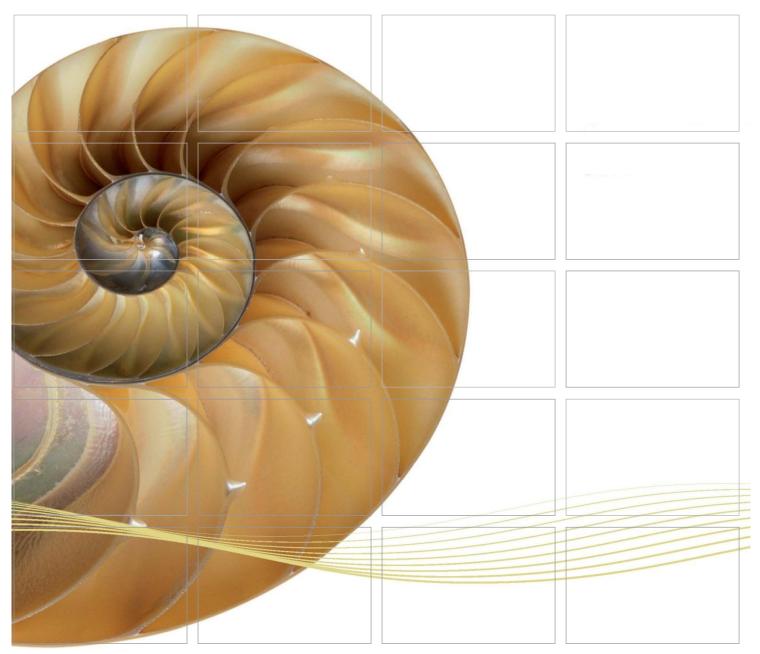
#### REPORT



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

 $Twenty-first\ Monthly\ EM\&A\ Report$ 

12 August 2015

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

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

Twenty-first Monthly EM&A Report

Document Code: 0215660\_21st Monthly EM&A 20150812.doc

## **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

Client:		Project N	0:			
Gammon			660			
Summary	:	Date:				
•		12 Augu	ust 2015			
		Approved				
This document presents the Twenty-first Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.						
		Mr Crai	g Reid			
		Partner				
		Certified I	oy:			
		Ja	2			
		Mr Jovy	<sup>,</sup> Tam			
		ET Leade	er			
	Twenty-first Monthly EM&A Report	VAR	JT	CAR	12/08/15	
Revision	Description	Ву	Checked	Approved	Date	
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.  We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.		Pul	ernal	Certificate	5 18001:2007 No. OHS 515956 BS1 W 0001 : 2008 e No. FS 32515	





Ref.: HYDHZMBEEM00 0 3270L.15

13 August 2015

**AECOM** 

By Fax (3691 2899) and By Post

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

Attention: Mr. Daniel Ip

Dear Mr. Ip,

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

Contract No. HY/2012/07 TM-CLKL Southern Connection Viaduct Section

Monthly EM&A Report for July 2015 (EP-354/2009/D)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (July 2015) certified by the ET Leader (ET's ref.: "0215660\_21st Monthly EM&A 20150812.doc" dated 12 August 2015) and provided to us via e-mail on 12 August 2015.

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

Yours sincerely,

Kaffallog

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, LP, CL, ENPO Site

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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). Ramboll Environ Hong Kong Ltd. was employed by the HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (VEP), *EP-354/2009/B*, *EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

The 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 Twenty-first Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 July 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:

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#### 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

- Predrilling at Viaduct F;
- 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 Viaducts A & B.

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 12 sessions

Impact Dolphin Monitoring 2 sessions

Joint Environmental site inspection 5 sessions

#### Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Levels was recorded for construction air 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 July 2015 during the exclusion zone monitoring.

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

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

#### **Reporting Change**

There was no reporting change in the reporting period.

#### **Upcoming Works for the Next Reporting Period**

Works to be undertaken in the next monitoring period of August 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

- Predrilling at Viaduct F;
- 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 Viaducts A & B.

#### **Future Key Issues**

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

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#### 1.1 BACKGROUND

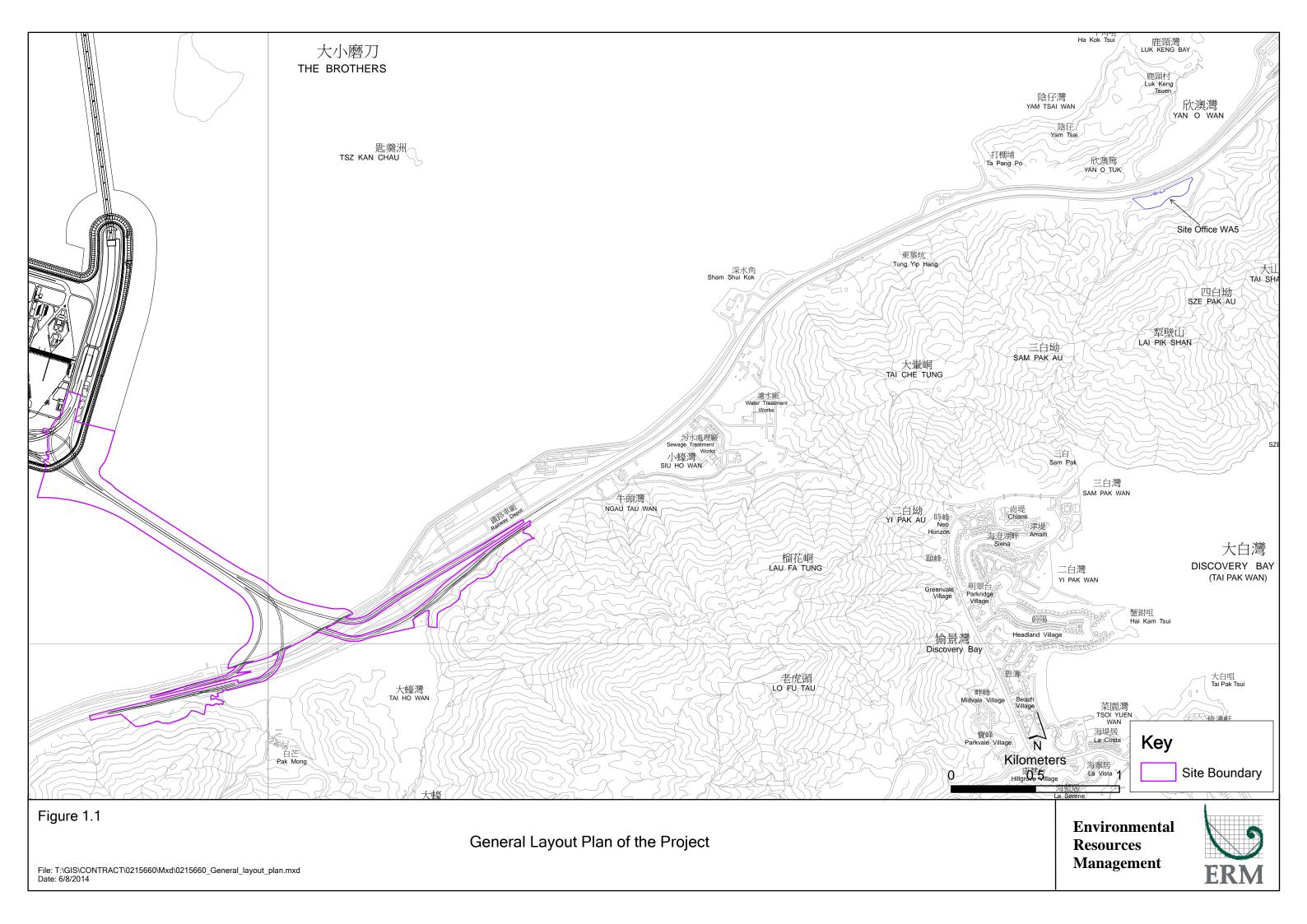
According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated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

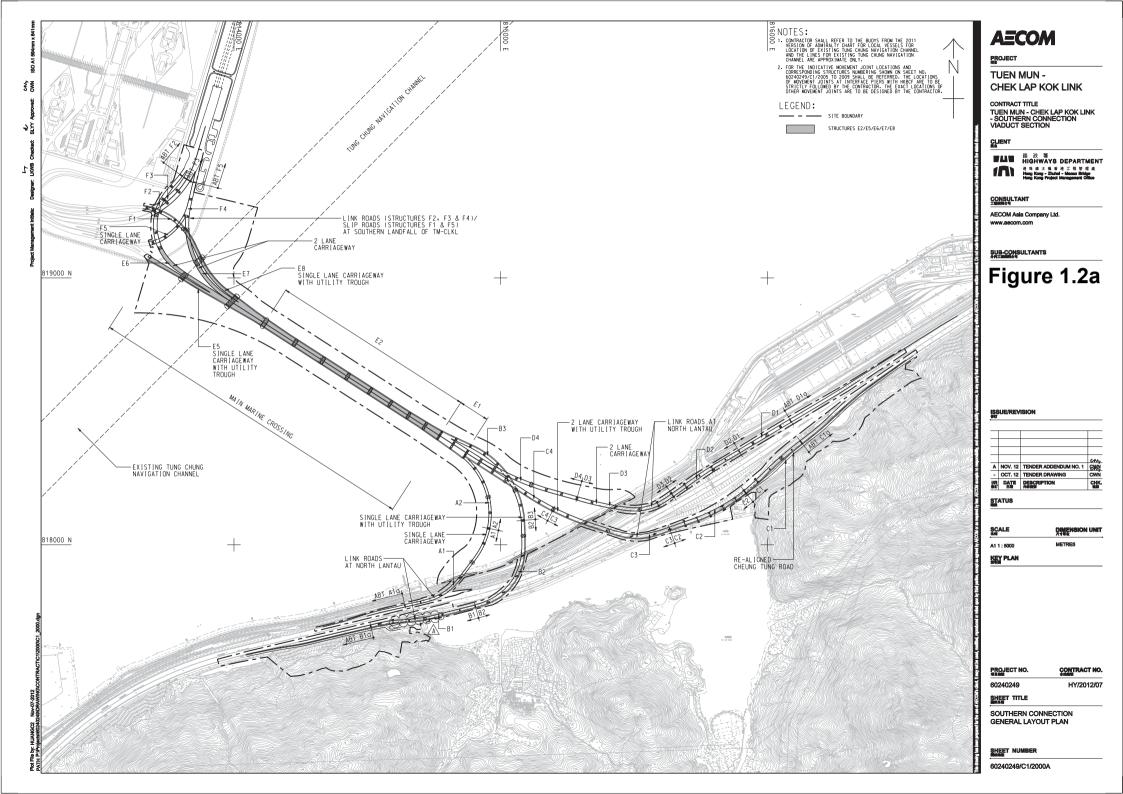
An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM*). The EIA Report was submitted under the Environmental Impact Assessment Ordinance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

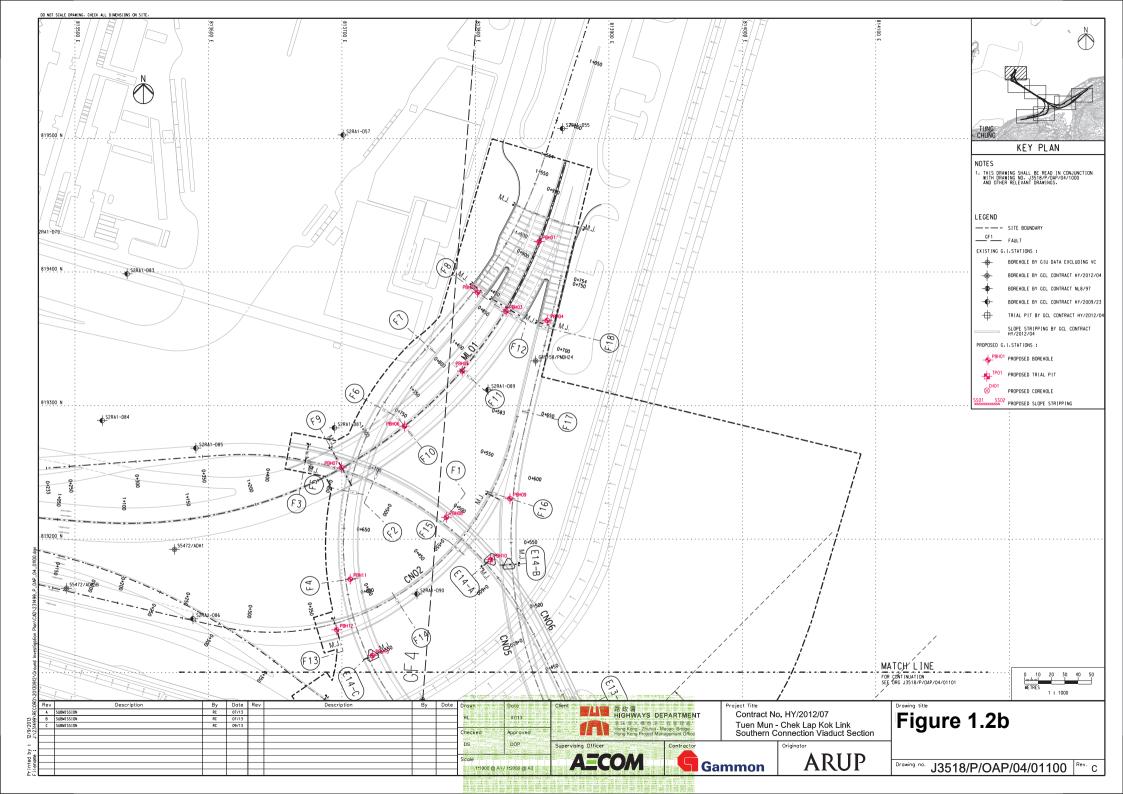
Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL ("the Contract") while AECOM Asia Company Limited was appointed by HyD as the Supervising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

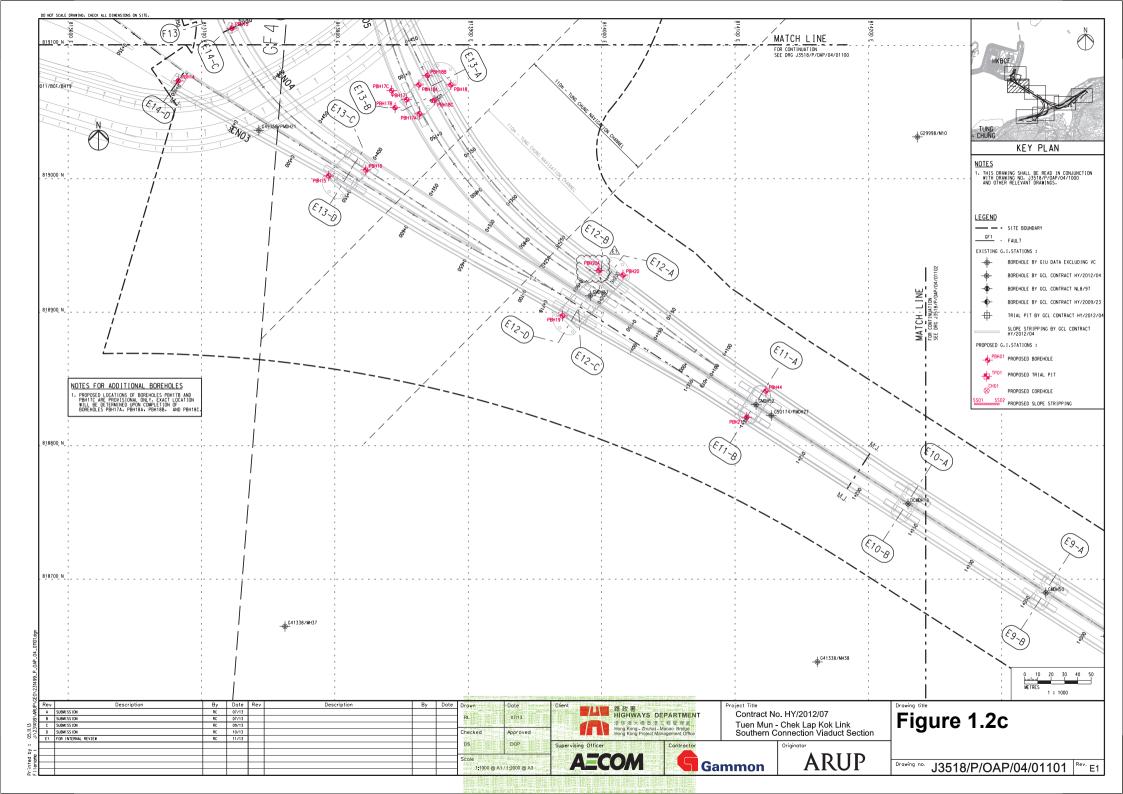
The construction phase of the Contract commenced on 31 October 2013 and will be tentatively completed by 2018. The impact monitoring phase of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well environmental site inspections, commenced on 31 October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

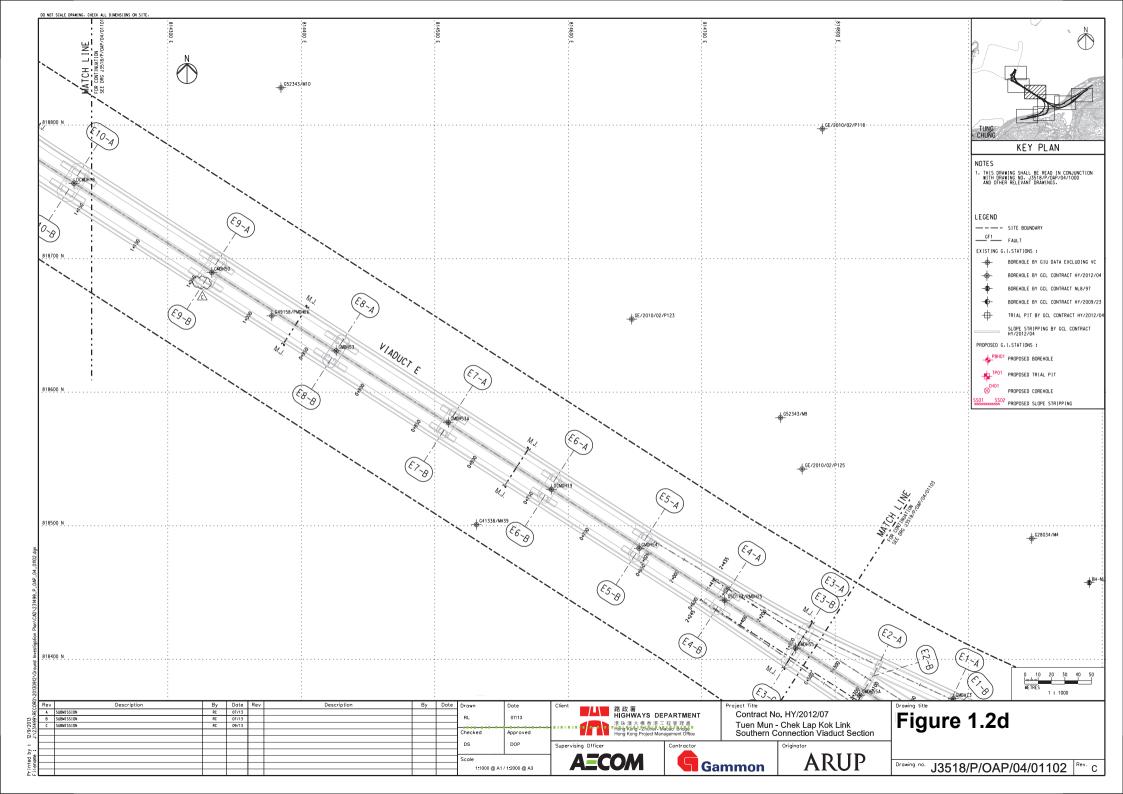
The general layout plan of the Contract components is presented in *Figures 1.1* & 1.2a to l.

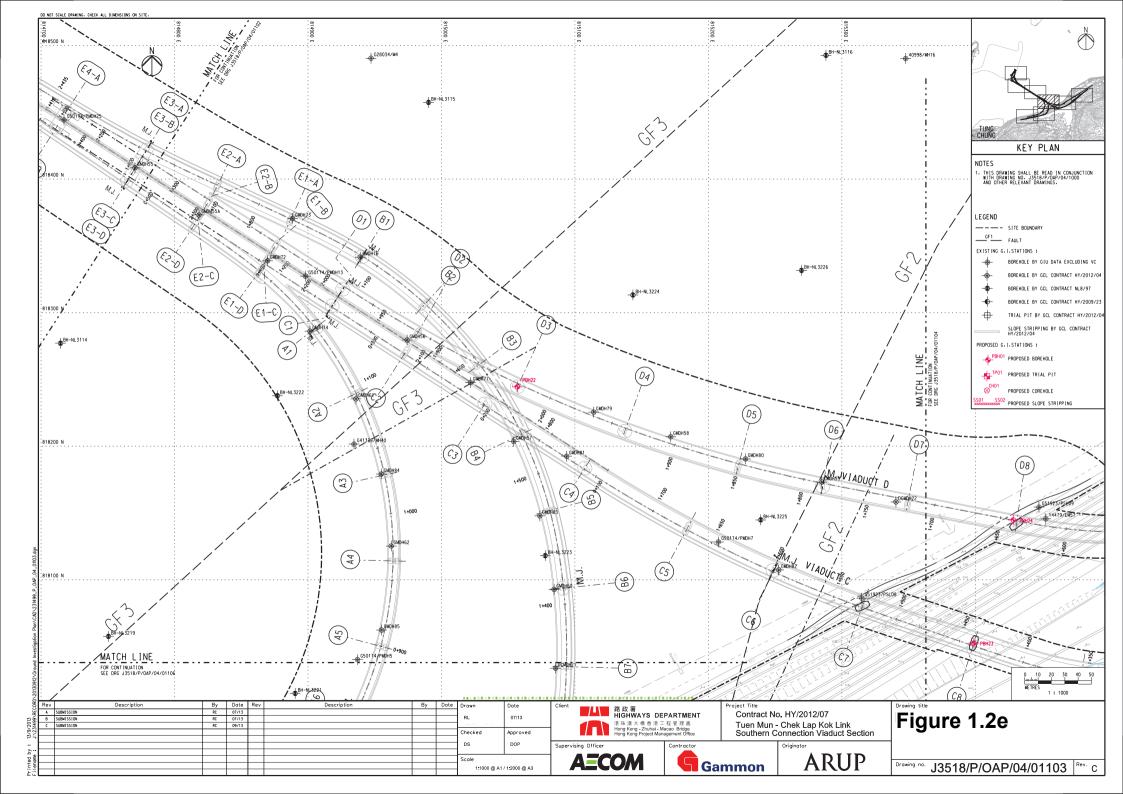


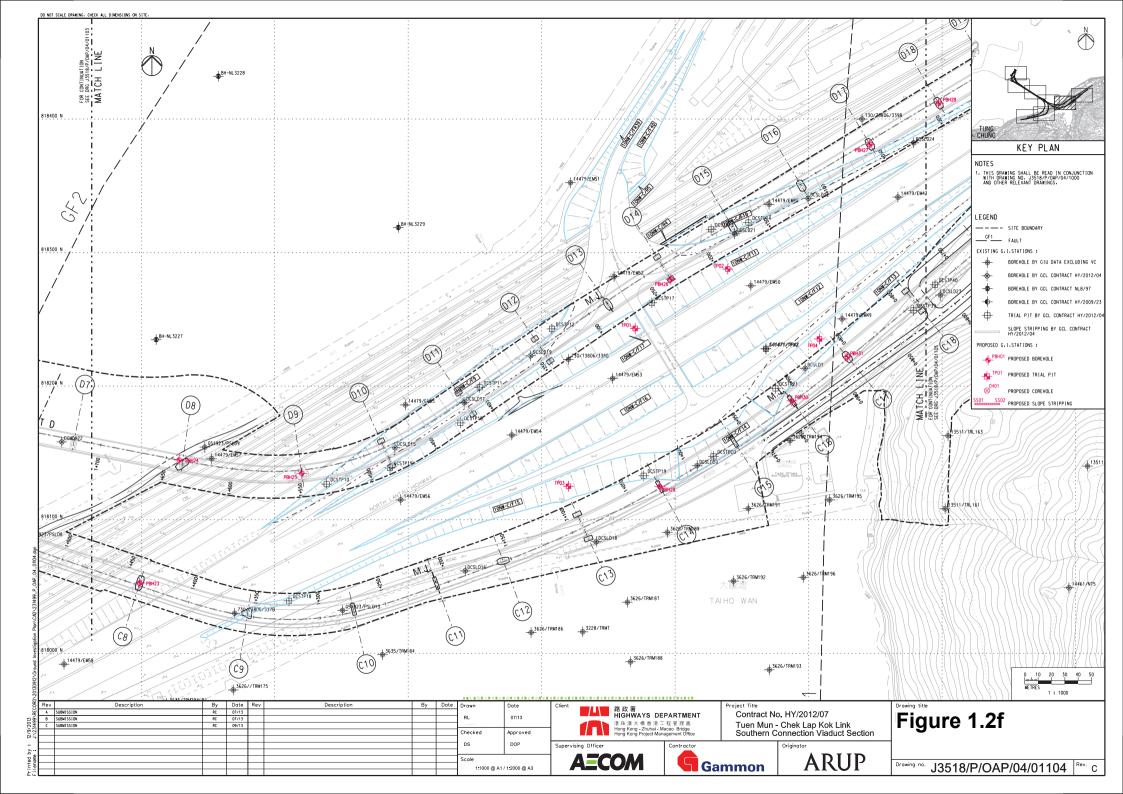


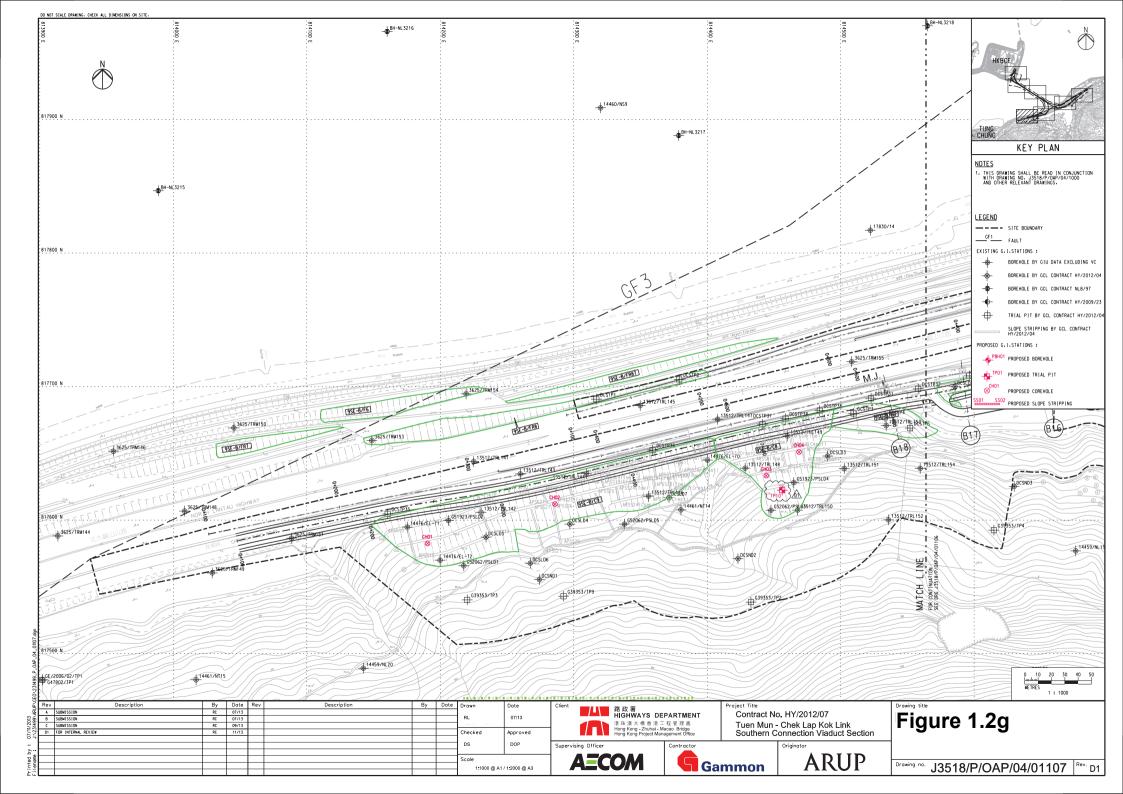


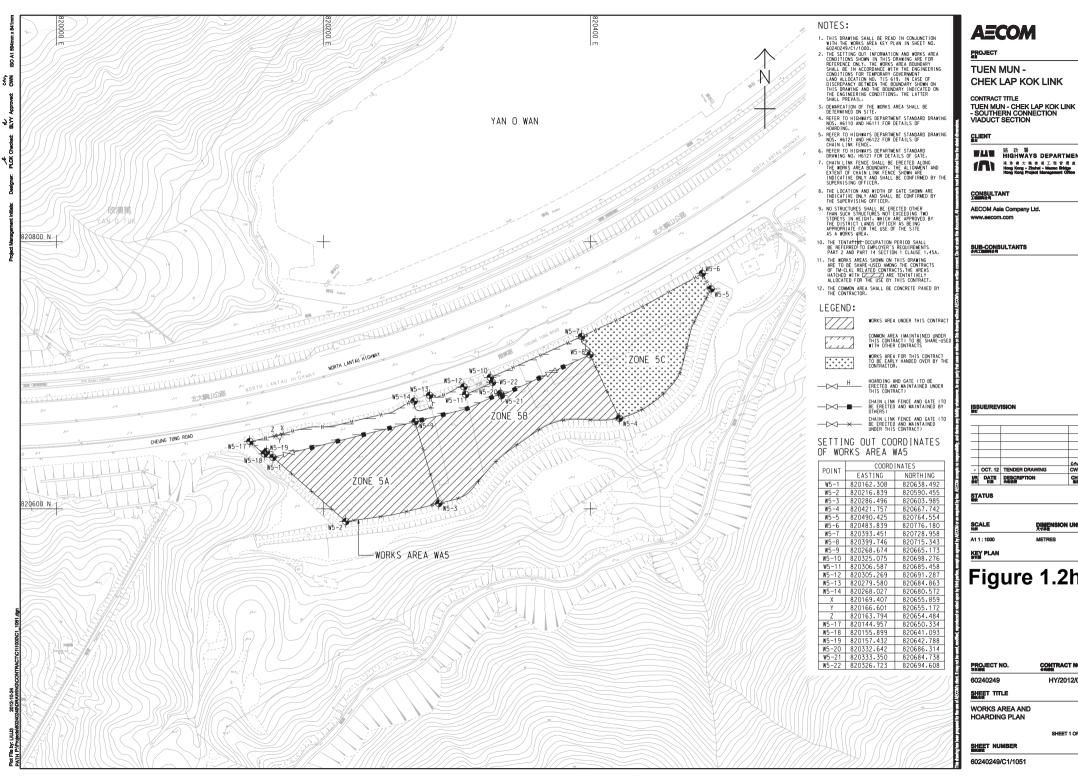












#### **AECOM**

PROJECT

TUEN MUN -CHEK LAP KOK LINK

CONTRACT TITLE

■ B 政 署 HIGHWAYS DEPARTMENT

CONSULTANT

AECOM Asia Company Ltd.

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Figure 1.2h

PROJECT NO.

CONTRACT NO. HY/2012/07

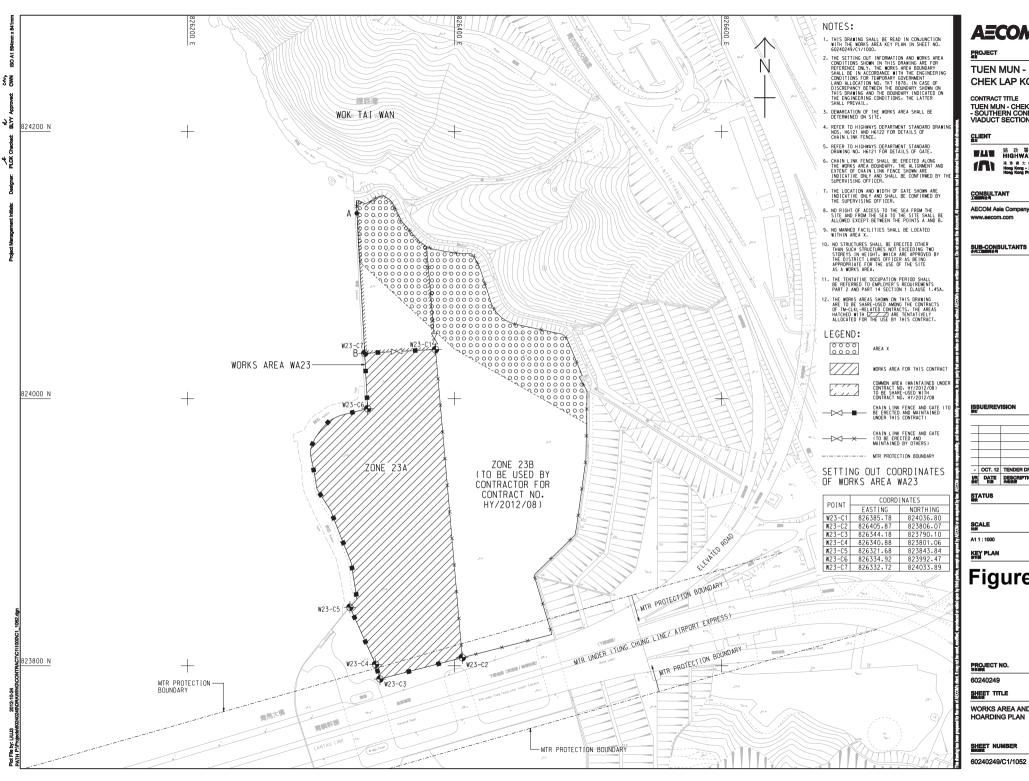
SHEET TITLE

WORKS AREA AND HOARDING PLAN

SHEET 1 OF 2

SHEET NUMBER

60240249/C1/1051



#### **AECOM**

TUEN MUN -CHEK LAP KOK LINK

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

■ B 政 署 HIGHWAYS DEPARTMENT 送取 表大 集 香 港 工 程 管 理 意 Hong Kong - Zhahal - Macano Bridge

AECOM Asia Company Ltd.

ISSUE/REVISION

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Figure 1.2i

CONTRACT NO. HY/2012/07

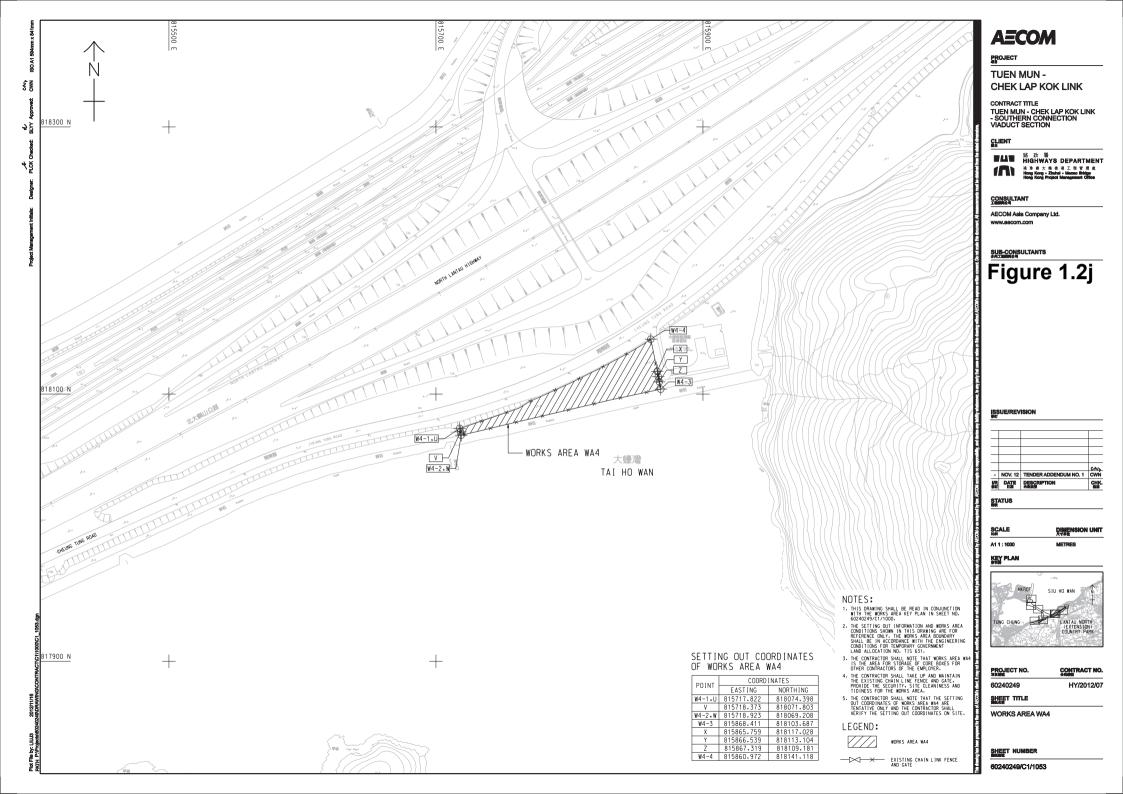
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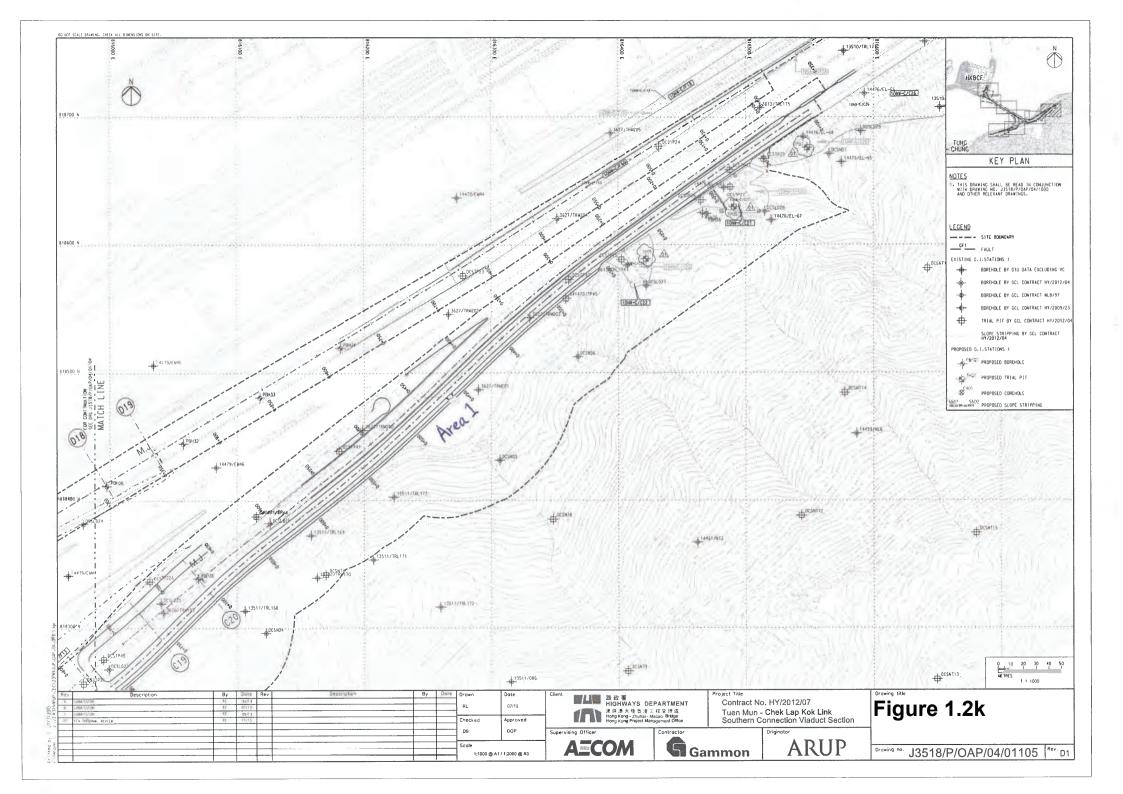
WORKS AREA AND HOARDING PLAN

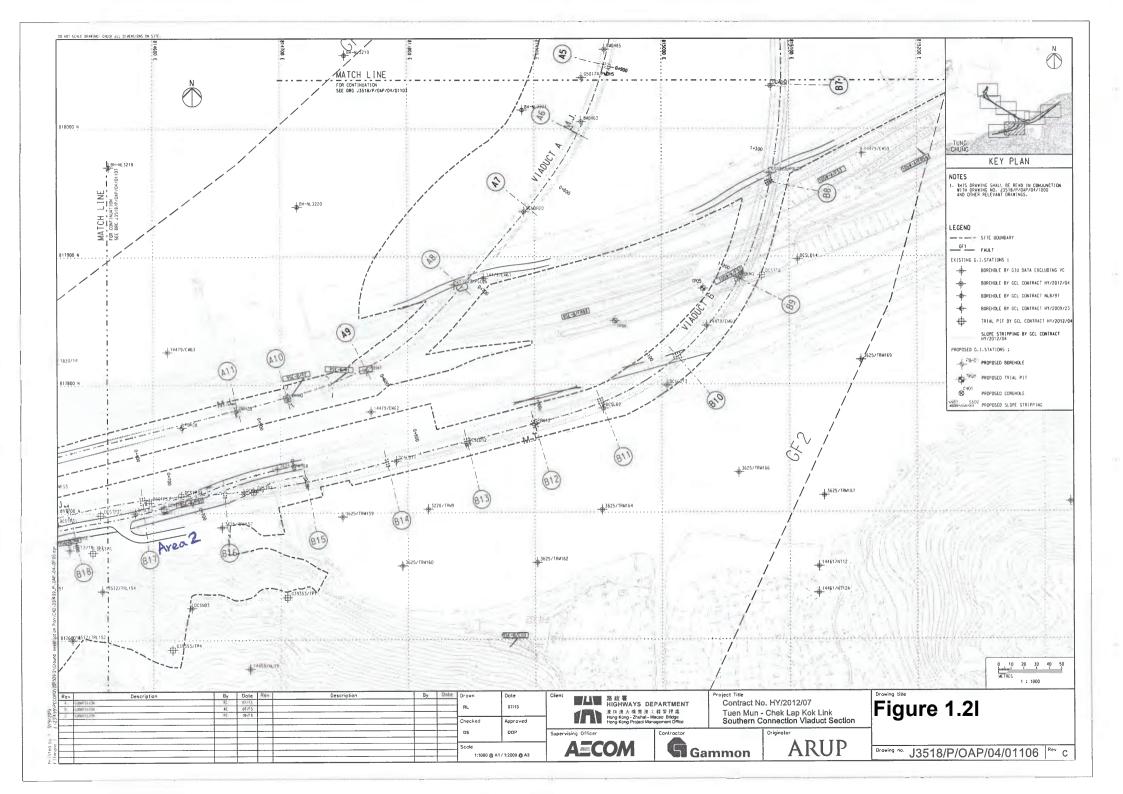
SHEET 2 OF 2

SHEET NUMBER

60240249/C1/1052







#### 1.2 Scope of Report

This is the Twenty-first Monthly EM&A Report under the *Contract No. HY/2012/07 Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.* This report presents a summary of the environmental monitoring and audit works in July 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 (Ramboll Environ	ENPO Leader	Y.H. Hui	3547 2133	3465 2899
Hong Kong Ltd.)	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

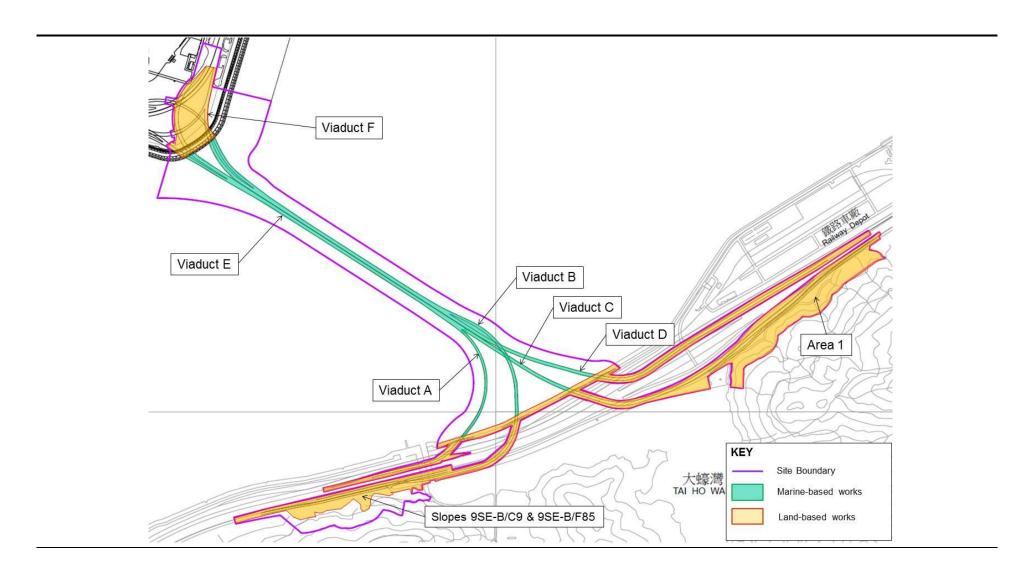
#### Land-based Works

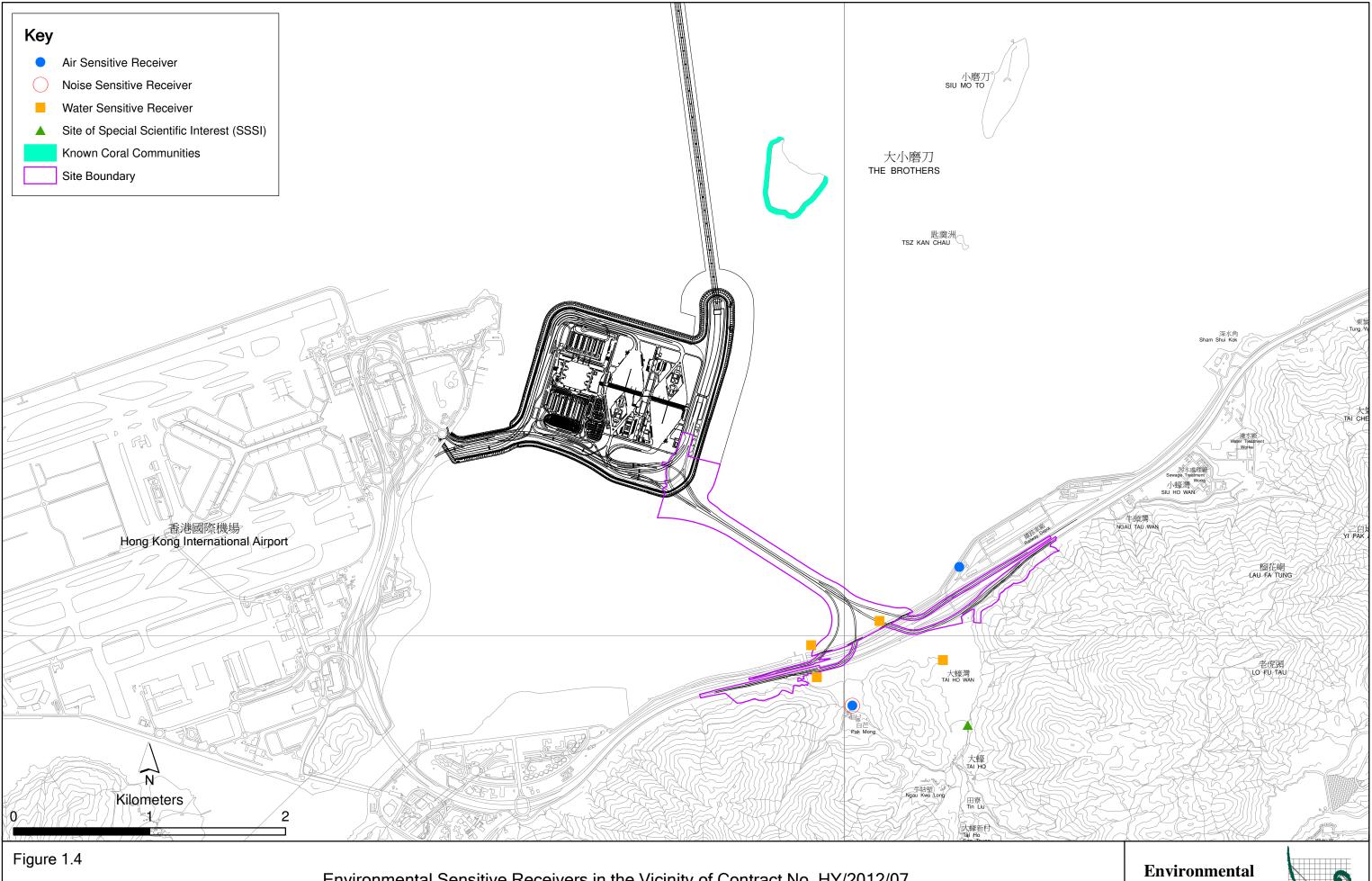
- Predrilling at Viaduct F;
- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; and
- Slope work of Viaducts A & B.

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





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

Environmental Resources Management



#### 2 EM&A RESULTS

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

#### 2.1 AIR QUALITY

#### 2.1.1 Monitoring Requirements and Equipment

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

Table 2.1 Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location	Description	Monitoring Dates
ASR 9	MTR Depot	On the ground nearby MTR Depot Entrance	2, 7, 13, 16, 22 and 28 July 2015
ASR 8A	Area 4	On ground at the works area, Area 4	2, 7, 13, 16, 22 and 28 July 2015

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 2, 7, 13, 16, 22 and 28 July 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*.

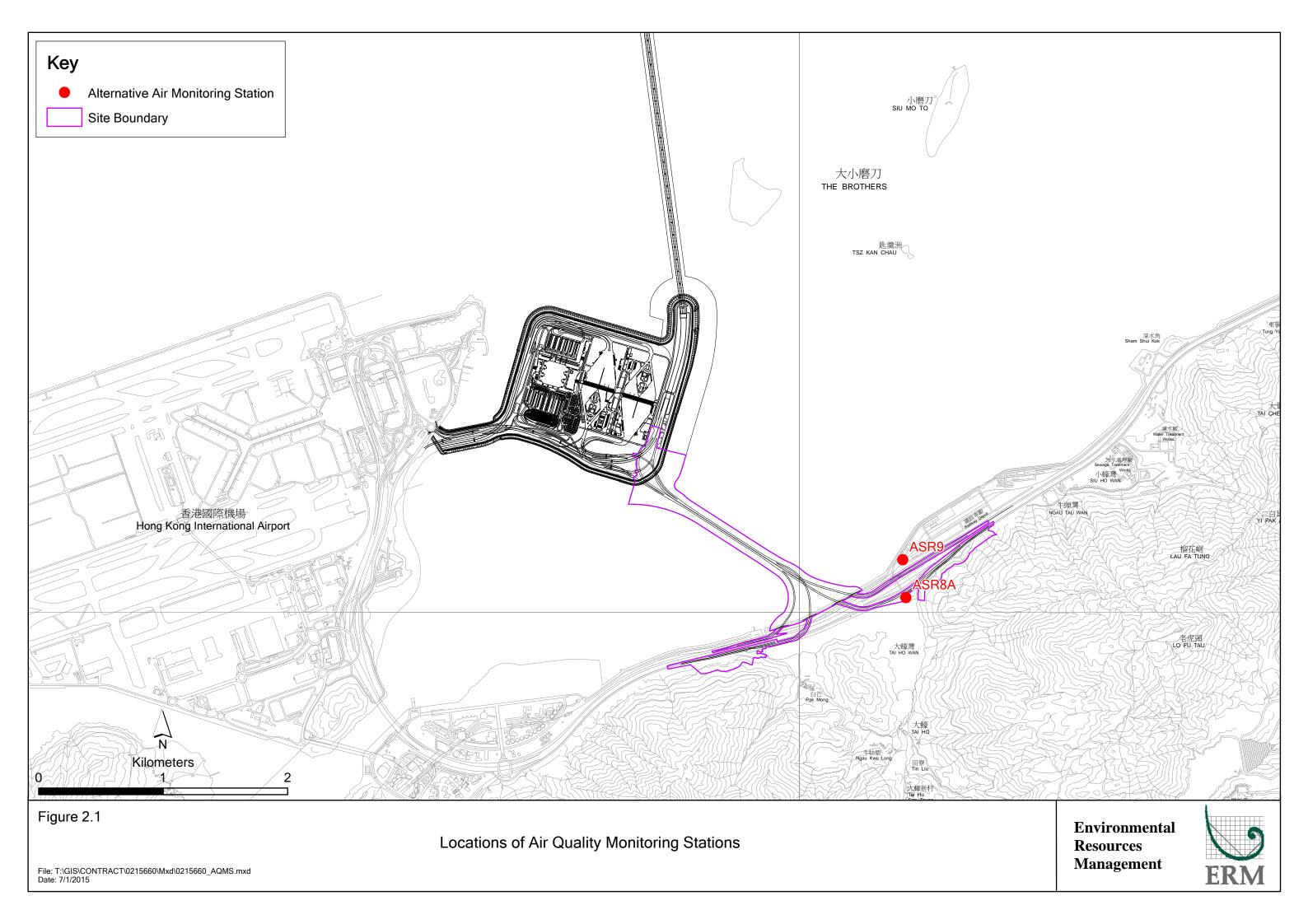


Table 2.2 Air Quality Monitoring Equipment

Equipment	Brand and Model
High Volume Sampler	Tisch Environmental Mass Flow Controlled
(1-hour TSP and 24-hour TSP)	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 July 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

Monitoring Station	Average (μg/m³)	Range (µg/m³)	Action Level (μg/m³)	Limit Level (µg/m³)
ASR 8A	63	41 - 139	394	500
ASR 9	73	41 - 116	393	500

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

Monitoring Station	Average (μg/m³)	Range (µg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
ASR 8A	51	44 – 75	178	260
ASR 9	56	47 - 89	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*.

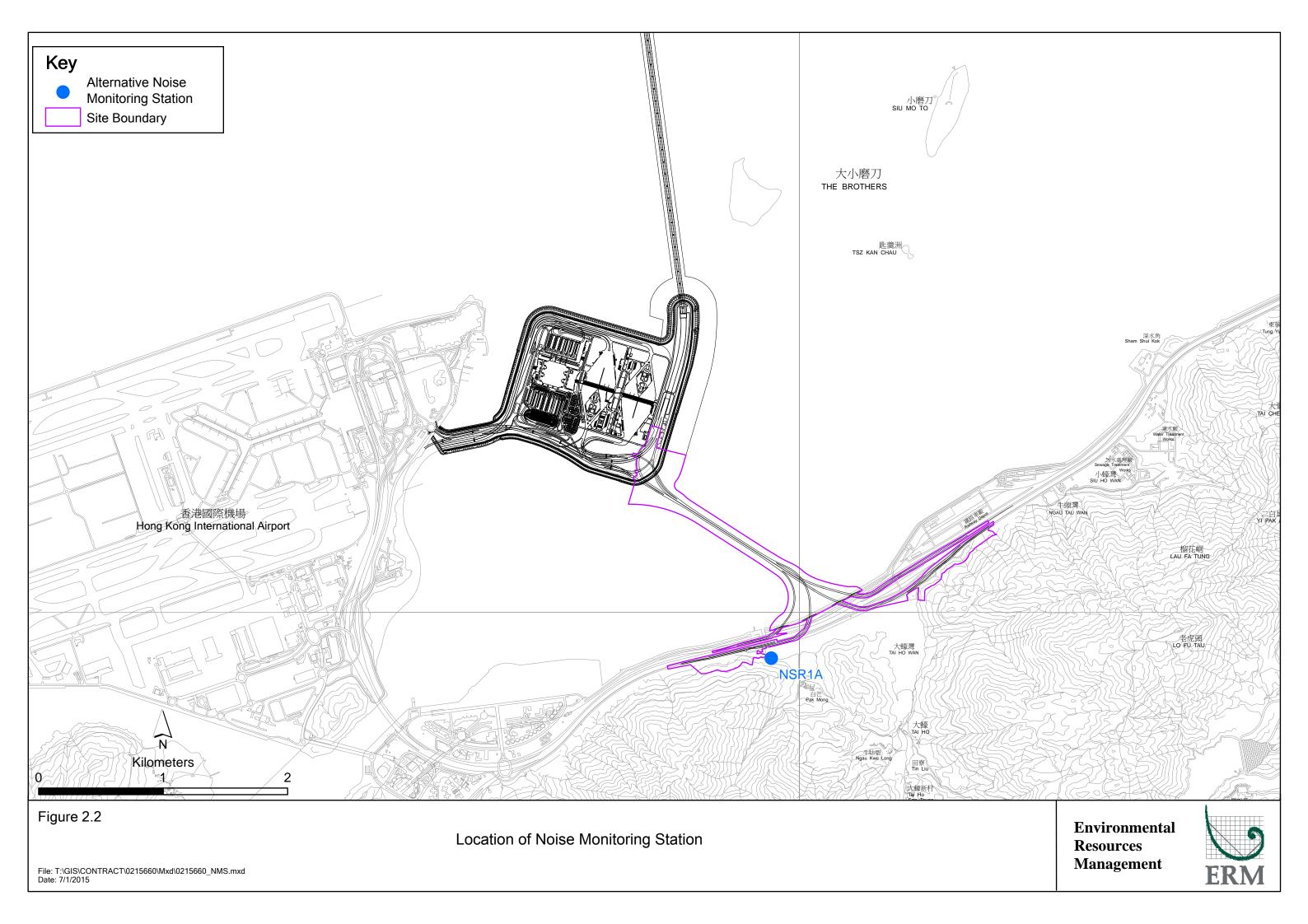
Noise monitoring was performed on 2, 7, 13, 16, 22 and 28 July 2015 by using sound level meter at the designated monitoring station NSR1A (*Figure 2.2*; *Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters 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). Leg,	At least once	2, 7, 13, 16, 22 and 28 July 2015
			$L_{10}$ and $L_{90}$		
			would be		
			recorded.		

#### Table 2.6 Noise Monitoring Equipment

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



#### 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),	Range, dB(A),	Limit Level, dB(A),
	$L_{eq~(30 mins)}$	$L_{eq~(30 mins)}$	$ m L_{eq~(30mins)}$
NSR 1A	60	53 - 61	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*.

8

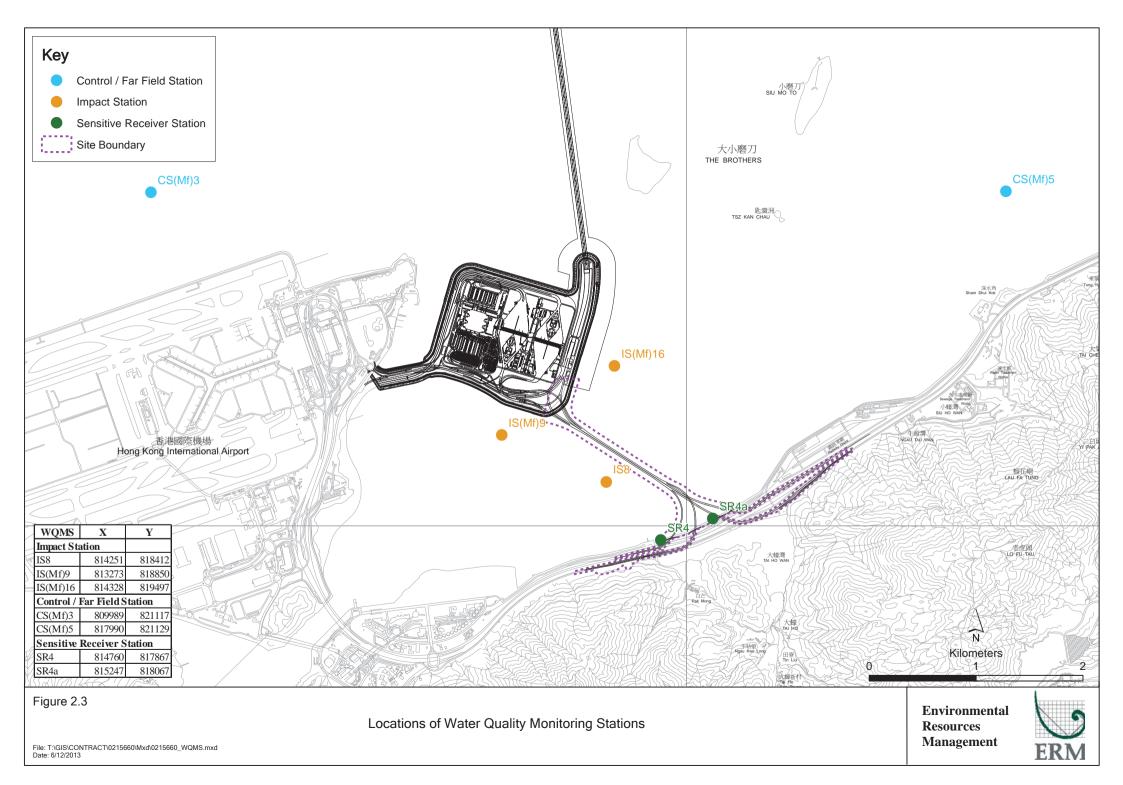


Table 2.8 Locations of Impact Water Quality Monitoring Stations and its Corresponding Monitoring Requirements

Station ID	Туре	Coordinates		*Parameters, unit	Frequency	Depth
	•	Easting	Northing	-		
IS(Mf)9	Impact Station	813273	818850	• Temperature(°C)	Impact	3 water depths: 1m
	(Close to HKBCF			<ul> <li>pH (pH unit)</li> </ul>	monitoring: 3	below sea surface,
	construction site)			• Turbidity (NTU)	days per	mid-depth and 1m
IS(Mf)16	Impact Station	814328	819497	• Water depth (m)	week, at mid-	above sea bed. If
	(Close to HKBCF			<ul> <li>Salinity (ppt)</li> </ul>	flood and	the water depth is
	construction site)			<ul> <li>DO (mg/L and</li> </ul>	mid-ebb tides	less than 3m, mid-
IS8	Impact Station	814251	818412	% of saturation)	during the	depth sampling
	(Close to HKBCF			• SS (mg/L)	construction	only. If water
	construction site)				period of the	depth less than 6m,
SR4	Sensitive receiver	814760	817867		Contract	mid-depth may be
	(Tai Ho Inlet)					omitted
SR4a	Sensitive receiver	815247	818067			
CS(Mf)3	Control Station	809989	821117			
CS(Mf)5	Control Station	817990	821129			

<sup>\*</sup>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		
r ositioning Equipment	Roden 13 Will RDG-3 DG13 attentia		
Water Depth Detector	Speedtech Instrument SM-5		
1	1		
Water Sampler	Kemmerer 1520 (1520-C25) 2.2L with messenger		

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#### 2.3.2 Monitoring Schedule for the Reporting Month

The schedule for water quality monitoring in July 2015 is provided in *Appendix F*.

#### 2.3.3 Results and Observations

In total of 12 monitoring events for impact water quality monitoring were conducted at all designated monitoring stations in the reporting month. The WQM on 9 July 2015 was cancelled due to adverse weather. Impact water quality monitoring results and graphical presentations are provided in *Appendix J*.

The SS level at IS8 during mid-ebb tide on 25 July 2015 was higher than the corresponding Action Level but not higher than 120% of the upstream control station at the same tide on same day. Thus the result was not regarded as an exceedance.

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

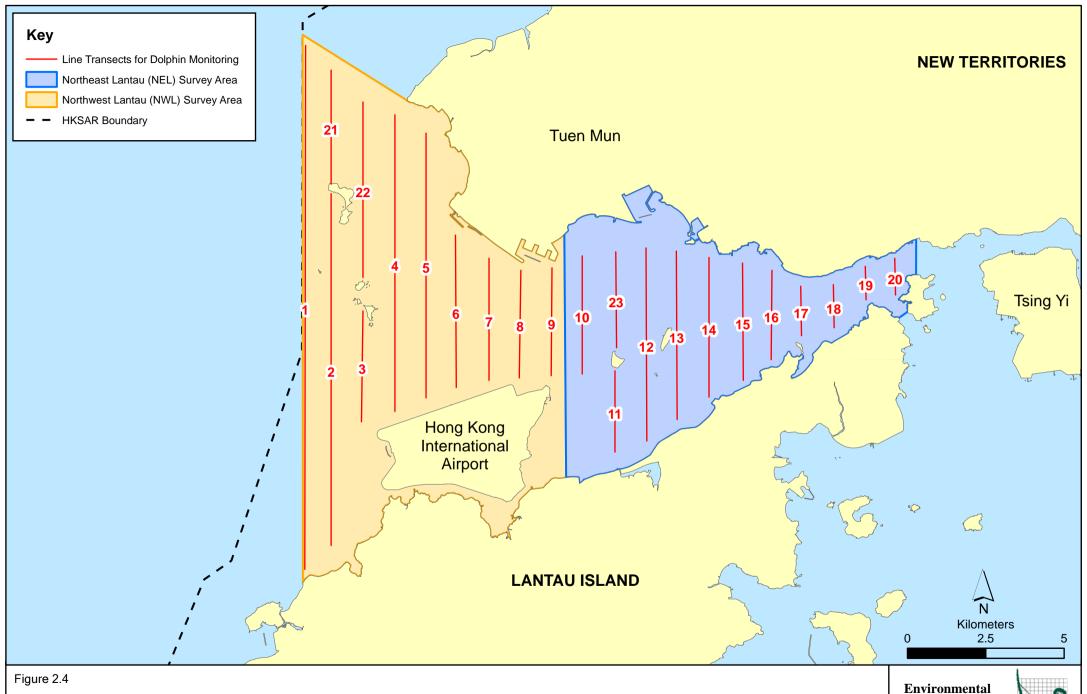
Equipment	Model		
Global Positioning System (GPS)	Garmin 18X-PC		
	Geo One Phottix		
Camera	Nikon D90 300m 2.8D fixed focus		
	Nikon D90 20-300m zoom lens		
Laser Binoculars	Infinitor LRF 1000		
Marine Binocular	Bushell 7 x 50 marine binocular with compass and reticules		
Vessel for Monitoring	65 foot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

#### 2.4.3 Monitoring Parameter, Frequencies and Duration

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

#### 2.4.4 Monitoring Location

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



File: T:\GIS\CONTRACT\0212330\Mxd\0212330\_Transect\_of\_Dolphin\_Monitoring.mxd Date: 10/12/2013

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, 7, 22 and 27 July 2015 (*Appendix F*).

## 2.4.7 Results and Observations

A total of 301.62 km of survey effort was collected, with 87.2% 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 July 2015. Among the two areas, 116.10 km and 185.52 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 219.76 km and 81.86 km respectively. The survey efforts are summarized in *Appendix K*.

Three (3) groups of six (6) Chinese White Dolphins were sighted during the two sets of monitoring surveys in July 2015. All three (3) sightings were made in NWL, while no dolphin was sighted in NEL. During surveys of July 2015, all three (3) dolphin sightings were made on primary lines during oneffort 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 July 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: July 2 <sup>nd</sup> / 7 <sup>th</sup>	0.0	0.0
NEL	Set 2: July 22nd / 27th	0.0	0.0
NWL	Set 1: July 2 <sup>nd</sup> / 7 <sup>th</sup>	1.7	3.4
INVVL	Set 2: July 22nd / 27th	3.5	6.9

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

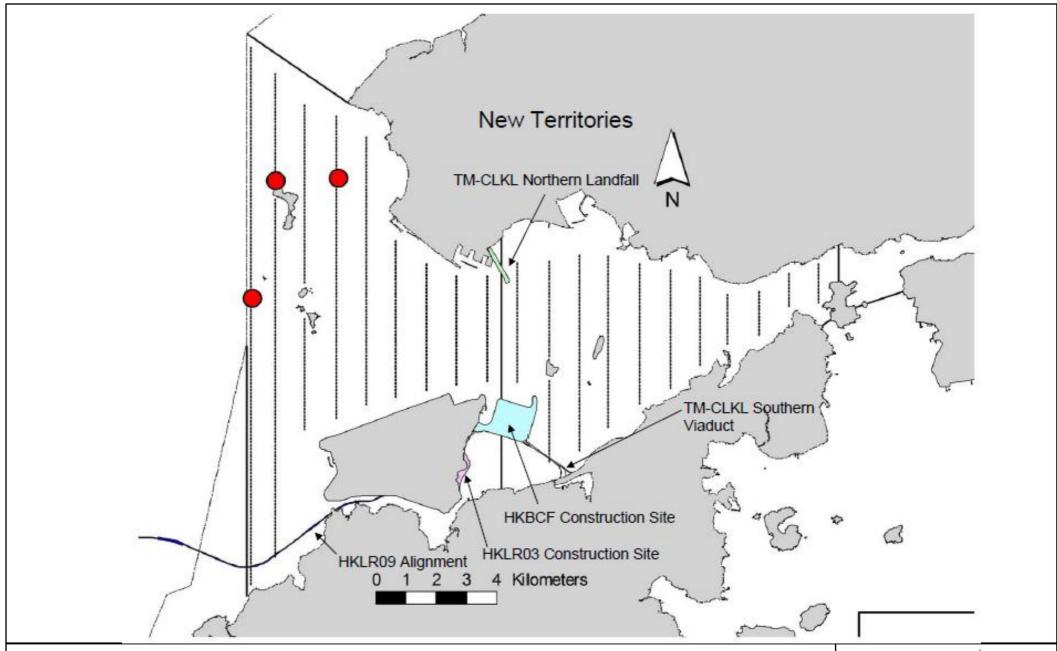


Figure 2.5

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 July 2015)



Table 2.13 Monthly Average Encounter Rates

	`	rate (STG) dolphin sightings survey effort)	Encounter rate (ANI)  (no. of dolphins from all on-effort sightings per 100 km of survey effort)					
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines				
Northeast Lantau	0.0	0.0	0.0	0.0				
Northwest Lantau	2.6	2.0	5.1	4.1				

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in July 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 July 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, five (5) site inspections were carried out on 2, 9, 14, 22 and 30 July 2015.

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

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

Inspection Date	<b>Environmental Observations</b>	Recommendations/ Remarks
2 July 2015	<ul> <li>Area 1</li> <li>Chemical containers were not placed in drip tray.</li> <li>Refuse was found in drainage.</li> <li>Area 2</li> <li>EP was not displayed.</li> </ul>	<ul> <li>Area 1</li> <li>Chemical containers should be placed in drip tray.</li> <li>Refuse in drainage should be cleaned up regularly.</li> <li>Area 2</li> <li>EP should be displayed.</li> </ul>
9 July 2015	<ul> <li>Pier A2</li> <li>Gutter was not properly installed.</li> <li>Seafront</li> <li>A drip tray was not plugged.</li> <li>A power pack was not placed in drip tray.</li> <li>Checklist for a wet sep was not displayed.</li> </ul>	Pier A2  Gutter should be properly installed.  Seafront  Drip tray should be plugged.  Power pack should be placed in drip tray.  Checklist for wet sep should be displayed.
14 July 2015	<ul> <li>Area 1</li> <li>The ground was partially dry.</li> <li>Some chemical containers were not placed in drip tray.</li> <li>The old EP was displayed.</li> <li>Site Access 4A</li> <li>A drip tray for air compressor contained stagnant water.</li> <li>Pier D12 A</li> <li>Stagnant water was accumulated in drip tray.</li> <li>Pier D10</li> <li>The ground was partially dry.</li> <li>Some chemical containers were not placed in drip tray.</li> </ul>	<ul> <li>Area 1</li> <li>Unpaved area should be watered to avoid dust emission.</li> <li>Chemical containers should be placed in drip tray.</li> <li>The old EP was removed immediately.</li> <li>Site Access 4A</li> <li>Stagnant water in drip tray should be removed to avoid overflow.</li> <li>Pier D12 A</li> <li>Stagnant water in drip tray should be removed to avoid overflow.</li> <li>Pier D10</li> <li>Unpaved area should be watered to avoid dust emission.</li> <li>Chemical containers should be placed in drip tray.</li> </ul>
22 July 2015	<ul> <li>Slope B/F8</li> <li>Oil stain was found in drainage.</li> <li>Chemical containers were not placed in drip tray.</li> <li>Slope B/C9</li> <li>Chemical containers of Aqua Sed were not labelled.</li> <li>Seafront</li> <li>Chemical containers were not placed in drip tray.</li> </ul>	<ul> <li>Slope B/F8</li> <li>Oil stain in drainage should be removed.</li> <li>Chemical containers should be placed in drip tray.</li> <li>Slope B/C9</li> <li>Chemical containers should be labelled.</li> <li>Seafront</li> <li>Chemical containers should be placed in drip tray.</li> </ul>

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Inspection Date	Environmental Observations	Recommendations/ Remarks
30 July 2015	Pier D5	Pier D5
	<ul> <li>A drip tray for generator was not plugged.</li> <li>A decoupling mat was damaged.</li> <li>A part of gutter was damaged.</li> <li>Barge Kiu Lik (next to Pier A7)</li> <li>A drip tray for generator was not plugged.</li> <li>Some chemical containers were not placed in drip tray.</li> <li>Pier E12</li> <li>A generator was not placed on acoustic decoupling mat.</li> </ul>	<ul> <li>Drip tray for generator should be plugged.</li> <li>Damaged decoupling mat should be replaced by new decoupling mat.</li> <li>Damaged gutter should be repaired to avoid runoff.</li> <li>Barge Kiu Lik (next to Pier A7)</li> <li>Drip tray for generator should be plugged.</li> <li>Chemical containers should be placed in drip tray.</li> <li>Pier E12</li> <li>Generator should be placed on acoustic decoupling mat.</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), imported fill, recyclable materials and chemical wastes. 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	Imported	Inert	Non-inert	Recyclable	Chemical	Marine Sediment (m <sup>3</sup>			
	Materials (a)	Fill (m³)	Construction	Construction	Materials (c)	Wastes	Category	Category		
	(m³)		Waste Re-	Waste (b) (kg)	(kg)	(kg)	L	M		
			used					$(M_p \& M_f)$		
			$(m^3)$					-		
July 2015	2,322	78	992	111,570	105	1,400	0	0		

#### Notes:

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

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

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

# 2.7 ENVIRONMENTAL LICENSES AND PERMITS

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

Table 2.16 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit	Date of Issue	Date of Expiry	License/	Remarks
	No.			Permit Holder	
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
	F010 0F1 C0000 1F	10 1 2014	N.T. / A	CCI	(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	- I CITIE A
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	GW-RW0695-15	30 Jun 2015	30 Nov 2015	GCL	Segment Erection between B6-B11 by LG1

License/ Permit	License or Permit	Date of Issue	Date of Expiry	License/	Remarks
	No.			Permit Holder	
works in general holidays					
Construction Noise Permit for night works and	GW-RS0769-15	15 Jul 2015	30 Sep 2015	GCL	TTA Case 009 Ch.2.1E-4.2E
works in general holidays					
Construction Noise Permit for night works and	GW-RS0489-15	8 May 2015	7 Aug 2015	GCL	B8 Pier Head Temp Works Lifting
works in general holidays					
Marine Dumping Permit	EP/MD/16-049	22 Jul 2015	26 Aug 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.

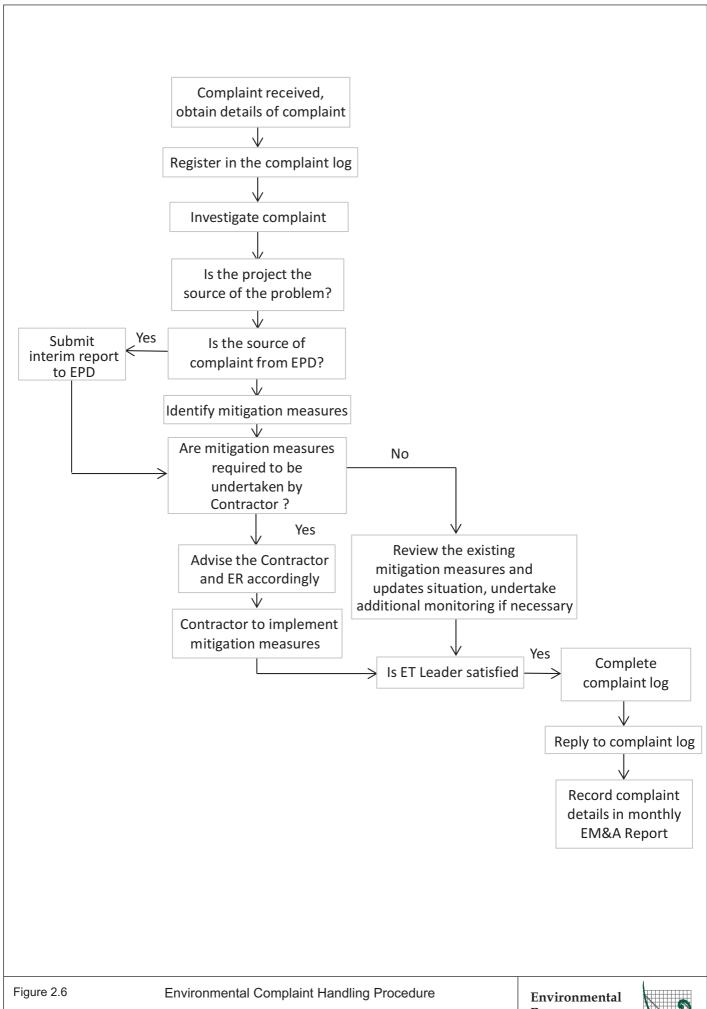
Cumulative statistics on exceedances is provided in *Appendix N*.

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

The Environmental Complaint Handling Procedure is provided in Figure 2.6

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

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





# 3 FUTURE KEY ISSUES

#### 3.1 CONSTRUCTION PROGRAMME FOR THE COMING MONTHS

As informed by the Contractor, the major works for this Contract in August 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

- Predrilling at Viaduct F;
- 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 Viaducts A & B.

# 3.2 KEY ISSUES FOR THE COMING MONTH

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

# 4 CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 CONCLUSIONS

This Twenty-first Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 July 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 six (6) Chinese White Dolphins were sighted during the two sets of monitoring surveys in July 2015. All three (3) sightings were made in NWL, while no dolphin was sighted in NEL. During surveys of July 2015, all three (3) dolphin sightings were made on primary lines during oneffort 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.

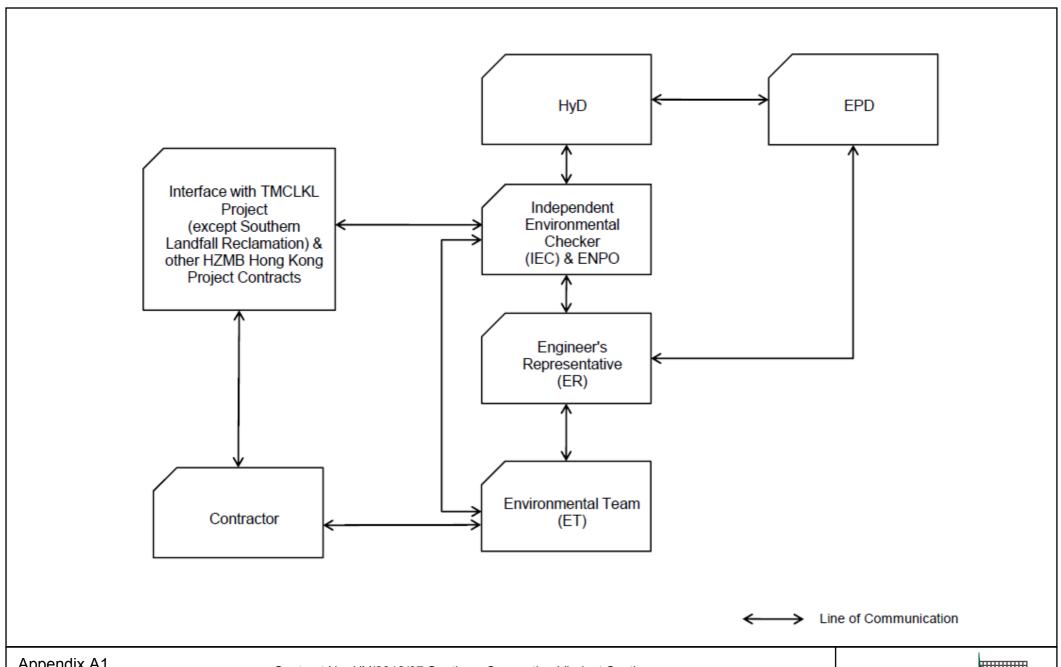
Environmental site inspection was carried out five (5) times in July 2015. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

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

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

# Appendix A

# Project Organization for Environmental Works



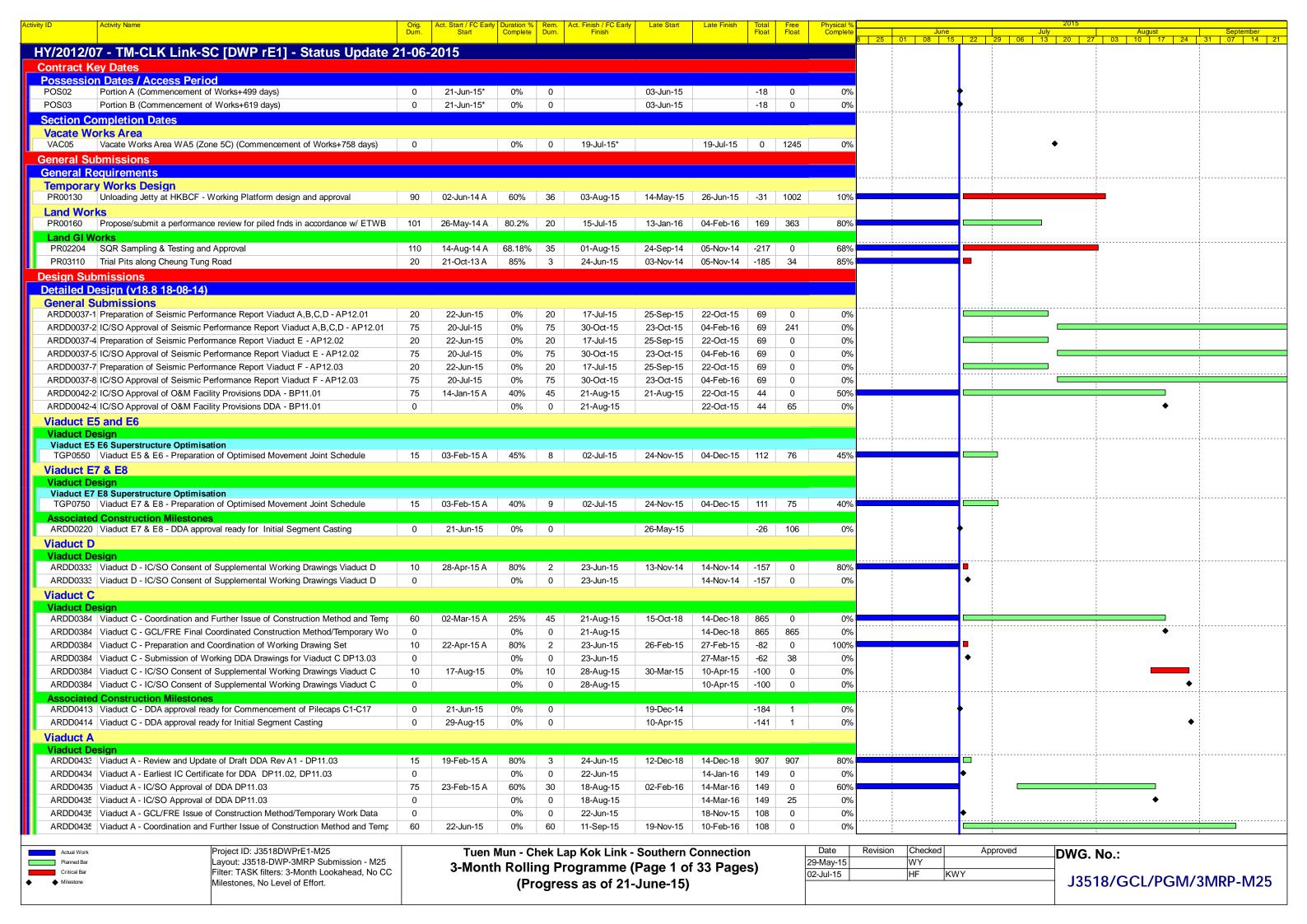
Appendix A1

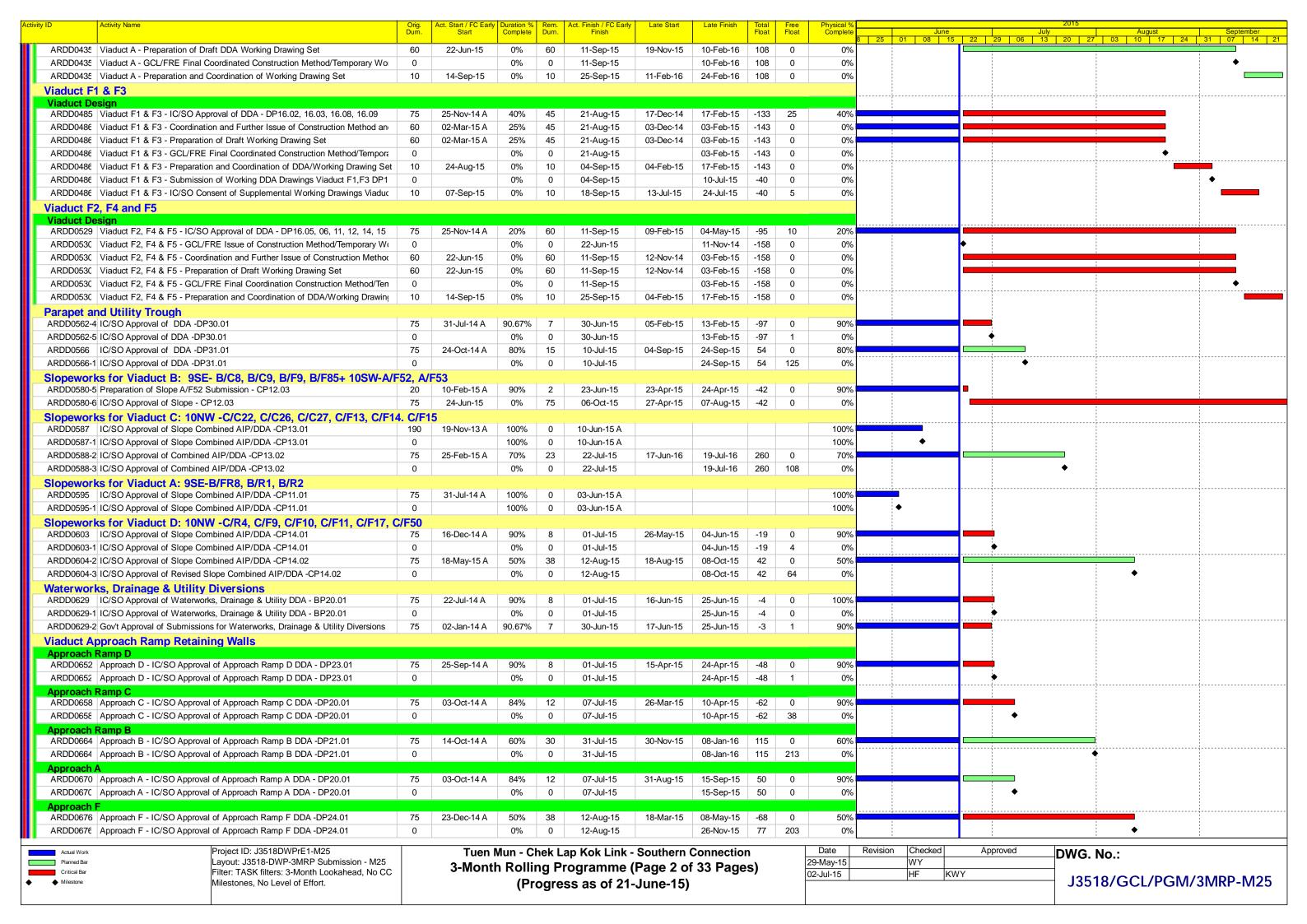
Contract No. HY/2012/07 Southern Connection Viaduct Section **Project Organization** 

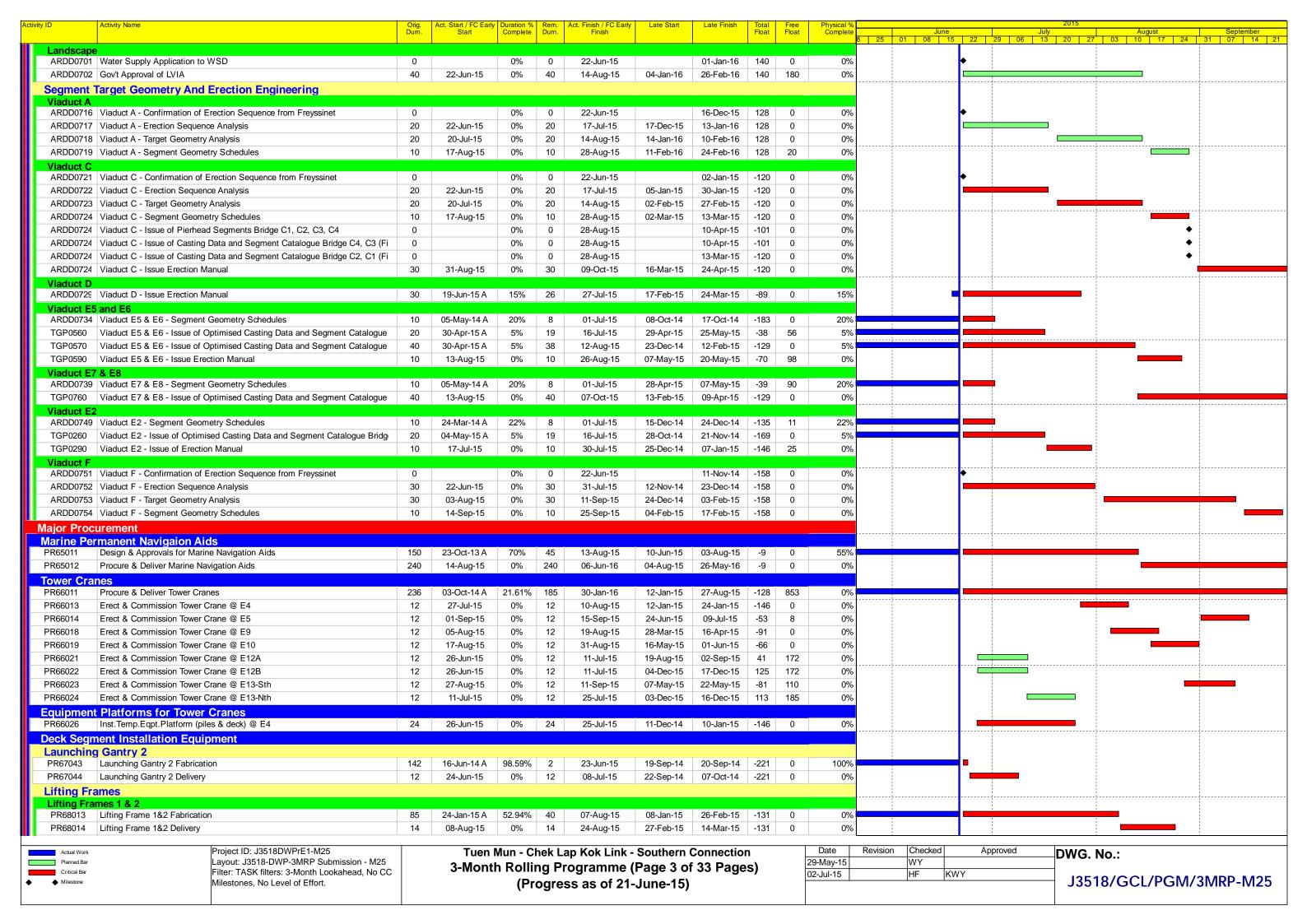


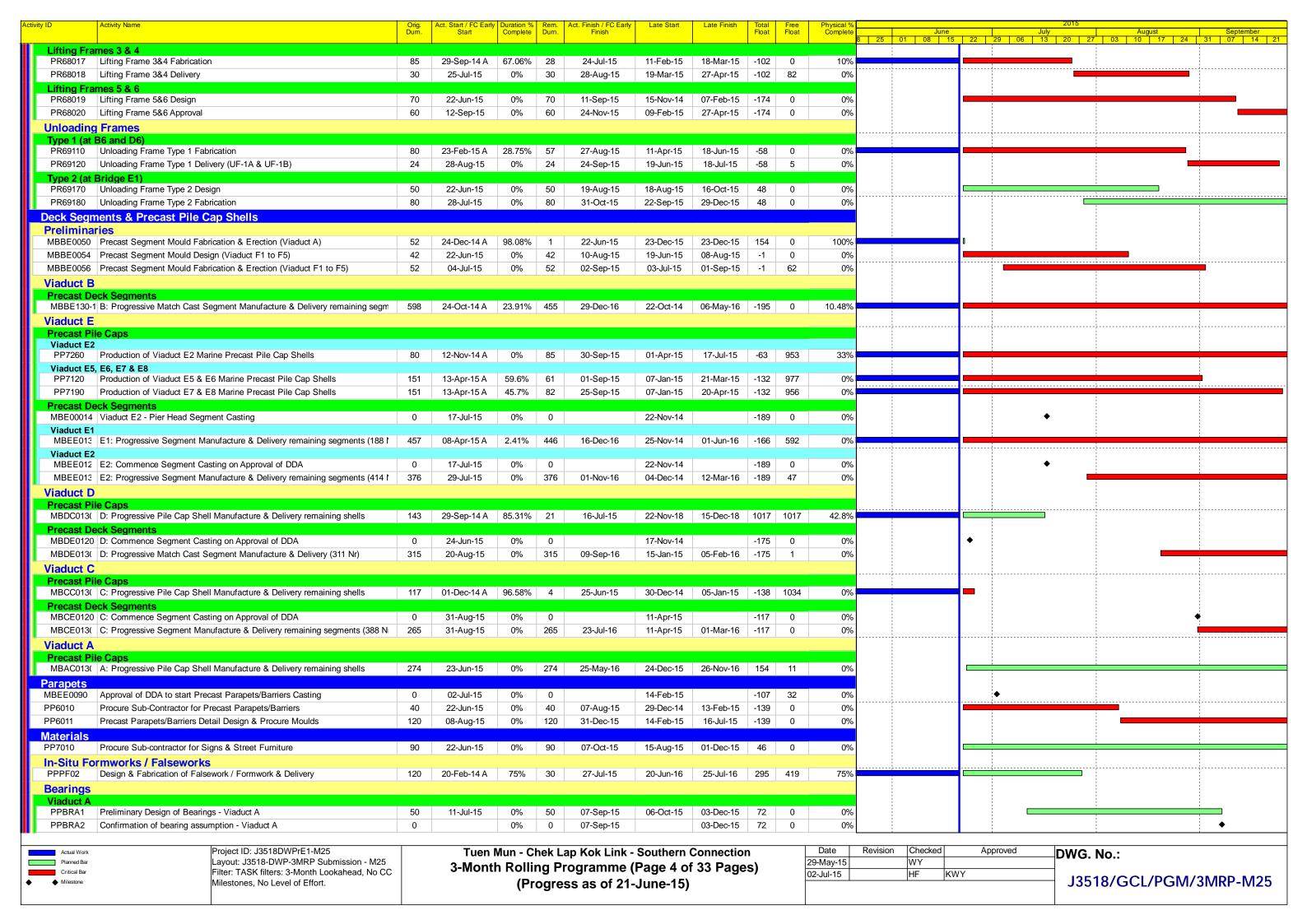
# Appendix B

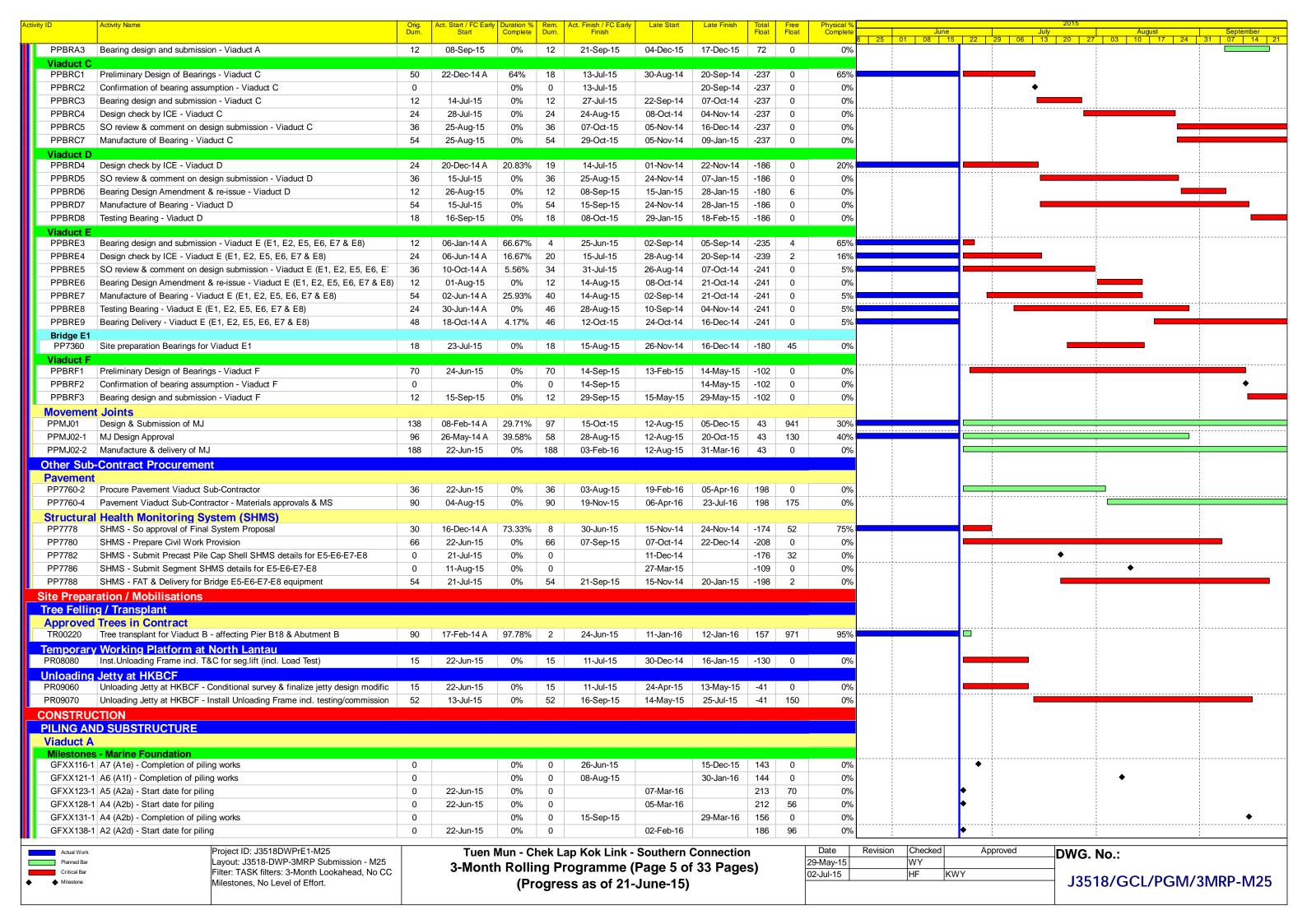
# Three-Month Rolling Construction Programme

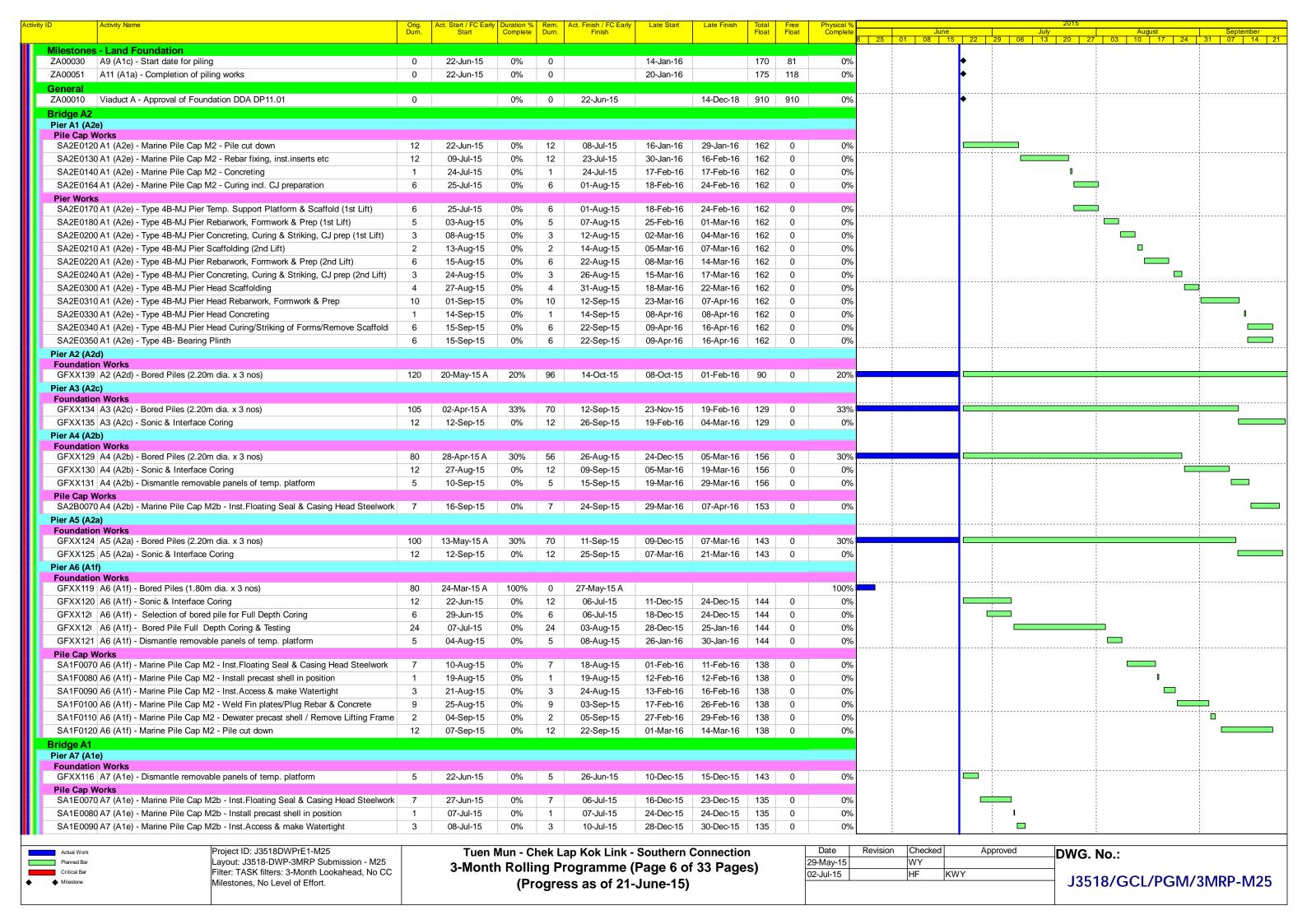


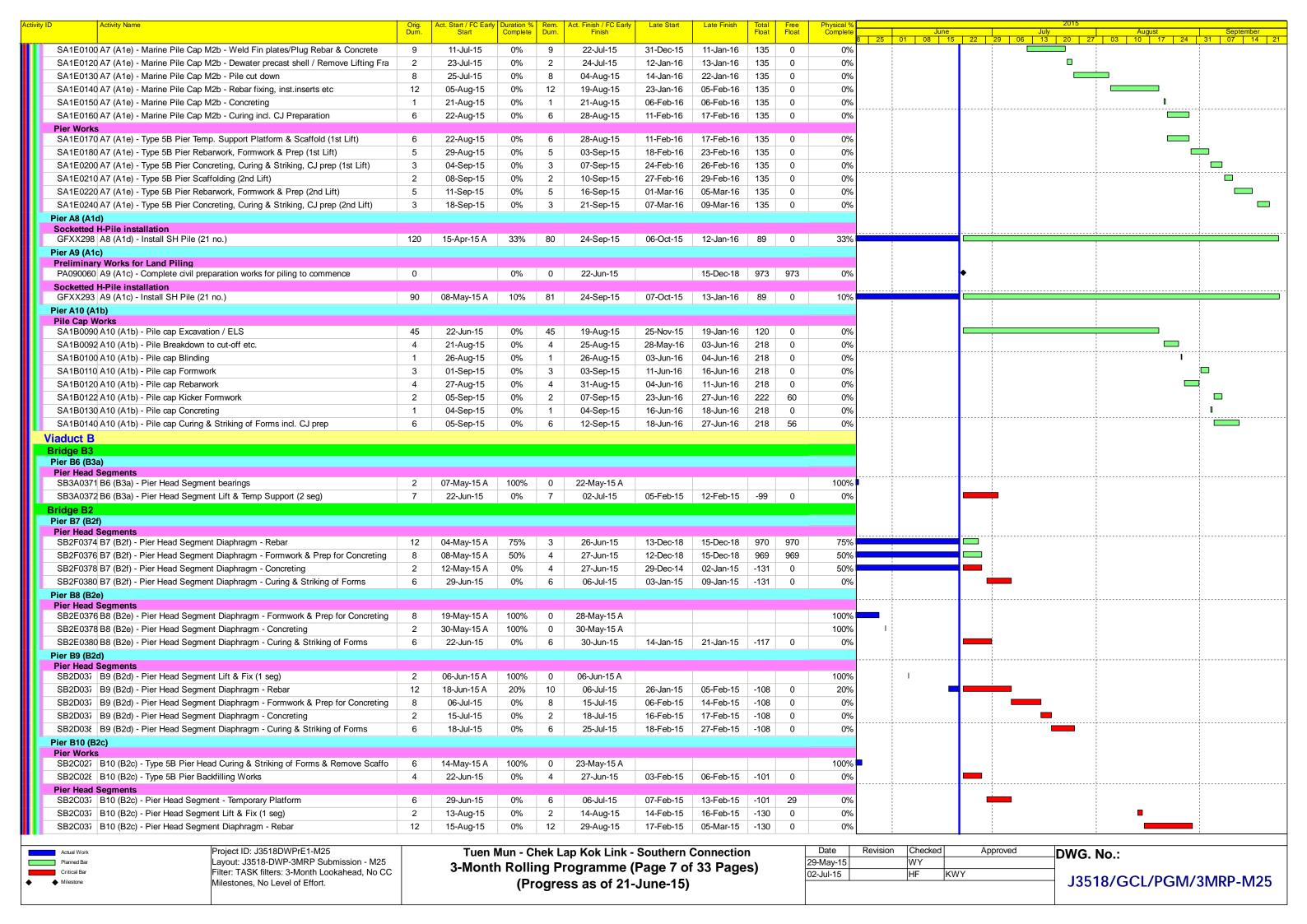


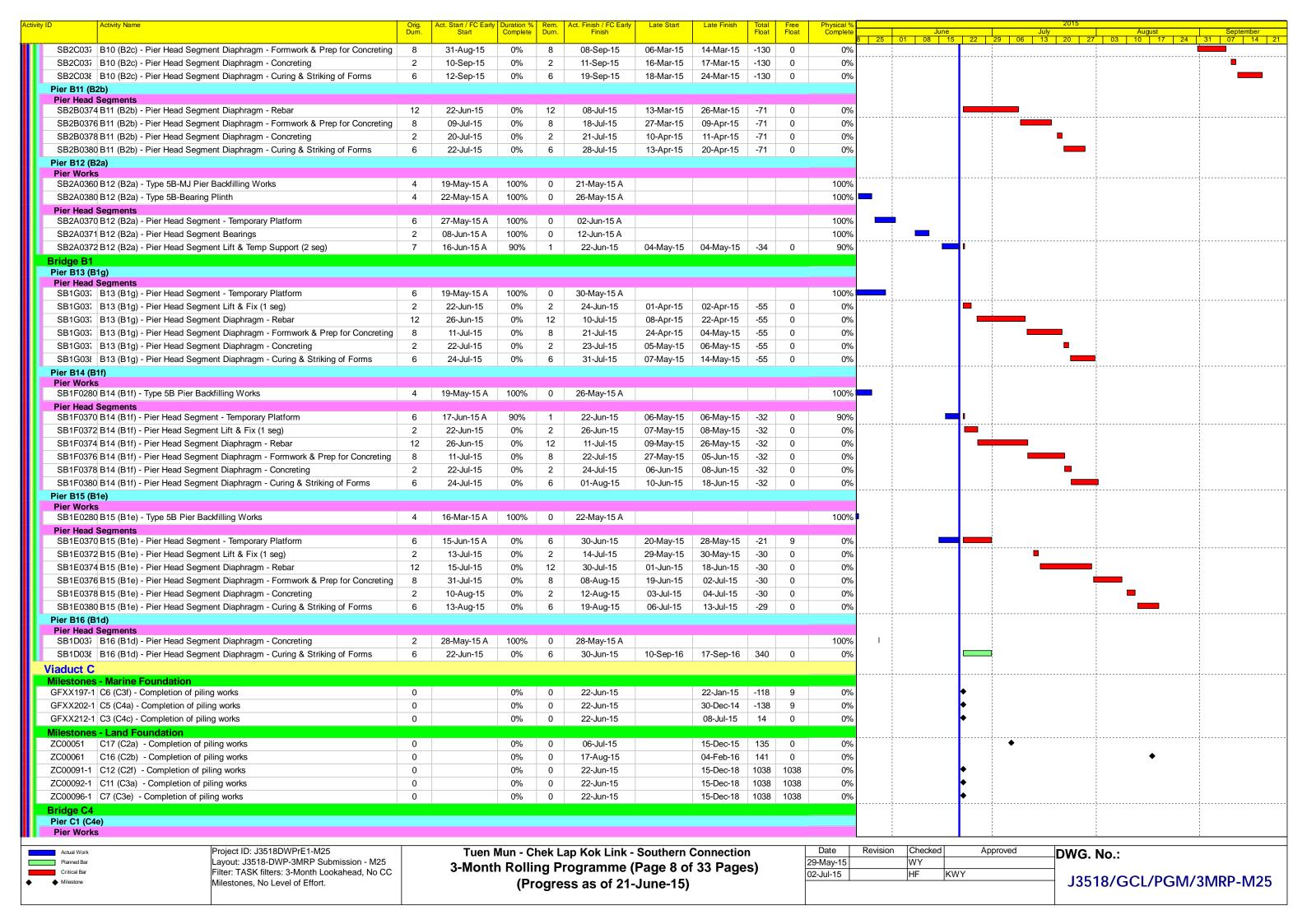


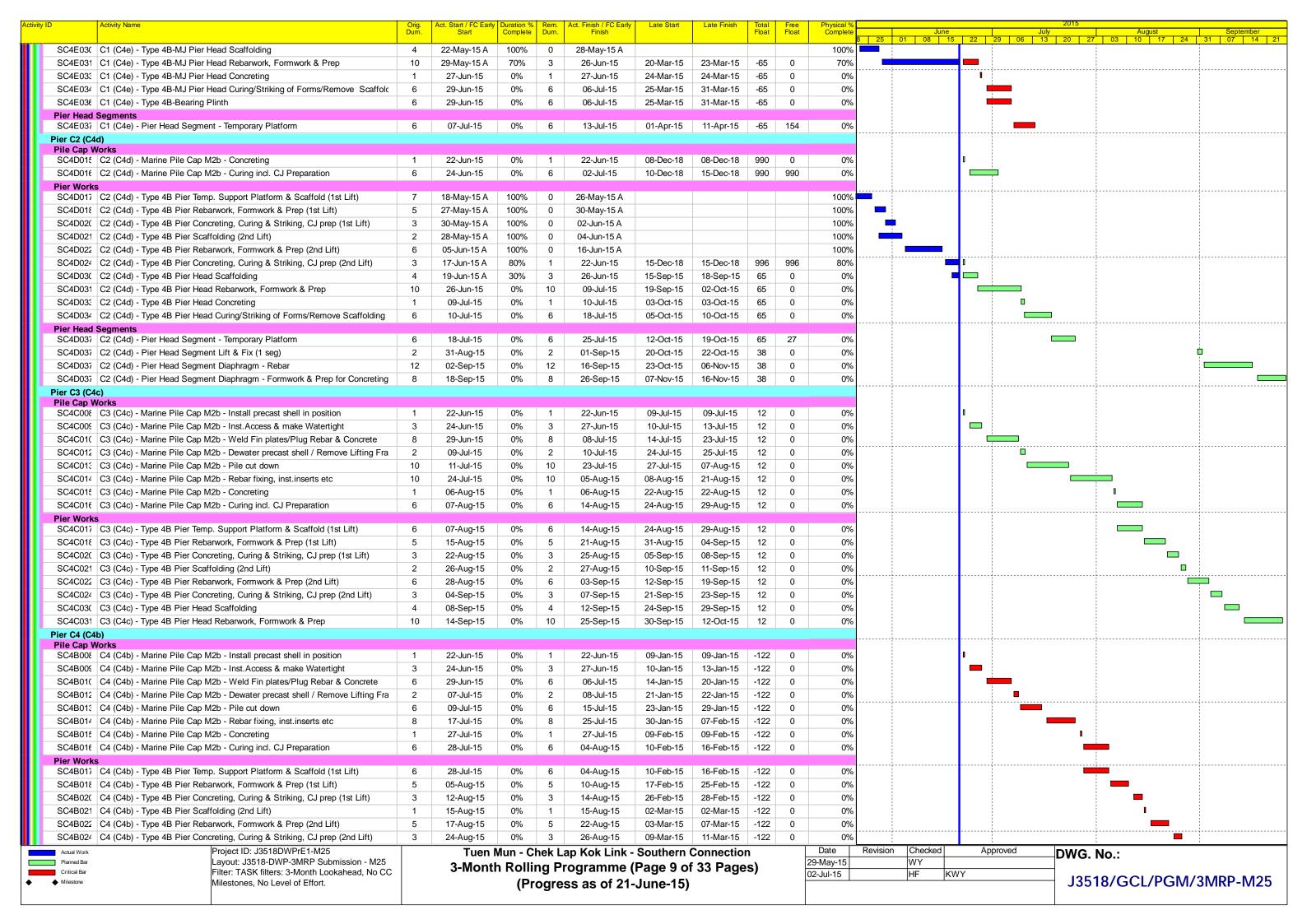






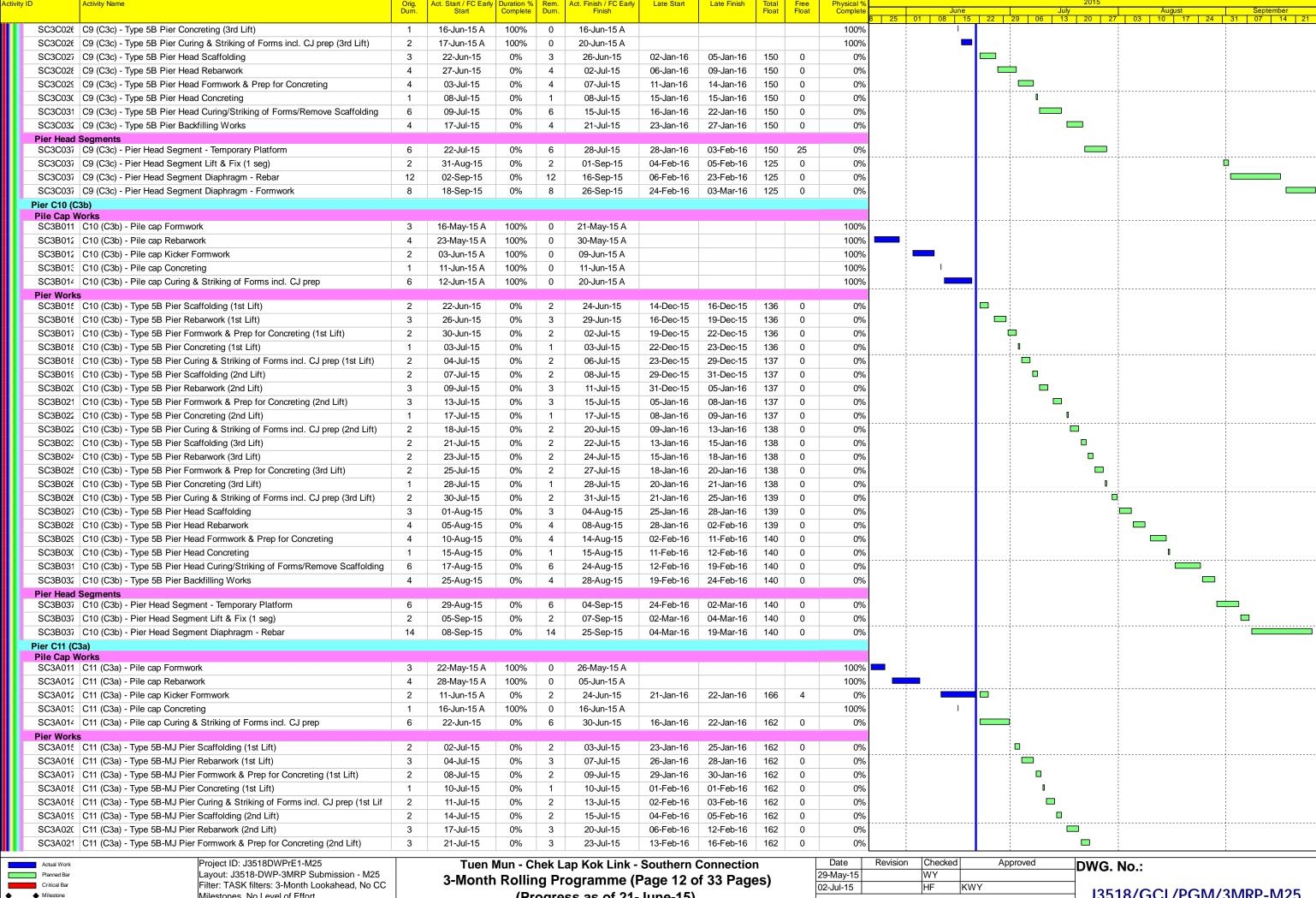






Activity Name	Orig.	Act. Start / FC Early				Late Start	Late Finish		Free	Physical %				2015			
	Dum.	Start	Complete	Durn.	Finish			Float	Float	Complete 8	June 3 25 01 08 19		July 29   06   13		August 7 03 10 17		Septemb 07 1
SC4B03C C4 (C4b) - Type 4B Pier Head Scaffolding	2	27-Aug-15	0%	2	28-Aug-15	12-Mar-15	13-Mar-15	-122	0	0%		T					
4B031 C4 (C4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	8	29-Aug-15	0%	8	07-Sep-15	14-Mar-15	23-Mar-15	-122	0	0%	 				1		1
C4B03: C4 (C4b) - Type 4B Pier Head Concreting	1	08-Sep-15	0%	1	08-Sep-15	24-Mar-15	24-Mar-15	-122	0	0%					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		I
C4B03 <sup>∠</sup> C4 (C4b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	10-Sep-15	0%	6	16-Sep-15	25-Mar-15	31-Mar-15	-122	0	0%							
er Head Segments													1				
C4B037 C4 (C4b) - Pier Head Segment - Temporary Platform	6	18-Sep-15	0%	6	24-Sep-15	01-Apr-15	11-Apr-15	-122	0	0%					1		
er C5 (C4a)																	
ile Cap Works 6C4A007 C5 (C4a) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	22-Jun-15	0%	7	02-Jul-15	19-Dec-14	30-Dec-14	-137	0	0%			<u> </u>				
SC4A008 C5 (C4a) - Marine Pile Cap M2b - Install precast shell in position	1	03-Jul-15	0%	1	03-Jul-15	30-Dec-14	31-Dec-14	-137	0	-			- <del>T</del>				
· · ·	3		-	3		31-Dec-14	05-Jan-15	-137	0	0%			_				
SC4A00\$ C5 (C4a) - Marine Pile Cap M2b - Inst. Access & make Watertight	6	04-Jul-15	0%	6	07-Jul-15		-		-	0%							
SC4A01( C5 (C4a) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete		08-Jul-15	0%	-	14-Jul-15	05-Jan-15	12-Jan-15	-137	0	0%					1		
SC4A012 C5 (C4a) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Fra	2	15-Jul-15	0%	6	17-Jul-15	12-Jan-15	14-Jan-15	-137 -137	0	0%			_	<u>'</u>			
SC4A01: C5 (C4a) - Marine Pile Cap M2b - Pile cut down	6	18-Jul-15	0%	-	24-Jul-15	14-Jan-15	21-Jan-15	-	-	0%							
SC4A014 C5 (C4a) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	0	25-Jul-15	0%	6	01-Aug-15	21-Jan-15	28-Jan-15	-137	0	0%					Ī.,		
SC4A015 C5 (C4a) - Marine Pile Cap M2b - Concreting	1	03-Aug-15	0%	1	03-Aug-15	28-Jan-15	29-Jan-15	-137	0	0%			1		<b>!</b>		
6C4A016 C5 (C4a) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	04-Aug-15	0%	6	10-Aug-15	29-Jan-15	05-Feb-15	-137	0	0%	1						
lier Works SC4A017 C5 (C4a) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	04-Aug-15	0%	6	10-Aug-15	29-Jan-15	05-Feb-15	-137	0	0%	1		1			1	
6C4A018 C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	12-Aug-15	0%	5	17-Aug-15	05-Feb-15	11-Feb-15	-137	0	0%					ļ <del></del>		
SC4A02( C5 (C4a) - Type 4B Pier Rebatwork, Pornwork & Piep (1st Lift)	3	12-Aug-15 18-Aug-15	0%	3		11-Feb-15	11-Feb-15 14-Feb-15	-137	0	0%							
SC4A021 C5 (C4a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	1		0%	1	21-Aug-15	14-Feb-15	14-Feb-15 16-Feb-15	-137	0	0%					<b>—</b> .	1	
SC4A022 C5 (C4a) - Type 4B Pier Scarrouding (2nd Lift) SC4A022 C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	22-Aug-15 24-Aug-15	0%	5	22-Aug-15 28-Aug-15	14-Feb-15 16-Feb-15	25-Feb-15	-137	0	0%	 				•		
1 1 1			-	3	-	25-Feb-15	25-Feb-15 28-Feb-15	-137	0		i 1 1				1		
SC4A024 C5 (C4a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	29-Aug-15	0%	1	01-Sep-15		-		0	0%	·						
SC4A02f C5 (C4a) - Type 4B Pier Scaffolding (3rd Lift)	5	02-Sep-15	0%	5	02-Sep-15	28-Feb-15	02-Mar-15	-137 -137	-	0%	i 1 1				1	' <u> </u>	_
SC4A026 C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	-	03-Sep-15	0%		08-Sep-15	02-Mar-15	07-Mar-15	-137 -137	0	0%	i 1 1				1		
SC4A028 C5 (C4a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	10-Sep-15	0%	3	12-Sep-15	07-Mar-15	11-Mar-15	-137	0	0%							
SC4A03( C5 (C4a) - Type 4B Pier Head Scaffolding	2	14-Sep-15	0%	8	15-Sep-15	11-Mar-15	13-Mar-15	-137	-	0%							•
SC4A031 C5 (C4a) - Type 4B Pier Head Rebarwork, Formwork & Prep	8	16-Sep-15	0%	8	25-Sep-15	13-Mar-15	23-Mar-15	-137	0	0%							
er C6 (C3f) ile Cap Works																	
SC3F0070 C6 (C3f) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	22-Jun-15	0%	7	02-Jul-15	15-Jan-15	22-Jan-15	-117	0	0%			<del></del>				
SC3F0080 C6 (C3f) - Marine Pile Cap M2b - Install precast shell in position	1	03-Jul-15	0%	1	03-Jul-15	23-Jan-15	23-Jan-15	-117	0	0%			1				
SC3F0090 C6 (C3f) - Marine Pile Cap M2b - Inst. Access & make Watertight	3	04-Jul-15	0%	3	07-Jul-15	24-Jan-15	27-Jan-15	-117	0	0%			_				
SC3F0100 C6 (C3f) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	8	08-Jul-15	0%	8	17-Jul-15	28-Jan-15	05-Feb-15	-117	0	0%							
SC3F0110 C6 (C3f) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting Frai	2	18-Jul-15	0%	2	20-Jul-15	06-Feb-15	07-Feb-15	-117	0	0%							
SC3F0120 C6 (C3f) - Marine Pile Cap M2b - Pile cut down	6	21-Jul-15	0%	6	27-Jul-15	09-Feb-15	14-Feb-15	-117	0	0%							
SC3F0130 C6 (C3f) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	6	28-Jul-15	0%	6	04-Aug-15	16-Feb-15	25-Feb-15	-117	0	0%							
SC3F0140 C6 (C3f) - Marine Pile Cap M2b - Concreting	1	05-Aug-15	0%	1	05-Aug-15	26-Feb-15	26-Feb-15	-117	0	0%					1		
SC3F0164 C6 (C3f) - Marine Pile Cap M2b - Curing incl. CJ preparation	6	06-Aug-15	0%	6	13-Aug-15	27-Feb-15	05-Mar-15	-117	0	0%	·				†		
ier Works	J	207.4g 10	2,0		.57.49 10	55 10	ai 10			370					_		
SC3F0170 C6 (C3f) - Type 4B-MJ Pier Temp. Support Platform & Scaffold (1st Lift)	6	06-Aug-15	0%	6	13-Aug-15	27-Feb-15	05-Mar-15	-117	0	0%							
SC3F0180 C6 (C3f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	5	14-Aug-15	0%	5	19-Aug-15	06-Mar-15	11-Mar-15	-117	0	0%							
SC3F0200 C6 (C3f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	21-Aug-15	0%	3	24-Aug-15	12-Mar-15	14-Mar-15	-117	0	0%					-		
SC3F0210 C6 (C3f) - Type 4B-MJ Pier Scaffolding (2nd Lift)	1	25-Aug-15	0%	1	25-Aug-15	16-Mar-15	16-Mar-15	-117	0	0%						1	
SC3F0220 C6 (C3f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (2nd Lift)	5	26-Aug-15	0%	5	31-Aug-15	17-Mar-15	21-Mar-15	-117	0	0%							
SC3F0240 C6 (C3f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	01-Sep-15	0%	3	03-Sep-15	23-Mar-15	25-Mar-15	-117	0	0%						_	
SC3F0250 C6 (C3f) - Type 4B-MJ Pier Scaffolding (3rd Lift)	1	04-Sep-15	0%	1	04-Sep-15	26-Mar-15	26-Mar-15	-117	0	0%						1	
SC3F0260 C6 (C3f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (3rd Lift)	5	05-Sep-15	0%	5	11-Sep-15	27-Mar-15	01-Apr-15	-117	0	0%						_	
SC3F0280 C6 (C3f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	12-Sep-15	0%	3	15-Sep-15	02-Apr-15	09-Apr-15	-117	0	0%							
SC3F0300 C6 (C3f) - Type 4B-MJ Pier Head Scaffolding	2	16-Sep-15	0%	2	18-Sep-15	10-Apr-15	11-Apr-15	-117	0	0%							
SC3F0310 C6 (C3f) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	8	19-Sep-15	0%	8	29-Sep-15	13-Apr-15	· ·		0	0%							
idge C3	-				1 2 2 1 0	- 1 42 10	Tipe 19			0,0							
er C7 (C3e)												]	1				
ile Cap Works																	
SC3E009 C7 (C3e) - Pile cap Excavation / ELS	20	26-May-15 A	90%	2	24-Jun-15	24-Aug-15	25-Aug-15	47	0	0%							
SC3E009 C7 (C3e) - Pile cap Pile breakdown to cut-off etc.	4	26-Jun-15	0%	4	30-Jun-15	26-Aug-15	29-Aug-15	47	0	0%			3				
SC3E01( C7 (C3e) - Pile cap Blinding	1	02-Jul-15	0%	1	02-Jul-15	31-Aug-15	31-Aug-15	47	0	0%			0				
SC3E011 C7 (C3e) - Pile cap Formwork	3	08-Jul-15	0%	3	10-Jul-15	05-Sep-15	08-Sep-15	47	0	0%	ļ !						
SC3E012 C7 (C3e) - Pile cap Rebarwork	4	03-Jul-15	0%	4	07-Jul-15	01-Sep-15	04-Sep-15	47	0	0%							
SC3E012 C7 (C3e) - Pile cap Kicker Formwork	2	13-Jul-15	0%	2	14-Jul-15	16-Sep-15	18-Sep-15	51	4	0%	:				1		
SC3E01: C7 (C3e) - Pile cap Concreting	1	11-Jul-15	0%	1	11-Jul-15	10-Sep-15	10-Sep-15	47	0	0%	1		0				
										Deta	Devision 101 - 1 - 1						
la companya a companya				halr I	on Kak Link	L'allibana /			1	Date	Revision   Checked	Ar	pproved	_DWG.	No ·		
Actual Work Project ID: J3518DWPrE1-M25					.ap Kok Link -				-				··	-DVVG.	140		
Actual Work         Project ID: J3518DWPrE1-M25           Planned Bar         Layout: J3518-DWP-3MRP Submission - M25           Critical Bar         Filter: TASK filters: 3-Month Lookahead, No CC					ap Kok Link - rogramme (F				<u> </u>	29-May-15 02-Jul-15	WY	(WY			140		

)	Activity Name	Orig. Dum.	Act. Start / FC Early Start	Duration % Complete		Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	25	June 04   09   45		July		August	Septembe
SC3E014	C7 (C3e) - Pile cap Curing & Striking of Forms incl. CJ prep	6	13-Jul-15	0%	6	20-Jul-15	11-Sep-15	18-Sep-15	47	0	0%	25	01   08   15	22	29   06   13	20   2	7 03 10 17 24	31   07   14 
Pier Works																		
	C7 (C3e) - Type 5B Pier Scaffolding (1st Lift)	2	21-Jul-15	0%	2	22-Jul-15	19-Sep-15	21-Sep-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Rebarwork (1st Lift)	3	23-Jul-15	0%	3	25-Jul-15	22-Sep-15	24-Sep-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	27-Jul-15	0%	2	28-Jul-15	25-Sep-15	26-Sep-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Concreting (1st Lift)	1	30-Jul-15	0%	1	30-Jul-15	29-Sep-15	29-Sep-15	47	0	0%					0		
	C7 (C3e) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	31-Jul-15	0%	2	01-Aug-15	30-Sep-15	02-Oct-15	47	0	0%						 -;	
	C7 (C3e) - Type 5B Pier Scaffolding (2nd Lift)	2	03-Aug-15	0%	2	04-Aug-15	03-Oct-15	05-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Rebarwork (2nd Lift)	2	05-Aug-15	0%	2	06-Aug-15	06-Oct-15	07-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	2	07-Aug-15	0%	2	08-Aug-15	08-Oct-15	09-Oct-15	47	0	0%				1			
	C7 (C3e) - Type 5B Pier Concreting (2nd Lift)	1	10-Aug-15	0%	1	10-Aug-15	10-Oct-15	10-Oct-15	47	0	0%						_	
	C7 (C3e) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	12-Aug-15	0%	2	13-Aug-15	12-Oct-15	13-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Scaffolding (3rd Lift)	2	14-Aug-15	0%	2	15-Aug-15	15-Oct-15	16-Oct-15	47	0	0%						•	
	C7 (C3e) - Type 5B Pier Rebarwork (3rd Lift)	2	17-Aug-15	0%	2	18-Aug-15	17-Oct-15	19-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Formwork & Prep for Concreting (3rd Lift)	2	19-Aug-15	0%	2	21-Aug-15	20-Oct-15	22-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Concreting (3rd Lift)	1	22-Aug-15	0%	1	22-Aug-15	23-Oct-15	23-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (3rd Lift)	2	24-Aug-15	0%	2	25-Aug-15	24-Oct-15	26-Oct-15	47	0	0%						-	
	C7 (C3e) - Type 5B Pier Head Scaffolding	4	26-Aug-15	0%	4	29-Aug-15	27-Oct-15	31-Oct-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Head Rebarwork	4	31-Aug-15	0%	4	03-Sep-15	02-Nov-15	05-Nov-15	47	0	0%							
	C7 (C3e) - Type 5B Pier Head Formwork & Prep for Concreting	4	04-Sep-15	0%	4	08-Sep-15	06-Nov-15	11-Nov-15	48	0	0%							
	C7 (C3e) - Type 5B Pier Head Concreting	1	10-Sep-15	0%	1	10-Sep-15	12-Nov-15	12-Nov-15	48	0	0%							
	C7 (C3e) - Type 5B Pier head Curing/Striking of Forms/Remove Scaffolding	6	11-Sep-15	0%	6	18-Sep-15	13-Nov-15	19-Nov-15	48	0	0%						-	
	C7 (C3e) - Type 5B Pier Backfilling Works	4	19-Sep-15	0%	4	23-Sep-15	20-Nov-15	24-Nov-15	48	0	0%							
Pile Cap W	•																	
	C8 (C3d) - Pile cap Kicker Formwork	2	26-May-15 A	100%	0	28-May-15 A					100%	•						
	C8 (C3d) - Pile cap Curing & Striking of Forms incl. CJ prep	6	17-May-15 A	100%	0	22-May-15 A					100%							
Pier Works			,		_	,												
SC3D015	C8 (C3d) - Type 5B Pier Scaffolding (1st Lift)	2	03-Jun-15 A	100%	0	05-Jun-15 A					100%	- 1						
SC3D016	C8 (C3d) - Type 5B Pier Rebarwork (1st Lift)	3	09-Jun-15 A	100%	0	11-Jun-15 A					100%							
SC3D017	C8 (C3d) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	13-Jun-15 A	100%	0	13-Jun-15 A					100%		1					
SC3D018	C8 (C3d) - Type 5B Pier Concreting (1st Lift)	1	16-Jun-15 A	100%	0	16-Jun-15 A					100%		1					
SC3D018	C8 (C3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	22-Jun-15	0%	2	24-Jun-15	09-Nov-15	10-Nov-15	106	0	0%							
SC3D019	C8 (C3d) - Type 5B Pier Scaffolding (2nd Lift)	2	26-Jun-15	0%	2	27-Jun-15	11-Nov-15	12-Nov-15	106	0	0%							
SC3D020	C8 (C3d) - Type 5B Pier Rebarwork (2nd Lift)	3	29-Jun-15	0%	3	02-Jul-15	13-Nov-15	16-Nov-15	106	0	0%				<b></b>			
SC3D021	C8 (C3d) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	03-Jul-15	0%	3	06-Jul-15	17-Nov-15	19-Nov-15	106	0	0%							
SC3D022	C8 (C3d) - Type 5B Pier Concreting (2nd Lift)	1	07-Jul-15	0%	1	07-Jul-15	20-Nov-15	20-Nov-15	106	0	0%				<u> </u>			
SC3D022	C8 (C3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	08-Jul-15	0%	2	09-Jul-15	21-Nov-15	23-Nov-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Scaffolding (3rd Lift)	2	10-Jul-15	0%	2	11-Jul-15	24-Nov-15	25-Nov-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Rebarwork (3rd Lift)	2	13-Jul-15	0%	2	14-Jul-15	26-Nov-15	27-Nov-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Formwork & Prep for Concreting (3rd Lift)	2	15-Jul-15	0%	2	17-Jul-15	28-Nov-15	30-Nov-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Concreting (3rd Lift)	1	18-Jul-15	0%	1	18-Jul-15	01-Dec-15	01-Dec-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (3rd Lift)	2	20-Jul-15	0%	2	21-Jul-15	02-Dec-15	03-Dec-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Head Scaffolding	3	22-Jul-15	0%	3	24-Jul-15	04-Dec-15	07-Dec-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Head Rebarwork	4	25-Jul-15	0%	4	30-Jul-15	08-Dec-15	11-Dec-15	106	0	0%						<u> </u>	
	C8 (C3d) - Type 5B Pier Head Formwork & Prep for Concreting	4	31-Jul-15	0%	4	04-Aug-15	12-Dec-15	16-Dec-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Head Concreting	1	05-Aug-15	0%	1	05-Aug-15	17-Dec-15	17-Dec-15	106	0	0%							
	C8 (C3d) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	06-Aug-15	0%	6	13-Aug-15	18-Dec-15	24-Dec-15	106	0	0%	_						
	C8 (C3d) - Type 5B Pier Backfilling Works	4	27-May-15 A	100%	0	30-May-15 A					100%							
Pier Head S		6	14 4.15 45	00/	6	24 4 45	20 Dec 45	04 lon 40	100	7	00/							
	C8 (C3d) - Pier Head Segment - Temporary Platform	6	14-Aug-15	0%	6	21-Aug-15	28-Dec-15	04-Jan-16	106	7	0%							Ė
	C8 (C3d) - Pier Head Segment Lift & Fix (1 seg)	2	31-Aug-15	0%	2	01-Sep-15	05-Jan-16	06-Jan-16	99	0	0%							÷
	C8 (C3d) - Pier Head Segment Diaphragm - Rebar	12 8	02-Sep-15	0%	12	16-Sep-15	07-Jan-16	20-Jan-16	99	0	0%							
	C8 (C3d) - Pier Head Segment Diaphragm - Formwork	ō	18-Sep-15	0%	ď	26-Sep-15	21-Jan-16	29-Jan-16	99	0	0%							
Pier C9 (C3c Pier Works	•																	
-	C9 (C3c) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	22-May-15 A	100%	0	26-May-15 A					100%							
SC3C022	C9 (C3c) - Type 5B Pier Concreting (2nd Lift)	1	29-May-15 A	100%	0	29-May-15 A					100%	T		· [				!
	C9 (C3c) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	3	30-May-15 A	100%	0	01-Jun-15 A					100%							
SC3C023	C9 (C3c) - Type 5B Pier Scaffolding (3rd Lift)	2	02-Jun-15 A	100%	0	04-Jun-15 A					100%				1			
	C9 (C3c) - Type 5B Pier Rebarwork (3rd Lift)	2	05-Jun-15 A	100%	0	08-Jun-15 A					100%				1			
	C9 (C3c) - Type 5B Pier Formwork & Prep for Concreting (3rd Lift)	2	10-Jul-15 A	100%	0	13-Jul-15 A					100%							
Actual Work	Project ID: J3518DWPrE1-M25		Tuan	Mun - C	hek I	ap Kok Link -	Southern (	Connection	n		Date Rev	rision	Checked	Ar	proved	DIMO	No :	i .
notual VVUIK	Layout: J3518-DWP-3MRP Submission - M25					ogramme (I				:	29-May-15		WY	, ,,	,	⊢DWG.	NO.:	
Planned Bar	120,000,000,000,000,000,000,000,000,000,		= NAAATA	ROIIII	nn Pr	ooramme (I	- 200 11 0	Pana								_		
Planned Bar Critical Bar  Milestone	Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.		3-WOTH		_	ess as of 21-	_	i JJ i age	-3 <i>j</i>	[6	02-Jul-15		HF KV	۷Y		105	18/GCL/PGM/	21/100 1/

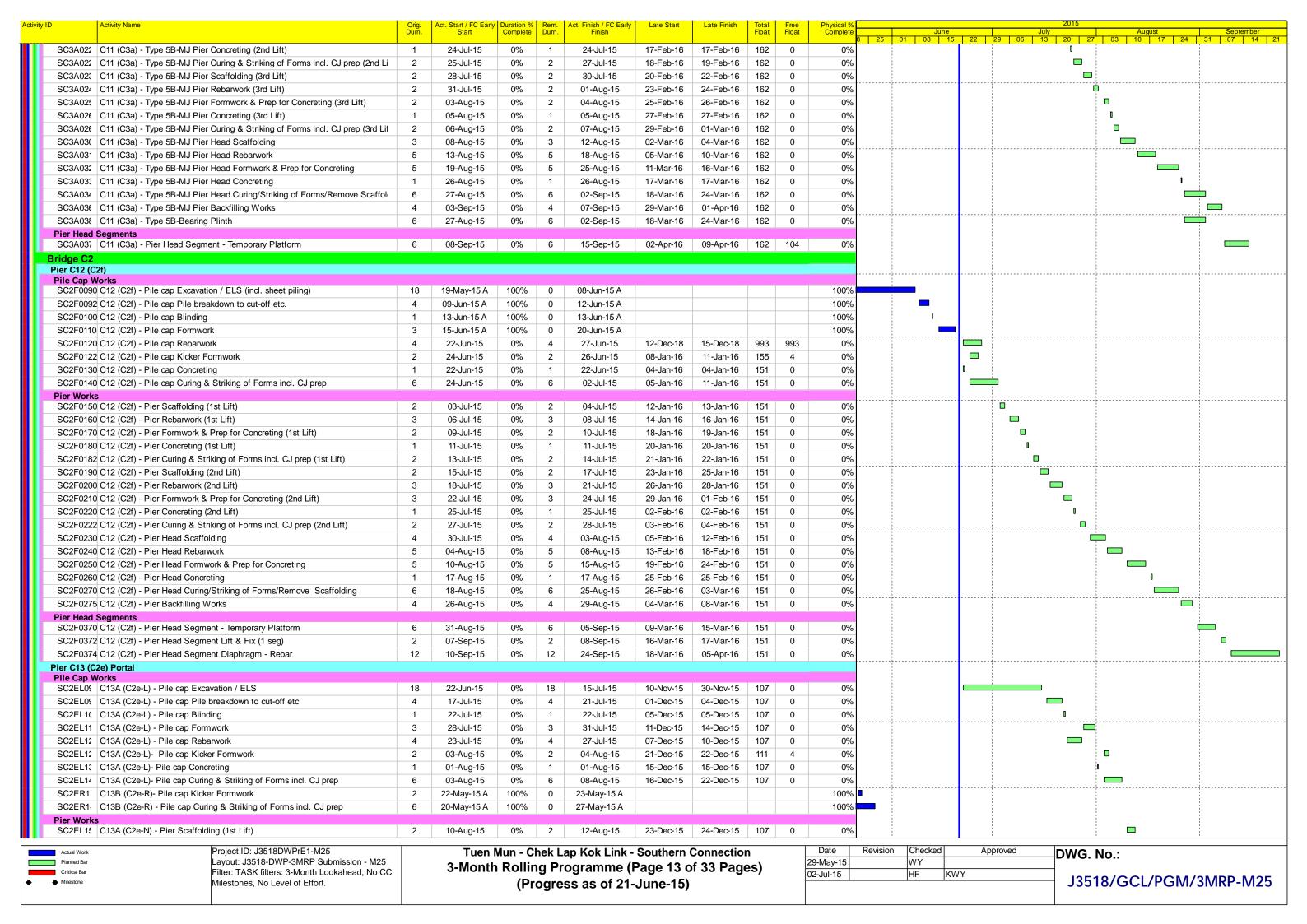


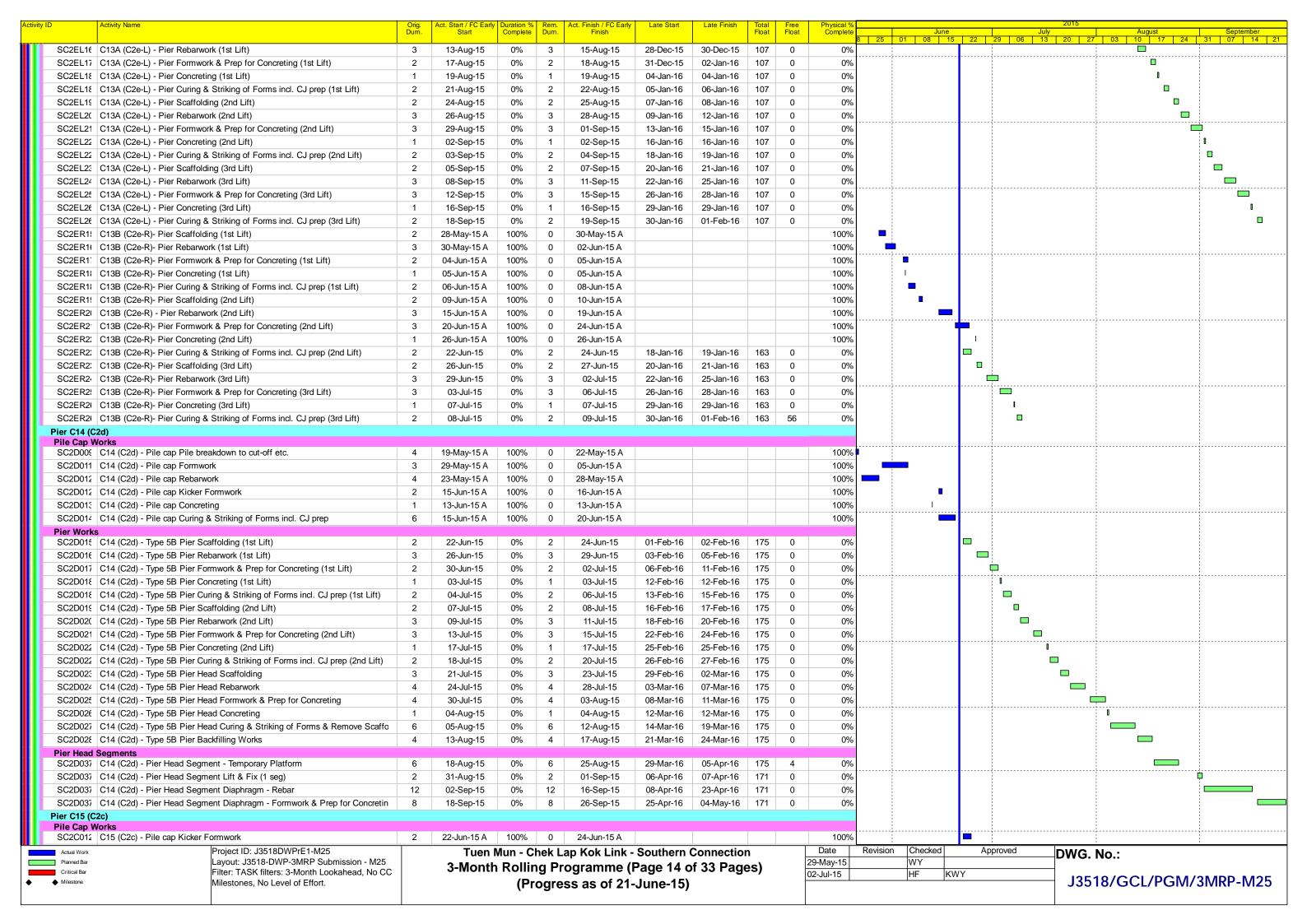
Milestones, No Level of Effort.

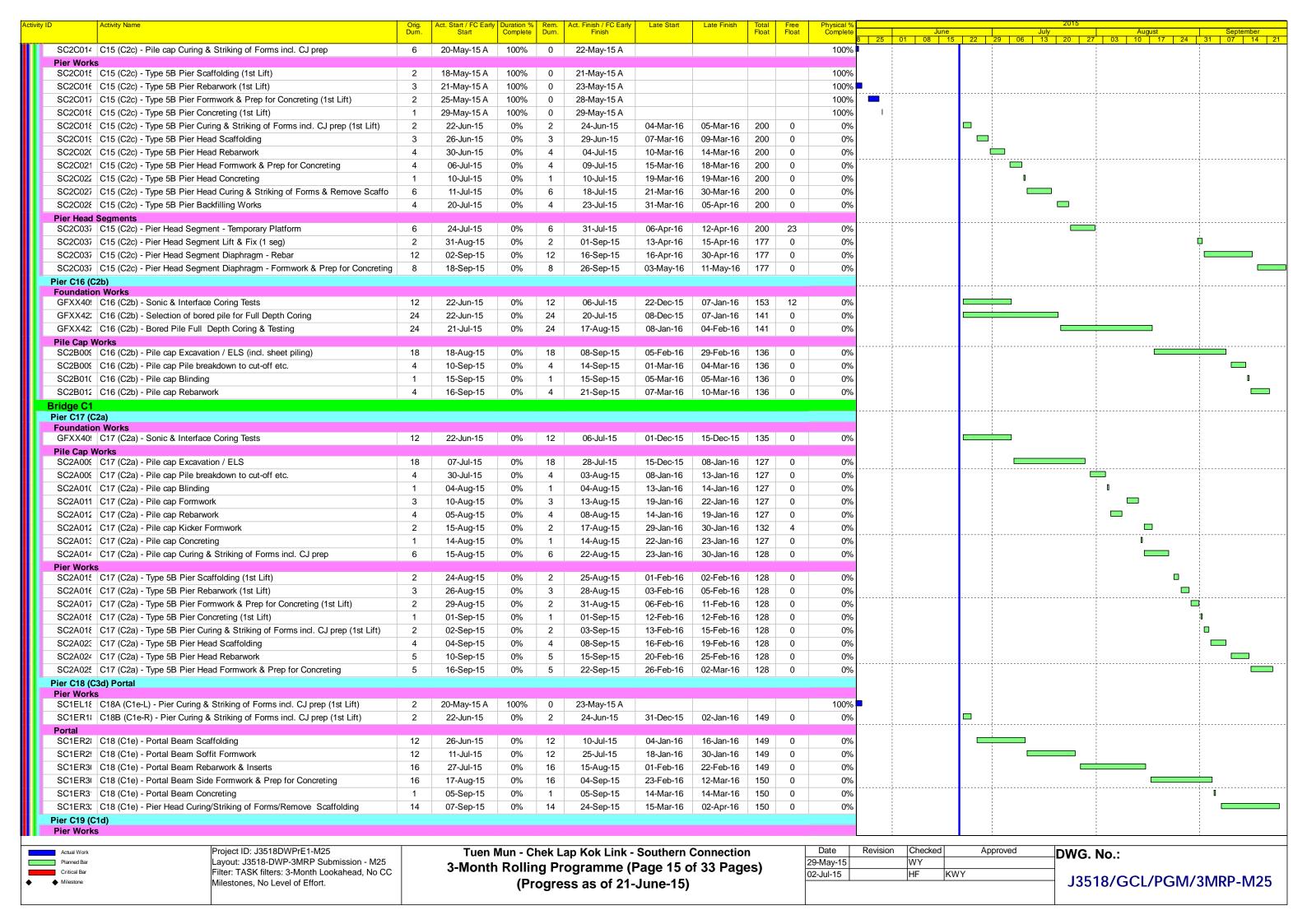
(Progress as of 21-June-15)

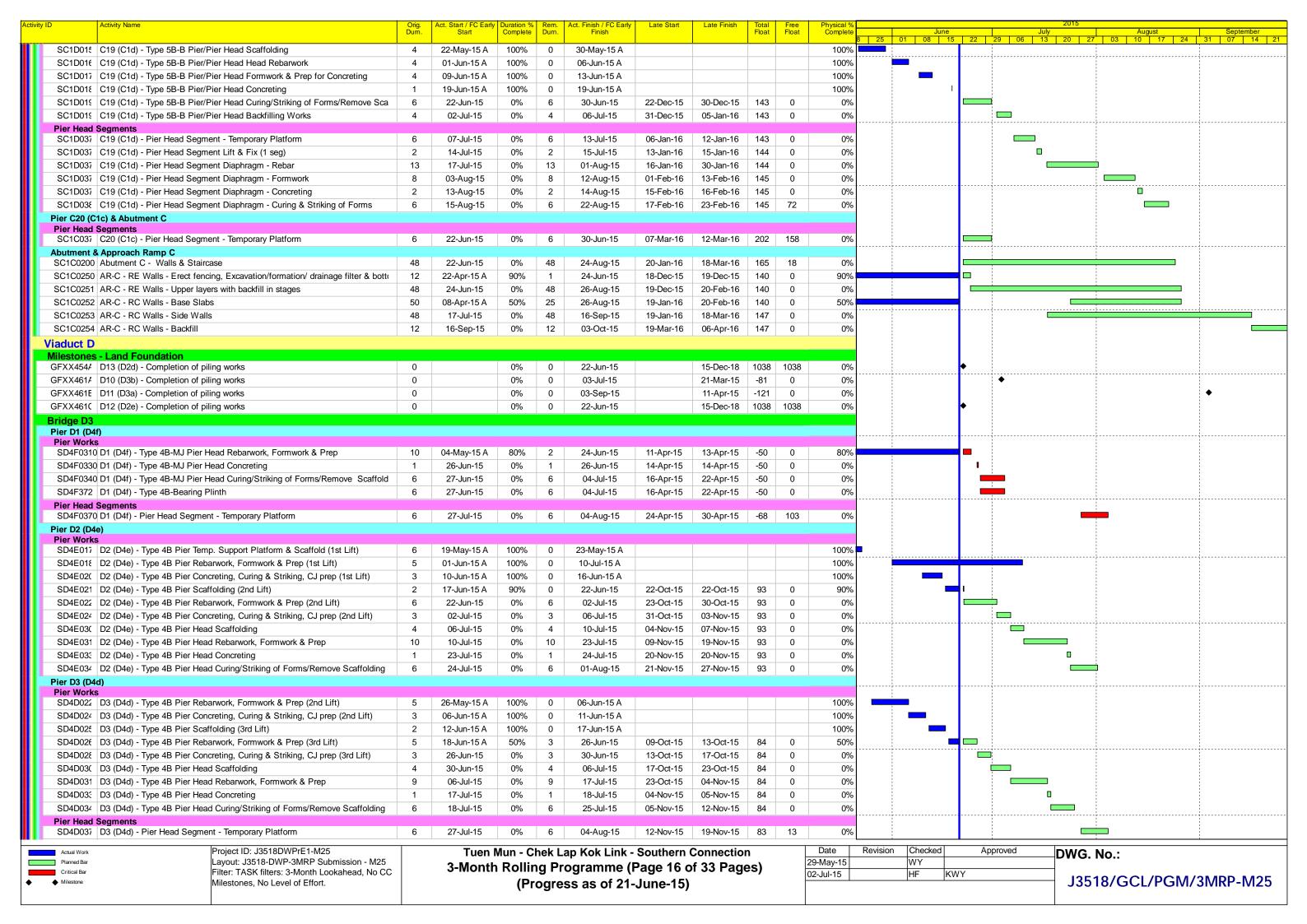
Date	Revision	Checked	Approved	DWG.
29-May-15		WY		<b>D</b> 11 0.
02-Jul-15		HF	KWY	LOE
				J35

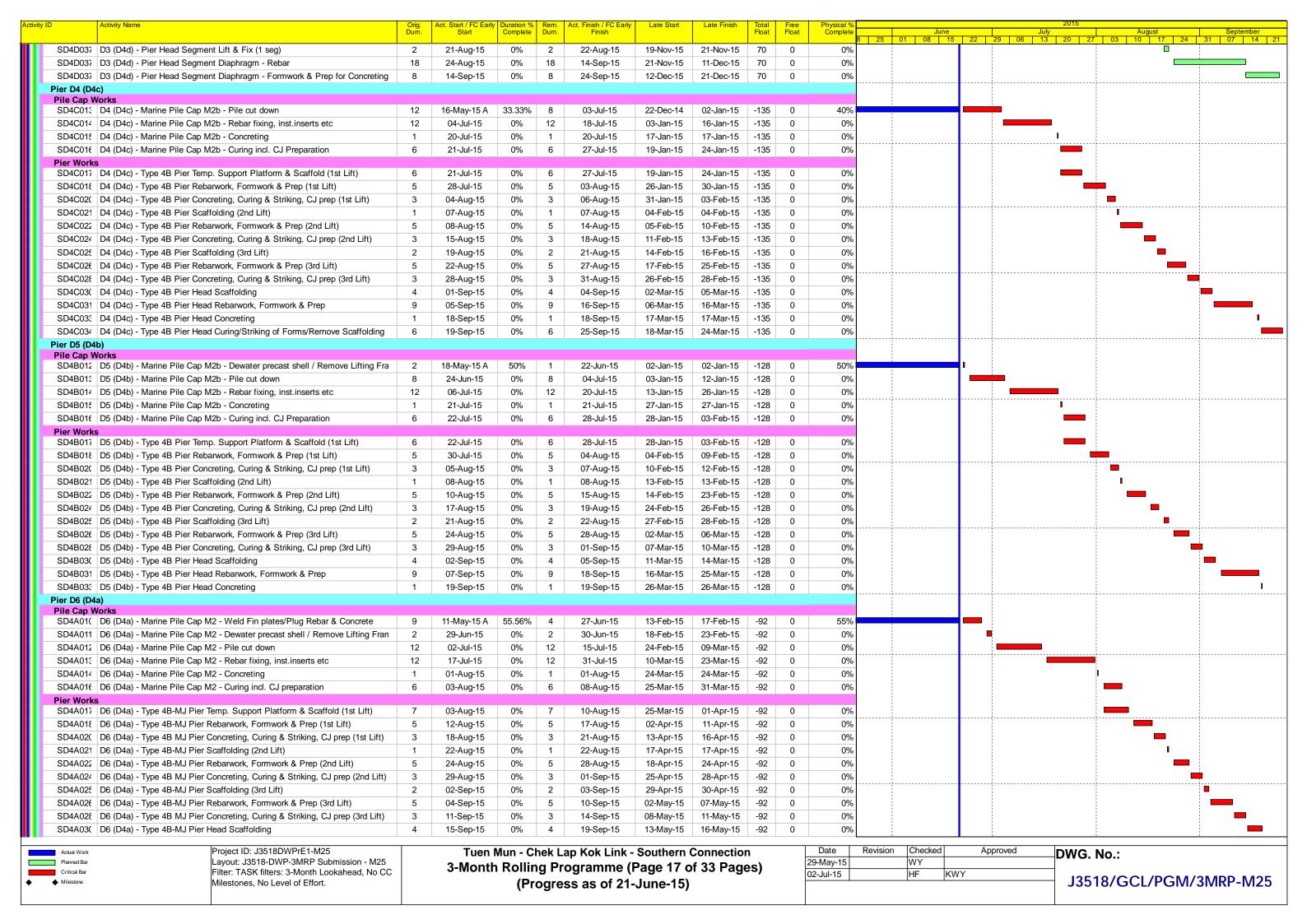
518/GCL/PGM/3MRP-M25

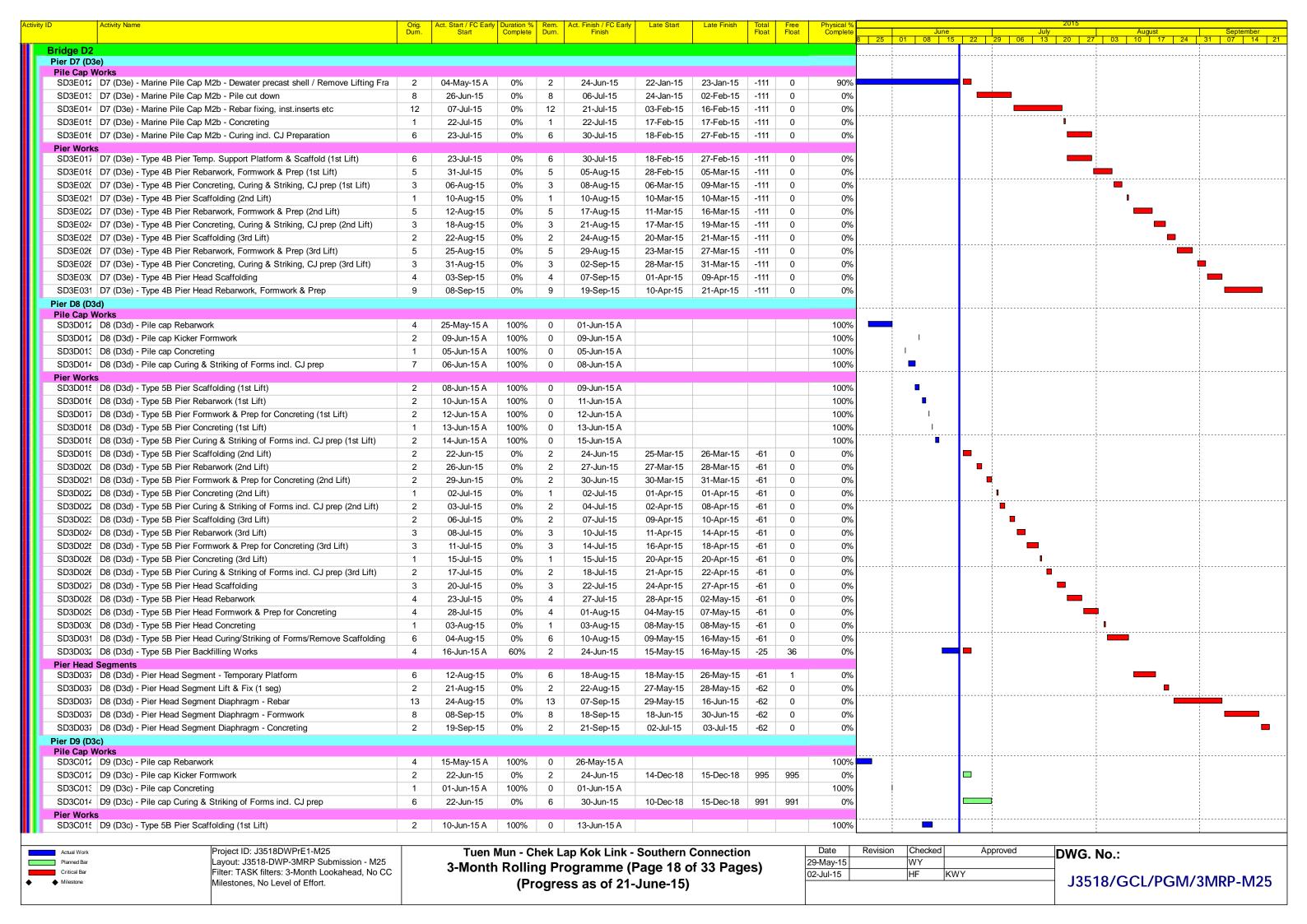


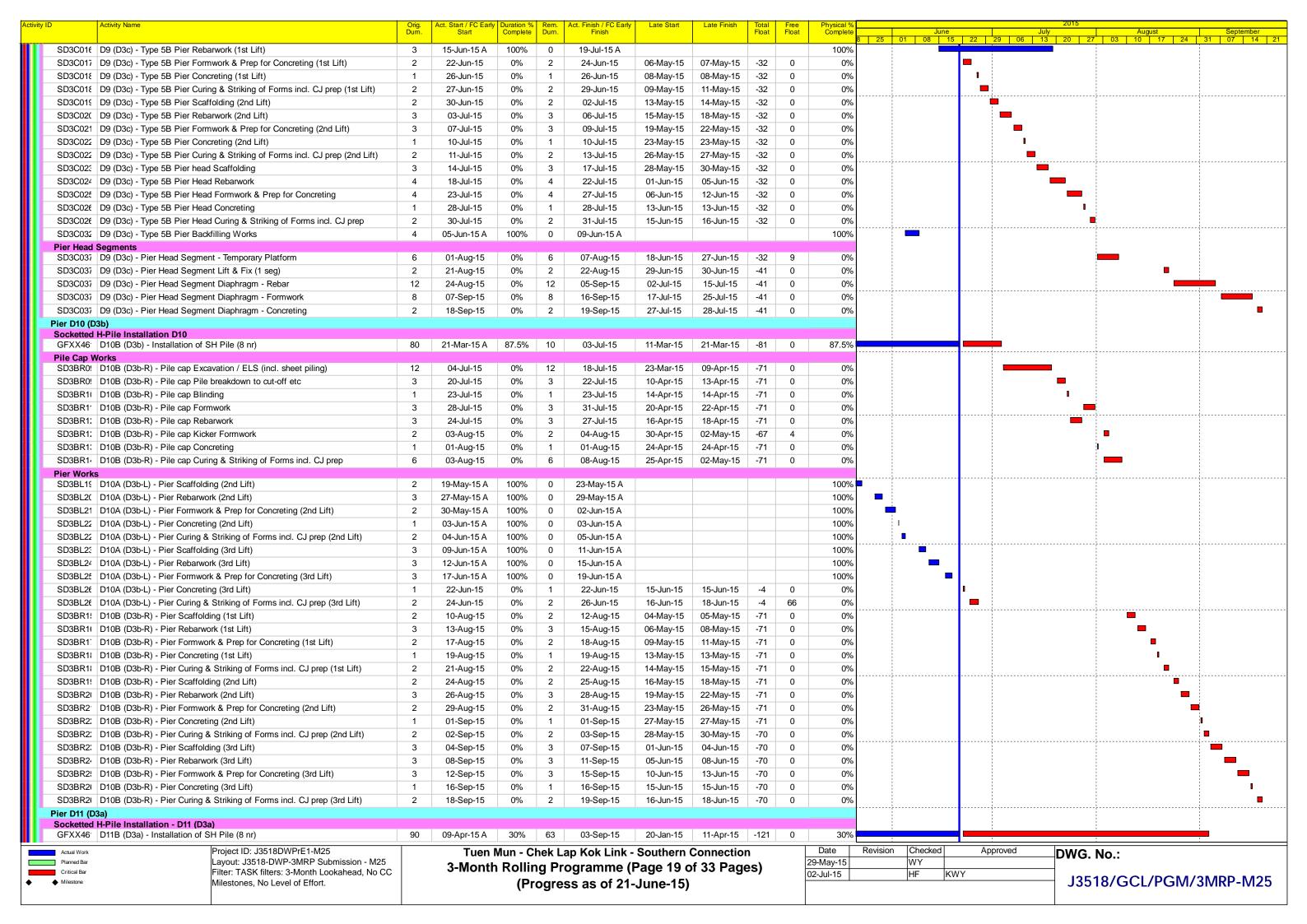


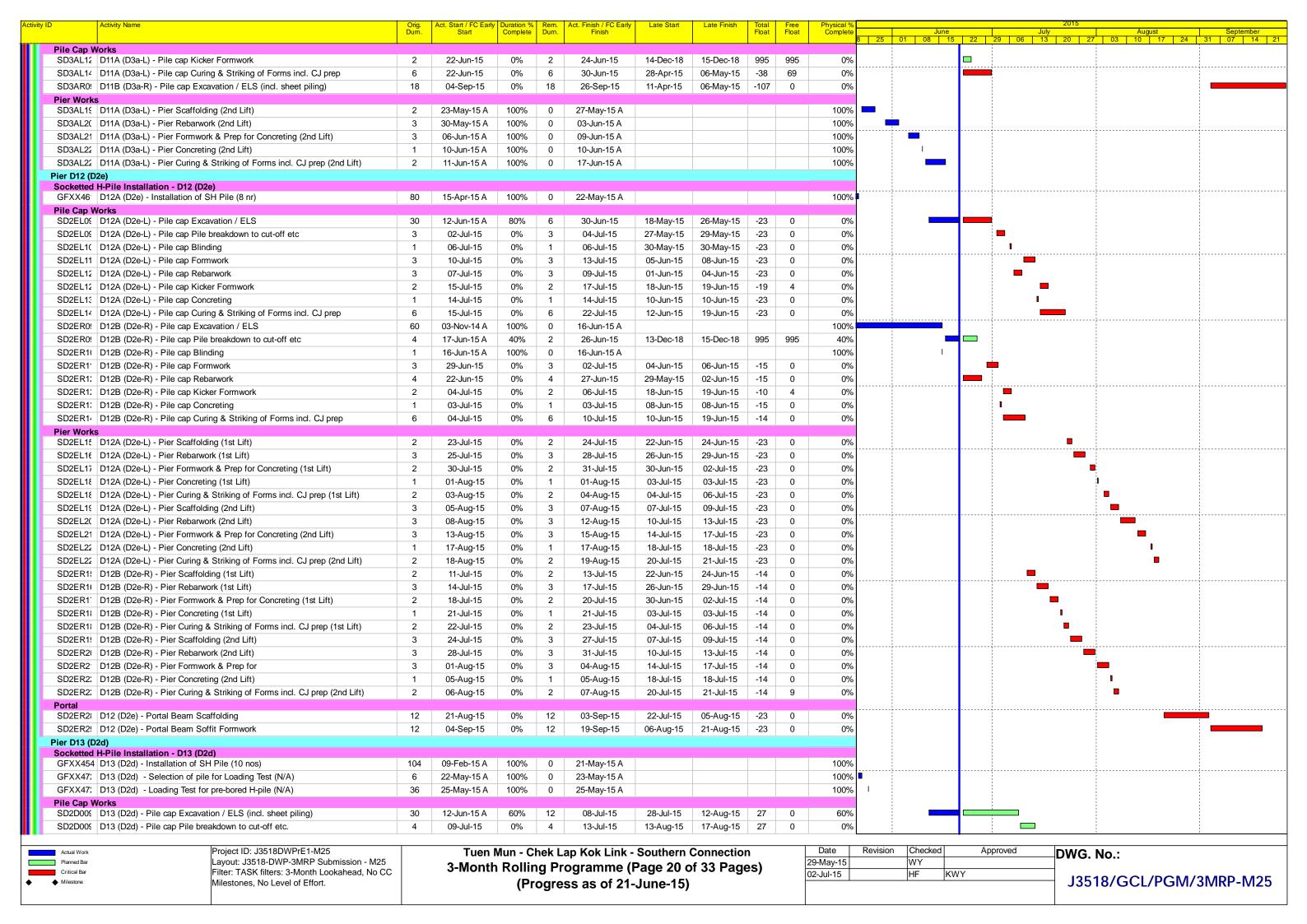


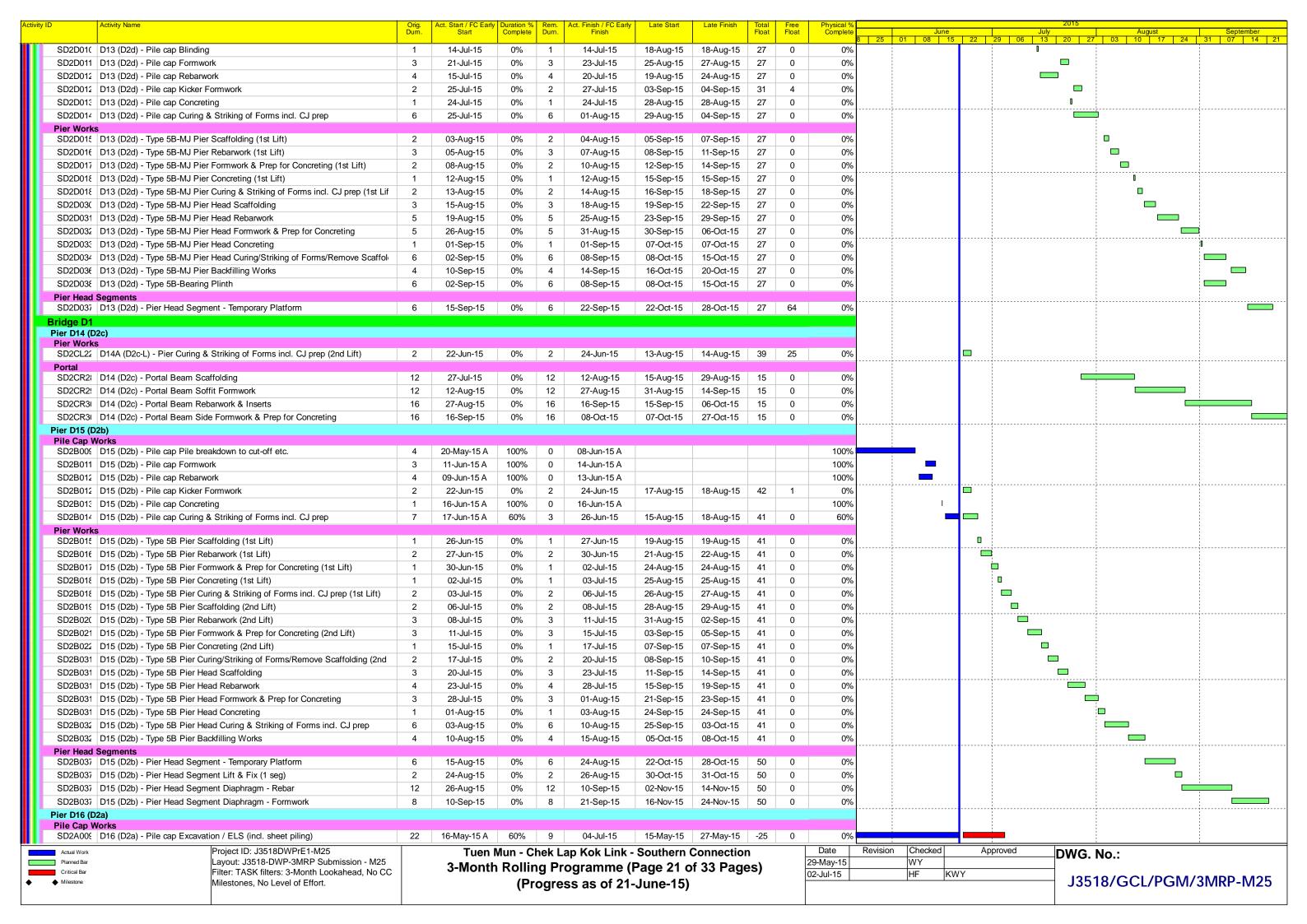


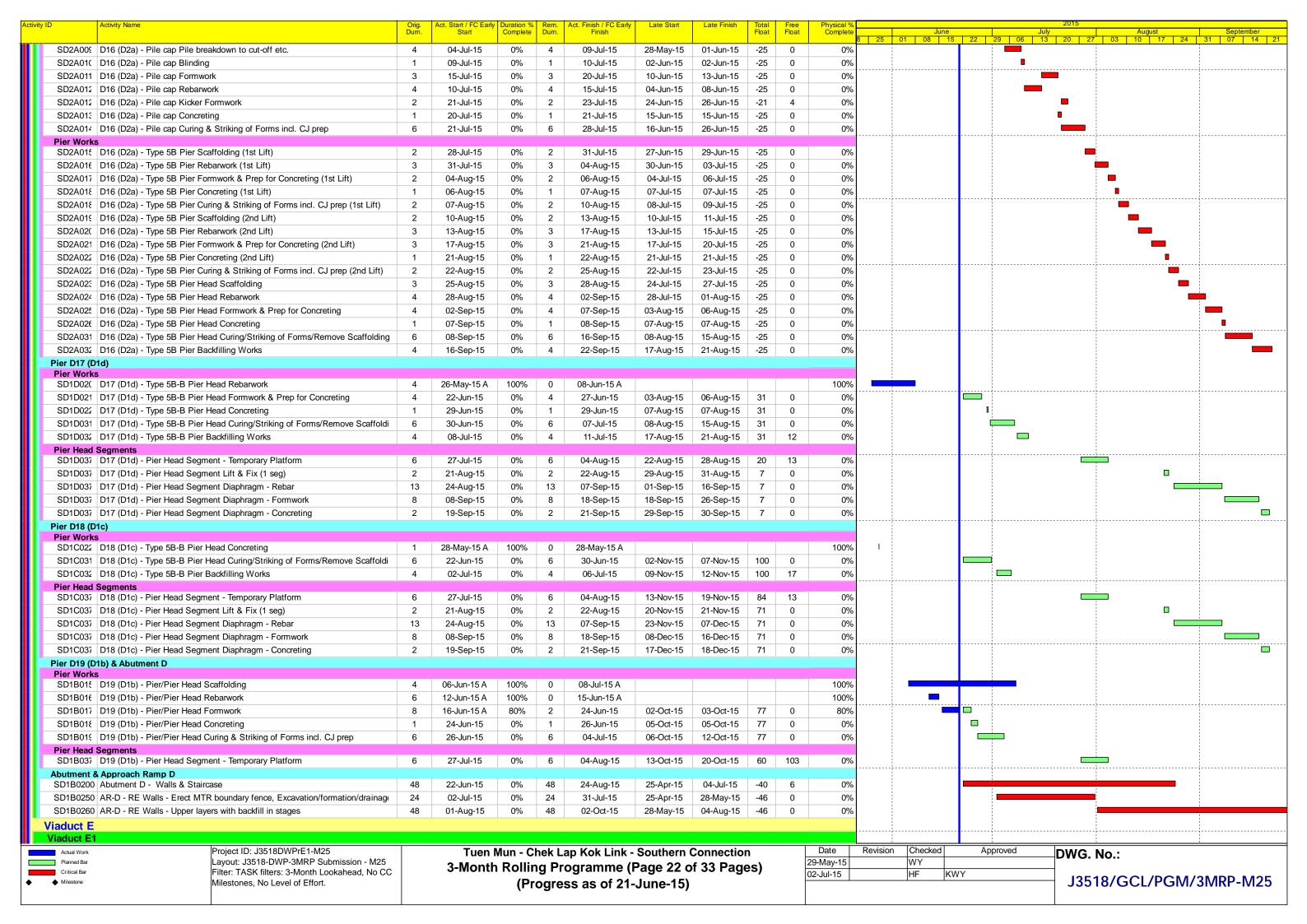


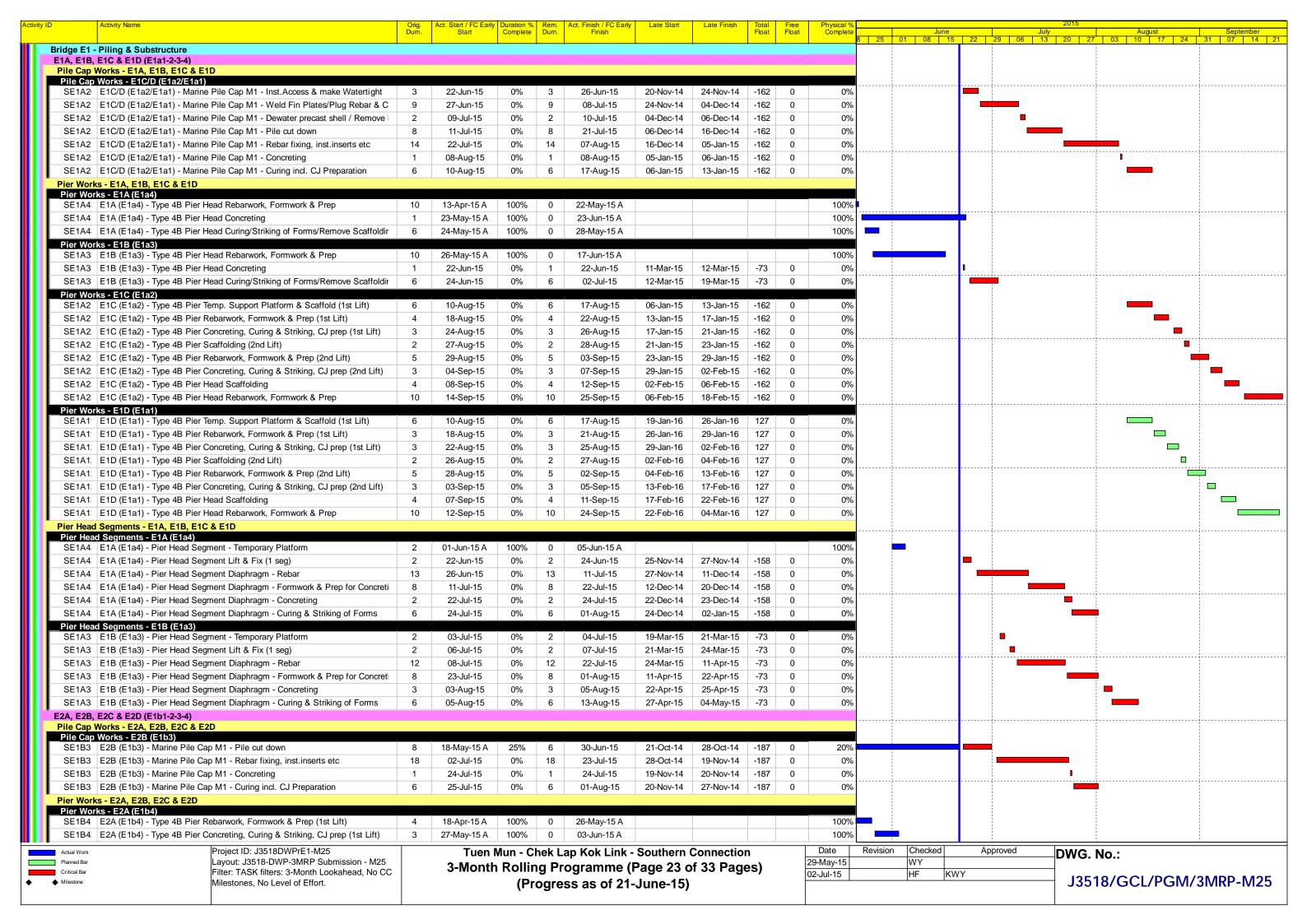




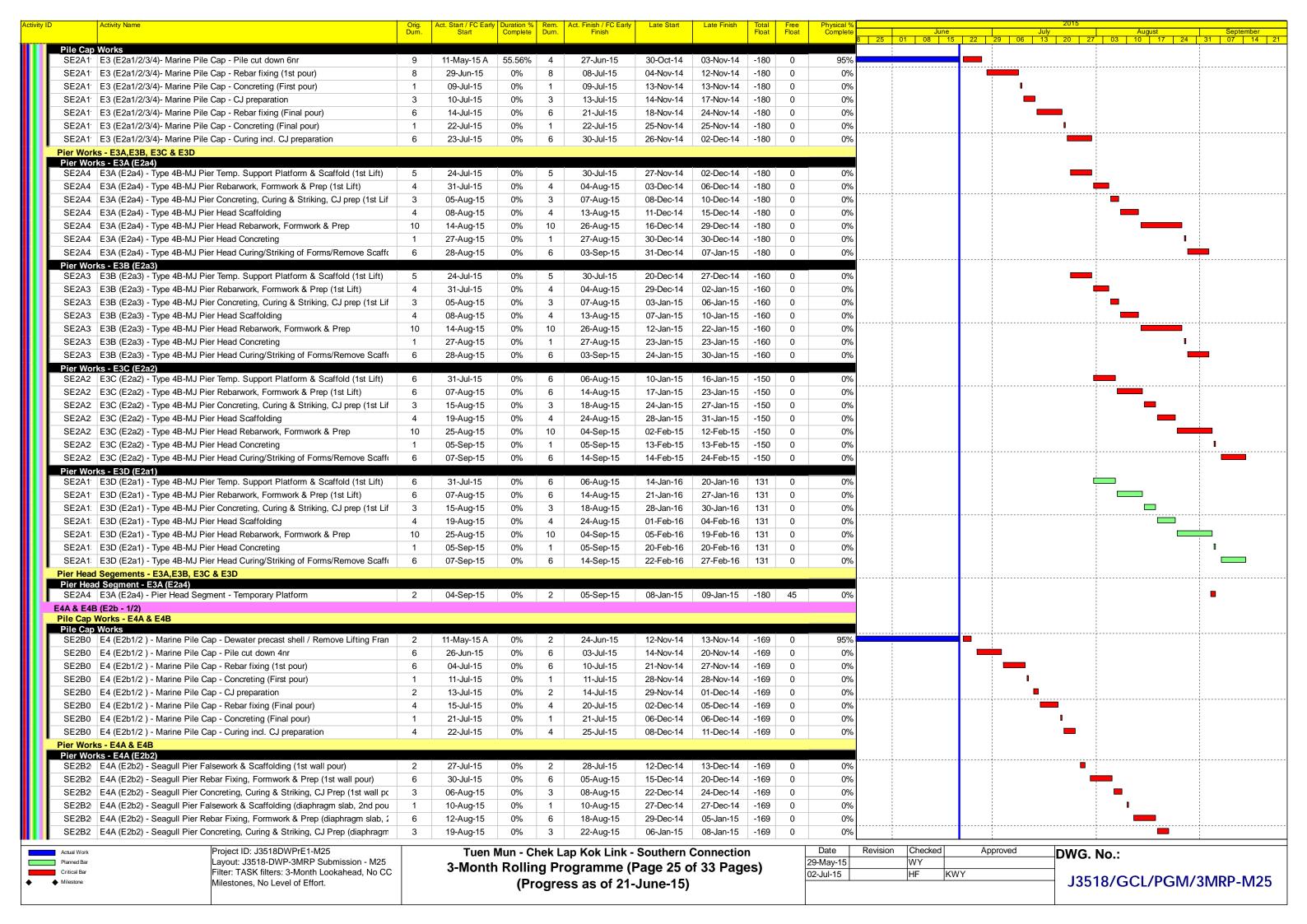




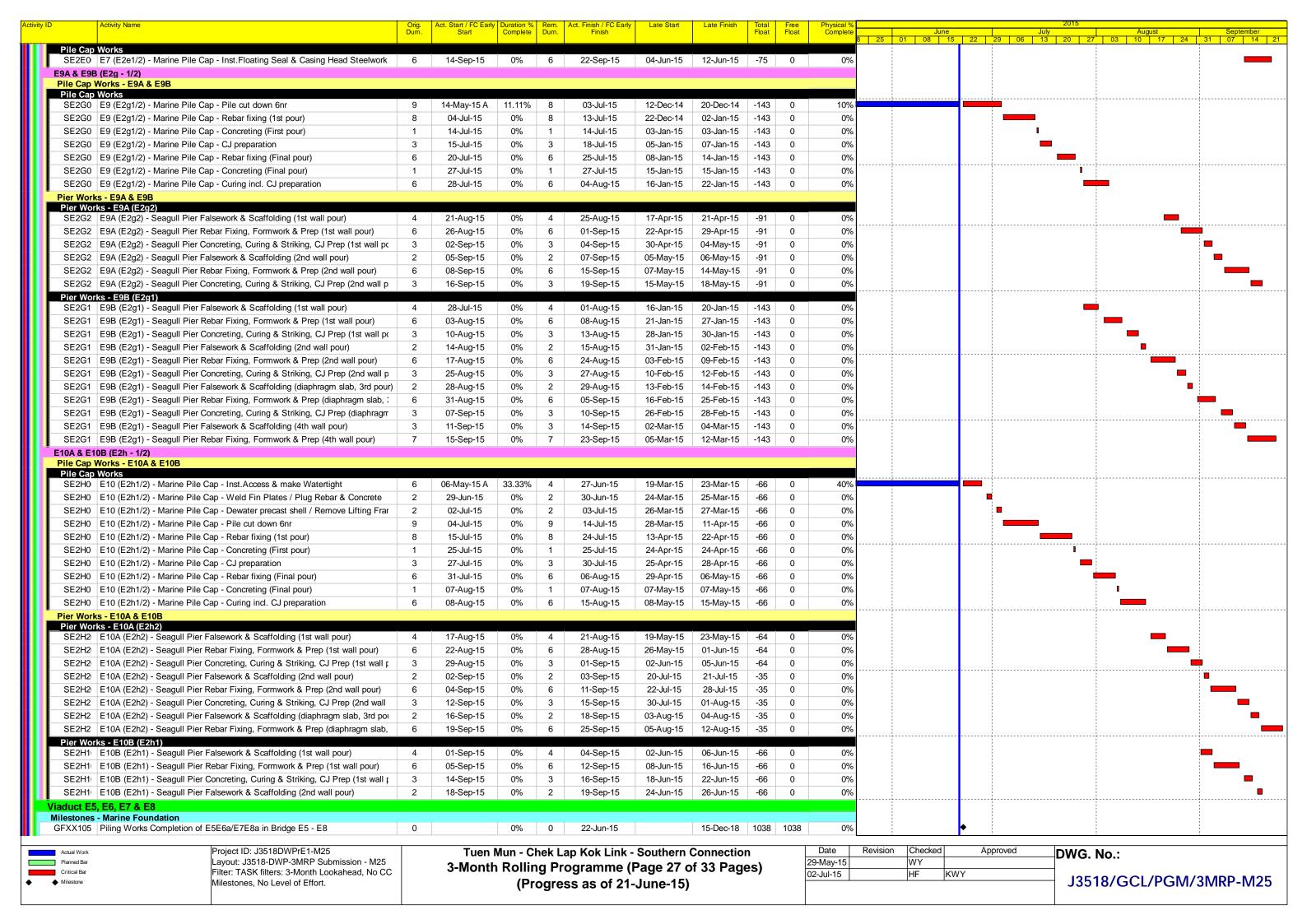


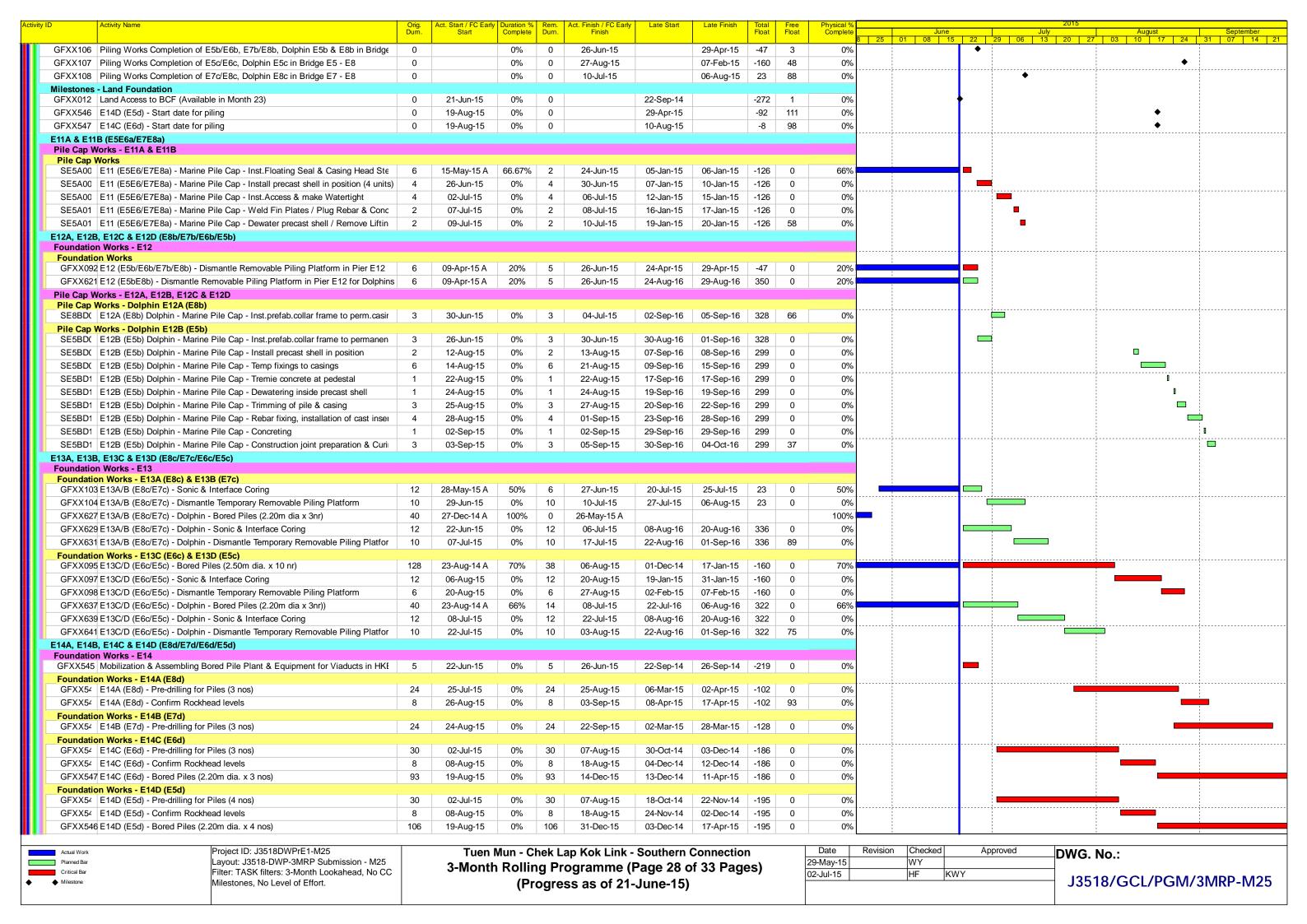


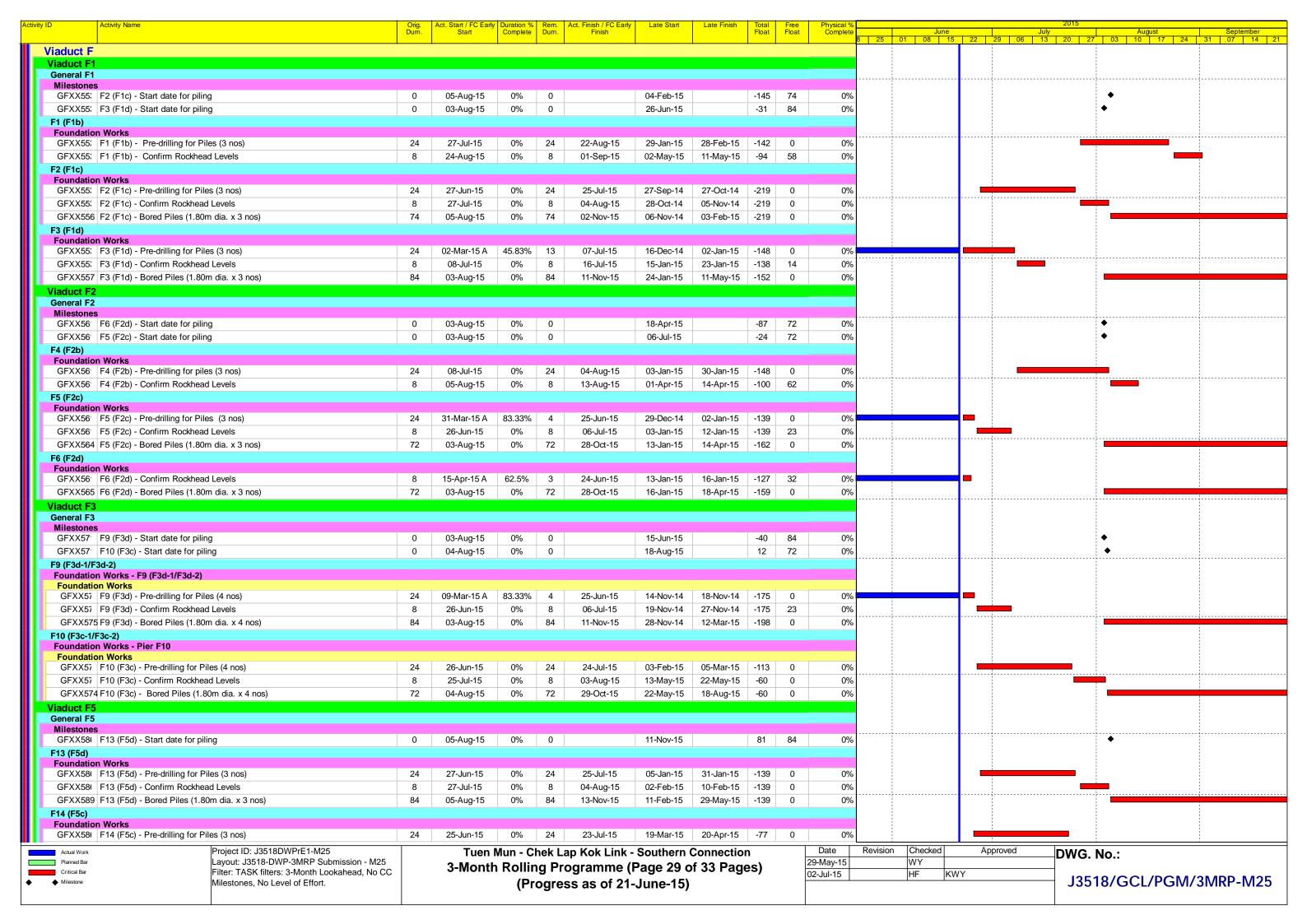
	Activity Name	Orig. Dum.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	25 01 09	June 3   15	22		2015 uly 3   20	Augu 27 03 10		Septemb
SE1B4	E2A (E1b4) - Type 4B Pier Head Scaffolding	4	04-Jun-15 A	100%	0	11-Jun-15 A					100%	23 01 08	, 10	22	20 00 1	20	100 10	17   24	
	E2A (E1b4) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	12-Jun-15 A	70%	3	26-Jun-15	03-Dec-14	05-Dec-14	-151	0	70%	1							
SE1B4	E2A (E1b4) - Type 4B Pier Head Concreting	1	27-Jun-15	0%	1	27-Jun-15	06-Dec-14	06-Dec-14	-151	0	0%			1					
	E2A (E1b4) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	29-Jun-15	0%	6	06-Jul-15	08-Dec-14	13-Dec-14	-151	0	0%								
	ss - E2B (E1b3)																		
SE1B3	E2B (E1b3) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	25-Jul-15	0%	6	01-Aug-15	20-Nov-14	27-Nov-14	-187	0	0%								
	E2B (E1b3) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	2	03-Aug-15	0%	2	04-Aug-15	27-Nov-14	29-Nov-14	-187	0	0%	į					•		į
	E2B (E1b3) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	05-Aug-15	0%	3	07-Aug-15	29-Nov-14	03-Dec-14	-187	0	0%						-		
	E2B (E1b3) - Type 4B Pier Scaffolding (2nd Lift)	1	08-Aug-15	0%	1	08-Aug-15	03-Dec-14	04-Dec-14	-187	0	0%						I		
SE1B3	E2B (E1b3) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	4	10-Aug-15	0%	4	14-Aug-15	04-Dec-14	09-Dec-14	-187	0	0%	<u> </u>							
	E2B (E1b3) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	15-Aug-15	0%	3	18-Aug-15	09-Dec-14	12-Dec-14	-187	0	0%						_		
SE1B3	E2B (E1b3) - Type 4B Pier Head Scaffolding	3	19-Aug-15	0%	3	22-Aug-15	12-Dec-14	16-Dec-14	-187	0	0%								
	E2B (E1b3) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	24-Aug-15	0%	10	03-Sep-15	16-Dec-14	30-Dec-14	-187	0	0%								-
SE1B3	E2B (E1b3) - Type 4B Pier Head Concreting	1	04-Sep-15	0%	1	04-Sep-15	30-Dec-14	31-Dec-14	-187	0	0%								1
SE1B3	E2B (E1b3) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	05-Sep-15	0%	6	12-Sep-15	31-Dec-14	08-Jan-15	-187	0	0%						<u> </u>		
	s - E2C (E1b1)								100								<u>i</u>		
	E2C (E1b1) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	25-Jul-15	0%	6	01-Aug-15	15-Dec-14	20-Dec-14	-166	0	0%								
	E2C (E1b1) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	2	03-Aug-15	0%	2	04-Aug-15	22-Dec-14	23-Dec-14	-166	0	0%								
	E2C (E1b1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	05-Aug-15	0%	3	07-Aug-15	24-Dec-14	29-Dec-14	-166	0	0%								
	E2C (E1b1) - Type 4B Pier Scaffolding (2nd Lift)	1	08-Aug-15	0%	1	08-Aug-15	30-Dec-14	30-Dec-14	-166	0	0%								
	E2C (E1b1) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	4	10-Aug-15	0%	4	14-Aug-15	31-Dec-14	05-Jan-15	-166	0	0%							_	
	E2C (E1b1) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	15-Aug-15	0%	3	18-Aug-15	06-Jan-15	08-Jan-15	-166	0	0%						_		
	E2C (E1b1) - Type 4B Pier Head Scaffolding	3	19-Aug-15	0%	3	22-Aug-15	09-Jan-15	12-Jan-15	-166	0	0%								<u>i_</u>
	E2C (E1b1) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	24-Aug-15	0%	10	03-Sep-15	13-Jan-15	23-Jan-15	-166	0	0%								<u> </u>
	E2C (E1b1) - Type 4B Pier Head Concreting	1	04-Sep-15	0%	1	04-Sep-15	24-Jan-15	24-Jan-15	-166	0	0%								<u> </u>
	E2C (E1b1) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	05-Sep-15	0%	6	12-Sep-15	26-Jan-15	31-Jan-15	-166	0	0%								
	is - E2D (E1b2)		05 145	00/	0	04 Ave 45	00 E-b 45	07 Fab 45	407	0	00/					_			
	E2D (E1b2) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	25-Jul-15	0%	6	01-Aug-15	02-Feb-15	07-Feb-15	-127	0	0%					_	<u> </u>		
	E2D (E1b2) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	4	03-Aug-15	0%	4	06-Aug-15	09-Feb-15	12-Feb-15	-127	0	0%								
	E2D (E1b2) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	07-Aug-15	0%	3	10-Aug-15	13-Feb-15	16-Feb-15	-127	0	0%								4
	E2D (E1b2) - Type 4B Pier Head Scaffolding	4	12-Aug-15	0%	4	15-Aug-15	17-Feb-15	24-Feb-15	-127	0	0%						-,		
	E2D (E1b2) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	17-Aug-15	0%	10	28-Aug-15	25-Feb-15	07-Mar-15	-127	0	0%						'	1	
	E2D (E1b2) - Type 4B Pier Head Concreting	1	29-Aug-15	0%	1	29-Aug-15	09-Mar-15	09-Mar-15	-127	0	0%								<u> </u>
	E2D (E1b2) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	31-Aug-15	0%	6	05-Sep-15	10-Mar-15	16-Mar-15	-127	0	0%								<del>-</del>
	Segments - E2A, E2B, E2C & E2D Segments - E2A (E1b4)									-									
	E2A (E1b4) - Pier Head Segment - Temporary Platform	2	07-Jul-15	0%	2	08-Jul-15	15-Dec-14	16-Dec-14	-151	0	0%								
SE1B4	E2A (E1b4) - Pier Head Segment Lift & Fix (1 seg)	2	09-Jul-15	0%	2	10-Jul-15	17-Dec-14	18-Dec-14	-151	0	0%								
SE1B4	E2A (E1b4) - Pier Head Segment Diaphragm - Rebar	12	11-Jul-15	0%	12	25-Jul-15	19-Dec-14	05-Jan-15	-151	0	0%								
	E2A (E1b4) - Pier Head Segment Diaphragm - Formwork & Prep for Concreti	8	27-Jul-15	0%	8	05-Aug-15	06-Jan-15	14-Jan-15	-151	0	0%								
SE1B4	E2A (E1b4) - Pier Head Segment Diaphragm - Concreting	2	06-Aug-15	0%	2	07-Aug-15	15-Jan-15	16-Jan-15	-151	0	0%								
	E2A (E1b4) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	08-Aug-15	0%	6	15-Aug-15	17-Jan-15	23-Jan-15	-151	0	0%								
Pier Head	Segments - E2B (E1b3)		,					J											
SE1B3	E2B (E1b3) - Pier Head Segment - Temporary Platform	2	14-Sep-15	0%	2	15-Sep-15	08-Jan-15	10-Jan-15	-187	0	0%								•
SE1B3	E2B (E1b3) - Pier Head Segment Lift & Fix (1 seg)	2	16-Sep-15	0%	2	18-Sep-15	10-Jan-15	13-Jan-15	-187	0	0%								
SE1B3	E2B (E1b3) - Pier Head Segment Diaphragm - Rebar	12	19-Sep-15	0%	12	05-Oct-15	13-Jan-15	27-Jan-15	-187	0	0%								
Pier Head	Segments - E2C (E1b2)																		
	E2C (E1b2) - Pier Head Segment - Temporary Platform	2	14-Sep-15	0%	2	15-Sep-15	02-Feb-15	03-Feb-15	-166	0	0%								•
	E2C (E1b2) - Pier Head Segment Lift & Fix (1 seg)	2	16-Sep-15	0%	2	18-Sep-15	04-Feb-15	05-Feb-15	-166	0	0%								
	E2C (E1b2) - Pier Head Segment Diaphragm - Rebar	13	19-Sep-15	0%	13	06-Oct-15	06-Feb-15	24-Feb-15	-166	0	0%								
Pier Head	Segments - E2D (E1b1)	^	07.0	00/	^	00.0	00 E 1 40	04 5-1-40	100	^	00/								
	E2D (E1b1) - Pier Head Segment - Temporary Platform	2	07-Sep-15	0%	2	08-Sep-15	23-Feb-16	24-Feb-16	132	0	0%								-
	E2D (E1b1) - Pier Head Segment Lift & Fix (1 seg)	2	10-Sep-15	0%	2	11-Sep-15	25-Feb-16	27-Feb-16	133	0	0%								<u> </u>
	E2D (E1b1) - Pier Head Segment Diaphragm - Rebar	12	12-Sep-15	0%	12	26-Sep-15	29-Feb-16	12-Mar-16	133	0	0%								
aduct E2																			
ilage E2 - 1 lilestones	Piling & Substructure																		
	E5 (E2c) - Completion of piling works	0		0%	0	22-Jun-15		24-Mar-15	-69	0	0%		•	•					
	E6 (E2d) - Completion of piling works	0		0%	0	08-Sep-15		27-Jun-15	-61	1	0%								•
	E7 (E2e) - Completion of piling works	0		0%	0	14-Sep-15		03-Jun-15	-85	0	0%								•
	E8 (E2f) - Completion of piling works	0		0%	0	22-Jun-15		07-Jul-15	13	88	0%		•	•					
	3C & E3D (E2a - 1/2/3/4)		1			-													
	/orks - E3A,E3B, E3C & E3D																i		1
Actual Work	Project ID: J3518DWPrE1-M25		Tuen I	Mun - C	hek L	ap Kok Link -	Southern (	Connection			Date R	evision Checl	ked	Ар	oroved	DWG	i. No.:		
	Layout: J3518-DWP-3MRP Submission - M25					ogramme (F				2	9-May-15	WY							
Planned Bar Critical Bar	Filter: TASK filters: 3-Month Lookahead, No CC	1					-au-/4				2-Jul-15	HF							



Activity Name		Orig. Dum.	Act. Start / FC Early Start	Duration % Complete		Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete		June	Jul	2015 ly	August   03   10   17	Septem
SE2B2 E4A (E2b2) - Seagull Pier Falsework & Sca	ffolding (3rd wall pour)	2	24-Aug-15	0%	2	25-Aug-15	09-Jan-15	10-Jan-15	-169	0	0%	25   01   08	15   22	29   06   13 	3   20   27	03   10   17	24   31   07
SE2B2 E4A (E2b2) - Seagull Pier Rebar Fixing, Fo	- ' '	6	26-Aug-15	0%	6	01-Sep-15	12-Jan-15	17-Jan-15	-169	0	0%						
SE2B2 E4A (E2b2) - Seagull Pier Concreting, Curi	,	3	02-Sep-15	0%	3	04-Sep-15	19-Jan-15	21-Jan-15	-169	0	0%						_
SE2B2 E4A (E2b2) - Seagull Pier Falsework & Sca	offolding (top slab, 4th pour)	2	03-Sep-15	0%	2	04-Sep-15	20-Jan-15	21-Jan-15	-169	0	0%						_
SE2B2 E4A (E2b2) - Seagull Pier Rebar Fixing, Fo	rmwork & Prep (top slab, 4th pour)	6	05-Sep-15	0%	6	12-Sep-15	22-Jan-15	28-Jan-15	-169	0	0%						
SE2B2 E4A (E2b2) - Seagull Pier Concreting, Curi	ng & Striking, CJ Prep (top slab, 4	4	14-Sep-15	0%	4	18-Sep-15	29-Jan-15	02-Feb-15	-169	0	0%						•
Pier Works - E4B (E2b1)																	
SE2B1 E4B (E2b1) - Seagull Pier Falsework & Sca	affolding (1st wall pour)	3	12-Aug-15	0%	3	14-Aug-15	26-Jan-15	28-Jan-15	-146	0	0%					_	
SE2B1 E4B (E2b1) - Seagull Pier Rebar Fixing, Fo	1 ( 1 /	6	15-Aug-15	0%	6	22-Aug-15	29-Jan-15	04-Feb-15	-146	0	0%						
SE2B1 E4B (E2b1) - Seagull Pier Concreting, Curi	0 0 1 1	3	24-Aug-15	0%	3	26-Aug-15	05-Feb-15	07-Feb-15	-146	0	0%	1				-	
SE2B1 E4B (E2b1) - Seagull Pier Falsework & Sca	0 1 0 1	2	27-Aug-15	0%	2	28-Aug-15	09-Feb-15	10-Feb-15	-146	0	0%						
SE2B1: E4B (E2b1) - Seagull Pier Rebar Fixing, Fo	1 1 1 1	6	29-Aug-15	0%	6	04-Sep-15	11-Feb-15	17-Feb-15	-146	0	0%						<u> </u>
SE2B1 E4B (E2b1) - Seagull Pier Concreting, Curi	0 0 1 1 0	3	05-Sep-15	0%	3	08-Sep-15	18-Feb-15	24-Feb-15	-146	0	0%						
SE2B1 E4B (E2b1) - Seagull Pier Falsework & Sca	· ,	2	10-Sep-15	0%	2	11-Sep-15	25-Feb-15	26-Feb-15	-146	0	0%						<u>-</u>
SE2B1: E4B (E2b1) - Seagull Pier Rebar Fixing, Fo	rmwork & Prep (3rd wall pour)	6	12-Sep-15	0%	6	19-Sep-15	27-Feb-15	05-Mar-15	-146	0	0%						_
Pier Head Segements - E4A & E4B Pier head Segment - E4A (E2b2)										-							
SE2B2: E4A (E2b2) - Pier Head Segment - Tempor	ary Platform	2	19-Sep-15	0%	2	21-Sep-15	03-Feb-15	04-Feb-15	-169	0	0%						
E5A & E5B (E2c - 1/2)	,	_			_		33.13.13										
Pile Cap Works - E5A & E5B												:					
Pile Cap Works	or Cool 9 Cooler Hand Cool	<u></u>	00 1 15	001	^	20 1 15	OF M- 45	04 14- 45	04	^	00/						i 1 1
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Inst.Floatin	-	6	22-Jun-15	0%	6	30-Jun-15	25-Mar-15	31-Mar-15	-61	0	0%	1					1
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Install pred	. ,	4	02-Jul-15	0%	4	06-Jul-15	01-Apr-15	09-Apr-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Inst. Access		6	07-Jul-15	0%	6	13-Jul-15	10-Apr-15	17-Apr-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Weld Fin F	-	2	14-Jul-15	0%	2	15-Jul-15	18-Apr-15	20-Apr-15	-61	0	0%			•	_		
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Dewater pi	<u> </u>	2	17-Jul-15	0%	2	18-Jul-15	21-Apr-15	22-Apr-15	-61	0	0%			'			
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Pile cut do		9	20-Jul-15	0%	9	30-Jul-15	24-Apr-15	05-May-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Rebar fixin	o (	8	31-Jul-15	0%	8	08-Aug-15	06-May-15	15-May-15	-61	0	0%				•		
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Concreting	` ' '	1	10-Aug-15	0%	1	10-Aug-15	16-May-15	16-May-15	-61	0	0%					·	
SE2C0 E5 (E2c1/2) - Marine Pile Cap - CJ prepara		3	12-Aug-15	0%	3	14-Aug-15	18-May-15	20-May-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Rebar fixin	o (	6	15-Aug-15	0%	6	22-Aug-15	22-May-15	29-May-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Concreting	` ' '	6	24-Aug-15	0%	6	24-Aug-15	30-May-15	30-May-15	-61	0	0%						
SE2C0 E5 (E2c1/2) - Marine Pile Cap - Curing incl Pier Works - E5A & E5B	Co preparation	0	25-Aug-15	0%	0	31-Aug-15	01-Jun-15	08-Jun-15	-61	U	0%						
Pier Works - E5A (E2c2)																	
SE2C2 E5A (E2c2) - Seagull Pier Falsework & Sca	ffolding (1st wall pour)	3	28-Aug-15	0%	3	31-Aug-15	05-Jun-15	08-Jun-15	-61	0	0%						_
SE2C2 E5A (E2c2) - Seagull Pier Rebar Fixing, Fo	rmwork & Prep (1st wall pour)	7	01-Sep-15	0%	7	08-Sep-15	10-Jun-15	19-Jun-15	-61	0	0%						
SE2C2 E5A (E2c2) - Seagull Pier Concreting, Curi		3	10-Sep-15	0%	3	12-Sep-15	26-Jun-15	29-Jun-15	-59	0	0%						_
SE2C2 E5A (E2c2) - Seagull Pier Falsework & Sca		2	14-Sep-15	0%	2	15-Sep-15	30-Jun-15	02-Jul-15	-59	0	0%					 	
SE2C2 E5A (E2c2) - Seagull Pier Rebar Fixing, Fo	rmwork & Prep (diaphragm slab, 2	7	16-Sep-15	0%	7	24-Sep-15	03-Jul-15	10-Jul-15	-59	0	0%						
Pier Works - E5B (E2c1)	ttaldia a (4 at well a ava)	2	40 0 45	00/	2	40.0 45	00 km 45	00 hus 45	64	0	00/						_
SE2C1 E5B (E2c1) - Seagull Pier Falsework & Sca	<del>-</del> ', '	3	10-Sep-15	0%	3	12-Sep-15	22-Jun-15	26-Jun-15	-61	0	0%						
SE2C1   E5B (E2c1) - Seagull Pier Rebar Fixing, Fo	rmwork & Prep (1st wall pour)	7	14-Sep-15	0%	7	22-Sep-15	27-Jun-15	06-Jul-15	-61	0	0%						-
Foundation Works - E6A & E6B																	
Foundation Works																	
GFXX0 E6 (E2d) - Bored Piles (2.50m dia. x 4 nr)		72	10-Feb-15 A	75%	18	13-Jul-15	08-Apr-15	28-Apr-15	-61	0	75%						
GFXX0 E6 (E2d) - Sonic & Interface Coring		19	14-Jul-15	0%	19	04-Aug-15	29-Apr-15	21-May-15	-61	0	0%			_			
GFXX0 E6 (E2d) - Selection of bored pile for Full D		6	29-Jul-15	0%	6	04-Aug-15	15-May-15	21-May-15	-61	0	0%						
GFXX0 E6 (E2d) - Bored Pile Full Depth Coring &	-	24	05-Aug-15	0%	24	01-Sep-15	22-May-15	19-Jun-15	-61	0	0%						1
GFXX0 E6 (E2d) - Dismantle Temporary Removabl	e Piling Platform	6	02-Sep-15	0%	6	08-Sep-15	22-Jun-15	27-Jun-15	-61	0	0%						
Pile Cap Works - E6A & E6B										-							
Pile Cap Works SE2D0 E6 (E2d1/2) - Marine Pile Cap - Inst.Floatin	on Seal & Casing Head Steelwork	6	10-Sep-15	0%	6	16-Sep-15	29-Jun-15	06-Jul-15	-57	0	0%						
SE2D0 E6 (E2d1/2) - Marine Pile Cap - Install pred	-	4	18-Sep-15	0%	4	22-Sep-15	07-Jul-15	10-Jul-15	-57	0	0%						· <del></del>
E7A & E7B (E2e - 1/2)	o.c poolion (o unito)	•	.5 Cop 10	370	Т	COP 10	37 Jul 10	.0 301 10	31	J	570						
Foundation Works - E7A & E7B																	
Foundation Works		70	40 5 1 45 4	0001	0.4	00 1 1 1 7	05.34	45.45	05	^	000/	<u> </u>					
GFXX0 E7 (E2e) - Bored Piles (2.50m dia. x 4 nr)		78	10-Feb-15 A	60%	31	29-Jul-15	05-Mar-15	15-Apr-15	-85	0	60%					<u> </u>	
GFXX0 E7 (E2e) - Sonic & Interface Coring	Assath Coning	12	29-Jul-15	0%	12	12-Aug-15	16-Apr-15	29-Apr-15	-85	0	0%						
GFXX0 E7 (E2e) - Selection of bored pile for Full D		4	07-Aug-15	0%	4	12-Aug-15	25-Apr-15	29-Apr-15	-85	0	0%						1
GFXX0 E7 (E2e) - Bored Pile Full Depth Coring &	-	22	12-Aug-15	0%	22	07-Sep-15	30-Apr-15	27-May-15	-85	0	0%						
GFXX0 E7 (E2e) - Dismantle Temporary Removabl	e Piling Platform	6	07-Sep-15	0%	6	14-Sep-15	28-May-15	03-Jun-15	-85	0	0%						
Pile Cap Works - E7A & E7B												i					
·	518DWPrE1-M25					ap Kok Link						Revision Checke	ed	Approved	DWG.	No.:	
	8-DWP-3MRP Submission - M25 ilters: 3-Month Lookahead, No CC		3-Month	n Rollii	ng Pro	ogramme (	Page 26 c	of 33 Page	es)	<b>—</b>	29-May-15	WY HF	KWA		$\dashv$		
	lo Level of Effort.				_	ss as of 21	_	_	•	<u>  C</u>	)2-Jul-15	HF	KWY		J351	18/GCL/PGI	M/3MRP-N
				7	29.0	uo oi z i	34.10 10)										

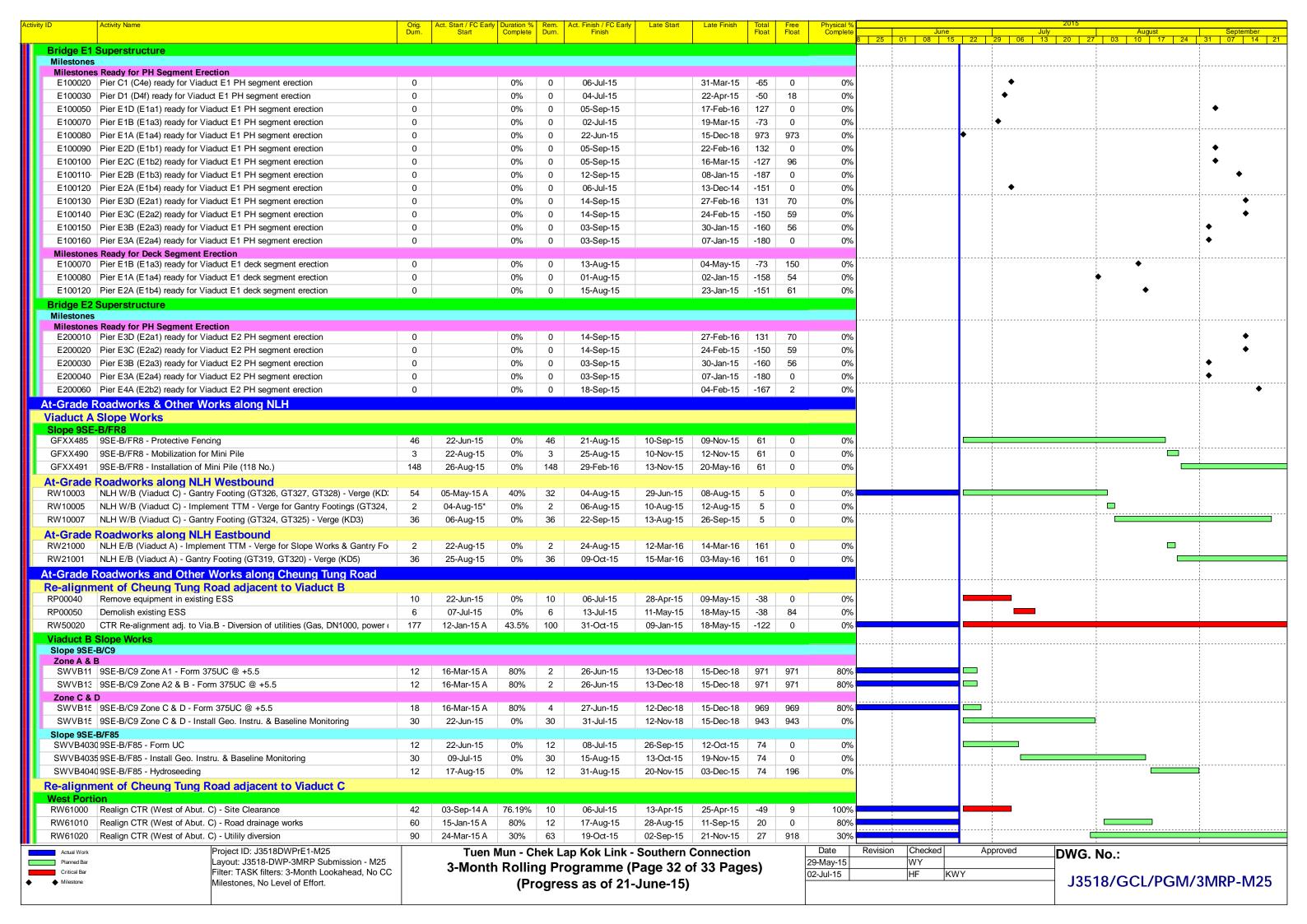


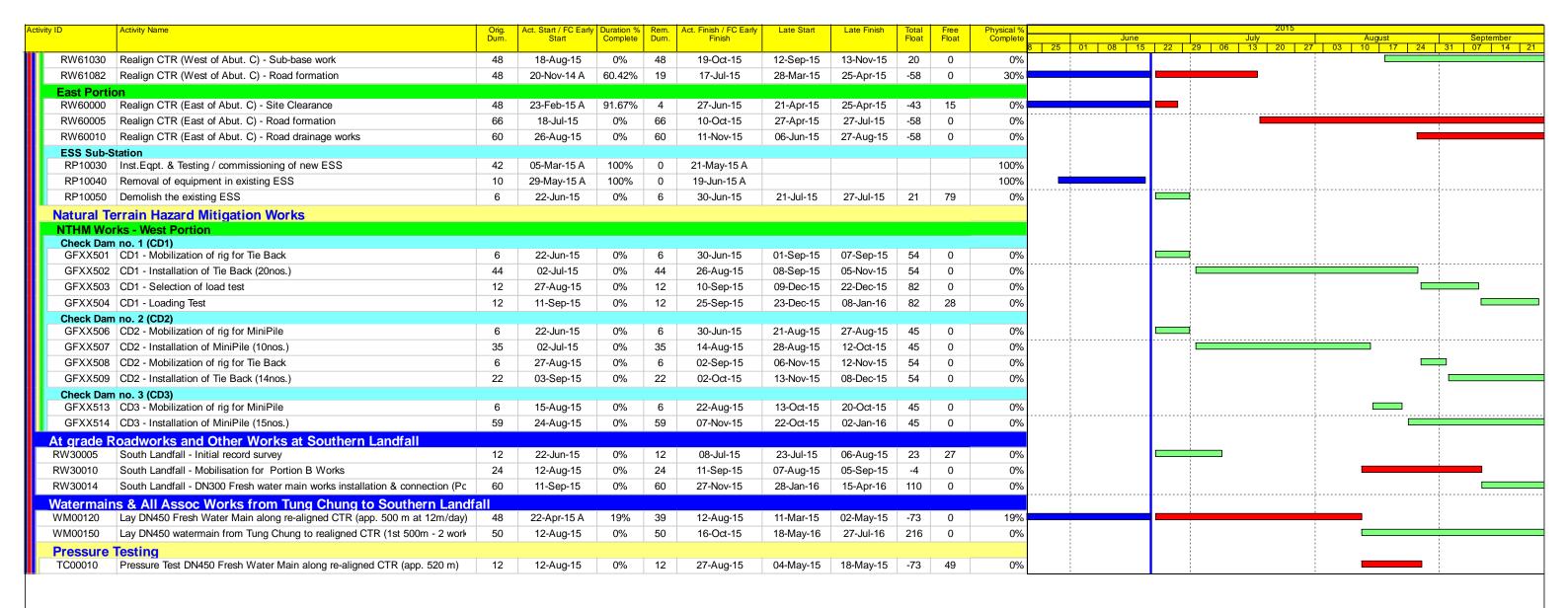




ity ID	Activity Name	Orig. Dum.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete		June		July	2015	August	Septe	tember
GEXX58(	F14 (F5c) - Confirm Rockhead Levels	8	24-Jul-15	0%	8	01-Aug-15	14-May-15	23-May-15	-58	72	0%	25	01 08 15	22	29 06 13	20 27	03 10 17 24	31 07	14 2
F15 (F5b)	TTT (1 00) COMMITTED AND LOSS OF THE PROPERTY		2100110	070		017 tag 10	11 May 10	20 may 10	00								- 		
Foundation												- 1					 	1	
	F15 (F5b) - Pre-drilling for Piles (3 nos)	24	05-Aug-15	0%	24	01-Sep-15	31-Jan-15	03-Mar-15	-148	0	0%								
	F15 (F5b) - Confirm Rockhead Levels	8	02-Sep-15	0%	8	10-Sep-15	04-Mar-15	12-Mar-15	-148	50	0%						 		
Viaduct F4																	; ; ;		
F16 (F4a/F5 Foundation	•																1 1 1		
	F16 (F4a/F5a) - Pre-drilling for Piles (8 nos)	24	24-Jul-15	0%	24	20-Aug-15	21-Apr-15	19-May-15	-77	0	0%								
GFXX57!	F16 (F4a/F5a) - Confirm Rockhead Levels	8	21-Aug-15	0%	8	29-Aug-15	20-May-15	29-May-15	-77	62	0%								
F17 (F4b)																	 		
Foundation		0.4	04 A.m.45	00/	0.4	47.0 45	07.0-+ 45	04 Nov. 45	20	0	00/							!	
	F17 (F4b) - Pre-drilling for Piles (3 nos) F17 (F4b) - Confirm Rockhead Levels	24 8	21-Aug-15 18-Sep-15	0%	24 8	17-Sep-15 26-Sep-15	07-Oct-15	04-Nov-15 13-Nov-15	38	129	0% 0%								
F18 (F4c) &		0	10-3ep-13	0%	0	20-3ep-13	05-Nov-15	13-1100-13	38	129	0 76	1			1		1 1 1 1	!	
Foundation																	! ! !		
GFXX57!	F18 (F4c) - Pre-drilling for Piles (2 nos)	24	02-Sep-15	0%	24	30-Sep-15	20-Oct-15	17-Nov-15	39	0	0%				1		r		
Approach I	Ramp F											1					1 1 1 1		
	Ramp Land Foundation - HKBCF																 		
Milestones GEXX611	s AR-F - Start date for piling	0	12-Aug-15	0%	0		25-Jun-15		-49	53	0%						•		
	Ramp F Piling		/.ug 10	J /0					.0	55							; ;		
	AR-F - Pre-drilling for Piles (25 nos)	24	22-Jun-15	0%	24	20-Jul-15	27-Mar-15	28-Apr-15	-67	0	0%	į			1	l	1 1 1 1		
	AR-F - Confirm Rockhead Levels	8	21-Jul-15	0%	8	29-Jul-15	29-Apr-15	08-May-15	-67	12	0%						1 1 1 1		
GFXX595	AR-F - Bored Piles (25 nos.)	218	12-Aug-15	0%	218	09-May-16	09-May-15	28-Jan-16	-79	0	0%	- 1						1	
SUPERSTR	RUCTURE																		
	ng, relocation and dismantle of lifting equipment														!				
Launching	Gantry 1																 		
	Viaduct B2 - Launching LG1 B7 to B8	1	29-Aug-15	0%	1	29-Aug-15	21-Jan-15	21-Jan-15	-164	0	0%								
	Viaduct B3 - Launching LG1 Over Piers to B07 (B2f) - LG1	5	12-Aug-15	0%	5	17-Aug-15	06-Nov-14	11-Nov-14	-212	0	0%								
	Viaduct B3 - Launching LG1 B2 to B1	1	04-Aug-15	0%	1	04-Aug-15	30-Oct-14	30-Oct-14	-212	0	0%				ļ		. <b>1</b>		
	Assembly of Launching Gantry LG1 onto Pier B1/B2 (incl.Load Test)	32	13-Mar-15 A	31.25%	22	21-Jul-15	16-Sep-14	15-Oct-14	-212	0	0%				i		1 1 1 1		
PR20140	Viaduct B3 - Learning Curve Gantry LG1	4	22-Jul-15	0%	4	25-Jul-15	17-Oct-14	21-Oct-14	-224	0	0%					_	1 1 1 1		
Launching		20	00 1-145	00/	20	40 Aug 45	00 0-+ 44	44 Nov. 4.4	004	4	00/	- 1					1		
	Assembly of Launching Gantry LG2 on Temp.Loading Platform	30	09-Jul-15	0%	30	12-Aug-15	08-Oct-14	11-Nov-14	-221	0	0%								
	Assembly Launching Gantry LG2 onto Pier B1/ B2 (incl. Load Test)  Lifting Frame 1&2	35	18-Aug-15	0%	35	02-Oct-15	12-Nov-14	22-Dec-14	-212	0	0%								
	Viaduct B3 - Pier B4 - Assemble / Load Test Lifting Frame ALF 1/2	12	25-Aug-15	0%	12	07-Sep-15	16-Mar-15	28-Mar-15	-131	0	0%							i	
	Viaduct B3 - Learning Curve Lifting Frame ALF 1/2	12	08-Sep-15	0%	12	21-Sep-15	30-Mar-15	16-Apr-15			0%								
	Superstructure		33 33 7 13			- 1 o o p											1 1 1 1		
	Superstructure									_							1 1 1		
Milestones																	L		
	s Ready for Deck Segment Erection			00/		00 1 1 45		10 5 1 15	00	0.5	004								
	Pier B6 (B3a) ready for Viaduct B3 deck segment erection	0		0%	0	02-Jul-15		12-Feb-15	-99	65	0%				•				
	Pier B5 (B3b) ready for Viaduct B3 deck segment erection	0		0%	0	22-Jun-15		02-May-15		0	0%								
Deck install	Pier B4 (B3c) ready for Viaduct B3 deck segment erection	0		0%	0	22-Jun-15		08-Apr-15	-52	0	0%						 		
	Viaduct B3 - End Span at Pier B1 (B3f) (up) (7 seg) - LG1	5	05-Aug-15	0%	5	10-Aug-15	31-Oct-14	05-Nov-14	-212	0	0%								
	Viaduct B3 - Cantilever at Pier B2 (B3e) (14 seg) - LG1	6	27-Jul-15	0%	6	03-Aug-15	22-Oct-14	28-Oct-14	-212	0	0%								
	Viaduct B3 - Pier B4 (B3c) (2 seg)	6	22-Jun-15	0%	6	30-Jun-15	09-Apr-15	16-Apr-15	-52	64	0%								
	Viaduct B3 - Pier B5 (B3b) (2 seg)	6	22-Jun-15	0%	6	30-Jun-15	04-May-15	09-May-15		81	0%								
	Superstructure		-				, -	, -							1		; 	<del> </del>	
Milestones																			
	s Ready for PH Segment Erection			00/	0	00 1 45		45 D 40	070	070	00/						1 1 1		
	Pier B12 (B2a) ready for Viaduct B2 PH segment erection	0		0%	0	22-Jun-15		15-Dec-18	973	973	0%						1 1 1		
	Pier B10 (B2c) ready for Viaduct B2 PH segment erection	0		0%	0	22-Jun-15		06-Feb-15	-97	072	0%				-		 		
	Pier B9 (B2d) ready for Viaduct B2 PH segment erection	0		0%	0	22-Jun-15		15-Dec-18	973	973	0%						1 1 1		
	s Ready for Deck Segment Erection Pier B12 (B2a) ready for Viaduct B2 deck segment erection	0		0%	0	22-Jun-15		04-May-15	-34	130	0%			•			, , ,		
	Pier B11 (B2b) ready for Viaduct B2 deck segment erection	0		0%	0	28-Jul-15		20-Apr-15	-71	93	0%					•			
	Pier B10 (B2c) ready for Viaduct B2 deck segment erection	0		0%	0	19-Sep-15		24-Mar-15	-130	34	0%								•
	Pier B9 (B2d) ready for Viaduct B2 deck segment erection	0		0%	0	25-Jul-15		27-Feb-15	-108	55	0%					•	! L		
	Pier B8 (B2e) ready for Viaduct B2 deck segment erection	0		0%	0	30-Jun-15		21-Jan-15		47	0%				<b>*</b>				
	Pier B7 (B2f) ready for Viaduct B2 deck segment erection	0		0%	0	06-Jul-15		09-Jan-15		33	0%				•		1 1 1		
	, , ,		1			-		-							1		ı	<u> </u>	
A-4:-13M1	Project ID: J3518DWPrE1-M25		Tuen I	Mun - Cł	nek La	p Kok Link -	Southern (	Connection	<u> </u>		Date	Revision	Checked	A	pproved	DWG.	No ·		
Actual Work		1								<b>⊢</b>			1,40,4	·		J 1 1 G.	110		
Planned Bar	Layout: J3518-DWP-3MRP Submission - M25		3-Month	Rallin	a Pre	ogramme /D	ade 30 v	f 33 Pane	le)	<u> </u>	9-May-15		WY						
	Layout: J3518-DWP-3MRP Submission - M25 Filter: TASK filters: 3-Month Lookahead, No C Milestones, No Level of Effort.		3-Month		_	ogramme (P ss as of 21	_	f 33 Page	es)	<u> </u>	9-May-15 2-Jul-15			WY		1251	18/GCL/PGM	/2N/IDD	MOE

ID Activity Name	Orig. Ac	ct. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	June		li li	2015 ily	August	Septen
		Stall	<u> </u>								3 25 01 08 1	5 22	29 06 1	3 20 27	7 03 10 17 24	31 07
B200070 Pier B6 (B3a) ready for Viaduct B2 deck segment erection	0		0%	0	02-Jul-15		12-Feb-15	-99	65	0%			•		1	
Deck installation	0	10 10 15	00/	0	20 10 45	10 lon 15	20 lon 45	164	0	00/						
FR000008 Viaduct B2 - Cantilever at Pier B7 (B2f) (16 seg) - LG1	9	18-Aug-15	0%	9	28-Aug-15	10-Jan-15	20-Jan-15	-164	0	0%						<u> </u>
FR000011 Viaduct B2 - Cantilever at Pier B8 (B2e) (20 seg) - MTR Crossing - LG1	18	31-Aug-15	0%	18	22-Sep-15	22-Jan-15	11-Feb-15	-164	0	0%					1	:
Bridge B1 Superstructure Milestones															1	1
Milestones Ready for PH Segment Erection															1	
B100060 Pier B13 (B1g) ready for Viaduct B1 PH segment erection	0		0%	0	22-Jun-15		15-Dec-18	973	973	0%		<b>→</b>			!	1
B100070 Pier B12 (B2a) ready for Viaduct B1 PH segment erection	0		0%	0	22-Jun-15		15-Dec-18	973	973	0%		•				
Milestones Ready for Deck Segment Erection																
B100030 Pier B16 (B1d) ready for Viaduct B1 deck segment erection	0		0%	0	30-Jun-15		17-Sep-16	340	421	0%			<b>\(\phi\)</b>			
B100040 Pier B15 (B1e) ready for Viaduct B1 deck segment erection	0		0%	0	19-Aug-15		13-Jul-15	-29	135	0%					•	
B100050 Pier B14 (B1f) ready for Viaduct B1 deck segment erection	0		0%	0	01-Aug-15		18-Jun-15	-32	132	0%					•	
B100060 Pier B13 (B1g) ready for Viaduct B1 deck segment erection	0		0%	0	31-Jul-15		14-May-15	-55	109	0%				•	•	
B100070 Pier B12 (B2a) ready for Viaduct B1 deck segment erection	0		0%	0	22-Jun-15		04-Jun-15	-11	153	0%		<b>*</b>				
/iaduct C Superstructure			4,4	_						-,-					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Bridge C4 Superstructure																
Milestones															}	
Milestones Ready for PH Segment Erection													1			
C400030 Pier C4 (C4b) ready for Viaduct C4 PH segment erection	0		0%	0	16-Sep-15		31-Mar-15	-122	0	0%						
C400050 Pier C2 (C4d) ready for Viaduct C4 PH segment erection	0		0%	0	18-Jul-15		10-Oct-15	65	0	0%				•		
C400060 Pier C1 (C4e) ready for Viaduct C4 PH segment erection	0		0%	0	06-Jul-15		31-Mar-15	-65	0	0%			•		1	
Bridge C3 Superstructure											<u>-</u>					
Milestones																
Milestones Ready for PH Segment Erection																
C300010 Pier C11 (C3a) ready for Viaduct C3 PH segment erection	0		0%	0	02-Sep-15		24-Mar-16	162	0	0%					1	•
C300020 Pier C10 (C3b) ready for Viaduct C3 PH segment erection	0		0%	0	24-Aug-15		19-Feb-16	140	0	0%					•	
C300030 Pier C9 (C3c) ready for Viaduct C3 PH segment erection	0		0%	0	15-Jul-15		22-Jan-16	150	0	0%			•	,		
C300040 Pier C8 (C3d) ready for Viaduct C3 PH segment erection	0		0%	0	13-Aug-15		24-Dec-15	106	0	0%					•	
C300050 Pier C7 (C3e) ready for Viaduct C3 PH segment erection	0		0%	0	18-Sep-15		19-Nov-15	48	0	0%						
Bridge C2 Superstructure																
Milestones Milestones Ready for PH Segment Erection																
C200020 Pier C15 (C2c) ready for Viaduct C2 PH segment erection	0		0%	0	18-Jul-15		30-Mar-16	200	0	0%				•		
C200030 Pier C14 (C2d) ready for Viaduct C2 PH segment erection	0		0%	0	12-Aug-15		19-Mar-16	175	0	0%					•	
C200050 Pier C12 (C2f) ready for Viaduct C2 PH segment erection	0		0%	0	25-Aug-15		03-Mar-16	151	0	0%					•	
C200060 Pier C11 (C3a) ready for Viaduct C2 PH segment erection	0		0%	0	02-Sep-15		24-Mar-16	162	0	0%	1					•
Bridge C1 Superstructure	O O		070	•	02 <b>G</b> GP 10		2111101110	102	Ü	070						
Milestones				<u> </u>												
Milestones Ready for PH Segment Erection																
C100010 Pier C20 (C1c) ready for Viaduct C1 PH segment erection	0		0%	0	22-Jun-15		05-Mar-16	202	0	0%		•				
C100020 Pier C19 (C1d) ready for Viaduct C1 PH segment erection	0		0%	0	30-Jun-15		30-Dec-15	143	0	0%			•			
Viaduct D Superstructure																
Bridge D3 Superstructure																
Milestones																
Milestones Ready for PH Segment Erection																
D300040 Pier D3 (D4d) ready for Viaduct D3 PH segment erection	0		0%	0	25-Jul-15		12-Nov-15	84	1	0%				•	<u> </u>	
D300050 Pier D2 (D4e) ready for Viaduct D3 PH segment erection	0		0%	0	01-Aug-15		27-Nov-15	93	114	0%					<b>*</b>	
D300060 Pier D1 (D4f) ready for Viaduct D3 PH segment erection	0		0%	0	04-Jul-15		22-Apr-15	-50	18	0%			•			
Bridge D2 Superstructure																
Milestones																
Milestones Ready for PH Segment Erection	0		00/	^	00 Can 45		15 Oct 15	27	0	00/						
D200010 Pier D13 (D2d) ready for Viaduct D2 PH segment erection	0		0%	0	08-Sep-15		15-Oct-15	27	0	0%						▼
D200050 Pier D9 (D3c) ready for Viaduct D2 PH segment erection	0		0%	0	31-Jul-15		16-Jun-15	-32	0	0%				•		
D200060 Pier D8 (D3d) ready for Viaduct D2 PH segment erection	0		0%	0	10-Aug-15		16-May-15	-61	0	0%					•	
Bridge D1 Superstructure																
Milestones Milestones Peady for PH Segment Frection																
Milestones Ready for PH Segment Erection  D100010 Pier D19 (D1b) ready for Viaduct D1 PH segment erection	0		0%	0	04-Jul-15		12-Oct-15	77	18	0%			•			
D100020 Pier D18 (D1c) ready for Viaduct D1 PH segment election	0		0%	0	30-Jun-15		12-Nov-15	104	21	0%			•			
	0		0%	0	07-Jul-15		12-Nov-15 15-Aug-15	31		0%						
<u> </u>	-						-		0				•			
D100040 Pier D16 (D2a) ready for Viaduct D1 PH segment erection	0		0%	0	16-Sep-15		15-Aug-15	-25	0	0%						
D100050 Pier D15 (D2b) ready for Viaduct D1 PH segment erection	0		0%	0	10-Aug-15		03-Oct-15	41	0	0%					•	
D100070 Pier D13 (D2d) ready for Viaduct D1 PH segment erection	0		0%	0	08-Sep-15		15-Oct-15	27	0	0%						•
Viaduct E																1
Actual Work Project ID: J3518DWPrE1-M25		Tuen I	Mun - C	hek L	ap Kok Link -	Southern (	Connection		Ī	Date	Revision Checked		Approved	DWG.	No ·	
Planned Bar Layout: J3518-DWP-3MRP Submission - M25					ogramme (F					29-May-15	WY				110	
Critical Bar  Filter: TASK filters: 3-Month Lookahead, No CC  Milestones, No Level of Effort.		3-IVIOTILI		_		_	_	ارد		)2-Jul-15	HF k	WY		IOF	18/GCL/PGM	1/21/100 1
			/D.∞		ss as of 21-	4 F\			I—					<del>-</del> しくり	18/19L1/P(91//	・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・





Actual Work
Planned Bar
Critical Bar

Milestone

Project ID: J3518DWPrE1-M25

Milestones, No Level of Effort.

Layout: J3518-DWP-3MRP Submission - M25

Filter: TASK filters: 3-Month Lookahead, No CC

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 33 of 33 Pages)
(Progress as of 21-June-15)

 Date
 Revision
 Checked
 Approved

 29-May-15
 WY
 WY

 02-Jul-15
 HF
 KWY

J3518/C

# Appendix C

# Environmental Mitigation and Enhancement Measure Implementation Schedules

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

# 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	<b>Environmental Protection Measures</b>	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lement Stage:		Status
	Reference					D	С	О	
Air Qualit	Y								
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		<b>&lt;&gt;</b>
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		<b>⇔</b>
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	<b>Environmental Protection Measures</b>	Location/ Timing	Implementation Agent	Relevant Standard or Requirement		ement Stages		Status
	Reference					D	С	О	
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		<b>✓</b>
4.8.1	3.8	No earth, mud, debris, dust and the like shall be deposited on public roads. Wheel washing facility shall be usable prior to any earthworks excavation activity on the site.	All site exits / throughout construction period	Contractor	TMEIA Avoid dust		Y		✓
4.8.1	3.8	Areas of exposed soil shall be minimised to areas in which works have been completed shall be restored as soon as is practicable.	All exposed surfaces / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	All stockpiles of aggregate or spoil shall be enclosed or covered and water applied in dry or windy condition.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.11	Section 3	EM&A in the form of 1 hour and 24 hour dust monitoring and site audit	All representative existing ASRs / throughout construction period	Contractor	EM&A Manual		Y		✓
Noise	<u>i</u>		<u>.i</u>	i	i	i	.i	i	
5.11	Section 4	Noise monitoring	All existing representative sensitive receivers / during North Lantau Viaduct construction	Contractor	EM&A Manual		Y		<b>✓</b>
Water Qua	LITY		<u>.i</u>	<u>i</u>	<u>i</u>	i		<u>i</u>	
General Mai	rine Works								
6.10	-	Bored piling to be undertaken within a metal casing.	Marine viaducts of TM-CLKL and HKLR/ bored piling	Contractor	TM-EIAO		Y		✓
6.10	-	Barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lement Stages		Status
	Reference					D	С	О	
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.		Υ		<b>✓</b>
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		<b>~</b>
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		<b>✓</b>
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		<b>✓</b>
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		<b>~</b>
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		<b>✓</b>
Temporary S	Staging work				ab.				.*
	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		<b>✓</b>
	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		<b>✓</b>
	5.2	One additional water quality monitoring station is	During temporary	Contractor			Y		✓

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lement Stages		Status
	Reference					D	С	О	
		proposed at station SR4a In case elevated SS or turbidity is identified during the water quality monitoring, the source of pollution will be tracked down and be removed as soon as possible. In case depletion of dissolved oxygen is identified, artificial aeration will be arranged at the monitoring station SR4a,	staging works						
Land Works									
6.10	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<b>✓</b>
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		Υ		<b>Y</b>
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		<b>Y</b>
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		<b>✓</b>
6.10	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Υ		<b>✓</b>
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		<b>✓</b>
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		<b>~</b>

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lemen Stage		Status
	Reference					D	С	О	
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		<b>✓</b>
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		<b>✓</b>
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		<b>✓</b>
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	<b>Environmental Protection Measures</b>	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lemen Stage		Status
	Reference					D	С	О	
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	<b>*</b>
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		<b>✓</b>
Water Quali	ity Monitoring	3							•
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>✓</b>
Ecology									
8.14	6.3	Specification for and implement pre, during and post construction dolphin abundance monitoring.	All Areas/Detailed Design/ during construction works/post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓
8.14	6.3	Specification for bored piling monitoring	Detailed Design	Design Consultant	TMEIA	Y			n/a
8.14	6.3	Implement any recommendations of the bored piling monitoring	Southern marine viaduct/Throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lemen Stage	itation es	Status
	Reference					D	С	О	-
			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		<b>✓</b>
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		<b>✓</b>
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		<b>✓</b>
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Tai Ho Wan (donar site) and Yam Tsui Wan (receptor site) / Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		Completed in October 2014
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		n/a

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/Timing	Implementation Agent	Relevant Standard or Requirement	Imp	lemen Stage		Status
	Reference					D	С	О	-1
			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		<b>✓</b>
7.13	6.5	Avoid damage and disturbance to the remaining and surrounding natural habitat	All areas / Throughout construction period	Contractor	TMEIA		Y		<b>~</b>
7.13	6.5	Placement of equipment in designated areas within the existing disturbed land	All areas / Throughout construction period	Contractor	TMEIA		Y		<b>✓</b>
7.13	6.5	Disturbed areas to be reinstated immediately after completion of the works.	All areas / Throughout construction period	Contractor	TMEIA		Y		<b>✓</b>
7.13	6.5	Construction activities should be restricted to the proposed works boundary	All areas / Throughout construction period	Contractor	TMEIA		Y		<b>✓</b>
LANDSCAPE	AND VISUAL	il.	·						i
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		<b>~</b>

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
	Reference					D	С	О	
		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	Υ		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		<b>✓</b>
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		<b>✓</b>
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		<b>Y</b>
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		<b>~</b>
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		<b>✓</b>
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		<b>✓</b>

EIA Reference	EM&A Manual		Location/Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
	Reference					D	С	О	
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	Υ		✓ Tree removal on 4 July 2015
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	Υ	Υ	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	Υ	n/a. To be implemented by HyD/LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and	All areas/detailed	Design	TMEIA	Y	Υ	Y	n/a.

EIA Reference	EM&A Manual		Location/Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
	Reference					D	С	О	
		non-reflective) as regard to the form, material and finishes	design/ during construction / during operation	Consultant/ Contractor					To be implemented by HyD
Waste		<u>.</u>	*			4			.*
12.6		The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		<b>~</b>
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		Υ		<b>✓</b>
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.		Υ		
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		Υ		<b>~</b>
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		<b>✓</b>

EIA EM&A Reference Manual			Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
	Reference					D	С	О	
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		<b>✓</b>
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		<b>*</b>
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		<b>/</b>
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		<b>Y</b>
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		<b>/</b>
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		<b>✓</b>
12.6	8.1	The Contractor should recycle as many C&D	All areas / throughout	Contractor	TMEIA	•	Y	•	✓

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/Timing	Implementation Agent	Relevant Standard or Requirement	-	lement Stage:		Status
	Reference					D	С	О	
		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		<b>✓</b>
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows:  - suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed;  - Having a capacity of <450L unless the specifications have been approved by the EPD; and  - Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. Clearly labelled and used solely for the storage of chemical wastes;  - Enclosed with at least 3 sides;  - Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest;  - Adequate ventilation;  - Sufficiently covered to prevent rainfall entering	All areas / throughout construction period	Contractor	TMEIA		Y		<b>⇔</b>

EIA Reference	EM&A Manual		Location/Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
	Reference					D	С	О	
		<ul> <li>(water collected within the bund must be tested and disposed of as chemical waste, if necessary); and</li> <li>Incompatible materials are adequately separated.</li> </ul>							
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		<b>~</b>
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 Bylaws. 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.		Contractor	TMEIA		Υ		
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Υ		<b>✓</b>
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		<b>✓</b>
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		Υ		<b>✓</b>

EIA Reference	EM&A Manual	<b>Environmental Protection Measures</b>	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	-	lement Stages		Status
	Reference	collection scheme by the Contractor should be advocated. Waste separation facilities for paper,				D	С	O	
		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		Υ		✓
Cultural Hi	ERITAGE	4	····		de la companya de la				
11.8	Section 9	EM&A in the form of audit of the mitigation measures	All areas / throughout construction period	Highways Department	EIAO-TM		Υ		n/a

#### Notes:

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

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

#### Status:

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

# Appendix D

# Summary of Action and Limit Levels

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

Parameters	Action	Limit
24 Hour TSP Level in μg/m³	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in $\mu g / m^3$	ASR9A/ASR8A = 394 ASR9C/ASR8/ ASR9 = 393	500

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

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

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

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

#### Notes:

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

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

Para	meter	Action Level#	Limit Level#
(e)	The 1%-ile of baseline data	a 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 Lan	North Lantau Social Cluster		
	NEL	NWL		
Action Level	STG < 70% of baseline &	STG < 70% of baseline &		
	ANI < 70% of baseline	ANI < 70% of baseline		
Limit Level	[STG < 40% of baseling	ne & ANI < 40% of baseline]		
		and		
	STG < 40% of baseling	ne & 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	[STG < 2.4 & ANI <8.9]		
	and			
	[STG < 3.9	[STG < 3.9 & ANI <17.9]		

# Appendix E

# Calibration Certificates of Monitoring Equipments

#### <u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

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

Sampler

 Model
 :
 TE-5170

 Serial Number
 :
 S/N 3956

Calibration Orfice 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

Resi	stance Plate	dH [green liquid]	Z	X=Qstd	IC	Y
ļ		(inch water)		(cubic meter/min)	(chart)	(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

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

### 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

#### <u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

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

Sampler

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

Calibration Orfice 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

Resi	stance Plate	dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)	(chart)	(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

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

#### 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

#### <u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

Location : ASR8(A)
Calibrated by : P.F.Yeung
Date : 28/07/2015

Sampler

 Model
 :
 TE-5170

 Serial Number
 :
 S/N 3956

Calibration Orfice 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) : 1012 Ta(K) : 304

Resistance Plate		dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)	(chart)	(corrected)
1	18 holes	11.8	3.399	1.641	56	55.42
2	13 holes	9.8	3.098	1.497	51	50.47
3	10 holes	7.2	2.655	1.285	45	44.53
4	7 holes	4.8	2.168	1.053	37	36.61
5	5 holes	2.8	1.656	0.808	28	27.71

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

#### Sampler Calibration Relationship (Linear Regression)

Slope(m): 32.928 Intercept(b): 1.564 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 03/08/2015

#### <u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

Location : ASR9
Calibrated by : P.F.Yeung
Date : 28/07/2015

Sampler

 Model
 :
 TE-5170

 Serial Number
 :
 S/N 3958

Calibration Orfice 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) : 1012 Ta(K) : 304

Resistance Plate		dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)	(chart)	(corrected)
1	18 holes	11.6	3.370	1.627	56	55.42
2	13 holes	9.2	3.002	1.451	50	49.48
3	10 holes	7.0	2.618	1.268	44	43.54
4	7 holes	4.5	2.099	1.020	36	35.63
5	5 holes	2.7	1.626	0.794	27	26.72

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

#### Sampler Calibration Relationship (Linear Regression)

Slope(m):34.093 Intercept(b):0.224 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan Date: 03/08/2015



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

### ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 24, 2015 Rootsmeter S/N 0438320 Ta (K) - 292 Operator Tisch Orifice I.D 2454 Pa (mm) - 756.92								
PLATE OR Run # 1 2 3 4 5	VOLUME START (m3)  NA NA NA NA NA NA NA NA	VOLUME STOP (m3)  NA NA NA NA NA NA	DIFF VOLUME (m3)  1.00 1.00 1.00 1.00	DIFF TIME (min)  1.4460 1.0300 0.9180 0.8780 0.7240	METER DIFF Hg (mm) 3.2 6.4 7.9 8.7 12.6	ORFICE DIFF H2O (in.)  2.00 4.00 5.00 5.50 8.00		

#### DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)	
1.0121 1.0078 1.0057 1.0047 0.9994	0.6999 0.9785 1.0955 1.1443 1.3805	1.4258 2.0163 2.2543 2.3644 2.8515		0.9958 0.9916 0.9895 0.9885 0.9833	0.6886 0.9627 1.0779 1.1258 1.3582	0.8784 1.2422 1.3888 1.4566 1.7568	
Qstd slop intercept coefficie	t (b) =	2.09532 -0.03812 0.99994	Production of the second	Qa slop intercep coeffici	t (b) =	1.31205 -0.02349 0.99994	
y axis =	SQRT [H20 (	Pa/760)(298/	 Та)]	y axis =	SQRT [H20 (	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 =  $1/m\{ [SQRT H2O(Ta/Pa)] - b\}$ 



#### 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 Serial No./編號

NC-73 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 :  $(23 \pm 2)^{\circ}$ 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

Project Engineer

Certified By

核證

Date of Issue

16 June 2015

簽發日期

Engineer

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 - 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓 Tel/電話: 2927 2606 Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

## Certificate of Calibration 校正證書

Certificate No.: C153241

證書編號

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

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

3. Test equipment:

Equipment ID CL130 CL281 TST150A <u>Description</u>
Universal Counter
Multifunction Acoustic Calibrator
Measuring Amplifier

Certificate No. C143868 DC130171 C141558

4. Test procedure: MA100N.

5. Results:

5.1 Sound Level Accuracy

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

5.2 Frequency Accuracy

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

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.



#### 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 Supplied By / 委託者 00603867 Envirotech Services Co.

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

Hong Kong

TEST CONDITIONS / 測試條件

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

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

Project Engineer

Certified By

核證

Date of Issue

30 July 2014

K M Wu

Engineer

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輝創工程有限公司 - 校正及檢測實驗所

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Website/網址: www.suncreation.com

簽發日期

Page 1 of 4



#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

## Certificate of Calibration 校正證書

Certificate No.: C144558

證書編號

The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

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

4. Test equipment:

> Equipment ID CL280 CL281

Description 40 MHz Arbitrary Waveform Generator Multifunction Acoustic Calibrator

Certificate No. C140016 DC130171

5. Test procedure: MA101N.

6. Results:

Sound Pressure Level

6.1.1 Reference Sound Pressure Level

	UU	JT Setting		Applied	l Value	UUT	IEC 61672 Class 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 120	$L_A$	Α	Fast	94.00	1	93.6	± 1.1

6.1.2 Linearity

	UUT Setting			Applied	Value	UUT
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)
30 - 120	$L_{A}$	A	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

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

Time Weighting 6.2

	UU	T Setting		Applied	l Value	UUT	IEC 61672 Class 1
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Spec. (dB)
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



#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

## Certificate of Calibration 校正證書

Certificate No.: C144558

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

	UU'	T Setting		Appl	lied Value UUT		IEC 61672 Class 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 120	$L_A$	A	Fast	94.00	63 Hz	67.3	$-26.2 \pm 1.5$
					125 Hz	77.3	$-16.1 \pm 1.5$
					250 Hz	84.9	$-8.6 \pm 1.4$
					500 Hz	90.3	$-3.2 \pm 1.4$
		A TO A LONG			1 kHz	93.6	Ref.
					2 kHz	94.9	$+1.2 \pm 1.6$
					4 kHz	94.7	$+1.0 \pm 1.6$
					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	IEC 61672 Class 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 120	$L_{C}$	С	Fast	94.00	63 Hz	92.7	$-0.8 \pm 1.5$
					125 Hz	93.4	$-0.2 \pm 1.5$
					250 Hz	93.6	$0.0 \pm 1.4$
					500 Hz	93.6	$0.0 \pm 1.4$
					1 kHz	93.6	Ref.
					2 kHz	93.5	$-0.2 \pm 1.6$
					4 kHz	92.9	$-0.8 \pm 1.6$
					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.



#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

## 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.

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.



## Performance Check of Turbidity Meter

Equipment Ref. No.

: ET/0505/011

Manufacturer

: HACH

Model No.

: 2100Q

Serial No.

: 12060 C 018534

Date of Calibration

: 02/07/2015

Due Date

: 01/10/2015

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

005/6.1/001/7

Mi	Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
	20	19.7	-1.50
	100	98.4	-1.60
	800	790	-1.25

(\*) 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:

h

Checked by:\_\_



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

Internal Calibration	8.	Performance	Check	of	рН	Meter
----------------------	----	-------------	-------	----	----	-------

Equipment Ref. No.: ET/EW007/005

Manufacturer

Thermo Scientific

Model No.

Orion 2 Star

Serial No.

B29792

Date of Calibration:

06/06/2015

Calibration Due Date :

05/07/2015

#### Liquid Junction Error

003/5.2/001/24 (20°C)

Primary Standard Solution Used: Phosphate

Ref No. of Primary Solution: 003/5.2/001/25 (25°C)

Temperature of Solution:

25.0 / 20.0

 $\Delta pH_{1/2} = +0.01 /$ +0.01

pH value of diluted buffer :

6.89 / 6.92

6.88

 $\Delta pH = pH(S) - pH$  of diluted buffer = 0.03 / 0.04

(Observed Deviation)

0.03

pH(S) = 6.86 /

Shift on Stirring

pH of buffer solution (with stirring), pH<sub>s</sub> =

Shift on stirring,  $\Delta pH_s = pH_s - pH(S) - \Delta pH_i =$ 

Liquid Junction Error  $(\Delta pH_1) = \Delta pH - \Delta pH_{\frac{1}{2}} = 0.02$ 

6.90 0.02 6.92

0.01

Noise

Noise,  $\Delta pH_n = difference$  between max and min reading:

0.01

/ 0.01

Verification of ATC

Ref. No. of reference thermometer used:

/ ET/0521/019 ET/0521/019

Temperature record from the reference thermometer (T<sub>R</sub>)

 $^{\circ}$ C 20 25 °c 24.8 19.9

Temperature record from the ATC (T<sub>ATC</sub>): Temperature Difference, | T<sub>R</sub> - T<sub>ATC</sub> |

٥С 0.2 0.1

Correction

0.1 °C 0.2

#### Acceptance Criteria

Performano	Acceptable Range	
Liquid Junction Error	∆рНj	≤0.05
Shift on Stirring	∆pHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°C

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

\* Delete as appropriate

Calibrated by:

Checked by:



H d H & H*H d° 6	7) Marie P	A II	and the second s	n E/CE/L/15/Issue 2 (1/1) [04/15
Internal Calibration &				
Equipment Ref. No. : ET/EW007/006	wood	acturer :	Thermo Scient	<u> Itic</u>
Model No. : Orion 2 Star	Serial		B29792	illian de la company de la com
Date of Calibration :06/07/2015	Calibra	ation Due Da:	05/08/2015	POSSOBADONIA HADONIA
Liquid Junction Error	Other Control of the		MATERIAL STATE OF THE STATE OF	
	_			/001/24 (20℃)
Primary Standard Solution Used : KHP	ON A SHARE WAS ASSESSED TO SHARE WAS ASSESSED TO SHARE WAS ASSESSED.	Ref No. of Prima	ry Solution: 003/5.1	
Temperature of Solution: 25.0	/ 20.0		$\Delta pH_{\frac{1}{2}} = +0.01$	/ +0.01
pH value of diluted buffer : 4.03	/ 4.04		pH (S) = $4.00$	/ 4.00
$\Delta pH = pH(S) - pH$ of diluted buffer = $0.03$	/ 0.04	(Observed	Deviation)	
Liquid Junction Error ( $\Delta$ pH <sub>j</sub> ) = $\Delta$ pH - $\Delta$ pH <sub>½</sub> =	0.02	/ 0.03	•	
Shift on Stirring	COMPANIES CONTRACTOR OF THE CO		atti attivata kannisista kannisista kannisista kannisista kannisista kannisista kannisista kannisista kannisis	
pH of buffer solution (with stirring), pH <sub>s</sub> =	4.03	/ 4.05		
Shift on stirring, $\Delta pH_s = pH_s - pH(S) - \Delta pH_i =$	0.01	/ 0.02		
	0.01	7 0.02		
Noise				
1				
Noise, ΔpH <sub>n</sub> = difference between max and mi	in reading:	0.01 /	0.01	
		Between Englands the section of the section of the description of the section of		
Verification of ATC				
Ref. No. of reference thermometer used:		ET/0521 /	ET/0521/019	
Temperature record from the reference thermo	ometer (T⊳):	25 /	20 °C	
Temperature record from the ATC $(T_{ATC})$ :		24.8 /	19.7 °C	
Temperature Difference,   T <sub>R</sub> - T <sub>ATC</sub>		0.2 /	0.3 °C	
Direction of the second of the				
Correction		0.2 /	0.3 °C	
Acceptance Criteria	PP (CONTENT OF THE PROPERTY OF			
**************************************				
Performance Characteristic		Acceptak	ole Range	
Liquid Junction Error ΔpHj			.05	
Shift on Stirring ∆pHs			.02	
Noise ΔpHn	****		.02	
Verifcation of ATC Temperature Differe	ence	≤0.	5°C	
<b>强度的</b>				
The pH meter complies * / does not comply				med
acceptable * /-unacceptable * for use. Measure	ements are tra	aceable to natior	nal standards.	
*Delete as appropriate				
Calibrated by:		hecked by :	9/	

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#### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.

ET/EW/008/006

Manufacturer

YSI

Model No.

Pro 2030

Serial No.

12A 100554

Date of Calibration

15/06/2015

Calibration Due Date

14/09/2015

#### Temperature Verification

Ref. No. of Reference Thermometer:

ET/0521/008

Ref. No. of Water Bath:

....

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

#### Standardization of sodium thiosulphate (Na 2 S 2 O 3) solution

Reagent No. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> titrant	CPE/012/4.5/001/12	Reagent No. of 0.025N K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	CPE/012/4.4/001/37	
and the state of t		Trial 1	Trial 2	
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)		0.00	10.20	
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)		10.20	20.50	
Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)		10.20	10.30	
Normality of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> solution (N)		0.02451	0.02427	
Average Normality (N) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> s	olution (N)	0.02439		
Acceptance criteria, Deviation		Less than ± 0.001N		

Calculation:

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

#### Lineality Checking

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

Purging Time (min)	2			5		10	
Trial	1	2	1	2	1	2	
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.00	11.30	22.70	0.00	6.50	10.40	
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	11.30	22.70	29.30	6.50	10.40	14.20	
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 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 res	Difference (%) of DO	
a drurgi	ng inne, mm	1	2	Average	1	2	Average	Content
	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
	Linea	r regression	coefficient				0.9951	



#### Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

11	1
DO meter reading, mg/L	0.00
, o	0.00

Salinity Checking

	1		
Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/3	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/3

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:

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

Solinity (ppt)		DO meter reading, mg/L		Winkler Titration result**, mg/L			Difference (%) of DO	
Salinity (ppt)	1	2	Average	1	2	Average	Content	
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  $\pm$  5%

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

\* Delete as appropriate

Calibrated by

W)

Approved by:

CEP/012/W



## Performance Check of Salinity Meter

K-7				A.A.	C	A 1.	
P-4 4	O1111	nme	int.	K 6	21	No.	
ا اسلا	uu.	$\nu m$	/ままし	1 V	<b>∠.l.</b> 。	TAO.	

: 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:

W

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 Senor: WE570 (S/N:ED0000)

Pak Mong, Siu Ho Wan

Procedures:

Location:

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	Checked by : Fat
	Yeung Ping Fai	Ho Kam Fat
	(Technical Officer)	(Senior Technical Officer)



#### 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 : Manufacturer / 製造商 : Anemometer

Manufacturer / 製造商 Model No. / 型號 Lutron AM-4201

Serial No./編號

AF.27513

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 :

 $(23 \pm 2)^{\circ}$ 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

Chan the Chan

Date of Issue 簽發日期 23 June 2015

Engineer

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 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986

E-mail/電郵: callab(a suncreation.com

Website/網址: www.suncreation.com

#### 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.

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

3. Test equipment:

> Equipment ID CL386

Description

Multi-function Measuring Instrument

Certificate No.

S12109

Test procedure: MA130N. 4.

5. Results:

Air Velocity

Applied	UUT	Measured Correction				
Value	Reading	Value Measurement Uncertainty				
(m/s)	(m/s)	(m/s)	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

## 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 (July 15)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jul		3-Jul	
				WQM Mid-Ebb 13:12 (11:27 - 14:57) Mid-Flood 20:19 (18:34 - 22:04)		WQM Mid-Ebb 7:46 (06:01 - 09:31) Mid-Flood 14:35 (12:50 - 16:20)
5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Jul
		WQM Mid-Ebb 10:20 (08:35 - 12:05) Mid-Flood 16:53 (15:08 - 18:38)		(Cancelled due to adverse weather)		WQM Mid-Ebb 9:26 (07:41 - 11:11) Mid-Flood 15:51 (14:06 - 17:36)
12-Jul	13-Jul		15-Jul		17-Jul	
		WQM Mid-Ebb 11:57 (10:12 - 13:42) Mid-Flood 19:00 (17:15 - 20:45)		WQM Mid-Ebb 13:19 (11:34 - 15:04) Mid-Flood 20:18 (18:33 - 22:03)		WQM Mid-Ebb 7:38 (05:53 - 09:23) Mid-Flood 14:33 (12:48 - 16:18)
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
		WQM Mid-Ebb 9:34 (07:49 - 11:19) Mid-Flood 16:10 (14:25 - 17:55)		WQM Mid-Ebb 11:12 (09:27 - 12:57) Mid-Flood 17:23 (15:38 - 19:08)		WQM Mid-Ebb 14:00 (12:15 - 15:45) Mid-Flood 19:35 (17:50 - 16:37)
26-Jul			29-Jul		31-Jul	
		WQM Mid-Ebb 10:43 (08:58 - 12:28) Mid-Flood 17:55 (16:10 - 19:40)		WQM Mid-Ebb 12:11 (10:26 - 13:56) Mid-Flood 19:18 (17:33 - 21:03)		

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturda	
						WOM	01-Aug
						<b>WQM</b> Mid-Ebb	
						13:37	
						(11:52 - 15:22)	
						Mid-Flood	
						20:13	
						(18:28 - 21:58)	
02-Aug	03-Aug	04-Aug	05-Aug		07-Aug		08-Aug
		WQM		WQM		WQM	
		Mid-Flood 9:20		Mid-Flood 11:26		Mid-Ebb 7:48	
		9:20 (07:35 - 11:05)		(09:41 - 13:11)		(06:03 - 09:33)	
		(07.33 - 11.03) Mid-Ebb		Mid-Ebb		Mid-Flood	
		15:46		17:24		14:19	
		(14:01 - 17:31)		(15:39 - 19:09)		(12:34 - 16:04)	
09-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug		15-Aug
		WQM		WQM		WQM	
		Mid-Ebb		Mid-Ebb		Mid-Ebb	
		10:59		12:24		13:36	
		(09:14 - 12:44) Mid-Flood		(10:39 - 14:09) Mid-Flood		(11:51 - 15:21) Mid-Flood	
		18:08		19:19		20:14	
		(16:23 - 19:53)		(17:34 - 21:04)		(18:29 - 21:59)	
16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	(10.20 21.00)	22-Aug
		WQM		WQM		WQM	
		Mid-Flood		Mid-Flood		Mid-Flood	
		8:41		10:00		12:00	
		(06:56 - 10:26)		(08:15 - 11:45)		(10:15 - 13:45)	
		Mid-Ebb 15:08		Mid-Ebb 16:10		Mid-Ebb 17:41	
		(13:23 - 16:53)		(14:25 - 17:56)		(15:56 - 19:26)	
23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	(10.00 10.20)	29-Aug
- 3		WQM	, , ,	WQM		WQM	
		Mid-Ebb		Mid-Ebb		Mid-Ebb	
		9:14		11:00		12:32	
		(07:29 - 10:59)		(09:25 - 12:45)		(10:47 - 14:17)	
		Mid-Flood		Mid-Flood		Mid-Flood 19:23	
		16:46 (15:01 - 18:31)		18:12 (17:27 - 20:57)		19:23 (17:38 - 21:08)	
30-Aug	31-Aug	01-Sep	02-Sep	03-Sep	04-Sep	(17.30 - 21.00)	05-Sep
Jo-Aug	J1-Aug	от-оер	0230ep	ООЗОЕР	о+зоер		00-0eb

## 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 1-Jul			
			,	Noise Impact		
				Monitoring		
5-Jul	6-Jul		8-Jul	9-Jul	10-Jul	11-Ju
		Noise Impact				
		Monitoring				
12-Jul		14-Jul	15-Jul		17-Jul	18-Jւ
	Noise Impact			Noise Impact		
	Monitoring			Monitoring		
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Ju
10 001	20 001	21 001	Noise Impact Monitoring		24 001	20 00
			14013C Impact Monitoring			
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
		Noise Impact		5000		
		Monitoring				

## 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 1-Jul		3-Jul	4-Jul
				1-hr TSP Monitoring		
				24-hr TSP Monitoring		
5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Ju
3 001	0 001	1-hr TSP Monitoring	O out	J 5001	10 001	11 00
		24-hr TSP Monitoring				
		24-111 131 Worldoning				
12-Jul		14-Jul	15-Jul		17-Jul	18-Ju
	1-hr TSP Monitoring			1-hr TSP Monitoring		
	24-hr TSP Monitoring			24-hr TSP Monitoring		
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Ju
10 041	20 001	21 001	1-hr TSP Monitoring	20 001	21001	20 00
			24-hr TSP Monitoring			
			2 T III TOT WOTHOUTING			
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
		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 August 2015)

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
-						01-Aug
02-Aug	03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug
	Noise Impact	<u> </u>		Noise Impact	J	
	Monitoring			Monitoring		
09-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug
00 1 11.19			Noise Impact Monitoring			
16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug
10 7 (3)	11 710.5	Noise Impact	107109	20 7 10 9	21769	22 7 14 5
		Monitoring				
		Wormoning				
23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug
	Noise Impact	25-Aug	20-Aug	Noise Impact	20-Aug	23-Aug
	Monitoring			Monitoring		
	INIOTHORING			INDITIONING		
00 4	04 4	-				
30-Aug	31-Aug					

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 August 2015)

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

02-Aug
1-hr TSP Monitoring   24-hr TSP Monitoring
1-hr TSP Monitoring   24-hr TSP Monitoring   15-hr TSP Monitoring   24-hr TSP Monitoring
1-hr TSP Monitoring   24-hr TSP Monitoring   15-hr TSP Monitoring   24-hr TSP Monitoring
1-hr TSP Monitoring   24-hr TSP Monitoring   15-hr TSP Monitoring   24-hr TSP Monitoring
24-hr TSP Monitoring  24-hr TSP Monitoring  24-hr TSP Monitoring  09-Aug
10-Aug   10-Aug   11-Aug   12-Aug   13-Aug   14-Aug   15-Aug   15-Aug   14-Aug   15-Aug   14-Aug   15-Aug   14-Aug   15-Aug   14-Aug   1
1-hr TSP Monitoring 24-hr TSP Monitoring 16-Aug 17-Aug 18-Aug 19-Aug 20-Aug 21-Aug 22-Aug 1-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring
1-hr TSP Monitoring 24-hr TSP Monitoring 16-Aug 17-Aug 18-Aug 19-Aug 20-Aug 21-Aug 22-Aug 24-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring
1-hr TSP Monitoring 24-hr TSP Monitoring 16-Aug 17-Aug 18-Aug 19-Aug 20-Aug 21-Aug 22-Aug 1-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring
24-hr TSP Monitoring  16-Aug 17-Aug 18-Aug 19-Aug 20-Aug 21-Aug 22-Aug 1-hr TSP Monitoring 24-hr TSP Monitoring 24-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring 1-hr TSP Monitoring
1-hr TSP Monitoring 24-hr TSP Monitoring  23-Aug
1-hr TSP Monitoring 24-hr TSP Monitoring  23-Aug
1-hr TSP Monitoring 24-hr TSP Monitoring  23-Aug 24-Aug 25-Aug 26-Aug 27-Aug 28-Aug 29-Aug 1-hr TSP Monitoring  1-hr TSP Monitoring 1-hr TSP Monitoring
24-hr TSP Monitoring       23-Aug     24-Aug     25-Aug     26-Aug     27-Aug     28-Aug     29-Aug       1-hr TSP Monitoring     1-hr TSP Monitoring
23-Aug         24-Aug         25-Aug         26-Aug         27-Aug         28-Aug         29-Aug           1-hr TSP Monitoring         1-hr TSP Monitoring         1-hr TSP Monitoring         1-hr TSP Monitoring
1-hr TSP Monitoring 1-hr TSP Monitoring
1-hr TSP Monitoring 1-hr TSP Monitoring
1-hr TSP Monitoring 24 hr TSP Monitoring 34 hr TSP Monitoring
104 hr TCD Monitoring 1 104 hr TCD Monitoring 1
24-hr TSP Monitoring 24-hr TSP Monitoring
20 Aug
30-Aug 31-Aug

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 31 July 2015)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jul	02-Jul	03-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	20 001	25 001	30 001	31 001	
	Monitoring					
	]					

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
-						01-Aug
02-Aug	03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug
	40.4	44.0	10.1	10.1		45.0
09-Aug	10-Aug	11-Aug	12-Aug	13-Aug		15-Aug
	Impact Dolphin Monitoring				Impact Dolphin Monitoring	
	INIOTHOTHIS				Worldoning	
40.0	47 0	40 0	40. 4	00 4	04 4	00 4
16-Aug	17-Aug	18-Aug Impact Dolphin	19-Aug	20-Aug	21-Aug	22-Aug
		Monitoring				
		mormornig				
23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug
23-Aug	24-Aug	Impact Dolphin	20-Aug	21-Aug	20-Aug	29-Aug
		Monitoring				
		· ·				
30-Aug	31-Aug					
	5.7kg					

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	2015-07-02	ASR8A	8:43	1-hr TSP	60		
TMCLKL	HY/2012/07	2015-07-02	ASR8A	9:45	1-hr TSP	67		
TMCLKL	HY/2012/07	2015-07-02	ASR8A	10:47	1-hr TSP	71		
TMCLKL	HY/2012/07	2015-07-07	ASR8A	8:35	1-hr TSP	100		
TMCLKL	HY/2012/07	2015-07-07	ASR8A	9:37	1-hr TSP	73		
TMCLKL	HY/2012/07	2015-07-07	ASR8A	10:39	1-hr TSP	139		
TMCLKL	HY/2012/07	2015-07-13	ASR8A	8:48	1-hr TSP	57		
TMCLKL	HY/2012/07	2015-07-13	ASR8A	9:50	1-hr TSP	59		
TMCLKL	HY/2012/07	2015-07-13	ASR8A	10:52	1-hr TSP	55	394	500
TMCLKL	HY/2012/07	2015-07-16	ASR8A	8:37	1-hr TSP	49	394	300
TMCLKL	HY/2012/07	2015-07-16	ASR8A	9:39	1-hr TSP	47		
TMCLKL	HY/2012/07	2015-07-16	ASR8A	10:41	1-hr TSP	64		
TMCLKL	HY/2012/07	2015-07-22	ASR8A	8:33	1-hr TSP	51		
TMCLKL	HY/2012/07	2015-07-22	ASR8A	9:35	1-hr TSP	60		
TMCLKL	HY/2012/07	2015-07-22	ASR8A	10:37	1-hr TSP	43		
TMCLKL	HY/2012/07	2015-07-28	ASR8A	8:20	1-hr TSP	41		
TMCLKL	HY/2012/07	2015-07-28	ASR8A	9:22	1-hr TSP	46		
TMCLKL	HY/2012/07	2015-07-28	ASR8A	10:24	1-hr TSP	57		
					Average	63		
					Min.	41		
					Max.	139		

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

1-nour 18	SP Monitoring	g Results at Air Quali	y Monitor	ing 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	2015-07-02	ASR9	8:54	1-hr TSP	69		
TMCLKL	HY/2012/07	2015-07-02	ASR9	9:56	1-hr TSP	61		
TMCLKL	HY/2012/07	2015-07-02	ASR9	10:58	1-hr TSP	105		
TMCLKL	HY/2012/07	2015-07-07	ASR9	8:45	1-hr TSP	87		
TMCLKL	HY/2012/07	2015-07-07	ASR9	9:47	1-hr TSP	92		
TMCLKL	HY/2012/07	2015-07-07	ASR9	10:49	1-hr TSP	116		
TMCLKL	HY/2012/07	2015-07-13	ASR9	8:58	1-hr TSP	113		
TMCLKL	HY/2012/07	2015-07-13	ASR9	10:00	1-hr TSP	73	394	500
TMCLKL	HY/2012/07	2015-07-13	ASR9	11:02	1-hr TSP	60		
TMCLKL	HY/2012/07	2015-07-16	ASR9	8:49	1-hr TSP	72		
TMCLKL	HY/2012/07	2015-07-16	ASR9	9:51	1-hr TSP	56		
TMCLKL	HY/2012/07	2015-07-16	ASR9	10:53	1-hr TSP	63		
TMCLKL	HY/2012/07	2015-07-22	ASR9	8:44	1-hr TSP	41		
TMCLKL	HY/2012/07	2015-07-22	ASR9	9:46	1-hr TSP	52		
TMCLKL	HY/2012/07	2015-07-22	ASR9	10:48	1-hr TSP	53		
TMCLKL	HY/2012/07	2015-07-28	ASR9	8:32	1-hr TSP	83		
TMCLKL	HY/2012/07	2015-07-28	ASR9	9:34	1-hr TSP	56		
TMCLKL	HY/2012/07	2015-07-28	ASR9	10:36	1-hr TSP	56		
					Average	73		

Min.

Max.

41

116

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	2015-07-02	ASR8A	11:49	24-hr TSP	46		
TMCLKL	HY/2012/07	2015-07-07	ASR8A	11:41	24-hr TSP	75	178	260
TMCLKL	HY/2012/07	2015-07-13	ASR8A	11:54	24-hr TSP	50		
TMCLKL	HY/2012/07	2015-07-16	ASR8A	11:43	24-hr TSP	47	170	200
TMCLKL	HY/2012/07	2015-07-22	ASR8A	11:39	24-hr TSP	45		
TMCLKL	HY/2012/07	2015-07-28	ASR8A	11:26	24-hr TSP	44		
					Average	51		
					Min.	44		
					Max.	75		

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	2015-07-02	ASR9	12:00	24-hr TSP	56	178	260
TMCLKL	HY/2012/07	2015-07-07	ASR9	11:51	24-hr TSP	89		
TMCLKL	HY/2012/07	2015-07-13	ASR9	12:04	24-hr TSP	48		
TMCLKL	HY/2012/07	2015-07-16	ASR9	11:55	24-hr TSP	50		
TMCLKL	HY/2012/07	2015-07-22	ASR9	11:50	24-hr TSP	47		
TMCLKL	HY/2012/07	2015-07-28	ASR9	11:38	24-hr TSP	47		
	<u> </u>	_	_	_	Average	56	_	

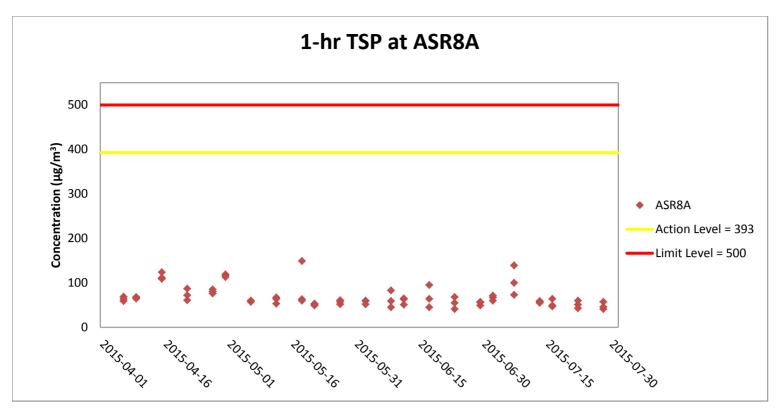
Average 56

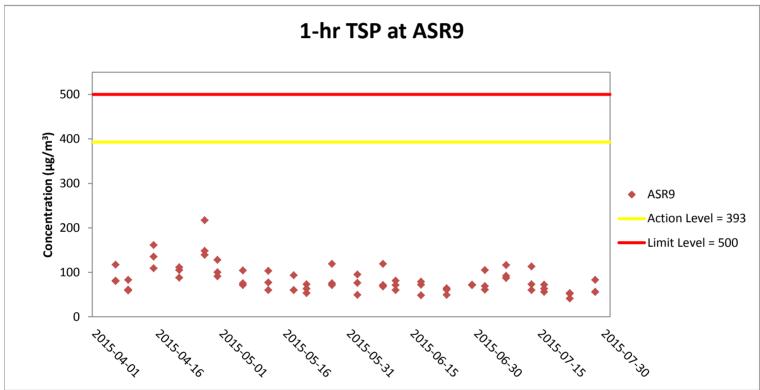
Min. 47

Max. 89

**Action Level Exceedance** 

Limit Level Exceedance

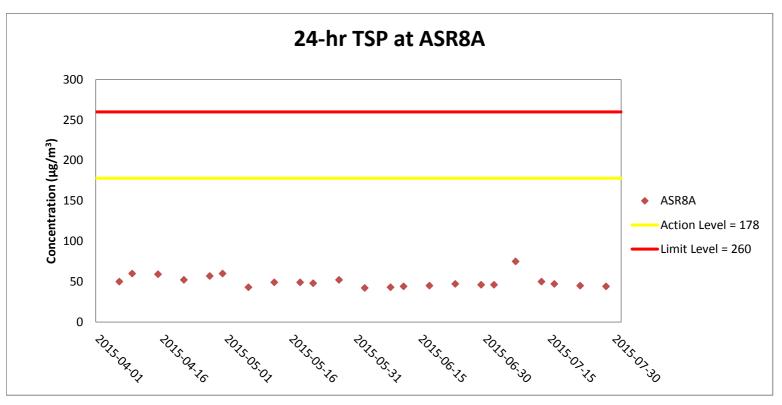


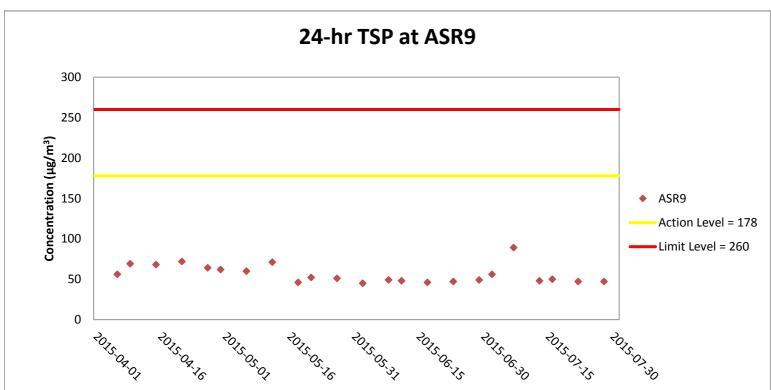


Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Predrilling at Viaduct F; Construction and installation of pile caps; Pier construction; Pile cap stallation; 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 Viaducts A & B.

Marine works within the reporting period include 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.





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

Major construction works undertaken within the reporting period include Predrilling at Viaduct F; Construction and installation of pile caps; Pier construction; Pile cap stallation; 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 Viaducts A & B.

Marine works within the reporting period include 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.

## Appendix H

# Meteorological Data for the Reporting Month

Date	Time	Wind speed (m/s)	Wind direction (deg)
02-07-2015	7:00	0.0	162
02-07-2015	8:00	0.3	231
02-07-2015	9:00	0.3	91
02-07-2015	10:00	0.4	127
02-07-2015	11:00	1.0	206
02-07-2015	12:00	0.9	223
02-07-2015	13:00	0.5	192
02-07-2015	14:00	1.1	184
02-07-2015	15:00	2.6	176
02-07-2015	16:00	2.7	175
02-07-2015	17:00	2.5	172
02-07-2015	18:00	1.4	160
02-07-2015	19:00	0.4	149
02-07-2015	20:00	0.6	157
02-07-2015	21:00	0.5	161
02-07-2015	22:00	0.0	156
02-07-2015	23:00	0.0	164
03-07-2015	0:00	0.3	159
03-07-2015	1:00	2.1	167
03-07-2015	2:00	1.6	157
03-07-2015	3:00	1.1	153
03-07-2015	4:00	0.1	128
03-07-2015	5:00	0.3	165
03-07-2015	6:00	0.1	232
03-07-2015	7:00	0.0	233
03-07-2015	8:00	0.3	165
03-07-2015	9:00	1.4	156
03-07-2015	10:00	3.4	165
03-07-2015	11:00	4.2	164
03-07-2015	12:00	3.3	177
07-07-2015	7:00	0.0	226
07-07-2015	8:00	0.0	199
07-07-2015	9:00	0.0	220
07-07-2015	10:00	0.0	253
07-07-2015	11:00	0.0	246
07-07-2015	12:00	0.0	144
07-07-2015	13:00	0.0	205
07-07-2015	14:00	0.0	86
07-07-2015	15:00	0.2	220
07-07-2015	16:00	0.1	233
07-07-2015	17:00	0.1	322
07-07-2015	18:00	0.0	160
07-07-2015	19:00	0.3	122
07-07-2015	20:00	0.1	101
07-07-2015	21:00	0.0	112
07-07-2015	22:00	0.2	174
07-07-2015	23:00	0.0	103
08-07-2015	0:00	0.0	147
08-07-2015	1:00	0.1	283
08-07-2015	2:00	0.1	282
08-07-2015	3:00	0.0	253
08-07-2015	4:00	0.1	278
08-07-2015	5:00	0.1	271
08-07-2015	6:00	0.3	273
08-07-2015	7:00	0.3	277

Date	Time	Wind speed (m/s)	Wind direction (deg)
08-07-2015	8:00	0.1	150
08-07-2015	9:00	0.0	172
08-07-2015	10:00	0.2	241
08-07-2015	11:00	0.1	244
08-07-2015	12:00	0.0	208
13-07-2015	7:00	0.2	219
13-07-2015	8:00	0.0	134
13-07-2015	9:00	0.2	306
13-07-2015	10:00	0.0	155
13-07-2015	11:00	0.1	224
13-07-2015	12:00	0.0	254
13-07-2015	13:00	0.3	196
13-07-2015	14:00	1.2	210
13-07-2015	15:00	2.3	170
13-07-2015	16:00	4.7	163
13-07-2015	17:00	3.7	169
13-07-2015	18:00	3.6	156
13-07-2015	19:00	2.5	159
13-07-2015	20:00	2.8	163
13-07-2015	21:00	1.2	143
13-07-2015	22:00	1.9	149
13-07-2015	23:00	1.4	154
14-07-2015	0:00	0.2	142
14-07-2015	1:00	0.3	167
14-07-2015	2:00	1.3	167
14-07-2015	3:00	1.2	168
14-07-2015	4:00	0.4	190
14-07-2015	5:00	0.7	174
14-07-2015	6:00	0.3	179
14-07-2015	7:00	0.0	170
14-07-2015	8:00	0.0	39
14-07-2015	9:00	0.0	116
14-07-2015	10:00	0.1	203
14-07-2015	11:00	0.0	304
14-07-2015	12:00	0.0	261
16-07-2015	7:00	0.0	172
16-07-2015	8:00	0.1	131
16-07-2015	9:00	0.0	178
16-07-2015	10:00	0.1	230
16-07-2015	11:00	0.3	217
16-07-2015	12:00	1.1	193
16-07-2015	13:00	2.6	175
16-07-2015	14:00	3.0	168
16-07-2015	15:00	3.1	168
16-07-2015	16:00	1.2	146
16-07-2015	17:00	1.3	130
16-07-2015	18:00	0.3	142
16-07-2015	19:00	0.0	162
16-07-2015	20:00	0.2	168
16-07-2015	21:00	0.1	168
16-07-2015	22:00	0.2	177
16-07-2015	23:00	0.1	162
17-07-2015	0:00	0.2	171
17-07-2015	1:00	0.8	148
17-07-2015	2:00	0.6	110

Date	Time	Wind speed (m/s)	Wind direction (deg)
17-07-2015	3:00	1.4	121
17-07-2015	4:00	0.5	235
17-07-2015	5:00	0.4	197
17-07-2015	6:00	0.3	150
17-07-2015	7:00	0.1	152
17-07-2015	8:00	0.3	175
17-07-2015	9:00	0.2	79
17-07-2015	10:00	0.0	71
17-07-2015	11:00	0.1	63
17-07-2015	12:00	0.0	211
22-07-2015	7:00	0.0	151
22-07-2015	8:00	2.2	170
22-07-2015	9:00	1.7	178
22-07-2015	10:00	0.2	228
22-07-2015	11:00	0.1	121
22-07-2015	12:00	0.3	190
22-07-2015	13:00	1.0	201
22-07-2015	14:00	1.3	207
22-07-2015	15:00	2.0	202
22-07-2015	16:00	1.9	197
22-07-2015	17:00	1.7	193
22-07-2015	18:00	2.0	191
22-07-2015	19:00	1.1	195
22-07-2015	20:00	0.8	191
22-07-2015	21:00	0.8	196
22-07-2015	22:00	0.9	195
22-07-2015	23:00	1.3	169
23-07-2015	0:00	3.7	169
23-07-2015	1:00	4.3	167
23-07-2015	2:00	2.6	181
23-07-2015	3:00	1.3	174
23-07-2015	4:00	2.1	204
23-07-2015	5:00	2.0	189
23-07-2015	6:00	1.6	193
23-07-2015	7:00	1.7	181
23-07-2015	8:00	2.3	194
23-07-2015	9:00	1.9	180
23-07-2015	10:00	0.2	215
23-07-2015	11:00	1.3	194
23-07-2015	12:00	2.7	170
28-07-2015	7:00	0.5	128
28-07-2015	8:00	0.4	136
28-07-2015	9:00	2.2	166
28-07-2015	10:00	2.8	161
28-07-2015	11:00	1.2	155
28-07-2015	12:00	2.1	170
28-07-2015	13:00	1.8	176
28-07-2015	14:00	2.8	172
28-07-2015	15:00	3.3	199
28-07-2015	16:00	4.0	178
28-07-2015	17:00	2.4	173
28-07-2015	18:00	2.1	185
28-07-2015	19:00	0.9	148
28-07-2015	20:00	1.0	150
28-07-2015	21:00	1.0	167

Date	Time	Wind speed (m/s)	Wind direction (deg)
28-07-2015	22:00	1.3	161
28-07-2015	23:00	1.3	174
29-07-2015	0:00	0.6	171
29-07-2015	1:00	1.3	170
29-07-2015	2:00	0.9	164
29-07-2015	3:00	0.3	158
29-07-2015	4:00	0.4	159
29-07-2015	5:00	0.8	160
29-07-2015	6:00	1.4	162
29-07-2015	7:00	0.8	150
29-07-2015	8:00	0.8	157
29-07-2015	9:00	1.0	172
29-07-2015	10:00	1.1	140
29-07-2015	11:00	0.7	243
29-07-2015	12:00	3.5	170

### Appendix I

Impact Noise Monitoring Results and Graphical Presentation

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Lo	evel for 30-	min, dB(A)	Limit Level	Wind Speed	Noise Meter	Calibrator
Project	VVOIKS	Date (yyyy-min-dd)	Station	Weather Condition	Time (mi.min, 24nour)	Leq	L10	L90	dB(A)	(m/s)	Model/ID	Model/ID
TMCLKL	HY/2012/07	2015-07-02	NSR1A	Sunny	10:08	60	61	56	75	0.2	RION NL31 (S/N	RION NC73 (S/N
TWICERE	111/2012/07	2015-07-02	NONIA	Sullily	10.08	00	01	30	73	0.2	00603867)	10997142)
TMCLKL	HY/2012/07	2015-07-07	NSR1A	Sunny	8:57	61	63	57	75	0.2	RION NL31 (S/N	RION NC73 (S/N
TWICERE	111/2012/07	2013-07-07	NOINIA	Suring	8.37	01	03	31	73	0.2	00603867)	10997142)
TMCLKL	HY/2012/07	2015-07-13	NSR1A	Sunny	10:10	61	62	56	75	0.4	RION NL31 (S/N	RION NC73 (S/N
TWOLKE	111/2012/07	2013-07-13	NOINIA	Suring	10.10	01	02	30	73	0.4	00603867)	10997142)
TMCLKL	HY/2012/07	2015-07-16	NSR1A	Sunny	9:00	60	61	56	75	0.2	RION NL31 (S/N	RION NC73 (S/N
TWICERE	111/2012/07	2013-07-10	NOINIA	Suring	9.00	00	01	30	73	0.2	00603867)	10997142)
TMCLKL	HY/2012/07	2015-07-22	NSR1A	Cloudy	11:00	59	61	56	75	0.2	RION NL31 (S/N	RION NC73 (S/N
TWOLKE	111/2012/07	2013-07-22	NOINIA	Cloudy	11:00	39	01	30	73	0.2	00603867)	10997142)
TMCLKL	HY/2012/07	2015-07-28	NSR1A	Sunny	10:47	53	57	52	75	0.2	RION NL31 (S/N	RION NC73 (S/N
TIVICERE	111/2012/07	2013-07-20	INSINIA	Sullily	10.47	55	31	32	7.5	0.2	00603867)	10997142)
					Min.	53						

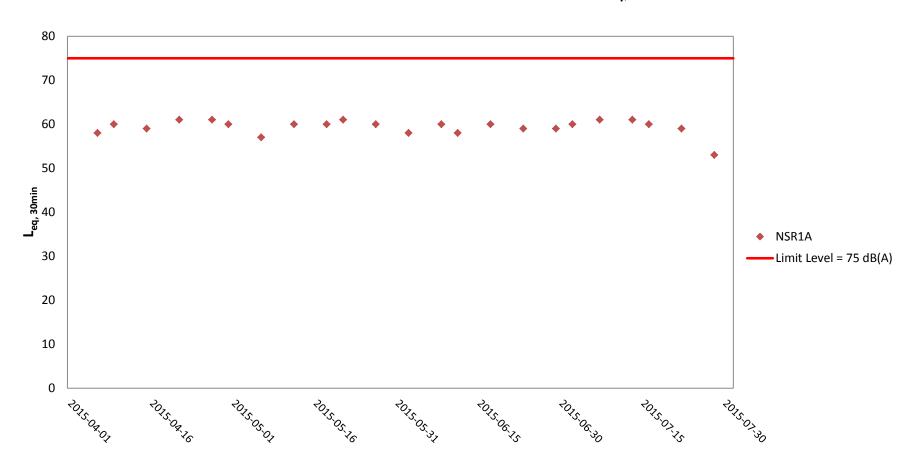
61

60

Max.

Average

## 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 Predrilling at Viaduct F; Construction and installation of pile caps; Pier construction; Pile cap stallation; 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 Viaducts A & B.

Marine works within the reporting period include 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.

## 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	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Surface	1	1	27.6	7.71	22.8	7.04	8.4	10.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Surface	1	2	27.5	7.74	22.9	6.99	8.45	12.7
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Middle	2	1	27.4	7.68	23.1	6.87	8.6	10.3
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Middle	2	2	27.5	7.65	23	6.89	8.66	12.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Bottom	3	1	27.6	7.7	23.3	6.64	8.71	13.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)5	18:34	Bottom	3	2	27.5	7.72	23.4	6.68	8.79	14.1
	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Surface	1	1	27.7	7.66	22.7	6.86	8.23	11.5
	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Surface	1	2	27.6	7.69	22.8	6.85	8.29	11.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Middle	2	1						
	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Middle	2	2						
	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Bottom	3	1	27.6	7.73	22.9	6.73	8.41	10.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	SR4a	19:09	Bottom	3	2	27.5	7.78	22.8	6.7	8.36	11.7
	HY/2012/07	02-07-2015	Mid-Flood	SR4	19:25	Surface	1	1	27.8	7.73	21.7	6.79	8.41	10.9
	HY/2012/07	02-07-2015	Mid-Flood	SR4	19:25	Surface	1	2	27.7	7.77	21.6	6.83	8.33	11.7
	HY/2012/07	02-07-2015				Middle	2	1						
	HY/2012/07	02-07-2015	Mid-Flood	SR4	19:25	Middle	2	2						
	HY/2012/07	02-07-2015	Mid-Flood	SR4	19:25	Bottom	3	1	27.7	7.78	21.8	6.7	8.44	12.7
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	SR4	19:25	Bottom	3	2	27.6	7.8	21.7	6.74	8.47	11
TMCLKL	HY/2012/07	02-07-2015			19:41	Surface	1	1	27.8	7.69	21.6	6.88	8.36	12.5
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	IS8	19:41	Surface	1	2	27.7	7.72	21.5	6.85	8.39	10.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	IS8	19:41	Middle	2	1						
	HY/2012/07	02-07-2015	Mid-Flood	IS8	19:41	Middle	2	2						
	HY/2012/07	02-07-2015			19:41	Bottom	3		27.7	7.76	21.7	6.72	8.44	11.8
	HY/2012/07	02-07-2015				Bottom	3	2		7.79	21.6	6.75	8.4	13.4
	HY/2012/07	02-07-2015		\ /		Surface	1	1	27.7	7.71	21.7	6.9	8.38	13.4
-	HY/2012/07	02-07-2015		·		Surface	1	2		7.75	21.8	6.87	8.43	11.8
	HY/2012/07	02-07-2015		\ /		Middle	2	1	27.6	7.69	21.9	6.74	8.47	10.2
	HY/2012/07	02-07-2015		. ,		Middle	2	2		7.71	21.8	6.79	8.44	12.7
	HY/2012/07	02-07-2015		\ /		Bottom	3		27.3	7.78		6.64		12.8
	HY/2012/07	02-07-2015				Bottom	3	2		7.82		6.67	8.61	10.3
	HY/2012/07			_ ` _		Surface	1	1	27.7	7.74				11.9
	HY/2012/07	02-07-2015		_ ` _		Surface	1	2	27.6	7.78	22.7	6.75	8.55	11.1
	HY/2012/07	02-07-2015		\ /		Middle	2	1						
	HY/2012/07	02-07-2015		· /		Middle	2	2						
_	HY/2012/07	02-07-2015				Bottom	3	1	27.6	7.8		6.61	8.46	11
	HY/2012/07	02-07-2015		· /		Bottom	3			7.83		6.64		11.8
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Surface	1	1	27.8	7.71	22.7	6.69	8.47	11.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Surface	1	2	27.7	7.76	22.8	6.72	8.41	10.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Middle	2	1	27.7	7.77	22.9	6.63	8.56	11.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Middle	2	2	27.6	7.79	23	6.6	8.59	12
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Bottom	3	1	27.6	7.86	23.2	6.48	8.71	13.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Flood	CS(Mf)3	20:43	Bottom	3	2	27.5	7.81	23.3	6.52	8.68	12.2
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Surface	1	1	28	7.75	22.5	6.62	9.21	12
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Surface	1	2	27.9	7.78	22.6	6.65	9.23	13.8
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Middle	2	1	27.7	7.73	22.8	6.53	9.75	15.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Middle	2	2	27.8	7.76	22.9	6.49	9.82	15.7
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Bottom	3	1	27.7	7.79	23.2	6.34	9.95	15.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)3	11:57	Bottom	3	2	27.6	7.81	23.1	6.37	9.91	15.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Surface	1	1	27.8	7.7	22.6	6.71	9.37	13.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Surface	1	2	27.7	7.73	22.7	6.66	9.5	12.4
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Middle	2	1						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Middle	2	2						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Bottom	3	1	27.7	7.67	23	6.48	9.73	13.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4a	14:07	Bottom	3	2	27.7	7.7	22.9	6.51	9.65	15.4
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Surface	1	1	27.9	7.6	22.6	6.56	8.96	11.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Surface	1	2	28	7.64	22.5	6.59	9.04	12.5
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Middle	2	1						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Middle	2	2						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Bottom	3	1	27.9	7.67	22.7	6.41	9.33	14
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	SR4	13:41	Bottom	3	2	27.8	7.7	22.8	6.38	9.42	13.2
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS8	13:15	Surface	1	1	28	7.69	22.4	6.63	8.66	13
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS8	13:15	Surface	1	2	27.9	7.65	22.5	6.61	8.78	12.3
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS8	13:15	Middle	2	1						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS8	13:15	Middle	2	2						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS8	13:15	Bottom	3	1	27.8	7.71	22.7	6.47	9	13.5
TMCLKL	HY/2012/07	02-07-2015		IS8	13:15	Bottom	3	2	27.8	7.74	22.6	6.43	9.08	13.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Surface	1	1	27.8	7.74	22.5	6.69	9.39	14.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Surface	1	2	27.7	7.76	22.6	6.66	9.31	13
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Middle	2	1	27.6	7.72	22.9	6.55	8.97	11.7
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Middle	2	2	27.7	7.84	22.8	6.53	8.83	11.5
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Bottom	3	1	27.6	7.78	23.1	6.42	9.12	13.7
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)16	12:49	Bottom	3	2	27.6	7.75	23.2	6.4	9.21	13.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Surface	1	1	27.9	7.8	22.6	6.55	9.16	11.9
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Surface	1	2	27.8	7.82	22.7	6.58	9.24	11.1

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Middle	2	1						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Middle	2	2						
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Bottom	3	1	27.8	7.78	22.9	6.44	9.66	15.5
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	IS(Mf)9	12:23	Bottom	3	2	27.7	7.8	23	6.46	9.73	16.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5	14:37	Surface	1	1	27.8	7.6	22.8	6.79	9.22	12
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5	14:37	Surface	1	2	27.8	7.61	22.9	6.77	9.29	11.1
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5	14:37	Middle	2	1	27.7	7.57	23.1	6.58	9.69	12.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5	14:37	Middle	2	2	27.6	7.59	23.2	6.6	9.57	13.3
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5	14:37	Bottom	3	1	27.5	7.6	23.3	6.23	9.71	12.6
TMCLKL	HY/2012/07	02-07-2015	Mid-Ebb	CS(Mf)5		Bottom	3	2	27.4	7.64	23.2	6.26	9.88	13.8
TMCLKL	HY/2012/07	04-07-2015		\ /	7:30	Surface	1	1	27.9	7.54	22.9	6.7	9.28	13
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)5	7:30	Surface	1	2	27.8	7.55	23	6.68	9.35	12.2
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)5	7:30	Middle	2	1	27.8	7.51	23.2	6.49	9.75	15.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)5	7:30	Middle	2	2	27.7	7.53	23.3	6.51	9.63	14.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)5	7:30	Bottom	3	1	27.6	7.54	23.4	6.14	9.77	11.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)5	7:30	Bottom	3	2	27.6	7.58	23.3	6.17	9.84	11.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Surface	1	1	27.9	7.64	22.7	6.62	9.43	14.1
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Surface	1	2	27.8	7.67	22.8	6.57	9.56	14.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Bottom	3	1	27.8	7.61	23	6.39	9.79	14.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4a	7:48	Bottom	3	2	27.8	7.64	23.1	6.42	9.71	13.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Surface	1	1	28.1	7.54	22.6	6.47	8.87	11.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Surface	1	2	28.1	7.58	22.7	6.5	8.95	12.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Bottom	3	1	28	7.61	22.8	6.32	9.24	13.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	SR4	8:06	Bottom	3	2	27.9	7.64	22.9	6.29	9.33	14
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Surface	1	1	28.1	7.63	22.5	6.54	8.72	13.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Surface	1	2	28	7.59	22.6	6.52	8.84	11.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Bottom	3	1	27.8	7.65	22.8	6.38	9.06	10.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS8	8:24	Bottom	3	2	27.9	7.68	22.7	6.34	9.14	13.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Surface	1	1	27.9	7.68	22.7	6.6	9.45	12.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Surface	1	2	27.8	7.7	22.6	6.57	9.37	12.2
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Middle	2	1	27.7	7.66	22.9	6.46	9.03	11.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Middle	2	2	27.8	7.68	23	6.44	8.89	13.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Bottom	3	1	27.7	7.72	23.2	6.33	9.18	11
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)16	8:42	Bottom	3	2	27.6	7.69	23.3	6.31	9.27	14
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Surface	1	1	28	7.74	22.7	6.46	9.22	12.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Surface	1	2	27.9	7.76	22.8	6.49	9.3	11.2
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Bottom	3	1	27.9	7.72	23	6.35	9.72	14.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	IS(Mf)9	9:00	Bottom	3	2	27.8	7.74	23.1	6.37	9.79	13.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Surface	1	1	28.1	7.69	22.6	6.53	9.27	12.1
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Surface	1	2	28	7.72	22.7	6.56	9.29	14.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Middle	2	1	27.9	7.67	22.9	6.44	9.81	11.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Middle	2	2	27.8	7.7	23	6.4	9.88	12.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Bottom	3	1	27.8	7.73	23.1	6.25	10.1	13.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Flood	CS(Mf)3	9:19	Bottom	3	2	27.7	7.75	23	6.28	9.97	11.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Surface	1	1	28.2	7.64	22.8	6.78	9.34	14.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Surface	1	2	28.2	7.67	22.7	6.75	9.26	13
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Middle	2	1	28	7.7	22.9	6.63	9.74	14.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Middle	2	2	28	7.71	23	6.61	9.68	13.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Bottom	3	1	27.9	7.72	23.2	6.38	10.5	13.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)3	12:50	Bottom	3	2	27.8	7.75	23.2	6.34	11.2	14.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Surface	1	1	28.1	7.68	22.8	6.5	9.27	14
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Surface	1	2	28.2	7.69	22.9	6.53	9.18	12.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Bottom	3	1	28	7.64	23.1	6.34	9.63	12.5
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4a	14:35	Bottom	3	2	28	7.66	23.1	6.3	9.55	14.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Surface	1	1	28.2	7.6	22.7	6.56	8.97	12.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Surface	1	2	28.2	7.63	22.8	6.58	9.05	11.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Bottom	3	1	28.1	7.64	22.9	6.43	9.4	11.3
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	SR4	14:16	Bottom	3	2	28	7.62	23	6.41	9.49	13.3
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS8	13:58	Surface	1	1	28.2	7.62	22.7	6.63	9.07	13.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS8	13:58	Surface	1	2	28.1	7.64	22.7	6.61	9.13	11.8
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS8	13:58	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS8	13:58	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	04-07-2015	Mid-Ebb	IS8	13:58	Bottom	3	1	28.1	7.67	22.9	6.5	9.34	13
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS8	13:58	Bottom	3	2	28	7.69	22.8	6.47	9.42	14.1
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16		Surface	1	1	28.2	7.64	22.7	6.7	9.56	15.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16	13:35	Surface	1	2	28.2	7.66	22.8	6.68	9.5	12.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16	13:35	Middle	2	1	28.1	7.67	23	6.56	9.29	13
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16	13:35	Middle	2	2	28.1	7.69	23	6.54	9.34	14.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16	13:35	Bottom	3	1	27.9	7.7	23.2	6.42	9.63	12.5
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)16	13:35	Bottom	3	2	27.9	7.72	23.2	6.4	9.56	13.4
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)9	13:15	Surface	1	1	28.2	7.78	22.7	6.67	9.4	12.2
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)9	13:15	Surface	1	2	28.1	7.76	22.7	6.64	9.33	14
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)9	13:15	Middle	2	1						
TMCLKL	HY/2012/07	04-07-2015		IS(Mf)9	13:15	Middle	2	2						
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	1	28	7.71	22.9	6.49	9.86	12.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	2	28	7.73	23	6.45	9.8	13.7
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Surface	1	1	28.2	7.74	23	6.64	9.07	14.6
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Surface	1	2	28.3	7.7	23.1	6.61	9.15	12.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Middle	2	1	28.1	7.64	23.3	6.48	9.44	13.2
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Middle	2	2	28.2	7.68	23.3	6.46	9.52	14.3
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Bottom	3	1	27.9	7.63	23.5	6.24	9.96	14.9
TMCLKL	HY/2012/07	04-07-2015	Mid-Ebb	CS(Mf)5	15:02	Bottom	3	2	27.8	7.65	23.6	6.21	10.4	12.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Surface	1	1	28	7.48	23	6.61	8.34	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Surface	1	2	27.9	7.49	23.1	6.59	8.41	11.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Middle	2	1	27.9	7.45	23.4	6.4	8.81	12.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Middle	2	2	27.8	7.47	23.3	6.42	8.69	11.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Bottom	3	1	27.7	7.48	23.4	6.05	8.83	12.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)5	10:00	Bottom	3	2	27.6	7.52	23.5	6.08	8.9	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Surface	1	1	27.9	7.58	22.8	6.68	8.34	13.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Surface	1	2	28	7.61	22.9	6.63	8.47	11.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Bottom	3	1	27.9	7.55	23.1	6.45	8.7	13.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4a	10:18	Bottom	3	2	27.8	7.58	23.2	6.48	8.62	13.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4	10:36	Surface	1	1	28.2	7.48	22.7	6.53	7.78	12.5
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4	10:36	Surface	1	2	28.1	7.52	22.8	6.56	7.86	11.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4	10:36	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015			10:36	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	SR4	10:36	Bottom	3	1	28.1	7.55	23	6.38	8.15	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	07-07-2015	Mid-Flood	SR4	10:36	Bottom	3	2	28	7.58	22.9	6.35	8.24	9.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Surface	1	1	28.2	7.57	22.6	6.6	7.63	9.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Surface	1	2	28.1	7.53	22.7	6.58	7.75	9.4
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Bottom	3	1	28	7.59	22.9	6.44	8.97	11.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS8	10:54	Bottom	3	2	27.9	7.62	22.8	6.4	9.05	11.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)16	11:12	Surface	1	1	28	7.62	22.7	6.54	8.36	10.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)16	11:12	Surface	1	2	27.9	7.64	22.8	6.51	8.28	13.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)16	11:12	Middle	2	1	27.9	7.6	23	6.4	8.94	13.4
TMCLKL	HY/2012/07	07-07-2015		\ /	11:12	Middle	2	2	27.8	7.72	23.1	6.38	8.8	13.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)16	11:12	Bottom	3	1	27.8	7.66	23.4	6.27	8.09	9.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)16	11:12	Bottom	3	2	27.7	7.63	23.3	6.25	8.18	11.5
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Surface	1	1	28.1	7.68	22.8	6.37	8.28	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Surface	1	2	28	7.7	22.9	6.4	8.36	10.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Bottom	3	1	27.9	7.66	23.1	6.26	8.78	13.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	IS(Mf)9	11:36	Bottom	3	2	28	7.68	23.2	6.28	8.85	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Surface	1	1	28.2	7.63	22.7	6.44	8.33	10
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Surface	1	2	28.1	7.66	22.8	6.47	8.35	10.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Middle	2	1	27.9	7.61	23.1	6.35	8.87	10.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Middle	2	2	28	7.64	23	6.31	8.94	10.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Bottom	3	1	27.9	7.67	23.1	6.16	9.92	12.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Flood	CS(Mf)3	11:54	Bottom	3	2	27.8	7.69	23.2	6.19	9.88	14.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)3	15:08	Surface	1	1	28.1	7.59	22.9	6.39	8.66	11.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)3	15:08	Surface	1	2	28	7.63	22.8	6.31	8.71	13.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)3	15:08	Middle	2	1	28	7.68	23.1	6.27	9.34	11.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)3	15:08	Middle	2	2	27.9	7.72	23.2	6.22	9.39	13.2
TMCLKL	HY/2012/07	07-07-2015		CS(Mf)3	15:08	Bottom	3	1	27.6	7.75	23.4	6.11	9.42	13.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)3	15:08	Bottom	3	2	27.7	7.79	23.5	6.08	9.51	12.4
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Surface	1	1	28.1	7.44	23	6.47	8.67	12.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Surface	1	2	28	7.42	22.9	6.45	8.6	11.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Bottom	3	1	27.9	7.51	23.2	6.32	8.81	13.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4a	16:44	Bottom	3	2	28	7.54	23.3	6.29	8.85	11.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Surface	1	1	28.1	7.52	22.6	6.41	7.86	11.1
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Surface	1	2	28	7.57	22.7	6.39	7.91	11.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Bottom	3	1	28	7.58	22.8	6.32	8.23	12.3
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	SR4	16:25	Bottom	3	2	28	7.61	22.9	6.28	8.36	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Surface	1	1	28.2	7.66	22.8	6.47	7.89	10.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Surface	1	2	28.1	7.63	22.7	6.44	7.74	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Bottom	3	1	28.1	7.54	22.9	6.33	9.14	13.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS8	16:10	Bottom	3	2	28	7.59	23	6.35	9.11	11.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Surface	1	1	27.9	7.63	22.9	6.39	8.52	10.2
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Surface	1	2	28	7.66	23	6.44	8.56	13.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Middle	2	1	28.1	7.69	23.1	6.31	9.02	12.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Middle	2	2	28	7.71	23	6.25	8.96	10.8
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Bottom	3	1	27.5	7.74	23.5	6.11	9.13	13.7
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)16	15:50	Bottom	3	2	27.6	7.79	23.6	6.18	9.21	12
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Surface	1	1	28.2	7.71	22.9	6.21	8.32	12.5
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Surface	1	2	28.1	7.75	23	6.18	8.37	11.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Middle	2	1						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Middle	2	2						
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Bottom	3	1	28.1	7.76	23.1	6.11	8.89	12.5
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	IS(Mf)9	15:34	Bottom	3	2	28	7.79	23.2	6.14	9.02	14.4
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Surface	1	1	28.1	7.51	23.2	6.54	8.67	13.9
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Surface	1	2	28	7.55	23.1	6.5	8.72	10.4
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Middle	2	1	27.7	7.56	23.3	6.37	8.92	12.5
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Middle	2	2	27.6	7.59	23.2	6.34	8.99	11
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	1	27.5	7.6	23.5	6.03	9.03	12.6
TMCLKL	HY/2012/07	07-07-2015	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	2	27.4	7.63	23.6	6.06	9.07	13.5
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	1	28.3	7.57	23.2	6.78	8.21	12.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	2	28.3	7.6	23.3	6.75	8.28	10
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	1	28.1	7.57	23.5	6.59	8.56	13.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	2	28.1	7.54	23.6	6.61	8.62	12.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	1	28	7.58	23.7	6.36	8.7	11.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	2	27.9	7.6	23.8	6.33	8.8	13.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4a	14:32	Surface	1	1	28.2	7.48	23	6.67	8.36	10.1

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	11-07-2015	Mid-Flood	SR4a	14:32	Surface	1	2	28.3	7.52	23.1	6.7	8.27	11.6
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4a	14:32	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4a	14:32	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4a	14:32	Bottom	3	1	28.1	7.5	23.3	6.53	8.47	11.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4a	14:32	Bottom	3	2	28.1	7.53	23.4	6.49	8.54	11.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Surface	1	1	28.4	7.44	22.9	6.62	7.74	10
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Surface	1	2	28.3	7.47	23	6.59	7.67	10
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Bottom	3	1	28.2	7.48	23.2	6.33	8.07	11.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	SR4	14:47	Bottom	3	2	28.2	7.5	23.3	6.36	8.15	9.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Surface	1	1	28.4	7.49	22.9	6.67	7.4	9.6
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Surface	1	2	28.4	7.51	23	6.64	7.49	11.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Bottom	3	1	28.3	7.56	23.1	6.5	7.88	9.5
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS8	15:03	Bottom	3	2	28.2	7.57	23.2	6.47	7.96	11.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Surface	1	1	28.2	7.56	23	6.57	8.21	9.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Surface	1	2	28.3	7.5	22.9	6.61	8.14	11.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Middle	2	1	28.1	7.54	23.2	6.43	8.67	10.4
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Middle	2	2	28.1	7.57	23.3	6.41	8.73	12.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Bottom	3	1	27.9	7.58	23.5	6.27	8.38	10.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)16	15:21	Bottom	3	2	28	7.6	23.6	6.24	8.3	10.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Surface	1	1	28.3	7.63	23.1	6.58	8.07	12.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Surface	1	2	28.2	7.6	23	6.6	8.16	13.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Bottom	3	1	28.1	7.58	23.3	6.34	8.63	12
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	IS(Mf)9	15:43	Bottom	3	2	28.1	7.6	23.4	6.31	8.71	10.4
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Surface	1	1	28.3	7.57	23	6.56	8.24	10.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Surface	1	2	28.4	7.59	23.1	6.59	8.19	12.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Middle	2	1	28.2	7.56	23.2	6.4	8.78	13.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Middle	2	2	28.2	7.54	23.3	6.37	8.86	11.6
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Bottom	3	1	28	7.57	23.5	6.21	9.67	11.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Flood	CS(Mf)3	16:03	Bottom	3	2	28	7.59	23.5	6.19	9.75	12.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Surface	1	1	28.3	7.54	22.8	6.35	8.39	13.4
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Surface	1	2	28.2	7.57	22.9	6.38	8.41	10.9

Project	Works	Date (yyyy-mm-dd)		Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Middle	2	1	28	7.52	23.2	6.26	8.93	13.4
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Middle	2	2	27.9	7.55	23.1	6.22	9	13.5
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Bottom	3	1	28	7.58	23.2	6.07	9.98	14.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)3	8:41	Bottom	3	2	28	7.6	23.3	6.1	9.94	12.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Surface	1	1	28	7.49	22.9	6.59	8.4	10.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Surface	1	2	28.1	7.52	23	6.54	8.53	11.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Bottom	3	1	28	7.46	23.2	6.36	8.76	14.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4a	10:31	Bottom	3	2	27.9	7.49	23.3	6.39	8.68	12.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Surface	1	1	28.3	7.39	22.8	6.44	7.84	10.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Surface	1	2	28.2	7.43	22.9	6.47	7.92	10.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Bottom	3	1	28.1	7.46	23	6.29	8.21	12.3
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	SR4	10:09	Bottom	3	2	28.2	7.49	23.1	6.26	8.3	10
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Surface	1	1	28.3	7.48	22.7	6.51	7.69	9.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Surface	1	2	28.3	7.44	22.8	6.49	7.81	10.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Bottom	3	1	28.1	7.5	22.9	6.35	9.03	10.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS8	9:47	Bottom	3	2	28	7.53	22.8	6.31	9.11	13.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Surface	1	1	28.1	7.53	22.9	6.47	8.42	11.8
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Surface	1	2	28	7.55	22.8	6.42	8.34	10
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Middle	2	1	28	7.51	23.2	6.31	9	11.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Middle	2	2	28	7.63	23.1	6.29	8.86	12.5
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Bottom	3	1	27.8	7.57	23.4	6.18	8.15	10.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)16	9:25	Bottom	3	2	27.9	7.54	23.5	6.16	8.24	10.7
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Surface	1	1	28.2	7.59	22.9	6.28	8.34	11.6
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Surface	1	2	28.1	7.61	23	6.31	8.42	10.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Middle	2	1						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Middle	2	2						
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Bottom	3	1	28.1	7.57	23.3	6.17	8.84	14.1
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	IS(Mf)9	9:03	Bottom	3	2	28	7.59	23.2	6.19	8.91	14.2
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)5	10:55	Surface	1	1	28.1	7.39	23.1	6.52		10.1
TMCLKL	HY/2012/07			CS(Mf)5	10:55	Surface	1	2	28	7.4		6.5	8.47	11.9
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)5	10:55	Middle	2	1	28	7.36	23.5	6.31	8.87	13.4

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	11-07-2015	Mid-Ebb	CS(Mf)5	10:55	Middle	2	2	27.9	7.38	23.4	6.33	8.75	11.4
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)5	10:55	Bottom	3	1	27.8	7.39	23.5	5.96	8.89	12.5
TMCLKL	HY/2012/07	11-07-2015	Mid-Ebb	CS(Mf)5	10:55	Bottom	3	2	27.7	7.43	23.6	5.99	8.96	10.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)5	17:15	Surface	1	1	28.1	7.64	22.5	6.64	9	14.4
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)5	17:15	Surface	1	2	28.3	7.67	22.5	6.67	8.96	11.6
	HY/2012/07	14-07-2015		` /		Middle	2	1	28	7.65	23.1	6.6	9.53	14.3
	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)5		Middle	2	2		7.68	23	6.56	9.61	13.5
	HY/2012/07	14-07-2015		\ /		Bottom	3	1	27.7	7.74	23.4	6.37	9.68	13.6
	HY/2012/07	14-07-2015		\ /	17:15	Bottom	3	2		7.72	23	6.42	9.74	14.6
TMCLKL	HY/2012/07	14-07-2015			17:44	Surface	1	1	28	7.6	22.6	6.5	9.31	13
	HY/2012/07	14-07-2015				Surface	1	2	28.3	7.58	22.5	6.56	9.27	13
	HY/2012/07	14-07-2015			17:44	Middle	2	1						
	HY/2012/07	14-07-2015				Middle	2	2						
	HY/2012/07	14-07-2015			17:44	Bottom	3	1	28	7.64	22.6	6.38	9.44	14.2
	HY/2012/07	14-07-2015			17:44	Bottom	3	2		7.65	22.8	6.43	9.4	14.1
	HY/2012/07	14-07-2015	Mid-Flood	SR4	18:04	Surface	1	1	28.1	7.1	27.6	6.52	9.21	12.9
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	SR4	18:04	Surface	1	2	28	7.14	27.3	6.55	9.17	11
	HY/2012/07	14-07-2015	Mid-Flood	SR4	18:04	Middle	2	1						
	HY/2012/07	14-07-2015			18:04	Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	SR4	18:04	Bottom	3	1	28.1	7.1	22.6	6.36	9.83	12.8
	HY/2012/07	14-07-2015	Mid-Flood	SR4	18:04	Bottom	3	2	28.1	7.06	22	6.42	9.9	14.9
	HY/2012/07	14-07-2015				Surface	1	1	29	7.62	22.5	6.61	9.41	12.2
	HY/2012/07	14-07-2015				Surface	1	2	29.1	7.59	22.2	6.64	9.36	12.2
	HY/2012/07	14-07-2015				Middle	2	1						
	HY/2012/07	14-07-2015				Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015				Bottom	3	1	28.9	7.6	22.5	6.54	9.87	13.8
TMCLKL	HY/2012/07	14-07-2015				Bottom	3	2	28.6	7.64	22	6.55		11.9
	HY/2012/07	14-07-2015		\ /		Surface	1	1	28.3	7.6	22.6	6.74	9.21	13.8
	HY/2012/07	14-07-2015		\ /		Surface	1	2	=0	7.58	22	6.77	9.26	11.1
	HY/2012/07	14-07-2015				Middle	2	1	28.2	7.61	22.3	6.62		12.3
	HY/2012/07			_ `		Middle	2	2		7.64	22	6.6		12.2
	HY/2012/07	14-07-2015		_ `		Bottom	3	1	28	7.61	22.8	6.47	9.61	13.5
	HY/2012/07	14-07-2015				Bottom	3	2	28	7.62	23	6.44	9.66	15.5
	HY/2012/07	14-07-2015		_ `		Surface	1	1	28.7	7.66		6.66		13.6
	HY/2012/07	14-07-2015		_ `		Surface	1	2	28.6	7.72	23.2	6.72	9.09	14.5
	HY/2012/07	14-07-2015		· /		Middle	2	1						
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	IS(Mf)9	18:57	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	14-07-2015	Mid-Flood	IS(Mf)9	18:57	Bottom	3	1	28.5	7.72	23	6.52	9.21	12
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	IS(Mf)9	18:57	Bottom	3	2	28.4	7.7	23.1	6.5	9.27	13.9
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Surface	1	1	28.7	7.64	22.2	6.66	9.41	15.1
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Surface	1	2	28.6	7.6	22.5	6.64	9.44	12.3
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Middle	2	1	28.4	7.61	22.6	6.5	9.83	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Middle	2	2	28.5	7.66	22.3	6.51	9.81	12.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Bottom	3	1	28.5	7.71	23	6.41	10	12
TMCLKL	HY/2012/07	14-07-2015	Mid-Flood	CS(Mf)3	19:16	Bottom	3	2	28.2	7.68	22.7	6.37	9.88	14.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)3	11:12	Surface	1	1	28.2	7.68	22.8	6.61	9.4	15
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)3	11:12	Surface	1	2	28.1	7.63	22.7	6.64	9.37	14.1
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)3	11:12	Middle	2	1	27.9	7.7	22.9	6.47	9.83	12.8
TMCLKL	HY/2012/07	14-07-2015		CS(Mf)3	11:12	Middle	2	2	28	7.74	23	6.43	9.88	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)3	11:12	Bottom	3	1	27.6	7.81	23.3	6.27	10.4	12.5
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)3	11:12	Bottom	3	2	27.7	7.85	23.4	6.22	10.9	15.3
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Surface	1	1	28.2	7.62	22.7	6.42	9.31	14
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Surface	1	2	28.2	7.66	22.8	6.45	9.25	13.9
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Middle	2	1						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Bottom	3	1	28.1	7.69	22.9	6.31	9.47	13.3
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4a	13:06	Bottom	3	2	28.1	7.74	22.8	6.34	9.56	14.3
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Surface	1	1	28.1	7.65	27.8	6.45	9.26	12
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Surface	1	2	28.2	7.68	27.7	6.42	9.2	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Middle	2	1						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Bottom	3	1	28	7.73	22.9	6.3	9.82	12.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	SR4	12:49	Bottom	3	2	28.1	7.79	22.9	6.33	9.87	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS8	12:32	Surface	1	1	28.2	7.59	22.6	6.57	9.32	14.9
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS8	12:32	Surface	1	2	28.3	7.62	22.7	6.53	9.38	14.1
TMCLKL	HY/2012/07	14-07-2015		IS8	12:32	Middle	2	1						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS8	12:32	Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS8	12:32	Bottom	3	1	28.1	7.65	22.8	6.48	10.1	14.1
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS8	12:32	Bottom	3	2	28	7.68	22.7	6.45	9.84	15.7
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Surface	1	1	28.2	7.61	22.8	6.68	9.26	13
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Surface	1	2	28.1	7.66	22.7	6.63	9.34	12.1
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Middle	2	1	28.1	7.69	22.9	6.51	9.47	14.2
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Middle	2	2	28	7.65	22.8	6.54	9.52	15.2
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Bottom	3	1	27.8	7.68	23.1	6.37	9.66	14.7

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	14-07-2015	Mid-Ebb	IS(Mf)16	12:00	Bottom	3	2	27.7	7.73	23.2	6.4	9.6	14.4
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Surface	1	1	28.2	7.71	23	6.51	9.18	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Surface	1	2	28.3	7.66	22.9	6.55	9.11	12.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Middle	2	1						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Middle	2	2						
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Bottom	3	1	28.2	7.74	23.1	6.42	9.36	13.1
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	IS(Mf)9	11:41	Bottom	3	2	28.1	7.78	23	6.44	9.42	12.2
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Surface	1	1	28.1	7.7	22.8	6.59	9.01	14.4
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Surface	1	2	28	7.73	22.9	6.63	8.89	12.4
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Middle	2	1	28	7.68	23.2	6.51	9.67	15.5
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Middle	2	2	27.9	7.71	23.1	6.47	9.54	12.4
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Bottom	3	1	27.8	7.78	23.5	6.34	9.87	13.8
TMCLKL	HY/2012/07	14-07-2015	Mid-Ebb	CS(Mf)5	13:27	Bottom	3	2	27.7	7.83	23.4	6.36	9.94	11.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Surface	1	1	28.3	7.55	22.5	6.7	8.91	10.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Surface	1	2	28.2	7.58	22.6	6.73	8.87	11.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Middle	2	1	27.9	7.56	23.2	6.66	9.44	15.1
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Middle	2	2	28	7.59	23.1	6.62	9.52	14.3
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Bottom	3	1	27.9	7.65	23.2	6.43	9.59	12.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)5	18:33	Bottom	3	2	27.8	7.63	23.3	6.48	9.65	12.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Surface	1	1	28.3	7.51	22.6	6.56	9.22	14.8
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Surface	1	2	28.2	7.49	22.7	6.62	9.18	14.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Bottom	3	1	28	7.55	22.8	6.44	9.35	12.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4a	18:53	Bottom	3	2	28.1	7.56	22.7	6.49	9.31	14.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Surface	1	1	28.2	7.01	22.4	6.58	9.12	13.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Surface	1	2	28.1	7.05	22.5	6.61	9.08	13.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Bottom	3	1	28.2	7.01	22.6	6.42	9.74	12.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	SR4	19:13	Bottom	3	2	28.1	6.97	22.7	6.48	9.87	12.8
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Surface	1	1	28.4	7.53	22.5	6.67	9.32	13
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Surface	1	2	28.3	7.5	22.4	6.7	9.27	13.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Bottom	3	1	28.3	7.51	22.7	6.6	9.78	14.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS8	19:33	Bottom	3	2	28.2	7.55	22.8	6.61	9.85	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	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Surface	1	1	28.5	7.51	22.3	6.8	9.12	14.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Surface	1	2	28.4	7.49	22.4	6.83	9.17	11.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Middle	2	1	28.3	7.52	22.5	6.68	9.35	15
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Middle	2	2	28.4	7.55	22.4	6.66	9.31	13
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Bottom	3	1	28.1	7.52	22.9	6.53	9.52	12.4
	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)16	19:53	Bottom	3	2	28	7.53		6.5	9.57	13.4
	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Surface	1	1	28.6	7.57	23	6.72	8.98	11.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Surface	1	2	28.6	7.63	23.1	6.78	9	13.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Bottom	3	1	28.3	7.63	23	6.58	9.12	12.8
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	IS(Mf)9	20:13	Bottom	3	2	28.2	7.61	22.9	6.56	9.18	11.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)3	20:33	Surface	1	1	28.6	7.55	22.2	6.72	9.32	14
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)3	20:33	Surface	1	2	28.5	7.51	22.3	6.7	9.35	11.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)3	20:33	Middle	2	1	28.4	7.52	22.4	6.56	9.74	15.6
	HY/2012/07	16-07-2015		\ /	20:33	Middle	2	2	28.3	7.57	22.3	6.57	9.72	15.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)3	20:33	Bottom	3	1	28.2	7.62	22.6	6.47	9.91	14.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Flood	CS(Mf)3	20:33	Bottom	3	2	28.1	7.59	22.7	6.43	9.79	14.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Surface	1	1	28.7	7.56	22.5	6.62	9.44	11.3
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Surface	1	2	28.6	7.6	22.6	6.64	9.37	12.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Middle	2	1	28.6	7.64	23	6.6	9.59	13.4
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Middle	2	2	28.5	7.68	22.9	6.57	9.62	11.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	1	28.4	7.71	23.4	6.38	10.4	15.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	2	28.3	7.67	23.3	6.35	10.8	16.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4a	14:17	Surface	1	1	28.6	7.56	22.6	6.43	9.34	11.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4a	14:17	Surface	1	2	28.5	7.59	22.7	6.46	9.29	13.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4a	14:17	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015		SR4a		Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4a	14:17	Bottom	3	1	28.5	7.62	22.8	6.41	9.4	15
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4a	14:17	Bottom	3	2	28.4	7.65	22.7	6.37	9.46	14.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4	13:59	Surface	1	1	28.5	7.11	22.6	6.41	9.36	13.1
	HY/2012/07	16-07-2015		SR4	13:59	Surface	1	2	28.4	7.12	22.7	6.38	9.41	12.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4	13:59	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4	13:59	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4	13:59	Bottom	3	1	28.3	7.16	22.5	6.36	9.86	14.8
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	SR4	13:59	Bottom	3	2	28.2	7.18	22.6	6.34	9.91	13.9
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS8	13:42	Surface	1	1	28.6	7.21	22.6	6.52	9.44	11.3

Project		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	16-07-2015		IS8	13:42	Surface	1	2	28.5	7.26	22.5	6.56	9.48	14.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS8	13:42	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS8	13:42	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS8	13:42	Bottom	3	1	28.5	7.16	22.6	6.5	9.69	13.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS8	13:42	Bottom	3	2	28.4	7.1	22.6	6.47	9.74	13.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Surface	1	1	28.5	7.61	22.4	6.71	9.28	13
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Surface	1	2	28.6	7.66	22.5	6.68	9.36	14
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Middle	2	1	28.4	7.6	22.6	6.58	9.43	12.3
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Middle	2	2	28.4	7.56	22.6	6.55	9.48	14.2
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Bottom	3	1	28.3	7.69	22.8	6.42	9.67	13.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)16	13:21	Bottom	3	2	28.2	7.73	22.9	6.4	9.73	13.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Surface	1	1	28.7	7.59	23.2	6.58	8.99	14.4
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Surface	1	2	28.6	7.64	23.1	6.63	9.08	13.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Middle	2	1						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Middle	2	2						
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Bottom	3	1	28.5	7.68	23.2	6.53	9.16	14.7
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	IS(Mf)9	13:02	Bottom	3	2	28.4	7.71	23.3	6.55	9.21	12
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Surface	1	1	28.7	7.59	22.7	6.58	8.99	12.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Surface	1	2	28.6	7.62	22.8	6.64	8.92	14.3
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Middle	2	1	28.4	7.64	23.3	6.53	9.56	14.3
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Middle	2	2	28.5	7.68	23.2	6.56	9.59	12.5
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Bottom	3	1	28.2	7.68	23.4	6.48	9.68	12.6
TMCLKL	HY/2012/07	16-07-2015	Mid-Ebb	CS(Mf)5	14:42	Bottom	3	2	28.1	7.73	23.4	6.46	9.74	13.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Surface	1	1	28	7.73	23	6.64	8.21	10.7
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Surface	1	2	27.9	7.75	23.1	6.66	8.23	12.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Middle	2	1	27.8	7.66	23.2	6.5	9.43	14.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Middle	2	2	27.7	7.68	23.3	6.52	9.45	13.2
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Bottom	3	1	27.6	7.82	23.4	6.37	9.66	11.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)5	7:15	Bottom	3	2	27.5	7.8	23.4	6.35	9.64	12.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Surface	1	1	27.9	7.63	23.1	6.71	8.35	12.5
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Surface	1	2	27.8	7.65	23.2	6.69	8.37	13.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Bottom	3	1	27.7	7.77	23.3	6.52	9.24	13.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4a	7:30	Bottom	3	2	27.6	7.79	23.4	6.54	9.26	11.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4	7:45	Surface	1	1	28	7.66	23.1	6.49	8.24	12.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4	7:45	Surface	1	2	27.9	7.64	23.2	6.47	8.26	12.4

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	18-07-2015	Mid-Flood	SR4	7:45	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4	7:45	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4	7:45	Bottom	3	1	27.7	7.73	23.3	6.33	8.47	11
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	SR4	7:45	Bottom	3	2	27.6	7.75	23.4	6.35	8.49	11.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Surface	1	1	27.9	7.72	23	6.66	8.04	9.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Surface	1	2	27.8	7.7	23.1	6.68	8.06	12.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Bottom	3	1	27.7	7.65	23.2	6.41	8.29	11.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS8	8:00	Bottom	3	2	27.7	7.63	23.3	6.43	8.31	10
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)16	8:25	Surface	1	1	28.1	7.63	23.1	6.7	7.94	12.7
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)16	8:25	Surface	1	2	28	7.65	23.2	6.72	7.96	11.9
TMCLKL	HY/2012/07	18-07-2015		\ /	8:25	Middle	2	1	27.9	7.81	23.3	6.6	8.11	11.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)16	8:25	Middle	2	2	27.8	7.83	23.3	6.58	8.13	12.2
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)16	8:25	Bottom	3	1	27.7	7.7	23.4	6.51	8.43	11.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)16	8:25	Bottom	3	2	27.6	7.72	23.4	6.53	8.45	11.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Surface	1	1	28.1	7.75	23.1	6.67	8.13	9.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Surface	1	2	28.2	7.77	23.2	6.65	8.15	10.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Bottom	3	1	28	7.8	23.3	6.43	8.26	12.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	IS(Mf)9	8:50	Bottom	3	2	27.9	7.82	23.4	6.45	8.28	13.2
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3	9:10	Surface	1	1	28	7.81	23	6.59	8.24	12.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3	9:10	Surface	1	2	27.9	7.83	22.9	6.61	8.26	13.2
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3	9:10	Middle	2	1	27.7	7.64	23.1	6.48	8.37	10.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3	9:10	Middle	2	2	27.6	7.66	23.2	6.46	8.39	10.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3		Bottom	3	1	27.5	7.72	23.4	6.37	8.47	11.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Flood	CS(Mf)3	9:10	Bottom	3	2	27.6	7.74	23.3			11
TMCLKL	HY/2012/07	18-07-2015		CS(Mf)3	12:48	Surface	1	1	28.3	7.59	22.8	6.52	9.46	12.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)3	12:48	Surface	1	2	28.3	7.54	22.9	6.55	9.43	12.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)3	12:48	Middle	2	1	28	7.61	23.1	6.38	9.89	14.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)3	12:48	Middle	2	2	28.1	7.65	23	6.34	9.94	13.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)3	12:48	Bottom	3	1	27.8	7.72	23.4	6.18	11	15.4
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)3	12:48	Bottom	3	2	27.7	7.76	23.5	6.13	11.5	13.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4a	14:38	Surface	1	1	28.1	7.53	22.9	6.33	9.37	14.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4a	14:38	Surface	1	2	28	7.57	22.8	6.36	9.31	13
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4a	14:38	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	18-07-2015	Mid-Ebb	SR4a	14:38	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4a	14:38	Bottom	3	1	27.9	7.6	22.9	6.22	9.53	14.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4a	14:38	Bottom	3	2	28	7.65	23	6.25	9.62	13.5
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Surface	1	1	28.1	7.56	22.9	6.36	9.32	14
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Surface	1	2	28	7.59	23	6.33	9.29	11.1
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Bottom	3	1	28	7.64	23	6.21	9.88	14.8
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	SR4	14:16	Bottom	3	2	27.9	7.7	23.1	6.24	9.93	12.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS8	13:54	Surface	1	1	28.2	7.5	22.7	6.48	9.38	11.3
TMCLKL	HY/2012/07	18-07-2015		IS8	13:54	Surface	1	2	28.1	7.53	22.8	6.44	9.44	11.3
TMCLKL	HY/2012/07	18-07-2015		IS8	13:54	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS8	13:54	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS8	13:54	Bottom	3	1	28.1	7.56	22.8	6.39	10.7	14
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS8	13:54	Bottom	3	2	28	7.59	22.9	6.36	9.9	12.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Surface	1	1	28.1	7.52	22.8	6.6	9.32	13
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Surface	1	2	28.2	7.57	22.9	6.54	9.4	12.2
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Middle	2	1	28	7.6	23	6.42	9.53	13.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Middle	2	2	28.1	7.56	22.9	6.45	9.58	11.5
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Bottom	3	1	27.7	7.59	23.2	6.28	9.72	14.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)16	13:32	Bottom	3	2	27.6	7.64	23.3	6.31	9.66	13.5
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Surface	1	1	28.4	7.62	23	6.42	9.24	12
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Surface	1	2	28.3	7.57	23.1	6.46	9.17	11.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Middle	2	1						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Middle	2	2						
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Bottom	3	1	28.3	7.65	23.1	6.33	9.42	11.3
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	IS(Mf)9	13:10	Bottom	3	2	28.3	7.69	23.2	6.35	9.48	14.2
TMCLKL	HY/2012/07	18-07-2015		CS(Mf)5		Surface	1	1	28.1	7.61	22.9			10.9
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)5	15:00	Surface	1	2	28.2	7.64	23	6.54	8.95	10.7
TMCLKL	HY/2012/07	18-07-2015		CS(Mf)5	15:00	Middle	2	1	28.1	7.59	23.3	6.42	9.73	12.6
TMCLKL	HY/2012/07	18-07-2015	Mid-Ebb	CS(Mf)5		Middle	2	2	28.1	7.62	23.2	6.38	9.6	15.4
TMCLKL	HY/2012/07	18-07-2015		CS(Mf)5	15:00	Bottom	3	1	27.9	7.69	23.5	6.25	9.93	15.9
TMCLKL	HY/2012/07	18-07-2015		CS(Mf)5	15:00	Bottom	3	2	27.8	7.74	23.6	6.27	10	13
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)5	8:49	Surface	1	1	27.1	7.67	20.9	6.41	12.4	14.9
TMCLKL	HY/2012/07	21-07-2015			8:49	Surface	1	2	27	7.7	21	6.45	12.6	16.4
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)5	8:49	Middle	2	1	27	7.65	21.2	6.33	13.2	17.2
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)5	8:49	Middle	2	2	26.9	7.68	21.3	6.29	13.6	19

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)5	8:49	Bottom	3	1	26.7	7.75	21.5	6.19	13.9	16.7
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)5	8:49	Bottom	3	2	26.6	7.8	21.4	6.18	14.2	17
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Surface	1	1	27.1	7.59	20.9	6.24	11.9	15.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Surface	1	2	27.1	7.63	21	6.27	12.2	17.1
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Middle	2	1						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Bottom	3	1	26.8	7.66	21.2	6.13	12.7	16.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4a	9:11	Bottom	3	2	26.9	7.71	21.3	6.16	12.9	18.1
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Surface	1	1	27	7.62	20.8	6.27	12.2	19.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Surface	1	2	27.1	7.65	20.8	6.24	12.6	18.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Middle	2	1						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Bottom	3	1	26.8	7.7	21.1	6.12	13.5	20.7
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	SR4	9:33	Bottom	3	2	26.9	7.76	20.9	6.15	13.8	17.6
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Surface	1	1	27.2	7.41	20.7	6.39	12.1	16.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Surface	1	2	27.1	7.44	20.8	6.35	12	16.8
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Middle	2	1						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Bottom	3	1	27	7.47	20.9	6.3	12.9	19.4
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS8	9:55	Bottom	3	2	26.9	7.5	20.8	6.27	13.4	20.1
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Surface	1	1	27.2	7.58	20.8	6.51	10.8	16.2
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Surface	1	2	27.1	7.63	20.9	6.45	10.3	16.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Middle	2	1	26.9	7.66	21.8	6.33	11.1	16.7
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Middle	2	2	27	7.62	21.9	6.36	11.4	16
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Bottom	3	1	26.7	7.65	22	6.19	12.2	15.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)16	10:17	Bottom	3	2	26.8	7.7	21.9	6.22	12.5	15
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)9	10:39	Surface	1	1	27.4	7.68	20.6	6.33	11	14.3
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)9	10:39	Surface	1	2	27.3	7.63	20.7	6.37	10.8	16.2
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)9	10:39	Middle	2	1						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)9	10:39	Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	IS(Mf)9	10:39	Bottom	3	1	27.2	7.71	20.9	6.24	11.8	15.3
TMCLKL	HY/2012/07	21-07-2015		\ /	10:39	Bottom	3	2	27.3	7.75	21	6.26	12.1	16.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Surface	1	1	27.3	7.65	20.7	6.43	11.4	18.2
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Surface	1	2	27.2	7.6	20.8	6.46	11.6	15.1
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Middle	2	1	27.1	7.67	21	6.29	12.6	17.6
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Middle	2	2	27	7.71	21.1	6.25	12.8	16.6
TMCLKL	HY/2012/07	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Bottom	3	1	26.8	7.78	21.3	6.09	11.5	17.3

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	21-07-2015	Mid-Flood	CS(Mf)3	11:01	Bottom	3	2	26.7	7.82	21.4	6.04	11.9	16.7
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)3	14:25	Surface	1	1	27.5	7.69	20.5	6.32	14.5	17.4
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)3	14:25	Surface	1	2	27.4	7.71	20.6	6.3	14.7	17.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)3	14:25	Middle	2	1	27.4	7.74	20.7	6.17	15.7	20.6
TMCLKL	HY/2012/07	21-07-2015		CS(Mf)3	14:25	Middle	2	2	27.3	7.76	20.8	6.19	15.9	20.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)3	14:25	Bottom	3	1	27.1	7.88		6		21.8
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)3	14:25	Bottom	3	2	27	7.86	21	6.02	16.7	20.4
	HY/2012/07	21-07-2015		SR4a	16:15	Surface	1	1	27.4	7.94	20.5	6.11	13.3	17.3
	HY/2012/07	21-07-2015		SR4a	16:15	Surface	1	2	27.3	7.92	20.5	6.09	13.5	20.3
	HY/2012/07	21-07-2015		SR4a	16:15	Middle	2	1						
	HY/2012/07	21-07-2015		SR4a		Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	SR4a	16:15	Bottom	3	1	27.1	7.68	20.7	5.98	14.1	18.3
TMCLKL	HY/2012/07	21-07-2015		SR4a	16:15	Bottom	3	2	27.2	7.7	20.8	6	14.3	20
	HY/2012/07	21-07-2015		SR4		Surface	1	1	27.4	7.65	20.5	6.14	15.9	23.9
	HY/2012/07	21-07-2015		SR4	15:41	Surface	1	2	27.3	7.67	20.5	6.16	16.1	20.9
	HY/2012/07	21-07-2015		SR4	15:41	Middle	2	1						
	HY/2012/07	21-07-2015		SR4	15:41	Middle	2	2						
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	SR4	15:41	Bottom	3	1	27.3	7.81	20.6	6.04	16.9	22
TMCLKL	HY/2012/07	21-07-2015		SR4	15:41	Bottom	3	2		7.83		6.06	17.1	21.7
TMCLKL	HY/2012/07	21-07-2015		IS8	15:29	Surface	1	1	27.5	7.73	20.6	6.24	16.8	20.5
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	IS8	15:29	Surface	1	2	27.6	7.71	20.7	6.22	17	20.8
TMCLKL	HY/2012/07	21-07-2015		IS8	15:29	Middle	2	1						
	HY/2012/07	21-07-2015		IS8	15:29	Middle	2	2						
	HY/2012/07	21-07-2015		IS8	15:29	Bottom	3	1	27.3	8.04	20.8	6.11	17.8	21.9
	HY/2012/07	21-07-2015	Mid-Ebb	IS8	15:29	Bottom	3	2		8.06	20.9	6.09	18	24.8
TMCLKL	HY/2012/07	21-07-2015		IS(Mf)16	15:06	Surface	1	1	27.4	7.81	20.4	6.33	13.7	19.2
	HY/2012/07	21-07-2015	Mid-Ebb	IS(Mf)16	15:06	Surface	1	2	27.3	7.83	20.5	6.31	13.9	18.1
	HY/2012/07	21-07-2015		IS(Mf)16	15:06	Middle	2	1	27.3	7.65	20.6	6.21	16.5	21.8
	HY/2012/07	21-07-2015		IS(Mf)16		Middle	2	2			20.7	6.23		21.5
	HY/2012/07	21-07-2015		IS(Mf)16		Bottom	3	1	27.2	7.94			17.1	22.2
	HY/2012/07			IS(Mf)16		Bottom	3	2		7.96				22
	HY/2012/07	21-07-2015		IS(Mf)9		Surface	1	1	27.4	7.74		6.24	17.8	21.7
	HY/2012/07	21-07-2015		IS(Mf)9		Surface	1	2	27.3	7.76	20.5	6.22	18	23.8
	HY/2012/07	21-07-2015		IS(Mf)9		Middle	2	1						
	HY/2012/07	21-07-2015		IS(Mf)9	14:46	Middle	2	2						
	HY/2012/07	21-07-2015		IS(Mf)9		Bottom	3	1	27.2	7.81	20.6	6.17	19.4	20.2
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	IS(Mf)9	14:46	Bottom	3	2	27.1	7.83	20.7	6.15	19.6	20.5

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	21-07-2015	Mid-Ebb	CS(Mf)5	16:40	Surface	1	1	27.5	8.03	20.5	6.3	14.9	17.9
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)5	16:40	Surface	1	2	27.5	8.05	20.6	6.28	15.1	18.1
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)5	16:40	Middle	2	1	27.4	8.11	20.7	6.15	15.7	22
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)5	16:40	Middle	2	2	27.3	8.09	20.7	6.13	15.5	21.7
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)5	16:40	Bottom	3	1	27.2	7.96	20.8	6.04	18	21
TMCLKL	HY/2012/07	21-07-2015	Mid-Ebb	CS(Mf)5		Bottom	3	2	27.1	7.94	20.9	6.06	18.2	25.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)5	10:27	Surface	1	1	26.2	7.42	19.8	7.23	18.7	21
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)5	10:27	Surface	1	2	26.3	7.38	19.9	7.19	17.9	21.1
TMCLKL	HY/2012/07	23-07-2015		\ /	10:27	Middle	2	1	26.3	7.32	20	7.08	15.2	16.8
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)5	10:27	Middle	2	2	26.3	7.35	20.1	7.05	15.6	15.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)5	10:27	Bottom	3	1	26.2	7.38	20.3	6.88	20.4	15
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)5	10:27	Bottom	3	2	26.1	7.41	20.4	6.85	19.8	14.7
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Surface	1	1	26.2	7.34	19.8	7.08	16.4	21
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Surface	1	2	26.2	7.37	19.8	7.11	17.2	20.1
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Bottom	3	1	26.2	7.38	19.9	7.02	18.3	16
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4a	10:53	Bottom	3	2	26.3	7.33	20	7	19	12.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Surface	1	1	26.2	7.42	19.7	7.25	17.6	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Surface	1	2	26.3	7.38	19.8	7.18	18.1	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Bottom	3	1	26.3	7.33	19.9	7.11	19.3	14
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	SR4	11:10	Bottom	3	2	26.3	7.35	19.9	7.07	18.7	13.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Surface	1	1	26.3	7.41	19.6	7.14	15.8	21
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Surface	1	2	26.3	7.44	19.7	7.12	16.3	19.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Bottom	3	1	26.3	7.39	19.9	7.02	17.4	14
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS8	11:28	Bottom	3	2	26.3	7.37	19.8	6.98	18	11.7
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Surface	1	1	26.3	7.38	19.6	7.09	16.7	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Surface	1	2	26.4	7.4	19.6	7.11	17.5	15.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Middle	2	1	26.3	7.43	19.7	7.03	15.3	19.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Middle	2	2	26.3	7.47	19.7	7	15.8	18.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Bottom	3	1	26.2	7.4	19.9	6.87	19.2	14
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)16	11:46	Bottom	3	2	26.3	7.43	19.9	6.84	18.6	14.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Surface	1	1	26.4	7.32	19.6	7.2	17.2	19.6

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	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Surface	1	2	26.4	7.35	19.5	7.17	17.9	19.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Bottom	3	1	26.4	7.39	19.6	6.97	18.8	14.1
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	IS(Mf)9	12:07	Bottom	3	2	26.4	7.41	19.6	6.94	19.3	13.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3		Surface	1	1	26.4	7.3	19.7	7.34	16.2	22.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3	12:27	Surface	1	2	26.5	7.33	19.8	7.31	17.1	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3	12:27	Middle	2	1	26.3	7.37	19.9	7.24	15	18
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3	12:27	Middle	2	2	26.4	7.39	19.9	7.2	15.8	15.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3	12:27	Bottom	3	1	26.2	7.36	20.2	7.08	19.4	13
TMCLKL	HY/2012/07	23-07-2015	Mid-Flood	CS(Mf)3	12:27	Bottom	3	2	26.2	7.4	20.1	7.05	20.7	11.7
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Surface	1	1	26.3	7.37	19.8	7.28	19.5	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Surface	1	2	26.2	7.32	19.9	7.25	19.1	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Middle	2	1	26.2	7.44	20.1	7.31	19.7	19.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Middle	2	2	26.1	7.48	20	7.29	20.4	17.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Bottom	3	1	25.9	7.59	20.3	7.04	21.8	11.7
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)3	15:38	Bottom	3	2	26	7.53	20.4	6.99	20.9	10.8
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Surface	1	1	26.3	7.4	20.1	7.1	17.4	19.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Surface	1	2	26.2	7.37	20.2	7.07	17.9	18.2
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Bottom	3	1	26.2	7.42	20.2	6.98	18	15
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4a	17:26	Bottom	3	2	26.2	7.47	20.3	6.94	18.8	13.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Surface	1	1	26.3	7.36	20.1	7.11	18.3	21.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Surface	1	2	26.2	7.39	20.2	7.08	18	19.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Bottom	3	1	26.2	7.42	20.2	7.06	20.1	15
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	SR4	17:10	Bottom	3	2	26.1	7.46	20.3	7.03	20.8	13.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Surface	1	1	26.4	7.43	20.2	7.09	16.7	21
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Surface	1	2	26.3	7.47	20.1	7.04	16.2	16.9
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Middle	2	1						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Middle	2	2						
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Bottom	3	1	26.2	7.51	20.2	7.02	17.6	14.3
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS8	16:54	Bottom	3	2	26.1	7.49	20.2	7.05	18.1	13.5
TMCLKL	HY/2012/07			IS(Mf)16	16:33	Surface	1	1	26.2	7.4	19.8	7.06	18.2	16.8
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)16	16:33	Surface	1	2	26.3	7.46	19.9	7.04	18.7	18.2

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	23-07-2015	Mid-Ebb	IS(Mf)16	16:33	Middle	2	1	26.2	7.48	20.2	6.98	19.1	14.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)16	16:33	Middle	2	2	26.1	7.45	20.1	7.03	19.6	15.4
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)16	16:33	Bottom	3	1	26.1	7.52	20.4	6.91	19.8	15
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)16	16:33	Bottom	3	2	26	7.58	20.3	6.85	20.2	12.6
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)9	16:06	Surface	1	1	26.2	7.37	19.9	7.13	18.1	16.8
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)9		Surface	1	2	26.1	7.4	20	7.1	18.6	19.5
TMCLKL	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)9	16:06	Middle	2	1						
	HY/2012/07	23-07-2015		IS(Mf)9	16:06	Middle	2	2						
	HY/2012/07	23-07-2015	Mid-Ebb	IS(Mf)9	16:06	Bottom	3		26	7.42	20.1	7.01	19.8	14
	HY/2012/07	23-07-2015		IS(Mf)9		Bottom	3	2	26.1	7.49	20.2	6.96		11.7
	HY/2012/07	23-07-2015		CS(Mf)5	17:47	Surface	1	1	26.3	7.46	20	7.18	17.8	19.6
	HY/2012/07	23-07-2015	Mid-Ebb	CS(Mf)5	17:47	Surface	1	2	26.4	7.48	19.9	7.15	18.2	18.2
TMCLKL	HY/2012/07	23-07-2015		CS(Mf)5	17:47	Middle	2	1	26.3	7.41	20.2	7.12	18.9	18
	HY/2012/07	23-07-2015		CS(Mf)5		Middle	2	2	26.2	7.44	20.3	7.07	19.3	15.4
	HY/2012/07	23-07-2015		CS(Mf)5	17:47	Bottom	3	1	26.1	7.49	20.4	6.93	20.6	15
	HY/2012/07	23-07-2015		CS(Mf)5		Bottom	3	2		7.54	20.3	6.96		13.5
	HY/2012/07	25-07-2015		` '		Surface	1	1	26.4	7.33	19.9	7.29	17.8	26.9
TMCLKL	HY/2012/07	25-07-2015		\ /	12:15	Surface	1	2		7.29	20	7.25	17	24
TMCLKL	HY/2012/07	25-07-2015		. , ,		Middle	2	1	26.3	7.23	20.1	7.14	14.3	20
TMCLKL	HY/2012/07	25-07-2015		\ /	12:15	Middle	2	2	26.2	7.26	20	7.11	14.7	19.1
TMCLKL	HY/2012/07	25-07-2015		\ /		Bottom	3	1	26.2	7.29	20.4	6.94	19.5	20.8
TMCLKL	HY/2012/07	25-07-2015		\ /		Bottom	3	2	26.3	7.32	20.5	6.91	18.9	19.1
-	HY/2012/07	25-07-2015				Surface	1	1	26.3	7.25	19.8	7.14	15.5	21.3
	HY/2012/07	25-07-2015				Surface	1	2	26.2	7.28	19.9	7.17	16.3	21.2
	HY/2012/07	25-07-2015				Middle	2	1						
	HY/2012/07	25-07-2015				Middle	2	2						
	HY/2012/07	25-07-2015				Bottom	3		26.3	7.29	20	7.08		23
	HY/2012/07	25-07-2015				Bottom	3	2		7.24	20.1	7.06	18.1	20.5
	HY/2012/07	25-07-2015				Surface	1	1	26.4	7.33			16.7	21.4
	HY/2012/07	25-07-2015				Surface	1	2	26.3	7.29	19.9	7.24	17.2	22.7
	HY/2012/07					Middle	2	1						
	HY/2012/07	25-07-2015				Middle	2	2						
	HY/2012/07	25-07-2015				Bottom	3		26.4	7.24		7.17		24.6
	HY/2012/07	25-07-2015				Bottom	3	2		7.26		7.13		23.5
	HY/2012/07	25-07-2015				Surface	1	1	26.4	7.32		7.2		20.9
	HY/2012/07	25-07-2015				Surface	1	2	26.4	7.33	19.7	7.18	15.4	23.1
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS8	13:21	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	25-07-2015	Mid-Flood	IS8	13:21	Middle	2	2						
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS8	13:21	Bottom	3	1	26.2	7.3	19.8	7.08	16.5	23.1
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS8	13:21	Bottom	3	2	26.3	7.28	19.9	7.04	17.1	22.5
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS(Mf)16	13:43	Surface	1	1	26.5	7.29	19.6	7.15	15.8	26.5
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS(Mf)16	13:43	Surface	1	2	26.4	7.31	19.7	7.17	16.6	24.9
TMCLKL	HY/2012/07	25-07-2015	Mid-Flood	IS(Mf)16	13:43	Middle	2	1	26.3	7.34	19.8	7.09	14.4	18.7
	HY/2012/07	25-07-2015	Mid-Flood	IS(Mf)16	13:43	Middle	2	2	26.4	7.38	19.7	7.06	14.9	18.9
	HY/2012/07	25-07-2015		\ /	13:43	Bottom	3	1	26.3	7.31	19.9	6.93	18.3	24.5
	HY/2012/07	25-07-2015		` '	13:43	Bottom	3	2	26.2	7.34		6.9		20
	HY/2012/07	25-07-2015	Mid-Flood	IS(Mf)9	14:05	Surface	1	1	26.4	7.23	19.6	7.26	16.3	22.8
	HY/2012/07	25-07-2015		·		Surface	1	2	26.5	7.26	19.7	7.23	17	20.8
	HY/2012/07	25-07-2015		` '		Middle	2	1						
	HY/2012/07	25-07-2015		\ /	14:05	Middle	2	2						
	HY/2012/07	25-07-2015		\ /		Bottom	3	1	26.3	7.3		7.03		25.4
	HY/2012/07	25-07-2015		` '		Bottom	3	2		7.32	19.6	7	18.4	23
	HY/2012/07	25-07-2015		\ /		Surface	1	1	26.6	7.21	19.8	7.4	15.3	21.4
	HY/2012/07	25-07-2015		· /		Surface	1	2		7.24	19.9	7.37	16.2	24.3
	HY/2012/07	25-07-2015		\ /		Middle	2	1	26.4	7.28		7.3		21.2
TMCLKL	HY/2012/07	25-07-2015				Middle	2	2	26.5	7.3	20	7.26		22.4
	HY/2012/07	25-07-2015		\ /		Bottom	3	1	26.3	7.27	20.3	7.14	18.5	24.8
TMCLKL	HY/2012/07	25-07-2015		· /		Bottom	3	2	26.2	7.31	20.2	7.11	19.8	21.8
TMCLKL	HY/2012/07	25-07-2015		CS(Mf)3		Surface	1	1	26.5	7.24	19.6	7.26	16.8	21.1
-	HY/2012/07	25-07-2015		CS(Mf)3		Surface	1	2		7.27	19.7	7.23	17.3	22.8
	HY/2012/07	25-07-2015		CS(Mf)3		Middle	2	1	26.5	7.27	19.8	7.19		24.3
	HY/2012/07	25-07-2015		CS(Mf)3		Middle	2	2		7.25	19.8	7.2	14.8	19.2
	HY/2012/07	25-07-2015		CS(Mf)3		Bottom	3	1	26.4	7.34	20	7.08	19.2	21.1
	HY/2012/07	25-07-2015		CS(Mf)3		Bottom	3	2	26.3	7.3	20.1	7.05		21.2
	HY/2012/07	25-07-2015		SR4a		Surface	1	1	26.3	7.31	19.6	7.08	14.6	19
	HY/2012/07	25-07-2015		SR4a		Surface	1	2	26.4	7.33	19.7	7.12	15.2	21.3
	HY/2012/07	25-07-2015		SR4a		Middle	2	1						
	HY/2012/07			SR4a		Middle	2	2						
	HY/2012/07	25-07-2015		SR4a		Bottom	3	1	26.4	7.36		7.03		23.2
	HY/2012/07			SR4a		Bottom	3	2		7.39		6.99		22.5
	HY/2012/07	25-07-2015		SR4		Surface	1	1	26.3	7.31	19.7	7.46		21.3
	HY/2012/07	25-07-2015		SR4		Surface	1	2	26.4	7.34	19.6	7.43	15.9	22.3
	HY/2012/07	25-07-2015		SR4		Middle	2	1						
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	SR4	19:05	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)		Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	SR4	19:05	Bottom	3	1	26.4	7.37	19.8	7.29	17	20.8
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	SR4	19:05	Bottom	3	2	26.5	7.4	19.9	7.25	17.8	23.5
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Surface	1	1	26.3	7.36	19.5	7.36	14.8	19.2
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Surface	1	2	26.3	7.35	19.5	7.39	15.5	23.3
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Middle	2	1						
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Middle	2	2						
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Bottom	3	1	26.3	7.39	19.7	7.22	18.4	26.2
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS8	18:50	Bottom	3	2	26.4	7.4	19.7	7.19	17.6	26.6
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Surface	1	1	26.3	7.37	19.3	7.24	16.3	22.8
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Surface	1	2	26.2	7.39	19.4	7.21	17	26.4
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Middle	2	1	26.3	7.39	19.5	7.15	15.2	21.3
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Middle	2	2	26.4	7.37	19.6	7.12	14.6	20.4
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Bottom	3	1	26.4	7.39	19.8	7.05	19.6	25.6
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)16	18:30	Bottom	3	2	26.5	7.4	19.9	7	18.7	22.4
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Surface	1	1	26.4	7.28	19.5	7.32	15.7	23.3
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Surface	1	2	26.4	7.3	19.5	7.35	16.6	21.5
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Middle	2	1						
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Middle	2	2						
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Bottom	3	1	26.4	7.28	19.6	7.21	17.3	22.8
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	IS(Mf)9	18:12	Bottom	3	2	26.4	7.25	19.7	7.18	18	20.9
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Surface	1	1	26.3	7.36	19.7	7.23	16.8	18.9
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Surface	1	2	26.2	7.32	19.7	7.18	16	19.2
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Middle	2	1	26.3	7.29	19.8	7.26	15.3	18.4
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Middle	2	2	26.3	7.33	19.9	7.22	14.6	21.9
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Bottom	3	1	26.5	7.35	20.2	7.09	19.2	24.3
TMCLKL	HY/2012/07	25-07-2015	Mid-Ebb	CS(Mf)5	19:39	Bottom	3	2	26.4	7.38	20.3	7.05	18.6	22.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Surface	1	1	26.5	7.39	20.1	7.35	16.9	22.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Surface	1	2	26.4	7.35	20.1	7.31	16.1	18.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Middle	2	1	26.4	7.29	20.1	7.2	13.4	20.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Middle	2	2	26.3	7.32	20.2	7.17	13.8	20.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Bottom	3	1	26.3	7.35	20.5	7	18.6	20.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)5	16:10	Bottom	3	2	26.2	7.38	20.6	6.97	18	25.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Surface	1	1	26.4	7.31	20	7.2	14.6	21.9
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Surface	1	2	26.3	7.34	19.9	7.23	15.4	18.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Bottom	3	1	26.2	7.35	20.1	7.14	16.5	24

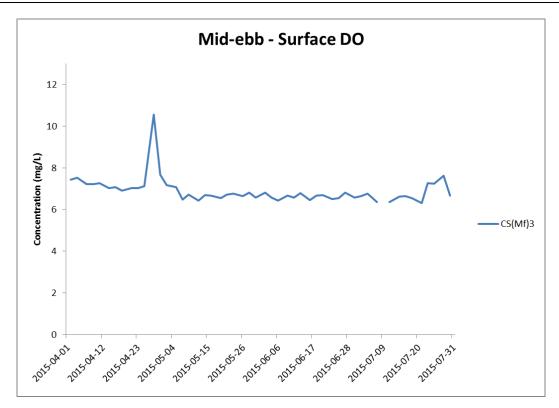
Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4a	16:32	Bottom	3	2	26.3	7.3	20.2	7.12	17.2	22.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Surface	1	1	26.4	7.29	19.9	7.37	15.8	23.7
	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Surface	1	2	26.5	7.35	20	7.3	16.3	22.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Bottom	3	1	26.4	7.3	20.1	7.23	17.5	23.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	SR4	16:54	Bottom	3	2	26.3	7.32	20	7.19	16.9	19.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Surface	1	1	26.5	7.38	19.8	7.26	16	22.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Surface	1	2	26.4	7.39	19.9	7.24	14.5	23.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Bottom	3	1	26.3	7.36	20	7.14	15.6	22.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS8	17:16	Bottom	3	2	26.4	7.34	19.9	7.1	16.2	24.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Surface	1	1	26.6	7.35	19.7	7.21	14.9	20.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Surface	1	2	26.5	7.37	19.8	7.23	15.7	18
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Middle	2	1	26.4	7.4	19.8	7.15	13.5	21.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Middle	2	2	26.5	7.44	19.9	7.12	14	19.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Bottom	3	1	26.4	7.37	20	6.99	17.4	23.8
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)16	17:38	Bottom	3	2	26.4	7.4	20.1	6.96	16.8	22
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Surface	1	1	26.6	7.29	19.7	7.32	15.4	16.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Surface	1	2	26.5	7.32	19.8	7.29	16.1	19.6
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Bottom	3	1	26.4	7.36	19.8	7.09	17	19.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	IS(Mf)9	18:00	Bottom	3	2	26.5	7.38	19.9	7.06	17.5	23.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Surface	1	1	26.7	7.27	20	7.46	14.4	18.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Surface	1	2	26.6	7.3	19.9	7.43	15.3	21.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Middle	2	1	26.5	7.34	20	7.36	13.2	17.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Middle	2	2	26.6	7.36	20.1	7.32	14	19.6
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Bottom	3	1	26.4	7.33	20.3	7.2	17.6	20.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Flood	CS(Mf)3	18:24	Bottom	3	2	26.3	7.37	20.4	7.17	18.9	25.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Surface	1	1	26.4	7.34	19.7	7.63	12.9	18.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Surface	1	2	26.5	7.31	19.6	7.6		20
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Middle	2	1	26.5	7.29	19.8	7.49	14.2	21.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Middle	2	2	26.5	7.32		7.52	14.8	23.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Bottom	3	1	26.4	7.36		7.33	16.6	20.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)3	10:10	Bottom	3	2	26.4	7.33	20.1	7.3	17.2	22.3

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	28-07-2015	Mid-Ebb	SR4a	11:55	Surface	1	1	26.3	7.27	19.8	7.31	15	22.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4a	11:55	Surface	1	2	26.3	7.3	19.8	7.28	14.1	18.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4a	11:55	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4a	11:55	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4a	11:55	Bottom	3	1	26.2	7.24	19.9	7.17	15.8	20.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4a	11:55	Bottom	3	2	26.1	7.28	20	7.13	15.2	18.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Surface	1	1	26.3	7.34	19.7	7.47	15.1	22.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Surface	1	2	26.4	7.29	19.8	7.44	15.8	22.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Bottom	3	1	26.4	7.3	19.9	7.3	16.7	24.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	SR4	11:34	Bottom	3	2	26.4	7.33	19.9	7.28	17.1	24
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Surface	1	1	26.4	7.34	19.7	7.34	15.3	23
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Surface	1	2	26.5	7.37	19.6	7.31	14.6	19
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Bottom	3	1	26.4	7.38	19.9	7.2	16.4	22.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS8	11:15	Bottom	3	2	26.4	7.4	20	7.23	15.7	23.6
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Surface	1	1	26.4	7.4	19.5	7.41	13.8	19.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Surface	1	2	26.4	7.37	19.6	7.38	14.4	20.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Middle	2	1	26.4	7.39	19.6	7.26	14.7	23.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Middle	2	2	26.4	7.42	19.7	7.22	15.3	19.9
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Bottom	3	1	26.5	7.33	19.9	7.09	17.1	24.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)16	10:52	Bottom	3	2	26.5	7.35	20	7.06	17.8	22.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Surface	1	1	26.4	7.33	19.6	7.48	14.6	19
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Surface	1	2	26.4	7.3	19.5	7.44	13.9	22.2
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Middle	2	1						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Middle	2	2						
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Bottom	3	1	26.4	7.36	19.7	7.22	15.5	21.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	IS(Mf)9	10:33	Bottom	3	2	26.5	7.34	19.8	7.19	16.1	20.9
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Surface	1	1	26.3	7.32	20	7.46	15.8	22.1
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Surface	1	2	26.4	7.35	20	7.43	15.1	22.7
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Middle	2	1	26.3	7.29	20.2	7.35	14.2	18.5
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Middle	2	2	26.3	7.33	20.1	7.31	13.6	20.4
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Bottom	3	1	26.3	7.36	20.4	7.11	16.7	22.3
TMCLKL	HY/2012/07	28-07-2015	Mid-Ebb	CS(Mf)5	12:13	Bottom	3	2	26.2	7.38	20.4	7.09	17.3	24.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Surface	1	1	27.9	7.74	23.3	6.89	8.07	11.3

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	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Surface	1	2	27.9	7.7	23.2	6.84	7.99	11.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Middle	2	1	27.7	7.78	23.4	6.73	9.19	13.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Middle	2	2	27.6	7.73	23.3	6.7	9.27	12.1
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Bottom	3	1	27.4	7.82	23.6	6.58	9.36	14
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)5	17:33	Bottom	3	2	27.5	7.81	23.5	6.55	9.41	11.3
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a		Surface	1	1	27.9	7.71	23.2	6.81	7.97	12.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a	18:09	Surface	1	2	28	7.75	23.1	6.84	7.98	11.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a	18:09	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a	18:09	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a	18:09	Bottom	3	1	27.7	7.87	23.3	6.69	8.43	13.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4a	18:09	Bottom	3	2	27.7	7.74	23.4	6.72	8.52	12.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Surface	1	1	27.9	7.76	23.3	6.63	7.97	11.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Surface	1	2	27.8	7.79	23.2	6.66	8.03	9.6
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Bottom	3	1	27.7	7.8	23.5	6.51	8.19	12.3
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	SR4	18:23	Bottom	3	2	27.6	7.84	23.4	6.47	8.25	11.6
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Surface	1	1	27.8	7.69	23.2	6.89	7.86	9.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Surface	1	2	27.9	7.73	23.1	6.86	7.91	9.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Bottom	3	1	27.7	7.78	23.4	6.57	8.12	11.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS8	18:39	Bottom	3	2	27.8	7.79	23.3	6.55	8.07	9.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Surface	1	1	28	7.66	23.2	6.79	7.7	10
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Surface	1	2	27.9	7.61	23.1	6.82	7.78	11.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Middle	2	1	27.7	7.75	23.4	6.73	7.88	11
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Middle	2	2	27.6	7.79	23.5	6.76	7.93	10.3
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Bottom	3	1	27.5	7.8	23.6	6.68	8.17	12.3
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)16	18:57	Bottom	3	2	27.4	7.83	23.7	6.64	8.11	12.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Surface	1	1	28	7.89	23.1	6.8	7.95	11.1
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Surface	1	2	27.9	7.85	23	6.84	7.9	10.3
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Bottom	3	1	27.7	7.81	23.4	6.6	8.06	12.1
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	IS(Mf)9	19:21	Bottom	3	2	27.6	7.83	23.3	6.63	8.12	12.2
TMCLKL	HY/2012/07	30-07-2015		\ /	19:45	Surface	1	1	27.8	7.81	23.2	6.68	7.81	9.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)3	19:45	Surface	1	2	27.9	7.84	23.3	6.65	7.88	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	30-07-2015	Mid-Flood	CS(Mf)3	19:45	Middle	2	1	27.6	7.72	23.5	6.51	8.06	9.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)3	19:45	Middle	2	2	27.7	7.78	23.4	6.54	8.11	12.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)3	19:45	Bottom	3	1	27.5	7.8	23.7	6.49	8.3	12.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Flood	CS(Mf)3	19:45	Bottom	3	2	27.4	7.86	23.6	6.47	8.37	11.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)3	11:26	Surface	1	1	28.1	7.87	23.1	6.65	8.15	11.4
TMCLKL	HY/2012/07	30-07-2015		CS(Mf)3	11:26	Surface	1	2	28	7.89	23	6.67	8.17	11.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)3	11:26	Middle	2	1	27.7	7.7	23.2	6.54	8.28	10.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)3		Middle	2	2	27.8	7.72	23.3	6.52	8.3	12.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)3	11:26	Bottom	3	1	27.9	7.78	23.5	6.43	8.38	11.7
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)3	11:26	Bottom	3	2	27.8	7.8	23.4	6.41	8.4	11.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4a		Surface	1	1	27.9	7.69	23.3	6.77	8.26	13.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4a	13:16	Surface	1	2	28	7.71	23.2	6.75	8.28	10.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4a	13:16	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4a	13:16	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015		SR4a	13:16	Bottom	3	1	27.8	7.83	23.4	6.58	9.15	14.6
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4a		Bottom	3	2	27.7	7.85	23.5		9.17	11.9
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4	12:54	Surface	1	1	28.1	7.72	23.2	6.55	8.15	11.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4	12:54	Surface	1	2	28	7.7	23.3	6.53	8.17	10.6
TMCLKL	HY/2012/07	30-07-2015		SR4	12:54	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4		Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4	12:54	Bottom	3	1	27.8	7.79	23.5	6.39	8.38	10.9
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	SR4	12:54	Bottom	3	2	27.7	7.81	23.4	6.41	8.4	11.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	IS8	12:32	Surface	1	1	28	7.78	23.1	6.72	7.95	10.3
TMCLKL	HY/2012/07	30-07-2015		IS8		Surface	1	2	27.9	7.76	23	6.74	7.97	10.4
TMCLKL	HY/2012/07	30-07-2015		IS8	12:32	Middle	2	1						
TMCLKL	HY/2012/07	30-07-2015		IS8	12:32	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015		IS8	12:32	Bottom	3	1	27.8	7.71	23.3	6.47	8.2	10.7
TMCLKL	HY/2012/07	30-07-2015		IS8		Bottom	3	2	27.7	7.69	23.2	6.49		11.5
TMCLKL	HY/2012/07	30-07-2015		IS(Mf)16		Surface	1	1	28.2	7.69	23.2			11
	HY/2012/07			IS(Mf)16		Surface	1	2	28.1	7.71	23.3		7.87	10.2
TMCLKL	HY/2012/07	30-07-2015		IS(Mf)16	12:10	Middle	2	1	27.9	7.87	23.4	6.66	8.02	10.4
	HY/2012/07	30-07-2015		IS(Mf)16	12:10	Middle	2	2	28	7.89	23.3			11.3
	HY/2012/07	30-07-2015		IS(Mf)16		Bottom	3	1	27.8	7.76	23.4			11.7
	HY/2012/07	30-07-2015		IS(Mf)16		Bottom	3	2	27.7	7.78	23.5		8.36	12.5
	HY/2012/07	30-07-2015		IS(Mf)9		Surface	1	1	28.3	7.81	23.2	6.73	8.04	9.6
	HY/2012/07	30-07-2015		IS(Mf)9		Surface	1	2	28.2	7.83	23.3	6.71	8.06	10.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	IS(Mf)9	11:48	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	IS(Mf)9	11:48	Middle	2	2						
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	IS(Mf)9	11:48	Bottom	3	1	28	7.86	23.4	6.49	8.17	9.8
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	IS(Mf)9	11:48	Bottom	3	2	28.1	7.88	23.5	6.51	8.19	11.5
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Surface	1	1	28.1	7.79	23.1	6.7	8.12	10.6
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Surface	1	2	28	7.81	23.2	6.72	8.14	12.2
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Middle	2	1	27.8	7.72	23.4	6.56	9.34	14
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Middle	2	2	27.9	7.74	23.3	5.58	9.36	13.1
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Bottom	3	1	27.6	7.88	23.4	6.43	9.57	13.4
TMCLKL	HY/2012/07	30-07-2015	Mid-Ebb	CS(Mf)5	13:40	Bottom	3	2	27.7	7.86	23.5	6.41	9.55	13.4



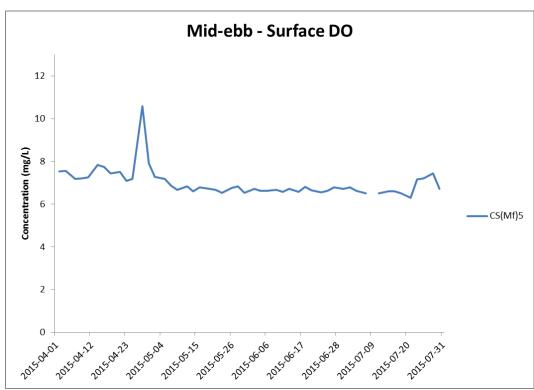
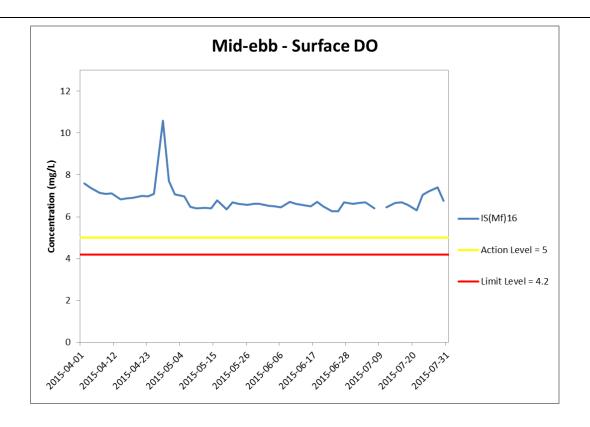


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





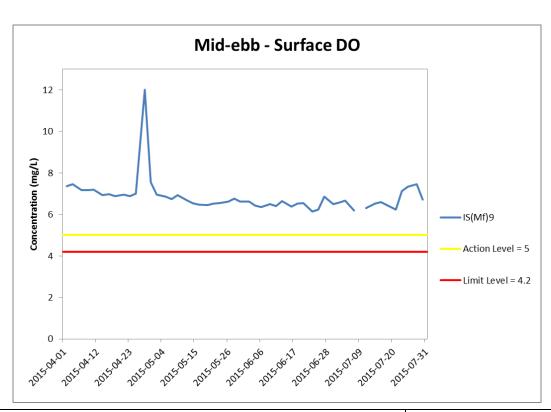
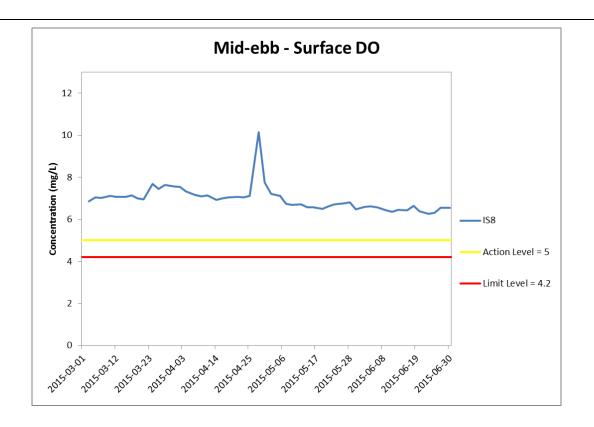


Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





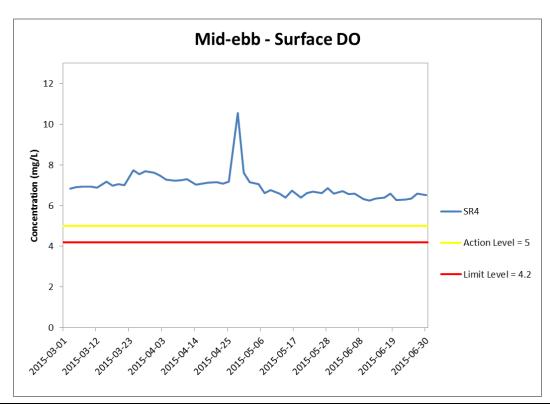


Figure J3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2015 at IS8 and SR4.

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



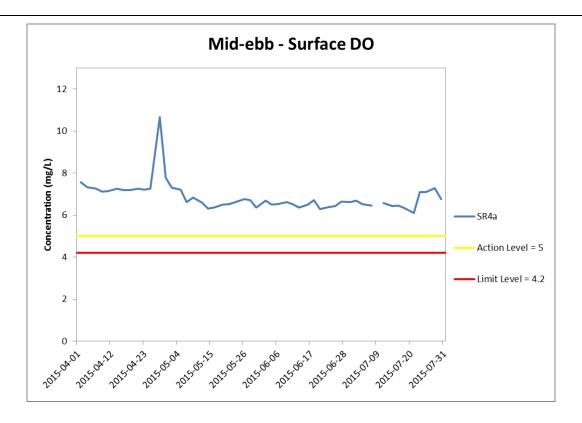
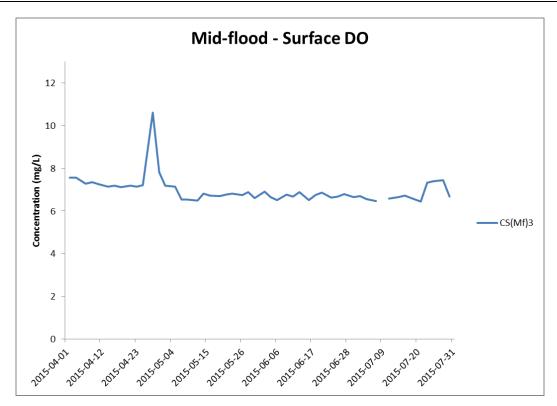


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





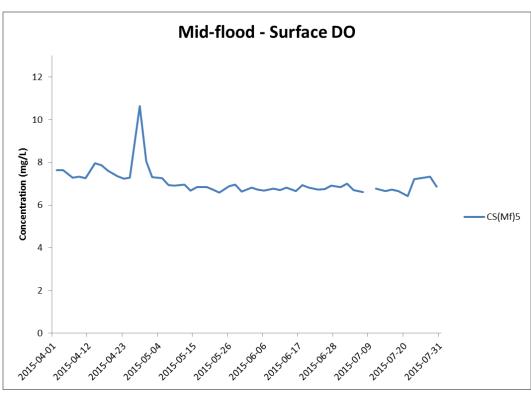
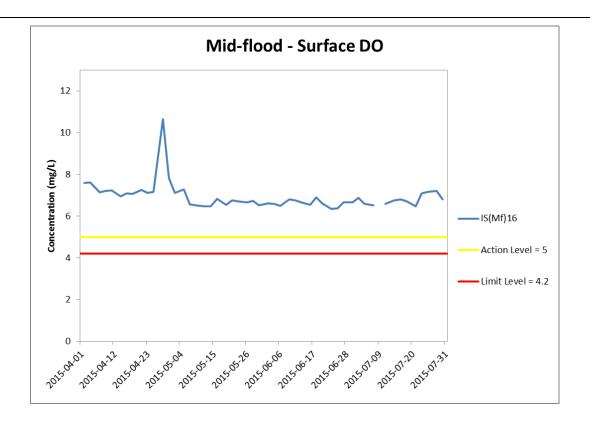


Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





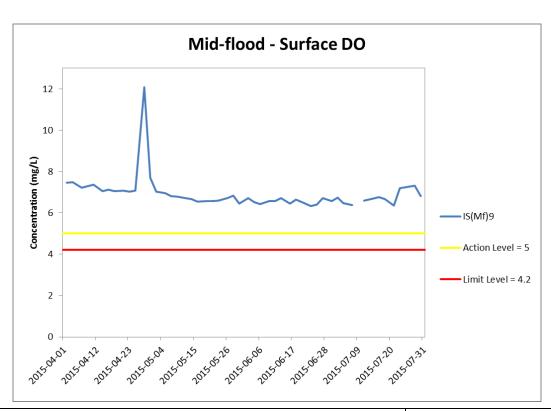
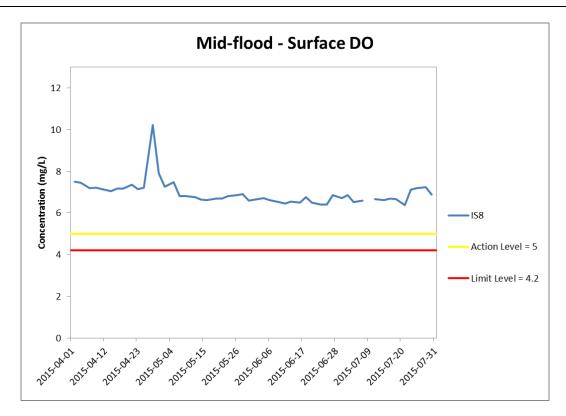


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





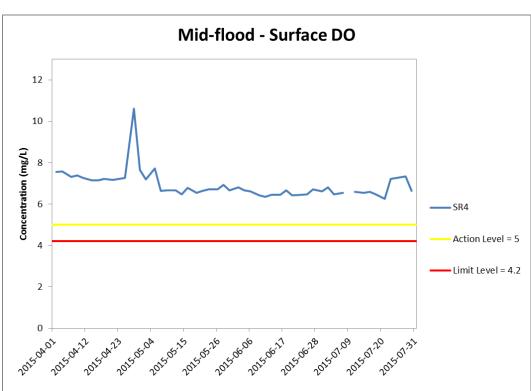


Figure J7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2015 at IS8 and SR4.

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)



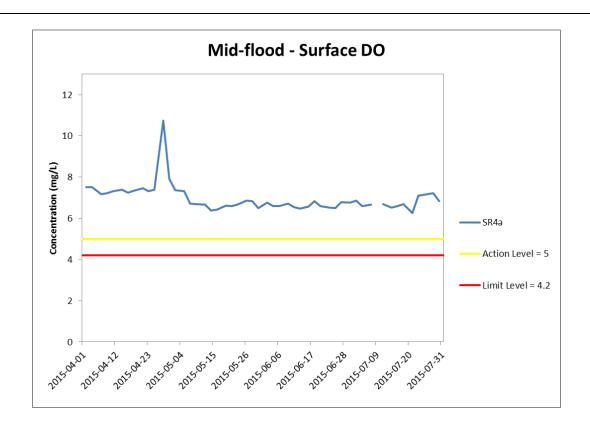
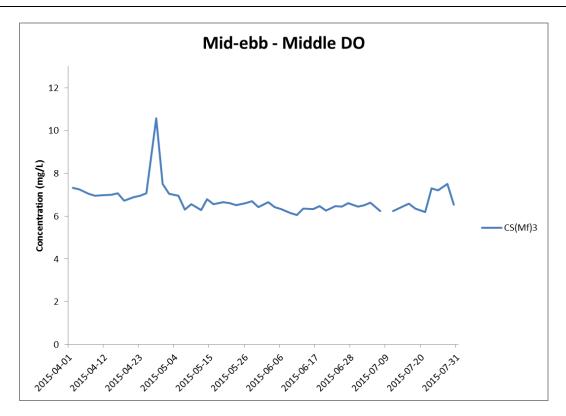


Figure J8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





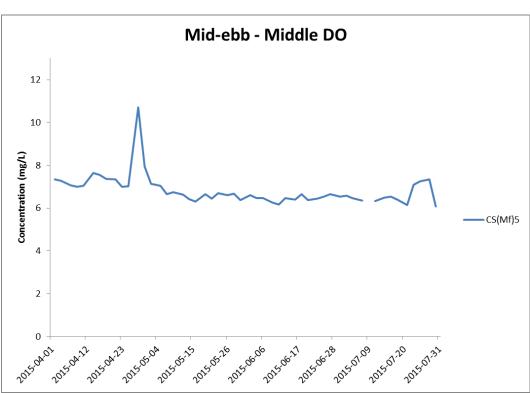


Figure J9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)



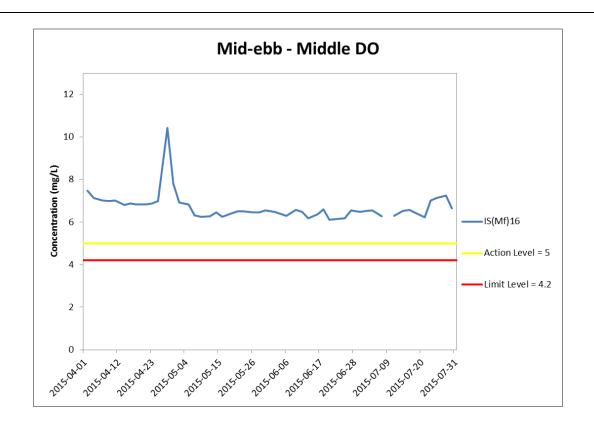
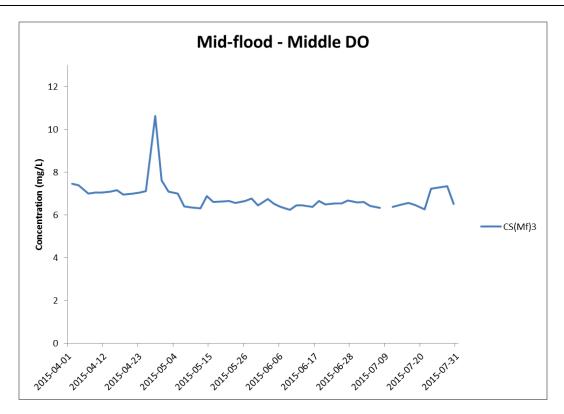


Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 April and 31 July 2015 at IS(Mf)16.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





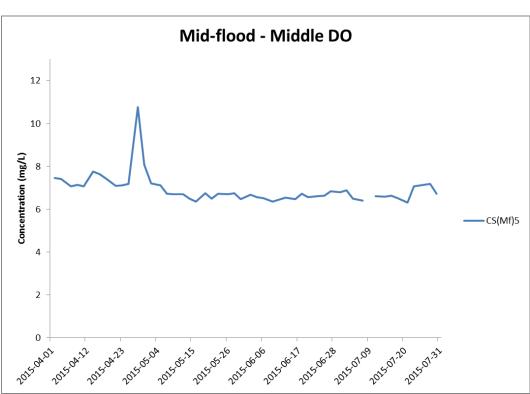


Figure J11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)



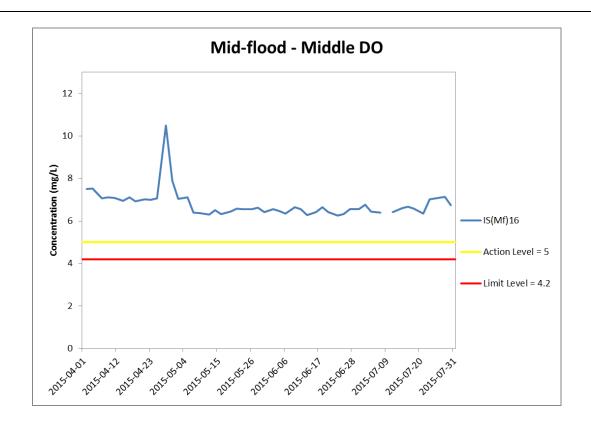
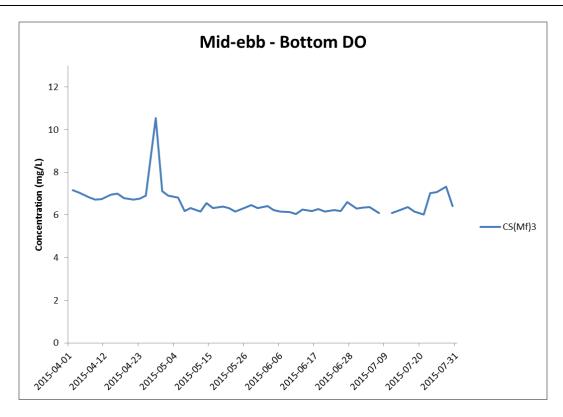


Figure J12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 April and 31 July 2015 at IS(Mf)16.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





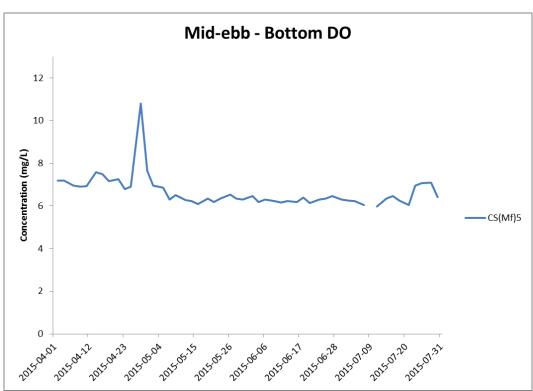
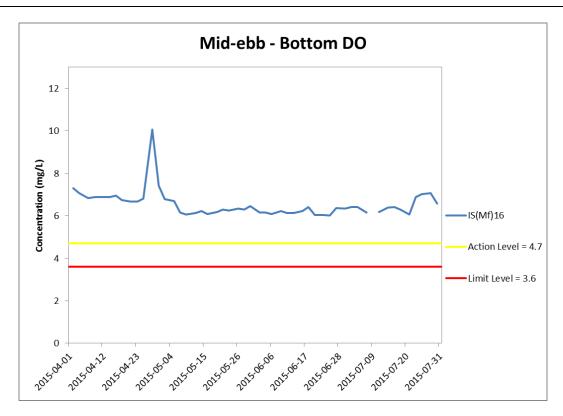


Figure J13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





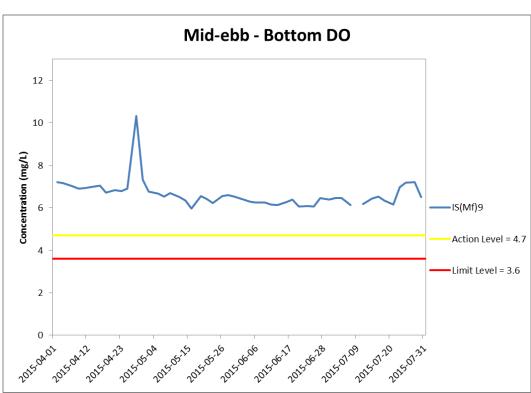
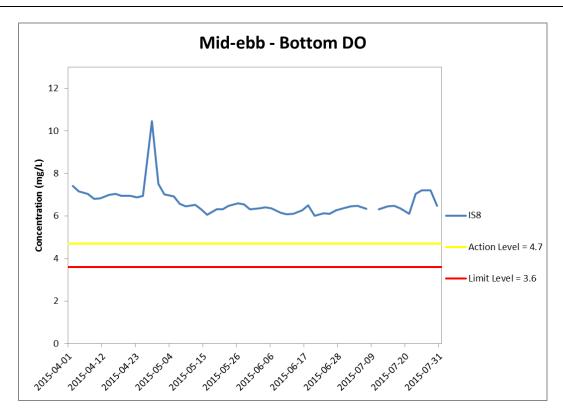


Figure J14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





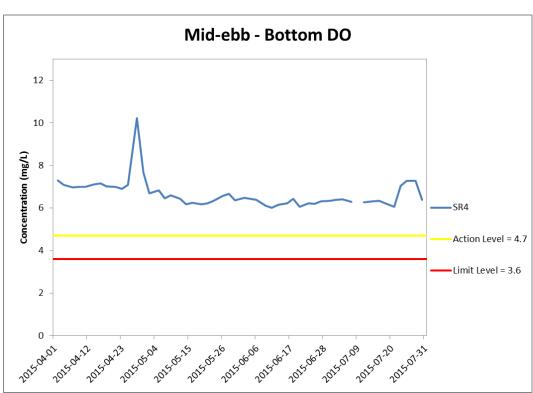


Figure J15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2015 at IS8 and SR4.

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)



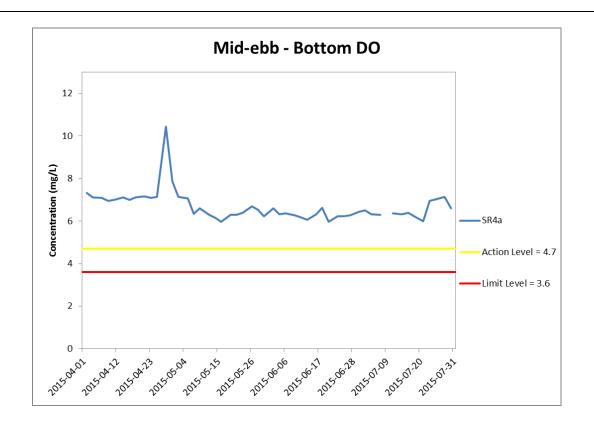
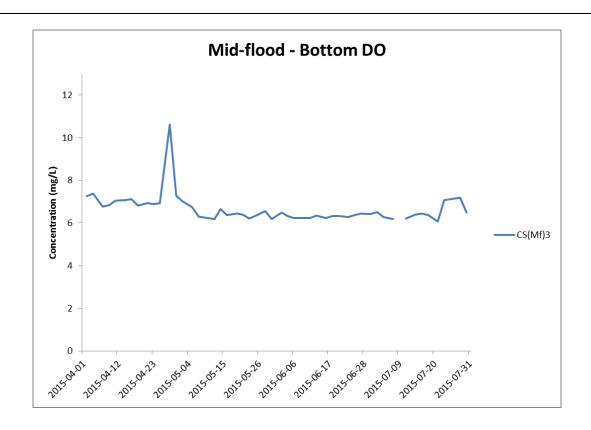


Figure J16 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





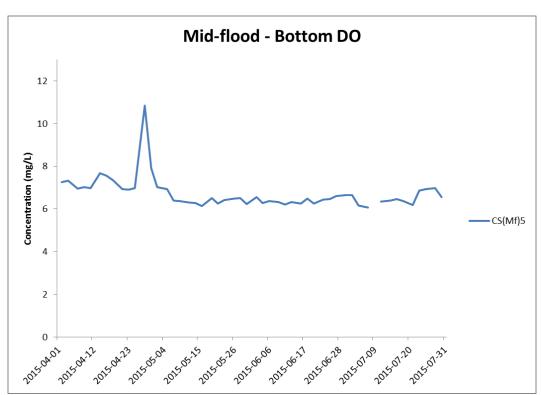
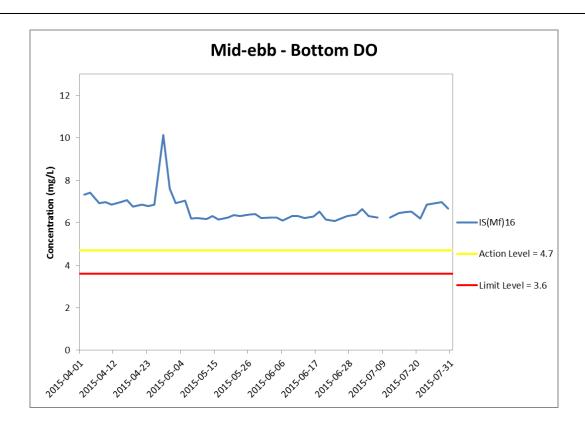


Figure J17 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





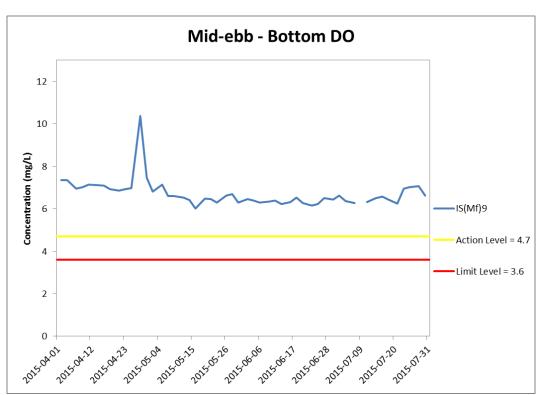
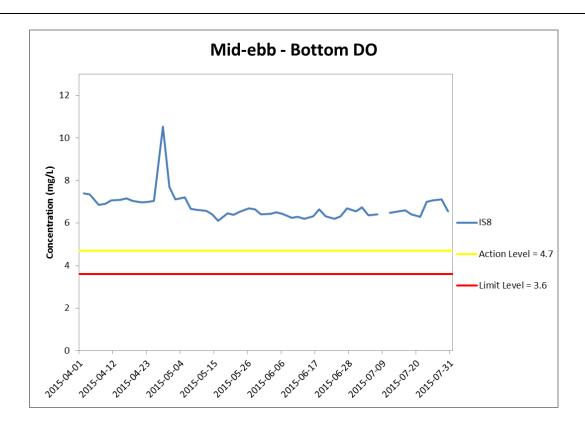


Figure J18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





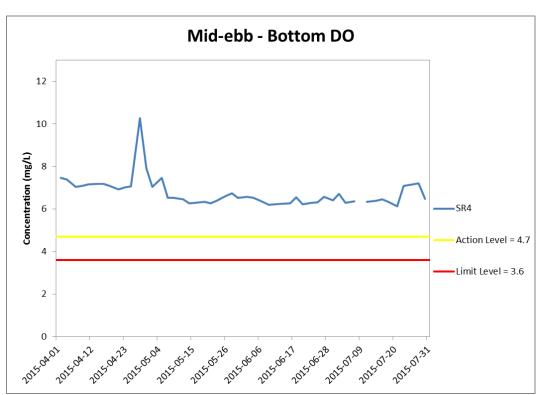


Figure J19 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2015 at IS8 and SR4.

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)



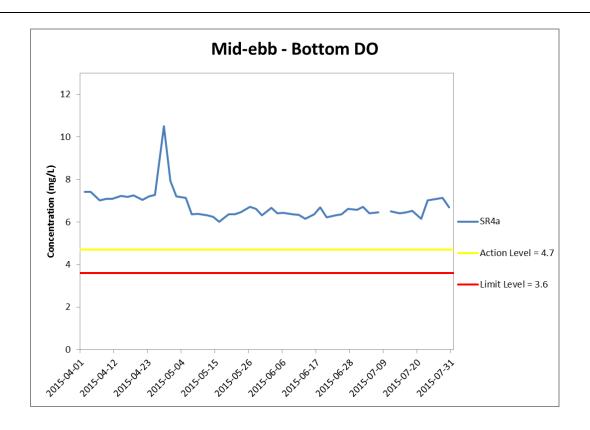
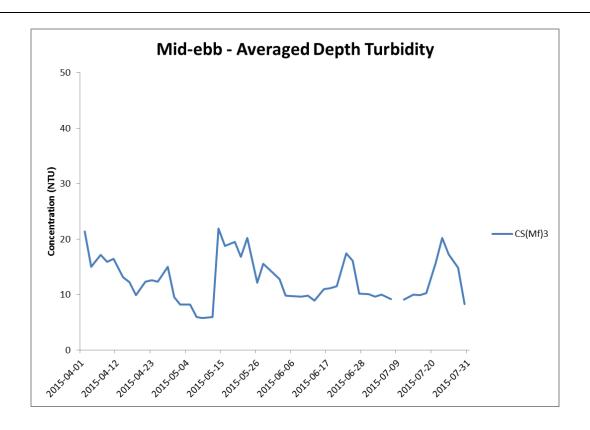


Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





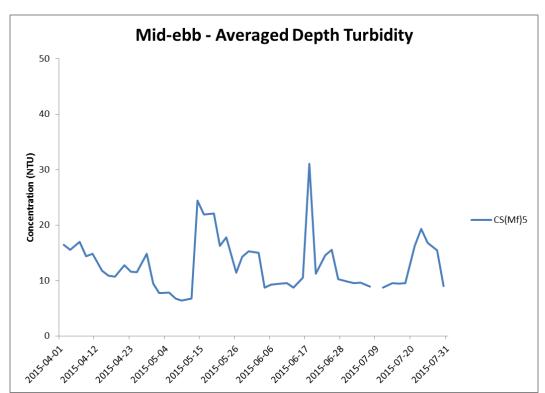
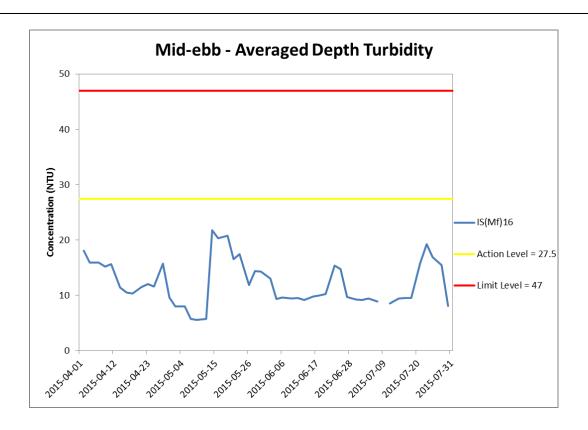


Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





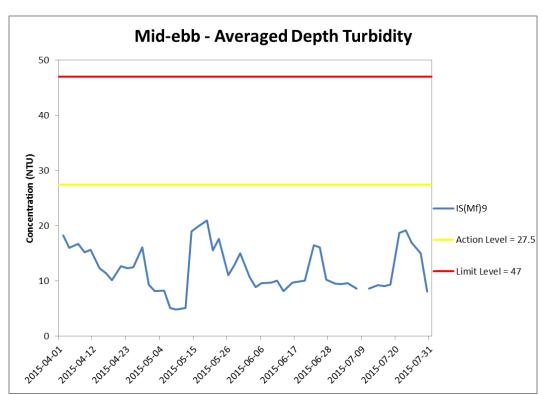
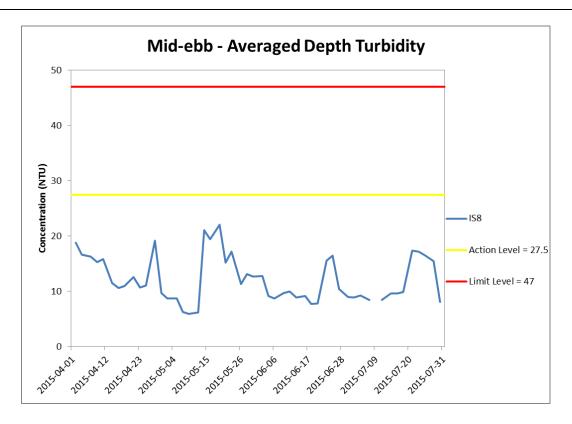


Figure J22 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





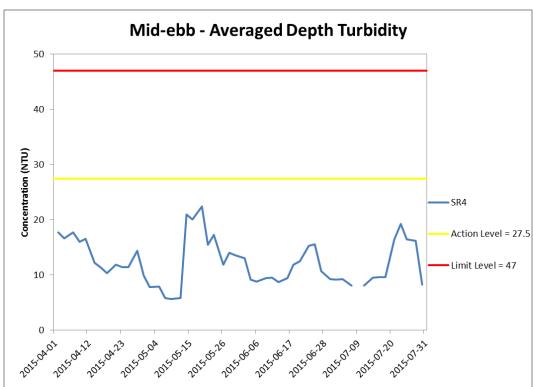


Figure J23 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2015 at IS8 and SR4.

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)



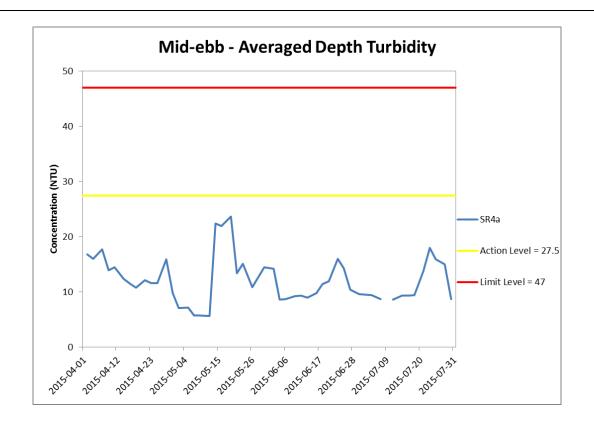
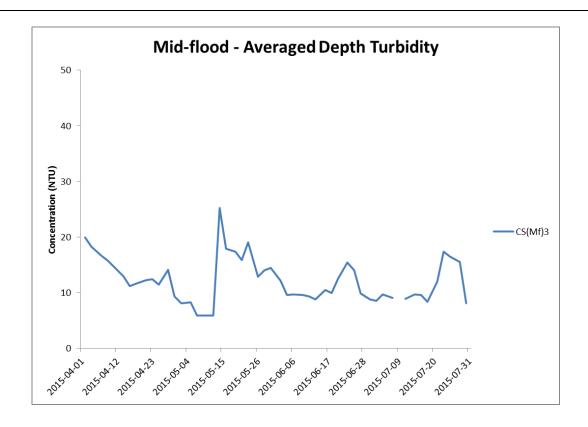


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





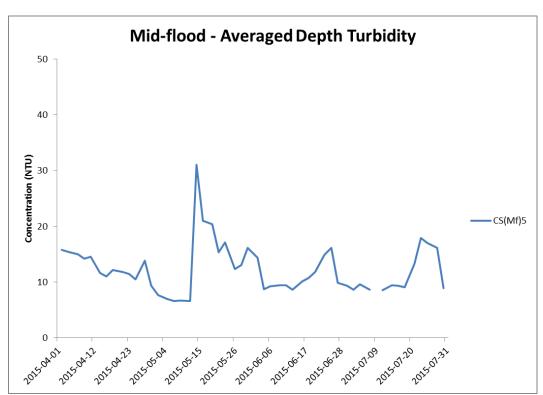
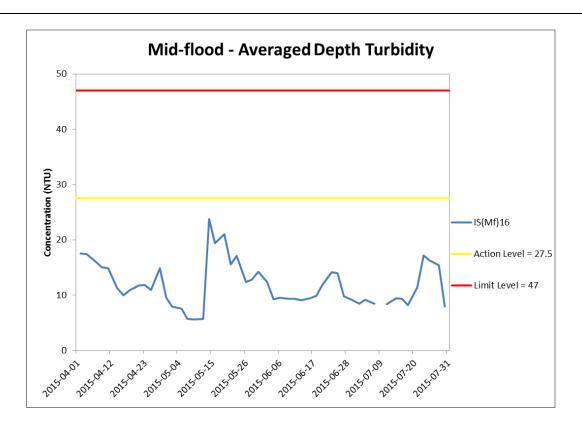


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(MF)5.

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)





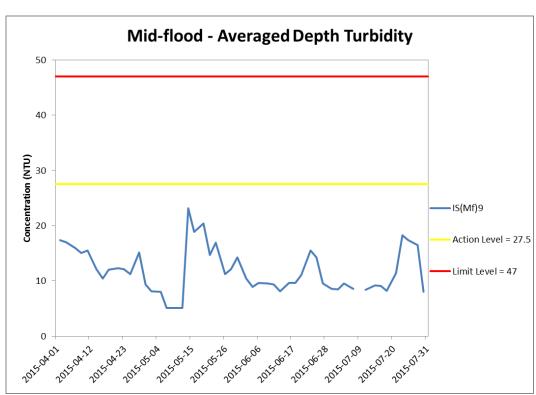
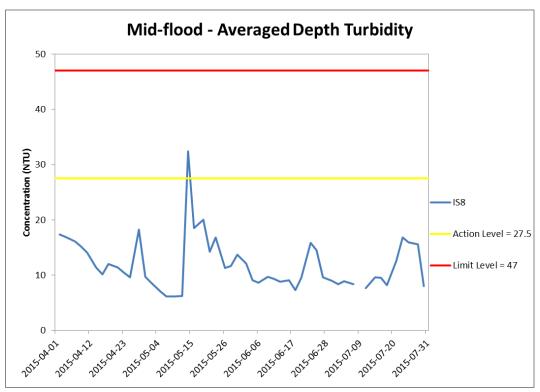


Figure J26 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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)





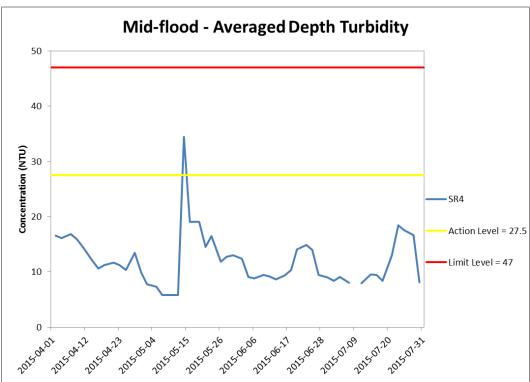


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2015 at IS8 and SR4.

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.



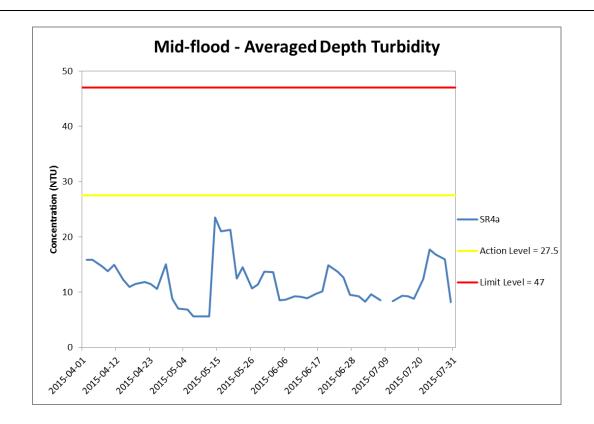
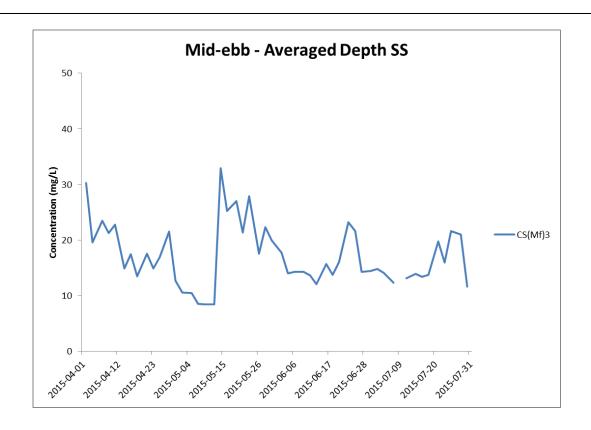


Figure J28 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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)





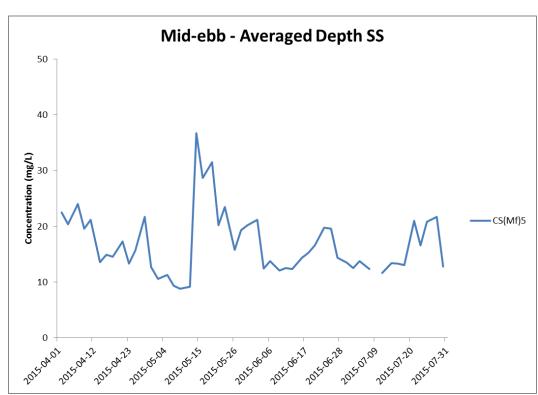
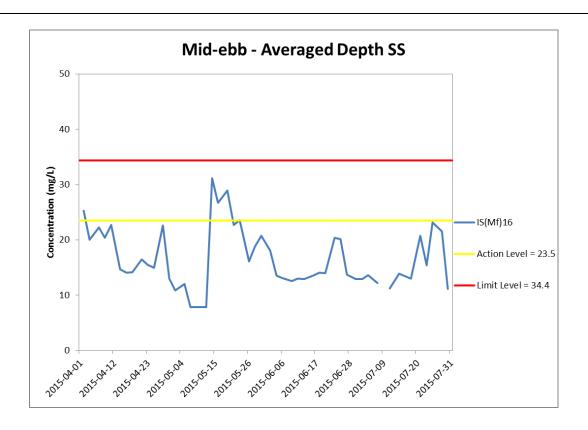


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





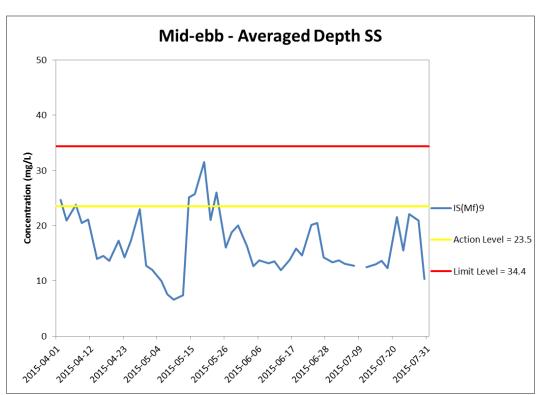
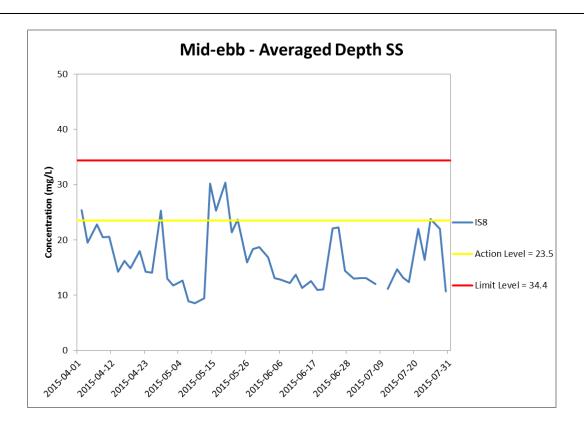


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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.





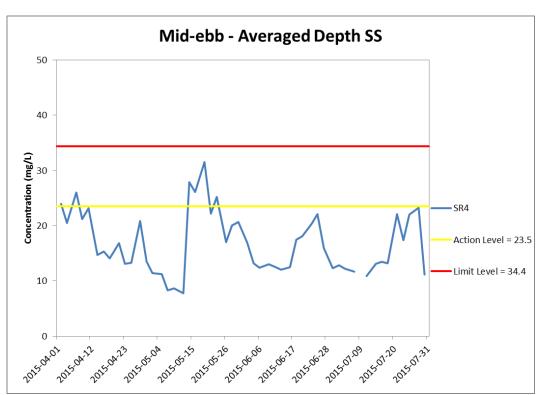


Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2015 at IS8 and SR4.

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.



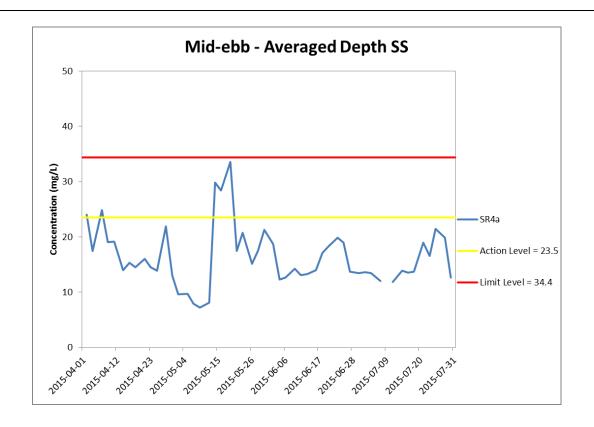
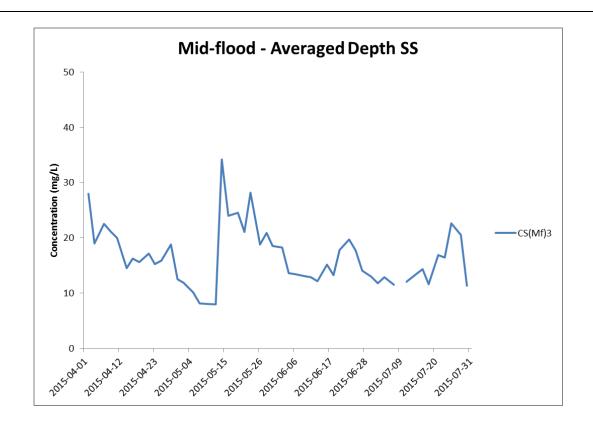


Figure J32 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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.





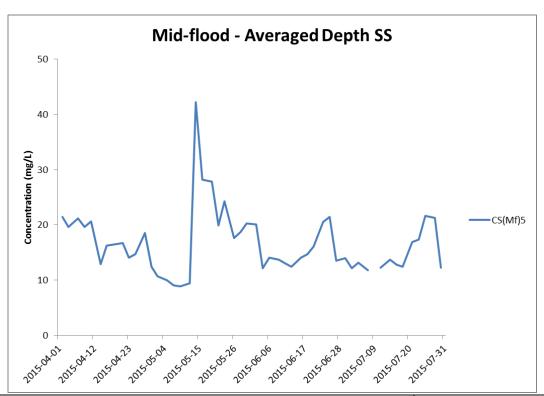
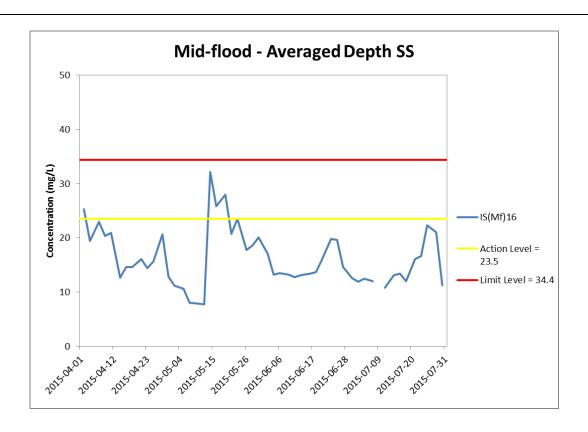


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2015 at CS(Mf)3 and CS(Mf)5.

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)





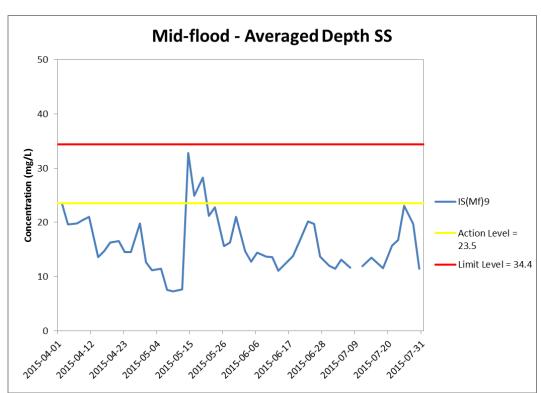
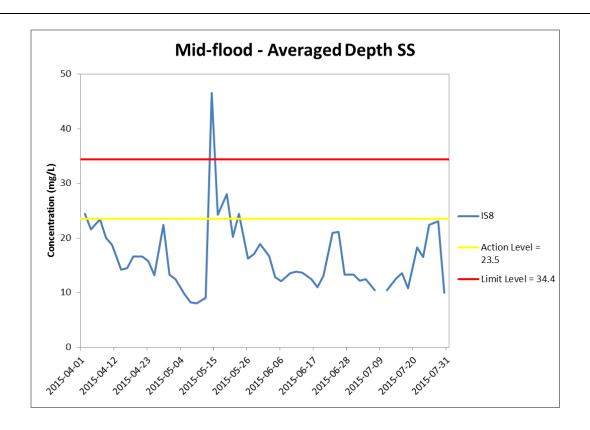


Figure J34 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2015 at IS(Mf)16 and IS(Mf)9.

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.





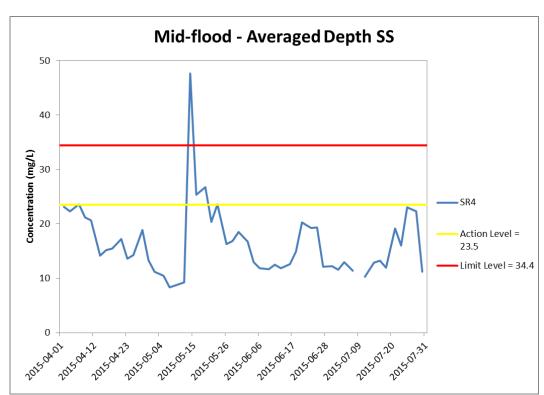


Figure J35 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2015 at IS8 and SR4.

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.



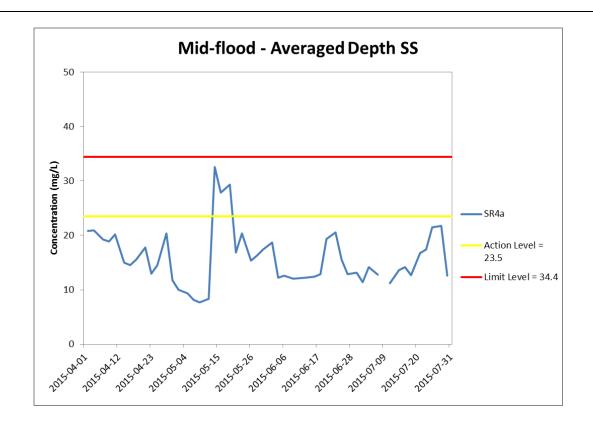


Figure J36 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2015 at SR4a.

WQM was cancelled on 9 July 2015 due to adverse weather. (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.



## Appendix K

## Impact Dolphin Monitoring Survey Results

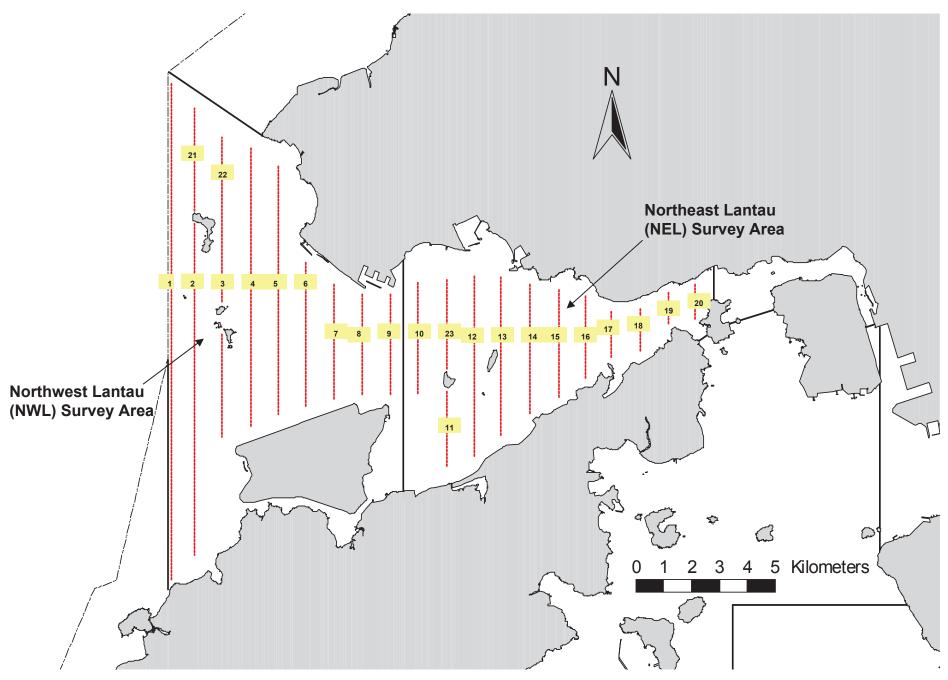


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

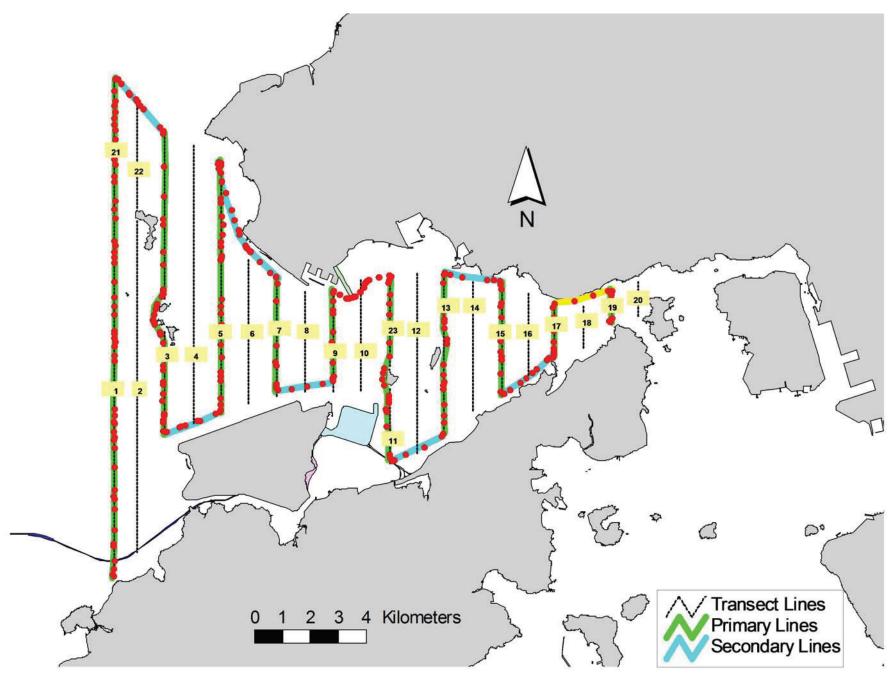


Figure 2. Survey Route on July 2<sup>nd</sup>, 2015 (from HKLR03 project)

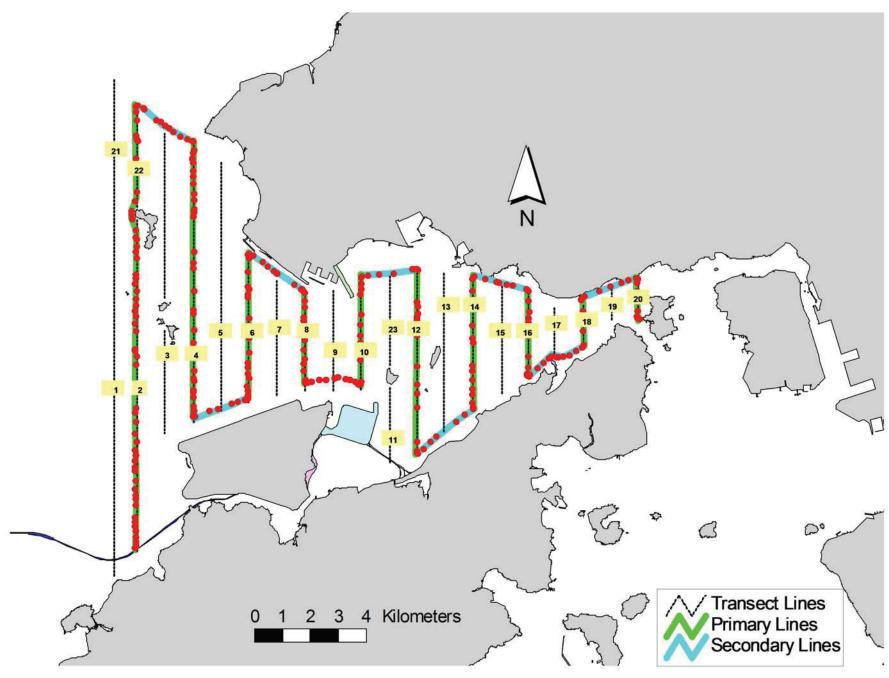


Figure 3. Survey Route on July 7th, 2015 (from HKLR03 project)

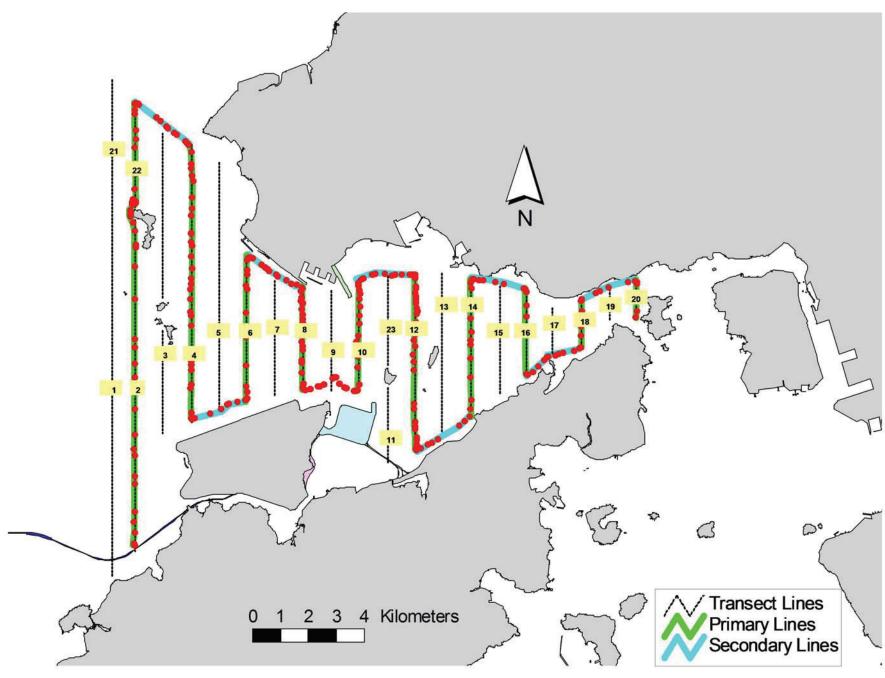


Figure 4. Survey Route on July 22<sup>nd</sup>, 2015 (from HKLR03 project)

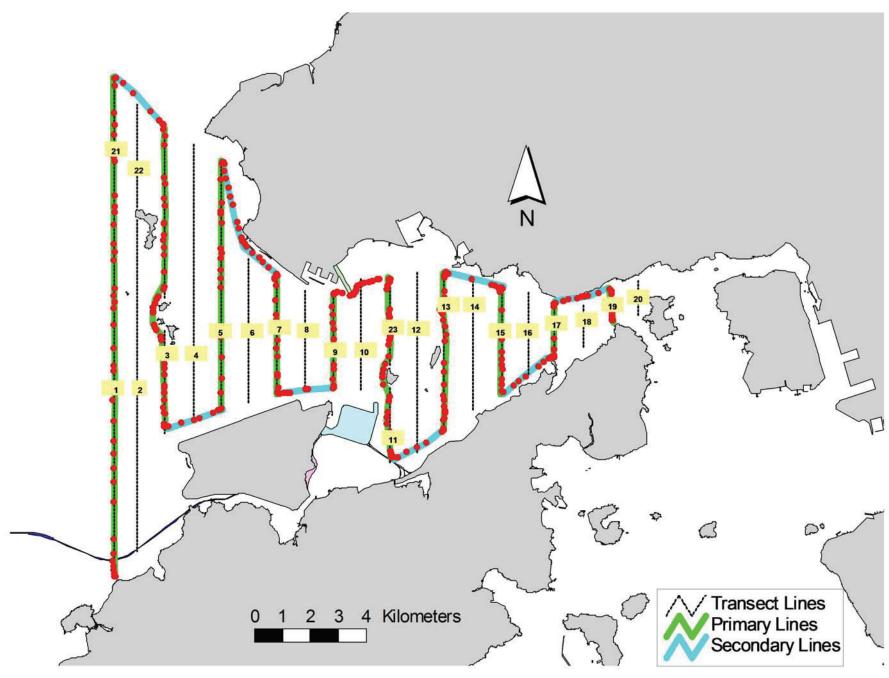


Figure 5. Survey Route on July 27th, 2015 (from HKLR03 project)

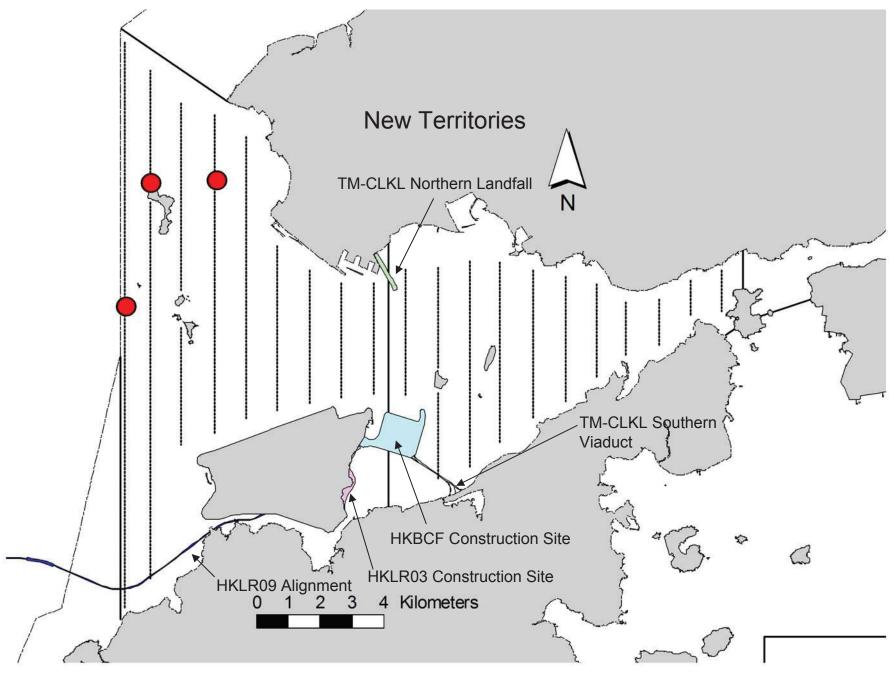


Figure 6. Distribution of Chinese White Dolphin Sightings During July 2015 HKLR03 Monitoring Surveys

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

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
2-Jul-15	NW LANTAU	2	1.80	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NW LANTAU	3	29.96	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NW LANTAU	4	6.90	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NW LANTAU	5	2.30	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NW LANTAU	3	6.30	SUMMER	STANDARD31516	HKLR	S
2-Jul-15	NW LANTAU	4	6.26	SUMMER	STANDARD31516	HKLR	S
2-Jul-15	NE LANTAU	2	14.61	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NE LANTAU	3	2.80	SUMMER	STANDARD31516	HKLR	Р
2-Jul-15	NE LANTAU	2	6.35	SUMMER	STANDARD31516	HKLR	S
2-Jul-15	NE LANTAU	3	3.44	SUMMER	STANDARD31516	HKLR	S
7-Jul-15	NE LANTAU	2	15.85	SUMMER	STANDARD31516	HKLR	Р
7-Jul-15	NE LANTAU	3	4.59	SUMMER	STANDARD31516	HKLR	Р
7-Jul-15	NE LANTAU	2	6.60	SUMMER	STANDARD31516	HKLR	S
7-Jul-15	NE LANTAU	3	4.36	SUMMER	STANDARD31516	HKLR	S
7-Jul-15	NW LANTAU	3	27.41	SUMMER	STANDARD31516	HKLR	Р
7-Jul-15	NW LANTAU	4	4.20	SUMMER	STANDARD31516	HKLR	Р
7-Jul-15	NW LANTAU	3	5.89	SUMMER	STANDARD31516	HKLR	S
7-Jul-15	NW LANTAU	4	1.90	SUMMER	STANDARD31516	HKLR	S
22-Jul-15	NW LANTAU	2	17.06	SUMMER	STANDARD31516	HKLR	Р
22-Jul-15	NW LANTAU	3	14.40	SUMMER	STANDARD31516	HKLR	Р
22-Jul-15	NW LANTAU	2	4.32	SUMMER	STANDARD31516	HKLR	S
22-Jul-15	NW LANTAU	3	2.62	SUMMER	STANDARD31516	HKLR	S
22-Jul-15	NE LANTAU	2	14.48	SUMMER	STANDARD31516	HKLR	Р
22-Jul-15	NE LANTAU	3	5.54	SUMMER	STANDARD31516	HKLR	Р
22-Jul-15	NE LANTAU	2	8.78	SUMMER	STANDARD31516	HKLR	S
22-Jul-15	NE LANTAU	3	2.00	SUMMER	STANDARD31516	HKLR	S
27-Jul-15	NW LANTAU	2	1.68	SUMMER	STANDARD31516	HKLR	Р
27-Jul-15	NW LANTAU	3	24.69	SUMMER	STANDARD31516	HKLR	Р
27-Jul-15	NW LANTAU	4	14.63	SUMMER	STANDARD31516	HKLR	Р
27-Jul-15	NW LANTAU	2	2.10	SUMMER	STANDARD31516	HKLR	S
27-Jul-15	NW LANTAU	3	8.60	SUMMER	STANDARD31516	HKLR	S
27-Jul-15	NW LANTAU	4	2.50	SUMMER	STANDARD31516	HKLR	S
27-Jul-15	NE LANTAU	2	8.93	SUMMER	STANDARD31516	HKLR	Р
27-Jul-15	NE LANTAU	3 2	7.93	SUMMER	STANDARD31516	HKLR	P S
27-Jul-15	NE LANTAU	3	7.74	SUMMER	STANDARD31516	HKLR	S
27-Jul-15	NE LANTAU	J	2.10	SUMMER	STANDARD31516	HKLR	े ।

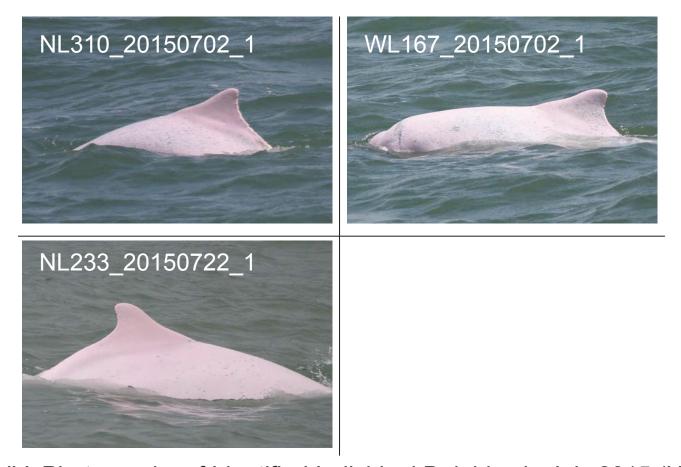
Appendix II. HKLR03 Chinese White Dolphin Sighting Database (July 2015)

(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 Lines

DATE	STG#	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
2-Jul-15	1	1051	2	NW LANTAU	3	158	ON	HKLR	823542	804688	SUMMER	NONE	Р
22-Jul-15	1	1055	3	NW LANTAU	3	153	ON	HKLR	827217	805458	SUMMER	NONE	Р
22-Jul-15	2	1140	1	NW LANTAU	3	147	ON	HKLR	827280	807549	SUMMER	NONE	Р

# Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in July 2015

ID#	DATE	STG#	AREA
NL233	22/07/15	1	NW LANTAU
NL310	02/07/15	1	NW LANTAU
WL167	02/07/15	1	NW LANTAU



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

Appendix L

Event Action Plan

Appendix L1 Event/Action Plan for Air Quality

		AC	ΓΙΟΝ	
EVENT	ET (1)	IEC (1)	SOR <sup>(1)</sup>	Contractor
Action Level				
1. Exceedance for one sample	<ol> <li>Identify the source.</li> <li>Inform the IEC and the SOR.</li> <li>Repeat measurement to confirm</li> </ol>	<ol> <li>Check monitoring data submitted by the ET.</li> <li>Check Contractor's working method.</li> </ol>	1. Notify Contractor.	<ol> <li>Rectify any unacceptable practice</li> <li>Amend working methods if appropriate</li> </ol>
	<ul><li>finding.</li><li>4. Increase monitoring frequency to daily.</li></ul>			
2. Exceedance for two or more consecutive samples	<ol> <li>Identify the source.</li> <li>Inform the IEC and the SOR.</li> <li>Repeat measurements to confirm findings.</li> <li>Increase monitoring frequency to daily.</li> <li>Discuss with the IEC and the Contractor on remedial actions required.</li> <li>If exceedance continues, arrange meeting with the IEC and the SOR.</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by the ET.</li> <li>Check the Contractor's working method.</li> <li>Discuss with the ET and the Contractor on possible remedial measures.</li> <li>Advise the SOR on the effectiveness of the proposed remedial measures.</li> <li>Supervisor implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing.</li> <li>Notify the Contractor.</li> <li>Ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>

	ACTION									
EVENT	ET <sup>(1)</sup>	IEC (1)	SOR <sup>(1)</sup>	Contractor						
Limit Level										
1. Exceedance for one	1. Identify the source.	1. Check monitoring data submitted	1. Confirm receipt of notification of	1. Take immediate action to avoid						
sample	2. Inform the SOR and the DEP.	by the ET.	failure in writing.	further exceedance						
	<ol><li>Repeat measurement to confirm finding.</li></ol>	Check Contractor's working method.	<ul><li>2. Notify the Contractor.</li><li>3. Ensure remedial measures are</li></ul>	<ol><li>Submit proposals for remedial actions to IEC within 3 working days of notification</li></ol>						
	<ol><li>Increase monitoring frequency to daily.</li></ol>	3. Discuss with the ET and the Contractor on possible remedial measures.	properly implemented.	3. Implement the agreed proposals						
	<ol><li>Assess effectiveness of Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of</li></ol>	<ul><li>4. Advise the SOR on the effectiveness of the proposed remedial measures.</li></ul>		4. Amend proposal if appropriate						
	the results.	<ol><li>Supervisor implementation of remedial measures.</li></ol>								
2. Exceedance for two or more consecutive	1. Notify the IEC, the SOR, the DEP and the Contractor.	<ol> <li>Discuss amongst the SOR, ET and the Contractor on the</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance.</li> </ol>						
samples	2. Identify the source.	potential remedial actions.	2. Notify the Contractor.	2. Submit proposals for remedial						
	3. Repeat measurements to confirm findings.	2. Review the Contractor's remedial actions whenever	3. In consultation with the IEC, agree with the Contractor on the	actions to IEC within 3 working days of notification.						
	4. Increase monitoring frequency to	necessary to assure their effectiveness and advise the	remedial measures to be implemented.	3. Implement the agreed proposals.						
	daily.	SOR accordingly.	4. Ensure remedial measures are	<ol><li>Resubmit proposals if problem still not under control.</li></ol>						
	<ol> <li>Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented.</li> </ol>	3. Supervise the implementation of remedial measures.	properly implemented.  5. If exceedance continues, consider what activity of the work is responsible and instruct the	5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.						
	<ol><li>Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken.</li></ol>		Contractor to stop that activity of work until the exceedance is abated.							
	7. Assess effectiveness of the Contractor's remedial actions									

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

8. If the exceedance stops, cease additional monitoring.

Appendix L2 Event/Action Plan for Construction Noise

		ACTI	ION	
EVENT	ET	IEC	SOR	Contractor
Action Level	<ol> <li>Notify the IEC and the Contractor.</li> <li>Carry out investigation.</li> </ol>	Review the analysed results submitted by the ET.	Confirm receipt of notification of failure in writing.	Submit noise mitigation proposals to IEC
	<ol> <li>Report the results of investigation to the IEC and the Contractor.</li> <li>Discuss with the Contractor and formulate remedial measures.</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	measures by the Contractor and advise the SOR accordingly.  3. Supervise the implementation of remedial measures.	<ol> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	Implement noise mitigation proposals
2. 3. 4.	1. Notify the IEC, the SOR, the DEP and the Contractor.	and the Contractor on the potential	Confirm receipt of notification of failure in writing.	Take immediate action to avoid further exceedance
	<ol> <li>Identify the source.</li> <li>Repeat measurement to confirm findings.</li> </ol>	2 Parriage the Contractor's remodial	<ol> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed</li> </ol>	<ol><li>Submit proposals for remedial actions to IEC within 3 working days of notification</li></ol>
	<ul><li>4. Increase monitoring frequency.</li><li>5. Carry out analysis of Contractor's working procedures to determine</li></ul>	<ul><li>assure their effectiveness and advise the SOR accordingly.</li><li>3. Supervise the implementation of remedial measures.</li></ul>	noise problem.  4. Ensure remedial measures are properly implemented.	<ul><li>3. Implement the agreed proposals</li><li>4. Resubmit proposals if problem still not under control</li></ul>
	<ul><li>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></ul>	remediai measures.	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.	5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.
	<ol> <li>Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results.</li> </ol>			
	<ol><li>If exceedance stops, cease additional monitoring.</li></ol>	1		

Appendix L3 Event/Action Plan for Water Quality

Event	ET	Leader		IEC	S	OR		Contractor
Action level being exceeded by one sampling day	1.	Repeat in situ measurement on next day of exceedance to confirm findings;	1.	Check monitoring data submitted by ET and Contractor's working methods.	1.	Confirm receipt of notification of non-compliance in writing;	1.	Inform the SOR and confirm notification of the non-compliance in writing;
	2.	Identify source(s) of impact;			2.	Notify Contractor.	2.	Rectify unacceptable practice;
	3.	Inform IEC, contractor and SOR;					3.	Amend working methods if appropriate.
	4.	Check monitoring data, all plant, equipment and Contractor's working methods.						··FI
Action 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 on the proposed mitigation measures;	1.	Inform the Supervising Officer and confirm notification of the non-
	2.	Identify source(s) of impact;	2	D: :1 FE 1.0	•	T		compliance in writing;
	3.	Inform IEC, contractor, SOR and EPD;	2.	Discuss with ET and Contractor on possible remedial actions;	2.	Ensure mitigation measures are properly implemented;	2.	Rectify unacceptable practice;
	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.	Assess the effectiveness of the implemented mitigation measures.	3.	Check all plant and equipment and consider changes of working methods;
	5.	Discuss mitigation measures with IEC,					4.	Submit proposal of additional
		SOR and Contractor;	4.	Supervise the implementation of mitigation measures.				mitigation measures to SOR within 3 working days of
	6.	Ensure mitigation measures are implemented;		mugutori measures.				notification and discuss with ET, IEC and SOR;
	7.	Increase the monitoring frequency to daily until no exceedance of Action level;					5.	Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	1.	Repeat measurement on next day of exceedance to confirm findings;	1.	Check monitoring data submitted by ET and Contractor's working method;	1.	Confirm receipt of notification of failure in writing;	1.	Inform the SOR and confirm notification of the non-compliance in writing;

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

Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring

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

Event ET Leader	IEC	SOR	Contractor
<ol> <li>Repeat statistical data analysis to confirm finding 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>Identify source(s) of impact;</li> <li>Inform the IEC, ER/SOR and Contractor of findings;</li> <li>Check monitoring data;</li> <li>Repeat review to ensure all the dolphin protective measures are fully and properly implemented an advise on additional measures if necessary;</li> <li>If ET proves that the source of impact is caused be 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>	by ET and Contractor;  2. Discuss monitoring results and findings with the ET and the Contractor;  3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;  4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise ER/SOR of the results and findings accordingly;  5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly.	with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;  2. If ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/SOR to signify the agreement in writing	non- compliance in writing;  2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures;  3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary;  4. Implement the agreed

Appendix L5 Event and Action Plan on Dolphin Acoustic Behaviour

EVENT		ACTION		
	ET Leader	IEC	SO	Contractor
Action Level				
With the numerical values presented in <i>Table 5.7</i> of <i>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</i> of <i>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> <li>Repeat statistical data analysis to confirm findings;</li> <li>Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences;</li> <li>Identify source(s) of impact;</li> <li>Inform the IEC, SO and Contractor;</li> <li>Check monitoring data;</li> <li>Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary</li> </ol>	<ol> <li>Check monitoring data submitted by ET and Contractor;</li> <li>Discuss monitoring with the ET and the Contractor;</li> </ol>	<ol> <li>Discuss with the IEC the repeat monitoring and any other measures proposed by the ET;</li> <li>Make agreement on measures to be implemented.</li> </ol>	<ol> <li>Inform the SO and confirm notification of the non- compliance in writing;</li> <li>Discuss with the ET and the IEC and propose measures to the IEC and the SO;</li> <li>Implement the agreed measures.</li> </ol>

EVENT		ACTION		
	ET Leader	IEC	SO	Contractor
Limit Level  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	1. Repeat statistical data analysis to confirm findings;  2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences;	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET;	<ol> <li>Inform the SO and confirm notification of the non-compliance in writing;</li> <li>Discuss with the ET and</li> </ol>
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	<ol> <li>Identify source(s) of impact;</li> <li>Inform the IEC, SO and Contractor;</li> <li>Check monitoring data;</li> <li>Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary</li> <li>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>	3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly.	Make agreement on measures to be implemented.	the IEC and propose measures to the IEC and the SO;  3. Implement the agreed measures.

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

## Appendix M

Monthly Summary of Waste Flow Table

Contract No.: HY/2012/07

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

Monthly Summary Waste Flow Table for 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> )	('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	-	61.380	0.091	-
Feb	6.233	0.148	0.461	-	5.759	0.014	0.801	0.110	0.223	-	0.400	141.020	-	73.690	0.112	-
Mar	10.149	0.220	0.473	-	9.600	0.077	0.618	0.073	0.149	-	-	120.940	-	9.140	0.203	-
Apr	9.986	0.410	2.261	-	7.694	0.032	-	-	-	-	-	133.630	-	2.740	0.105	-
May	8.753	0.177	0.662	-	8.091	-	0.550	-	-	-	-	107.920	-	13.070	0.042	-
Jun	8.517	0.132	1.351	-	7.166	-	0.324	0.118	0.169	-	0.017	89.930	-	2.000	0.119	-
SUB-TOTAL	57.217	1.168	6.197	-	50.782	0.238	2.471	0.530	0.799	-	0.417	725.610	-	162.020	0.672	-
Jul	3.391	0.137	0.992	-	2.322	0.078	-	-	-	-	1.400	111.570	-	-	0.105	-
Aug	-	-	-		-	-	-	-		-	1.200	-	-	-	-	-
Sep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	60.608	1.306	7.188	-	53.104	0.316	2.471	0.530	0.799	-	3.017	837.180	-	162.020	0.777	-

#### 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	Action	0	7
Monitoring	Limit	0	2

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

Reporting Period	Cumulative Statistics						
_	Complaints	Notifications of	Successful				
		Summons	Prosecutions				
This Reporting Month (July 2015)	0	0	0				
Total No. received since project commencement	3	0	0				