

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

*Twentieth Monthly EM&A Report*

13 July 2015

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

[www.erm.com](http://www.erm.com)

# Contract No. HY/2012/07





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

**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

*Twentieth Monthly EM&A Report*

**Document Code: 0215660\_20th Monthly EM&A\_20150713.pdf**

Client:  Gammon		Project No:  0215660			
Summary:  This document presents the Twentieth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 13 July 2015			
		Approved by:  			
		Mr Craig Reid Partner			
		Certified by:  			
		Mr Jovy Tam ET Leader			
Twentieth Monthly EM&A Report		VAR	JT	CAR	13/07/15
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p>		<p>Distribution</p> <p><input type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		 			

Ref.: HYDHZMBEEM00\_0\_3143L.15

15 July 2015

AECOM  
Supervising Officer's Representative's Office  
780 Cheung Tung Road, Lantau, N.T.

By Fax (3691 2899) and By Post

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  
Monthly EM&A report for June 2015 (EP-354/2009/D)**

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (June 2015) certified by the ET Leader (ET's ref.: "0215660\_20th Monthly EM&A\_20150713.pdf" dated 13 July 2015) and provided to us via e-mail on 14 July 2015.

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, SLUI, ENPO Site

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## TABLE OF CONTENTS

	<i>EXECUTIVE SUMMARY</i>	<i>I</i>
<i>1</i>	<i>INTRODUCTION</i>	<i>1</i>
<i>1.1</i>	<i>BACKGROUND</i>	<i>1</i>
<i>1.2</i>	<i>SCOPE OF REPORT</i>	<i>2</i>
<i>1.3</i>	<i>ORGANIZATION STRUCTURE</i>	<i>2</i>
<i>1.4</i>	<i>SUMMARY OF CONSTRUCTION WORKS</i>	<i>2</i>
<i>2</i>	<i>EM&amp;A RESULTS</i>	<i>5</i>
<i>2.1</i>	<i>AIR QUALITY</i>	<i>5</i>
<i>2.2</i>	<i>NOISE MONITORING</i>	<i>7</i>
<i>2.3</i>	<i>WATER QUALITY MONITORING</i>	<i>8</i>
<i>2.4</i>	<i>DOLPHIN MONITORING</i>	<i>10</i>
<i>2.5</i>	<i>EM&amp;A SITE INSPECTION</i>	<i>14</i>
<i>2.6</i>	<i>WASTE MANAGEMENT STATUS</i>	<i>15</i>
<i>2.7</i>	<i>ENVIRONMENTAL LICENSES AND PERMITS</i>	<i>16</i>
<i>2.8</i>	<i>IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES</i>	<i>19</i>
<i>2.9</i>	<i>SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT</i>	<i>19</i>
<i>2.10</i>	<i>SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS</i>	<i>19</i>
<i>3</i>	<i>FUTURE KEY ISSUES</i>	<i>20</i>
<i>3.1</i>	<i>CONSTRUCTION PROGRAMME FOR THE COMING MONTHS</i>	<i>20</i>
<i>3.2</i>	<i>KEY ISSUES FOR THE COMING MONTH</i>	<i>20</i>
<i>3.3</i>	<i>MONITORING SCHEDULE FOR THE COMING MONTH</i>	<i>20</i>
<i>4</i>	<i>CONCLUSIONS AND RECOMMENDATIONS</i>	<i>21</i>
<i>4.1</i>	<i>CONCLUSIONS</i>	<i>21</i>

### *List of Appendices*

- Appendix A Project Organization for Environmental Works
- Appendix B Three Month Rolling Construction Programmes
- Appendix C Implementation Schedule of Environmental Mitigation Measures (EMIS)
- Appendix D Summary of Action and Limit Levels
- Appendix E Calibration Certificates of Monitoring Equipment
- Appendix F EM&A Monitoring Schedules
- Appendix G Impact Air Quality Monitoring Results and Graphical Presentation
- Appendix H Meteorological Data for the Reporting Month
- Appendix I Impact Noise Monitoring Results and Graphical Presentation
- Appendix J Impact Water Quality Monitoring Results and Graphical Presentation
- Appendix K Impact Dolphin Monitoring Survey Results
- Appendix L Event Action Plan
- Appendix M Monthly Summary of Waste Flow Table
- Appendix N Cumulative Statistics on Exceedances, Complaints, Notifications of Summons and Successful Prosecutions

## **EXECUTIVE SUMMARY**

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of the Tuen Mun – Chek Lap Kok Link Project (TM-CLK Link Project) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). ENVIRON Hong Kong Ltd. was employed by the HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (VEP), *EP-354/2009/B*, *EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

The construction phase of the Contract commenced on 31 October 2013 and will tentatively be 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 Twentieth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 30 June 2015 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;
- Pile cap installation;
- Pier construction;
- Launching gantry assembly;
- Marine piling and
- Installation of pier head segment

### ***Land-based Works***

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; and

- Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

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

24-hour TSP monitoring	6 sessions
1-hour TSP monitoring	6 sessions
Noise monitoring	6 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**

During this month of dolphin monitoring, 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 Passive Acoustic Monitoring (PAM) was implemented as the marine works were not carried out outside the daylight hours in this reporting month. No sighting of the

Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in June 2015 during the exclusion zone monitoring.

### **Environmental Complaints, Non-compliance & Summons**

One (1) environmental complaint regarding to dust emission from vehicles of this Project was received on 18 June 2015.

### **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 2015 include the following:

#### ***Marine Works***

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry assembly;
- Marine piling and
- Installation of pier head segment

#### ***Land-based Works***

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

### **Future Key Issues**

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of July 2015 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.



## 1.1

## BACKGROUND

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

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM)*. The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-146/2009), an Environmental Permit (EP-354/2009) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variation (EP-354/2009/A) was issued on 8 December 2010.

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL (“the Contract”) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). 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.

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*.

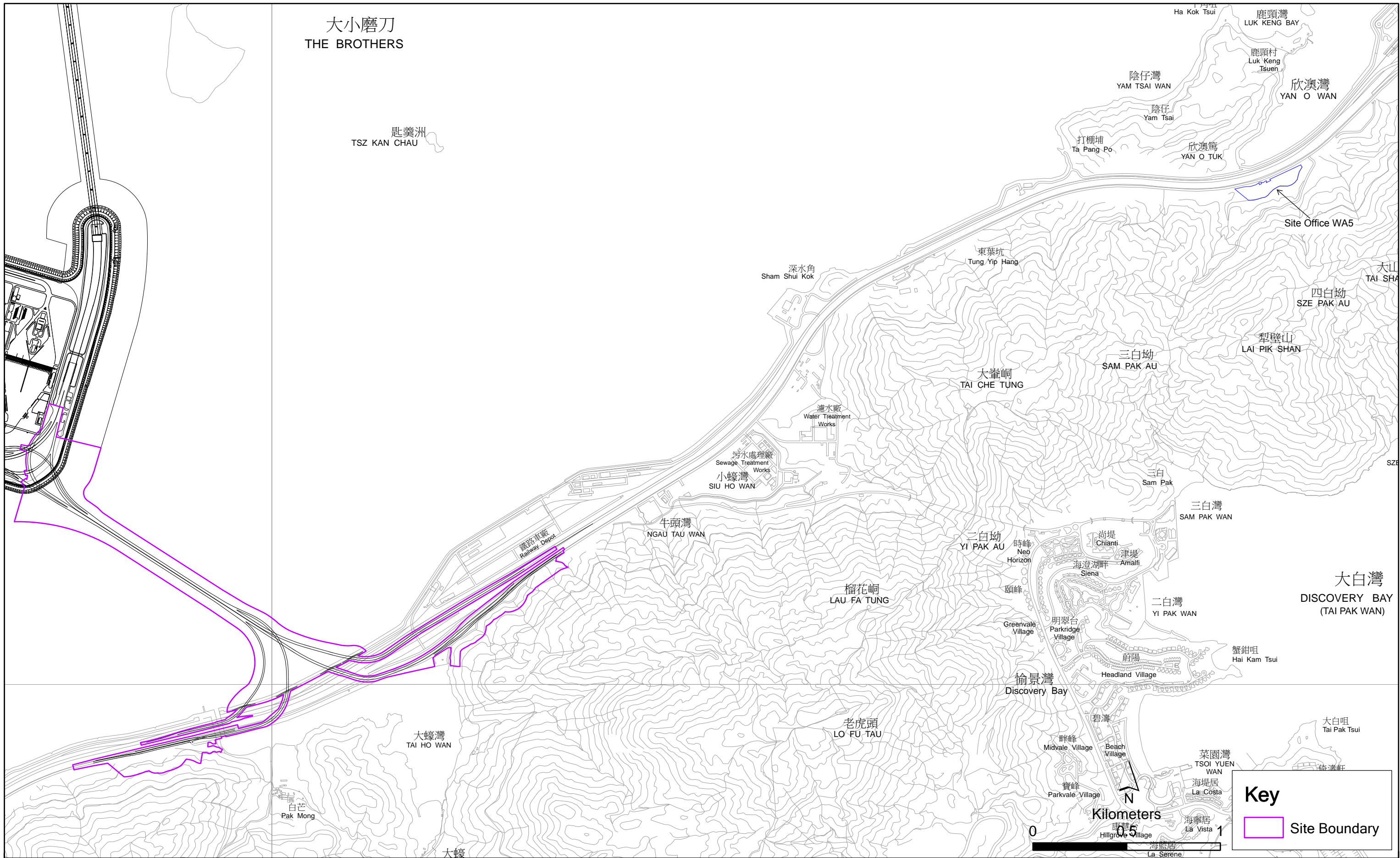


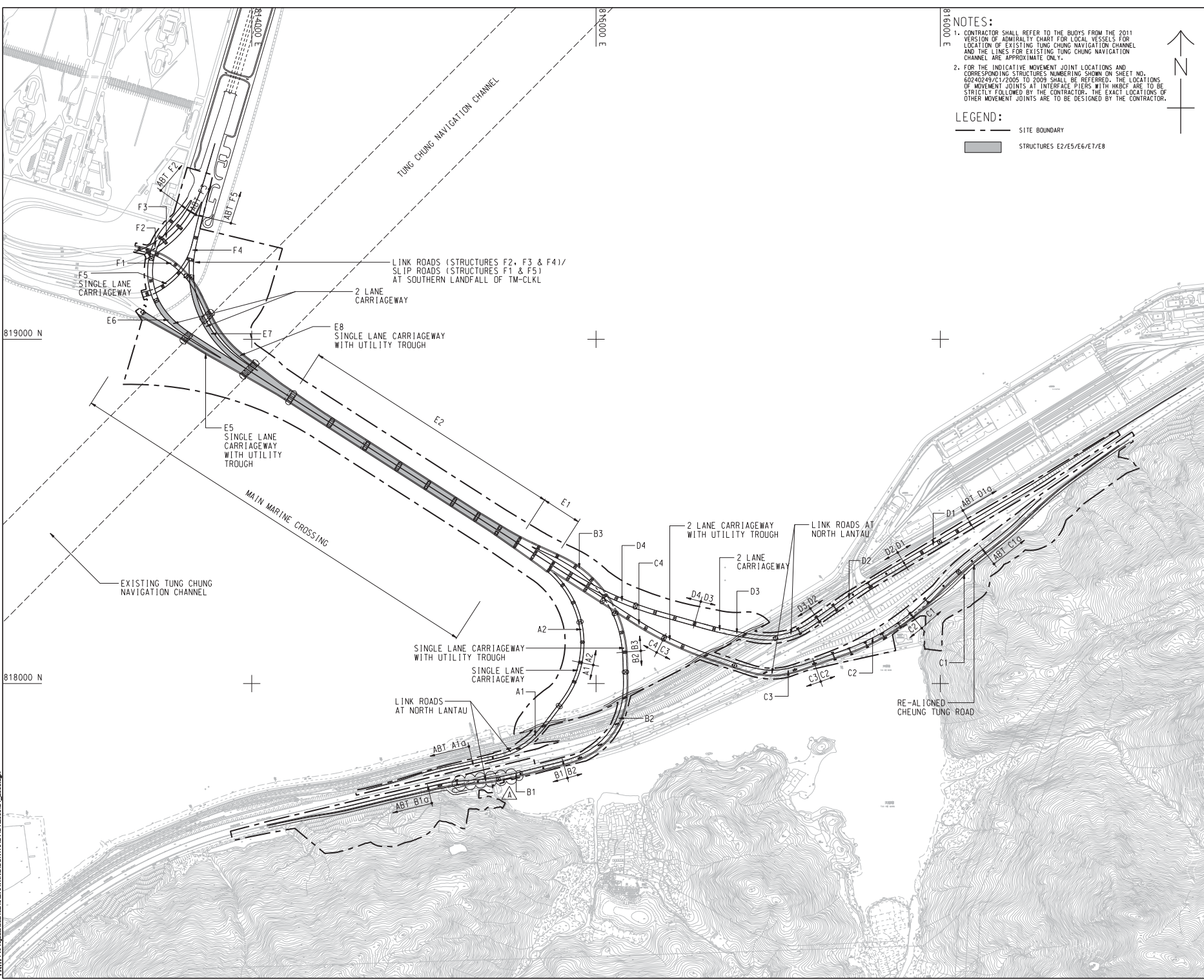
Figure 1.1

General Layout Plan of the Project

Environmental  
Resources  
Management



Project Management: Hinkley  
 Designer: LHM  
 Checked: SLY  
 Approved: CWN  
 ISO AT 9001:2015  
 ISO AT 14001:2015  
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**NOTES:**

- CONTRACTOR SHALL REFER TO THE BUOYS FROM THE 2011 VERSION OF ADMIRALTY CHART FOR LOCAL VESSELS FOR LOCATION OF EXISTING TUNG CHUNG NAVIGATION CHANNEL AND THE LINES FOR EXISTING TUNG CHUNG NAVIGATION CHANNEL ARE APPROXIMATE ONLY.
- FOR THE INDICATIVE MOVEMENT JOINT LOCATIONS AND CORRESPONDING STRUCTURES NUMBERING SHOWN ON SHEET NO. 60240249/C1/2005 TO 2009 SHALL BE REFERRED. THE LOCATIONS OF MOVEMENT JOINTS AT INTERFACE PIERS WITH HKBCF ARE TO BE STRICTLY FOLLOWED BY THE CONTRACTOR. THE EXACT LOCATIONS OF OTHER MOVEMENT JOINTS ARE TO BE DESIGNED BY THE CONTRACTOR.

**LEGEND:**

— SITE BOUNDARY

▬ STRUCTURES E2/E5/E6/E7/E8

**AECOM**

**PROJECT**  
TUEN MUN - CHEK LAP KOK LINK

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

**CLIENT**  
路政署  
HIGHWAYS DEPARTMENT  
港務局  
Hong Kong - Zhuhai - Hainan Bridge  
Hong Kong Project Management Office

**CONSULTANT**  
AECOM Asia Company Ltd.  
www.aecom.com

**SUB-CONSULTANTS**

# Figure 1.2a

**ISSUE/REVISION**

NO.	DATE	DESCRIPTION	CHK.

**STATUS**

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**DIMENSION UNIT**  
METRES

**KEY PLAN**

**PROJECT NO.**  
60240249

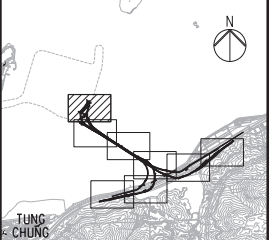
**CONTRACT NO.**  
HY/2012/07

**SHEET TITLE**  
SOUTHERN CONNECTION  
GENERAL LAYOUT PLAN

**SHEET NUMBER**  
60240249/C1/2000A

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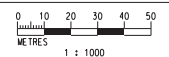


**KEY PLAN**

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

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



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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

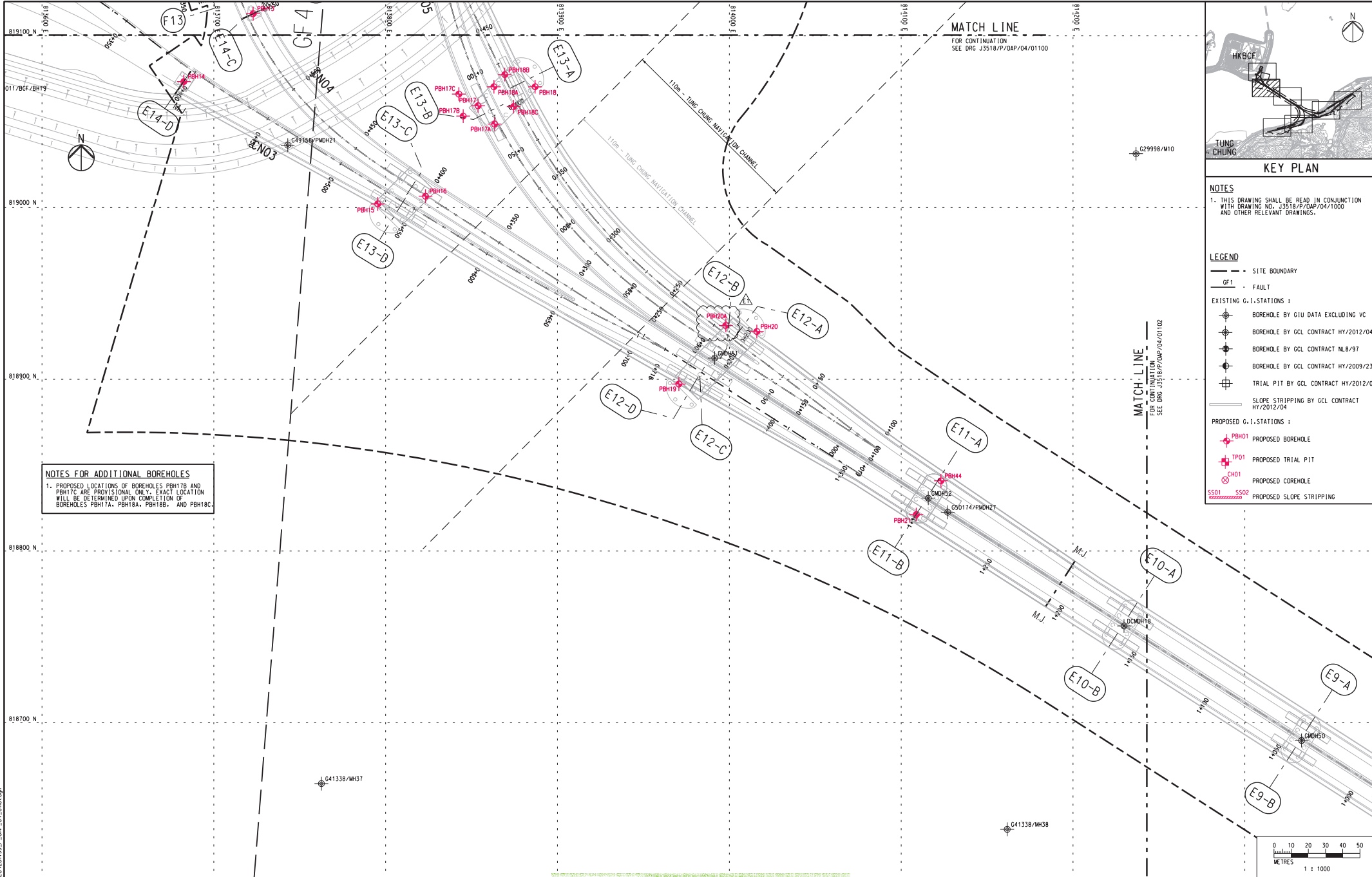
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Checked	Approved	
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HONG KONG HIGHWAYS DEPARTMENT  
 香港路政署  
 AECOM  
 Gammon

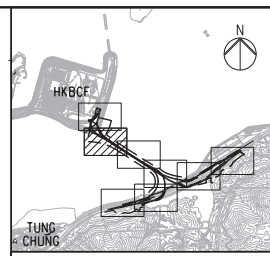
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**Contract No. HY/2012/07**  
**Tuen Mun - Chek Lap Kok Link**  
**Southern Connection Viaduct Section**

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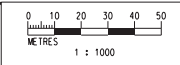


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    - ⊙ CH01 PROPOSED COREHOLE
    - SS01 SS02 PROPOSED SLOPE STRIPPING

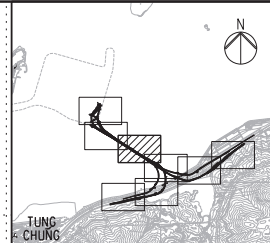
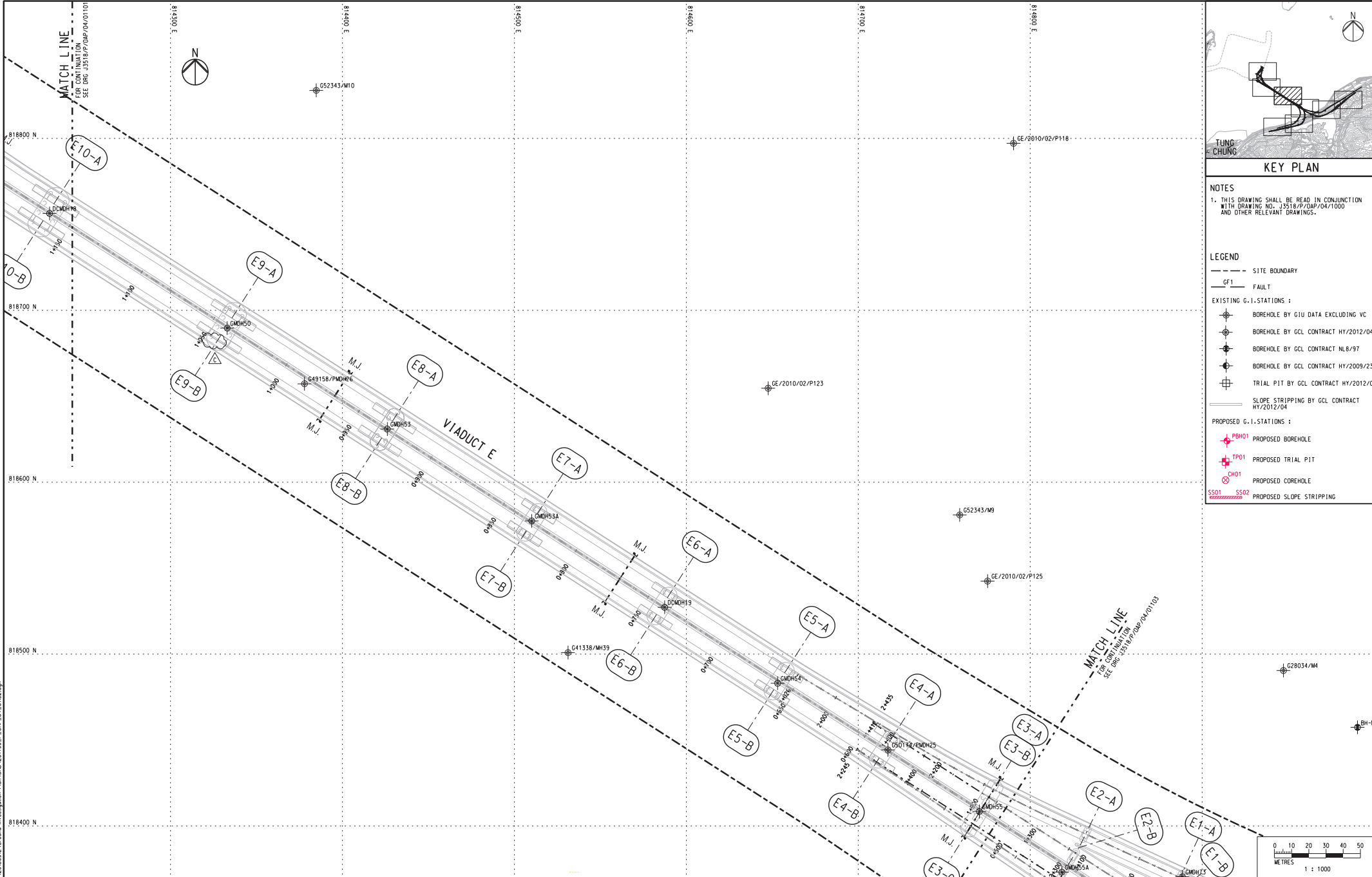
NOTES FOR ADDITIONAL BOREHOLES  
1. PROPOSED LOCATIONS OF BOREHOLES PBH17B AND PBH17C ARE PROVISIONAL ONLY. EXACT LOCATION WILL BE DETERMINED UPON COMPLETION OF BOREHOLES PBH17A, PBH18A, PBH18B, AND PBH18C.



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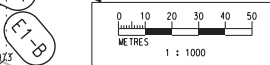
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    - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
  - PROPOSED G.I.-STATIONS :
    - ⊕ PBH01 PROPOSED BOREHOLE
    - ⊕ TP01 PROPOSED TRIAL PIT
    - ⊕ CH01 PROPOSED COREHOLE
    - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 12/09/2013 File name : J:\3518\99\REC\000\20130927\_Ground Investigation Plan\CAD\23498\_P\_OAP\_04\_01102.dgn

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B	SUBMISSION	RC	07/13					Checked	Approved		
C	SUBMISSION	RC	09/13					DS	DOP		
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Client: **路政署 HIGHWAYS DEPARTMENT**  
 港珠澳大桥香港工程管理有限公司  
 Hong Kong Project Management Office

Supervising Officer: **AECOM**

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

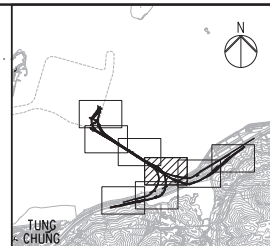
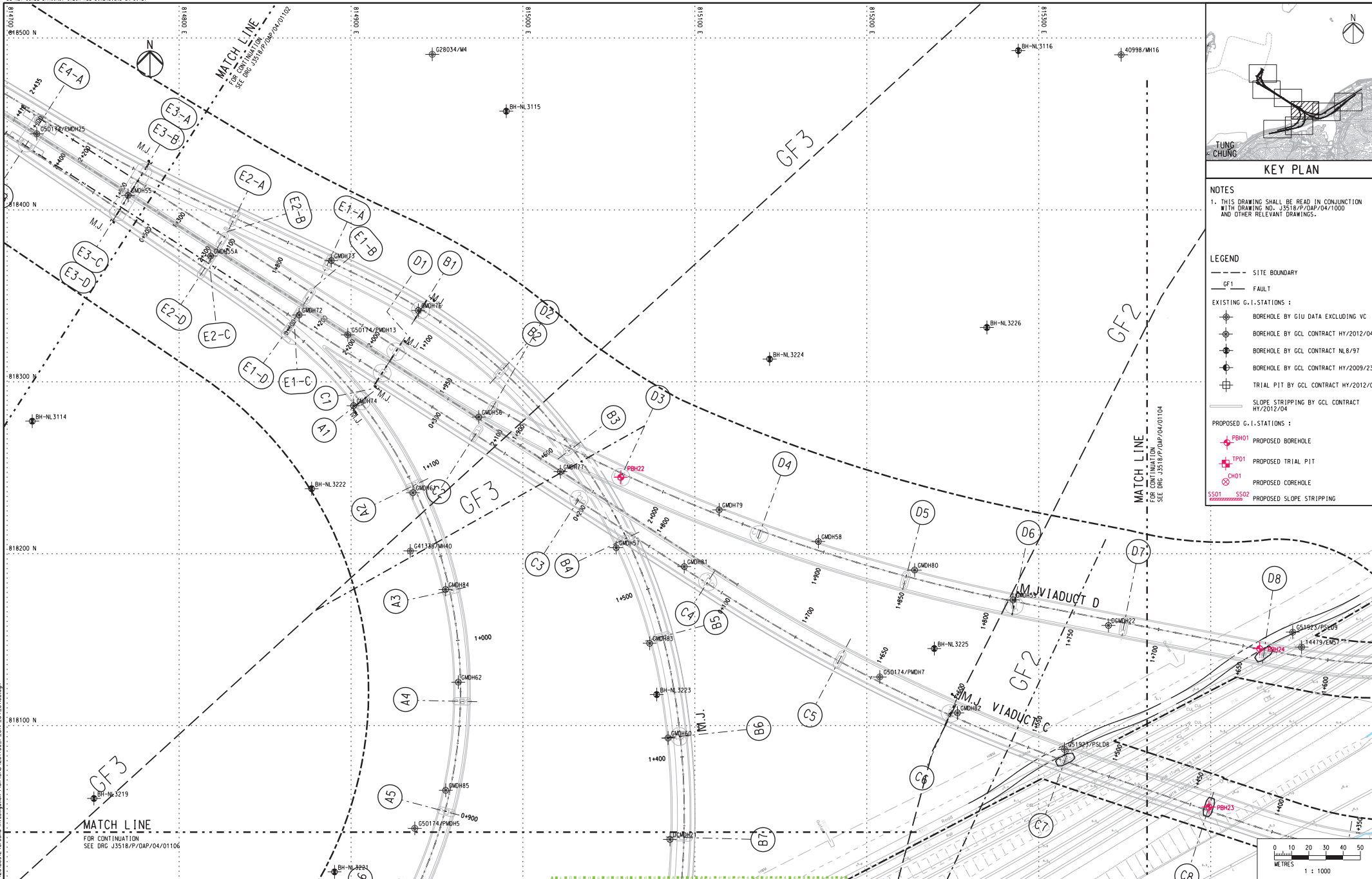
Contractor: **Gammon**

Originator: **ARUP**

Drawing title: **Figure 1.2d**

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

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
  - - - 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
  - PROPOSED G.I.-STATIONS :
    - ⊕ PBH01 PROPOSED BOREHOLE
    - ⊕ TP01 PROPOSED TRIAL PIT
    - ⊕ CH01 PROPOSED COREHOLE
    - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 13/9/2013  
 File name : J:\23499\REC\000\20120927\Ground Investigation Plan\CAD\23499\_P\_OAP\_04\_01103.dwg

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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

Checked	Approved
DS	DOP

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

Client  
 路政署  
 HIGHWAYS DEPARTMENT  
 港珠澳大桥香港工程管理有限公司  
 Hong Kong - Zhuhai - Macao Bridge  
 Hong Kong Project Management Office

Supervising Officer  
**AECOM**

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

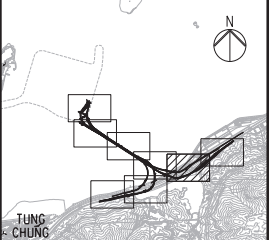
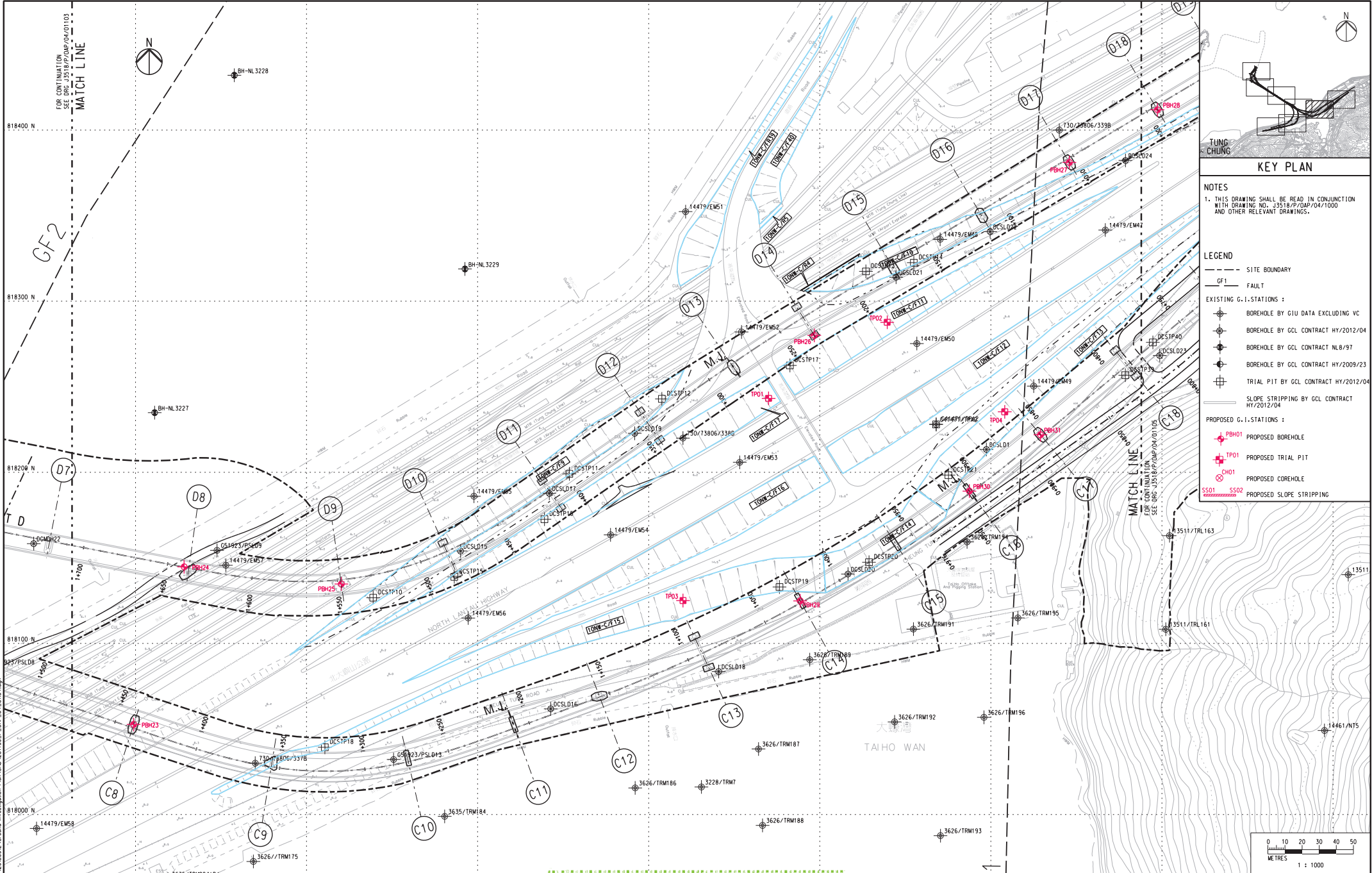
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**Gammon**

Originator  
**ARUP**

Drawing title  
**Figure 1.2e**

Drawing no. J3518/P/OAP/04/01103 Rev. c

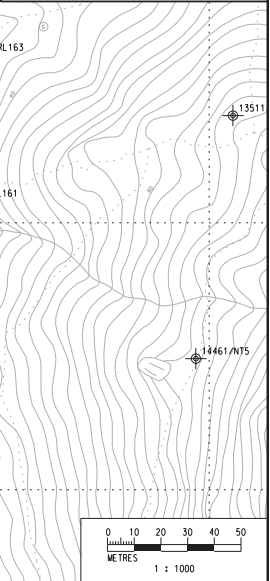
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



**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 NL6/97
    - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
    - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
  - PROPOSED G.I. STATIONS :
    - ⊕ PBH01 PROPOSED BOREHOLE
    - ⊕ TP01 PROPOSED TRIAL PIT
    - ⊕ CH01 PROPOSED COREHOLE
    - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 12/09/2013  
 File name : J:\3518\99\RECORD\20120927\Ground Investigation Plan\CAD\231498\_P\_OAP\_04\_01100.dwg

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

Client

Supervising Officer

Project Title

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

Contractor

Originator

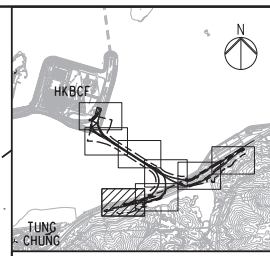
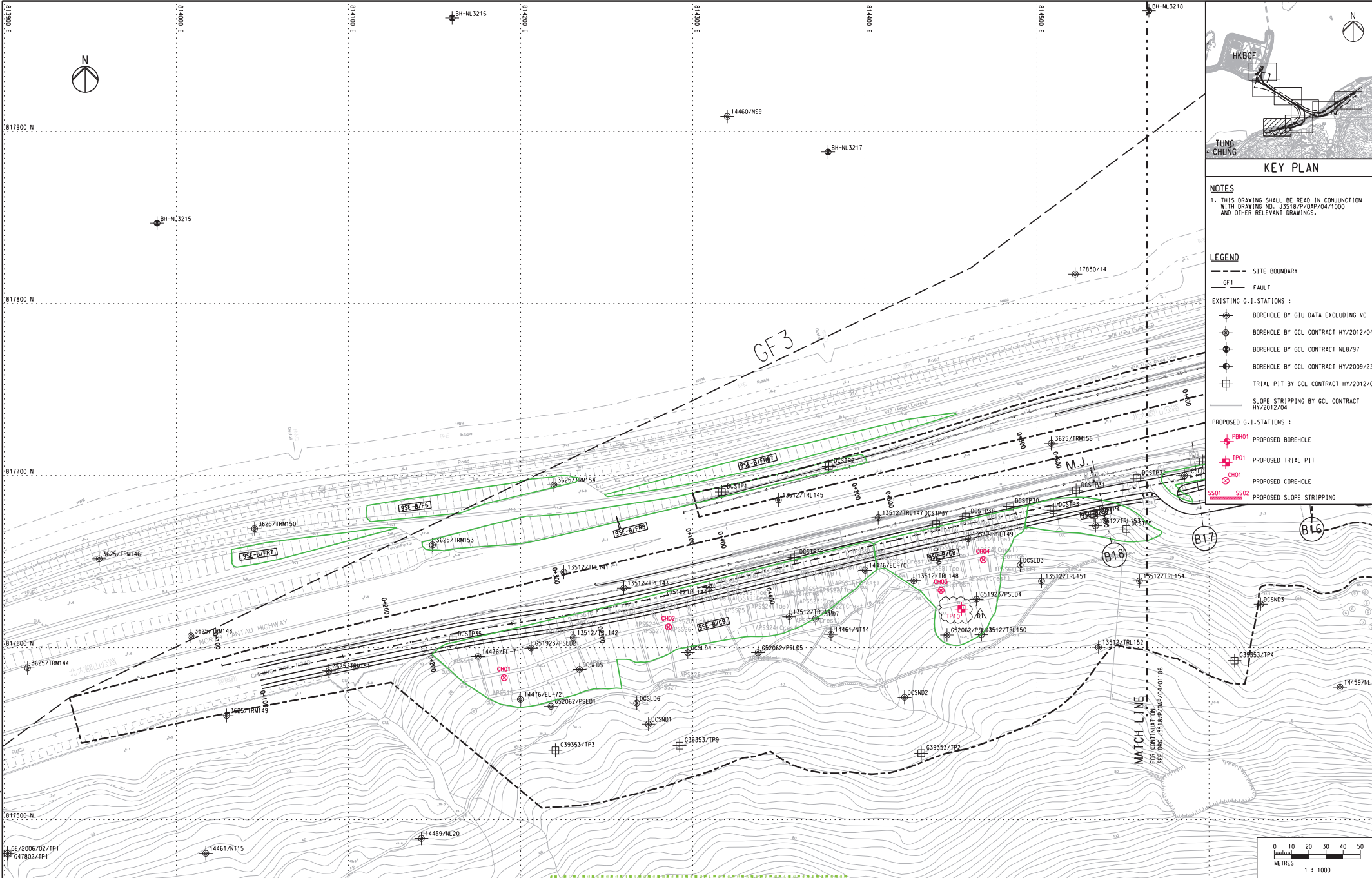
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# Figure 1.2f

Drawing no. J3518/P/OAP/04/01104 Rev. C



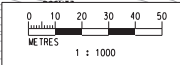
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**KEY PLAN**

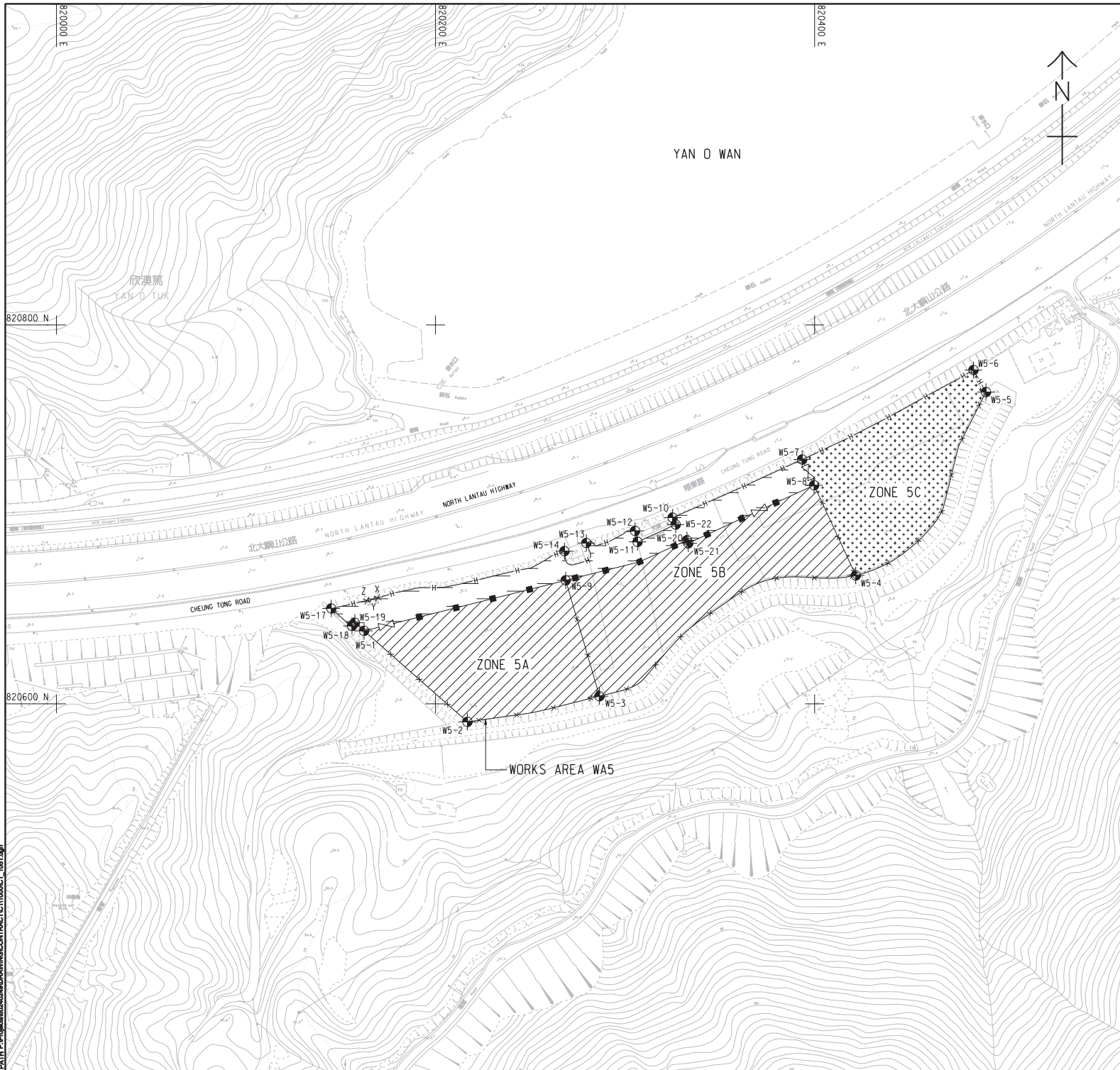
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 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

- 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 NL6/97
    - ⊕ 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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





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Checked	Approved				Drawing no. J3518/P/OAP/04/01107	Rev. D1																																																																						
DS	DOP	Supervising Officer	Contractor	Originator																																																																								
Scale																																																																												
1:1000 @ A1 / 1:2000 @ A3																																																																												



**NOTES:**

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

**LEGEND:**

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

**SETTING OUT COORDINATES OF WORKS AREA W5**

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

**ISSUE/REVISION**

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

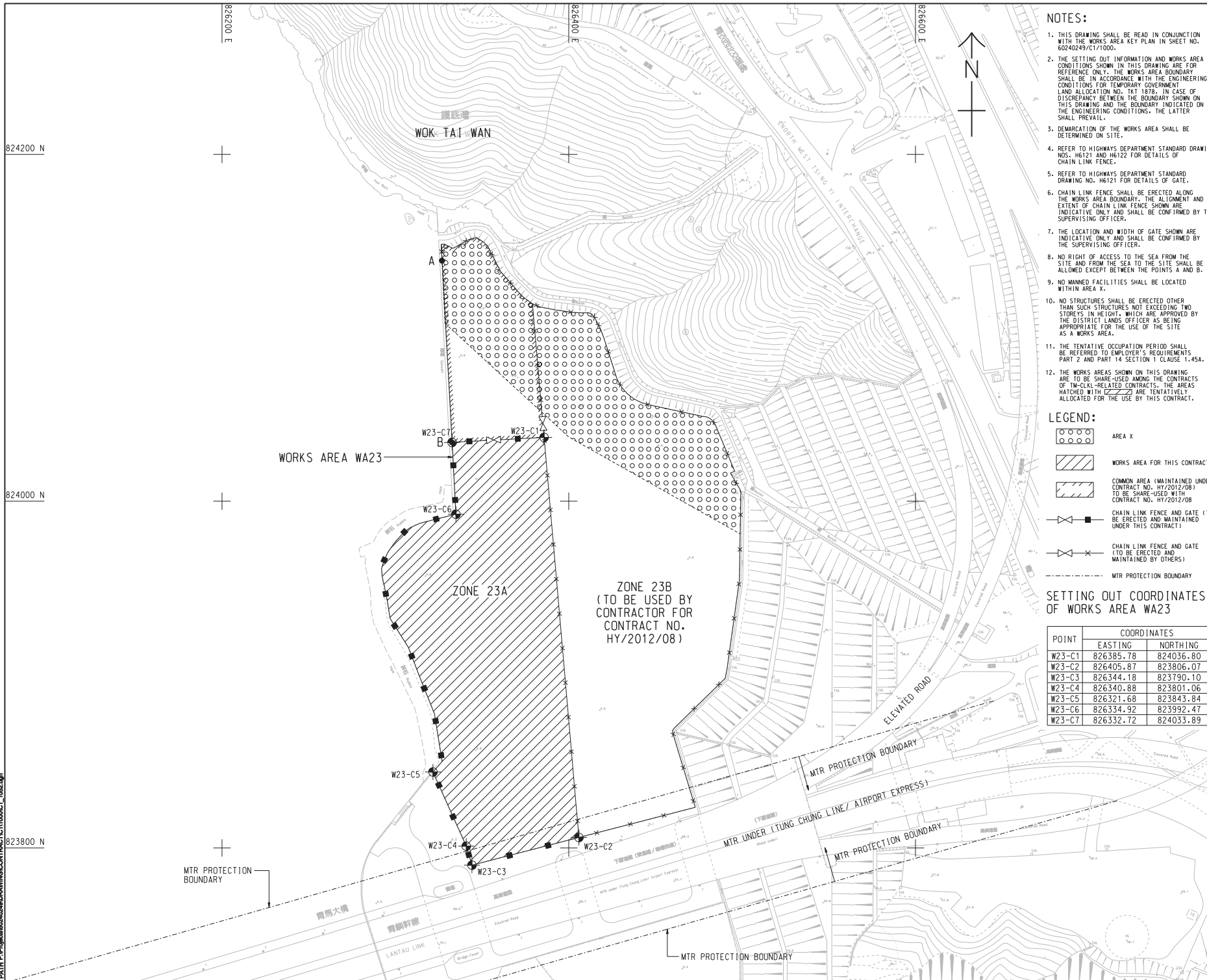
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SCALE	DIMENSION UNIT
A1:1000	METRES

**KEY PLAN**

**Figure 1.2h**

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**NOTES:**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/CT1/000.
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 1879. 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 SHARED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH [diagonal lines] ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

**LEGEND:**

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

**SETTING OUT COORDINATES OF WORKS AREA WA23**

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

**AECOM**

**PROJECT NO.**  
60240249

**CONTRACT NO.**  
HY/2012/07

**TUEN MUN - CHEK LAP KOK LINK**

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

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

**CONSULTANT**  
AECOM Asia Company Ltd.  
www.aecom.com

**SUB-CONSULTANTS**  
[Symbol]

**ISSUE/REVISION**

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

**STATUS**  
[Symbol]

**SCALE**  
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**DIMENSION UNIT**  
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**KEY PLAN**  
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**Figure 1.2i**

**PROJECT NO.**  
60240249

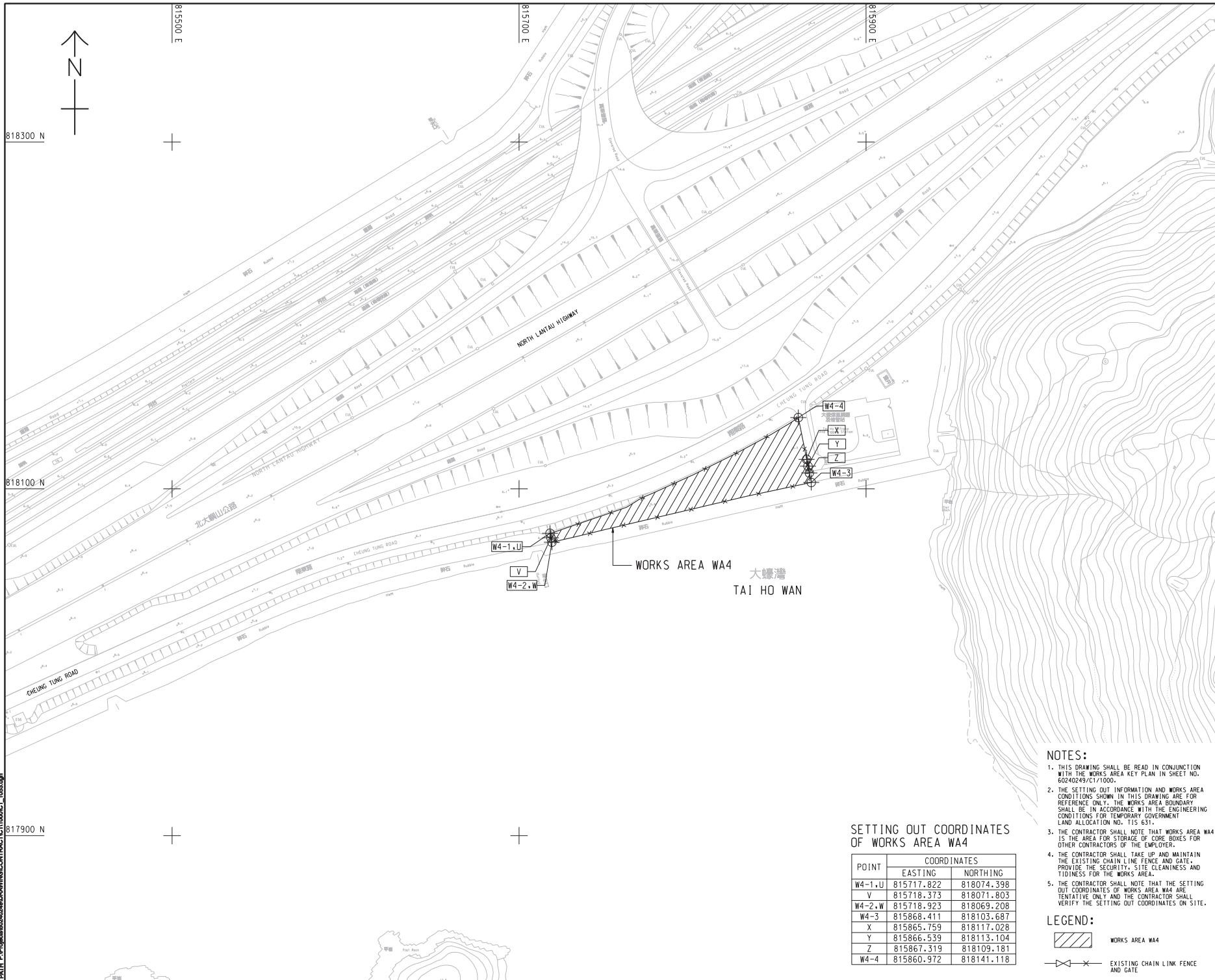
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HY/2012/07

**SHEET TITLE**  
WORKS AREA AND HOARDING PLAN

**SHEET NUMBER**  
60240249/CT1/052

**SHEET 2 OF 2**

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SETTING OUT COORDINATES OF WORKS AREA WA4

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

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

**LEGEND:**

WORKS AREA WA4

EXISTING CHAIN LINK FENCE AND GATE

**AECOM**

**PROJECT**  
 TUEN MUN - CHEK LAP KOK LINK

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

**CLIENT**  
  
 路政署 DEPARTMENT OF HIGHWAYS  
 港務局 港務工程署  
 Hong Kong + Zhuhai + Hainan Bridge  
 Hong Kong Project Management Office

**CONSULTANT**  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**  
 2/11/2012/16

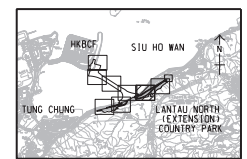
**Figure 1.2j**

**ISSUE/REVISION**

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

**SCALE**  
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**DIMENSION UNIT**  
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**PROJECT NO.**  
 60240249

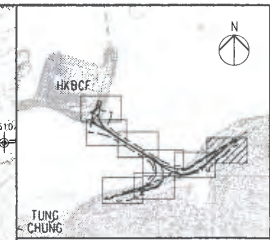
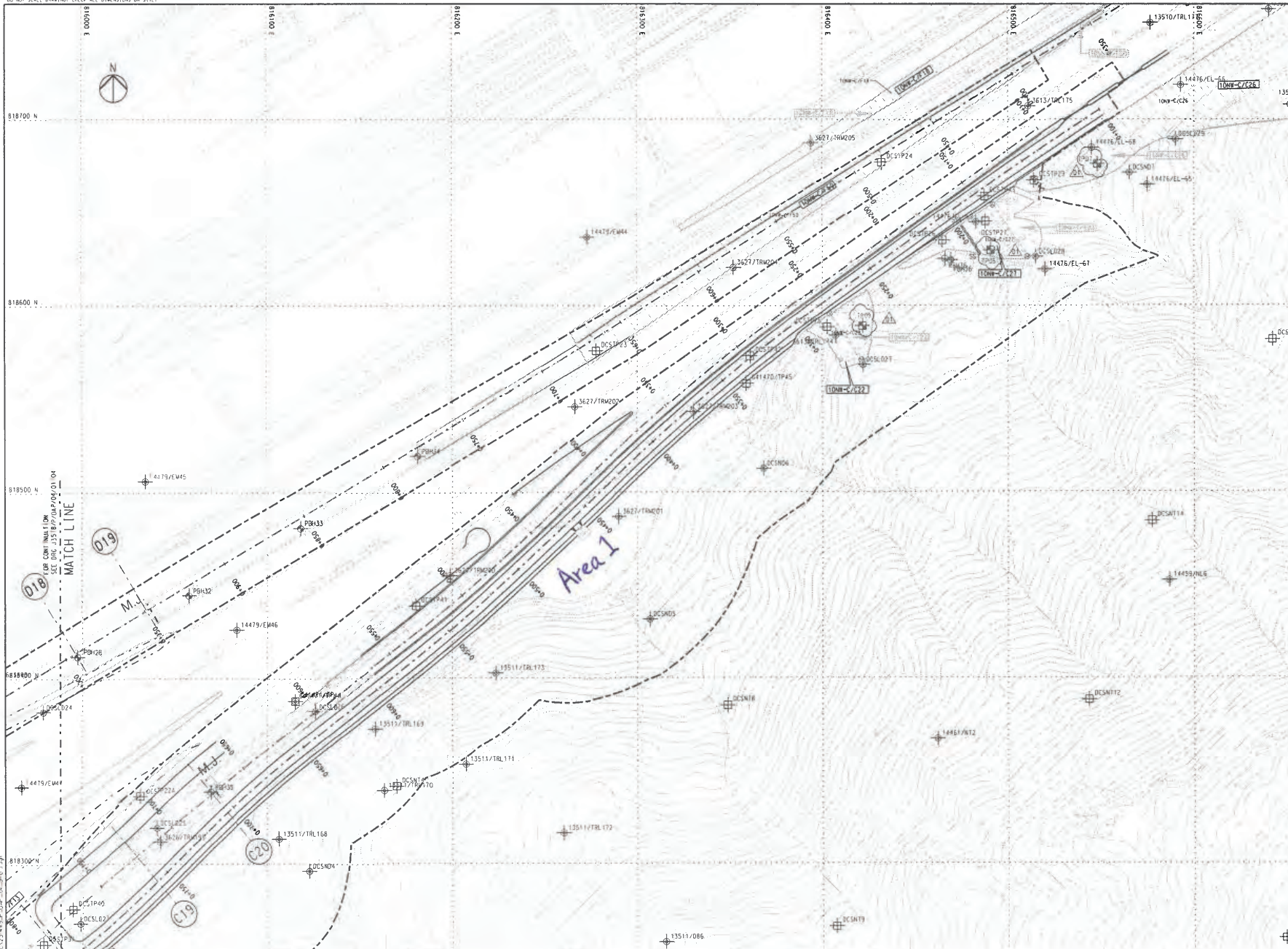
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 HY/2012/07

**SHEET TITLE**  
 WORKS AREA WA4

**SHEET NUMBER**  
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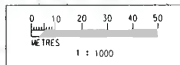
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- LEGEND**
- SITE BOUNDARY
  - GF1 FAULT
- EXISTING G.I. STATIONS :**
- ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
  - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
  - ⊕ BOREHOLE BY GCL CONTRACT N6.8/97
  - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
  - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
  - ⊕ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
- PROPOSED G.I. STATIONS :**
- ⊕ BOREHOLE
  - ⊕ TRIAL PIT
  - ⊕ COREHOLE
  - ⊕ SLOPE STRIPPING



Rev	Description	By	Date	Rev	Description	By	Date
01	ISSUED FOR CONSTRUCTION	RL	31/03				
02	ISSUED FOR CONSTRUCTION	RL	07/13				
03	ISSUED FOR CONSTRUCTION	RL	29/13				
04	ISSUED FOR CONSTRUCTION	RL	19/12				

Drawn	Date	Client
RL	07/13	路政署 HIGHWAYS DEPARTMENT
Checked	Approved	Supervising Officer
DS	DOP	AZCOM
Scale	1:1000 @ A1 / 1:2000 @ A3	

Client: 路政署  
**HIGHWAYS DEPARTMENT**  
 港珠澳大桥香港工程指挥部  
 Hong Kong - Zhuhai - Macao Bridge  
 Hong Kong Project Management Office

Supervising Officer: **AZCOM**

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

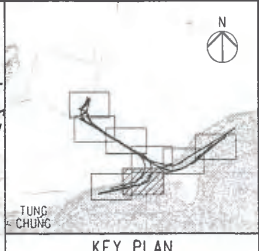
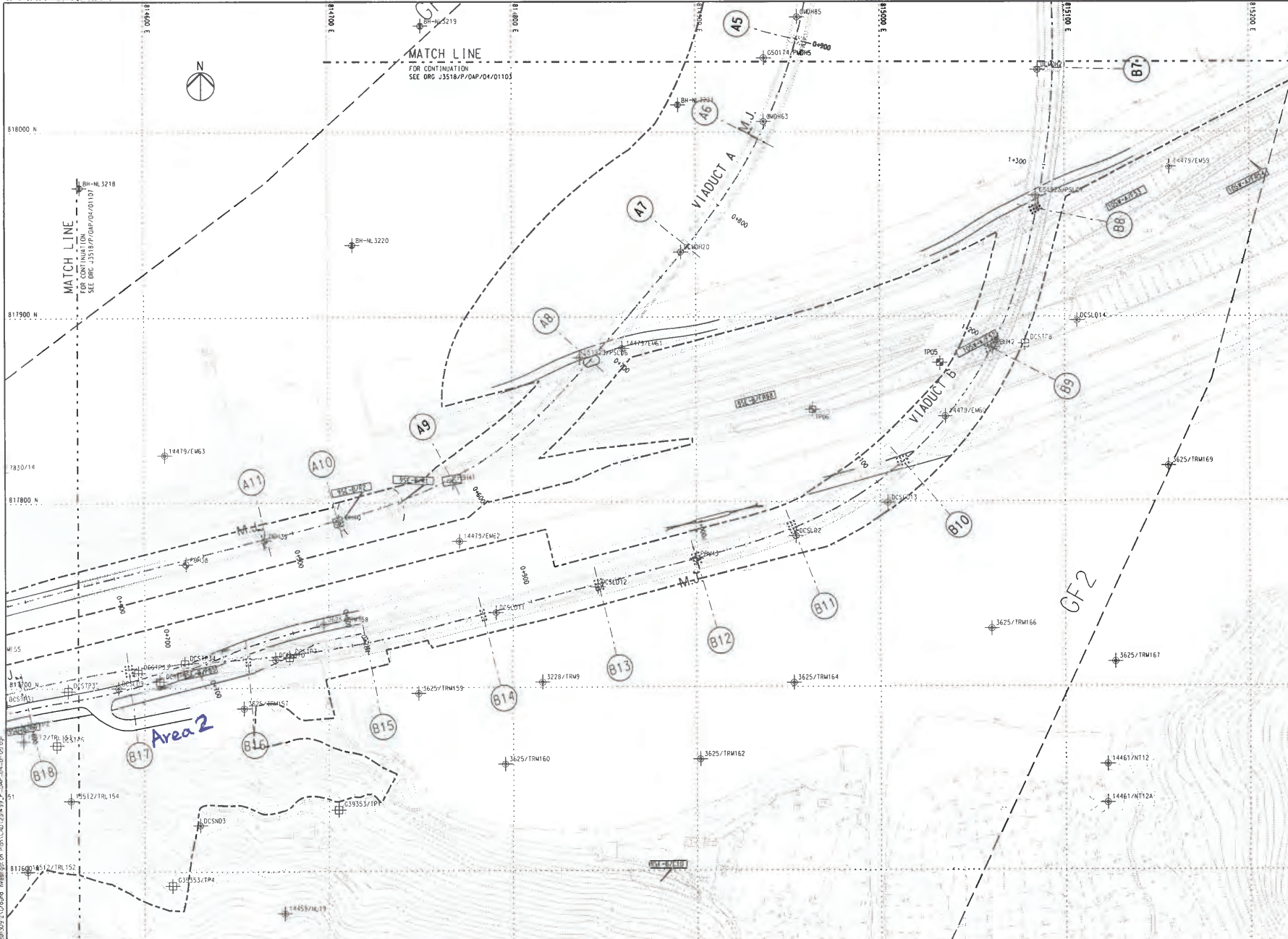
Contractor: **Gammon**

Originator: **ARUP**

Drawing title: **Figure 1.2k**

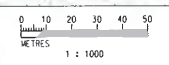
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- LEGEND**
- SITE BOUNDARY
  - GF1 FAULT
  - EXISTING G.I. STATIONS :
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    - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
    - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
    - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
    - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
    - ⊕ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
  - PROPOSED G.I. STATIONS :
    - ⊕ PROPOSED BOREHOLE
    - ⊕ PROPOSED TRIAL PIT
    - ⊕ PROPOSED COREHOLE
    - ⊕ PROPOSED SLOPE STRIPPING



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Rev	Description	By	Date	Rev	Description	By	Date
1	SUBMISSION	RL	07/13				
2	SUBMISSION	RL	07/13				
3	SUBMISSION	RL	07/13				

Drawn RL Date 07/13  Checked DS Approved DOP  Scale 1:1000 @ A1 / 1:2000 @ A3	Client  路政署 HIGHWAYS DEPARTMENT 港珠澳大桥香港工程管理有限公司 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	Project Title Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section	Drawing Title <b>Figure 1.2I</b> Drawing no. J3518/P/OAP/04/01106 Rev c
	Supervising Officer  <b>ARUP</b>	Contractor  <b>Gammon</b>	Originator  <b>ARUP</b>

## 1.2 SCOPE OF REPORT

This is the Twentieth 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 June 2015.

## 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 (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

## 1.4 SUMMARY OF CONSTRUCTION WORKS

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

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

### *Marine Works*

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;

- Pier construction;
- Launching gantry assembly;
- Marine piling and
- Installation of pier head segment

***Land-based Works***

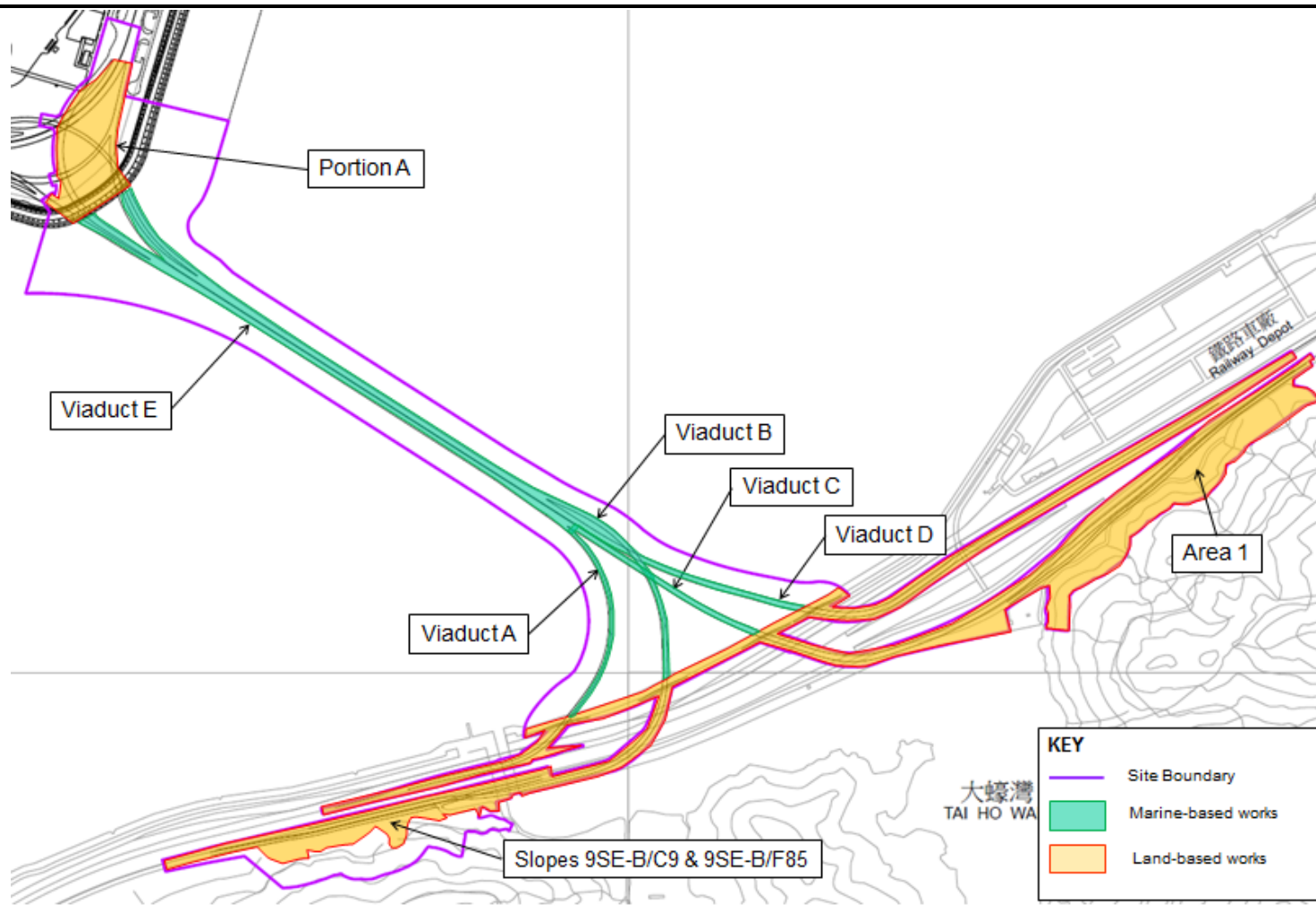
- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

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



**Key**

- Air Sensitive Receiver
- Noise Sensitive Receiver
- Water Sensitive Receiver
- ▲ Site of Special Scientific Interest (SSSI)
- Known Coral Communities
- Site Boundary

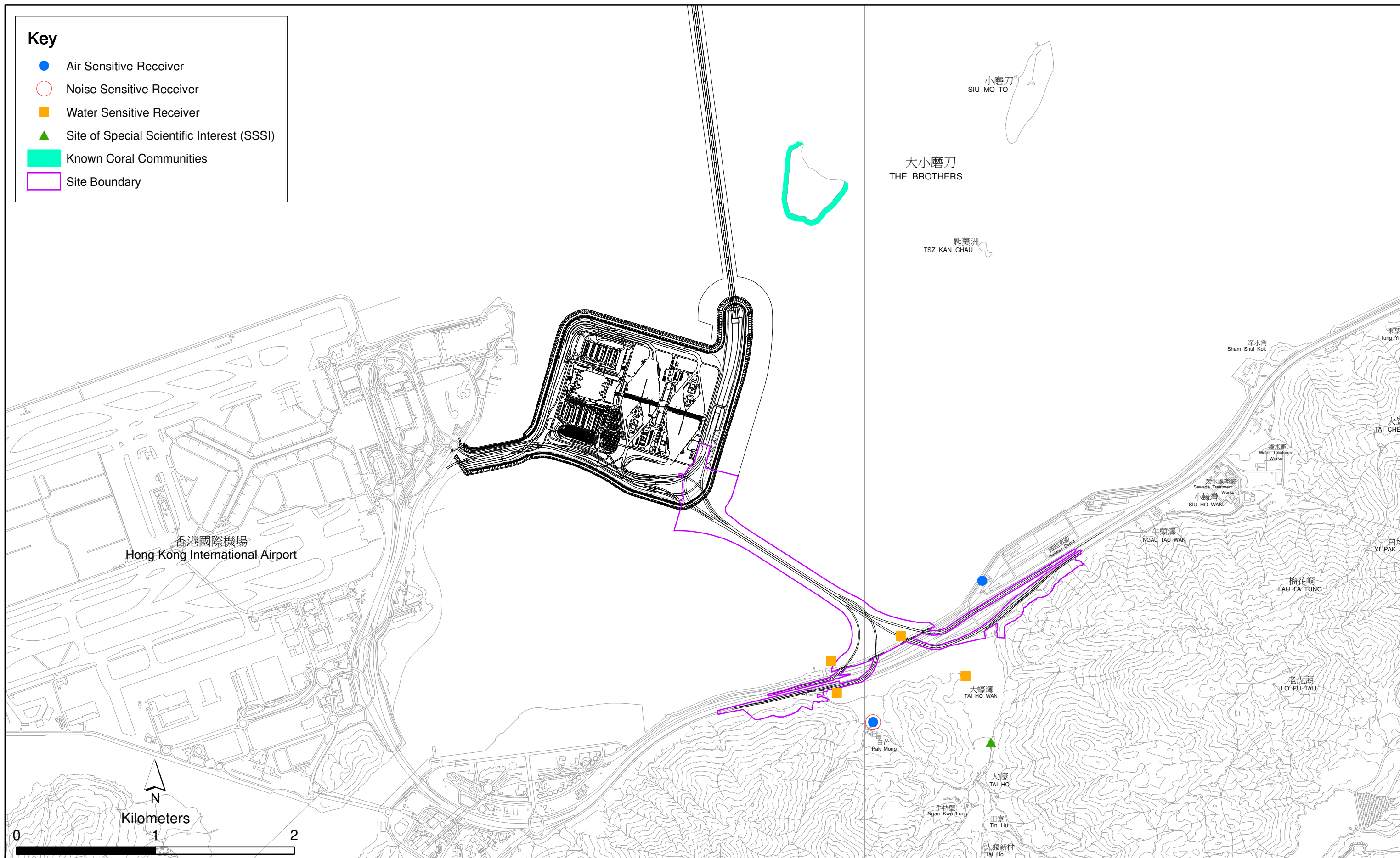


Figure 1.4

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

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Date: 18/5/2015

**Environmental  
Resources  
Management**



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

## 2.1 AIR QUALITY

### 2.1.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual, impact 1-hour TSP monitoring was conducted three (3) times every six (6) days and impact 24-hour TSP monitoring was carried out once every six (6) days when the highest dust impact was expected. The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*.

**Table 2.1** *Locations of Impact Air Quality Monitoring Stations*

Monitoring Station	Location	Description	Monitoring Dates
ASR 9	MTR Depot	On the ground nearby MTR Depot Entrance	2, 8, 11, 17, 23 and 29 June 2015
ASR 8A	Area 4	On ground at the works area, Area 4	2, 8, 11, 17, 23 and 29 June 2015

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 2, 8, 11, 17, 23 and 29 June 2015 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*.

**Key**

- Alternative Air Monitoring Station
- Site Boundary

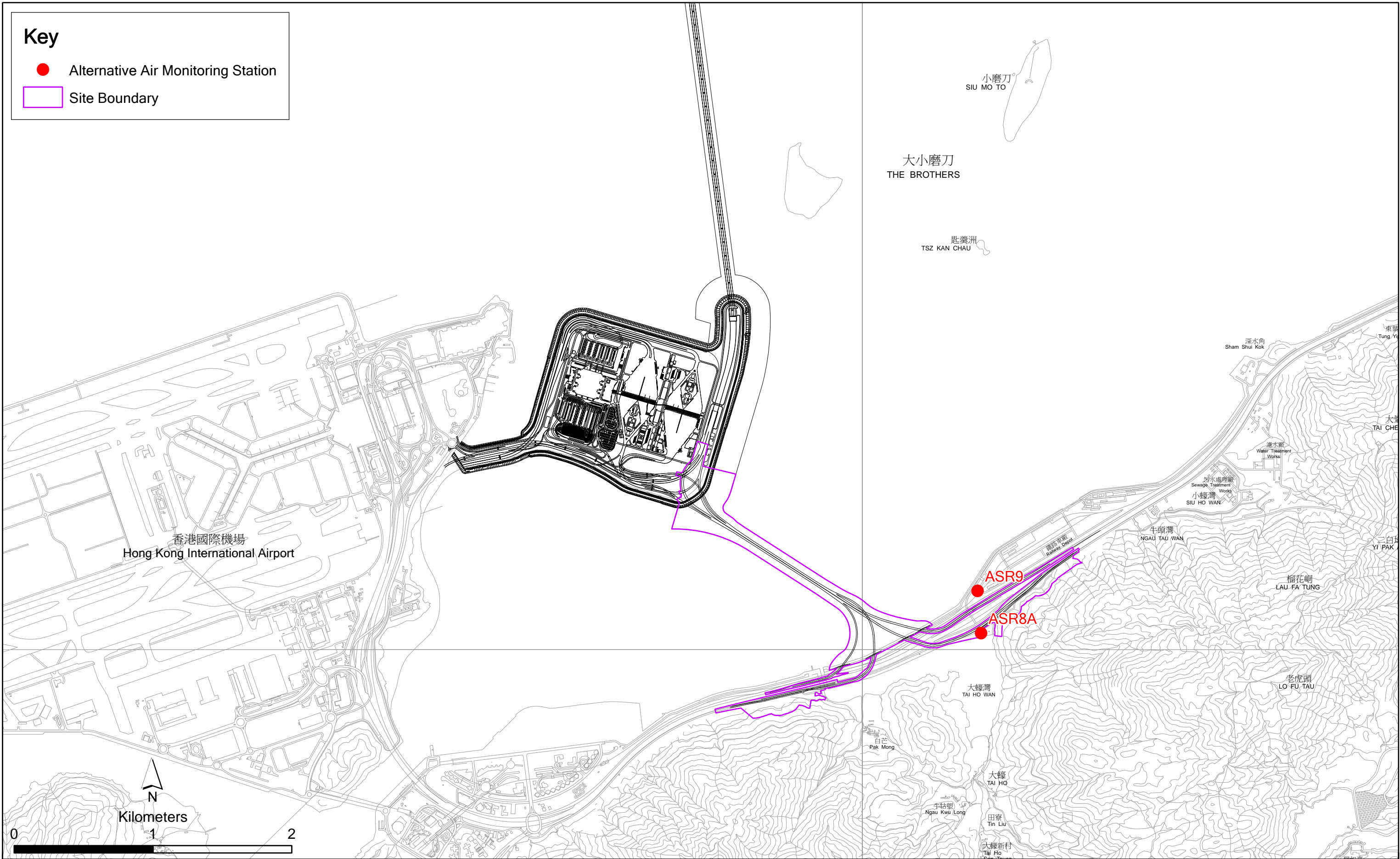


Figure 2.1

**Locations of Air Quality Monitoring Stations**

**Table 2.2** *Air Quality Monitoring Equipment*

<b>Equipment</b>	<b>Brand and Model</b>
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 June 2015 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*

<b>Monitoring Station</b>	<b>Average (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Range (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Action Level (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Limit Level (<math>\mu\text{g}/\text{m}^3</math>)</b>
ASR 8A	59	41 - 95	394	500
ASR 9	71	48 - 119	393	500

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

<b>Monitoring Station</b>	<b>Average (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Range (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Action Level (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Limit Level (<math>\mu\text{g}/\text{m}^3</math>)</b>
ASR 8A	45	42 - 47	178	260
ASR 9	47	45 - 49	178	260

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

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

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

## 2.2 NOISE MONITORING

### 2.2.1 Monitoring Requirements and Equipment

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

Noise monitoring was performed on 2, 8, 11, 17, 23 and 29 June 2015 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	2, 8, 11, 17, 23 and 29 June 2015

**Table 2.6** *Noise Monitoring Equipment*

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

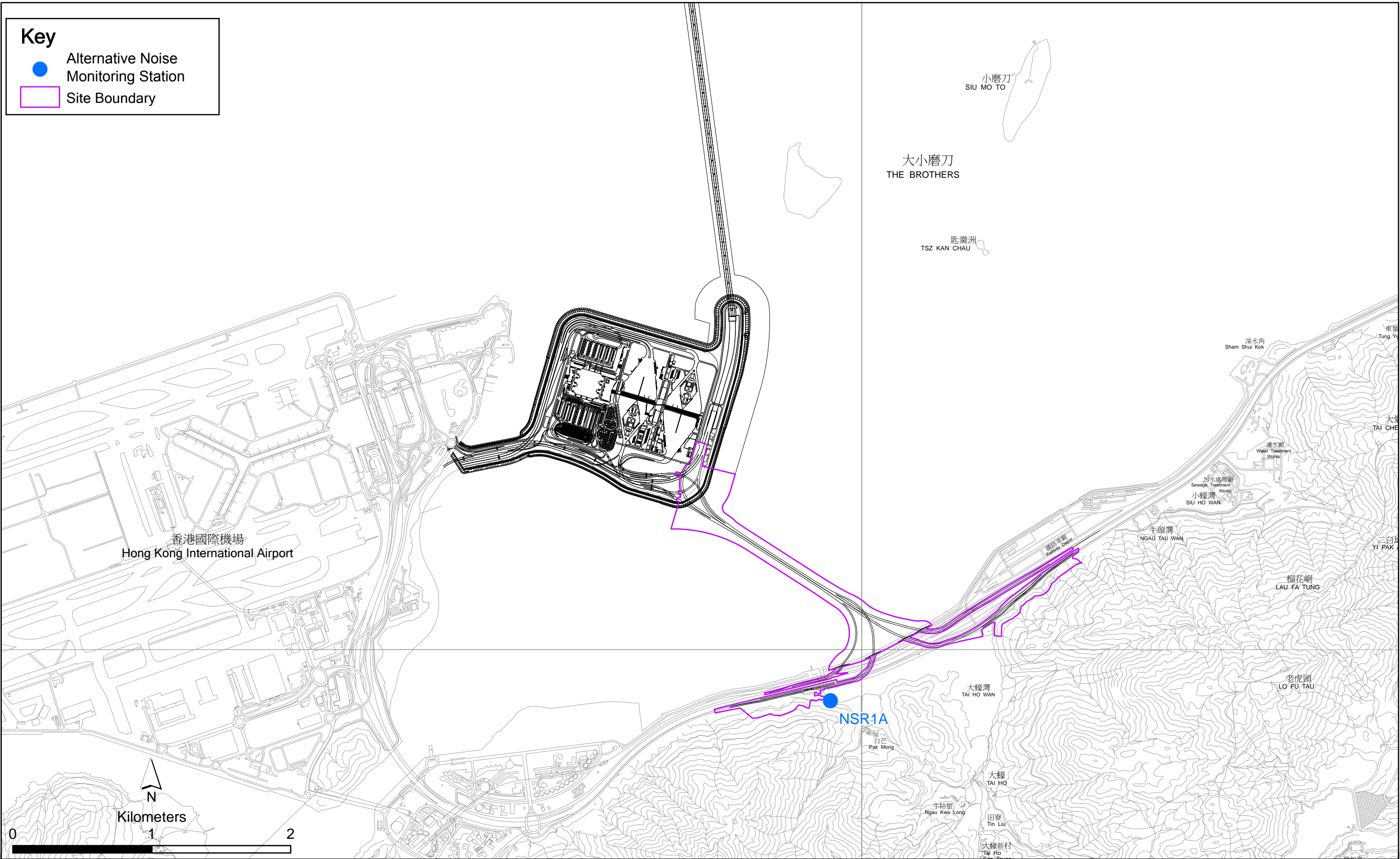


Figure 2.2

Location of Noise Monitoring Station

## 2.2.2 *Monitoring Schedule for the Reporting Month*

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

## 2.2.3 *Results and Observations*

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

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

	Average , dB(A), L <sub>eq</sub> (30mins)	Range, dB(A), L <sub>eq</sub> (30mins)	Limit Level, dB(A), L <sub>eq</sub> (30mins)
NSR 1A	59	58 - 60	75

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

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

## 2.3 *WATER QUALITY MONITORING*

### 2.3.1 *Monitoring Requirements and Equipment*

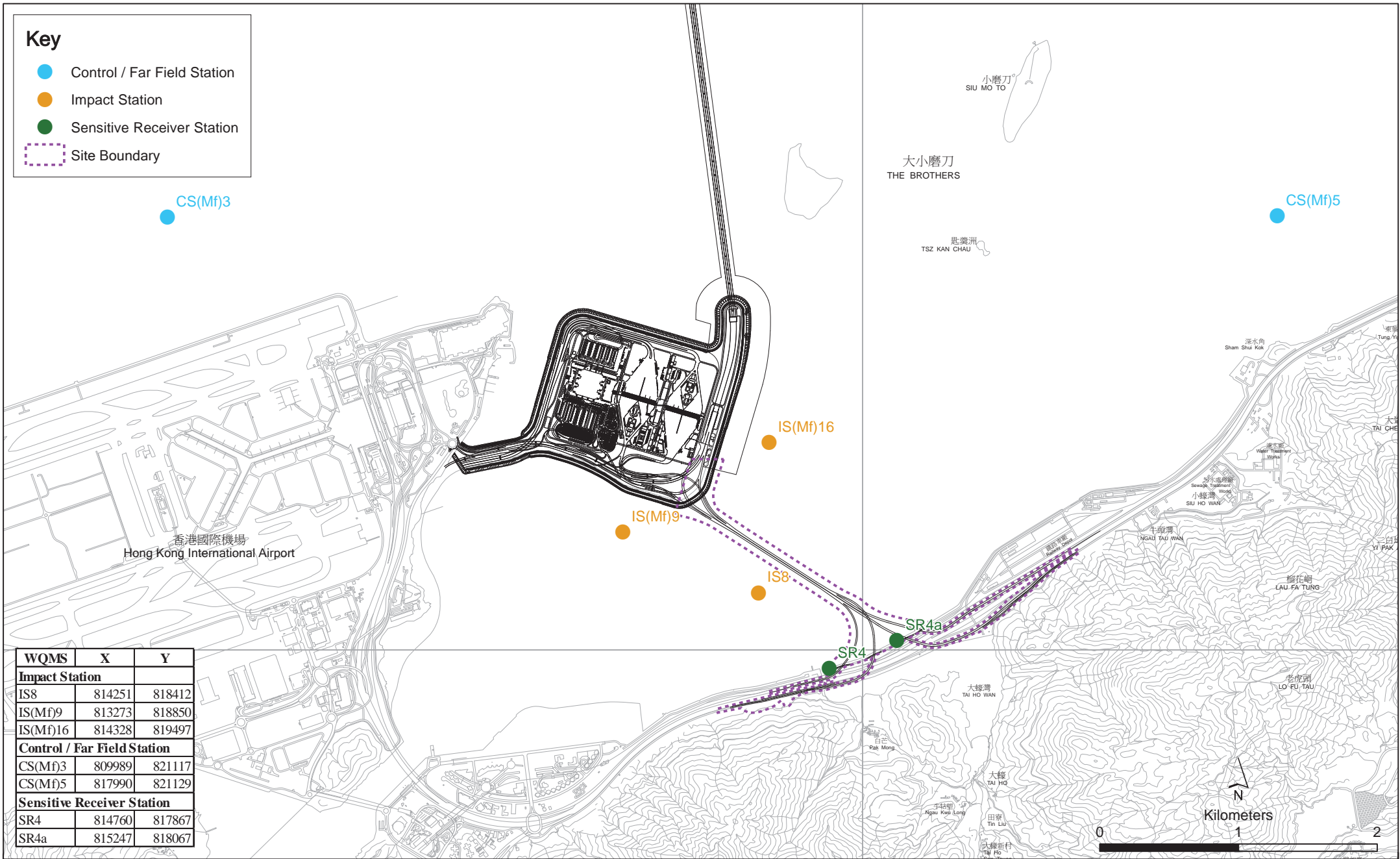
Impact water quality monitoring was carried out to ensure that any deterioration of water quality was detected, and that timely action was taken to rectify the situation. Impact water quality monitoring was undertaken three days per week during the construction period in accordance with the Updated EM&A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

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



**Key**

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



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

Figure 2.3

Locations of Water Quality Monitoring Stations

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

Station ID	Type	Coordinates		*Parameters, unit	Frequency	Depth
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	<ul style="list-style-type: none"> <li>• Temperature(°C)</li> <li>• pH (pH unit)</li> <li>• Turbidity (NTU)</li> </ul>	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract	3 water depths: 1m below sea surface, mid-depth and 1m above sea bed. If the water depth is less than 3m, mid-depth sampling only. If water depth less than 6m, mid-depth may be omitted
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497			
IS8	Impact Station (Close to HKBCF construction site)	814251	818412			
SR4	Sensitive receiver (Tai Ho Inlet)	814760	817867			
SR4a	Sensitive receiver	815247	818067			
CS(Mf)3	Control Station	809989	821117			
CS(Mf)5	Control Station	817990	821129			

\*Notes:

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

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

**Table 2.9** *Water Quality Monitoring Equipment*

Equipment	Brand and Model
DO and Salinity	YSI Pro2030
Turbidity meter	HACH Model 2100Q
pH meter	HANNA HI8314
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 June 2015 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*.

No Action and 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* summarises the equipment used for the impact dolphin monitoring.

**Table 2.10** *Dolphin Monitoring Equipment*

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

### **2.4.3**      *Monitoring Parameter, Frequencies and Duration*

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

### **2.4.4**      *Monitoring Location*

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

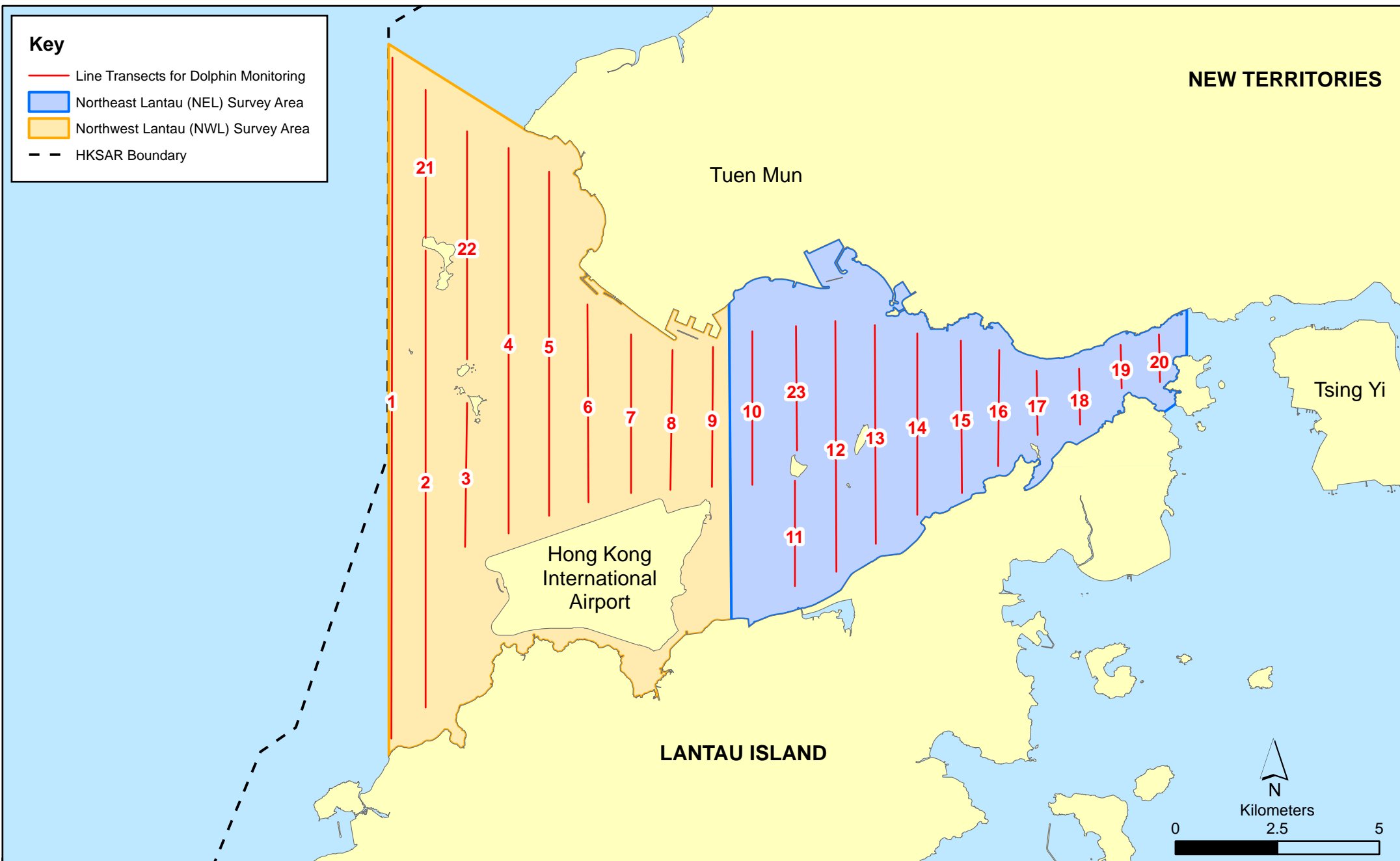


Figure 2.4

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

**Table 2.11 Impact Dolphin Monitoring Line Transect Co-ordinates**

Line No.		Easting	Northing	Line No.		Easting	Northing
1	Start Point	804671	814577	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805475	815457	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	820690	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	820847	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	820892	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	818449	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 2, 10, 24 and 26 of June 2015 (*Appendix F*).

## 2.4.7 *Results and Observations*

A total of 301.30 km of survey effort was collected, with 91.6% 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 of June 2015. Among the two areas, 115.90 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 220.07 km and 81.23 km respectively. The survey efforts are summarized in *Appendix K*.

Three (3) groups of fifteen (15) Chinese White Dolphins were sighted during the two sets of monitoring surveys in June 2015. Two (2) sightings were made in NWL, while one (1) sighting of a lone dolphin was made in NEL. During surveys of June 2015, all three (3) dolphin sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with operating fishing vessel. No sighting was made in the proximity of the Project's alignment. The distribution of dolphin sighting during the reporting month is shown in *Figure 2.5*.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in June 2015 are shown in *Tables 2.12 & 2.13*.

**Table 2.12** *Individual Survey Event Encounter Rates*

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
NEL	Set 1: June 2 <sup>nd</sup> / 10 <sup>th</sup>	0.0	0.0
	Set 2: June 24 <sup>th</sup> / 26 <sup>th</sup>	2.6	2.6
NWL	Set 1: June 2 <sup>nd</sup> / 10 <sup>th</sup>	1.5	15.2
	Set 2: June 24 <sup>th</sup> / 26 <sup>th</sup>	1.6	6.4

Note: Dolphin Encounter Rates are deduced from the two sets of surveys (two surveys in each set) in June 2015 in Northeast (NEL) and Northwest Lantau (NWL)

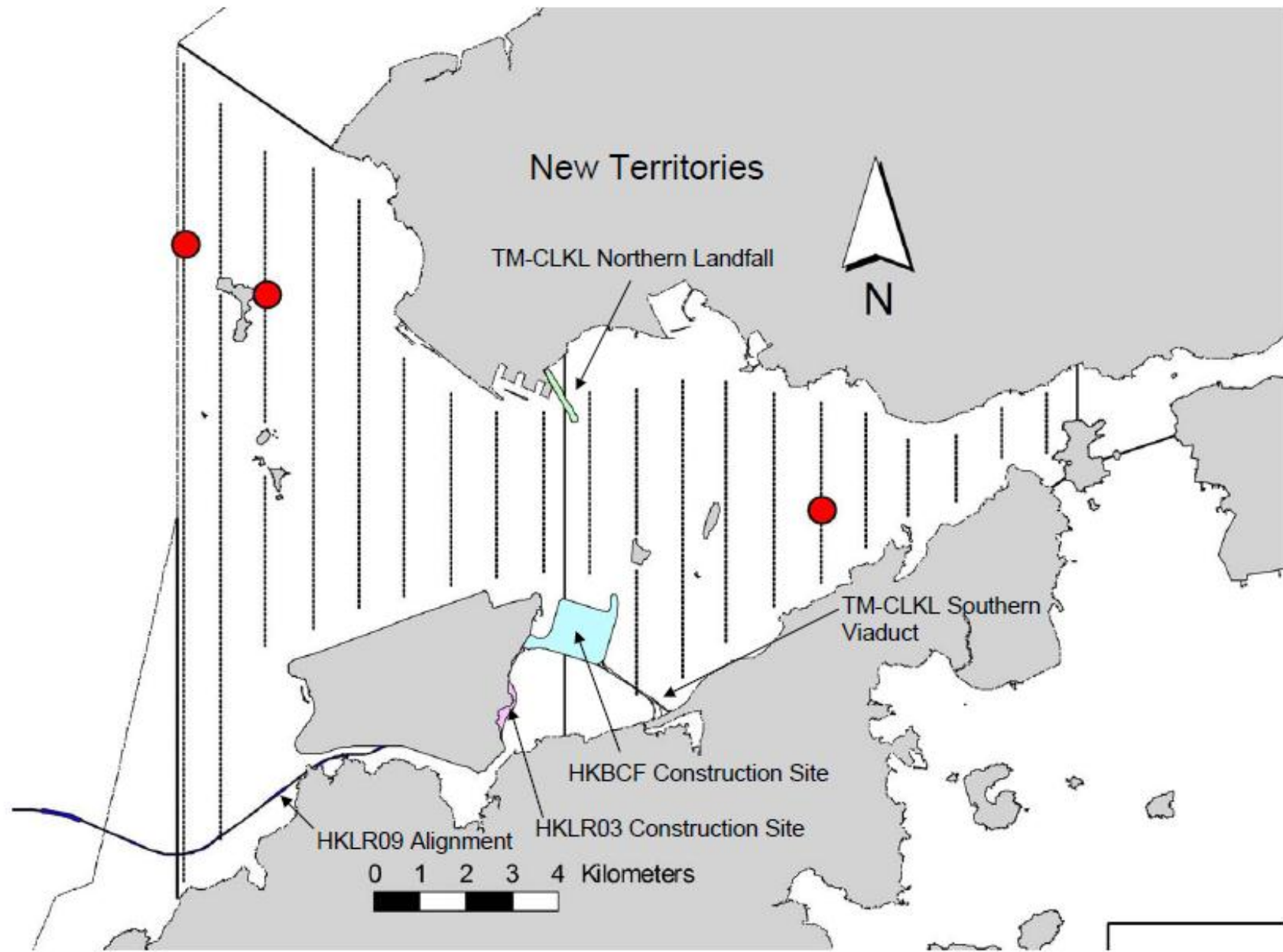


Figure 2.5

HY/2012/07 TM-CLKL Southern Connection Viaduct Section  
 The distribution of dolphin sightings during the reporting period  
 (Source: Adopted from HKLR03 Monitoring Survey in June 2015)

Date 2/7/2015

Environmental  
 Resources  
 Management





**Table 2.13 Monthly Average Encounter Rates**

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
<b>Northeast Lantau</b>	1.3	0.9	1.3	0.9
<b>Northwest Lantau</b>	1.6	1.2	10.9	8.7

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in June 2015 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau

No unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

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 marine works activities being undertaken. Passive Acoustic Monitoring (PAM) was not implemented as the marine piling works were not carried out outside the daylight hours in this reporting month. No sighting of Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in June 2015 during the exclusion zone monitoring.

#### **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 2, 10, 17 and 25 June 2015.

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

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

<b>Inspection Date</b>	<b>Environmental Observations</b>	<b>Recommendations/ Remarks</b>
2 June 2015	Pier E11 <ul style="list-style-type: none"> <li>Excessive soil was found in gutter.</li> <li>Stagnant water was accumulated in drip tray.</li> </ul> Pier E6 <ul style="list-style-type: none"> <li>A label for sediment was missing on barge.</li> </ul> Barge G39 <ul style="list-style-type: none"> <li>Some chemical containers were not placed in drip tray.</li> </ul>	Pier E11 <ul style="list-style-type: none"> <li>Gutter should be cleaned up regularly.</li> <li>Stagnant water should be removed to avoid runoff.</li> </ul> Pier E6 <ul style="list-style-type: none"> <li>Type of sediment should be properly labelled..</li> </ul> Barge G39 <ul style="list-style-type: none"> <li>Chemical containers should be placed in drip tray.</li> </ul>
10 June 2015	Area 1 <ul style="list-style-type: none"> <li>Refuse was found in drainage.</li> <li>Some chemical containers were not placed in drip tray</li> </ul>	Area 1 <ul style="list-style-type: none"> <li>Refuse in drainage should be cleaned up.</li> <li>Chemical containers should be placed in drip tray.</li> </ul>
17 June 2015	Pier E13 <ul style="list-style-type: none"> <li>The updated dumping permit was not displayed.</li> <li>A generator was not placed on acoustic decoupling pad.</li> <li>A drip tray was not plugged.</li> </ul>	Pier E13 <ul style="list-style-type: none"> <li>The updated dumping permit should be displayed.</li> <li>Generator on marine platform should be placed on acoustic decoupling pad.</li> <li>Drip tray should be plugged.</li> </ul>
25 June 2015	Site Entrance 4A <ul style="list-style-type: none"> <li>Cover of a dump truck was damaged.</li> <li>Excessive soil was found in drainage.</li> <li>Chemical containers were not placed in drip tray.</li> </ul> Barge G39 <ul style="list-style-type: none"> <li>Chemical containers were not placed in drip tray.</li> </ul>	Site Entrance 4A <ul style="list-style-type: none"> <li>Cover of a dump truck should be able to effectively cover dusty material.</li> <li>Soil in drainage should be cleaned up. Bund or sandbag should be provided to avoid soil runoff into drainage.</li> <li>Chemical containers should be placed in drip tray.</li> </ul> Barge G39 <ul style="list-style-type: none"> <li>Chemical containers should be placed in drip tray.</li> </ul>

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), recyclable materials, chemical wastes and marine sediment (Categories M and L). Reference has been made to the waste flow table prepared by the Contractor (*Appendix M*). The quantities of different types of wastes are summarized in *Table 2.15*.

**Table 2.15 Quantities of Different Waste Generated in the Reporting Period**

Month/Year	Inert C&D Materials <sup>(a)</sup> (m <sup>3</sup> )	Imported Fill (m <sup>3</sup> )	Inert Construction Waste Re-used (m <sup>3</sup> )	Non-inert Construction Waste <sup>(b)</sup> (kg)	Recyclable Materials <sup>(c)</sup> (kg)	Chemical Wastes (kg)	Marine Sediment (m <sup>3</sup> )	
							Category L	Category M (M <sub>p</sub> & M <sub>f</sub> )
June 2015	7,166	0	1,144	89,930	119	17	324	287

**Notes:**

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

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

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

**2.7 ENVIRONMENTAL LICENSES AND PERMITS**

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

**Table 2.16 Summary of Environmental Licensing and Permit Status**

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/D	13 March 2015	N/A	HyD	Tuen Mun- Chek Lap Kok Link
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	Nil	N/A	N/A	GCL	For Piling Works
Construction Noise Permit for night works and works in general holidays	GW-RW0093-15	26 Feb 2015	26 Aug 2015	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS0307-15	27 Mar 2015	27 Sep 2015	GCL	For Load unload at NLH near Viaduct D
Construction Noise Permit for night works and works in general holidays	GW-RS0691-15	23 Jun 2015	22 Dec 2015	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RS0078-15	28 Jan 2015	29 Jul 2015	GCL	For Plant mobilization using tractor with trailer
Construction Noise Permit for night works and works in general holidays	GW-RS0539-15	14 May 2015	31 Jul 2015	GCL	B9-B16 Pier Head Segments Erection
Construction Noise Permit for night works and works in general holidays	GW-RS0137-15	12 Feb 2015	15 Aug 2015	GCL	Pre-casted pile cap shell installation at E10-E13
Construction Noise Permit for night works and works in general holidays	GW-RW0695-15	30 Jun 2015	30 Nov 2015	GCL	Segment Erection between B6-B11 by LG1

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
works in general holidays Construction Noise Permit for night works and works in general holidays	GW-RS0491-15	8 May 2015	30 Jun 2015	GCL	TTA Case 009 Ch.2.1E-4.2E
works in general holidays Construction Noise Permit for night works and works in general holidays	GW-RS0489-15	8 May 2015	7 Aug 2015	GCL	B8 Pier Head Temp Works Lifting
Marine Dumping Permit	EP/MD/16-020	22 May 2015	26 Jun 2015	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/15-257	2 Apr 2015	7 Oct 2015	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.

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

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

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

One (1) environmental complaint regarding to dust emission from vehicles of this Project was received on 18 June 2015. An investigation was carried out by ET on 18 June 2015. Another investigation was conducted by EPD with SOR and Contractor on 19 June 2015. Detailed investigation report for the complaint is presented in *Appendix N*.

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

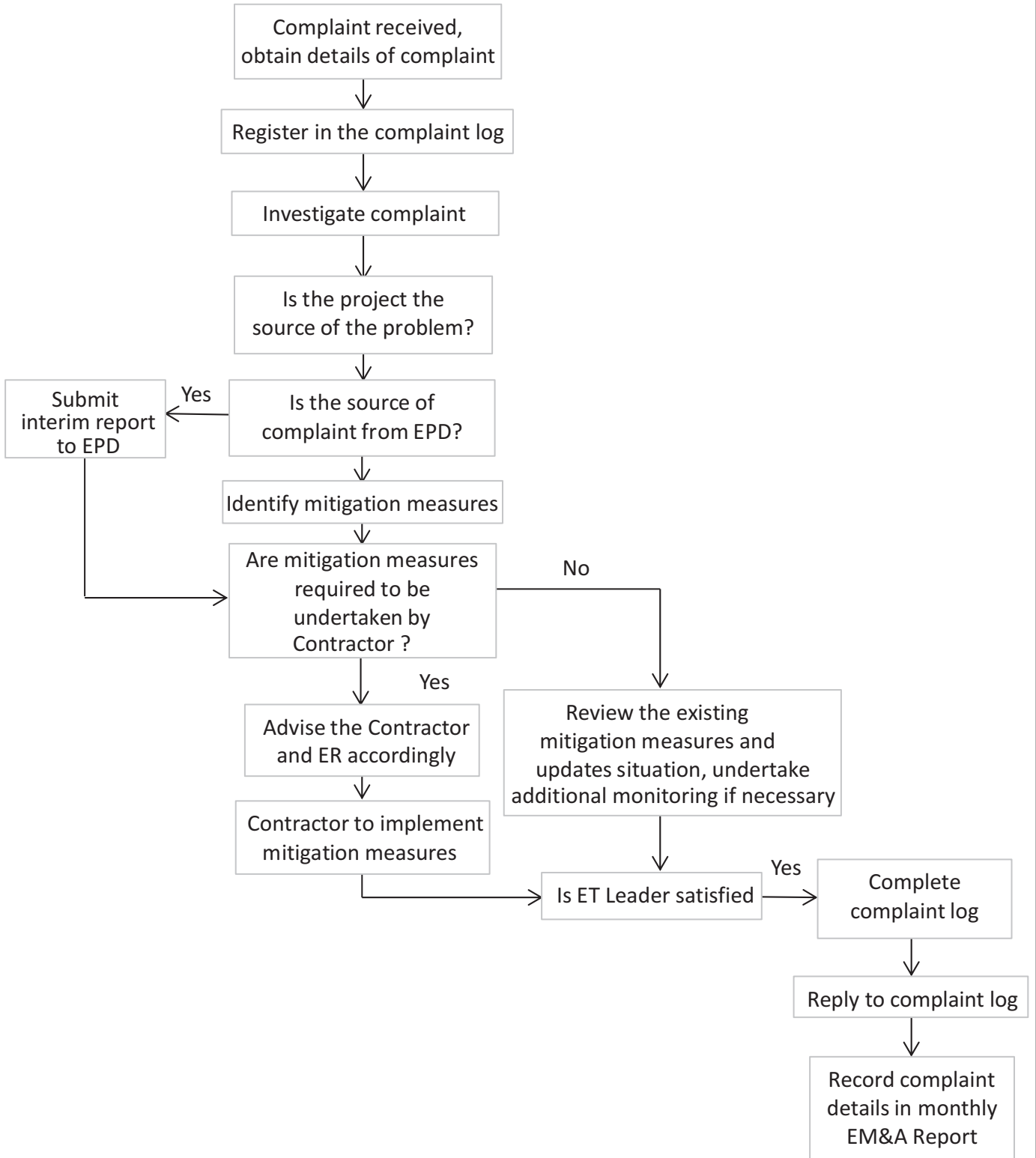


Figure 2.6

Environmental Complaint Handling Procedure

### 3 *FUTURE KEY ISSUES*

#### 3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTHS*

As informed by the Contractor, the major works for this Contract in July 2015 will be:

##### *Marine Works*

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry assembly;
- Marine piling and
- Installation of pier head segment

##### *Land-based Works*

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

#### 3.2 *KEY ISSUES FOR THE COMING MONTH*

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of July 2015 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 July 2015 are provided in *Appendix F*.



#### 4.1 CONCLUSIONS

This Twentieth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 30 June 2015, in accordance with the Updated EM&A Manual and the requirements of the Environmental Permit (*EP-354/2009/D*).

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

Three (3) groups of fifteen (15) Chinese White Dolphins were sighted during the two sets of monitoring surveys in June 2015. Two (2) sightings were made in NWL, while one (1) sighting of a lone dolphin was made in NEL. During surveys of June 2015, all three (3) dolphin sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with operating fishing vessel. No sighting was made in the proximity of the Project's alignment. During this month of dolphin monitoring, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

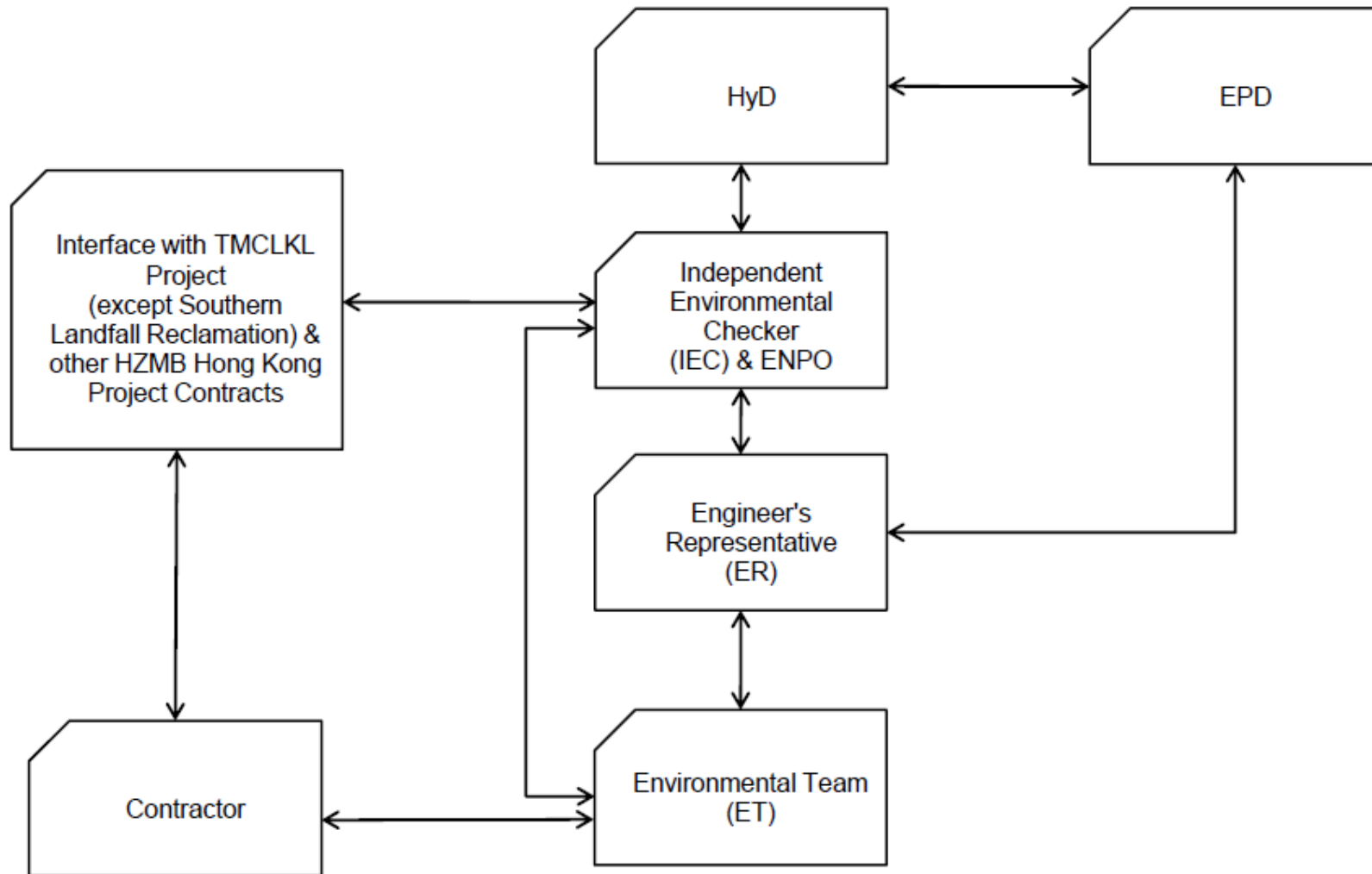
Environmental site inspection was carried out four (4) times in June 2015. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

One (1) environmental complaint regarding to dust emission from vehicles of this Project was received in the reporting month.

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

Appendix A

## Project Organization for Environmental Works



↔ Line of Communication

Appendix B

## Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015															
												May				June				July				August			
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03

## HY/2012/07 - TM-CLK Link-SC [DWP rE1] - Status Update 21-05-2015

### Contract Key Dates

#### Possession Dates / Access Period

POS02	Portion A (Commencement of Works+499 days)	0	03-Jun-15*	0%	0		03-Jun-15		0	0	0%
POS03	Portion B (Commencement of Works+619 days)	0	03-Jun-15*	0%	0		03-Jun-15		0	0	0%

#### Section Completion Dates

##### Vacate Works Area

VAC05	Vacate Works Area WA5 (Zone 5C) (Commencement of Works+758 days)	0		0%	0	19-Jul-15*		19-Jul-15	0	1230	0%
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### General Submissions

#### General Requirements

##### Temporary Works Design

PR00130	Unloading Jetty at HKBCF - Working Platform design and approval	90	02-Jun-14 A	60%	36	04-Jul-15	14-May-15	26-Jun-15	-6	1014	10%
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##### Land Works

PR00160	Propose/submit a performance review for piled fnds in accordance w/ ETWB TCW No. 4/20(	101	26-May-14 A	80.2%	20	13-Jun-15	13-Jan-16	04-Feb-16	194	366	80%
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##### Land GI Works

PR02204	SQR Sampling & Testing and Approval	110	14-Aug-14 A	68.18%	35	03-Jul-15	24-Sep-14	05-Nov-14	-192	0	68%
PR03110	Trial Pits along Cheung Tung Road	20	21-Oct-13 A	85%	3	23-May-15	03-Nov-14	05-Nov-14	-160	44	85%

### 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	20	21-May-15	0%	20	17-Jun-15	25-Sep-15	22-Oct-15	91	0	0%
ARDD0037-2	IC/SO Approval of Seismic Performance Report Viaduct A,B,C,D - AP12.01	75	18-Jun-15	0%	75	30-Sep-15	23-Oct-15	04-Feb-16	91	243	0%
ARDD0037-4	Preparation of Seismic Performance Report Viaduct E - AP12.02	20	25-May-15	0%	20	19-Jun-15	25-Sep-15	22-Oct-15	89	0	0%
ARDD0037-5	IC/SO Approval of Seismic Performance Report Viaduct E - AP12.02	75	22-Jun-15	0%	75	02-Oct-15	23-Oct-15	04-Feb-16	89	0	0%
ARDD0037-7	Preparation of Seismic Performance Report Viaduct F - AP12.03	20	21-May-15	0%	20	17-Jun-15	25-Sep-15	22-Oct-15	91	0	0%
ARDD0037-8	IC/SO Approval of Seismic Performance Report Viaduct F - AP12.03	75	18-Jun-15	0%	75	30-Sep-15	23-Oct-15	04-Feb-16	91	0	0%
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	40%	45	22-Jul-15	21-Aug-15	22-Oct-15	66	0	50%
ARDD0042-4	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	0		0%	0	22-Jul-15		22-Oct-15	66	65	0%

#### Viaduct E5 and E6

##### Viaduct Design

###### Viaduct E5 E6 Superstructure Optimisation

TGP0550	Viaduct E5 & E6 - Preparation of Optimised Movement Joint Schedule	15	03-Feb-15 A	40%	9	02-Jun-15	24-Nov-15	04-Dec-15	133	74	40%
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###### Associated Construction Milestones

ARDD0175	Viaduct E5 & E6 - DDA approval ready for Initial Segment Casting	0	25-Apr-15 A	100%	0						100%
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#### Viaduct E7 & E8

##### Viaduct Design

###### Viaduct E7 E8 Superstructure Optimisation

TGP0750	Viaduct E7 & E8 - Preparation of Optimised Movement Joint Schedule	15	03-Feb-15 A	40%	9	02-Jun-15	24-Nov-15	04-Dec-15	133	74	40%
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###### Associated Construction Milestones

ARDD0220	Viaduct E7 & E8 - DDA approval ready for Initial Segment Casting	0	21-May-15	0%	0		26-May-15		5	105	0%
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#### Viaduct E2

##### Associated Construction Milestones

ARDD0266	Viaduct E2 - DDA approval ready for Initial Segment Casting	0	25-Apr-15 A	100%	0						100%
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#### Viaduct D

##### Viaduct Design

ARDD0333-8	Viaduct D - IC/SO Consent of Supplemental Working Drawings Viaduct D	10	28-Apr-15 A	40%	6	28-May-15	07-Nov-14	14-Nov-14	-139	0	40%
ARDD0333-9	Viaduct D - IC/SO Consent of Supplemental Working Drawings Viaduct D	0		0%	0	28-May-15		14-Nov-14	-139	0	0%

#### Viaduct C

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWPrE1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**

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	2015																							
												May				June				July				August											
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17						
<b>Viaduct Design</b>																																			
ARDD0384	Viaduct C - IC/SO Approval of Sub & Superstructure DDA - DP13.03	75	22-Dec-14 A	80%	15	10-Jun-15	28-Nov-14	19-Dec-14	-124	0	20%																								
ARDD0384-1	Viaduct C - IC/SO Approval of Sub & Superstructure DDA - DP13.03	0		100%	0	08-May-15 A					100%																								
ARDD0384-3	Viaduct C - Coordination and Further Issue of Construction Method and Temporary Works D	60	02-Mar-15 A	25%	45	22-Jul-15	15-Dec-14	13-Feb-15	-113	0	0%																								
ARDD0384-4	Viaduct C - Preparation of Draft DDA Working Drawing Set	60	02-Mar-15 A	100%	0	08-May-15 A					100%																								
ARDD0384-5	Viaduct C - GCL/FRE Final Coordinated Construction Method/Temporary Work Details	0		0%	0	22-Jul-15		13-Feb-15	-113	0	0%																								
ARDD0384-6	Viaduct C - Preparation and Coordination of Working Drawing Set	10	23-Jul-15	0%	10	05-Aug-15	16-Feb-15	27-Feb-15	-113	0	0%																								
ARDD0384-7	Viaduct C - Submission of Working DDA Drawings for Viaduct C DP13.03	0		0%	0	05-Aug-15		27-Mar-15	-93	0	0%																								
ARDD0384-8	Viaduct C - IC/SO Consent of Supplemental Working Drawings Viaduct C	10	06-Aug-15	0%	10	19-Aug-15	30-Mar-15	10-Apr-15	-93	0	0%																								
ARDD0384-9	Viaduct C - IC/SO Consent of Supplemental Working Drawings Viaduct C	0		0%	0	19-Aug-15		10-Apr-15	-93	0	0%																								
<b>Associated Construction Milestones</b>																																			
ARDD0413	Viaduct C - DDA approval ready for Commencement of Pilecaps C1-C17	0	11-Jun-15	0%	0			19-Dec-14		-174	1	0%																							
ARDD0414	Viaduct C - DDA approval ready for Initial Segment Casting	0	06-Aug-15	0%	0			10-Apr-15		-118	13	0%																							
<b>Viaduct A</b>																																			
<b>Viaduct Design</b>																																			
ARDD0433-1	Viaduct A - Review and Update of Draft DDA Rev A1 - DP11.03	15	19-Feb-15 A	80%	3	25-May-15	28-Nov-18	30-Nov-18	919	919	30%																								
ARDD0434-1	Viaduct A - Earliest IC Certificate for DDA DP11.02, DP11.03	0		0%	0	21-May-15		14-Jan-16	171	3	0%																								
ARDD0435	Viaduct A - IC/SO Approval of DDA DP11.03	75	23-Feb-15 A	40%	45	22-Jul-15	12-Jan-16	14-Mar-16	168	0	40%																								
ARDD0435-1	Viaduct A - IC/SO Approval of DDA DP11.03	0		0%	0	22-Jul-15		14-Mar-16	168	35	0%																								
ARDD0435-2	Viaduct A - GCL/FRE Issue of Construction Method/Temporary Work Data	0		0%	0	21-May-15		18-Nov-15	130	0	0%																								
ARDD0435-3	Viaduct A - Coordination and Further Issue of Construction Method and Temporary Works D:	60	21-May-15	0%	60	12-Aug-15	19-Nov-15	10-Feb-16	130	0	0%																								
ARDD0435-4	Viaduct A - Preparation of Draft DDA Working Drawing Set	60	21-May-15	0%	60	12-Aug-15	19-Nov-15	10-Feb-16	130	0	0%																								
ARDD0435-5	Viaduct A - GCL/FRE Final Coordinated Construction Method/Temporary Work Details	0		0%	0	12-Aug-15		10-Feb-16	130	0	0%																								
ARDD0435-6	Viaduct A - Preparation and Coordination of Working Drawing Set	10	13-Aug-15	0%	10	26-Aug-15	11-Feb-16	24-Feb-16	130	0	0%																								
<b>Viaduct F1 &amp; F3</b>																																			
<b>Viaduct Design</b>																																			
ARDD0485	Viaduct F1 & F3 - IC/SO Approval of DDA - DP16.02, 16.03, 16.08, 16.09	75	25-Nov-14 A	40%	45	22-Jul-15	17-Dec-14	17-Feb-15	-111	25	20%																								
ARDD0486-2	Viaduct F1 & F3 - Coordination and Further Issue of Construction Method and Temporary W	60	02-Mar-15 A	25%	45	22-Jul-15	03-Dec-14	03-Feb-15	-121	0	0%																								
ARDD0486-3	Viaduct F1 & F3 - Preparation of Draft Working Drawing Set	60	02-Mar-15 A	25%	45	22-Jul-15	03-Dec-14	03-Feb-15	-121	0	0%																								
ARDD0486-4	Viaduct F1 & F3 - GCL/FRE Final Coordinated Construction Method/Temporary Work Detail:	0		0%	0	22-Jul-15		03-Feb-15	-121	0	0%																								
ARDD0486-5	Viaduct F1 & F3 - Preparation and Coordination of DDA/Working Drawing Set	10	23-Jul-15	0%	10	05-Aug-15	04-Feb-15	17-Feb-15	-121	0	0%																								
ARDD0486-6	Viaduct F1 & F3 - Submission of Working DDA Drawings Viaduct F1,F3 DP16.03, DP16.09	0		0%	0	05-Aug-15		10-Jul-15	-18	0	0%																								
ARDD0486-7	Viaduct F1 & F3 - IC/SO Consent of Supplemental Working Drawings Viaduct F1,F3	10	06-Aug-15	0%	10	19-Aug-15	13-Jul-15	24-Jul-15	-18	5	0%																								
<b>Viaduct F2, F4 and F5</b>																																			
<b>Viaduct Design</b>																																			
ARDD0529	Viaduct F2, F4 & F5 - IC/SO Approval of DDA - DP16.05, 06, 11, 12, 14, 15	75	25-Nov-14 A	20%	60	12-Aug-15	09-Feb-15	04-May-15	-73	10	20%																								
ARDD0530-2	Viaduct F2, F4 & F5 - GCL/FRE Issue of Construction Method/Temporary Work Data	0		0%	0	21-May-15		11-Nov-14	-136	0	0%																								
ARDD0530-3	Viaduct F2, F4 & F5 - Coordination and Further Issue of Construction Method and Temporar	60	21-May-15	0%	60	12-Aug-15	12-Nov-14	03-Feb-15	-136	0	0%																								
ARDD0530-4	Viaduct F2, F4 & F5 - Preparation of Draft Working Drawing Set	60	21-May-15	0%	60	12-Aug-15	12-Nov-14	03-Feb-15	-136	0	0%																								
ARDD0530-5	Viaduct F2, F4 & F5 - GCL/FRE Final Coordination Construction Method/Temporary Work D	0		0%	0	12-Aug-15		03-Feb-15	-136	0	0%																								
ARDD0530-6	Viaduct F2, F4 & F5 - Preparation and Coordination of DDA/Working Drawing Set	10	13-Aug-15	0%	10	26-Aug-15	04-Feb-15	17-Feb-15	-136	0	0%																								
<b>Parapet and Utility Trough</b>																																			
ARDD0562-4	IC/SO Approval of DDA -DP30.01	75	31-Jul-14 A	90.67%	7	29-May-15	05-Feb-15	13-Feb-15	-75	0	90%																								
ARDD0562-5	IC/SO Approval of DDA -DP30.01	0		0%	0	29-May-15		13-Feb-15	-75	0	0%																								
ARDD0566	IC/SO Approval of DDA -DP31.01	75	24-Oct-14 A	80%	15	10-Jun-15	04-Sep-15	24-Sep-15	76	0	80%																								
ARDD0566-1	IC/SO Approval of DDA -DP31.01	0		0%	0	10-Jun-15		24-Sep-15	76	123	0%																								
<b>Slopeworks for Viaduct B: 9SE- B/C8, B/C9, B/F9, B/F85+ 10SW-A/F52, A/F53</b>																																			
ARDD0580-5	Preparation of Slope A/F52 Submission - CP12.03	20	10-Feb-15 A	0%	27	26-Jun-15	19-Mar-15	24-Apr-15	-45	0	30%																								

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWPRe1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 2 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**



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	2015																						
												May				June				July				August										
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17					
<b>Viaduct C</b>																																		
ARDD0721	Viaduct C - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-May-15		02-Jan-15	-98	0	0%																							
ARDD0722	Viaduct C - Erection Sequence Analysis	20	21-May-15	0%	20	17-Jun-15	05-Jan-15	30-Jan-15	-98	0	0%																							
ARDD0723	Viaduct C - Target Geometry Analysis	20	18-Jun-15	0%	20	15-Jul-15	02-Feb-15	27-Feb-15	-98	0	0%																							
ARDD0724	Viaduct C - Segment Geometry Schedules	10	16-Jul-15	0%	10	29-Jul-15	02-Mar-15	13-Mar-15	-98	5	0%																							
ARDD0724-1	Viaduct C - Issue of Pierhead Segments Bridge C1, C2, C3, C4	0		0%	0	05-Aug-15		10-Apr-15	-84	0	0%																							
ARDD0724-3	Viaduct C - Issue of Casting Data and Segment Catalogue Bridge C4, C3 (Final)	0		0%	0	05-Aug-15		10-Apr-15	-84	0	0%																							
ARDD0724-4	Viaduct C - Issue of Casting Data and Segment Catalogue Bridge C2, C1 (Final)	0		0%	0	19-Aug-15		13-Mar-15	-113	0	0%																							
ARDD0724-5	Viaduct C - Issue Erection Manual	30	20-Aug-15	0%	30	30-Sep-15	16-Mar-15	24-Apr-15	-113	0	0%																							
<b>Viaduct D</b>																																		
ARDD0728	Viaduct D - Target Geometry Analysis	20	11-Dec-14 A	100%	0	16-May-15 A					100%																							
ARDD0729	Viaduct D - Segment Geometry Schedules	10	11-Dec-14 A	100%	0	16-May-15 A					100%																							
ARDD0729-1	Viaduct D - Issue of Pierhead Segments Bridge D1, D2, D3	0		100%	0	15-May-15 A					100%																							
ARDD0729-3	Viaduct D - Issue of Casting Data and Segment Catalogue Bridge D2, D3 (Final)	0		100%	0	15-May-15 A					100%																							
ARDD0729-4	Viaduct D - Issue of Casting Data and Segment Catalogue Bridge D1 (Final)	0		100%	0	25-Apr-15 A					100%																							
ARDD0729-5	Viaduct D - Issue Erection Manual	30	21-May-15	0%	30	01-Jul-15	11-Feb-15	24-Mar-15	-71	0	0%																							
<b>Viaduct E5 and E6</b>																																		
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	05-May-14 A	20%	8	01-Jun-15	08-Oct-14	17-Oct-14	-161	6	20%																							
TGP0560	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogue Bridge E5	20	30-Apr-15 A	5%	19	16-Jun-15	29-Apr-15	25-May-15	-16	56	5%																							
TGP0570	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogue Bridge E6	40	30-Apr-15 A	5%	38	13-Jul-15	23-Dec-14	12-Feb-15	-107	0	5%																							
TGP0590	Viaduct E5 & E6 - Issue Erection Manual	10	14-Jul-15	0%	10	27-Jul-15	07-May-15	20-May-15	-48	99	0%																							
<b>Viaduct E7 &amp; E8</b>																																		
ARDD0739	Viaduct E7 & E8 - Segment Geometry Schedules	10	05-May-14 A	20%	8	01-Jun-15	28-Apr-15	07-May-15	-17	90	20%																							
TGP0760	Viaduct E7 & E8 - Issue of Optimised Casting Data and Segment Catalogue Bridge E7	40	14-Jul-15	0%	40	07-Sep-15	13-Feb-15	09-Apr-15	-107	0	0%																							
<b>Viaduct E2</b>																																		
ARDD0749	Viaduct E2 - Segment Geometry Schedules	10	24-Mar-14 A	20%	8	01-Jun-15	15-Dec-14	24-Dec-14	-113	11	20%																							
TGP0260	Viaduct E2 - Issue of Optimised Casting Data and Segment Catalogue Bridge E2	20	04-May-15 A	5%	19	16-Jun-15	28-Oct-14	21-Nov-14	-147	0	5%																							
TGP0290	Viaduct E2 - Issue of Erection Manual	10	17-Jun-15	0%	10	30-Jun-15	25-Dec-14	07-Jan-15	-124	28	0%																							
<b>Viaduct F</b>																																		
ARDD0751	Viaduct F - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-May-15		11-Nov-14	-136	0	0%																							
ARDD0752	Viaduct F - Erection Sequence Analysis	30	21-May-15	0%	30	01-Jul-15	12-Nov-14	23-Dec-14	-136	0	0%																							
ARDD0753	Viaduct F - Target Geometry Analysis	30	02-Jul-15	0%	30	12-Aug-15	24-Dec-14	03-Feb-15	-136	0	0%																							
ARDD0754	Viaduct F - Segment Geometry Schedules	10	13-Aug-15	0%	10	26-Aug-15	04-Feb-15	17-Feb-15	-136	0	0%																							
<b>Other Design</b>																																		
<b>Marine Permanent Navigation Aids</b>																																		
BMT0140	IC/SO Approval of MPNA DDA BP36.01	75	05-Mar-15 A	100%	0	18-May-15 A					100%																							
BMT0150	IC/SO Approval of MPNA DDA BP36.01	0		100%	0	18-May-15 A					100%																							
<b>Major Procurement</b>																																		
<b>Marine Permanent Navigaion Aids</b>																																		
PR65011	Design & Approvals for Marine Navigation Aids	150	23-Oct-13 A	70%	45	15-Jul-15	10-Jun-15	03-Aug-15	16	0	55%																							
PR65012	Procure & Deliver Marine Navigation Aids	240	16-Jul-15	0%	240	06-May-16	04-Aug-15	26-May-16	16	0	0%																							
<b>Tower Cranes</b>																																		
PR66011	Procure & Deliver Tower Cranes	236	03-Oct-14 A	21.61%	185	31-Dec-15	12-Jan-15	27-Aug-15	-103	865	0%																							
PR66013	Erect & Commission Tower Crane @ E4	12	02-Jul-15	0%	12	15-Jul-15	12-Jan-15	24-Jan-15	-126	0	0%																							
PR66014	Erect & Commission Tower Crane @ E5	12	06-Aug-15	0%	12	21-Aug-15	24-Jun-15	09-Jul-15	-33	8	0%																							
PR66018	Erect & Commission Tower Crane @ E9	12	10-Jul-15	0%	12	24-Jul-15	28-Mar-15	16-Apr-15	-71	0	0%																							
PR66019	Erect & Commission Tower Crane @ E10	12	22-Jul-15	0%	12	05-Aug-15	16-May-15	01-Jun-15	-46	0	0%																							
PR66021	Erect & Commission Tower Crane @ E12A	12	27-May-15	0%	12	13-Jun-15	19-Aug-15	02-Sep-15	60	167	0%																							

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWPPrE1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

**Tuen Mun - Chek Lap Kok Link - Southern Connection**  
**3-Month Rolling Programme (Page 4 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**





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	2015																	
												May			June			July			August								
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
<b>Precast Pile Caps</b>																													
MBDC0130-8	D: Progressive Pile Cap Shell Manufacture & Delivery remaining shells	143	29-Sep-14 A	85.31%	21	15-Jun-15	07-Nov-18	30-Nov-18	1029	1029	42.8%																		
<b>Precast Deck Segments</b>																													
MBDE0120	D: Commence Segment Casting on Approval of DDA	0	29-May-15	0%	0		17-Nov-14		-154	0	0%																		
MBDE0130-7	D: Progressive Match Cast Segment Manufacture & Delivery (311 Nr)	315	27-Jul-15	0%	315	16-Aug-16	15-Jan-15	05-Feb-16	-154	0	0%																		
<b>Viaduct C</b>																													
<b>Precast Pile Caps</b>																													
MBCC0130-1	C: Progressive Pile Cap Shell Manufacture & Delivery remaining shells	117	01-Dec-14 A	96.58%	4	26-May-15	30-Dec-14	05-Jan-15	-113	1046	0%																		
<b>Precast Deck Segments</b>																													
MBCE0120	C: Commence Segment Casting on Approval of DDA	0	20-Aug-15	0%	0		11-Apr-15		-108	0	0%																		
MBCE0130-1	C: Progressive Segment Manufacture & Delivery remaining segments (388 Nr)	265	20-Aug-15	0%	265	13-Jul-16	11-Apr-15	01-Mar-16	-108	1	0%																		
<b>Viaduct A</b>																													
<b>Precast Pile Caps</b>																													
MBAC0130-1	A: Progressive Pile Cap Shell Manufacture & Delivery remaining shells	274	22-May-15	0%	274	23-Apr-16	24-Dec-15	26-Nov-16	179	12	0%																		
<b>Parapets</b>																													
MBEE0090	Approval of DDA to start Precast Parapets/Barriers Casting	0	30-May-15	0%	0		14-Feb-15		-81	33	0%																		
PP6010	Procure Sub-Contractor for Precast Parapets/Barriers	40	21-May-15	0%	40	09-Jul-15	29-Dec-14	13-Feb-15	-114	0	0%																		
PP6011	Precast Parapets/Barriers Detail Design & Procure Moulds	120	10-Jul-15	0%	120	30-Nov-15	14-Feb-15	16-Jul-15	-114	0	0%																		
<b>Materials</b>																													
PP7010	Procure Sub-contractor for Signs & Street Furniture	90	21-May-15	0%	90	05-Sep-15	15-Aug-15	01-Dec-15	71	0	0%																		
<b>In-Situ Formworks / Falseworks</b>																													
PPPF02	Design & Fabrication of Falsework / Formwork & Delivery	120	20-Feb-14 A	75%	30	26-Jun-15	20-Jun-16	25-Jul-16	320	431	75%																		
<b>Bearings</b>																													
<b>Viaduct A</b>																													
PPBRA1	Preliminary Design of Bearings - Viaduct A	50	10-Jun-15	0%	50	08-Aug-15	06-Oct-15	03-Dec-15	97	0	0%																		
PPBRA2	Confirmation of bearing assumption - Viaduct A	0		0%	0	08-Aug-15		03-Dec-15	97	0	0%																		
PPBRA3	Bearing design and submission - Viaduct A	12	10-Aug-15	0%	12	22-Aug-15	04-Dec-15	17-Dec-15	97	0	0%																		
<b>Viaduct C</b>																													
PPBRC1	Preliminary Design of Bearings - Viaduct C	50	22-Dec-14 A	64%	18	11-Jun-15	30-Aug-14	20-Sep-14	-212	0	65%																		
PPBRC2	Confirmation of bearing assumption - Viaduct C	0		0%	0	11-Jun-15		20-Sep-14	-212	0	0%																		
PPBRC3	Bearing design and submission - Viaduct C	12	12-Jun-15	0%	12	26-Jun-15	22-Sep-14	07-Oct-14	-212	0	0%																		
PPBRC4	Design check by ICE - Viaduct C	24	27-Jun-15	0%	24	25-Jul-15	08-Oct-14	04-Nov-14	-212	0	0%																		
PPBRC5	SO review & comment on design submission - Viaduct C	36	27-Jul-15	0%	36	05-Sep-15	05-Nov-14	16-Dec-14	-212	0	0%																		
PPBRC7	Manufacture of Bearing - Viaduct C	54	27-Jul-15	0%	54	26-Sep-15	05-Nov-14	09-Jan-15	-212	0	0%																		
<b>Viaduct D</b>																													
PPBRD4	Design check by ICE - Viaduct D	24	20-Dec-14 A	20.83%	19	12-Jun-15	01-Nov-14	22-Nov-14	-161	0	20%																		
PPBRD5	SO review & comment on design submission - Viaduct D	36	13-Jun-15	0%	36	27-Jul-15	24-Nov-14	07-Jan-15	-161	0	0%																		
PPBRD6	Bearing Design Amendment & re-issue - Viaduct D	12	28-Jul-15	0%	12	10-Aug-15	15-Jan-15	28-Jan-15	-155	6	0%																		
PPBRD7	Manufacture of Bearing - Viaduct D	54	13-Jun-15	0%	54	17-Aug-15	24-Nov-14	28-Jan-15	-161	0	0%																		
PPBRD8	Testing Bearing - Viaduct D	18	18-Aug-15	0%	18	07-Sep-15	29-Jan-15	18-Feb-15	-161	0	0%																		
<b>Viaduct E</b>																													
PPBRE3	Bearing design and submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	06-Jan-14 A	66.67%	4	26-May-15	02-Sep-14	05-Sep-14	-210	4	65%																		
PPBRE4	Design check by ICE - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	06-Jun-14 A	16.67%	20	13-Jun-15	28-Aug-14	20-Sep-14	-214	2	16%																		
PPBRE5	SO review & comment on design submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	36	10-Oct-14 A	5.56%	34	02-Jul-15	26-Aug-14	07-Oct-14	-216	0	5%																		
PPBRE6	Bearing Design Amendment & re-issue - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	03-Jul-15	0%	12	16-Jul-15	08-Oct-14	21-Oct-14	-216	0	0%																		
PPBRE7	Manufacture of Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	54	02-Jun-14 A	25.93%	40	16-Jul-15	02-Sep-14	21-Oct-14	-216	0	5%																		
PPBRE8	Testing Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	30-Jun-14 A	0%	46	30-Jul-15	10-Sep-14	04-Nov-14	-216	0	5%																		
PPBRE9	Bearing Delivery - Viaduct E (E1, E2, E5, E6, E7 & E8)	48	18-Oct-14 A	4.17%	46	10-Sep-15	24-Oct-14	16-Dec-14	-216	0	5%																		

	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 6 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>		Date	Revision	Checked	Approved	<b>DWG. No.:</b>  <b>J3518/GCL/PGM/3MRP-M24</b>
				29-May-15		WY		

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	2015																						
												May				June				July				August										
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17					
<b>Bridge E1</b>																																		
PP7360	Site preparation Bearings for Viaduct E1	18	22-Jun-15	0%	18	17-Jul-15	26-Nov-14	16-Dec-14	-157	44	0%																							
<b>Viaduct F</b>																																		
PPBRF1	Preliminary Design of Bearings - Viaduct F	70	23-May-15	0%	70	15-Aug-15	13-Feb-15	14-May-15	-77	0	0%																							
PPBRF2	Confirmation of bearing assumption - Viaduct F	0		0%	0	15-Aug-15		14-May-15	-77	0	0%																							
PPBRF3	Bearing design and submission - Viaduct F	12	17-Aug-15	0%	12	29-Aug-15	15-May-15	29-May-15	-77	0	0%																							
<b>Movement Joints</b>																																		
PPMJ01	Design & Submission of MJ	138	08-Feb-14 A	29.71%	97	14-Sep-15	12-Aug-15	05-Dec-15	68	953	30%																							
PPMJ02-1	MJ Design Approval	96	26-May-14 A	39.58%	58	30-Jul-15	12-Aug-15	20-Oct-15	68	130	40%																							
PPMJ02-2	Manufacture & delivery of MJ	188	21-May-15	0%	188	05-Jan-16	12-Aug-15	31-Mar-16	68	0	0%																							
<b>Other Sub-Contract Procurement</b>																																		
<b>Pavement</b>																																		
PP7760-2	Procure Pavement Viaduct Sub-Contractor	36	21-May-15	0%	36	04-Jul-15	19-Feb-16	05-Apr-16	223	0	0%																							
PP7760-4	Pavement Viaduct Sub-Contractor - Materials approvals & MS	90	06-Jul-15	0%	90	20-Oct-15	06-Apr-16	23-Jul-16	223	169	0%																							
<b>Structural Health Monitoring System (SHMS)</b>																																		
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	73.33%	8	30-May-15	15-Nov-14	24-Nov-14	-149	52	75%																							
PP7780	SHMS - Prepare Civil Work Provision	66	21-May-15	0%	66	08-Aug-15	07-Oct-14	22-Dec-14	-183	0	0%																							
PP7782	SHMS - Submit Precast Pile Cap Shell SHMS details for E5-E6-E7-E8	0	19-Jun-15	0%	0		11-Dec-14		-151	32	0%																							
PP7786	SHMS - Submit Segment SHMS details for E5-E6-E7-E8	0	13-Jul-15	0%	0		27-Mar-15		-84	0	0%																							
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	19-Jun-15	0%	54	22-Aug-15	15-Nov-14	20-Jan-15	-173	2	0%																							
<b>Site Preparation / Mobilisations</b>																																		
<b>Tree Felling / Transplant</b>																																		
<b>Approved Trees in Contract</b>																																		
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	17-Feb-14 A	97.78%	2	23-May-15	11-Jan-16	12-Jan-16	177	978	95%																							
<b>Temporary Working Platform at North Lantau</b>																																		
PR08080	Inst.Unloading Frame incl. T&C for seg.lift (incl. Load Test)	15	22-May-15	0%	15	12-Jun-15	03-Dec-14	19-Dec-14	-131	0	0%																							
<b>Unloading Jetty at HKBCF</b>																																		
PR09060	Unloading Jetty at HKBCF - Conditional survey & finalize jetty design modification	15	04-Jun-15	0%	15	27-Jun-15	24-Apr-15	13-May-15	-30	0	0%																							
PR09070	Unloading Jetty at HKBCF - Install Unloading Frame incl. testing/commissioning for segment I	52	29-Jun-15	0%	52	02-Sep-15	14-May-15	25-Jul-15	-30	138	0%																							
<b>CONSTRUCTION</b>																																		
<b>PILING AND SUBSTRUCTURE</b>																																		
<b>Viaduct A</b>																																		
<b>Milestones - Marine Foundation</b>																																		
GFXX116-1	A7 (A1e) - Completion of piling works	0		0%	0	27-May-15		15-Dec-15	168	0	0%																							
GFXX121-1	A6 (A1f) - Completion of piling works	0		0%	0	07-Aug-15		30-Jan-16	145	0	0%																							
GFXX123-1	A5 (A2a) - Start date for piling	0	21-May-15	0%	0		07-Mar-16		238	80	0%																							
GFXX128-1	A4 (A2b) - Start date for piling	0	21-May-15	0%	0		05-Mar-16		237	64	0%																							
GFXX138-1	A2 (A2d) - Start date for piling	0	21-May-15	0%	0		02-Feb-16		211	120	0%																							
<b>Milestones - Land Foundation</b>																																		
ZA00030	A9 (A1c) - Start date for piling	0	21-May-15	0%	0		14-Jan-16		195	82	0%																							
ZA00041	A10 (A1b) - Completion of piling works	0		100%	0	21-Apr-15 A					100%																							
ZA00051	A11 (A1a) - Completion of piling works	0	21-May-15	0%	0		20-Jan-16		200	117	0%																							
<b>General</b>																																		
ZA00010	Viaduct A - Approval of Foundation DDA DP11.01	0		0%	0	21-May-15		30-Nov-18	922	922	0%																							
<b>Bridge A2</b>																																		
<b>Pier A1 (A2e)</b>																																		
<b>Pile Cap Works</b>																																		
SA2E0100	A1 (A2e) - Marine Pile Cap M2 - Weld Fin plates/Plug Rebar & Concrete	9	20-Apr-15 A	100%	0	09-May-15 A					100%																							

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: blue; border: 1px solid black;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightgreen; border: 1px solid black;"></span> Planned Bar</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: red; border: 1px solid black;"></span> Critical Bar</li> <li><span style="display: inline-block; width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 8px solid black;"></span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 7 of 44 Pages)</b> (Progress as of 21-May-15)	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										



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	2015																
												May				June				July				August				
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10
GFXX114	A7 (A1e) - Bored Piles (2.20m dia. x 3 nos)	95	26-Feb-15 A	100%	0	09-May-15 A					100%	[Gantt bar: 09-May-15 to 09-May-15]																
GFXX115	A7 (A1e) - Sonic & Interface Coring	12	11-May-15 A	100%	0	20-May-15 A					100%	[Gantt bar: 11-May-15 to 20-May-15]																
GFXX116	A7 (A1e) - Dismantle removable panels of temp. platform	5	21-May-15	0%	5	27-May-15	10-Dec-15	15-Dec-15	168	0	0%	[Gantt bar: 21-May-15 to 15-Dec-15]																
<b>Pile Cap Works</b>																												
SA1E0070	A7 (A1e) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	28-May-15	0%	7	05-Jun-15	16-Dec-15	23-Dec-15	154	0	0%	[Gantt bar: 28-May-15 to 23-Dec-15]																
SA1E0080	A7 (A1e) - Marine Pile Cap M2b - Install precast shell in position	1	06-Jun-15	0%	1	06-Jun-15	24-Dec-15	24-Dec-15	154	0	0%	[Gantt bar: 06-Jun-15 to 24-Dec-15]																
SA1E0090	A7 (A1e) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	08-Jun-15	0%	3	12-Jun-15	28-Dec-15	30-Dec-15	154	0	0%	[Gantt bar: 08-Jun-15 to 30-Dec-15]																
SA1E0100	A7 (A1e) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	13-Jun-15	0%	9	27-Jun-15	31-Dec-15	11-Jan-16	154	0	0%	[Gantt bar: 13-Jun-15 to 11-Jan-16]																
SA1E0120	A7 (A1e) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	29-Jun-15	0%	2	30-Jun-15	12-Jan-16	13-Jan-16	154	0	0%	[Gantt bar: 29-Jun-15 to 13-Jan-16]																
SA1E0130	A7 (A1e) - Marine Pile Cap M2b - Pile cut down	8	02-Jul-15	0%	8	10-Jul-15	14-Jan-16	22-Jan-16	154	0	0%	[Gantt bar: 02-Jul-15 to 22-Jan-16]																
SA1E0140	A7 (A1e) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	11-Jul-15	0%	12	25-Jul-15	23-Jan-16	05-Feb-16	154	0	0%	[Gantt bar: 11-Jul-15 to 05-Feb-16]																
SA1E0150	A7 (A1e) - Marine Pile Cap M2b - Concreting	1	27-Jul-15	0%	1	27-Jul-15	06-Feb-16	06-Feb-16	154	0	0%	[Gantt bar: 27-Jul-15 to 06-Feb-16]																
SA1E0160	A7 (A1e) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	28-Jul-15	0%	6	04-Aug-15	11-Feb-16	17-Feb-16	154	0	0%	[Gantt bar: 28-Jul-15 to 17-Feb-16]																
<b>Pier Works</b>																												
SA1E0170	A7 (A1e) - Type 5B Pier Temp. Support Platform & Scaffold (1st Lift)	6	28-Jul-15	0%	6	04-Aug-15	11-Feb-16	17-Feb-16	154	0	0%	[Gantt bar: 28-Jul-15 to 17-Feb-16]																
SA1E0180	A7 (A1e) - Type 5B Pier Rebarwork, Formwork & Prep (1st Lift)	5	05-Aug-15	0%	5	10-Aug-15	18-Feb-16	23-Feb-16	154	0	0%	[Gantt bar: 05-Aug-15 to 23-Feb-16]																
SA1E0200	A7 (A1e) - Type 5B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	12-Aug-15	0%	3	14-Aug-15	24-Feb-16	26-Feb-16	154	0	0%	[Gantt bar: 12-Aug-15 to 26-Feb-16]																
SA1E0210	A7 (A1e) - Type 5B Pier Scaffolding (2nd Lift)	2	15-Aug-15	0%	2	17-Aug-15	27-Feb-16	29-Feb-16	154	0	0%	[Gantt bar: 15-Aug-15 to 29-Feb-16]																
SA1E0220	A7 (A1e) - Type 5B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	18-Aug-15	0%	5	24-Aug-15	01-Mar-16	05-Mar-16	154	0	0%	[Gantt bar: 18-Aug-15 to 05-Mar-16]																
<b>Pier A8 (A1d)</b>																												
<b>Socketted H-Pile installation</b>																												
GFXX298	A8 (A1d) - Install SH Pile (21 no.)	120	15-Apr-15 A	15%	102	19-Sep-15	09-Sep-15	12-Jan-16	92	0	0%	[Gantt bar: 15-Apr-15 to 12-Jan-16]																
<b>Pier A9 (A1c)</b>																												
<b>Preliminary Works for Land Piling</b>																												
GFXX281-2	A9 (A1c) - Pre-grouting Works	24	21-Mar-15 A	100%	0	29-Apr-15 A					100%	[Gantt bar: 21-Mar-15 to 29-Apr-15]																
PA090060	A9 (A1c) - Complete civil preparation works for piling to commence	0		0%	0	22-May-15		30-Nov-18	980	980	0%	[Gantt bar: 22-May-15 to 30-Nov-18]																
<b>Socketted H-Pile installation</b>																												
GFXX293	A9 (A1c) - Install SH Pile (21 no.)	90	08-May-15 A	8.89%	82	27-Aug-15	06-Oct-15	13-Jan-16	113	0	5%	[Gantt bar: 08-May-15 to 13-Jan-16]																
<b>Pier A10 (A1b)</b>																												
<b>Socketted H-Pile installation</b>																												
GFXX288	A10 (A1b) - Install SH Pile (12 no.)	60	11-Mar-15 A	100%	0	21-Apr-15 A					100%	[Gantt bar: 11-Mar-15 to 21-Apr-15]																
<b>Pile Cap Works</b>																												
SA1B0090	A10 (A1b) - Pile cap Excavation / ELS	45	22-May-15	0%	45	24-Jul-15	25-Nov-15	19-Jan-16	140	0	0%	[Gantt bar: 22-May-15 to 19-Jan-16]																
SA1B0092	A10 (A1b) - Pile Breakdown to cut-off etc.	4	25-Jul-15	0%	4	30-Jul-15	28-May-16	03-Jun-16	238	0	0%	[Gantt bar: 25-Jul-15 to 03-Jun-16]																
SA1B0100	A10 (A1b) - Pile cap Blinding	1	31-Jul-15	0%	1	31-Jul-15	03-Jun-16	04-Jun-16	238	0	0%	[Gantt bar: 31-Jul-15 to 04-Jun-16]																
SA1B0110	A10 (A1b) - Pile cap Formwork	3	06-Aug-15	0%	3	08-Aug-15	11-Jun-16	16-Jun-16	238	0	0%	[Gantt bar: 06-Aug-15 to 16-Jun-16]																
SA1B0120	A10 (A1b) - Pile cap Rebarwork	4	01-Aug-15	0%	4	05-Aug-15	04-Jun-16	11-Jun-16	238	0	0%	[Gantt bar: 01-Aug-15 to 11-Jun-16]																
SA1B0122	A10 (A1b) - Pile cap Kicker Formwork	2	12-Aug-15	0%	2	13-Aug-15	23-Jun-16	27-Jun-16	242	58	0%	[Gantt bar: 12-Aug-15 to 27-Jun-16]																
SA1B0130	A10 (A1b) - Pile cap Concreting	1	10-Aug-15	0%	1	10-Aug-15	16-Jun-16	18-Jun-16	238	0	0%	[Gantt bar: 10-Aug-15 to 18-Jun-16]																
SA1B0140	A10 (A1b) - Pile cap Curing & Striking of Forms incl. CJ prep	6	12-Aug-15	0%	6	18-Aug-15	18-Jun-16	27-Jun-16	238	54	0%	[Gantt bar: 12-Aug-15 to 27-Jun-16]																
<b>Pier A11 (A1a) &amp; Abutment A</b>																												
<b>Socketted H-Pile installation</b>																												
GFXX287	A11 (A1a) - Install SH Pile (9 no.)	100	20-Apr-15 A	100%	0	07-May-15 A					100%	[Gantt bar: 20-Apr-15 to 07-May-15]																
<b>Viaduct B</b>																												
<b>Bridge B3</b>																												
<b>Pier B4 (B3c)</b>																												
<b>Pier Head Segments</b>																												
SB3C0374	B4 (B3c) - Pier Head Segment Diaphragm - Rebar	12	30-Mar-15 A	100%	0	23-Apr-15 A					100%	[Gantt bar: 30-Mar-15 to 23-Apr-15]																

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li><span style="color: black;">◆</span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<p align="center"><b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b></p> <p align="center"><b>3-Month Rolling Programme (Page 9 of 44 Pages)</b></p> <p align="center"><b>(Progress as of 21-May-15)</b></p>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b>  <b>J3518/GCL/PGM/3MRP-M24</b>
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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	2015																					
												May				June				July				August									
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17				
<b>Pier B15 (B1e)</b>																																	
<b>Pier Works</b>																																	
SB1E0280	B15 (B1e) - Type 5B Pier Backfilling Works	4	16-Mar-15 A	20%	3	27-May-15	15-May-15	19-May-15	-4	0	20%																						
<b>Pier Head Segments</b>																																	
SB1E0370	B15 (B1e) - Pier Head Segment - Temporary Platform	6	27-May-15	0%	6	04-Jun-15	20-May-15	28-May-15	-4	6	0%																						
SB1E0372	B15 (B1e) - Pier Head Segment Lift & Fix (1 seg)	2	13-Jun-15	0%	2	15-Jun-15	29-May-15	30-May-15	-10	0	0%																						
SB1E0374	B15 (B1e) - Pier Head Segment Diaphragm - Rebar	12	16-Jun-15	0%	12	04-Jul-15	01-Jun-15	18-Jun-15	-10	0	0%																						
SB1E0376	B15 (B1e) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	06-Jul-15	0%	8	14-Jul-15	19-Jun-15	02-Jul-15	-10	0	0%																						
SB1E0378	B15 (B1e) - Pier Head Segment Diaphragm - Concreting	2	15-Jul-15	0%	2	17-Jul-15	03-Jul-15	04-Jul-15	-10	0	0%																						
SB1E0380	B15 (B1e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	18-Jul-15	0%	6	24-Jul-15	06-Jul-15	13-Jul-15	-9	0	0%																						
<b>Pier B16 (B1d)</b>																																	
<b>Pier Head Segments</b>																																	
SB1D0374	B16 (B1d) - Pier Head Segment Diaphragm - Rebar	14	21-Mar-15 A	100%	0	11-May-15 A					100%																						
SB1D0376	B16 (B1d) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	12-May-15 A	30%	6	29-May-15	31-Aug-16	07-Sep-16	352	0	0%																						
SB1D0378	B16 (B1d) - Pier Head Segment Diaphragm - Concreting	2	29-May-15	0%	2	01-Jun-15	08-Sep-16	09-Sep-16	352	0	0%																						
SB1D0380	B16 (B1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	01-Jun-15	0%	6	10-Jun-15	10-Sep-16	17-Sep-16	352	0	0%																						
<b>Viaduct C</b>																																	
<b>Milestones - Marine Foundation</b>																																	
GFX197-1	C6 (C3f) - Completion of piling works	0		0%	0	21-May-15		22-Jan-15	-93	26	0%																						
GFX202-1	C5 (C4a) - Completion of piling works	0		0%	0	21-May-15		30-Dec-14	-113	26	0%																						
GFX212-1	C3 (C4c) - Completion of piling works	0		0%	0	21-May-15		08-Jul-15	39	1	0%																						
<b>Milestones - Land Foundation</b>																																	
ZC00050	C17 (C2a) - Start date for piling	0	21-Apr-15 A	100%	0						100%																						
ZC00051	C17 (C2a) - Completion of piling works	0		0%	0	04-Jun-15		15-Dec-15	160	6	0%																						
ZC00061	C16 (C2b) - Completion of piling works	0		0%	0	18-Jul-15		04-Feb-16	166	0	0%																						
ZC00091-1	C12 (C2f) - Completion of piling works	0		0%	0	21-May-15		30-Nov-18	1050	1050	0%																						
ZC00092-1	C11 (C3a) - Completion of piling works	0		0%	0	21-May-15		30-Nov-18	1050	1050	0%																						
ZC00096-1	C7 (C3e) - Completion of piling works	0		0%	0	21-May-15		30-Jul-15	57	0	0%																						
<b>Bridge C4</b>																																	
<b>Pier C1 (C4e)</b>																																	
<b>Pile Cap Works</b>																																	
SC4E0164	C1 (C4e) - Marine Pile Cap M2 - Curing incl. CJ preparation	6	16-Apr-15 A	100%	0	22-Apr-15 A					100%																						
<b>Pier Works</b>																																	
SC4E0180	C1 (C4e) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	5	21-Apr-15 A	100%	0	22-Apr-15 A					100%																						
SC4E0200	C1 (C4e) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	23-Apr-15 A	100%	0	27-Apr-15 A					100%																						
SC4E0210	C1 (C4e) - Type 4B-MJ Pier Scaffolding (2nd Lift)	2	18-Apr-15 A	100%	0	27-Apr-15 A					100%																						
SC4E0220	C1 (C4e) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (2nd Lift)	6	04-May-15 A	100%	0	14-May-15 A					100%																						
SC4E0240	C1 (C4e) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	15-May-15 A	100%	0	20-May-15 A					100%																						
SC4E0300	C1 (C4e) - Type 4B-MJ Pier Head Scaffolding	4	22-May-15	0%	4	27-May-15	07-Mar-15	11-Mar-15	-56	0	0%																						
SC4E0310	C1 (C4e) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	28-May-15	0%	10	10-Jun-15	12-Mar-15	23-Mar-15	-56	0	0%																						
SC4E0330	C1 (C4e) - Type 4B-MJ Pier Head Concreting	1	12-Jun-15	0%	1	12-Jun-15	24-Mar-15	24-Mar-15	-56	0	0%																						
SC4E0340	C1 (C4e) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	13-Jun-15	0%	6	22-Jun-15	25-Mar-15	31-Mar-15	-56	0	0%																						
SC4E0360	C1 (C4e) - Type 4B-Bearing Plinth	6	13-Jun-15	0%	6	22-Jun-15	25-Mar-15	31-Mar-15	-56	0	0%																						
<b>Pier Head Segments</b>																																	
SC4E0370	C1 (C4e) - Pier Head Segment - Temporary Platform	6	24-Jun-15	0%	6	02-Jul-15	01-Apr-15	11-Apr-15	-56	138	0%																						
<b>Pier C2 (C4d)</b>																																	
<b>Pile Cap Works</b>																																	
SC4D0100	C2 (C4d) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	10	15-Apr-15 A	100%	0	25-Apr-15 A					100%																						

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												May				June				July				August			
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03
SC4B0140	C4 (C4b) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	8	18-Jun-15	0%	8	30-Jun-15	30-Jan-15	07-Feb-15	-102	0	0%																
SC4B0150	C4 (C4b) - Marine Pile Cap M2b - Concreting	1	02-Jul-15	0%	1	02-Jul-15	09-Feb-15	09-Feb-15	-102	0	0%																
SC4B0160	C4 (C4b) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	03-Jul-15	0%	6	09-Jul-15	10-Feb-15	16-Feb-15	-102	0	0%																
<b>Pier Works</b>																											
SC4B0170	C4 (C4b) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	03-Jul-15	0%	6	09-Jul-15	10-Feb-15	16-Feb-15	-102	0	0%																
SC4B0180	C4 (C4b) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	10-Jul-15	0%	5	15-Jul-15	17-Feb-15	25-Feb-15	-102	0	0%																
SC4B0200	C4 (C4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	17-Jul-15	0%	3	20-Jul-15	26-Feb-15	28-Feb-15	-102	0	0%																
SC4B0210	C4 (C4b) - Type 4B Pier Scaffolding (2nd Lift)	1	21-Jul-15	0%	1	21-Jul-15	02-Mar-15	02-Mar-15	-102	0	0%																
SC4B0220	C4 (C4b) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	22-Jul-15	0%	5	27-Jul-15	03-Mar-15	07-Mar-15	-102	0	0%																
SC4B0240	C4 (C4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	28-Jul-15	0%	3	31-Jul-15	09-Mar-15	11-Mar-15	-102	0	0%																
SC4B0300	C4 (C4b) - Type 4B Pier Head Scaffolding	2	01-Aug-15	0%	2	03-Aug-15	12-Mar-15	13-Mar-15	-102	0	0%																
SC4B0310	C4 (C4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	8	04-Aug-15	0%	8	13-Aug-15	14-Mar-15	23-Mar-15	-102	0	0%																
SC4B0330	C4 (C4b) - Type 4B Pier Head Concreting	1	14-Aug-15	0%	1	14-Aug-15	24-Mar-15	24-Mar-15	-102	0	0%																
SC4B0340	C4 (C4b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	15-Aug-15	0%	6	22-Aug-15	25-Mar-15	31-Mar-15	-102	0	0%																
<b>Pier C5 (C4a)</b>																											
<b>Foundation Works</b>																											
GFXX200	C5 (C4a) - Bored Piles (2.20m dia. x 3 nos)	84	27-Dec-14 A	100%	0	25-Apr-15 A					100%																
GFXX201	C5 (C4a) - Sonic & Interface Coring	12	25-Apr-15 A	100%	0	09-May-15 A					100%																
GFXX202	C5 (C4a) - Dismantle removable panels of temp. platform	5	11-May-15 A	100%	0	15-May-15 A					100%																
<b>Pile Cap Works</b>																											
SC4A0070	C5 (C4a) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	12-Jun-15	0%	7	22-Jun-15	19-Dec-14	30-Dec-14	-131	0	0%																
SC4A0080	C5 (C4a) - Marine Pile Cap M2b - Install precast shell in position	1	24-Jun-15	0%	1	24-Jun-15	30-Dec-14	31-Dec-14	-131	0	0%																
SC4A0090	C5 (C4a) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	26-Jun-15	0%	3	29-Jun-15	31-Dec-14	05-Jan-15	-131	0	0%																
SC4A0100	C5 (C4a) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	6	30-Jun-15	0%	6	07-Jul-15	05-Jan-15	12-Jan-15	-131	0	0%																
SC4A0120	C5 (C4a) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	08-Jul-15	0%	2	09-Jul-15	12-Jan-15	14-Jan-15	-131	0	0%																
SC4A0130	C5 (C4a) - Marine Pile Cap M2b - Pile cut down	6	10-Jul-15	0%	6	17-Jul-15	14-Jan-15	21-Jan-15	-131	0	0%																
SC4A0140	C5 (C4a) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	6	18-Jul-15	0%	6	24-Jul-15	21-Jan-15	28-Jan-15	-131	0	0%																
SC4A0150	C5 (C4a) - Marine Pile Cap M2b - Concreting	1	25-Jul-15	0%	1	25-Jul-15	28-Jan-15	29-Jan-15	-131	0	0%																
SC4A0160	C5 (C4a) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	27-Jul-15	0%	6	03-Aug-15	29-Jan-15	05-Feb-15	-131	0	0%																
<b>Pier Works</b>																											
SC4A0170	C5 (C4a) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	27-Jul-15	0%	6	03-Aug-15	29-Jan-15	05-Feb-15	-131	0	0%																
SC4A0180	C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	04-Aug-15	0%	5	08-Aug-15	05-Feb-15	11-Feb-15	-131	0	0%																
SC4A0200	C5 (C4a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Aug-15	0%	3	13-Aug-15	11-Feb-15	14-Feb-15	-131	0	0%																
SC4A0210	C5 (C4a) - Type 4B Pier Scaffolding (2nd Lift)	1	14-Aug-15	0%	1	14-Aug-15	14-Feb-15	16-Feb-15	-131	0	0%																
SC4A0220	C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	15-Aug-15	0%	5	21-Aug-15	16-Feb-15	25-Feb-15	-131	0	0%																
<b>Pier C6 (C3f)</b>																											
<b>Foundation Works</b>																											
GFXX196	C6 (C3f) - Sonic & Interface Coring	10	17-Apr-15 A	100%	0	28-Apr-15 A					100%																
GFXX197	C6 (C3f) - Dismantle removable panels of temp. platform	4	29-Apr-15 A	100%	0	04-May-15 A					100%																
<b>Pile Cap Works</b>																											
SC3F0070	C6 (C3f) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	12-Jun-15	0%	7	22-Jun-15	15-Jan-15	22-Jan-15	-111	0	0%																
SC3F0080	C6 (C3f) - Marine Pile Cap M2b - Install precast shell in position	1	24-Jun-15	0%	1	24-Jun-15	23-Jan-15	23-Jan-15	-111	0	0%																
SC3F0090	C6 (C3f) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	26-Jun-15	0%	3	29-Jun-15	24-Jan-15	27-Jan-15	-111	0	0%																
SC3F0100	C6 (C3f) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	8	30-Jun-15	0%	8	09-Jul-15	28-Jan-15	05-Feb-15	-111	0	0%																
SC3F0110	C6 (C3f) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	10-Jul-15	0%	2	11-Jul-15	06-Feb-15	07-Feb-15	-111	0	0%																
SC3F0120	C6 (C3f) - Marine Pile Cap M2b - Pile cut down	6	13-Jul-15	0%	6	20-Jul-15	09-Feb-15	14-Feb-15	-111	0	0%																
SC3F0130	C6 (C3f) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	6	21-Jul-15	0%	6	27-Jul-15	16-Feb-15	25-Feb-15	-111	0	0%																
SC3F0140	C6 (C3f) - Marine Pile Cap M2b - Concreting	1	28-Jul-15	0%	1	28-Jul-15	26-Feb-15	26-Feb-15	-111	0	0%																

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWP-E1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 14 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**







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	2015																	
												May					June				July			August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
SC3A0240	C11 (C3a) - Type 5B-MJ Pier Rebarwork (3rd Lift)	2	20-Jul-15	0%	2	22-Jul-15	23-Feb-16	24-Feb-16	171	0	0%																		
SC3A0250	C11 (C3a) - Type 5B-MJ Pier Formwork & Prep for Concreting (3rd Lift)	2	22-Jul-15	0%	2	24-Jul-15	25-Feb-16	26-Feb-16	171	0	0%																		
SC3A0260	C11 (C3a) - Type 5B-MJ Pier Concreting (3rd Lift)	1	24-Jul-15	0%	1	25-Jul-15	27-Feb-16	27-Feb-16	171	0	0%																		
SC3A0262	C11 (C3a) - Type 5B-MJ Pier Curing & Striking of Forms incl. CJ prep (3rd Lift)	2	25-Jul-15	0%	2	28-Jul-15	29-Feb-16	01-Mar-16	171	0	0%																		
SC3A0300	C11 (C3a) - Type 5B-MJ Pier Head Scaffolding	3	28-Jul-15	0%	3	01-Aug-15	02-Mar-16	04-Mar-16	171	0	0%																		
SC3A0310	C11 (C3a) - Type 5B-MJ Pier Head Rebarwork	5	01-Aug-15	0%	5	07-Aug-15	05-Mar-16	10-Mar-16	171	0	0%																		
SC3A0320	C11 (C3a) - Type 5B-MJ Pier Head Formwork & Prep for Concreting	5	07-Aug-15	0%	5	14-Aug-15	11-Mar-16	16-Mar-16	171	0	0%																		
SC3A0330	C11 (C3a) - Type 5B-MJ Pier Head Concreting	1	14-Aug-15	0%	1	15-Aug-15	17-Mar-16	17-Mar-16	171	0	0%																		
SC3A0340	C11 (C3a) - Type 5B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	15-Aug-15	0%	6	24-Aug-15	18-Mar-16	24-Mar-16	171	0	0%																		
SC3A0380	C11 (C3a) - Type 5B-Bearing Plinth	6	15-Aug-15	0%	6	24-Aug-15	18-Mar-16	24-Mar-16	171	0	0%																		
<b>Bridge C2</b>																													
<b>Pier C12 (C2f)</b>																													
<b>Foundation Works</b>																													
GFXX413	C12 (C2f) - Sonic & Interface Coring Tests	12	22-Apr-15 A	100%	0	06-May-15 A					100%																		
GFXX422-4	C12 (C2f) - Selection of bored pile for Full Depth Coring	24	15-Apr-15 A	100%	0	13-May-15 A					100%																		
GFXX422-8	C12 (C2f) - Bored Pile Full Depth Coring & Testing	24	20-Apr-15 A	100%	0	18-May-15 A					100%																		
<b>Pile Cap Works</b>																													
SC2F0090	C12 (C2f) - Pile cap Excavation / ELS (incl. sheet piling)	18	19-May-15 A	50%	9	02-Jun-15	07-Dec-15	16-Dec-15	150	0	0%																		
SC2F0092	C12 (C2f) - Pile cap Pile breakdown to cut-off etc.	4	04-Jun-15	0%	4	08-Jun-15	17-Dec-15	21-Dec-15	150	1	0%																		
SC2F0100	C12 (C2f) - Pile cap Blinding	1	12-Jun-15	0%	1	12-Jun-15	22-Dec-15	22-Dec-15	149	0	0%																		
SC2F0110	C12 (C2f) - Pile cap Formwork	3	19-Jun-15	0%	3	24-Jun-15	30-Dec-15	02-Jan-16	149	0	0%																		
SC2F0120	C12 (C2f) - Pile cap Rebarwork	4	13-Jun-15	0%	4	18-Jun-15	23-Dec-15	29-Dec-15	149	0	0%																		
SC2F0122	C12 (C2f) - Pile cap Kicker Formwork	2	27-Jun-15	0%	2	29-Jun-15	08-Jan-16	11-Jan-16	153	4	0%																		
SC2F0130	C12 (C2f) - Pile cap Concreting	1	26-Jun-15	0%	1	26-Jun-15	04-Jan-16	04-Jan-16	149	0	0%																		
SC2F0140	C12 (C2f) - Pile cap Curing & Striking of Forms incl. CJ prep	6	27-Jun-15	0%	6	04-Jul-15	05-Jan-16	11-Jan-16	149	0	0%																		
<b>Pier Works</b>																													
SC2F0150	C12 (C2f) - Pier Scaffolding (1st Lift)	2	06-Jul-15	0%	2	07-Jul-15	12-Jan-16	13-Jan-16	149	0	0%																		
SC2F0160	C12 (C2f) - Pier Rebarwork (1st Lift)	3	08-Jul-15	0%	3	10-Jul-15	14-Jan-16	16-Jan-16	149	0	0%																		
SC2F0170	C12 (C2f) - Pier Formwork & Prep for Concreting (1st Lift)	2	11-Jul-15	0%	2	13-Jul-15	18-Jan-16	19-Jan-16	149	0	0%																		
SC2F0180	C12 (C2f) - Pier Concreting (1st Lift)	1	14-Jul-15	0%	1	14-Jul-15	20-Jan-16	20-Jan-16	149	0	0%																		
SC2F0182	C12 (C2f) - Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	15-Jul-15	0%	2	17-Jul-15	21-Jan-16	22-Jan-16	149	0	0%																		
SC2F0190	C12 (C2f) - Pier Scaffolding (2nd Lift)	2	18-Jul-15	0%	2	20-Jul-15	23-Jan-16	25-Jan-16	149	0	0%																		
SC2F0200	C12 (C2f) - Pier Rebarwork (2nd Lift)	3	21-Jul-15	0%	3	23-Jul-15	26-Jan-16	28-Jan-16	149	0	0%																		
SC2F0210	C12 (C2f) - Pier Formwork & Prep for Concreting (2nd Lift)	3	24-Jul-15	0%	3	27-Jul-15	29-Jan-16	01-Feb-16	149	0	0%																		
SC2F0220	C12 (C2f) - Pier Concreting (2nd Lift)	1	28-Jul-15	0%	1	28-Jul-15	02-Feb-16	02-Feb-16	149	0	0%																		
SC2F0222	C12 (C2f) - Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	30-Jul-15	0%	2	31-Jul-15	03-Feb-16	04-Feb-16	149	0	0%																		
SC2F0230	C12 (C2f) - Pier Head Scaffolding	4	01-Aug-15	0%	4	05-Aug-15	05-Feb-16	12-Feb-16	149	0	0%																		
SC2F0240	C12 (C2f) - Pier Head Rebarwork	5	06-Aug-15	0%	5	12-Aug-15	13-Feb-16	18-Feb-16	149	0	0%																		
SC2F0250	C12 (C2f) - Pier Head Formwork & Prep for Concreting	5	13-Aug-15	0%	5	18-Aug-15	19-Feb-16	24-Feb-16	149	0	0%																		
SC2F0260	C12 (C2f) - Pier Head Concreting	1	19-Aug-15	0%	1	19-Aug-15	25-Feb-16	25-Feb-16	149	0	0%																		
<b>Pier C13 (C2e) Portal</b>																													
<b>Pile Cap Works</b>																													
SC2EL090	C13A (C2e-L) - Pile cap Excavation / ELS	18	12-Jun-15	0%	18	08-Jul-15	10-Nov-15	30-Nov-15	113	0	0%																		
SC2EL092	C13A (C2e-L) - Pile cap Pile breakdown to cut-off etc	4	09-Jul-15	0%	4	13-Jul-15	01-Dec-15	04-Dec-15	113	0	0%																		
SC2EL100	C13A (C2e-L) - Pile cap Blinding	1	14-Jul-15	0%	1	14-Jul-15	05-Dec-15	05-Dec-15	113	0	0%																		
SC2EL110	C13A (C2e-L) - Pile cap Formwork	3	21-Jul-15	0%	3	23-Jul-15	11-Dec-15	14-Dec-15	113	0	0%																		
SC2EL120	C13A (C2e-L) - Pile cap Rebarwork	4	15-Jul-15	0%	4	20-Jul-15	07-Dec-15	10-Dec-15	113	0	0%																		
SC2EL122	C13A (C2e-L) - Pile cap Kicker Formwork	2	25-Jul-15	0%	2	27-Jul-15	21-Dec-15	22-Dec-15	117	4	0%																		

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li>◆ Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 18 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	Date: 29-May-15 Revision: Checked: WY Approved:	<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
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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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
SC1D0195	C19 (C1d) - Type 5B-B Pier/Pier Head Backfilling Works	4	19-Jun-15	0%	4	26-Jun-15	31-Dec-15	05-Jan-16	150	0	0%																		
<b>Pier Head Segments</b>																													
SC1D0370	C19 (C1d) - Pier Head Segment - Temporary Platform	6	27-Jun-15	0%	6	04-Jul-15	06-Jan-16	12-Jan-16	150	0	0%																		
SC1D0372	C19 (C1d) - Pier Head Segment Lift & Fix (1 seg)	2	06-Jul-15	0%	2	07-Jul-15	13-Jan-16	15-Jan-16	151	0	0%																		
SC1D0374	C19 (C1d) - Pier Head Segment Diaphragm - Rebar	13	08-Jul-15	0%	13	23-Jul-15	16-Jan-16	30-Jan-16	151	0	0%																		
SC1D0376	C19 (C1d) - Pier Head Segment Diaphragm - Formwork	8	24-Jul-15	0%	8	03-Aug-15	01-Feb-16	13-Feb-16	152	0	0%																		
SC1D0378	C19 (C1d) - Pier Head Segment Diaphragm - Concreting	2	04-Aug-15	0%	2	05-Aug-15	15-Feb-16	16-Feb-16	152	0	0%																		
SC1D0380	C19 (C1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	06-Aug-15	0%	6	13-Aug-15	17-Feb-16	23-Feb-16	152	63	0%																		
<b>Pier C20 (C1c) &amp; Abutment C</b>																													
<b>Pier Works</b>																													
SC1C0180	C20 (C1c) - Pier/Pier Head Concreting	1	22-May-15	0%	1	22-May-15	27-Feb-16	27-Feb-16	215	0	0%																		
SC1C0190	C20 (C1c) - Pier/Pier Head Curing & Striking of Forms incl. CJ prep	6	23-May-15	0%	6	30-May-15	29-Feb-16	05-Mar-16	215	0	0%																		
<b>Pier Head Segments</b>																													
SC1C0370	C20 (C1c) - Pier Head Segment - Temporary Platform	6	01-Jun-15	0%	6	08-Jun-15	07-Mar-16	12-Mar-16	215	146	0%																		
<b>Abutment &amp; Approach Ramp C</b>																													
SC1C0200	Abutment C - Walls & Staircase	48	22-May-15	0%	48	28-Jul-15	20-Jan-16	18-Mar-16	185	18	0%																		
SC1C0250	AR-C - RE Walls - Erect fencing, Excavation/formation/ drainage filter & bottom layer to grd l	12	22-Apr-15 A	90%	1	23-May-15	18-Dec-15	19-Dec-15	160	0	90%																		
SC1C0251	AR-C - RE Walls - Upper layers with backfill in stages	48	23-May-15	0%	48	31-Jul-15	19-Dec-15	20-Feb-16	160	0	0%																		
SC1C0252	AR-C - RC Walls - Base Slabs	50	08-Apr-15 A	50%	25	31-Jul-15	19-Jan-16	20-Feb-16	160	0	50%																		
SC1C0253	AR-C - RC Walls - Side Walls	48	18-Jun-15	0%	48	22-Aug-15	19-Jan-16	18-Mar-16	167	0	0%																		
<b>Viaduct D</b>																													
<b>Milestones - Land Foundation</b>																													
GFXX454A1	D13 (D2d) - Completion of piling works	0		0%	0	21-May-15		13-May-15	-7	0	0%																		
GFXX461A1	D10 (D3b) - Completion of piling works	0		0%	0	23-Jul-15		21-Mar-15	-98	0	0%																		
GFXX461C1	D12 (D2e) - Completion of piling works	0		0%	0	23-Jul-15		15-Apr-15	-81	0	0%																		
<b>Bridge D3</b>																													
<b>Pier D1 (D4f)</b>																													
<b>Pier Works</b>																													
SD4F0240	D1 (D4f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	20-Apr-15 A	100%	0	24-Apr-15 A					100%																		
SD4F0300	D1 (D4f) - Type 4B-MJ Pier Head Scaffolding	4	25-Apr-15 A	100%	0	02-May-15 A					100%																		
SD4F0310	D1 (D4f) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	04-May-15 A	40%	6	29-May-15	02-Apr-15	13-Apr-15	-34	0	60%																		
SD4F0330	D1 (D4f) - Type 4B-MJ Pier Head Concreting	1	30-May-15	0%	1	30-May-15	14-Apr-15	14-Apr-15	-34	0	0%																		
SD4F0340	D1 (D4f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	01-Jun-15	0%	6	08-Jun-15	16-Apr-15	22-Apr-15	-34	0	0%																		
SD4F372	D1 (D4f) - Type 4B-Bearing Plinth	6	01-Jun-15	0%	6	08-Jun-15	16-Apr-15	22-Apr-15	-34	0	0%																		
<b>Pier Head Segments</b>																													
SD4F0370	D1 (D4f) - Pier Head Segment - Temporary Platform	6	02-Jul-15	0%	6	08-Jul-15	24-Apr-15	30-Apr-15	-47	98	0%																		
<b>Pier D2 (D4e)</b>																													
<b>Pile Cap Works</b>																													
SD4E0100	D2 (D4e) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	17-Mar-15 A	100%	0	21-Apr-15 A					100%																		
SD4E0120	D2 (D4e) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	22-Apr-15 A	100%	0	24-Apr-15 A					100%																		
SD4E0130	D2 (D4e) - Marine Pile Cap M2b - Pile cut down	8	25-Apr-15 A	100%	0	02-May-15 A					100%																		
SD4E0140	D2 (D4e) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	04-May-15 A	100%	0	12-May-15 A					100%																		
SD4E0150	D2 (D4e) - Marine Pile Cap M2b - Concreting	1	13-May-15 A	100%	0	13-May-15 A					100%																		
SD4E0160	D2 (D4e) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	14-May-15 A	100%	0	20-May-15 A					100%																		
<b>Pier Works</b>																													
SD4E0170	D2 (D4e) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	19-May-15 A	16.67%	5	28-May-15	03-Oct-15	08-Oct-15	98	0	30%																		
SD4E0180	D2 (D4e) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	29-May-15	0%	5	04-Jun-15	09-Oct-15	15-Oct-15	98	0	0%																		
SD4E0200	D2 (D4e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	05-Jun-15	0%	3	08-Jun-15	16-Oct-15	19-Oct-15	98	0	0%																		

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li>◆ Milestone</li> </ul>	Project ID: J3518DWPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 22 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	Date 29-May-15	Revision	Checked WY	Approved	<b>DWG. No.:</b>  <b>J3518/GCL/PGM/3MRP-M24</b>
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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	2015																	
												May					June			July			August						
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
SD4E0210	D2 (D4e) - Type 4B Pier Scaffolding (2nd Lift)	2	10-Jun-15	0%	2	12-Jun-15	20-Oct-15	22-Oct-15	98	0	0%																		
SD4E0220	D2 (D4e) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	13-Jun-15	0%	6	22-Jun-15	23-Oct-15	30-Oct-15	98	0	0%																		
SD4E0240	D2 (D4e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	24-Jun-15	0%	3	27-Jun-15	31-Oct-15	03-Nov-15	98	0	0%																		
SD4E0300	D2 (D4e) - Type 4B Pier Head Scaffolding	4	29-Jun-15	0%	4	03-Jul-15	04-Nov-15	07-Nov-15	98	0	0%																		
SD4E0310	D2 (D4e) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	04-Jul-15	0%	10	15-Jul-15	09-Nov-15	19-Nov-15	98	0	0%																		
SD4E0330	D2 (D4e) - Type 4B Pier Head Concreting	1	17-Jul-15	0%	1	17-Jul-15	20-Nov-15	20-Nov-15	98	0	0%																		
SD4E0340	D2 (D4e) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	18-Jul-15	0%	6	24-Jul-15	21-Nov-15	27-Nov-15	98	0	0%																		
<b>Pier D3 (D4d)</b>																													
<b>Pile Cap Works</b>																													
SD4D0140	D3 (D4d) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	09-Apr-15 A	100%	0	27-Apr-15 A					100%																		
SD4D0150	D3 (D4d) - Marine Pile Cap M2b - Concreting	1	28-Apr-15 A	100%	0	28-Apr-15 A					100%																		
SD4D0160	D3 (D4d) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	29-Apr-15 A	100%	0	02-May-15 A					100%																		
<b>Pier Works</b>																													
SD4D0170	D3 (D4d) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	04-May-15 A	100%	0	05-May-15 A					100%																		
SD4D0180	D3 (D4d) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	06-May-15 A	100%	0	08-May-15 A					100%																		
SD4D0200	D3 (D4d) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	08-May-15 A	100%	0	14-May-15 A					100%																		
SD4D0210	D3 (D4d) - Type 4B Pier Scaffolding (2nd Lift)	2	11-May-15 A	100%	0	18-May-15 A					100%																		
SD4D0220	D3 (D4d) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	19-May-15 A	20%	4	27-May-15	24-Sep-15	30-Sep-15	92	0	10%																		
SD4D0240	D3 (D4d) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	28-May-15	0%	3	30-May-15	30-Sep-15	05-Oct-15	92	0	0%																		
SD4D0250	D3 (D4d) - Type 4B Pier Scaffolding (3rd Lift)	2	01-Jun-15	0%	2	02-Jun-15	05-Oct-15	07-Oct-15	92	0	0%																		
SD4D0260	D3 (D4d) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	04-Jun-15	0%	5	10-Jun-15	07-Oct-15	13-Oct-15	92	0	0%																		
SD4D0280	D3 (D4d) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	12-Jun-15	0%	3	15-Jun-15	13-Oct-15	17-Oct-15	92	0	0%																		
SD4D0300	D3 (D4d) - Type 4B Pier Head Scaffolding	4	16-Jun-15	0%	4	22-Jun-15	17-Oct-15	23-Oct-15	92	0	0%																		
SD4D0310	D3 (D4d) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	24-Jun-15	0%	9	06-Jul-15	23-Oct-15	04-Nov-15	92	0	0%																		
SD4D0330	D3 (D4d) - Type 4B Pier Head Concreting	1	07-Jul-15	0%	1	07-Jul-15	04-Nov-15	05-Nov-15	92	0	0%																		
SD4D0340	D3 (D4d) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	08-Jul-15	0%	6	14-Jul-15	05-Nov-15	12-Nov-15	92	0	0%																		
<b>Pier Head Segments</b>																													
SD4D0370	D3 (D4d) - Pier Head Segment - Temporary Platform	6	15-Jul-15	0%	6	22-Jul-15	12-Nov-15	19-Nov-15	92	3	0%																		
SD4D0372	D3 (D4d) - Pier Head Segment Lift & Fix (1 seg)	2	27-Jul-15	0%	2	28-Jul-15	19-Nov-15	21-Nov-15	89	0	0%																		
SD4D0374	D3 (D4d) - Pier Head Segment Diaphragm - Rebar	18	30-Jul-15	0%	18	21-Aug-15	21-Nov-15	11-Dec-15	89	0	0%																		
<b>Pier D4 (D4c)</b>																													
<b>Pile Cap Works</b>																													
SD4C0090	D4 (D4c) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	17-Apr-15 A	100%	0	23-Apr-15 A					100%																		
SD4C0100	D4 (D4c) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	24-Apr-15 A	100%	0	09-May-15 A					100%																		
SD4C0120	D4 (D4c) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	11-May-15 A	100%	0	15-May-15 A					100%																		
SD4C0130	D4 (D4c) - Marine Pile Cap M2b - Pile cut down	12	16-May-15 A	33.33%	8	01-Jun-15	22-Dec-14	02-Jan-15	-115	0	40%																		
SD4C0140	D4 (D4c) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	02-Jun-15	0%	12	19-Jun-15	03-Jan-15	16-Jan-15	-115	0	0%																		
SD4C0150	D4 (D4c) - Marine Pile Cap M2b - Concreting	1	22-Jun-15	0%	1	22-Jun-15	17-Jan-15	17-Jan-15	-115	0	0%																		
SD4C0160	D4 (D4c) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	24-Jun-15	0%	6	02-Jul-15	19-Jan-15	24-Jan-15	-115	0	0%																		
<b>Pier Works</b>																													
SD4C0170	D4 (D4c) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	24-Jun-15	0%	6	02-Jul-15	19-Jan-15	24-Jan-15	-115	0	0%																		
SD4C0180	D4 (D4c) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	03-Jul-15	0%	5	08-Jul-15	26-Jan-15	30-Jan-15	-115	0	0%																		
SD4C0200	D4 (D4c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	09-Jul-15	0%	3	11-Jul-15	31-Jan-15	03-Feb-15	-115	0	0%																		
SD4C0210	D4 (D4c) - Type 4B Pier Scaffolding (2nd Lift)	1	13-Jul-15	0%	1	13-Jul-15	04-Feb-15	04-Feb-15	-115	0	0%																		
SD4C0220	D4 (D4c) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	14-Jul-15	0%	5	20-Jul-15	05-Feb-15	10-Feb-15	-115	0	0%																		
SD4C0240	D4 (D4c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	21-Jul-15	0%	3	23-Jul-15	11-Feb-15	13-Feb-15	-115	0	0%																		
SD4C0250	D4 (D4c) - Type 4B Pier Scaffolding (3rd Lift)	2	24-Jul-15	0%	2	25-Jul-15	14-Feb-15	16-Feb-15	-115	0	0%																		
SD4C0260	D4 (D4c) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	27-Jul-15	0%	5	01-Aug-15	17-Feb-15	25-Feb-15	-115	0	0%																		

<ul style="list-style-type: none"> <li>Actual Work</li> <li>Planned Bar</li> <li>Critical Bar</li> <li>Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 23 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>Date</th><th>Revision</th><th>Checked</th><th>Approved</th></tr> <tr><td>29-May-15</td><td></td><td>WY</td><td></td></tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b>  <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										

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	2015																
												May					June				July				August			
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10
SD4C0280	D4 (D4c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	03-Aug-15	0%	3	05-Aug-15	26-Feb-15	28-Feb-15	-115	0	0%																	
SD4C0300	D4 (D4c) - Type 4B Pier Head Scaffolding	4	06-Aug-15	0%	4	10-Aug-15	02-Mar-15	05-Mar-15	-115	0	0%																	
SD4C0310	D4 (D4c) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	12-Aug-15	0%	9	22-Aug-15	06-Mar-15	16-Mar-15	-115	0	0%																	
<b>Pier D5 (D4b)</b>																												
<b>Pile Cap Works</b>																												
SD4B0080	D5 (D4b) - Marine Pile Cap M2b - Install precast shell in position	1	21-Apr-15 A	100%	0	21-Apr-15 A					100%																	
SD4B0090	D5 (D4b) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	22-Apr-15 A	100%	0	25-Apr-15 A					100%																	
SD4B0100	D5 (D4b) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	27-Apr-15 A	100%	0	16-May-15 A					100%																	
SD4B0120	D5 (D4b) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	18-May-15 A	50%	1	22-May-15	02-Jan-15	02-Jan-15	-108	0	90%																	
SD4B0130	D5 (D4b) - Marine Pile Cap M2b - Pile cut down	8	23-May-15	0%	8	02-Jun-15	03-Jan-15	12-Jan-15	-108	0	0%																	
SD4B0140	D5 (D4b) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	04-Jun-15	0%	12	22-Jun-15	13-Jan-15	26-Jan-15	-108	0	0%																	
SD4B0150	D5 (D4b) - Marine Pile Cap M2b - Concreting	1	24-Jun-15	0%	1	24-Jun-15	27-Jan-15	27-Jan-15	-108	0	0%																	
SD4B0160	D5 (D4b) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	26-Jun-15	0%	6	03-Jul-15	28-Jan-15	03-Feb-15	-108	0	0%																	
<b>Pier Works</b>																												
SD4B0170	D5 (D4b) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	26-Jun-15	0%	6	03-Jul-15	28-Jan-15	03-Feb-15	-108	0	0%																	
SD4B0180	D5 (D4b) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	04-Jul-15	0%	5	09-Jul-15	04-Feb-15	09-Feb-15	-108	0	0%																	
SD4B0200	D5 (D4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Jul-15	0%	3	13-Jul-15	10-Feb-15	12-Feb-15	-108	0	0%																	
SD4B0210	D5 (D4b) - Type 4B Pier Scaffolding (2nd Lift)	1	14-Jul-15	0%	1	14-Jul-15	13-Feb-15	13-Feb-15	-108	0	0%																	
SD4B0220	D5 (D4b) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	15-Jul-15	0%	5	21-Jul-15	14-Feb-15	23-Feb-15	-108	0	0%																	
SD4B0240	D5 (D4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	22-Jul-15	0%	3	24-Jul-15	24-Feb-15	26-Feb-15	-108	0	0%																	
SD4B0250	D5 (D4b) - Type 4B Pier Scaffolding (3rd Lift)	2	25-Jul-15	0%	2	27-Jul-15	27-Feb-15	28-Feb-15	-108	0	0%																	
SD4B0260	D5 (D4b) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	28-Jul-15	0%	5	03-Aug-15	02-Mar-15	06-Mar-15	-108	0	0%																	
SD4B0280	D5 (D4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	04-Aug-15	0%	3	06-Aug-15	07-Mar-15	10-Mar-15	-108	0	0%																	
SD4B0300	D5 (D4b) - Type 4B Pier Head Scaffolding	4	07-Aug-15	0%	4	12-Aug-15	11-Mar-15	14-Mar-15	-108	0	0%																	
SD4B0310	D5 (D4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	13-Aug-15	0%	9	24-Aug-15	16-Mar-15	25-Mar-15	-108	0	0%																	
<b>Pier D6 (D4a)</b>																												
<b>Pile Cap Works</b>																												
SD4A0070	D6 (D4a) - Marine Pile Cap M2 - Inst.Floating Seal & Casing Head Steelwork	7	04-Mar-15 A	100%	0	29-Apr-15 A					100%																	
SD4A0080	D6 (D4a) - Marine Pile Cap M2 - Install precast shell in position	1	30-Apr-15 A	100%	0	30-Apr-15 A					100%																	
SD4A0090	D6 (D4a) - Marine Pile Cap M2 - Inst.Access & make Watertight	3	02-May-15 A	100%	0	09-May-15 A					100%																	
SD4A0100	D6 (D4a) - Marine Pile Cap M2 - Weld Fin plates/Plug Rebar & Concrete	9	11-May-15 A	55.56%	4	27-May-15	13-Feb-15	17-Feb-15	-72	0	80%																	
SD4A0110	D6 (D4a) - Marine Pile Cap M2 - Dewater precast shell / Remove Lifting Frame	2	28-May-15	0%	2	29-May-15	18-Feb-15	23-Feb-15	-72	0	0%																	
SD4A0120	D6 (D4a) - Marine Pile Cap M2 - Pile cut down	12	30-May-15	0%	12	16-Jun-15	24-Feb-15	09-Mar-15	-72	0	0%																	
SD4A0130	D6 (D4a) - Marine Pile Cap M2 - Rebar fixing, inst.inserts etc	12	18-Jun-15	0%	12	06-Jul-15	10-Mar-15	23-Mar-15	-72	0	0%																	
SD4A0140	D6 (D4a) - Marine Pile Cap M2 - Concreting	1	07-Jul-15	0%	1	07-Jul-15	24-Mar-15	24-Mar-15	-72	0	0%																	
SD4A0164	D6 (D4a) - Marine Pile Cap M2 - Curing incl. CJ preparation	6	08-Jul-15	0%	6	14-Jul-15	25-Mar-15	31-Mar-15	-72	0	0%																	
<b>Pier Works</b>																												
SD4A0170	D6 (D4a) - Type 4B-MJ Pier Temp. Support Platform & Scaffold (1st Lift)	7	08-Jul-15	0%	7	15-Jul-15	25-Mar-15	01-Apr-15	-72	0	0%																	
SD4A0180	D6 (D4a) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	5	17-Jul-15	0%	5	22-Jul-15	02-Apr-15	11-Apr-15	-72	0	0%																	
SD4A0200	D6 (D4a) - Type 4B MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	23-Jul-15	0%	3	25-Jul-15	13-Apr-15	16-Apr-15	-72	0	0%																	
SD4A0210	D6 (D4a) - Type 4B-MJ Pier Scaffolding (2nd Lift)	1	27-Jul-15	0%	1	27-Jul-15	17-Apr-15	17-Apr-15	-72	0	0%																	
SD4A0220	D6 (D4a) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (2nd Lift)	5	28-Jul-15	0%	5	03-Aug-15	18-Apr-15	24-Apr-15	-72	0	0%																	
SD4A0240	D6 (D4a) - Type 4B MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	04-Aug-15	0%	3	06-Aug-15	25-Apr-15	28-Apr-15	-72	0	0%																	
SD4A0250	D6 (D4a) - Type 4B-MJ Pier Scaffolding (3rd Lift)	2	07-Aug-15	0%	2	08-Aug-15	29-Apr-15	30-Apr-15	-72	0	0%																	
SD4A0260	D6 (D4a) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (3rd Lift)	5	10-Aug-15	0%	5	15-Aug-15	02-May-15	07-May-15	-72	0	0%																	
SD4A0280	D6 (D4a) - Type 4B MJ Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	17-Aug-15	0%	3	19-Aug-15	08-May-15	11-May-15	-72	0	0%																	
<b>Bridge D2</b>																												
<b>Pier D7 (D3e)</b>																												

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: red;">■</span> Planned Bar</li> <li><span style="color: green;">■</span> Critical Bar</li> <li><span style="color: purple;">◆</span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.
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**Tuen Mun - Chek Lap Kok Link - Southern Connection**  
**3-Month Rolling Programme (Page 24 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**

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	2015																						
												May				June				July				August										
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17					
<b>Pile Cap Works</b>																																		
SD3E0090	D7 (D3e) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	17-Apr-15 A	100%	0	23-Apr-15 A					100%																							
SD3E0100	D7 (D3e) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	24-Apr-15 A	100%	0	02-May-15 A					100%																							
SD3E0120	D7 (D3e) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frame	2	04-May-15 A	0%	2	23-May-15	22-Jan-15	23-Jan-15	-91	0	90%																							
SD3E0130	D7 (D3e) - Marine Pile Cap M2b - Pile cut down	8	26-May-15	0%	8	04-Jun-15	24-Jan-15	02-Feb-15	-91	0	0%																							
SD3E0140	D7 (D3e) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	05-Jun-15	0%	12	24-Jun-15	03-Feb-15	16-Feb-15	-91	0	0%																							
SD3E0150	D7 (D3e) - Marine Pile Cap M2b - Concreting	1	26-Jun-15	0%	1	26-Jun-15	17-Feb-15	17-Feb-15	-91	0	0%																							
SD3E0160	D7 (D3e) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	27-Jun-15	0%	6	04-Jul-15	18-Feb-15	27-Feb-15	-91	0	0%																							
<b>Pier Works</b>																																		
SD3E0170	D7 (D3e) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	27-Jun-15	0%	6	04-Jul-15	18-Feb-15	27-Feb-15	-91	0	0%																							
SD3E0180	D7 (D3e) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	06-Jul-15	0%	5	10-Jul-15	28-Feb-15	05-Mar-15	-91	0	0%																							
SD3E0200	D7 (D3e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	11-Jul-15	0%	3	14-Jul-15	06-Mar-15	09-Mar-15	-91	0	0%																							
SD3E0210	D7 (D3e) - Type 4B Pier Scaffolding (2nd Lift)	1	15-Jul-15	0%	1	15-Jul-15	10-Mar-15	10-Mar-15	-91	0	0%																							
SD3E0220	D7 (D3e) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	17-Jul-15	0%	5	22-Jul-15	11-Mar-15	16-Mar-15	-91	0	0%																							
SD3E0240	D7 (D3e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	23-Jul-15	0%	3	25-Jul-15	17-Mar-15	19-Mar-15	-91	0	0%																							
SD3E0250	D7 (D3e) - Type 4B Pier Scaffolding (3rd Lift)	2	27-Jul-15	0%	2	28-Jul-15	20-Mar-15	21-Mar-15	-91	0	0%																							
SD3E0260	D7 (D3e) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	30-Jul-15	0%	5	04-Aug-15	23-Mar-15	27-Mar-15	-91	0	0%																							
SD3E0280	D7 (D3e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	05-Aug-15	0%	3	07-Aug-15	28-Mar-15	31-Mar-15	-91	0	0%																							
SD3E0300	D7 (D3e) - Type 4B Pier Head Scaffolding	4	08-Aug-15	0%	4	13-Aug-15	01-Apr-15	09-Apr-15	-91	0	0%																							
SD3E0310	D7 (D3e) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	14-Aug-15	0%	9	25-Aug-15	10-Apr-15	21-Apr-15	-91	0	0%																							
<b>Pier D8 (D3d)</b>																																		
<b>Pile Cap Works</b>																																		
SD3D0090	D8 (D3d) - Pile cap Excavation / ELS	18	05-Mar-15 A	100%	0	23-Apr-15 A					100%																							
SD3D0092	D8 (D3d) - Pile cap Pile breakdown to cut-off etc.	4	25-Apr-15 A	100%	0	16-May-15 A					100%																							
SD3D0100	D8 (D3d) - Pile cap Blinding	1	24-Apr-15 A	100%	0	24-Apr-15 A					100%																							
SD3D0110	D8 (D3d) - Pile cap Formwork	3	18-May-15 A	100%	0	19-May-15 A					100%																							
SD3D0120	D8 (D3d) - Pile cap Rebarwork	4	22-May-15	0%	4	27-May-15	27-Nov-18	30-Nov-18	1000	1000	0%																							
SD3D0122	D8 (D3d) - Pile cap Kicker Formwork	2	23-May-15	0%	2	26-May-15	07-Mar-15	09-Mar-15	-57	4	0%																							
SD3D0130	D8 (D3d) - Pile cap Concreting	1	22-May-15	0%	1	22-May-15	28-Feb-15	02-Mar-15	-62	0	0%																							
SD3D0140	D8 (D3d) - Pile cap Curing & Striking of Forms incl. CJ prep	6	23-May-15	0%	6	30-May-15	02-Mar-15	09-Mar-15	-61	0	0%																							
<b>Pier Works</b>																																		
SD3D0150	D8 (D3d) - Type 5B Pier Scaffolding (1st Lift)	2	01-Jun-15	0%	2	02-Jun-15	10-Mar-15	11-Mar-15	-61	0	0%																							
SD3D0160	D8 (D3d) - Type 5B Pier Rebarwork (1st Lift)	2	04-Jun-15	0%	2	05-Jun-15	12-Mar-15	13-Mar-15	-61	0	0%																							
SD3D0170	D8 (D3d) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	06-Jun-15	0%	2	08-Jun-15	14-Mar-15	16-Mar-15	-61	0	0%																							
SD3D0180	D8 (D3d) - Type 5B Pier Concreting (1st Lift)	1	10-Jun-15	0%	1	10-Jun-15	17-Mar-15	17-Mar-15	-61	0	0%																							
SD3D0182	D8 (D3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	12-Jun-15	0%	2	13-Jun-15	18-Mar-15	19-Mar-15	-61	0	0%																							
SD3D0190	D8 (D3d) - Type 5B Pier Scaffolding (2nd Lift)	2	15-Jun-15	0%	2	16-Jun-15	20-Mar-15	21-Mar-15	-61	0	0%																							
SD3D0200	D8 (D3d) - Type 5B Pier Rebarwork (2nd Lift)	2	18-Jun-15	0%	2	19-Jun-15	23-Mar-15	24-Mar-15	-61	0	0%																							
SD3D0210	D8 (D3d) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	2	22-Jun-15	0%	2	24-Jun-15	25-Mar-15	26-Mar-15	-61	0	0%																							
SD3D0220	D8 (D3d) - Type 5B Pier Concreting (2nd Lift)	1	26-Jun-15	0%	1	26-Jun-15	27-Mar-15	27-Mar-15	-61	0	0%																							
SD3D0222	D8 (D3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	27-Jun-15	0%	2	29-Jun-15	28-Mar-15	30-Mar-15	-61	0	0%																							
SD3D0230	D8 (D3d) - Type 5B Pier Scaffolding (3rd Lift)	2	30-Jun-15	0%	2	02-Jul-15	31-Mar-15	01-Apr-15	-61	0	0%																							
SD3D0240	D8 (D3d) - Type 5B Pier Rebarwork (3rd Lift)	3	03-Jul-15	0%	3	06-Jul-15	02-Apr-15	09-Apr-15	-61	0	0%																							
SD3D0250	D8 (D3d) - Type 5B Pier Formwork & Prep for Concreting (3rd Lift)	3	07-Jul-15	0%	3	09-Jul-15	10-Apr-15	13-Apr-15	-61	0	0%																							
SD3D0260	D8 (D3d) - Type 5B Pier Concreting (3rd Lift)	1	10-Jul-15	0%	1	10-Jul-15	14-Apr-15	14-Apr-15	-61	0	0%																							
SD3D0262	D8 (D3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (3rd Lift)	2	11-Jul-15	0%	2	13-Jul-15	16-Apr-15	17-Apr-15	-61	0	0%																							
SD3D0270	D8 (D3d) - Type 5B Pier Head Scaffolding	3	14-Jul-15	0%	3	17-Jul-15	18-Apr-15	21-Apr-15	-61	0	0%																							
SD3D0280	D8 (D3d) - Type 5B Pier Head Rebarwork	4	18-Jul-15	0%	4	22-Jul-15	22-Apr-15	27-Apr-15	-61	0	0%																							

█ Actual Work  
█ Planned Bar  
█ Critical Bar  
◆ Milestone

Project ID: J3518DWPPrE1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 25 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**





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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
SD2ER110	D12B (D2e-R) - Pile cap Formwork	3	17-Aug-15	0%	3	19-Aug-15	04-Jun-15	06-Jun-15	-53	0	0%																		
SD2ER120	D12B (D2e-R) - Pile cap Rebarwork	4	12-Aug-15	0%	4	15-Aug-15	29-May-15	02-Jun-15	-53	0	0%																		
<b>Pier D13 (D2d)</b>																													
<b>Socketted H-Pile Installation - D13 (D2d)</b>																													
GFXX454	D13 (D2d) - Installation of SH Pile (10 nos)	104	09-Feb-15 A	99.04%	1	21-May-15	13-May-15	13-May-15	-7	0	95%																		
GFXX472-7	D13 (D2d) - Selection of pile for Loading Test	6	22-May-15	0%	6	29-May-15	14-May-15	20-May-15	-7	0	0%																		
GFXX472-8	D13 (D2d) - Loading Test for pre-bored H-pile	36	30-May-15	0%	36	13-Jul-15	21-May-15	04-Jul-15	-7	0	0%																		
<b>Pile Cap Works</b>																													
SD2D0090	D13 (D2d) - Pile cap Excavation / ELS (incl. sheet piling)	30	14-Jul-15	0%	30	21-Aug-15	06-Jul-15	12-Aug-15	-7	0	0%																		
<b>Bridge D1</b>																													
<b>Pier D14 (D2c)</b>																													
<b>Pier Works</b>																													
SD2CL190	D14A (D2c-L) - Pier Scaffolding (2nd Lift)	2	29-Apr-15 A	100%	0	30-Apr-15 A					100%																		
SD2CL200	D14A (D2c-L) - Pier Rebarwork (2nd Lift)	3	02-May-15 A	100%	0	06-May-15 A					100%																		
SD2CL210	D14A (D2c-L) - Pier Formwork & Prep for Concreting (2nd Lift)	3	15-May-15 A	100%	0	16-May-15 A					100%																		
SD2CL220	D14A (D2c-L) - Pier Concreting (2nd Lift)	1	19-May-15 A	100%	0	19-May-15 A					100%																		
SD2CL222	D14A (D2c-L) - Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	22-May-15	0%	2	23-May-15	13-Aug-15	14-Aug-15	59	24	0%																		
<b>Portal</b>																													
SD2CR280	D14 (D2c) - Portal Beam Scaffolding	12	02-Jul-15	0%	12	15-Jul-15	15-Aug-15	29-Aug-15	35	0	0%																		
SD2CR290	D14 (D2c) - Portal Beam Soffit Formwork	12	17-Jul-15	0%	12	31-Jul-15	31-Aug-15	14-Sep-15	35	0	0%																		
SD2CR300	D14 (D2c) - Portal Beam Rebarwork & Inserts	16	01-Aug-15	0%	16	21-Aug-15	15-Sep-15	06-Oct-15	35	0	0%																		
<b>Pier D15 (D2b)</b>																													
<b>Pile Cap Works</b>																													
SD2B0090	D15 (D2b) - Pile cap Excavation / ELS (incl. sheet piling)	45	07-May-15 A	100%	0	18-May-15 A					100%																		
SD2B0092	D15 (D2b) - Pile cap Pile breakdown to cut-off etc.	4	20-May-15 A	0%	4	27-May-15	27-Nov-18	30-Nov-18	1000	1000	1%																		
SD2B0100	D15 (D2b) - Pile cap Blinding	1	19-May-15 A	100%	0	19-May-15 A					100%																		
SD2B0110	D15 (D2b) - Pile cap Formwork	3	28-May-15	0%	3	30-May-15	05-Aug-15	07-Aug-15	49	0	0%																		
SD2B0120	D15 (D2b) - Pile cap Rebarwork	4	22-May-15	0%	4	27-May-15	31-Jul-15	04-Aug-15	49	0	0%																		
SD2B0122	D15 (D2b) - Pile cap Kicker Formwork	2	02-Jun-15	0%	2	04-Jun-15	17-Aug-15	18-Aug-15	54	4	0%																		
SD2B0130	D15 (D2b) - Pile cap Concreting	1	01-Jun-15	0%	1	01-Jun-15	08-Aug-15	08-Aug-15	49	0	0%																		
SD2B0140	D15 (D2b) - Pile cap Curing & Striking of Forms incl. CJ prep	6	02-Jun-15	0%	6	10-Jun-15	10-Aug-15	18-Aug-15	50	0	0%																		
<b>Pier Works</b>																													
SD2B0150	D15 (D2b) - Type 5B Pier Scaffolding (1st Lift)	1	12-Jun-15	0%	1	12-Jun-15	19-Aug-15	19-Aug-15	50	0	0%																		
SD2B0160	D15 (D2b) - Type 5B Pier Rebarwork (1st Lift)	2	13-Jun-15	0%	2	15-Jun-15	21-Aug-15	22-Aug-15	50	0	0%																		
SD2B0170	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	1	16-Jun-15	0%	1	16-Jun-15	24-Aug-15	24-Aug-15	50	0	0%																		
SD2B0180	D15 (D2b) - Type 5B Pier Concreting (1st Lift)	1	18-Jun-15	0%	1	18-Jun-15	25-Aug-15	25-Aug-15	50	0	0%																		
SD2B0182	D15 (D2b) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	19-Jun-15	0%	2	22-Jun-15	26-Aug-15	27-Aug-15	50	0	0%																		
SD2B0190	D15 (D2b) - Type 5B Pier Scaffolding (2nd Lift)	2	24-Jun-15	0%	2	26-Jun-15	28-Aug-15	29-Aug-15	50	0	0%																		
SD2B0200	D15 (D2b) - Type 5B Pier Rebarwork (2nd Lift)	3	27-Jun-15	0%	3	30-Jun-15	31-Aug-15	02-Sep-15	50	0	0%																		
SD2B0210	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	02-Jul-15	0%	3	04-Jul-15	03-Sep-15	05-Sep-15	50	0	0%																		
SD2B0220	D15 (D2b) - Type 5B Pier Concreting (2nd Lift)	1	06-Jul-15	0%	1	06-Jul-15	07-Sep-15	07-Sep-15	50	0	0%																		
SD2B0310	D15 (D2b) - Type 5B Pier Curing/Striking of Forms/Remove Scaffolding (2nd Lift)	2	07-Jul-15	0%	2	08-Jul-15	08-Sep-15	10-Sep-15	50	0	0%																		
SD2B0312	D15 (D2b) - Type 5B Pier Head Scaffolding	3	09-Jul-15	0%	3	11-Jul-15	11-Sep-15	14-Sep-15	50	0	0%																		
SD2B0314	D15 (D2b) - Type 5B Pier Head Rebarwork	4	13-Jul-15	0%	4	17-Jul-15	15-Sep-15	19-Sep-15	50	0	0%																		
SD2B0316	D15 (D2b) - Type 5B Pier Head Formwork & Prep for Concreting	3	18-Jul-15	0%	3	21-Jul-15	21-Sep-15	23-Sep-15	50	0	0%																		
SD2B0318	D15 (D2b) - Type 5B Pier Head Concreting	1	22-Jul-15	0%	1	22-Jul-15	24-Sep-15	24-Sep-15	50	0	0%																		
SD2B0320	D15 (D2b) - Type 5B Pier Head Curing & Striking of Forms incl. CJ prep	6	23-Jul-15	0%	6	30-Jul-15	25-Sep-15	03-Oct-15	50	0	0%																		
SD2B0322	D15 (D2b) - Type 5B Pier Backfilling Works	4	31-Jul-15	0%	4	04-Aug-15	05-Oct-15	08-Oct-15	50	0	0%																		



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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
<b>Pier Head Segments</b>																													
SD2B0370	D15 (D2b) - Pier Head Segment - Temporary Platform	6	05-Aug-15	0%	6	12-Aug-15	22-Oct-15	28-Oct-15	59	0	0%																		
SD2B0372	D15 (D2b) - Pier Head Segment Lift & Fix (1 seg)	2	13-Aug-15	0%	2	14-Aug-15	30-Oct-15	31-Oct-15	59	0	0%																		
SD2B0374	D15 (D2b) - Pier Head Segment Diaphragm - Rebar	12	15-Aug-15	0%	12	29-Aug-15	02-Nov-15	14-Nov-15	59	0	0%																		
<b>Pier D16 (D2a)</b>																													
<b>Pile Cap Works</b>																													
SD2A0090	D16 (D2a) - Pile cap Excavation / ELS (incl. sheet piling)	22	22-May-15	0%	22	24-Jun-15	28-Apr-15	27-May-15	-18	0	0%																		
SD2A0092	D16 (D2a) - Pile cap Pile breakdown to cut-off etc.	4	26-Jun-15	0%	4	30-Jun-15	28-May-15	01-Jun-15	-18	0	0%																		
SD2A0100	D16 (D2a) - Pile cap Blinding	1	02-Jul-15	0%	1	02-Jul-15	02-Jun-15	02-Jun-15	-18	0	0%																		
SD2A0110	D16 (D2a) - Pile cap Formwork	3	08-Jul-15	0%	3	10-Jul-15	10-Jun-15	13-Jun-15	-18	0	0%																		
SD2A0120	D16 (D2a) - Pile cap Rebarwork	4	03-Jul-15	0%	4	07-Jul-15	04-Jun-15	08-Jun-15	-18	0	0%																		
SD2A0122	D16 (D2a) - Pile cap Kicker Formwork	2	13-Jul-15	0%	2	14-Jul-15	24-Jun-15	26-Jun-15	-14	4	0%																		
SD2A0130	D16 (D2a) - Pile cap Concreting	1	11-Jul-15	0%	1	11-Jul-15	15-Jun-15	15-Jun-15	-18	0	0%																		
SD2A0140	D16 (D2a) - Pile cap Curing & Striking of Forms incl. CJ prep	6	13-Jul-15	0%	6	20-Jul-15	16-Jun-15	26-Jun-15	-18	0	0%																		
<b>Pier Works</b>																													
SD2A0150	D16 (D2a) - Type 5B Pier Scaffolding (1st Lift)	2	21-Jul-15	0%	2	22-Jul-15	27-Jun-15	29-Jun-15	-18	0	0%																		
SD2A0160	D16 (D2a) - Type 5B Pier Rebarwork (1st Lift)	3	23-Jul-15	0%	3	25-Jul-15	30-Jun-15	03-Jul-15	-18	0	0%																		
SD2A0170	D16 (D2a) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	27-Jul-15	0%	2	28-Jul-15	04-Jul-15	06-Jul-15	-18	0	0%																		
SD2A0180	D16 (D2a) - Type 5B Pier Concreting (1st Lift)	1	30-Jul-15	0%	1	30-Jul-15	07-Jul-15	07-Jul-15	-18	0	0%																		
SD2A0182	D16 (D2a) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	31-Jul-15	0%	2	01-Aug-15	08-Jul-15	09-Jul-15	-18	0	0%																		
SD2A0190	D16 (D2a) - Type 5B Pier Scaffolding (2nd Lift)	2	03-Aug-15	0%	2	04-Aug-15	10-Jul-15	11-Jul-15	-18	0	0%																		
SD2A0200	D16 (D2a) - Type 5B Pier Rebarwork (2nd Lift)	3	05-Aug-15	0%	3	07-Aug-15	13-Jul-15	15-Jul-15	-18	0	0%																		
SD2A0210	D16 (D2a) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	08-Aug-15	0%	3	12-Aug-15	17-Jul-15	20-Jul-15	-18	0	0%																		
SD2A0220	D16 (D2a) - Type 5B Pier Concreting (2nd Lift)	1	13-Aug-15	0%	1	13-Aug-15	21-Jul-15	21-Jul-15	-18	0	0%																		
SD2A0222	D16 (D2a) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	14-Aug-15	0%	2	15-Aug-15	22-Jul-15	23-Jul-15	-18	0	0%																		
SD2A0230	D16 (D2a) - Type 5B Pier Head Scaffolding	3	17-Aug-15	0%	3	19-Aug-15	24-Jul-15	27-Jul-15	-18	0	0%																		
<b>Pier D17 (D1d)</b>																													
<b>Pier Works</b>																													
SD1D0180	D17 (D1d) - Type 5B-B Pier Concreting (1st Lift)	1	22-Apr-15 A	100%	0	22-Apr-15 A					100%																		
SD1D0182	D17 (D1d) - Type 5B-B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	23-Apr-15 A	100%	0	24-Apr-15 A					100%																		
SD1D0190	D17 (D1d) - Type 5B-B Pier Head Scaffolding	3	07-May-15 A	100%	0	12-May-15 A					100%																		
SD1D0200	D17 (D1d) - Type 5B-B Pier Head Rebarwork	4	22-May-15	0%	4	27-May-15	28-Jul-15	01-Aug-15	47	0	0%																		
SD1D0210	D17 (D1d) - Type 5B-B Pier Head Formwork & Prep for Concreting	4	28-May-15	0%	4	01-Jun-15	03-Aug-15	06-Aug-15	47	0	0%																		
SD1D0220	D17 (D1d) - Type 5B-B Pier Head Concreting	1	02-Jun-15	0%	1	02-Jun-15	07-Aug-15	07-Aug-15	47	0	0%																		
SD1D0310	D17 (D1d) - Type 5B-B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	04-Jun-15	0%	6	12-Jun-15	08-Aug-15	15-Aug-15	47	0	0%																		
SD1D0320	D17 (D1d) - Type 5B-B Pier Backfilling Works	4	13-Jun-15	0%	4	18-Jun-15	17-Aug-15	21-Aug-15	47	7	0%																		
<b>Pier Head Segments</b>																													
SD1D0370	D17 (D1d) - Pier Head Segment - Temporary Platform	6	02-Jul-15	0%	6	08-Jul-15	22-Aug-15	28-Aug-15	40	14	0%																		
SD1D0372	D17 (D1d) - Pier Head Segment Lift & Fix (1 seg)	2	27-Jul-15	0%	2	28-Jul-15	29-Aug-15	31-Aug-15	26	0	0%																		
SD1D0374	D17 (D1d) - Pier Head Segment Diaphragm - Rebar	13	30-Jul-15	0%	13	14-Aug-15	01-Sep-15	16-Sep-15	26	0	0%																		
SD1D0376	D17 (D1d) - Pier Head Segment Diaphragm - Formwork	8	15-Aug-15	0%	8	25-Aug-15	18-Sep-15	26-Sep-15	26	0	0%																		
<b>Pier D18 (D1c)</b>																													
<b>Pier Works</b>																													
SD1C0190	D18 (D1c) - Type 5B-B Pier Head Scaffolding	3	16-Apr-15 A	100%	0	21-Apr-15 A					100%																		
SD1C0200	D18 (D1c) - Type 5B-B Pier Head Rebarwork	4	29-Apr-15 A	0%	4	27-May-15	27-Nov-18	30-Nov-18	1000	1000	0%																		
SD1C0210	D18 (D1c) - Type 5B-B Pier Head Formwork & Prep for Concreting	4	18-May-15 A	100%	0	20-May-15 A					100%																		
SD1C0220	D18 (D1c) - Type 5B-B Pier Head Concreting	1	22-May-15	0%	1	22-May-15	31-Oct-15	31-Oct-15	119	0	0%																		
SD1C0310	D18 (D1c) - Type 5B-B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	23-May-15	0%	6	30-May-15	02-Nov-15	07-Nov-15	119	0	0%																		

<span style="color:blue">■</span> Actual Work	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.
<span style="color:green">■</span> Planned Bar	
<span style="color:red">■</span> Critical Bar	
◆ Milestone	

**Tuen Mun - Chek Lap Kok Link - Southern Connection**  
**3-Month Rolling Programme (Page 29 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**

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	2015																			
												May				June				July				August							
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17		
SD1C0320	D18 (D1c) - Type 5B-B Pier Backfilling Works	4	01-Jun-15	0%	4	05-Jun-15	09-Nov-15	12-Nov-15	119	15	0%																				
<b>Pier Head Segments</b>																															
SD1C0370	D18 (D1c) - Pier Head Segment - Temporary Platform	6	02-Jul-15	0%	6	08-Jul-15	13-Nov-15	19-Nov-15	104	14	0%																				
SD1C0372	D18 (D1c) - Pier Head Segment Lift & Fix (1 seg)	2	27-Jul-15	0%	2	28-Jul-15	20-Nov-15	21-Nov-15	90	0	0%																				
SD1C0374	D18 (D1c) - Pier Head Segment Diaphragm - Rebar	13	30-Jul-15	0%	13	14-Aug-15	23-Nov-15	07-Dec-15	90	0	0%																				
SD1C0376	D18 (D1c) - Pier Head Segment Diaphragm - Formwork	8	15-Aug-15	0%	8	25-Aug-15	08-Dec-15	16-Dec-15	90	0	0%																				
<b>Pier D19 (D1b) &amp; Abutment D</b>																															
<b>Pile Cap Works</b>																															
SD1B0122	D19 (D1b) - Pile cap Kicker Formwork	3	22-May-15	0%	3	26-May-15	05-Sep-15	08-Sep-15	78	3	0%																				
SD1B0140	D19 (D1b) - Pile cap Curing & Striking of Forms incl. CJ prep	6	22-May-15	0%	6	29-May-15	02-Sep-15	08-Sep-15	75	0	0%																				
<b>Pier Works</b>																															
SD1B0150	D19 (D1b) - Pier/Pier Head Scaffolding	4	30-May-15	0%	4	04-Jun-15	10-Sep-15	14-Sep-15	75	0	0%																				
SD1B0160	D19 (D1b) - Pier/Pier Head Rebarwork	6	05-Jun-15	0%	6	13-Jun-15	15-Sep-15	22-Sep-15	75	0	0%																				
SD1B0170	D19 (D1b) - Pier/Pier Head Formwork	8	15-Jun-15	0%	8	27-Jun-15	23-Sep-15	03-Oct-15	75	0	0%																				
SD1B0180	D19 (D1b) - Pier/Pier Head Concreting	1	29-Jun-15	0%	1	29-Jun-15	05-Oct-15	05-Oct-15	75	0	0%																				
SD1B0190	D19 (D1b) - Pier/Pier Head Curing & Striking of Forms incl. CJ prep	6	30-Jun-15	0%	6	07-Jul-15	06-Oct-15	12-Oct-15	75	0	0%																				
<b>Pier Head Segments</b>																															
SD1B0370	D19 (D1b) - Pier Head Segment - Temporary Platform	6	08-Jul-15	0%	6	14-Jul-15	13-Oct-15	20-Oct-15	75	93	0%																				
<b>Abutment &amp; Approach Ramp D</b>																															
SD1B0200	Abutment D - Walls & Staircase	48	22-May-15	0%	48	28-Jul-15	04-May-15	10-Jul-15	-14	8	0%																				
SD1B0250	AR-D - RE Walls - Erect MTR boundary fence, Excavation/formation/drainage filter & bottom	24	02-Jun-15	0%	24	08-Jul-15	04-May-15	04-Jun-15	-22	0	0%																				
SD1B0260	AR-D - RE Walls - Upper layers with backfill in stages	48	09-Jul-15	0%	48	07-Sep-15	05-Jun-15	10-Aug-15	-22	0	0%																				
SD1B0270	AR-D - RC Walls - Base Salbs	48	08-Aug-15	0%	48	09-Oct-15	11-Jul-15	10-Sep-15	-22	0	0%																				
<b>Viaduct E</b>																															
<b>Viaduct E1</b>																															
<b>Bridge E1 - Piling &amp; Substructure</b>																															
<b>E1A, E1B, E1C &amp; E1D (E1a1-2-3-4)</b>																															
<b>Pile Cap Works - E1A, E1B, E1C &amp; E1D</b>																															
<b>Pile Cap Works - E1C/D (E1a2/E1a1)</b>																															
SE1A2090	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Inst.Access & make Watertight	3	22-May-15	0%	3	26-May-15	20-Nov-14	24-Nov-14	-142	0	0%																				
SE1A2100	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Weld Fin Plates/Plug Rebar & Concrete	9	27-May-15	0%	9	06-Jun-15	24-Nov-14	04-Dec-14	-142	0	0%																				
SE1A2120	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Dewater precast shell / Remove Lifting Frame	2	08-Jun-15	0%	2	10-Jun-15	04-Dec-14	06-Dec-14	-142	0	0%																				
SE1A2130	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Pile cut down	8	12-Jun-15	0%	8	24-Jun-15	06-Dec-14	16-Dec-14	-142	0	0%																				
SE1A2140	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Rebar fixing, inst.inserts etc	14	26-Jun-15	0%	14	13-Jul-15	16-Dec-14	05-Jan-15	-142	0	0%																				
SE1A2150	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Concreting	1	14-Jul-15	0%	1	14-Jul-15	05-Jan-15	06-Jan-15	-142	0	0%																				
SE1A2160	E1C/D (E1a2/E1a1) - Marine Pile Cap M1 - Curing incl. CJ Preparation	6	15-Jul-15	0%	6	22-Jul-15	06-Jan-15	13-Jan-15	-142	0	0%																				
<b>Pier Works - E1A, E1B, E1C &amp; E1D</b>																															
<b>Pier Works - E1A (E1a4)</b>																															
SE1A4310	E1A (E1a4) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	13-Apr-15 A	80%	2	23-May-15	12-Nov-14	14-Nov-14	-149	0	90%																				
SE1A4330	E1A (E1a4) - Type 4B Pier Head Concreting	1	26-May-15	0%	1	26-May-15	14-Nov-14	15-Nov-14	-149	0	0%																				
SE1A4340	E1A (E1a4) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	27-May-15	0%	6	02-Jun-15	15-Nov-14	22-Nov-14	-149	0	0%																				
<b>Pier Works - E1B (E1a3)</b>																															
SE1A3220	E1B (E1a3) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	18-Apr-15 A	100%	0	30-Apr-15 A					100%																				
SE1A3240	E1B (E1a3) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	02-May-15 A	100%	0	05-May-15 A					100%																				
SE1A3300	E1B (E1a3) - Type 4B Pier Head Scaffolding	4	06-May-15 A	100%	0	11-May-15 A					100%																				
SE1A3310	E1B (E1a3) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	12-May-15 A	10%	9	02-Jun-15	28-Feb-15	11-Mar-15	-62	0	10%																				
SE1A3330	E1B (E1a3) - Type 4B Pier Head Concreting	1	04-Jun-15	0%	1	04-Jun-15	11-Mar-15	12-Mar-15	-62	0	0%																				
SE1A3340	E1B (E1a3) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	05-Jun-15	0%	6	13-Jun-15	12-Mar-15	19-Mar-15	-62	0	0%																				

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: blue; border: 1px solid black;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: green; border: 1px solid black;"></span> Planned Bar</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: red; border: 1px solid black;"></span> Critical Bar</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black; border-radius: 50%;"></span> Milestone</li> </ul>	<p>Project ID: J3518DWP/E1-M24          Layout: J3518-DWP-3MRP Submission - M24          Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.</p>	<p><b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b>  <b>3-Month Rolling Programme (Page 30 of 44 Pages)</b>  <b>(Progress as of 21-May-15)</b></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Date</td><td>Revision</td><td>Checked</td><td>Approved</td> </tr> <tr> <td>29-May-15</td><td></td><td>WY</td><td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<p><b>DWG. No.:</b>  <b>J3518/GCL/PGM/3MRP-M24</b></p>
Date	Revision	Checked	Approved									
29-May-15		WY										

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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
<b>Pier Works - E1C (E1a2)</b>																													
SE1A2170	E1C (E1a2) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	15-Jul-15	0%	6	22-Jul-15	06-Jan-15	13-Jan-15	-142	0	0%																		
SE1A2180	E1C (E1a2) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	4	23-Jul-15	0%	4	27-Jul-15	13-Jan-15	17-Jan-15	-142	0	0%																		
SE1A2200	E1C (E1a2) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	28-Jul-15	0%	3	31-Jul-15	17-Jan-15	21-Jan-15	-142	0	0%																		
SE1A2210	E1C (E1a2) - Type 4B Pier Scaffolding (2nd Lift)	2	01-Aug-15	0%	2	03-Aug-15	21-Jan-15	23-Jan-15	-142	0	0%																		
SE1A2220	E1C (E1a2) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	04-Aug-15	0%	5	08-Aug-15	23-Jan-15	29-Jan-15	-142	0	0%																		
SE1A2240	E1C (E1a2) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	10-Aug-15	0%	3	13-Aug-15	29-Jan-15	02-Feb-15	-142	0	0%																		
SE1A2300	E1C (E1a2) - Type 4B Pier Head Scaffolding	4	14-Aug-15	0%	4	18-Aug-15	02-Feb-15	06-Feb-15	-142	0	0%																		
SE1A2310	E1C (E1a2) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	19-Aug-15	0%	10	31-Aug-15	06-Feb-15	18-Feb-15	-142	0	0%																		
<b>Pier Works - E1D (E1a1)</b>																													
SE1A1170	E1D (E1a1) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	15-Jul-15	0%	6	22-Jul-15	19-Jan-16	26-Jan-16	147	0	0%																		
SE1A1180	E1D (E1a1) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	3	23-Jul-15	0%	3	25-Jul-15	26-Jan-16	29-Jan-16	147	0	0%																		
SE1A1200	E1D (E1a1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	27-Jul-15	0%	3	30-Jul-15	29-Jan-16	02-Feb-16	147	0	0%																		
SE1A1210	E1D (E1a1) - Type 4B Pier Scaffolding (2nd Lift)	2	31-Jul-15	0%	2	01-Aug-15	02-Feb-16	04-Feb-16	147	0	0%																		
SE1A1220	E1D (E1a1) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	03-Aug-15	0%	5	07-Aug-15	04-Feb-16	13-Feb-16	147	0	0%																		
SE1A1240	E1D (E1a1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	08-Aug-15	0%	3	12-Aug-15	13-Feb-16	17-Feb-16	147	0	0%																		
SE1A1300	E1D (E1a1) - Type 4B Pier Head Scaffolding	4	13-Aug-15	0%	4	17-Aug-15	17-Feb-16	22-Feb-16	147	0	0%																		
SE1A1310	E1D (E1a1) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	18-Aug-15	0%	10	29-Aug-15	22-Feb-16	04-Mar-16	147	0	0%																		
<b>Pier Head Segments - E1A, E1B, E1C &amp; E1D</b>																													
<b>Pier Head Segments - E1A (E1a4)</b>																													
SE1A4370	E1A (E1a4) - Pier Head Segment - Temporary Platform	2	04-Jun-15	0%	2	05-Jun-15	22-Nov-14	25-Nov-14	-149	0	0%																		
SE1A4372	E1A (E1a4) - Pier Head Segment Lift & Fix (1 seg)	2	06-Jun-15	0%	2	08-Jun-15	25-Nov-14	27-Nov-14	-149	0	0%																		
SE1A4374	E1A (E1a4) - Pier Head Segment Diaphragm - Rebar	13	10-Jun-15	0%	13	30-Jun-15	27-Nov-14	11-Dec-14	-149	0	0%																		
SE1A4376	E1A (E1a4) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	30-Jun-15	0%	8	10-Jul-15	12-Dec-14	20-Dec-14	-149	0	0%																		
SE1A4378	E1A (E1a4) - Pier Head Segment Diaphragm - Concreting	2	10-Jul-15	0%	2	13-Jul-15	22-Dec-14	23-Dec-14	-149	0	0%																		
SE1A4380	E1A (E1a4) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	13-Jul-15	0%	6	21-Jul-15	24-Dec-14	02-Jan-15	-149	0	0%																		
<b>Pier Head Segments - E1B (E1a3)</b>																													
SE1A3370	E1B (E1a3) - Pier Head Segment - Temporary Platform	2	15-Jun-15	0%	2	16-Jun-15	19-Mar-15	21-Mar-15	-62	0	0%																		
SE1A3372	E1B (E1a3) - Pier Head Segment Lift & Fix (1 seg)	2	18-Jun-15	0%	2	19-Jun-15	21-Mar-15	24-Mar-15	-62	0	0%																		
SE1A3374	E1B (E1a3) - Pier Head Segment Diaphragm - Rebar	12	22-Jun-15	0%	12	08-Jul-15	24-Mar-15	11-Apr-15	-62	0	0%																		
SE1A3376	E1B (E1a3) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	09-Jul-15	0%	8	18-Jul-15	11-Apr-15	22-Apr-15	-62	0	0%																		
SE1A3378	E1B (E1a3) - Pier Head Segment Diaphragm - Concreting	3	20-Jul-15	0%	3	22-Jul-15	22-Apr-15	25-Apr-15	-62	0	0%																		
SE1A3380	E1B (E1a3) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	22-Jul-15	0%	6	30-Jul-15	27-Apr-15	04-May-15	-62	0	0%																		
<b>E2A, E2B, E2C &amp; E2D (E1b1-2-3-4)</b>																													
<b>Pile Cap Works - E2A, E2B, E2C &amp; E2D</b>																													
<b>Pile Cap Works - E2A (E1b4)</b>																													
SE1B4130	E2A (E1b4) - Marine Pile Cap M1 - Pile cut down	8	22-May-15	0%	8	01-Jun-15	11-Oct-14	21-Oct-14	-174	0	0%																		
SE1B4140	E2A (E1b4) - Marine Pile Cap M1 - Rebar fixing, inst.inserts etc	10	02-Jun-15	0%	10	16-Jun-15	22-Oct-14	03-Nov-14	-174	0	0%																		
SE1B4150	E2A (E1b4) - Marine Pile Cap M1 - Concreting	1	18-Jun-15	0%	1	18-Jun-15	04-Nov-14	04-Nov-14	-174	0	0%																		
SE1B4160	E2A (E1b4) - Marine Pile Cap M1 - Curing incl. CJ Preparation	6	19-Jun-15	0%	6	29-Jun-15	05-Nov-14	11-Nov-14	-174	0	0%																		
<b>Pile Cap Works - E2B (E1b3)</b>																													
SE1B3090	E2B (E1b3) - Marine Pile Cap M1 - Inst.Access & make Watertight	3	17-Mar-15 A	100%	0	24-Apr-15 A					100%																		
SE1B3100	E2B (E1b3) - Marine Pile Cap M1 - Weld Fin Plates/Plug Rebar & Concrete	9	25-Apr-15 A	100%	0	09-May-15 A					100%																		
SE1B3120	E2B (E1b3) - Marine Pile Cap M1 - Dewater precast shell / Remove Lifting Frame	2	11-May-15 A	100%	0	16-May-15 A					100%																		
SE1B3130	E2B (E1b3) - Marine Pile Cap M1 - Pile cut down	8	18-May-15 A	25%	6	29-May-15	21-Oct-14	28-Oct-14	-167	0	20%																		
SE1B3140	E2B (E1b3) - Marine Pile Cap M1 - Rebar fixing, inst.inserts etc	18	30-May-15	0%	18	27-Jun-15	28-Oct-14	19-Nov-14	-167	0	0%																		
SE1B3150	E2B (E1b3) - Marine Pile Cap M1 - Concreting	1	29-Jun-15	0%	1	29-Jun-15	19-Nov-14	20-Nov-14	-167	0	0%																		
SE1B3160	E2B (E1b3) - Marine Pile Cap M1 - Curing incl. CJ Preparation	6	30-Jun-15	0%	6	07-Jul-15	20-Nov-14	27-Nov-14	-167	0	0%																		

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li><span style="color: black;">◆</span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 31 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										

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	2015																
												May					June				July				August			
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10
<b>Pier Works - E2A, E2B, E2C &amp; E2D</b>																												
<b>Pier Works - E2A (E1b4)</b>																												
SE1B4170	E2A (E1b4) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	19-Jun-15	0%	6	29-Jun-15	05-Nov-14	11-Nov-14	-174	0	0%																	
SE1B4180	E2A (E1b4) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	4	30-Jun-15	0%	4	04-Jul-15	12-Nov-14	15-Nov-14	-174	0	0%																	
SE1B4200	E2A (E1b4) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	06-Jul-15	0%	3	08-Jul-15	17-Nov-14	19-Nov-14	-174	0	0%																	
SE1B4300	E2A (E1b4) - Type 4B Pier Head Scaffolding	4	09-Jul-15	0%	4	13-Jul-15	20-Nov-14	24-Nov-14	-174	0	0%																	
SE1B4310	E2A (E1b4) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	14-Jul-15	0%	10	25-Jul-15	25-Nov-14	05-Dec-14	-174	0	0%																	
SE1B4330	E2A (E1b4) - Type 4B Pier Head Concreting	1	27-Jul-15	0%	1	27-Jul-15	06-Dec-14	06-Dec-14	-174	0	0%																	
SE1B4340	E2A (E1b4) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	28-Jul-15	0%	6	04-Aug-15	08-Dec-14	13-Dec-14	-174	0	0%																	
<b>Pier Works - E2B (E1b3)</b>																												
SE1B3170	E2B (E1b3) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	30-Jun-15	0%	6	07-Jul-15	20-Nov-14	27-Nov-14	-167	0	0%																	
SE1B3180	E2B (E1b3) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	2	08-Jul-15	0%	2	09-Jul-15	27-Nov-14	29-Nov-14	-167	0	0%																	
SE1B3200	E2B (E1b3) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Jul-15	0%	3	13-Jul-15	29-Nov-14	03-Dec-14	-167	0	0%																	
SE1B3210	E2B (E1b3) - Type 4B Pier Scaffolding (2nd Lift)	1	14-Jul-15	0%	1	14-Jul-15	03-Dec-14	04-Dec-14	-167	0	0%																	
SE1B3220	E2B (E1b3) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	4	15-Jul-15	0%	4	20-Jul-15	04-Dec-14	09-Dec-14	-167	0	0%																	
SE1B3240	E2B (E1b3) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	21-Jul-15	0%	3	23-Jul-15	09-Dec-14	12-Dec-14	-167	0	0%																	
SE1B3300	E2B (E1b3) - Type 4B Pier Head Scaffolding	3	24-Jul-15	0%	3	27-Jul-15	12-Dec-14	16-Dec-14	-167	0	0%																	
SE1B3310	E2B (E1b3) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	28-Jul-15	0%	10	08-Aug-15	16-Dec-14	30-Dec-14	-167	0	0%																	
SE1B3330	E2B (E1b3) - Type 4B Pier Head Concreting	1	10-Aug-15	0%	1	10-Aug-15	30-Dec-14	31-Dec-14	-167	0	0%																	
SE1B3340	E2B (E1b3) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	12-Aug-15	0%	6	18-Aug-15	31-Dec-14	08-Jan-15	-167	0	0%																	
<b>Pier Works - E2C (E1b1)</b>																												
SE1B1170	E2C (E1b1) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	30-Jun-15	0%	6	07-Jul-15	15-Dec-14	20-Dec-14	-146	0	0%																	
SE1B1180	E2C (E1b1) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	2	08-Jul-15	0%	2	09-Jul-15	22-Dec-14	23-Dec-14	-146	0	0%																	
SE1B1200	E2C (E1b1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Jul-15	0%	3	13-Jul-15	24-Dec-14	29-Dec-14	-146	0	0%																	
SE1B1212	E2C (E1b1) - Type 4B Pier Scaffolding (2nd Lift)	1	14-Jul-15	0%	1	14-Jul-15	30-Dec-14	30-Dec-14	-146	0	0%																	
SE1B1220	E2C (E1b1) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	4	15-Jul-15	0%	4	20-Jul-15	31-Dec-14	05-Jan-15	-146	0	0%																	
SE1B1240	E2C (E1b1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	21-Jul-15	0%	3	23-Jul-15	06-Jan-15	08-Jan-15	-146	0	0%																	
SE1B1300	E2C (E1b1) - Type 4B Pier Head Scaffolding	3	24-Jul-15	0%	3	27-Jul-15	09-Jan-15	12-Jan-15	-146	0	0%																	
SE1B1310	E2C (E1b1) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	28-Jul-15	0%	10	08-Aug-15	13-Jan-15	23-Jan-15	-146	0	0%																	
SE1B1330	E2C (E1b1) - Type 4B Pier Head Concreting	1	10-Aug-15	0%	1	10-Aug-15	24-Jan-15	24-Jan-15	-146	0	0%																	
SE1B1340	E2C (E1b1) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	12-Aug-15	0%	6	18-Aug-15	26-Jan-15	31-Jan-15	-146	0	0%																	
<b>Pier Works - E2D (E1b2)</b>																												
SE1B2170	E2D (E1b2) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	30-Jun-15	0%	6	07-Jul-15	02-Feb-15	07-Feb-15	-107	0	0%																	
SE1B2180	E2D (E1b2) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	4	08-Jul-15	0%	4	11-Jul-15	09-Feb-15	12-Feb-15	-107	0	0%																	
SE1B2200	E2D (E1b2) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	13-Jul-15	0%	3	15-Jul-15	13-Feb-15	16-Feb-15	-107	0	0%																	
SE1B2300	E2D (E1b2) - Type 4B Pier Head Scaffolding	4	17-Jul-15	0%	4	21-Jul-15	17-Feb-15	24-Feb-15	-107	0	0%																	
SE1B2310	E2D (E1b2) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	22-Jul-15	0%	10	03-Aug-15	25-Feb-15	07-Mar-15	-107	0	0%																	
SE1B2330	E2D (E1b2) - Type 4B Pier Head Concreting	1	04-Aug-15	0%	1	04-Aug-15	09-Mar-15	09-Mar-15	-107	0	0%																	
SE1B2340	E2D (E1b2) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	05-Aug-15	0%	6	12-Aug-15	10-Mar-15	16-Mar-15	-107	0	0%																	
<b>Pier Head Segments - E2A, E2B, E2C &amp; E2D</b>																												
<b>Pier Head Segments - E2A (E1b4)</b>																												
SE1B4370	E2A (E1b4) - Pier Head Segment - Temporary Platform	2	05-Aug-15	0%	2	06-Aug-15	15-Dec-14	16-Dec-14	-174	0	0%																	
SE1B4372	E2A (E1b4) - Pier Head Segment Lift & Fix (1 seg)	2	07-Aug-15	0%	2	08-Aug-15	17-Dec-14	18-Dec-14	-174	0	0%																	
SE1B4374	E2A (E1b4) - Pier Head Segment Diaphragm - Rebar	12	10-Aug-15	0%	12	25-Aug-15	19-Dec-14	05-Jan-15	-174	0	0%																	
<b>Pier Head Segments - E2B (E1b3)</b>																												
SE1B3370	E2B (E1b3) - Pier Head Segment - Temporary Platform	2	19-Aug-15	0%	2	21-Aug-15	08-Jan-15	10-Jan-15	-167	0	0%																	
<b>Pier Head Segments - E2C (E1b2)</b>																												
SE1B2370	E2C (E1b2) - Pier Head Segment - Temporary Platform	2	19-Aug-15	0%	2	21-Aug-15	02-Feb-15	03-Feb-15	-146	0	0%																	

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li><span style="color: black;">◆</span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 32 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										

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	2015																
												May				June				July				August				
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10
<b>Pier Head Segments - E2D (E1b1)</b>																												
SE1B1370	E2D (E1b1) - Pier Head Segment - Temporary Platform	2	13-Aug-15	0%	2	14-Aug-15	23-Feb-16	24-Feb-16	152	0	0%																	
SE1B1372	E2D (E1b1) - Pier Head Segment Lift & Fix (1 seg)	2	15-Aug-15	0%	2	17-Aug-15	25-Feb-16	27-Feb-16	153	0	0%																	
SE1B1374	E2D (E1b1) - Pier Head Segment Diaphragm - Rebar	12	18-Aug-15	0%	12	01-Sep-15	29-Feb-16	12-Mar-16	153	0	0%																	
<b>Viaduct E2</b>																												
<b>Bridge E2 - Piling &amp; Substructure</b>																												
<b>Milestones</b>																												
GFX077-1	E5 (E2c) - Completion of piling works	0		0%	0	21-May-15		24-Mar-15	-44	1	0%																	
GFX077-2	E6 (E2d) - Completion of piling works	0		0%	0	10-Aug-15		27-Jun-15	-36	1	0%																	
GFX077-3	E7 (E2e) - Completion of piling works	0		0%	0	15-Aug-15		03-Jun-15	-60	0	0%																	
GFX077-4	E8 (E2f) - Completion of piling works	0		0%	0	21-May-15		07-Jul-15	38	88	0%																	
<b>E3A,E3B, E3C &amp; E3D (E2a - 1/2/3/4)</b>																												
<b>Pile Cap Works - E3A,E3B, E3C &amp; E3D</b>																												
<b>Pile Cap Works</b>																												
SE2A1090	E3 (E2a1/2/3/4)- Marine Pile Cap - Inst.Access & make Watertight	6	29-Jan-15 A	100%	0	28-Apr-15 A					100%																	
SE2A1100	E3 (E2a1/2/3/4)- Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	29-Apr-15 A	100%	0	02-May-15 A					100%																	
SE2A1110	E3 (E2a1/2/3/4)- Marine Pile Cap - Dewater precast shell / Remove Lifting Frame	2	04-May-15 A	100%	0	09-May-15 A					100%																	
SE2A1120	E3 (E2a1/2/3/4)- Marine Pile Cap - Pile cut down 6nr	9	11-May-15 A	55.56%	4	27-May-15	30-Oct-14	03-Nov-14	-160	0	95%																	
SE2A1130	E3 (E2a1/2/3/4)- Marine Pile Cap - Rebar fixing (1st pour)	8	28-May-15	0%	8	06-Jun-15	04-Nov-14	12-Nov-14	-160	0	0%																	
SE2A1140	E3 (E2a1/2/3/4)- Marine Pile Cap - Concreting (First pour)	1	08-Jun-15	0%	1	08-Jun-15	13-Nov-14	13-Nov-14	-160	0	0%																	
SE2A1150	E3 (E2a1/2/3/4)- Marine Pile Cap - CJ preparation	3	10-Jun-15	0%	3	13-Jun-15	14-Nov-14	17-Nov-14	-160	0	0%																	
SE2A1160	E3 (E2a1/2/3/4)- Marine Pile Cap - Rebar fixing (Final pour)	6	15-Jun-15	0%	6	24-Jun-15	18-Nov-14	24-Nov-14	-160	0	0%																	
SE2A1162	E3 (E2a1/2/3/4)- Marine Pile Cap - Concreting (Final pour)	1	26-Jun-15	0%	1	26-Jun-15	25-Nov-14	25-Nov-14	-160	0	0%																	
SE2A1164	E3 (E2a1/2/3/4)- Marine Pile Cap - Curing incl. CJ preparation	6	27-Jun-15	0%	6	04-Jul-15	26-Nov-14	02-Dec-14	-160	0	0%																	
<b>Pier Works - E3A,E3B, E3C &amp; E3D</b>																												
<b>Pier Works - E3A (E2a4)</b>																												
SE2A4170	E3A (E2a4) - Type 4B-MJ Pier Temp. Support Platform & Scaffold (1st Lift)	5	29-Jun-15	0%	5	04-Jul-15	27-Nov-14	02-Dec-14	-160	0	0%																	
SE2A4180	E3A (E2a4) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	4	06-Jul-15	0%	4	09-Jul-15	03-Dec-14	06-Dec-14	-160	0	0%																	
SE2A4200	E3A (E2a4) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Jul-15	0%	3	13-Jul-15	08-Dec-14	10-Dec-14	-160	0	0%																	
SE2A4300	E3A (E2a4) - Type 4B-MJ Pier Head Scaffolding	4	14-Jul-15	0%	4	18-Jul-15	11-Dec-14	15-Dec-14	-160	0	0%																	
SE2A4310	E3A (E2a4) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	20-Jul-15	0%	10	31-Jul-15	16-Dec-14	29-Dec-14	-160	0	0%																	
SE2A4330	E3A (E2a4) - Type 4B-MJ Pier Head Concreting	1	01-Aug-15	0%	1	01-Aug-15	30-Dec-14	30-Dec-14	-160	0	0%																	
SE2A4340	E3A (E2a4) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	03-Aug-15	0%	6	08-Aug-15	31-Dec-14	07-Jan-15	-160	0	0%																	
<b>Pier Works - E3B (E2a3)</b>																												
SE2A3170	E3B (E2a3) - Type 4B-MJ Pier Temp. Support Platform & Scaffold (1st Lift)	5	29-Jun-15	0%	5	04-Jul-15	20-Dec-14	27-Dec-14	-140	0	0%																	
SE2A3180	E3B (E2a3) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	4	06-Jul-15	0%	4	09-Jul-15	29-Dec-14	02-Jan-15	-140	0	0%																	
SE2A3200	E3B (E2a3) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	10-Jul-15	0%	3	13-Jul-15	03-Jan-15	06-Jan-15	-140	0	0%																	
SE2A3300	E3B (E2a3) - Type 4B-MJ Pier Head Scaffolding	4	14-Jul-15	0%	4	18-Jul-15	07-Jan-15	10-Jan-15	-140	0	0%																	
SE2A3310	E3B (E2a3) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	20-Jul-15	0%	10	31-Jul-15	12-Jan-15	22-Jan-15	-140	0	0%																	
SE2A3330	E3B (E2a3) - Type 4B-MJ Pier Head Concreting	1	01-Aug-15	0%	1	01-Aug-15	23-Jan-15	23-Jan-15	-140	0	0%																	
SE2A3340	E3B (E2a3) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	03-Aug-15	0%	6	08-Aug-15	24-Jan-15	30-Jan-15	-140	0	0%																	
<b>Pier Works - E3C (E2a2)</b>																												
SE2A2170	E3C (E2a2) - Type 4B-MJ Pier Temp. Support Platform & Scaffold (1st Lift)	6	06-Jul-15	0%	6	11-Jul-15	10-Jan-15	16-Jan-15	-130	0	0%																	
SE2A2180	E3C (E2a2) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	6	13-Jul-15	0%	6	20-Jul-15	17-Jan-15	23-Jan-15	-130	0	0%																	
SE2A2200	E3C (E2a2) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	21-Jul-15	0%	3	23-Jul-15	24-Jan-15	27-Jan-15	-130	0	0%																	
SE2A2300	E3C (E2a2) - Type 4B-MJ Pier Head Scaffolding	4	24-Jul-15	0%	4	28-Jul-15	28-Jan-15	31-Jan-15	-130	0	0%																	
SE2A2310	E3C (E2a2) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	30-Jul-15	0%	10	10-Aug-15	02-Feb-15	12-Feb-15	-130	0	0%																	
SE2A2330	E3C (E2a2) - Type 4B-MJ Pier Head Concreting	1	12-Aug-15	0%	1	12-Aug-15	13-Feb-15	13-Feb-15	-130	0	0%																	

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWP-E1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 33 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**



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	2015																					
												May				June				July				August									
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17				
<b>E5A &amp; E5B (E2c - 1/2)</b>																																	
<b>Foundation Works - E5A &amp; E5B</b>																																	
<b>Foundation Works</b>																																	
GFX049	E5 (E2c) - Dismantle Temporary Removable Piling Platform	9	18-Apr-15 A	100%	0	28-Apr-15 A					100%																						
<b>Pile Cap Works - E5A &amp; E5B</b>																																	
<b>Pile Cap Works</b>																																	
SE2C007	E5 (E2c1/2) - Marine Pile Cap - Inst.Floating Seal & Casing Head Steelwork	6	22-May-15	0%	6	29-May-15	25-Mar-15	31-Mar-15	-41	0	0%																						
SE2C008	E5 (E2c1/2) - Marine Pile Cap - Install precast shell in position (3 units)	4	30-May-15	0%	4	04-Jun-15	01-Apr-15	09-Apr-15	-41	0	0%																						
SE2C009	E5 (E2c1/2) - Marine Pile Cap - Inst.Access & make Watertight	6	05-Jun-15	0%	6	13-Jun-15	10-Apr-15	17-Apr-15	-41	0	0%																						
SE2C010	E5 (E2c1/2) - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	15-Jun-15	0%	2	16-Jun-15	18-Apr-15	20-Apr-15	-41	0	0%																						
SE2C011	E5 (E2c1/2) - Marine Pile Cap - Dewater precast shell / Remove Lifting Frame	2	18-Jun-15	0%	2	19-Jun-15	21-Apr-15	22-Apr-15	-41	0	0%																						
SE2C012	E5 (E2c1/2) - Marine Pile Cap - Pile cut down 4nr	9	22-Jun-15	0%	9	04-Jul-15	24-Apr-15	05-May-15	-41	0	0%																						
SE2C013	E5 (E2c1/2) - Marine Pile Cap - Rebar fixing (1st pour)	8	06-Jul-15	0%	8	14-Jul-15	06-May-15	15-May-15	-41	0	0%																						
SE2C014	E5 (E2c1/2) - Marine Pile Cap - Concreting (First pour)	1	15-Jul-15	0%	1	15-Jul-15	16-May-15	16-May-15	-41	0	0%																						
SE2C015	E5 (E2c1/2) - Marine Pile Cap - CJ preparation	3	17-Jul-15	0%	3	20-Jul-15	18-May-15	20-May-15	-41	0	0%																						
SE2C016	E5 (E2c1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	21-Jul-15	0%	6	27-Jul-15	22-May-15	29-May-15	-41	0	0%																						
SE2C017	E5 (E2c1/2) - Marine Pile Cap - Concreting (Final pour)	1	28-Jul-15	0%	1	28-Jul-15	30-May-15	30-May-15	-41	0	0%																						
SE2C018	E5 (E2c1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	30-Jul-15	0%	6	05-Aug-15	01-Jun-15	08-Jun-15	-41	0	0%																						
<b>Pier Works - E5A &amp; E5B</b>																																	
<b>Pier Works - E5A (E2c2)</b>																																	
SE2C202	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (1st wall pour)	3	03-Aug-15	0%	3	05-Aug-15	05-Jun-15	08-Jun-15	-41	0	0%																						
SE2C203	E5A (E2c2) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	7	06-Aug-15	0%	7	14-Aug-15	10-Jun-15	19-Jun-15	-41	0	0%																						
SE2C204	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st wall pour)	3	15-Aug-15	0%	3	18-Aug-15	26-Jun-15	29-Jun-15	-39	0	0%																						
SE2C207	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (diaphragm slab, 2nd pour)	2	19-Aug-15	0%	2	21-Aug-15	30-Jun-15	02-Jul-15	-39	0	0%																						
<b>Pier Works - E5B (E2c1)</b>																																	
SE2C102	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (1st wall pour)	3	15-Aug-15	0%	3	18-Aug-15	22-Jun-15	26-Jun-15	-41	0	0%																						
SE2C103	E5B (E2c1) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	7	19-Aug-15	0%	7	27-Aug-15	27-Jun-15	06-Jul-15	-41	0	0%																						
<b>E6A &amp; E6B (E2d - 1/2)</b>																																	
<b>Foundation Works - E6A &amp; E6B</b>																																	
<b>Foundation Works</b>																																	
GFX052	E6 (E2d) - Bored Piles (2.50m dia. x 4 nr)	72	10-Feb-15 A	75%	18	11-Jun-15	08-Apr-15	28-Apr-15	-36	0	75%																						
GFX053	E6 (E2d) - Sonic & Interface Coring	19	12-Jun-15	0%	19	06-Jul-15	29-Apr-15	21-May-15	-36	0	0%																						
GFX054	E6 (E2d) - Selection of bored pile for Full Depth Coring	6	29-Jun-15	0%	6	06-Jul-15	15-May-15	21-May-15	-36	0	0%																						
GFX055	E6 (E2d) - Bored Pile Full Depth Coring & Testing	24	07-Jul-15	0%	24	03-Aug-15	22-May-15	19-Jun-15	-36	0	0%																						
GFX054	E6 (E2d) - Dismantle Temporary Removable Piling Platform	6	04-Aug-15	0%	6	10-Aug-15	22-Jun-15	27-Jun-15	-36	0	0%																						
<b>Pile Cap Works - E6A &amp; E6B</b>																																	
<b>Pile Cap Works</b>																																	
SE2D007	E6 (E2d1/2) - Marine Pile Cap - Inst.Floating Seal & Casing Head Steelwork	6	12-Aug-15	0%	6	18-Aug-15	29-Jun-15	06-Jul-15	-34	0	0%																						
SE2D008	E6 (E2d1/2) - Marine Pile Cap - Install precast shell in position (3 units)	4	19-Aug-15	0%	4	24-Aug-15	07-Jul-15	10-Jul-15	-34	0	0%																						
<b>E7A &amp; E7B (E2e - 1/2)</b>																																	
<b>Foundation Works - E7A &amp; E7B</b>																																	
<b>Foundation Works</b>																																	
GFX057	E7 (E2e) - Bored Piles (2.50m dia. x 4 nr)	78	10-Feb-15 A	60%	31	29-Jun-15	05-Mar-15	15-Apr-15	-60	0	0%																						
GFX058	E7 (E2e) - Sonic & Interface Coring	12	29-Jun-15	0%	12	14-Jul-15	16-Apr-15	29-Apr-15	-60	0	0%																						
GFX059	E7 (E2e) - Selection of bored pile for Full Depth Coring	4	09-Jul-15	0%	4	14-Jul-15	25-Apr-15	29-Apr-15	-60	0	0%																						
GFX055	E7 (E2e) - Bored Pile Full Depth Coring & Testing	22	14-Jul-15	0%	22	08-Aug-15	30-Apr-15	27-May-15	-60	0	0%																						
GFX059	E7 (E2e) - Dismantle Temporary Removable Piling Platform	6	08-Aug-15	0%	6	15-Aug-15	28-May-15	03-Jun-15	-60	0	0%																						
<b>Pile Cap Works - E7A &amp; E7B</b>																																	

	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 35 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										

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	2015																
												May				June				July				August				
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10
<b>Pile Cap Works</b>																												
SE2E0070	E7 (E2e1/2) - Marine Pile Cap - Inst.Floating Seal & Casing Head Steelwork	6	15-Aug-15	0%	6	24-Aug-15	04-Jun-15	12-Jun-15	-52	0	0%																	
<b>E8A &amp; E8B (E2f - 1/2)</b>																												
<b>Foundation Works - E8A &amp; E8B</b>																												
<b>Foundation Works</b>																												
GFX064	E8 (E2f) - Dismantle Temporary Removable Piling Platform	7	13-Apr-15 A	100%	0	24-Apr-15 A					100%																	
<b>E9A &amp; E9B (E2g - 1/2)</b>																												
<b>Pile Cap Works - E9A &amp; E9B</b>																												
<b>Pile Cap Works</b>																												
SE2G00	E9 (E2g1/2) - Marine Pile Cap - Inst.Access & make Watertight	6	23-Mar-15 A	100%	0	28-Apr-15 A					100%																	
SE2G01	E9 (E2g1/2) - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	29-Apr-15 A	100%	0	06-May-15 A					100%																	
SE2G011	E9 (E2g1/2) - Marine Pile Cap - Dewater precast shell / Remove Lifting Frame	2	07-May-15 A	100%	0	13-May-15 A					100%																	
SE2G012	E9 (E2g1/2) - Marine Pile Cap - Pile cut down 6nr	9	14-May-15 A	11.11%	8	01-Jun-15	12-Dec-14	20-Dec-14	-123	0	10%																	
SE2G013	E9 (E2g1/2) - Marine Pile Cap - Rebar fixing (1st pour)	8	02-Jun-15	0%	8	13-Jun-15	22-Dec-14	02-Jan-15	-123	0	0%																	
SE2G014	E9 (E2g1/2) - Marine Pile Cap - Concreting (First pour)	1	15-Jun-15	0%	1	15-Jun-15	03-Jan-15	03-Jan-15	-123	0	0%																	
SE2G015	E9 (E2g1/2) - Marine Pile Cap - CJ preparation	3	16-Jun-15	0%	3	19-Jun-15	05-Jan-15	07-Jan-15	-123	0	0%																	
SE2G016	E9 (E2g1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	22-Jun-15	0%	6	30-Jun-15	08-Jan-15	14-Jan-15	-123	0	0%																	
SE2G017	E9 (E2g1/2) - Marine Pile Cap - Concreting (Final pour)	1	02-Jul-15	0%	1	02-Jul-15	15-Jan-15	15-Jan-15	-123	0	0%																	
SE2G018	E9 (E2g1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	03-Jul-15	0%	6	09-Jul-15	16-Jan-15	22-Jan-15	-123	0	0%																	
<b>Pier Works - E9A &amp; E9B</b>																												
<b>Pier Works - E9A (E2g2)</b>																												
SE2G20	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (1st wall pour)	4	25-Jul-15	0%	4	30-Jul-15	17-Apr-15	21-Apr-15	-71	0	0%																	
SE2G20	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	6	31-Jul-15	0%	6	06-Aug-15	22-Apr-15	29-Apr-15	-71	0	0%																	
SE2G20	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st wall pour)	3	07-Aug-15	0%	3	10-Aug-15	30-Apr-15	04-May-15	-71	0	0%																	
SE2G20	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (2nd wall pour)	2	12-Aug-15	0%	2	13-Aug-15	05-May-15	06-May-15	-71	0	0%																	
SE2G20	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (2nd wall pour)	6	14-Aug-15	0%	6	21-Aug-15	07-May-15	14-May-15	-71	0	0%																	
<b>Pier Works - E9B (E2g1)</b>																												
SE2G10	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (1st wall pour)	4	03-Jul-15	0%	4	07-Jul-15	16-Jan-15	20-Jan-15	-123	0	0%																	
SE2G10	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	6	08-Jul-15	0%	6	14-Jul-15	21-Jan-15	27-Jan-15	-123	0	0%																	
SE2G10	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st wall pour)	3	15-Jul-15	0%	3	18-Jul-15	28-Jan-15	30-Jan-15	-123	0	0%																	
SE2G10	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (2nd wall pour)	2	20-Jul-15	0%	2	21-Jul-15	31-Jan-15	02-Feb-15	-123	0	0%																	
SE2G10	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (2nd wall pour)	6	22-Jul-15	0%	6	28-Jul-15	03-Feb-15	09-Feb-15	-123	0	0%																	
SE2G11	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd wall pour)	3	30-Jul-15	0%	3	01-Aug-15	10-Feb-15	12-Feb-15	-123	0	0%																	
SE2G11	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (diaphragm slab, 3rd pour)	2	03-Aug-15	0%	2	04-Aug-15	13-Feb-15	14-Feb-15	-123	0	0%																	
SE2G11	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (diaphragm slab, 3rd pour)	6	05-Aug-15	0%	6	12-Aug-15	16-Feb-15	25-Feb-15	-123	0	0%																	
SE2G11	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (diaphragm, 3rd pour)	3	13-Aug-15	0%	3	15-Aug-15	26-Feb-15	28-Feb-15	-123	0	0%																	
SE2G11	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (4th wall pour)	3	17-Aug-15	0%	3	19-Aug-15	02-Mar-15	04-Mar-15	-123	0	0%																	
<b>E10A &amp; E10B (E2h - 1/2)</b>																												
<b>Pile Cap Works - E10A &amp; E10B</b>																												
<b>Pile Cap Works</b>																												
SE2H00	E10 (E2h1/2) - Marine Pile Cap - Inst.Floating Seal & Casing Head Steelwork	6	30-Apr-15 A	100%	0	02-May-15 A					100%																	
SE2H00	E10 (E2h1/2) - Marine Pile Cap - Install precast shell in position (3 units)	4	02-May-15 A	100%	0	05-May-15 A					100%																	
SE2H00	E10 (E2h1/2) - Marine Pile Cap - Inst.Access & make Watertight	6	06-May-15 A	33.33%	4	27-May-15	19-Mar-15	23-Mar-15	-46	0	50%																	
SE2H01	E10 (E2h1/2) - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	28-May-15	0%	2	29-May-15	24-Mar-15	25-Mar-15	-46	0	0%																	
SE2H01	E10 (E2h1/2) - Marine Pile Cap - Dewater precast shell / Remove Lifting Frame	2	30-May-15	0%	2	01-Jun-15	26-Mar-15	27-Mar-15	-46	0	0%																	
SE2H01	E10 (E2h1/2) - Marine Pile Cap - Pile cut down 6nr	9	02-Jun-15	0%	9	15-Jun-15	28-Mar-15	11-Apr-15	-46	0	0%																	
SE2H01	E10 (E2h1/2) - Marine Pile Cap - Rebar fixing (1st pour)	8	16-Jun-15	0%	8	29-Jun-15	13-Apr-15	22-Apr-15	-46	0	0%																	
SE2H01	E10 (E2h1/2) - Marine Pile Cap - Concreting (First pour)	1	30-Jun-15	0%	1	30-Jun-15	24-Apr-15	24-Apr-15	-46	0	0%																	

<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Actual Work</li> <li><span style="color: green;">■</span> Planned Bar</li> <li><span style="color: red;">■</span> Critical Bar</li> <li><span style="color: black;">◆</span> Milestone</li> </ul>	Project ID: J3518DWPPrE1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 36 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
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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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
SE2H01f	E10 (E2h1/2) - Marine Pile Cap - CJ preparation	3	02-Jul-15	0%	3	04-Jul-15	25-Apr-15	28-Apr-15	-46	0	0%																		
SE2H01f	E10 (E2h1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	06-Jul-15	0%	6	11-Jul-15	29-Apr-15	06-May-15	-46	0	0%																		
SE2H01f	E10 (E2h1/2) - Marine Pile Cap - Concreting (Final pour)	1	13-Jul-15	0%	1	13-Jul-15	07-May-15	07-May-15	-46	0	0%																		
SE2H01f	E10 (E2h1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	14-Jul-15	0%	6	21-Jul-15	08-May-15	15-May-15	-46	0	0%																		
<b>Pier Works - E10A &amp; E10B</b>																													
<b>Pier Works - E10A (E2h2)</b>																													
SE2H20f	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (1st wall pour)	4	22-Jul-15	0%	4	25-Jul-15	19-May-15	23-May-15	-44	0	0%																		
SE2H20f	E10A (E2h2) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	6	27-Jul-15	0%	6	03-Aug-15	26-May-15	01-Jun-15	-44	0	0%																		
SE2H20f	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st wall pour)	3	04-Aug-15	0%	3	06-Aug-15	02-Jun-15	05-Jun-15	-44	0	0%																		
SE2H20f	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (2nd wall pour)	2	07-Aug-15	0%	2	08-Aug-15	20-Jul-15	21-Jul-15	-15	0	0%																		
SE2H20f	E10A (E2h2) - Seagull Pier Rebar Fixing, Formwork & Prep (2nd wall pour)	6	10-Aug-15	0%	6	17-Aug-15	22-Jul-15	28-Jul-15	-15	0	0%																		
SE2H21f	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd wall pour)	3	18-Aug-15	0%	3	21-Aug-15	30-Jul-15	01-Aug-15	-15	0	0%																		
<b>Pier Works - E10B (E2h1)</b>																													
SE2H10f	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (1st wall pour)	4	06-Aug-15	0%	4	10-Aug-15	02-Jun-15	06-Jun-15	-46	0	0%																		
SE2H10f	E10B (E2h1) - Seagull Pier Rebar Fixing, Formwork & Prep (1st wall pour)	6	12-Aug-15	0%	6	18-Aug-15	08-Jun-15	16-Jun-15	-46	0	0%																		
SE2H10f	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st wall pour)	3	19-Aug-15	0%	3	22-Aug-15	18-Jun-15	22-Jun-15	-46	0	0%																		
<b>Viaduct E5, E6, E7 &amp; E8</b>																													
<b>Milestones - Marine Foundation</b>																													
GFXX105	Piling Works Completion of E5E6a/E7E8a in Bridge E5 - E8	0		0%	0	21-May-15		30-Nov-18	1050	1050	0%																		
GFXX106	Piling Works Completion of E5b/E6b, E7b/E8b, Dolphin E5b & E8b in Bridge E5 - E8	0		0%	0	27-May-15		29-Apr-15	-22	3	0%																		
GFXX107	Piling Works Completion of E5c/E6c, Dolphin E5c in Bridge E5 - E8	0		0%	0	13-Aug-15		07-Feb-15	-148	35	0%																		
GFXX108	Piling Works Completion of E7c/E8c, Dolphin E8c in Bridge E7 - E8	0		0%	0	16-Jun-15		06-Aug-15	42	82	0%																		
<b>Milestones - Land Foundation</b>																													
GFXX012	Land Access to BCF (Available in Month 23)	0	03-Jun-15	0%	0		22-Sep-14		-254	0	0%																		
GFXX546-1	E14D (E5d) - Start date for piling	0	03-Aug-15	0%	0		29-Apr-15		-78	112	0%																		
GFXX547-1	E14C (E6d) - Start date for piling	0	03-Aug-15	0%	0		10-Aug-15		6	99	0%																		
<b>E11A &amp; E11B (E5E6a/E7E8a)</b>																													
<b>Foundation Works - E11A &amp; E11B</b>																													
<b>Foundation Works</b>																													
GFXX086	E11 (E5E6a/E7E8a) - Dismantle Temporary Removable Piling Platform in Pier E11	6	20-Apr-15 A	100%	0	14-May-15 A					100%																		
<b>Pile Cap Works - E11A &amp; E11B</b>																													
<b>Pile Cap Works</b>																													
SE5A0070	E11 (E5E6/E7E8a) - Marine Pile Cap - Inst.Floating Seal & Casing Head Steelwork	6	15-May-15 A	66.67%	2	23-May-15	05-Jan-15	06-Jan-15	-106	0	30%																		
SE5A0080	E11 (E5E6/E7E8a) - Marine Pile Cap - Install precast shell in position (4 units)	4	26-May-15	0%	4	29-May-15	07-Jan-15	10-Jan-15	-106	0	0%																		
SE5A0090	E11 (E5E6/E7E8a) - Marine Pile Cap - Inst.Access & make Watertight	4	30-May-15	0%	4	04-Jun-15	12-Jan-15	15-Jan-15	-106	0	0%																		
SE5A0100	E11 (E5E6/E7E8a) - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	05-Jun-15	0%	2	06-Jun-15	16-Jan-15	17-Jan-15	-106	0	0%																		
SE5A0110	E11 (E5E6/E7E8a) - Marine Pile Cap - Dewater precast shell / Remove Lifting Frame	2	08-Jun-15	0%	2	10-Jun-15	19-Jan-15	20-Jan-15	-106	55	0%																		
<b>E12A, E12B, E12C &amp; E12D (E8b/E7b/E6b/E5b)</b>																													
<b>Foundation Works - E12</b>																													
<b>Foundation Works</b>																													
GFXX092	E12 (E5b/E6b/E7b/E8b) - Dismantle Removable Piling Platform in Pier E12	6	09-Apr-15 A	20%	5	27-May-15	24-Apr-15	29-Apr-15	-22	0	20%																		
GFXX621	E12 (E5b/E8b) - Dismantle Removable Piling Platform in Pier E12 for Dolphins	6	09-Apr-15 A	20%	5	27-May-15	24-Aug-16	29-Aug-16	375	0	20%																		
<b>Pile Cap Works - E12A, E12B, E12C &amp; E12D</b>																													
<b>Pile Cap Works - Dolphin E12A (E8b)</b>																													
SE8BD070	E12A (E8b) Dolphin - Marine Pile Cap - Inst.prefab.collar frame to perm.casing of Bored pile	3	30-May-15	0%	3	04-Jun-15	02-Sep-16	05-Sep-16	347	85	0%																		
<b>Pile Cap Works - Dolphin E12B (E5b)</b>																													
SE5BD070	E12B (E5b) Dolphin - Marine Pile Cap - Inst.prefab.collar frame to permanent casing of Bore	3	27-May-15	0%	3	30-May-15	30-Aug-16	01-Sep-16	347	0	0%																		
SE5BD080	E12B (E5b) Dolphin - Marine Pile Cap - Install precast shell in position	2	12-Aug-15	0%	2	13-Aug-15	07-Sep-16	08-Sep-16	299	0	0%																		

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	Layout: J3518-DWP-3MRP Submission - M24			29-May-15		WY		
	Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.							



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	2015																					
												May				June				July				August									
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17				
<b>F3 (F1d)</b>																																	
<b>Foundation Works</b>																																	
GFXX553-3	F3 (F1d) - Pre-drilling for Piles (3 nos)	24	02-Mar-15 A	45.83%	13	05-Jun-15	16-Dec-14	02-Jan-15	-123	0	0%	[Gantt bar: 02-Jan-15 to 02-Jan-15]																					
GFXX553-6	F3 (F1d) - Confirm Rockhead Levels	8	06-Jun-15	0%	8	15-Jun-15	15-Jan-15	23-Jan-15	-113	14	0%	[Gantt bar: 15-Jan-15 to 23-Jan-15]																					
GFXX557	F3 (F1d) - Bored Piles (1.80m dia. x 3 nos)	84	04-Jul-15	0%	84	12-Oct-15	24-Jan-15	11-May-15	-127	0	0%	[Gantt bar: 24-Jan-15 to 11-May-15]																					
<b>Viaduct F2</b>																																	
<b>General F2</b>																																	
<b>Milestones</b>																																	
GFXX561-	F6 (F2d) - Start date for piling	0	04-Jul-15	0%	0		18-Apr-15		-62	72	0%	[Milestone diamond: 18-Apr-15]																					
GFXX561-9	F5 (F2c) - Start date for piling	0	04-Jul-15	0%	0		06-Jul-15		1	72	0%	[Milestone diamond: 06-Jul-15]																					
<b>F4 (F2b)</b>																																	
<b>Foundation Works</b>																																	
GFXX561-1	F4 (F2b) - Pre-drilling for piles (3 nos)	24	09-Jun-15	0%	24	08-Jul-15	03-Jan-15	30-Jan-15	-125	0	0%	[Gantt bar: 03-Jan-15 to 30-Jan-15]																					
GFXX561-6	F4 (F2b) - Confirm Rockhead Levels	8	09-Jul-15	0%	8	17-Jul-15	01-Apr-15	14-Apr-15	-77	60	0%	[Gantt bar: 01-Apr-15 to 14-Apr-15]																					
<b>F5 (F2c)</b>																																	
<b>Foundation Works</b>																																	
GFXX561-2	F5 (F2c) - Pre-drilling for Piles (3 nos)	24	31-Mar-15 A	83.33%	4	26-May-15	29-Dec-14	02-Jan-15	-114	0	0%	[Gantt bar: 29-Dec-14 to 02-Jan-15]																					
GFXX561-8	F5 (F2c) - Confirm Rockhead Levels	8	27-May-15	0%	8	04-Jun-15	03-Jan-15	12-Jan-15	-114	23	0%	[Gantt bar: 03-Jan-15 to 12-Jan-15]																					
GFXX564	F5 (F2c) - Bored Piles (1.80m dia. x 3 nos)	72	04-Jul-15	0%	72	25-Sep-15	13-Jan-15	14-Apr-15	-137	0	0%	[Gantt bar: 13-Jan-15 to 14-Apr-15]																					
<b>F6 (F2d)</b>																																	
<b>Foundation Works</b>																																	
GFXX561-	F6 (F2d) - Confirm Rockhead Levels	8	15-Apr-15 A	62.5%	3	23-May-15	13-Jan-15	16-Jan-15	-102	32	0%	[Gantt bar: 13-Jan-15 to 16-Jan-15]																					
GFXX565	F6 (F2d) - Bored Piles (1.80m dia. x 3 nos)	72	04-Jul-15	0%	72	25-Sep-15	16-Jan-15	18-Apr-15	-134	0	0%	[Gantt bar: 16-Jan-15 to 18-Apr-15]																					
<b>Viaduct F3</b>																																	
<b>General F3</b>																																	
<b>Milestones</b>																																	
GFXX571-6	F9 (F3d) - Start date for piling	0	04-Jul-15	0%	0		15-Jun-15		-15	84	0%	[Milestone diamond: 15-Jun-15]																					
GFXX571-8	F10 (F3c) - Start date for piling	0	15-Jul-15	0%	0		18-Aug-15		29	72	0%	[Milestone diamond: 18-Aug-15]																					
<b>F9 (F3d-1/F3d-2)</b>																																	
<b>Foundation Works - F9 (F3d-1/F3d-2)</b>																																	
<b>Foundation Works</b>																																	
GFXX571	F9 (F3d) - Pre-drilling for Piles (4 nos)	24	09-Mar-15 A	83.33%	4	26-May-15	14-Nov-14	18-Nov-14	-150	0	0%	[Gantt bar: 14-Nov-14 to 18-Nov-14]																					
GFXX571	F9 (F3d) - Confirm Rockhead Levels	8	27-May-15	0%	8	04-Jun-15	19-Nov-14	27-Nov-14	-150	23	0%	[Gantt bar: 19-Nov-14 to 27-Nov-14]																					
GFXX575	F9 (F3d) - Bored Piles (1.80m dia. x 4 nos)	84	04-Jul-15	0%	84	12-Oct-15	28-Nov-14	12-Mar-15	-173	0	0%	[Gantt bar: 28-Nov-14 to 12-Mar-15]																					
<b>F10 (F3c-1/F3c-2)</b>																																	
<b>Foundation Works - Pier F10</b>																																	
<b>Foundation Works</b>																																	
GFXX571	F10 (F3c) - Pre-drilling for Piles (4 nos)	24	05-Jun-15	0%	24	04-Jul-15	03-Feb-15	05-Mar-15	-96	0	0%	[Gantt bar: 03-Feb-15 to 05-Mar-15]																					
GFXX571	F10 (F3c) - Confirm Rockhead Levels	8	06-Jul-15	0%	8	14-Jul-15	13-May-15	22-May-15	-43	0	0%	[Gantt bar: 13-May-15 to 22-May-15]																					
GFXX574	F10 (F3c) - Bored Piles (1.80m dia. x 4 nos)	72	15-Jul-15	0%	72	08-Oct-15	22-May-15	18-Aug-15	-43	0	0%	[Gantt bar: 22-May-15 to 18-Aug-15]																					
<b>Viaduct F5</b>																																	
<b>General F5</b>																																	
<b>Milestones</b>																																	
GFXX586-5	F13 (F5d) - Start date for piling	0	18-Jul-15	0%	0		11-Nov-15		96	84	0%	[Milestone diamond: 11-Nov-15]																					
<b>F13 (F5d)</b>																																	
<b>Foundation Works</b>																																	
GFXX586-1	F13 (F5d) - Pre-drilling for Piles (3 nos)	24	09-Jun-15	0%	24	08-Jul-15	05-Jan-15	31-Jan-15	-124	0	0%	[Gantt bar: 05-Jan-15 to 31-Jan-15]																					
GFXX586-4	F13 (F5d) - Confirm Rockhead Levels	8	09-Jul-15	0%	8	17-Jul-15	02-Feb-15	10-Feb-15	-124	0	0%	[Gantt bar: 02-Feb-15 to 10-Feb-15]																					

■ Actual Work  
■ Planned Bar  
■ Critical Bar  
◆ Milestone

Project ID: J3518DWPPrE1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

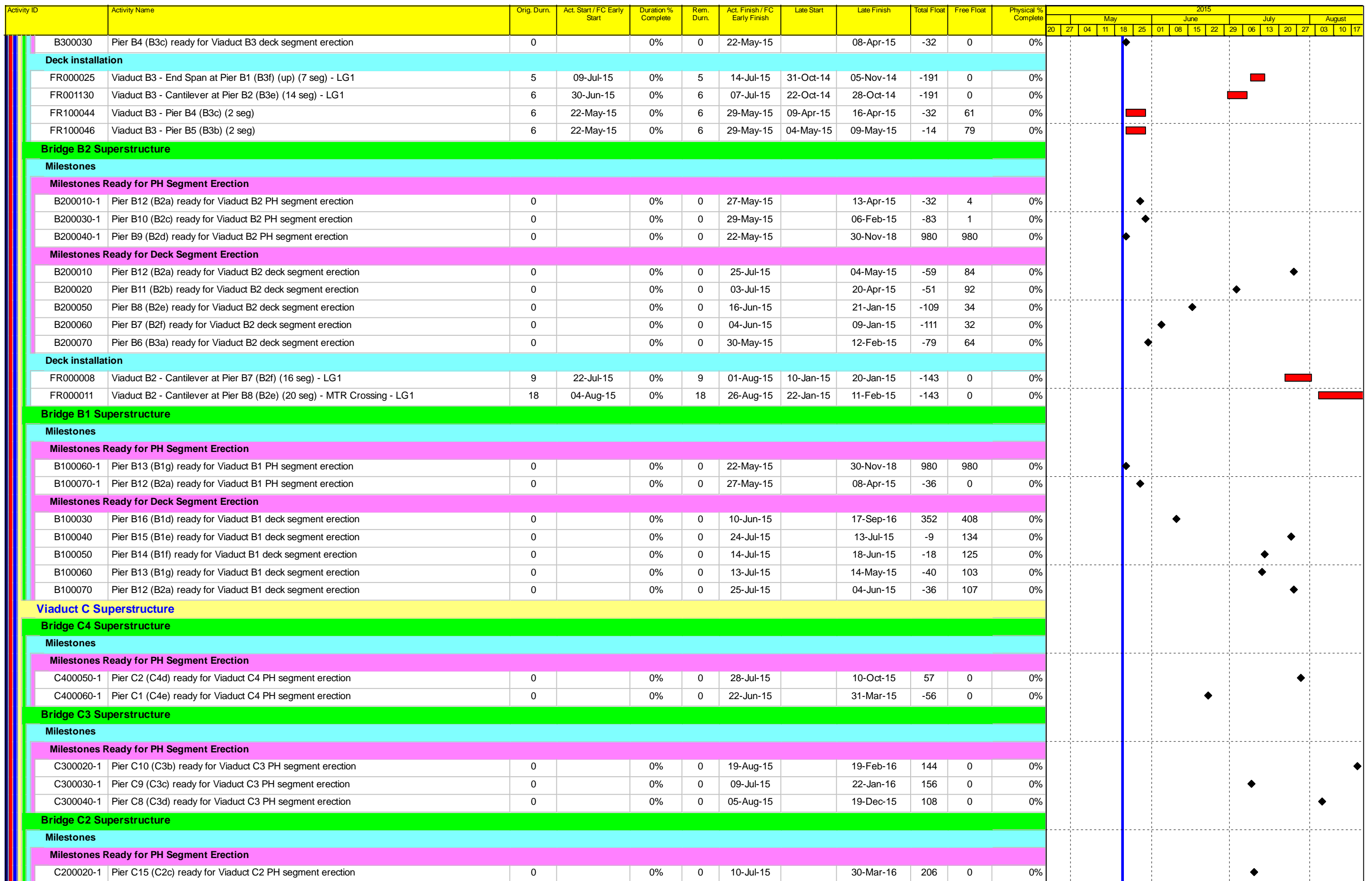
**Tuen Mun - Chek Lap Kok Link - Southern Connection**  
**3-Month Rolling Programme (Page 39 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**

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	2015																	
												May				June				July				August					
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17
GFX589	F13 (F5d) - Bored Piles (1.80m dia. x 3 nos)	84	18-Jul-15	0%	84	27-Oct-15	11-Feb-15	29-May-15	-124	0	0%	[Gantt bar: 11-Feb-15 to 29-May-15]																	
<b>F14 (F5c)</b>																													
<b>Foundation Works</b>																													
GFX586-2	F14 (F5c) - Pre-drilling for Piles (3 nos)	24	06-Jun-15	0%	24	06-Jul-15	19-Mar-15	20-Apr-15	-62	0	0%	[Gantt bar: 19-Mar-15 to 20-Apr-15]																	
GFX586-6	F14 (F5c) - Confirm Rockhead Levels	8	07-Jul-15	0%	8	15-Jul-15	14-May-15	23-May-15	-43	62	0%	[Gantt bar: 14-May-15 to 23-May-15]																	
<b>F15 (F5b)</b>																													
<b>Foundation Works</b>																													
GFX586-3	F15 (F5b) - Pre-drilling for Piles (3 nos)	24	09-Jul-15	0%	24	05-Aug-15	31-Jan-15	03-Mar-15	-125	0	0%	[Gantt bar: 31-Jan-15 to 03-Mar-15]																	
GFX586-8	F15 (F5b) - Confirm Rockhead Levels	8	06-Aug-15	0%	8	14-Aug-15	04-Mar-15	12-Mar-15	-125	48	0%	[Gantt bar: 04-Mar-15 to 12-Mar-15]																	
<b>Viaduct F4</b>																													
<b>F16 (F4a/F5a)</b>																													
<b>Foundation Works</b>																													
GFX579-1	F16 (F4a/F5a) - Pre-drilling for Piles (8 nos)	24	07-Jul-15	0%	24	03-Aug-15	21-Apr-15	19-May-15	-62	0	0%	[Gantt bar: 21-Apr-15 to 19-May-15]																	
GFX579-4	F16 (F4a/F5a) - Confirm Rockhead Levels	8	04-Aug-15	0%	8	12-Aug-15	20-May-15	29-May-15	-62	62	0%	[Gantt bar: 20-May-15 to 29-May-15]																	
<b>F17 (F4b)</b>																													
<b>Foundation Works</b>																													
GFX579-2	F17 (F4b) - Pre-drilling for Piles (3 nos)	24	04-Aug-15	0%	24	31-Aug-15	07-Oct-15	04-Nov-15	53	0	0%	[Gantt bar: 07-Oct-15 to 04-Nov-15]																	
<b>F18 (F4c) &amp; Abutment</b>																													
<b>Foundation Works</b>																													
GFX579-3	F18 (F4c) - Pre-drilling for Piles (2 nos)	24	06-Aug-15	0%	24	02-Sep-15	20-Oct-15	17-Nov-15	62	0	0%	[Gantt bar: 20-Oct-15 to 17-Nov-15]																	
<b>Approach Ramp F</b>																													
<b>Approach Ramp Land Foundation - HKBCF</b>																													
<b>Milestones</b>																													
GFX611	AR-F - Start date for piling	0	13-Jul-15	0%	0		25-Jun-15		-18	51	0%	[Milestone diamond: 25-Jun-15]																	
<b>Approach Ramp F Piling</b>																													
GFX593	AR-F - Pre-drilling for Piles (25 nos)	24	03-Jun-15	0%	24	02-Jul-15	27-Mar-15	28-Apr-15	-52	0	0%	[Gantt bar: 27-Mar-15 to 28-Apr-15]																	
GFX594	AR-F - Confirm Rockhead Levels	8	03-Jul-15	0%	8	11-Jul-15	29-Apr-15	08-May-15	-52	0	0%	[Gantt bar: 29-Apr-15 to 08-May-15]																	
GFX595	AR-F - Bored Piles (25 nos.)	218	13-Jul-15	0%	218	06-Apr-16	09-May-15	28-Jan-16	-52	0	0%	[Gantt bar: 09-May-15 to 28-Jan-16]																	
<b>SUPERSTRUCTURE</b>																													
<b>Assembling, relocation and dismantle of lifting equipment</b>																													
<b>Launching Gantry 1</b>																													
FR00008-T	Viaduct B2 - Launching LG1 B7 to B8	1	03-Aug-15	0%	1	03-Aug-15	21-Jan-15	21-Jan-15	-143	0	0%	[Gantt bar: 21-Jan-15 to 21-Jan-15]																	
FR00023	Viaduct B3 - Launching LG1 Over Piers to B07 (B2f) - LG1	5	15-Jul-15	0%	5	21-Jul-15	06-Nov-14	11-Nov-14	-191	0	0%	[Gantt bar: 06-Nov-14 to 11-Nov-14]																	
FR001130-T	Viaduct B3 - Launching LG1 B2 to B1	1	08-Jul-15	0%	1	08-Jul-15	30-Oct-14	30-Oct-14	-191	0	0%	[Gantt bar: 30-Oct-14 to 30-Oct-14]																	
PR20130-1	Assembly of Launching Gantry LG1 onto Pier B1/B2 (incl. Load Test)	32	13-Mar-15 A	31.25%	22	24-Jun-15	16-Sep-14	15-Oct-14	-192	0	0%	[Gantt bar: 16-Sep-14 to 15-Oct-14]																	
PR20140	Viaduct B3 - Learning Curve Gantry LG1	4	25-Jun-15	0%	4	29-Jun-15	17-Oct-14	21-Oct-14	-202	0	0%	[Gantt bar: 17-Oct-14 to 21-Oct-14]																	
<b>Launching Gantry 2</b>																													
FR00099	Assembly of Launching Gantry LG2 on Temp. Loading Platform	30	08-Jun-15	0%	30	14-Jul-15	08-Oct-14	11-Nov-14	-196	6	0%	[Gantt bar: 08-Oct-14 to 11-Nov-14]																	
FR100099-1	Assembly Launching Gantry LG2 onto Pier B1/ B2 (incl. Load Test)	35	22-Jul-15	0%	35	03-Sep-15	12-Nov-14	22-Dec-14	-191	0	0%	[Gantt bar: 12-Nov-14 to 22-Dec-14]																	
<b>Adjustable Lifting Frame 1&amp;2</b>																													
FR000157	Viaduct B3 - Pier B4 - Assemble / Load Test Lifting Frame ALF 1/2	12	27-Jul-15	0%	12	08-Aug-15	16-Mar-15	28-Mar-15	-106	0	0%	[Gantt bar: 16-Mar-15 to 28-Mar-15]																	
FR100024	Viaduct B3 - Learning Curve Lifting Frame ALF 1/2	12	10-Aug-15	0%	12	22-Aug-15	30-Mar-15	16-Apr-15	-106	0	0%	[Gantt bar: 30-Mar-15 to 16-Apr-15]																	
<b>Viaduct B Superstructure</b>																													
<b>Bridge B3 Superstructure</b>																													
<b>Milestones</b>																													
<b>Milestones Ready for Deck Segment Erection</b>																													
B300010	Pier B6 (B3a) ready for Viaduct B3 deck segment erection	0		0%	0	30-May-15		12-Feb-15	-79	64	0%	[Milestone diamond: 30-May-15]																	
B300020	Pier B5 (B3b) ready for Viaduct B3 deck segment erection	0		0%	0	22-May-15		02-May-15	-14	0	0%	[Milestone diamond: 22-May-15]																	

<ul style="list-style-type: none"> <li><span style="color: blue;">█</span> Actual Work</li> <li><span style="color: green;">█</span> Planned Bar</li> <li><span style="color: red;">█</span> Critical Bar</li> <li>◆ Milestone</li> </ul>	Project ID: J3518DWP-E1-M24 Layout: J3518-DWP-3MRP Submission - M24 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	<b>Tuen Mun - Chek Lap Kok Link - Southern Connection</b> <b>3-Month Rolling Programme (Page 40 of 44 Pages)</b> <b>(Progress as of 21-May-15)</b>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>29-May-15</td> <td></td> <td>WY</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	29-May-15		WY		<b>DWG. No.:</b> <b>J3518/GCL/PGM/3MRP-M24</b>
Date	Revision	Checked	Approved									
29-May-15		WY										



Project ID: J3518DWP-E1-M24  
 Layout: J3518-DWP-3MRP Submission - M24  
 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 41 of 44 Pages)**  
**(Progress as of 21-May-15)**

Date	Revision	Checked	Approved
29-May-15		WY	

**DWG. No.:**  
**J3518/GCL/PGM/3MRP-M24**





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	2015																													
												May					June				July				August																
												20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17												
RW60010	Realign CTR (East of Abut. C) - Road drainage works	60	31-Jul-15	0%	60	16-Oct-15	06-Jun-15	27-Aug-15	-38	0	0%																														
<b>ESS Sub-Station</b>																																									
RP10030	Inst.Eqpt. & Testing / commissioning of new ESS	42	05-Mar-15 A	100%	0	21-May-15 A					100%																														
RP10040	Removal of equipment in existing ESS	10	22-May-15	0%	10	04-Jun-15	08-Jul-15	20-Jul-15	31	0	0%																														
RP10050	Demolish the existing ESS	6	05-Jun-15	0%	6	13-Jun-15	21-Jul-15	27-Jul-15	31	69	0%																														
<b>Natural Terrain Hazard Mitigation Works</b>																																									
<b>NTHM Works - West Portion</b>																																									
<b>Check Dam no. 1 (CD1)</b>																																									
GFX501	CD1 - Mobilization of rig for Tie Back	6	22-May-15	0%	6	29-May-15	01-Sep-15	07-Sep-15	74	0	0%																														
GFX502	CD1 - Installation of Tie Back (20nos.)	44	30-May-15	0%	44	31-Jul-15	08-Sep-15	05-Nov-15	74	0	0%																														
GFX503	CD1 - Selection of load test	12	01-Aug-15	0%	12	15-Aug-15	09-Dec-15	22-Dec-15	102	0	0%																														
GFX504	CD1 - Loading Test	12	17-Aug-15	0%	12	31-Aug-15	23-Dec-15	08-Jan-16	102	28	0%																														
<b>Check Dam no. 2 (CD2)</b>																																									
GFX506	CD2 - Mobilization of rig for MiniPile	6	22-May-15	0%	6	29-May-15	21-Aug-15	27-Aug-15	65	0	0%																														
GFX507	CD2 - Installation of MiniPile (10nos.)	35	30-May-15	0%	35	20-Jul-15	28-Aug-15	12-Oct-15	65	0	0%																														
GFX508	CD2 - Mobilization of rig for Tie Back	6	01-Aug-15	0%	6	07-Aug-15	06-Nov-15	12-Nov-15	74	0	0%																														
GFX509	CD2 - Installation of Tie Back (14nos.)	22	08-Aug-15	0%	22	04-Sep-15	13-Nov-15	08-Dec-15	74	0	0%																														
<b>Check Dam no. 3 (CD3)</b>																																									
GFX513	CD3 - Mobilization of rig for MiniPile	6	21-Jul-15	0%	6	27-Jul-15	13-Oct-15	20-Oct-15	65	0	0%																														
GFX514	CD3 - Installation of MiniPile (15nos.)	59	28-Jul-15	0%	59	12-Oct-15	22-Oct-15	02-Jan-16	65	0	0%																														
<b>At grade Roadworks and Other Works at Southern Landfall</b>																																									
RW30005	South Landfall - Initial record survey	12	04-Jun-15	0%	12	22-Jun-15	23-Jul-15	06-Aug-15	34	13	0%																														
RW30010	South Landfall - Mobilisation for Portion B Works	24	11-Jul-15	0%	24	10-Aug-15	07-Aug-15	05-Sep-15	21	0	0%																														
RW30014	South Landfall - DN300 Fresh water main works installation & connection (Portion A & B)	60	12-Aug-15	0%	60	28-Oct-15	28-Jan-16	15-Apr-16	134	0	0%																														
<b>Watermains &amp; All Assoc Works from Tung Chung to Southern Landfall</b>																																									
WM00030	Trial trench works for watermains along existing CTR	157	26-May-14 A	100%	0	20-May-15 A					100%																														
WM00120	Lay DN450 Fresh Water Main along re-aligned CTR (app. 500 m at 12m/day)	48	22-Apr-15 A	19%	39	17-Jul-15	11-Mar-15	02-May-15	-53	0	19%																														
WM00150	Lay DN450 watermain from Tung Chung to realigned CTR (1st 500m - 2 workfronts)	50	17-Jul-15	0%	50	19-Sep-15	18-May-16	27-Jul-16	236	0	0%																														
<b>Pressure Testing</b>																																									
TC00010	Pressure Test DN450 Fresh Water Main along re-aligned CTR (app. 520 m)	12	17-Jul-15	0%	12	01-Aug-15	04-May-15	18-May-15	-53	49	0%																														



## Appendix C

# Environmental Mitigation and Enhancement Measure Implementation Schedules

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

*Contract No. HY/2012/07  
Tuen Mun – Chek Lap Kok Link  
Southern Connection Viaduct Section  
Environmental Mitigation and Enhancement Measure Implementation Schedule*

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
<b>AIR QUALITY</b>									
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		✓
<b>NOISE</b>									
5.11	Section 4	Noise monitoring	All existing representative sensitive receivers / during North Lantau Viaduct construction	Contractor	EM&A Manual		Y		✓
<b>WATER QUALITY</b>									
<i>General Marine Works</i>									
6.10	-	Bored piling to be undertaken within a metal casing.	Marine viaducts of TM-CLKL and HKLR/ bored piling	Contractor	TM-EIAO		Y		✓
6.10	-	Barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
<i>Temporary Staging work</i>									
	5.2	Regular inspection for the accumulation of floating refuse and collection of floating refuse if required	During temporary staging works	Contractor			Y		✓
	5.2	Provision of temporary drainage system on the temporary staging for collection of construction site runoff to allow appropriate treatment before discharge into the sea	During temporary staging works	Contractor			Y		✓
	5.2	Wastewater generated from construction works such as bored / drilling water will be collected, treated, neutralized and de-silted through silt trap or sedimentation tank before disposal	During temporary staging works	Contractor			Y		✓
	5.2	One additional water quality monitoring station is	During temporary	Contractor			Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		proposed at station SR4a In case elevated SS or turbidity is identified during the water quality monitoring, the source of pollution will be tracked down and be removed as soon as possible. In case depletion of dissolved oxygen is identified, artificial aeration will be arranged at the monitoring station SR4a,	staging works						
<i>Land Works</i>									
6.10	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Sewage effluent and discharges from on- site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	5.8	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for offsite disposal.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	The Contractor shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	All areas/ throughout construction period	Contractor	TM-EIAO Waste Disposal Ordinance		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Surface run-off from bunded areas should pass through oil/ grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Roadside gullies to trap silt and grit shall be provided prior to discharging the stormwater into the marine environment. The sumps will be maintained and cleaned at regular intervals.	Roadside/ design and operation	Design Consultant/ Contractor	TM-EIAO	Y		Y	✓
6.10	Section 5	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓
<i>Water Quality Monitoring</i>									
6.10	Section 5	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Nutrients and metal parameters shall also be measured for Mf sediment operations (only HKBCF and HKLR required handling of Mf sediment) during baseline, backfilling and post construction period. One year operation phase water quality monitoring at designated stations	Designated monitoring stations as defined in EM&A Manual, Section 5/ Before, through-out marine construction period, post construction and monthly operational phase water quality monitoring for a year.	Contractor	EM&A Manual		Y	Y	✓
<b>ECOLOGY</b>									
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 <sup>2</sup> in an area where fishing activities are prohibited.	Area of prohibited fishing activities/Detailed Design/ towards end of construction period	TM-CLKL/ HKBCF Design Consultant/ TM-CLKL/ HKBCF Contractor	TMEIA	Y		Y	n/a To be enforced by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/ during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for marine bored piling and the whole lifespan of temporary staging works.	All areas/ Detailed Design/ during marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Tai Ho Wan (donor site) and Yam Tsui Wan (receptor site) /Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		<b>Completed in October 2014</b>
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		✓
<b>LANDSCAPE AND VISUAL</b>									
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		✓ Implemented as the 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
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
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and	All areas/ detailed	Design	TMEIA	Y	Y	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	
		non-reflective) as regard to the form, material and finishes	design/ during construction / during operation	Consultant/ Contractor					To be implemented by HyD
<b>WASTE</b>									
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 pile walls should be proposed to minimise the extent of cutting.	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	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		✓
12.6	8.1	The Contractor should recycle as many C&D	All areas / throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		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.	construction period						
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows: <ul style="list-style-type: none"> <li>- suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed;</li> <li>- Having a capacity of &lt;450L unless the specifications have been approved by the EPD; and</li> <li>- 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;</li> <li>- Enclosed with at least 3 sides;</li> <li>- 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;</li> <li>- Adequate ventilation;</li> <li>- Sufficiently covered to prevent rainfall entering</li> </ul>	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	
		(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 hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local	Site Offices/ 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	
		collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.							
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		✓
<b>CULTURAL HERITAGE</b>									
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*

<b>Parameters</b>	<b>Action</b>	<b>Limit</b>
24 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 394 ASR9C/ASR8/ASR9 = 393	500

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

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

**Table D3** *Action and Limit Levels for Water Quality*

<b>Parameter</b>	<b>Action Level#</b>	<b>Limit Level#</b>
DO in $\text{mg}/\text{L}$ <sup>(a)</sup>	<u>Surface and Middle</u> <b>5.0 mg/L</b>	<u>Surface and Middle</u> <b>4.2 mg/L</b>
	<u>Bottom</u> <b>4.7 mg/L</b>	<u>Bottom</u> <b>3.6 mg/L</b>
Turbidity in NTU (Depth-averaged <sup>(b), (c)</sup> )	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., <b>27.5 NTU</b>	130% of upstream control station at the same tide of the same day and 99%-ile of baseline data, i.e., <b>47.0 NTU</b>
SS in $\text{mg}/\text{L}$ (Depth-averaged <sup>(b), (c)</sup> )	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., <b>23.5 mg/L</b>	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., <b>34.4 mg/L</b>

**Notes:**

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

- (a) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- (b) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths
- (c) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- (d) All figures given in the table are used for reference only, and EPD may amend the figures whenever it is considered as necessary

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

**Table D4** *Action and Limit Levels for Impact Dolphin Monitoring*

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

**Notes:**

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

**Table D5** *Derived Value of Action Level (AL) and Limit Level (LL)*

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

Appendix E

## Calibration Certificates of Monitoring Equipments

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR8(A)  
 Calibrated by : P.F. Yeung  
 Date : 28/05/2015

Sampler

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

Calibration Orifice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa) : 1005  
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.306	1.596	54	53.34
2	13 holes	9.5	3.045	1.471	49	48.40
3	10 holes	6.8	2.576	1.248	42	41.49
4	7 holes	4.4	2.072	1.007	35	34.57
5	5 holes	2.6	1.593	0.778	28	27.66

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 30.911 Intercept(b): 3.381 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 01/06/2015

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR9  
 Calibrated by : P.F. Yeung  
 Date : 28/05/2015

Sampler

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

Calibration Orifice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa) : 1005  
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	9.4	3.029	1.464	50	49.39
2	13 holes	7.2	2.651	1.283	44	43.46
3	10 holes	5.6	2.338	1.134	38	37.54
4	7 holes	3.8	1.926	0.937	31	30.62
5	5 holes	2.4	1.530	0.749	23	22.72

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 37.277 Intercept(b): -4.753 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 01/06/2015



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 24, 2015 Rootmeter S/N 0438320 Ta (K) - 292  
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 756.92

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	1.4460	3.2	2.00
2	NA	NA	1.00	1.0300	6.4	4.00
3	NA	NA	1.00	0.9180	7.9	5.00
4	NA	NA	1.00	0.8780	8.7	5.50
5	NA	NA	1.00	0.7240	12.6	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
1.0121	0.6999	1.4258	0.9958	0.6886	0.8784
1.0078	0.9785	2.0163	0.9916	0.9627	1.2422
1.0057	1.0955	2.2543	0.9895	1.0779	1.3888
1.0047	1.1443	2.3644	0.9885	1.1258	1.4566
0.9994	1.3805	2.8515	0.9833	1.3582	1.7568
Qstd slope (m) = 2.09532			Qa slope (m) = 1.31205		
intercept (b) = -0.03812			intercept (b) = -0.02349		
coefficient (r) = 0.99994			coefficient (r) = 0.99994		
y axis = SQRT[H2O(Pa/760) (298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

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

For subsequent flow rate calculations:

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



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. : C143980

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1497)

Date of Receipt / 收件日期 : 23 June 2014

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 :  $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 28 June 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

All results are within manufacturer's specification.

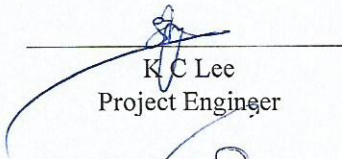
The results are detailed in the subsequent page(s).

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

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

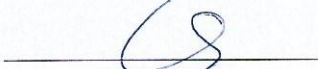
Tested By :

測試

  
K C Lee  
Project Engineer

Certified By :

核證

  
K M Wu  
Engineer

Date of Issue :

簽發日期

2 July 2014

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com





# Certificate of Calibration 校正證書

Certificate No. : C143980  
證書編號

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

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

- Test procedure : MA100N.

- Results :

### 5.1 Sound Level Accuracy

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

### 5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.987	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.

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

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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 :  $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 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

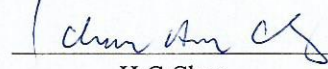
:

  
K C Lee  
Project Engineer

Certified By

核證

:

  
H C Chan  
Engineer

Date of Issue

簽發日期

:

16 June 2015

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

# 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.



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. : C144558

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1853)

Date of Receipt / 收件日期 : 22 July 2014

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 : 29 July 2014

## TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

All results are within manufacturer's specification.

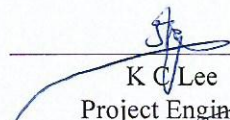
The results are detailed in the subsequent page(s).

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

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

Tested By :

測試

  
K C Lee  
Project Engineer

Certified By :

核證

  
K M Wu  
Engineer

Date of Issue :

簽發日期

30 July 2014

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Page 1 of 4

# Certificate of Calibration

## 校正證書

Certificate No. : C144558

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 :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C140016
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 <sub>A</sub>	A	Fast	94.00	1	93.6	± 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 <sub>A</sub>	A	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

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 <sub>A</sub>	A	Fast	94.00	1	93.6	Ref.
			Slow			93.5	± 0.3

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

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# Certificate of Calibration

## 校正證書

Certificate No. : C144558

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 <sub>A</sub>	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.3	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.3	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.9	+1.2 ± 1.6
					4 kHz	94.7	+1.0 ± 1.6
					8 kHz	92.5	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.7	-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 <sub>C</sub>	C	Fast	94.00	63 Hz	92.7	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.6
					4 kHz	92.9	-0.8 ± 1.6
					8 kHz	90.6	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

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

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# Certificate of Calibration

## 校正證書

Certificate No. : C144558  
證書編號

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 :  $\pm 0.35$  dB  
250 Hz - 500 Hz :  $\pm 0.30$  dB  
1 kHz :  $\pm 0.20$  dB  
2 kHz - 4 kHz :  $\pm 0.35$  dB  
8 kHz :  $\pm 0.45$  dB  
12.5 kHz :  $\pm 0.70$  dB  
104 dB : 1 kHz :  $\pm 0.10$  dB (Ref. 94 dB)  
114 dB : 1 kHz :  $\pm 0.10$  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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c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



## Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/011                      Manufacturer : HACH  
Model No. : 2100Q                                      Serial No. : 12060 C 018534  
Date of Calibration : 02/04/2015                      Due Date : 01/07/2015

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

005/6.1/001/7

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.2	1.00
100	103	3.00
800	787	-1.63

(\*) 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. : <u>ET/EW007/005</u>	Manufacturer : <u>Thermo Scientific</u>
Model No. : <u>Orion 2 Star</u>	Serial No. : <u>B29792</u>
Date of Calibration : <u>06/05/2015</u>	Calibration Due Date : <u>05/06/2015</u>

### Liquid Junction Error

Primary Standard Solution Used : <u>Phosphate</u>	003/5.2/001/22 (25°C)
Temperature of Solution : <u>25.0 / 20.0</u>	Ref No. of Primary Solution: <u>003/5.2/001/23 (25°C)</u>
pH value of diluted buffer : <u>6.89 / 6.92</u>	$\Delta\text{pH}_{1/2} = +0.01 / +0.01$
$\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} =$ <u>0.03 / 0.04</u>	pH (S) = <u>6.86 / 6.88</u>
(Observed Deviation)	
Liquid Junction Error ( $\Delta\text{pH}_j$ ) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} =$ <u>0.02 / 0.03</u>	

### Shift on Stirring

pH of buffer solution (with stirring),  $\text{pH}_s =$  6.91 / 6.91

Shift on stirring,  $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j =$  0.03 / 0.00

### Noise

Noise,  $\Delta\text{pH}_n =$  difference between max and min reading : 0.01 / 0.01

### Verification of ATC

Ref. No. of reference thermometer used:	<u>ET/0521/019 / ET/0521/019</u>
Temperature record from the reference thermometer ( $T_R$ )	<u>25 / 20 °C</u>
Temperature record from the ATC ( $T_{ATC}$ ):	<u>24.9 / 19.9 °C</u>
Temperature Difference, $ T_R - T_{ATC} $	<u>0.1 / 0.1 °C</u>
Correction	<u>0.1 / 0.1 °C</u>

### Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error $\Delta\text{pH}_j$	$\leq 0.05$
Shift on Stirring $\Delta\text{pH}_s$	$\leq 0.02$
Noise $\Delta\text{pH}_n$	$\leq 0.02$
Verification of ATC Temperature Difference	$\leq 0.5^\circ\text{C}$

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

\* Delete as appropriate

Calibrated by:

Checked by :



## Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : <u>ET/EW007/005</u>	Manufacturer : <u>Thermo Scientific</u>
Model No. : <u>Orion 2 Star</u>	Serial No. : <u>B29792</u>
Date of Calibration : <u>06/06/2015</u>	Calibration Due Date : <u>05/07/2015</u>

### Liquid Junction Error

Primary Standard Solution Used : <u>Phosphate</u>	003/5.2/001/24 (20°C)
Temperature of Solution : <u>25.0 / 20.0</u>	Ref No. of Primary Solution: <u>003/5.2/001/25 (25°C)</u>
pH value of diluted buffer : <u>6.89 / 6.92</u>	$\Delta\text{pH}_{1/2} = \underline{+0.01 / +0.01}$
$\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.03 / 0.04}$ (Observed Deviation)	pH (S) = <u>6.86 / 6.88</u>
Liquid Junction Error ( $\Delta\text{pH}_j$ ) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.02 / 0.03}$	

### Shift on Stirring

pH of buffer solution (with stirring),  $\text{pH}_s = \underline{6.90 / 6.92}$   
 Shift on stirring,  $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.02 / 0.01}$

### Noise

Noise,  $\Delta\text{pH}_n =$  difference between max and min reading : 0.01 / 0.01

### Verification of ATC

Ref. No. of reference thermometer used:	<u>ET/0521/019 / ET/0521/019</u>
Temperature record from the reference thermometer ( $T_R$ )	<u>25 / 20 °C</u>
Temperature record from the ATC ( $T_{ATC}$ ):	<u>24.8 / 19.9 °C</u>
Temperature Difference, $ T_R - T_{ATC} $	<u>0.2 / 0.1 °C</u>
Correction	<u>0.2 / 0.1 °C</u>

### Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error $\Delta\text{pH}_j$	$\leq 0.05$
Shift on Stirring $\Delta\text{pH}_s$	$\leq 0.02$
Noise $\Delta\text{pH}_n$	$\leq 0.02$
Verification of ATC Temperature Difference	$\leq 0.5^\circ\text{C}$

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

\* Delete as appropriate

Calibrated by:

Checked by :



### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/006</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100554</u>
Date of Calibration : <u>17/03/2015</u>	Calibration Due Date : <u>16/06/2015</u>

#### Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/008

Ref. No. of Water Bath : ---

Reference Thermometer reading	Temperature (°C)			
	Measured	20.0	Corrected	19.4
DO Meter reading	Measured	19.2	Difference	0.2

#### Standardization of sodium thiosulphate ( $Na_2S_2O_3$ ) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/11	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/001/35
		Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)		0.00	10.15
Final Vol. of $Na_2S_2O_3$ (ml)		10.15	20.40
Vol. of $Na_2S_2O_3$ used (ml)		10.15	10.25
Normality of $Na_2S_2O_3$ solution (N)		0.02463	0.02439
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

#### Linearity Checking

##### Determination of dissolved oxygen content by Winkler Titration \*

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.20	22.60	0.00	6.80	10.40
Final Vol. of $Na_2S_2O_3$ (ml)	11.20	22.60	29.20	6.80	10.40	14.10
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.20	11.40	6.60	6.80	3.60	3.70
Dissolved Oxygen (DO), mg/L	7.37	7.50	4.34	4.47	2.37	2.43
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation:  $DO (mg/L) = V \times N \times 8000/298$

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	7.90	7.66	7.37	7.50	7.44	2.91
5	4.38	4.10	4.24	4.34	4.47	4.41	3.93
10	2.50	2.48	2.49	2.37	2.43	2.40	3.68
Linear regression coefficient				0.9954			



### 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/012/4.7/002/34	Reagent No. of NaCl (30ppt)	CPE/012/4.8/002/34
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**Determination of dissolved oxygen content by Winkler Titration \*\***

Salinity (ppt)	10		30	
	1	2	1	2
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.00	11.90	23.50	34.00
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	11.90	23.50	34.00	44.30
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	11.90	11.60	10.50	10.30
Dissolved Oxygen (DO), mg/L	7.83	7.63	6.91	6.78
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	7.20	7.65	7.43	7.83	7.63	7.73	3.96
30	6.90	6.40	6.65	6.91	6.78	6.85	2.96

**Acceptance Criteria**

- (1) Differenc between temperature readings from (1) 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 :

\_\_\_\_\_



## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/006      Manufacturer : YSI  
Model No. : Pro 2030      Serial No. : 12A 100554  
Date of Calibration : 17/03/2015      Due Date : 16/06/2015

Ref. No. of Salinity Standard used (30ppt)

S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.3	1.0

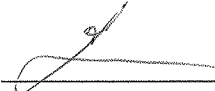
(\*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

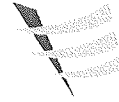
Acceptance Criteria

Difference : -10 % to 10 %

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

Checked by : 

Approved by : 



### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/006</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100554</u>
Date of Calibration : <u>15/06/2015</u>	Calibration Due Date : <u>14/09/2015</u>

**Temperature Verification**

Ref. No. of Reference Thermometer : ET/0521/008

Ref. No. of Water Bath : ---

	Temperature (°C)			
	Measured	20.5	Corrected	19.9
Reference Thermometer reading	Measured	20.5	Corrected	19.9
DO Meter reading	Measured	19.7	Difference	0.2

**Standardization of sodium thiosulphate ( $Na_2S_2O_3$ ) solution**

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/12	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/001/37
		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	20.50
Vol. of $Na_2S_2O_3$ used (ml)		10.20	10.30
Normality of $Na_2S_2O_3$ solution (N)		0.02451	0.02427
Average Normality (N) of $Na_2S_2O_3$ solution (N)		0.02439	
Acceptance criteria, Deviation		Less than $\pm 0.001N$	

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

**Linearity Checking**

**Determination of dissolved oxygen content by Winkler Titration \***

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.30	22.70	0.00	6.50	10.40
Final Vol. of $Na_2S_2O_3$ (ml)	11.30	22.70	29.30	6.50	10.40	14.20
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.30	11.40	6.60	6.50	3.90	3.80
Dissolved Oxygen (DO), mg/L	7.40	7.46	4.32	4.26	2.55	2.49
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation:  $DO (mg/L) = V \times N \times 8000/298$

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.23	7.33	7.28	7.40	7.46	7.43	2.04
5	4.50	4.48	4.49	4.32	4.26	4.29	4.56
10	2.51	2.38	2.45	2.55	2.49	2.52	2.82
Linear regression coefficient				0.9951			



## 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/012/4.7/003/3	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/3
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### Determination of dissolved oxygen content by Winkler Titration \*\*

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.00	11.40	22.60	32.10
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	11.40	22.60	32.10	41.70
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	11.40	11.20	9.50	9.60
Dissolved Oxygen (DO), mg/L	7.46	7.33	6.22	6.29
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation:  $DO (mg/L) = V \times N \times 8000/298$

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.38	7.20	7.29	7.46	7.33	7.40	1.50
30	6.33	6.46	6.4	6.22	6.29	6.26	2.21

### 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 :

\_\_\_\_\_



## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/006 Manufacturer : YSI  
Model No. : Pro 2030 Serial No. : 12A 100554  
Date of Calibration : 15/06/2015 Due Date : 14/09/2015

Ref. No. of Salinity Standard used (30ppt)

S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.5	1.67

(\*): 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 : 24 June 2015

Brand of Test Meter: Global Water

Model: Speed Sensor: WE550 (S/N:EC0000 )

Direction Sensor: WE570 (S/N:ED0000)

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)
0.88	0.8
2.19	2.4
3.32	3.5

#### Wind Direction Test

Global Wate (o)	Marine Compass (o)
270.85	270
0.05	0
89.45	90
180.67	180

Calibrated by:

Fai  
Yeung Ping Fai  
(Technical Officer)

Checked by :

Fat  
Ho Kam Fat  
(Senior Technical Officer)



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration

## 校正證書

Certificate No. : C153422

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 : 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.

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

TEST CONDITIONS / 測試條件

Temperature / 溫度 :  $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 23 June 2015

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

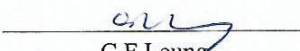
The results are detailed in the subsequent page(s).

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

- Testo Industrial Services GmbH, Germany

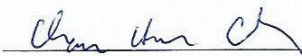
Tested By

測試

:   
C F Leung  
Project Engineer

Certified By

核證

:   
H C Chan  
Engineer

Date of Issue

簽發日期

: 23 June 2015

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

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

Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 校正及檢測實驗室

c/o 香港新界屯門興安里一號青洲灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C153422

證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 10 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL386	Multi-function Measuring Instrument	S12109

- Test procedure : MA130N.
- Results :

### Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
1.9	1.8	+0.1	0.2	2.0
4.0	3.9	+0.1	0.2	2.0
6.0	6.0	0.0	0.3	2.0
8.0	8.1	-0.1	0.3	2.0
10.0	10.3	-0.3	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.

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

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

Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Appendix F

## EM&A Monitoring Schedules

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Impact Marine Water Quality Monitoring (WQM) Schedule (Jun 15)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun
		<b>WQM</b> Mid-Ebb 12:51 (11:06 - 14:36) Mid-Flood 19:46 (18:01 - 21:31)		<b>WQM</b> Mid-Ebb 7:15 (05:30 - 09:00) Mid-Flood 14:05 (12:20 - 15:50)		<b>WQM</b> Mid-Flood 8:39 (06:54 - 10:24) Mid-Ebb 15:30 (13:45 - 17:15)
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
		<b>WQM</b> Mid-Flood 11:35 (09:50 - 13:20) Mid-Ebb 18:08 (16:23 - 19:53)		<b>WQM</b> Mid-Ebb 8:53 (07:08 - 10:38) Mid-Flood 14:32 (12:47 - 16:17)		<b>WQM</b> Mid-Ebb 10:41 (08:56 - 12:26) Mid-Flood 17:00 (15:15 - 18:45)
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
		<b>WQM</b> Mid-Ebb 12:52 (11:07 - 14:37) Mid-Flood 19:52 (18:07 - 21:37)		<b>WQM</b> Mid-Flood 7:13 (05:28 - 08:58) Mid-Ebb 14:14 (12:29 - 16:01)		<b>WQM</b> Mid-Flood 8:31 (06:46 - 10:16) Mid-Ebb 15:31 (13:46 - 17:16)
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		<b>WQM</b> Mid-Flood 10:41 (08:56 - 12:26) Mid-Ebb 17:24 (15:39 - 19:09)		<b>WQM</b> Mid-Ebb 7:48 (06:03 - 09:33) Mid-Flood 13:13 (11:28 - 14:58)		<b>WQM</b> Mid-Ebb 9:54 (08:09 - 11:39) Mid-Flood 16:23 (14:38 - 18:08)
28-Jun	29-Jun	30-Jun				
		<b>WQM</b> Mid-Ebb 11:52 (10:07 - 13:37) Mid-Flood 18:53 (17:08 - 20:38)				

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Impact Marine Water Quality Monitoring (WQM) Schedule (July 15)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jul	02-Jul	03-Jul	04-Jul
				<b>WQM</b> Mid-Ebb 13:12 (11:27 - 14:57) Mid-Flood 20:19 (18:34 - 22:04)		<b>WQM</b> Mid-Flood 7:46 (06:01 - 09:31) Mid-Ebb 14:35 (12:50 - 16:20)
05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul
		<b>WQM</b> Mid-Flood 10:20 (08:35 - 12:05) Mid-Ebb 16:53 (15:08 - 18:38)		<b>WQM</b> Mid-Flood 12:54 (11:09 - 14:39) Mid-Ebb 18:55 (17:10 - 20:40)		<b>WQM</b> Mid-Ebb 9:26 (07:41 - 11:11) Mid-Flood 15:51 (14:06 - 17:36)
12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul
		<b>WQM</b> Mid-Ebb 11:57 (10:12 - 13:42) Mid-Flood 19:00 (17:15 - 20:45)		<b>WQM</b> Mid-Ebb 13:19 (11:34 - 15:04) Mid-Flood 20:18 (18:33 - 22:03)		<b>WQM</b> Mid-Flood 7:38 (05:53 - 09:23) Mid-Ebb 14:33 (12:48 - 16:18)
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
		<b>WQM</b> Mid-Flood 9:34 (07:49 - 11:19) Mid-Ebb 16:10 (14:25 - 17:55)		<b>WQM</b> Mid-Flood 11:12 (09:27 - 12:57) Mid-Ebb 17:23 (15:38 - 19:08)		<b>WQM</b> Mid-Flood 14:00 (12:15 - 15:45) Mid-Ebb 19:35 (17:50 - 21:20)
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	01-Aug
		<b>WQM</b> Mid-Ebb 10:43 (08:58 - 12:28) Mid-Flood 17:55 (16:10 - 19:40)		<b>WQM</b> Mid-Ebb 12:11 (10:26 - 13:56) Mid-Flood 19:18 (17:33 - 21:03)		<b>WQM</b> Mid-Ebb 13:37 (11:52 - 15:22) Mid-Flood 20:13 (18:28 - 21:58)

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Tentative Impact Noise Monitoring Schedule (1 to 30 June 2015)**

Alternative Noise Monitoring at Pak Mong Village Entrance

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Tentative Impact Air Quality Monitoring Schedule (1 to 30 June 2015)**

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	05-Jun	06-Jun
		1-hr TSP Monitoring 24-hr TSP Monitoring				
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
			1-hr TSP Monitoring 24-hr TSP Monitoring			
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		1-hr TSP Monitoring 24-hr TSP Monitoring				
28-Jun	29-Jun	30-Jun				
	1-hr TSP Monitoring 24-hr TSP Monitoring					

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Tentative Impact Noise Monitoring Schedule (1 to 31 July 2015)**

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			P Holiday 01-Jul	02-Jul	03-Jul	04-Jul
				Noise Impact Monitoring		
05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul
		Noise Impact Monitoring				
12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul
	Noise Impact Monitoring			Noise Impact Monitoring		
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
			Noise Impact Monitoring			
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
		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  
Tentative Impact Air Quality Monitoring Schedule (1 to 31 July 2015)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			P Holiday 01-Jul	02-Jul	03-Jul	04-Jul
				1-hr TSP Monitoring 24-hr TSP Monitoring		
05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul
		1-hr TSP Monitoring 24-hr TSP Monitoring				
12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
			1-hr TSP Monitoring 24-hr TSP Monitoring			
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
		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 Dolphin Monitoring Survey Schedule (1 to 30 June 2015)**

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section  
Impact Dolphin Monitoring Survey Schedule (1 to 31 July 2015)**

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

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	2015-06-02	ASR8A	8:10	1-hr TSP	59	394	500		
TMCLKL	HY/2012/07	2015-06-02	ASR8A	9:12	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-06-02	ASR8A	10:14	1-hr TSP	52				
TMCLKL	HY/2012/07	2015-06-08	ASR8A	8:05	1-hr TSP	45				
TMCLKL	HY/2012/07	2015-06-08	ASR8A	9:07	1-hr TSP	83				
TMCLKL	HY/2012/07	2015-06-08	ASR8A	10:09	1-hr TSP	59				
TMCLKL	HY/2012/07	2015-06-11	ASR8A	8:28	1-hr TSP	63				
TMCLKL	HY/2012/07	2015-06-11	ASR8A	9:30	1-hr TSP	65				
TMCLKL	HY/2012/07	2015-06-11	ASR8A	10:32	1-hr TSP	51				
TMCLKL	HY/2012/07	2015-06-17	ASR8A	8:08	1-hr TSP	64				
TMCLKL	HY/2012/07	2015-06-17	ASR8A	9:10	1-hr TSP	45				
TMCLKL	HY/2012/07	2015-06-17	ASR8A	10:12	1-hr TSP	95				
TMCLKL	HY/2012/07	2015-06-23	ASR8A	8:40	1-hr TSP	41				
TMCLKL	HY/2012/07	2015-06-23	ASR8A	9:42	1-hr TSP	68				
TMCLKL	HY/2012/07	2015-06-23	ASR8A	10:44	1-hr TSP	55				
TMCLKL	HY/2012/07	2015-06-29	ASR8A	8:50	1-hr TSP	57				
TMCLKL	HY/2012/07	2015-06-29	ASR8A	9:52	1-hr TSP	49				
TMCLKL	HY/2012/07	2015-06-29	ASR8A	10:54	1-hr TSP	56				
				Average		59				
				Min.		41				
				Max.		95				

## 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	2015-06-02	ASR9	8:21	1-hr TSP	95	394	500		
TMCLKL	HY/2012/07	2015-06-02	ASR9	9:23	1-hr TSP	49				
TMCLKL	HY/2012/07	2015-06-02	ASR9	10:25	1-hr TSP	76				
TMCLKL	HY/2012/07	2015-06-08	ASR9	8:16	1-hr TSP	119				
TMCLKL	HY/2012/07	2015-06-08	ASR9	9:18	1-hr TSP	71				
TMCLKL	HY/2012/07	2015-06-08	ASR9	10:20	1-hr TSP	68				
TMCLKL	HY/2012/07	2015-06-11	ASR9	8:39	1-hr TSP	81				
TMCLKL	HY/2012/07	2015-06-11	ASR9	9:41	1-hr TSP	71				
TMCLKL	HY/2012/07	2015-06-11	ASR9	10:43	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-06-17	ASR9	8:19	1-hr TSP	72				
TMCLKL	HY/2012/07	2015-06-17	ASR9	9:21	1-hr TSP	48				
TMCLKL	HY/2012/07	2015-06-17	ASR9	10:23	1-hr TSP	79				
TMCLKL	HY/2012/07	2015-06-23	ASR9	8:52	1-hr TSP	49				
TMCLKL	HY/2012/07	2015-06-23	ASR9	9:54	1-hr TSP	64				
TMCLKL	HY/2012/07	2015-06-23	ASR9	10:56	1-hr TSP	61				
TMCLKL	HY/2012/07	2015-06-29	ASR9	9:01	1-hr TSP	71				
TMCLKL	HY/2012/07	2015-06-29	ASR9	10:03	1-hr TSP	72				
TMCLKL	HY/2012/07	2015-06-29	ASR9	11:05	1-hr TSP	71				
				Average		71				
				Min.		48				
				Max.		119				

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

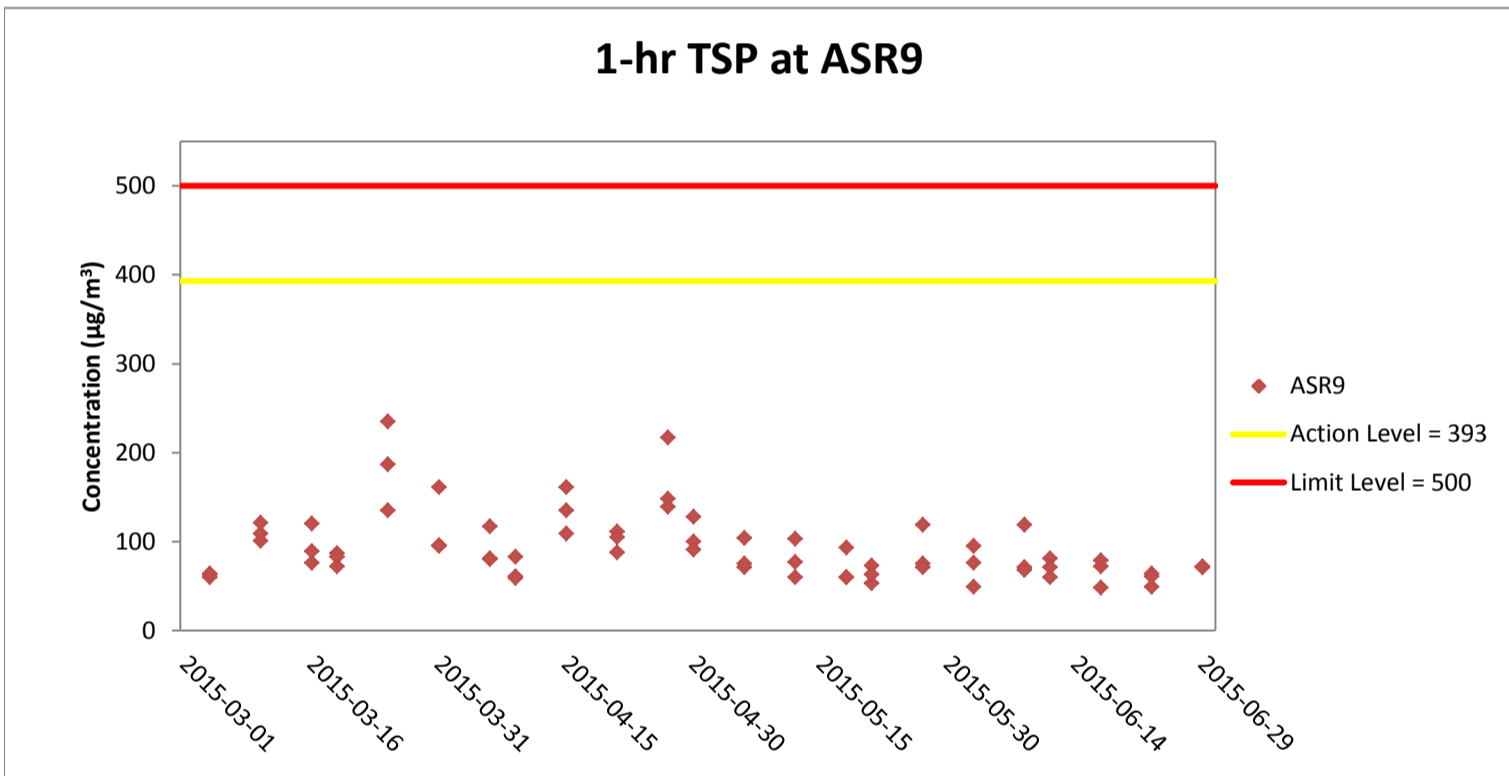
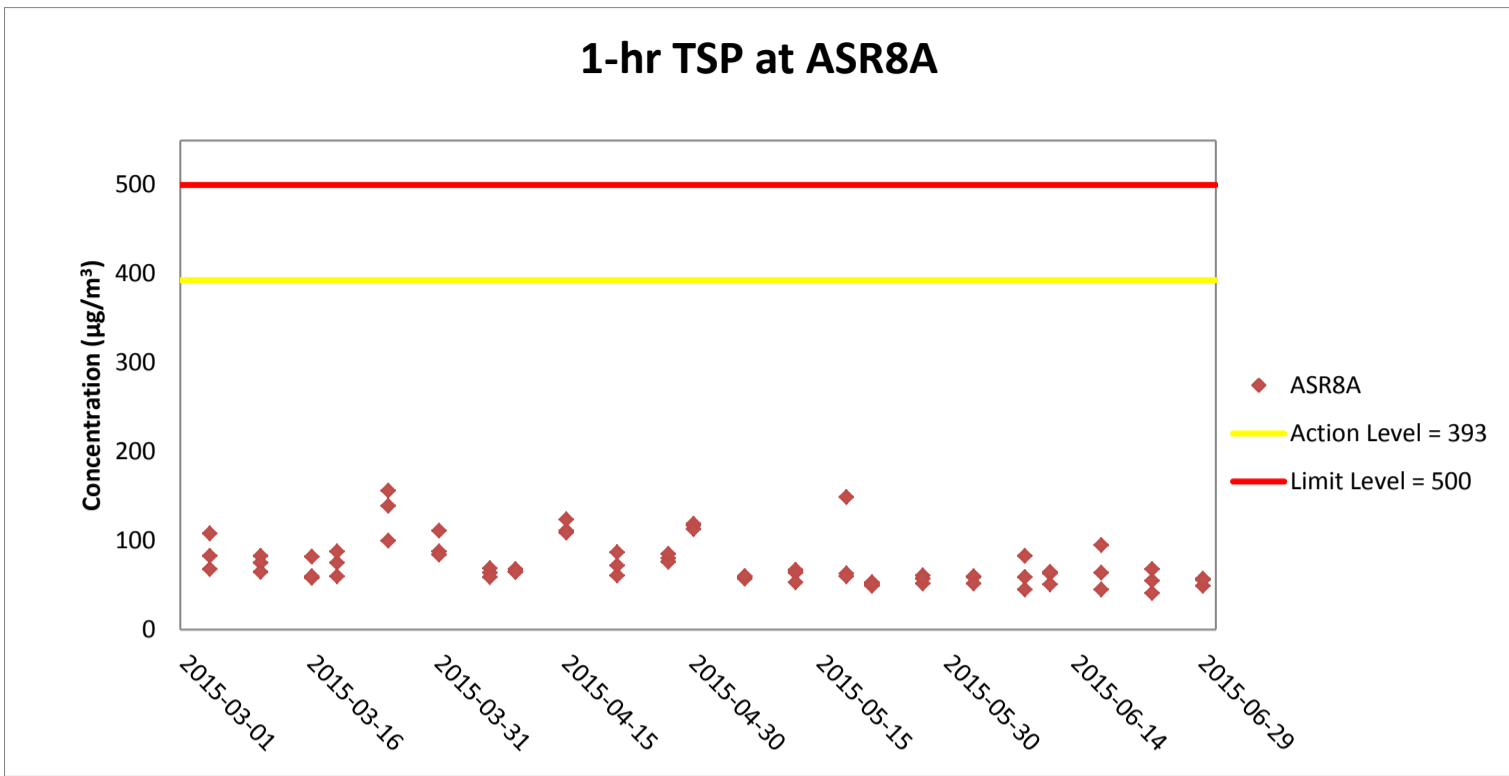
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2015-06-02	ASR8A	11:16	24-hr TSP	42	178	260
TMCLKL	HY/2012/07	2015-06-08	ASR8A	11:11	24-hr TSP	43		
TMCLKL	HY/2012/07	2015-06-11	ASR8A	11:34	24-hr TSP	44		
TMCLKL	HY/2012/07	2015-06-17	ASR8A	11:14	24-hr TSP	45		
TMCLKL	HY/2012/07	2015-06-23	ASR8A	11:46	24-hr TSP	47		
TMCLKL	HY/2012/07	2015-06-29	ASR8A	11:56	24-hr TSP	46		
						Average	45	
						Min.	42	
						Max.	47	

**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	2015-06-02	ASR9	11:27	24-hr TSP	45	178	260
TMCLKL	HY/2012/07	2015-06-08	ASR9	11:22	24-hr TSP	49		
TMCLKL	HY/2012/07	2015-06-11	ASR9	11:45	24-hr TSP	48		
TMCLKL	HY/2012/07	2015-06-17	ASR9	11:25	24-hr TSP	46		
TMCLKL	HY/2012/07	2015-06-23	ASR9	11:58	24-hr TSP	47		
TMCLKL	HY/2012/07	2015-06-29	ASR9	12:07	24-hr TSP	49		
						Average	47	
						Min.	45	
						Max.	49	

Action Level Exceedance

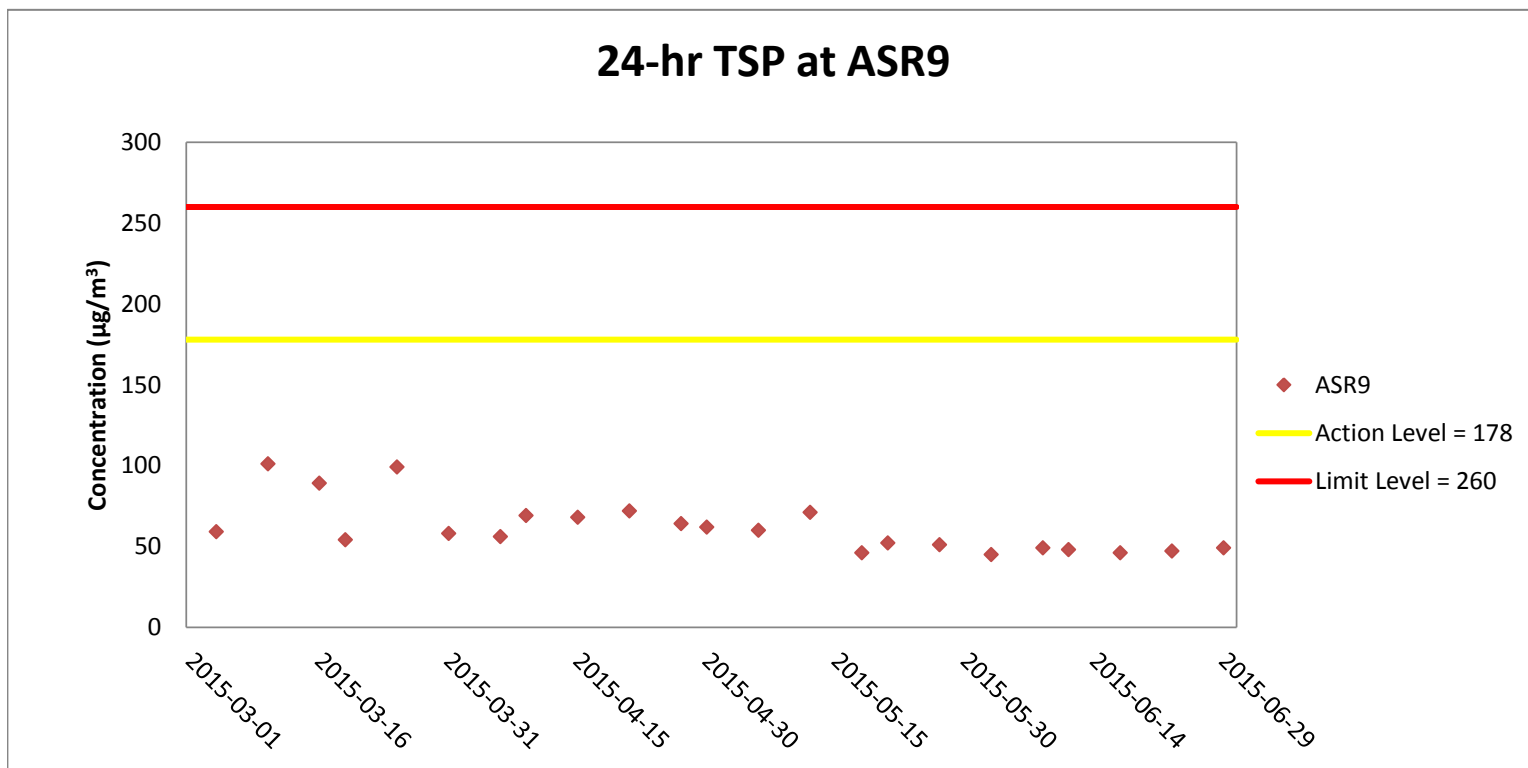
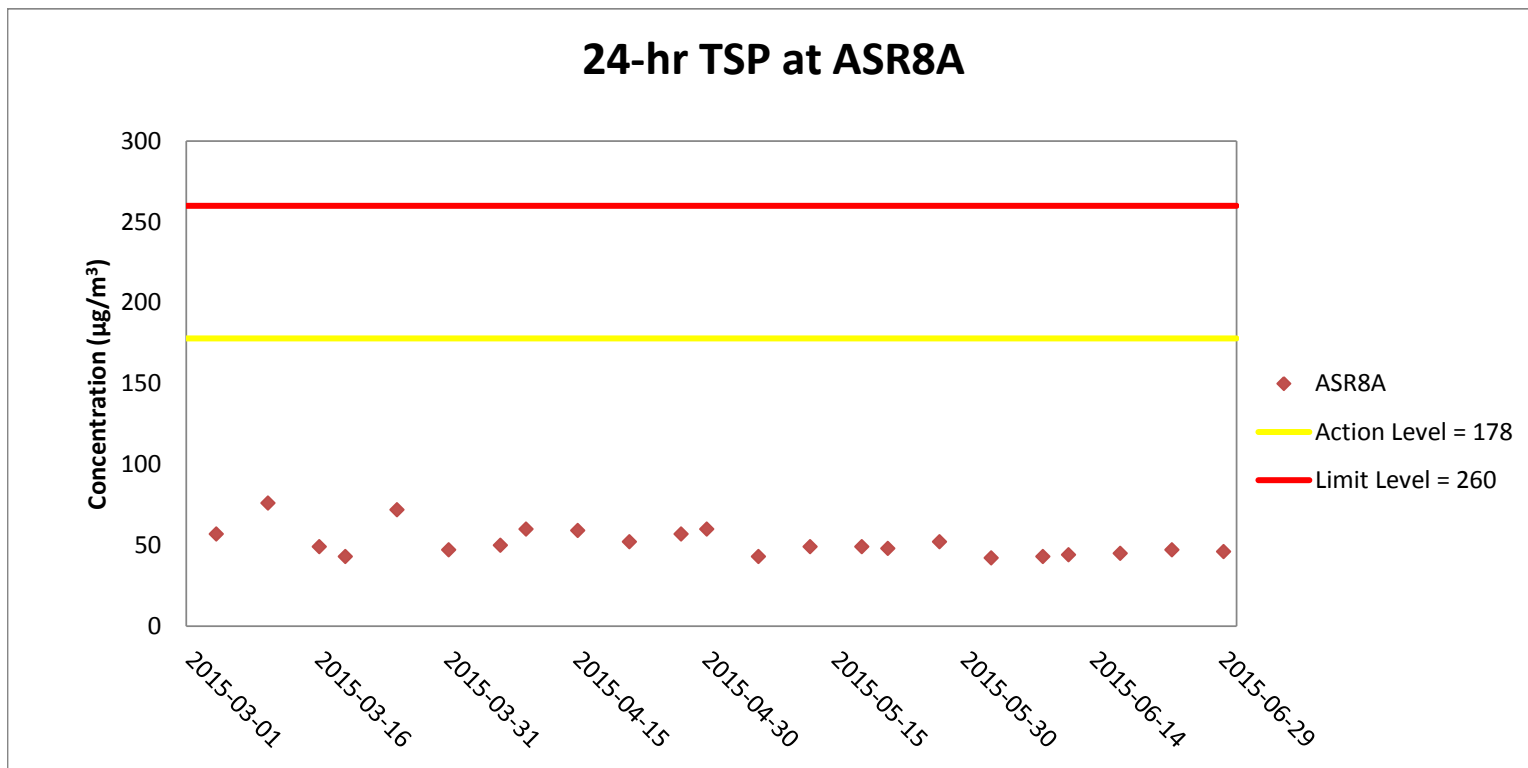
Limit Level Exceedance



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

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Pile cap installation; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

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



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

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Pile cap installation; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.

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

Appendix H

## Meteorological Data for the Reporting Month



Date	Time	Wind speed (m/s)	Wind direction (deg)
24-06-2015	0:00	1.75	161
24-06-2015	1:00	1.37	167
24-06-2015	2:00	0.72	122
24-06-2015	3:00	0.50	134
24-06-2015	4:00	1.09	126
24-06-2015	5:00	0.78	151
24-06-2015	6:00	0.02	144
24-06-2015	7:00	1.14	153
24-06-2015	8:00	4.04	162
24-06-2015	9:00	2.94	161
24-06-2015	10:00	0.21	120
24-06-2015	11:00	1.53	166
24-06-2015	12:00	0.77	162
29-06-2015	7:00	0.36	193
29-06-2015	8:00	0.52	163
29-06-2015	9:00	0.11	114
29-06-2015	10:00	0.07	157
29-06-2015	11:00	0.57	215
29-06-2015	12:00	1.35	189
29-06-2015	13:00	1.25	193
29-06-2015	14:00	2.53	183
29-06-2015	15:00	3.29	166
29-06-2015	16:00	4.31	168
29-06-2015	17:00	3.68	172
29-06-2015	18:00	4.13	169
29-06-2015	19:00	4.62	174
29-06-2015	20:00	4.56	167
29-06-2015	21:00	3.35	164
29-06-2015	22:00	3.56	171
29-06-2015	23:00	2.02	178
30-06-2015	0:00	1.52	171
30-06-2015	1:00	1.03	179
30-06-2015	2:00	1.24	171
30-06-2015	3:00	0.94	184
30-06-2015	4:00	0.90	160
30-06-2015	5:00	0.52	159
30-06-2015	6:00	0.02	74
30-06-2015	7:00	0.14	196
30-06-2015	8:00	0.00	222
30-06-2015	9:00	0.01	134
30-06-2015	10:00	0.23	112
30-06-2015	11:00	0.06	185
30-06-2015	12:00	2.34	156

\*Wind monitoring equipment was under maintenance until 23 June 2015.

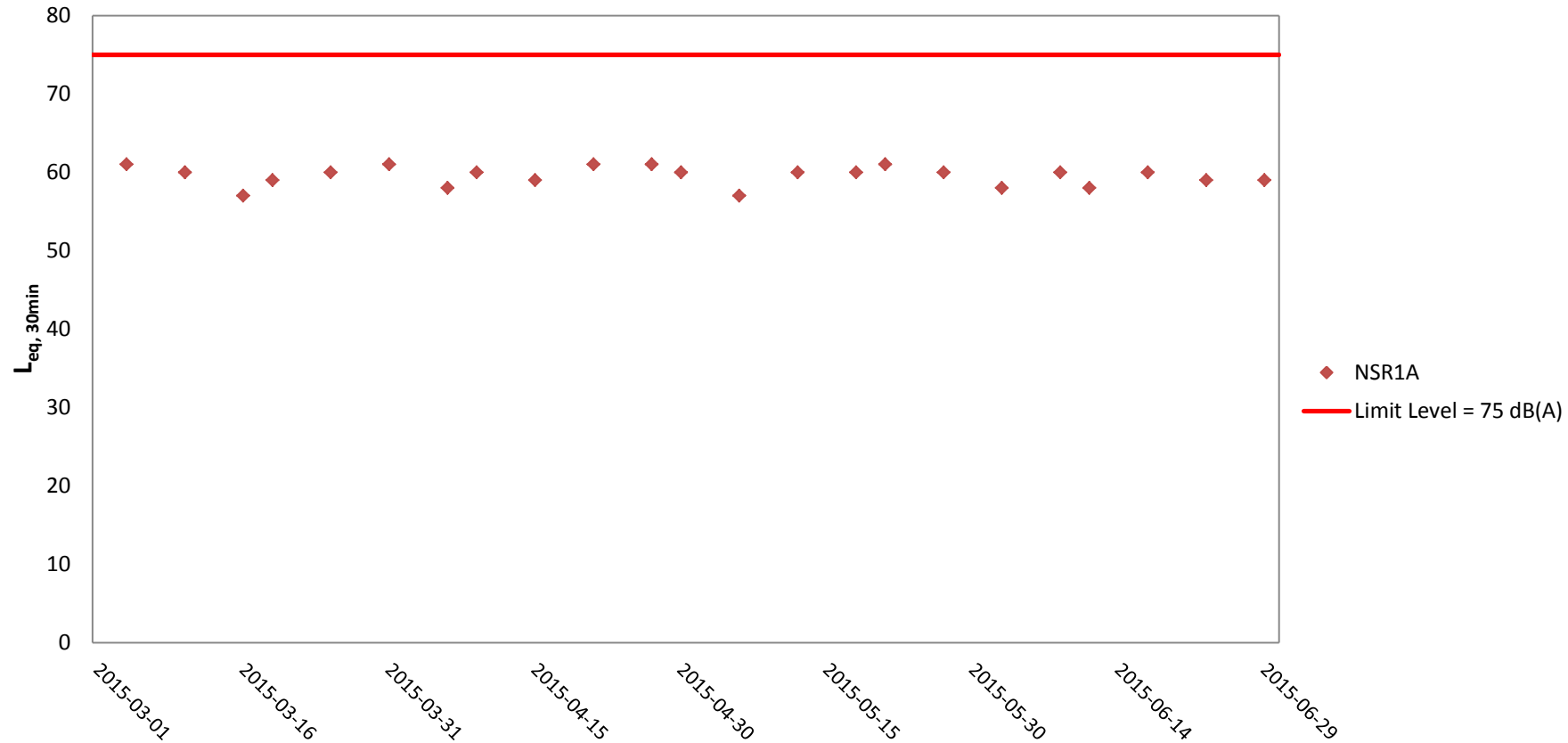
Appendix I

# Impact Noise Monitoring Results and Graphical Presentation

Appendix II Noise Monitoring Results

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90				
TMCLKL	HY/2012/07	2015-06-02	NSR1A	Cloudy	10:36	58	60	54	75	0.7	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-06-08	NSR1A	Sunny	10:32	60	62	56	75	0.6	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-06-11	NSR1A	Sunny	9:53	58	60	54	75	0.4	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-06-17	NSR1A	Sunny	9:33	60	63	55	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-06-23	NSR1A	Cloudy	11:07	59	61	55	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-06-29	NSR1A	Sunny	11:16	59	60	55	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	58					
						Max.	60					
						Average	59					

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



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

*Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Pile cap installation; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C9 and 9SE-B/F85.*

*Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly; Marine piling and Installation of 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	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Surface	1	1	27.1	7.84	21.6	6.83	12.1	19.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Surface	1	2	27.2	7.86	21.7	6.8	11.7	15.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Middle	2	1	27.1	7.83	21.9	6.67	13.4	17.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Middle	2	2	27.1	7.87	22	6.7	14.1	18.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Bottom	3	1	27	7.88	22.3	6.53	16.8	25.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)5	18:01	Bottom	3	2	26.9	7.85	22.4	6.56	18	25.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Surface	1	1	27.2	7.79	21.7	6.76	12.6	16.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Surface	1	2	27.2	7.81	21.8	6.78	12	16.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Bottom	3	1	27.1	7.83	21.8	6.7	14.5	23.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4a	18:25	Bottom	3	2	27.1	7.86	21.9	6.66	15.4	18.5
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Surface	1	1	27.2	7.83	21.7	6.82	10.9	16.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Surface	1	2	27.1	7.86	21.7	6.79	11.4	13.7
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Bottom	3	1	27.2	7.81	21.8	6.56	13.3	17.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	SR4	18:40	Bottom	3	2	27.1	7.84	21.8	6.58	14	19.6
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Surface	1	1	27.2	7.76	21.8	6.66	11.1	15.5
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Surface	1	2	27.3	7.8	21.7	6.69	11.9	17.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Bottom	3	1	27.2	7.84	21.9	6.43	12.6	16.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS8	18:55	Bottom	3	2	27.2	7.81	21.8	6.46	13	16.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Surface	1	1	27.2	7.78	21.8	6.62	10.6	13.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Surface	1	2	27.2	7.8	21.9	6.6	11.3	15.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Middle	2	1	27.2	7.76	22.1	6.58	12.3	16
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Middle	2	2	27.1	7.78	22	6.55	11.8	14.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Bottom	3	1	27.1	7.81	22.4	6.23	13.9	22.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)16	19:11	Bottom	3	2	27	7.79	22.3	6.27	14.6	20.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Surface	1	1	27.3	7.72	21.8	6.73	9.9	12.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Surface	1	2	27.2	7.75	21.8	6.7	9.9	12.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Bottom	3	1	27.1	7.77	22	6.46	11.3	17
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	IS(Mf)9	19:30	Bottom	3	2	27.1	7.8	21.9	6.48	10.5	15.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Surface	1	1	27.2	7.81	21.8	6.89	10.6	17

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	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Surface	1	2	27.3	7.84	21.9	6.91	10	15
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Middle	2	1	27.2	7.79	22.2	6.76	11.3	15.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Middle	2	2	27.1	7.82	22.1	6.72	12	18
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Bottom	3	1	27	7.85	22.6	6.52	14.2	21.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Flood	CS(Mf)3	19:45	Bottom	3	2	26.9	7.81	22.7	6.47	14.9	22.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Surface	1	1	27.2	7.72	21.9	6.8	11.2	14.6
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Surface	1	2	27.1	7.75	22	6.82	10.3	14.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Middle	2	1	27	7.7	22.2	6.67	11.9	16.7
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Middle	2	2	26.9	7.73	22.3	6.63	12.6	15.1
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Bottom	3	1	26.9	7.76	22.8	6.43	14.8	22.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)3	11:36	Bottom	3	2	26.8	7.72	22.7	6.38	15.5	23.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Surface	1	1	27.1	7.7	21.6	6.67	13.2	15.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Surface	1	2	27	7.72	21.7	6.69	12.6	20.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Bottom	3	1	26.9	7.74	21.8	6.61	15.1	18.1
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4a	13:46	Bottom	3	2	27	7.77	21.7	6.57	16	20.6
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Surface	1	1	27.1	7.74	21.7	6.74	11.5	15
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Surface	1	2	27	7.77	21.8	6.7	12	18
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Bottom	3	1	27	7.72	21.8	6.47	13.9	16.7
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	SR4	13:20	Bottom	3	2	26.9	7.75	21.9	6.49	14.9	17.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Surface	1	1	27.2	7.67	21.9	6.57	11.7	15.2
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Surface	1	2	27.1	7.71	21.8	6.6	12.5	17.5
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Bottom	3	1	27.1	7.75	21.9	6.34	13.2	15.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS8	12:54	Bottom	3	2	27.1	7.72	22	6.37	13.6	19
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Surface	1	1	27	7.69	21.9	6.53	11.2	14.6
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Surface	1	2	27.1	7.71	22	6.51	11.9	14.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Middle	2	1	27.1	7.67	22.2	6.49	12.9	16.8
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Middle	2	2	27	7.69	22.1	6.46	12.4	19.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Bottom	3	1	27	7.72	22.4	6.14	14.5	18.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)16	12:28	Bottom	3	2	26.9	7.7	22.5	6.18	15.2	24.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Surface	1	1	27.2	7.63	21.8	6.64	9.95	14.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Surface	1	2	27.2	7.66	21.9	6.61	10	16

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	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Middle	2	1						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Middle	2	2						
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Bottom	3	1	27.1	7.68	22	6.37	11.9	17.9
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	IS(Mf)9	12:02	Bottom	3	2	27	7.71	22.1	6.39	11.1	16.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Surface	1	1	27.1	7.76	21.6	6.74	12.7	20.3
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Surface	1	2	27	7.77	21.5	6.71	12.3	18.5
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Middle	2	1	26.9	7.74	21.8	6.58	14	22.4
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Middle	2	2	27	7.78	21.7	6.61	14.7	17.6
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Bottom	3	1	26.9	7.79	22.2	6.44	17.4	26.1
TMCLKL	HY/2012/07	02-06-2015	Mid-Ebb	CS(Mf)5	14:16	Bottom	3	2	26.8	7.76	22.3	6.47	18.6	22.3
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Surface	1	1	27.4	7.73	21.8	6.74	8.76	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Surface	1	2	27.3	7.78	21.8	6.71	8.93	12.7
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Middle	2	1	27.3	7.71	22	6.58	8.24	11.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Middle	2	2	27.2	7.74	22.1	6.55	8.33	11.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Bottom	3	1	27.1	7.76	22.4	6.26	8.85	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)5	7:25	Bottom	3	2	27.1	7.79	22.5	6.29	9.01	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Surface	1	1	27.4	7.68	21.6	6.58	8.77	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Surface	1	2	27.4	7.71	21.7	6.61	8.7	12.2
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Bottom	3	1	27.4	7.73	21.8	6.4	8.44	12.1
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4a	7:46	Bottom	3	2	27.3	7.76	21.9	6.43	8.53	12
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Surface	1	1	27.4	7.66	21.7	6.67	8.92	12.7
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Surface	1	2	27.5	7.69	21.8	6.64	8.84	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Bottom	3	1	27.4	7.71	21.9	6.55	9.36	13.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	SR4	7:58	Bottom	3	2	27.3	7.74	22	6.51	9.42	13.1
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Surface	1	1	27.4	7.68	21.7	6.72	9.05	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Surface	1	2	27.4	7.71	21.8	6.69	8.91	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Bottom	3	1	27.4	7.74	21.9	6.52	9.16	13.2
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS8	8:10	Bottom	3	2	27.3	7.76	21.9	6.48	9.24	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Surface	1	1	27.4	7.73	21.8	6.58	8.69	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Surface	1	2	27.5	7.76	21.9	6.61	8.75	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Middle	2	1	27.4	7.71	22.1	6.49	8.93	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	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Middle	2	2	27.4	7.74	22.1	6.46	8.86	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Bottom	3	1	27.3	7.69	22.3	6.23	10.3	14.9
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)16	8:24	Bottom	3	2	27.3	7.72	22.4	6.26	9.94	14.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Surface	1	1	27.4	7.73	21.7	6.53	8.93	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Surface	1	2	27.5	7.76	21.8	6.5	9.01	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Bottom	3	1	27.4	7.78	22	6.38	8.76	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	IS(Mf)9	8:40	Bottom	3	2	27.4	7.79	21.9	6.41	8.83	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Surface	1	1	27.5	7.76	21.8	6.67	9.07	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Surface	1	2	27.5	7.79	21.9	6.64	9	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Middle	2	1	27.4	7.81	22.2	6.53	8.85	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Middle	2	2	27.5	7.83	22.3	6.5	8.9	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Bottom	3	1	27.3	7.8	22.6	6.33	10.4	14.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Flood	CS(Mf)3	8:52	Bottom	3	2	27.2	7.84	22.7	6.31	11.2	15.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Surface	1	1	27.6	7.82	21.9	6.58	9.13	13.2
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Surface	1	2	27.6	7.85	22	6.55	9.06	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Middle	2	1	27.5	7.87	22.4	6.44	8.91	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Middle	2	2	27.6	7.89	22.3	6.41	8.96	12.9
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Bottom	3	1	27.4	7.86	22.7	6.24	11	15.9
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)3	12:20	Bottom	3	2	27.3	7.9	22.8	6.22	11.8	16.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Surface	1	1	27.4	7.74	21.7	6.49	8.83	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Surface	1	2	27.5	7.77	21.8	6.52	8.76	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Bottom	3	1	27.5	7.79	21.9	6.31	8.5	12
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4a	14:30	Bottom	3	2	27.4	7.82	22	6.34	8.59	12.3
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Surface	1	1	27.6	7.72	21.8	6.58	8.98	12.9
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Surface	1	2	27.5	7.75	21.9	6.55	8.9	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Bottom	3	1	27.4	7.77	22	6.46	9.42	13.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	SR4	14:04	Bottom	3	2	27.5	7.8	22.1	6.42	9.48	13.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS8	13:38	Surface	1	1	27.5	7.74	21.9	6.63	9.11	12.9
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS8	13:38	Surface	1	2	27.4	7.75	21.9	6.6	8.97	12.8
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS8	13:38	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS8	13:38	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	04-06-2015	Mid-Ebb	IS8	13:38	Bottom	3	1	27.3	7.8	21.9	6.43	9.22	13.3
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS8	13:38	Bottom	3	2	27.2	7.82	22	6.39	9.3	13.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Surface	1	1	27.6	7.79	21.9	6.49	8.75	12.5
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Surface	1	2	27.5	7.82	22	6.52	8.81	12.7
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Middle	2	1	27.4	7.77	22.1	6.4	8.99	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Middle	2	2	27.5	7.8	22.2	6.37	8.92	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Bottom	3	1	27.4	7.75	22.5	6.14	10.9	15.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)16	13:12	Bottom	3	2	27.3	7.78	22.4	6.17	10	14.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Surface	1	1	27.6	7.79	21.8	6.44	8.99	12.7
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Surface	1	2	27.5	7.82	21.9	6.41	9.07	13
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Middle	2	1						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Middle	2	2						
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Bottom	3	1	27.4	7.84	22.1	6.29	8.82	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	IS(Mf)9	12:46	Bottom	3	2	27.5	7.85	22	6.32	8.89	12.7
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Surface	1	1	27.5	7.79	21.8	6.65	8.82	12.4
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Surface	1	2	27.4	7.84	21.9	6.62	8.99	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Middle	2	1	27.4	7.77	22.1	6.49	8.3	12
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Middle	2	2	27.3	7.8	22.2	6.46	8.39	12
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Bottom	3	1	27.1	7.82	22.5	6.17	8.91	12.6
TMCLKL	HY/2012/07	04-06-2015	Mid-Ebb	CS(Mf)5	15:00	Bottom	3	2	27.2	7.85	22.6	6.2	9.07	13
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Surface	1	1	27.8	7.7	21.6	6.66	9.04	14.5
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Surface	1	2	27.8	7.74	21.6	6.68	8.92	14.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Middle	2	1	27.6	7.79	21.9	6.53	9.21	11.1
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Middle	2	2	27.6	7.75	21.8	6.49	9.17	14.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Bottom	3	1	27.4	7.88	22.2	6.35	9.64	14.5
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)5	8:00	Bottom	3	2	27.4	7.84	22.2	6.39	9.58	15.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Surface	1	1	27.7	7.75	21.5	6.59	8.84	12.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Surface	1	2	27.7	7.73	21.5	6.61	8.79	14.1
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Bottom	3	1	27.5	7.86	21.8	6.45	8.54	12.8
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4a	8:25	Bottom	3	2	27.6	7.88	21.8	6.41	8.48	11
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4	8:40	Surface	1	1	27.6	7.76	21.4	6.59	9.01	11.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4	8:40	Surface	1	2	27.7	7.74	21.4	6.63	8.95	12.5
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4	8:40	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4	8:40	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	SR4	8:40	Bottom	3	1	27.6	7.8	21.5	6.41	8.65	12.1

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	06-06-2015	Mid-Flood	SR4	8:40	Bottom	3	2	27.6	7.78	21.5	6.43	8.61	11.2
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Surface	1	1	27.6	7.78	21.3	6.61	8.7	11.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Surface	1	2	27.6	7.76	21.3	6.65	8.74	11.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Bottom	3	1	27.5	7.84	21.5	6.41	8.57	12.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS8	8:53	Bottom	3	2	27.5	7.82	21.5	6.45	8.49	12.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Surface	1	1	27.6	7.86	21.3	6.49	9.29	13.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Surface	1	2	27.6	7.9	21.3	6.53	9.19	14.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Middle	2	1	27.5	7.84	21.5	6.33	9.57	12.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Middle	2	2	27.5	7.86	21.5	6.37	9.49	11.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Bottom	3	1	27.4	7.82	21.7	6.11	9.8	13.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)16	9:10	Bottom	3	2	27.4	7.8	21.7	6.09	9.76	14.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Surface	1	1	27.7	7.81	21.4	6.41	9.52	11.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Surface	1	2	27.7	7.83	21.4	6.45	9.46	15.1
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Bottom	3	1	27.5	7.86	21.7	6.31	9.76	15.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	IS(Mf)9	9:30	Bottom	3	2	27.5	7.88	21.7	6.29	9.7	15.5
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Surface	1	1	27.7	7.76	21.4	6.48	9.8	11.8
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Surface	1	2	27.7	7.72	21.4	6.52	9.74	15.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Middle	2	1	27.5	7.74	21.7	6.38	9.4	11.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Middle	2	2	27.5	7.7	21.7	6.4	9.36	12.2
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Bottom	3	1	27.4	7.74	22	6.2	9.96	14.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Flood	CS(Mf)3	9:55	Bottom	3	2	27.4	7.7	22	6.24	9.9	14.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Surface	1	1	27.6	7.74	21.4	6.46	9.84	12.8
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Surface	1	2	27.5	7.78	21.5	6.41	9.73	15.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Middle	2	1	27.5	7.73	21.7	6.35	9.43	12.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Middle	2	2	27.5	7.7	21.7	6.32	9.36	15
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Bottom	3	1	27.3	7.76	22.1	6.19	9.92	15.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)3	13:45	Bottom	3	2	27.3	7.78	22.1	6.15	10.1	14.1
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Surface	1	1	27.6	7.78	21.5	6.54	8.86	14.2
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Surface	1	2	27.5	7.8	21.6	6.51	8.93	13.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Bottom	3	1	27.5	7.83	21.8	6.39	8.6	11.2
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4a	15:15	Bottom	3	2	27.4	7.85	21.9	6.36	8.56	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	06-06-2015	Mid-Ebb	SR4	14:59	Surface	1	1	27.5	7.72	21.4	6.6	9.04	13.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4	14:59	Surface	1	2	27.6	7.77	21.5	6.57	8.92	11.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4	14:59	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4	14:59	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4	14:59	Bottom	3	1	27.5	7.81	21.6	6.4	8.67	10.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	SR4	14:59	Bottom	3	2	27.4	7.78	21.5	6.37	8.74	14
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Surface	1	1	27.5	7.76	21.4	6.58	8.76	14
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Surface	1	2	27.4	7.79	21.4	6.55	8.84	13.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Bottom	3	1	27.4	7.82	21.5	6.39	8.59	12.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS8	14:43	Bottom	3	2	27.3	7.83	21.6	6.34	8.66	11.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Surface	1	1	27.5	7.88	21.3	6.47	9.27	13.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Surface	1	2	27.5	7.9	21.4	6.44	9.35	12.2
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Middle	2	1	27.5	7.83	21.5	6.32	9.6	14.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Middle	2	2	27.4	7.85	21.5	6.29	9.52	12.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Bottom	3	1	27.4	7.81	21.7	6.07	9.84	12.8
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)16	14:22	Bottom	3	2	27.3	7.8	21.8	6.09	9.92	12.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Surface	1	1	27.6	7.83	21.5	6.38	9.56	14.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Surface	1	2	27.6	7.8	21.5	6.35	9.52	13.5
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Middle	2	1						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Middle	2	2						
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Bottom	3	1	27.5	7.84	21.8	6.27	9.8	12.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	IS(Mf)9	14:07	Bottom	3	2	27.5	7.88	21.8	6.25	9.71	14.6
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Surface	1	1	27.6	7.74	21.7	6.63	9.07	12.7
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Surface	1	2	27.6	7.77	21.6	6.61	8.91	13.4
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Middle	2	1	27.5	7.78	21.9	6.48	9.24	12.9
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Middle	2	2	27.5	7.8	21.9	6.45	9.31	14
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Bottom	3	1	27.3	7.84	22.2	6.33	9.57	15.3
TMCLKL	HY/2012/07	06-06-2015	Mid-Ebb	CS(Mf)5	15:40	Bottom	3	2	27.3	7.81	22.3	6.29	9.66	14.5
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Surface	1	1	27.4	7.72	21.5	6.78	8.92	11.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Surface	1	2	27.5	7.73	21.6	6.74	8.96	11.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Middle	2	1	27.5	7.8	21.9	6.37	9.54	15.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Middle	2	2	27.4	7.79	21.9	6.34	9.5	14.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Bottom	3	1	27.4	7.87	22.1	6.3	9.7	15.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)5	10:50	Bottom	3	2	27.3	7.85	22.2	6.36	9.74	13.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Surface	1	1	27.5	7.74	21.6	6.69	9.04	12.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Surface	1	2	27.5	7.75	21.6	6.73	9.09	10.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Bottom	3	1	27.3	7.79	21.7	6.38	9.39	12.2
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4a	11:20	Bottom	3	2	27.3	7.8	21.8	6.35	9.44	12.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Surface	1	1	27.5	7.79	21.5	6.44	9.12	10.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Surface	1	2	27.6	7.77	21.6	6.4	9.07	10.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Bottom	3	1	27.3	7.8	21.7	6.22	9.77	12.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	SR4	11:45	Bottom	3	2	27.3	7.82	21.7	6.18	9.71	12.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Surface	1	1	27.6	7.79	21.5	6.51	9.43	13.2
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Surface	1	2	27.6	7.79	21.4	6.55	9.49	14.2
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Bottom	3	1	27.4	7.84	21.9	6.27	9.94	13.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS8	12:10	Bottom	3	2	27.3	7.85	21.9	6.24	9.9	12.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Surface	1	1	27.6	7.81	21.6	6.82	9.06	11.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Surface	1	2	27.6	7.81	21.7	6.78	9.02	11.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Middle	2	1	27.3	7.84	21.9	6.64	9.53	14.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Middle	2	2	27.2	7.85	22	6.67	9.5	15.2
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Bottom	3	1	27.2	7.88	22.2	6.3	9.69	12.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)16	12:35	Bottom	3	2	27.2	7.87	22.2	6.34	9.65	13.5
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Surface	1	1	27.6	7.82	21.6	6.59	9.21	13.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Surface	1	2	27.6	7.84	21.5	6.57	9.17	12
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Bottom	3	1	27.4	7.89	21.9	6.33	9.98	14
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	IS(Mf)9	12:55	Bottom	3	2	27.5	7.87	21.8	6.36	9.95	14.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Surface	1	1	27.6	7.78	21.7	6.74	8.96	11.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Surface	1	2	27.5	7.8	21.6	6.77	8.92	12.5
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Middle	2	1	27.3	7.85	22	6.26	9.89	12.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Middle	2	2	27.4	7.89	22	6.22	9.85	11.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Bottom	3	1	27.3	7.8	22.3	6.21	9.9	14.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Flood	CS(Mf)3	13:10	Bottom	3	2	27.3	7.84	22.2	6.24	9.94	14.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Surface	1	1	27.7	7.84	21.7	6.65	9.02	12.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Surface	1	2	27.6	7.86	21.8	6.68	8.98	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	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Middle	2	1	27.4	7.91	22.1	6.17	9.95	15.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Middle	2	2	27.5	7.95	22	6.13	9.91	15.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Bottom	3	1	27.4	7.86	22.3	6.12	9.96	15.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)3	16:23	Bottom	3	2	27.4	7.9	22.4	6.15	9.99	13
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Surface	1	1	27.6	7.8	21.6	6.6	9.1	14.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Surface	1	2	27.5	7.81	21.7	6.64	9.15	13.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Bottom	3	1	27.4	7.85	21.8	6.29	9.45	14.2
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4a	18:13	Bottom	3	2	27.3	7.86	21.9	6.26	9.5	14.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Surface	1	1	27.6	7.85	21.6	6.35	9.18	11.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Surface	1	2	27.7	7.83	21.7	6.31	9.13	11.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Bottom	3	1	27.4	7.86	21.7	6.13	9.83	14.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	SR4	17:51	Bottom	3	2	27.3	7.88	21.8	6.09	9.77	13.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Surface	1	1	27.6	7.85	21.5	6.42	9.49	11.4
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Surface	1	2	27.7	7.84	21.6	6.46	9.55	12.4
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Bottom	3	1	27.5	7.9	21.9	6.18	10	12
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS8	17:29	Bottom	3	2	27.4	7.91	22	6.15	9.96	12.9
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Surface	1	1	27.7	7.87	21.7	6.73	9.12	13.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Surface	1	2	27.6	7.88	21.8	6.69	9.08	11.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Middle	2	1	27.3	7.9	22	6.55	9.59	11.5
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Middle	2	2	27.4	7.91	22.1	6.58	9.56	12.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Bottom	3	1	27.3	7.94	22.3	6.21	9.75	13.7
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)16	17:07	Bottom	3	2	27.2	7.93	22.2	6.25	9.71	12.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Surface	1	1	27.6	7.88	21.6	6.5	9.27	12.1
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Surface	1	2	27.7	7.9	21.7	6.48	9.23	12
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Middle	2	1						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Middle	2	2						
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Bottom	3	1	27.6	7.95	22	6.24	10.4	14.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	IS(Mf)9	16:45	Bottom	3	2	27.5	7.93	21.9	6.27	10.1	14.1
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Surface	1	1	27.6	7.78	21.6	6.69	8.98	10.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Surface	1	2	27.5	7.79	21.7	6.65	9.02	12.6
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Middle	2	1	27.5	7.86	21.9	6.28	9.6	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	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Middle	2	2	27.5	7.85	22	6.25	9.56	11.3
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Bottom	3	1	27.5	7.93	22.2	6.21	9.83	13.8
TMCLKL	HY/2012/07	09-06-2015	Mid-Ebb	CS(Mf)5	18:35	Bottom	3	2	27.4	7.91	22.3	6.27	9.8	12.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Surface	1	1	27.8	7.86	21.9	6.68	9.06	12.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Surface	1	2	27.9	7.89	21.8	6.72	9.02	12.6
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Middle	2	1	27.6	7.93	22.2	6.43	9.56	12.4
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Middle	2	2	27.7	7.96	22.1	6.48	9.59	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Bottom	3	1	27.4	7.99	22.6	6.2	9.79	14.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)5	12:47	Bottom	3	2	27.5	8.02	22.7	6.23	9.81	13.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Surface	1	1	27.8	7.93	22	6.57	9.02	11.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Surface	1	2	27.7	7.94	22.1	6.54	9.07	11.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Bottom	3	1	27.6	7.96	22.2	6.36	9.3	12.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4a	13:10	Bottom	3	2	27.5	7.99	22.3	6.32	9.38	13
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Surface	1	1	27.9	7.93	22	6.38	9.11	12.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Surface	1	2	27.8	7.96	22.1	6.34	9.08	10.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Bottom	3	1	27.7	7.99	22.3	6.24	9.38	14.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	SR4	13:28	Bottom	3	2	27.8	8.02	22.2	6.2	9.3	12.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Surface	1	1	27.9	7.93	21.8	6.42	9.32	13
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Surface	1	2	27.8	7.95	21.9	6.47	9.37	13.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Bottom	3	1	27.7	7.98	22	6.32	9.41	14.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS8	13:46	Bottom	3	2	27.6	7.97	22.1	6.29	9.48	15.2
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Surface	1	1	27.8	7.9	22	6.78	9.12	13.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Surface	1	2	27.9	7.92	22.1	6.74	9.07	13.6
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Middle	2	1	27.6	7.98	22.3	6.54	9.32	11.2
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Middle	2	2	27.7	7.95	22.4	6.59	9.37	11.2
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Bottom	3	1	27.4	8.03	22.6	6.34	9.62	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)16	14:04	Bottom	3	2	27.5	8.06	22.7	6.31	9.56	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)9	14:27	Surface	1	1	28	7.97	22.1	6.6	9.24	12
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)9	14:27	Surface	1	2	27.9	7.99	22.2	6.54	9.19	12.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)9	14:27	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)9	14:27	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	11-06-2015	Mid-Flood	IS(Mf)9	14:27	Bottom	3	1	27.8	8.04	22.3	6.41	9.45	15.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	IS(Mf)9	14:27	Bottom	3	2	27.9	8.09	22.2	6.37	9.49	14.2
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Surface	1	1	27.9	7.95	22	6.71	8.92	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Surface	1	2	27.9	7.98	21.9	6.65	8.97	10.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Middle	2	1	27.6	7.99	22.3	6.48	9.34	14
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Middle	2	2	27.7	8.02	22.2	6.43	9.37	13.2
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Bottom	3	1	27.6	8.06	22.5	6.21	9.62	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Flood	CS(Mf)3	14:48	Bottom	3	2	27.5	8.05	22.6	6.26	9.67	14.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	1	27.8	7.9	21.8	6.56	9.08	14.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	2	27.7	7.92	21.9	6.59	9.04	14.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	1	27.5	7.97	22.2	6.08	10.1	12.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	2	27.6	8.01	22.1	6.04	9.97	13
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	1	27.5	7.92	22.4	6.03	10.2	13.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	2	27.4	7.96	22.5	6.06	10.5	14.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Surface	1	1	27.6	7.86	21.8	6.51	9.16	12.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Surface	1	2	27.7	7.87	21.7	6.55	9.21	11.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Bottom	3	1	27.5	7.91	21.9	6.2	9.51	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4a	10:00	Bottom	3	2	27.4	7.92	22	6.17	9.56	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Surface	1	1	27.8	7.91	21.7	6.26	9.24	12.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Surface	1	2	27.7	7.89	21.8	6.22	9.19	11.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Bottom	3	1	27.5	7.92	21.9	6.04	9.89	13.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	SR4	9:39	Bottom	3	2	27.4	7.94	21.8	6	9.83	11.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Surface	1	1	27.8	7.91	21.6	6.33	9.55	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Surface	1	2	27.7	7.9	21.7	6.37	9.61	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Bottom	3	1	27.6	7.96	22	6.09	10.6	13.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS8	9:18	Bottom	3	2	27.5	7.97	22.1	6.06	10.2	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Surface	1	1	27.8	7.93	21.8	6.64	9.18	11
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Surface	1	2	27.7	7.94	21.9	6.6	9.14	12.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Middle	2	1	27.4	7.96	22.1	6.46	9.65	14.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Middle	2	2	27.5	7.97	22.2	6.49	9.62	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Bottom	3	1	27.4	8	22.4	6.12	9.81	13.7



Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)16	8:57	Bottom	3	2	27.3	7.99	22.3	6.16	9.77	13.7
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Surface	1	1	27.8	7.94	21.8	6.41	9.33	12.1
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Surface	1	2	27.8	7.96	21.7	6.39	9.29	13.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Middle	2	1						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Middle	2	2						
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Bottom	3	1	27.6	8.01	22	6.15	11	14.3
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	IS(Mf)9	8:36	Bottom	3	2	27.7	7.99	22.1	6.18	10.7	13.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Surface	1	1	27.6	7.84	21.8	6.6	9.04	13.6
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Surface	1	2	27.7	7.85	21.7	6.56	9.08	11.8
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Middle	2	1	27.6	7.92	22	6.19	9.66	11.6
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Middle	2	2	27.5	7.91	22.1	6.16	9.62	12.5
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Bottom	3	1	27.4	7.99	22.3	6.12	9.89	12.9
TMCLKL	HY/2012/07	11-06-2015	Mid-Ebb	CS(Mf)5	10:23	Bottom	3	2	27.5	7.97	22.4	6.18	9.86	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Surface	1	1	27.6	7.8	22.4	6.84	7.97	11.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Surface	1	2	27.5	7.78	22.3	6.8	7.94	11.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Middle	2	1	27.2	7.84	22.8	6.53	8.94	11.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Middle	2	2	27.3	7.82	22.9	6.57	8.98	12.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Bottom	3	1	27.2	7.89	22.9	6.31	9.06	13.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)5	15:15	Bottom	3	2	27.1	7.87	23	6.34	9.01	13.5
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Surface	1	1	27.7	7.83	22.4	6.44	8.54	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Surface	1	2	27.8	7.82	22.4	6.48	8.5	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Bottom	3	1	27.5	7.85	22.8	6.17	9.38	12.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4a	15:45	Bottom	3	2	27.4	7.86	22.7	6.14	9.35	11
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Surface	1	1	27.8	7.86	22.5	6.46	8.43	11
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Surface	1	2	27.8	7.88	22.5	6.43	8.4	10.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Bottom	3	1	27.3	7.89	22.8	6.26	8.98	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	SR4	16:10	Bottom	3	2	27.4	7.87	22.8	6.23	8.92	13.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Surface	1	1	27.7	7.9	22.5	6.57	8.67	12.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Surface	1	2	27.8	7.89	22.4	6.54	8.61	13.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Bottom	3	1	27.4	7.92	22.8	6.18	9.02	13.5
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS8	16:35	Bottom	3	2	27.3	7.94	22.9	6.22	9.06	14.8

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	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Surface	1	1	27.7	7.95	22.5	6.69	8.87	12.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Surface	1	2	27.8	7.97	22.6	6.65	8.83	10.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Middle	2	1	27.5	7.98	22.8	6.27	9.12	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Middle	2	2	27.4	7.95	22.9	6.29	9.06	13.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Bottom	3	1	27.2	7.99	23	6.2	9.33	14.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)16	17:00	Bottom	3	2	27.2	8.01	23.1	6.24	9.3	14.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Surface	1	1	27.7	7.94	22.4	6.74	7.79	10.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Surface	1	2	27.6	7.94	22.5	6.7	7.75	10.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Bottom	3	1	27.4	7.98	22.8	6.25	8.57	11.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	IS(Mf)9	17:20	Bottom	3	2	27.4	7.95	22.8	6.21	8.5	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Surface	1	1	27.7	7.97	22.6	6.89	8.24	10.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Surface	1	2	27.7	7.99	22.6	6.86	8.2	9.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Middle	2	1	27.3	8.01	22.9	6.43	8.96	12.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Middle	2	2	27.3	8.03	23	6.46	8.92	11.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Bottom	3	1	27.2	8.04	23.1	6.36	9.3	14.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Flood	CS(Mf)3	17:35	Bottom	3	2	27.2	8.04	23.1	6.32	9.34	14
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Surface	1	1	27.8	8.03	22.6	6.8	8.3	10.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Surface	1	2	27.7	8.04	22.7	6.77	8.26	9.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Middle	2	1	27.3	8.07	23.1	6.34	9.02	13.5
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Middle	2	2	27.4	8.09	23	6.37	8.96	13.5
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Bottom	3	1	27.3	8.1	23.1	6.27	9.36	13
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)3	9:26	Bottom	3	2	27.2	8.09	23.2	6.23	9.4	12.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Surface	1	1	27.9	7.89	22.4	6.35	8.6	12.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Surface	1	2	27.8	7.88	22.5	6.39	8.56	13.7
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Bottom	3	1	27.6	7.91	22.8	6.08	9.44	13.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4a	11:36	Bottom	3	2	27.5	7.92	22.9	6.05	9.41	13.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Surface	1	1	27.8	7.92	22.6	6.37	8.49	11
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Surface	1	2	27.9	7.94	22.5	6.34	8.46	13.5
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Bottom	3	1	27.4	7.95	22.8	6.17	9.04	11.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	SR4	11:10	Bottom	3	2	27.3	7.93	22.9	6.14	8.98	11.7
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS8	10:44	Surface	1	1	27.9	7.96	22.5	6.48	8.73	10.5

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	13-06-2015	Mid-Ebb	IS8	10:44	Surface	1	2	27.8	7.95	22.6	6.45	8.67	11.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS8	10:44	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS8	10:44	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS8	10:44	Bottom	3	1	27.5	7.98	22.9	6.09	9.08	10.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS8	10:44	Bottom	3	2	27.4	8	23	6.13	9.12	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Surface	1	1	27.8	8.01	22.7	6.6	8.93	11.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Surface	1	2	27.9	8.03	22.6	6.56	8.89	12.4
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Middle	2	1	27.5	8.04	23	6.18	9.18	13.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Middle	2	2	27.6	8.01	22.9	6.2	9.12	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Bottom	3	1	27.3	8.05	23.1	6.11	9.39	13.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)16	10:18	Bottom	3	2	27.2	8.07	23.2	6.15	9.36	14
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Surface	1	1	27.7	8	22.5	6.65	7.85	11
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Surface	1	2	27.8	7.99	22.6	6.61	7.81	10.9
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Middle	2	1						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Middle	2	2						
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Bottom	3	1	27.4	8.04	22.8	6.16	8.63	13.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	IS(Mf)9	9:52	Bottom	3	2	27.5	8.01	22.9	6.12	8.56	12.1
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Surface	1	1	27.7	7.86	22.4	6.75	8.03	11.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Surface	1	2	27.6	7.84	22.5	6.71	8	11.2
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Middle	2	1	27.3	7.9	22.9	6.44	9	11.7
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Middle	2	2	27.4	7.88	23	6.48	9.04	13.6
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Bottom	3	1	27.3	7.95	23.1	6.22	9.12	12.8
TMCLKL	HY/2012/07	13-06-2015	Mid-Ebb	CS(Mf)5	12:06	Bottom	3	2	27.2	7.93	23	6.25	9.07	13.6
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Surface	1	1	27.7	7.75	22.7	6.67	9.4	14.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Surface	1	2	27.8	7.76	22.6	6.65	9.47	14.2
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Middle	2	1	27.7	7.72	22.9	6.46	9.87	13.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Middle	2	2	27.6	7.74	23	6.48	9.75	13.7
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Bottom	3	1	27.5	7.75	23.2	6.23	10.7	15
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)5	18:07	Bottom	3	2	27.6	7.79	23.3	6.26	11.6	13.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Surface	1	1	27.8	7.85	22.4	6.59	9.55	12.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Surface	1	2	27.7	7.88	22.5	6.54	9.68	11.6
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Bottom	3	1	27.7	7.82	22.8	6.36	9.91	12.7
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4a	18:29	Bottom	3	2	27.6	7.85	22.7	6.39	9.83	12.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4	18:51	Surface	1	1	27.8	7.75	22.3	6.44	9.14	13.7
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4	18:51	Surface	1	2	27.7	7.79	22.4	6.47	9.22	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	16-06-2015	Mid-Flood	SR4	18:51	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4	18:51	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4	18:51	Bottom	3	1	27.6	7.82	22.5	6.29	9.51	11.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	SR4	18:51	Bottom	3	2	27.7	7.85	22.6	6.26	9.6	13.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Surface	1	1	27.7	7.84	22.2	6.51	8.84	12.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Surface	1	2	27.8	7.8	22.3	6.49	8.96	13.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Bottom	3	1	27.7	7.86	22.4	6.35	9.18	11
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS8	19:13	Bottom	3	2	27.6	7.89	22.5	6.31	9.26	13
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Surface	1	1	27.8	7.89	22.3	6.57	9.57	12.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Surface	1	2	27.8	7.91	22.4	6.54	9.49	15.2
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Middle	2	1	27.6	7.87	22.7	6.43	9.15	12.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Middle	2	2	27.7	7.89	22.6	6.41	9.01	13.5
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Bottom	3	1	27.6	7.93	22.9	6.3	9.3	13
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)16	19:35	Bottom	3	2	27.5	7.9	23	6.28	10.2	13.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Surface	1	1	27.7	7.95	22.5	6.43	9.34	12.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Surface	1	2	27.6	7.97	22.4	6.46	9.42	12.2
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Bottom	3	1	27.6	7.93	22.7	6.32	9.84	13.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	IS(Mf)9	19:57	Bottom	3	2	27.5	7.95	22.8	6.34	9.91	12.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Surface	1	1	27.7	7.9	22.3	6.5	9.75	15.6
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Surface	1	2	27.8	7.93	22.4	6.53	9.87	14.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Middle	2	1	27.6	7.88	22.6	6.41	9.93	13.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Middle	2	2	27.5	7.91	22.7	6.37	10	12
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Bottom	3	1	27.4	7.94	22.9	6.22	11.3	17
TMCLKL	HY/2012/07	16-06-2015	Mid-Flood	CS(Mf)3	20:21	Bottom	3	2	27.5	7.96	23	6.25	11.9	17.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Surface	1	1	27.6	7.84	22.3	6.44	9.84	14.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Surface	1	2	27.6	7.87	22.2	6.47	9.96	14.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Middle	2	1	27.5	7.82	22.5	6.35	10.2	15.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Middle	2	2	27.5	7.85	22.6	6.31	10.9	15.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Bottom	3	1	27.4	7.88	22.8	6.16	12.2	18.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)3	10:10	Bottom	3	2	27.3	7.9	23	6.19	12.8	15.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4a	12:00	Surface	1	1	27.7	7.79	22.4	6.53	9.64	12.5
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4a	12:00	Surface	1	2	27.6	7.82	22.4	6.48	9.77	13.7
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4a	12:00	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	16-06-2015	Mid-Ebb	SR4a	12:00	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4a	12:00	Bottom	3	1	27.6	7.76	22.7	6.3	10	15
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4a	12:00	Bottom	3	2	27.5	7.79	22.6	6.33	9.92	14.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Surface	1	1	27.7	7.69	22.3	6.38	9.23	11.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Surface	1	2	27.7	7.73	22.2	6.41	9.31	14
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Bottom	3	1	27.6	7.76	22.5	6.23	9.6	13.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	SR4	11:40	Bottom	3	2	27.6	7.79	22.5	6.2	9.69	11.6
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Surface	1	1	27.7	7.78	22.2	6.45	8.93	10.7
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Surface	1	2	27.7	7.74	22.1	6.43	9.05	11.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Bottom	3	1	27.6	7.8	22.3	6.29	9.27	14.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS8	11:20	Bottom	3	2	27.6	7.83	22.5	6.25	9.35	13.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Surface	1	1	27.6	7.83	22.3	6.51	9.66	13.5
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Surface	1	2	27.7	7.85	22.3	6.48	9.58	13.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Middle	2	1	27.6	7.81	22.5	6.37	9.24	13.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Middle	2	2	27.6	7.83	22.6	6.35	9.3	14
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Bottom	3	1	27.5	7.87	22.9	6.24	10.2	13.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)16	10:55	Bottom	3	2	27.5	7.84	22.9	6.22	11.1	13.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Surface	1	1	27.6	7.89	22.3	6.37	9.43	15.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Surface	1	2	27.6	7.91	22.4	6.4	9.51	11.4
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Middle	2	1						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Middle	2	2						
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Bottom	3	1	27.6	7.87	22.7	6.26	9.93	14.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	IS(Mf)9	10:35	Bottom	3	2	27.5	7.89	22.6	6.28	10	14
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Surface	1	1	27.7	7.67	22.5	6.61	9.49	12.3
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Surface	1	2	27.7	7.7	22.6	6.57	9.56	11.5
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Middle	2	1	27.6	7.66	22.8	6.42	9.93	13.9
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Middle	2	2	27.6	7.68	22.9	6.39	9.84	14.8
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Bottom	3	1	27.5	7.69	23.2	6.17	11.6	15.1
TMCLKL	HY/2012/07	16-06-2015	Mid-Ebb	CS(Mf)5	12:27	Bottom	3	2	27.4	7.73	23.1	6.2	12.5	18.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Surface	1	1	27.5	7.81	22.6	6.91	10.3	12.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Surface	1	2	27.6	7.84	22.6	6.94	10.7	13.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Middle	2	1	27.7	7.79	22.8	6.74	10.3	13.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Middle	2	2	27.7	7.81	22.9	6.7	10.4	15.6

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	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Bottom	3	1	27.7	7.84	23.3	6.51	11.2	16.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)5	7:28	Bottom	3	2	27.6	7.86	23.2	6.47	11.4	16
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Surface	1	1	27.4	8.02	22.4	6.86	9.82	12.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Surface	1	2	27.5	8.06	22.5	6.8	9.89	12.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Bottom	3	1	27.3	7.98	22.6	6.72	10.1	13.1
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4a	7:44	Bottom	3	2	27.3	7.94	22.7	6.69	10.7	12.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Surface	1	1	27.6	7.68	22.6	6.7	10.4	13.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Surface	1	2	27.5	7.71	22.6	6.64	10.1	14.1
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Bottom	3	1	27.4	7.76	22.7	6.52	10.6	15.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	SR4	7:53	Bottom	3	2	27.5	7.78	22.6	6.57	10.2	16.3
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Surface	1	1	27.4	7.74	22.5	6.73	7.43	10.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Surface	1	2	27.5	7.7	22.6	6.78	7.51	10.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Bottom	3	1	27.3	7.68	22.7	6.62	7.11	11.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS8	8:02	Bottom	3	2	27.2	7.7	22.8	6.65	7.17	11.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Surface	1	1	27.6	7.73	22.3	6.88	9.74	14.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Surface	1	2	27.5	7.76	22.4	6.92	9.78	14.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Middle	2	1	27.4	7.7	22.6	6.68	9.92	11.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Middle	2	2	27.5	7.67	22.7	6.64	9.96	13.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Bottom	3	1	27.2	7.74	22.9	6.51	10.1	14.1
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)16	8:12	Bottom	3	2	27.1	7.77	23	6.53	9.93	12.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Surface	1	1	27.6	7.76	22.4	6.63	9.52	13.3
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Surface	1	2	27.5	7.79	22.4	6.65	9.58	12.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Bottom	3	1	27.4	7.69	22.6	6.51	9.73	14.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	IS(Mf)9	8:25	Bottom	3	2	27.3	7.72	22.7	6.57	9.78	14.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Surface	1	1	27.5	7.72	22.4	6.72	9.62	12.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Surface	1	2	27.4	7.76	22.5	6.75	9.66	13.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Middle	2	1	27.3	7.68	22.6	6.63	9.74	12.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Middle	2	2	27.4	7.72	22.5	6.66	9.64	13.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Bottom	3	1	27	7.76	22.8	6.34	10.7	13.9

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	18-06-2015	Mid-Flood	CS(Mf)3	8:37	Bottom	3	2	27.1	7.73	22.7	6.3	10.2	13.3
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Surface	1	1	27.7	7.76	22.5	6.68	10.9	14.2
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Surface	1	2	27.6	7.79	22.4	6.65	11.4	13.1
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Middle	2	1	27.6	7.81	22.7	6.47	8.96	10.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Middle	2	2	27.5	7.83	22.7	6.44	9.43	10.2
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Bottom	3	1	27.3	7.77	23.1	6.28	12.3	16.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)3	12:30	Bottom	3	2	27.3	7.78	23.1	6.25	13.6	17.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Surface	1	1	27.7	7.74	22.7	6.74	10.6	15.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Surface	1	2	27.8	7.8	22.8	6.71	11.2	16.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Bottom	3	1	27.7	7.72	23	6.63	11.7	17.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4a	14:12	Bottom	3	2	27.6	7.77	23.1	6.6	12.1	18.2
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Surface	1	1	27.8	7.64	22.7	6.61	12.9	16.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Surface	1	2	27.8	7.67	22.8	6.58	12.3	18.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Bottom	3	1	27.7	7.81	23	6.46	10.9	17.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	SR4	13:55	Bottom	3	2	27.7	7.74	23.1	6.41	11.5	17.3
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Surface	1	1	27.7	7.69	22.7	6.67	8.47	11.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Surface	1	2	27.8	7.71	22.7	6.63	7.99	10.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Bottom	3	1	27.7	7.54	23.1	6.5	7.21	10.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS8	13:37	Bottom	3	2	27.7	7.58	23.1	6.53	7.34	11
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Surface	1	1	27.7	7.67	22.6	6.74	9.84	15.7
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Surface	1	2	27.8	7.7	22.7	6.7	9.76	14.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Middle	2	1	27.7	7.63	22.9	6.59	9.46	13.2
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Middle	2	2	27.6	7.66	22.9	6.61	9.57	13.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Bottom	3	1	27.5	7.68	23.2	6.43	10.3	13.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)16	13:14	Bottom	3	2	27.5	7.7	23.3	6.4	10.9	14.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Surface	1	1	27.7	7.74	22.6	6.54	9.76	15.6
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Surface	1	2	27.7	7.71	22.5	6.51	9.87	15.8
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Middle	2	1						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Middle	2	2						
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Bottom	3	1	27.7	7.63	22.8	6.39	10.1	15.2
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	IS(Mf)9	12:55	Bottom	3	2	27.6	7.66	22.8	6.41	9.93	16.9

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	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Surface	1	1	27.8	7.79	22.8	6.83	9.94	12.9
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Surface	1	2	27.9	7.83	22.9	6.8	10.3	13.4
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Middle	2	1	27.7	7.74	23.1	6.67	9.57	11.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Middle	2	2	27.7	7.78	23.2	6.64	9.66	13.5
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Bottom	3	1	27.5	7.81	23.5	6.37	12.7	20.3
TMCLKL	HY/2012/07	18-06-2015	Mid-Ebb	CS(Mf)5	14:38	Bottom	3	2	27.4	7.77	23.6	6.4	134	20.1
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Surface	1	1	27.6	7.69	22.4	6.83	11.4	14.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Surface	1	2	27.7	7.66	22.5	6.8	10.8	13
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Middle	2	1	27.6	7.68	22.7	6.59	9.74	11.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Middle	2	2	27.5	7.71	22.8	6.54	9.81	12.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Bottom	3	1	27.4	7.77	23	6.27	14.3	21.5
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)5	7:46	Bottom	3	2	27.4	7.8	23.1	6.24	15.1	22.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Surface	1	1	27.7	7.76	22.3	6.59	14.2	17
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Surface	1	2	27.8	7.79	22.4	6.61	13.4	17.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Bottom	3	1	27.7	7.78	22.6	6.24	16.3	22.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4a	8:11	Bottom	3	2	27.7	7.8	22.7	6.2	15.5	20.2
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Surface	1	1	27.8	7.79	22.4	6.44	12.7	16.5
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Surface	1	2	27.8	7.81	22.5	6.4	13.4	17.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Bottom	3	1	27.8	7.82	22.7	6.23	14.9	22.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	SR4	8:29	Bottom	3	2	27.7	7.85	22.8	6.2	15.5	24.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Surface	1	1	27.8	7.8	22.5	6.52	10.2	13.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Surface	1	2	27.9	7.83	22.5	6.47	9.89	12.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Bottom	3	1	27.8	7.81	22.8	6.34	8.94	12.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS8	8:44	Bottom	3	2	27.8	7.84	22.8	6.31	9.13	13.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Surface	1	1	27.7	7.84	22.6	6.64	12.4	18.6
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Surface	1	2	27.8	7.88	22.6	6.6	11.7	16.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Middle	2	1	27.8	7.89	22.8	6.43	10.2	12.2
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Middle	2	2	27.8	7.91	22.9	6.39	10.8	13.2
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Bottom	3	1	27.9	7.93	25.1	6.18	12.7	16.5
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)16	9:03	Bottom	3	2	27.9	7.9	25.2	6.15	13.4	18.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Surface	1	1	27.8	7.81	22.6	6.54	10.7	13.9



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	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Surface	1	2	27.8	7.84	22.6	6.51	10	14
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Bottom	3	1	27.7	7.83	22.7	6.29	11.4	18.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	IS(Mf)9	9:25	Bottom	3	2	27.6	7.86	22.8	6.26	12.2	18.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Surface	1	1	27.8	7.89	22.7	6.84	12.4	18.6
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Surface	1	2	27.8	7.91	22.8	6.87	13.3	17.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Middle	2	1	27.6	7.93	23	6.49	10.2	15.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Middle	2	2	27.5	7.95	23	6.52	9.94	14.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Bottom	3	1	27.5	7.99	23.1	6.3	14.7	22.1
TMCLKL	HY/2012/07	20-06-2015	Mid-Flood	CS(Mf)3	9:47	Bottom	3	2	27.4	8.01	23.2	6.34	14.6	18.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Surface	1	1	27.9	7.94	22.7	6.71	11.5	15
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Surface	1	2	27.8	7.95	22.8	6.68	12	16.8
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Middle	2	1	27.5	7.98	23.1	6.25	9.02	11.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Middle	2	2	27.4	8	23.2	6.28	9.49	12.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Bottom	3	1	27.4	8.01	23.3	6.18	12.9	20.6
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)3	13:46	Bottom	3	2	27.3	8	23.2	6.14	14.2	19.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Surface	1	1	28	7.8	22.5	6.26	11.2	17.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Surface	1	2	27.9	7.79	22.6	6.3	11.8	17.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Bottom	3	1	27.6	7.82	22.8	5.99	12.3	18.5
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4a	15:36	Bottom	3	2	27.7	7.83	22.9	5.96	12.7	19.1
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Surface	1	1	27.9	7.83	22.6	6.28	13.5	18.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Surface	1	2	28	7.85	22.7	6.25	12.9	18.1
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Bottom	3	1	27.5	7.86	23	6.08	11.5	17
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	SR4	15:14	Bottom	3	2	27.5	7.84	22.9	6.05	12.1	18.2
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Surface	1	1	28	7.87	22.6	6.39	8.53	11.1
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Surface	1	2	27.9	7.86	22.7	6.36	8.05	11.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Bottom	3	1	27.6	7.89	23	6	7.27	11.6
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS8	14:52	Bottom	3	2	27.5	7.91	23.1	6.04	7.4	10.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Surface	1	1	27.9	7.92	22.7	6.51	9.9	14.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Surface	1	2	27.8	7.94	22.8	6.47	9.82	12.8

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	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Middle	2	1	27.7	7.95	23	6.09	9.52	12.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Middle	2	2	27.6	7.92	23.1	6.11	9.63	13.5
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Bottom	3	1	27.4	7.96	23.3	6.02	10.9	15.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)16	14:30	Bottom	3	2	27.5	7.98	23.2	6.06	11.5	15
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Surface	1	1	27.8	7.89	22.6	6.56	9.82	15.7
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Surface	1	2	27.9	7.9	22.7	6.52	9.93	14.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Middle	2	1						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Middle	2	2						
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Bottom	3	1	27.6	7.95	22.9	6.07	10.7	13.9
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	IS(Mf)9	14:08	Bottom	3	2	27.5	7.92	23	6.03	9.99	14
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Surface	1	1	27.8	7.77	22.6	6.66	10	15
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Surface	1	2	27.7	7.75	22.5	6.62	10.9	16.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Middle	2	1	27.4	7.81	23	6.35	9.63	14.4
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Middle	2	2	27.5	7.79	23.1	6.39	9.72	15.6
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Bottom	3	1	27.3	7.86	23.2	6.13	13.3	17.3
TMCLKL	HY/2012/07	20-06-2015	Mid-Ebb	CS(Mf)5	16:00	Bottom	3	2	27.4	7.84	23.1	6.16	14	21
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Surface	1	1	26.8	7.81	22.2	6.74	13.4	18.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Surface	1	2	26.9	7.77	22.1	6.7	14.1	19.7
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Middle	2	1	26.9	7.74	22.4	6.63	11.6	17.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Middle	2	2	27	7.7	22.3	6.61	12.2	18.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Bottom	3	1	27	7.71	22.8	6.43	18.9	24.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)5	9:50	Bottom	3	2	27.1	7.72	22.9	6.45	19.5	24.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Surface	1	1	26.7	7.72	21.9	6.53	12.2	18.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Surface	1	2	26.8	7.77	22	6.5	13	19.5
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Bottom	3	1	26.8	7.71	22.1	6.34	14.4	21.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4a	10:15	Bottom	3	2	26.8	7.73	22.2	6.31	15.2	22.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Surface	1	1	26.7	7.49	21.9	6.43	13.7	15.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Surface	1	2	26.7	7.53	21.9	6.46	14.2	16.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Bottom	3	1	26.7	7.7	22	6.27	15.5	21.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	SR4	10:32	Bottom	3	2	26.6	7.64	22	6.3	16.3	22.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS8	10:49	Surface	1	1	26.7	7.52	21.8	6.38	14.6	19.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS8	10:49	Surface	1	2	26.7	7.56	21.9	6.41	15.3	19.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS8	10:49	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	23-06-2015	Mid-Flood	IS8	10:49	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS8	10:49	Bottom	3	1	26.7	7.61	21.9	6.19	16.6	21.7
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS8	10:49	Bottom	3	2	26.7	7.66	22	6.22	16.9	22.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Surface	1	1	26.7	7.63	21.8	6.33	13.2	17.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Surface	1	2	26.8	7.6	21.8	6.37	13.9	18.1
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Middle	2	1	26.7	7.64	21.9	6.29	12.4	17.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Middle	2	2	26.7	7.67	22	6.24	11.9	17.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Bottom	3	1	26.7	7.7	22.3	6.08	16.6	24.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)16	11:08	Bottom	3	2	26.8	7.72	22.4	6.11	17.1	23.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Surface	1	1	26.6	7.64	21.8	6.32	14	19.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Surface	1	2	26.7	7.67	21.7	6.35	14.8	20.7
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Bottom	3	1	26.6	7.69	21.9	6.17	16.3	19.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	IS(Mf)9	11:30	Bottom	3	2	26.6	7.71	22	6.14	17	20.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Surface	1	1	26.7	7.72	21.8	6.64	14.3	18.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Surface	1	2	26.7	7.75	21.9	6.61	15	18
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Middle	2	1	26.7	7.64	22	6.55	12.9	18.1
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Middle	2	2	26.6	7.7	22	6.53	13.4	20.1
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Bottom	3	1	26.8	7.73	22.3	6.3	18.2	21.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Flood	CS(Mf)3	11:50	Bottom	3	2	26.8	7.69	22.4	6.26	18.8	22.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Surface	1	1	26.5	7.69	21.7	6.52	15.2	21.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Surface	1	2	26.5	7.66	21.8	6.48	15.7	21
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Middle	2	1	26.3	7.72	21.9	6.47	17.4	22.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Middle	2	2	26.4	7.73	22	6.45	18.1	23.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Bottom	3	1	26.2	7.61	22.5	6.22	19.2	25
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)3	15:39	Bottom	3	2	26.1	7.6	22.6	6.25	18.7	26.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Surface	1	1	26.5	7.62	21.6	6.37	15.2	19.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Surface	1	2	26.4	7.66	21.7	6.4	15.8	18.7
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Bottom	3	1	26.3	7.72	21.9	6.21	16.8	20.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4a	17:18	Bottom	3	2	26.3	7.77	21.8	6.25	16.1	20.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4	16:59	Surface	1	1	26.5	7.61	21.8	6.31	14	18.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4	16:59	Surface	1	2	26.6	7.64	21.9	6.28	14.6	17.5
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4	16:59	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4	16:59	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	23-06-2015	Mid-Ebb	SR4	16:59	Bottom	3	1	26.5	7.72	22.1	6.24	16.8	21.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	SR4	16:59	Bottom	3	2	26.4	7.75	22.2	6.2	15.9	23.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Surface	1	1	26.4	7.57	22.1	6.25	13.8	22.1
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Surface	1	2	26.3	7.61	22	6.27	14.5	20.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Bottom	3	1	26.3	7.64	22.2	6.12	17.2	22.1
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS8	16:41	Bottom	3	2	26.2	7.69	22.1	6.15	16.8	23.9
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Surface	1	1	26.5	7.7	21.9	6.28	13.7	19.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Surface	1	2	26.6	7.74	21.9	6.26	14.4	20.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Middle	2	1	26.4	7.54	22.2	6.13	14.8	19.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Middle	2	2	26.5	7.58	22.1	6.17	15.2	18.2
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Bottom	3	1	26.3	7.68	22.5	6.02	17.5	22.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)16	16:19	Bottom	3	2	26.2	7.63	22.4	6.05	16.9	23.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Surface	1	1	26.5	7.72	21.9	6.12	16.3	19.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Surface	1	2	26.4	7.76	21.8	6.15	15.7	18.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Middle	2	1						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Middle	2	2						
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Bottom	3	1	26.4	7.83	22	6.08	17.1	20.4
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	IS(Mf)9	16:01	Bottom	3	2	26.4	7.8	22.1	6.1	16.6	21.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Surface	1	1	26.7	7.72	22.3	6.54	13.8	19.3
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Surface	1	2	26.6	7.74	22.2	6.58	13.6	21.8
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Middle	2	1	26.5	7.67	22.4	6.48	12.9	15.5
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Middle	2	2	26.4	7.66	22.3	6.42	13.5	16.6
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Bottom	3	1	26.3	7.79	22.9	6.31	16.4	23
TMCLKL	HY/2012/07	23-06-2015	Mid-Ebb	CS(Mf)5	17:43	Bottom	3	2	26.4	7.81	23	6.28	17.2	22.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Surface	1	1	26.8	7.7	21.9	6.73	13.1	18.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Surface	1	2	26.7	7.73	22	6.78	13.7	17.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Middle	2	1	26.6	7.63	22.4	6.63	14.2	19.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Middle	2	2	26.7	7.67	22.3	6.65	14.8	21.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Bottom	3	1	26.6	7.74	22.9	6.44	20.3	26.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)5	11:28	Bottom	3	2	26.6	7.7	22.8	6.49	20.9	25.1
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4a	11:52	Surface	1	1	26.7	7.63	21.8	6.52	12.4	14.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4a	11:52	Surface	1	2	26.6	7.64	21.9	6.48	11.7	15.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4a	11:52	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4a	11:52	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4a	11:52	Bottom	3	1	26.5	7.68	22	6.38	12.8	15.4

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	25-06-2015	Mid-Flood	SR4a	11:52	Bottom	3	2	26.6	7.72	21.9	6.35	13.6	16.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Surface	1	1	26.7	7.53	21.9	6.47	13.1	19.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Surface	1	2	26.6	7.57	21.8	6.5	13.5	18.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Bottom	3	1	26.5	7.63	22	6.34	15.1	20.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	SR4	12:12	Bottom	3	2	26.6	7.65	21.9	6.31	14.2	18.5
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Surface	1	1	26.8	7.54	21.9	6.39	14.7	20.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Surface	1	2	26.7	7.59	21.9	6.42	13.9	20.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Bottom	3	1	26.6	7.6	22.1	6.29	15.2	21.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS8	12:34	Bottom	3	2	26.7	7.58	22	6.33	14.4	21.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Surface	1	1	26.8	7.58	21.8	6.36	12.6	18.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Surface	1	2	26.7	7.61	21.7	6.39	12.9	19.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Middle	2	1	26.5	7.54	21.9	6.34	13.4	20.1
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Middle	2	2	26.6	7.58	21.9	6.32	12.7	18.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Bottom	3	1	26.5	7.63	22.4	6.21	16.8	20.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)16	12:56	Bottom	3	2	26.4	7.67	22.3	6.18	15.4	20
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Surface	1	1	26.6	7.62	21.8	6.38	13.2	15.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Surface	1	2	26.7	7.66	21.7	6.41	13.7	17.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Bottom	3	1	26.6	7.72	21.8	6.21	14.8	23.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	IS(Mf)9	13:20	Bottom	3	2	26.5	7.7	21.9	6.24	15.4	21.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Surface	1	1	26.7	7.64	21.6	6.67	12.4	16.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Surface	1	2	26.7	7.66	21.7	6.69	11.8	15.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Middle	2	1	26.6	7.69	21.9	6.53	12.6	16.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Middle	2	2	26.5	7.72	22	6.56	13.5	16.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Bottom	3	1	26.7	7.63	22.6	6.4	17.1	21.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Flood	CS(Mf)3	13:49	Bottom	3	2	26.6	7.67	22.5	6.36	16.9	20.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	1	26.6	7.6	21.8	6.55	14.9	23.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	2	26.5	7.63	21.7	6.52	15.6	22
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	1	26.6	7.6	21.9	6.46	13.5	16.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	2	26.7	7.66	21.8	6.44	14	18.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	1	26.7	7.69	22.2	6.21	18.8	24.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	2	26.6	7.65	22.3	6.17	19.4	25

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	25-06-2015	Mid-Ebb	SR4a	9:16	Surface	1	1	26.7	7.63	21.7	6.44	12.8	19.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4a	9:16	Surface	1	2	26.6	7.68	21.8	6.41	13.6	19
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4a	9:16	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4a	9:16	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4a	9:16	Bottom	3	1	26.6	7.62	22	6.25	15	18.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4a	9:16	Bottom	3	2	26.7	7.64	22.1	6.22	15.8	19
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Surface	1	1	26.5	7.4	21.8	6.34	14.3	21.5
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Surface	1	2	26.6	7.44	21.7	6.37	14.8	20.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Bottom	3	1	26.5	7.61	21.8	6.18	16.1	22.5
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	SR4	9:04	Bottom	3	2	26.4	7.55	21.9	6.21	16.9	23.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Surface	1	1	26.7	7.43	21.8	6.29	15.2	18.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Surface	1	2	26.7	7.47	21.7	6.32	15.9	20.7
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Bottom	3	1	26.6	7.52	21.8	6.1	17.2	25.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS8	8:51	Bottom	3	2	26.5	7.57	21.9	6.13	17.5	24.5
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Surface	1	1	26.7	7.54	21.7	6.24	13.8	19.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Surface	1	2	26.6	7.51	21.6	6.28	14.5	18.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Middle	2	1	26.5	7.55	21.8	6.2	13	16.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Middle	2	2	26.6	7.58	21.9	6.15	12.5	18.8
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Bottom	3	1	26.5	7.61	22.2	5.99	17.2	24.1
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)16	8:39	Bottom	3	2	26.5	7.63	22.3	6.02	17.7	23
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Surface	1	1	26.6	7.58	21.6	6.23	14.6	20.4
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Surface	1	2	26.5	7.55	21.7	6.26	15.4	20
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Middle	2	1						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Middle	2	2						
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Bottom	3	1	26.4	7.63	21.9	6.08	16.9	20.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	IS(Mf)9	8:27	Bottom	3	2	26.5	7.65	21.8	6.05	17.6	21.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Surface	1	1	26.7	7.72	22	6.65	14	18.2
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Surface	1	2	26.8	7.68	22.1	6.61	14.7	20.6
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Middle	2	1	26.9	7.65	22.3	6.54	12.2	17.1
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Middle	2	2	26.8	7.61	22.2	6.52	12.8	17.9
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Bottom	3	1	27	7.62	22.7	6.34	19.5	21.3
TMCLKL	HY/2012/07	25-06-2015	Mid-Ebb	CS(Mf)5	9:24	Bottom	3	2	26.9	7.63	22.8	6.36	20.1	22.2
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Surface	1	1	27.9	7.64	21.2	6.93	9.43	14.1

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	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Surface	1	2	28	7.67	21.3	6.9	9.21	13.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Middle	2	1	28	7.62	21.5	6.86	7.74	11.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Middle	2	2	27.9	7.65	21.6	6.81	7.86	10.4
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Bottom	3	1	27.8	7.68	22	6.59	12.1	14.5
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)5	14:38	Bottom	3	2	27.8	7.65	21.9	6.62	13	16.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Surface	1	1	28	7.54	21	6.77	9.32	12.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Surface	1	2	27.9	7.57	21.1	6.8	9.4	12.2
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Bottom	3	1	27.9	7.6	21.3	6.64	9.73	13.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4a	15:05	Bottom	3	2	27.9	7.63	21.4	6.61	9.66	13.5
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Surface	1	1	27.8	7.59	21.2	6.74	9.14	11
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Surface	1	2	27.9	7.61	21.3	6.71	9.23	12
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Bottom	3	1	27.8	7.63	21.5	6.58	9.67	12.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	SR4	15:21	Bottom	3	2	27.8	7.66	21.6	6.55	9.74	12.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Surface	1	1	27.9	7.63	21.4	6.88	9.52	14.3
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Surface	1	2	28	7.66	21.4	6.85	9.44	13.3
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Bottom	3	1	27.9	7.61	21.7	6.7	9.81	12.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS8	15:40	Bottom	3	2	27.8	7.64	21.8	6.67	9.9	12.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Surface	1	1	28	7.56	21.3	6.66	9.73	14.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Surface	1	2	28	7.59	21.4	6.69	9.65	12.5
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Middle	2	1	27.9	7.57	21.6	6.57	9.46	15.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Middle	2	2	27.9	7.61	21.6	6.53	9.4	15
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Bottom	3	1	27.7	7.62	21.8	6.34	10.1	15.2
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)16	15:59	Bottom	3	2	27.8	7.59	21.9	6.31	10.8	15.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Surface	1	1	28	7.67	21.4	6.7	9.4	14.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Surface	1	2	28	7.69	21.5	6.73	9.31	13.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Bottom	3	1	27.9	7.66	21.7	6.48	9.77	12.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	IS(Mf)9	16:22	Bottom	3	2	27.9	7.63	21.8	6.53	9.86	14.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Surface	1	1	28	7.54	21.6	6.79	9.55	12.4
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Surface	1	2	28.1	7.58	21.5	6.81	9.48	12.3

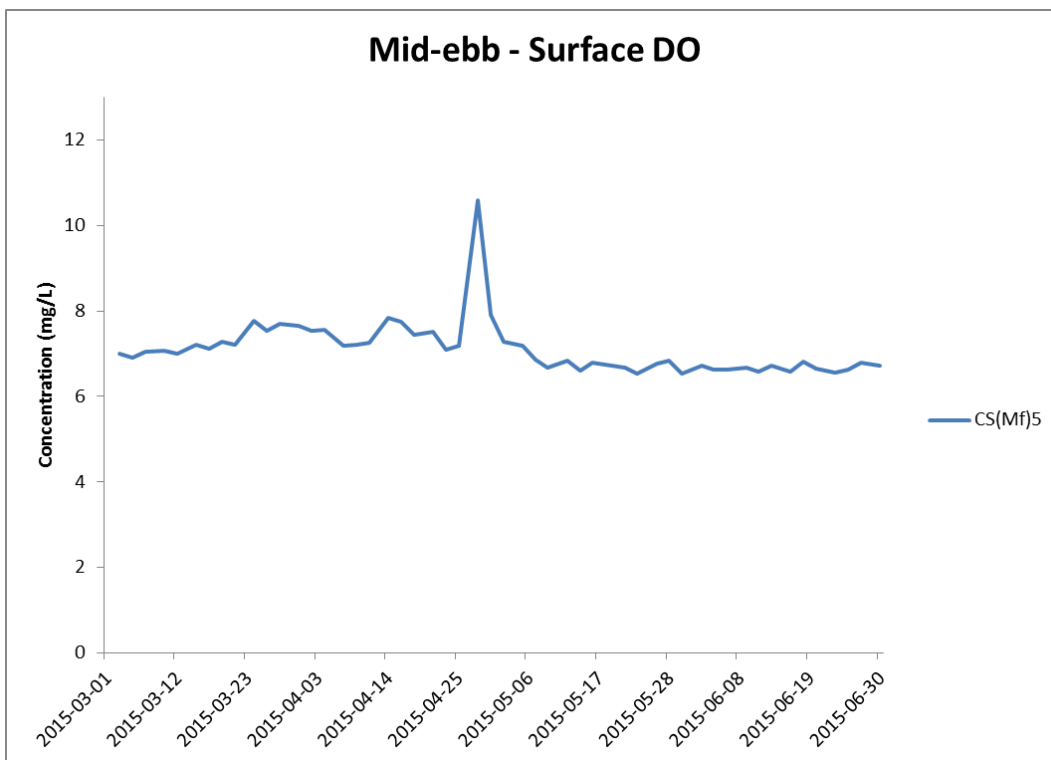
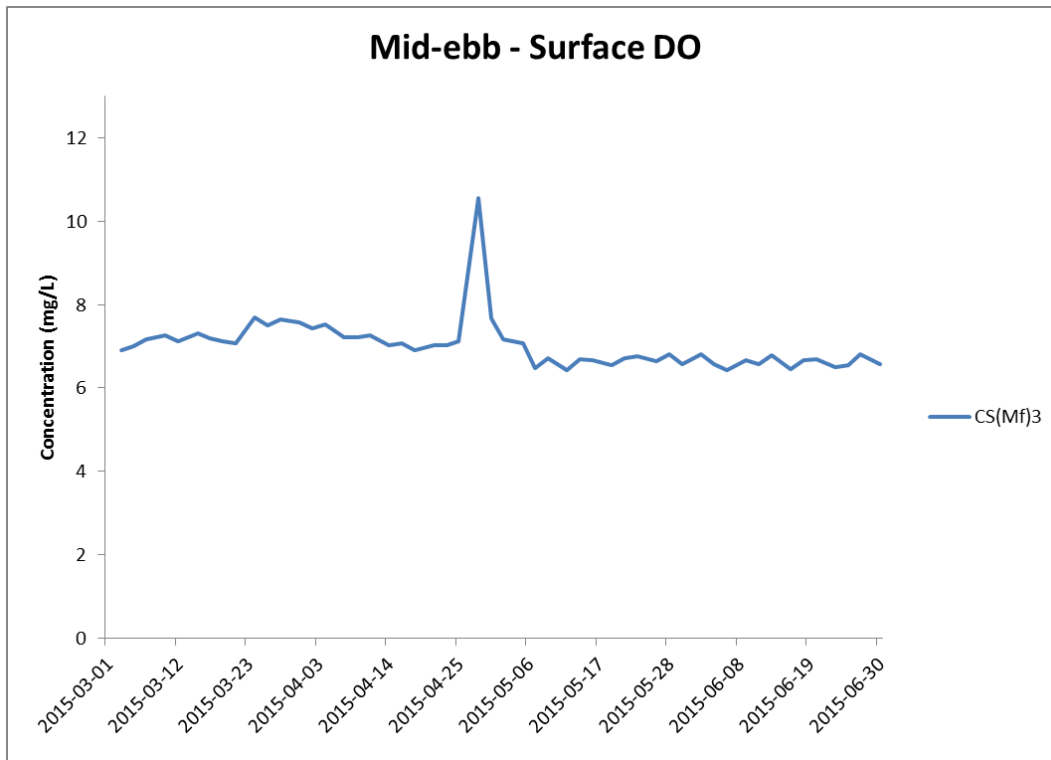
Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Middle	2	1	27.9	7.56	21.8	6.7	8.92	11.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Middle	2	2	27.9	7.6	21.8	6.66	8.99	12.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Bottom	3	1	27.7	7.54	22.1	6.43	10.9	17.3
TMCLKL	HY/2012/07	27-06-2015	Mid-Flood	CS(Mf)3	16:45	Bottom	3	2	27.7	7.57	22.1	6.46	11.5	18.4
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Surface	1	1	27.8	7.6	21.6	6.79	9.43	14.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Surface	1	2	27.9	7.62	21.6	6.82	9.4	14.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Middle	2	1	27.7	7.64	21.9	6.58	9.92	15.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Middle	2	2	27.7	7.65	21.8	6.63	9.98	13
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Bottom	3	1	27.6	7.59	21.9	6.62	10.9	13.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)3	8:39	Bottom	3	2	27.5	7.6	22	6.58	11.2	15.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Surface	1	1	28	7.67	21.3	6.67	9.86	12.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Surface	1	2	28	7.69	21.2	6.64	9.82	13.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Bottom	3	1	27.5	7.7	21.9	6.29	10.9	15.3
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4a	10:55	Bottom	3	2	27.5	7.69	21.9	6.25	11.1	13.3
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Surface	1	1	28	7.67	21.3	6.62	9.66	15.5
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Surface	1	2	28	7.69	21.3	6.57	9.69	14.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Bottom	3	1	27.9	7.72	21.7	6.3	11.8	17.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	SR4	10:30	Bottom	3	2	27.8	7.72	21.7	6.36	11.5	16
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Surface	1	1	28	7.73	21.4	6.56	9.52	12.4
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Surface	1	2	27.9	7.74	21.3	6.52	9.55	11.5
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Middle	2	1						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Bottom	3	1	27.8	7.69	21.8	6.27	11.4	16
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS8	10:01	Bottom	3	2	27.9	7.7	21.7	6.29	11.2	17.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Surface	1	1	27.9	7.68	21.5	6.7	8.94	12.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Surface	1	2	27.8	7.69	21.6	6.67	8.9	13.4
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Middle	2	1	27.7	7.71	21.9	6.53	9.43	14.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Middle	2	2	27.8	7.72	22	6.56	9.37	12.2
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Bottom	3	1	27.7	7.72	22.1	6.39	10.7	16.1
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)16	9:34	Bottom	3	2	27.8	7.72	22.1	6.35	10.9	14.2
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	Surface	1	1	27.9	7.67	21.7	6.84	9.74	14.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	Surface	1	2	28	7.68	21.6	6.87	9.8	12.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	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	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	Middle	2	2						
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	Bottom	3	1	27.8	7.69	22	6.44	10.7	13.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	IS(Mf)9	9:09	Bottom	3	2	27.9	7.68	22	6.47	10.6	15.9
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Surface	1	1	28	7.72	21.5	6.82	9.14	12.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Surface	1	2	28.1	7.73	21.4	6.78	9.2	13.8
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Middle	2	1	27.6	7.75	21.7	6.64	10.5	13.7
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Middle	2	2	27.5	7.74	21.8	6.67	10.4	15.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Bottom	3	1	27.5	7.78	22	6.48	11.2	14.6
TMCLKL	HY/2012/07	27-06-2015	Mid-Ebb	CS(Mf)5	11:18	Bottom	3	2	27.4	7.79	22	6.45	11.2	15.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Surface	1	1	27.5	7.72	22.7	6.82	9.02	13.5
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Surface	1	2	27.6	7.76	22.6	6.85	9.12	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Middle	2	1	27.4	7.7	22.9	6.87	9.34	13.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Middle	2	2	27.5	7.68	23	6.71	9.39	12.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Bottom	3	1	27.3	7.83	23.3	6.62	9.65	15.4
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)5	17:08	Bottom	3	2	27.4	7.85	23.4	6.66	9.72	16.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Surface	1	1	27.7	7.82	22.7	6.77	9.18	12.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Surface	1	2	27.6	7.84	22.6	6.73	9.11	11.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Bottom	3	1	27.6	7.87	22.8	6.6	9.37	13.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4a	17:24	Bottom	3	2	27.5	7.84	22.7	6.57	9.32	14.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Surface	1	1	27.8	7.62	22.6	6.61	8.92	11.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Surface	1	2	27.9	7.65	22.7	6.64	8.99	12.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Bottom	3	1	27.6	7.78	22.8	6.43	9.12	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	SR4	17:35	Bottom	3	2	27.7	7.8	22.8	6.4	9.07	11.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Surface	1	1	28	7.68	22.6	6.72	8.85	14.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Surface	1	2	27.9	7.72	22.5	6.69	8.92	13.4
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Bottom	3	1	27.8	7.83	22.7	6.56	9.07	12.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS8	17:49	Bottom	3	2	27.9	7.87	22.6	6.53	9.11	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Surface	1	1	27.7	7.74	22.6	6.69	8.94	12.3
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Surface	1	2	27.8	7.78	22.5	6.64	8.91	11.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Middle	2	1	27.7	7.7	22.8	6.54	9.12	11.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Middle	2	2	27.6	7.72	22.9	6.57	9.16	13.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Bottom	3	1	27.5	7.86	23.3	6.38	9.18	13.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)16	18:05	Bottom	3	2	27.6	7.89	23.2	6.42	9.24	12
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Surface	1	1	27.8	7.83	22.7	6.56	8.43	12.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Surface	1	2	27.9	7.87	22.6	6.59	8.51	11.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Bottom	3	1	27.8	7.92	22.9	6.44	8.72	11.3
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	IS(Mf)9	18:22	Bottom	3	2	27.7	7.95	22.8	6.41	8.76	13.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Surface	1	1	27.8	7.86	22.6	6.62	8.67	13.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Surface	1	2	27.7	7.88	22.5	6.66	8.55	12
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Middle	2	1	27.6	7.74	22.8	6.6	8.82	13.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Middle	2	2	27.7	7.77	22.7	6.58	8.87	11.5
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Bottom	3	1	27.4	7.89	23.3	6.42	9.03	14.4
TMCLKL	HY/2012/07	30-06-2015	Mid-Flood	CS(Mf)3	18:39	Bottom	3	2	27.5	7.92	23.2	6.39	9.11	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Surface	1	1	27.9	7.81	22.4	6.56	9.66	13.5
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Surface	1	2	27.8	7.84	22.5	6.59	9.78	13.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Middle	2	1	27.7	7.79	22.7	6.47	9.84	14.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Middle	2	2	27.6	7.82	22.8	6.43	9.91	13.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Bottom	3	1	27.6	7.85	23	6.28	10.4	14.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)3	10:37	Bottom	3	2	27.5	7.87	23.1	6.31	11	16.5
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Surface	1	1	27.7	7.76	22.6	6.65	9.46	15.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Surface	1	2	27.7	7.79	22.5	6.6	9.59	14.4
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Bottom	3	1	27.5	7.73	22.8	6.42	9.82	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4a	12:47	Bottom	3	2	27.6	7.76	22.9	6.45	9.74	11.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Surface	1	1	27.9	7.66	22.4	6.5	9.05	10.9
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Surface	1	2	27.9	7.7	22.5	6.53	9.13	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Bottom	3	1	27.8	7.73	23.6	6.35	9.42	13.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	SR4	12:21	Bottom	3	2	27.7	7.76	22.7	6.32	9.51	12.4
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS8	11:55	Surface	1	1	27.8	7.75	22.3	6.57	8.75	13.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS8	11:55	Surface	1	2	27.9	7.71	22.4	6.55	8.87	14.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS8	11:55	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS8	11:55	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS8	11:55	Bottom	3	1	27.7	7.77	22.6	6.41	9.09	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	30-06-2015	Mid-Ebb	IS8	11:55	Bottom	3	2	27.8	7.8	22.5	6.37	9.17	12.8
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Surface	1	1	27.7	7.8	22.5	6.63	9.48	14.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Surface	1	2	27.6	7.82	22.4	6.6	9.4	14.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Middle	2	1	27.6	7.78	22.7	6.49	9.06	12.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Middle	2	2	27.6	7.9	22.8	6.47	8.92	11.6
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Bottom	3	1	27.4	7.84	23.1	6.36	9.21	12
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)16	11:29	Bottom	3	2	27.5	7.81	23	6.34	9.3	13
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Surface	1	1	27.8	7.86	22.5	6.49	9.25	13
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Surface	1	2	27.7	7.88	22.6	6.52	9.33	13.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Middle	2	1						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Middle	2	2						
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Bottom	3	1	27.6	7.84	22.8	6.38	9.75	12.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	IS(Mf)9	11:03	Bottom	3	2	27.7	7.86	22.9	6.4	9.82	14.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Surface	1	1	27.7	7.66	22.8	6.73	9.31	12.1
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Surface	1	2	27.6	7.67	22.7	6.71	9.38	12.2
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Middle	2	1	27.6	7.63	23	6.52	9.78	12.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Middle	2	2	27.5	7.65	23.1	6.54	9.66	14.5
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Bottom	3	1	27.5	7.66	23.3	6.29	9.8	14.7
TMCLKL	HY/2012/07	30-06-2015	Mid-Ebb	CS(Mf)5	13:17	Bottom	3	2	27.5	7.7	23.4	6.32	10.7	15

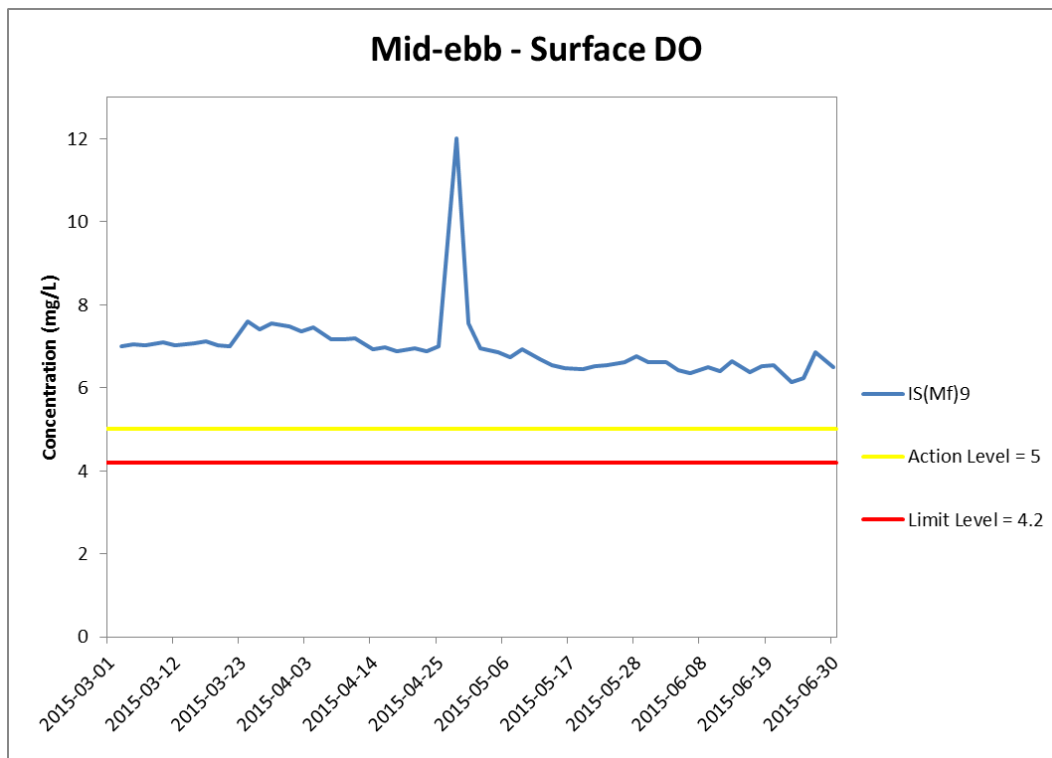
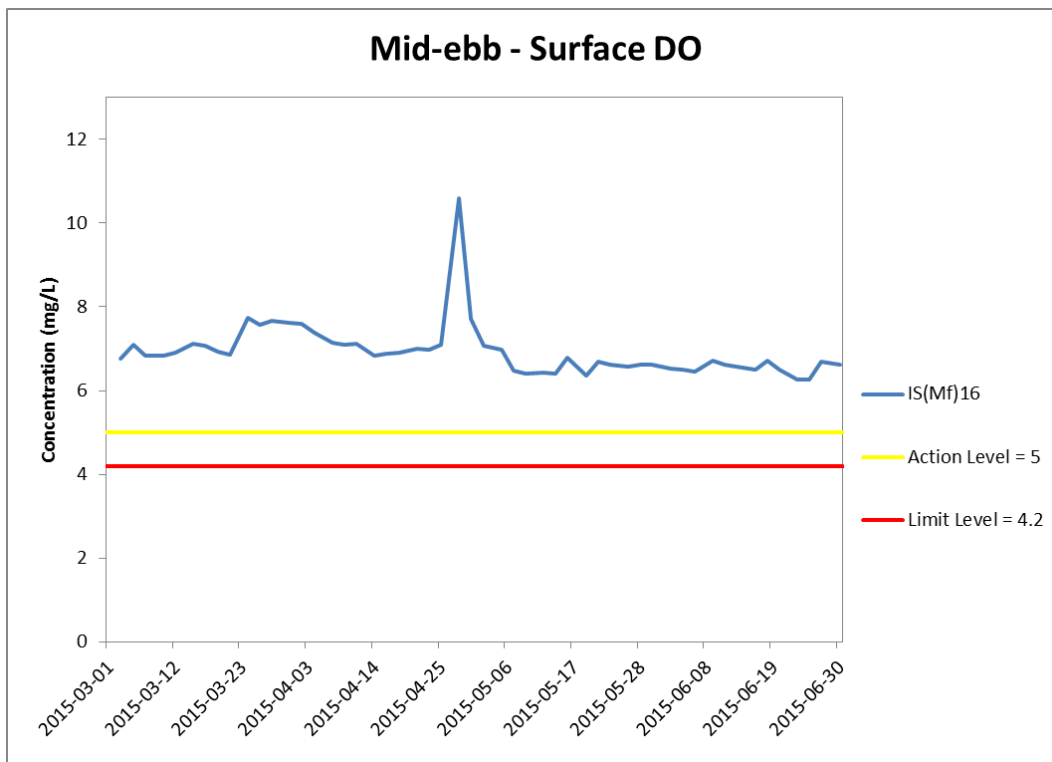


**Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



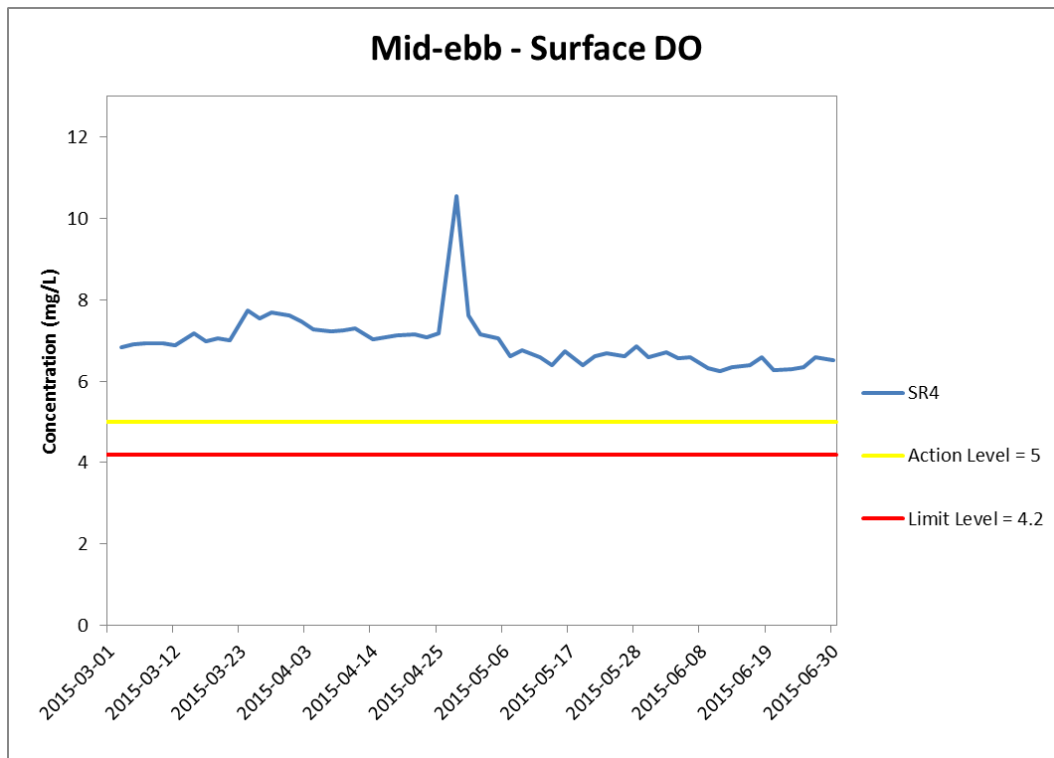
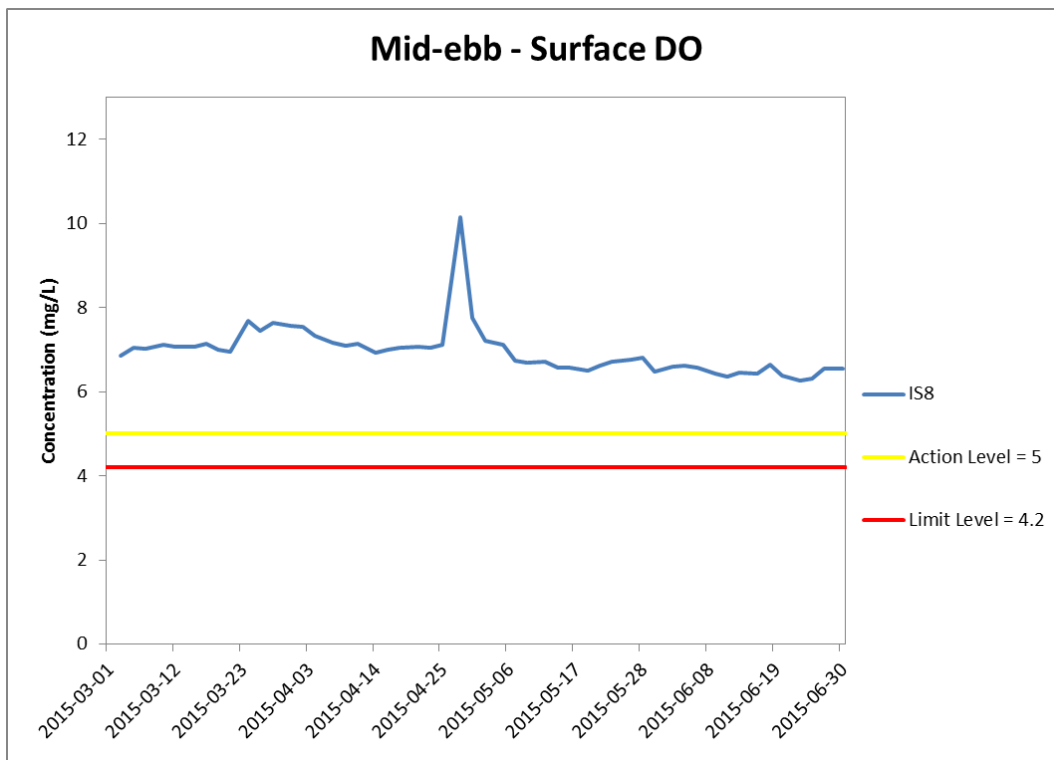


**Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



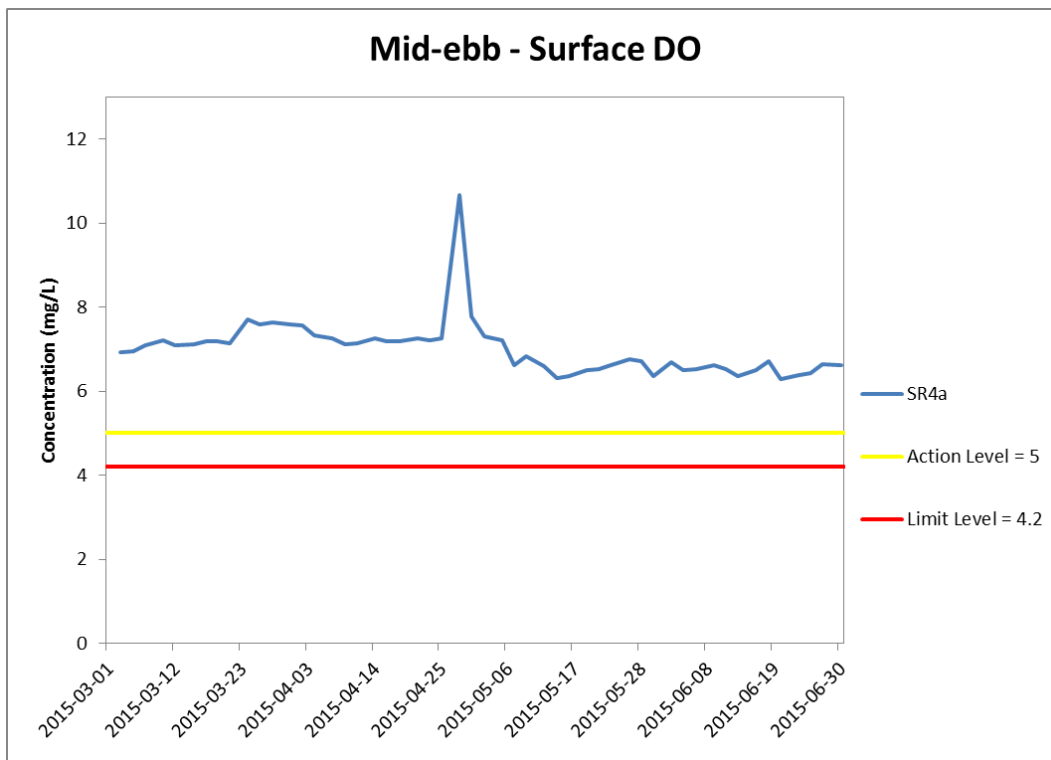


**Figure J3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



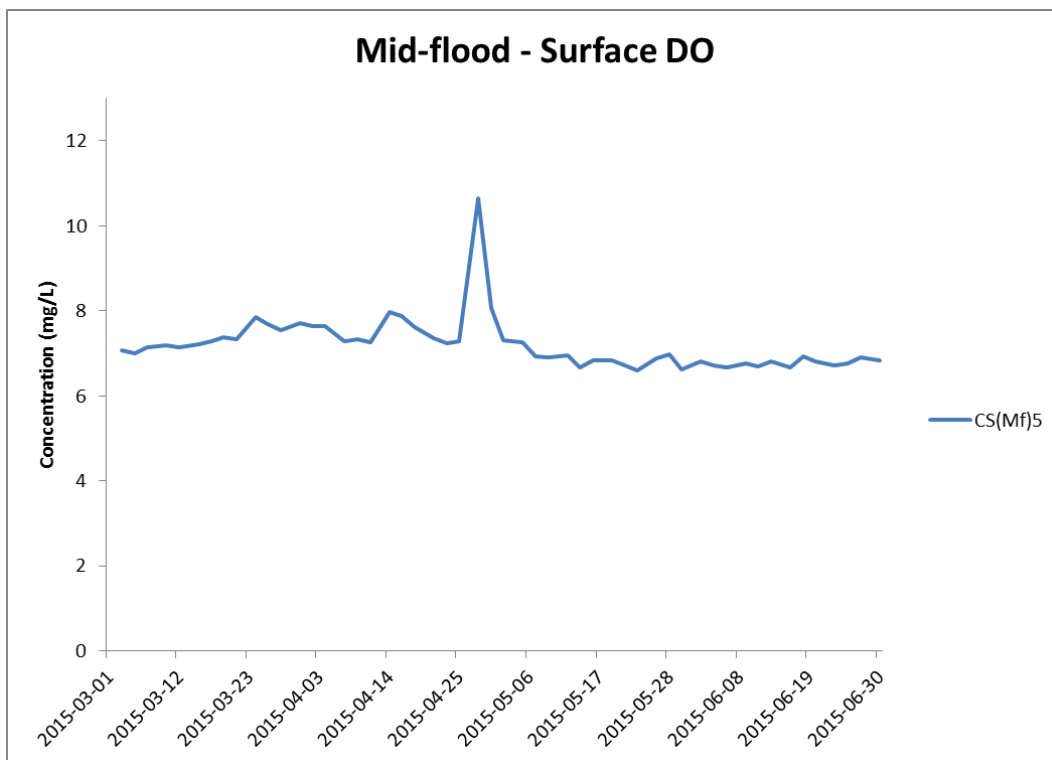
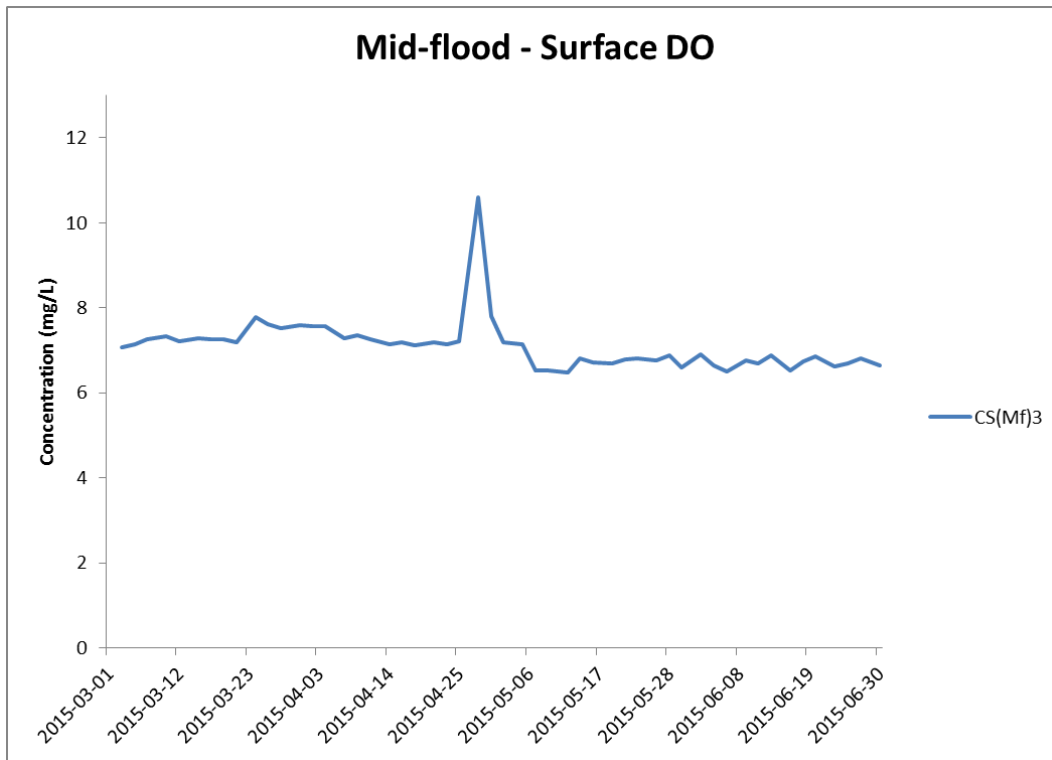


**Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





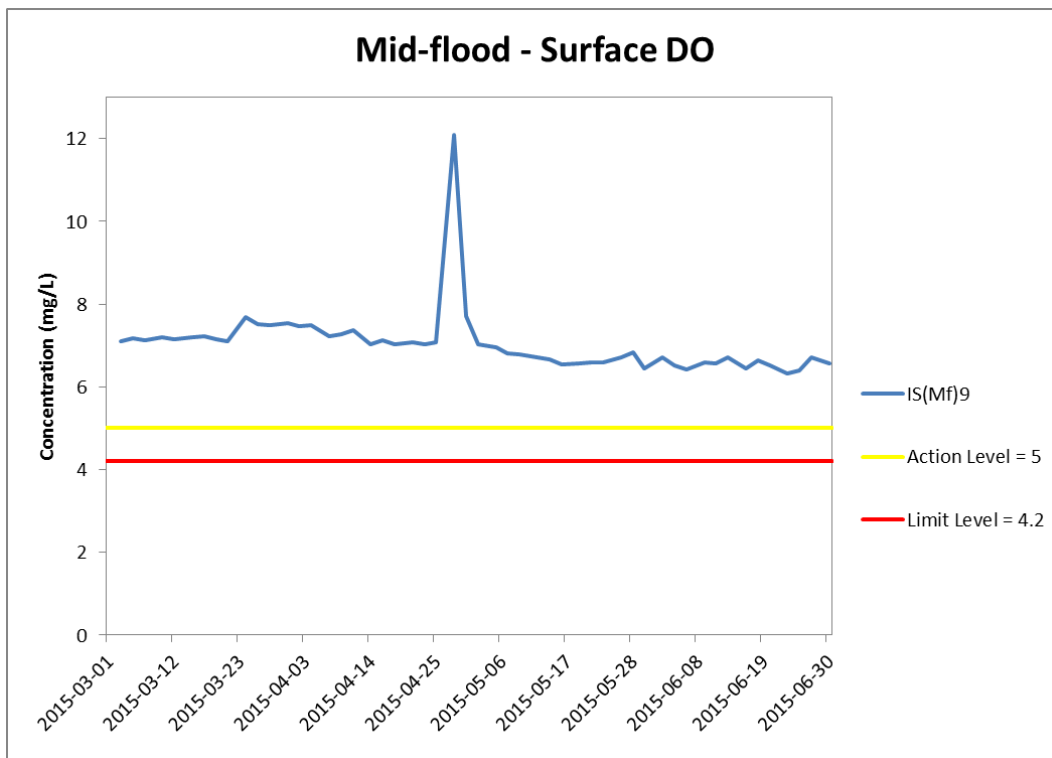
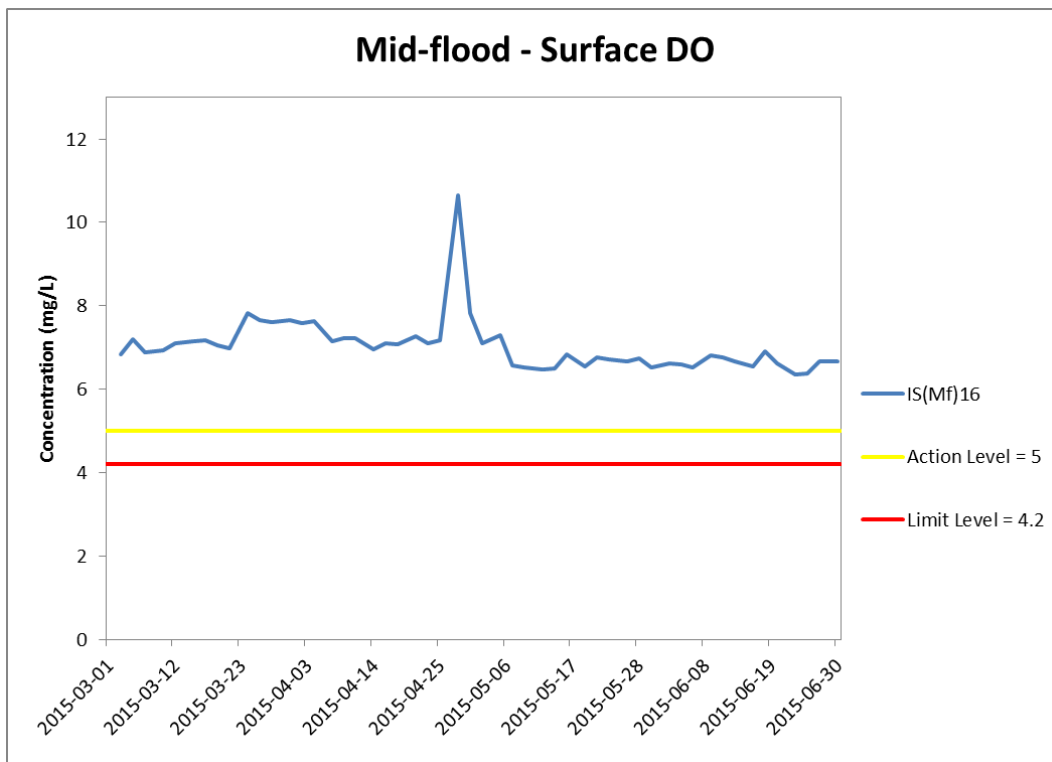
**Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental Resources Management**





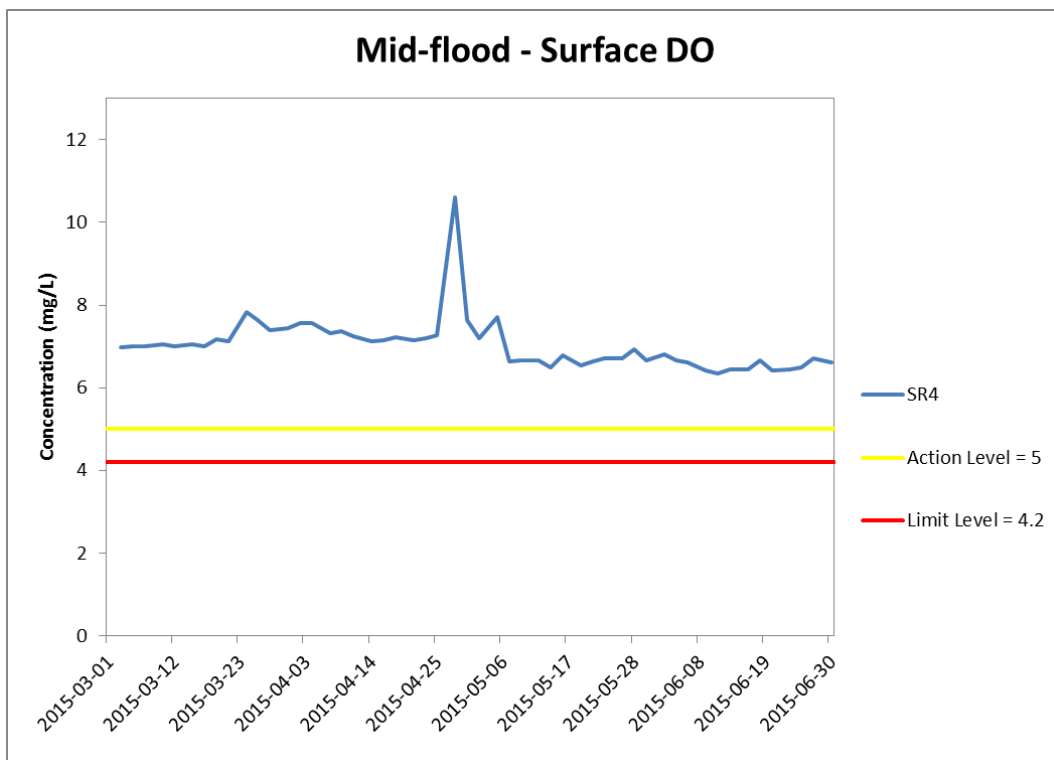
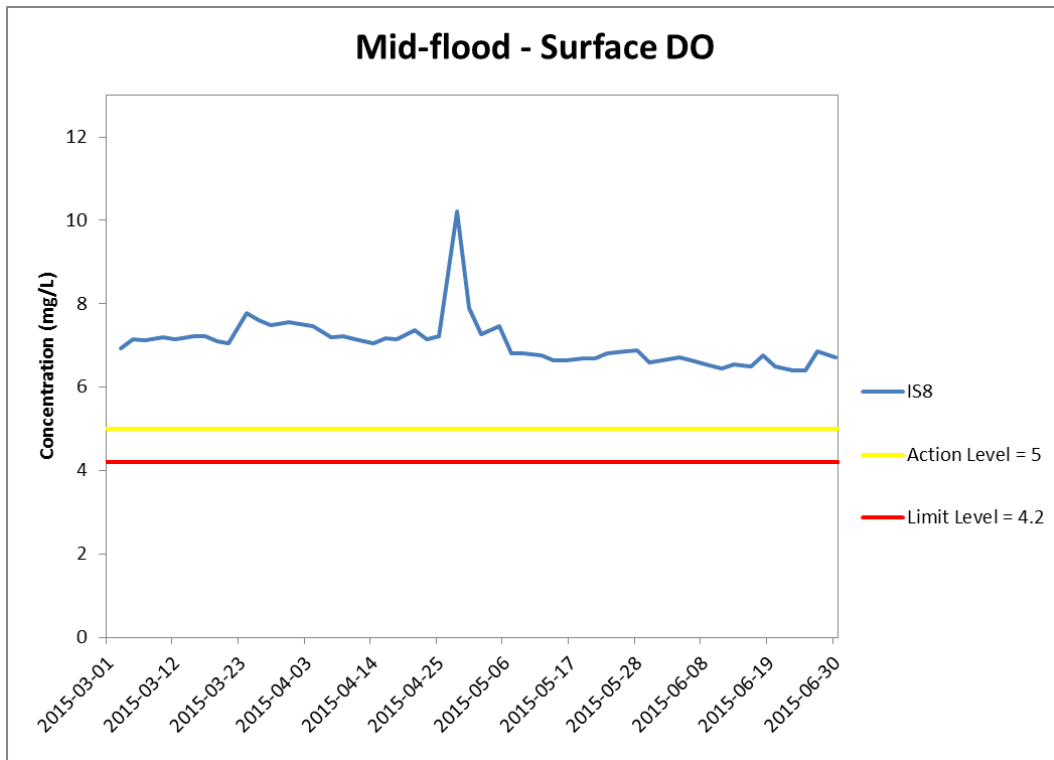


**Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**

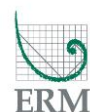


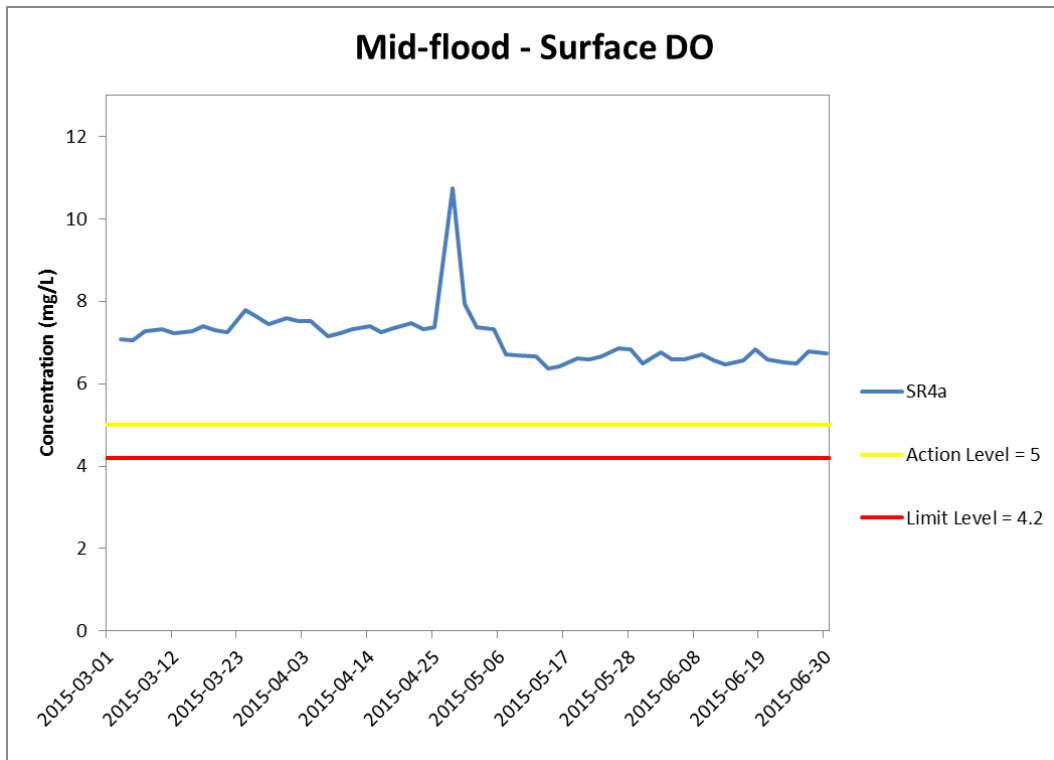


**Figure J7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



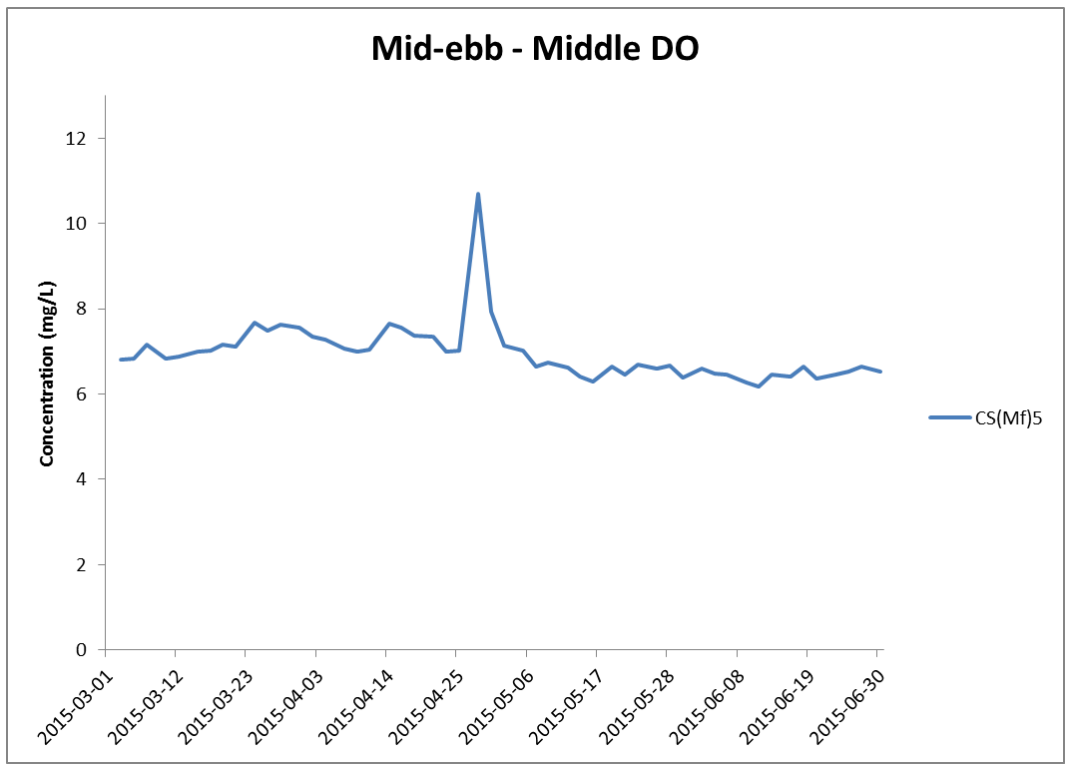
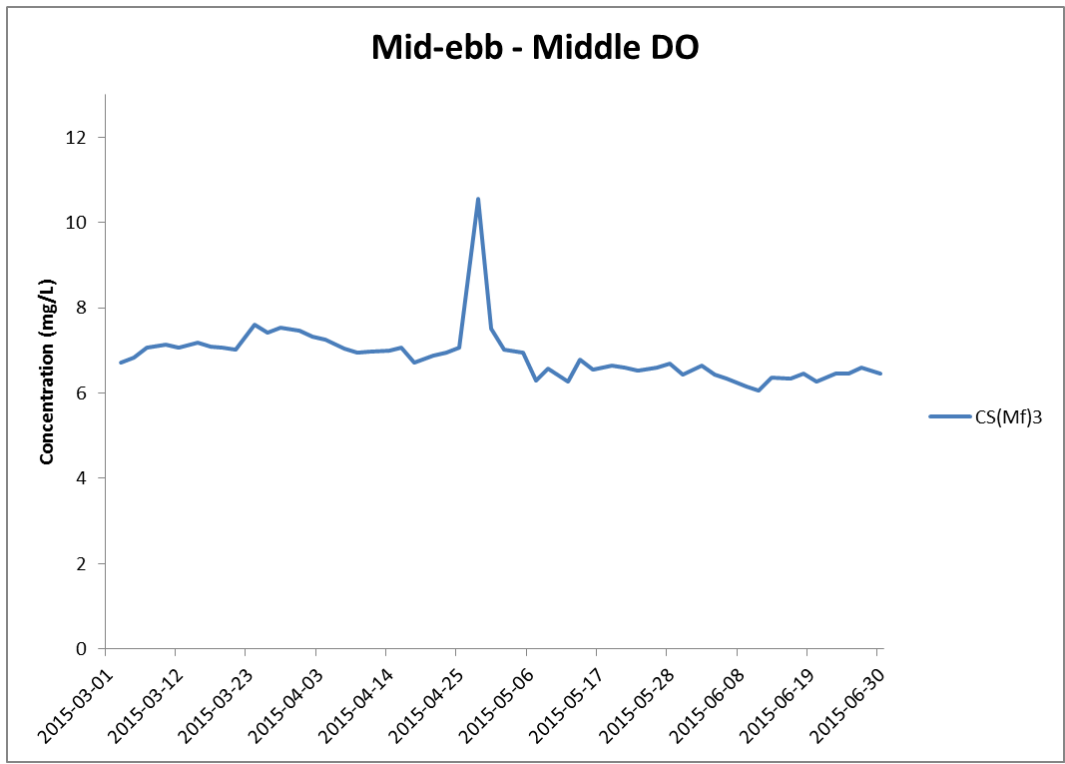


**Figure J8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



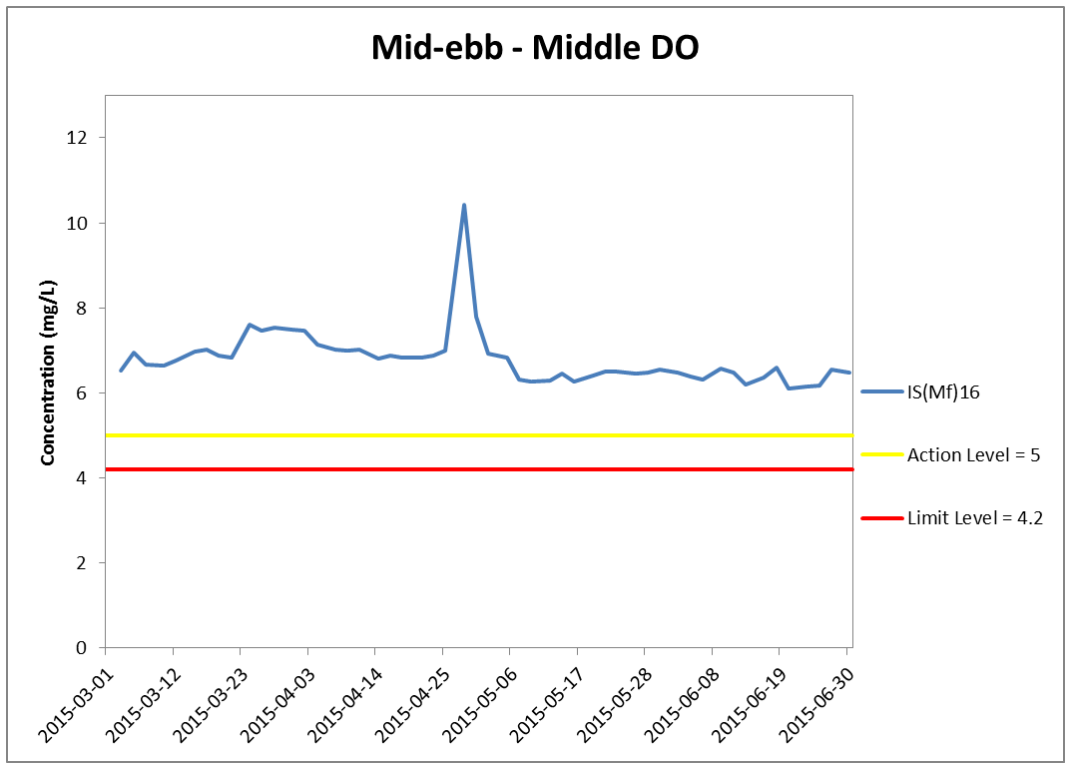


**Figure J9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental Resources Management**



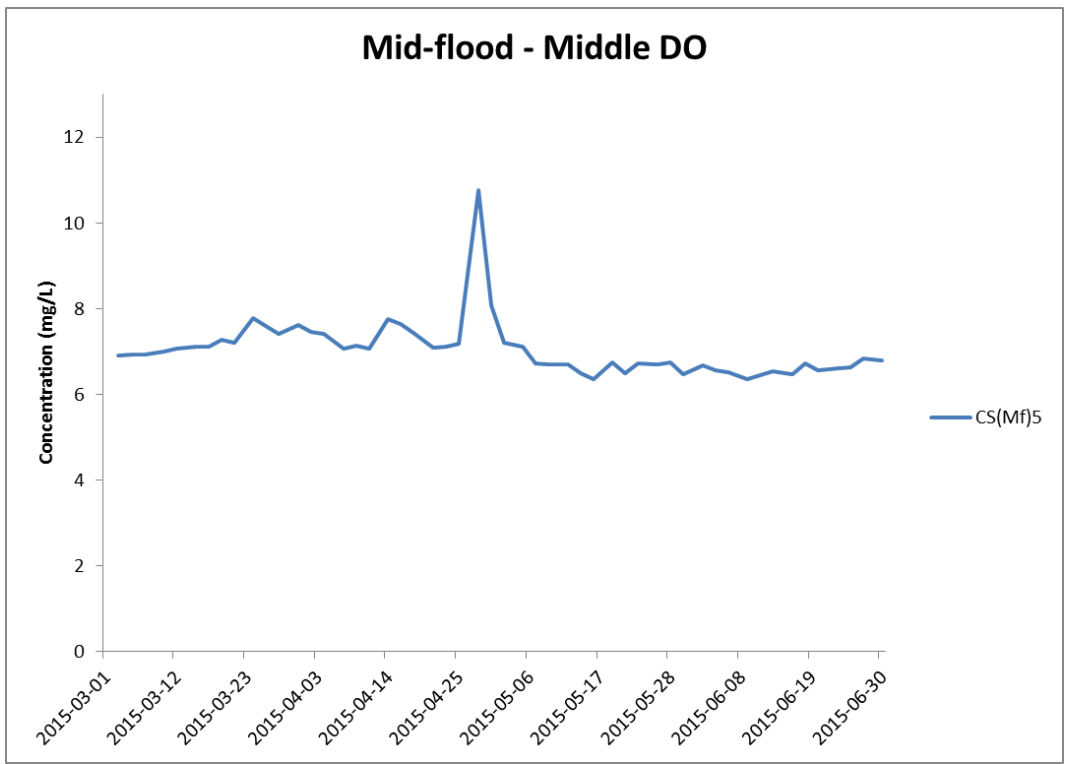
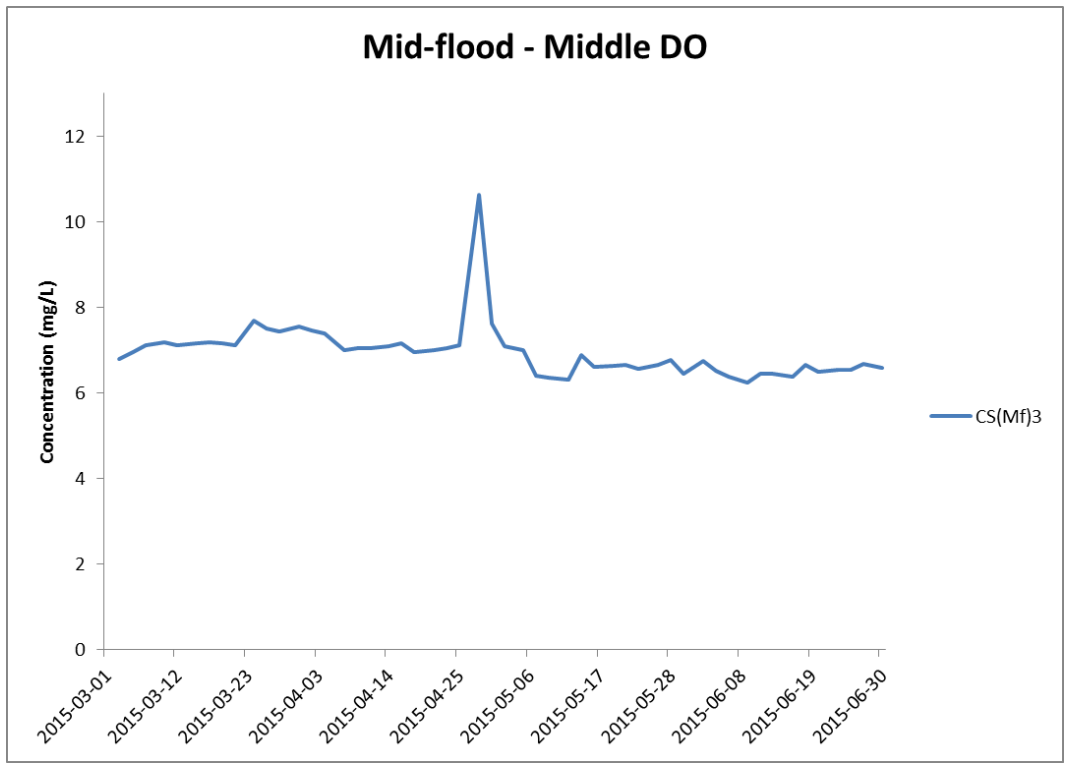


**Figure J10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 March and 30 June 2015 at IS(Mf)16.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental Resources Management**



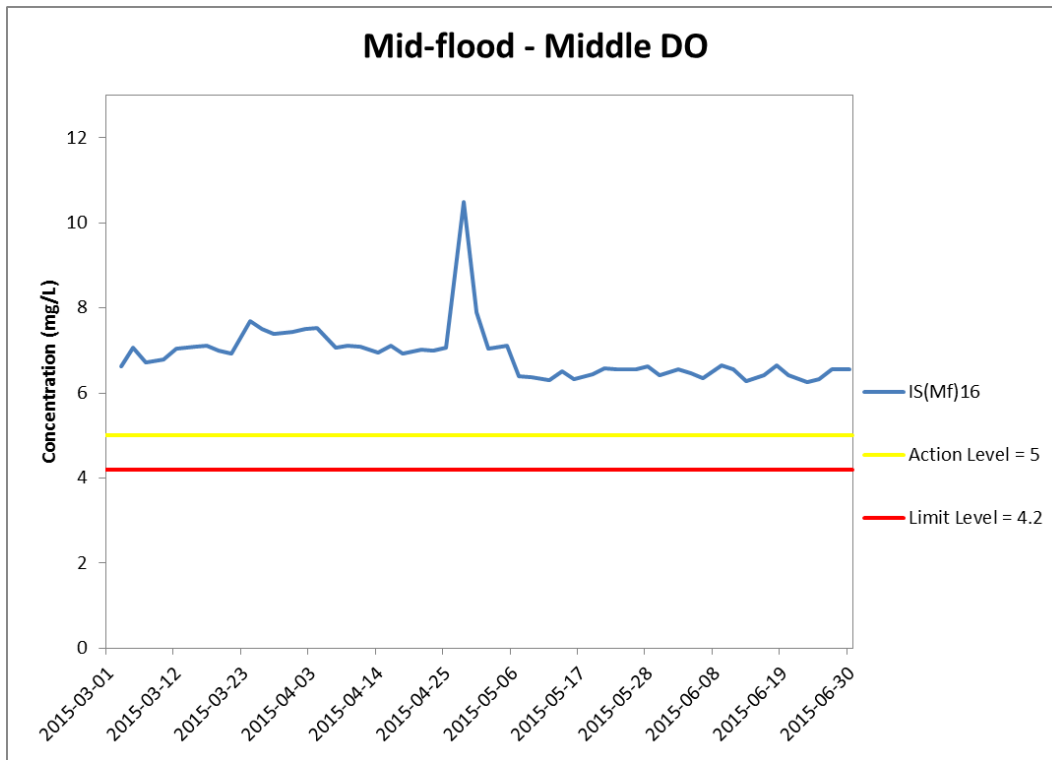


**Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental Resources Management**



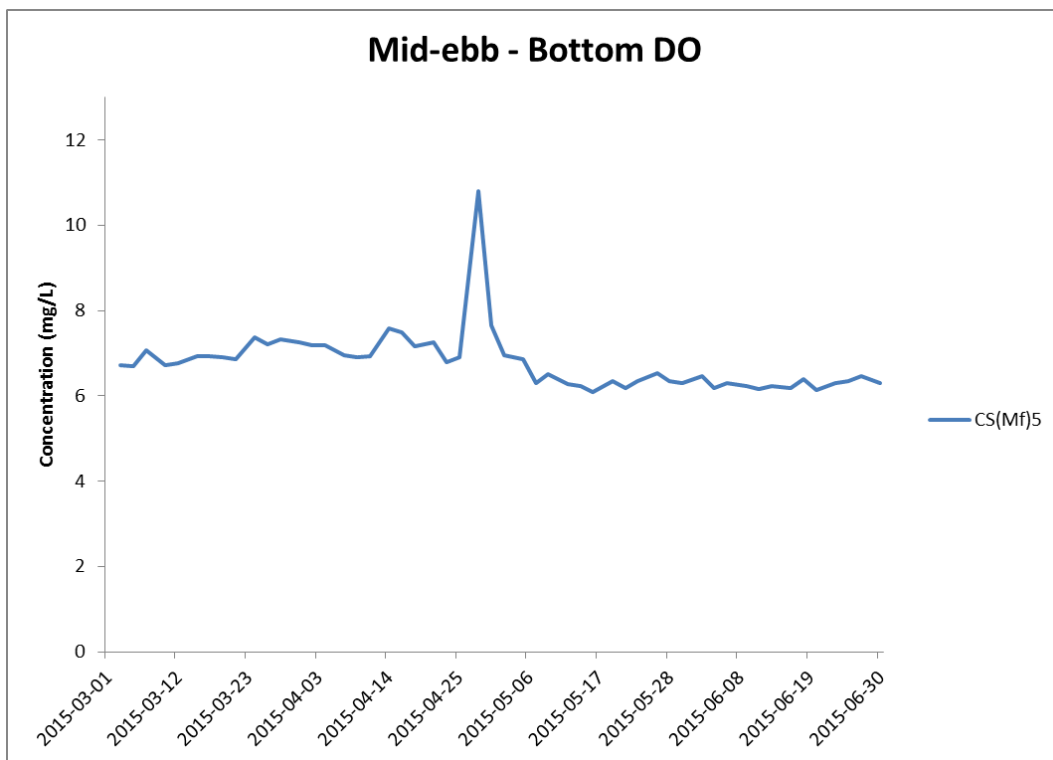
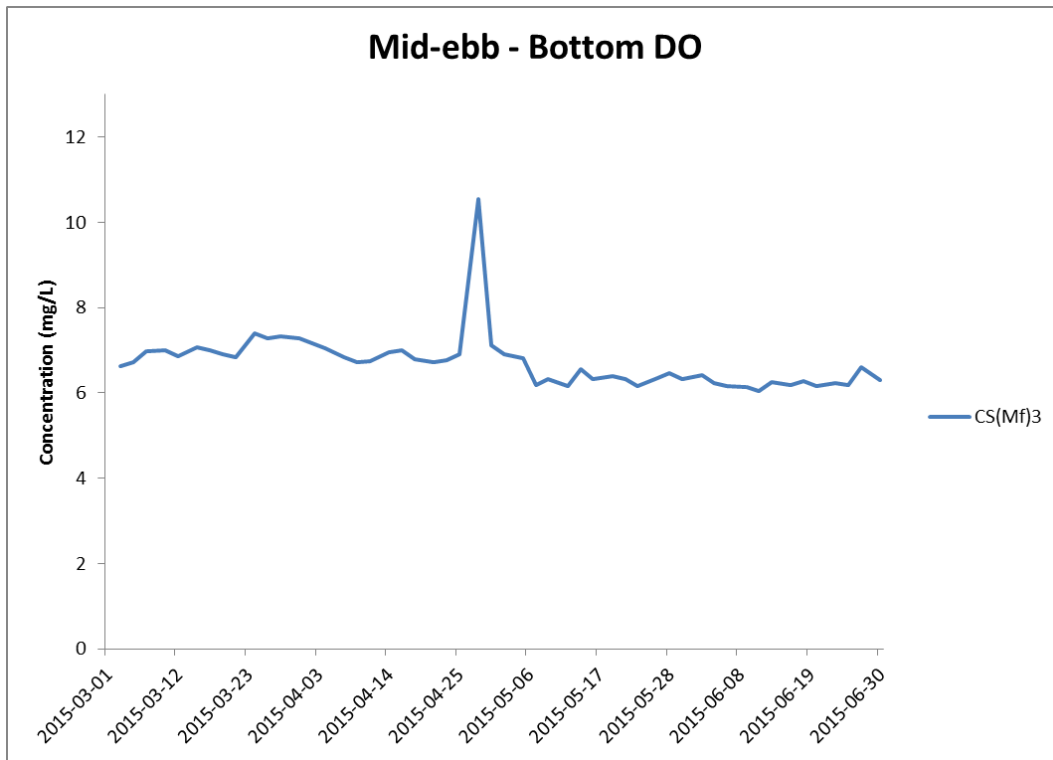


**Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 March and 30 June 2015 at IS(Mf)16.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





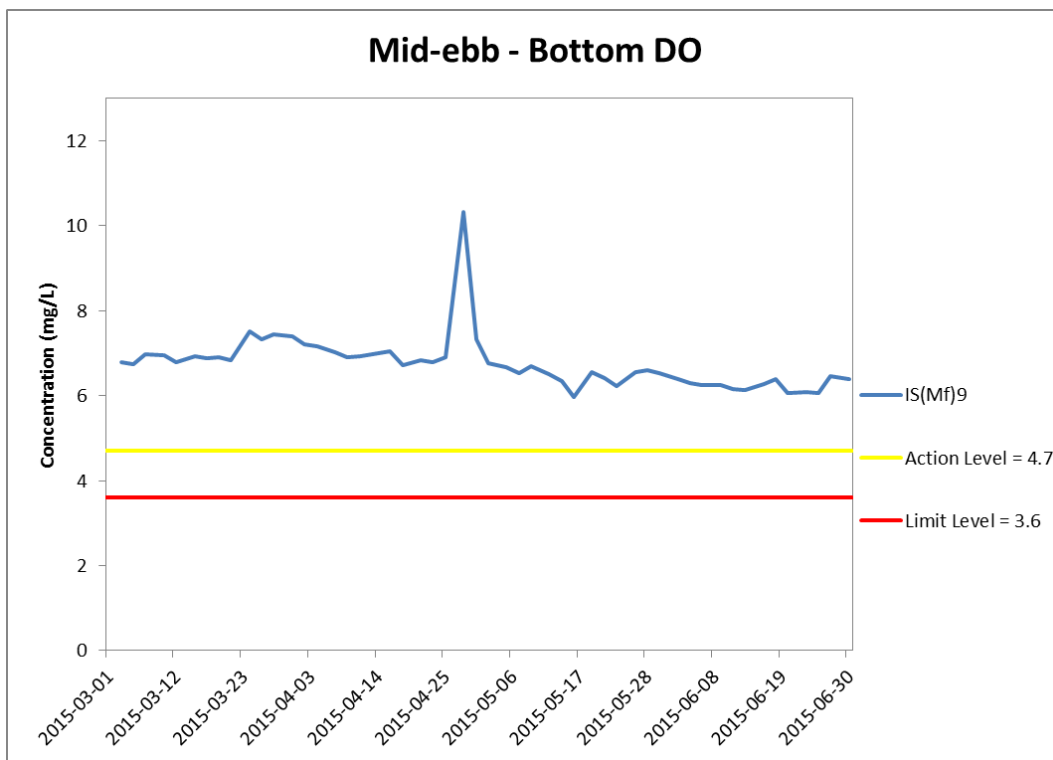
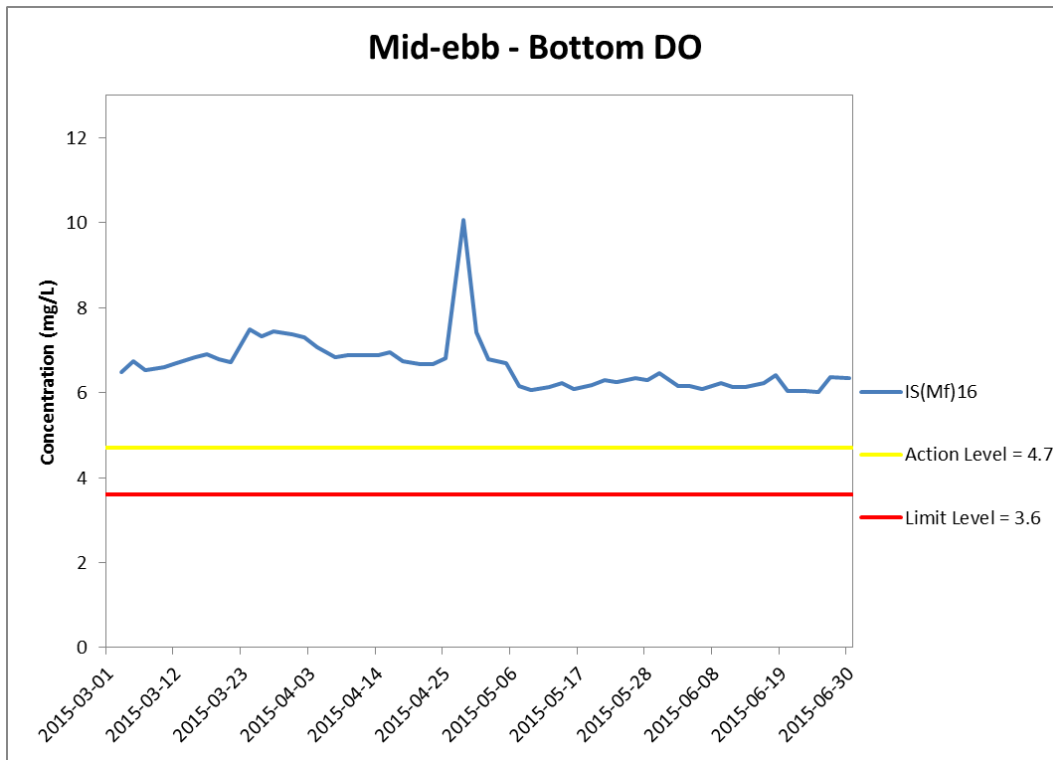
**Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





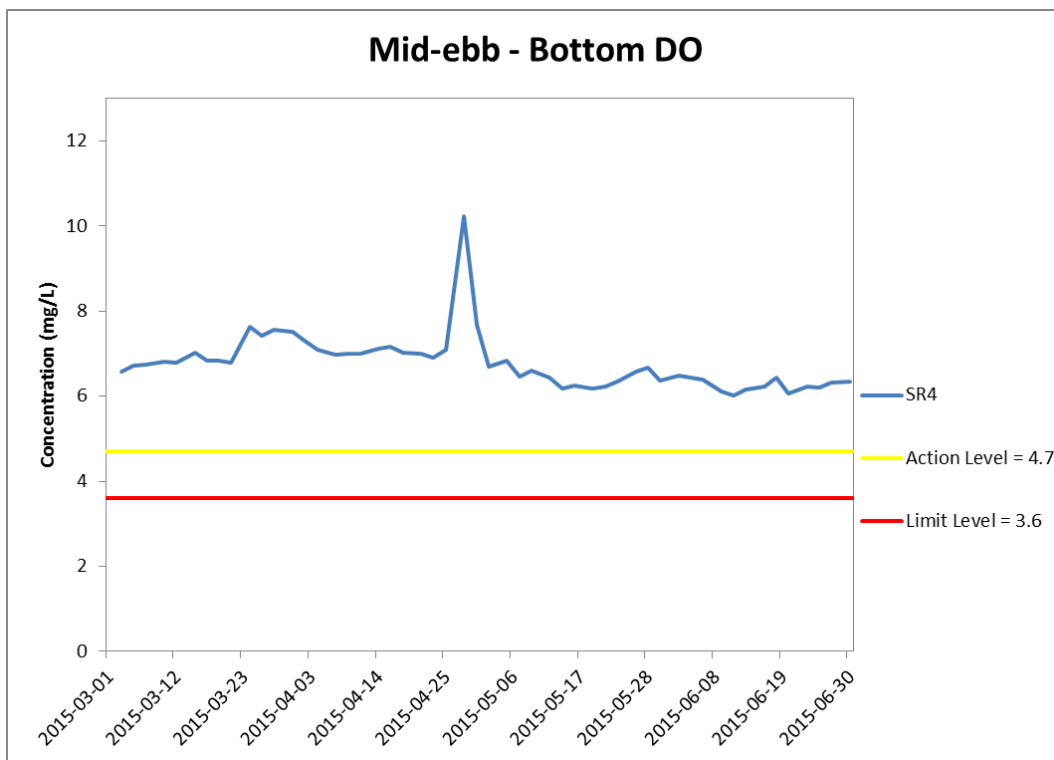
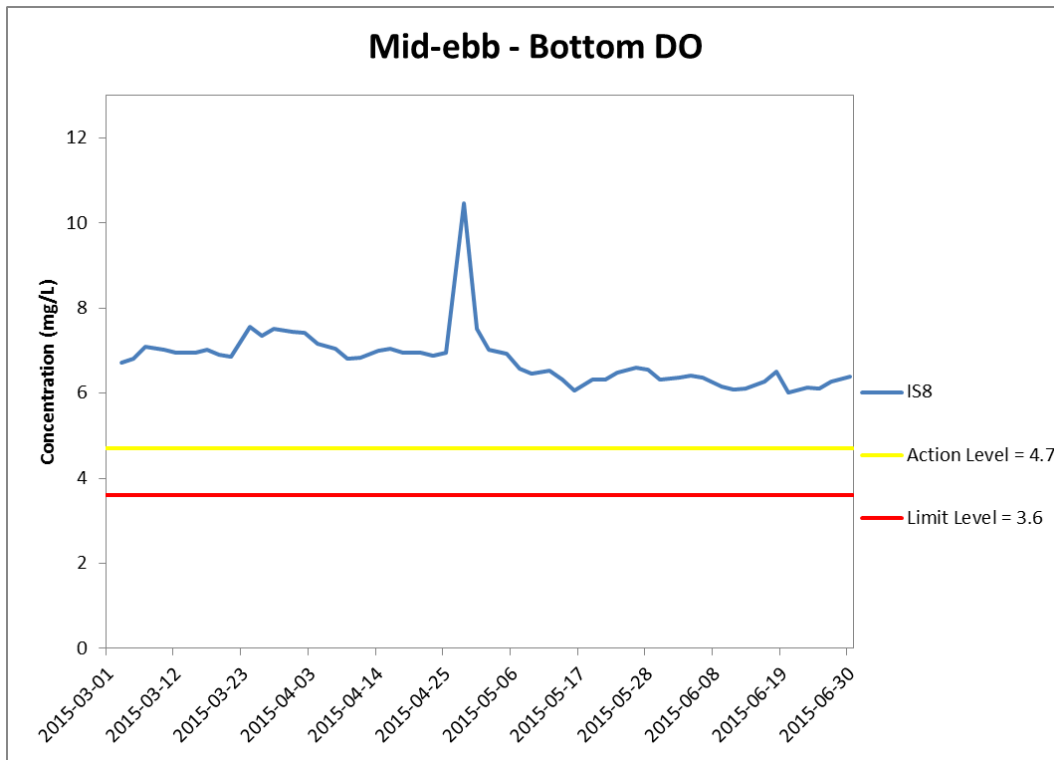


**Figure J14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



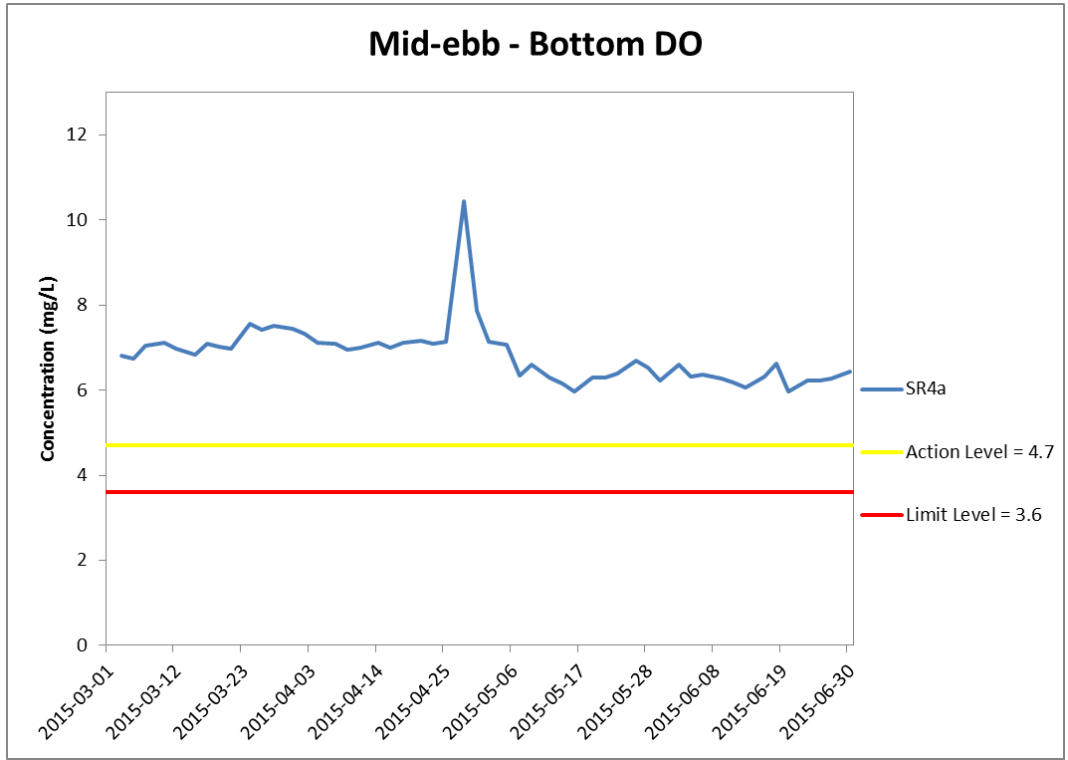


**Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



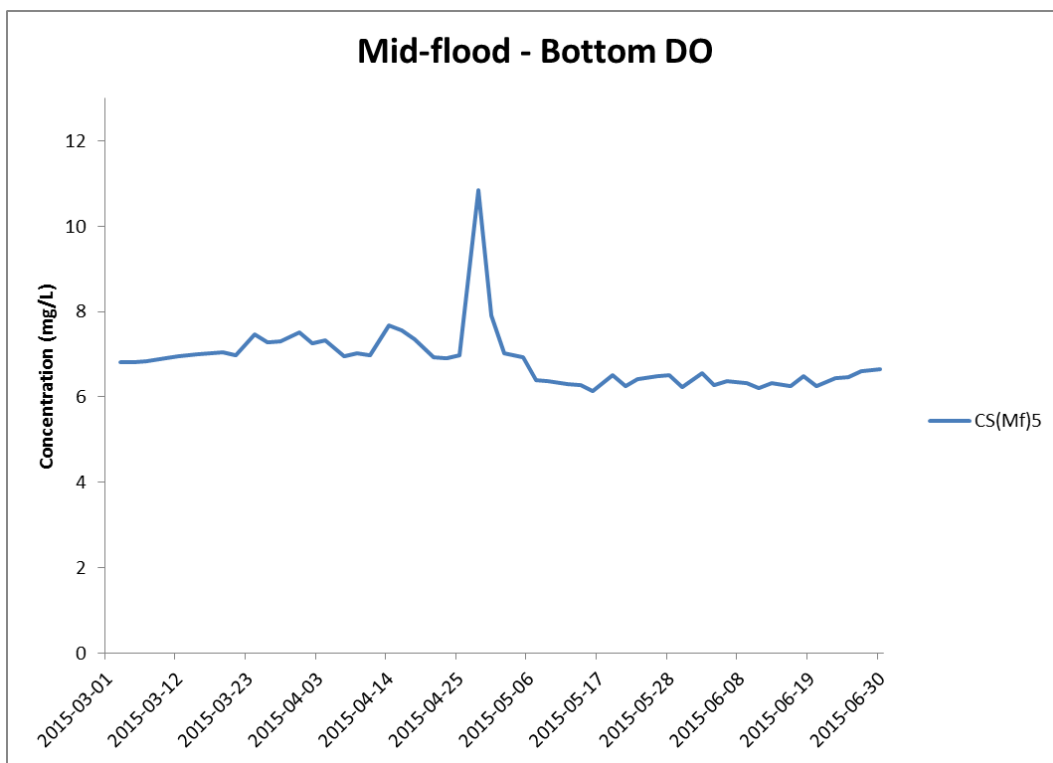
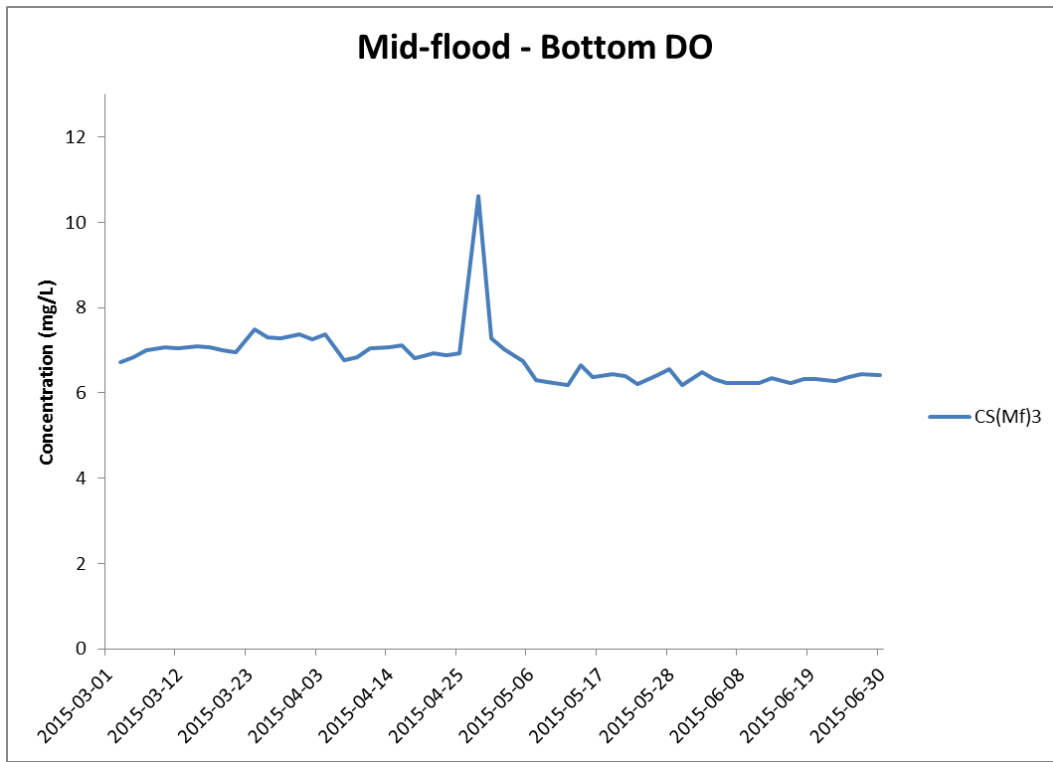


**Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



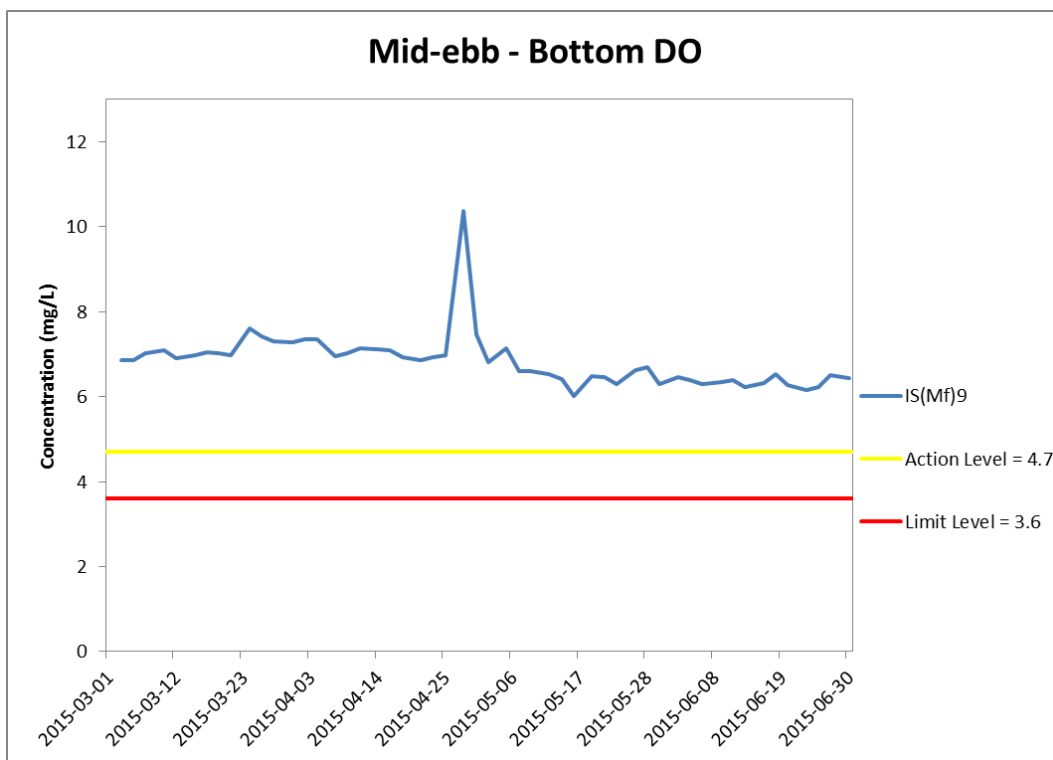
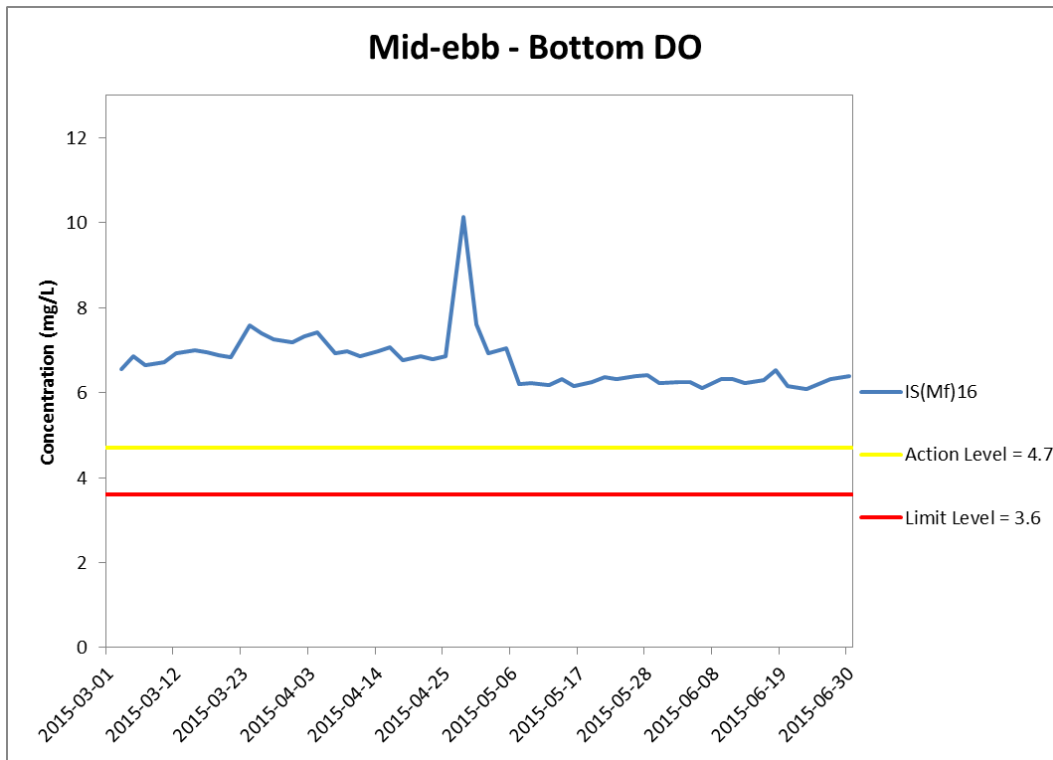


**Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



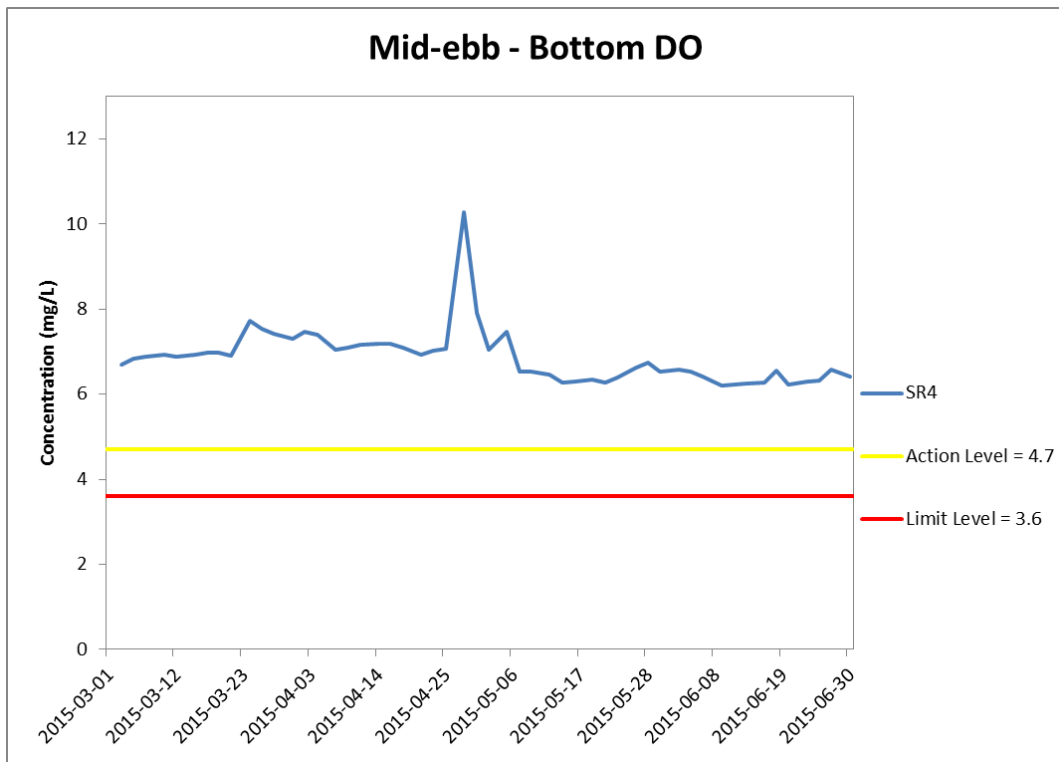
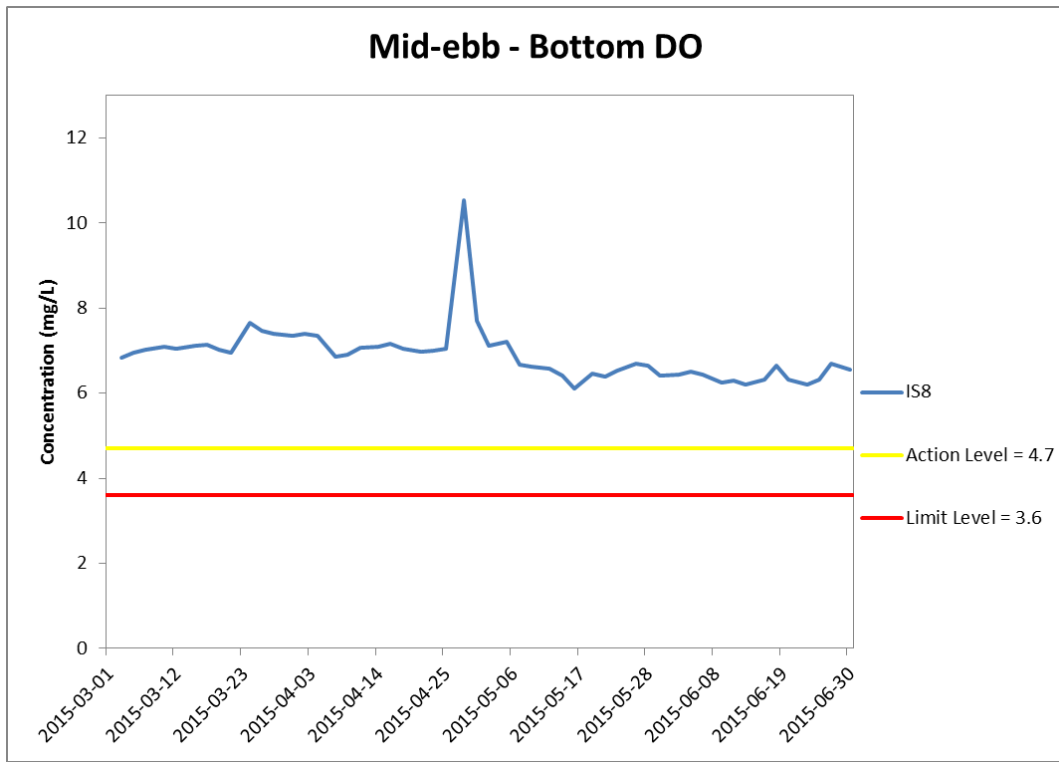


**Figure J18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



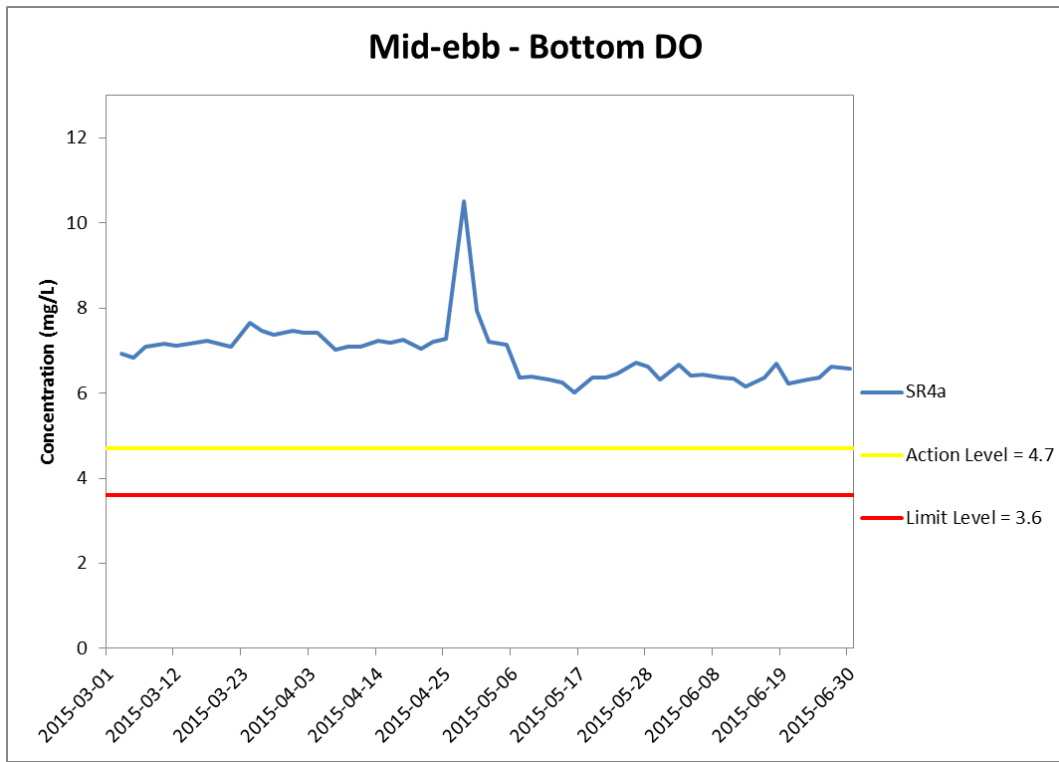


**Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



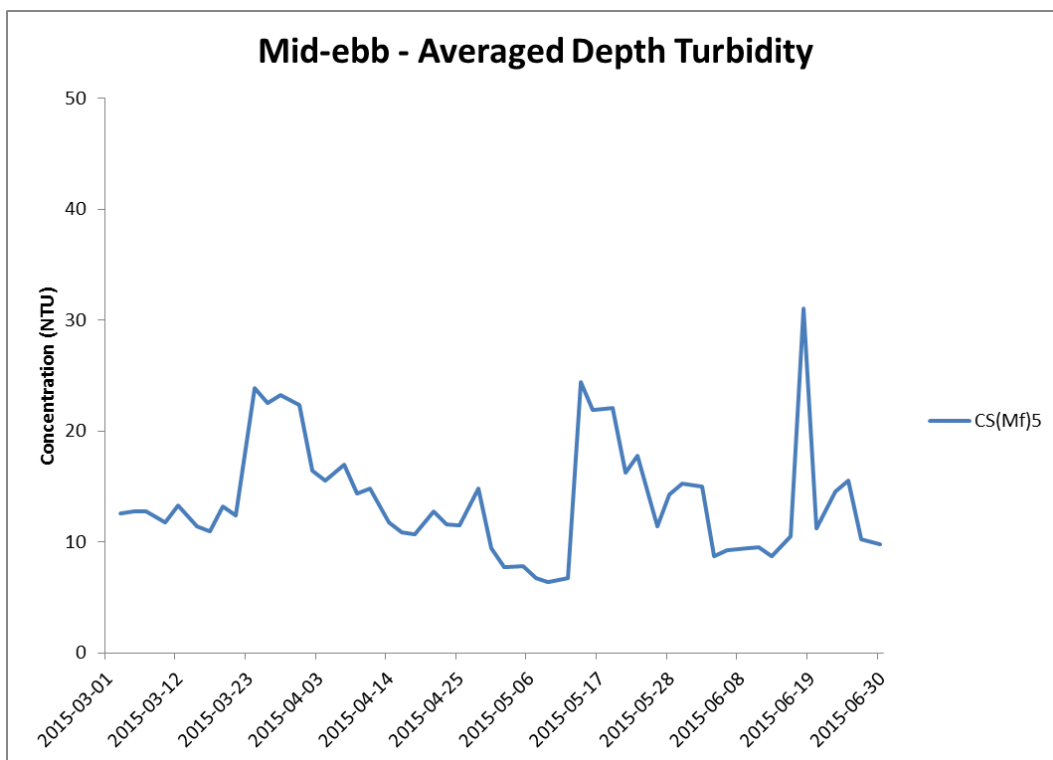
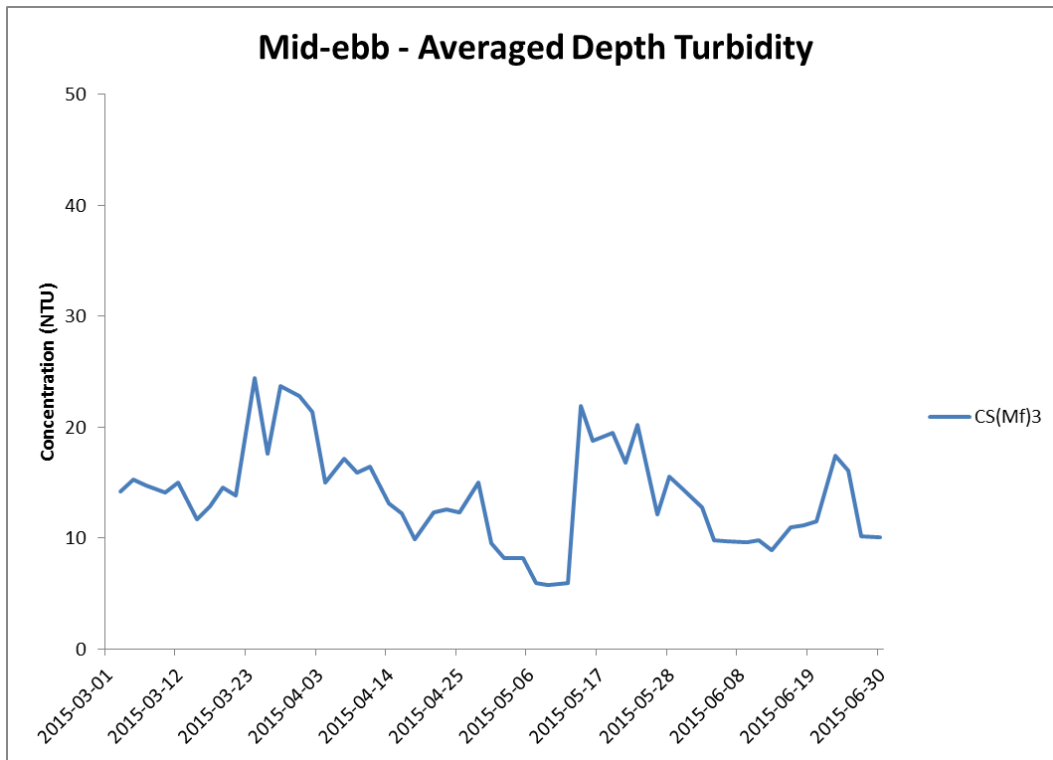


**Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**

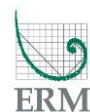




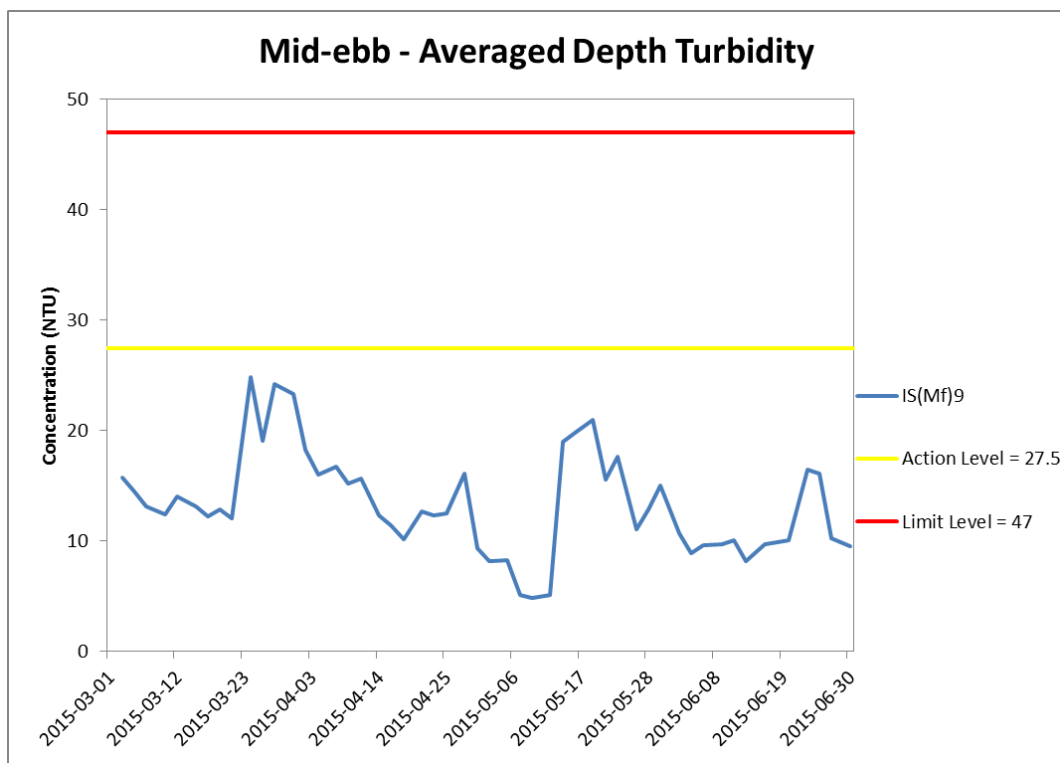
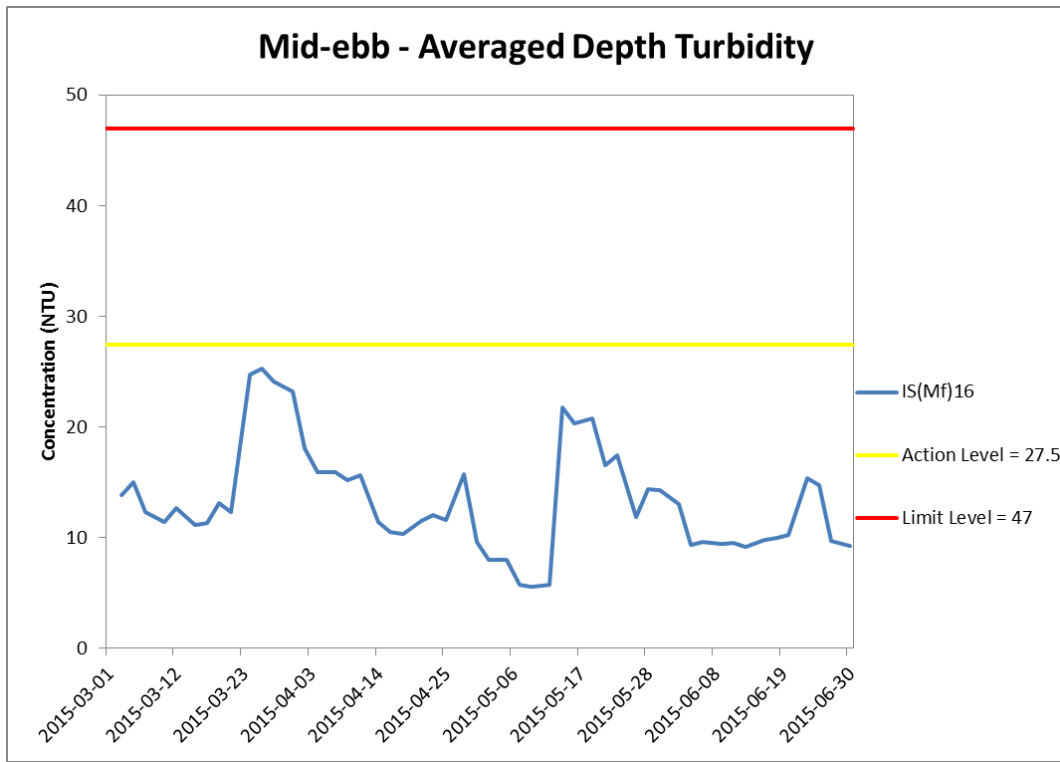
**Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





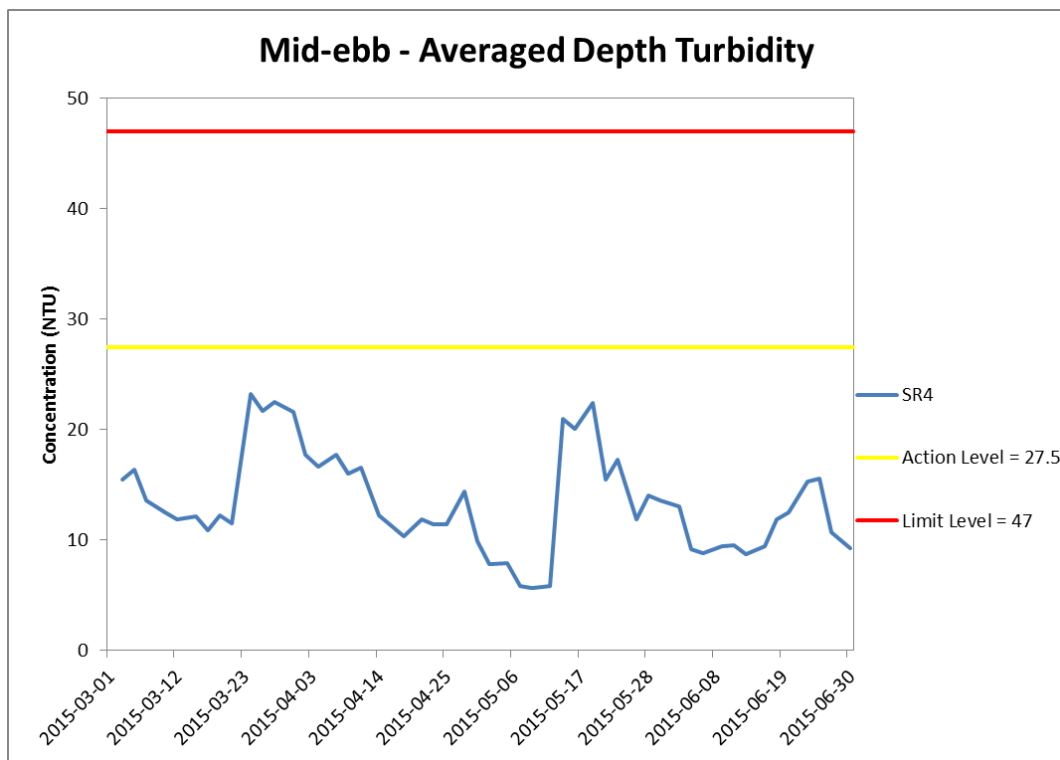
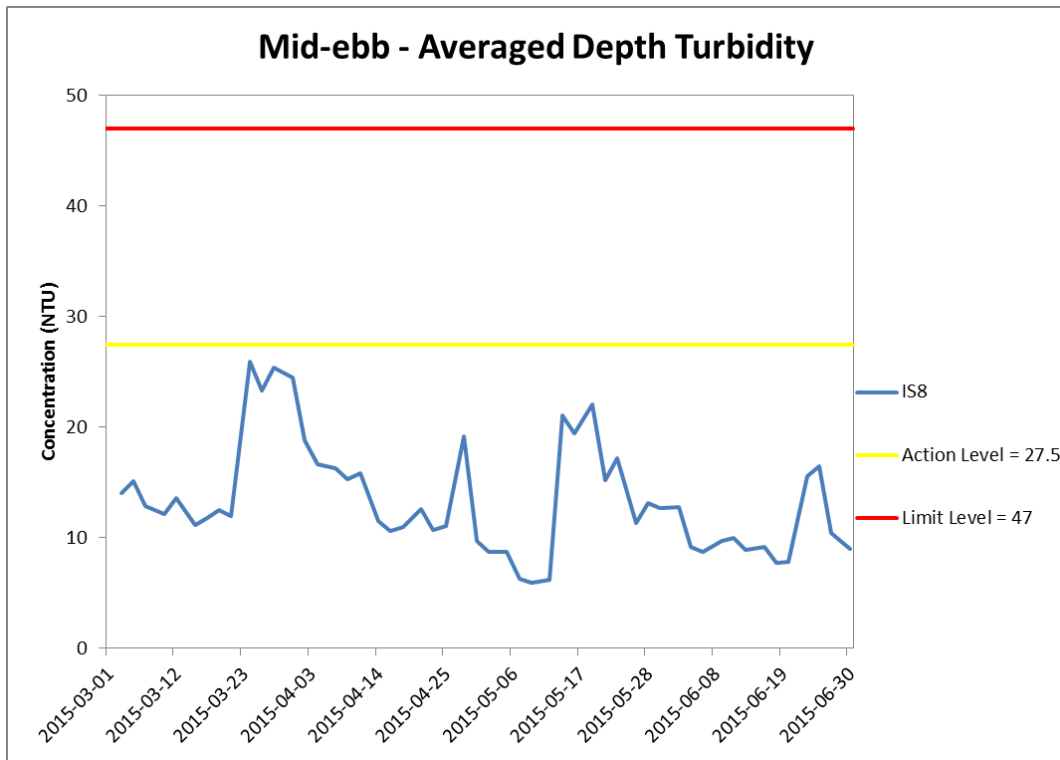


**Figure J22 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



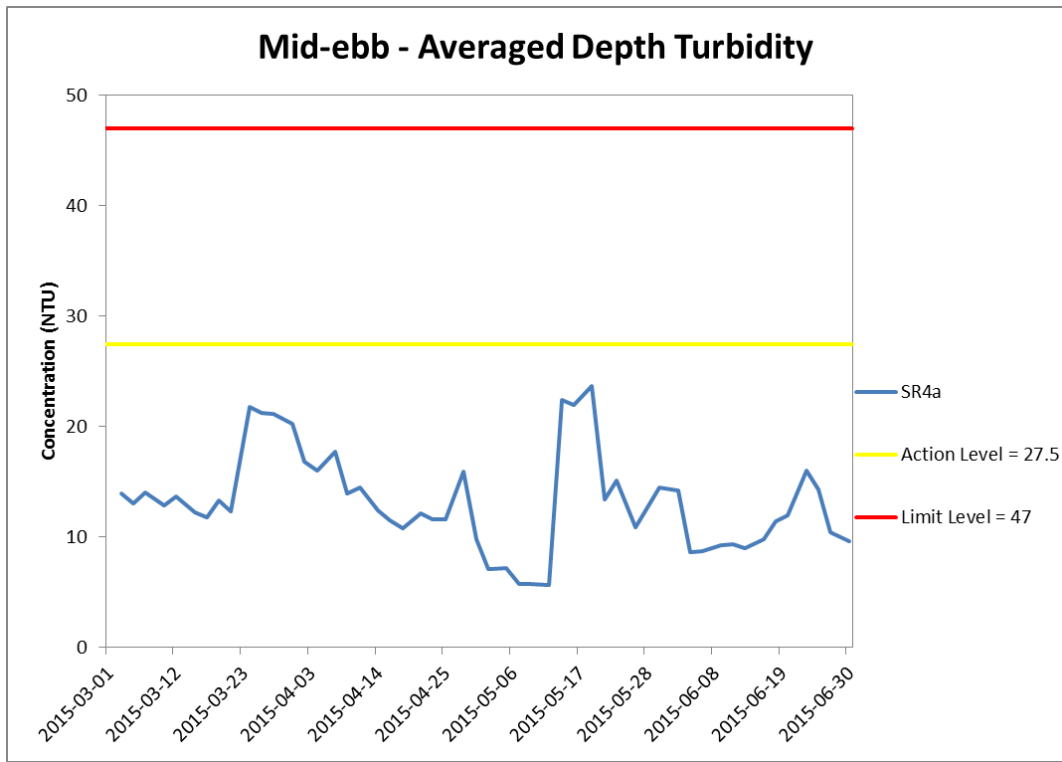


**Figure J23 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



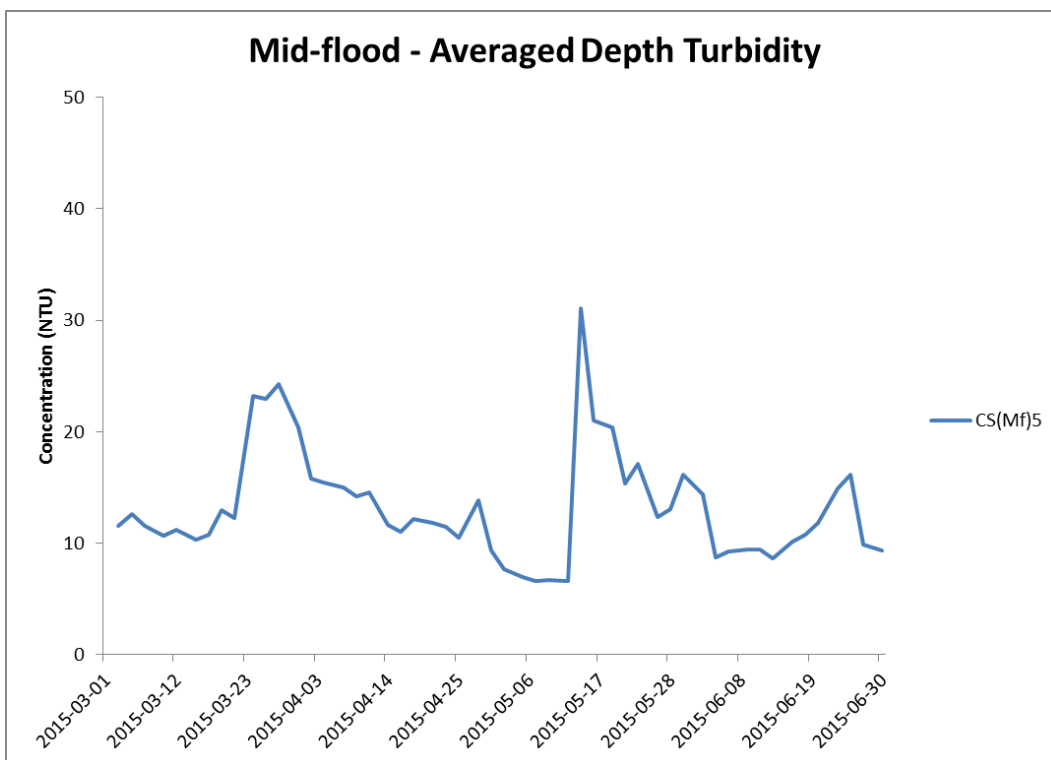
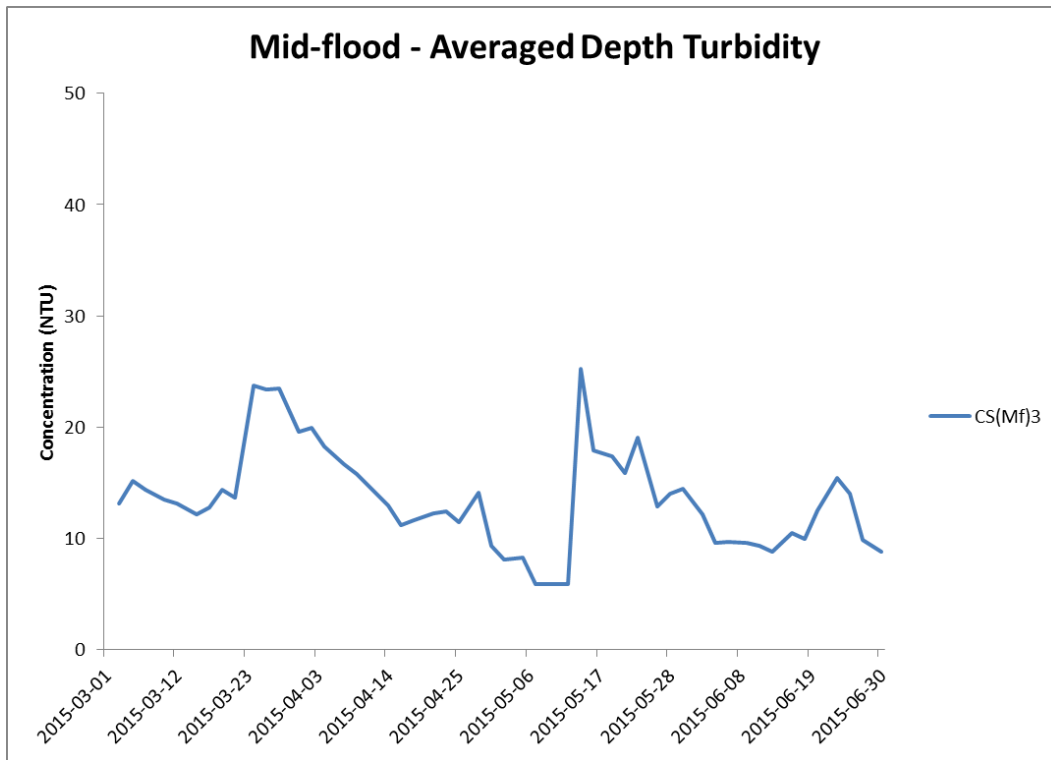


**Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



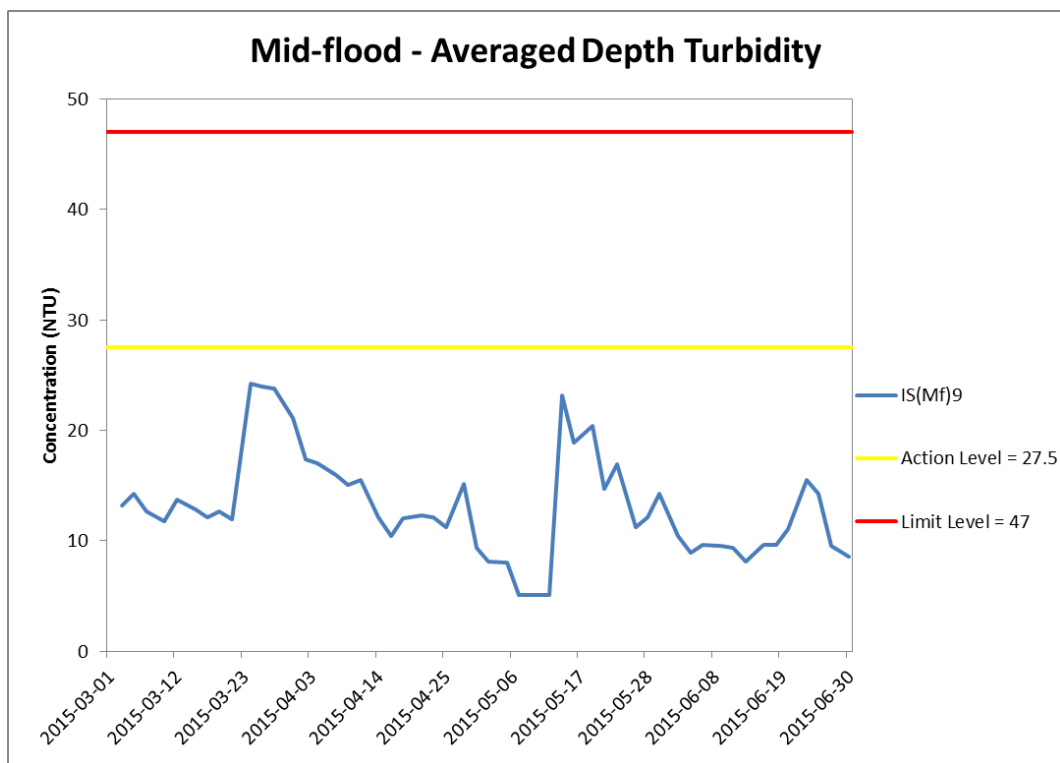
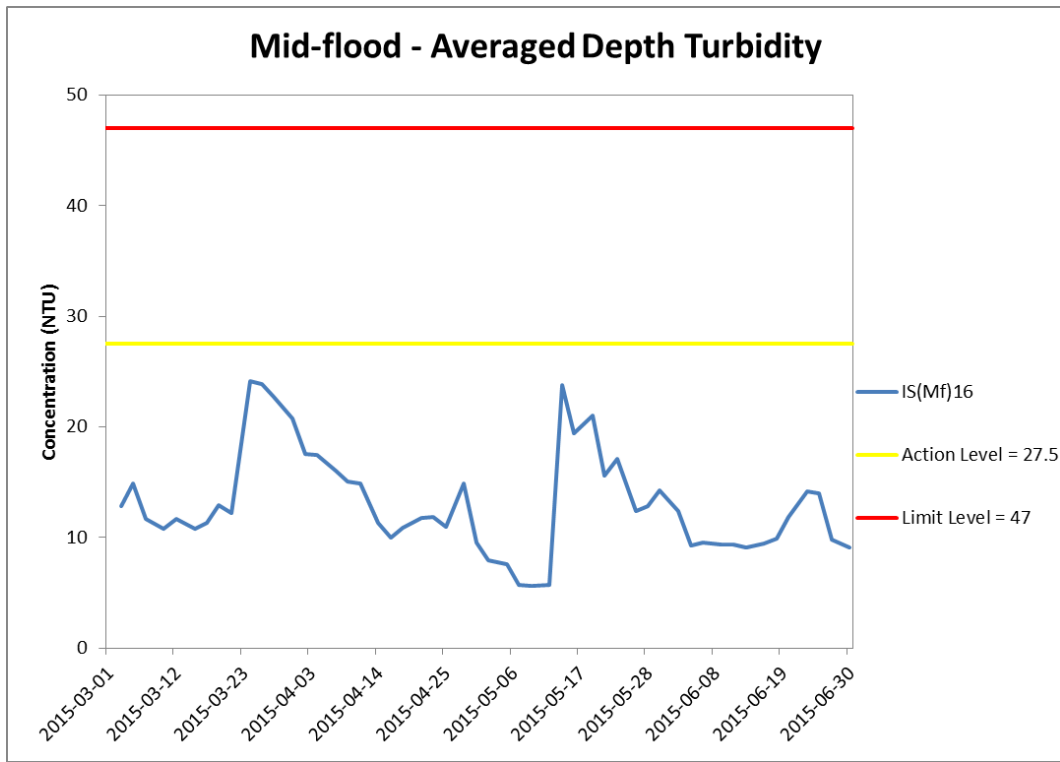


**Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(MF)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



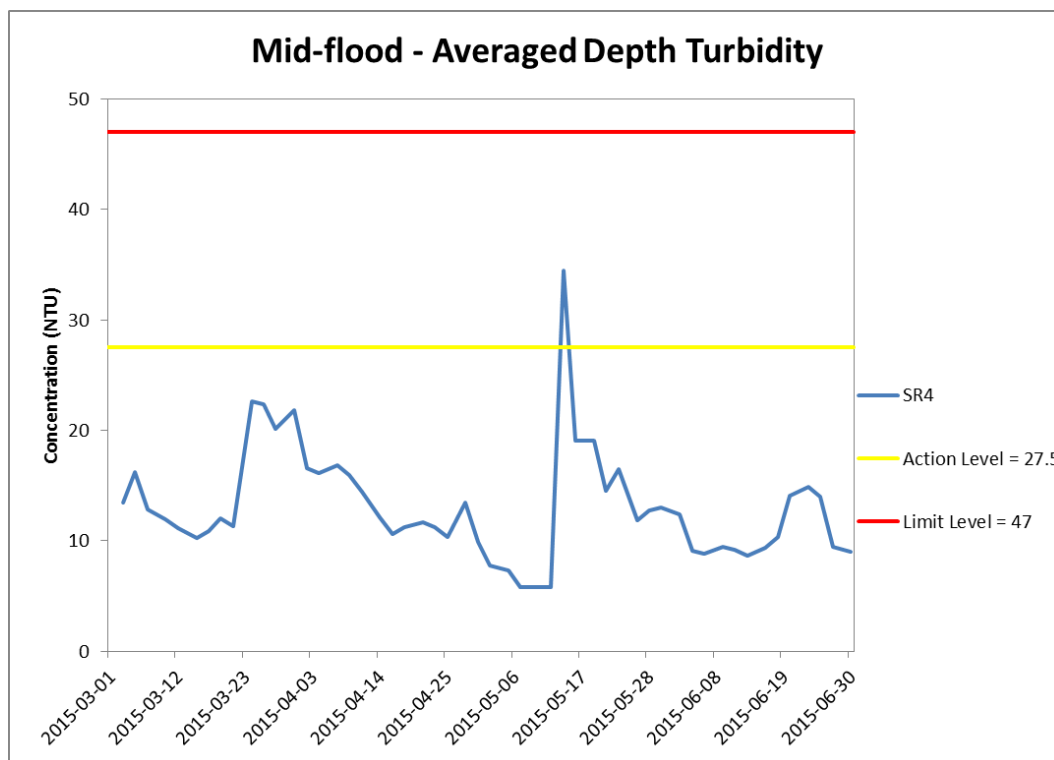
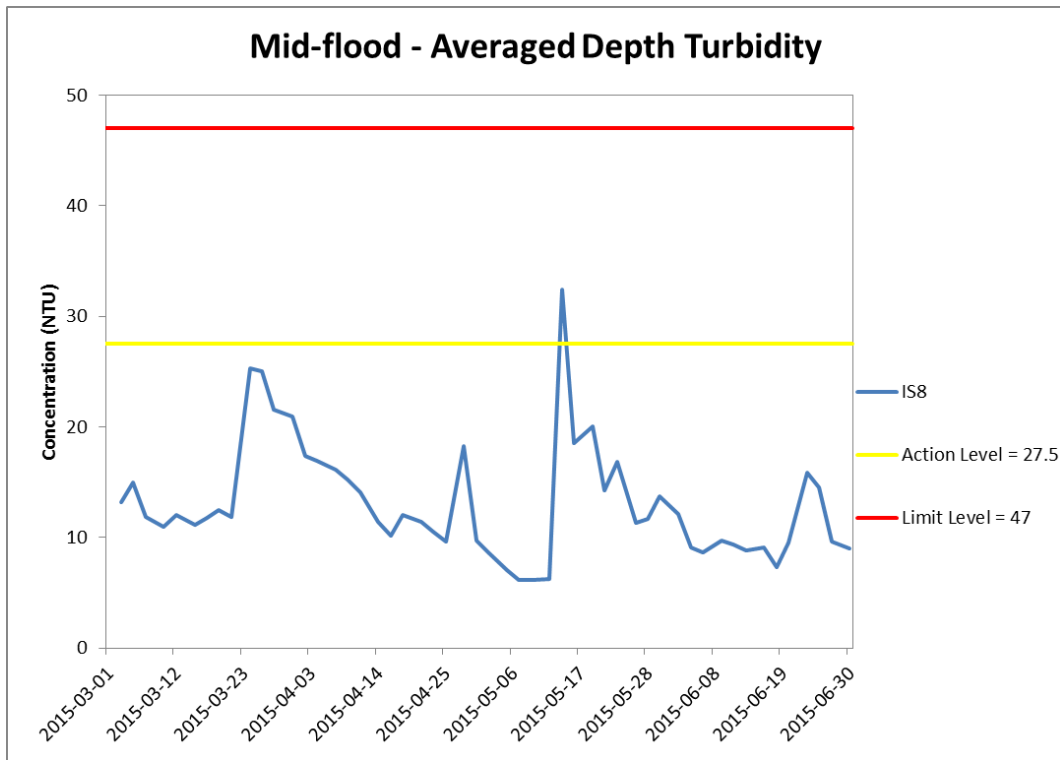


**Figure J26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**

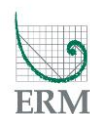


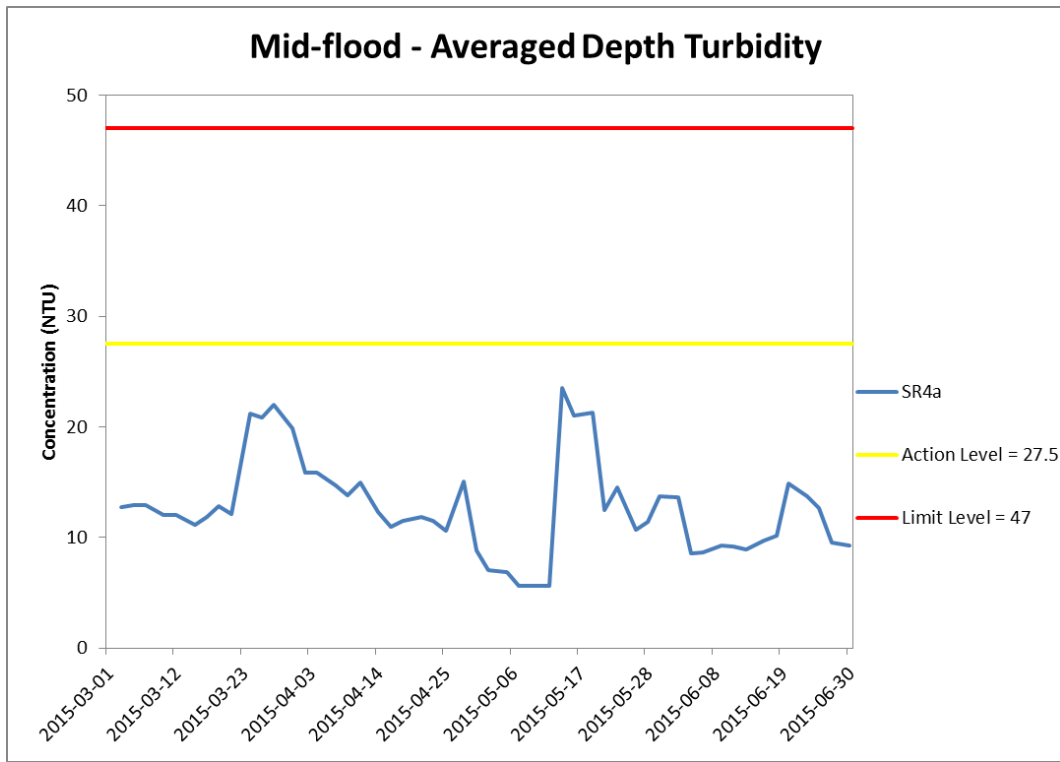


**Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The result higher than Action Level were not considered as exceedance as it was not higher than 120% of the upstream control station on the same day at same tide.*

**Environmental  
Resources  
Management**



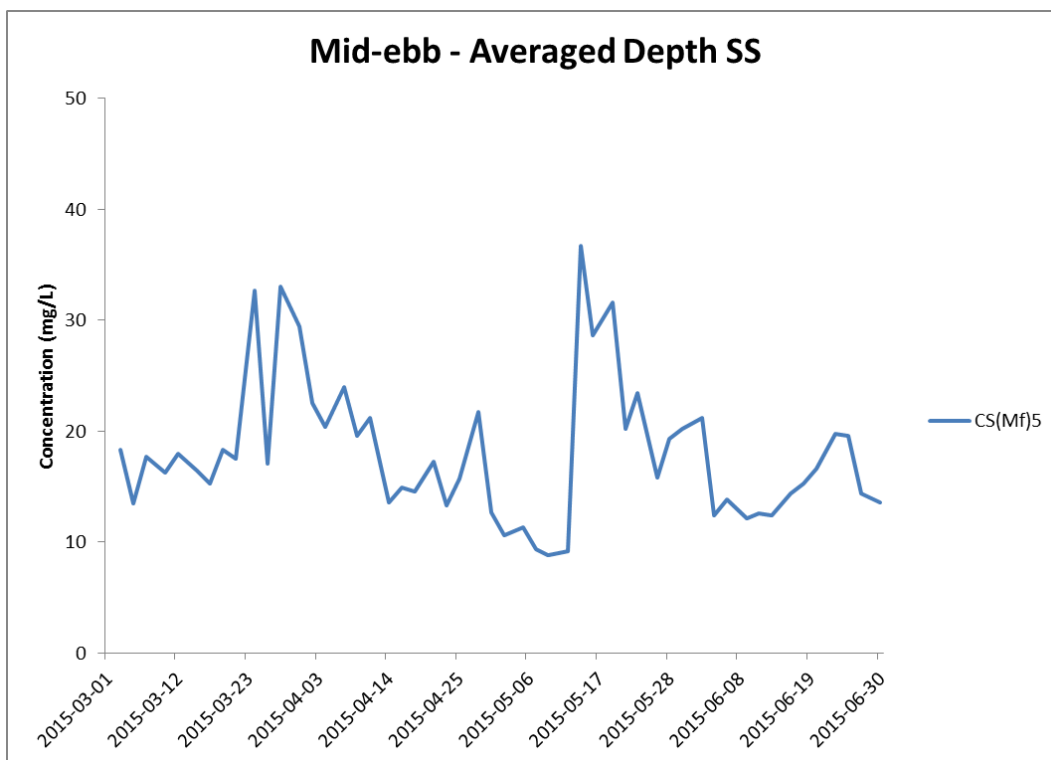
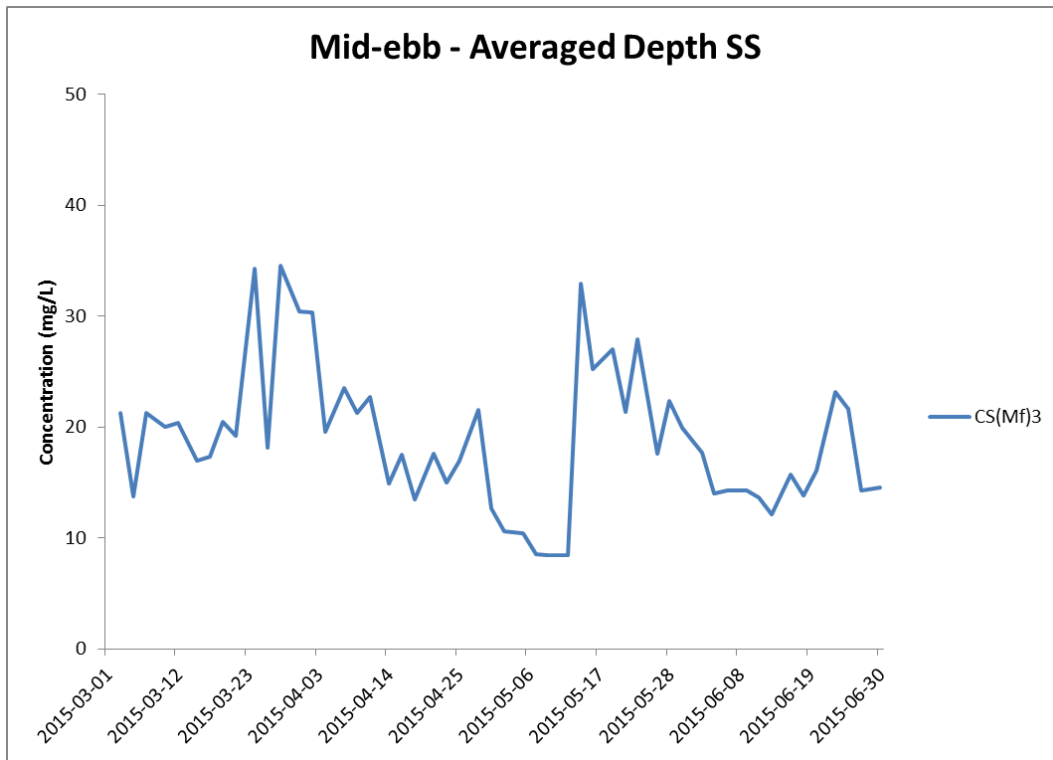


**Figure J28 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





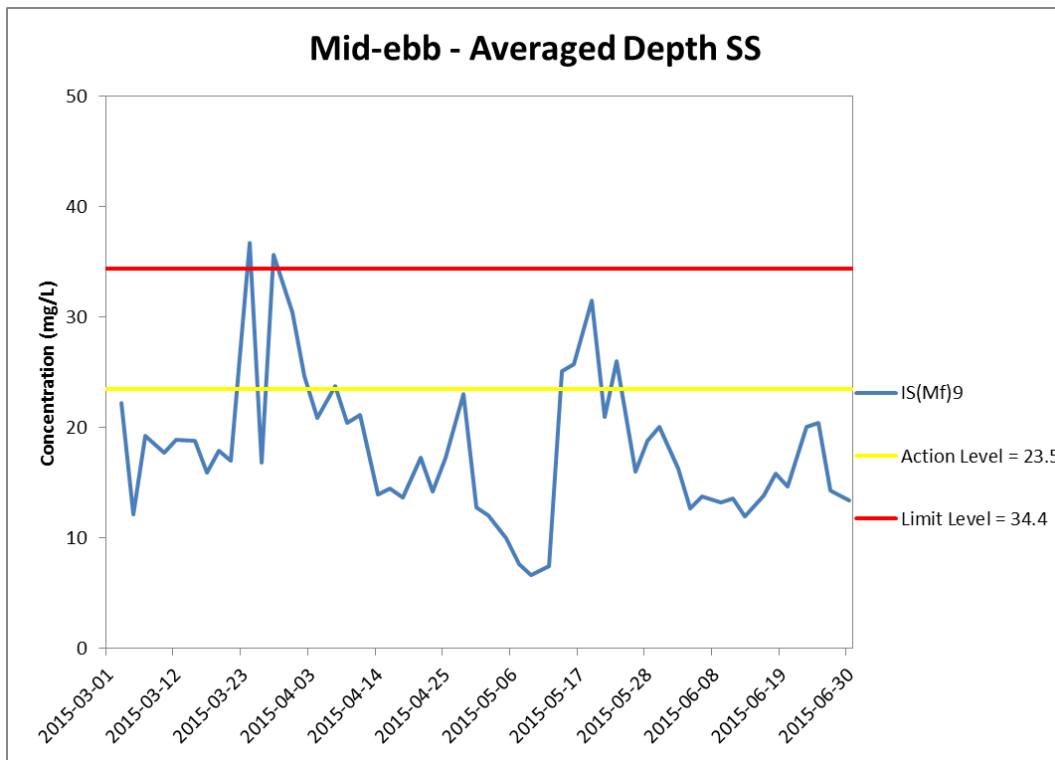
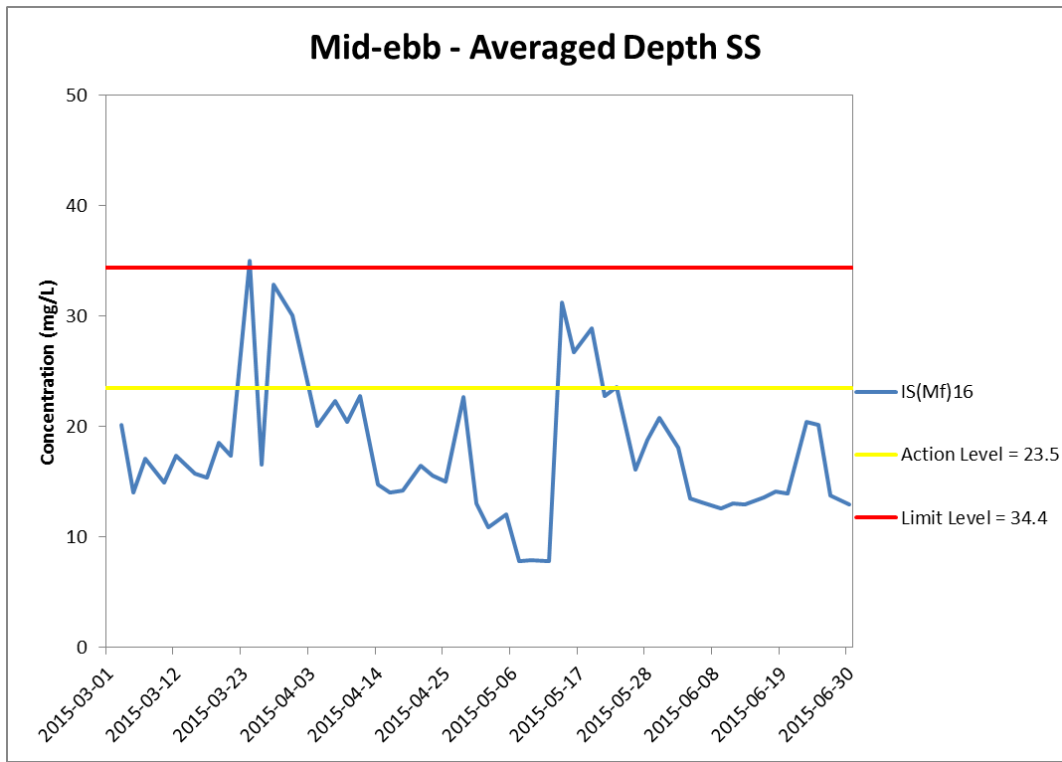
**Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**





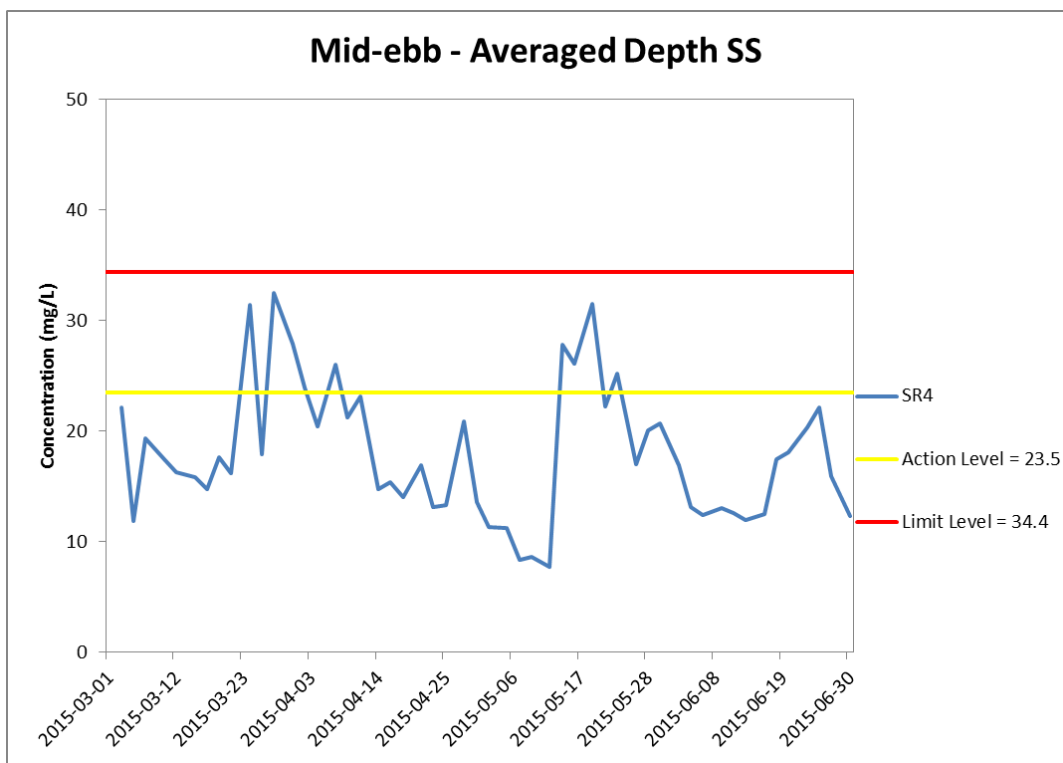
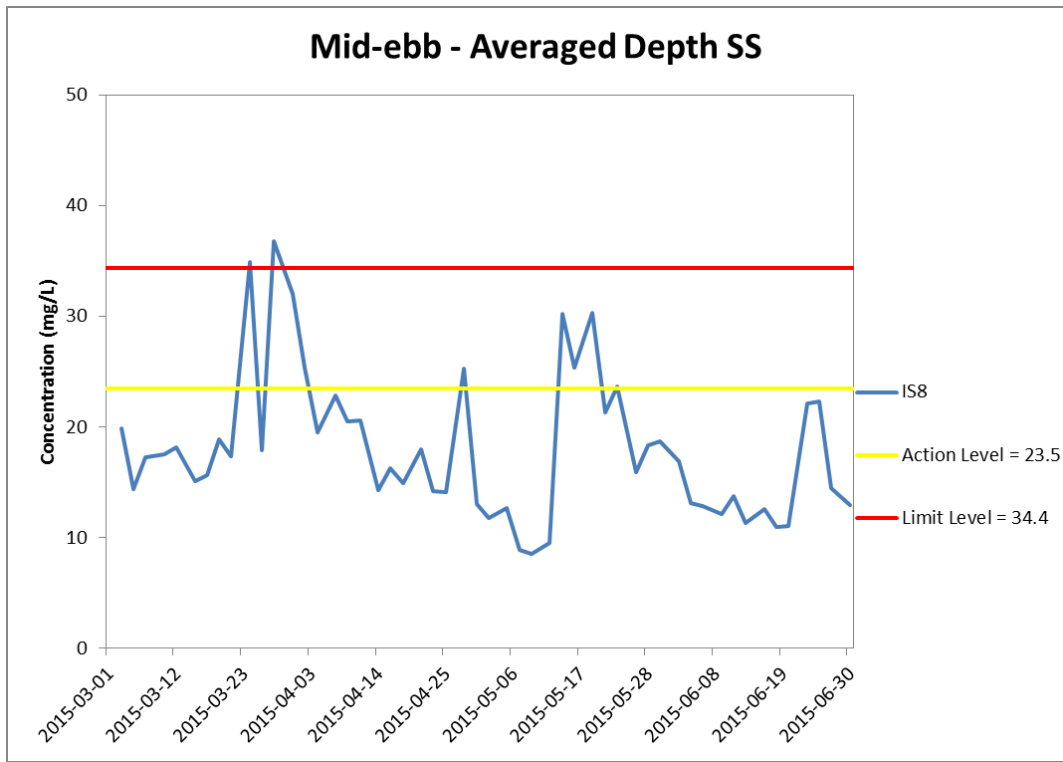


**Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**



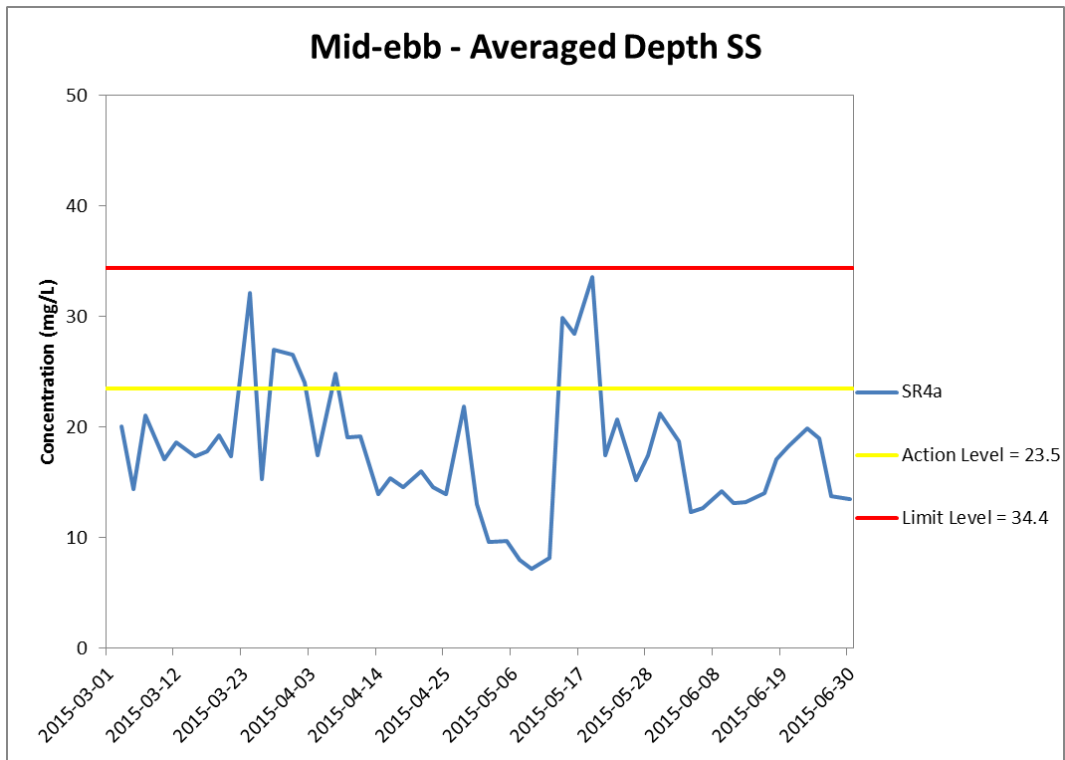


**Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**



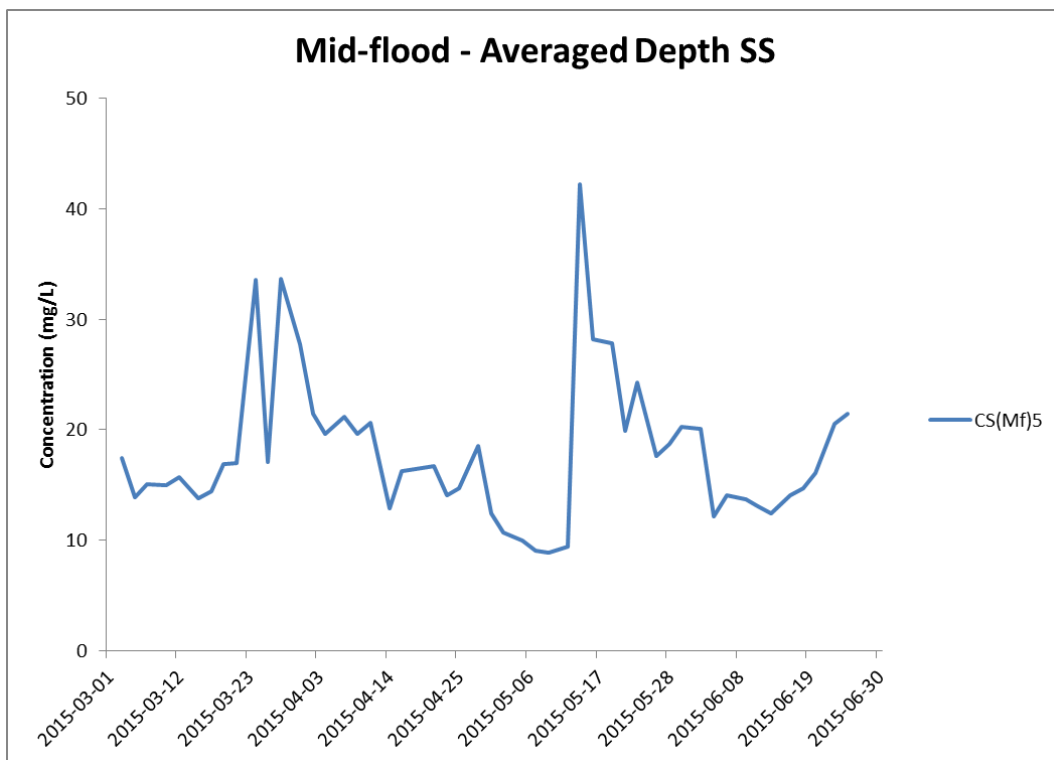
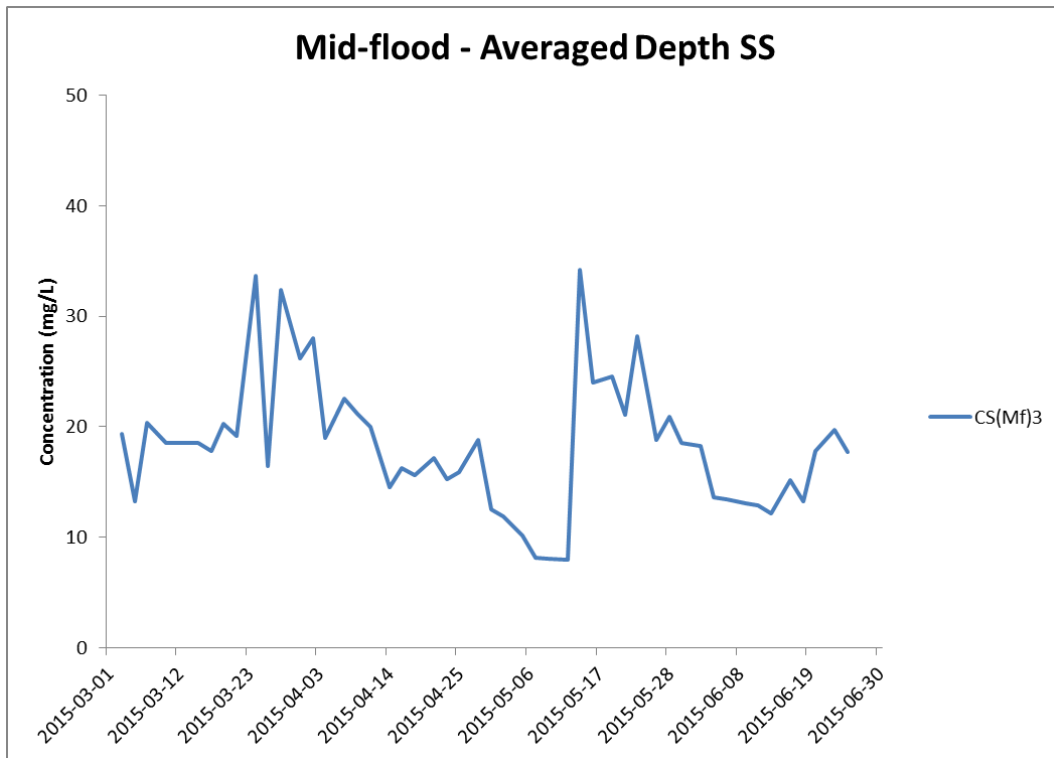


**Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) Apart from 19 May, the SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**



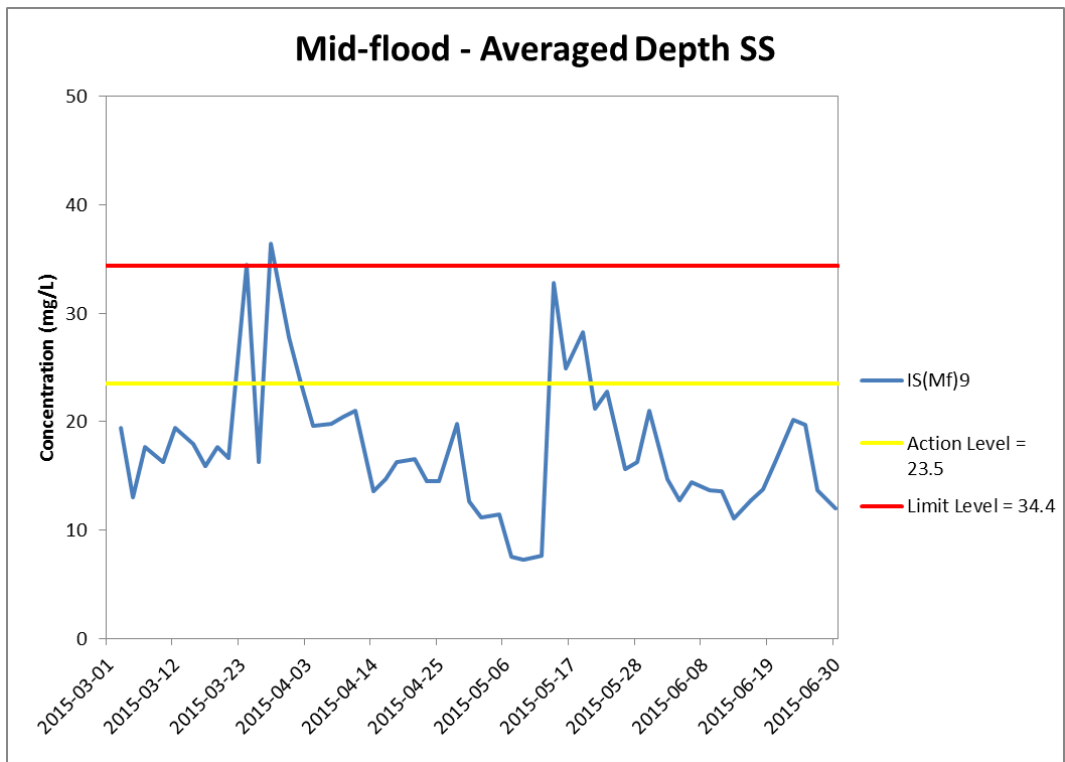
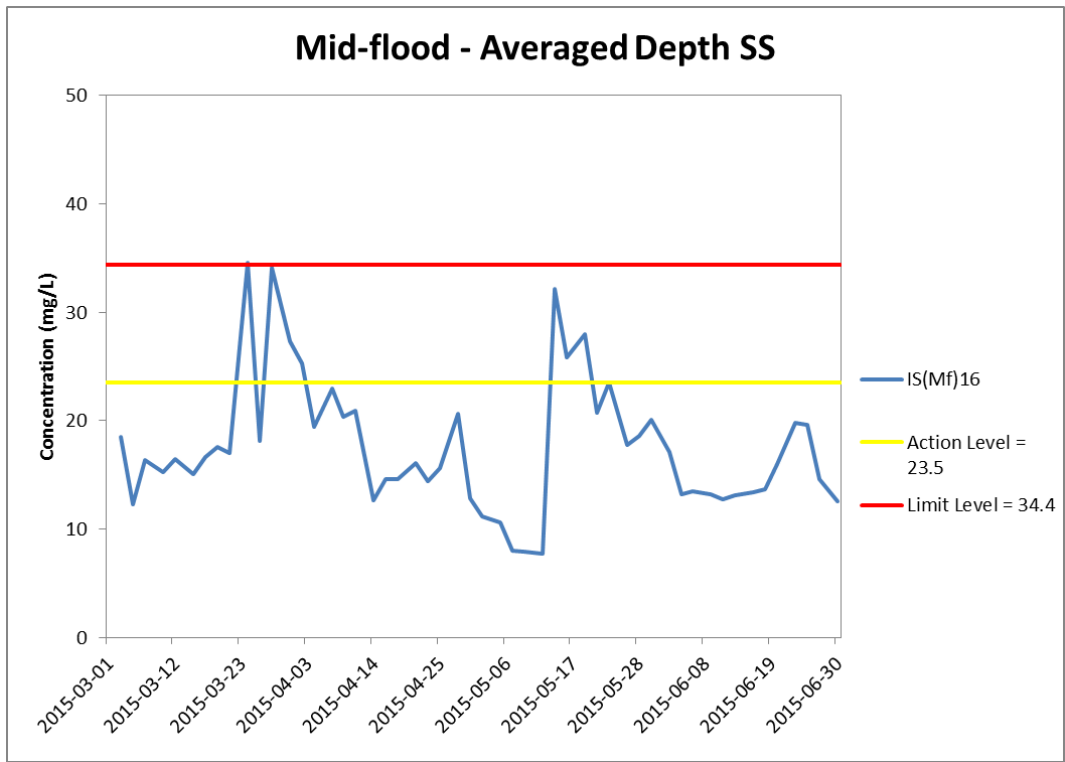


**Figure J33 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 March and 30 June 2015 at CS(Mf)3 and CS(Mf)5.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling)*

**Environmental  
Resources  
Management**



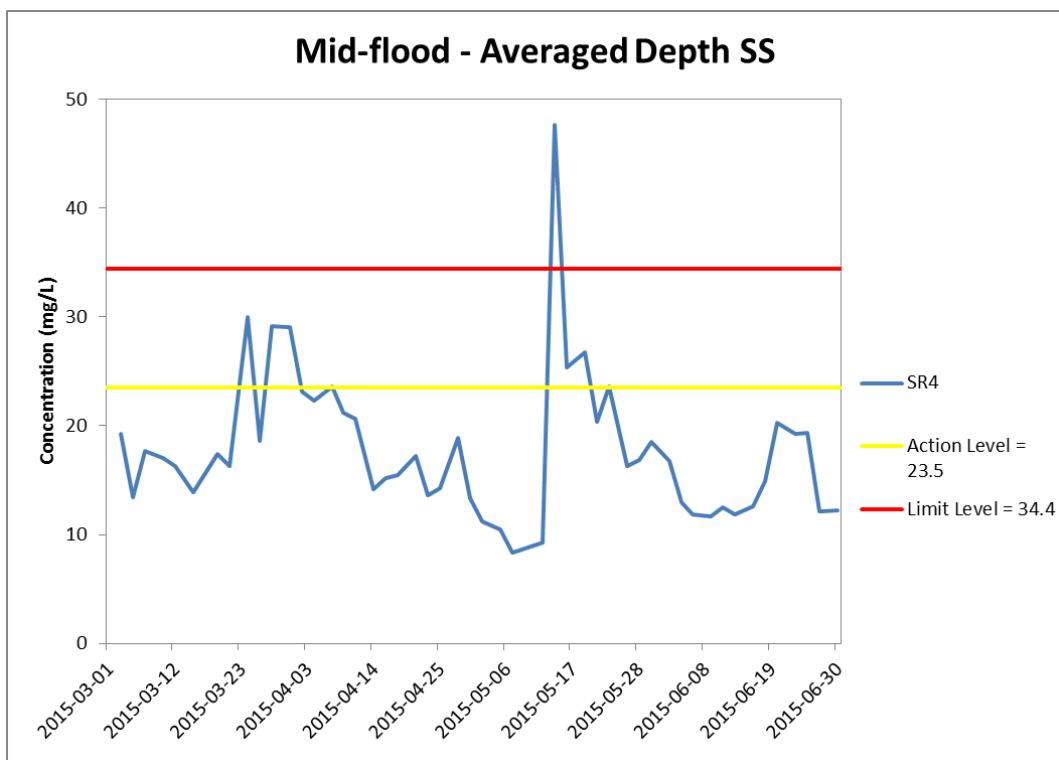
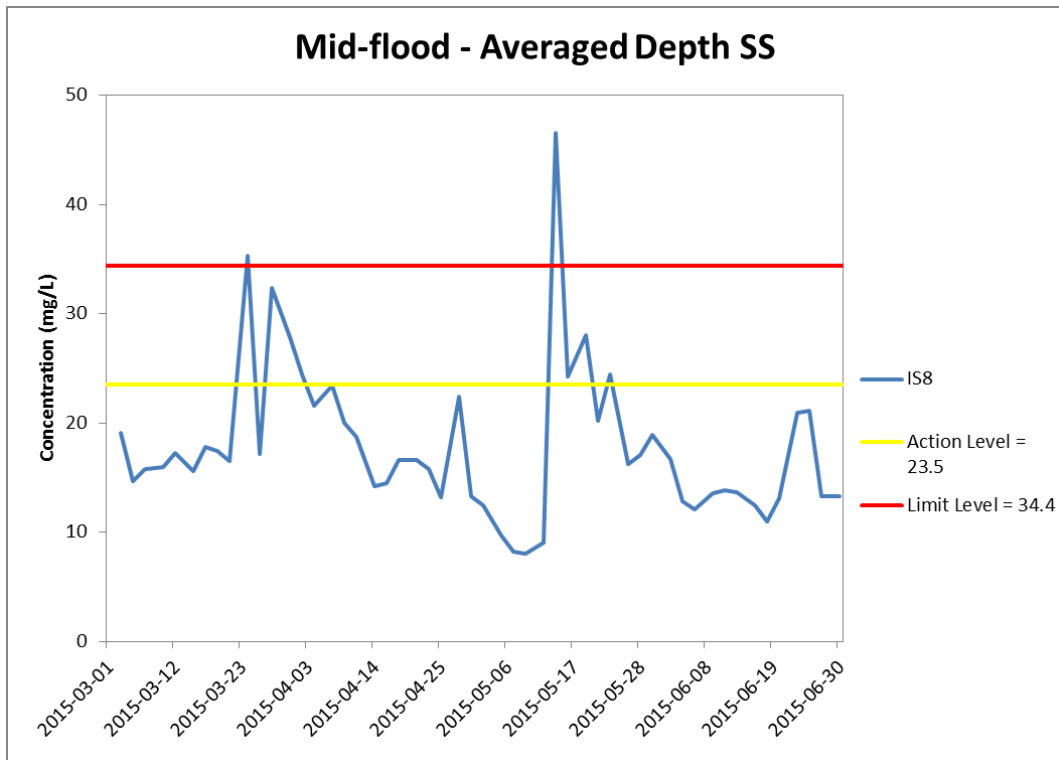


**Figure J34 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 March and 30 June 2015 at IS(Mf)16 and IS(Mf)9.**

*(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**



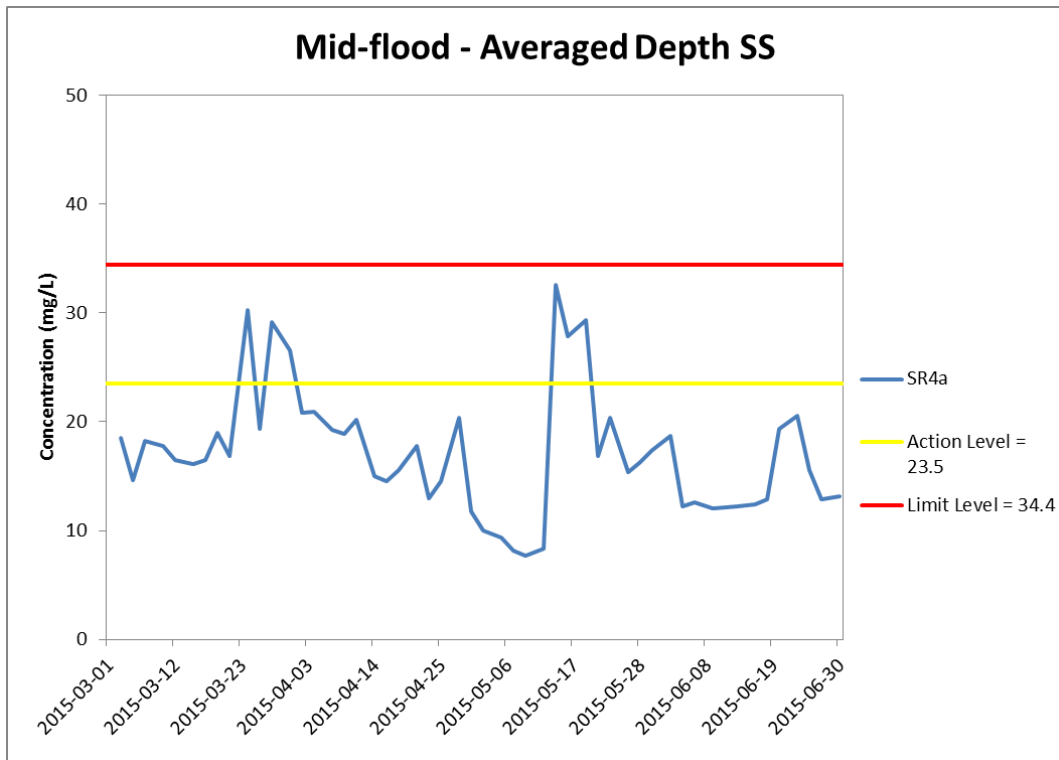


**Figure J35 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 March and 30 June 2015 at IS8 and SR4.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**





**Figure J36 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 March and 30 June 2015 at SR4a.**

*(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 head segment installation; Pile cap installation; Pier construction; Launching gantry assembly and marine piling) The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.*

**Environmental  
Resources  
Management**



Appendix K

## Impact Dolphin Monitoring Survey Results



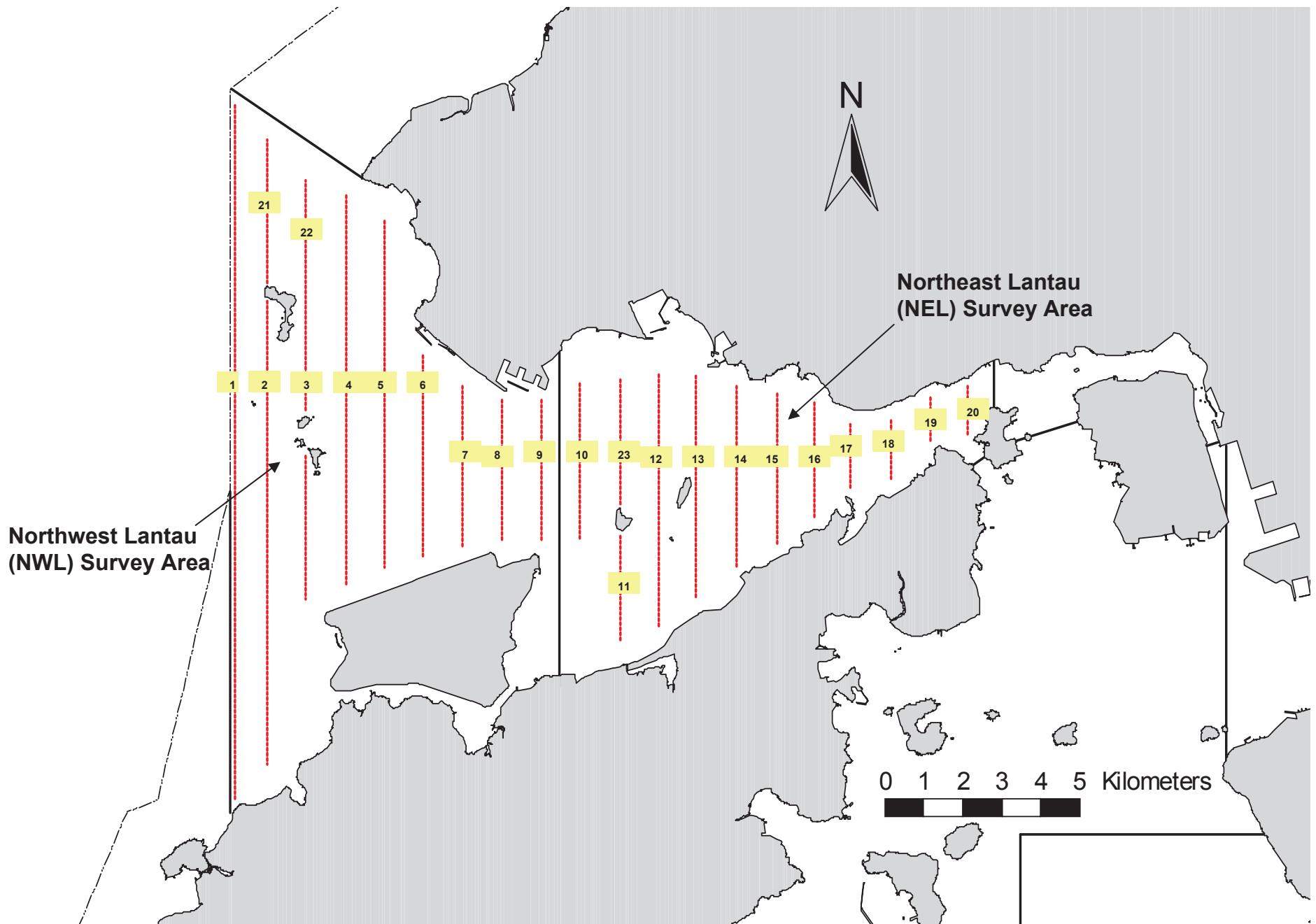


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

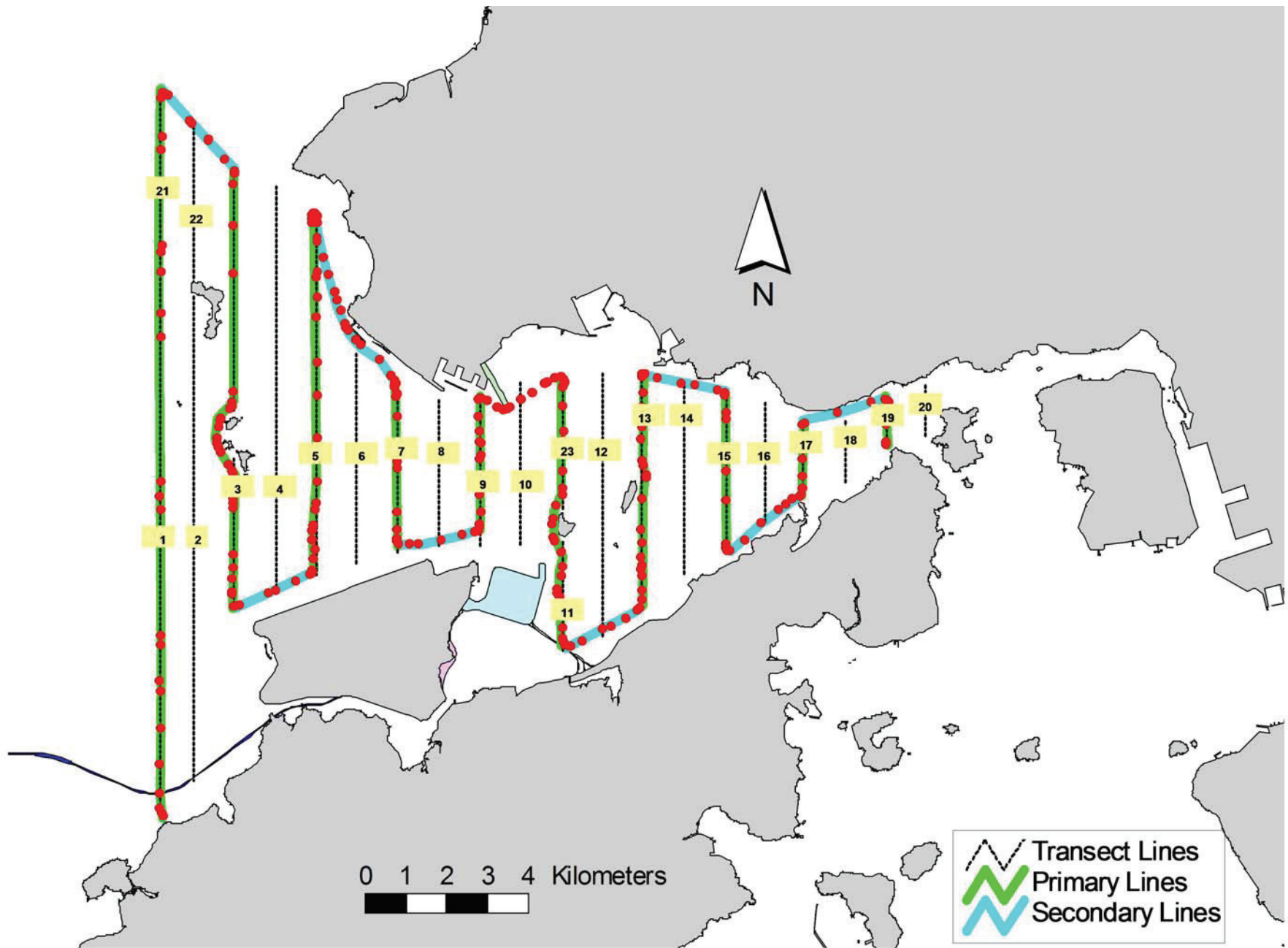


Figure 2. Survey Route on June 2<sup>nd</sup>, 2015 (from HKLR03 project)

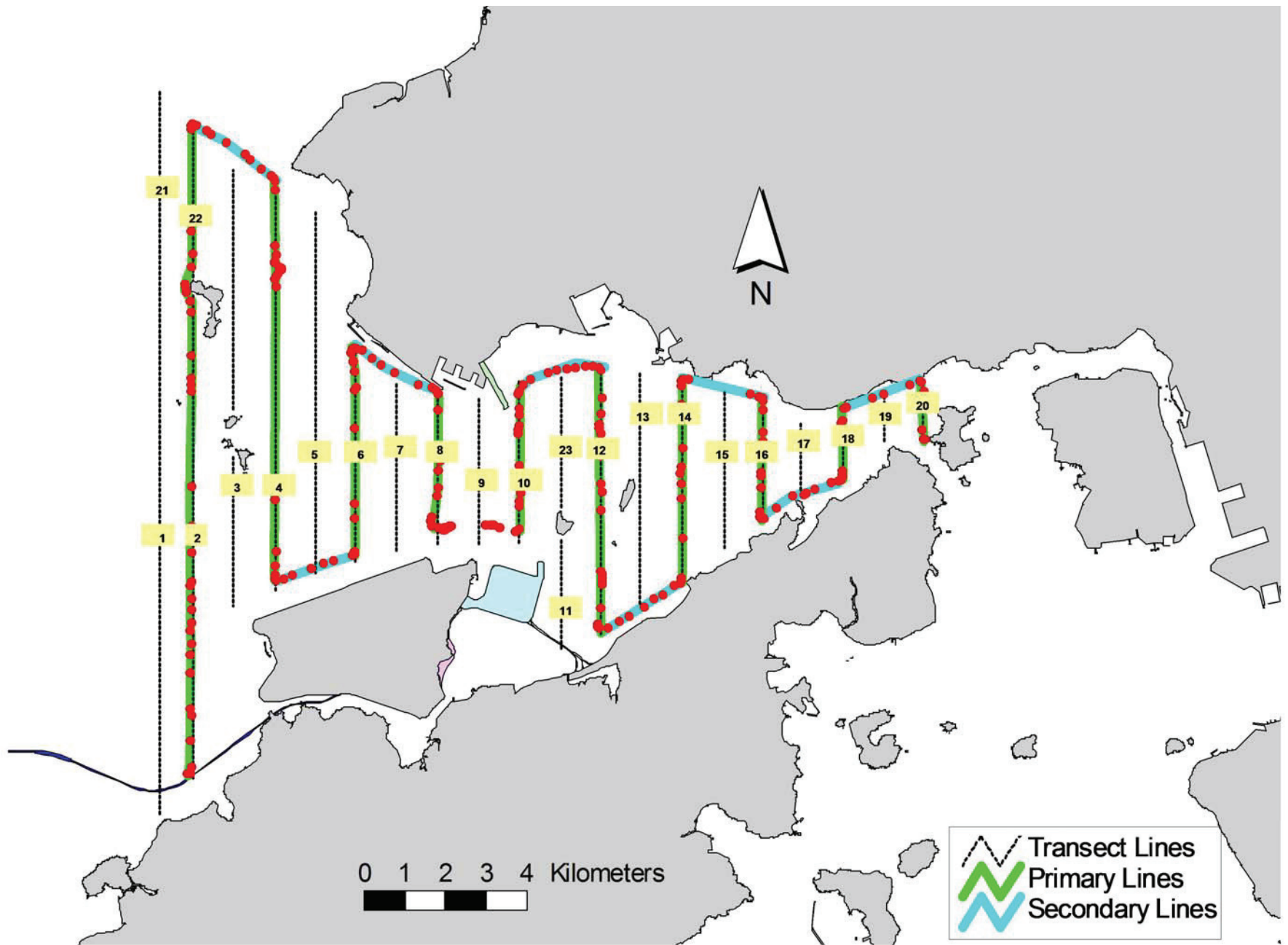


Figure 3. Survey Route on June 10<sup>th</sup>, 2015 (from HKLR03 project)

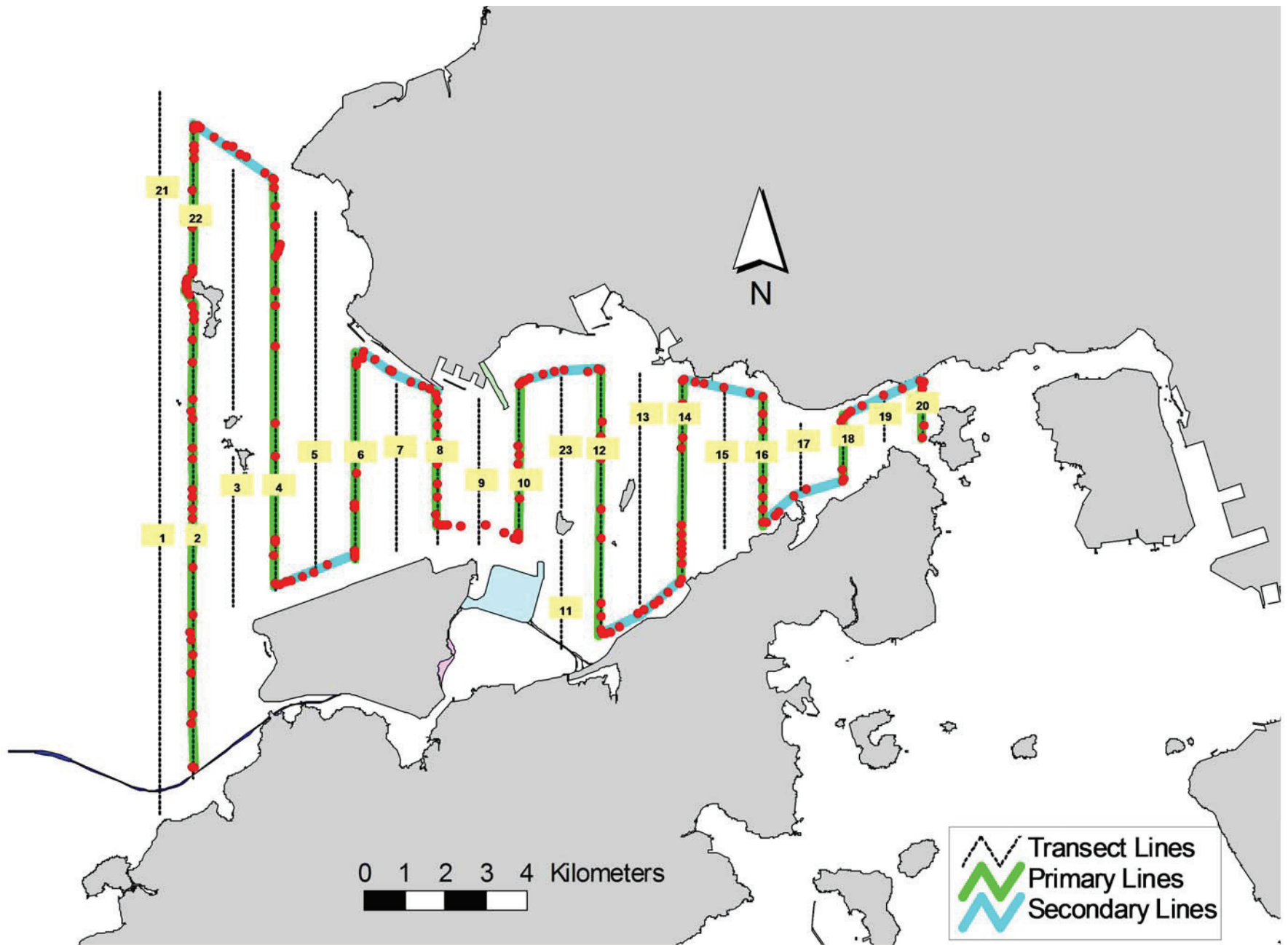


Figure 4. Survey Route on June 24<sup>th</sup>, 2015 (from HKLR03 project)

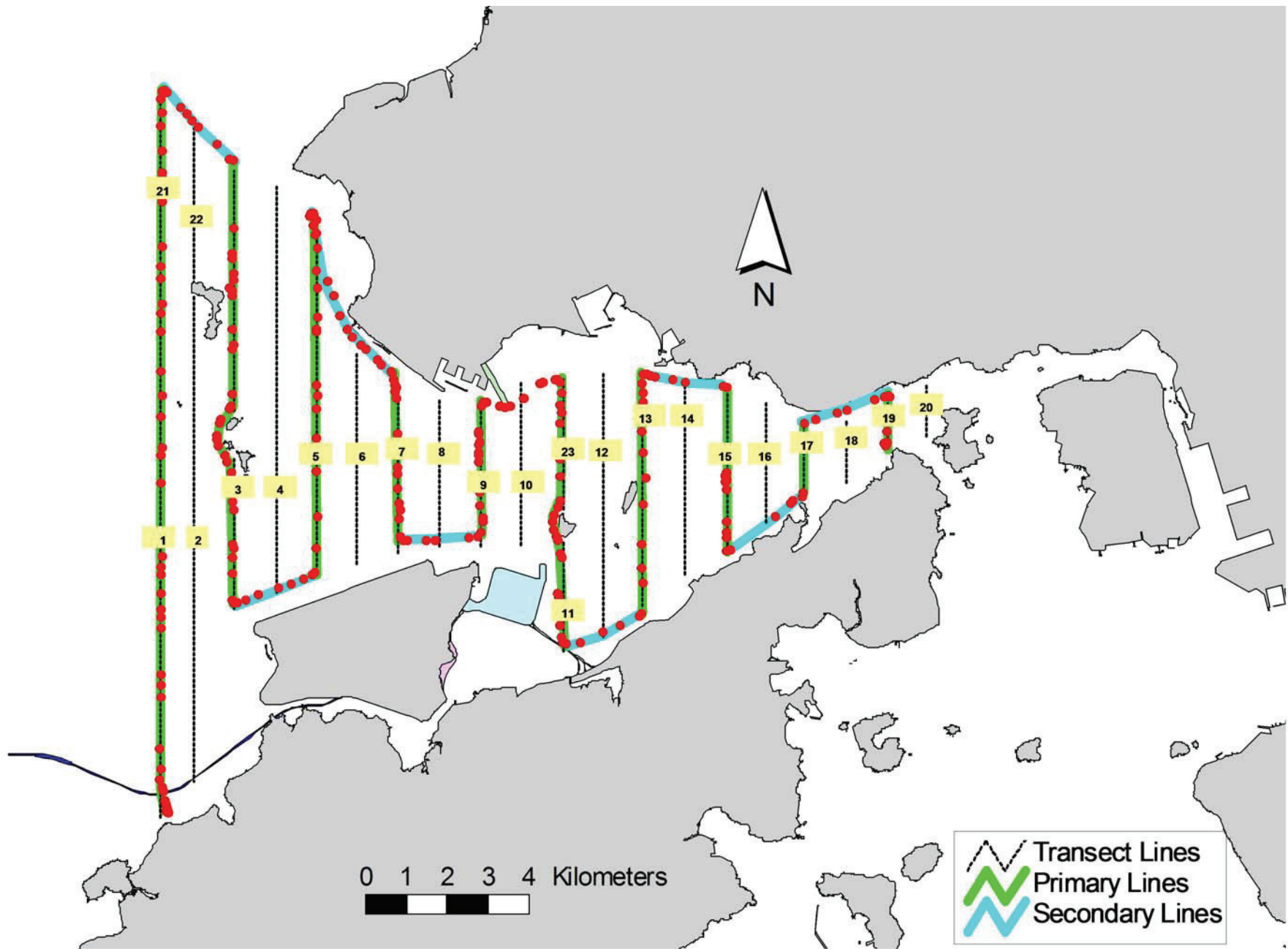


Figure 5. Survey Route on June 26<sup>th</sup>, 2015 (from HKLR03 project)

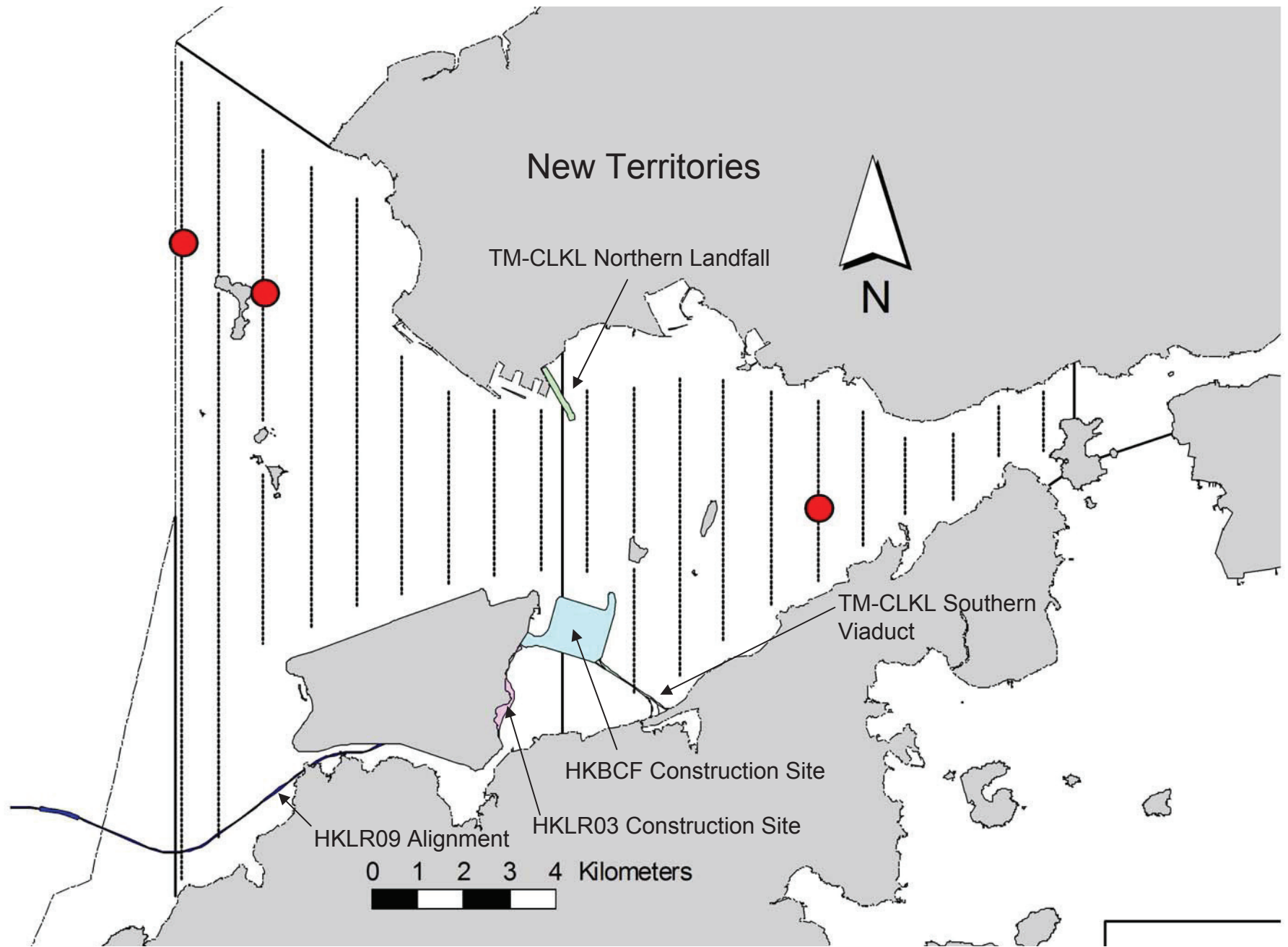


Figure 6. Distribution of Chinese White Dolphin Sightings During June 2015 HKLR03 Monitoring Surveys

## Appendix I. HKLR03 Survey Effort Database (June 2015)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
2-Jun-15	NW LANTAU	2	10.00	SUMMER	STANDARD31516	HKLR	P
2-Jun-15	NW LANTAU	3	30.49	SUMMER	STANDARD31516	HKLR	P
2-Jun-15	NW LANTAU	2	7.70	SUMMER	STANDARD31516	HKLR	S
2-Jun-15	NW LANTAU	3	5.61	SUMMER	STANDARD31516	HKLR	S
2-Jun-15	NE LANTAU	2	6.93	SUMMER	STANDARD31516	HKLR	P
2-Jun-15	NE LANTAU	3	10.05	SUMMER	STANDARD31516	HKLR	P
2-Jun-15	NE LANTAU	2	9.12	SUMMER	STANDARD31516	HKLR	S
2-Jun-15	NE LANTAU	3	0.80	SUMMER	STANDARD31516	HKLR	S
10-Jun-15	NE LANTAU	2	17.06	SUMMER	STANDARD31516	HKLR	P
10-Jun-15	NE LANTAU	3	3.30	SUMMER	STANDARD31516	HKLR	P
10-Jun-15	NE LANTAU	2	9.14	SUMMER	STANDARD31516	HKLR	S
10-Jun-15	NE LANTAU	3	1.30	SUMMER	STANDARD31516	HKLR	S
10-Jun-15	NW LANTAU	2	8.02	SUMMER	STANDARD31516	HKLR	P
10-Jun-15	NW LANTAU	3	17.50	SUMMER	STANDARD31516	HKLR	P
10-Jun-15	NW LANTAU	4	5.86	SUMMER	STANDARD31516	HKLR	P
10-Jun-15	NW LANTAU	2	3.48	SUMMER	STANDARD31516	HKLR	S
10-Jun-15	NW LANTAU	3	1.65	SUMMER	STANDARD31516	HKLR	S
10-Jun-15	NW LANTAU	4	2.39	SUMMER	STANDARD31516	HKLR	S
24-Jun-15	NW LANTAU	2	12.10	SUMMER	STANDARD31516	HKLR	P
24-Jun-15	NW LANTAU	3	19.70	SUMMER	STANDARD31516	HKLR	P
24-Jun-15	NW LANTAU	2	4.80	SUMMER	STANDARD31516	HKLR	S
24-Jun-15	NW LANTAU	3	2.40	SUMMER	STANDARD31516	HKLR	S
24-Jun-15	NE LANTAU	2	20.32	SUMMER	STANDARD31516	HKLR	P
24-Jun-15	NE LANTAU	2	10.68	SUMMER	STANDARD31516	HKLR	S
26-Jun-15	NW LANTAU	3	30.27	SUMMER	STANDARD31516	HKLR	P
26-Jun-15	NW LANTAU	4	10.98	SUMMER	STANDARD31516	HKLR	P
26-Jun-15	NW LANTAU	3	6.40	SUMMER	STANDARD31516	HKLR	S
26-Jun-15	NW LANTAU	4	6.05	SUMMER	STANDARD31516	HKLR	S
26-Jun-15	NE LANTAU	2	14.33	SUMMER	STANDARD31516	HKLR	P
26-Jun-15	NE LANTAU	3	3.16	SUMMER	STANDARD31516	HKLR	P
26-Jun-15	NE LANTAU	2	6.53	SUMMER	STANDARD31516	HKLR	S
26-Jun-15	NE LANTAU	3	3.18	SUMMER	STANDARD31516	HKLR	S

**Appendix II. HKLR03 Chinese White Dolphin Sighting Database (June 2015)**

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
02-Jun-15	1	1110	10	NW LANTAU	3	88	ON	HKLR	827673	804687	SUMMER	NONE	P
26-Jun-15	1	1210	4	NW LANTAU	4	357	ON	HKLR	826650	806456	SUMMER	NONE	P
26-Jun-15	2	1610	1	NE LANTAU	2	0	ON	HKLR	822224	818562	SUMMER	NONE	P



**Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in June 2015**

<b>ID#</b>	<b>DATE</b>	<b>STG#</b>	<b>AREA</b>
CH34	02/06/15	1	NW LANTAU
NL37	02/06/15	1	NW LANTAU
NL48	02/06/15	1	NW LANTAU
NL104	02/06/15	1	NW LANTAU
NL136	02/06/15	1	NW LANTAU
NL182	02/06/15	1	NW LANTAU
NL202	02/06/15	1	NW LANTAU
	26/06/15	1	NW LANTAU
NL213	26/06/15	1	NW LANTAU
NL286	02/06/15	1	NW LANTAU
	26/06/15	1	NW LANTAU
NL319	26/06/15	1	NW LANTAU
WL05	02/06/15	1	NW LANTAU



Appendix IV. Photographs of Identified Individual Dolphins in June 2015 (HKLR03)



Appendix IV (cont'd).

Appendix L

## Event Action Plan

*Appendix L1 Event/ Action Plan for Air Quality*

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

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

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

8. If the exceedance stops, cease  
additional monitoring.

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*Appendix L2 Event/ Action Plan for Construction Noise*

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



**Appendix L3**      *Event/ Action Plan for Water Quality*

<b>Event</b>	<b>ET Leader</b>	<b>IEC</b>	<b>SOR</b>	<b>Contractor</b>
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat in situ measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor and SOR;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of non-compliance in writing;</li> <li>2. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SOR and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Amend working methods if appropriate.</li> </ol>
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SOR and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SOR and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> <li>7. Increase the monitoring frequency to daily until no exceedance of Action level;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures;</li> <li>2. Ensure mitigation measures are properly implemented;</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the Supervising Officer and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR;</li> <li>5. Implement the agreed mitigation measures.</li> </ol>
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SOR and confirm notification of the non-compliance in writing;</li> </ol>

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

**Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring**

<b>Event</b>	<b>ET Leader</b>	<b>IEC</b>	<b>SOR</b>	<b>Contractor</b>
Action Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, SOR and Contractor;</li> <li>5. Check monitoring data.</li> <li>6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss monitoring with the IEC and any other measures proposed by the ET;</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SOR and confirm notification of the non-compliance in writing;</li> <li>2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR;</li> <li>3. Implement the agreed measures.</li> </ol>

<b>Event</b>	<b>ET Leader</b>	<b>IEC</b>	<b>SOR</b>	<b>Contractor</b>
Limit Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, ER/SOR and Contractor of findings;</li> <li>5. Check monitoring data;</li> <li>6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary;</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor;</li> <li>3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>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;</li> <li>5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>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;</li> <li>3. Supervise the implementation of additional monitoring and/or any other mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER/SOR and confirm notification of the non-compliance in writing;</li> <li>2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary;</li> <li>4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.</li> </ol>

*Appendix L5 Event and Action Plan on Dolphin Acoustic Behaviour*

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

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

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 2015 (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 <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000m <sup>3</sup> )	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	
Jan	13.578	0.081	0.990	-	12.474	0.115	0.178	0.229	0.258	-	132.170	-	-	0.091	-	
Feb	6.233	0.148	0.461	-	5.759	0.014	0.801	0.110	0.223	0.400	141.020	-	-	0.112	-	
Mar	10.149	0.220	0.473	-	9.600	0.077	0.618	0.073	0.149	-	120.940	-	-	0.203	-	
Apr	9.986	0.410	2.261	-	7.694	0.032	-	-	-	-	133.630	-	-	0.105	-	
May	8.753	0.177	0.662	-	8.091	-	0.550	-	-	-	107.920	-	-	0.042	-	
Jun	8.309	0.132	1.144	-	7.166	-	0.324	0.118	0.169	0.017	89.930	-	-	0.119	-	
<b>SUB-TOTAL</b>	<b>57.009</b>	<b>1.168</b>	<b>5.989</b>	<b>-</b>	<b>50.782</b>	<b>0.238</b>	<b>2.471</b>	<b>0.530</b>	<b>0.799</b>	<b>0.417</b>	<b>725.610</b>	<b>-</b>	<b>0.000</b>	<b>0.672</b>	<b>-</b>	
Jul	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nov	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>TOTAL</b>	<b>57.009</b>	<b>1.168</b>	<b>5.989</b>	<b>-</b>	<b>50.782</b>	<b>0.238</b>	<b>2.471</b>	<b>0.530</b>	<b>0.799</b>	<b>0.417</b>	<b>725.610</b>	<b>-</b>	<b>-</b>	<b>0.672</b>	<b>-</b>	

**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	7
	Limit	0	2

*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 (June 2015)	1	0	0
Total No. received since project commencement	3	0	0



**ENVIRONMENTAL COMPLAINT/ ENQUIRY FORM**

<b>Complaint/ Enquiry Received*</b>
Date: 18 June 2015 Time: Undisclosed From: Environmental Protection Department (EPD) Via: Phone notification
<b>Complainant/ Enquirer*:</b> Name: Undisclosed Tel: Undisclosed Address: Undisclosed Media: Dust <del>Noise</del> <del>Water Quality</del> <del>Other</del> Description: A notification of complaint from EPD was received on 18 June 2015 regarding dust emission from dump trucks (Plate number: SE 577, NM 577 and NH 327) working for construction site of Tuen Mun-Chek Lap Kok Link-Southern Connection Viaduct Section (the Project). The complainant suspected that the dust suppression measures on site were insufficient.

***Investigation Report & Response***

Upon receiving the complaint notification, ET conducted a spot check of dust mitigation measures implementation in the Project area on 18 June 2015 at 2pm. Works areas along Cheung Tung Road (e.g. Area 1, Works Area 4, Area 2) were checked. During the investigation, no truck was observed loading dusty material and leaving Project area with improper cover. Wheel washing was also applied to every trucks leaving Project area. No non-compliance was observed during the investigation. Photos of implementing wheel washing facilities during the investigation are attached in *Annex A*.

A joint inspection was carried out by representatives of the EPD, SOR and Contractor on 19 June 2015 at 2pm. 11 site entrances along Cheung Tung Road and North Lantau Highway were visited. Wheel washing facilities for vehicles were found properly implemented in all entrances. EPD had no adverse comment on the implementation of wheel washing facilities during the inspection.

During the inspection on 19 June 2015, 2 of the trucks under complaint (car plate number: SE 577 and NH 327) were inspected. EPD had no adverse comment on NH 327. However, the sideboards of SE 577 were found higher than normal and the skip was found not fully covered by the mechanical cover. The truck driver was then advised by EPD representative that the cover was considered unable to mitigate dust emission effectively. Onsite discussion was conducted among EPD, SOR, Contractor and the truck driver. The truck driver took immediate action to lower the sideboards and to ensure the skip of dump truck was fully covered. Photos of the trucks under complaint are provided by Contractor and shown in *Annex B*.

The Contractor also provided toolbox talk trainings to the drivers and traffic controllers on 17, 18 and 25 June 2015 (*Annex C*).

*Mitigation Measures and Follow-Up Actions Recommended to Contractor*

To mitigate dust emission from trucks, below measures are advised to the Contractor:

1. Dust emission material should not be loaded to a level higher than side or tail boards and should be fully covered by tarpaulin sheet;
2. The tarpaulin sheet should be properly secured and shall extend at least 300mm over the edges of the side and tail boards;
3. The Contractor and the assigned traffic controllers should ensure the truck drivers of this Project using the mechanical cover properly, and all dusty materials should be fully covered;
4. The Contractor and the assigned traffic controllers should also ensure wheel washing is applied to all trucks at every entrance of Project area and the trucks are not overloading; and,
5. Toolbox talk trainings should be provided to truck drivers and traffic controllers, in which the truck drivers should be reminded to avoid sideboards or tailboards higher than normal to prevent dust emission.

Date of File Closed : 2 July 2015

Approved and Filed by:



(Jovy Tam, ET Leader)  
Date: 2 July 2015

Annex A

Photos of Investigation on 18  
June 2015

Truck wheel washing at Area 1 (without loading)



Truck wheel washing at Site Access 9B (without loading)



Wheel washing facility at Site Access 4A



Wheel washing facility at Site Access 3B



Annex B

## Photos of Trucks under Complaint



Sideboards of truck (SE 577) were too high and loaded material was not fully covered (Photo taken on 19 Jun 2015)



Sideboards of truck (SE 577) were lower and mechanical cover can properly cover the dusty material (Photo taken on 19 Jun 2015)



Truck under complaint (NH 327) was wheel washed and its mechanical cover can properly cover the skip (Photo taken on 19 June 2015)



Mechanical cover of truck under complaint (NM 577) can properly cover the skip (Photo taken on 26 June 2015)



Annex C

Toolbox Talk Training Record  
to Drivers and Traffic  
Controllers



工具箱環保訓練出席記錄  
Tool Box Talk Environmental Training Attendance Record

工地名稱

Project : Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section (J3518)

合約編號

Contract No. : HY/2012/07

導師

Conductor : Gammon Chan

地點

Venue : Gates at Viaduct C, D

日期

Date : 17-6-15

時間

Time: 14:00 至 16:30

Topic 題目 :

TC briefing (Things should do before allowing vehicle to leave)

工作編號	姓名 Name	公司 Company	工種 Trade	簽名 Signature	工作編號	姓名 Name	公司 Company	工種 Trade	簽名 Signature
	<u>梁卓榮</u>	<u>GM</u>	<u>TC</u>	<u>梁</u>					
	<u>Rai Bunditaka</u>	<u>"</u>	<u>"</u>	<u>Rai</u>					
	<u>Rai Dilkuneri</u>	<u>"</u>	<u>"</u>	<u>Rai</u>					
	<u>楊孟傑</u>	<u>"</u>	<u>"</u>	<u>傑</u>					
	<u>Rammaya</u>	<u>"</u>	<u>"</u>	<u>Ram</u>					
	<u>THAPA, PADMA</u>	<u>"</u>	<u>"</u>	<u>Pad</u>					
	<u>梁玉英</u>	<u>"</u>	<u>"</u>	<u>英</u>					
	<u>ISANG WAI FOON</u>	<u>"</u>	<u>"</u>	<u>Happy</u>					
	<u>Rama Yug Mayer</u>	<u>"</u>	<u>"</u>	<u>Mayer</u>					

Certified by [Signature] (Environmental Officer Full Name: Roy Leung) and Date :

Total no. (9)  
17 JUN 2015

收集以上的個人資料是用作保安及行政目的。所收集的一切資料均會按照個人資料(私隱)條例的規定來處理。  
Collection of above personal data is served for security and administration purpose. All data collected shall be treated in accordance with the requirements of the Personal Data (Privacy) Ordinance.  
Random check have been made by \_\_\_\_\_ (AECOM's Representative) on \_\_\_\_\_ to check that training course was carried out.







## 指定取票員

