74	7.69	10
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Bottom	3	1	25.2	8.12	24.6	6.63	7.86	11.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)5	14:49	Bottom	3	2	25.1	8.08	24.5	6.61	7.81	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Surface	1	1	25.3	7.96	24.5	6.53	7.49	10.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Surface	1	2	25.2	7.99	24.4	6.56	7.41	11.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Bottom	3	1	25.2	8.12	24.6	6.67	7.65	12.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4a	14:25	Bottom	3	2	25.3	8.16	24.5	6.64	7.58	12.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4	14:07	Surface	1	1	25.6	8.16	24.5	6.84	7.38	11.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4	14:07	Surface	1	2	25.5	8.21	24.4	6.81	7.44	11.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4	14:07	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4	14:07	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	24-05-2016	Mid-Ebb	SR4	14:07	Bottom	3	1	25.5	8.13	24.5	6.77	7.57	11.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	SR4	14:07	Bottom	3	2	25.4	8.1	24.6	6.74	7.52	11.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Surface	1	1	25.3	8.26	24.4	6.69	7.74	9.3
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Surface	1	2	25.4	8.21	24.5	6.72	7.81	11.7
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Bottom	3	1	25.3	8.18	24.6	6.64	8.12	11.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS8	13:49	Bottom	3	2	25.4	8.14	24.5	6.63	8.03	11.2
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Surface	1	1	25.4	8.06	24.4	6.82	7.63	11.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Surface	1	2	25.5	8.11	24.3	6.84	7.54	9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Middle	2	1	25.3	8.23	24.5	6.71	7.74	10.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Middle	2	2	25.4	8.19	24.4	6.73	7.82	10.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Bottom	3	1	25.3	8.17	24.6	6.68	7.96	11.1
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)16	13:29	Bottom	3	2	25.2	8.13	24.5	6.65	8.01	10.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Surface	1	1	25.3	7.98	24.6	6.78	7.23	10.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Surface	1	2	25.4	7.94	24.5	6.75	7.31	9.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Middle	2	1						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Middle	2	2						
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Bottom	3	1	25.4	7.91	24.6	6.67	7.49	9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	IS(Mf)9	13:11	Bottom	3	2	25.3	7.93	24.7	6.68	7.56	9.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Surface	1	1	25.4	7.89	24.4	6.85	7.56	9.8
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Surface	1	2	25.5	7.93	24.5	6.83	7.63	11.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Middle	2	1	25.4	7.86	24.6	6.78	7.98	10.4
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Middle	2	2	25.3	7.81	24.5	6.76	7.91	11.9
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Bottom	3	1	25.2	7.78	24.7	6.93	8.23	11.5
TMCLKL	HY/2012/07	24-05-2016	Mid-Ebb	CS(Mf)3	12:44	Bottom	3	2	25.1	7.84	24.8	6.94	8.32	13.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Surface	1	1	25.7	7.96	24.6	6.89	7.46	10.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Surface	1	2	25.6	7.99	24.7	6.87	7.52	9
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Middle	2	1	25.4	8.19	24.8	6.74	7.65	10.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Middle	2	2	25.5	8.15	24.7	6.76	7.74	10.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Bottom	3	1	25.3	8.12	24.9	6.59	7.88	11
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)5	8:15	Bottom	3	2	25.2	8.06	24.9	6.62	7.81	12.5
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4a	8:39	Surface	1	1	25.6	8.11	24.7	6.74	7.53	12
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4a	8:39	Surface	1	2	25.6	8.13	24.7	6.7	7.59	11.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4a	8:39	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4a	8:39	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4a	8:39	Bottom	3	1	25.4	8.07	24.7	6.64	7.67	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	26-05-2016	Mid-Flood	SR4a	8:39	Bottom	3	2	25.5	8.04	24.6	6.62	7.75	12.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Surface	1	1	25.6	8.02	24.8	6.76	7.28	11.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Surface	1	2	25.7	8.04	24.7	6.75	7.19	10.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Bottom	3	1	25.6	7.98	24.9	6.63	7.34	11.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	SR4	8:55	Bottom	3	2	25.5	7.94	24.8	6.67	7.39	11.1
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Surface	1	1	25.7	8.18	24.7	6.69	7.43	8.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Surface	1	2	25.7	8.13	24.6	6.66	7.49	9.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Bottom	3	1	25.6	8.09	24.7	6.72	7.58	12.1
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS8	9:12	Bottom	3	2	25.7	8.04	24.8	6.74	7.64	11.5
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Surface	1	1	25.8	8.23	24.5	6.86	7.16	10.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Surface	1	2	25.7	8.26	24.6	6.88	7.21	10.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Middle	2	1	25.7	8.17	24.7	6.75	7.38	8.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Middle	2	2	25.6	8.12	24.6	6.77	7.32	11
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Bottom	3	1	25.5	7.96	24.9	6.63	7.46	11.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)16	9:31	Bottom	3	2	25.4	8.01	24.8	6.61	7.53	9.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Surface	1	1	25.7	8.11	24.6	6.89	7.13	10
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Surface	1	2	25.6	8.07	24.7	6.86	7.18	9.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Bottom	3	1	25.6	7.96	24.8	6.74	7.28	9.5
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	IS(Mf)9	9:52	Bottom	3	2	25.6	7.91	24.7	6.71	7.36	10.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Surface	1	1	25.5	7.93	24.6	6.94	7.32	10.2
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Surface	1	2	25.6	7.98	24.5	6.96	7.39	9.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Middle	2	1	25.4	8.03	24.7	6.83	7.48	11.2
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Middle	2	2	25.5	8.06	24.8	6.84	7.42	11.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Bottom	3	1	25.2	7.91	24.9	6.71	7.23	9.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Flood	CS(Mf)3	10:17	Bottom	3	2	25.3	7.88	24.9	6.68	7.16	10
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Surface	1	1	25.8	8.02	24.7	6.8	7.52	9.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Surface	1	2	25.7	8.05	24.8	6.78	7.58	10.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Middle	2	1	25.6	8.25	24.8	6.65	7.71	12.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Middle	2	2	25.5	8.21	24.9	6.67	7.8	10.1
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Bottom	3	1	25.4	8.18	24.9	6.5	7.94	10.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)5	16:16	Bottom	3	2	25.3	8.12	25	6.53	7.87	9.4

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	26-05-2016	Mid-Ebb	SR4a	15:54	Surface	1	1	25.7	8.17	24.7	6.65	7.59	10.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4a	15:54	Surface	1	2	25.6	8.19	24.8	6.61	7.65	9.2
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4a	15:54	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4a	15:54	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4a	15:54	Bottom	3	1	25.6	8.13	24.8	6.55	7.73	10
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4a	15:54	Bottom	3	2	25.5	8.1	24.7	6.53	7.81	10.2
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Surface	1	1	25.8	8.08	24.8	6.67	7.34	10.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Surface	1	2	25.7	8.1	24.9	6.66	7.25	9.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Bottom	3	1	25.7	8.04	24.9	6.54	7.4	11.1
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	SR4	15:32	Bottom	3	2	25.6	8	25	6.58	7.45	10.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Surface	1	1	25.7	8.24	24.6	6.6	7.47	10.5
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Surface	1	2	25.8	8.19	24.7	6.57	7.55	10.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Bottom	3	1	25.7	8.15	24.7	6.63	7.64	9.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS8	15:10	Bottom	3	2	25.6	8.1	24.8	6.65	7.7	11.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Surface	1	1	25.9	8.29	24.6	6.77	7.22	10.8
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Surface	1	2	25.8	8.32	24.7	6.79	7.27	11.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Middle	2	1	25.8	8.23	24.7	6.66	7.44	11.9
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Middle	2	2	25.7	8.18	24.8	6.68	7.38	10.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Bottom	3	1	25.5	8.02	25	6.54	7.52	11.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)16	14:48	Bottom	3	2	25.6	8.07	24.9	6.52	7.59	11.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Surface	1	1	25.8	8.17	24.7	6.8	7.19	9.3
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Surface	1	2	25.7	8.13	24.8	6.77	7.24	10.1
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Bottom	3	1	25.7	8.02	24.8	6.65	7.34	11
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	IS(Mf)9	14:24	Bottom	3	2	25.6	7.97	24.9	6.62	7.42	10.4
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Surface	1	1	25.7	7.99	24.6	6.85	7.38	9.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Surface	1	2	25.6	8.04	24.7	6.87	7.45	9.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Middle	2	1	25.5	8.09	24.9	6.74	7.54	10.6
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Middle	2	2	25.6	8.12	24.8	6.75	7.48	9.7
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Bottom	3	1	25.4	7.97	24.9	6.62	7.29	9.5
TMCLKL	HY/2012/07	26-05-2016	Mid-Ebb	CS(Mf)3	14:02	Bottom	3	2	25.3	7.94	25	6.59	7.22	10.1
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Surface	1	1	25.6	7.91	24.5	6.83	7.38	11.8

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	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Surface	1	2	25.5	7.96	24.4	6.81	7.32	10.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Middle	2	1	25.4	8.03	24.6	6.74	7.63	11.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Middle	2	2	25.5	8.01	24.5	6.71	7.56	11.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Bottom	3	1	25.3	7.97	24.8	6.57	7.84	12.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)5	9:42	Bottom	3	2	25.2	7.93	24.7	6.56	7.79	11.7
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Surface	1	1	25.5	7.96	24.6	6.75	7.44	11.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Surface	1	2	25.4	7.99	24.5	6.73	7.51	9.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Bottom	3	1	25.5	7.94	24.7	6.68	7.63	11.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4a	10:08	Bottom	3	2	25.5	7.92	24.6	6.65	7.69	11.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Surface	1	1	25.6	7.9	24.6	6.77	7.46	9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Surface	1	2	25.5	7.94	24.5	6.74	7.41	10.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Bottom	3	1	25.4	7.98	24.6	6.62	7.57	11.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	SR4	10:26	Bottom	3	2	25.5	7.97	24.6	6.64	7.65	10.7
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Surface	1	1	25.5	7.97	24.5	6.67	7.33	9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Surface	1	2	25.4	7.99	24.4	6.69	7.4	11.1
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Bottom	3	1	25.4	8.06	24.5	6.56	7.58	11.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS8	10:44	Bottom	3	2	25.4	8.02	24.6	6.53	7.49	10.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Surface	1	1	25.5	8.11	24.5	6.86	7.35	9.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Surface	1	2	25.6	8.13	24.5	6.88	7.27	9.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Middle	2	1	25.5	8.07	24.6	6.79	7.47	9.7
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Middle	2	2	25.4	8.02	24.5	6.75	7.41	11.1
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Bottom	3	1	25.3	7.96	24.8	6.54	7.72	10
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)16	11:03	Bottom	3	2	25.2	7.97	24.8	6.51	7.67	12.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Surface	1	1	25.7	7.93	24.5	6.64	7.27	10.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Surface	1	2	25.6	7.94	24.4	6.61	7.22	11.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Bottom	3	1	25.5	7.96	24.6	6.54	7.33	9.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	IS(Mf)9	11:23	Bottom	3	2	25.5	8.01	24.5	6.53	7.41	10.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Surface	1	1	25.5	7.96	24.5	6.73	7.19	10.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Surface	1	2	25.4	7.91	24.4	6.76	7.27	9.5

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	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Middle	2	1	25.4	7.98	24.6	6.68	7.54	10.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Middle	2	2	25.3	8.03	24.6	6.64	7.48	9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Bottom	3	1	25.3	7.99	24.7	6.52	7.62	9.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Flood	CS(Mf)3	11:49	Bottom	3	2	25.2	7.95	24.6	6.55	7.59	10.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Surface	1	1	25.8	7.92	24.2	6.86	7.27	10.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Surface	1	2	25.9	7.94	24.3	6.87	7.31	11
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Middle	2	1	25.8	7.97	24.2	6.77	7.62	11.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Middle	2	2	25.7	7.98	24.2	6.72	7.66	10
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Bottom	3	1	25.7	7.96	24.3	6.62	7.76	10.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)5	17:00	Bottom	3	2	25.7	7.97	24.3	6.64	7.72	10
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Surface	1	1	25.6	7.92	24.2	6.76	7.37	10.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Surface	1	2	25.6	7.94	24.3	6.79	7.39	9.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Bottom	3	1	25.5	7.93	24.2	6.63	7.68	9.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4a	16:48	Bottom	3	2	25.5	7.94	24.3	6.67	7.64	9.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Surface	1	1	25.4	7.93	24.3	6.76	7.27	9.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Surface	1	2	25.6	7.94	24.4	6.79	7.34	11
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Bottom	3	1	25.3	7.92	24.2	6.66	7.52	9.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	SR4	16:38	Bottom	3	2	25.4	7.93	24.2	6.64	7.48	9
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Surface	1	1	25.3	7.94	24.3	6.69	7.36	8.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Surface	1	2	25.2	7.96	24.3	6.66	7.32	10.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Bottom	3	1	25.2	7.96	24.2	6.57	7.51	10.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS8	16:28	Bottom	3	2	25.3	7.98	24.2	6.59	7.56	11.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Surface	1	1	25.2	8.02	24.2	6.79	7.32	9.5
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Surface	1	2	25.3	8.06	24.3	6.83	7.36	9.6
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Middle	2	1	25.2	8.03	24.3	6.74	7.39	11.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Middle	2	2	25.2	8	24.2	6.7	7.41	10.4
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Bottom	3	1	25.2	7.96	24.2	6.66	7.68	10
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)16	16:14	Bottom	3	2	25.2	7.99	24.2	6.63	7.64	12.2
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Surface	1	1	25.4	7.94	24.2	6.62	7.72	10
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Surface	1	2	25.3	7.97	24.3	6.63	7.76	10.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Middle	2	1						

Appendix J1 WQM Results

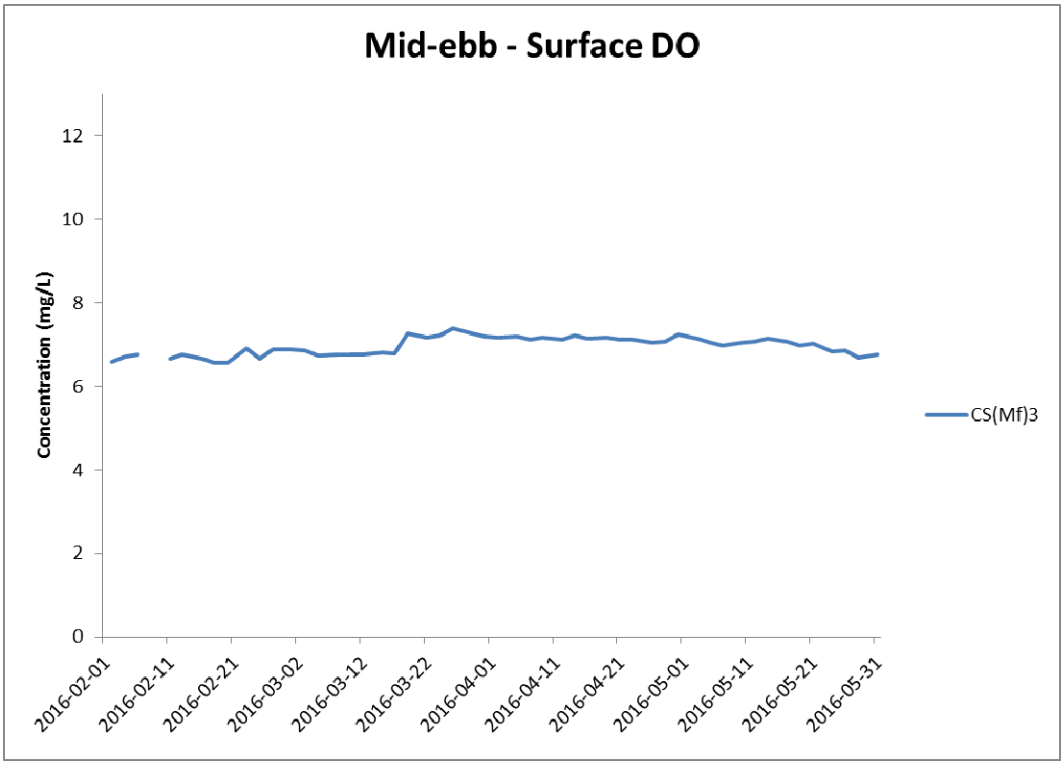
Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Bottom	3	1	25.2	7.92	24.3	6.54	7.37	10.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	IS(Mf)9	15:54	Bottom	3	2	25.3	7.95	24.2	6.5	7.34	10.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Surface	1	1	25.2	7.93	24.3	6.7	7.21	8.7
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Surface	1	2	25.3	7.94	24.2	6.66	7.24	10.1
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Middle	2	1	25.4	7.95	24.3	6.57	7.52	11.3
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Middle	2	2	25.2	7.97	24.2	6.6	7.54	9.8
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Bottom	3	1	25.2	7.94	24.2	6.56	7.64	9.9
TMCLKL	HY/2012/07	28-05-2016	Mid-Ebb	CS(Mf)3	15:39	Bottom	3	2	25.1	7.97	24.3	6.52	7.66	9.2
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Surface	1	1	26.2	8.07	24.8	6.84	7.31	11.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Surface	1	2	26.3	8.05	24.7	6.81	7.25	10.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Middle	2	1	26.1	7.98	24.9	6.78	7.54	9.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Middle	2	2	26.2	7.94	24.9	6.76	7.62	11.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Bottom	3	1	26	8.11	25	6.59	7.68	10.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)5	12:58	Bottom	3	2	26.1	8.1	25.1	6.62	7.73	10.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Surface	1	1	26.3	7.99	24.7	6.76	7.26	9.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Surface	1	2	26.4	8.03	24.6	6.73	7.29	11.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Bottom	3	1	26.3	8.07	24.8	6.69	7.35	9.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4a	13:28	Bottom	3	2	26.2	8.12	24.7	6.67	7.42	8.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Surface	1	1	26.2	7.97	24.5	6.84	7.19	9.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Surface	1	2	26.3	7.96	24.5	6.86	7.26	11.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Bottom	3	1	26.3	8.02	24.6	6.73	7.44	9.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	SR4	13:49	Bottom	3	2	26.3	7.99	24.5	6.7	7.4	9.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Surface	1	1	26.4	8.07	24.6	6.71	7.38	11.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Surface	1	2	26.3	8.04	24.5	6.75	7.47	9.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Bottom	3	1	26.2	7.98	24.6	6.62	7.58	9.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS8	14:08	Bottom	3	2	26.3	7.95	24.7	6.59	7.51	11.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Surface	1	1	26.2	7.96	24.7	6.94	7.26	10.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Surface	1	2	26.3	7.91	24.7	6.96	7.32	9.5
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Middle	2	1	26.1	7.98	24.8	6.91	7.38	9.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Middle	2	2	26.2	8.03	24.7	6.87	7.34	8.8

Appendix J1 WQM Results

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	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Bottom	3	1	26	7.98	24.9	6.83	7.52	10.5
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)16	14:25	Bottom	3	2	26.1	7.93	25	6.86	7.43	11.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Surface	1	1	26.2	7.98	24.6	6.69	7.23	9.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Surface	1	2	26.3	7.96	24.5	6.72	7.16	10
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Bottom	3	1	26.1	7.91	24.7	6.58	7.29	10.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	IS(Mf)9	14:44	Bottom	3	2	26.2	7.94	24.6	6.61	7.22	9.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Surface	1	1	26.2	7.95	24.6	6.81	7.18	9.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Surface	1	2	26.3	7.98	24.6	6.82	7.26	10.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Middle	2	1	26.2	7.93	24.7	6.75	7.37	9.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Middle	2	2	26.1	7.9	24.6	6.72	7.3	8.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Bottom	3	1	26	8.02	24.8	6.66	7.43	10.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Flood	CS(Mf)3	15:08	Bottom	3	2	25.9	7.96	24.9	6.67	7.51	11.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Surface	1	1	25.9	7.92	24.6	6.79	7.29	9.5
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Surface	1	2	25.8	7.94	24.7	6.76	7.34	11.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Middle	2	1	25.8	7.93	24.6	6.74	7.61	9.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Middle	2	2	25.8	7.91	24.6	6.77	7.58	11.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Bottom	3	1	25.7	7.91	24.6	6.7	7.78	10.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)5	09:41	Bottom	3	2	25.6	7.92	24.6	6.65	7.82	11.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Surface	1	1	25.8	7.93	24.6	6.79	7.38	11.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Surface	1	2	25.8	7.91	24.6	6.77	7.4	8.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Bottom	3	1	25.6	7.93	24.6	6.64	7.62	9.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4a	09:29	Bottom	3	2	25.6	7.93	24.6	6.63	7.66	11.5
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Surface	1	1	26	7.92	24.7	6.78	7.38	11.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Surface	1	2	26.1	7.95	24.7	6.79	7.42	11.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Bottom	3	1	26	7.93	24.6	6.68	7.52	11.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	SR4	09:19	Bottom	3	2	25.9	7.92	24.6	6.64	7.54	11.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS8	09:09	Surface	1	1	25.9	7.92	24.6	6.64	7.56	9.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS8	09:09	Surface	1	2	25.9	7.94	24.6	6.62	7.57	10.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS8	09:09	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS8	09:09	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS8	09:09	Bottom	3	1	25.8	7.92	24.6	6.47	7.52	11.3

Appendix J1 WQM Results

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	31-05-2016	Mid-Ebb	IS8	09:09	Bottom	3	2	25.8	7.94	24.5	6.5	7.5	9.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Surface	1	1	25.8	7.92	24.6	6.83	7.38	10.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Surface	1	2	25.9	7.94	24.6	6.86	7.4	11.1
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Middle	2	1	25.8	7.92	24.6	6.81	7.43	11.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Middle	2	2	25.8	7.95	24.7	6.78	7.42	10.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Bottom	3	1	25.8	7.92	24.6	6.74	7.62	11.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)16	08:54	Bottom	3	2	25.7	7.93	24.6	6.72	7.58	11.4
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Surface	1	1	25.9	7.92	24.4	6.62	7.15	8.6
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Surface	1	2	25.8	7.94	24.3	6.6	7.17	10.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Middle	2	1						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Middle	2	2						
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Bottom	3	1	25.7	7.94	24.4	6.53	7.25	10.9
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	IS(Mf)9	08:44	Bottom	3	2	25.8	7.96	24.4	6.52	7.28	9.5
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Surface	1	1	25.9	7.92	24.5	6.74	7.21	10.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Surface	1	2	26	7.93	24.4	6.76	7.17	10.8
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Middle	2	1	26	7.94	24.5	6.72	7.56	11.3
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Middle	2	2	25.8	7.91	24.4	6.7	7.49	11.2
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Bottom	3	1	25.8	7.92	24.5	6.65	7.66	10.7
TMCLKL	HY/2012/07	31-05-2016	Mid-Ebb	CS(Mf)3	08:30	Bottom	3	2	25.8	7.94	24.5	6.62	7.63	9.2



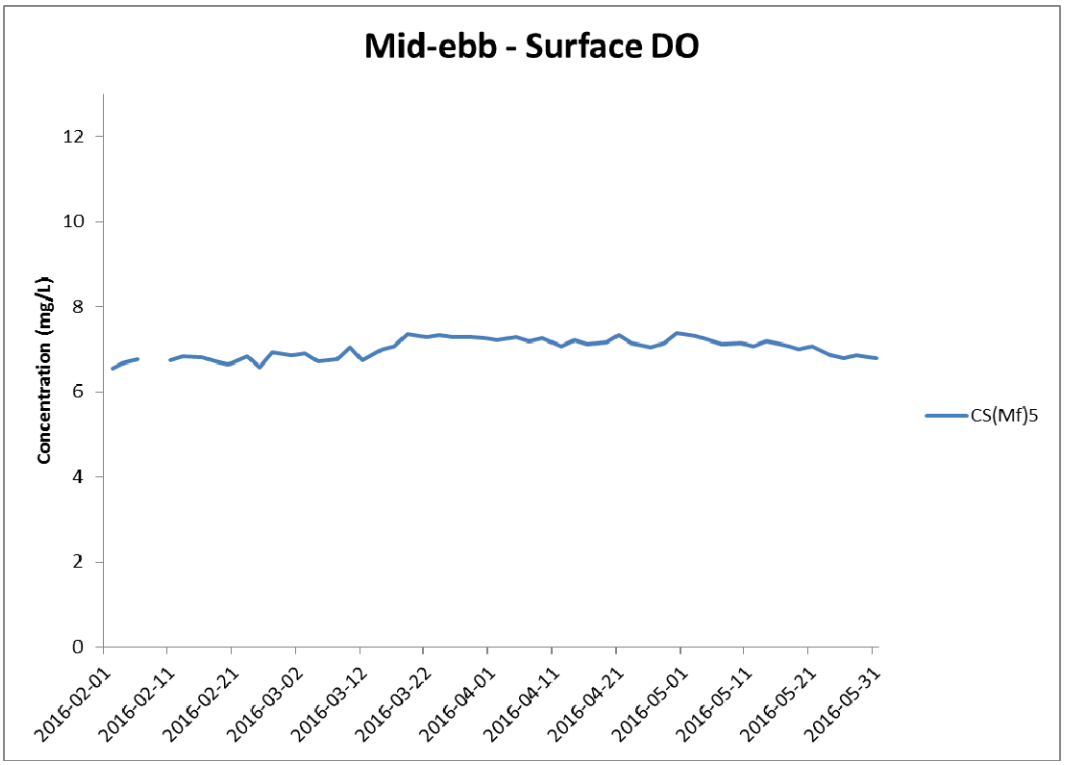
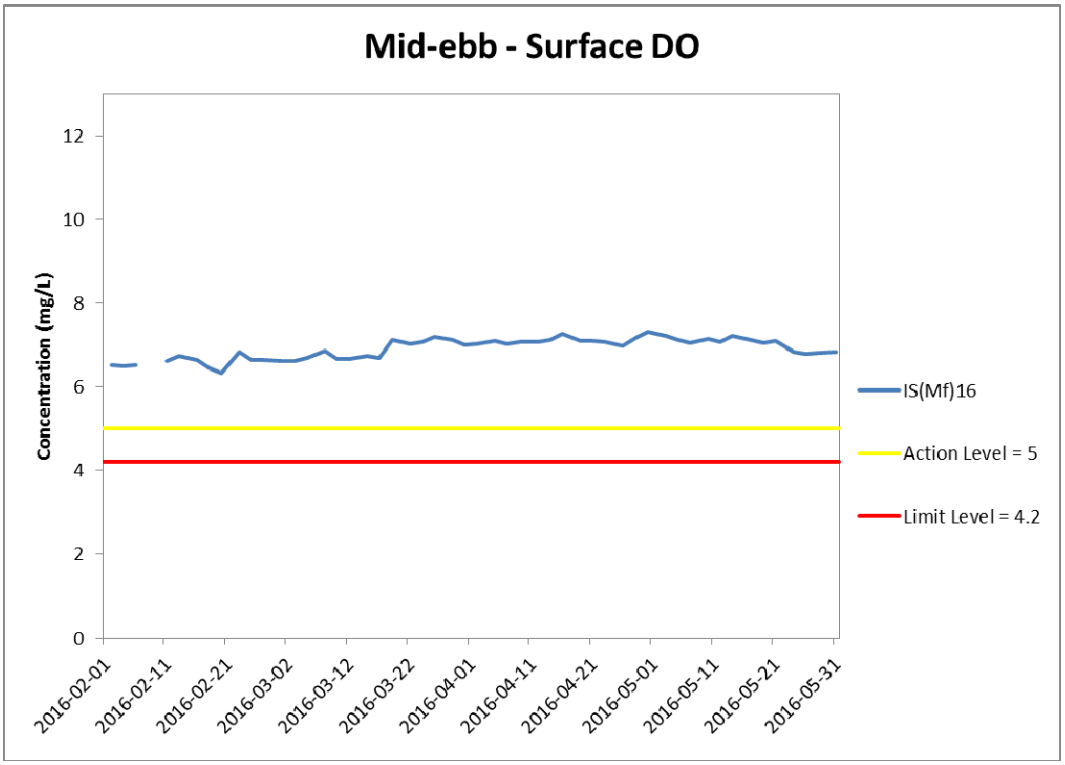


Figure J1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



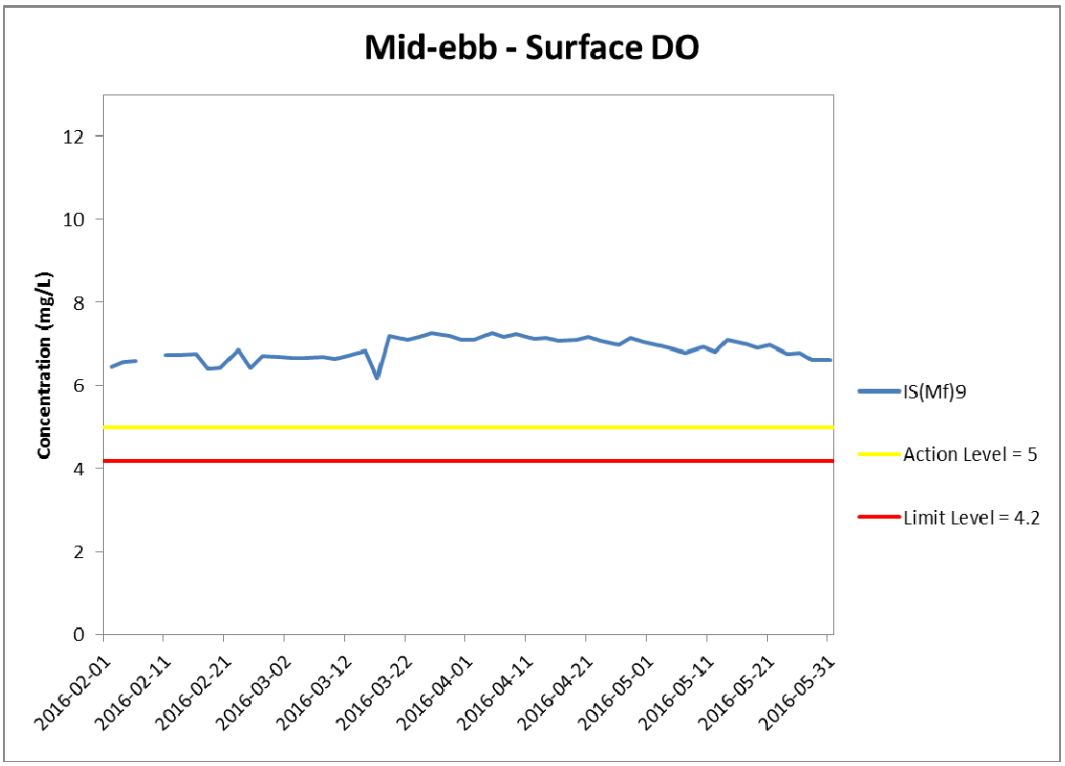
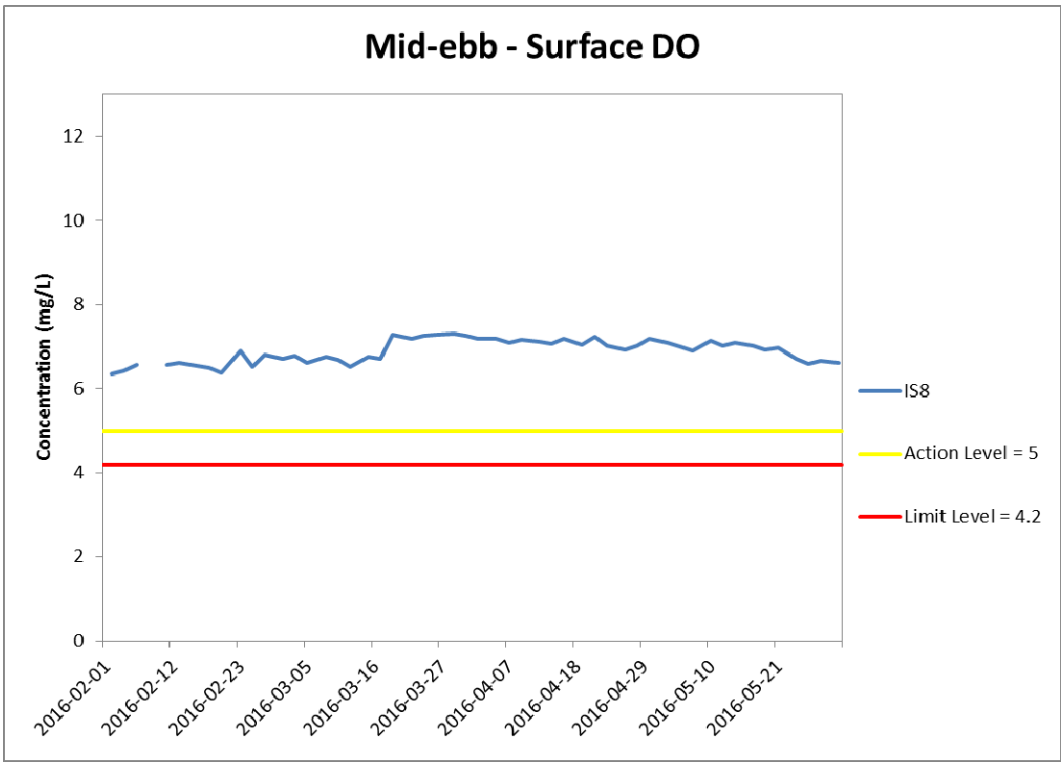


Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



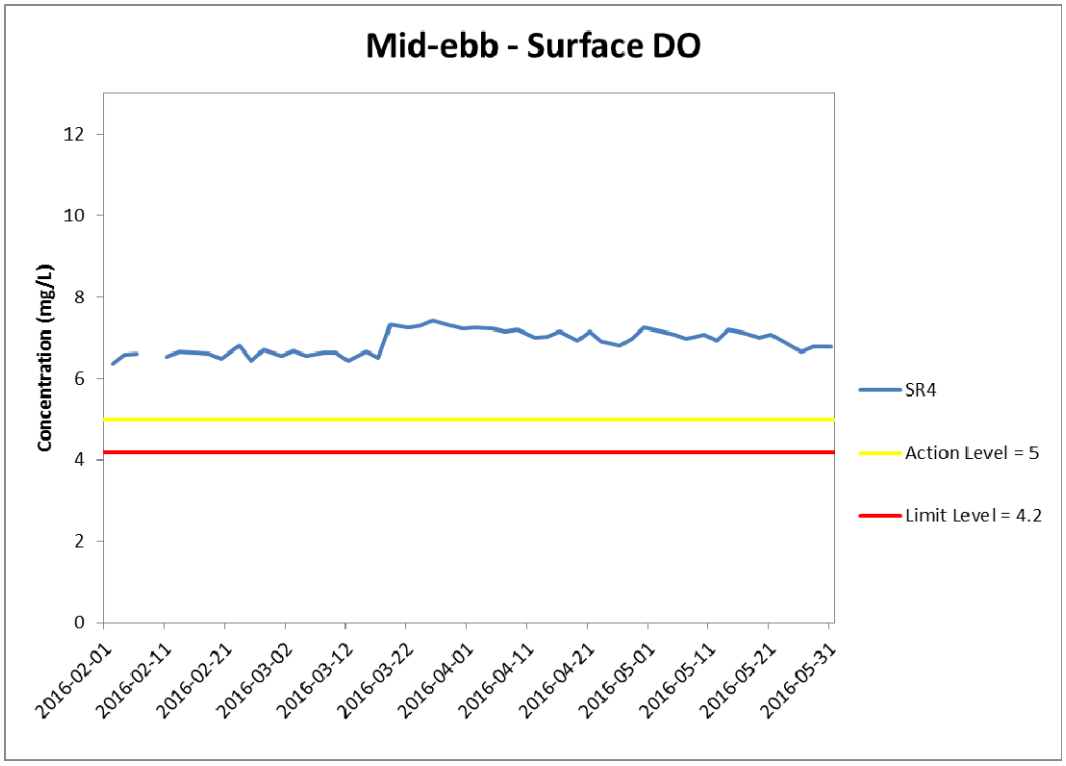


Figure J3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and

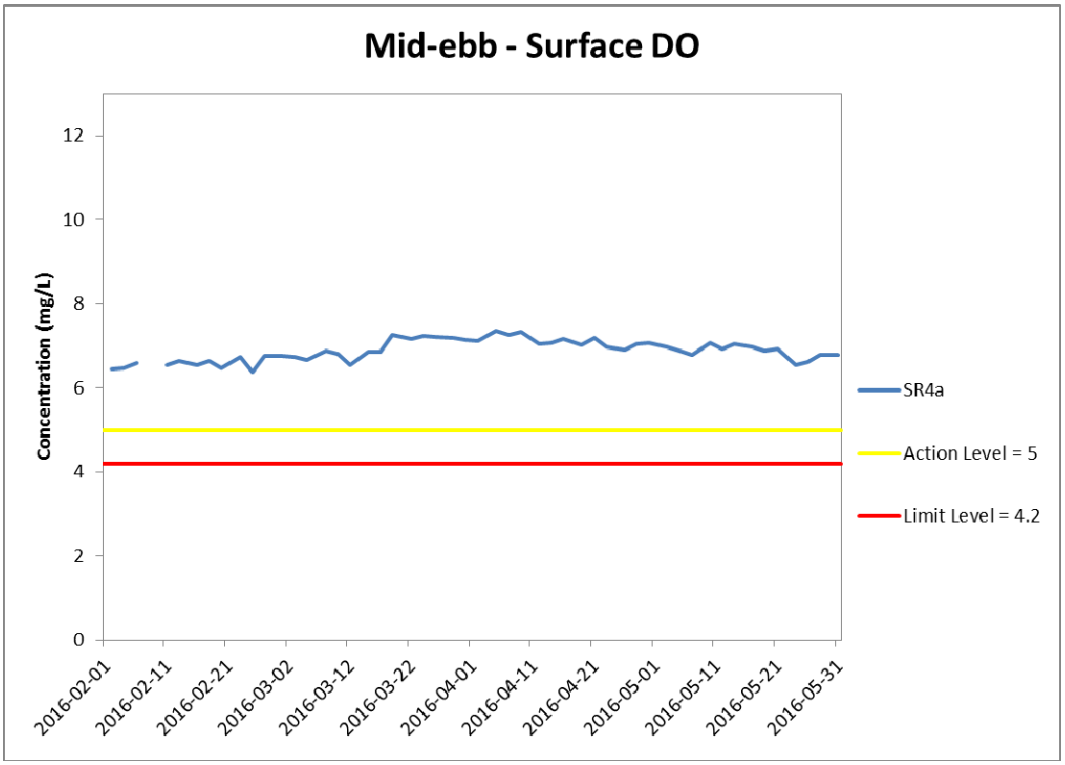
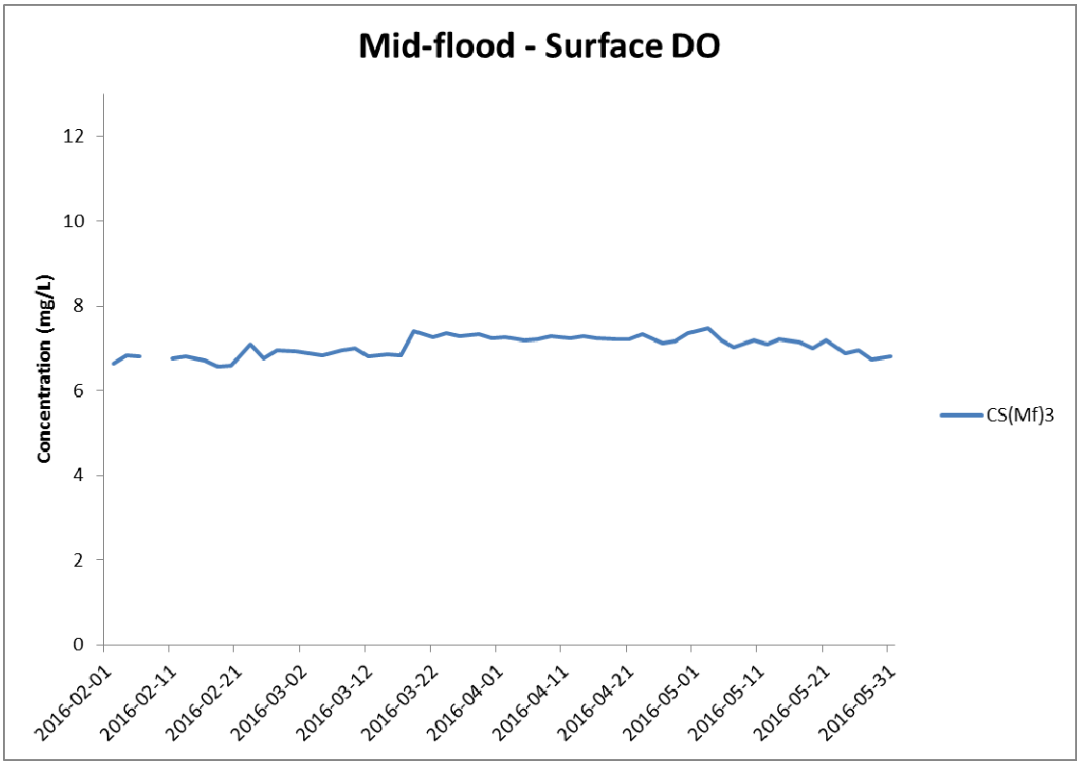


Figure J4 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



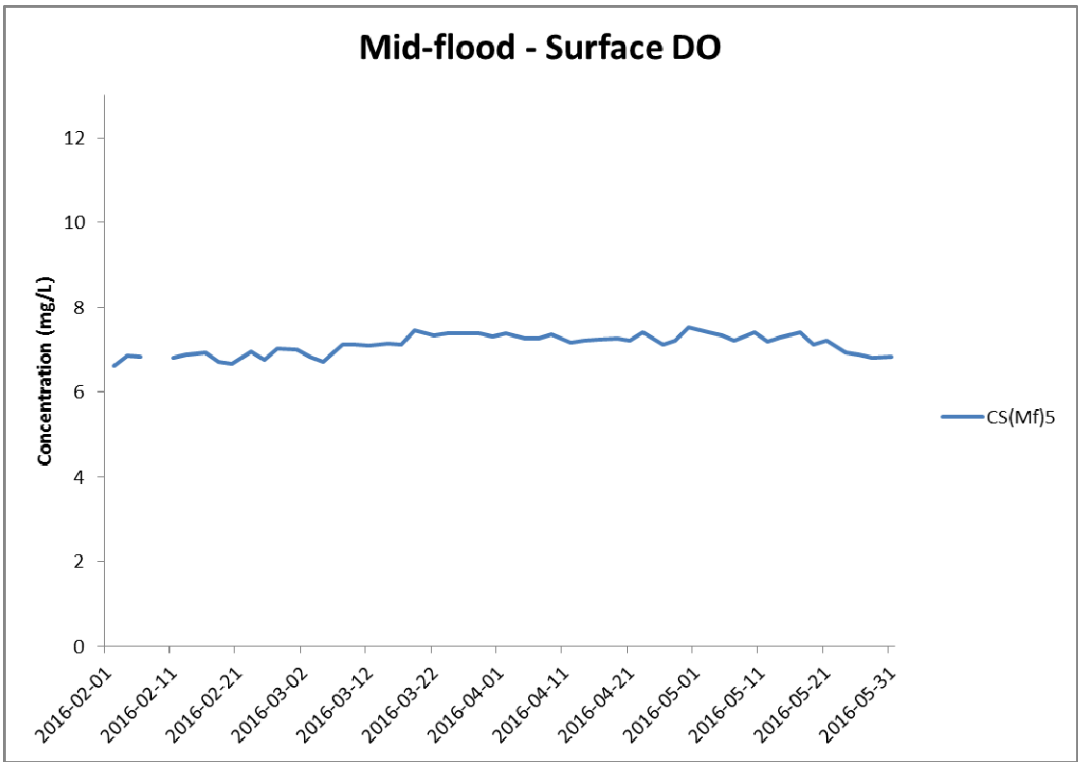
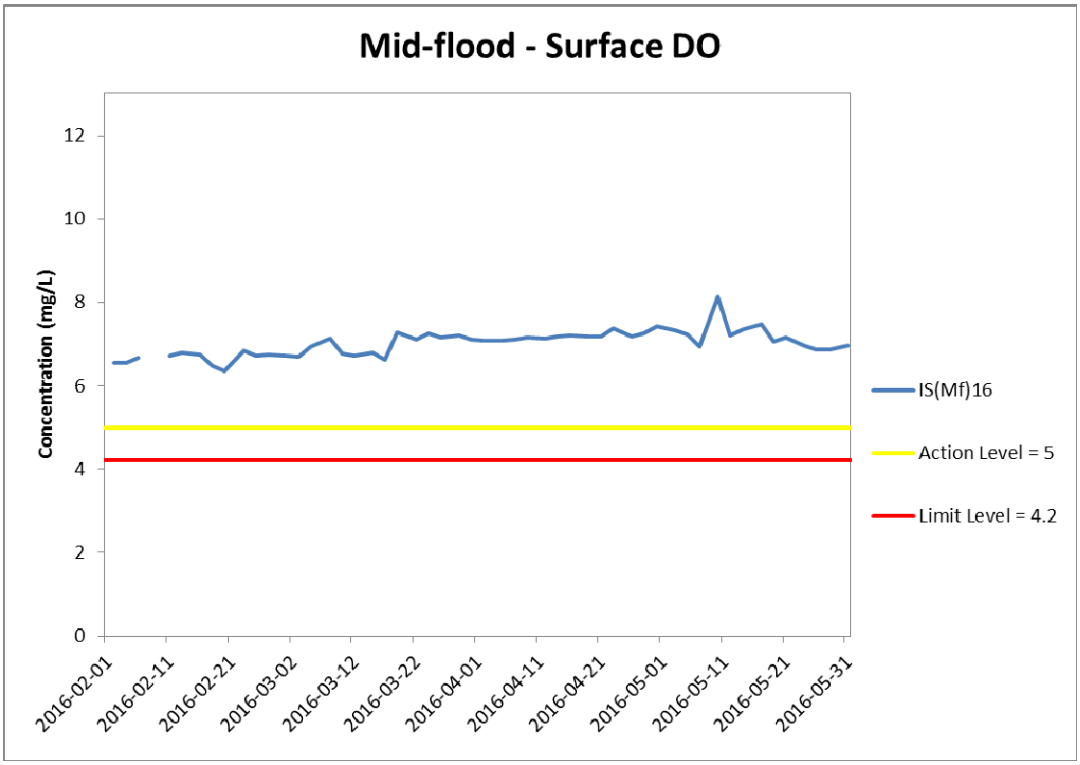


Figure J5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



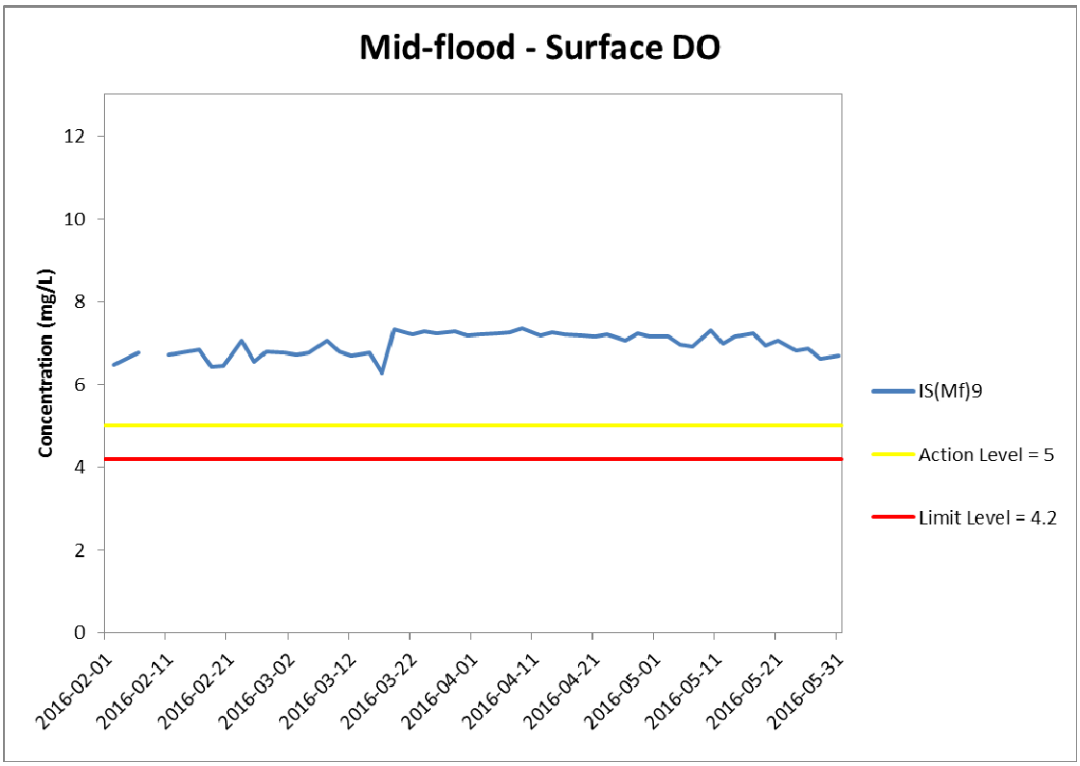
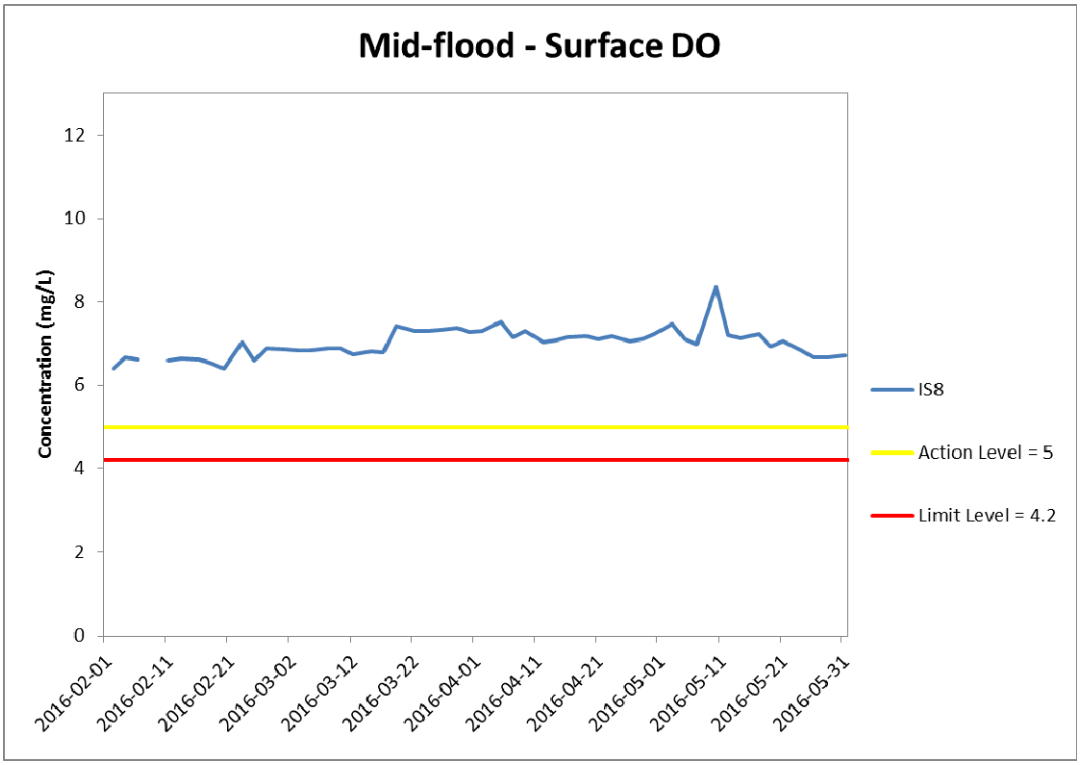


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head

Environmental Resources Management

ERM



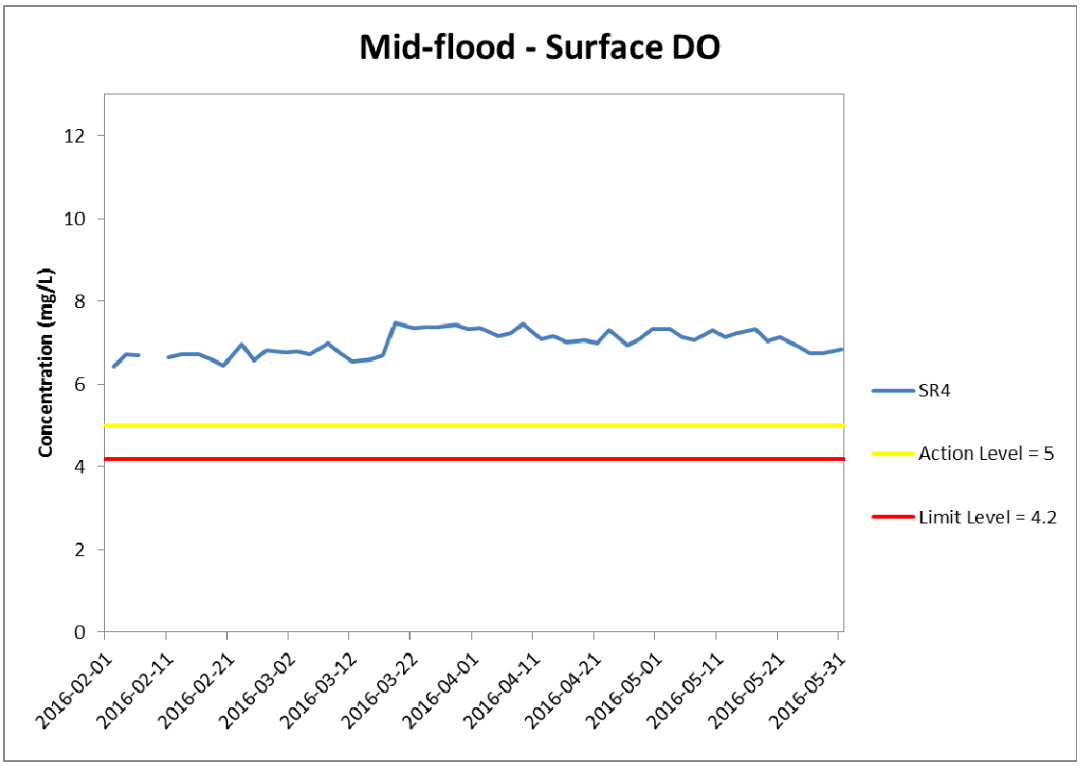


Figure J7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

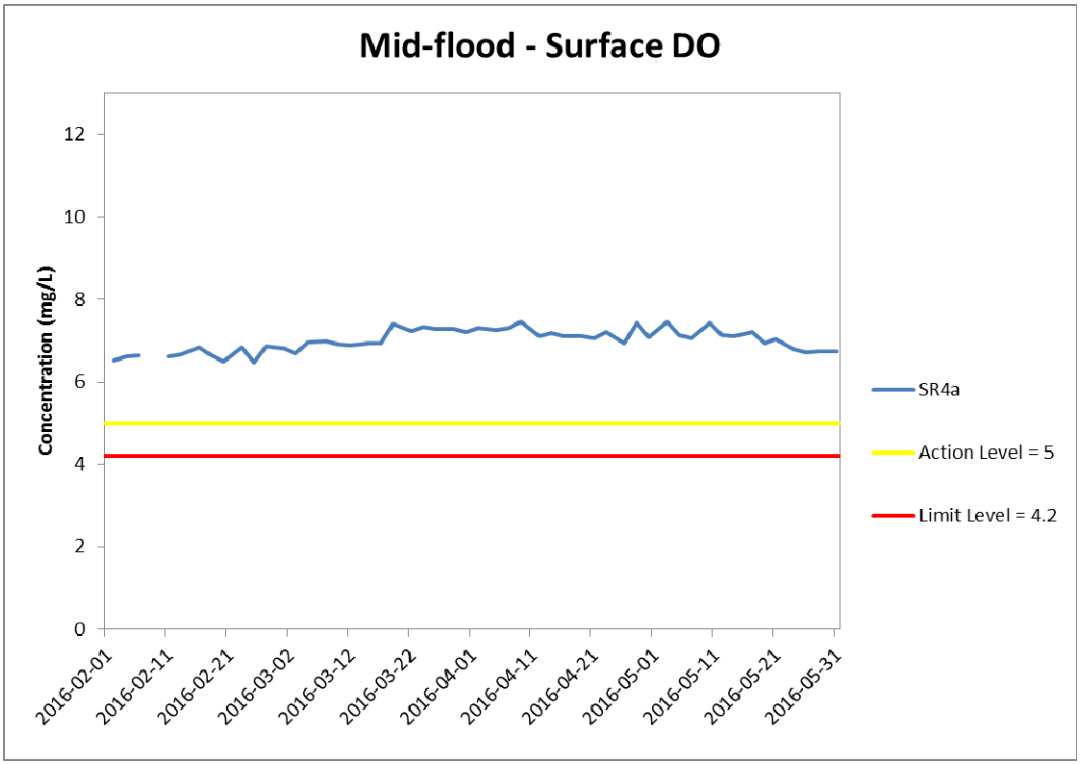
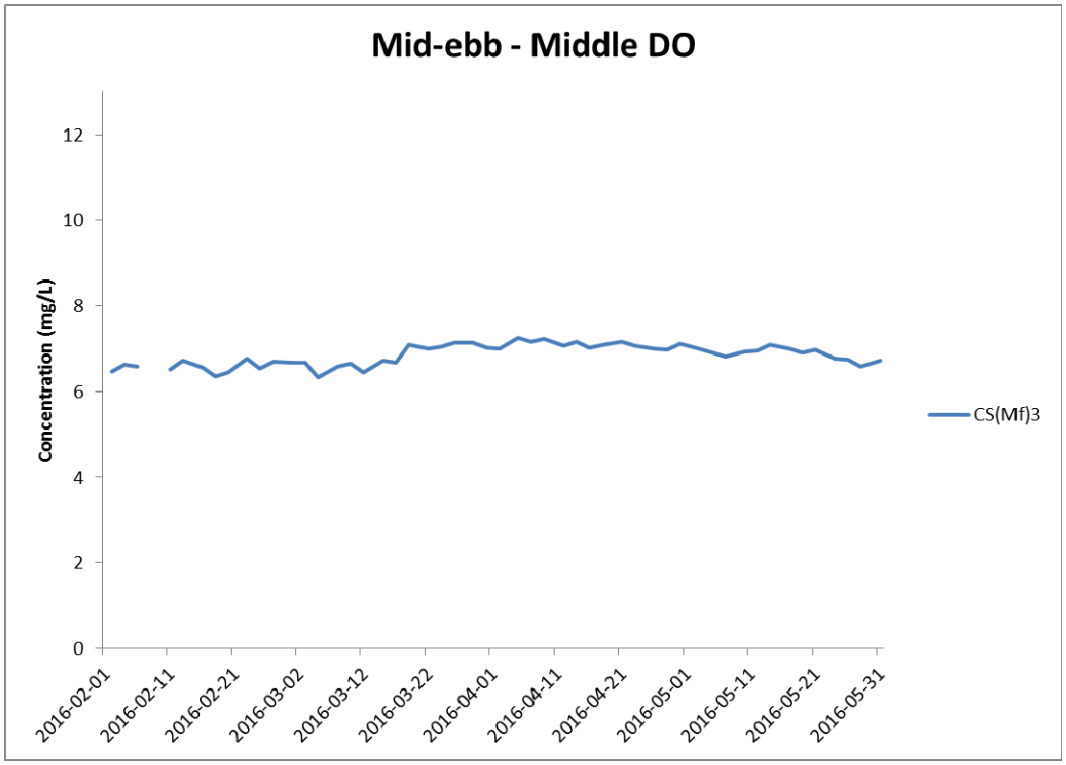


Figure J8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



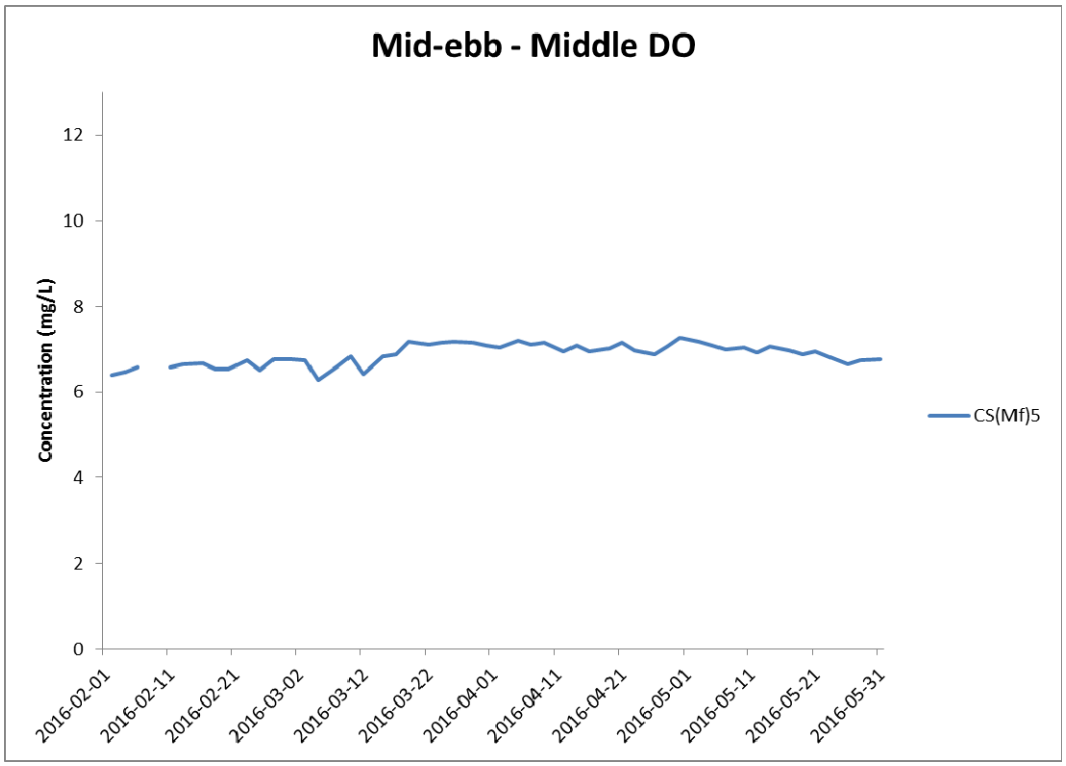


Figure J9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

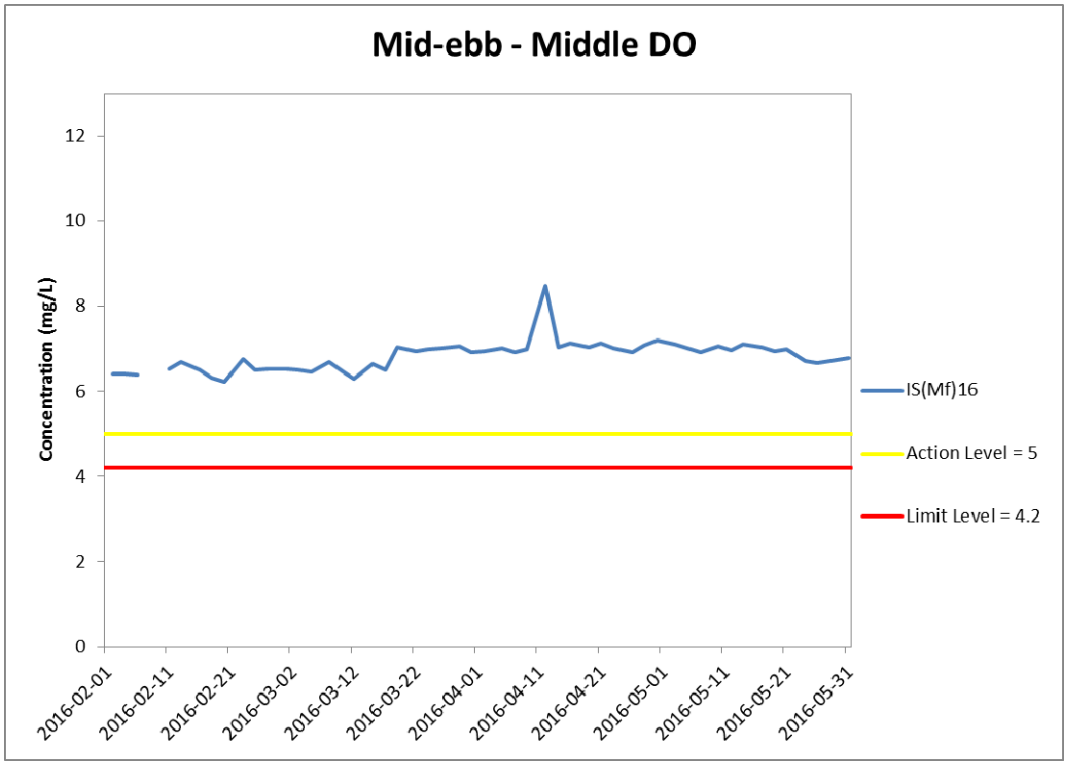
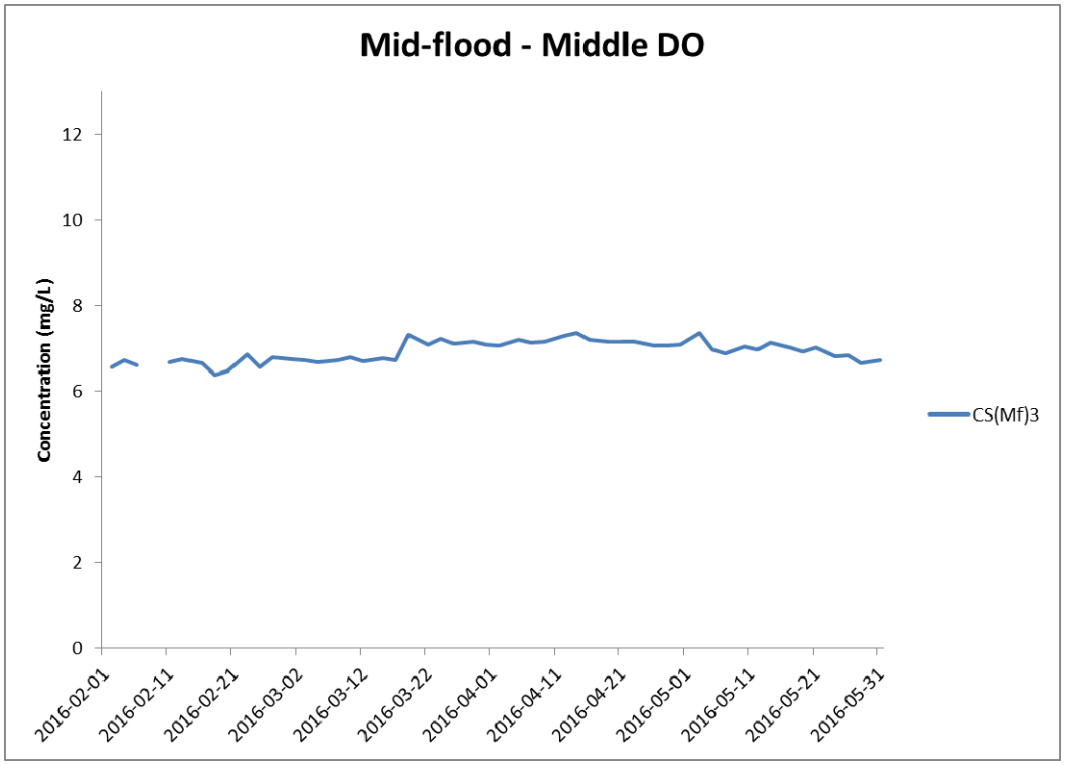


Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 February and 31 May 2016 at IS(Mf)16.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



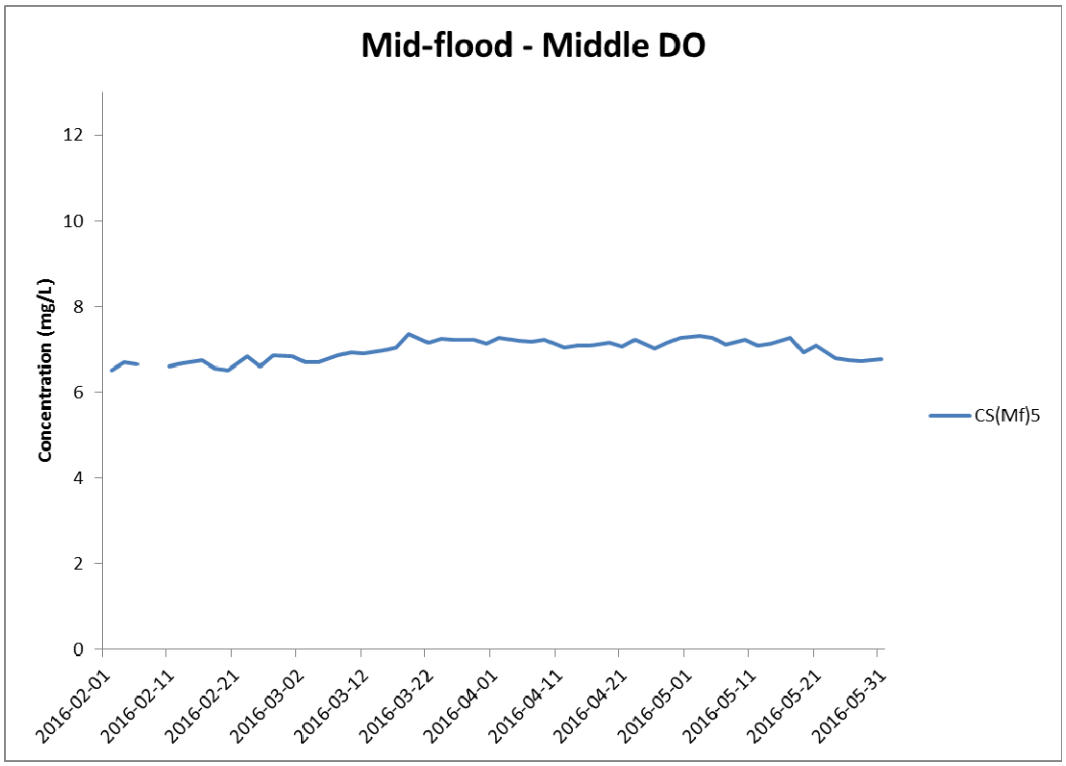


Figure J11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

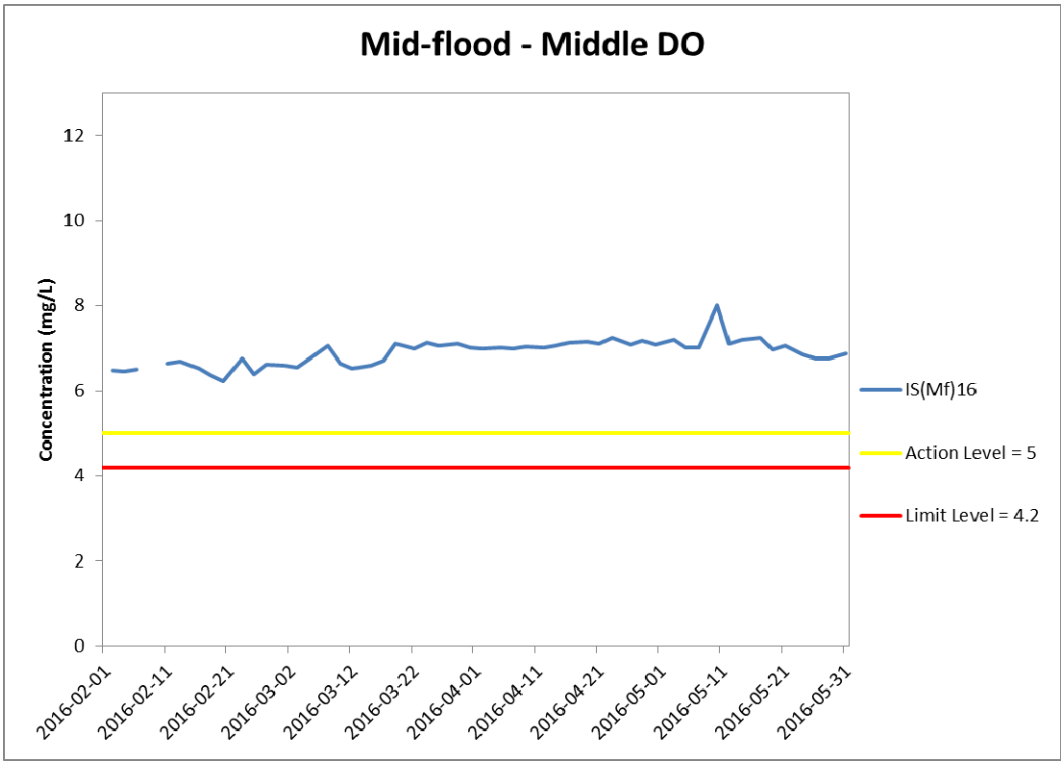
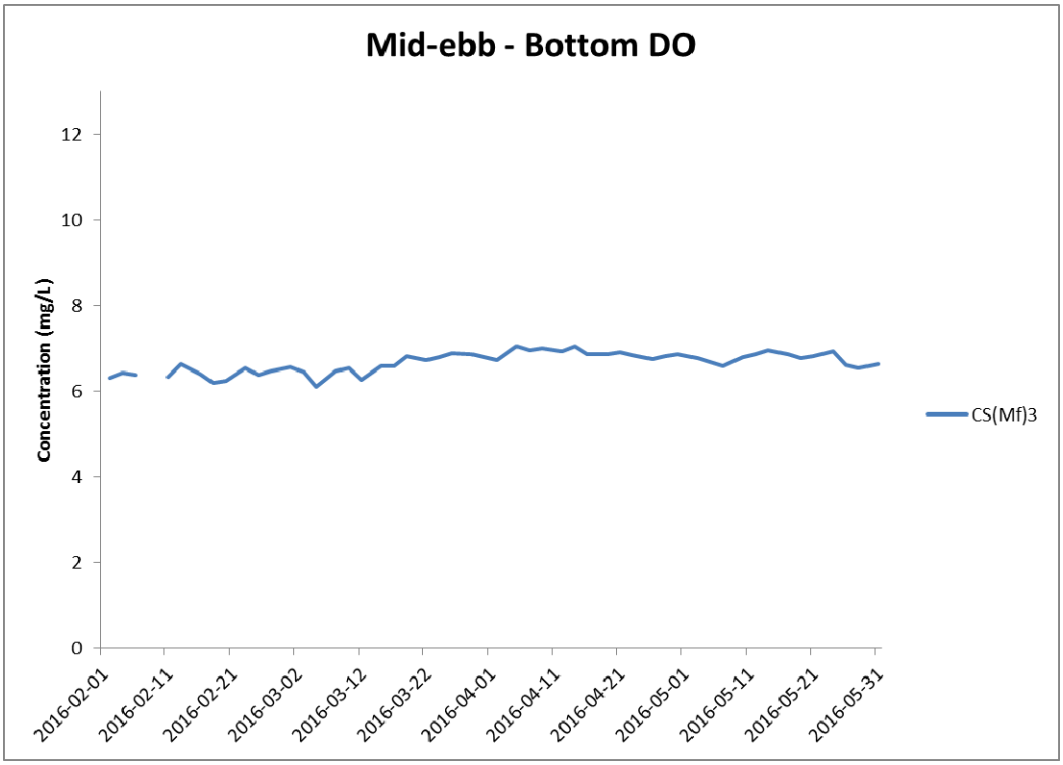


Figure J12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 February and 31 May 2016 at IS(Mf)16.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



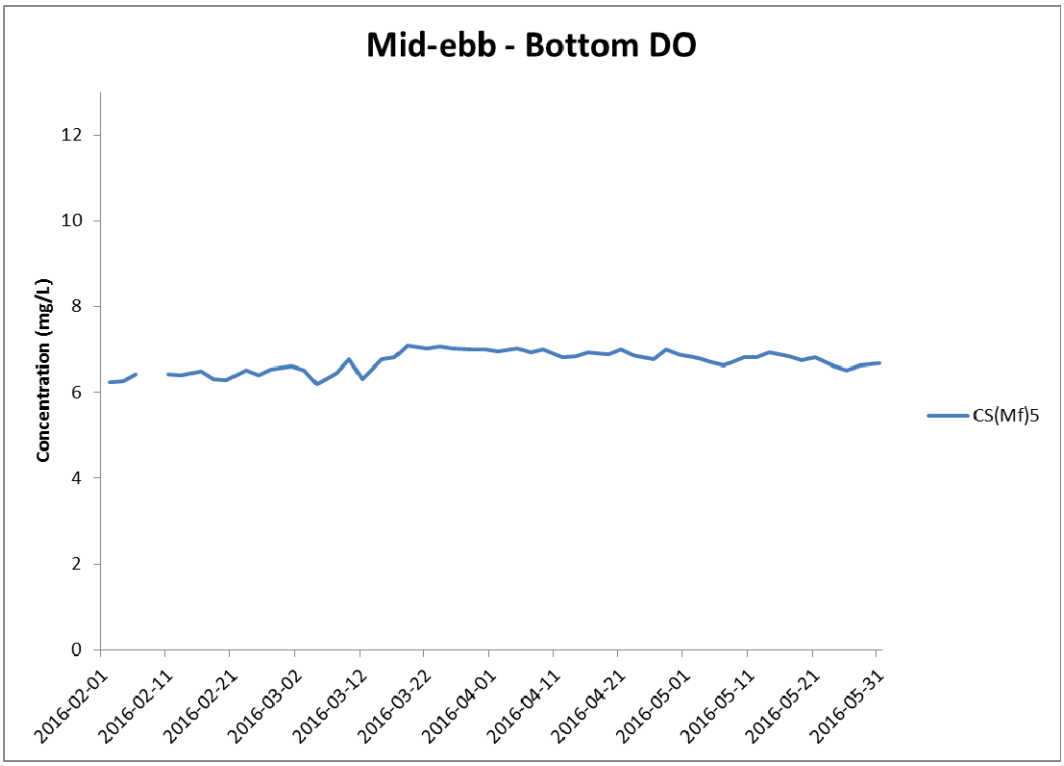
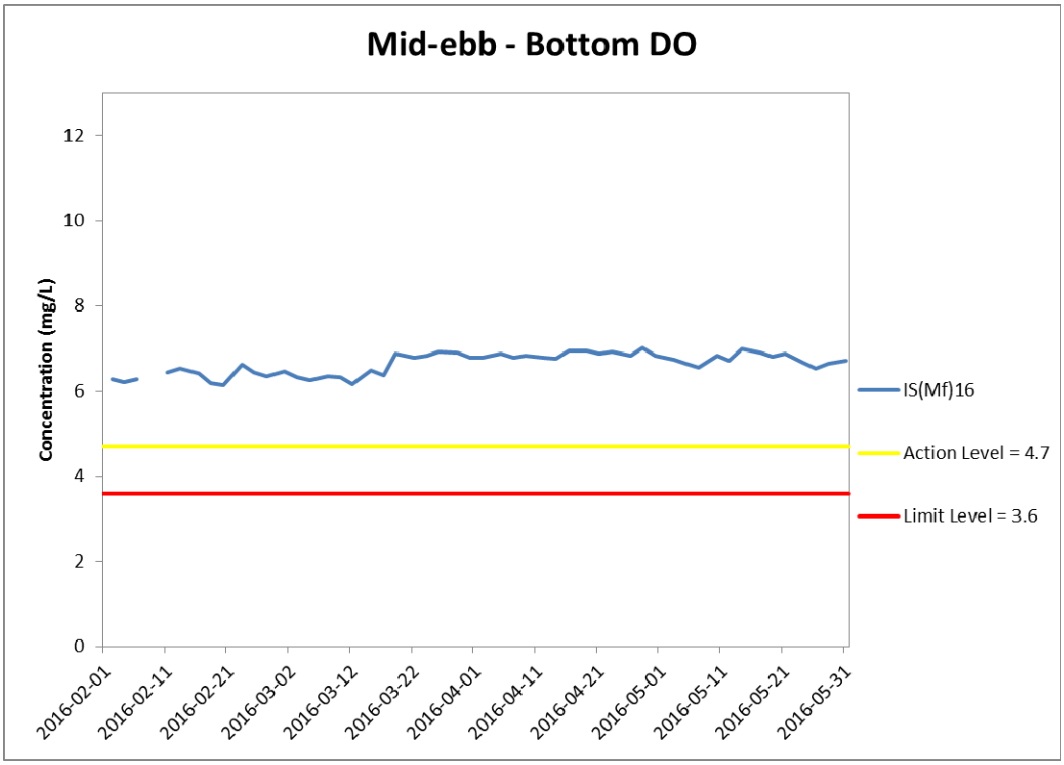


Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



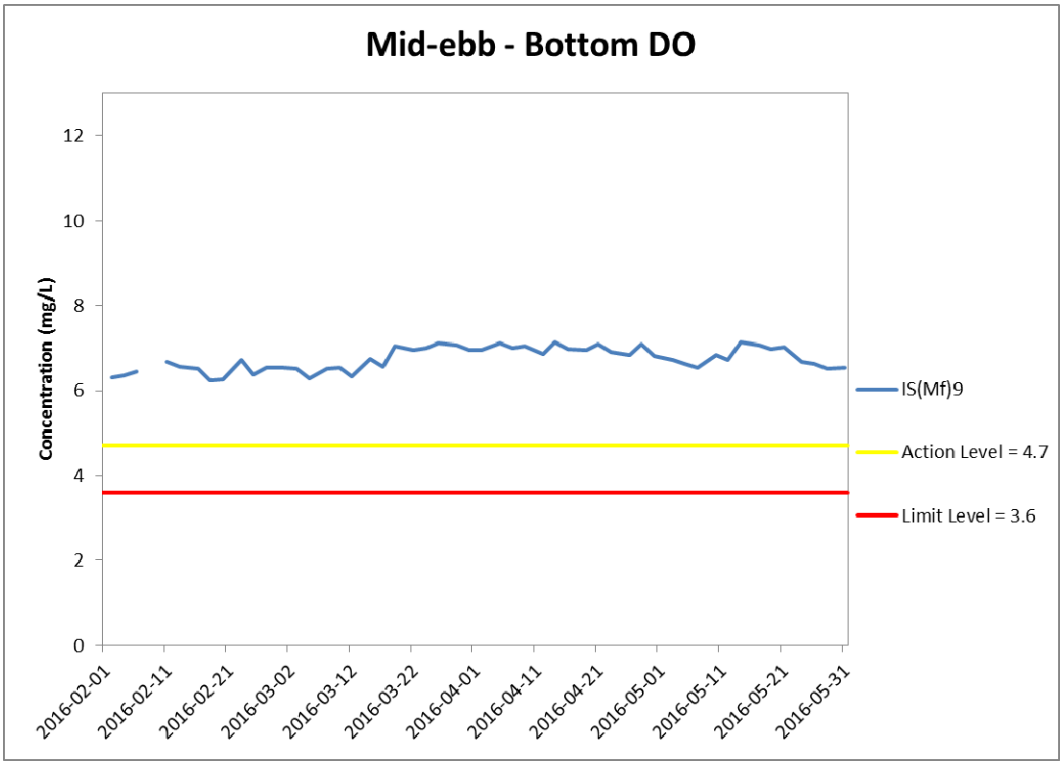
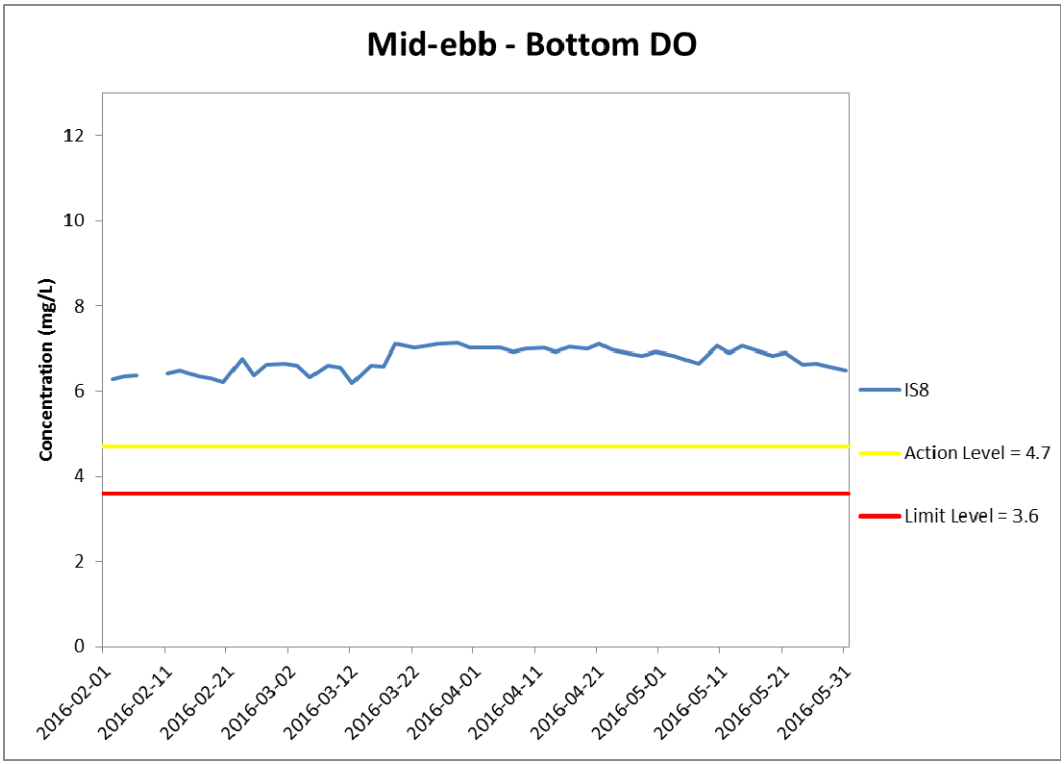


Figure J14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



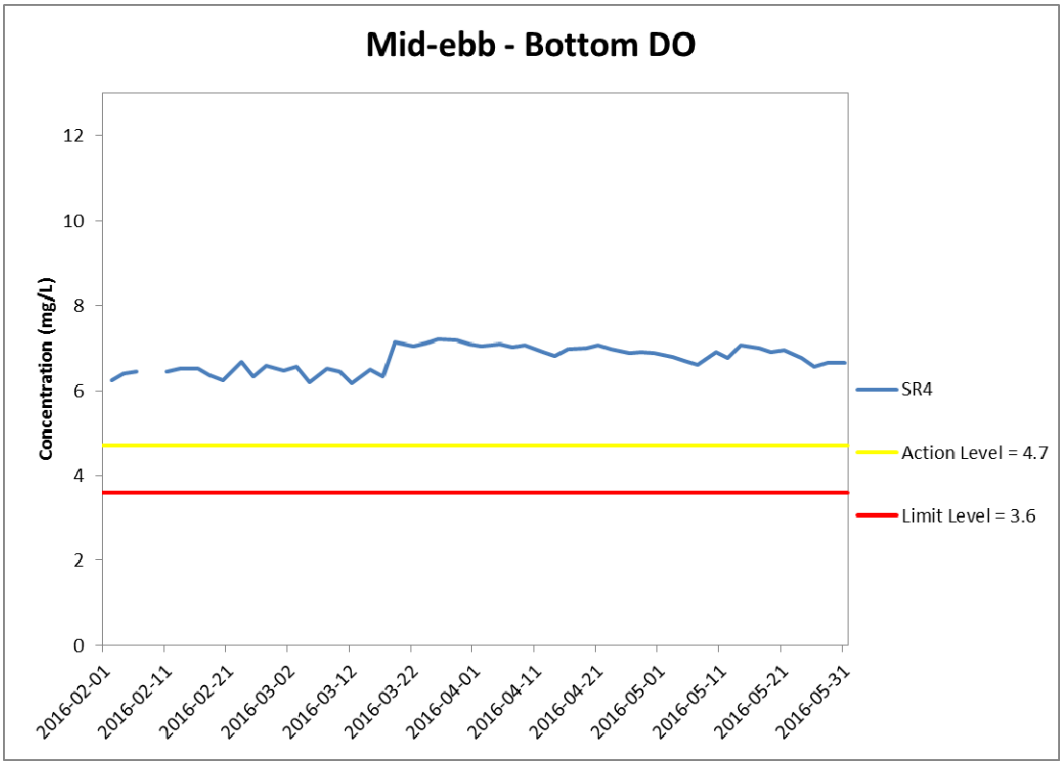


Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

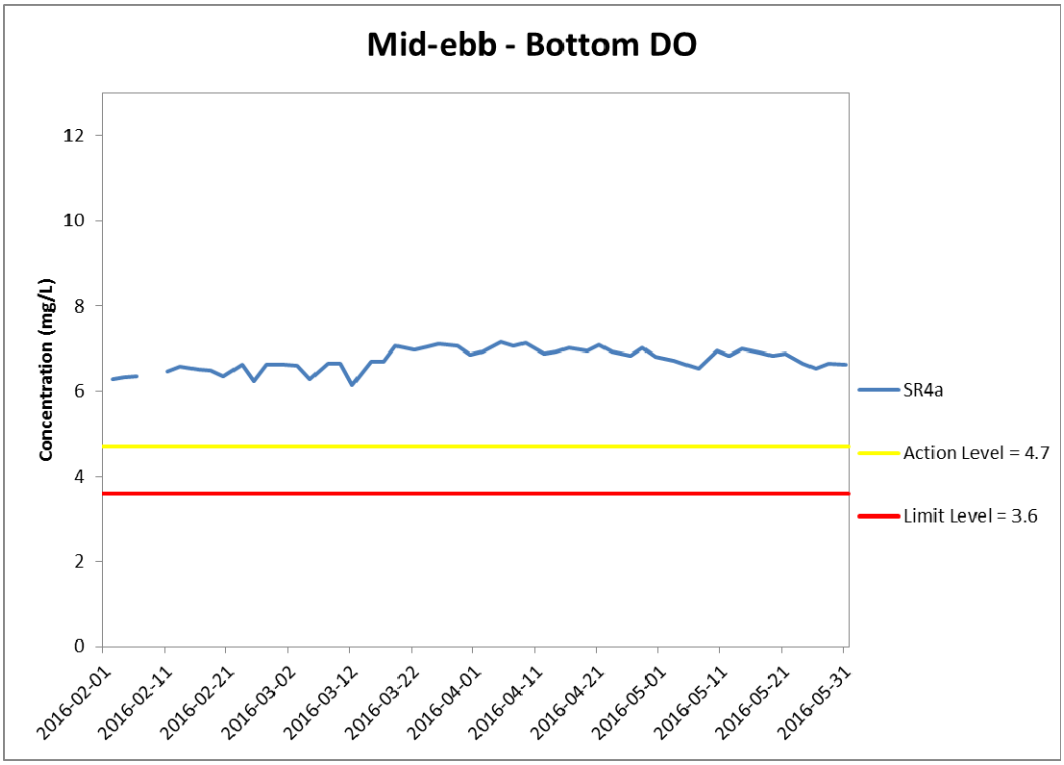
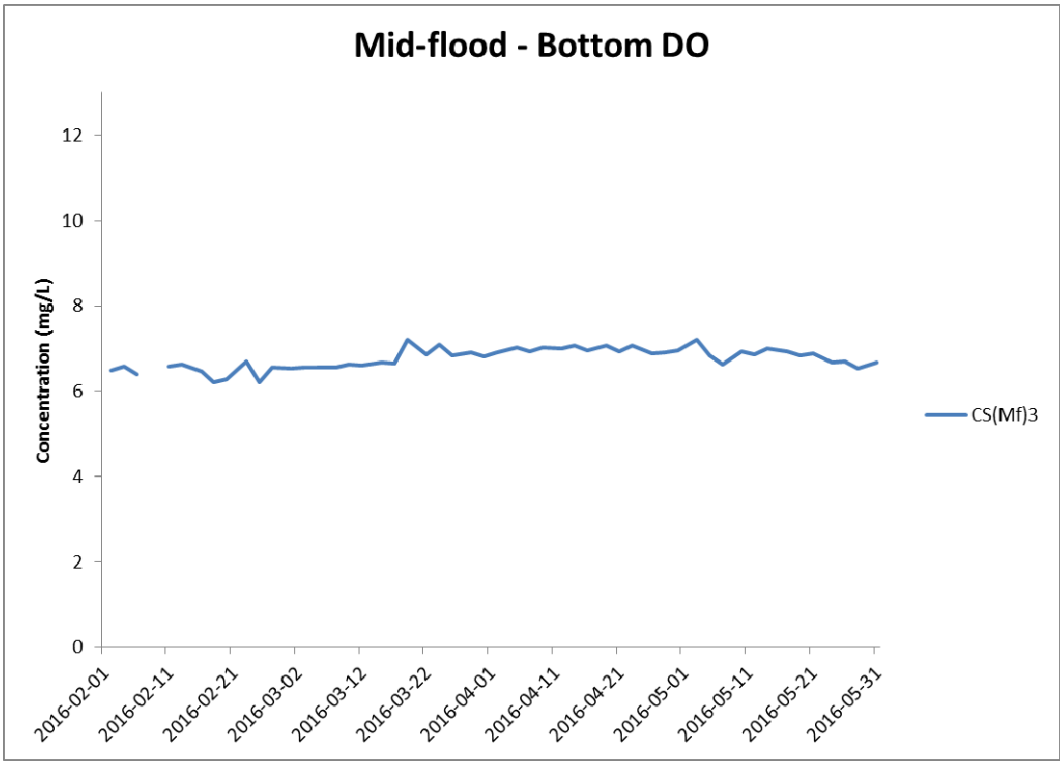


Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



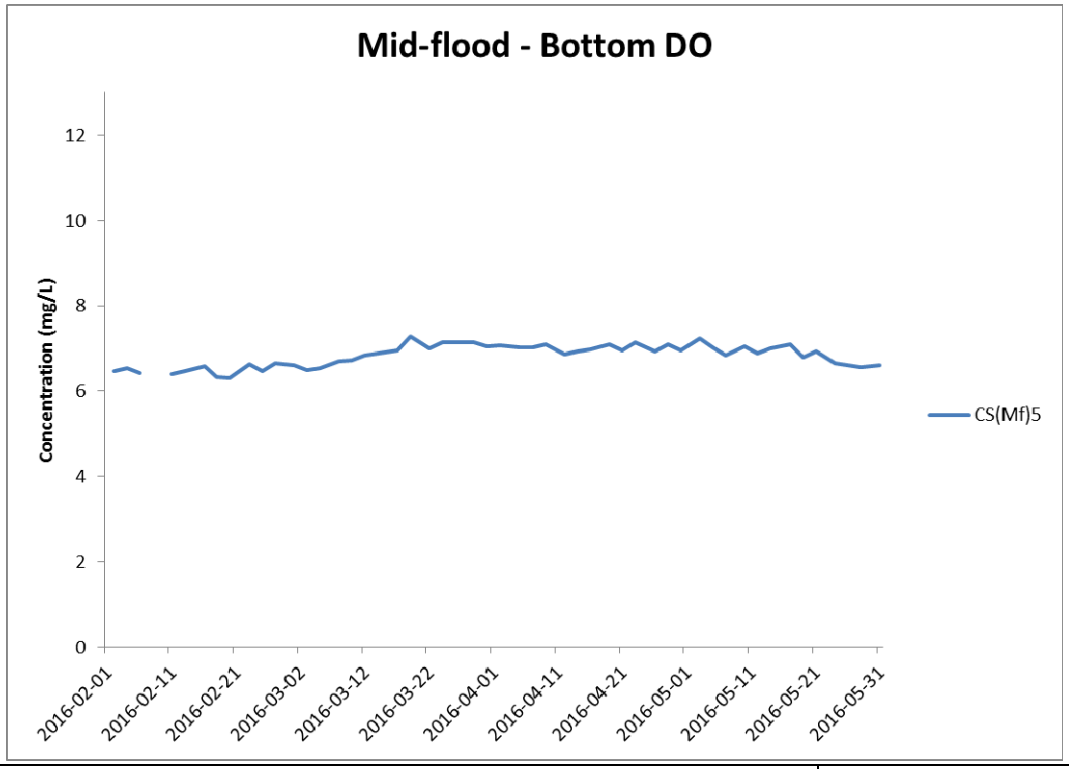
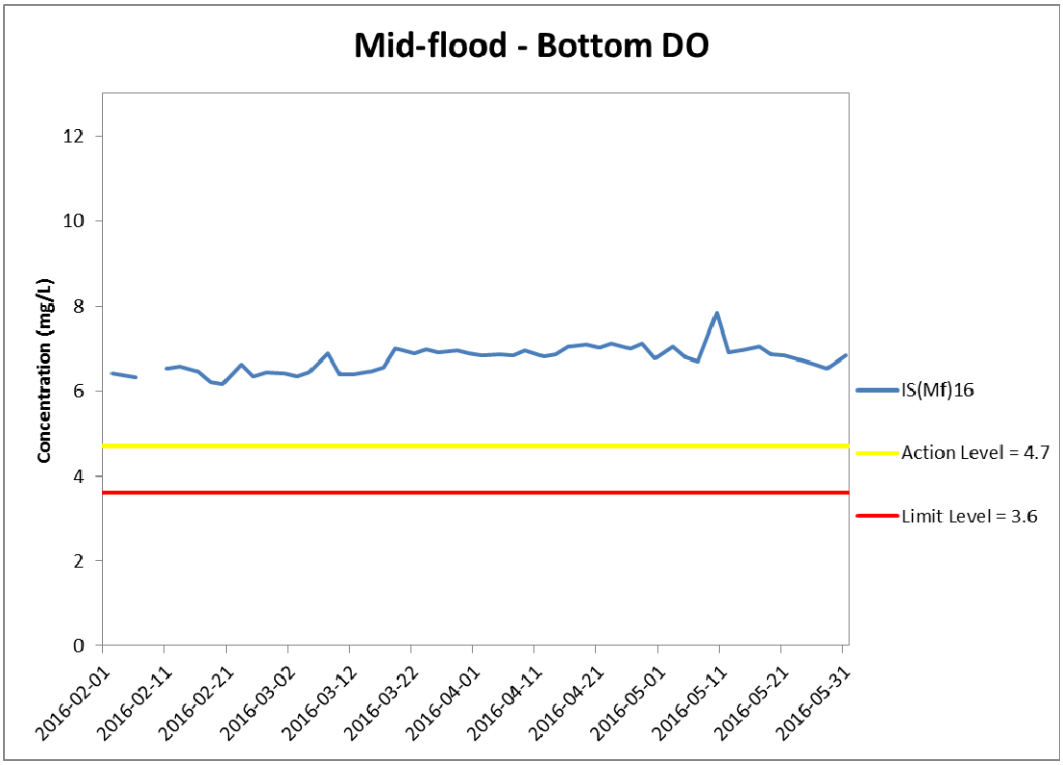


Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



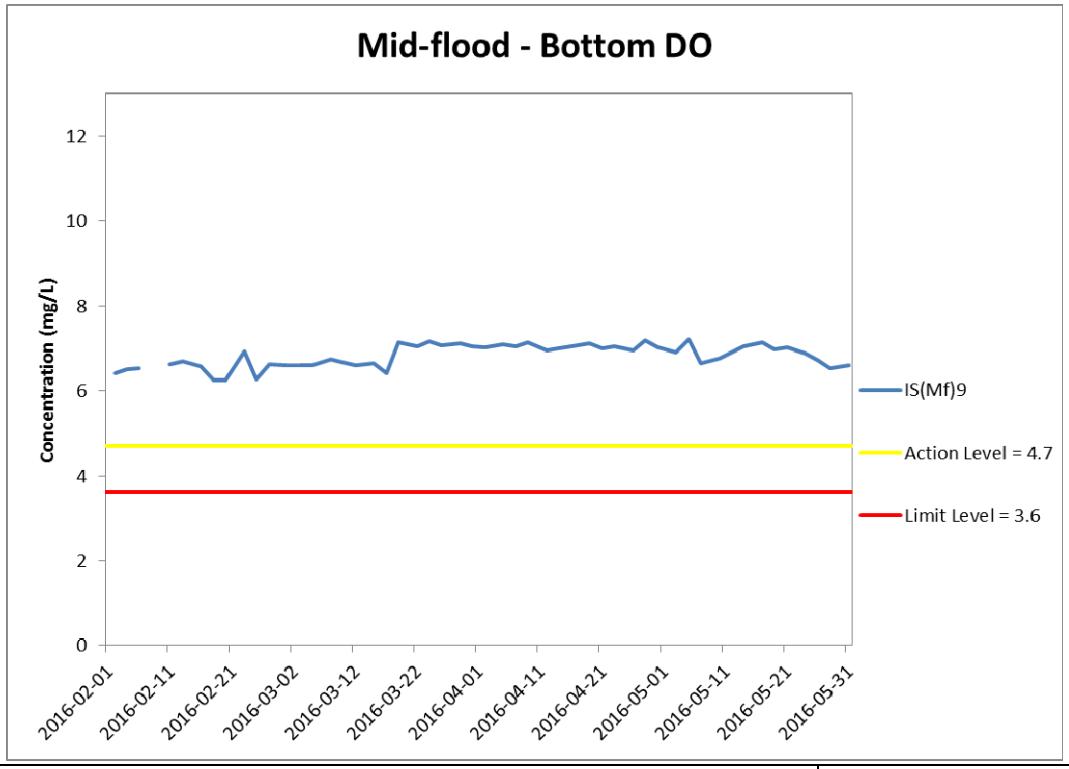
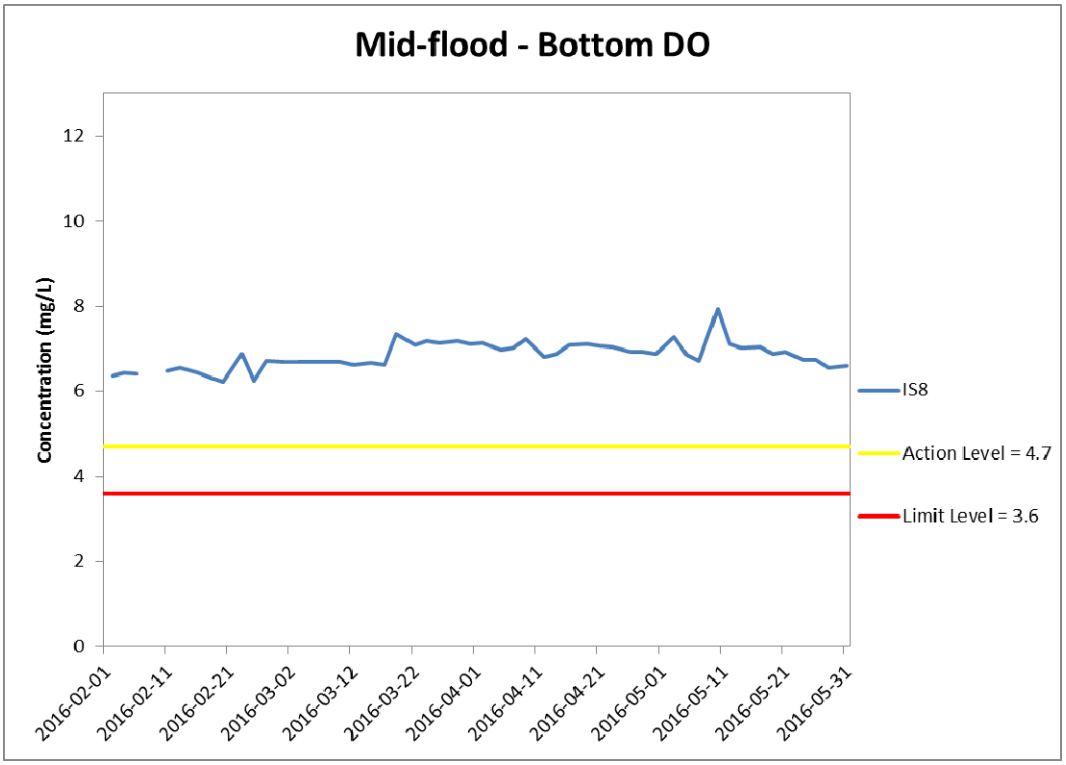


Figure J18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



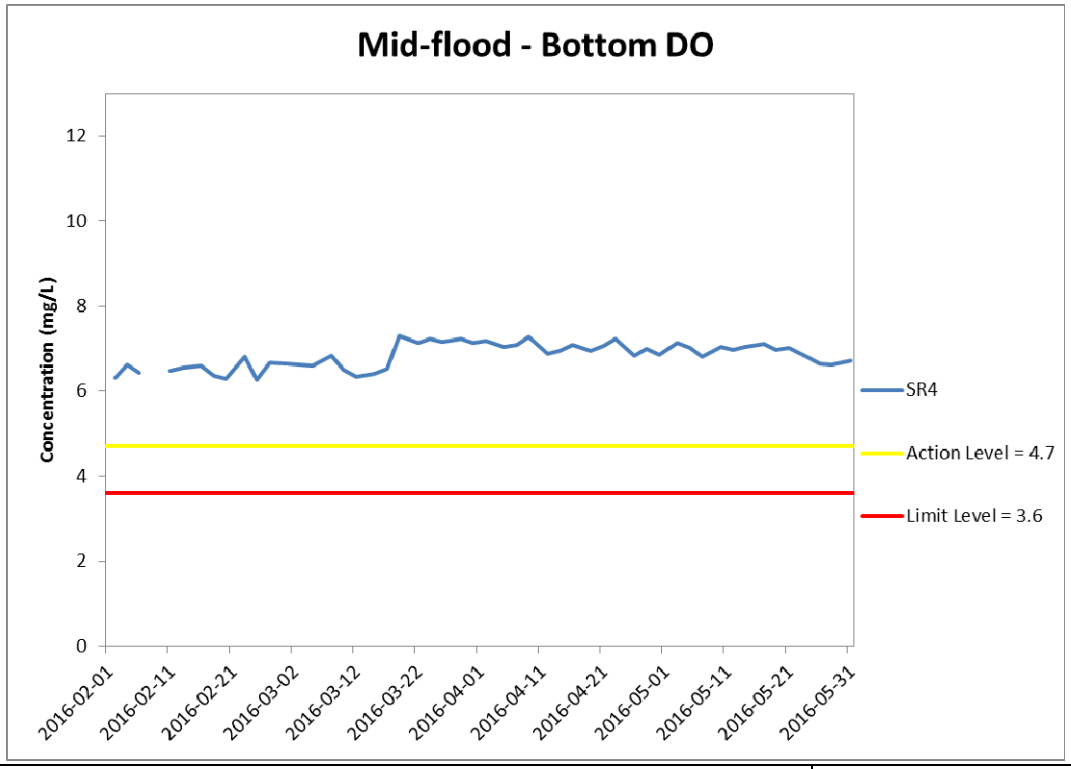


Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

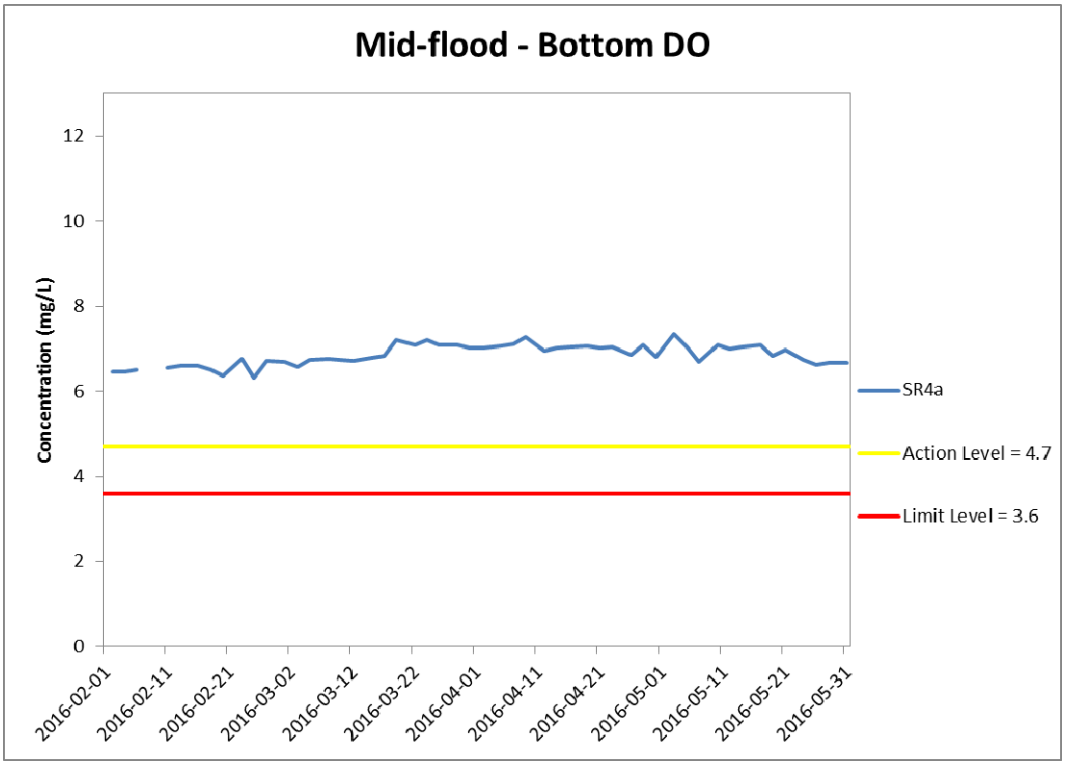
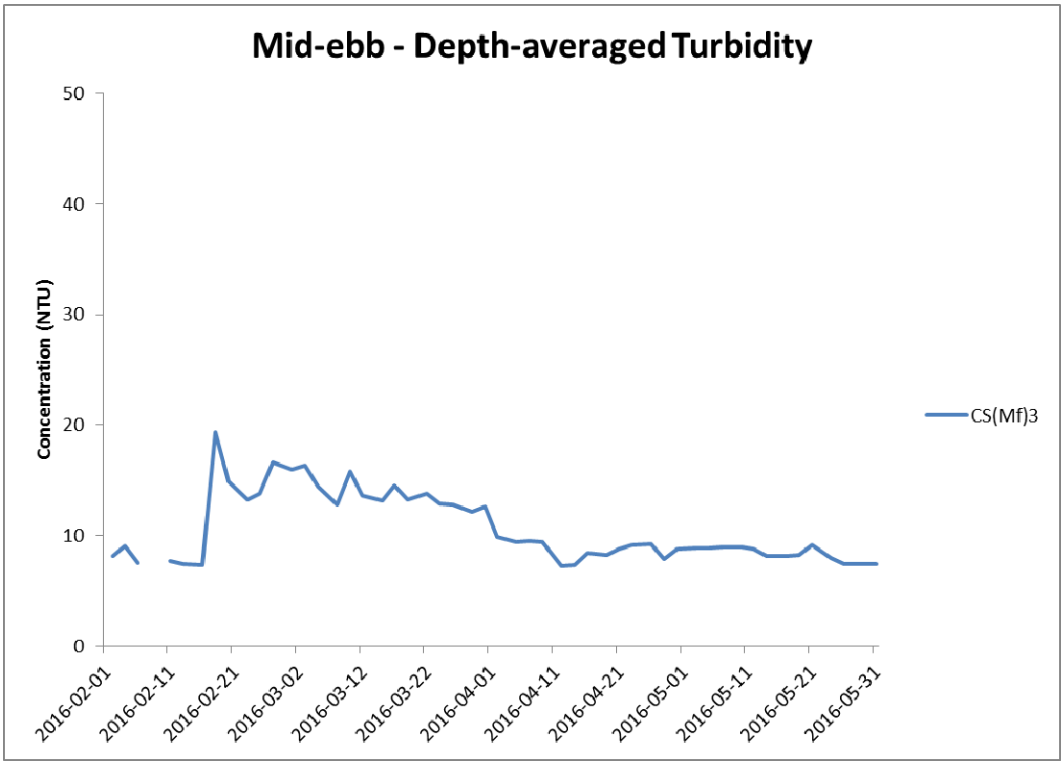


Figure J20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



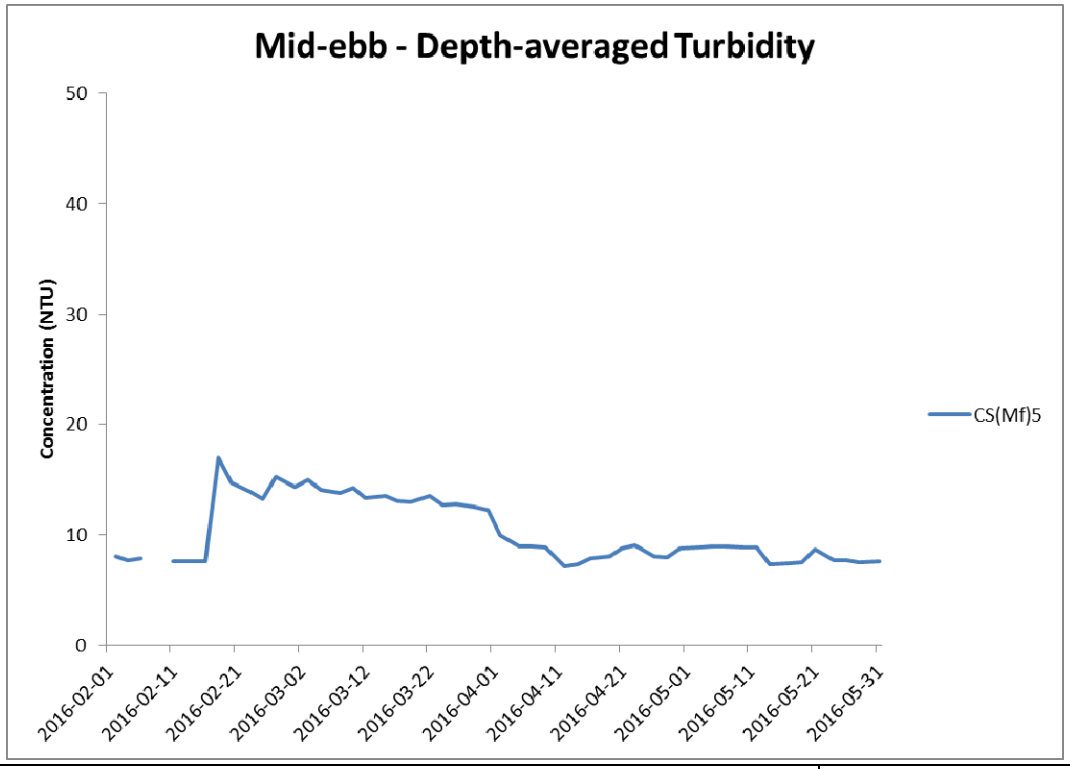
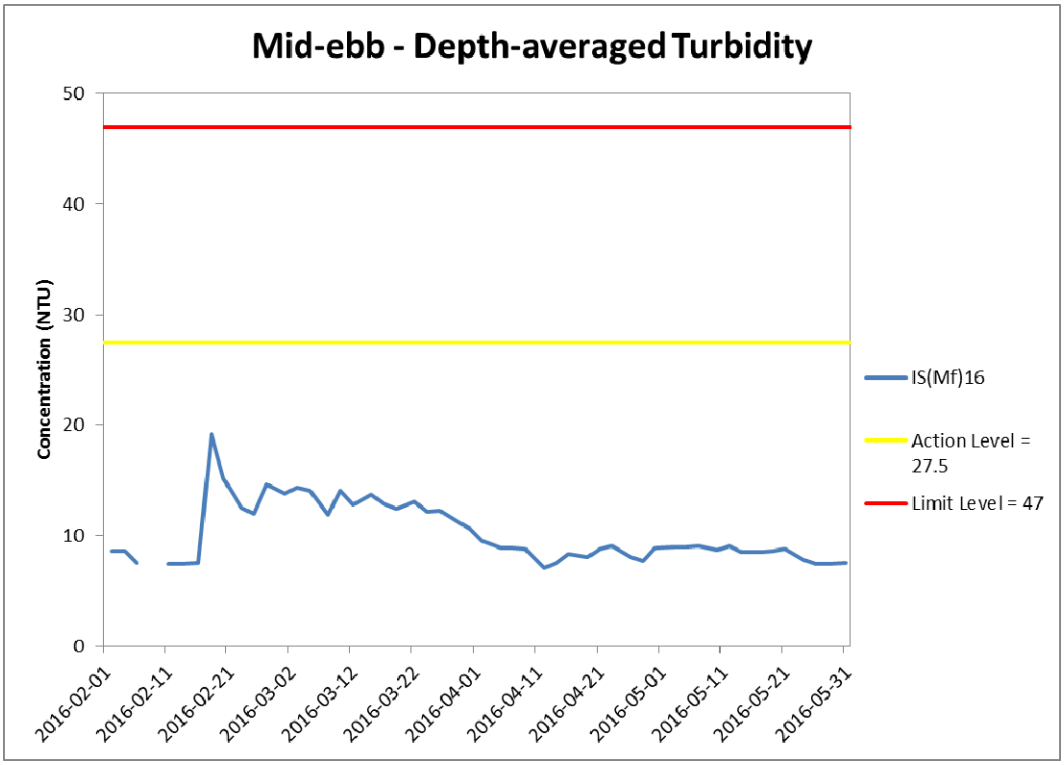


Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



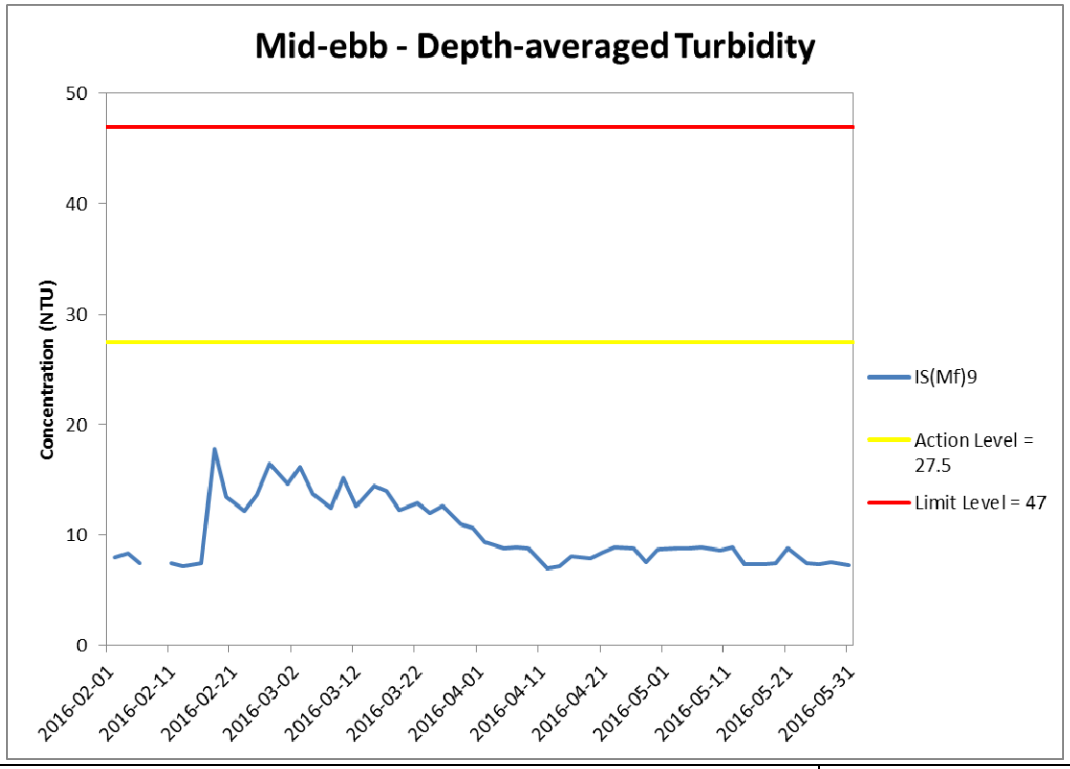
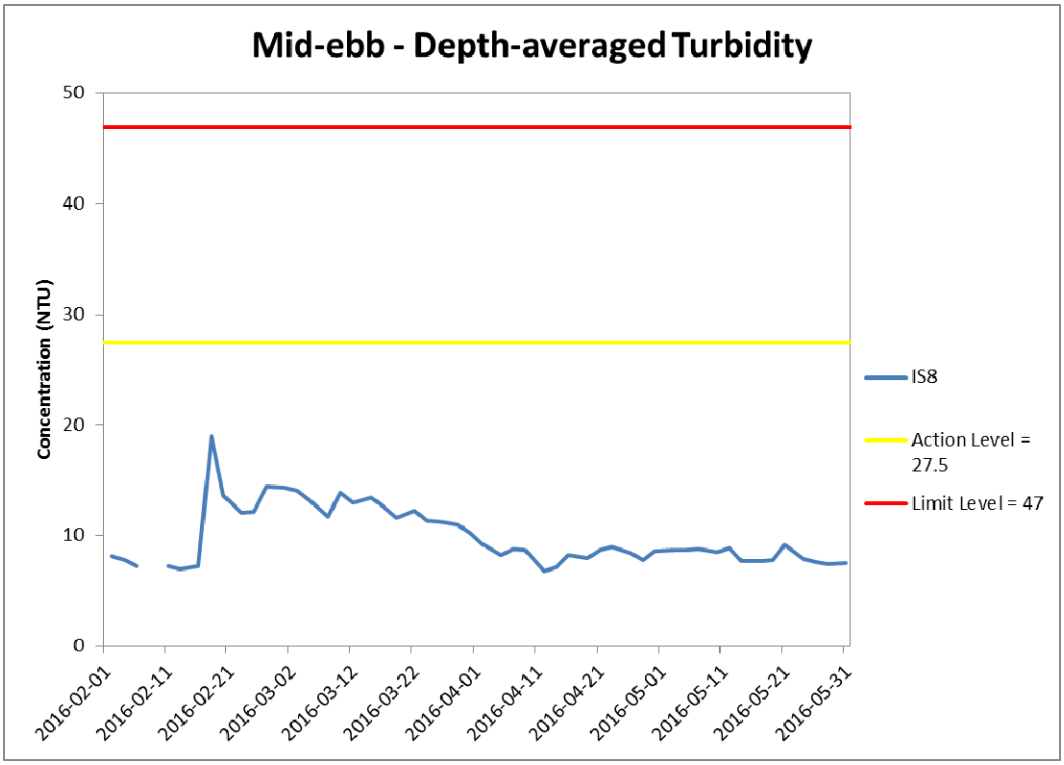


Figure J22 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



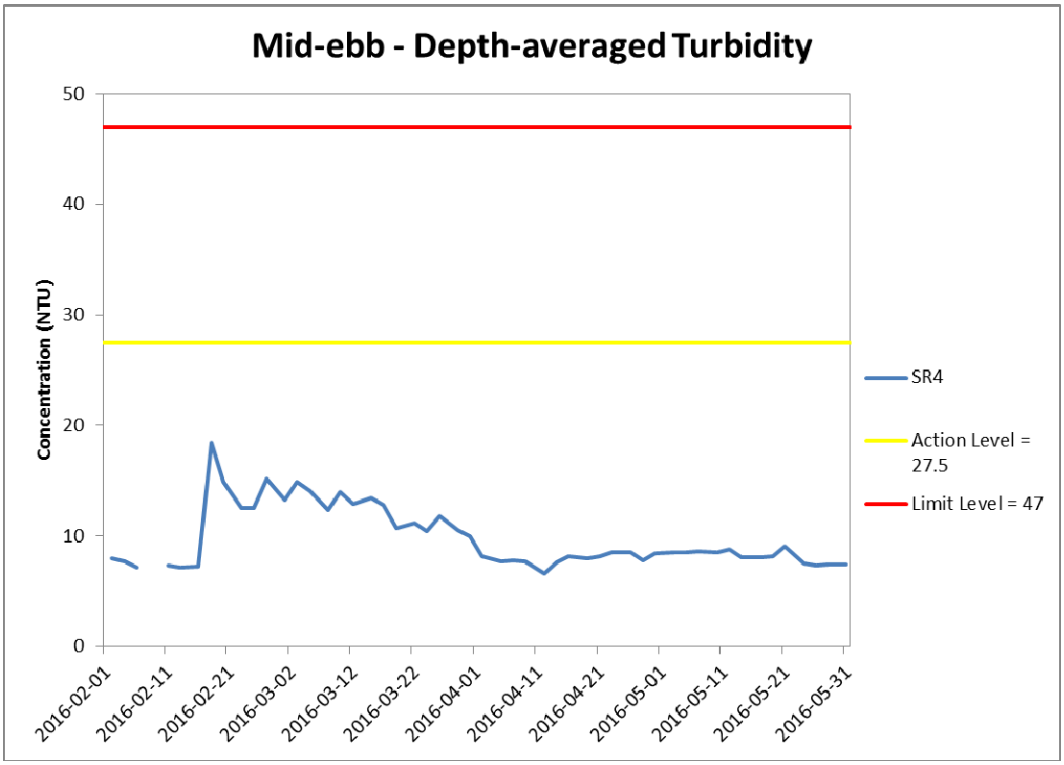


Figure J23 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

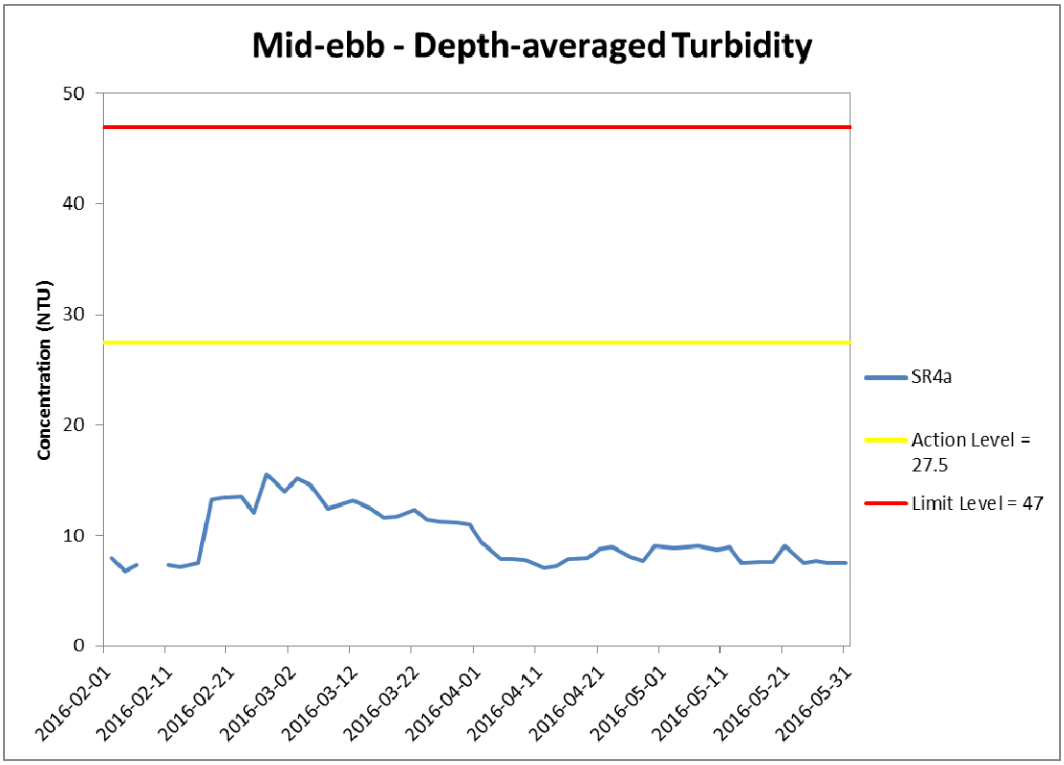
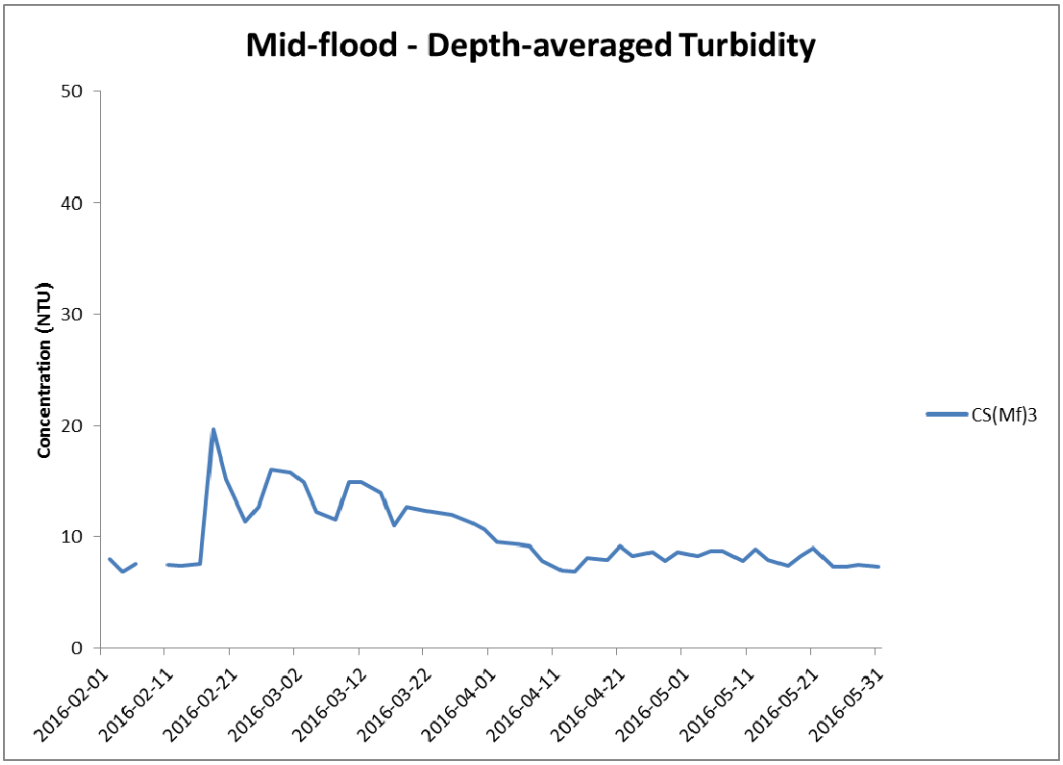


Figure J24 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



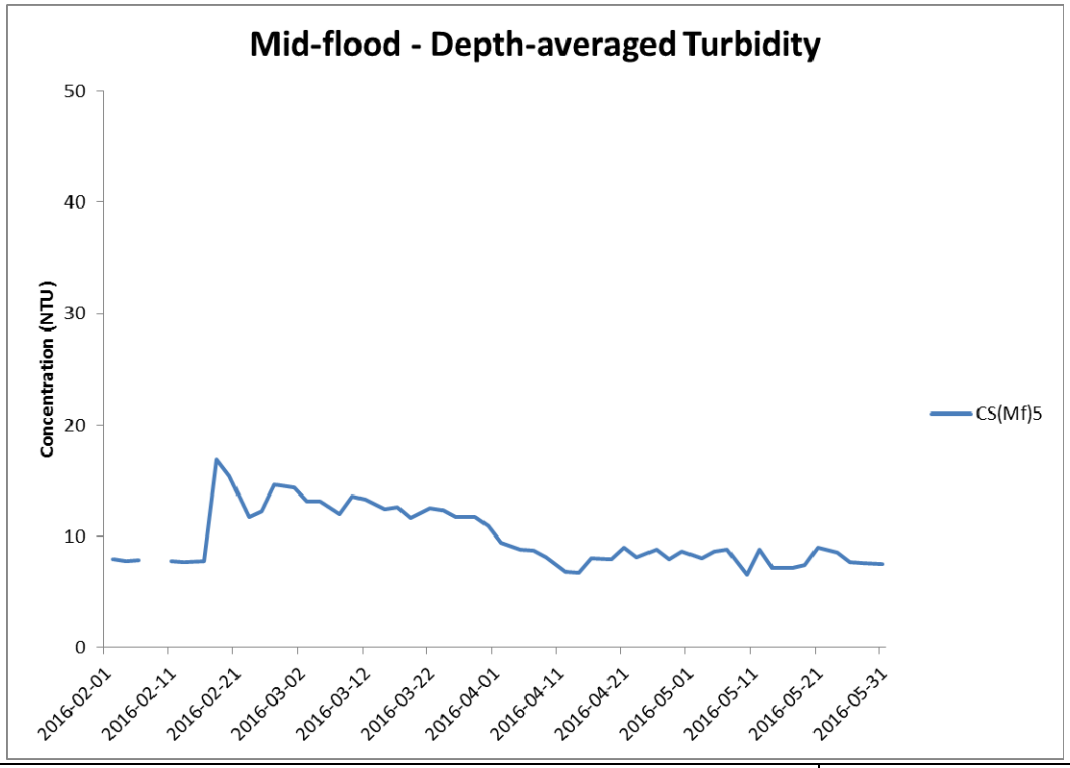
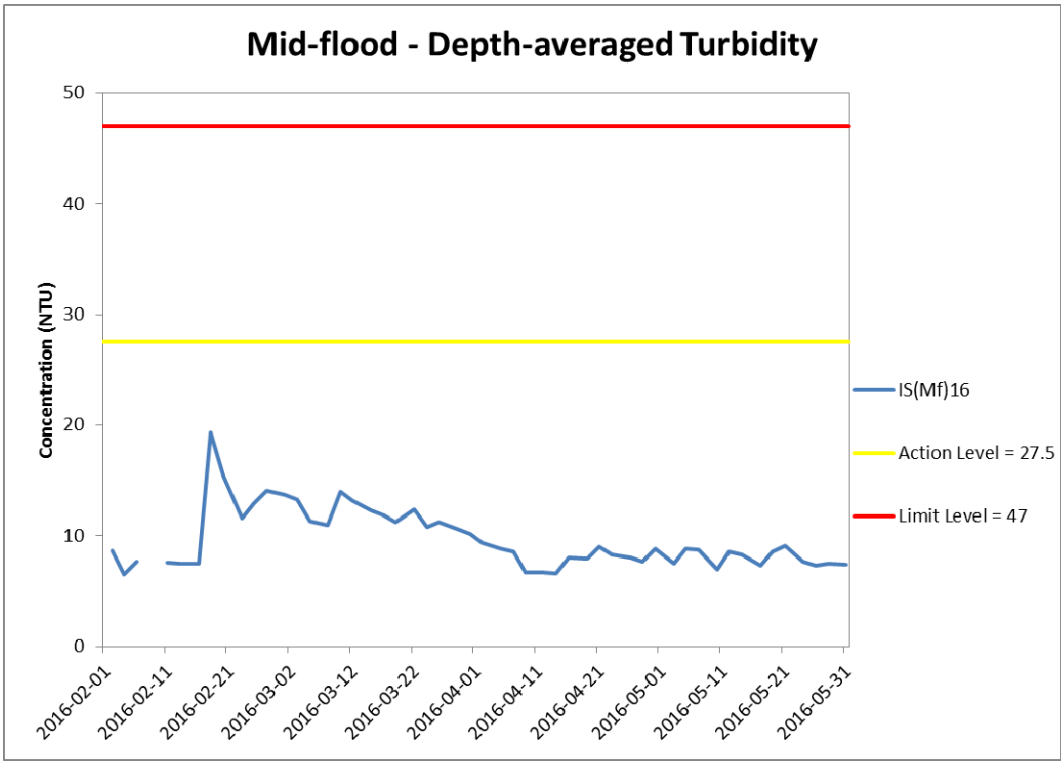


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(MF)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



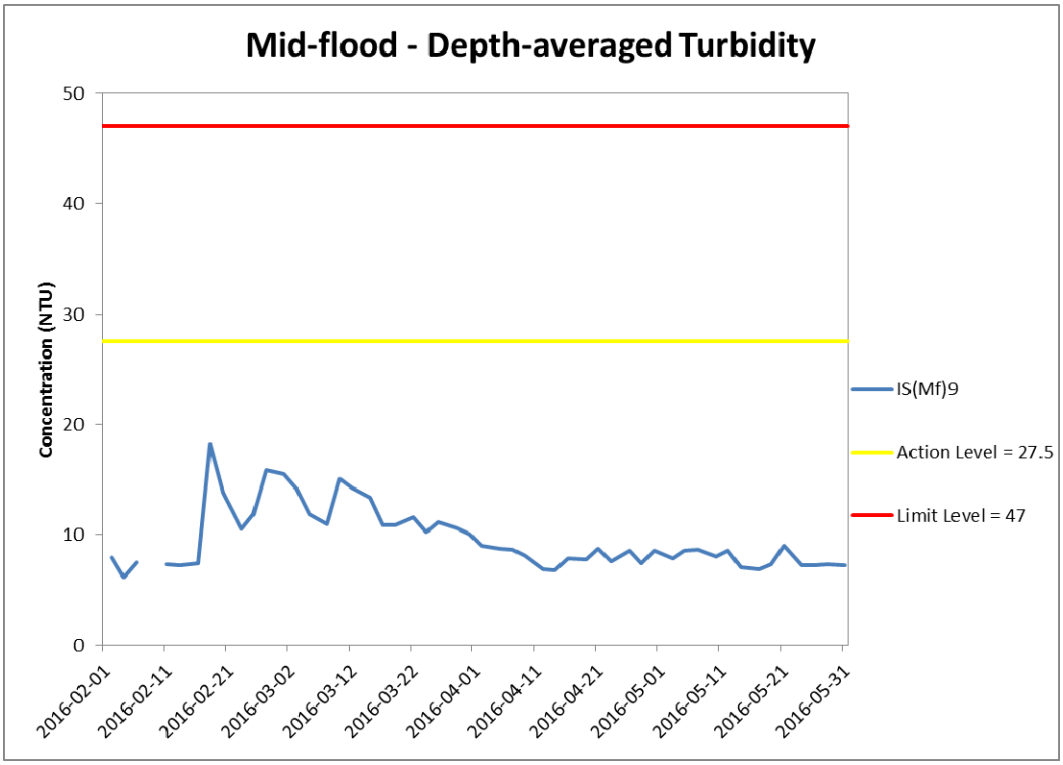
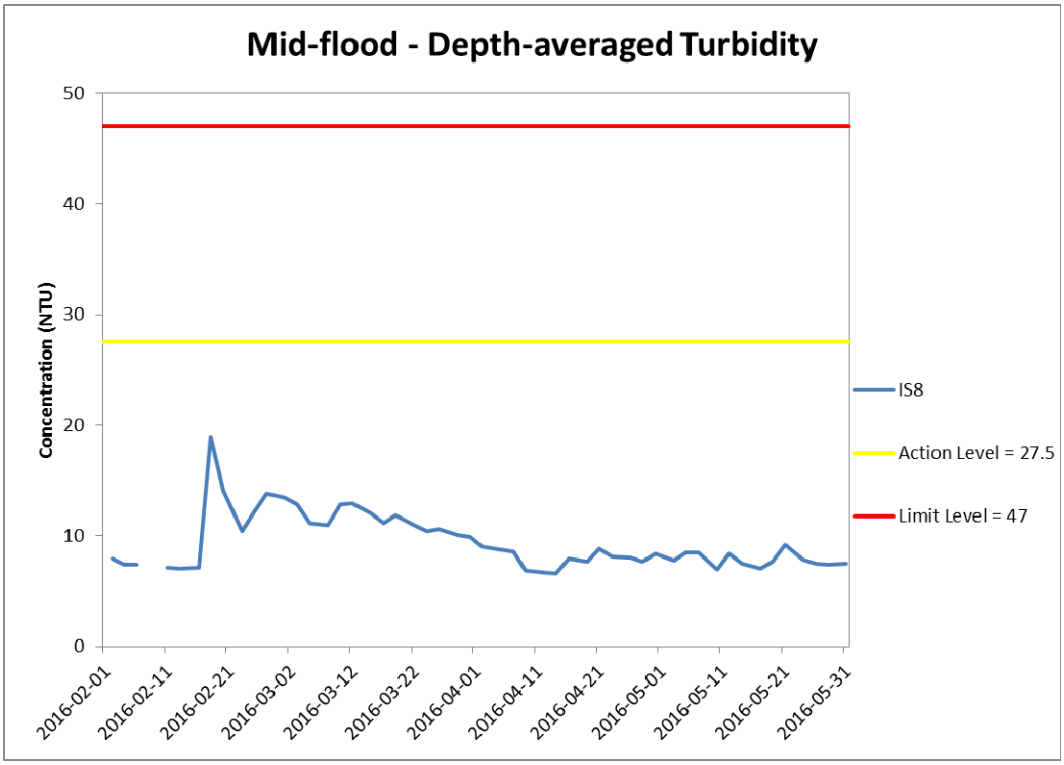


Figure J26 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.



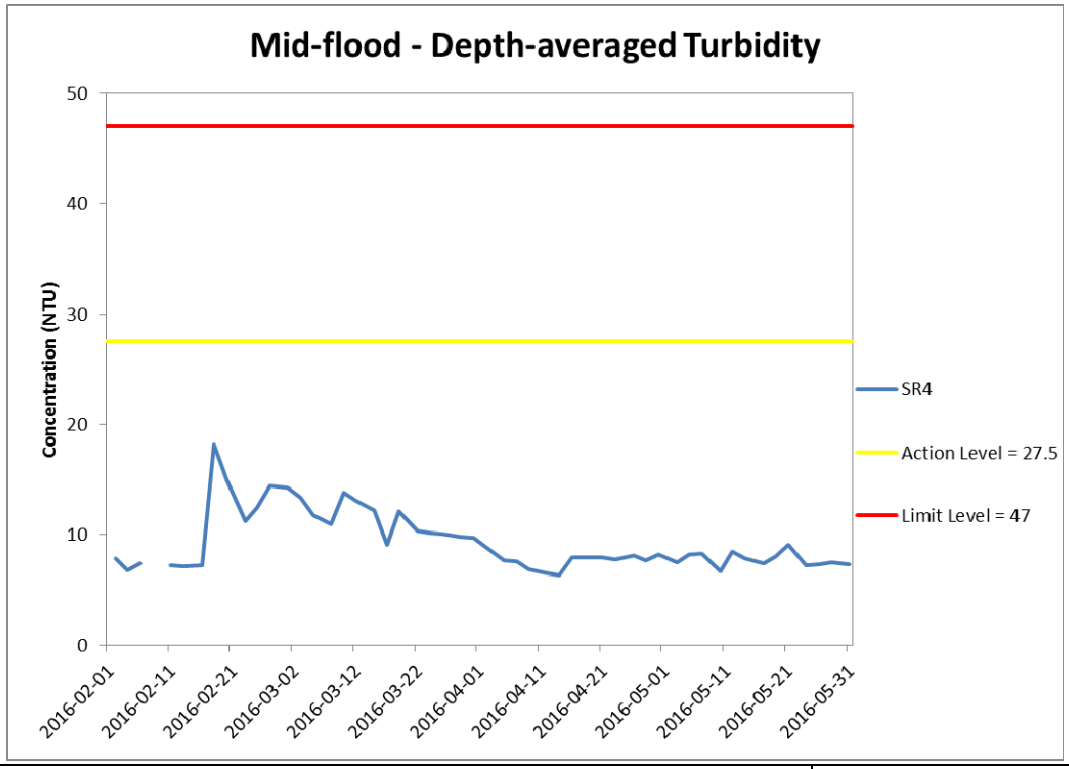


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

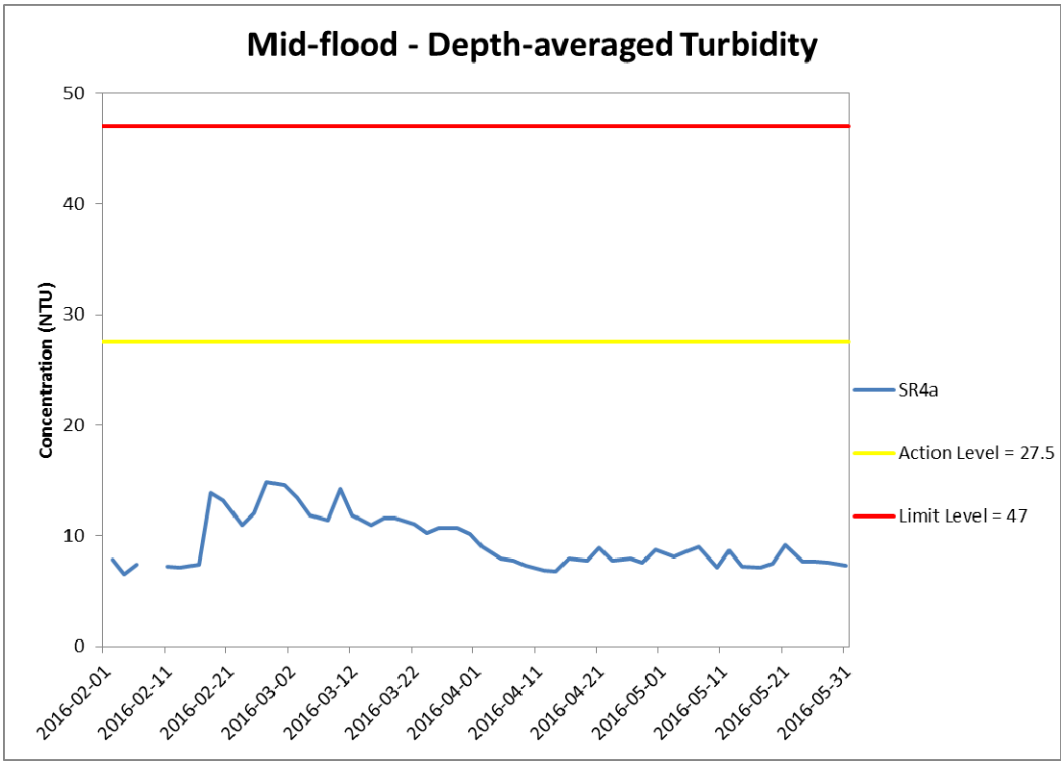
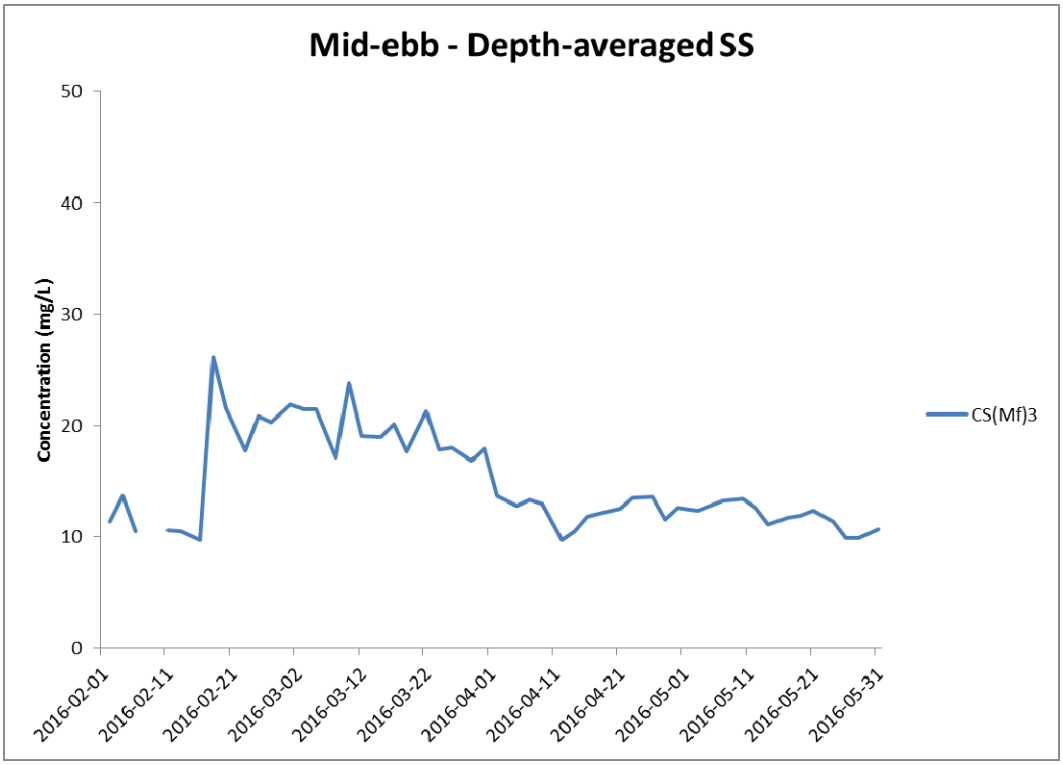


Figure J28 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



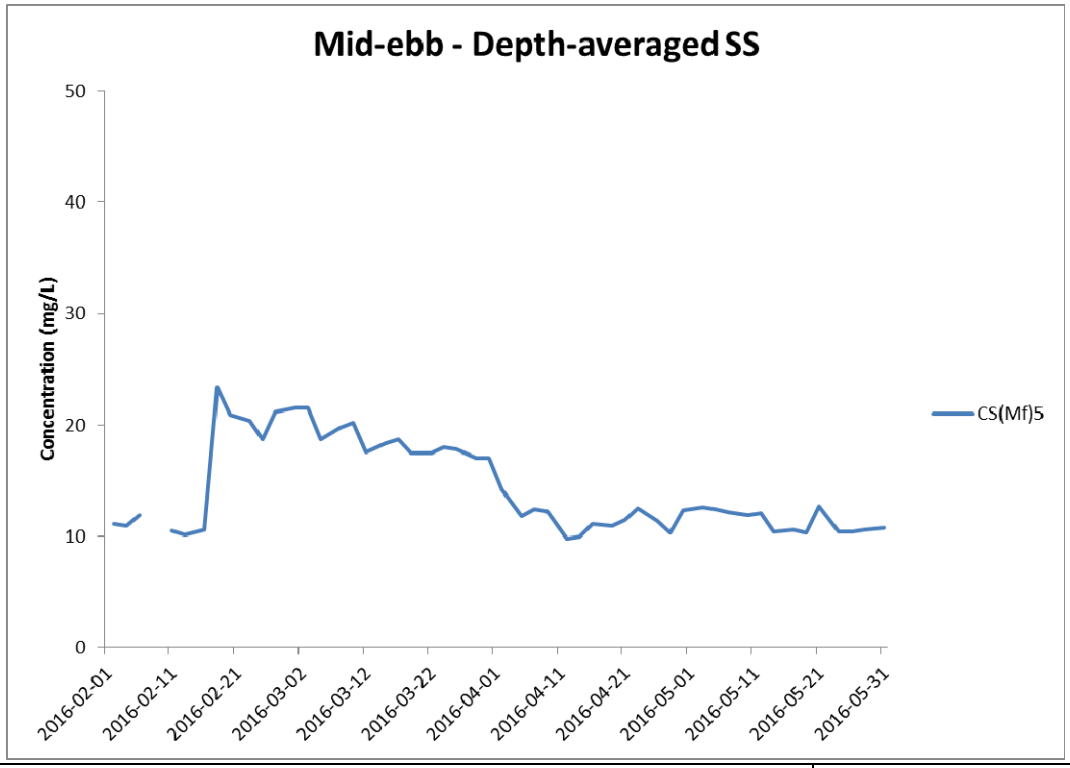
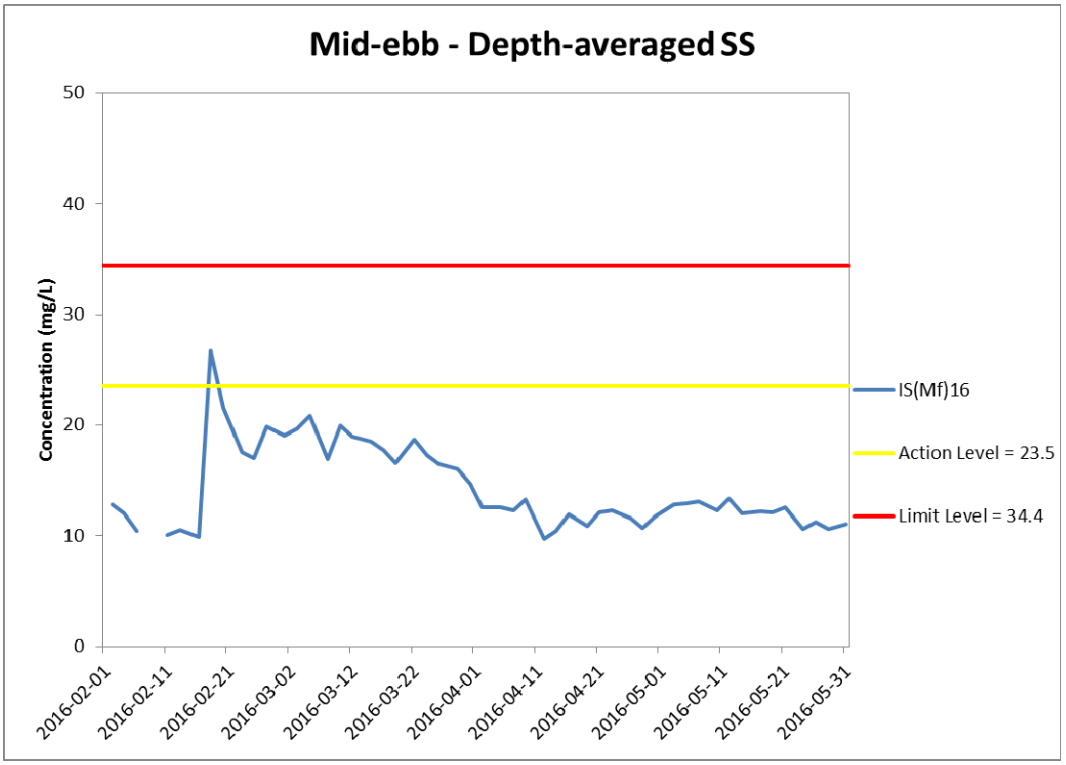


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



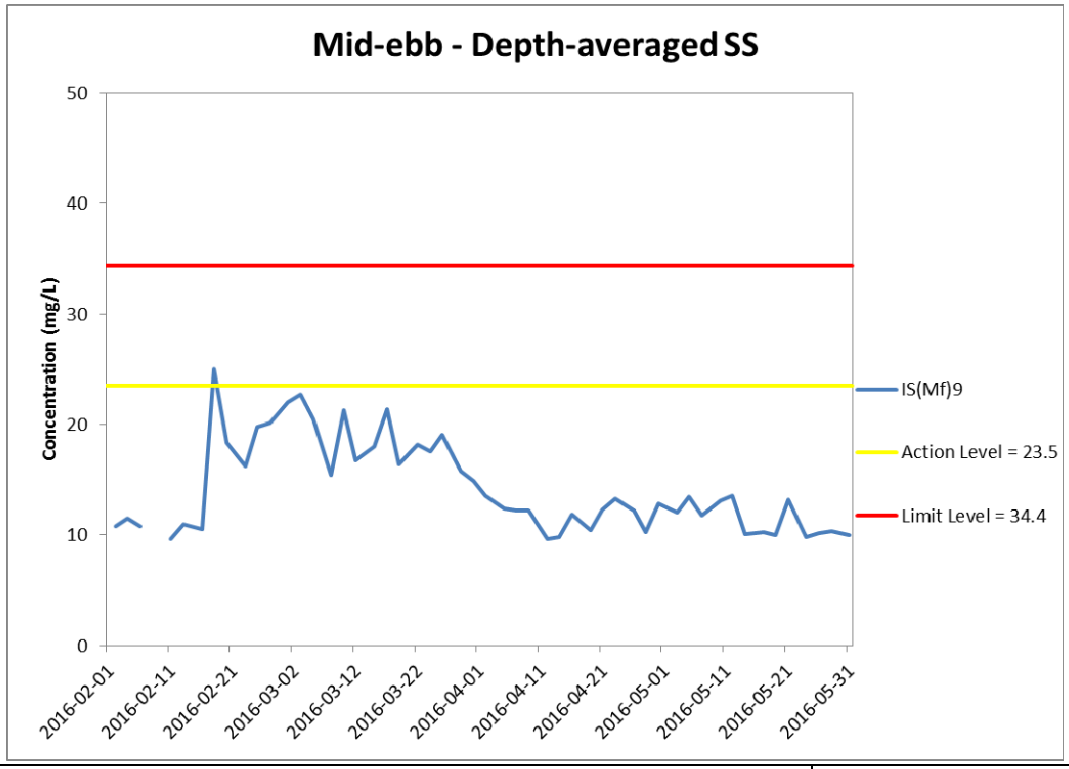
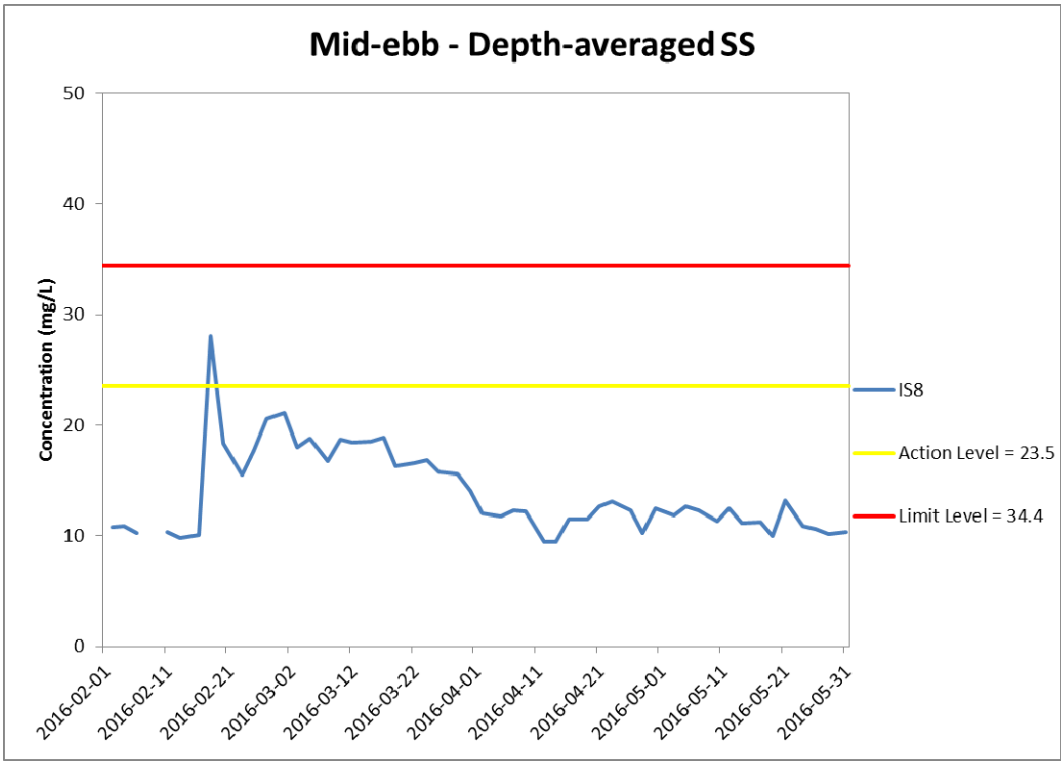


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. Results higher than Action Level but lower than 120% of upstream control station at the same tide on the same day are not regarded as exceedance. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



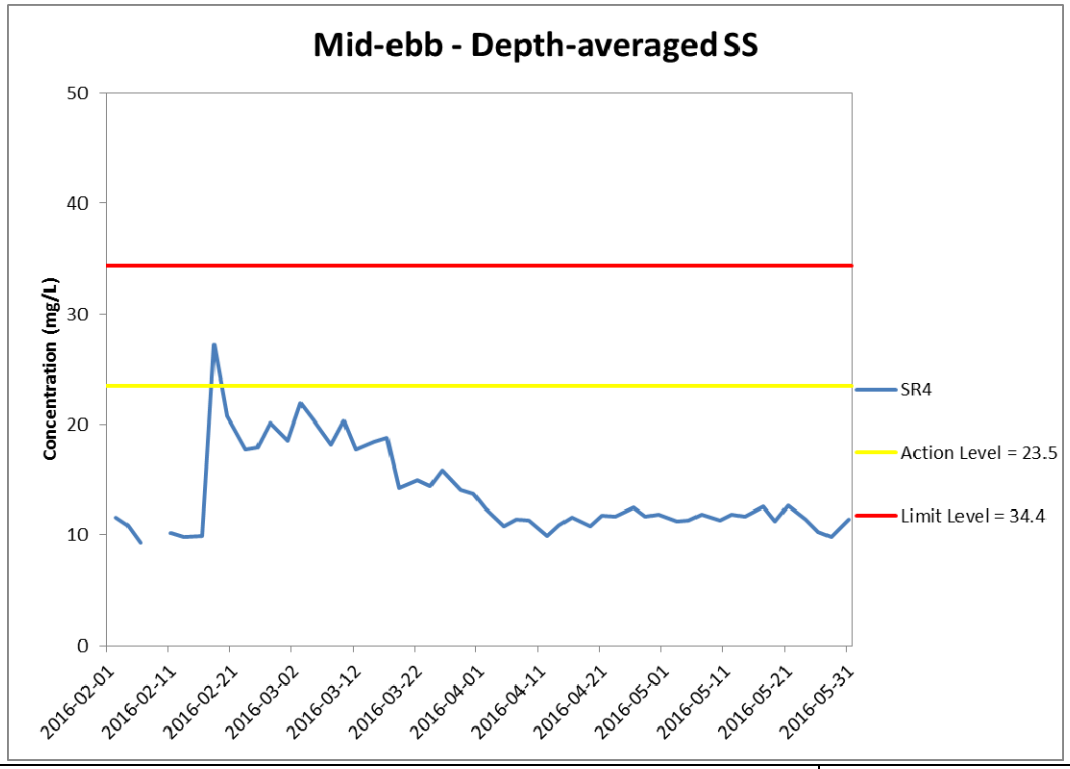


Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. Results higher than Action Level but lower than 120% of upstream control station at the same tide on the same day are not regarded as exceedance. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

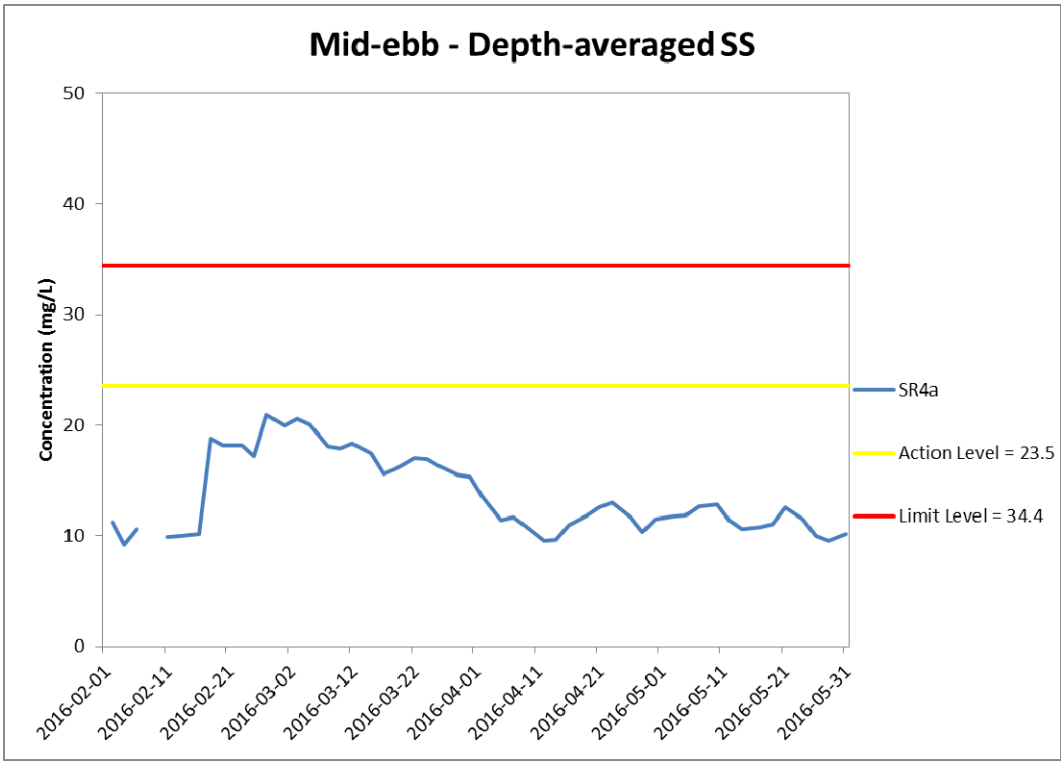
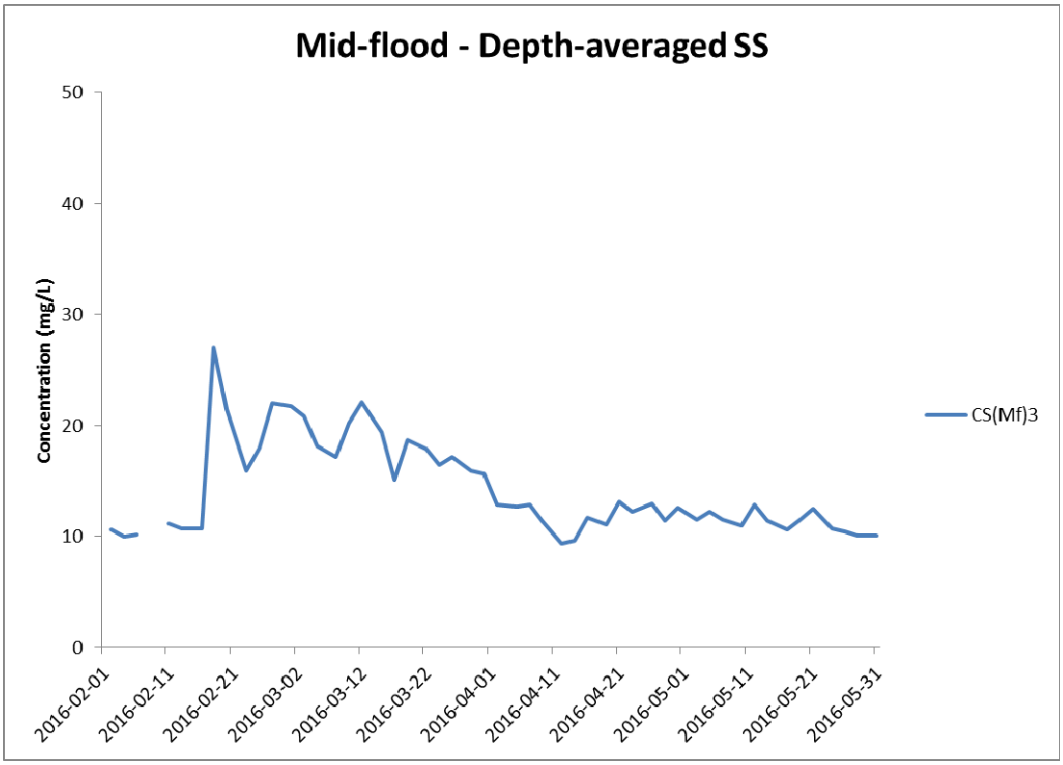


Figure J32 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



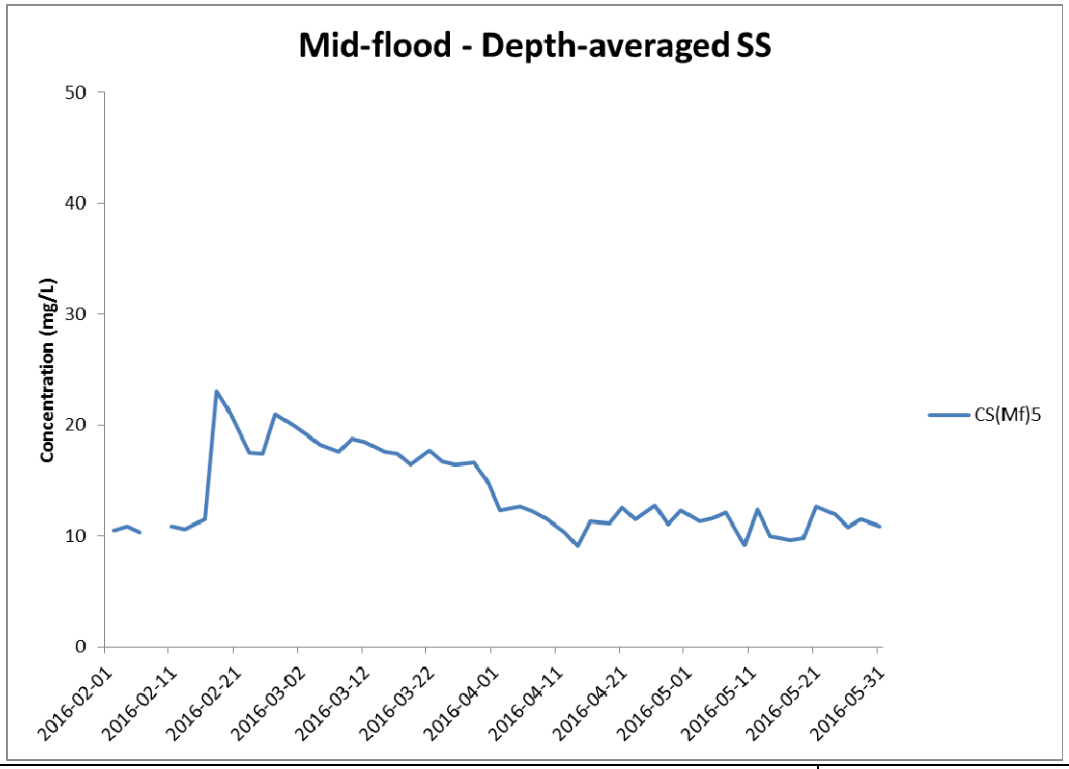
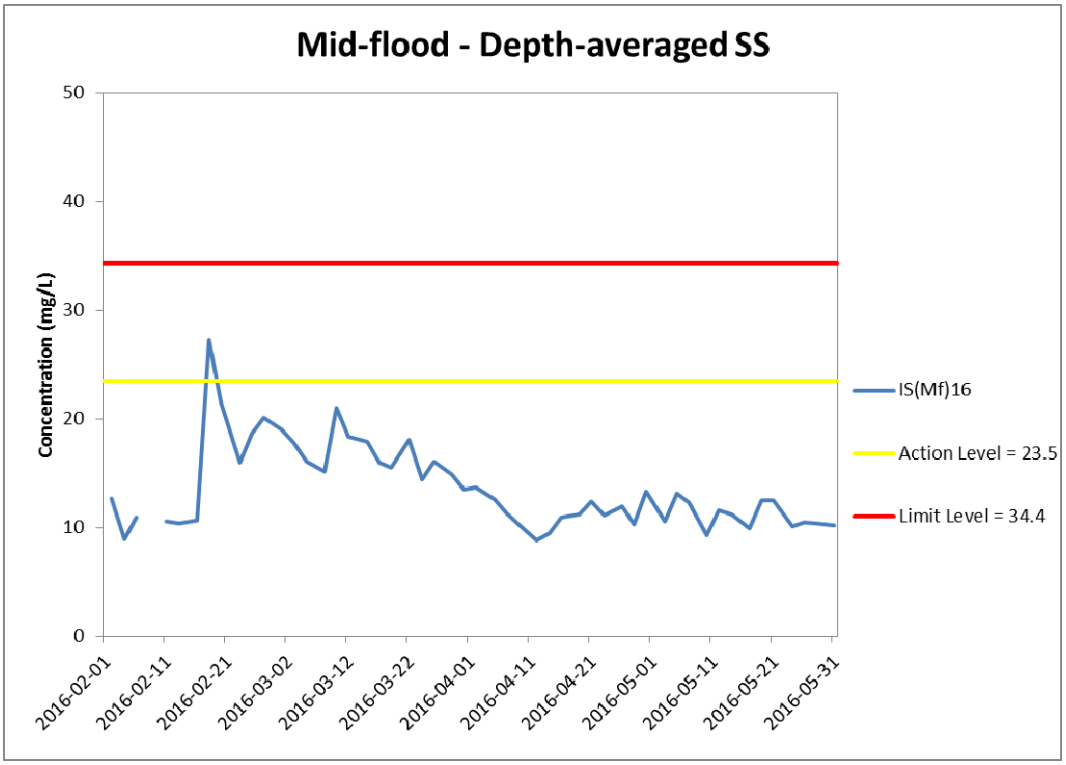


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2016 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



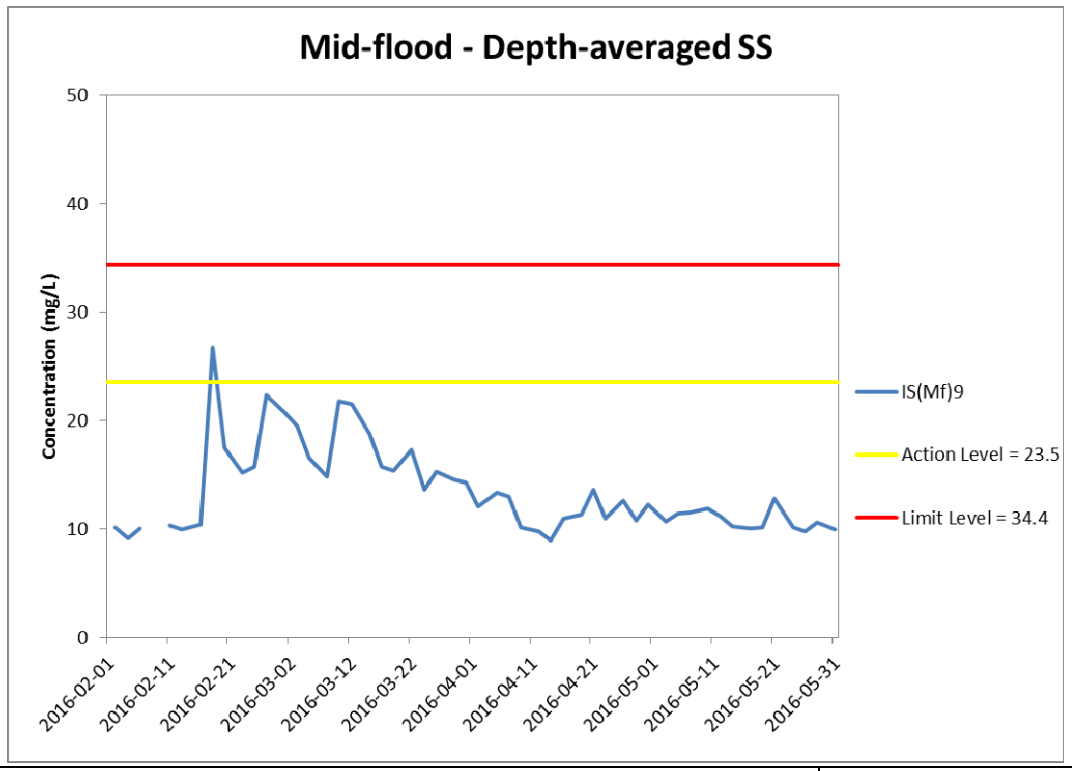
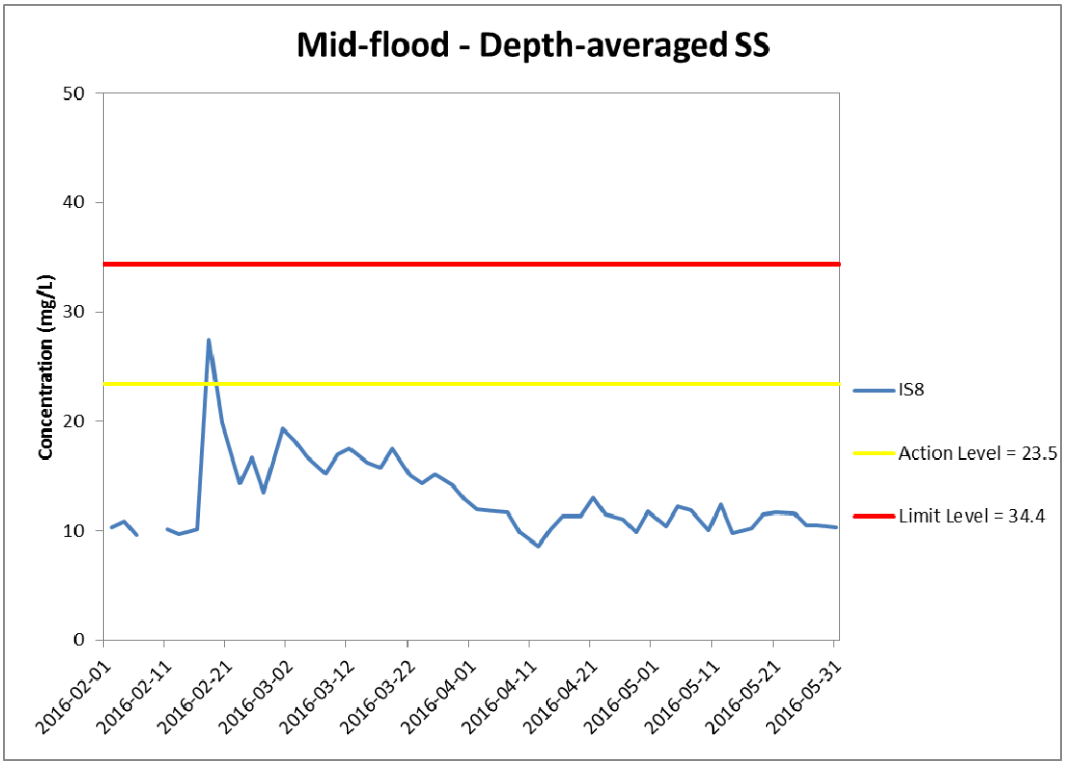


Figure J34 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2016 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 9 February 2016 due to suspension of marine works. Results higher than Action Level but lower than 120% of upstream control station at the same tide on the same day are not regarded as exceedance. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



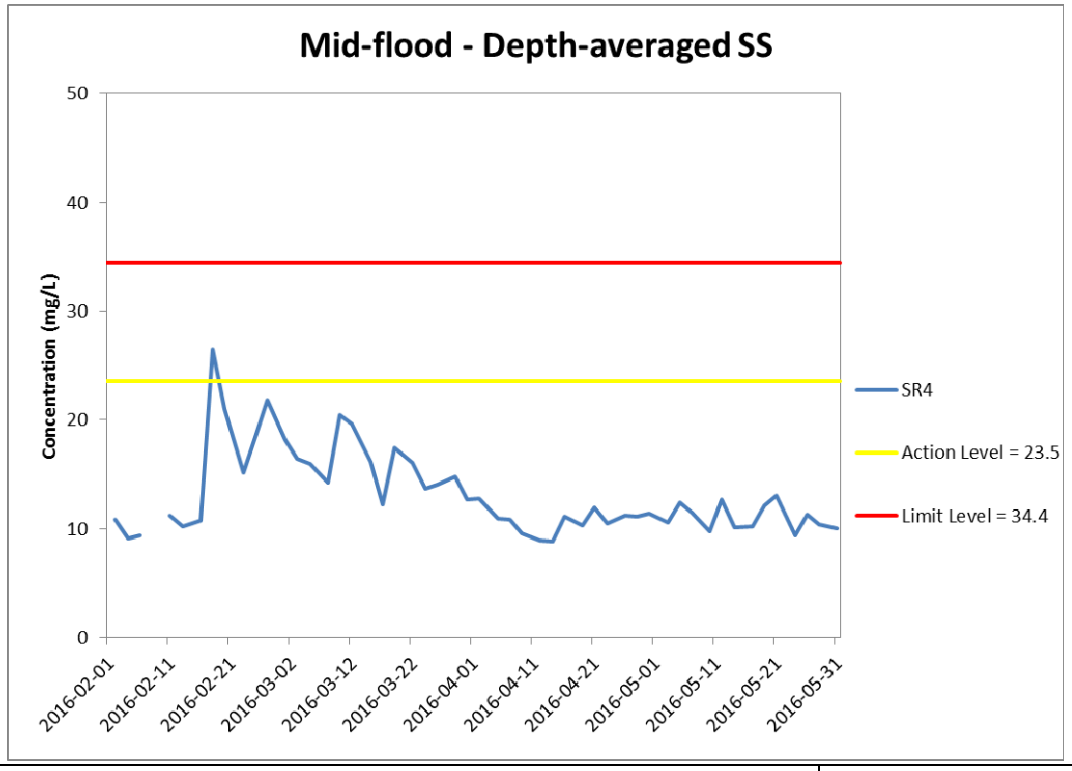


Figure J35 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2016 at IS8 and SR4.

WQM was cancelled on 9 February 2016 due to suspension of marine works. Results higher than Action Level but lower than 120% of upstream control station at the same tide on the same day are not regarded as exceedance. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

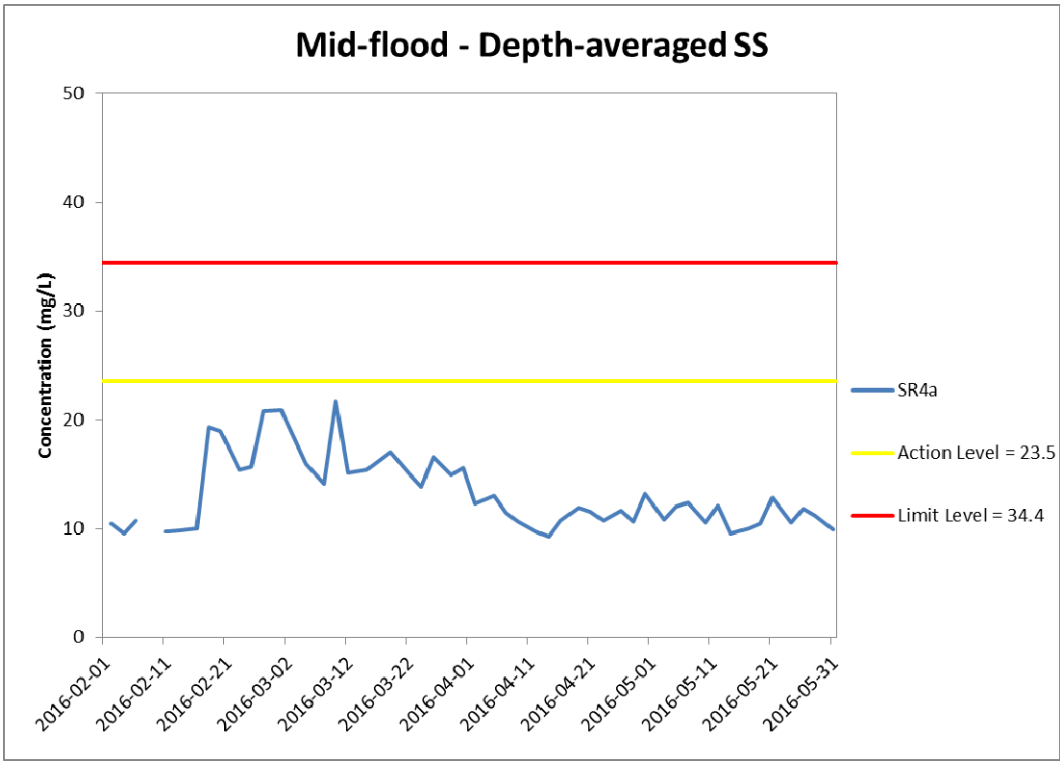


Figure J36 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2016 at SR4a.

WQM was cancelled on 9 February 2016 due to suspension of marine works. (Weather condition varied between sunny to rainy within the reporting period.) Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Construction of marine section of berth at Southern Landfall; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

Appendix K

Impact Dolphin Monitoring Survey Results

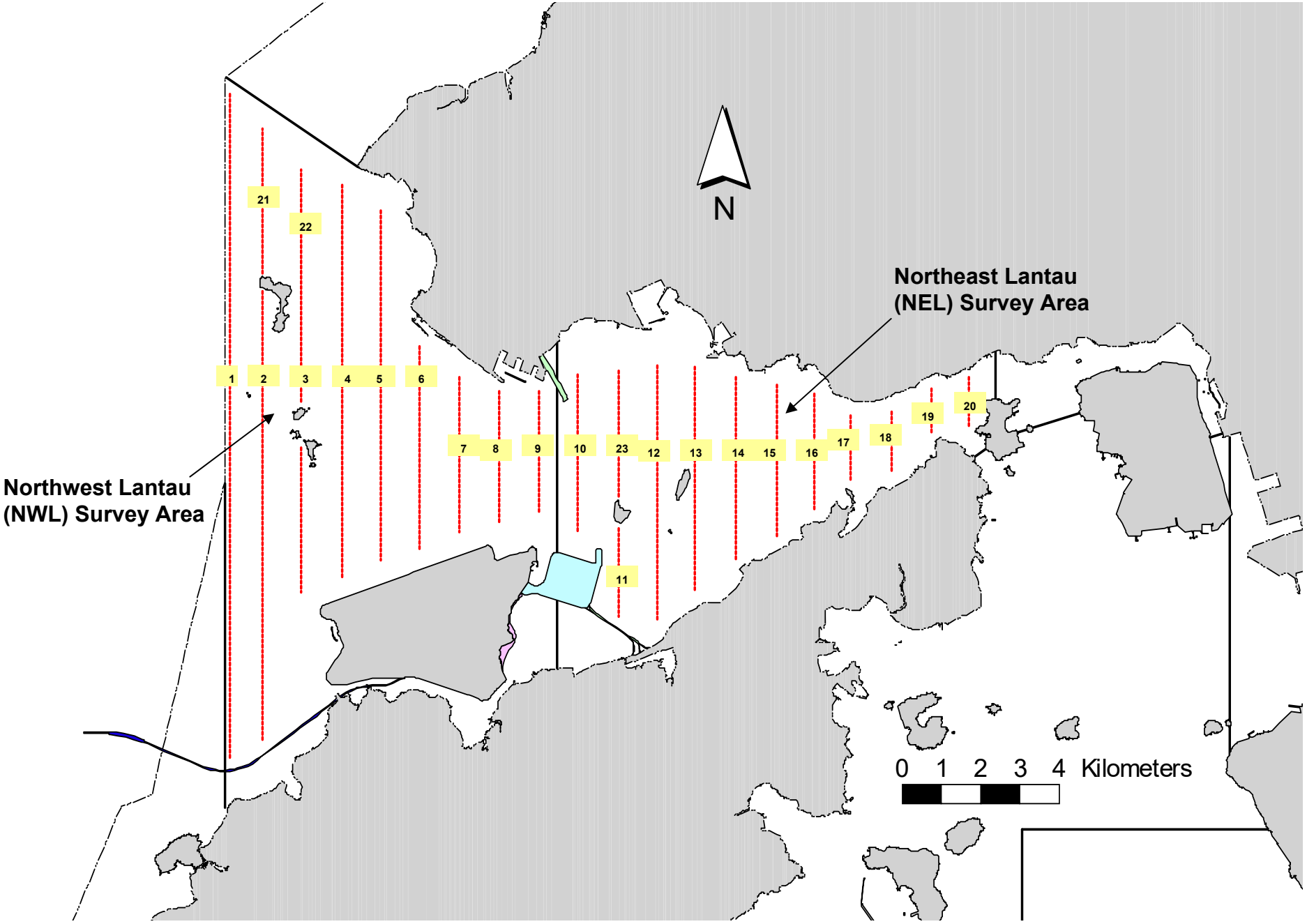


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

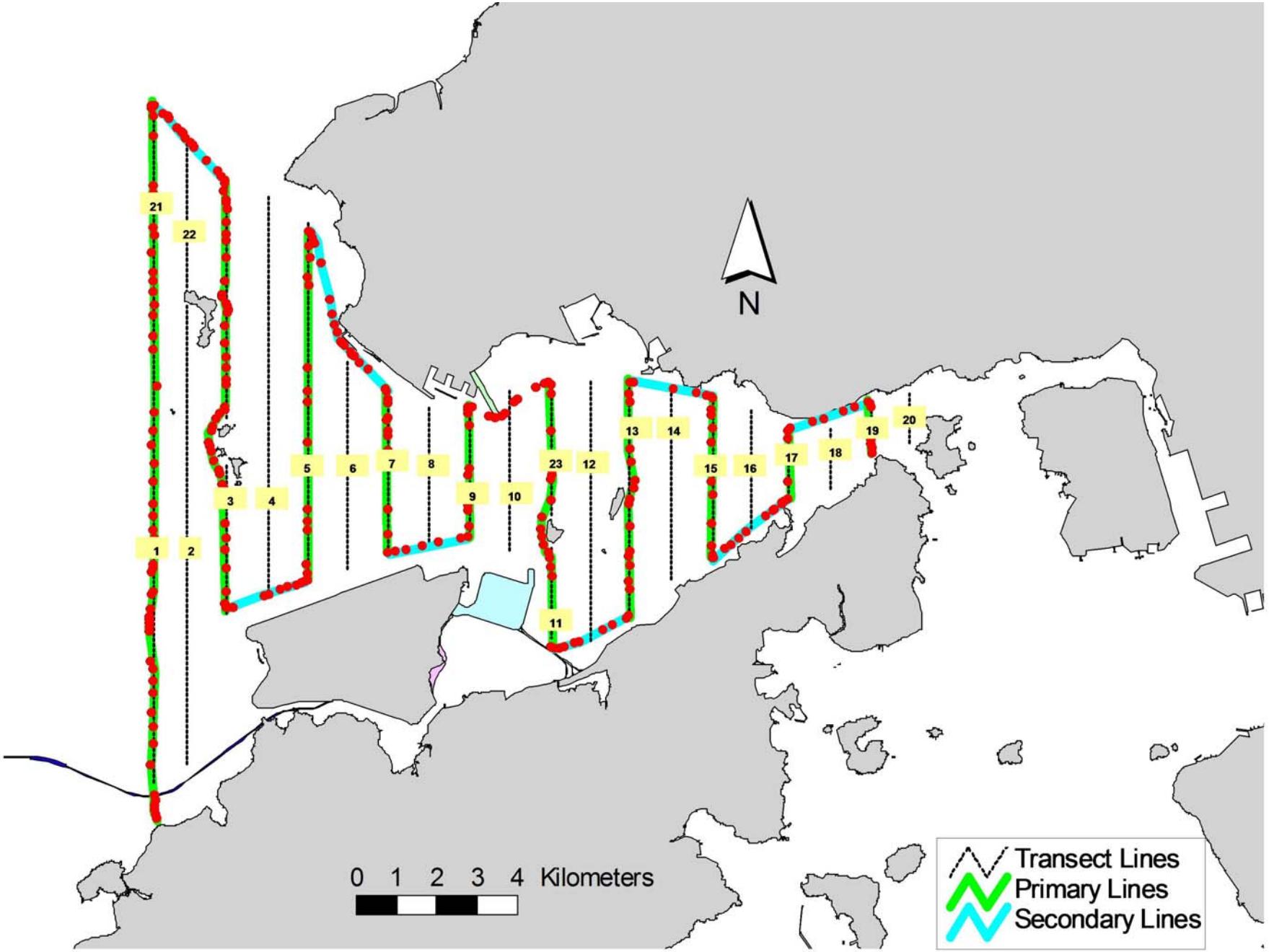


Figure 2. Survey Route on May 3rd, 2016 (from HKLR03 project)

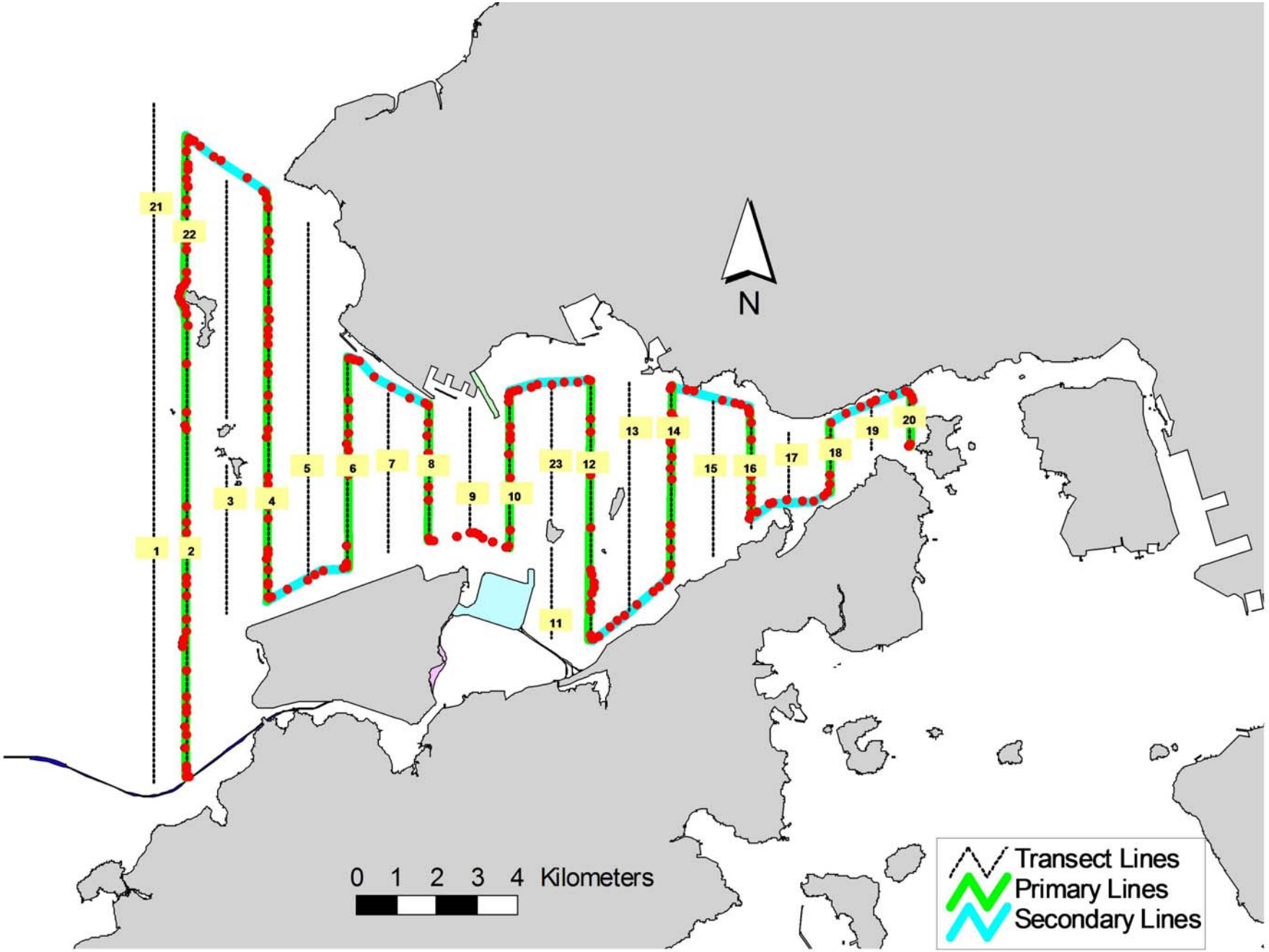


Figure 3. Survey Route on May 12th, 2016 (from HKLR03 project)

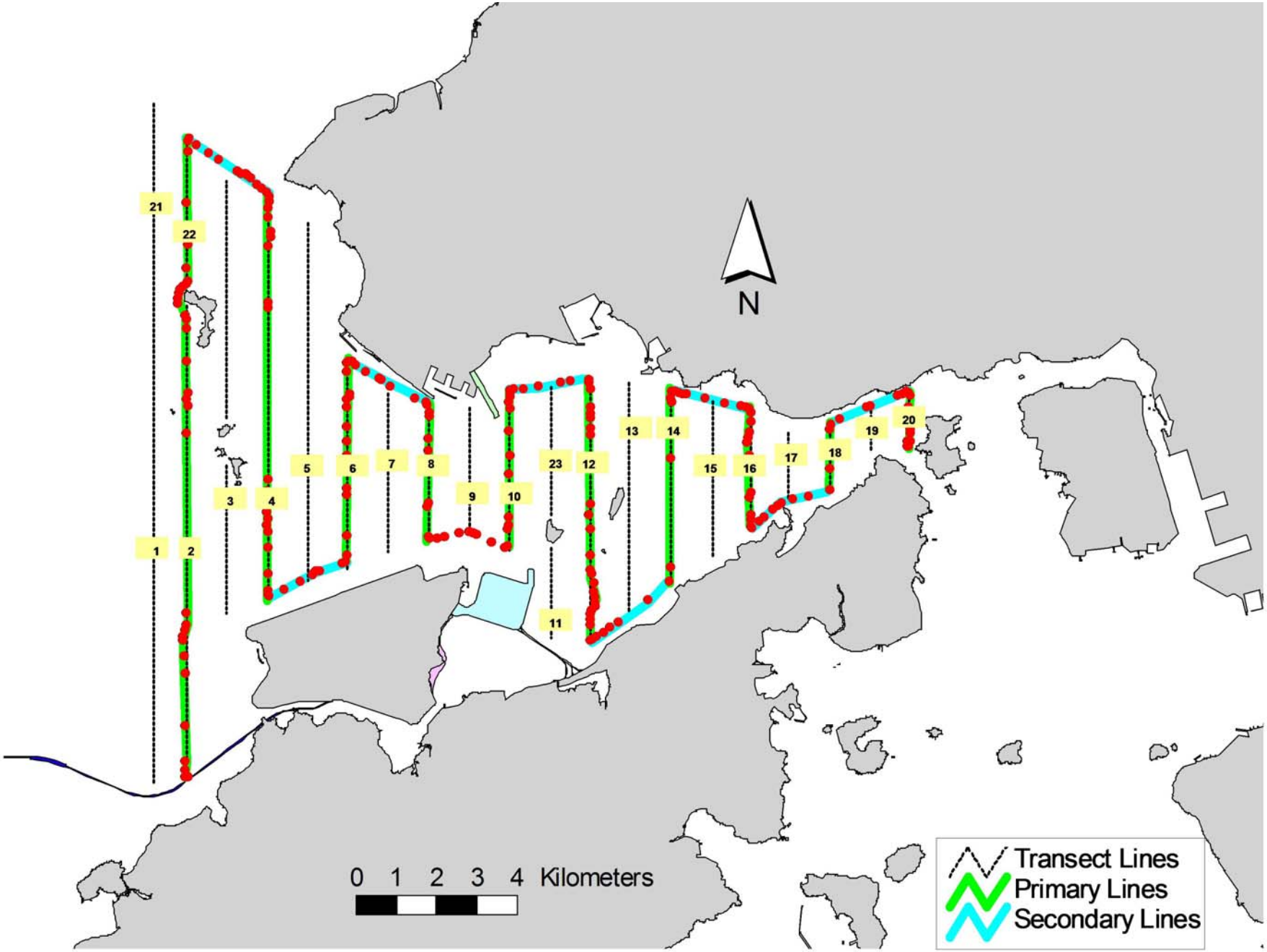


Figure 4. Survey Route on May 17th, 2016 (from HKLR03 project)

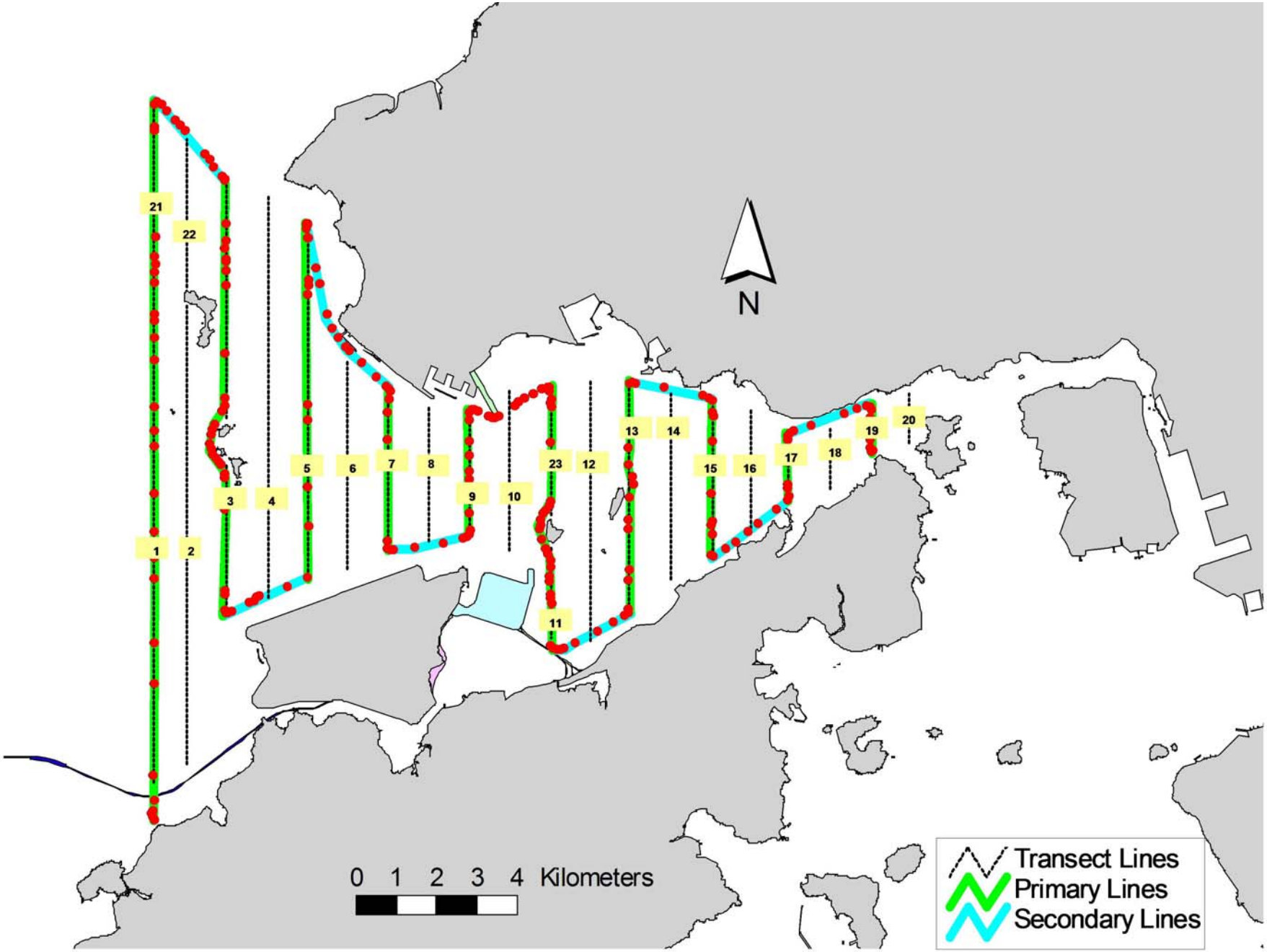


Figure 5. Survey Route on May 26th, 2016 (from HKLR03 project)

Appendix I. HKLR03 Survey Effort Database (May 2016)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
3-May-16	NE LANTAU	2	15.29	SPRING	STANDARD31516	HKLR	P
3-May-16	NE LANTAU	3	1.40	SPRING	STANDARD31516	HKLR	P
3-May-16	NE LANTAU	2	10.01	SPRING	STANDARD31516	HKLR	S
3-May-16	NW LANTAU	2	16.24	SPRING	STANDARD31516	HKLR	P
3-May-16	NW LANTAU	3	23.50	SPRING	STANDARD31516	HKLR	P
3-May-16	NW LANTAU	2	7.16	SPRING	STANDARD31516	HKLR	S
3-May-16	NW LANTAU	3	5.60	SPRING	STANDARD31516	HKLR	S
12-May-16	NW LANTAU	2	15.26	SPRING	STANDARD31516	HKLR	P
12-May-16	NW LANTAU	3	16.74	SPRING	STANDARD31516	HKLR	P
12-May-16	NW LANTAU	2	7.60	SPRING	STANDARD31516	HKLR	S
12-May-16	NE LANTAU	2	6.52	SPRING	STANDARD31516	HKLR	P
12-May-16	NE LANTAU	3	13.33	SPRING	STANDARD31516	HKLR	P
12-May-16	NE LANTAU	2	4.72	SPRING	STANDARD31516	HKLR	S
12-May-16	NE LANTAU	3	6.69	SPRING	STANDARD31516	HKLR	S
17-May-16	NE LANTAU	2	10.20	SPRING	STANDARD31516	HKLR	P
17-May-16	NE LANTAU	3	9.92	SPRING	STANDARD31516	HKLR	P
17-May-16	NE LANTAU	2	6.30	SPRING	STANDARD31516	HKLR	S
17-May-16	NE LANTAU	3	4.38	SPRING	STANDARD31516	HKLR	S
17-May-16	NW LANTAU	2	2.74	SPRING	STANDARD31516	HKLR	P
17-May-16	NW LANTAU	3	28.07	SPRING	STANDARD31516	HKLR	P
17-May-16	NW LANTAU	4	0.79	SPRING	STANDARD31516	HKLR	P
17-May-16	NW LANTAU	3	7.80	SPRING	STANDARD31516	HKLR	S
26-May-16	NW LANTAU	2	14.13	SPRING	STANDARD31516	HKLR	P
26-May-16	NW LANTAU	3	26.67	SPRING	STANDARD31516	HKLR	P
26-May-16	NW LANTAU	2	7.10	SPRING	STANDARD31516	HKLR	S
26-May-16	NW LANTAU	3	6.00	SPRING	STANDARD31516	HKLR	S
26-May-16	NE LANTAU	2	2.62	SPRING	STANDARD31516	HKLR	P
26-May-16	NE LANTAU	3	14.38	SPRING	STANDARD31516	HKLR	P
26-May-16	NE LANTAU	2	3.70	SPRING	STANDARD31516	HKLR	S
26-May-16	NE LANTAU	3	6.10	SPRING	STANDARD31516	HKLR	S

Appendix L

Event Action Plan

Appendix L1 Event/ Action Plan for Air Quality

	ACTION			
EVENT	**ET** [(1)]	**IEC** [(1)]	**SOR**[(1)]	**Contractor**
Action Level				
1. Exceedance for one sample	1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by the ET. 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	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.	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.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate

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

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

Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring

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

Event	ET Leader	IEC	SOR	Contractor
Limit Level	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 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.	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.	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.	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**
Action Level With the numerical values presented in *Table 5.7* of *Baseline Monitoring Report*, 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 *Table 5.8* of *Baseline Monitoring Report*), 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	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	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	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**
Limit Level With the numerical values presented in Table 5.7 of *Baseline Monitoring Report*, 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 *Baseline Monitoring Report*), 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	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.	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.	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	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 2016 (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	1.941	0.263	0.606	-	1.334	-	-	-	-	-	-	69.400	-	-	0.105	-
Feb	0.783	0.185	0.092	-	0.692	-	-	-	-	-	-	85.890	-	-	0.112	-
Mar	1.502	0.429	0.537	-	0.965	-	-	-	-	-	2.000	88.360	-	-	-	-
Apr	1.354	0.402	0.789	-	0.565	-	-	-	-	-	3.000	79.580	-	8.640	0.084	-
May	1.021	0.192	0.581	-	0.440	-	-	-	-	-	3.000	75.620	-	-	-	-
Jun	-		-													
SUB-TOTAL	**6.601**	**1.470**	**2.605**	**-**	**3.996**	**0.000**	**-**	**-**	**-**	**-**	**8.000**	**398.850**	**-**	**8.640**	**0.301**	**-**
Jul																
Aug																
Sep																
Oct																
Nov																
Dec																
TOTAL	**6.601**	**1.470**	**2.605**	**-**	**3.996**	**-**	**-**	**-**	**-**	**-**	**8.000**	**398.850**	**-**	**8.640**	**0.301**	**-**

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	5

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 (May 2016)	0	0	0
Total No. received since project commencement	4	0	0