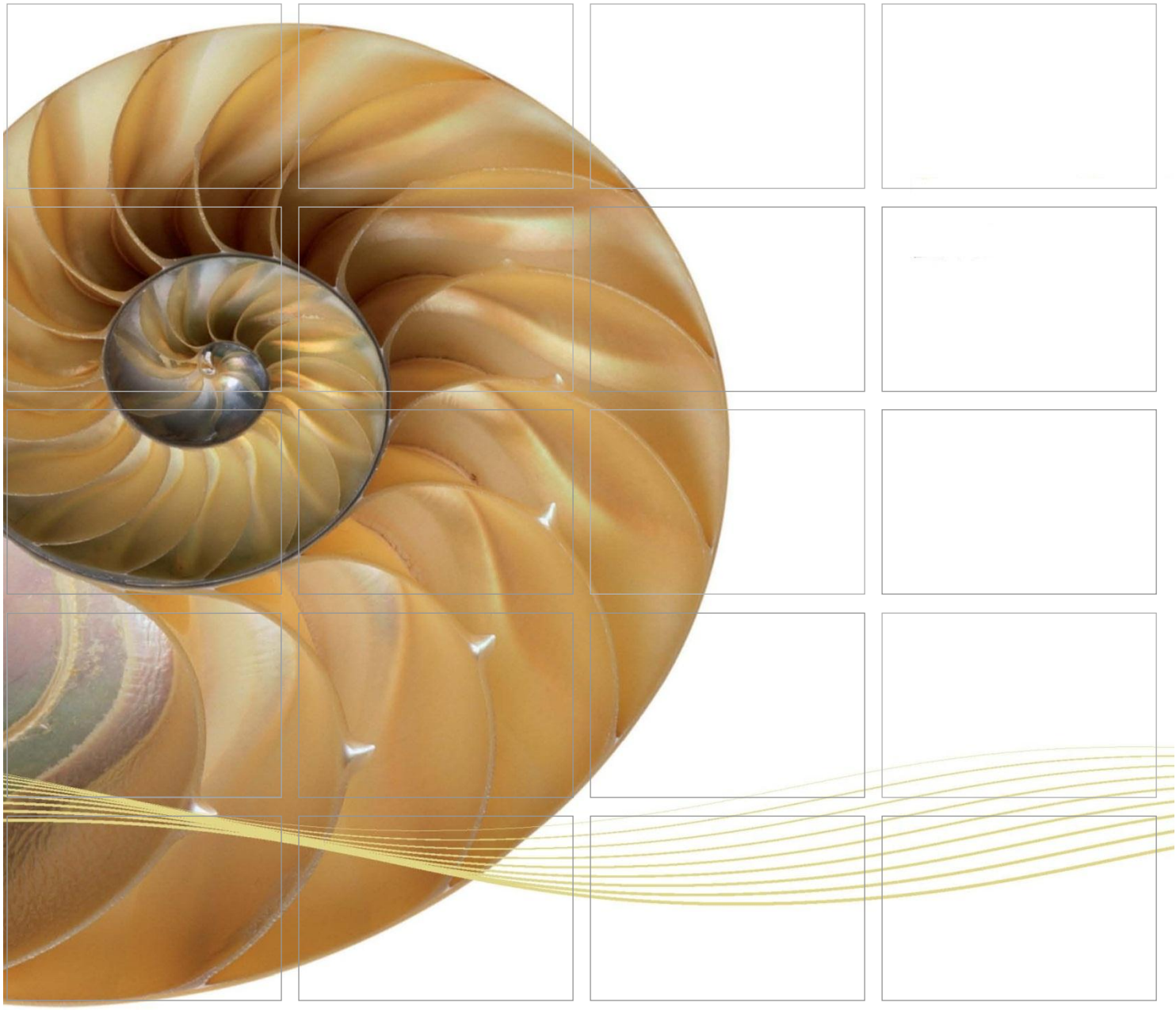
Report



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

Sixth Monthly Environmental Monitoring & Audit (EM&A) Report

14 May 2014

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

www.erm.com

ERM

The world's leading sustainability consultancy

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

Sixth Monthly Environmental Monitoring & Audit (EM&A) Report

Document Code: 0212330_6th Monthly EM&A_20140513.doc

Environmental Resources Management

16/F, DCH Commercial Centre
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: DBJV	Project No: 0212330
Summary: This document presents the Sixth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section.	Date: 14 May 2014 Approved by: *Mr Craig Reid* *Partner* Certified by: *Mr Jovy Tam* *ET Leader*

Revision	Description	By	Checked	Approved	Date
	6th Monthly EM&A Report	VAR	JT	CAR	14/05/14

Distribution

☐ Internal

☒ Public

☐ Confidential

OHSAS 18001:2007
Certificate No. OHS 515956

ISO 9001 : 2008
Certificate No. FS 32515

Ref.: HYDHZMBEEM00_0_1919L.14 15 May 2014

AECOM By Fax (2450 3099) and By Post
Supervising Officer Representative's Office
Room 201, 2nd Floor,
River Trade Terminal Office Building,
201 Lung Mun Road, Tuen Mun, Hong Kong

Attention: Messrs. Edwin Ching / Andy Westmorelan

Dear Sir,

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

Contract No. HY/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section
Monthly EM&A Report for April 2014 (EP-354/2009/B)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (for April 2014) certified by the ET Leader (ET's ref.: "0212330_6th Monthly EM&A_20140513.doc" dated 14 May 2014) and provided to us via email on 14 May 2014.

We are pleased to inform you that we have no adverse comments on the captioned monthly EM&A Report. We write to verify the captioned submission in accordance with Condition 4.4 of EP-354/2009/B.

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,

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)
Dragages – Mr. C. F. Kwong (By Fax: 2670 2798)

Internal: DY, YH, PL, ENPO Site

T:\Projects\HYDHZMBEEM00\02_Proj_Mgt\02_Corr\HYDHZMBEEM00_0_1919L.14.doc

ENVIRON Hong Kong Limited 英環香港有限公司
Room 2403 Jubilee Centre, 18 Fenwick Street, Wan Chai, Hong Kong. Tel: 852 3465 2888 Fax: 852 3465 2899
www.environcorp.com

TABLE OF CONTENTS

	EXECUTIVE SUMMARY	*I*
1	*INTRODUCTION*	*1*
1.1	*BACKGROUND*	*1*
1.2	*SCOPE OF REPORT*	*2*
1.3	*ORGANIZATION STRUCTURE*	*2*
1.4	*SUMMARY OF CONSTRUCTION WORKS*	*2*
2	*EM&A RESULTS*	*4*
2.1	*AIR QUALITY*	*4*
2.2	*WATER QUALITY MONITORING*	*6*
2.3	*DOLPHIN MONITORING*	*8*
2.4	*POST-TRANSLOCATION CORAL MONITORING*	*11*
2.5	*EM&A SITE INSPECTION*	*12*
2.6	*WASTE MANAGEMENT STATUS*	*13*
2.7	*ENVIRONMENTAL LICENSES AND PERMITS*	*13*
2.8	*IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES*	*15*
2.9	*SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT*	*15*
2.10	*SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS*	*15*
3	*FUTURE KEY ISSUES*	*16*
3.1	*CONSTRUCTION ACTIVITIES FOR THE COMING MONTH*	*16*
3.2	*KEY ISSUES FOR THE COMING MONTH*	*16*
3.3	*MONITORING SCHEDULE FOR THE COMING MONTH*	*16*
4	*CONCLUSIONS AND RECOMMENDATIONS*	*17*
4.1	*CONCLUSIONS*	*17*

APPENDIX A	*PROJECT ORGANIZATION*
APPENDIX B	*THREE MONTHS PROGRAMME*
APPENDIX C	*ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULES (EMIS)*
APPENDIX D	*ACTION AND LIMIT LEVELS*
APPENDIX E	*CALIBRATION CERTIFICATE*
APPENDIX F	*MONITORING SCHEDULE*
APPENDIX G	*AIR QUALITY MONITORING RESULTS*
APPENDIX H	*METEOROLOGICAL DATA*
APPENDIX I	*WATER QUALITY MONITORING RESULTS*
APPENDIX J	*IMPACT DOLPHIN MONITORING*
APPENDIX K	*EVENT AND ACTION PLAN*
APPENDIX L	*CUMULATIVE STATISTICS ON EXCEEDANCE AND COMPLAINT*
APPENDIX M	*WASTE FLOW TABLE*

Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel Section of the Tuen Mun – Chek Lap Kok Link Project (TM-CLK Link Project) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET) in accordance with *Environmental Permit No. EP-354/2009/A*. ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO). Another application for variation of environmental permit (VEP) (*EP-354/2009/B*) was granted on 28 January 2014.

The construction phase of the Project commenced on 1 November 2013 and will tentatively be completed by the end of 2018. The impact monitoring of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.

This is the Sixth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 30 April 2014 for the *Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section* (the "Project") in accordance with the Updated EM&A Manual of the TM-CLK Link Project. As informed by the Contractor, major activities in the reporting period included:

Marine-based Works

- Dredging at Portion N-C;
- Reclamation filling at Portion N-A;
- Construction of Vertical Seawall and Sloping Seawall at Portion N-B; and,
- Marine Sheet Piling for Box Culvert extension at Portion N-A.

Land-based Works

- CLP Substation structure works in Portion N6; and,
- CLP Substation E&M works in Portion N6.

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
Impact Water Quality Monitoring	13 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental Site Inspection	5 sessions

Daily marine mammal exclusion zone monitoring was undertaken during the period of dredging works. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* was recorded in April 2014 during the exclusion zone monitoring.

Summary of Breaches of Action/Limit Levels

Breaches of Action and Limit Levels for Air Quality

One Action Level exceedance for 1-hr TSP was recorded from the air quality monitoring in this reporting period. No Limit Level exceedances for 1-hr TSP were recorded. No Action or Limit Level exceedances for 24-hr TSP were record. The exceedance was considered to be due to the sporadic events from cumulative anthropogenic activities in this area of Hong Kong and thus the construction works under this Project were highly unlikely to be the major cause of the recorded exceedance upon further investigation.

Breaches of Action and Limit Levels for Water Quality

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

Dolphin Monitoring

During this month of dolphin monitoring, no unacceptable impact from the construction activities of the TM-CLKL Northern Connection Sub-sea Tunnel 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 unacceptable impacts on dolphins have been detected related to the construction activities of the TM-CLKL Northern Connection Sub-sea 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.

Post Translocation Coral Monitoring

The Second Quarterly Post-Translocation Coral Monitoring was conducted on 16 April 2014 and results were detailed in the *Second Quarterly Post-Translocation Coral Monitoring Report*. The findings indicated that the Action or Limit Levels for coral monitoring were not exceeded as increase in percentage of partial mortality was not detected for both the tagged translocated and natural coral colonies when comparing to the pre-translocation dataset.

Environmental Complaints, Non-compliance & Summons

No non-compliance with EIA recommendations, EP conditions and other requirements associated with the construction of this Contract was recorded in this reporting period.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

Reporting Change

There was no reporting change required in the reporting period.

Upcoming Works for the Next Reporting Month

Works to be undertaken in the next monitoring period of May 2014 include the following:

Marine-based Works

- Dredging;
- Reclamation filling;
- Vertical Seawall construction;
- Sloping Seawall construction;
- Marine Sheet Piling for Box Culvert extension; and
- Predrilling for Box Culvert Foundation.

Land-based Works

- CLP Substation underground utilities works; and
- CLP Substation Superstructure.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of May 2014 are expected to be mainly associated with dust, marine water quality, marine ecology and waste management.

1 INTRODUCTION

1.1 BACKGROUND

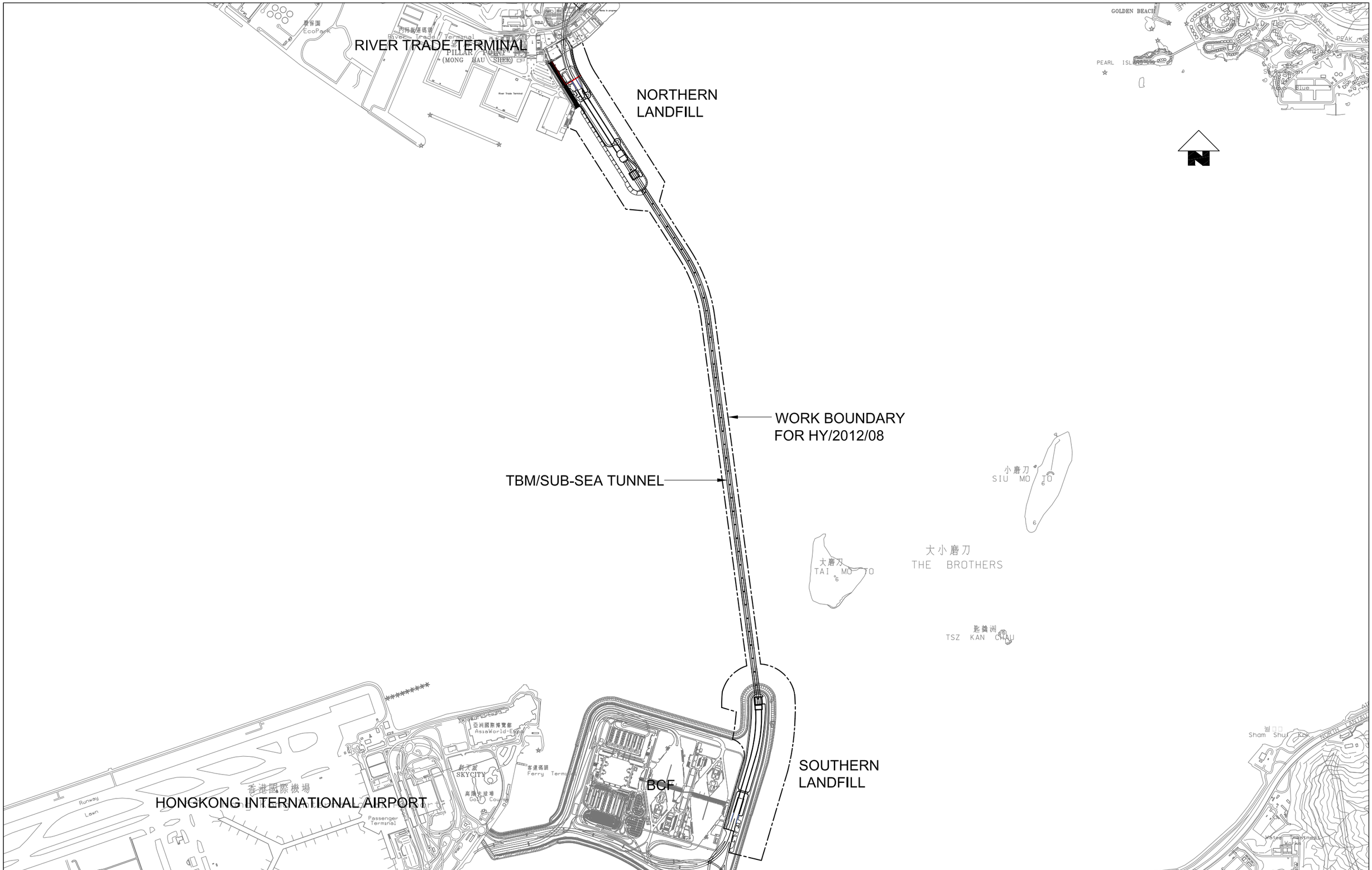
According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated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

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process* (*EIAO-TM*). The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-145/2009), an Environmental Permit (EP-354/2009) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variation (VEP) (EP-354/2009A) was issued on 8 December 2010. Another application for VEP (EP-354/2009/B) was granted on 28 January 2014.

Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel Section of TM-CLKL while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO).

Layout of the Contract components is presented in *Figure 1.1*.

The construction phase of the Contract commenced on 1 November 2013 and will tentatively be completed by 2018. The impact monitoring phase of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.



				Designed By	PKV
				Drawn By	DAI
				Approved By	SPo PP
A	FIRST ISSUE	11SEP13	PKV	Date	11SEP2013
Rev.	Description	Date	Checked		

Main Contractor

香寶嘉 Dragages HongKong

A member of the Bouygues Construction group

BOUYGUES TRAVAUX PUBLICS

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

Client

路政署 HIGHWAYS DEPARTMENT

Contractor's Designer

ARUP Ove Arup & Partners Hong Kong Limited

Project

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

Drawing Title

Figure 1.1

Drawing no.	TMCLKL8-DBJ-GEN-DWG-00174
Scale	1:25000 @ A3
CADD Ref.	TMCLKL8-DBJ-GEN-DWG-00174-DFT-A
Issue Status	DFT (DRAFT)
Revision	A

1.2 SCOPE OF REPORT

This is the Sixth Monthly EM&A Report under the *Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section*. This report presents a summary of the environmental monitoring and audit works in April 2014.

1.3 ORGANIZATION STRUCTURE

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

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Highways Department	Engr 16/HZMB	Kenneth Lee	2762 4996	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Edwin Ching	2450 3111	2450 3099
		Andrew Westmoreland	2450 3511	2450 3099
ENPO / IEC (ENVIRON Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3465 2888	3465 2899
	IEC	Dr. F.C. Tsang	3465 2828	3465 2899
Contractor (Dragages – Bouygues Joint Venture)	Environmental Manager	C.F. Kwong	2293 7322	2670 2798
	Environmental Officer	Bryan Lee	2293 7323	2670 2798
	24-hour complaint hotline	Rachel Lam	2293 7342	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of this Contract was commenced on 1 November 2013. The three-month rolling construction programme is shown in *Appendix B*.

As per DBJV's information, details of major construction works carried out in this reporting period are summarized in *Table 1.2*.

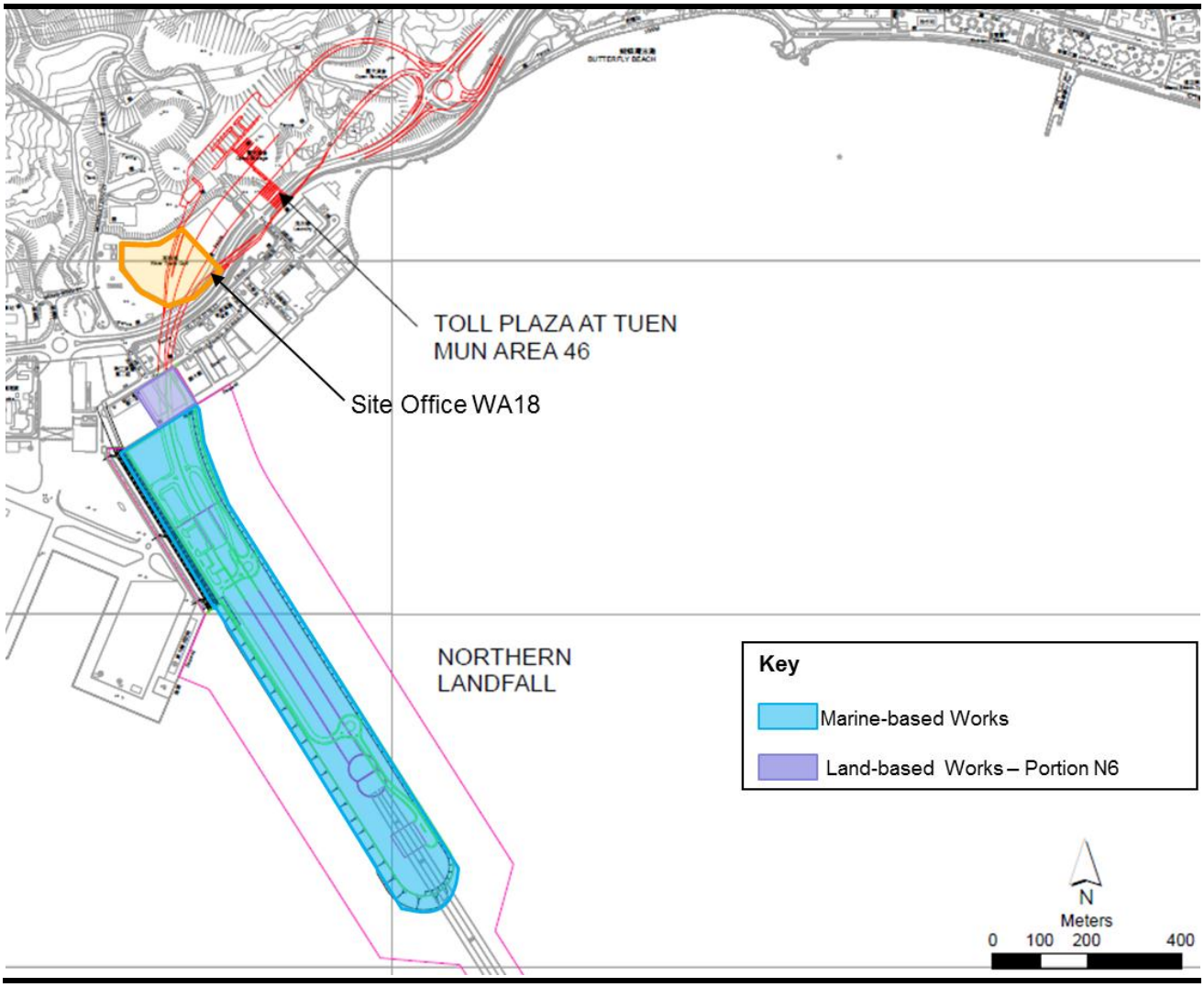
The general layout plan of the site showing the detailed works areas is shown in *Figure 1.2*. The Environmental Sensitive Receivers in the vicinity of the Project are shown in *Figure 1.3*.

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

Table 1.2 Summary of Construction Activities Undertaken during the Reporting Period

Construction Activities Undertaken
Marine-based Works
• Dredging at Portion N-C; • Reclamation filling at Portion N-A; • Construction of Vertical Seawall and Sloping Seawall at Portion N-B; and, • Marine Sheet Piling for Box Culvert extension at Portion N-A.
Land-based Works
Portion N6 • CLP Substation structure works • CLP Substation E&M works

Figure 1.2 Locations of Construction Activities – April 2014



2 EM&A RESULTS

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

2.1 AIR QUALITY

2.1.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual and the Enhanced TSP Monitoring Plan, impact 1-hour TSP monitoring was conducted three (3) times every six (6) days and impact 24-hour TSP monitoring was carried out once every six (6) days when the highest dust impact was expected.

High volume samplers (HVSs) were used to carry out the 1-hour and 24-hour TSP monitoring on 3, 9, 15, 18, 24 and 30 April 2014 at the five (5) air quality monitoring stations in accordance with the requirements stipulated in the Updated EM&A Manual (*Figure 2.1*; *Table 2.1*). Wind anemometer was installed at the rooftop of ASR5 for logging wind speed and wind direction. Details of the equipment deployed are provided in *Table 2.2*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.1 Locations of Impact Air Quality Monitoring Stations and Monitoring Dates in this Reporting Period

Monitoring Station	Monitoring Dates	Location	Description	Parameters & Frequency
ASR1	3, 9, 15, 18, 24 and 30 April 2014	Tuen Mun Fireboat Station	Office	• 1-hour Total Suspended Particulates (1-hour TSP, $\mu g/m^3$), 3 times in every 6 days
ASR5		Pillar Point Fire Station	Office	• 24-hour Total Suspended Particulates (24-hour TSP, $\mu g/m^3$), daily for 24-hour in every 6 days
AQMS1		Previous River Trade Golf	Bare ground	
ASR6		Butterfly Beach Laundry	Office	
ASR10		Butterfly Beach Park	Recreational uses	

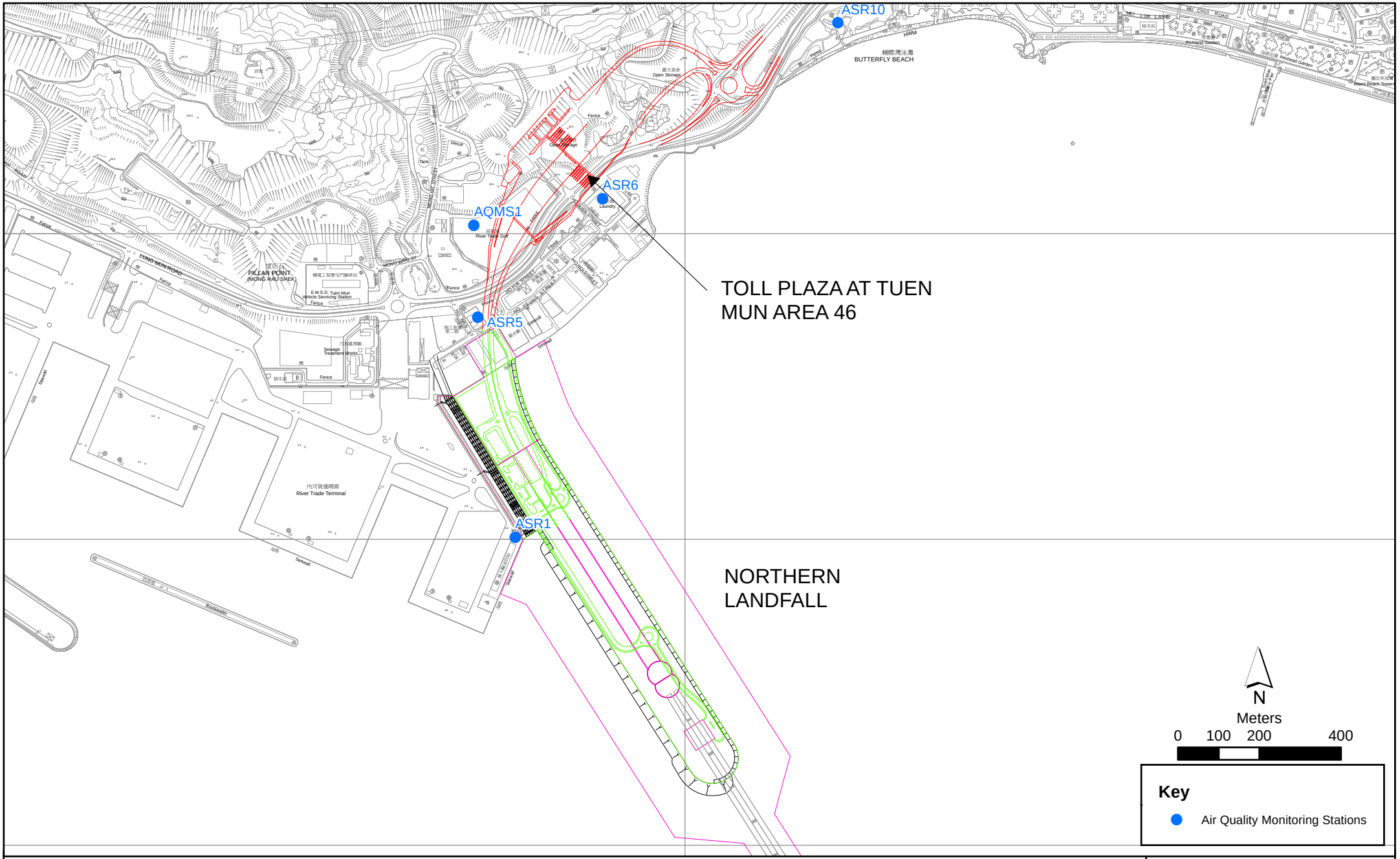


Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring

File: T:\GIS\CONTRACT\0212330\Mxd\0212330_ASR_for_Enhanced_TSP_monitoring.mxd
Date: 21/2/2014

Environmental Resources Management

ERM

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

Equipment	Brand and Model
High Volume Sampler (1-hour TSP and 24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Sampler (Model No. TE-5170)
Wind Anemometer	MetPak, WindSonic (Wind Direction: WE570; Wind Speed Sensor: WE550)

2.1.2 Action & Limit Levels

The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.1.3 Monitoring Schedule for the Reporting Month

The schedule for air quality monitoring in April 2014 is provided in *Appendix F*.

2.1.4 Results and Observations

The monitoring results for 1-hour TSP and 24-hour TSP are summarized in *Tables 2.3* and *2.4,* respectively. Detailed impact air quality monitoring results and graphical presentations are presented in *Appendix G*.

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

Station	Average (µg/m³)	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
ASR1	162	79 - 261	331	500
ASR5	180	104 - 271	340	500
AQMS1	158	85 - 291	335	500
ASR6	145	92 - 211	338	500
ASR10	140	59 - 381	337	500

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

Station	Average (µg/m³)	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
ASR1	98	76 - 135	213	260
ASR5	110	81 - 133	238	260
AQMS1	87	49 - 129	213	260
ASR6	80	47 - 105	238	260
ASR10	73	54 - 95	214	260

The weather condition during the monitoring period varied from sunny to cloudy. The major dust sources in the reporting period include construction activities under the Contract as well as nearby traffic emissions.

A total of six monitoring events were undertaken in which one Action Level exceedance of 1-hr TSP was recorded in this reporting month. No Limit

Level exceedances for 1-hr TSP were recorded. No Action or Limit Level exceedances for 24-hr TSP were record.

Meteorological information collected at the ASR5, including wind speed and wind direction, is provided in *Appendix H*.

2.2 WATER QUALITY MONITORING

2.2.1 Monitoring Requirements & Equipment

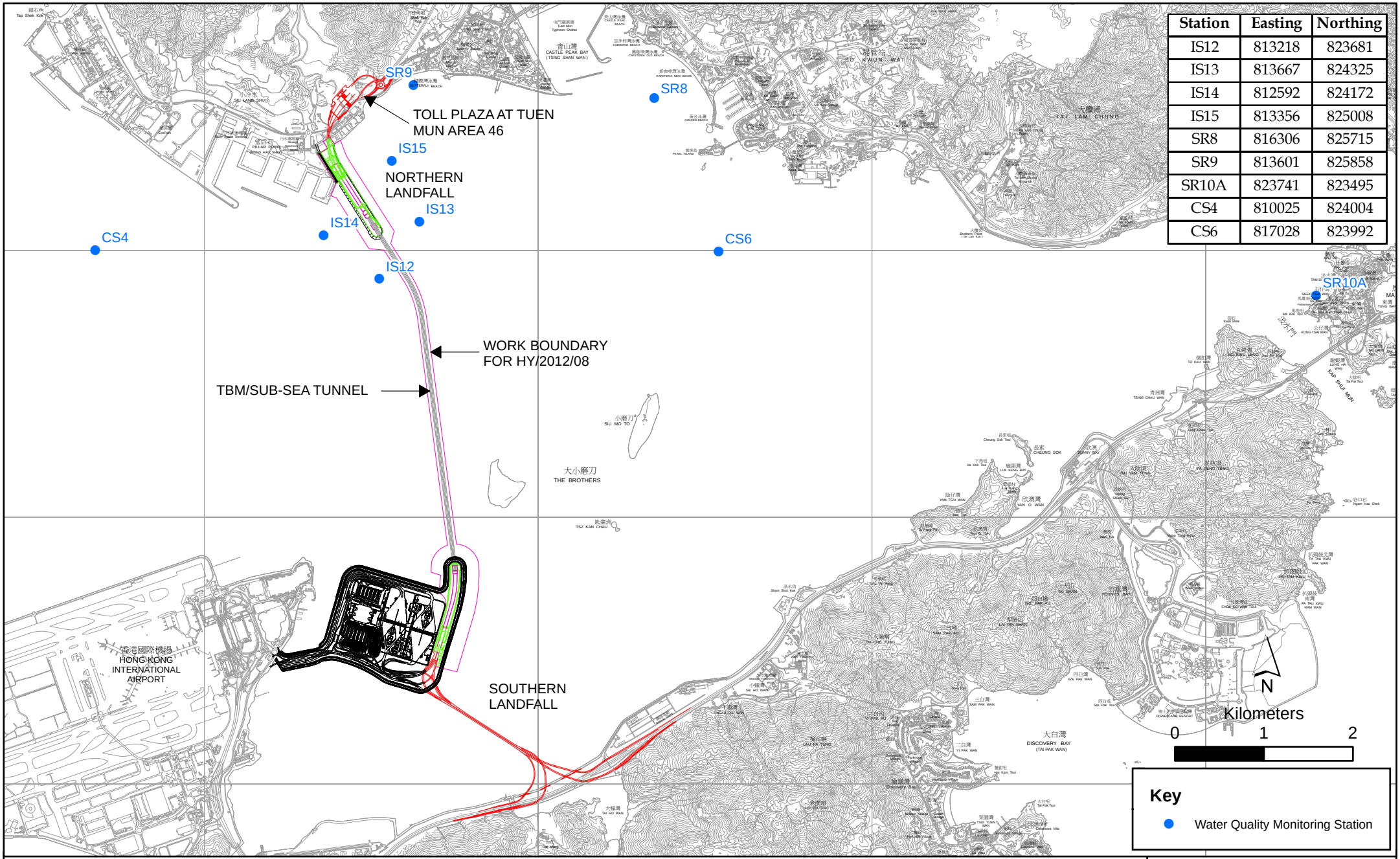
In accordance with the Updated EM&A Manual, impact water quality monitoring was carried out three days per week during the construction period at nine (9) water quality monitoring stations (*Figure 2.2*; *Table 2.5*).

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

Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
		Easting	Northing			
IS12	Impact Station	813218	823681	• Temperature(°C)	3 water depths: 1m below sea surface, mid-depth and 1m above sea bed. If the water depth is less than 3m, mid-depth sampling only. If water depth less than 6m, mid-depth may be omitted.	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract.
IS13	Impact Station	813667	824325	• pH(pH unit)		
IS14	Impact Station	812592	824172	• Turbidity (NTU)		
IS15	Impact Station	813356	825008	• Water depth (m)		
CS4	Control / Far Field Station	810025	824004	• Salinity (ppt)		
CS6	Control / Far Field Station	817028	823992	• DO (mg/L and % of saturation)		
SR8	Sensitive receiver (Gazettal beaches in Tuen Mun)	816306	825715	• SS (mg/L)		
SR9	Sensitive receiver (Butterfly Beach)	813601	825858			
SR10A	Sensitive receiver (Ma Wan FCZ)	823741	823495			

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

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



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

Figure 2.2

Water Quality Monitoring Station

File: T:\GIS\CONTRACT\0212330\Mxd\0212330_WQMS.mxd
Date: 15/11/2013

Environmental Resources Management

ERM

Table 2.6 Water Quality Monitoring Equipment

Equipment	Model	Qty.
Water Sampler	Kahlsico Water-Bottle Model 135DW 150	1
Dissolved Oxygen Meter	YSI Pro 2030	1
pH Meter	HANNA HI 8314	1
Turbidity Meter	HACH 2100Q	1
Monitoring Position	"Magellan" Handheld GPS Model eXplorist GC	4
Equipment	DGPS Koden KGP913MK2 (1)	1

2.2.2 *Action & Limit Levels*

The Action and Limit levels of water quality impact monitoring are shown in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.2.3 *Monitoring Schedule for the Reporting Month*

The schedule for water quality monitoring in April 2014 is provided in *Appendix F.*

2.2.4 *Results and Observations*

During this reporting period, major marine works included dredging at Portion N-C and reclamation filling at Portion N-A. A closed grab dredger was used and silt curtains (cage-type and single floating type) were deployed during dredging works. The level of dredging activities was within the working rate described in the EP and the approved EIA Report. In addition, reclamation filling was undertaken between the 200 m of leading seawalls using filling materials specified in the EP and the approved EIA Report with a single layer silt curtain being deployed as a precautionary measure to reduce dispersion of suspended solids. It is useful to note that heavy marine traffic (not associated with the Project) was commonly observed nearby the Project site and its vicinity.

Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Results and graphical presentations of impact water quality monitoring are presented in *Appendix I*.

In this reporting period, a total of thirteen monitoring events were undertaken in which no Action or Limit Level of water quality exceedance was recorded.

2.3 DOLPHIN MONITORING

2.3.1 Monitoring Requirements

Impact dolphin monitoring is required to be conducted by a qualified dolphin specialist team to evaluate whether there have been any effects on the dolphins. In order to fulfil the EM&A requirements and make good use of available resources, the on-going impact line transect dolphin monitoring data collected by HyD's *Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge. Hong Kong Link Road - Section between Scenic Hill and Hong Kong Boundary Crossing Facilities* on the monthly basis is adopted to avoid duplicates of survey effort.

2.3.2 Monitoring Equipment

Table 2.7 summarises the equipment used for the impact dolphin monitoring.

Table 2.7 Dolphin Monitoring Equipment

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

2.3.3 Monitoring Parameter, Frequencies & Duration

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

2.3.4 Monitoring Location

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in *Figure 2.3*. The co-ordinates of all transect lines are shown in *Table 2.8* below.

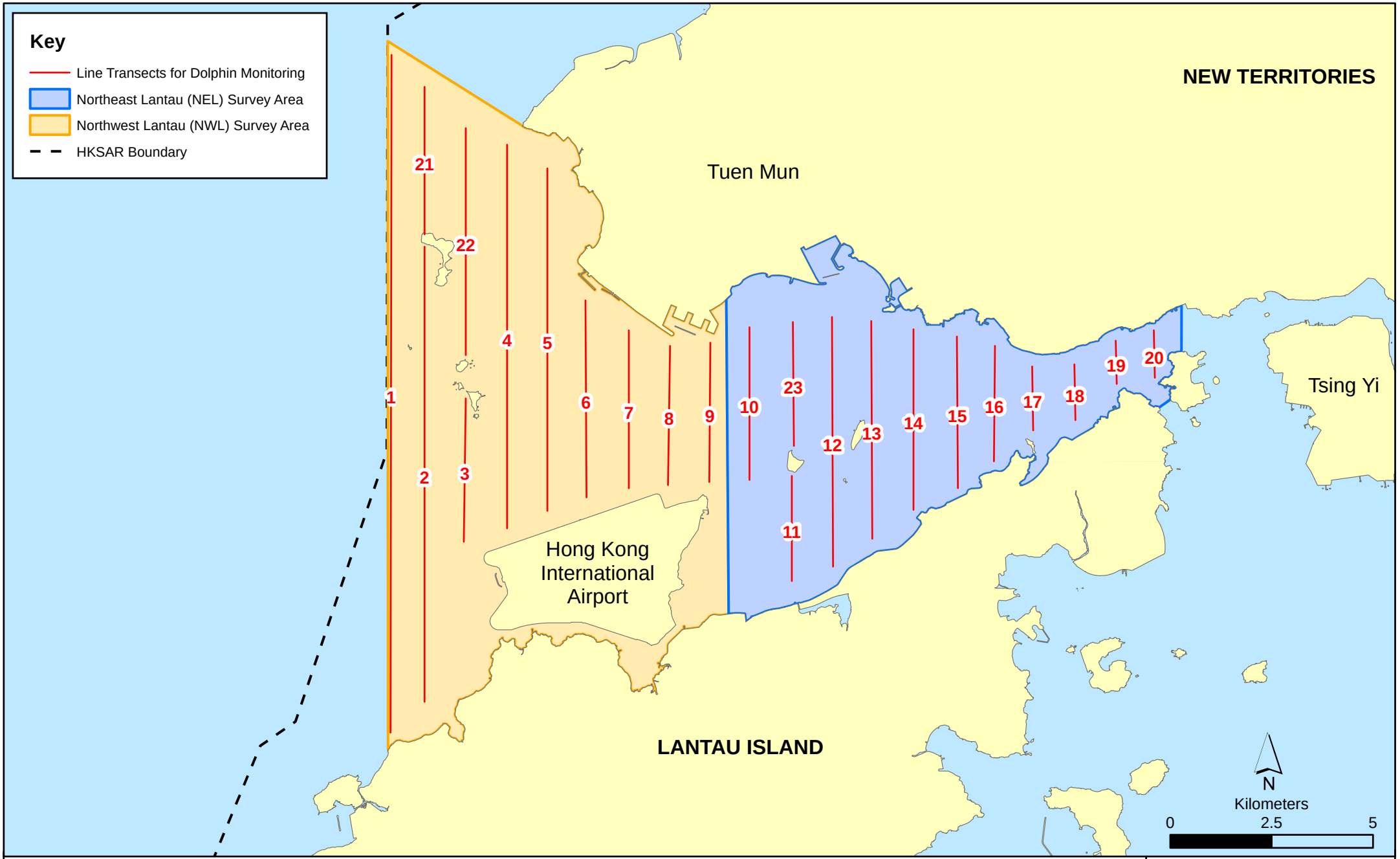


Figure 2.3

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

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

Environmental Resources Management

ERM

Table 2.8 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				

2.3.5 Action & Limit Levels

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

2.3.6 Monitoring Schedule for the Reporting Month

Dolphin monitoring was carried out on 4, 14, 16 and 24 April 2014. The dolphin monitoring schedule for the reporting month is shown in *Appendix F*.

2.3.7 Results & Observations

A total of 296.94 km of survey effort was collected, with 79.8% of the total survey effort being conducted under favourable weather conditions (ie Beaufort Sea State 3 or below with good visibility) in April 2014. Amongst the two areas, 117.60 km and 179.34 km of survey effort were collected from NEL and NWL survey areas, respectively. The total survey effort conducted on primary and secondary lines were 213.95 km and 82.99 km, respectively. The survey efforts are summarized in *Appendix J*.

A total of 8 groups of 30 Chinese White Dolphin sightings were recorded during the two sets of surveys in April 2014. All sightings were made in NWL during the two sets of surveys in April 2014, with no dolphin being sighted in NEL. Five of the eight sightings were made on primary lines during on-effort search and none of the dolphin groups was associated with operating fishing vessel.

None of these 8 sightings was made in the vicinity of the TM-CLKL Northern Landfall. The distribution of dolphin sightings during the reporting month is shown in *Figure 2.4*.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below with good visibility) in April 2014 with the results present in *Tables 2.9* and *2.10*.

Table 2.9 Individual Survey Event Encounter Rates

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	**Encounter rate (ANI)** (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	**Primary Lines Only**
NEL	Set 1: Apr 4th/14th	0.0	0.0
	Set 2: Apr 16th/24th	0.0	0.0
NWL	Set 1: Apr 4th/14th	4.9	26.9
	Set 2: Apr 16th/24th	4.9	11.5

Note: Dolphin Encounter Rates are deduced from the Two Sets of Surveys (Two Surveys in Each Set) in April 2014 in Northeast (NEL) and Northwest Lantau (NWL)

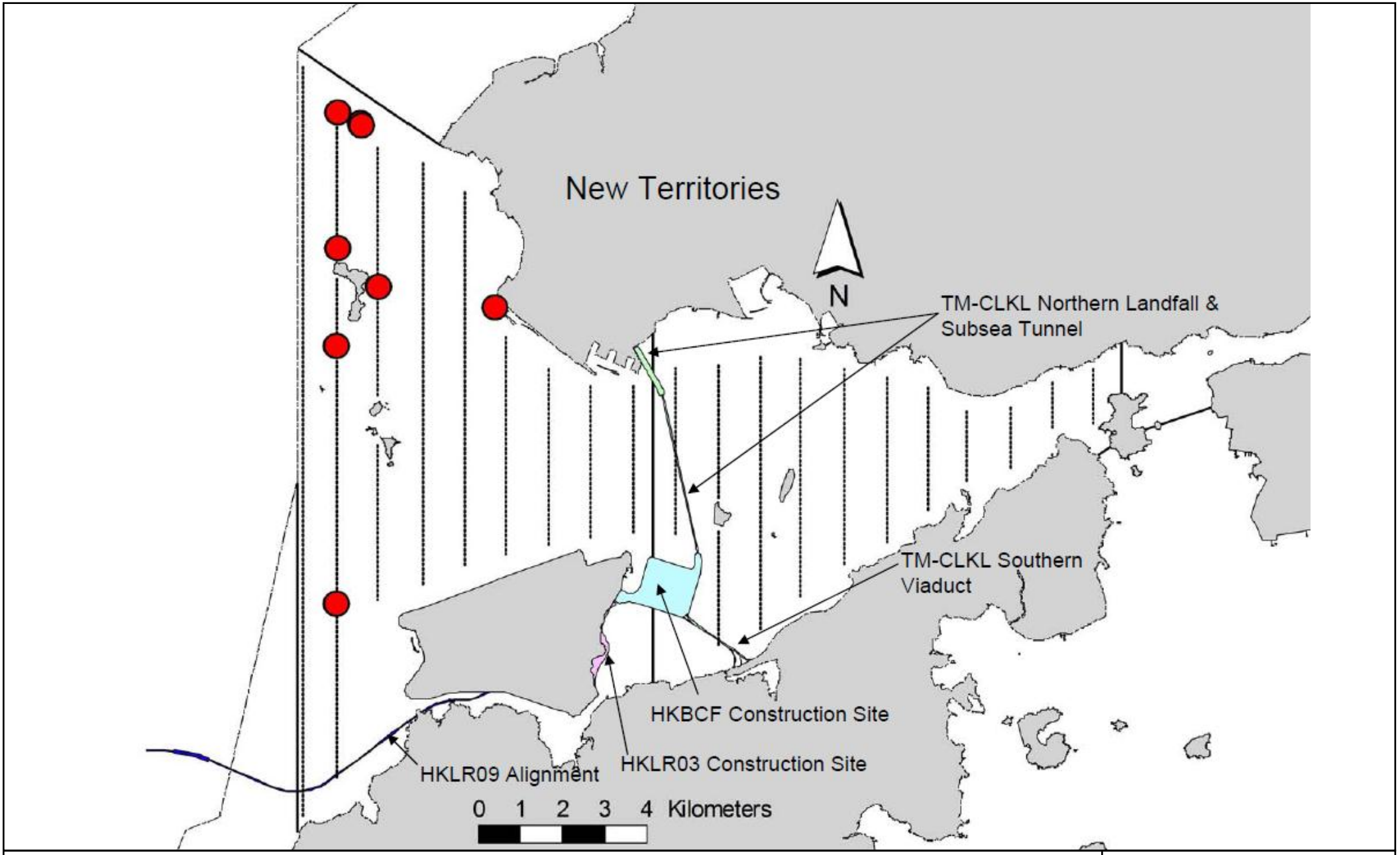


Figure 2.4

DATE: 08/05/2014

HY/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section
The distribution of dolphin sightings during the reporting period
(Source: Adopted from HKLR03 Monitoring Survey in April 2014)

Environmental
Resources
Management

ERM

Table 2.10 Monthly Average Encounter Rates

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
Northeast Lantau	0.0	0.0	0.0	0.0
Northwest Lantau	4.9	5.2	17.7	20.8

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in April 2014 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau.

The average group size of Chinese White Dolphins in April 2014 was 3.75 individuals per group. Most dolphin groups were composed of only 1 - 4 animals with only two larger groups of 8 - 9 animals being sighted.

No unacceptable impact from the construction activities of the TM-CLKL Northern Connection Sub-sea Tunnel 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 survey area, it would be more appropriate to draw conclusion on whether any unacceptable impacts on dolphins have been detected related to the construction activities of this Project in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

2.3.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of marine works under this Contract. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in April 2014 during the exclusion zone monitoring.

2.4 POST-TRANSLOCATION CORAL MONITORING

The Second Quarterly Post-Translocation Coral Monitoring was conducted on 16 April 2014 and results were detailed in the *Second Quarterly Post-Translocation Coral Monitoring Report*. The findings indicated that the Action or Limit Levels for coral monitoring were not exceeded as increase in percentage of partial mortality was not detected for both the tagged translocated and natural coral colonies when comparing to the pre-translocation dataset.

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 1, 8, 16, 22 and 30 April 2014.

Key observations and recommendations during the site inspections in this reporting period are summarized in *Table 2.11*.

Table 2.11 Specific Observations and Recommendations during the Weekly Site Inspection in this Reporting Month

Inspection Date	Observations	Recommendations/ Remarks
1 April 2014	Barge – Tai Hip 2 • Chemical containers on the barge was observed without drip tray. • Oil spillage was observed in the water adjacent to the barge. Portion N6 • Bunds should be provided to avoid sediment runoff into the sea.	Barge – Tai Hip 2 • The Contractor was reminded to provide drip tray for the chemical containers to avoid chemical spillage. • The Contractor was reminded to clean up the oil spill as chemical waste. Portion N6 • The Contractor was reminded to provide bunds.
8 April 2014	Barge - GBFC • Chemical containers and oil drum on the barge were observed without drip tray. Reclamation Area – Zone E • Sandy materials were observed on the seawall block next to the barge. Leader F53 • Acoustic decoupling measures should be placed underneath all generators.	Barge - GBFC • The Contractor was reminded to provide drip tray for chemical containers and oil drum on the barge. Reclamation Area – Zone E • The Contractor was reminded to regularly clear the sandy materials on the seawall block. Leader F53 • The Contractor was reminded to check all generators for acoustic decoupling measures on newly arrived vessels.
16 April 2014	Reclamation Area – Zone E • Drip tray should be provided to the chemical containers.	Reclamation Area – Zone E • The Contractor was reminded to provide drip tray for the chemical containers.
22 April 2014	Barge – CA1 • Acoustic decoupling measures should be properly installed underneath the generator. Barge – Wing Ko • Excess materials were observed on the deck of the barge and on top of seawall blocks. Portion N6 • Excess materials were observed on the edge of the site area.	Barge – CA1 • The Contractor was reminded to check all the generators for proper implementation of acoustic decoupling measures. Barge – Wing Ko • Excess materials should be cleared regularly on the deck of the barge and on top of seawall blocks. Portion N6 • Excess materials should be cleared regularly on the edge of the site area to avoid runoff.

Inspection Date	Observations	Recommendations/ Remarks
30 April 2014	Portion N6 • Silty water was observed near the drilling machine. • Excess materials were observed on the edge of the site area.	Portion N6 • The Contractor was reminded to clean up the silty water. • The Contractor was reminded to clear the excess materials to avoid runoff.

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

2.6 WASTE MANAGEMENT STATUS

The Contractor had submitted application form for registration as chemical waste producer under the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

Wastes generated during this reporting period include mainly construction wastes (inert and non-inert), imported fill, recyclable materials and marine sediments (Category L and Category M). Reference has been made to the waste flow table prepared by the Contractor (*Appendix M*). The quantities of different types of wastes are summarized in *Table 2.12*.

Table 2.12 Quantities of Different Waste Generated in the Reporting Month

Month/Year	Inert Construction Waste [a] (tonnes)	Imported Fill (tonnes)	Inert Construction Waste Re-used (tonnes)	Non-inert Construction Waste [b] (tonnes)	Recyclable Materials [c] (kg)	Chemical Wastes (kg)	Marine Sediment (m^3)	
							Category L	Category M (M_p & M_f)
April 2014	22	467,867	0	26	160	0	28,600	15,400

Notes:

(a) Inert construction wastes include hard rock and large broken concrete, and materials disposed as public fill.

(b) Non-inert construction wastes include general refuse disposed at landfill.

(c) Recyclable materials include metals, paper, cardboard, plastics, timber and others.

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

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

2.7 ENVIRONMENTAL LICENSES AND PERMITS

The status of environmental licensing and permit is summarized in *Table 2.13* below.

Table 2.13 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/B	28 January 2014	Throughout the Contract	HyD	Application for VEP on 20 January 2014 to replace EP-354/2009/A
Construction Dust Notification	363510	19 August 2013	Throughout the Contract	DBJV	-
Chemical Waste Registration	5213-422-D2516-01	10 September 2013	Throughout the Contract	DBJV	-
Construction Waste Disposal Account	7018108	19 August 2013	Throughout the Contract	DBJV	Waste disposal in Contract No. HY/2012/08
Waste Water Discharge License	WT00017707-2013	18 November 2013	30 November 2018	DBJV	For site WA18
Waste Water Discharge License	WT00018433-2014	6 March 2014	31 March 2019	DBJV	For site Portion N6
Construction Noise Permit	GW-RW0822-13	14 November 2013	10 May 2014	DBJV	For site WA18
Construction Noise Permit	GW-RS0814-13	15 November 2013	10 May 2014	DBJV	For site WA23
Construction Noise Permit	GW-RW0077-14	17 February 2014	16 August 2014	DBJV	For Portion N6
Construction Noise Permit	GW-RW0223-14	29 March 2014	28 September 2014	DBJV	For Portion N6
Construction Noise Permit	GW-RW0234-14	29 March 2014	28 September 2014	DBJV	For Dredging and Reclamation Works
Marine Dumping Permit	EP/MD/14-072	1 November 2013	30 April 2014	DBJV	For Type 1
Marine Dumping Permit	EP/MD/14-157	3 April 2014	30 April 2014	DBJV	For Type 1 (Dedicated site) and Type 2

Notes:
HyD = Highways Department
DBJV = Dragages – Bouygues Joint Venture
VEP = Variation of Environmental Permit

2.8 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

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

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

2.9 SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT

One Action level exceedance of 1-hr TSP was recorded on 3 April 2014. No Limit Level exceedances for 1-hr TSP were recorded. No Action or Limit Level exceedances for 24-hr TSP were record. Further to the investigation, the recorded exceedance for air quality monitoring was considered to be sporadic event from the cumulative anthropogenic activities (eg traffic emissions from Lung Mun Road and River Trade Terminal) in this area of Hong Kong, thus the Project works were highly unlikely to be the major cause of the recorded exceedance. The investigation findings are detailed in *Appendix L*.

No Action or Limit Level exceedances were recorded in the water quality [(1)] and coral monitoring of this reporting month.

2.10 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

The Environmental Complaint Handling Procedure is provided in *Figure 2.5*.

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

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

(1) With reference to Section 2.8 of the *Fifth Monthly Environmental Monitoring & Audit Report* (dated 11 April 2014), the investigation findings for exceedances recorded in the water quality monitoring on 31 March 2014 is supplemented in *Appendix L*.

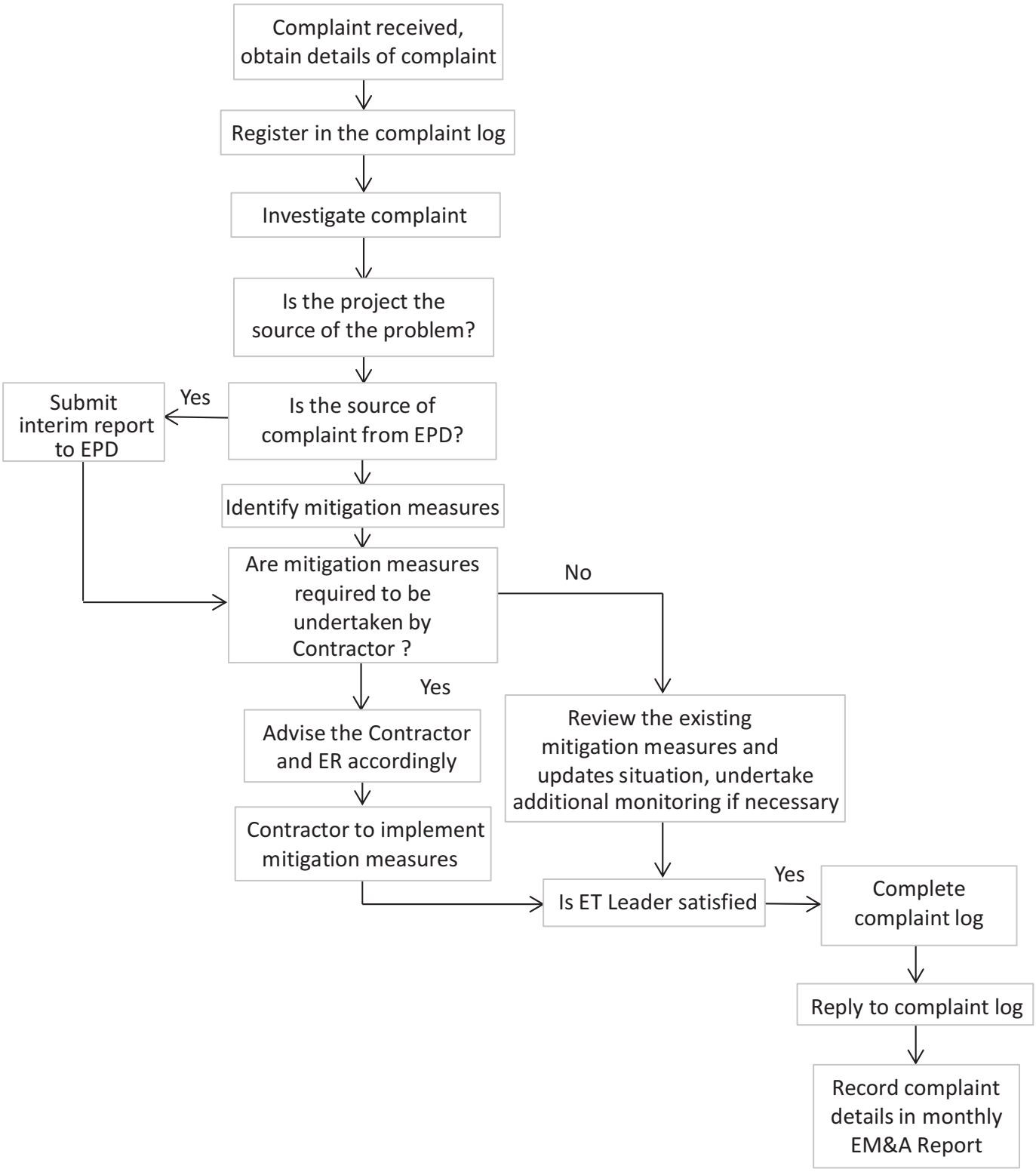


Figure 2.5 Environmental Complaint Handling Procedure

FILE: 0215660n2.cdr
DATE: 06/12/2013

Environmental Resources Management

ERM

3 FUTURE KEY ISSUES

3.1 CONSTRUCTION ACTIVITIES FOR THE COMING MONTH

As informed by the Contractor, the major works for the Project in May 2014 are summarized in *Table 3.1*.

Table 3.1 Construction Works to Be Undertaken in the Coming Month

Works to be undertaken
Marine-based Works
• Dredging • Reclamation filling • Vertical Seawall construction • Sloping Seawall construction • Marine Sheet Piling for Box Culvert extension • Predrilling for Box culvert Foundation
Land-based Works
Portion N6 • CLP Substation underground utilities works • CLP Substation Superstructure

3.2 KEY ISSUES FOR THE COMING MONTH

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of May 2014 are mainly associated with dust, marine water quality, marine ecology and waste management issues.

3.3 MONITORING SCHEDULE FOR THE COMING MONTH

The tentative schedule for environmental monitoring in May 2014 is provided in *Appendix F*.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This Sixth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 30 April 2014, in accordance with the Updated EM&A Manual and the requirements of EP-354/2009/B.

Air quality (including 1-hour TSP and 24-hour TSP), water quality, dolphin monitoring and second quarterly post-translocation coral monitoring were carried out in this reporting month. No Action or Limit Level exceedances were recorded in the water quality monitoring and coral monitoring of this reporting month. One (1) Action Level exceedance of 1-hr TSP was record in this reporting month. No Limit Level exceedances for 1-hr TSP were recorded. No Action or Limit Level exceedances for 24-hr TSP were record. Investigation findings suggested that the Project works were not the major cause of the recorded exceedance for air quality monitoring. Nevertheless, the Contractor was reminded to ensure all dust mitigation measures are implemented at the construction site and the proper deployment of silt curtains during the period of marine works under this Contract.

A total of eight (8) groups of thirty (30) Chinese White Dolphin sightings were recorded during the two sets of surveys in April 2014. All sightings were made in NWL during the two sets of surveys in April, with no dolphin being sighted in NEL. Five of the eight sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with operating fishing vessel. No unacceptable impact from the construction activities of the TM-CLKL Northern Connection Sub-sea Tunnel Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

Environmental site inspection was carried out five (5) times in April 2014. Recommendations on remedial actions recommended for the deficiencies identified during the site audits were properly implemented by the Contractor.

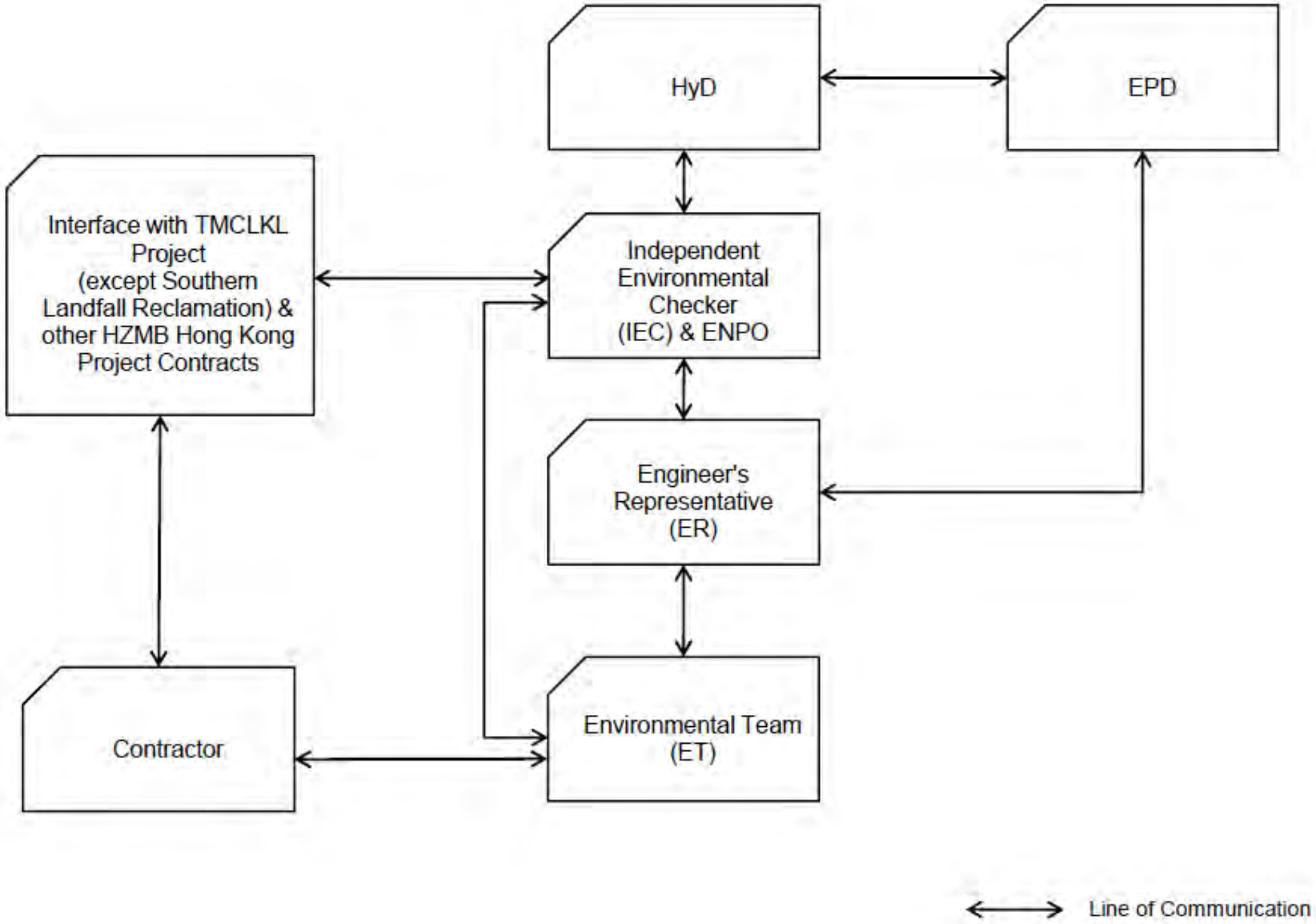
No non-compliance event was recorded during the reporting period.

No complaint and summons/ prosecution was received during the reporting period.

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

Appendix A

Project Organization for Environmental Works



Appendix A1

Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section
Project Organization

DATE: 06/03/2013

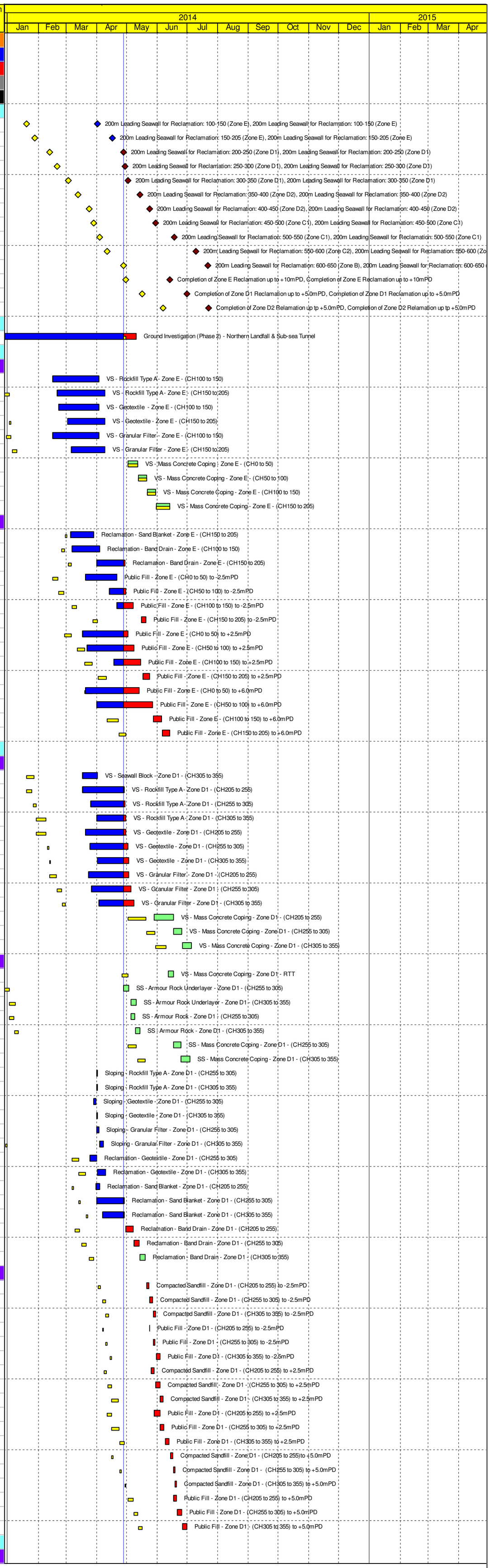
Environmental Resources Management

ERM

Appendix B

Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig Dur	Planned Start	Planned Finish	Current Start	Current Finish
TMCLK - Northern Connection Sub-Sea Tunnel Section		361	25-Oct-13	07-Nov-14	25-Oct-13 A	15-Jan-15
Construction		361	25-Oct-13	07-Nov-14	25-Oct-13 A	15-Jan-15
Northern Landfall		361	25-Oct-13	07-Nov-14	25-Oct-13 A	15-Jan-15
North Reclamation (Phase 1)		224	25-Oct-13	18-Jun-14	25-Oct-13 A	02-Aug-14
Construction		224	25-Oct-13	18-Jun-14	25-Oct-13 A	02-Aug-14
Milestones		144	20-Jan-14	06-Jun-14	02-Apr-14 A	22-Jul-14
NRC10020	200m Leading Seawall for Reclamation: 100-150 (Zone E)	0	20-Jan-14		02-Apr-14 A	
NRC10030	200m Leading Seawall for Reclamation: 150-205 (Zone E)	0	28-Jan-14		17-Apr-14 A	
NRC10040	200m Leading Seawall for Reclamation: 200-250 (Zone D1)	0	12-Feb-14		28-Apr-14	
NRC10050	200m Leading Seawall for Reclamation: 250-300 (Zone D1)	0	20-Feb-14		29-Apr-14	
NRC10060	200m Leading Seawall for Reclamation: 300-350 (Zone D1)	0	03-Mar-14		02-May-14	
NRC10070	200m Leading Seawall for Reclamation: 350-400 (Zone D2)	0	13-Mar-14		14-May-14	
NRC10080	200m Leading Seawall for Reclamation: 400-450 (Zone D2)	0	24-Mar-14		24-May-14	
NRC10090	200m Leading Seawall for Reclamation: 450-500 (Zone C1)	0	29-Mar-14		30-May-14	
NRC10100	200m Leading Seawall for Reclamation: 500-550 (Zone C1)	0	04-Apr-14		18-Jun-14	
NRC10110	200m Leading Seawall for Reclamation: 550-600 (Zone C2)	0	11-Apr-14		10-Jul-14	
NRC10120	200m Leading Seawall for Reclamation: 600-650 (Zone B)	0	28-Apr-14		22-Jul-14	
NRC13140	Completion of Zone E Reclamation up to +10mPD	0		30-Apr-14		13-Jun-14
NRC13150	Completion of Zone D1 Reclamation up to +5.0mPD	0		16-May-14		30-Jun-14
NRC13170	Completion of Zone D2 Relamation up tp +5.0mPD	0		06-Jun-14		22-Jul-14
Ground Investigation		138	25-Oct-13	30-Apr-14	25-Oct-13 A	10-May-14
DDP09010	Ground Investigation (Phase 2) - Northern Landfall & Sub-sea Tunnel	138	25-Oct-13	30-Apr-14	25-Oct-13 A	10-May-14
Zone E		135	16-Dec-13	13-Jun-14	15-Feb-14 A	13-Jun-14
Vertical Seawall		135	16-Dec-13	13-Jun-14	15-Feb-14 A	13-Jun-14
NRC10340	VS - Rockfill Type A- Zone E - (CH100 to 150)	3	16-Dec-13	18-Dec-13	15-Feb-14 A	03-Apr-14 A
NRC10350	VS - Rockfill Type A- Zone E - (CH150 to 205)	4	28-Dec-13	02-Jan-14	20-Feb-14 A	09-Apr-14 A
NRC10380	VS - Geotextile - Zone E - (CH100 to 150)	2	19-Dec-13	20-Dec-13	22-Feb-14 A	03-Apr-14 A
NRC10390	VS - Geotextile - Zone E - (CH150 to 205)	2	03-Jan-14	04-Jan-14	03-Mar-14 A	09-Apr-14 A
NRC10420	VS - Granular Filter - Zone E - (CH100 to 150)	4	31-Dec-13	04-Jan-14	15-Feb-14 A	03-Apr-14 A
NRC10430	VS - Granular Filter - Zone E - (CH150 to 205)	5	06-Jan-14	10-Jan-14	06-Mar-14 A	09-Apr-14 A
NRC10480	VS - Mass Concrete Coping - Zone E - (CH0 to 50)	8	02-May-14	12-May-14	02-May-14*	12-May-14
NRC10490	VS - Mass Concrete Coping - Zone E - (CH50 to 100)	8	13-May-14	21-May-14	13-May-14	21-May-14
NRC10500	VS - Mass Concrete Coping - Zone E - (CH100 to 150)	8	22-May-14	30-May-14	22-May-14	30-May-14
NRC10510	VS - Mass Concrete Coping - Zone E - (CH150 to 205)	11	31-May-14	13-Jun-14	31-May-14	13-Jun-14
Reclamation		95	15-Feb-14	30-Apr-14	05-Mar-14 A	13-Jun-14
NRC10590	Reclamation - Sand Blanket - Zone E - (CH150 to 205)	2	28-Feb-14	01-Mar-14	05-Mar-14 A	29-Mar-14 A
NRC10620	Reclamation - Band Drain - Zone E - (CH100 to 150)	4	24-Feb-14	27-Feb-14	07-Mar-14 A	04-Apr-14 A
NRC10630	Reclamation - Band Drain - Zone E - (CH150 to 205)	2	03-Mar-14	06-Mar-14	01-Apr-14 A	29-Apr-14
NRC10640	Public Fill - Zone E - (CH0 to 50) to -2.5mPD	5	15-Feb-14	20-Feb-14	21-Mar-14 A	21-Apr-14 A
NRC10650	Public Fill - Zone E - (CH50 to 100) to -2.5mPD	2	21-Feb-14	26-Feb-14	14-Apr-14 A	30-Apr-14
NRC10660	Public Fill - Zone E - (CH100 to 150) to -2.5mPD	1	07-Mar-14	11-Mar-14	21-Apr-14 A	07-May-14
NRC10670	Public Fill - Zone E - (CH150 to 205) to -2.5mPD	4	28-Mar-14	01-Apr-14	16-May-14	20-May-14
NRC10680	Public Fill - Zone E - (CH0 to 50) to +2.5mPD	6	27-Feb-14	06-Mar-14	18-Mar-14 A	02-May-14
NRC10690	Public Fill - Zone E - (CH50 to 100) to +2.5mPD	6	12-Mar-14	19-Mar-14	22-Mar-14 A	08-May-14
NRC10700	Public Fill - Zone E - (CH100 to 150) to +2.5mPD	2	20-Mar-14	27-Mar-14	18-Apr-14 A	15-May-14
NRC10710	Public Fill - Zone E - (CH150 to 205) to +2.5mPD	7	02-Apr-14	10-Apr-14	17-May-14	24-May-14
NRC10720	Public Fill - Zone E - (CH0 to 50) to +6.0mPD	4	20-Mar-14	27-Mar-14	21-Mar-14 A	13-May-14
NRC10730	Public Fill - Zone E - (CH50 to 100) to +6.0mPD	1	02-Apr-14	10-Apr-14	01-Apr-14 A	27-May-14
NRC10740	Public Fill - Zone E - (CH100 to 150) to +6.0mPD	7	11-Apr-14	22-Apr-14	28-May-14	05-Jun-14
NRC10750	Public Fill - Zone E - (CH150 to 205) to +6.0mPD	7	23-Apr-14	30-Apr-14	06-Jun-14	13-Jun-14
Zone D1		142	16-Dec-13	09-Jun-14	18-Mar-14 A	05-Jul-14
Vertical Seawall		110	20-Jan-14	09-Jun-14	18-Mar-14 A	05-Jul-14
NRC10980	VS - Seawall Block - Zone D1 - (CH305 to 355)	7	20-Jan-14	27-Jan-14	18-Mar-14 A	02-Apr-14 A
NRC11010	VS - Rockfill Type A- Zone D1 - (CH205 to 255)	5	20-Jan-14	25-Jan-14	18-Mar-14 A	28-Apr-14
NRC11020	VS - Rockfill Type A- Zone D1 - (CH255 to 305)	2	27-Jan-14	29-Jan-14	26-Mar-14 A	29-Apr-14
NRC11030	VS - Rockfill Type A- Zone D1 - (CH305 to 355)	2	30-Jan-14	08-Feb-14	01-Apr-14 A	30-Apr-14
NRC11060	VS - Geotextile - Zone D1 - (CH205 to 255)	3	30-Jan-14	08-Feb-14	21-Mar-14 A	30-Apr-14
NRC11070	VS - Geotextile - Zone D1 - (CH255 to 305)	2	10-Feb-14	11-Feb-14	25-Mar-14 A	02-May-14
NRC11080	VS - Geotextile - Zone D1 - (CH305 to 355)	2	12-Feb-14	13-Feb-14	02-Apr-14 A	03-May-14
NRC11140	VS - Granular Filter - Zone D1 - (CH205 to 255)	6	12-Feb-14	19-Feb-14	24-Mar-14 A	03-May-14
NRC11210	VS - Granular Filter - Zone D1 - (CH255 to 305)	3	20-Feb-14	24-Feb-14	27-Mar-14 A	05-May-14
NRC11280	VS - Granular Filter - Zone D1 - (CH305 to 355)	2	25-Feb-14	28-Feb-14	03-Apr-14 A	08-May-14
NRC11720	VS - Mass Concrete Coping - Zone D1 - (CH205 to 255)	15	02-May-14	20-May-14	29-May-14*	17-Jun-14
NRC11790	VS - Mass Concrete Coping - Zone D1 - (CH255 to 305)	8	21-May-14	29-May-14	17-Jun-14	25-Jun-14
NRC11860	VS - Mass Concrete Coping - Zone D1 - (CH305 to 355)	8	30-May-14	09-Jun-14	26-Jun-14	05-Jul-14
Sloping Seawall		140	16-Dec-13	19-May-14	25-Mar-14 A	03-Jul-14
NRC1202090	VS - Mass Concrete Coping - Zone D1 - RTT	4	26-Apr-14	02-May-14	12-Jun-14	17-Jun-14
NRC13610	SS - Armour Rock Underlayer - Zone D1 - (CH255 to 305)	5	27-Dec-13	02-Jan-14	28-Apr-14	03-May-14
NRC13690	SS - Armour Rock Underlayer - Zone D1 - (CH305 to 355)	5	03-Jan-14	08-Jan-14	05-May-14	10-May-14
NRC14070	SS - Armour Rock - Zone D1 - (CH255 to 305)	4	03-Jan-14	07-Jan-14	05-May-14	09-May-14
NRC14080	SS - Armour Rock - Zone D1 - (CH305 to 355)	4	08-Jan-14	11-Jan-14	10-May-14	14-May-14
NRC14120	SS - Mass Concrete Coping - Zone D1 - (CH255 to 305)	7	02-May-14	10-May-14	17-Jun-14	24-Jun-14
NRC14130	SS - Mass Concrete Coping - Zone D1 - (CH305 to 355)	7	12-May-14	19-May-14	25-Jun-14	03-Jul-14
NRC14170	Sloping - Rockfill Type A- Zone D1 - (CH255 to 305)	1	16-Dec-13	16-Dec-13	01-Apr-14 A	02-Apr-14 A
NRC14180	Sloping - Rockfill Type A- Zone D1 - (CH305 to 355)	1	27-Dec-13	27-Dec-13	01-Apr-14 A	02-Apr-14 A
NRC14220	Sloping - Geotextile - Zone D1 - (CH255 to 305)	1	17-Dec-13	17-Dec-13	29-Mar-14 A	31-Mar-14 A
NRC14230	Sloping - Geotextile - Zone D1 - (CH305 to 355)	1	28-Dec-13	28-Dec-13	01-Apr-14 A	02-Apr-14 A
NRC14270	Sloping - Granular Filter - Zone D1 - (CH255 to 305)	2	18-Dec-13	19-Dec-13	01-Apr-14 A	03-Apr-14 A
NRC14280	Sloping - Granular Filter - Zone D1 - (CH305 to 355)	2	30-Dec-13	31-Dec-13	04-Apr-14 A	08-Apr-14 A
NRC14320	Reclamation - Geotextile - Zone D1 - (CH255 to 305)	6	07-Mar-14	13-Mar-14	25-Mar-14 A	01-Apr-14 A
NRC14330	Reclamation - Geotextile - Zone D1 - (CH305 to 355)	6	14-Mar-14	20-Mar-14	02-Apr-14 A	10-Apr-14 A
NRC14360	Reclamation - Sand Blanket - Zone D1 - (CH205 to 255)	2	07-Mar-14	08-Mar-14	31-Mar-14 A	04-Apr-14 A
NRC14370	Reclamation - Sand Blanket - Zone D1 - (CH255 to 305)	1	14-Mar-14	15-Mar-14	01-Apr-14 A	28-Apr-14
NRC14380	Reclamation - Sand Blanket - Zone D1 - (CH305 to 355)	1	21-Mar-14	22-Mar-14	07-Apr-14 A	28-Apr-14
NRC14410	Reclamation - Band Drain - Zone D1 - (CH205 to 255)	5	10-Mar-14	14-Mar-14	30-Apr-14	07-May-14
NRC14420	Reclamation - Band Drain - Zone D1 - (CH255 to 305)	5	17-Mar-14	21-Mar-14	08-May-14	13-May-14
NRC14430	Reclamation - Band Drain - Zone D1 - (CH305 to 355)	5	24-Mar-14	28-Mar-14	14-May-14	19-May-14
Reclamation		34	02-Apr-14	16-May-14	21-May-14	30-Jun-14
NRC13260	Compacted Sandfill - Zone D1 - (CH205 to 255) to -2.5mPD	3	02-Apr-14	04-Apr-14	21-May-14	23-May-14
NRC13270	Compacted Sandfill - Zone D1 - (CH255 to 305) to -2.5mPD	3	07-Apr-14	09-Apr-14	24-May-14	27-May-14
NRC13280	Compacted Sandfill - Zone D1 - (CH305 to 355) to -2.5mPD	3	10-Apr-14	12-Apr-14	28-May-14	30-May-14
NRC13290	Public Fill - Zone D1 - (CH205 to 255) to -2.5mPD	1	07-Apr-14	07-Apr-14	24-May-14	24-May-14
NRC13300	Public Fill - Zone D1 - (CH255 to 305) to -2.5mPD	2	10-Apr-14	11-Apr-14	28-May-14	29-May-14
NRC13310	Public Fill - Zone D1 - (CH305 to 355) to -2.5mPD	2	14-Apr-14	15-Apr-14	31-May-14	03-Jun-14
NRC13320	Compacted Sandfill - Zone D1 - (CH205 to 255) to +2.5mPD	3	08-Apr-14	10-Apr-14	26-May-14	28-May-14
NRC13340	Compacted Sandfill - Zone D1 - (CH255 to 305) to +2.5mPD	3	12-Apr-14	15-Apr-14	30-May-14	03-Jun-14
NRC13350	Compacted Sandfill - Zone D1 - (CH305 to 355) to +2.5mPD	3	16-Apr-14	22-Apr-14	04-Jun-14	06-Jun-14
NRC13360	Public Fill - Zone D1 - (CH205 to 255) to +2.5mPD	4	11-Apr-14	15-Apr-14	29-May-14	03-Jun-14
NRC13370	Public Fill - Zone D1 - (CH255 to 305) to +2.5mPD	4	16-Apr-14	23-Apr-14	04-Jun-14	07-Jun-14
NRC13380	Public Fill - Zone D1 - (CH305 to 355) to +2.5mPD	4	24-Apr-14	28-Apr-14	09-Jun-14	12-Jun-14
NRC13390	Compacted Sandfill - Zone D1 - (CH205 to 255)to +5.0mPD	2	16-Apr-14	17-Apr-14	14-Jun-14	16-Jun-14
NRC13400	Compacted Sandfill - Zone D1 - (CH255 to 305) to +5.0mPD	2	24-Apr-14	25-Apr-14	17-Jun-14	18-Jun-14
NRC13410	Compacted Sandfill - Zone D1 - (CH305 to 355) to +5.0mPD	2	29-Apr-14	30-Apr-14	19-Jun-14	20-Jun-14
NRC13420	Public Fill - Zone D1 - (CH205 to 255) to +5.0mPD	4	02-May-14	07-May-14	17-Jun-14	20-Jun-14
NRC13430	Public Fill - Zone D1 - (CH255 to 305) to +5.0mPD	4	08-May-14	12-May-14	21-Jun-14	25-Jun-14
NRC13450	Public Fill - Zone D1 - (CH305 to 355) to +5.0mPD	4	13-May-14	16-May-14	26-Jun-14	30-Jun-14
Zone D2		130	08-Jan-14	06-Jun-14	31-Mar-14 A	22-Jul-14
Vertical Seawall		126	09-Jan-14	03-Jun-14	31-Mar-14 A	18-Jul-14



Current Bar
Current Bar - Critical
Planned Bar
Planned Milestone
Current Milestone
Progress Milestone
Progress Bar

TMCLK - Northern Connection Sub-Sea Tunnel Section

3-Months Rolling Programme - Construction

As of 28-Apr-14 Progress

香港寶嘉 Dragages HongKong

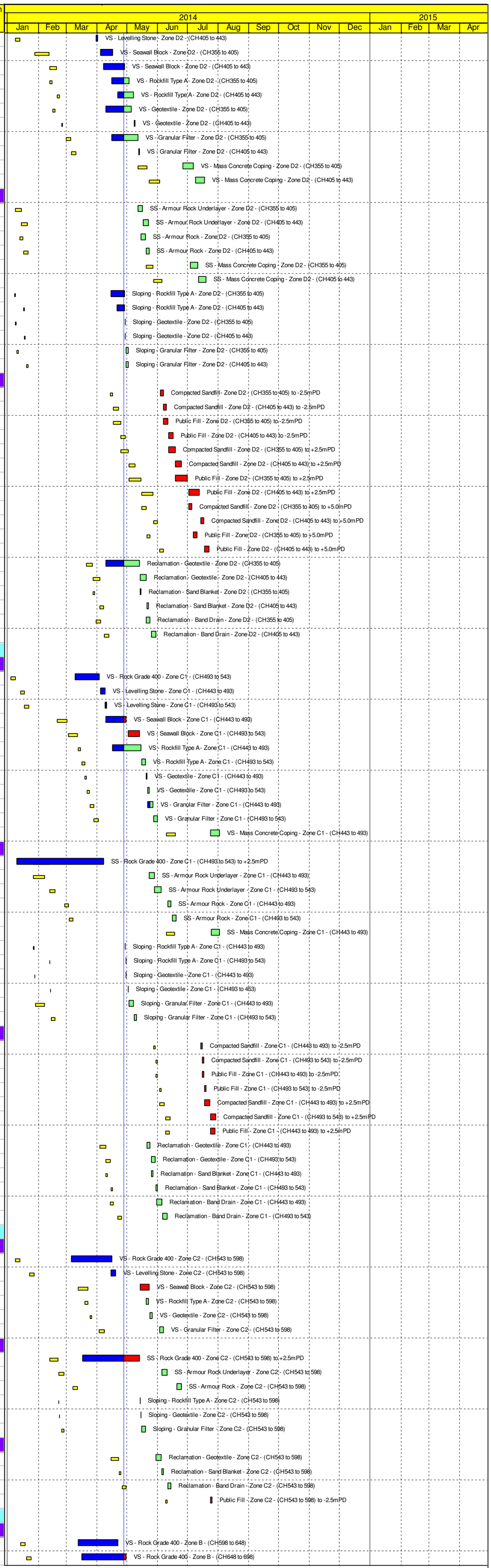
A member of the Bouygues Construction group

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營

BOUYGUES TRAVAUX PUBLICS

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	SPa	WYu

Activity ID	Activity Name	Orig Dur	Planned Start	Planned Finish	Current Start	Current Finish
NRC10950	VS - Levelling Stone - Zone D2 - (CH405 to 443)	4	09-Jan-14	13-Jan-14	31-Mar-14 A	02-Apr-14 A
NRC10990	VS - Seawall Block - Zone D2 - (CH355 to 405)	7	28-Jan-14	11-Feb-14	05-Apr-14 A	17-Apr-14 A
NRC11000	VS - Seawall Block - Zone D2 - (CH405 to 443)	6	12-Feb-14	19-Feb-14	08-Apr-14 A	28-Apr-14
NRC11040	VS - Rockfill Type A- Zone D2 - (CH355 to 405)	1	12-Feb-14	14-Feb-14	16-Apr-14 A	03-May-14
NRC11050	VS - Rockfill Type A- Zone D2 - (CH405 to 443)	1	20-Feb-14	22-Feb-14	22-Apr-14 A	07-May-14
NRC11090	VS - Geotextile - Zone D2 - (CH355 to 405)	1	15-Feb-14	17-Feb-14	10-Apr-14 A	05-May-14
NRC11100	VS - Geotextile - Zone D2 - (CH405 to 443)	2	24-Feb-14	25-Feb-14	08-May-14	09-May-14
NRC11350	VS - Granular Filter - Zone D2 - (CH355 to 405)	1	01-Mar-14	05-Mar-14	16-Apr-14 A	12-May-14
NRC11390	VS - Granular Filter - Zone D2 - (CH405 to 443)	1	06-Mar-14	10-Mar-14	13-May-14	13-May-14
NRC11930	VS - Mass Concrete Coping - Zone D2 - (CH355 to 405)	8	12-May-14	21-May-14	26-Jun-14	07-Jul-14
NRC11980	VS - Mass Concrete Coping - Zone D2 - (CH405 to 443)	8	23-May-14	03-Jun-14	09-Jul-14	18-Jul-14
Sloping Seawall		123	08-Jan-14	05-Jun-14	15-Apr-14 A	19-Jul-14
NRC13770	SS - Armour Rock Underlayer - Zone D2 - (CH355 to 405)	5	09-Jan-14	14-Jan-14	12-May-14	16-May-14
NRC13880	SS - Armour Rock Underlayer - Zone D2 - (CH405 to 443)	5	15-Jan-14	20-Jan-14	17-May-14	22-May-14
NRC14090	SS - Armour Rock - Zone D2 - (CH355 to 405)	4	13-Jan-14	16-Jan-14	15-May-14	19-May-14
NRC14100	SS - Armour Rock - Zone D2 - (CH405 to 443)	4	17-Jan-14	21-Jan-14	20-May-14	23-May-14
NRC14140	SS - Mass Concrete Coping - Zone D2 - (CH355 to 405)	7	20-May-14	27-May-14	04-Jul-14	11-Jul-14
NRC14150	SS - Mass Concrete Coping - Zone D2 - (CH405 to 443)	7	28-May-14	05-Jun-14	12-Jul-14	19-Jul-14
NRC14190	Sloping - Rockfill Type A- Zone D2 - (CH355 to 405)	1	08-Jan-14	08-Jan-14	15-Apr-14 A	28-Apr-14
NRC14200	Sloping - Rockfill Type A- Zone D2 - (CH405 to 443)	1	17-Jan-14	17-Jan-14	21-Apr-14 A	28-Apr-14
NRC14240	Sloping - Geotextile - Zone D2 - (CH355 to 405)	1	09-Jan-14	09-Jan-14	29-Apr-14	29-Apr-14
NRC14250	Sloping - Geotextile - Zone D2 - (CH405 to 443)	1	18-Jan-14	18-Jan-14	29-Apr-14	29-Apr-14
NRC14290	Sloping - Granular Filter - Zone D2 - (CH355 to 405)	2	10-Jan-14	11-Jan-14	30-Apr-14	02-May-14
NRC14300	Sloping - Granular Filter - Zone D2 - (CH405 to 443)	2	20-Jan-14	21-Jan-14	30-Apr-14	02-May-14
Reclamation		91	21-Mar-14	06-Jun-14	10-Apr-14 A	22-Jul-14
NRC13490	Compacted Sandfill- Zone D2 - (CH355 to 405) to -2.5mPD	3	14-Apr-14	16-Apr-14	04-Jun-14	06-Jun-14
NRC13500	Compacted Sandfill - Zone D2 - (CH405 to 443) to -2.5mPD	2	17-Apr-14	22-Apr-14	07-Jun-14	09-Jun-14
NRC13510	Public Fill - Zone D2 - (CH355 to 405) to -2.5mPD	4	17-Apr-14	24-Apr-14	07-Jun-14	11-Jun-14
NRC13520	Public Fill - Zone D2 - (CH405 to 443) to -2.5mPD	4	25-Apr-14	29-Apr-14	12-Jun-14	16-Jun-14
NRC13540	Compacted Sandfill - Zone D2 - (CH355 to 405) to +2.5mPD	6	25-Apr-14	02-May-14	12-Jun-14	18-Jun-14
NRC13550	Compacted Sandfill - Zone D2 - (CH405 to 443) to +2.5mPD	5	03-May-14	09-May-14	19-Jun-14	24-Jun-14
NRC13560	Public Fill - Zone D2 - (CH355 to 405) to +2.5mPD	10	03-May-14	15-May-14	19-Jun-14	30-Jun-14
NRC13570	Public Fill - Zone D2 - (CH405 to 443) to +2.5mPD	10	16-May-14	27-May-14	02-Jul-14	12-Jul-14
NRC13580	Compacted Sandfill - Zone D2 - (CH355 to 405) to +5.0mPD	4	16-May-14	20-May-14	02-Jul-14	05-Jul-14
NRC13590	Compacted Sandfill - Zone D2 - (CH405 to 443) to +5.0mPD	4	28-May-14	31-May-14	14-Jul-14	17-Jul-14
NRC13600	Public Fill - Zone D2 - (CH355 to 405) to +5.0mPD	4	21-May-14	24-May-14	07-Jul-14	10-Jul-14
NRC13620	Public Fill - Zone D2 - (CH405 to 443) to +5.0mPD	4	03-Jun-14	06-Jun-14	18-Jul-14	22-Jul-14
NRC14340	Reclamation - Geotextile - Zone D2 - (CH355 to 405)	5	21-Mar-14	27-Mar-14	10-Apr-14 A	13-May-14
NRC14350	Reclamation - Geotextile - Zone D2 - (CH405 to 443)	6	28-Mar-14	03-Apr-14	14-May-14	20-May-14
NRC14390	Reclamation - Sand Blanket - Zone D2 - (CH355 to 405)	2	28-Mar-14	29-Mar-14	14-May-14	15-May-14
NRC14400	Reclamation - Sand Blanket - Zone D2 - (CH405 to 443)	2	04-Apr-14	07-Apr-14	21-May-14	22-May-14
NRC14440	Reclamation - Band Drain - Zone D2 - (CH355 to 405)	5	31-Mar-14	04-Apr-14	20-May-14	24-May-14
NRC14450	Reclamation - Band Drain - Zone D2 - (CH405 to 443)	5	08-Apr-14	12-Apr-14	26-May-14	30-May-14
Zone C1		130	04-Jan-14	18-Jun-14	10-Jan-14 A	02-Aug-14
Vertical Seawall		130	04-Jan-14	18-Jun-14	10-Mar-14 A	02-Aug-14
NRC14500	VS - Rock Grade 400 - Zone C1 - (CH493 to 543)	7	04-Jan-14	08-Jan-14	10-Mar-14 A	03-Apr-14 A
NRC14520	VS - Levelling Stone - Zone C1 - (CH443 to 493)	4	14-Jan-14	17-Jan-14	05-Apr-14 A	09-Apr-14 A
NRC14530	VS - Levelling Stone - Zone C1 - (CH493 to 543)	4	18-Jan-14	22-Jan-14	09-Apr-14 A	11-Apr-14 A
NRC14550	VS - Seawall Block - Zone C1 - (CH443 to 493)	7	20-Feb-14	01-Mar-14	10-Apr-14 A	30-Apr-14
NRC14560	VS - Seawall Block - Zone C1 - (CH493 to 543)	9	03-Mar-14	12-Mar-14	02-May-14	13-May-14
NRC14580	VS - Rockfill Type A- Zone C1 - (CH443 to 493)	1	13-Mar-14	15-Mar-14	17-Apr-14 A	15-May-14
NRC14590	VS - Rockfill Type A- Zone C1 - (CH493 to 543)	3	17-Mar-14	19-Mar-14	16-May-14	19-May-14
NRC14610	VS - Geotextile - Zone C1 - (CH443 to 493)	2	20-Mar-14	21-Mar-14	20-May-14	21-May-14
NRC14620	VS - Geotextile - Zone C1 - (CH493 to 543)	2	22-Mar-14	24-Mar-14	22-May-14	23-May-14
NRC14640	VS - Granular Filter - Zone C1 - (CH443 to 493)	1	25-Mar-14	28-Mar-14	22-May-14 A	27-May-14
NRC14650	VS - Granular Filter - Zone C1 - (CH493 to 543)	4	29-Mar-14	02-Apr-14	28-May-14	31-May-14
NRC14700	VS - Mass Concrete Coping - Zone C1 - (CH443 to 493)	8	10-Jun-14	18-Jun-14	24-Jul-14	02-Aug-14
Sloping Seawall		104	27-Jan-14	18-Jun-14	10-Jan-14 A	02-Aug-14
NRC14770	SS - Rock Grade 400 - Zone C1 - (CH493 to 543) to +2.5mPD	15	27-Jan-14	11-Feb-14	10-Jan-14 A	08-Apr-14 A
NRC14820	SS - Armour Rock Underlayer - Zone C1 - (CH443 to 493)	5	27-Jan-14	07-Feb-14	23-May-14	28-May-14
NRC14830	SS - Armour Rock Underlayer - Zone C1 - (CH493 to 543)	5	12-Feb-14	17-Feb-14	29-May-14	04-Jun-14
NRC14850	SS - Armour Rock - Zone C1 - (CH443 to 493)	4	27-Feb-14	03-Mar-14	11-Jun-14	14-Jun-14
NRC14860	SS - Armour Rock - Zone C1 - (CH493 to 543)	4	04-Mar-14	07-Mar-14	16-Jun-14	19-Jun-14
NRC14880	SS - Mass Concrete Coping - Zone C1 - (CH443 to 493)	7	10-Jun-14	18-Jun-14	25-Jul-14	02-Aug-14
NRC14910	Sloping - Rockfill Type A- Zone C1 - (CH443 to 493)	1	27-Jan-14	27-Jan-14	29-Apr-14	29-Apr-14
NRC14920	Sloping - Rockfill Type A- Zone C1 - (CH493 to 543)	1	12-Feb-14	12-Feb-14	30-Apr-14	30-Apr-14
NRC14940	Sloping - Geotextile - Zone C1 - (CH443 to 493)	1	28-Jan-14	28-Jan-14	30-Apr-14	30-Apr-14
NRC14950	Sloping - Geotextile - Zone C1 - (CH493 to 453)	1	13-Feb-14	13-Feb-14	02-May-14	02-May-14
NRC14970	Sloping - Granular Filter - Zone C1 - (CH443 to 493)	3	29-Jan-14	07-Feb-14	03-May-14	07-May-14
NRC14980	Sloping - Granular Filter - Zone C1 - (CH493 to 543)	3	14-Feb-14	17-Feb-14	08-May-14	10-May-14
Reclamation		58	04-Apr-14	13-Jun-14	21-May-14	29-Jul-14
NRC13650	Compacted Sandfill - Zone C1 - (CH443 to 493) to -2.5mPD	2	28-May-14	29-May-14	14-Jul-14	15-Jul-14
NRC13660	Compacted Sandfill - Zone C1 - (CH493 to 543) to -2.5mPD	2	30-May-14	31-May-14	16-Jul-14	17-Jul-14
NRC13670	Public Fill - Zone C1 - (CH443 to 493) to -2.5mPD	2	30-May-14	31-May-14	16-Jul-14	17-Jul-14
NRC13680	Public Fill - Zone C1 - (CH493 to 543) to -2.5mPD	2	03-Jun-14	04-Jun-14	18-Jul-14	19-Jul-14
NRC13700	Compacted Sandfill - Zone C1 - (CH443 to 493) to +2.5mPD	5	03-Jun-14	07-Jun-14	18-Jul-14	23-Jul-14
NRC13710	Compacted Sandfill - Zone C1 - (CH493 to 543) to +2.5mPD	5	09-Jun-14	13-Jun-14	24-Jul-14	29-Jul-14
NRC13720	Public Fill - Zone C1 - (CH443 to 493) to +2.5mPD	4	09-Jun-14	12-Jun-14	24-Jul-14	28-Jul-14
NRC15000	Reclamation - Geotextile - Zone C1 - (CH443 to 493)	4	04-Apr-14	09-Apr-14	21-May-14	24-May-14
NRC15010	Reclamation - Geotextile - Zone C1 - (CH493 to 543)	4	10-Apr-14	14-Apr-14	26-May-14	29-May-14
NRC15030	Reclamation - Sand Blanket - Zone C1 - (CH443 to 493)	2	10-Apr-14	11-Apr-14	26-May-14	27-May-14
NRC15040	Reclamation - Sand Blanket - Zone C1 - (CH493 to 543)	2	15-Apr-14	16-Apr-14	30-May-14	31-May-14
NRC15060	Reclamation - Band Drain - Zone C1 - (CH443 to 493)	4	14-Apr-14	17-Apr-14	31-May-14	05-Jun-14
NRC15070	Reclamation - Band Drain - Zone C1 - (CH493 to 543)	4	22-Apr-14	25-Apr-14	06-Jun-14	10-Jun-14
Zone C2		117	09-Jan-14	10-Jun-14	06-Mar-14 A	25-Jul-14
Vertical Seawall		76	09-Jan-14	08-Apr-14	06-Mar-14 A	06-Jun-14
NRC14510	VS - Rock Grade 400 - Zone C2 - (CH543 to 598)	8	09-Jan-14	13-Jan-14	06-Mar-14 A	16-Apr-14 A
NRC14540	VS - Levelling Stone - Zone C2 - (CH543 to 598)	4	23-Jan-14	27-Jan-14	15-Apr-14 A	20-Apr-14 A
NRC14570	VS - Seawall Block - Zone C2 - (CH543 to 598)	9	13-Mar-14	22-Mar-14	14-May-14	23-May-14
NRC14600	VS - Rockfill Type A- Zone C2 - (CH543 to 598)	3	20-Mar-14	22-Mar-14	20-May-14	22-May-14
NRC14630	VS - Geotextile - Zone C2 - (CH543 to 598)	2	25-Mar-14	26-Mar-14	24-May-14	26-May-14
NRC14660	VS - Granular Filter - Zone C2 - (CH543 to 598)	4	03-Apr-14	08-Apr-14	03-Jun-14	06-Jun-14
Sloping Seawall		57	12-Feb-14	12-Mar-14	18-Mar-14 A	24-Jun-14
NRC14780	SS - Rock Grade 400 - Zone C2 - (CH543 to 598) to +2.5mPD	3	12-Feb-14	20-Feb-14	18-Mar-14 A	13-May-14
NRC14840	SS - Armour Rock Underlayer - Zone C2 - (CH543 to 598)	5	21-Feb-14	26-Feb-14	05-Jun-14	10-Jun-14
NRC14870	SS - Armour Rock - Zone C2 - (CH543 to 598)	4	08-Mar-14	12-Mar-14	20-Jun-14	24-Jun-14
NRC14930	Sloping - Rockfill Type A- Zone C2 - (CH543 to 598)	1	21-Feb-14	21-Feb-14	14-May-14	14-May-14
NRC14960	Sloping - Geotextile - Zone C2 - (CH543 to 598)	1	22-Feb-14	22-Feb-14	15-May-14	15-May-14
NRC14990	Sloping - Granular Filter - Zone C2 - (CH543 to 598)	3	24-Feb-14	26-Feb-14	16-May-14	19-May-14
Reclamation		47	15-Apr-14	10-Jun-14	30-May-14	25-Jul-14
NRC15020	Reclamation - Geotextile - Zone C2 - (CH543 to 598)	4	15-Apr-14	22-Apr-14	30-May-14	04-Jun-14
NRC15050	Reclamation - Sand Blanket - Zone C2 - (CH543 to 598)	2	23-Apr-14	24-Apr-14	05-Jun-14	06-Jun-14
NRC15080	Reclamation - Band Drain - Zone C2 - (CH543 to 598)	4	26-Apr-14	30-Apr-14	11-Jun-14	14-Jun-14
NRC15090	Public Fill - Zone C2 - (CH543 to 598) to -2.5mPD	2	09-Jun-14	10-Jun-14	24-Jul-14	25-Jul-14
Zone B		112	14-Jan-14	16-May-14	13-Mar-14 A	29-Jul-14
Vertical Seawall		89	14-Jan-14	05-May-14	13-Mar-14 A	02-Jul-14
NRC11150	VS - Rock Grade 400 - Zone B - (CH598 to 648)	9	14-Jan-14	18-Jan-14	13-Mar-14 A	22-Apr-14 A
NRC11160	VS - Rock Grade 400 - Zone B - (CH648 to 698)	6	20-Jan-14	24-Jan-14	17-Mar-14 A	30-Apr-14



Project ID: TMCLK_I0.0-101 - B1-1 - B3-5 - B4-44

Data Date: 28-Apr-14

Current Bar
Current Bar - Critical
Planned Bar
Planned Milestone
Current Milestone
Progress Milestone
Progress Bar

TMCLK - Northern Connection Sub-Sea Tunnel Section

3-Months Rolling Programme - Construction

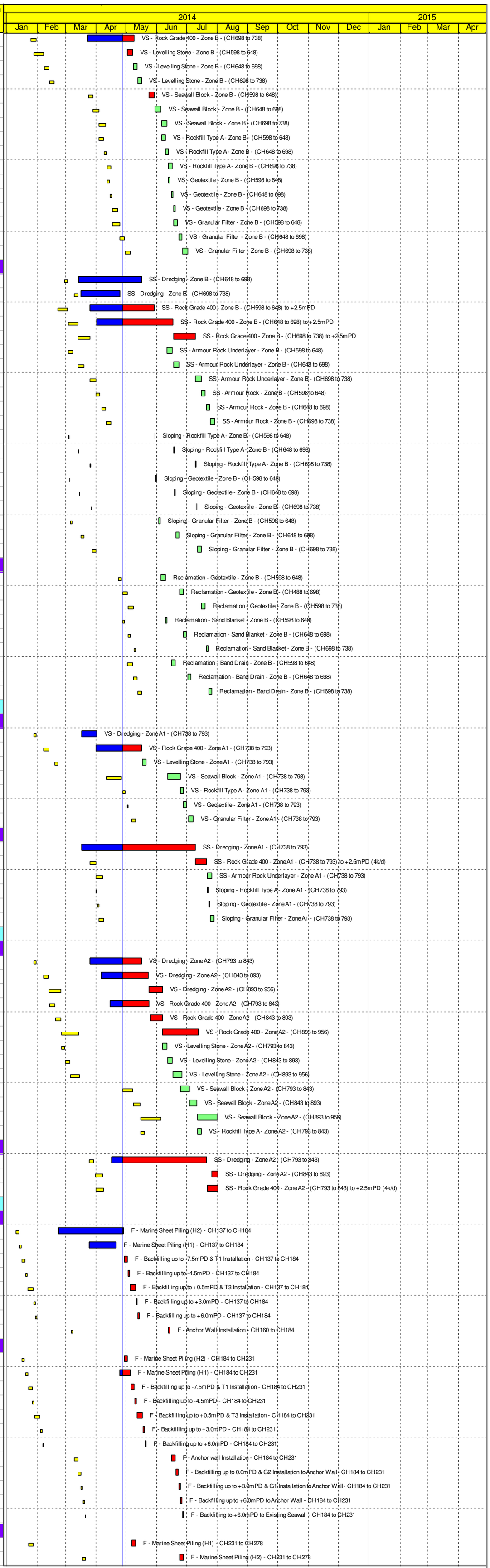
As of 28-Apr-14 Progress

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

BOUYGUES TRAVAUX PUBLICS

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	SPa	WYu

Activity ID	Activity Name	Orig Dur	Planned Start	Planned Finish	Current Start	Current Finish
NRC11170	VS - Rock Grade 400 - Zone B - (CH698 to 738)	3	25-Jan-14	30-Jan-14	24-Mar-14 A	09-May-14
NRC11180	VS - Levelling Stone - Zone B - (CH598 to 648)	4	28-Jan-14	07-Feb-14	02-May-14	07-May-14
NRC11190	VS - Levelling Stone - Zone B - (CH648 to 698)	4	08-Feb-14	12-Feb-14	08-May-14	12-May-14
NRC11200	VS - Levelling Stone - Zone B - (CH698 to 738)	4	13-Feb-14	17-Feb-14	13-May-14	16-May-14
NRC11220	VS - Seawall Block - Zone B - (CH598 to 648)	5	24-Mar-14	28-Mar-14	24-May-14	29-May-14
NRC11230	VS - Seawall Block - Zone B - (CH648 to 698)	5	29-Mar-14	03-Apr-14	30-May-14	05-Jun-14
NRC11240	VS - Seawall Block - Zone B - (CH698 to 738)	5	04-Apr-14	10-Apr-14	06-Jun-14	11-Jun-14
NRC11250	VS - Rockfill Type A - Zone B - (CH598 to 648)	3	04-Apr-14	08-Apr-14	06-Jun-14	09-Jun-14
NRC11260	VS - Rockfill Type A - Zone B - (CH648 to 698)	3	09-Apr-14	11-Apr-14	10-Jun-14	12-Jun-14
NRC11270	VS - Rockfill Type A - Zone B - (CH698 to 738)	3	12-Apr-14	15-Apr-14	13-Jun-14	16-Jun-14
NRC11290	VS - Geotextile - Zone B - (CH598 to 648)	2	12-Apr-14	14-Apr-14	13-Jun-14	14-Jun-14
NRC11300	VS - Geotextile - Zone B - (CH648 to 698)	2	15-Apr-14	16-Apr-14	16-Jun-14	17-Jun-14
NRC11310	VS - Geotextile - Zone B - (CH698 to 738)	2	17-Apr-14	22-Apr-14	18-Jun-14	19-Jun-14
NRC11320	VS - Granular Filter - Zone B - (CH598 to 648)	4	17-Apr-14	24-Apr-14	18-Jun-14	21-Jun-14
NRC11330	VS - Granular Filter - Zone B - (CH648 to 698)	4	25-Apr-14	29-Apr-14	23-Jun-14	26-Jun-14
NRC11340	VS - Granular Filter - Zone B - (CH698 to 738)	4	30-Apr-14	05-May-14	27-Jun-14	02-Jul-14
Sloping Seawall		71	21-Feb-14	15-Apr-14	15-Mar-14 A	29-Jul-14
NRC11450	SS - Dredging - Zone B - (CH648 to 698)	3	28-Feb-14	03-Mar-14	15-Mar-14 A	17-May-14 A
NRC11460	SS - Dredging - Zone B - (CH698 to 738)	4	10-Mar-14	13-Mar-14	17-Mar-14 A	25-Apr-14 A
NRC11470	SS - Rock Grade 400 - Zone B - (CH598 to 648) to +2.5mPD	2	21-Feb-14	03-Mar-14	26-Mar-14 A	29-May-14
NRC11480	SS - Rock Grade 400 - Zone B - (CH648 to 698) to +2.5mPD	2	04-Mar-14	13-Mar-14	02-Apr-14 A	17-Jun-14
NRC11490	SS - Rock Grade 400 - Zone B - (CH698 to 738) to +2.5mPD	18	14-Mar-14	25-Mar-14	18-Jun-14	09-Jul-14
NRC11540	SS - Armour Rock Underlayer - Zone B - (CH598 to 648)	5	04-Mar-14	08-Mar-14	11-Jun-14	16-Jun-14
NRC11550	SS - Armour Rock Underlayer - Zone B - (CH648 to 698)	5	14-Mar-14	19-Mar-14	18-Jun-14	23-Jun-14
NRC11560	SS - Armour Rock Underlayer - Zone B - (CH698 to 738)	5	26-Mar-14	31-Mar-14	10-Jul-14	15-Jul-14
NRC11580	SS - Armour Rock - Zone B - (CH598 to 648)	4	01-Apr-14	04-Apr-14	16-Jul-14	19-Jul-14
NRC11590	SS - Armour Rock - Zone B - (CH648 to 698)	4	07-Apr-14	10-Apr-14	21-Jul-14	24-Jul-14
NRC11600	SS - Armour Rock - Zone B - (CH698 to 738)	4	11-Apr-14	15-Apr-14	25-Jul-14	29-Jul-14
NRC11650	Sloping - Rockfill Type A - Zone B - (CH598 to 648)	1	04-Mar-14	04-Mar-14	30-May-14	30-May-14
NRC11660	Sloping - Rockfill Type A - Zone B - (CH648 to 698)	1	14-Mar-14	14-Mar-14	18-Jun-14	18-Jun-14
NRC11670	Sloping - Rockfill Type A - Zone B - (CH698 to 738)	1	26-Mar-14	26-Mar-14	10-Jul-14	10-Jul-14
NRC11690	Sloping - Geotextile - Zone B - (CH598 to 648)	1	05-Mar-14	05-Mar-14	31-May-14	31-May-14
NRC11700	Sloping - Geotextile - Zone B - (CH648 to 698)	1	15-Mar-14	15-Mar-14	19-Jun-14	19-Jun-14
NRC11710	Sloping - Geotextile - Zone B - (CH698 to 738)	1	27-Mar-14	27-Mar-14	11-Jul-14	11-Jul-14
NRC11730	Sloping - Granular Filter - Zone B - (CH598 to 648)	2	06-Mar-14	07-Mar-14	03-Jun-14	04-Jun-14
NRC11740	Sloping - Granular Filter - Zone B - (CH648 to 698)	3	17-Mar-14	19-Mar-14	20-Jun-14	23-Jun-14
NRC11750	Sloping - Granular Filter - Zone B - (CH698 to 738)	3	28-Mar-14	31-Mar-14	12-Jul-14	15-Jul-14
Reclamation		44	23-Apr-14	16-May-14	05-Jun-14	26-Jul-14
NRC11760	Reclamation - Geotextile - Zone B - (CH598 to 648)	4	23-Apr-14	26-Apr-14	05-Jun-14	09-Jun-14
NRC11770	Reclamation - Geotextile - Zone B - (CH488 to 698)	4	28-Apr-14	02-May-14	24-Jun-14	27-Jun-14
NRC11780	Reclamation - Geotextile - Zone B - (CH598 to 738)	4	03-May-14	08-May-14	16-Jul-14	19-Jul-14
NRC11800	Reclamation - Sand Blanket - Zone B - (CH598 to 648)	2	28-Apr-14	29-Apr-14	10-Jun-14	11-Jun-14
NRC11810	Reclamation - Sand Blanket - Zone B - (CH648 to 698)	2	03-May-14	05-May-14	28-Jun-14	30-Jun-14
NRC11820	Reclamation - Sand Blanket - Zone B - (CH698 to 738)	2	09-May-14	10-May-14	21-Jul-14	22-Jul-14
NRC11830	Reclamation - Band Drain - Zone B - (CH598 to 648)	4	02-May-14	07-May-14	16-Jun-14	19-Jun-14
NRC11840	Reclamation - Band Drain - Zone B - (CH648 to 698)	4	08-May-14	12-May-14	02-Jul-14	05-Jul-14
NRC11850	Reclamation - Band Drain - Zone B - (CH698 to 738)	4	13-May-14	16-May-14	23-Jul-14	26-Jul-14
Zone A1		87	28-Jan-14	10-May-14	18-Mar-14 A	28-Jul-14
Vertical Seawall		69	28-Jan-14	10-May-14	18-Mar-14 A	07-Jul-14
NRC12020	VS - Dredging - Zone A1 - (CH738 to 793)	3	28-Jan-14	30-Jan-14	18-Mar-14 A	02-Apr-14 A
NRC12040	VS - Rock Grade 400 - Zone A1 - (CH738 to 793)	3	07-Feb-14	12-Feb-14	01-Apr-14 A	16-May-14
NRC12050	VS - Levelling Stone - Zone A1 - (CH738 to 793)	4	18-Feb-14	21-Feb-14	17-May-14	21-May-14
NRC12060	VS - Seawall Block - Zone A1 - (CH738 to 793)	11	11-Apr-14	26-Apr-14	12-Jun-14	24-Jun-14
NRC12080	VS - Rockfill Type A - Zone A1 - (CH738 to 793)	3	28-Apr-14	30-Apr-14	25-Jun-14	27-Jun-14
NRC12090	VS - Geotextile - Zone A1 - (CH738 to 793)	2	02-May-14	03-May-14	28-Jun-14	30-Jun-14
NRC12100	VS - Granular Filter - Zone A1 - (CH738 to 793)	4	07-May-14	10-May-14	03-Jul-14	07-Jul-14
Sloping Seawall		24	20-Mar-14	08-Apr-14	18-Mar-14 A	28-Jul-14
NRC12140	SS - Dredging - Zone A1 - (CH738 to 793)	3	20-Mar-14	25-Mar-14	18-Mar-14 A	09-Jul-14
NRC12150	SS - Rock Grade 400 - Zone A1 - (CH738 to 793) to +2.5mPD (4k/d)	10	26-Mar-14	31-Mar-14	10-Jul-14	21-Jul-14
NRC12180	SS - Armour Rock Underlayer - Zone A1 - (CH738 to 793)	5	01-Apr-14	07-Apr-14	22-Jul-14	26-Jul-14
NRC12220	Sloping - Rockfill Type A - Zone A1 - (CH738 to 793)	1	01-Apr-14	01-Apr-14	22-Jul-14	22-Jul-14
NRC12230	Sloping - Geotextile - Zone A1 - (CH738 to 793)	2	02-Apr-14	03-Apr-14	23-Jul-14	24-Jul-14
NRC12250	Sloping - Granular Filter - Zone A1 - (CH738 to 793)	3	04-Apr-14	08-Apr-14	25-Jul-14	28-Jul-14
Zone A2		82	28-Jan-14	05-Jun-14	26-Mar-14 A	01-Aug-14
Vertical Seawall		81	28-Jan-14	05-Jun-14	26-Mar-14 A	31-Jul-14
NRC12350	VS - Dredging - Zone A2 - (CH793 to 843)	2	28-Jan-14	30-Jan-14	26-Mar-14 A	16-May-14
NRC12360	VS - Dredging - Zone A2 - (CH843 to 893)	3	07-Feb-14	11-Feb-14	06-Apr-14 A	23-May-14
NRC12370	VS - Dredging - Zone A2 - (CH893 to 956)	11	12-Feb-14	24-Feb-14	24-May-14	06-Jun-14
NRC12380	VS - Rock Grade 400 - Zone A2 - (CH793 to 843)	2	13-Feb-14	18-Feb-14	15-Apr-14 A	24-May-14
NRC12390	VS - Rock Grade 400 - Zone A2 - (CH843 to 893)	10	19-Feb-14	24-Feb-14	26-May-14	06-Jun-14
NRC12400	VS - Rock Grade 400 - Zone A2 - (CH893 to 956)	30	25-Feb-14	14-Mar-14	07-Jun-14	12-Jul-14
NRC12410	VS - Levelling Stone - Zone A2 - (CH793 to 843)	4	25-Feb-14	28-Feb-14	07-Jun-14	11-Jun-14
NRC12420	VS - Levelling Stone - Zone A2 - (CH843 to 893)	4	01-Mar-14	05-Mar-14	12-Jun-14	16-Jun-14
NRC12440	VS - Levelling Stone - Zone A2 - (CH893 to 956)	9	06-Mar-14	15-Mar-14	17-Jun-14	26-Jun-14
NRC12450	VS - Seawall Block - Zone A2 - (CH793 to 843)	7	28-Apr-14	07-May-14	25-Jun-14	03-Jul-14
NRC12460	VS - Seawall Block - Zone A2 - (CH843 to 893)	7	08-May-14	15-May-14	04-Jul-14	11-Jul-14
NRC12470	VS - Seawall Block - Zone A2 - (CH893 to 956)	17	16-May-14	05-Jun-14	12-Jul-14	31-Jul-14
NRC12480	VS - Rockfill Type A - Zone A2 - (CH793 to 843)	3	16-May-14	19-May-14	12-Jul-14	15-Jul-14
Sloping Seawall		18	25-Mar-14	08-Apr-14	17-Apr-14 A	01-Aug-14
NRC12630	SS - Dredging - Zone A2 - (CH793 to 843)	2	25-Mar-14	29-Mar-14	17-Apr-14 A	21-Jul-14
NRC12640	SS - Dredging - Zone A2 - (CH843 to 893)	6	31-Mar-14	07-Apr-14	26-Jul-14	01-Aug-14
NRC12660	SS - Rock Grade 400 - Zone A2 - (CH793 to 843) to +2.5mPD (4k/d)	10	01-Apr-14	08-Apr-14	22-Jul-14	01-Aug-14
Zone F		157	10-Jan-14	25-Apr-14	22-Feb-14 A	28-Jul-14
CH137 to CH184		121	10-Jan-14	08-Mar-14	22-Feb-14 A	14-Jun-14
A6416030	F - Marine Sheet Piling (H2) - CH137 to CH184	3	10-Jan-14	13-Jan-14	22-Feb-14 A	28-Apr-14
A6416035	F - Marine Sheet Piling (H1) - CH137 to CH184	2	14-Jan-14	15-Jan-14	25-Mar-14 A	21-Apr-14 A
A6416100	F - Backfilling up to -7.5mPD & T1 Installation - CH137 to CH184	4	16-Jan-14	19-Jan-14	29-Apr-14	02-May-14
A6416110	F - Backfilling up to -4.5mPD - CH137 to CH184	2	20-Jan-14	21-Jan-14	03-May-14	04-May-14
A6416115	F - Backfilling up to +0.5mPD & T3 Installation - CH137 to CH184	6	22-Jan-14	27-Jan-14	05-May-14	10-May-14
A6416118	F - Backfilling up to +3.0mPD - CH137 to CH184	2	28-Jan-14	29-Jan-14	11-May-14	12-May-14
A6416120	F - Backfilling up to +6.0mPD - CH137 to CH184	2	30-Jan-14	31-Jan-14	13-May-14	14-May-14
A6416320	F - Anchor Wall Installation - CH160 to CH184	2	07-Mar-14	08-Mar-14	13-Jun-14	14-Jun-14
CH184 to CH231		124	16-Jan-14	21-Mar-14	25-Apr-14 A	27-Jun-14
A6416040	F - Marine Sheet Piling (H2) - CH184 to CH231	3	16-Jan-14	18-Jan-14	29-Apr-14	02-May-14
A6416050	F - Marine Sheet Piling (H1) - CH184 to CH231	1	20-Jan-14	22-Jan-14	25-Apr-14 A	05-May-14
A6416060	F - Backfilling up to -7.5mPD & T1 Installation - CH184 to CH231	4	23-Jan-14	26-Jan-14	06-May-14	09-May-14
A6416070	F - Backfilling up to -4.5mPD - CH184 to CH231	2	27-Jan-14	28-Jan-14	10-May-14	11-May-14
A6416080	F - Backfilling up to +0.5mPD & T3 Installation - CH184 to CH231	6	29-Jan-14	03-Feb-14	12-May-14	17-May-14
A6416085	F - Backfilling up to +3.0mPD - CH184 to CH231	2	04-Feb-14	05-Feb-14	18-May-14	19-May-14
A6416090	F - Backfilling up to +6.0mPD - CH184 to CH231	2	06-Feb-14	07-Feb-14	20-May-14	21-May-14
A6416230	F - Anchor wall Installation - CH184 to CH231	4	10-Mar-14	13-Mar-14	16-Jun-14	19-Jun-14
A6416290	F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH184 to CH231	3	14-Mar-14	16-Mar-14	20-Jun-14	22-Jun-14
A6416295	F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH184 to CH231	2	17-Mar-14	18-Mar-14	23-Jun-14	24-Jun-14
A6416300	F - Backfilling up to +6.0mPD to Anchor Wall - CH184 to CH231	2	19-Mar-14	20-Mar-14	25-Jun-14	26-Jun-14
A6416400	F - Backfilling to +6.0mPD to Existing Seawall - CH184 to CH231	1	21-Mar-14	21-Mar-14	27-Jun-14	27-Jun-14
CH231 to CH278		67	23-Jan-14	18-Apr-14	07-May-14	25-Jul-14
A6416240	F - Marine Sheet Piling (H1) - CH231 to CH278	4	23-Jan-14	27-Jan-14	07-May-14	10-May-14
A6416250	F - Marine Sheet Piling (H2) - CH231 to CH278	4	18-Mar-14	21-Mar-14	24-Jun-14	27-Jun-14



Current Bar
Current Bar - Critical
Planned Bar
Planned Milestone
Current Milestone
Progress Milestone
Progress Bar

TMCLK - Northern Connection Sub-Sea Tunnel Section

3-Months Rolling Programme - Construction

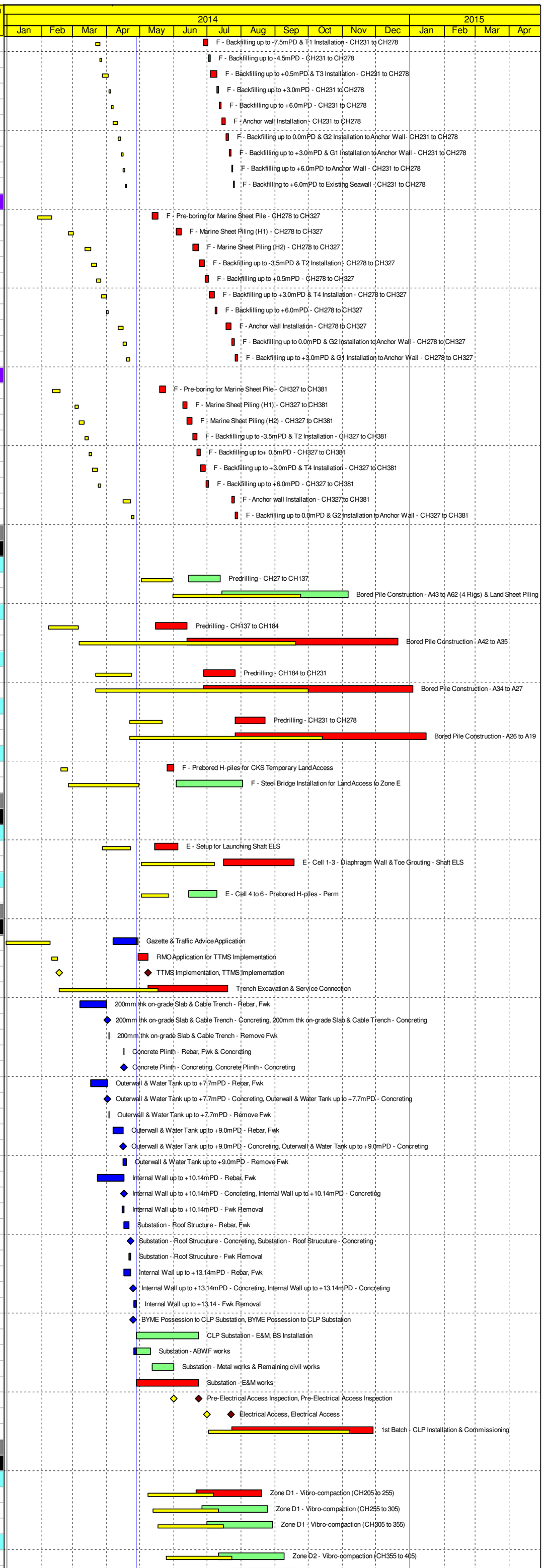
As of 28-Apr-14 Progress

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

BOUYGUES TRAVAUX PUBLICS

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	SPa	WYu

Activity ID	Activity Name	Orig Dur	Planned Start	Planned Finish	Current Start	Current Finish
A6416260	F - Backfilling up to -7.5mPD & T1 Installation - CH231 to CH278	4	22-Mar-14	25-Mar-14	28-Jun-14	01-Jul-14
A6416270	F - Backfilling up to -4.5mPD - CH231 to CH278	2	26-Mar-14	27-Mar-14	02-Jul-14	03-Jul-14
A6416273	F - Backfilling up to +0.5mPD & T3 Installation - CH231 to CH278	6	28-Mar-14	02-Apr-14	04-Jul-14	09-Jul-14
A6416278	F - Backfilling up to +3.0mPD - CH231 to CH278	2	03-Apr-14	04-Apr-14	10-Jul-14	11-Jul-14
A6416280	F - Backfilling up to +6.0mPD - CH231 to CH278	2	05-Apr-14	06-Apr-14	12-Jul-14	13-Jul-14
A6416310	F - Anchor wall Installation - CH231 to CH278	4	07-Apr-14	10-Apr-14	14-Jul-14	17-Jul-14
A6416480	F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH231 to CH278	3	11-Apr-14	13-Apr-14	18-Jul-14	20-Jul-14
A6416490	F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH231 to CH278	2	14-Apr-14	15-Apr-14	21-Jul-14	22-Jul-14
A6416500	F - Backfilling up to +6.0mPD to Anchor Wall - CH231 to CH278	2	16-Apr-14	17-Apr-14	23-Jul-14	24-Jul-14
A6416510	F - Backfilling to +6.0mPD to Existing Seawall - CH231 to CH278	1	18-Apr-14	18-Apr-14	25-Jul-14	25-Jul-14
CH278 to CH327		65	28-Jan-14	21-Apr-14	12-May-14	28-Jul-14
A6416180	F - Pre-boring for Marine Sheet Pile - CH278 to CH327	6	28-Jan-14	10-Feb-14	12-May-14	17-May-14
A6416190	F - Marine Sheet Piling (H1) - CH278 to CH327	5	25-Feb-14	01-Mar-14	03-Jun-14	07-Jun-14
A6416195	F - Marine Sheet Piling (H2) - CH278 to CH327	5	12-Mar-14	17-Mar-14	18-Jun-14	23-Jun-14
A6416200	F - Backfilling up to -3.5mPD & T2 Installation - CH278 to CH327	5	18-Mar-14	22-Mar-14	24-Jun-14	28-Jun-14
A6416210	F - Backfilling up to +0.5mPD - CH278 to CH327	4	23-Mar-14	26-Mar-14	29-Jun-14	02-Jul-14
A6416215	F - Backfilling up to +3.0mPD & T4 Installation - CH278 to CH327	5	27-Mar-14	31-Mar-14	03-Jul-14	07-Jul-14
A6416220	F - Backfilling up to +6.0mPD - CH278 to CH327	2	01-Apr-14	02-Apr-14	08-Jul-14	09-Jul-14
A6416340	F - Anchor wall Installation - CH278 to CH327	4	11-Apr-14	15-Apr-14	18-Jul-14	22-Jul-14
A6416520	F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH278 to CH327	3	16-Apr-14	18-Apr-14	23-Jul-14	25-Jul-14
A6416530	F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH278 to CH327	3	19-Apr-14	21-Apr-14	26-Jul-14	28-Jul-14
CH327 to CH381		59	11-Feb-14	25-Apr-14	19-May-14	28-Jul-14
A6416130	F - Pre-boring for Marine Sheet Pile - CH327 to CH381	6	11-Feb-14	17-Feb-14	19-May-14	24-May-14
A6416140	F - Marine Sheet Piling (H1) - CH327 to CH381	4	03-Mar-14	06-Mar-14	09-Jun-14	12-Jun-14
A6416145	F - Marine Sheet Piling (H2) - CH327 to CH381	4	07-Mar-14	11-Mar-14	13-Jun-14	17-Jun-14
A6416150	F - Backfilling up to -3.5mPD & T2 Installation - CH327 to CH381	4	12-Mar-14	15-Mar-14	18-Jun-14	21-Jun-14
A6416155	F - Backfilling up to+ 0.5mPD - CH327 to CH381	3	16-Mar-14	18-Mar-14	22-Jun-14	24-Jun-14
A6416160	F - Backfilling up to +3.0mPD & T4 Installation - CH327 to CH381	5	19-Mar-14	23-Mar-14	25-Jun-14	29-Jun-14
A6416170	F - Backfilling up to +6.0mPD - CH327 to CH381	3	24-Mar-14	26-Mar-14	30-Jun-14	02-Jul-14
A6416370	F - Anchor wall Installation - CH327 to CH381	3	16-Apr-14	22-Apr-14	23-Jul-14	25-Jul-14
A6416560	F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH327 to CH381	3	23-Apr-14	25-Apr-14	26-Jul-14	28-Jul-14
Box Culvert Extension		203	07-Feb-14	13-Oct-14	15-May-14	15-Jan-15
Construction		203	07-Feb-14	13-Oct-14	15-May-14	15-Jan-15
CH000 to CH137		120	02-May-14	23-Sep-14	14-Jun-14	05-Nov-14
A6416600	Predrilling - CH27 to CH137	24	02-May-14	30-May-14	14-Jun-14	12-Jul-14
A6416670	Bored Pile Construction - A43 to A62 (4 Rigs) & Land Sheet Piling	96	31-May-14	23-Sep-14	14-Jul-14	05-Nov-14
CH137 to CH184		184	07-Feb-14	19-Sep-14	15-May-14	20-Dec-14
A6416610	Predrilling - CH137 to CH184	24	07-Feb-14	06-Mar-14	15-May-14	12-Jun-14
A6416720	Bored Pile Construction - A42 to A35	160	07-Mar-14	19-Sep-14	13-Jun-14	20-Dec-14
CH184 to CH231		156	22-Mar-14	30-Sep-14	28-Jun-14	03-Jan-15
A6416620	Predrilling - CH184 to CH231	24	22-Mar-14	23-Apr-14	28-Jun-14	26-Jul-14
A6416730	Bored Pile Construction - A34 to A27	156	22-Mar-14	30-Sep-14	28-Jun-14	03-Jan-15
CH231 to CH278		143	22-Apr-14	13-Oct-14	26-Jul-14	15-Jan-15
A6416630	Predrilling - CH231 to CH278	24	22-Apr-14	21-May-14	26-Jul-14	22-Aug-14
A6416740	Bored Pile Construction - A26 to A19	143	22-Apr-14	13-Oct-14	26-Jul-14	15-Jan-15
CH381 to CH399 (Box Culvert Connection)		58	18-Feb-14	30-Apr-14	26-May-14	02-Aug-14
A6416660	F - Prebored H-piles for CKS Temporary Land Access	6	18-Feb-14	24-Feb-14	26-May-14	31-May-14
A6417000	F - Steel Bridge Installation for Land Access to Zone E	52	25-Feb-14	30-Apr-14	03-Jun-14	02-Aug-14
North Shafts Construction & Tunnel Structure		106	28-Mar-14	07-Jul-14	14-May-14	17-Sep-14
Construction		106	28-Mar-14	07-Jul-14	14-May-14	17-Sep-14
North Launching Shaft ELS Foundation & Capping Beam (Cell 1 to 3)		106	28-Mar-14	07-Jul-14	14-May-14	17-Sep-14
NSH1180	E - Setup for Launching Shaft ELS	18	28-Mar-14	22-Apr-14	14-May-14	04-Jun-14
NSH1340	E - Cell 1-3 - Diaphragm Wall & Toe Grouting - Shaft ELS	54	02-May-14	07-Jul-14	16-Jul-14	17-Sep-14
North Launching Shaft ELS Foundation & Capping Beam		21	02-May-14	27-May-14	14-Jun-14	09-Jul-14
NSH1210	E - Cell 4 to 6 - Prebored H-piles - Perm	21	02-May-14	27-May-14	14-Jun-14	09-Jul-14
CLP Temporary Substation		268	31-Dec-13	07-Nov-14	08-Mar-14A	28-Nov-14
Construction		268	31-Dec-13	07-Nov-14	08-Mar-14A	28-Nov-14
DDP12540	Gazette & Traffic Advice Application	27	31-Dec-13	08-Feb-14	07-Apr-14A	29-Apr-14
DDP12550	RMO Application for TTMS Implementation	6	10-Feb-14	15-Feb-14	29-Apr-14	08-May-14
DDP12560	TTMS Implementation	0	17-Feb-14		08-May-14	
DDP12720	Trench Excavation & Service Connection	60	17-Feb-14	17-May-14	08-May-14	19-Jul-14
DDP1274040	200mm thk on-grade Slab & Cable Trench - Rebar, Fwk	6			08-Mar-14A	01-Apr-14A
DDP1274045	200mm thk on-grade Slab & Cable Trench - Concreting	0				02-Apr-14A
DDP1274047	200mm thk on-grade Slab & Cable Trench - Remove Fwk	2			03-Apr-14A	03-Apr-14A
DDP1274050	Concrete Plinth - Rebar, Fwk & Concreting	6			17-Apr-14A	17-Apr-14A
DDP1274060	Concrete Plinth - Concreting	0				17-Apr-14A
DDP1275040	Outerwall & Water Tank up to +7.7mPD - Rebar, Fwk	4			18-Mar-14A	02-Apr-14A
DDP1275050	Outerwall & Water Tank up to +7.7mPD - Concreting	0				02-Apr-14A
DDP1275055	Outerwall & Water Tank up to +7.7mPD - Remove Fwk	2			03-Apr-14A	03-Apr-14A
DDP1275060	Outerwall & Water Tank up to +9.0mPD - Rebar, Fwk	4			07-Apr-14A	16-Apr-14A
DDP1275070	Outerwall & Water Tank up to +9.0mPD - Concreting	0				16-Apr-14A
DDP1275075	Outerwall & Water Tank up to +9.0mPD - Remove Fwk	2			16-Apr-14A	19-Apr-14A
DDP127507540	Internal Wall up to +10.14mPD - Rebar, Fwk	5			24-Mar-14A	17-Apr-14A
DDP127507550	Internal Wall up to +10.14mPD - Concreting	0				17-Apr-14A
DDP127507560	Internal Wall up to +10.14mPD - Fwk Removal	2			15-Apr-14A	17-Apr-14A
DDP1275080	Substation - Roof Structure - Rebar, Fwk	4			17-Apr-14A	21-Apr-14A
DDP1275090	Substation - Roof Strucuture - Concreting	0				23-Apr-14A
DDP1275095	Substation - Roof Strucuture - Fwk Removal	2			21-Apr-14A	23-Apr-14A
DDP1275100	Internal Wall up to +13.14mPD - Rebar, Fwk	8			17-Apr-14A	23-Apr-14A
DDP1275110	Internal Wall up to +13.14mPD - Concreting	0				25-Apr-14A
DDP1275120	Internal Wall up to +13.14 - Fwk Removal	2			26-Apr-14A	28-Apr-14A
DDP1275130	BYME Possession to CLP Substation	0			25-Apr-14A	
DDP1275140	CLP Substation - E&M, BS Installation	46			28-Apr-14	23-Jun-14
DDP1276010	Substation - ABWF works	2			26-Apr-14A	10-May-14
DDP1276020	Substation - Metal works & Remaining civil works	18			12-May-14	31-May-14
DDP1276030	Substation - E&M works	46			28-Apr-14	23-Jun-14
DDP12780	Pre-Electrical Access Inspection	0		31-May-14		23-Jun-14
DDP12790	Electrical Access	0		30-Jun-14		22-Jul-14
DDP12800	1st Batch - CLP Installation & Commissioning	108	02-Jul-14	07-Nov-14	23-Jul-14	28-Nov-14
North Surface works for TBM Tunnelling		92	08-May-14	05-Aug-14	21-Jun-14	20-Sep-14
Construction		92	08-May-14	05-Aug-14	21-Jun-14	20-Sep-14
Zone D1		70	08-May-14	15-Jul-14	21-Jun-14	29-Aug-14
NRC13940	Zone D1 - Vibro-compaction (CH205 to 255)	60	08-May-14	06-Jul-14	21-Jun-14	19-Aug-14
NRC13950	Zone D1 - Vibro-compaction (CH255 to 305)	60	13-May-14	11-Jul-14	26-Jun-14	24-Aug-14
NRC13960	Zone D1 - Vibro-compaction (CH305 to 355)	60	17-May-14	15-Jul-14	01-Jul-14	29-Aug-14
Zone D2		72	25-May-14	05-Aug-14	11-Jul-14	20-Sep-14
NRC13970	Zone D2 - Vibro-compaction (CH355 to 405)	60	25-May-14	23-Jul-14	11-Jul-14	08-Sep-14
NRC13980	Zone D2 - Vibro-compaction (CH405 to 443)	60	07-Jun-14	05-Aug-14	23-Jul-14	20-Sep-14



Current Bar
Current Bar - Critical
Planned Bar
Planned Milestone
Current Milestone
Progress Milestone
Progress Bar

TMCLK - Northern Connection Sub-Sea Tunnel Section

3-Months Rolling Programme - Construction

As of 28-Apr-14 Progress

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

BOUYGUES TRAVAUX PUBLICS

Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DBJ/GEN/PRG/98507	SPa	WYu

Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

Contract No. HY/2012/08
Tuen Mun – Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Environmental Mitigation and Enhancement Measure Implementation Schedule

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
Air Quality									
4.8.1	3.8	An effective watering programme of twice daily watering with complete coverage, is estimated to reduce by 50%. This is recommended for all areas in order to reduce dust levels to a minimum;	All areas / throughout construction period	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	Watering of the construction sites in Lantau for 8 times/day and in Tuen Mun for 12 times/day to reduce dust emissions by 87.5% and 91.7% respectively and shall be undertaken.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	The Contractor shall, to the satisfaction of the Engineer, install effective dust suppression measures and take such other measures as may be necessary to ensure that at the Site boundary and any nearby sensitive receiver, dust levels are kept to acceptable levels.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	The Contractor shall not burn debris or other materials on the works areas.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8. 1	3.8	In hot, dry or windy weather, the watering programme shall maintain all exposed road surfaces and dust sources wet.	All unpaved haul roads / throughout construction period in hot, dry or windy weather	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	Where breaking of oversize rock/concrete is required, watering shall be implemented to control dust. Water spray shall be used during the handling of fill material at the site and at active cuts, excavation and fill sites where dust is likely to be created.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8. 1	3.8	Open dropping heights for excavated materials shall be controlled to a maximum height of 2m to minimise the fugitive dust arising from unloading.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	During transportation by truck, materials shall not be loaded to a level higher than the side and tail boards, and shall be dampened or covered before transport.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
4.8.1	3.8	Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin. The tarpaulin shall be properly secured and shall extend at least 300mm over the edges of the side and tail boards.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	No earth, mud, debris, dust and the like shall be deposited on public roads. Wheel washing facility shall be usable prior to any earthworks excavation activity on the site.	All site exits / throughout construction period	Contractor	TMEIA Avoid dust		Y		✓
4.8.1	3.8	Areas of exposed soil shall be minimised to areas in which works have been completed shall be restored as soon as is practicable.	All exposed surfaces / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	All stockpiles of aggregate or spoil shall be enclosed or covered and water applied in dry or windy condition.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.11	Section 3	EM&A in the form of 1 hour and 24 hour dust monitoring and site audit.	All representative existing ASRs / throughout construction period	Contractor	EM&A Manual		Y		✓
WATER QUALITY									
Marine Works (Sequence A)									
6.1 Figure 6.2a Appendix D6a	Annex A	Construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. The protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2a and detailed in Appendix D6a. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: - TM-CLKL northern reclamation;	All areas/ prior to dredging and backfilling works	Contractor	TM-EIAO		Y		✓
6.1	-	a maximum of 50% public fill to be used for all seawall filling below +2.5mPD for TM-CLKL southern and northern landfalls.	TM-CLKL seawall filling	Contractor	TM-EIAO		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	a maximum of 30% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL southern landfall	TM-CLKL southern landfall reclamation filling	Contractor	TM-EIAO		Y		N/A
6.1	-	a maximum of 100% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL northern landfall	TM-CLKL northern landfall reclamation filling	Contractor	TM-EIAO		Y		✓
6.1	-	Use of cage type silt curtains round allgrab dredgers during the HKBCF, HKLR and TM-CLKL southern reclamation works.	All areas dredging works	Contractor	TM-EIAO		Y		✓
	Figure 1.1 of Annex C	A layer of floating type silt curtain will be applied when dredging and reclamation works are being undertaken at Portion N-a as shown in Figure 1.1 of Annex C of the EM&A Manual.	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.1	-	Trailer suction hopper dredgers shall not allow mud to overflow.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1	-	The use of Lean Material Overboard (LMOB) systems shall be prohibited.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.1 Figure 6.2b Appendix	Annex A	For other parts of the reclamation works construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. It should be noted that the protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2b and detailed in Appendices D6b. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: - TM-CLKL northern reclamation;	TM-CLKL northern landfall, Portion D of HKBCF and HKLR	Contractor	TM-EIAO		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
D6b		- Reclamation filling for Portion D of HKBCF; Reclamation filling for FSD berth of HKBCF; and - Reclamation dredging and filling for Portion 1 of HKLR;							
6.1	-	The filling material for the other parts of the works are the same as Sequence A;	All other areas/backfilling works	Contractor	TM-EIAO		Y		N/A
6.1	5.7	Cage type silt curtain (with steel enclosure) shall be used for grab dredgers working in the site of HKBCF and TM- CLKL southern reclamation. Cage type silt curtains will be applied round all grab dredgers at other works area.	HKBCF, HKLR and TM-CLKL grab dredging	Contractor	TM-EIAO		Y		✓
6.1	Annex A	A layer of floating type silt curtain will be applied around all works as defined in Appendix D6b.	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.1	-	TM-CLKL northern landfall: - Reclamation filling shall not proceed until at least 200m section of leading seawall at both the east and west sides of the reclamation are formed above +2.5 mPD, except for 100m gaps for marine access;	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
General Marine Works									
6.1	-	Use of TMB for the construction of the submarine tunnel.	Tunnel works / Construction phase	Contractor	TM-EIAO		Y		N/A
6.1	-	Export dredged spoils from NWWCZ.	All areas as much as possible / dredging activities	Contractor	DASO Permit conditions		Y		✓
6.1	-	Where public fill is proposed for filling below +2.5mPD, the fine content in the public fill will be controlled to 25%	All areas/ backfilling works	Contractor	TM-EIAO		Y		N/A
6.1	-	Where sand fill is proposed for filling below +2.5mPD, the fine content in the sand fill will be controlled to 5%.	All areas/ backfilling works	Contractor	TM-EIAO		Y		N.A
6.1	-	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
					conditions.				
6.1	-	Barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✔
6.1	-	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✔
6.1	-	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✔
6.1	-	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		<>
6.1	-	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		N/A
6.1	-	All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		N/A

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		<>
6.1	5.2	Silt curtain shall have proved effectiveness from the producer and shall be fully maintained throughout the works by the contractor.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	The daily maximum production rates shall not exceed those assumed in the water quality assessment.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	The dredging and filling works shall be scheduled to spread the works evenly over a working day.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
Land Works									
6.1	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Sewage effluent and discharges from on- site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.1	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	5.8	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
6.1	-	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		N/A
6.1	-	The Contractor shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	All areas/ throughout construction period	Contractor	TM-EIAO Waste Disposal Ordinance		Y		✓
6.1	-	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.1	-	Roadside gullies to trap silt and grit shall be provided prior to discharging the stormwater into the marine environment. The sumps will be maintained and cleaned at regular intervals.	Roadside/design and operation	Design Consultant/ Contractor	TM-EIAO	Y		Y	✓
6.1	Section 5	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓
Water Quality Monitoring									
6.1	Section 5	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Nutrients and metal parameters shall also be measured for Mf sediment operations (only HKBCF and HKLR required handling of Mf sediment) during baseline, backfilling and post construction period. One year operation phase water quality monitoring at designated stations.	Designated monitoring stations as defined in EM&A Manual, Section 5/ Before, through-out marine construction period, post construction and monthly operational phase water quality monitoring for a year.	Contractor	EM&A Manual		Y	Y	✓
ECOLOGY									

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

Contract No. HY/2012/08
Tuen Mun – Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Environmental Mitigation and Enhancement Measure Implementation Schedule

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
8.14	6.3	Specification for and implement pre, during and post construction dolphin abundance monitoring.	All Areas/Detailed Design/ during construction works/post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓
8.14	6.3,6.5	Specification and implementation of 250m dolphin exclusion zone.	All dredging and reclamation areas/Detailed Design/during all reclamation and dredging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.5	Specification and deployment of an artificial reef of an area of 3,600m2 in an area where fishing activities are prohibited.	Area of prohibited fishing activities/Detailed Design/towards end of construction period	TM-CLKL/ HKBCF Design Consultant/TM-CLKL/ HKBCF Contractor	TMEIA	Y		Y	N/A. To be implemented by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for dredging and reclamation works	All areas/ Detailed Design/during dredging and reclamation works	Design Consultant/ Contractor	TMEIA	Y	Y		<>
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.5	Audit coral translocation success	Post translocation	Contractor	TMEIA		Y		✓
7.13	6.5	The loss of habitat shall be supplemented by enhancement planting in accordance with the landscape mitigation schedule.	All areas / As soon as accessible	Contractor	TMEIA		Y		N/A.
7.13	6.5	Spoil heaps shall be covered at all times.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Avoid damage and disturbance to the remaining and surrounding natural habitat	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Placement of equipment in designated areas within the existing disturbed land	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Disturbed areas to be reinstated immediately after completion of the works.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
7.13	6.5	Construction activities should be restricted to the proposed works boundary.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
LANDSCAPE AND VISUAL									
10.9	7.6	The colour and shape of the toll control buildings, ventilation building and administration building shall adopt a design which could blend it into the vicinity elements, and the details will be developed in detailed design stage (DM2)	All areas/detailed design	Design Consultant	TMEIA	Y			N/A
10.9	7.6	Aesthetic design of the viaduct, retaining wall and other structures will be developed under ACABAS submission (DM5)	All areas/detailed design	Design Consultant	TMEIA	Y			N/A
10.9	7.6	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works (CM5)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Control night-time lighting and glare by hooding all lights (CM6)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Ensure no run-off into water body adjacent to the Project Area (CM7)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (CM8)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities (OM5)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (OM6)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
WASTE									
12.6		The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6		The Contractor shall prepare and implement a Waste Management Plan which specifies procedures such as a ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of wastes does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposed. A recording system for the amount of waste generated, recycled and disposed (locations) should be established.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		✓
12.6		The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures including waste reduction, reuse and recycling.	Contract Mobilisation	Contractor	TMEIA		Y		✓
12.6	8.1	The extent of cutting operation should be optimised where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The surplus surcharge should be transferred to a fill bank	Reclamation areas / after surcharge works	Contractor	TMEIA		Y		N/A
12.6	8.1	Rock armour from the existing seawall should be reused on the new sloping seawall as far as possible	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	8.1	No waste shall be burnt on site.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Provisions to be made in contract documents to allow and promote the use of recycled aggregates where appropriate.	Detailed Design	Design Consultant	TMEIA	Y			✓
12.6	8.1	The Contractor shall be prohibited from disposing of C&D materials at any sensitive locations. The Contractor should propose the final disposal sites in the EMP and WMP for approval before implementation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust/ surface run off.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Seas Ordinance.	Reclamation areas / throughout dredging works	Contractor	TMEIA		Y		✓
12.6	8.1	Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork/plastic facing for construction works should be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should avoid over-ordering and wastage.	All areas / throughout construction period	Contractor	TMEIA		Y		✓

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	8.1	The Contractor should recycle as many C&D materials (this is a waste section) as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows: *f* suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; *f* Having a capacity of <450L unless the specifications have been approved by the EPD; and *f* Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. *f* Clearly labelled and used solely for the storage of chemical wastes; *f* Enclosed with at least 3 sides; *f* Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest; *f* Adequate ventilation; *f* Sufficiently covered to prevent rainfall	All areas / throughout construction period	Contractor	TMEIA		Y		<>

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
		entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and *f* Incompatible materials are adequately separated.							
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout construction period	Contractor	TMEIA		Y		✔
12.6	8.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them.	All areas / throughout construction period	Contractor	TMEIA		Y		✔
12.6	8.1	Night soil should be regularly collected by licensed collectors.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A
12.6	8.1	General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes. Sufficient dustbins shall be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general refuse shall be cleared daily and shall be disposed of to the nearest licensed landfill or refuse transfer station. Burning of refuse on construction sites is prohibited.	All areas / throughout construction period	Contractor	TMEIA		Y		✔
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✔
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✔
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.	Site Offices/ throughout construction period	Contractor	TMEIA		Y		✔

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status *
						D	C	O	
12.6	Section 8	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas / throughout construction period	Contractor	EM&A Manual		Y		✓
CULTURAL HERITAGE									
11.8	Section 9	EM&A in the form of audit of the mitigation measures	All areas / throughout construction period	Highways Department	EIAO-TM		Y		N/A

*** Remarks:**

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

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

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

Appendix D

Summary of Action and Limit Levels

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

Parameters	Action	Limit
24 Hour TSP Level in μg/m³	ASR1 = 213 ASR5 = 238 AQMS1 = 213 AQMS2 / ASR6 = 238 ASR10 = 214	260
1 Hour TSP Level in μg /m³	ASR1 = 331 ASR5 = 340 AQMS1 = 335 AQMS2 / ASR6 = 338 ASR10 = 337	500

Table D2 Action and Limit Levels for Water Quality

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

Notes:

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

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

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

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

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

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

Table D3 Action and Limit Levels for Impact Dolphin Monitoring

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

Notes:

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

Table D4 Derived Value of Action Level (AL) and Limit Level (LL)

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

Appendix E

Copies of Calibration Certificates for Air Quality and Water Quality Monitoring

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	10/02/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	12 Mar 2013
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1019
Ta(K)	:	292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	13.0	3.717	1.797	53	54.64
2	13 holes	10.2	3.293	1.590	46	47.43
3	10 holes	7.4	2.805	1.353	40	41.24
4	7 holes	4.9	2.282	1.099	31	31.96
5	5 holes	3.0	1.786	0.858	24	24.74

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):31.788 Intercept(b): -2.582 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 15/02/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 1
Calibrated by	:	P.F.Yeung
Date	:	10/04/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	24 Mar 2014
Slope (m)	:	2.07593
Intercept (b)	:	-0.00102
Correlation Coefficient(r)	:	0.99996

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1015
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.4	3.537	1.704	53	53.23
2	13 holes	9.8	3.144	1.515	46	46.20
3	10 holes	7.3	2.714	1.308	38	38.17
4	7 holes	4.6	2.154	1.038	30	30.13
5	5 holes	2.9	1.710	0.824	22	22.10

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):34.944 Intercept(b): -6.690 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 16/04/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	10/02/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	12 Mar 2013
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1019
Ta(K)	:	282

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.2	3.601	1.740	54	55.67
2	13 holes	9.8	3.228	1.559	49	50.52
3	10 holes	7.5	2.824	1.362	43	44.33
4	7 holes	4.8	2.259	1.088	35	36.09
5	5 holes	2.9	1.756	0.844	27	27.84

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):31.009 Intercept(b): 1.999 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 15/02/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 5
Calibrated by	:	P.F.Yeung
Date	:	10/04/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	24 Mar 2014
Slope (m)	:	2.07593
Intercept (b)	:	-0.00102
Correlation Coefficient(r)	:	0.99996

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1015
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.6	3.565	1.718	52	52.23
2	13 holes	9.8	3.144	1.515	46	46.20
3	10 holes	6.8	2.619	1.262	38	38.17
4	7 holes	4.8	2.200	1.060	32	32.14
5	5 holes	2.8	1.681	0.810	24	24.10

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):30.983 Intercept(b): -0.878 Correlation Coefficient(r): 0.9999

Checked by: Magnum Fan Date: 16/04/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	10/02/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	12 Mar 2013
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1019
Ta(K)	:	282

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.6	3.660	1.769	57	58.77
2	13 holes	9.9	3.244	1.567	50	51.55
3	10 holes	7.2	2.767	1.335	42	43.30
4	7 holes	4.7	2.235	1.077	34	35.05
5	5 holes	2.8	1.725	0.829	25	25.78

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):34.790 Intercept(b): -2.864 Correlation Coefficient(r): 0.9997

Checked by: Magnum Fan Date: 15/02/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR 6
Calibrated by	:	P.F.Yeung
Date	:	10/04/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	24 Mar 2014
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1015
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.4	3.391	1.634	55	55.24
2	13 holes	9.0	3.013	1.452	48	48.21
3	10 holes	6.6	2.580	1.243	40	40.17
4	7 holes	4.5	2.131	1.027	32	32.14
5	5 holes	2.8	1.681	0.810	24	24.10

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):37.778 Intercept(b): -6.617 Correlation Coefficient(r): 0.999

Checked by: Magnum Fan Date: 16/04/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	10/02/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	12 Mar 2013
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1019
Ta(K)	:	282

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.6	3.660	1.769	57	58.77
2	13 holes	10.5	3.341	1.614	52	53.61
3	10 holes	7.6	2.842	1.372	45	46.40
4	7 holes	4.8	2.259	1.088	36	37.12
5	5 holes	3.0	1.786	0.858	28	28.87

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):32.526 Intercept(b): 1.364 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan Date: 15/02/14

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR10
Calibrated by	:	P.F.Yeung
Date	:	10/04/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	24 Mar 2014
Slope (m)	:	2.07593
Intercept (b)	:	-0.00102
Correlation Coefficient(r)	:	0.99996

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1015
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.1	3.346	1.612	61	61.27
2	13 holes	9.0	3.013	1.452	54	54.24
3	10 holes	7.2	2.695	1.299	48	48.21
4	7 holes	5.0	2.246	1.082	38	38.17
5	5 holes	2.9	1.710	0.824	28	28.12

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):42.292 Intercept(b): -7.032 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 16/04/14

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	10/02/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	12 Mar 2013
Slope (m)	:	2.05818
Intercept (b)	:	0.01929
Correlation Coefficient(r)	:	0.99991

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1019
Ta(K)	:	282

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.5	3.645	1.762	54	55.67
2	13 holes	10.1	3.277	1.583	48	49.49
3	10 holes	7.5	2.824	1.362	42	43.30
4	7 holes	4.7	2.235	1.077	33	34.02
5	5 holes	3.0	1.786	0.858	26	26.81

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):31.647 Intercept(b): 0.1797 Correlation Coefficient(r): 0.9997

Checked by: Magnum Fan Date: 15/02/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	AQMS1
Calibrated by	:	P.F.Yeung
Date	:	10/04/2014

Sampler

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

Calibration Orfice and Standard Calibration Relationship

Serial Number	:	2454
Service Date	:	24 Mar 2014
Slope (m)	:	2.07593
Intercept (b)	:	-0.00102
Correlation Coefficient(r)	:	0.99996

Standard Condition

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

Calibration Condition

Pa (hpa)	:	1015
Ta(K)	:	296

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.4	3.537	1.704	53	53.23
2	13 holes	9.6	3.112	1.500	47	47.21
3	10 holes	7.2	2.695	1.299	42	42.18
4	7 holes	4.6	2.154	1.038	35	35.15
5	5 holes	2.8	1.681	0.810	28	28.12

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):27.690 Intercept(b): 6.009 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan Date: 16/04/2014

TISCH ENVIROMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 12, 2013 Rootsmeter S/N 0438320 Ta (K) - 293
Operator Tisch Orifice I.D. - 2454 Pa (mm) - 748.03

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4750	3.2	2.00
2	NA	NA	1.00	1.0290	6.4	4.00
3	NA	NA	1.00	0.9170	8.0	5.00
4	NA	NA	1.00	0.8740	8.9	5.50
5	NA	NA	1.00	0.7220	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9967	0.6757	1.4150		0.9957	0.6750	0.8851
0.9925	0.9645	2.0010		0.9915	0.9635	1.2517
0.9902	1.0799	2.2372		0.9892	1.0788	1.3995
0.9891	1.1317	2.3464		0.9881	1.1305	1.4678
0.9839	1.3627	2.8299		0.9828	1.3613	1.7702
Qstd slope (m) =		2.05818		Qa slope (m) =		1.28880
intercept (b) =		0.01929		intercept (b) =		0.01207
coefficient (r) =		0.99991		coefficient (r) =		0.99991
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

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

For subsequent flow rate calculations:

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

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, 2014 Rootsmeter S/N 0438320 Ta (K) - 293
Operator Tisch Orifice I.D. - 2454 Pa (mm) - 758.19

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4740	3.2	2.00
2	NA	NA	1.00	1.0340	6.4	4.00
3	NA	NA	1.00	0.9240	7.9	5.00
4	NA	NA	1.00	0.8820	8.8	5.50
5	NA	NA	1.00	0.7270	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)
1.0103	0.6854	1.4245
1.0061	0.9730	2.0146
1.0040	1.0866	2.2524
1.0028	1.1370	2.3623
0.9976	1.3722	2.8491

Qstd slope (m) = 2.07593
intercept (b) = -0.00102
coefficient (r) = 0.99996

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

Va	(x axis) Qa	(y axis)
0.9958	0.6755	0.8791
0.9916	0.9590	1.2433
0.9895	1.0709	1.3900
0.9884	1.1206	1.4579
0.9832	1.3524	1.7583

Qa slope (m) = 1.29991
intercept (b) = -0.00063
coefficient (r) = 0.99996

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

CALCULATIONS

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

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

For subsequent flow rate calculations:

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

Certification of Quality

This product has been tested in accordance with procedures established through Global Water Instrumentation's Quality Management System. This product meets or exceeds its manufacturing acceptance criteria.

ITEM DESCRIPTION:	Wind Direction
MODEL NAME/ NUMBER:	WE570
PART NUMBER:	ED0000
SENSOR RANGE:	0-360 °
SENSOR OUTPUT:	4.01-20.03 mA
ACCURACY:	1% of full scale
POWER REQUIRED	10-36 VDC
SERIAL NUMBER:	1337005143
CABLE LENGTH:	25 ft
CERTIFICATES:	CE Compliant

Technician: *Wright, Jess* **Date:** 9/12/2013

NOT Global Water Instrumentation warrants that its products are free from defects in material & workmanship under normal use & service for a period of one year from date of original shipment from factory. Repaired components are warranted for a period of 90 days from shipment. Contact us for complete warranty details.

Global Water
a xylem brand

In the U.S. call toll free at 1-800-876-1172
International 1-979-690-5560
Fax 1-979-690-0440
Email globalw@globalw.com

Visit our online catalog at www.globalw.com
Our Service Address
151 Graham Rd
College Station, TX 77845

Certification of Quality

This product has been tested in accordance with procedures established through Global Water Instrumentation's Quality Management System. This product meets or exceeds its manufacturing acceptance criteria.

ITEM DESCRIPTION:	Wind Speed Sensor
MODEL NAME/ NUMBER:	WE550
PART NUMBER:	EC0000
SENSOR RANGE:	0-110 MPH
SENSOR OUTPUT:	4.00-19.91 mA
ACCURACY:	.2 MPH over the range 11 to 55 MPH
POWER REQUIRED	10-36 VDC
SERIAL NUMBER:	1337005099
CABLE LENGTH:	25 ft
CERTIFICATES:	CE Compliant

Technician: *Wright, Jess* **Date:** 9/10/2013

NOT Global Water Instrumentation warrants that its products are free from defects in material & workmanship under normal use & service for a period of one year from date of original shipment from factory. Repaired components are warranted for a period of 90 days from shipment. Contact us for complete warranty details.

Global Water
a xylem brand

In the U.S. call toll free at 1-800-876-1172
International 1-979-690-5560
Fax 1-979-690-0440
Email globalw@globalw.com

Visit our online catalog at www.globalw.com
Our Service Address
151 Graham Rd
College Station, TX 77845

Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/010 Manufacturer : HACH

Model No. : 2100Q Serial No. : 11110 C 014260

Date of Calibration : 07/01/2014 Due Date : 06/04/2014

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.2	-4.08
100	104	3.92
800	793	-0.88

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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : _____ Checked by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/010 Manufacturer : HACH

Model No. : 2100Q Serial No. : 11110 C 014260

Date of Calibration : 07/04/2014 Due Date : 06/07/2014

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.5	-2.50
100	103	3.00
800	792	-1.00

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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : _____ Checked by : _____

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/005	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	12A 100353
Date of Calibration	:	29/01/2014	Calibration Due Date	:	28/04/2014

Temperature Verification

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

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	20.2	Corrected	19.8
DO Meter reading	Measured	19.7	Difference	0.1

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/8	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/001/24

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.50
Final Vol. of $Na_2S_2O_3$ (ml)	10.50	20.95
Vol. of $Na_2S_2O_3$ used (ml)	10.50	10.45
Normality of $Na_2S_2O_3$ solution (N)	0.02381	0.02392
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02387	
Acceptance criteria, Deviation	Less than ± 0.001N	

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

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.90	23.50	0.00	8.20	13.20
Final Vol. of $Na_2S_2O_3$ (ml)	11.90	23.50	31.90	8.20	13.20	17.90
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.90	11.60	8.40	8.20	5.00	4.70
Dissolved Oxygen (DO), mg/L	7.63	7.43	5.38	5.25	3.20	3.01
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.65	7.41	7.53	7.63	7.43	7.53	0.00
5	5.38	5.21	5.30	5.38	5.25	5.32	0.38
10	3.22	3.09	3.16	3.20	3.01	3.11	1.59
Linear regression coefficient				0.9998			

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/002/15	Reagent No. of NaCl (30ppt)	CPE/012/4.8/002/15

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	12.30	24.40	35.80
Final Vol. of $Na_2S_2O_3$ (ml)	12.30	24.40	35.80	47.00
Vol. (V) of $Na_2S_2O_3$ used (ml)	12.30	12.10	11.40	11.20
Dissolved Oxygen (DO), mg/L	7.88	7.75	7.31	7.18
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.88	7.65	7.77	7.88	7.75	7.82	0.64
30	7.23	7.14	7.19	7.31	7.18	7.25	0.83

Acceptance Criteria

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

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

" Delete as appropriate

Calibrated by : Approved by :

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/005	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	12A 100353
Date of Calibration	:	28/04/2014	Calibration Due Date	:	27/07/2014

Temperature Verification

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

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	20.1	Corrected	19.7
DO Meter reading	Measured	19.6	Difference	0.1

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/8	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/001/26

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

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

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	12.00	24.00	0.00	8.10	12.90
Final Vol. of $Na_2S_2O_3$ (ml)	12.00	24.00	32.00	8.10	12.90	17.60
Vol. (**V**) of $Na_2S_2O_3$ used (ml)	12.00	12.00	8.00	8.10	4.80	4.70
Dissolved Oxygen (**DO**), mg/L	7.88	7.88	5.25	5.32	3.15	3.08
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.65	7.58	7.62	7.88	7.88	7.88	3.35
5	5.34	5.39	5.37	5.25	5.32	5.29	1.50
10	3.21	3.17	3.19	3.15	3.08	3.12	2.22
Linear regression coefficient				0.9983			

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/002/19	Reagent No. of NaCl (30ppt)	CPE/012/4.8/002/19

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.90	23.70	34.20
Final Vol. of $Na_2S_2O_3$ (ml)	11.90	23.70	34.20	44.80
Vol. (**V**) of $Na_2S_2O_3$ used (ml)	11.90	11.80	10.50	10.60
Dissolved Oxygen (**DO**), mg/L	7.81	7.75	6.89	6.96
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.86	7.79	7.83	7.81	7.75	7.78	0.64
30	6.95	6.99	6.97	6.89	6.96	6.93	0.58

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by : Approved by :

Performance Check of Salinity Meter

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

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

Date of Calibration : 29/01/2014 Due Date : 28/04/2014

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

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.9	3.00

Acceptance Criteria

Difference : <10 %

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

Checked by : _____ Approved by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No.	: ET/EW/008/005	Manufacturer	: YSI
Model No.	: Pro 2030	Serial No.	: 12A 100353
Date of Calibration	: 28/04/2014	Due Date	: 27/07/2014

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

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	31.1	3.67

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

Acceptance Criteria

Difference : -10 % to 10 %

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

Checked by : _____ Approved by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : ET/EW/007/003 Manufacturer : HANNA

Model No. : HI 8314 Serial No. : 674469

Date of Calibration : 10/03/2014 Calibration Due Date : 09/04/2014

Liquid Junction Error

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/001/17

Temperature of Solution : 20.0 $\Delta pH_{1/2}$ = +0.08

pH value of diluted buffer : 6.79 pH (S) = 6.881

ΔpH = pH(S) - pH of diluted buffer = 0.091 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{1/2}$ = 0.011

Shift on Stirring

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

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.008

Noise

Noise, ΔpH_n = difference between max and min reading : 0.00

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/008

Temperature record from the reference thermometer (T_R): 20.0 °C

Temperature record from the ATC (T_{ATC}): 19.9 °C

Temperature Difference, $|T_R - T_{ATC}|$ 0.1 °C

Acceptance Criteria

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

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

* Delete as appropriate

Calibrated by : Checked by :

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. :	ET/EW/007/003	Manufacturer :	HANNA
Model No. :	HI 8314	Serial No. :	674469
Date of Calibration :	10/04/2014	Calibration Due Date :	09/05/2014

Liquid Junction Error

Primary Standard Solution Used : Phosphate — Ref No. of Primary Solution: 003/5.2/001/17

Temperature of Solution : 20.0 — $\Delta pH_{½}$ = +0.08

pH value of diluted buffer : 6.77 — pH (S) = 6.881

ΔpH = pH(S) - pH of diluted buffer = 0.111 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ = 0.031

Shift on Stirring

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

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.008

Noise

Noise, ΔpH_n = difference between max and min reading : 0.00

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/008

Temperature record from the reference thermometer (T_R): 20.0 °C

Temperature record from the ATC (T_{ATC}): 19.9 °C

Temperature Difference, $|T_R - T_{ATC}|$ 0.1 °C

Acceptance Criteria

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

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

* Delete as appropriate

Calibrated by : _____ Checked by : _____

Appendix F

EM&A Monitoring Schedules

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Air Quality Impact Monitoring Schedule - April 2014

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Apr	02-Apr	03-Apr	04-Apr	public holiday 05-Apr
				1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*		
06-Apr	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr
			1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*			
13-Apr	14-Apr	15-Apr	16-Apr	17-Apr	public holiday 18-Apr	public holiday 19-Apr
		1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*			1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*	
20-Apr	public holiday 21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr
				1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*		
27-Apr	28-Apr	29-Apr	30-Apr			
			1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*			

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Tentative Air Quality Impact Monitoring Schedule - May 2014

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				public holiday 01-May	02-May	03-May
04-May	05-May	public holiday 06-May	07-May	08-May	09-May	10-May
	1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*					1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*
11-May	12-May	13-May	14-May	15-May	16-May	17-May
					1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*	
18-May	19-May	20-May	21-May	22-May	23-May	24-May
				1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*		
25-May	26-May	27-May	28-May	29-May	30-May	
			1-hour TSP - 3 times 24-hour TSP - 1 time *Impact AQM*			

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-sea Tunnel Section
Impact Marine Water Quality Monitoring (WQM) Schedule (April 14)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Apr	02-Apr	03-Apr	04-Apr	05-Apr
			WQM Mid-Flood 8:11 (06:59 - 10:29) Mid-Ebb 14:40 (12:55 - 16:25)		**WQM** Mid-Flood 9:08 (07:23 - 10:53) Mid-Ebb 16:00 (14:15 - 17:45)	
06-Apr	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr
	WQM Mid-Flood 10:18 (08:33 - 12:03) Mid-Ebb 18:35 (16:30 - 20:20)		**WQM** Mid-Ebb 9:29 (08:30 - 10:30) Mid-Flood 13:53 (12:08 - 15:38)		**WQM** Mid-Ebb 11:00 (09:15 - 12:45) Mid-Flood 16:40 (14:55 - 18:25)	
13-Apr	14-Apr	15-Apr	16-Apr	17-Apr	18-Apr	19-Apr
	WQM Mid-Ebb 12:29 (10:44 - 14:14) Mid-Flood 18:47 (17:02 - 20:32)		**WQM** Mid-Ebb 13:35 (11:50 - 15:20) Mid-Flood 20:08 (18:23 - 21:53)		**WQM** Mid-Flood 8:16 (06:31 - 10:01) Mid-Ebb 14:52 (13:07 - 16:37)	
20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr
	WQM Mid-Flood 10:15 (08:30 - 12:00) Mid-Ebb 17:26 (15:41 - 19:11)		**WQM** Mid-Ebb 8:16 (06:31 - 10:01) Mid-Flood 13:07 (11:22 - 14:52)		**WQM** Mid-Ebb 10:25 (08:40 - 12:10) Mid-Flood 15:57 (14:12 - 17:42)	
27-Apr	28-Apr	29-Apr	30-Apr	01-May	02-May	03-May
	WQM Mid-Ebb 12:27 (10:42 - 14:12) Mid-Flood 18:47 (17:02 - 20:32)		**WQM** Mid-Ebb 13:44 (11:59 - 15:29) Mid-Flood 20:25 (18:40 - 22:10)			

HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-sea Tunnel Section
Tentative Marine Water Quality Monitoring (WQM) Schedule (May 14)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				01-May	02-May	03-May
					WQM Mid-Flood 8:04 (06:19 - 09:49) Mid-Ebb 14:59 (13:14 - 16:44)	
04-May	05-May	06-May	07-May	08-May	09-May	10-May
	WQM Mid-Flood 9:33 (07:48 - 11:18) Mid-Ebb 16:56 (15:11 - 18:41)		**WQM** Mid-Flood 11:04 (09:19 - 12:49) Mid-Ebb 18:39 (16:54 - 20:24)		**WQM** Mid-Ebb 9:37 (07:52 - 11:22) Mid-Flood 14:54 (14:55 - 18:25)	
11-May	12-May	13-May	14-May	15-May	16-May	17-May
	WQM Mid-Ebb 11:30 (09:45 - 13:15) Mid-Flood 17:52 (16:07 - 19:37)		**WQM** Mid-Ebb 12:40 (10:55 - 14:25) Mid-Flood 19:23 (17:38 - 21:08)		**WQM** Mid-Flood 7:14 (05:29 - 8:59) Mid-Ebb 14:00 (12:15 - 15:45)	
18-May	19-May	20-May	21-May	22-May	23-May	24-May
	WQM Mid-Flood 9:19 (07:34 - 11:04) Mid-Ebb 16:22 (14:37 - 18:07)		**WQM** Mid-Flood 11:27 (09:42 - 13:12) Mid-Ebb 18:20 (16:35 - 20:05)		**WQM** Mid-Ebb 9:02 (07:17 - 10:47) Mid-Flood 14:33 (12:48 - 16:18)	
25-May	26-May	27-May	28-May	29-May	30-May	31-May
	WQM Mid-Ebb 11:31 (09:46 - 13:16) Mid-Flood 17:55 (16:10 - 19:40)		**WQM** Mid-Ebb 12:50 (11:05 - 14:35) Mid-Flood 19:38 (17:53 - 21:23)		**WQM** Mid-Flood 7:04 (05:19 - 8:49) Mid-Ebb 14:04 (12:19 - 15:49)	

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Impact Dolphin Monitoring Survey Monitoring Schedule - April 2014

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

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

HY/2012/08 - Tuen Mun - Chek Lap Kok Link
Northern Connection Sub-sea Tunnel Section
Tentative Impact Dolphin Monitoring Survey Monitoring Schedule - May 2014

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

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

Appendix G

Impact Air Quality Monitoring Results

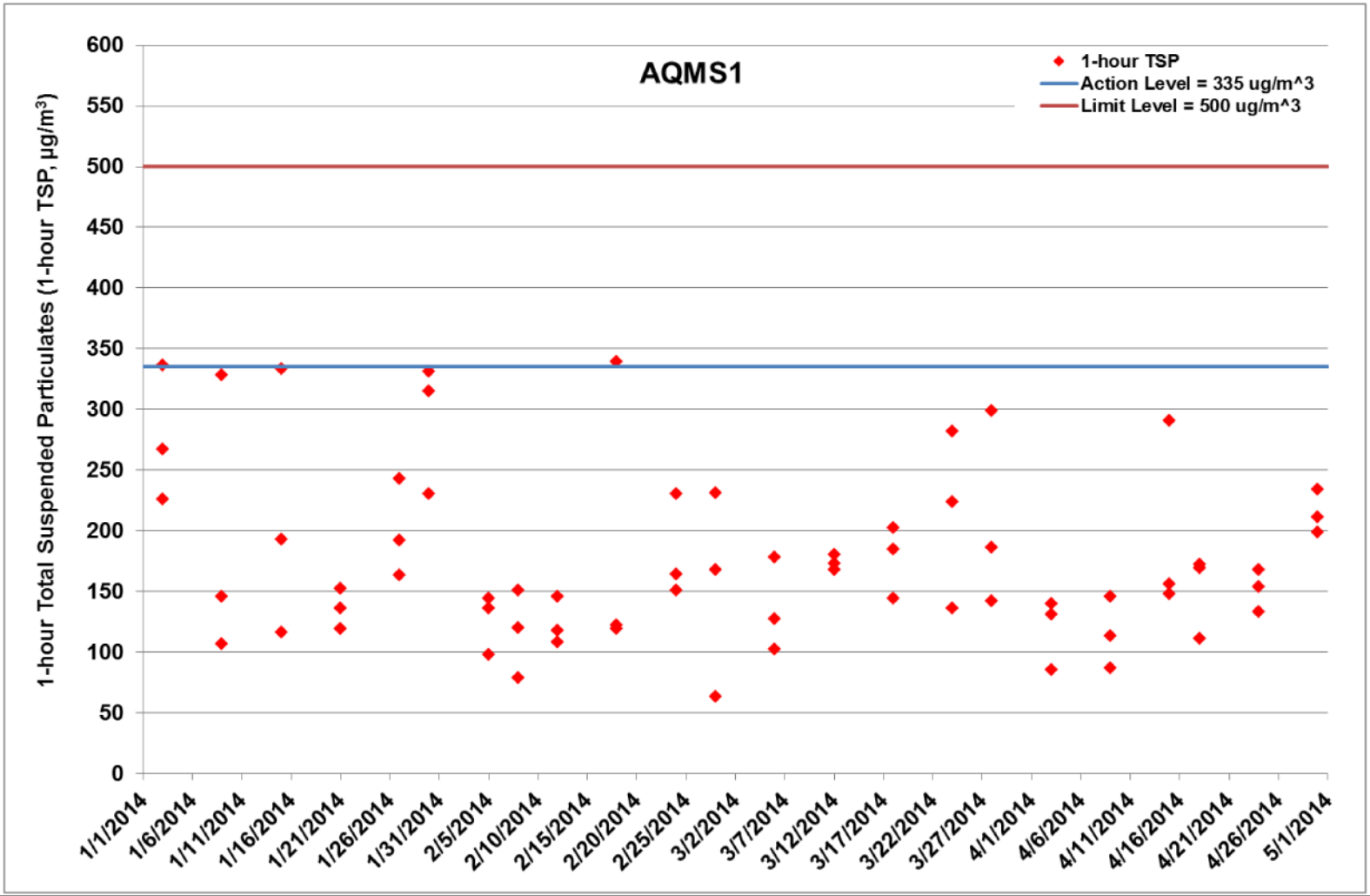


Figure G.1 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV a.xlsx

ERM

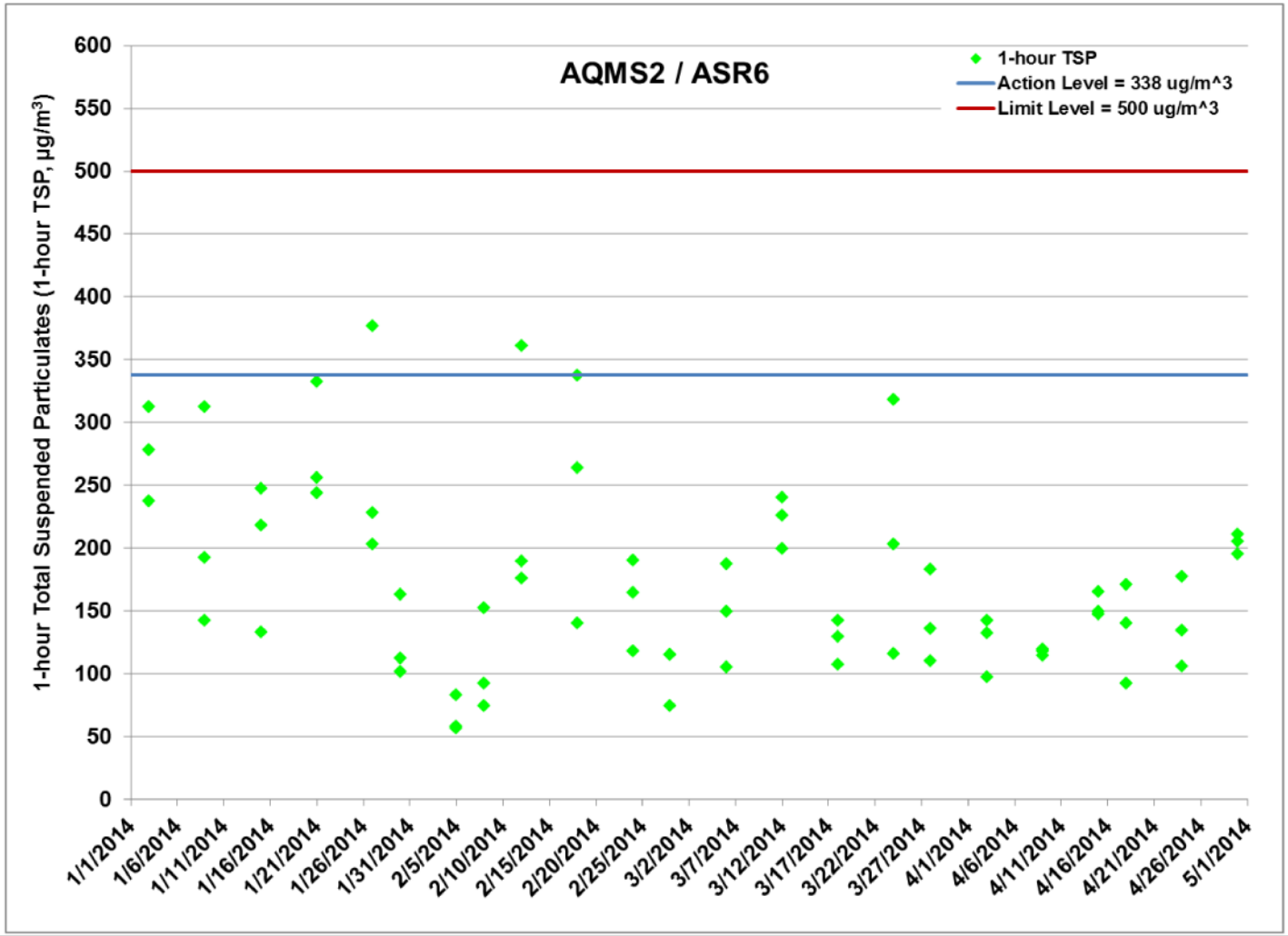


Figure G.2 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at AQMS2 / ASR6 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

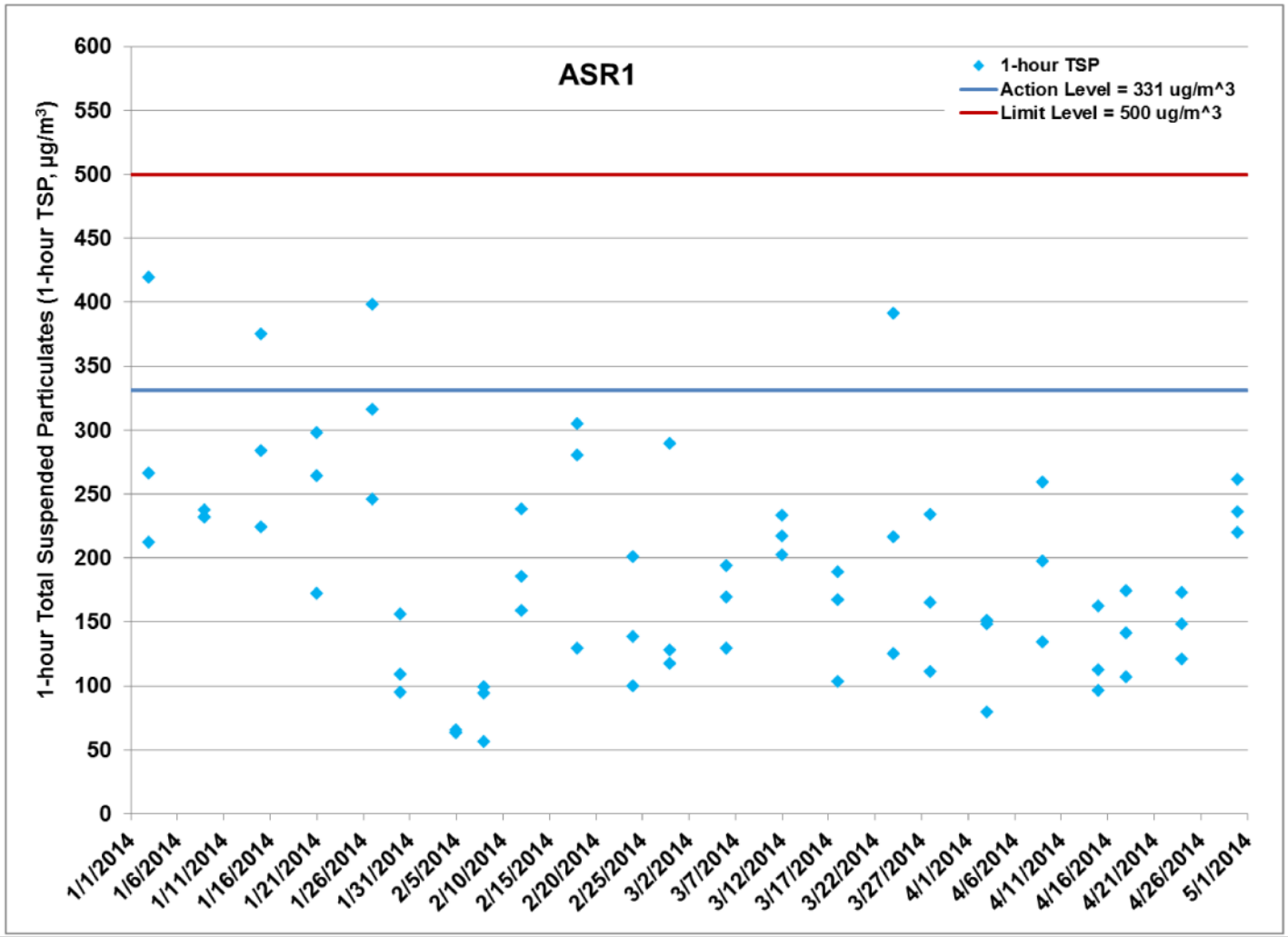


Figure G.3 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

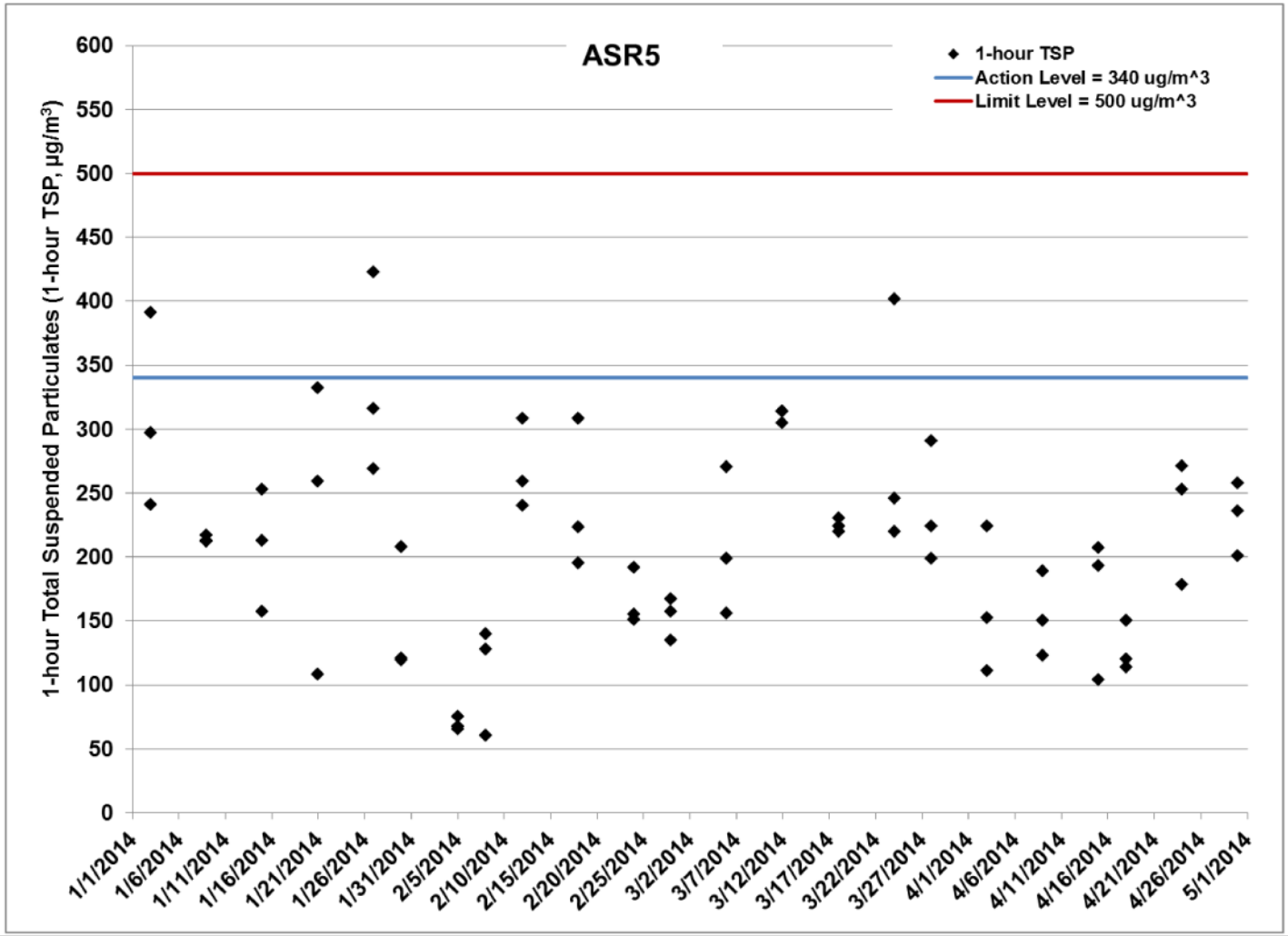


Figure G.4 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

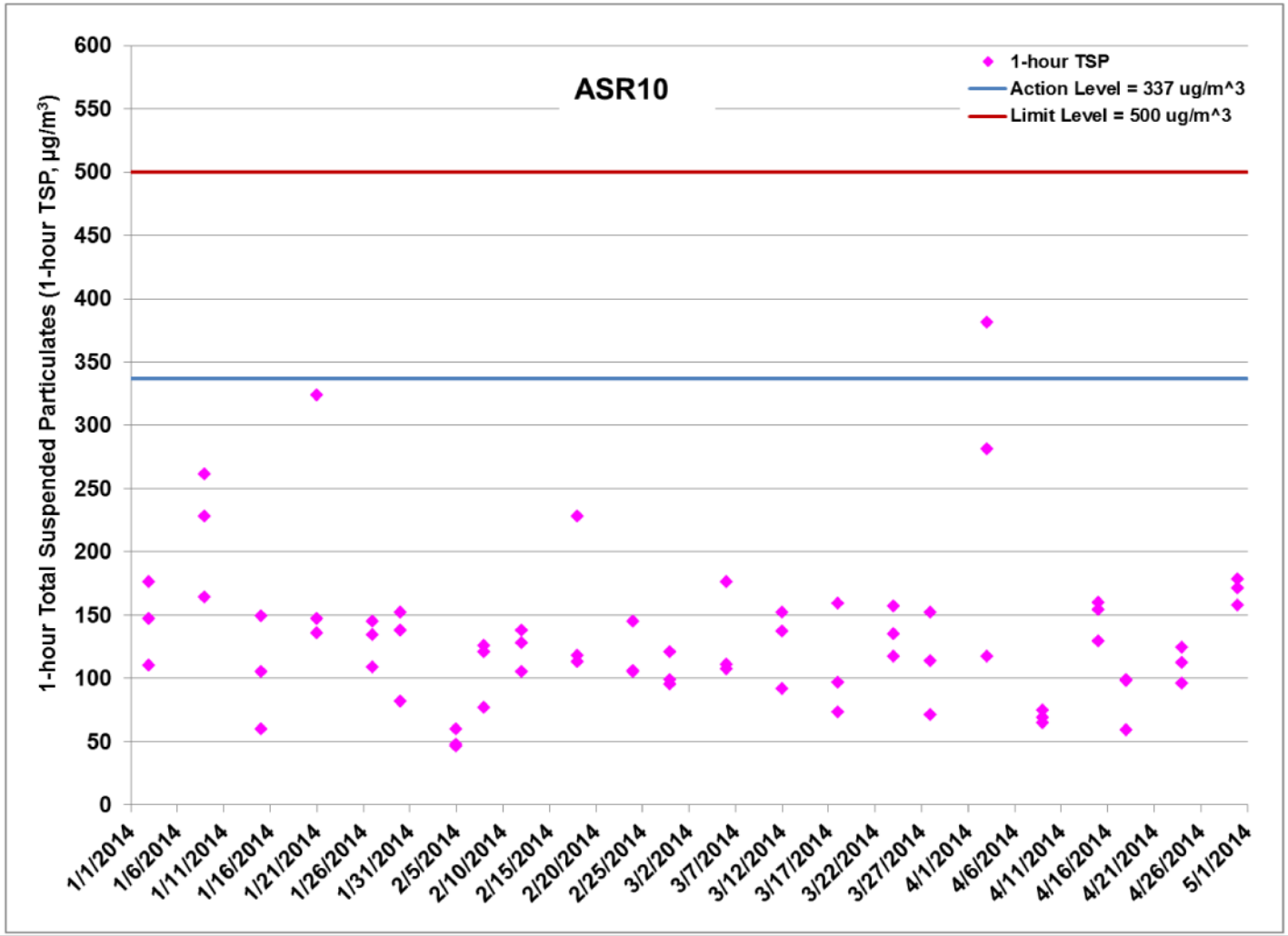


Figure G.5 Impact Monitoring – 1-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

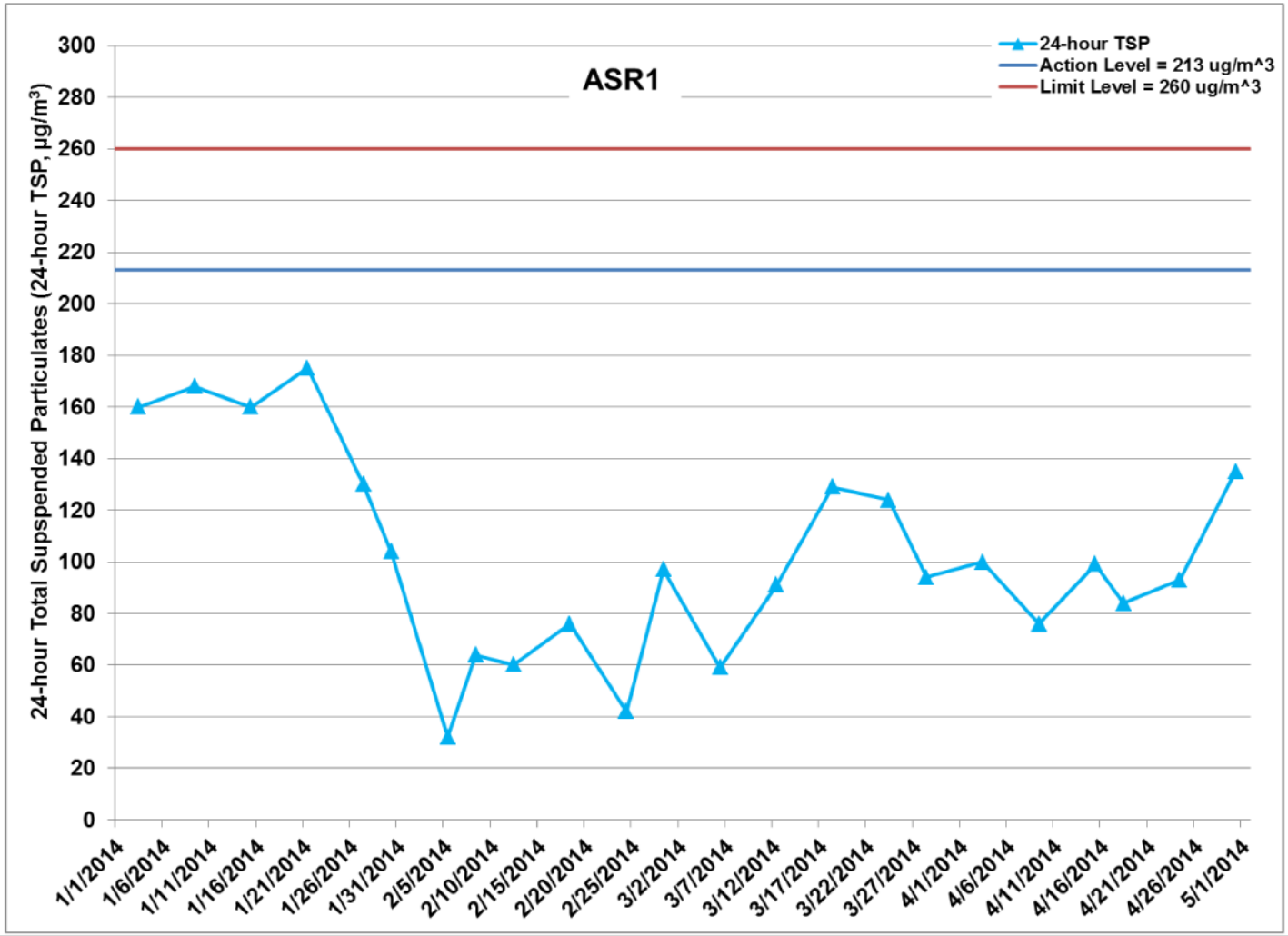


Figure G.6 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR1 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

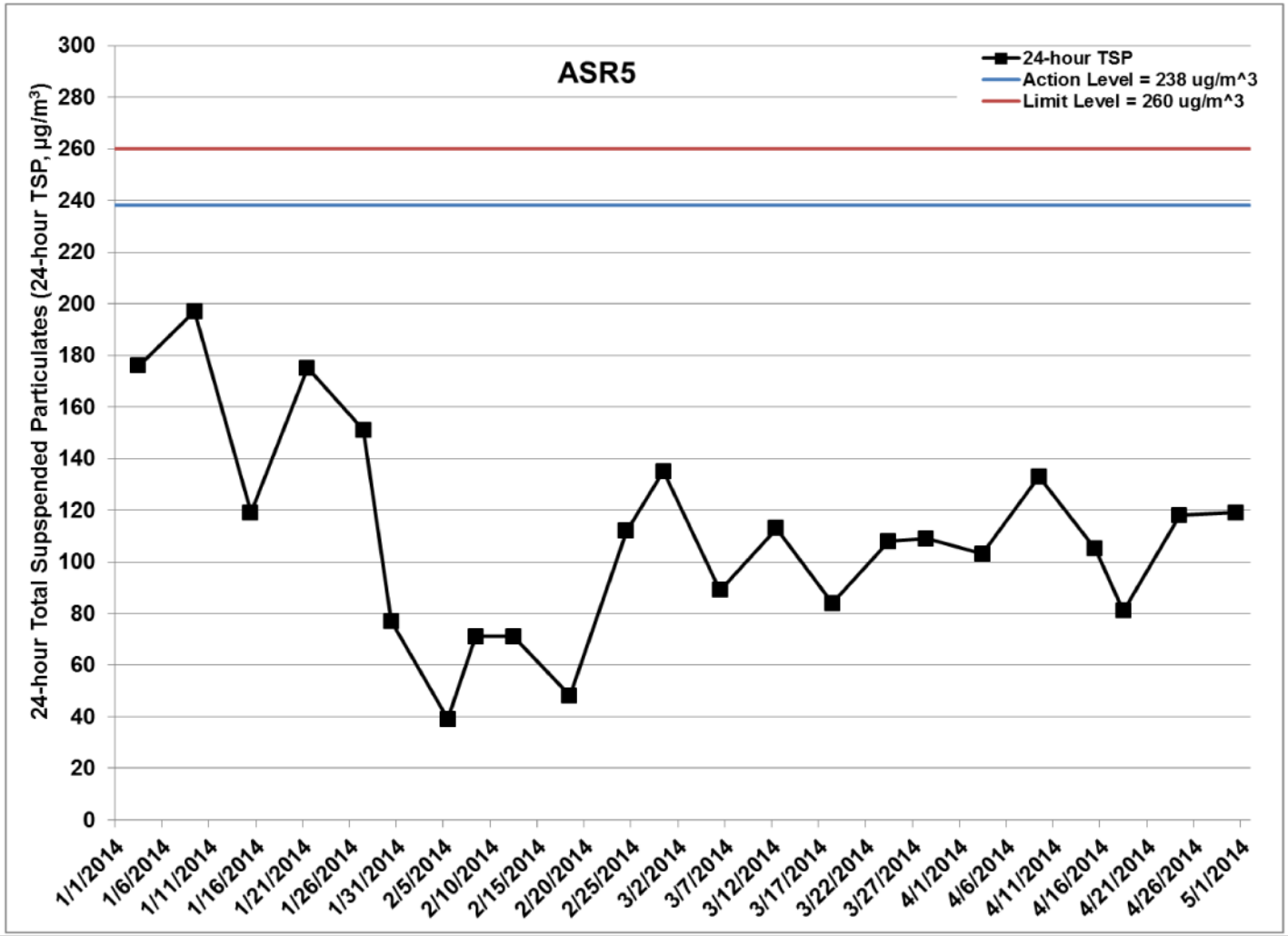


Figure G.7 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR5 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

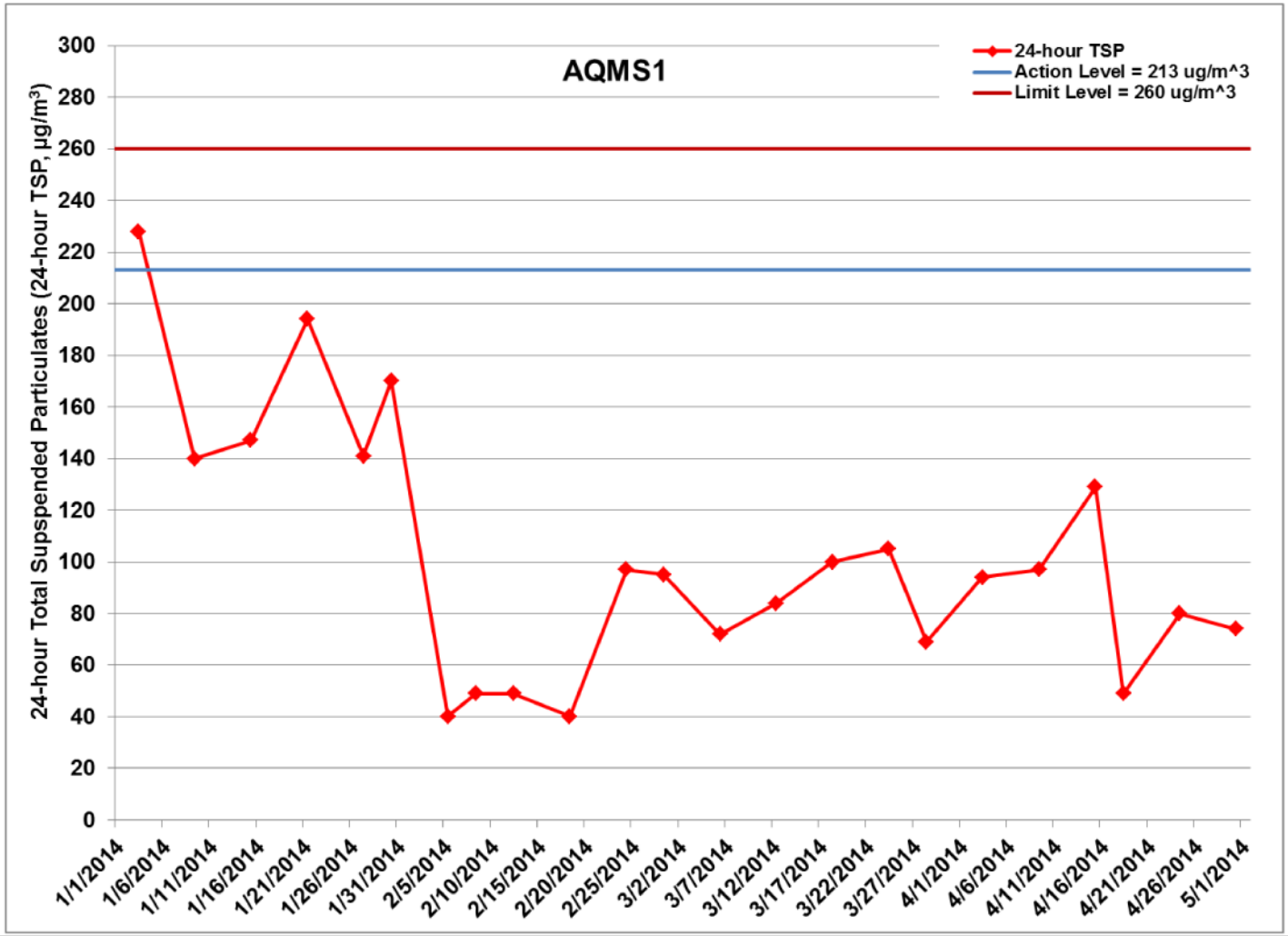


Figure G.8 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at AQMS1 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

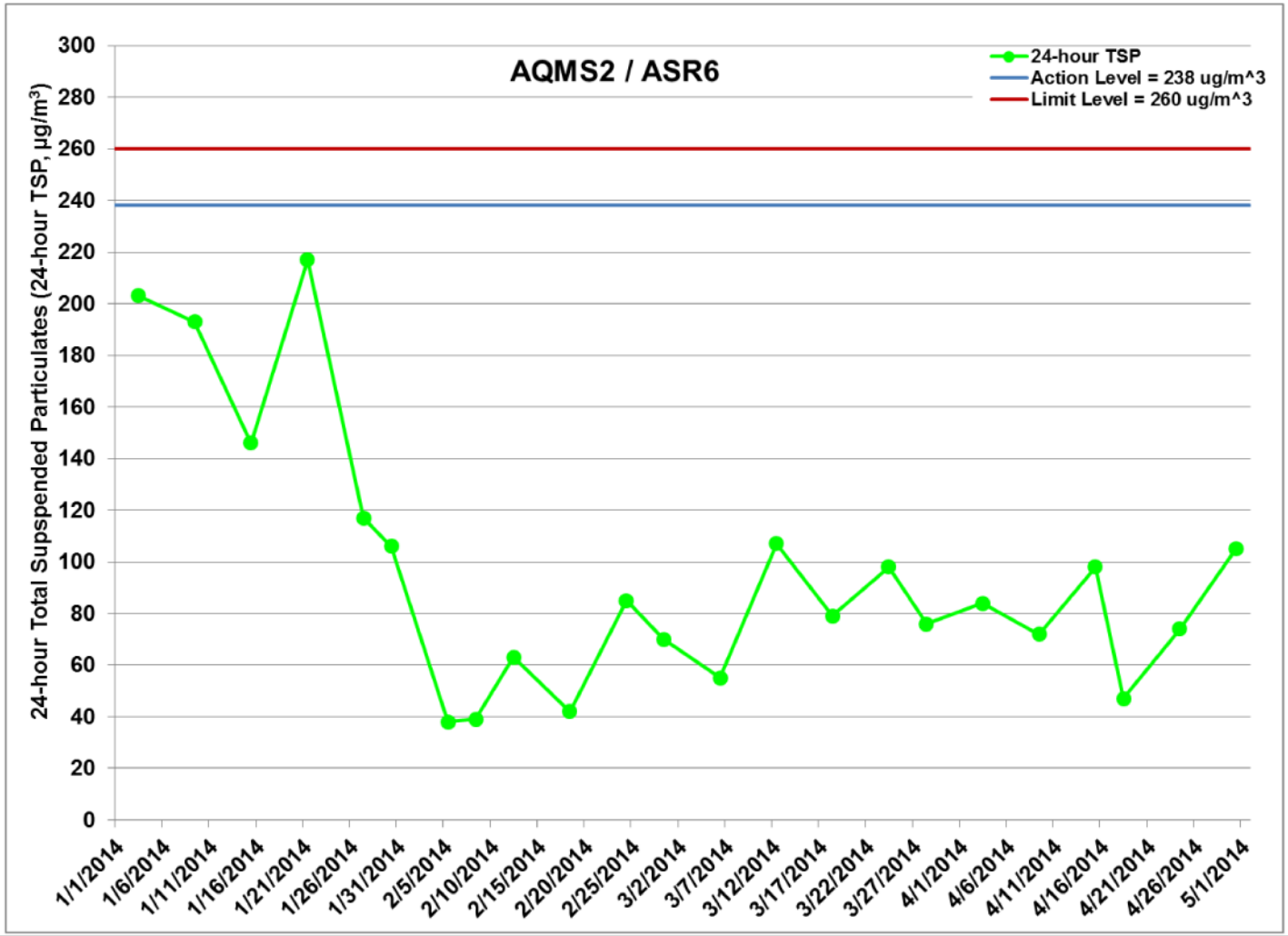


Figure G.9 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at AQMS2 / ASR6 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

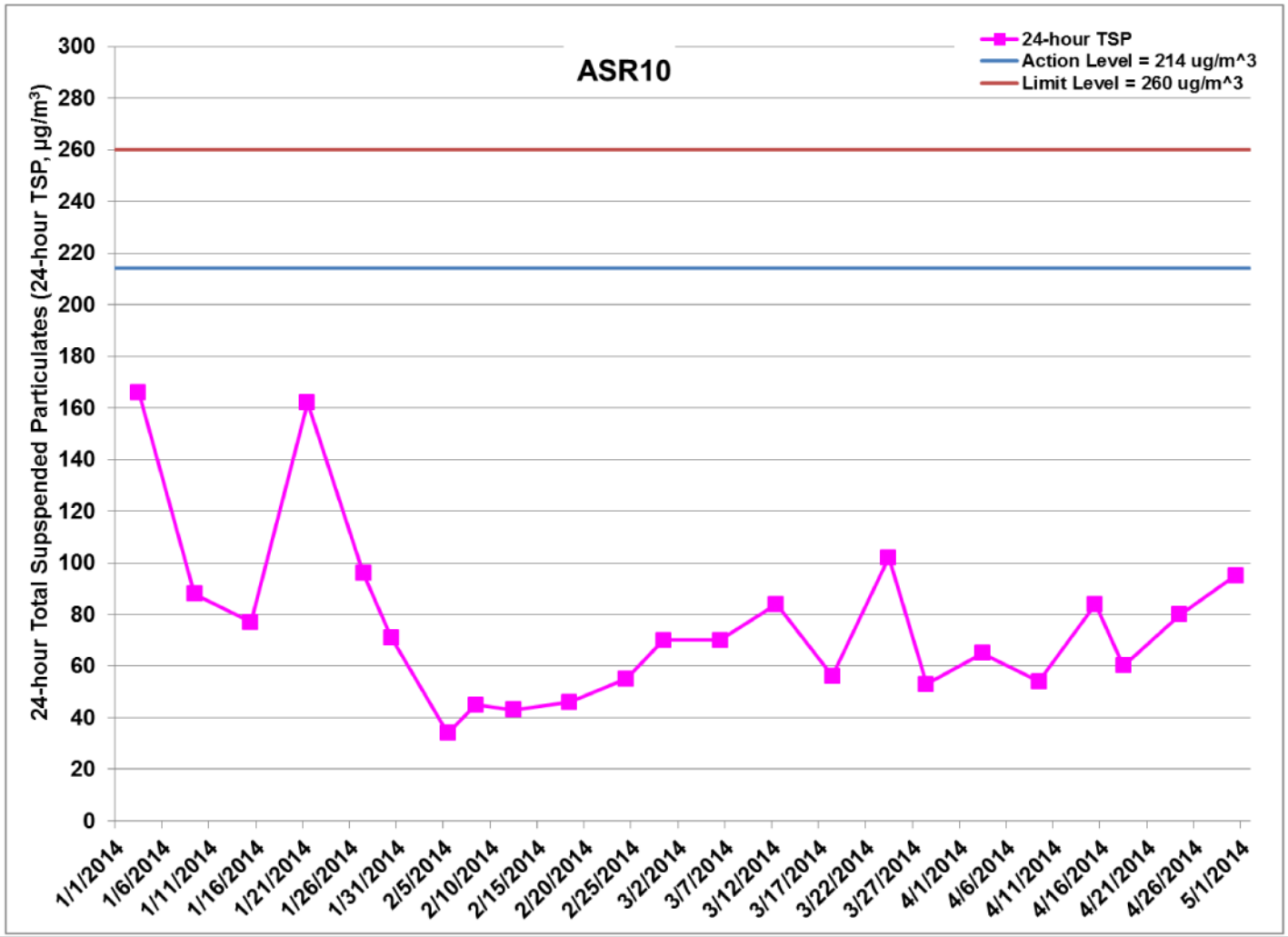


Figure G.10 Impact Monitoring – 24-hour Total Suspended Particulates (µg/m³) at ASR10 between 1 January 2014 and 30 April 2014 during impact monitoring period. The weather conditions during the monitoring period varied from sunny to cloudy. Major land-based construction activities included: Construction of Site Office at WA-18 (1/1/2014 – 28/2/2014) & Construction of CLP Temporary Substation at N6 (1/1/2014 – 30/4/2014)

Ref: 0212330_Impact AQM graphs_Apr 2014_REV JY.xlsx

ERM

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014/04/03	ASR5	Cloudy	13:02	1-hour TSP	224	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR5	Cloudy	14:04	1-hour TSP	111	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR5	Cloudy	15:06	1-hour TSP	152	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR1	Cloudy	13:13	1-hour TSP	151	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR1	Cloudy	14:15	1-hour TSP	79	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR1	Cloudy	15:17	1-hour TSP	148	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	AQMS1	Cloudy	13:24	1-hour TSP	131	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	AQMS1	Cloudy	14:26	1-hour TSP	85	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	AQMS1	Cloudy	15:28	1-hour TSP	140	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR10	Cloudy	12:40	1-hour TSP	281	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR10	Cloudy	13:42	1-hour TSP	381	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR10	Cloudy	14:44	1-hour TSP	117	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR6	Cloudy	12:52	1-hour TSP	142	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR6	Cloudy	13:54	1-hour TSP	97	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR6	Cloudy	14:56	1-hour TSP	132	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR5	Cloudy	16:08	24-hour TSP	103	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR1	Cloudy	16:19	24-hour TSP	100	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	AQMS1	Cloudy	16:30	24-hour TSP	94	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR10	Cloudy	15:46	24-hour TSP	65	ug/m^3
TMCLKL	HY/2012/08	2014/04/03	ASR6	Cloudy	15:58	24-hour TSP	84	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	AQMS1	Sunny	13:50	1-hour TSP	113	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	AQMS1	Sunny	14:52	1-hour TSP	146	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	AQMS1	Sunny	15:54	1-hour TSP	87	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR1	Sunny	13:38	1-hour TSP	134	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR1	Sunny	14:40	1-hour TSP	197	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR1	Sunny	15:42	1-hour TSP	259	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR5	Sunny	13:26	1-hour TSP	189	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR5	Sunny	14:28	1-hour TSP	150	ug/m^3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014/04/09	ASR5	Sunny	15:30	1-hour TSP	123	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR6	Sunny	13:16	1-hour TSP	119	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR6	Sunny	14:18	1-hour TSP	114	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR6	Sunny	15:20	1-hour TSP	118	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR10	Sunny	13:05	1-hour TSP	75	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR10	Sunny	14:07	1-hour TSP	65	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	ASR10	Sunny	15:09	1-hour TSP	69	ug/m^3
TMCLKL	HY/2012/08	2014/04/09	AQMS1	Sunny	16:56	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2014/04/09	ASR1	Sunny	16:44	24-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2014/04/09	ASR5	Sunny	16:32	24-hour TSP	133	ug/m3
TMCLKL	HY/2012/08	2014/04/09	ASR6	Sunny	16:22	24-hour TSP	72	ug/m3
TMCLKL	HY/2012/08	2014/04/09	ASR10	Sunny	16:11	24-hour TSP	54	ug/m3
TMCLKL	HY/2012/08	2014/04/15	AQMS1	Fine	13:52	1-hour TSP	148	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	AQMS1	Fine	14:54	1-hour TSP	291	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	AQMS1	Fine	15:56	1-hour TSP	156	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR1	Fine	13:42	1-hour TSP	96	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR1	Fine	14:44	1-hour TSP	162	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR1	Fine	15:46	1-hour TSP	112	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR5	Fine	13:29	1-hour TSP	104	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR5	Fine	14:31	1-hour TSP	207	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR5	Fine	15:33	1-hour TSP	193	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR6	Fine	13:18	1-hour TSP	147	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR6	Fine	14:20	1-hour TSP	149	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR6	Fine	15:22	1-hour TSP	165	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR10	Fine	13:07	1-hour TSP	129	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR10	Fine	14:09	1-hour TSP	160	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	ASR10	Fine	15:11	1-hour TSP	154	ug/m^3
TMCLKL	HY/2012/08	2014/04/15	AQMS1	Fine	16:58	24-hour TSP	129	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014/04/15	ASR1	Fine	16:48	24-hour TSP	99	ug/m3
TMCLKL	HY/2012/08	2014/04/15	ASR5	Fine	16:35	24-hour TSP	105	ug/m3
TMCLKL	HY/2012/08	2014/04/15	ASR6	Fine	16:24	24-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2014/04/15	ASR10	Fine	16:13	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2014/04/18	AQMS1	Fine	13:07	1-hour TSP	169	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	AQMS1	Fine	14:09	1-hour TSP	111	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	AQMS1	Fine	15:11	1-hour TSP	172	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR1	Fine	12:55	1-hour TSP	174	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR1	Fine	13:57	1-hour TSP	141	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR1	Fine	14:59	1-hour TSP	107	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR5	Fine	12:42	1-hour TSP	150	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR5	Fine	13:44	1-hour TSP	120	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR5	Fine	14:46	1-hour TSP	114	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR6	Fine	12:30	1-hour TSP	171	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR6	Fine	13:32	1-hour TSP	140	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR6	Fine	14:34	1-hour TSP	92	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR10	Fine	12:20	1-hour TSP	59	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR10	Fine	13:22	1-hour TSP	98	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	ASR10	Fine	14:24	1-hour TSP	99	ug/m^3
TMCLKL	HY/2012/08	2014/04/18	AQMS1	Fine	16:13	24-hour TSP	49	ug/m3
TMCLKL	HY/2012/08	2014/04/18	ASR1	Fine	16:01	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2014/04/18	ASR5	Fine	15:48	24-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2014/04/18	ASR6	Fine	15:36	24-hour TSP	47	ug/m3
TMCLKL	HY/2012/08	2014/04/18	ASR10	Fine	15:26	24-hour TSP	60	ug/m3
TMCLKL	HY/2012/08	2014/04/24	ASR6	Cloudy	12:50	1-hour TSP	177	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR6	Cloudy	13:52	1-hour TSP	106	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR6	Cloudy	14:54	1-hour TSP	134	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR10	Cloudy	12:40	1-hour TSP	112	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR10	Cloudy	13:42	1-hour TSP	96	ug/m^3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014/04/24	ASR10	Cloudy	14:44	1-hour TSP	124	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR5	Cloudy	13:02	1-hour TSP	253	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR5	Cloudy	14:04	1-hour TSP	178	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR5	Cloudy	15:06	1-hour TSP	271	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	AQMS1	Cloudy	13:25	1-hour TSP	168	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	AQMS1	Cloudy	14:27	1-hour TSP	133	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	AQMS1	Cloudy	15:29	1-hour TSP	154	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR1	Cloudy	13:14	1-hour TSP	173	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR1	Cloudy	14:16	1-hour TSP	121	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR1	Cloudy	15:18	1-hour TSP	148	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR6	Cloudy	15:56	24-hour TSP	74	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR10	Cloudy	15:46	24-hour TSP	80	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR5	Cloudy	16:08	24-hour TSP	118	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	AQMS1	Cloudy	16:31	24-hour TSP	80	ug/m^3
TMCLKL	HY/2012/08	2014/04/24	ASR1	Cloudy	16:20	24-hour TSP	93	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	AQMS1	Cloudy	12:56	1-hour TSP	234	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	AQMS1	Cloudy	13:58	1-hour TSP	199	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	AQMS1	Cloudy	15:00	1-hour TSP	211	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR1	Cloudy	12:44	1-hour TSP	236	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR1	Cloudy	13:46	1-hour TSP	220	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR1	Cloudy	14:48	1-hour TSP	261	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR10	Cloudy	12:10	1-hour TSP	158	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR10	Cloudy	13:12	1-hour TSP	171	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR10	Cloudy	14:14	1-hour TSP	178	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR5	Cloudy	12:33	1-hour TSP	258	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR5	Cloudy	13:35	1-hour TSP	236	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR5	Cloudy	14:37	1-hour TSP	201	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR6	Cloudy	12:22	1-hour TSP	195	ug/m^3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014/04/30	ASR6	Cloudy	13:24	1-hour TSP	211	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR6	Cloudy	14:26	1-hour TSP	205	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	AQMS1	Cloudy	16:02	24-hour TSP	74	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR1	Cloudy	15:50	24-hour TSP	135	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR10	Cloudy	15:16	24-hour TSP	95	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR5	Cloudy	15:39	24-hour TSP	119	ug/m^3
TMCLKL	HY/2012/08	2014/04/30	ASR6	Cloudy	15:28	24-hour TSP	105	ug/m^3

Appendix H

Meteorological Data

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
03-04-2014	0:00	106	4.05
03-04-2014	1:00	98	1.79
03-04-2014	2:00	102	2.33
03-04-2014	3:00	143	2.37
03-04-2014	4:00	112	3.34
03-04-2014	5:00	98	2.41
03-04-2014	6:00	93	1.80
03-04-2014	7:00	115	0.95
03-04-2014	8:00	156	0.79
03-04-2014	9:00	154	1.49
03-04-2014	10:00	138	1.25
03-04-2014	11:00	104	1.39
03-04-2014	12:00	132	1.29
03-04-2014	13:00	178	1.38
03-04-2014	14:00	146	1.47
03-04-2014	15:00	145	1.37
03-04-2014	16:00	126	1.44
03-04-2014	17:00	116	1.77
03-04-2014	18:00	100	2.15
03-04-2014	19:00	90	1.64
03-04-2014	20:00	104	1.00
03-04-2014	21:00	237	0.35
03-04-2014	22:00	223	0.40
03-04-2014	23:00	131	0.56
04-04-2014	0:00	236	0.45
04-04-2014	1:00	218	0.37
04-04-2014	2:00	244	0.52
04-04-2014	3:00	234	0.66
04-04-2014	4:00	142	0.75
04-04-2014	5:00	125	1.54
04-04-2014	6:00	123	1.27
04-04-2014	7:00	114	1.20
04-04-2014	8:00	124	1.30
04-04-2014	9:00	126	1.11
04-04-2014	10:00	107	3.34
04-04-2014	11:00	107	3.44
04-04-2014	12:00	111	3.56
04-04-2014	13:00	112	3.22
04-04-2014	14:00	120	2.54
04-04-2014	15:00	113	3.46
04-04-2014	16:00	115	2.53
04-04-2014	17:00	113	2.14
04-04-2014	18:00	115	2.17
04-04-2014	19:00	109	2.64
04-04-2014	20:00	104	2.97
04-04-2014	21:00	92	2.04
04-04-2014	22:00	106	2.48
04-04-2014	23:00	99	2.23
09-04-2014	0:00	180	0.46
09-04-2014	1:00	175	0.46
09-04-2014	2:00	106	0.80

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
09-04-2014	3:00	149	0.55
09-04-2014	4:00	173	0.40
09-04-2014	5:00	175	0.62
09-04-2014	6:00	98	0.60
09-04-2014	7:00	85	1.11
09-04-2014	8:00	104	1.20
09-04-2014	9:00	131	0.97
09-04-2014	10:00	148	0.87
09-04-2014	11:00	172	1.02
09-04-2014	12:00	237	1.39
09-04-2014	13:00	199	1.15
09-04-2014	14:00	153	0.90
09-04-2014	15:00	189	0.84
09-04-2014	16:00	151	1.11
09-04-2014	17:00	107	1.92
09-04-2014	18:00	77	2.28
09-04-2014	19:00	90	2.14
09-04-2014	20:00	106	2.56
09-04-2014	21:00	112	2.09
09-04-2014	22:00	103	1.96
09-04-2014	23:00	112	2.16
10-04-2014	0:00	104	2.07
10-04-2014	1:00	101	1.83
10-04-2014	2:00	98	1.97
10-04-2014	3:00	106	2.56
10-04-2014	4:00	108	2.30
10-04-2014	5:00	112	1.97
10-04-2014	6:00	109	2.74
10-04-2014	7:00	113	3.01
10-04-2014	8:00	107	3.58
10-04-2014	9:00	115	3.16
10-04-2014	10:00	135	1.58
10-04-2014	11:00	132	1.91
10-04-2014	12:00	119	2.65
10-04-2014	13:00	126	2.28
10-04-2014	14:00	123	2.37
10-04-2014	15:00	120	2.49
10-04-2014	16:00	120	2.48
10-04-2014	17:00	113	2.76
10-04-2014	18:00	112	2.71
10-04-2014	19:00	112	2.77
10-04-2014	20:00	110	2.59
10-04-2014	21:00	108	2.31
10-04-2014	22:00	109	2.88
10-04-2014	23:00	104	3.09
15-04-2014	0:00	109	3.86
15-04-2014	1:00	106	4.43
15-04-2014	2:00	111	4.59
15-04-2014	3:00	113	4.42
15-04-2014	4:00	111	3.79
15-04-2014	5:00	104	3.39

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
15-04-2014	6:00	104	3.18
15-04-2014	7:00	104	3.66
15-04-2014	8:00	112	4.93
15-04-2014	9:00	117	5.13
15-04-2014	10:00	118	3.75
15-04-2014	11:00	113	3.54
15-04-2014	12:00	111	3.69
15-04-2014	13:00	113	3.22
15-04-2014	14:00	115	2.88
15-04-2014	15:00	114	2.80
15-04-2014	16:00	113	2.88
15-04-2014	17:00	113	3.02
15-04-2014	18:00	117	3.53
15-04-2014	19:00	115	3.05
15-04-2014	20:00	111	3.12
15-04-2014	21:00	105	3.31
15-04-2014	22:00	96	2.32
15-04-2014	23:00	102	2.38
16-04-2014	0:00	89	2.06
16-04-2014	1:00	102	3.00
16-04-2014	2:00	116	3.38
16-04-2014	3:00	103	3.29
16-04-2014	4:00	103	2.98
16-04-2014	5:00	100	2.49
16-04-2014	6:00	107	1.96
16-04-2014	7:00	107	2.06
16-04-2014	8:00	112	2.13
16-04-2014	9:00	113	2.17
16-04-2014	10:00	114	2.11
16-04-2014	11:00	111	2.74
16-04-2014	12:00	103	2.71
16-04-2014	13:00	103	3.11
16-04-2014	14:00	102	3.05
16-04-2014	15:00	101	2.78
16-04-2014	16:00	104	2.68
16-04-2014	17:00	103	2.63
16-04-2014	18:00	104	2.12
16-04-2014	19:00	107	2.68
16-04-2014	20:00	103	2.46
16-04-2014	21:00	113	2.19
16-04-2014	22:00	113	2.18
16-04-2014	23:00	107	1.91
18-04-2014	0:00	87	1.18
18-04-2014	1:00	97	0.71
18-04-2014	2:00	131	0.41
18-04-2014	3:00	249	0.38
18-04-2014	4:00	226	0.31
18-04-2014	5:00	216	0.30
18-04-2014	6:00	108	0.88
18-04-2014	7:00	84	1.26
18-04-2014	8:00	97	1.45

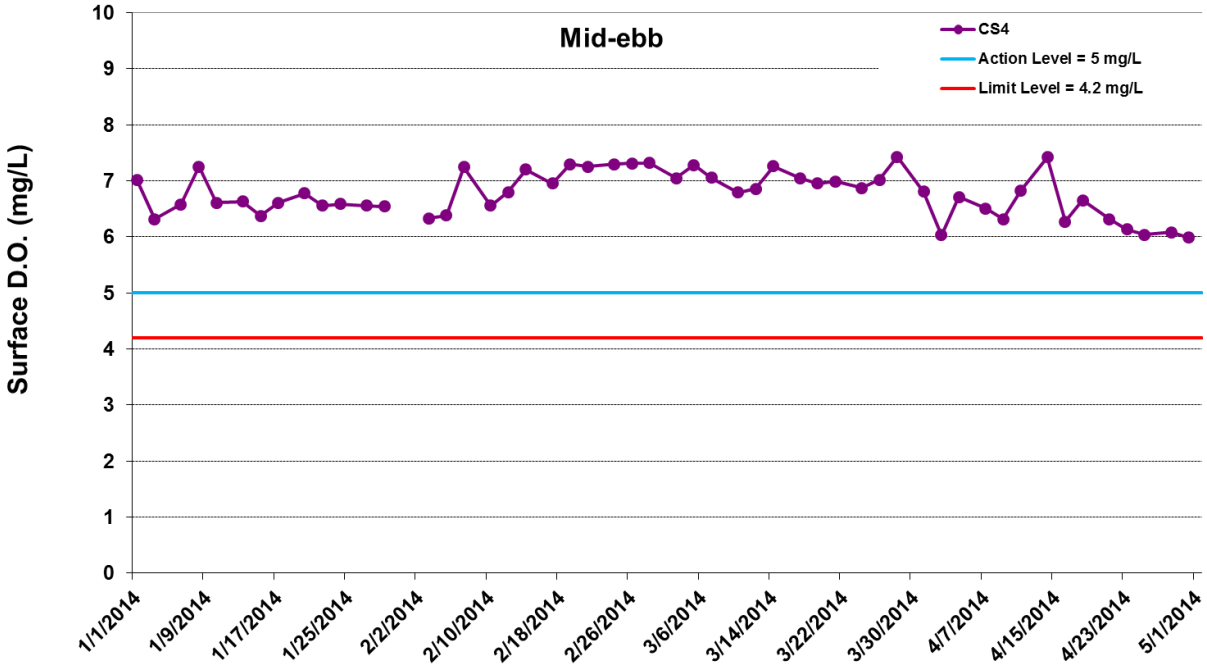
Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
18-04-2014	9:00	121	1.26
18-04-2014	10:00	184	1.12
18-04-2014	11:00	235	1.48
18-04-2014	12:00	226	1.25
18-04-2014	13:00	173	1.27
18-04-2014	14:00	99	1.89
18-04-2014	15:00	107	2.09
18-04-2014	16:00	82	2.47
18-04-2014	17:00	90	2.30
18-04-2014	18:00	83	1.96
18-04-2014	19:00	95	1.74
18-04-2014	20:00	88	1.55
18-04-2014	21:00	81	1.59
18-04-2014	22:00	93	1.34
18-04-2014	23:00	85	1.22
19-04-2014	0:00	88	1.38
19-04-2014	1:00	130	0.56
19-04-2014	2:00	127	0.64
19-04-2014	3:00	114	0.59
19-04-2014	4:00	99	0.89
19-04-2014	5:00	92	1.13
19-04-2014	6:00	83	1.31
19-04-2014	7:00	95	1.27
19-04-2014	8:00	86	1.59
19-04-2014	9:00	99	1.69
19-04-2014	10:00	112	1.96
19-04-2014	11:00	116	2.04
19-04-2014	12:00	128	1.65
19-04-2014	13:00	158	0.84
19-04-2014	14:00	173	0.71
19-04-2014	15:00	153	0.92
19-04-2014	16:00	110	1.71
19-04-2014	17:00	82	2.00
19-04-2014	18:00	83	2.18
19-04-2014	19:00	82	2.10
19-04-2014	20:00	88	1.89
19-04-2014	21:00	84	1.92
19-04-2014	22:00	91	1.56
19-04-2014	23:00	100	1.09
24-04-2014	0:00	96	3.72
24-04-2014	1:00	99	3.54
24-04-2014	2:00	99	3.45
24-04-2014	3:00	102	3.78
24-04-2014	4:00	102	4.65
24-04-2014	5:00	104	4.25
24-04-2014	6:00	104	3.84
24-04-2014	7:00	106	3.56
24-04-2014	8:00	105	3.62
24-04-2014	9:00	104	4.31
24-04-2014	10:00	104	3.41
24-04-2014	11:00	105	3.35

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
24-04-2014	12:00	104	3.10
24-04-2014	13:00	111	3.25
24-04-2014	14:00	117	3.47
24-04-2014	15:00	112	3.27
24-04-2014	16:00	105	3.28
24-04-2014	17:00	105	3.46
24-04-2014	18:00	103	3.22
24-04-2014	19:00	102	3.21
24-04-2014	20:00	103	4.18
24-04-2014	21:00	104	3.56
24-04-2014	22:00	114	4.28
24-04-2014	23:00	101	4.55
25-04-2014	0:00	100	3.82
25-04-2014	1:00	98	3.08
25-04-2014	2:00	99	3.18
25-04-2014	3:00	99	3.64
25-04-2014	4:00	99	3.24
25-04-2014	5:00	100	2.93
25-04-2014	6:00	101	2.95
25-04-2014	7:00	100	2.60
25-04-2014	8:00	108	2.89
25-04-2014	9:00	100	4.19
25-04-2014	10:00	101	3.52
25-04-2014	11:00	103	2.92
25-04-2014	12:00	104	3.07
25-04-2014	13:00	100	2.67
25-04-2014	14:00	113	2.77
25-04-2014	15:00	102	2.56
25-04-2014	16:00	103	2.51
25-04-2014	17:00	108	2.42
25-04-2014	18:00	108	2.16
25-04-2014	19:00	109	2.06
25-04-2014	20:00	108	1.90
25-04-2014	21:00	104	2.05
25-04-2014	22:00	107	2.29
25-04-2014	23:00	108	2.55
30-04-2014	0:00	115	2.06
30-04-2014	1:00	213	0.50
30-04-2014	2:00	150	0.92
30-04-2014	3:00	196	0.62
30-04-2014	4:00	128	1.19
30-04-2014	5:00	179	0.84
30-04-2014	6:00	110	0.86
30-04-2014	7:00	96	1.31
30-04-2014	8:00	101	1.54
30-04-2014	9:00	123	1.64
30-04-2014	10:00	104	1.33
30-04-2014	11:00	154	0.79
30-04-2014	12:00	158	0.67
30-04-2014	13:00	156	0.83
30-04-2014	14:00	158	0.82

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
30-04-2014	15:00	180	0.83
30-04-2014	16:00	286	1.47
30-04-2014	17:00	129	1.27
30-04-2014	18:00	147	1.00
30-04-2014	19:00	161	0.87
30-04-2014	20:00	252	0.65
30-04-2014	21:00	273	0.86
30-04-2014	22:00	209	0.43
30-04-2014	23:00	139	0.67
01-05-2014	0:00	110	1.01
01-05-2014	1:00	99	1.36
01-05-2014	2:00	110	1.23
01-05-2014	3:00	108	1.24
01-05-2014	4:00	108	1.17
01-05-2014	5:00	123	0.97
01-05-2014	6:00	157	1.05
01-05-2014	7:00	134	1.63
01-05-2014	8:00	124	1.27
01-05-2014	9:00	126	1.21
01-05-2014	10:00	119	1.22
01-05-2014	11:00	122	1.45
01-05-2014	12:00	120	1.87
01-05-2014	13:00	163	0.78
01-05-2014	14:00	121	1.32
01-05-2014	15:00	119	1.61
01-05-2014	16:00	120	2.13
01-05-2014	17:00	121	1.86
01-05-2014	18:00	111	2.06
01-05-2014	19:00	102	2.28
01-05-2014	20:00	100	2.30
01-05-2014	21:00	97	2.13
01-05-2014	22:00	99	2.53
01-05-2014	23:00	100	3.37

Appendix I

Impact Water Quality Monitoring Results



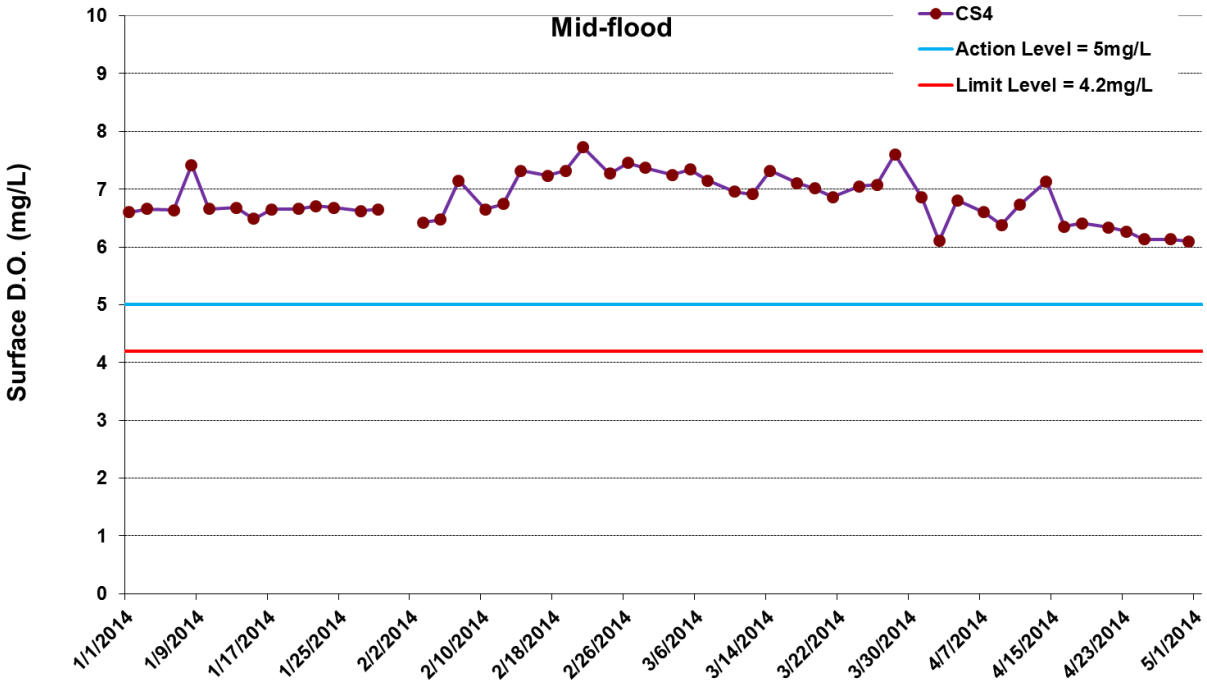
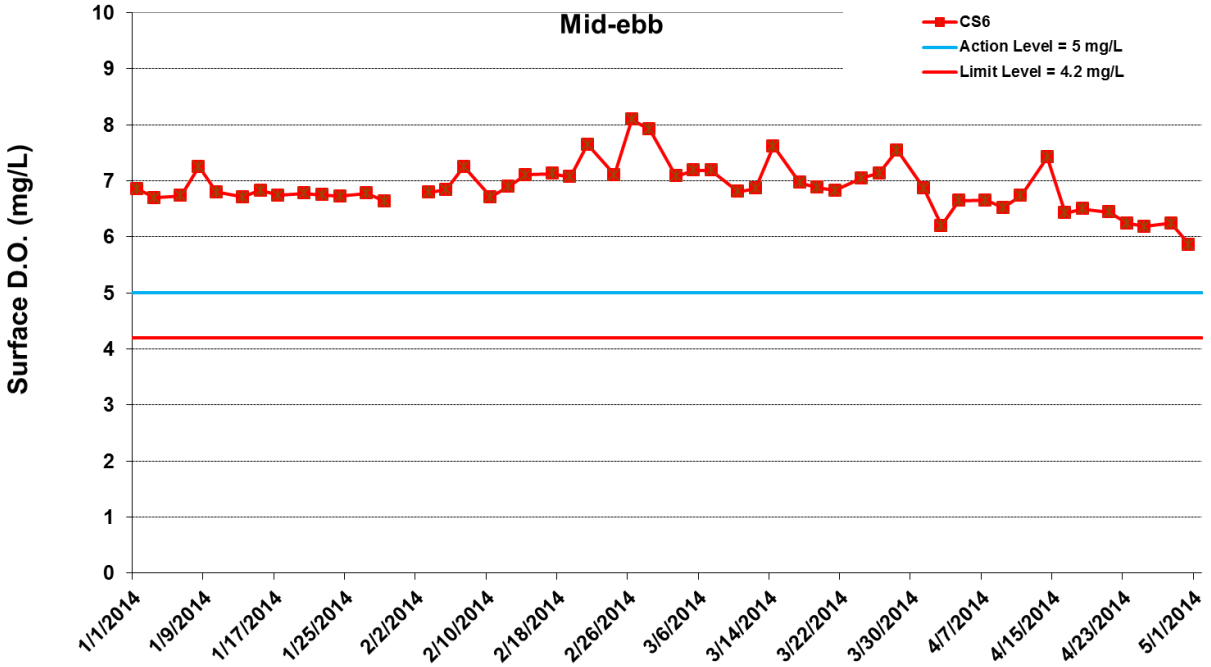


Figure I1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



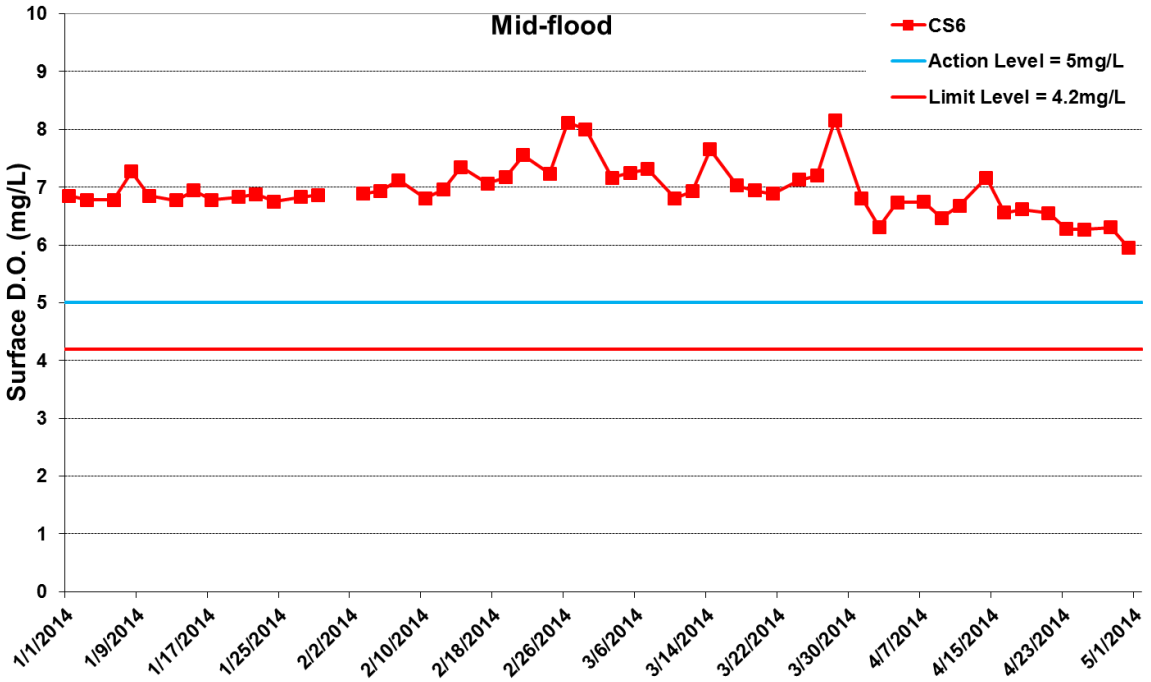
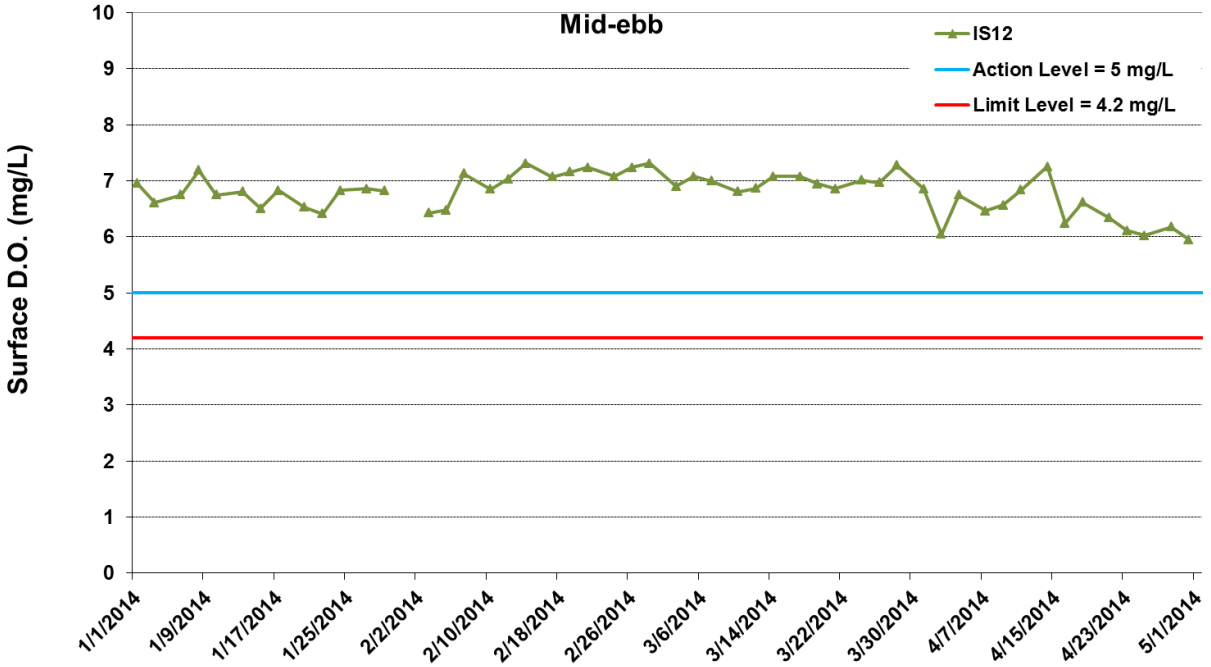


Figure I2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



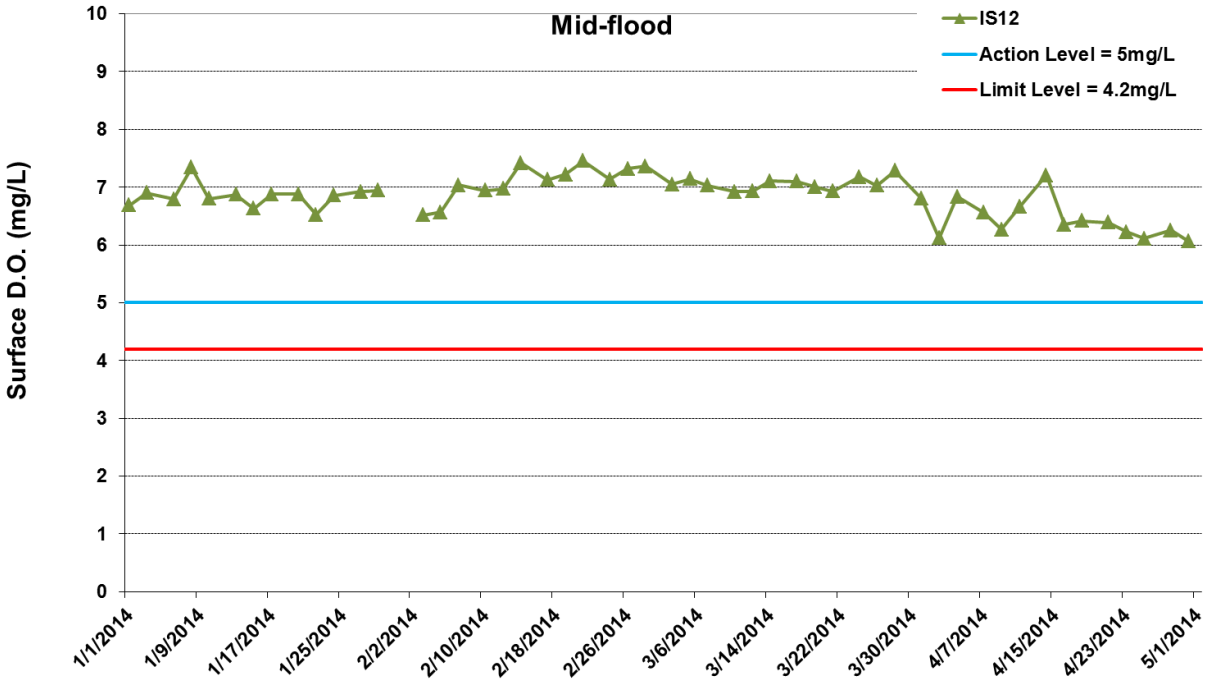


Figure I3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

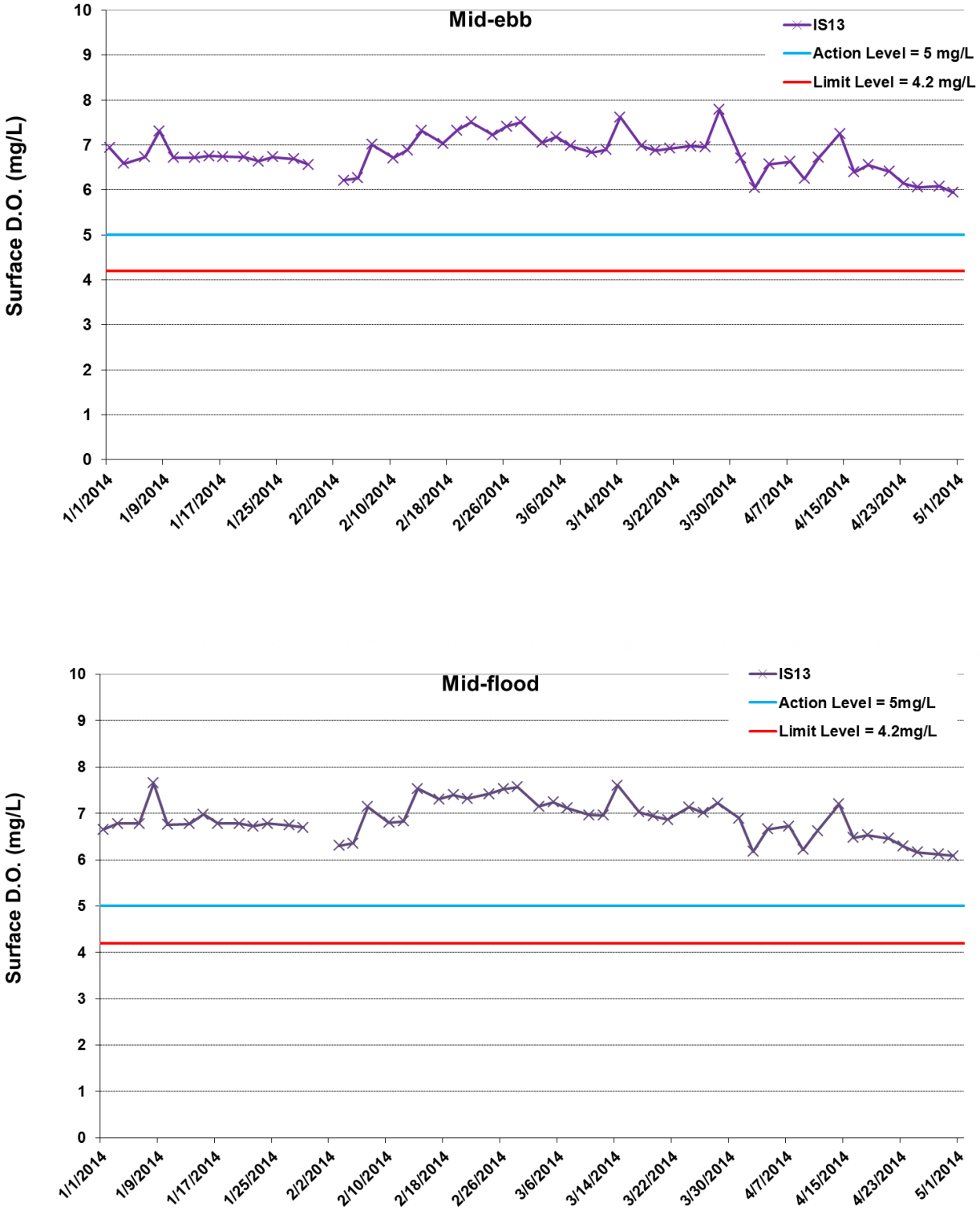
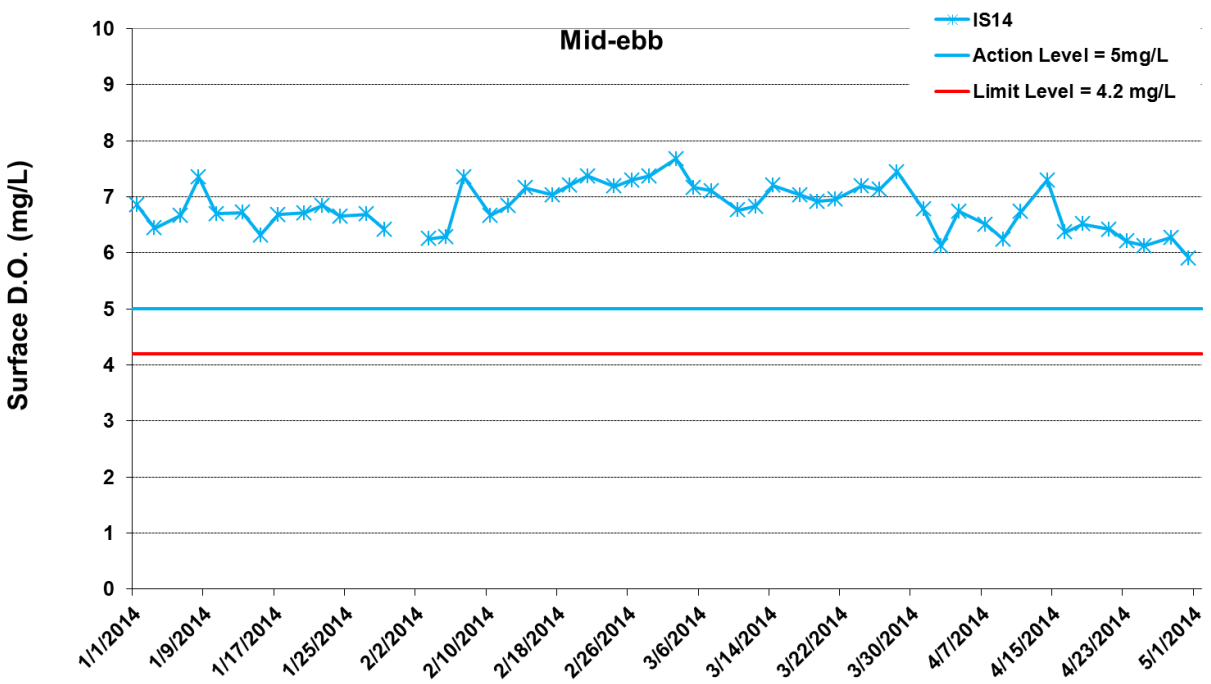


Figure I4 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



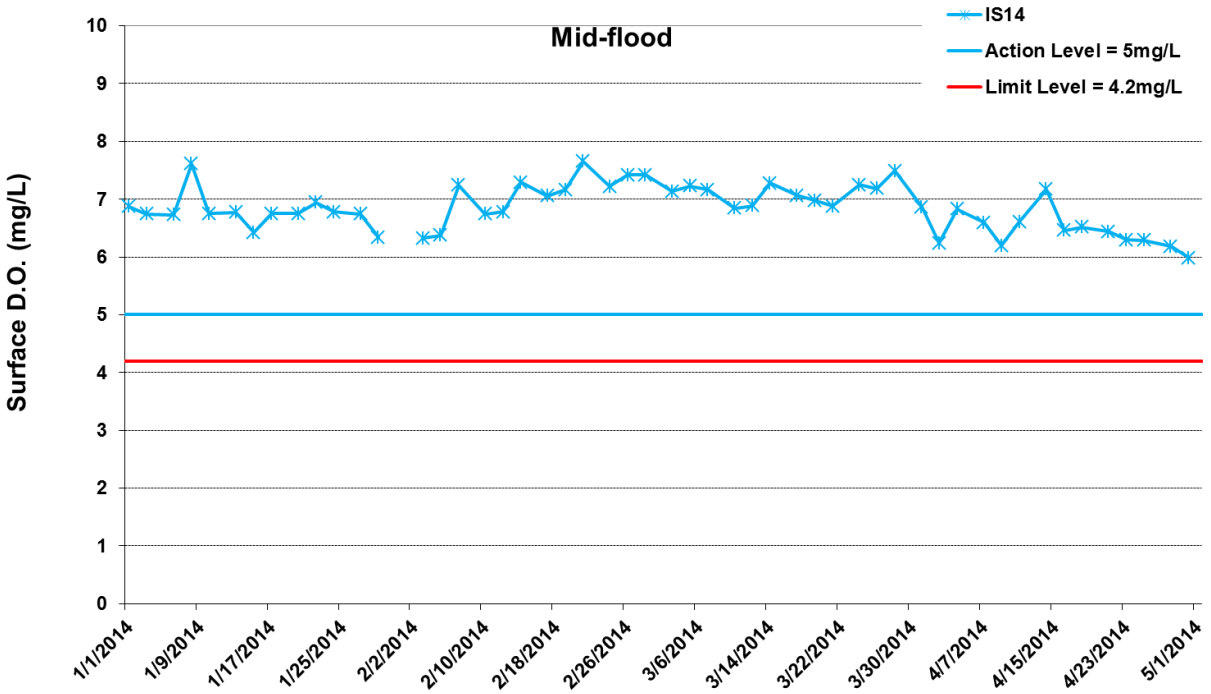
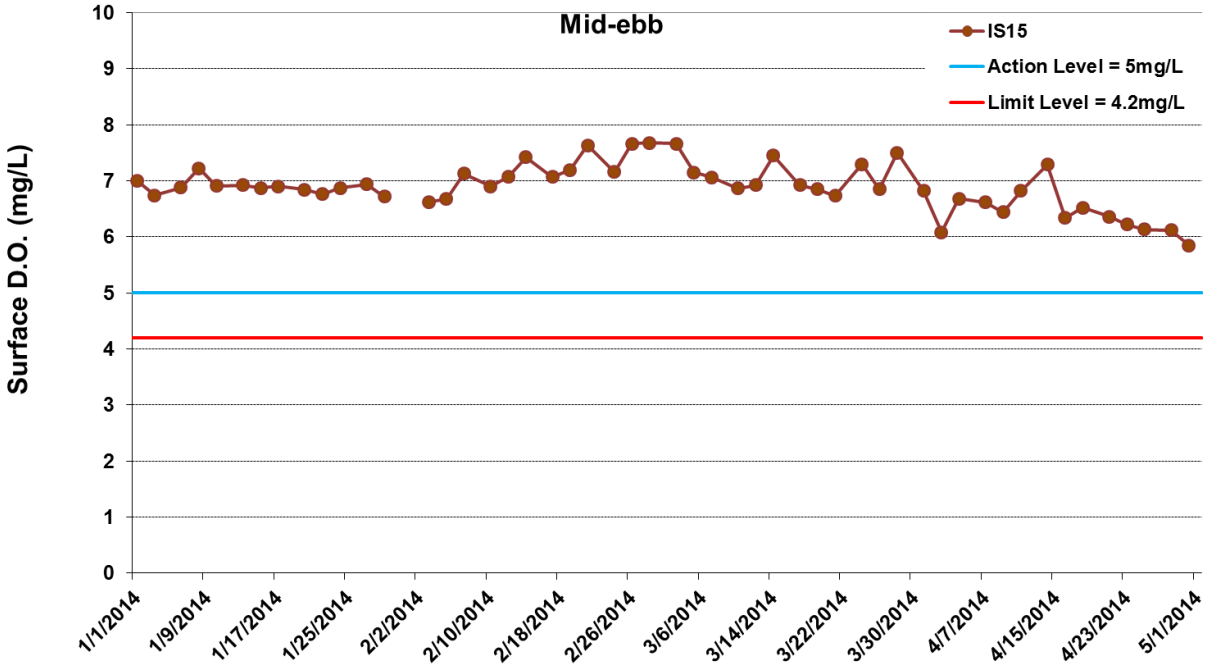


Figure I5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



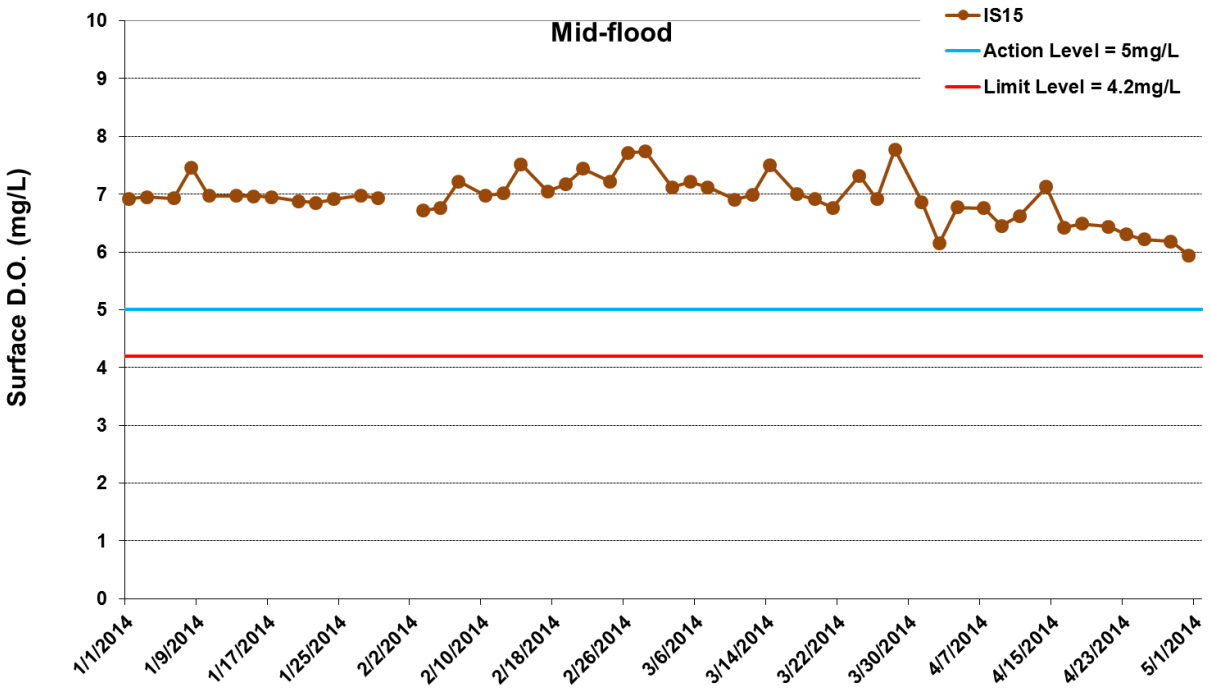
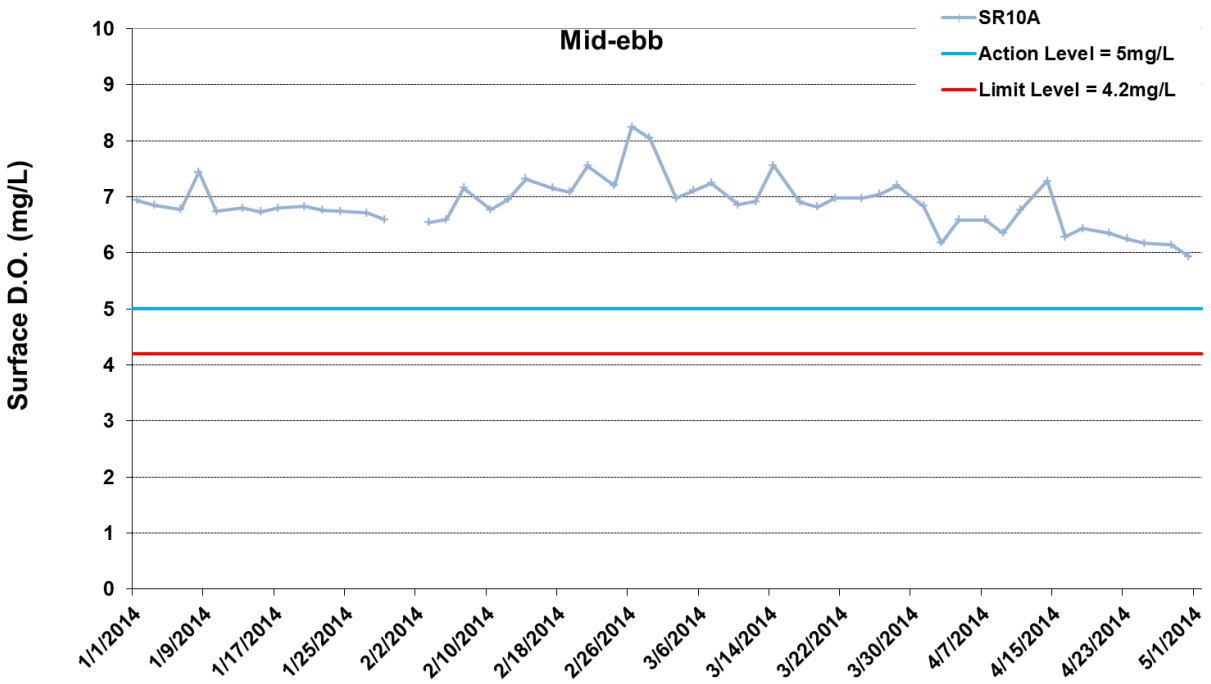


Figure I6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



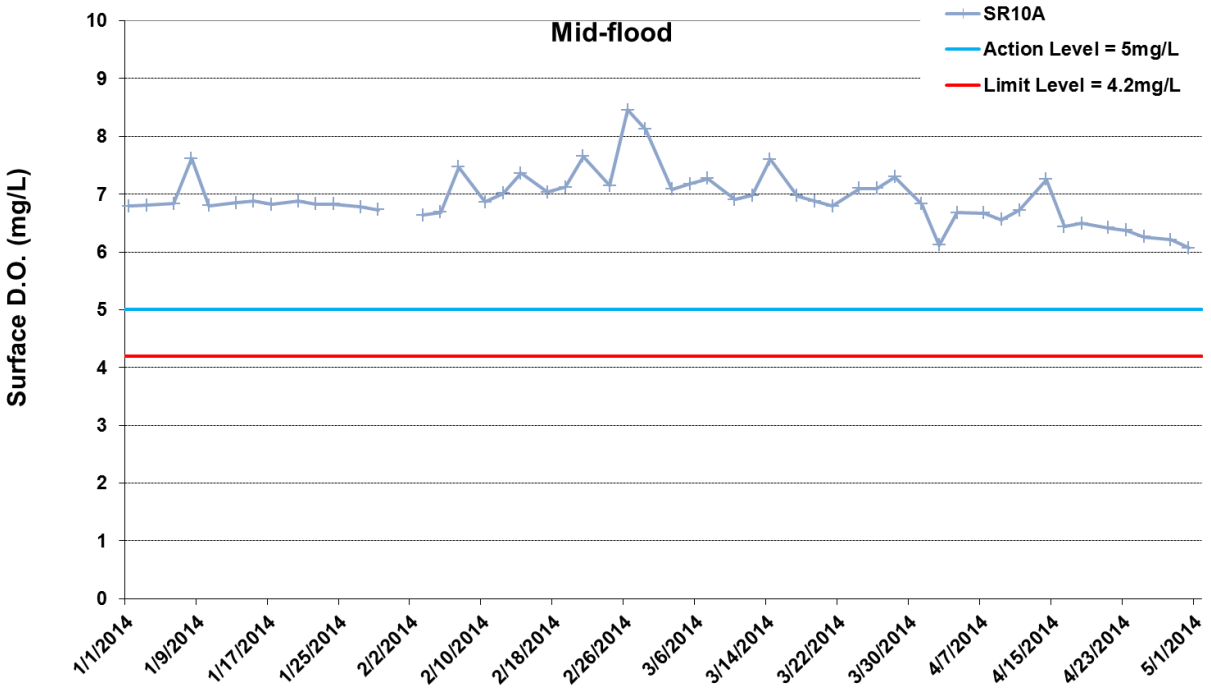


Figure I7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

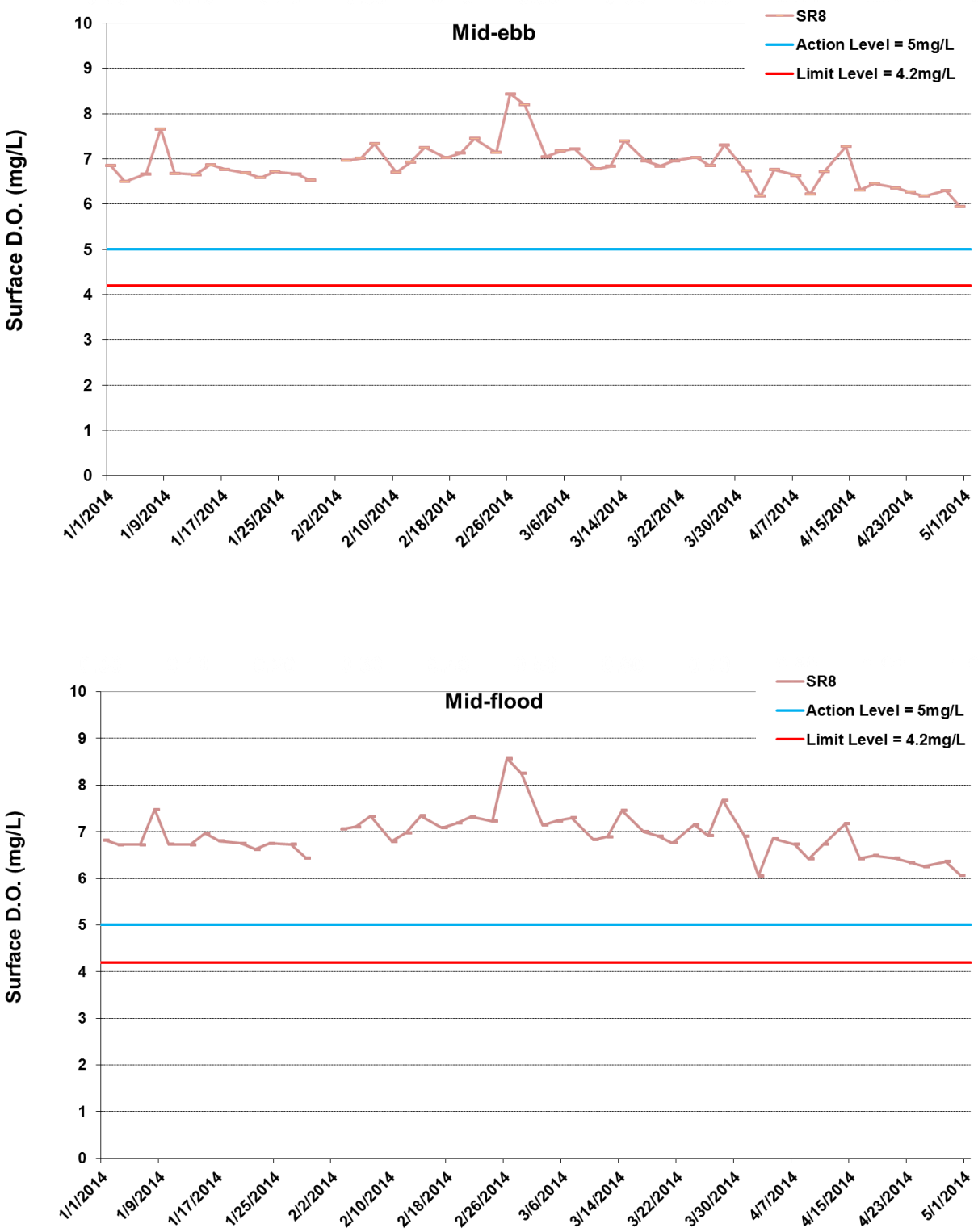
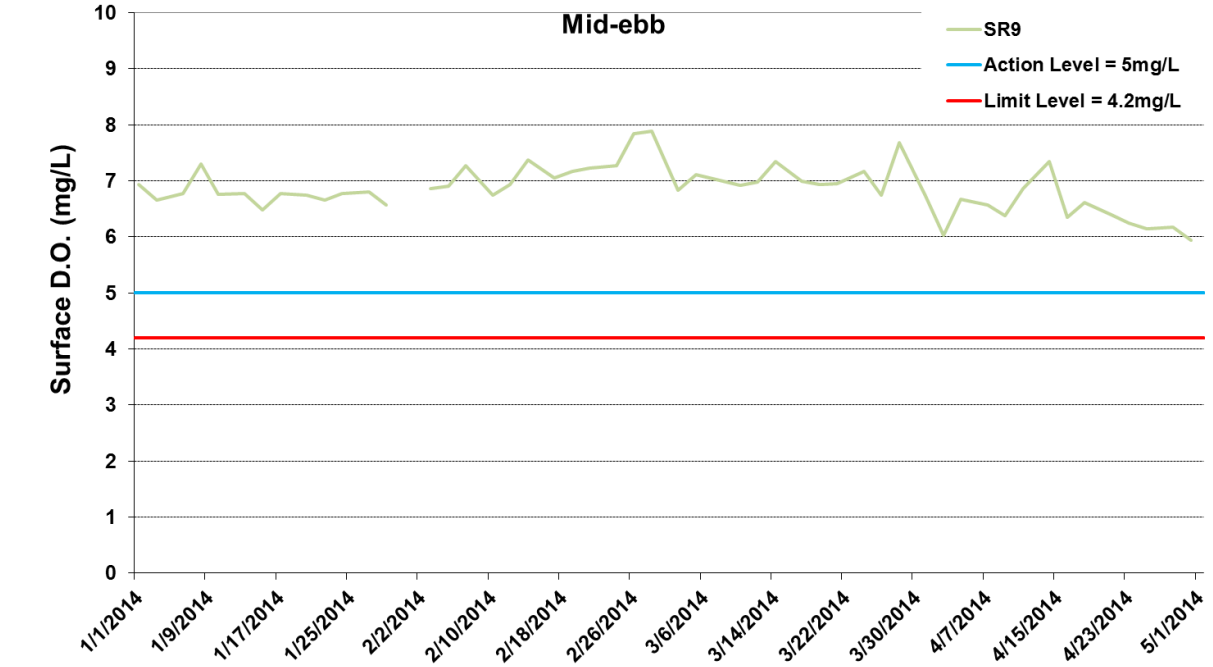


Figure I8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



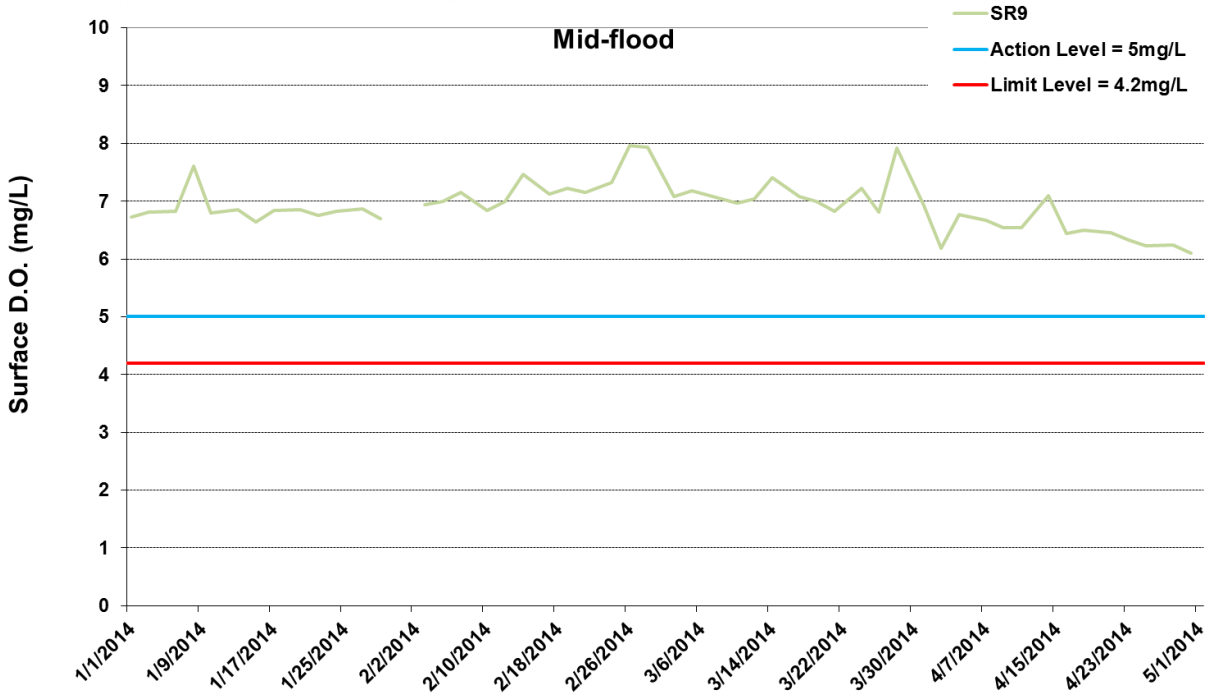
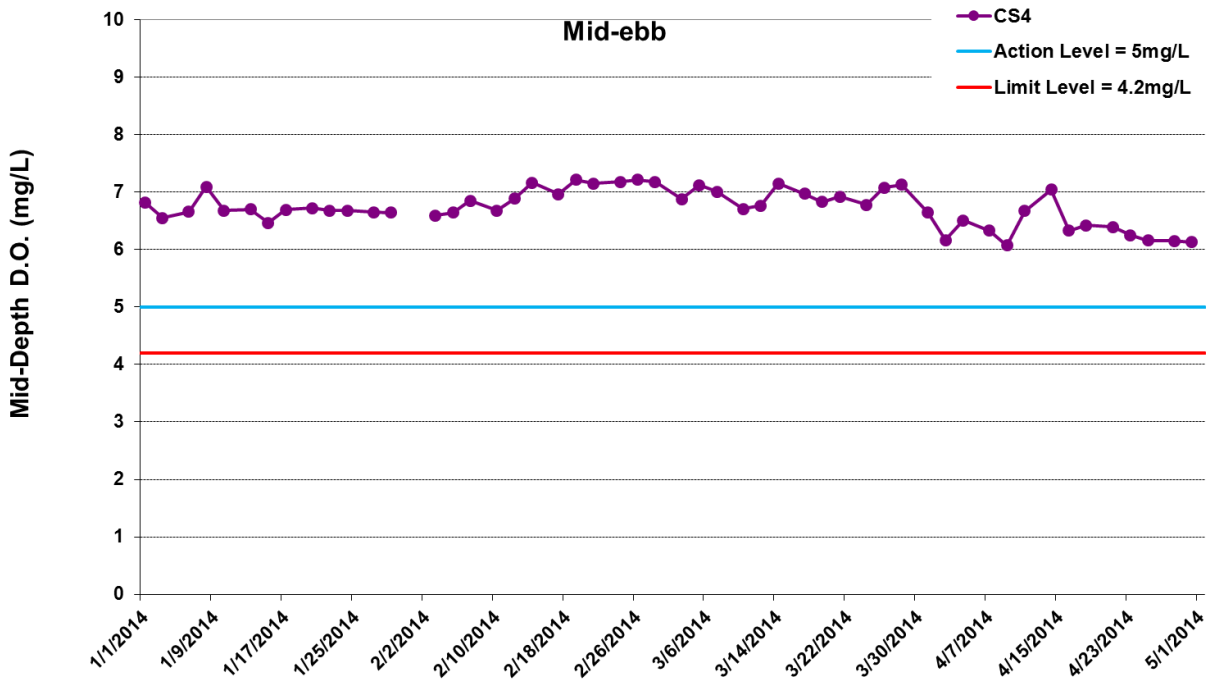
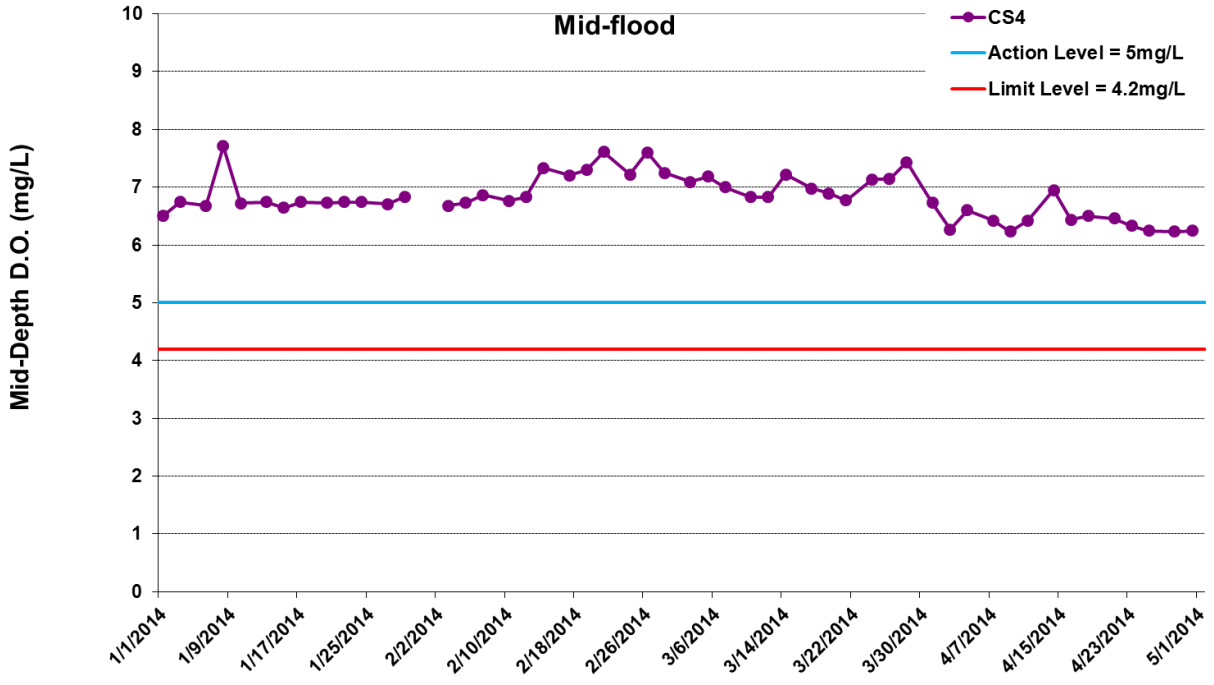


Figure I9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 January 2014 and 30 April 2014 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

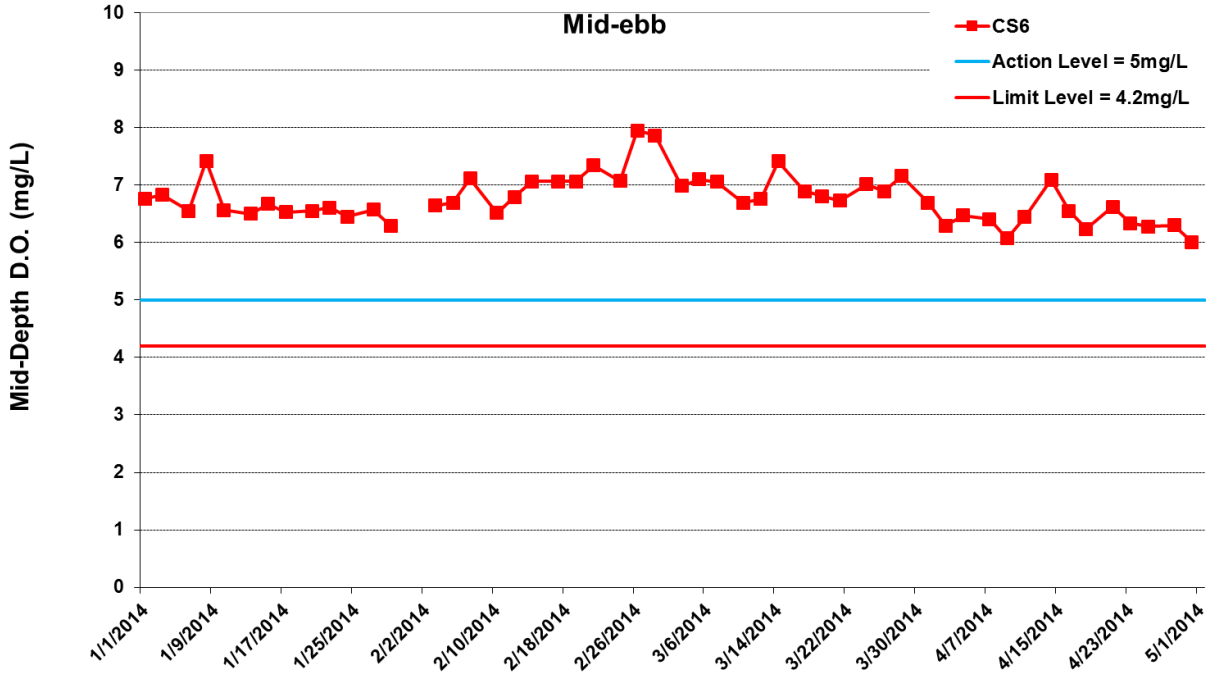


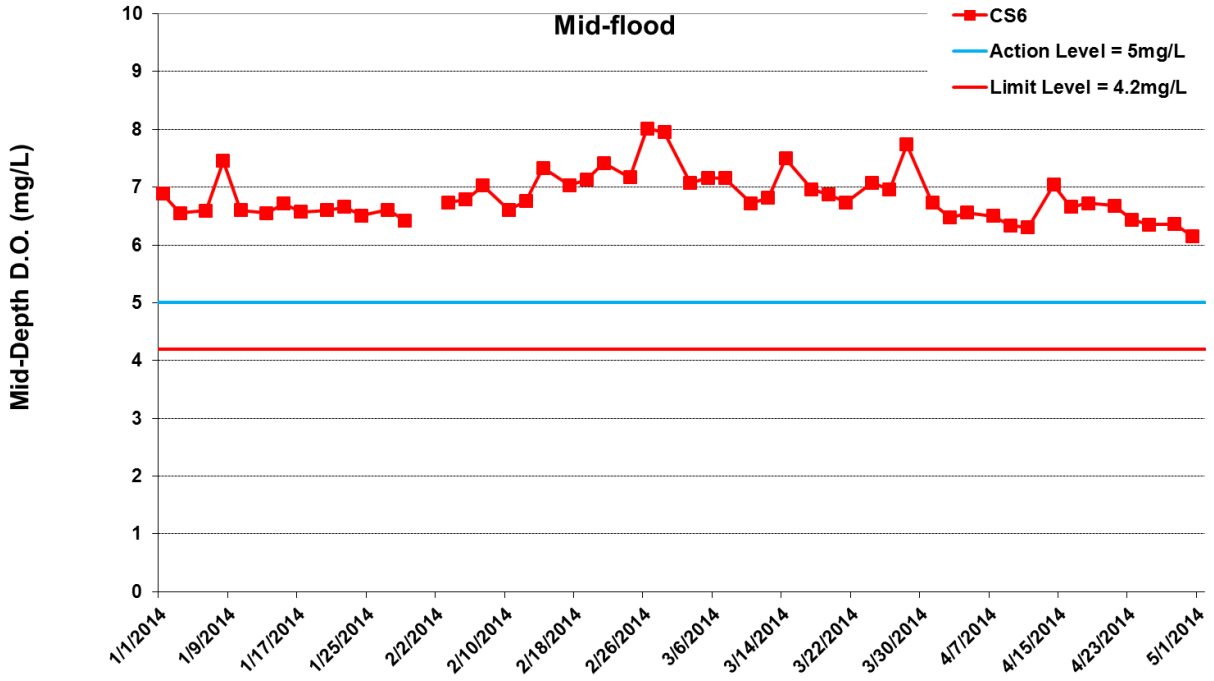


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at the CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

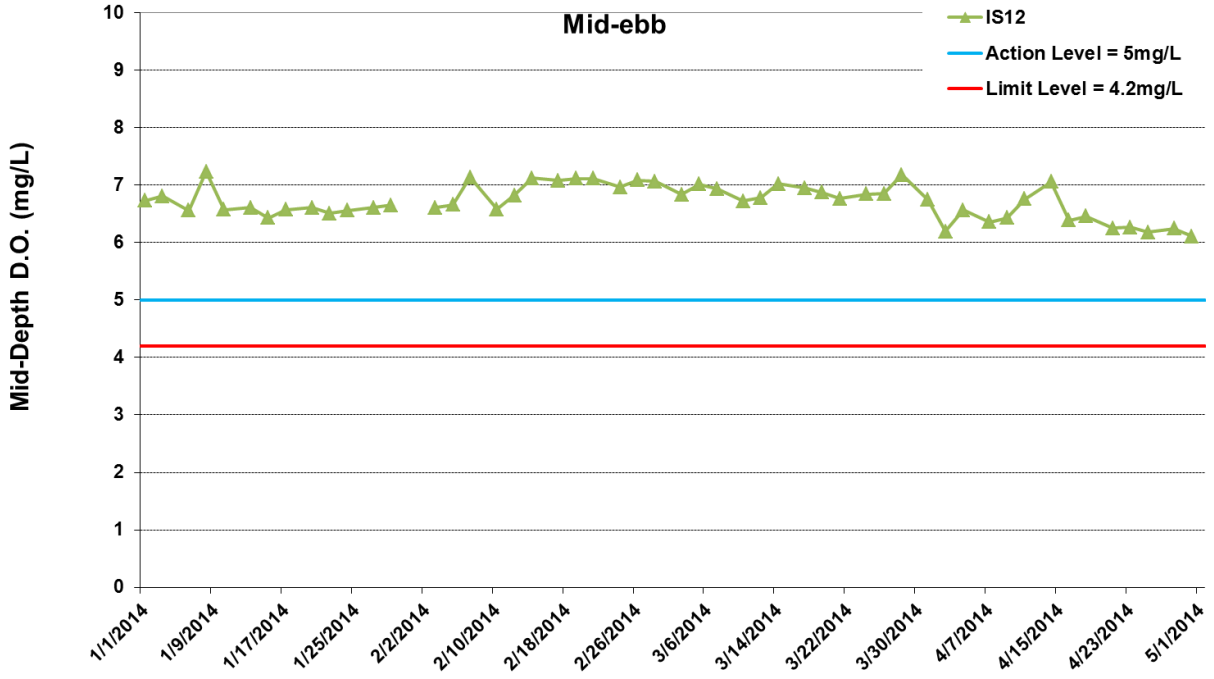


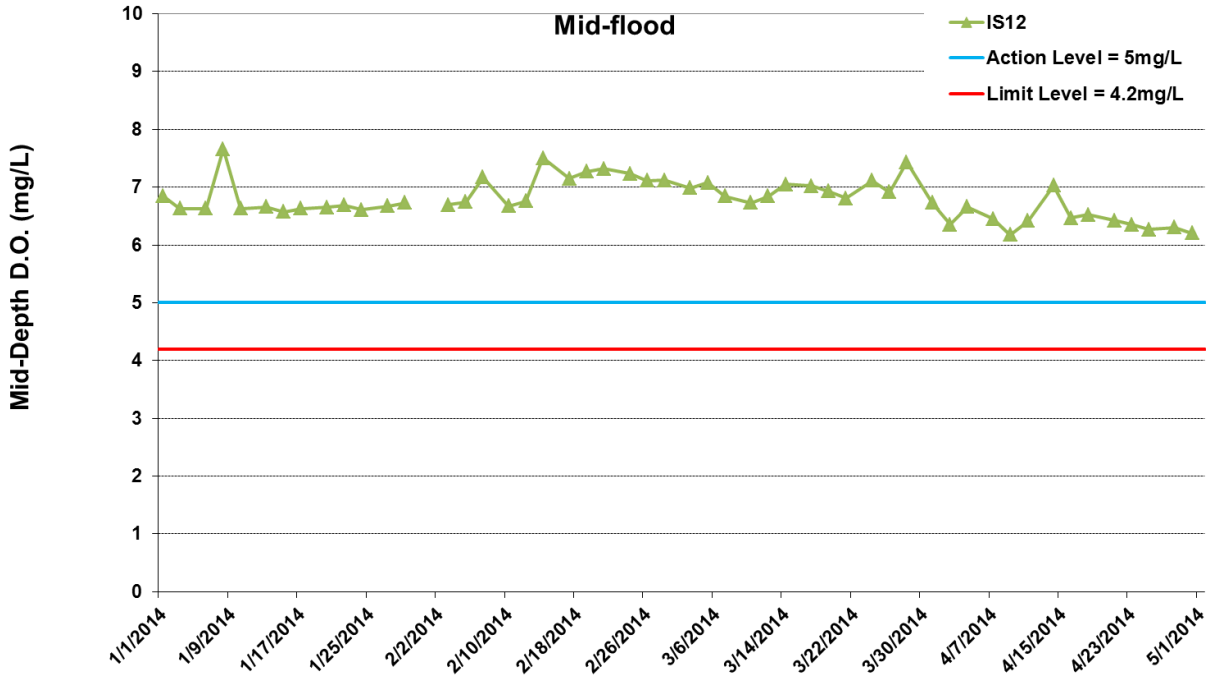


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

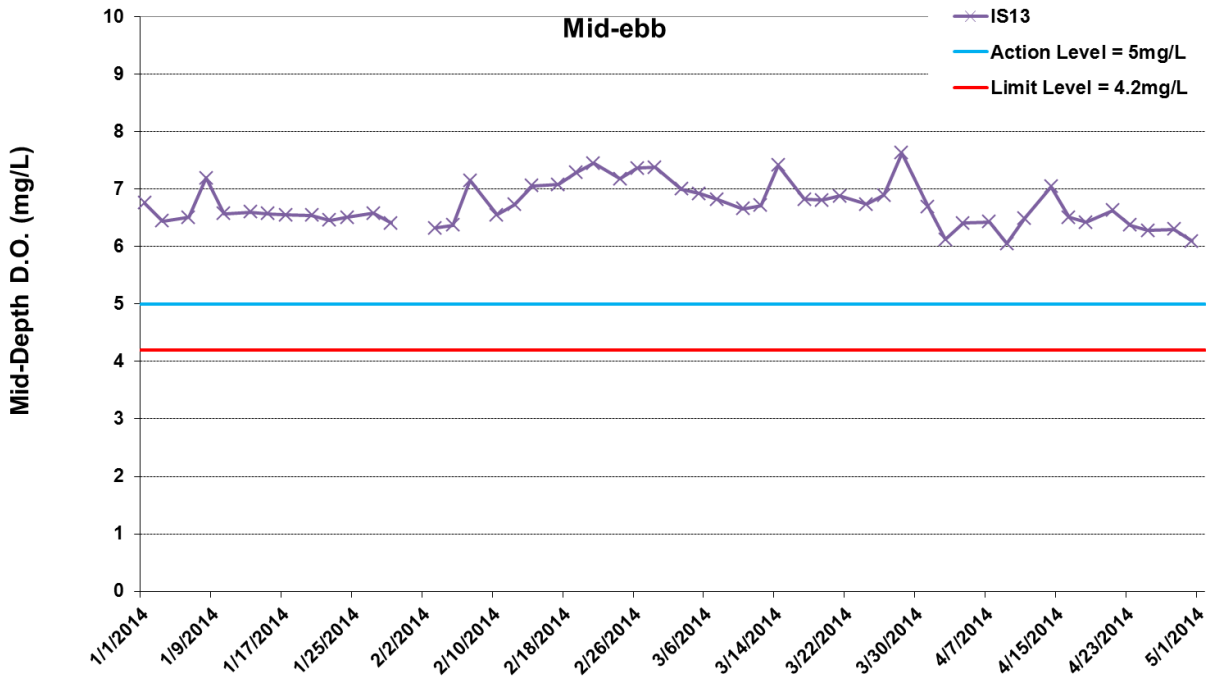


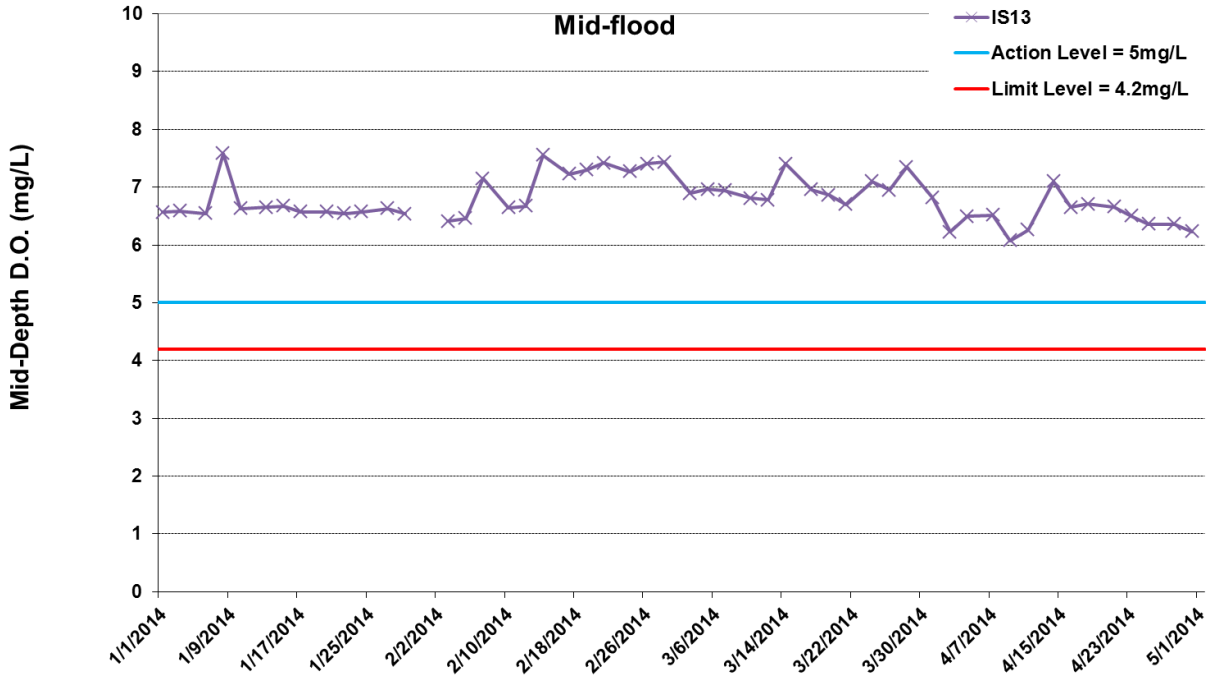


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

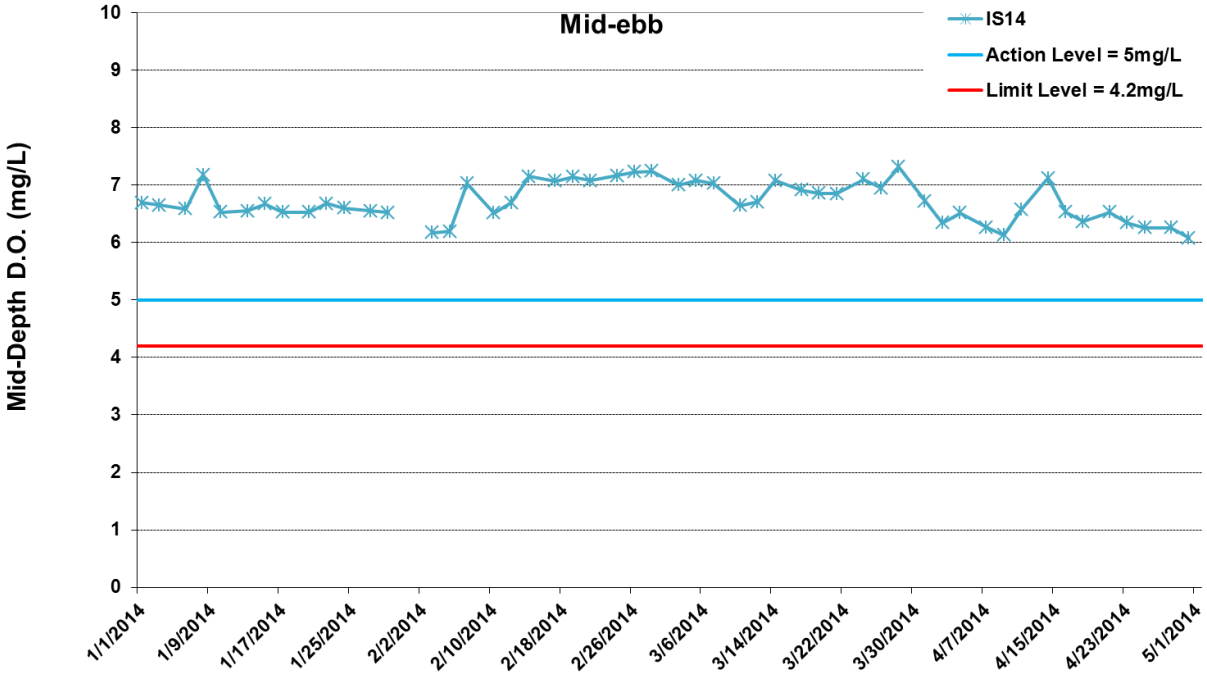


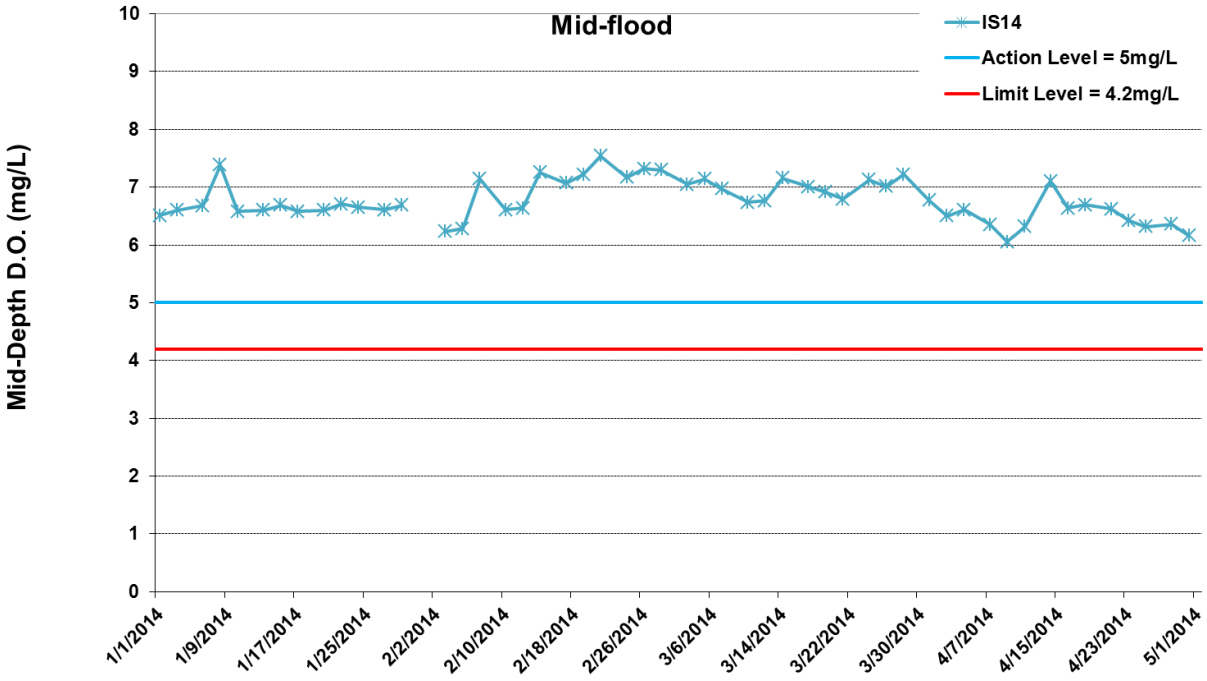


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

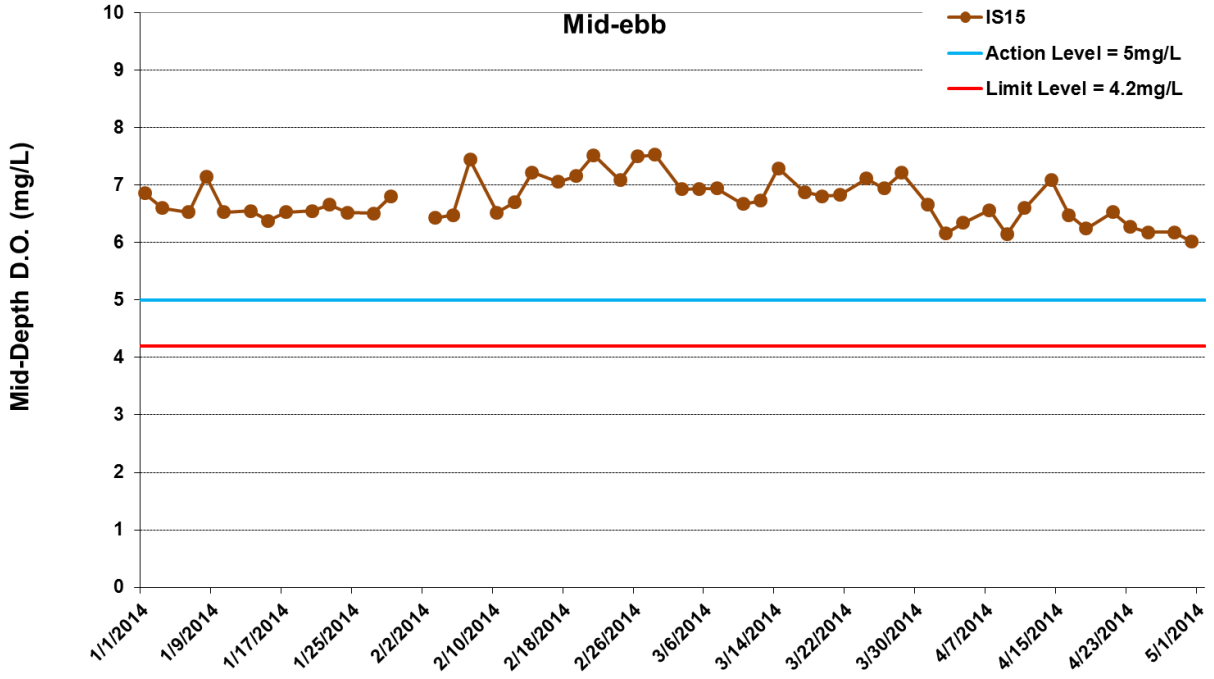


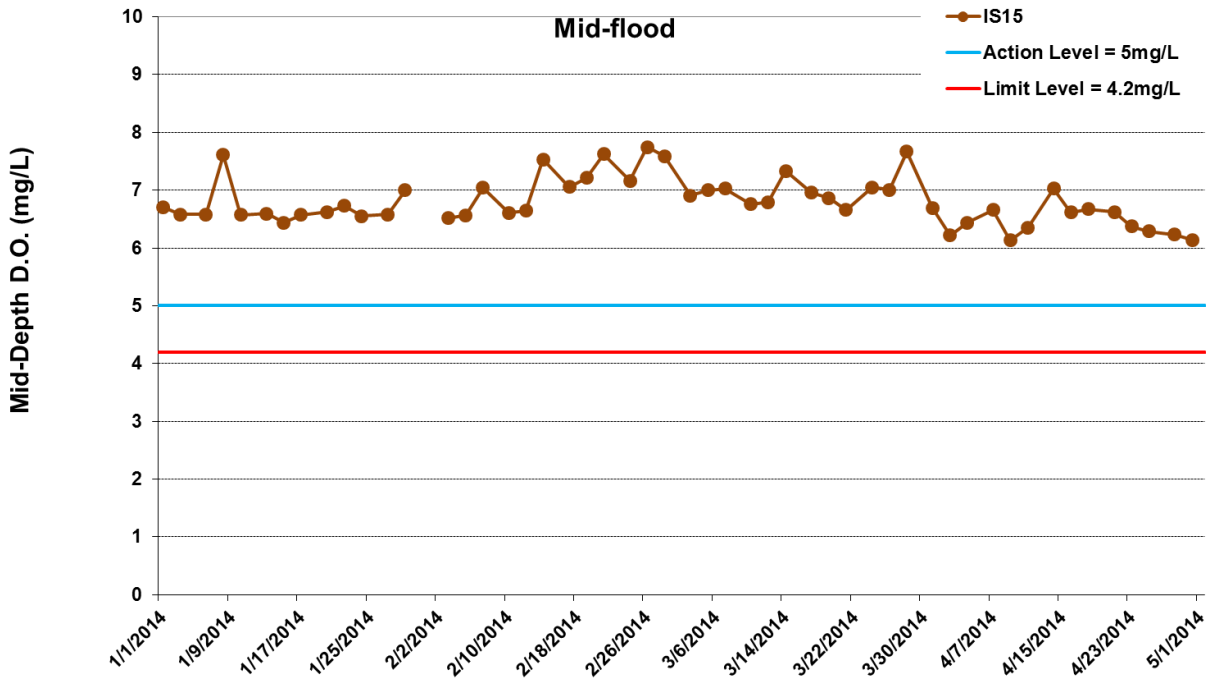


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

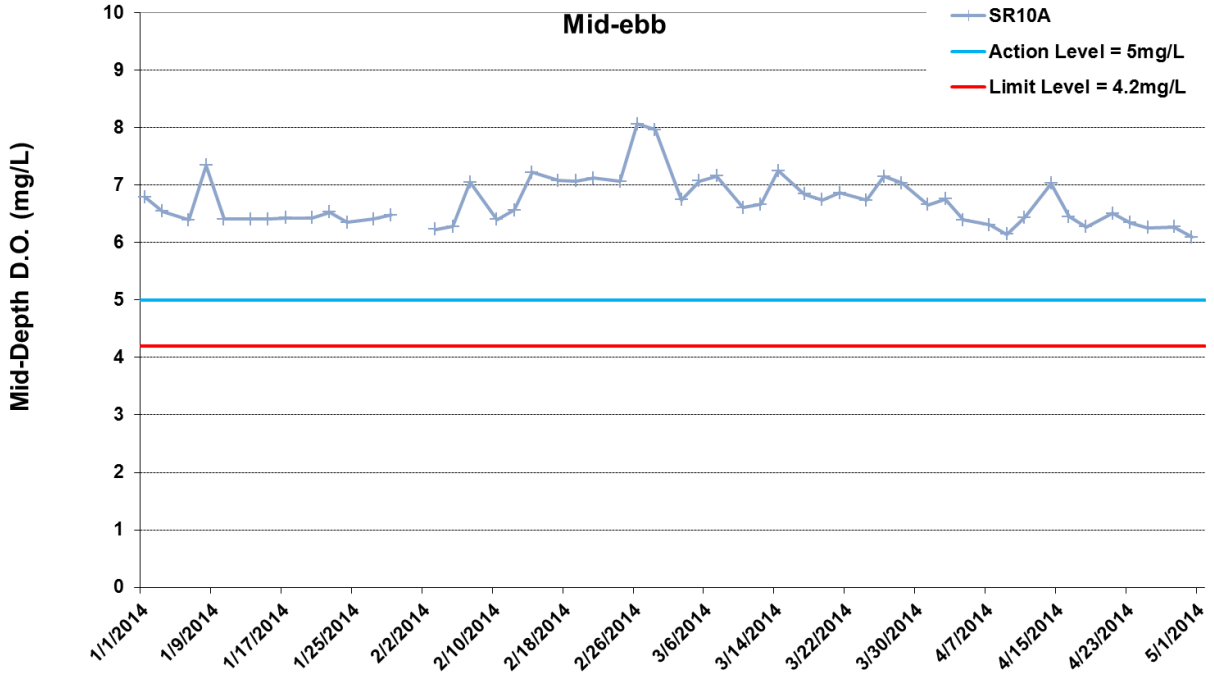


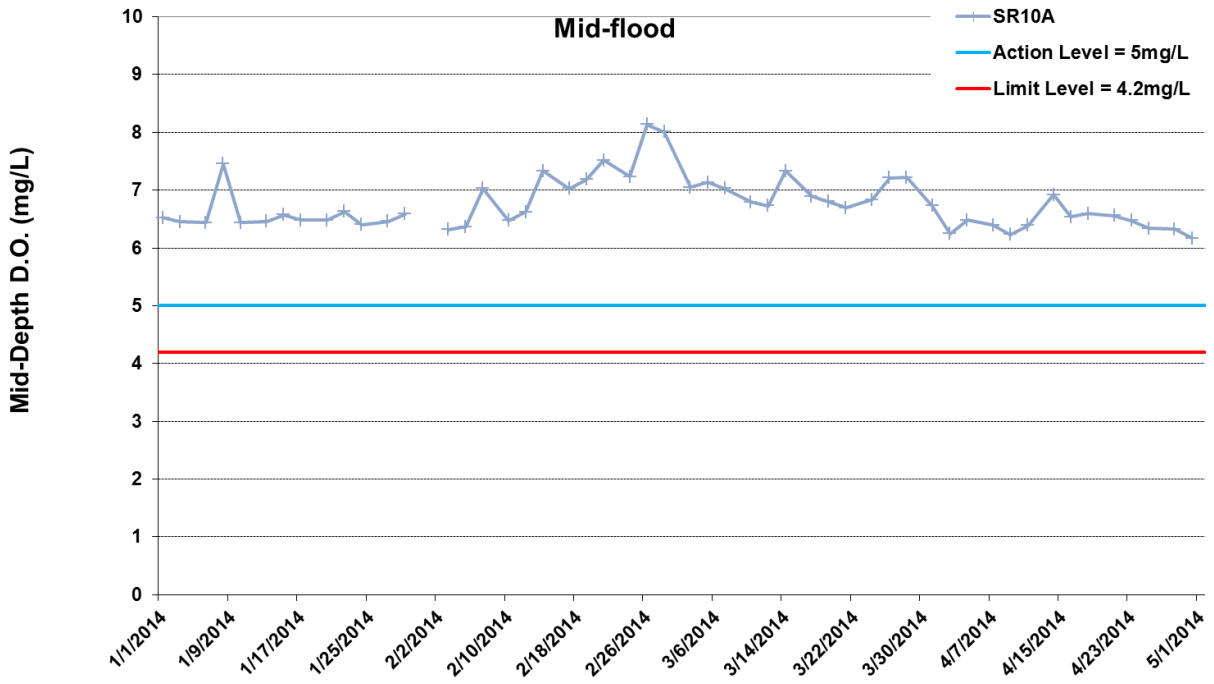


*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

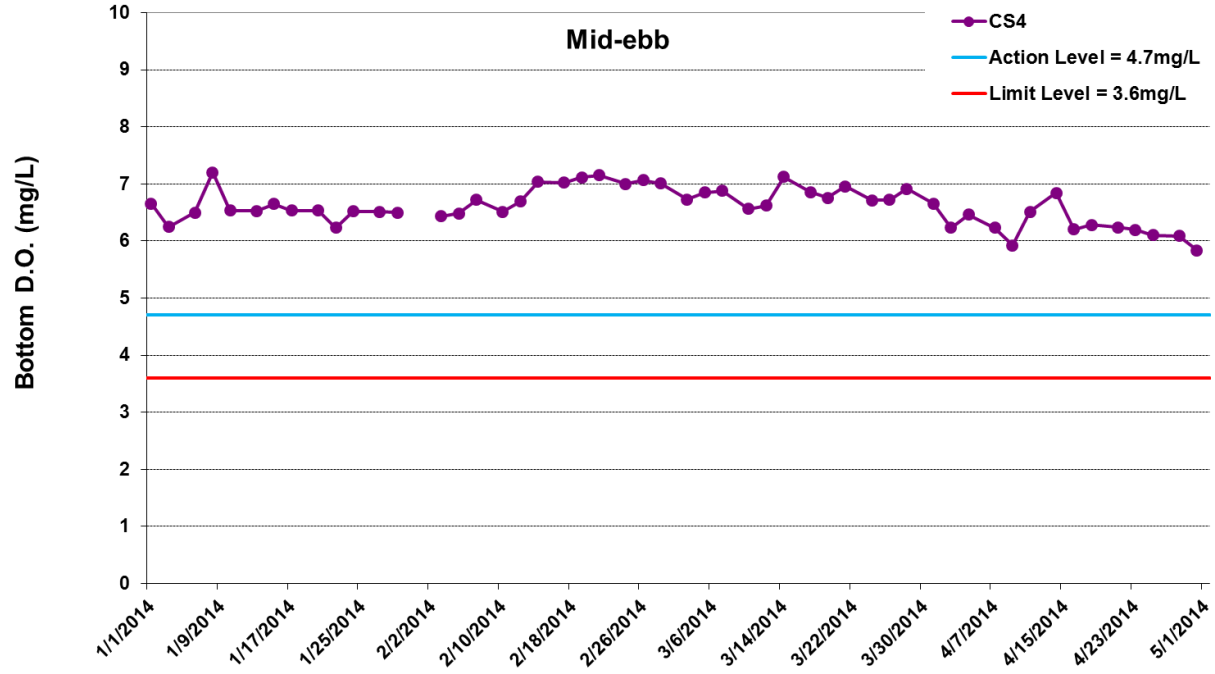




*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 January 2014 and 30 April 2014 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



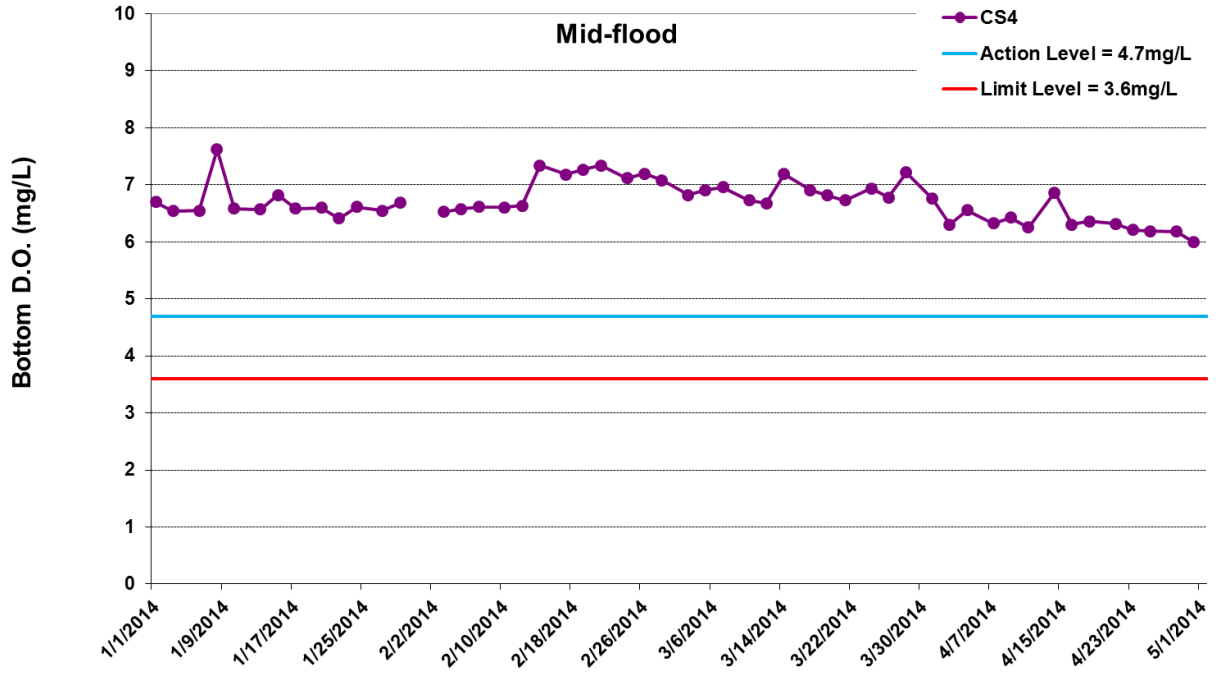
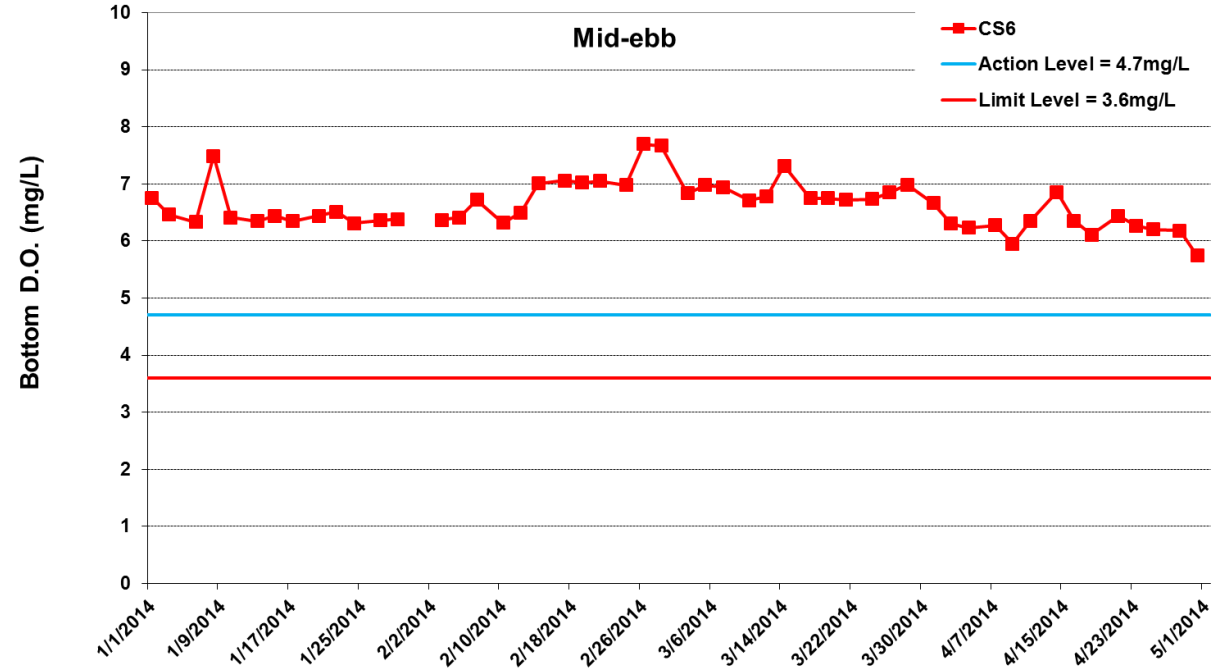


Figure I17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



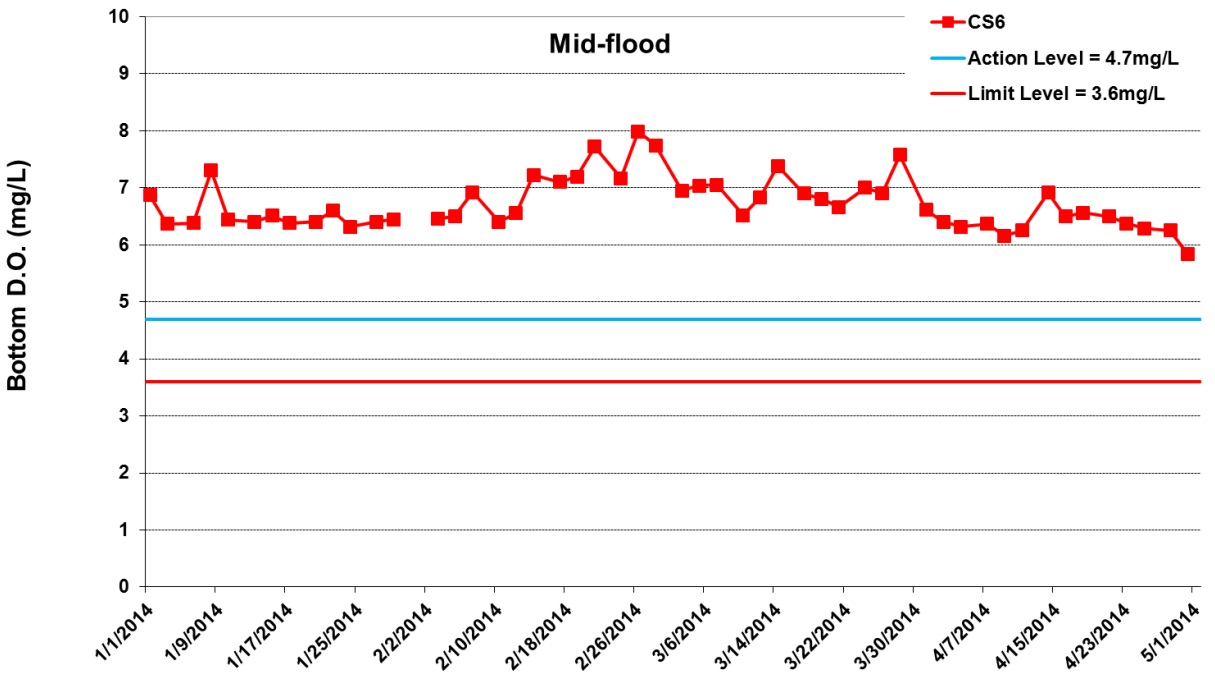
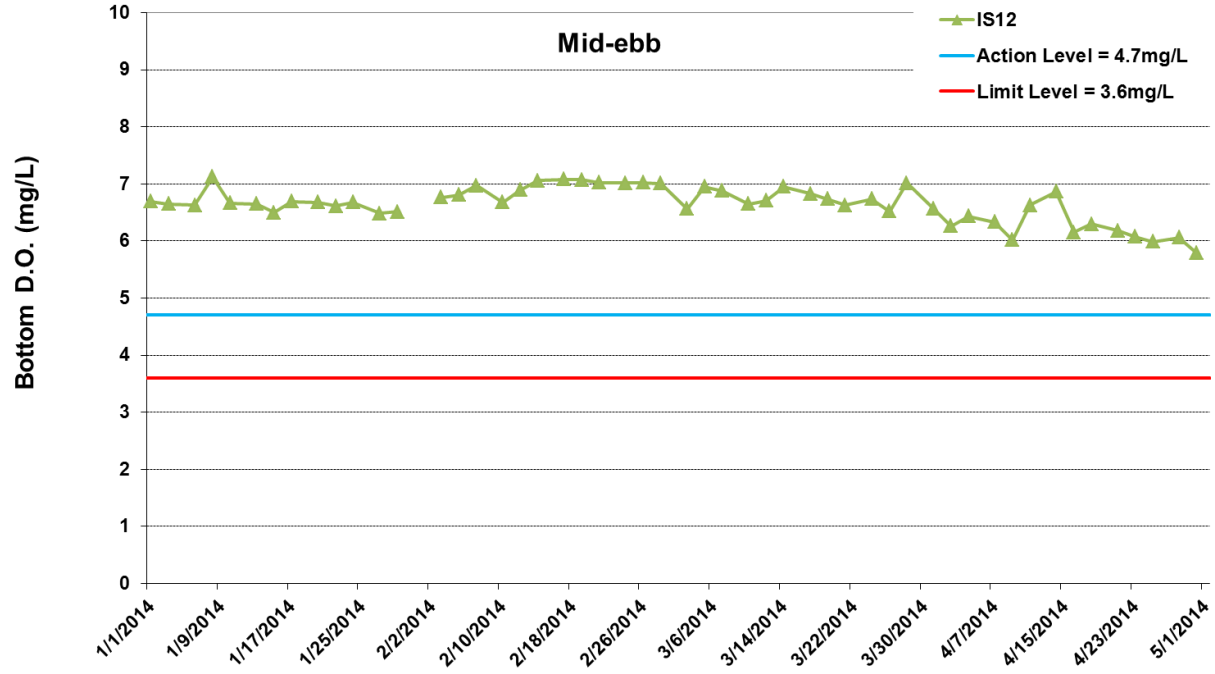


Figure I18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



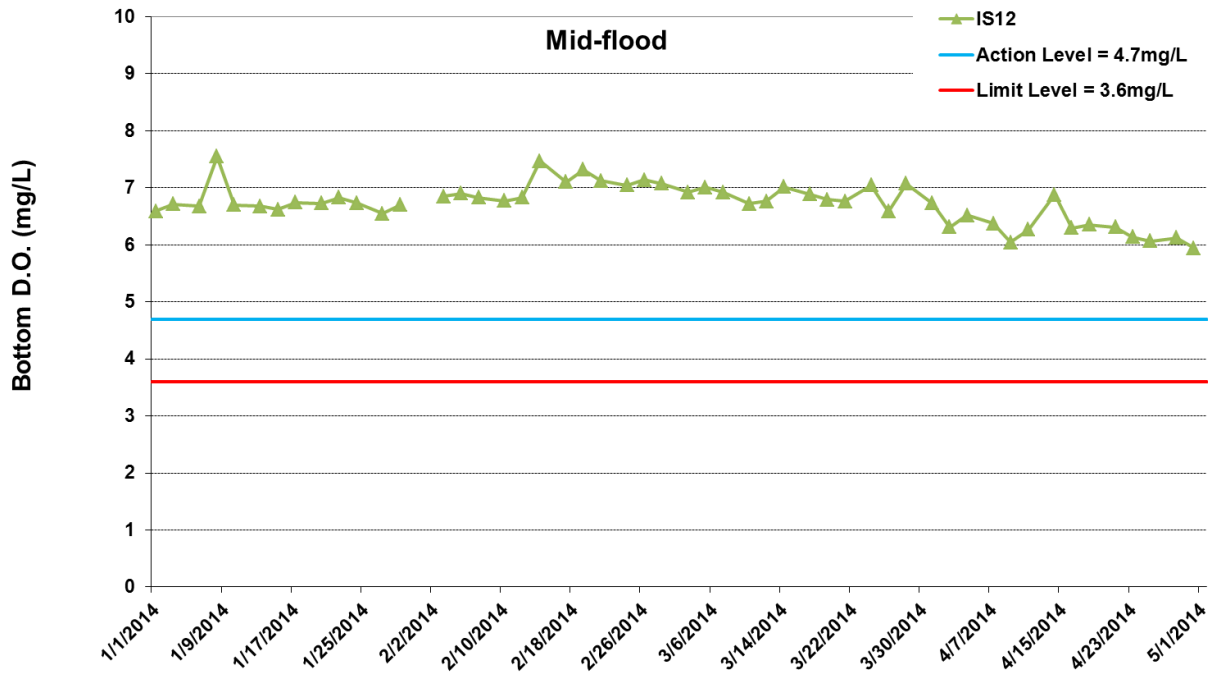
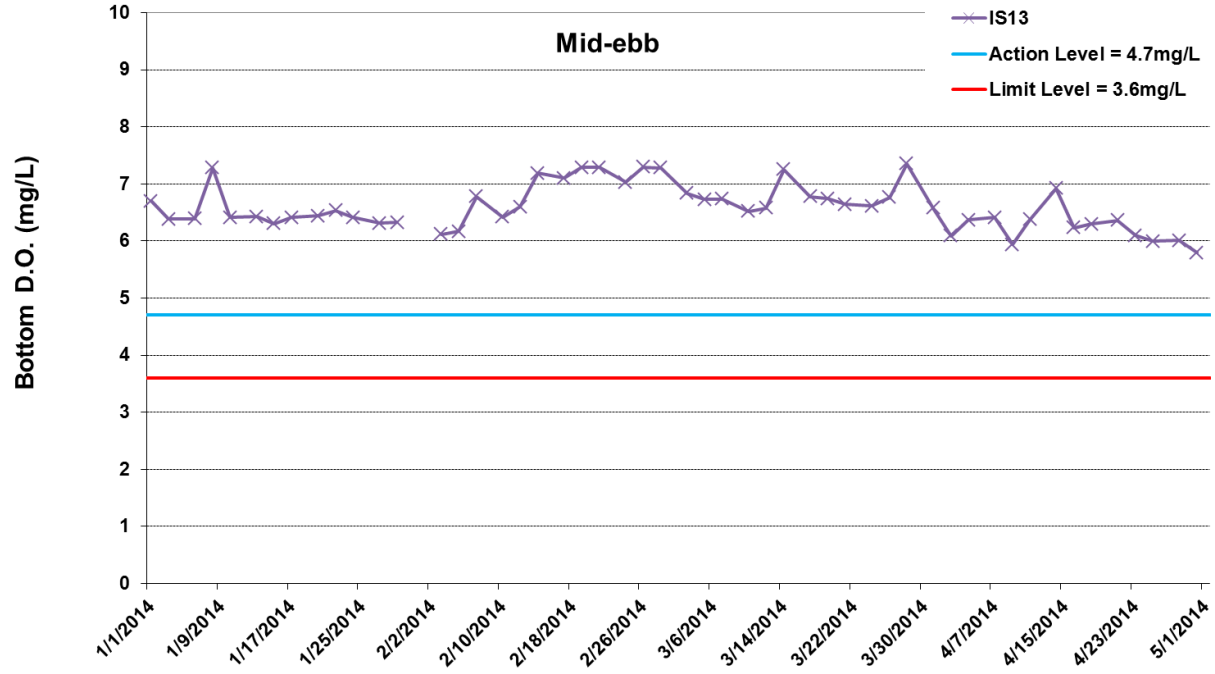


Figure I19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



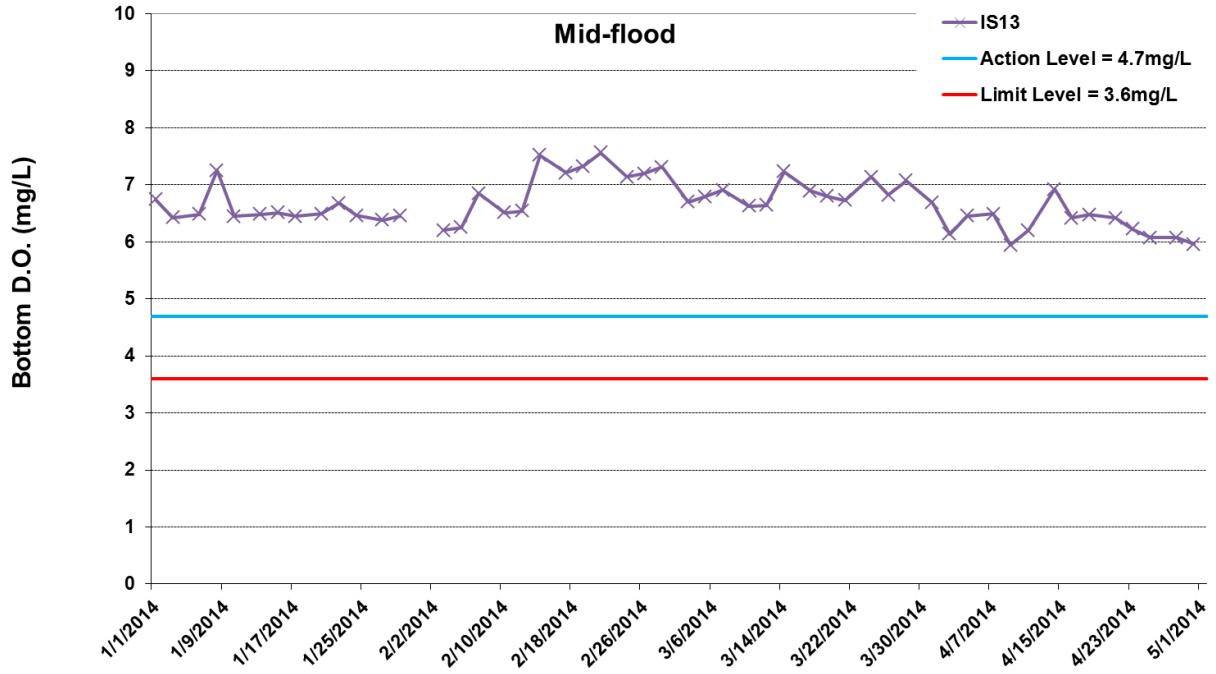
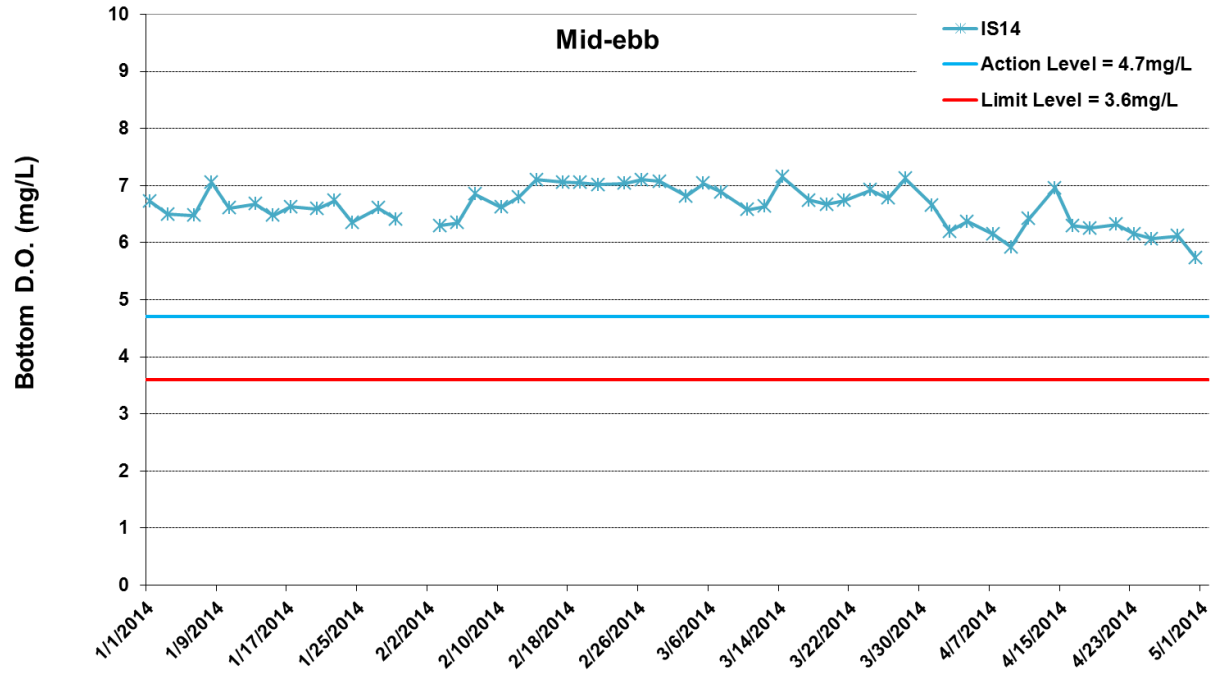


Figure I20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



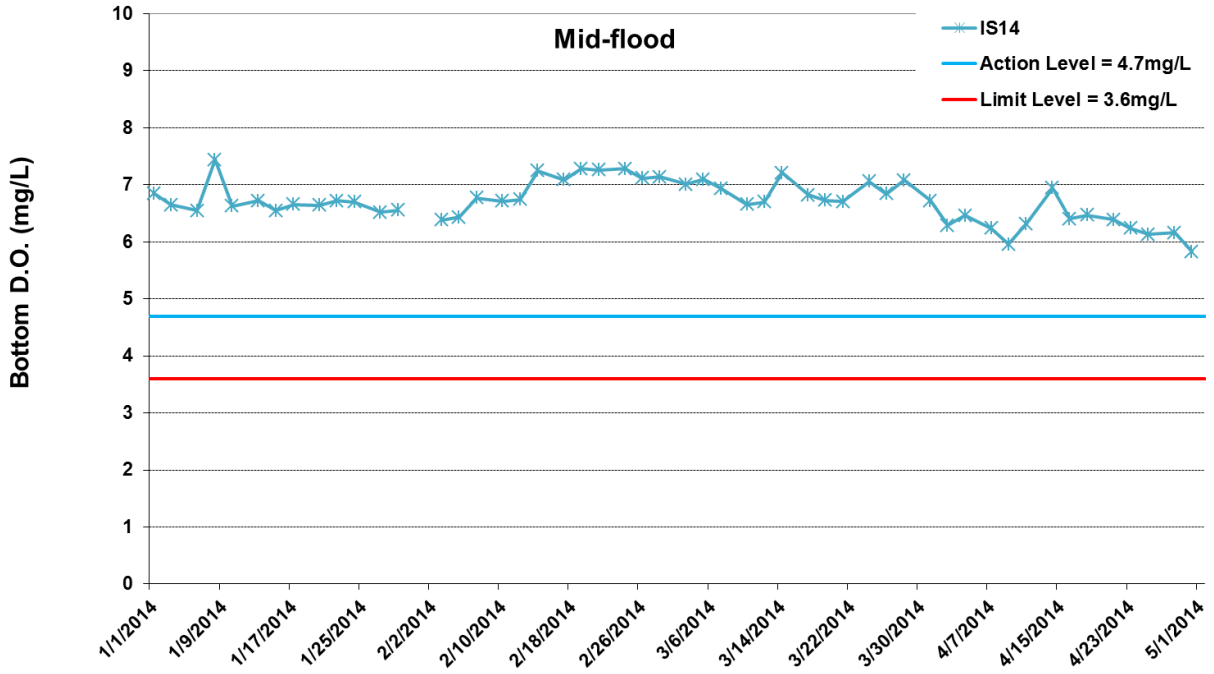
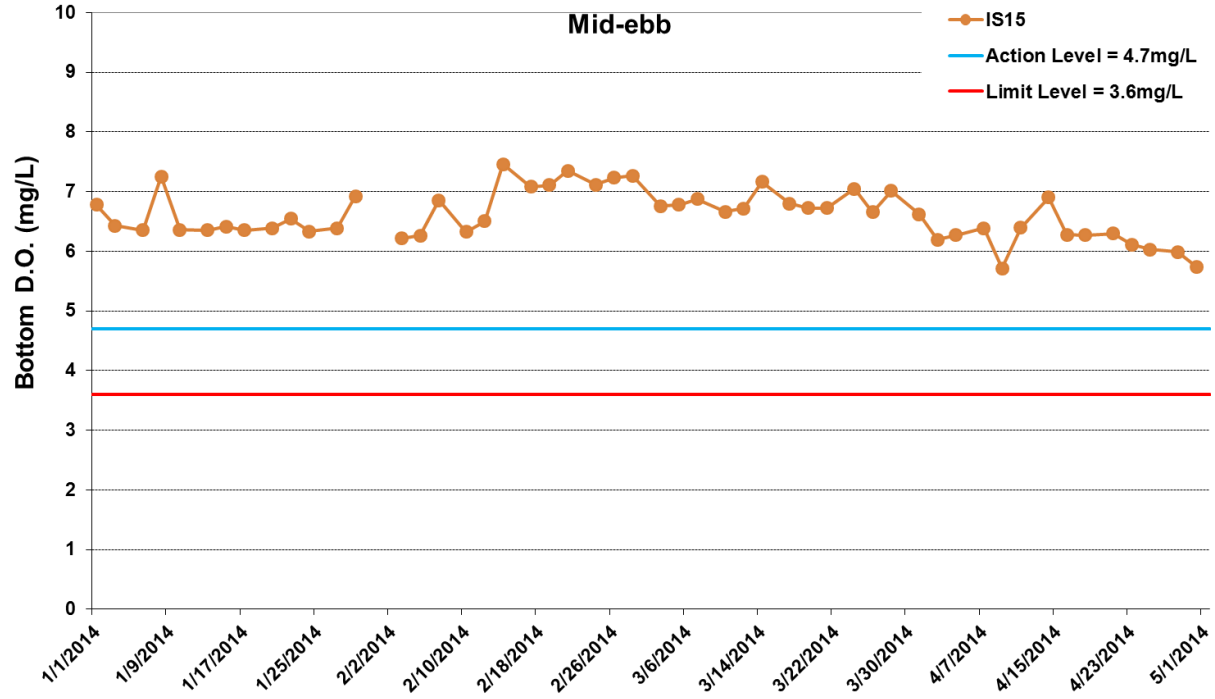


Figure I21 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



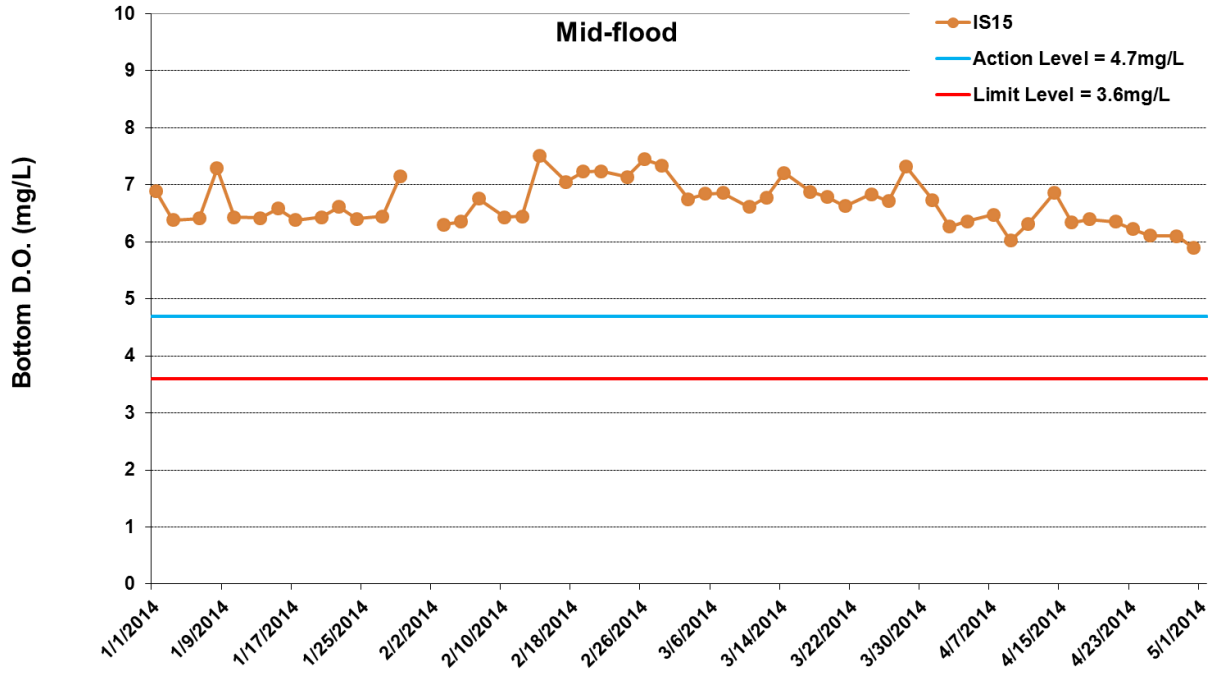
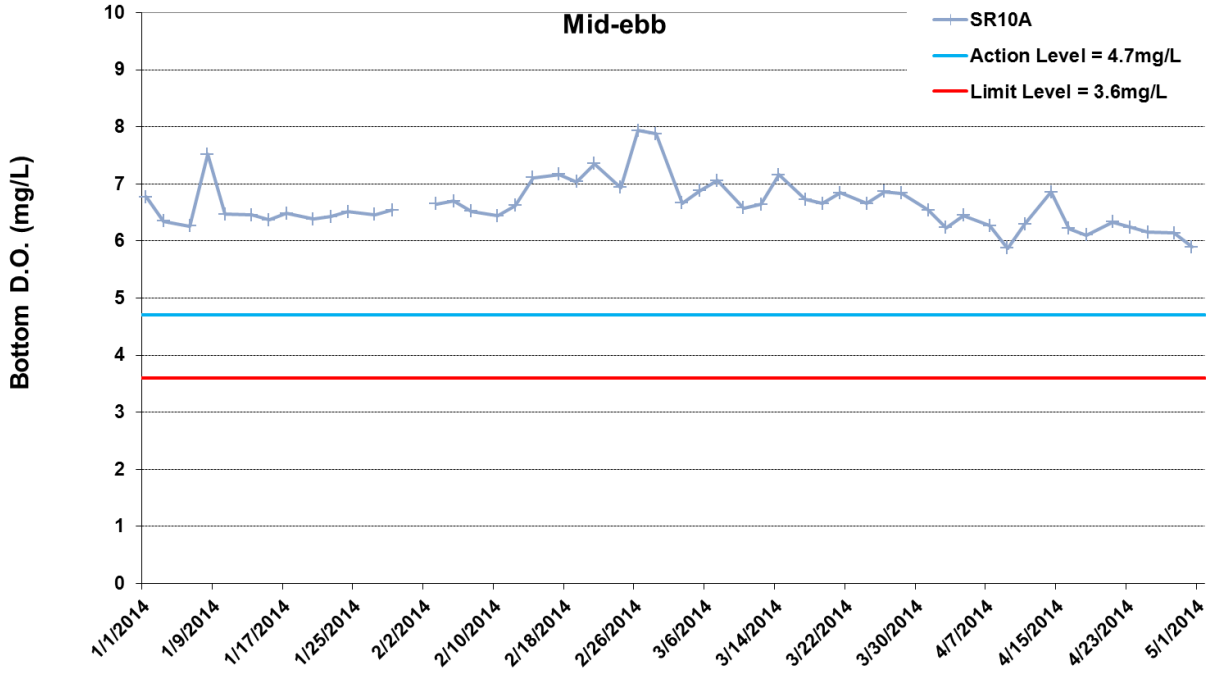


Figure I22 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



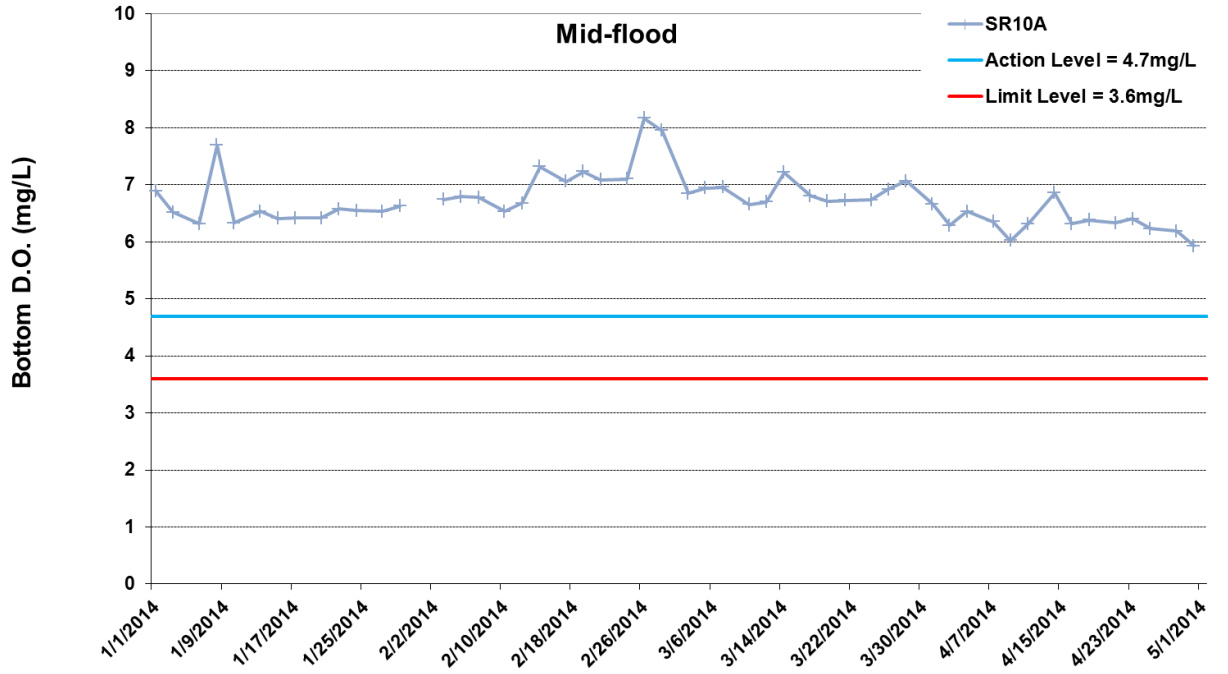
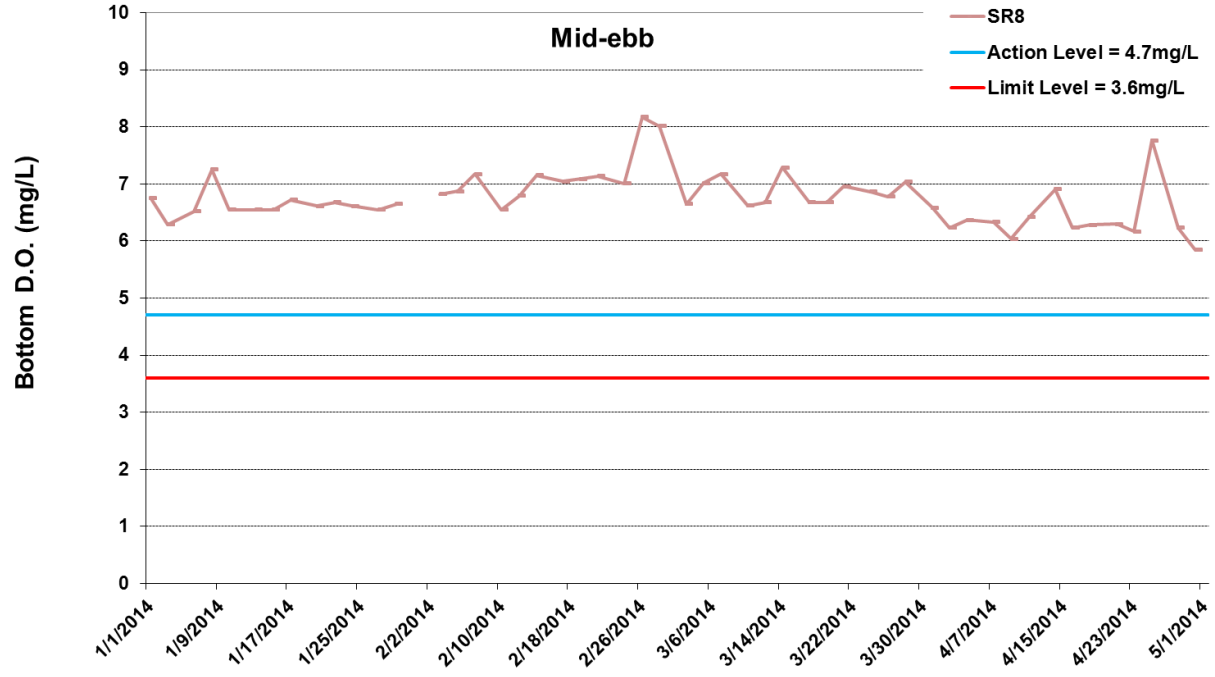


Figure I23 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



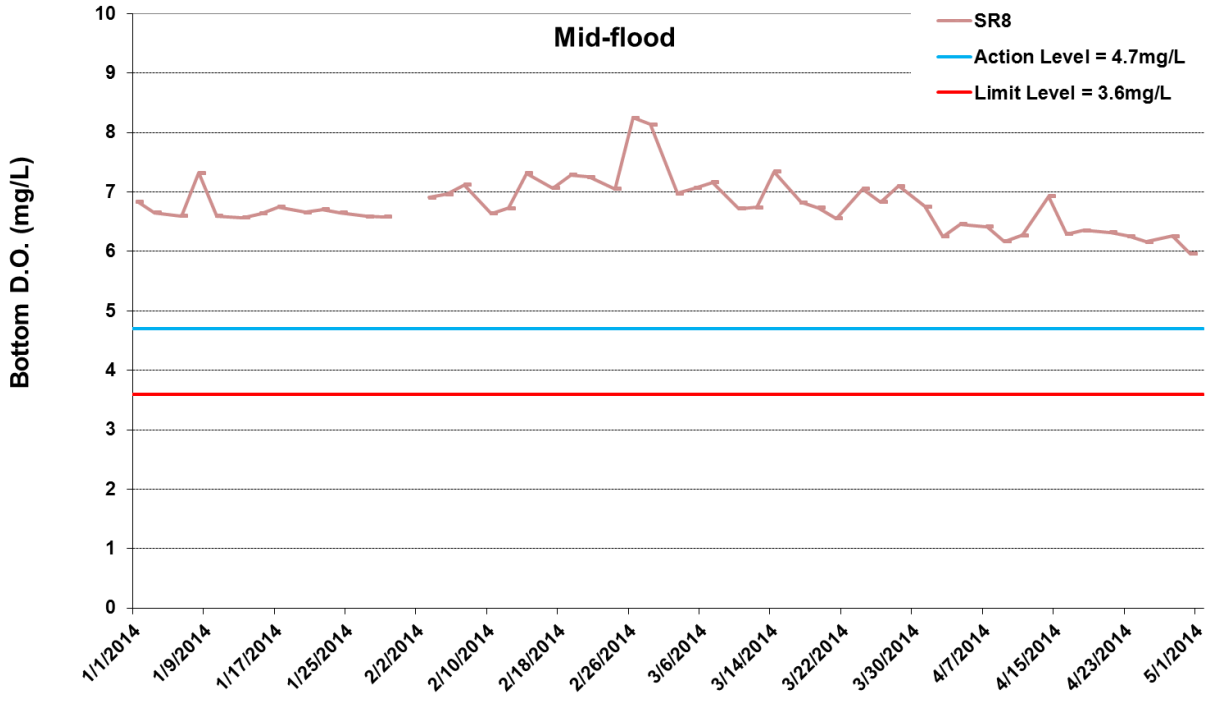
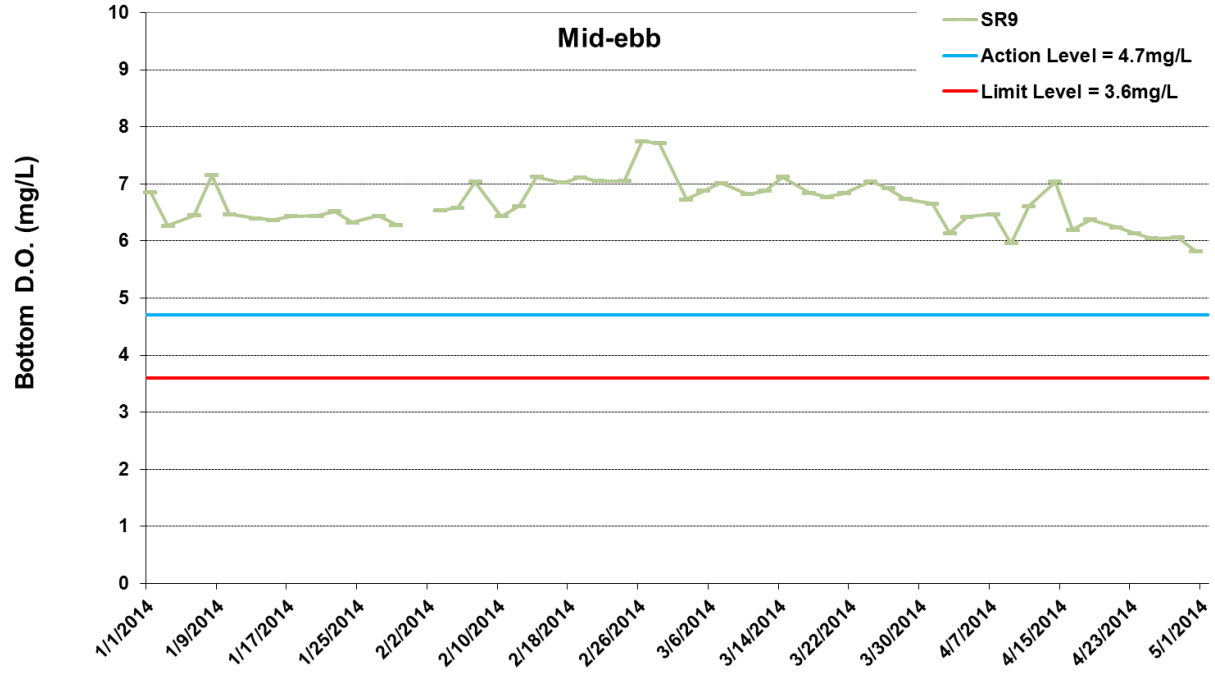


Figure I24 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



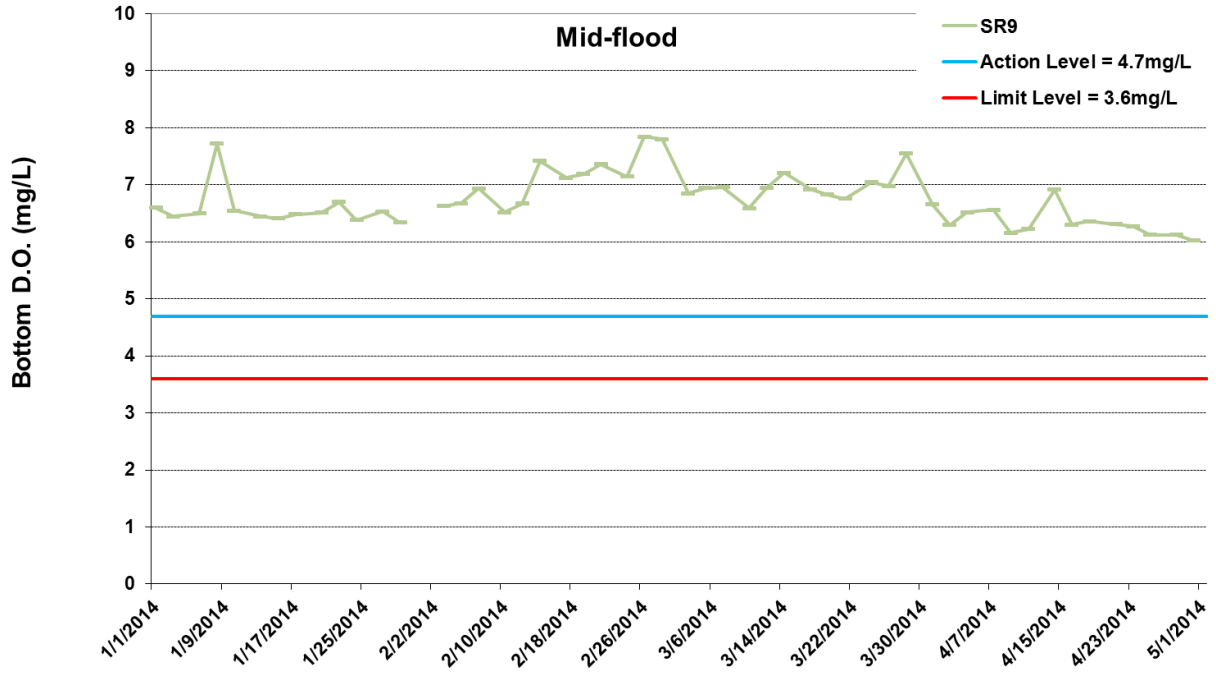
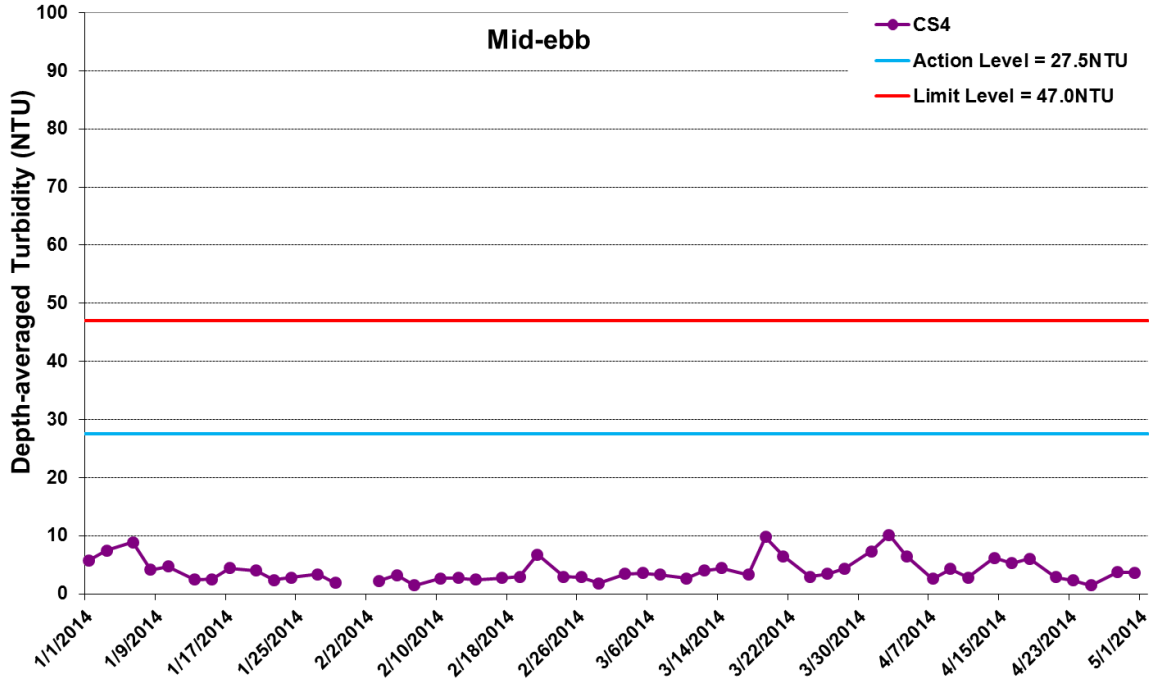


Figure I25 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 January 2014 and 30 April 2014 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



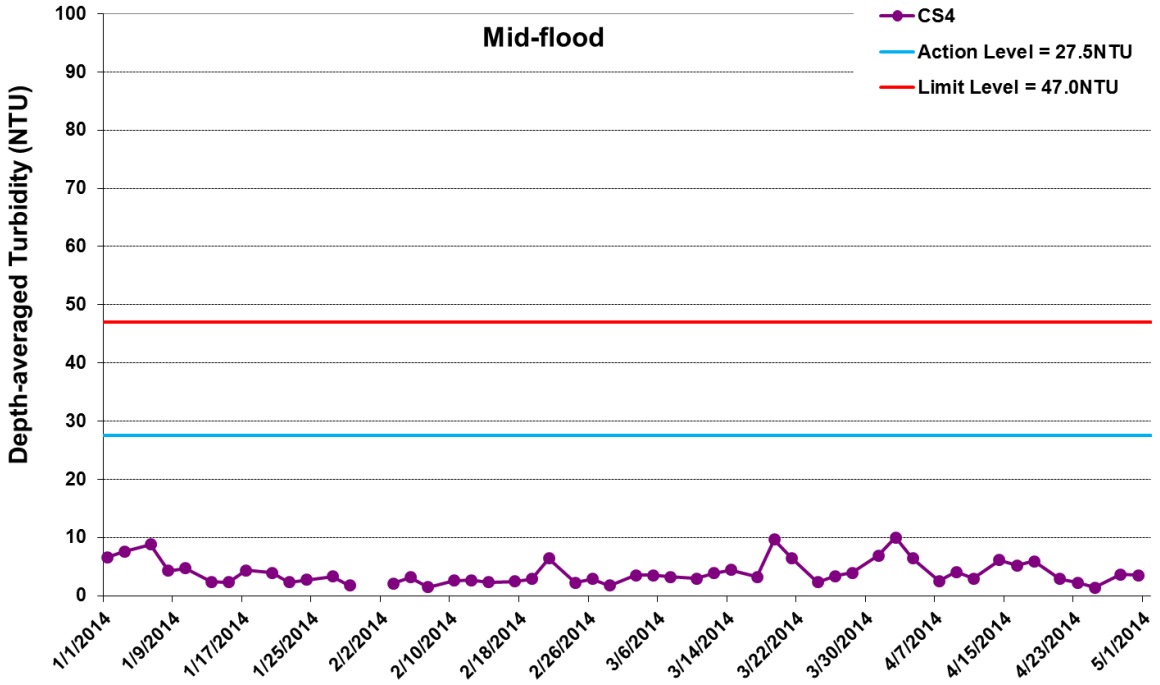
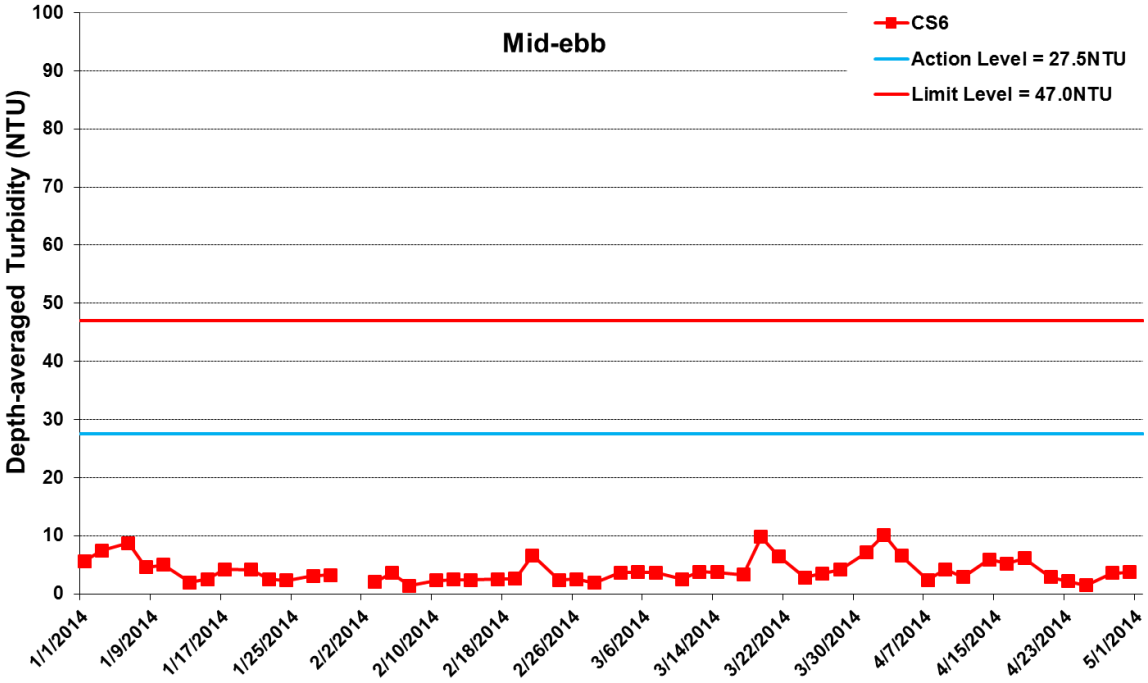


Figure I26 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



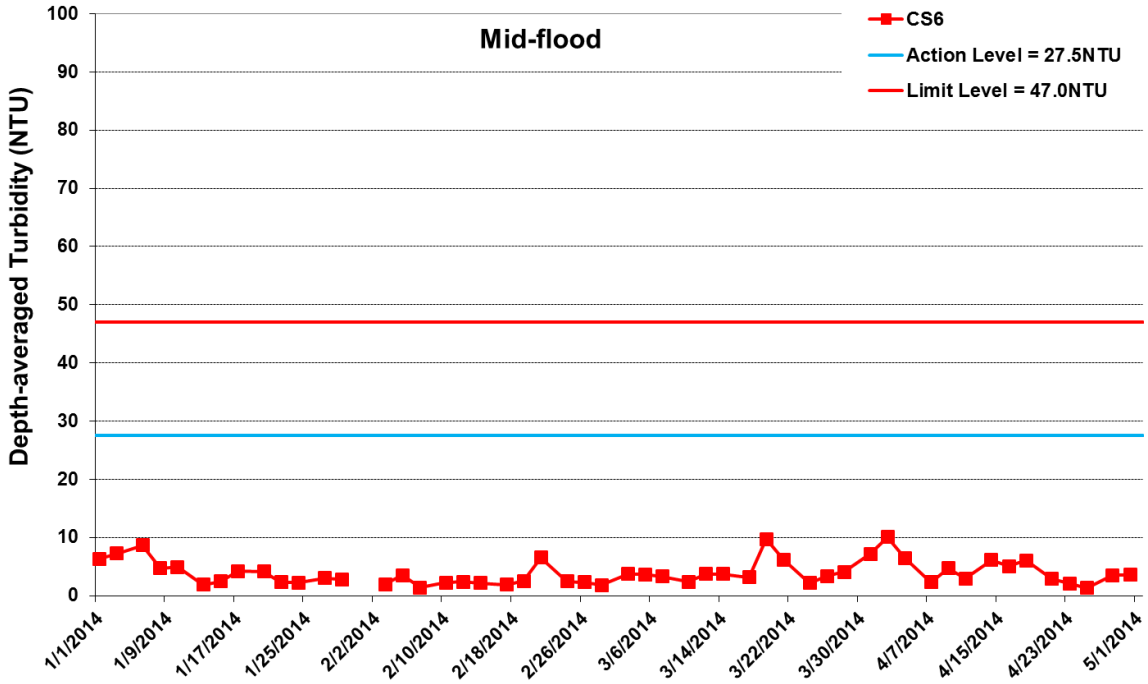
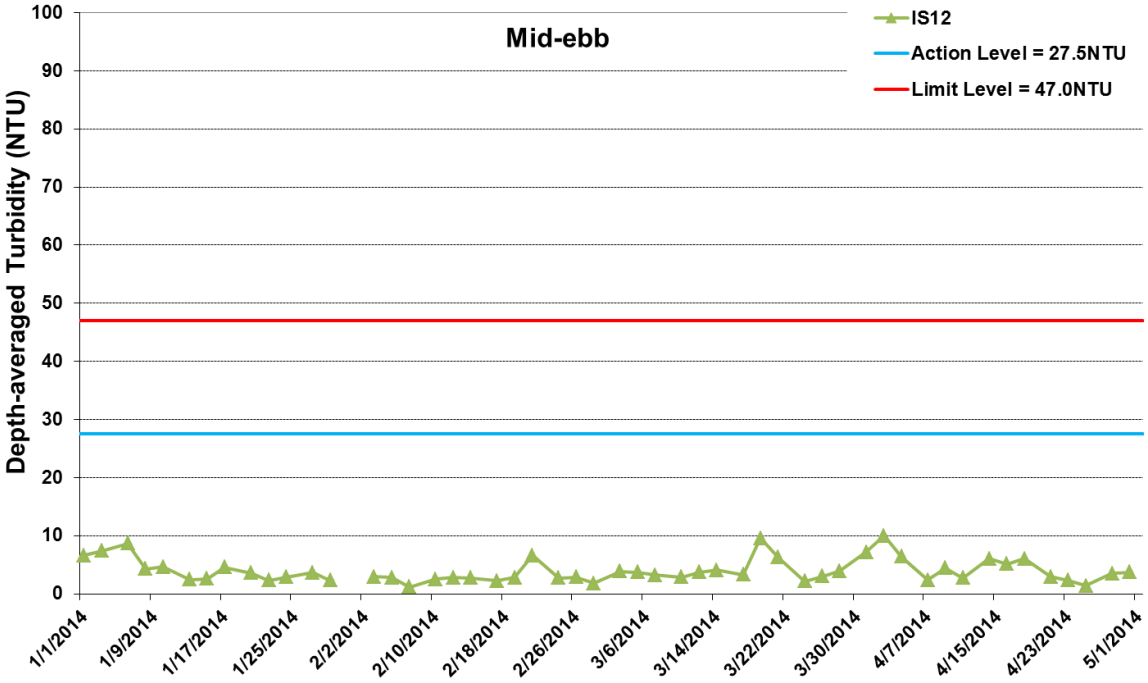


Figure I27 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



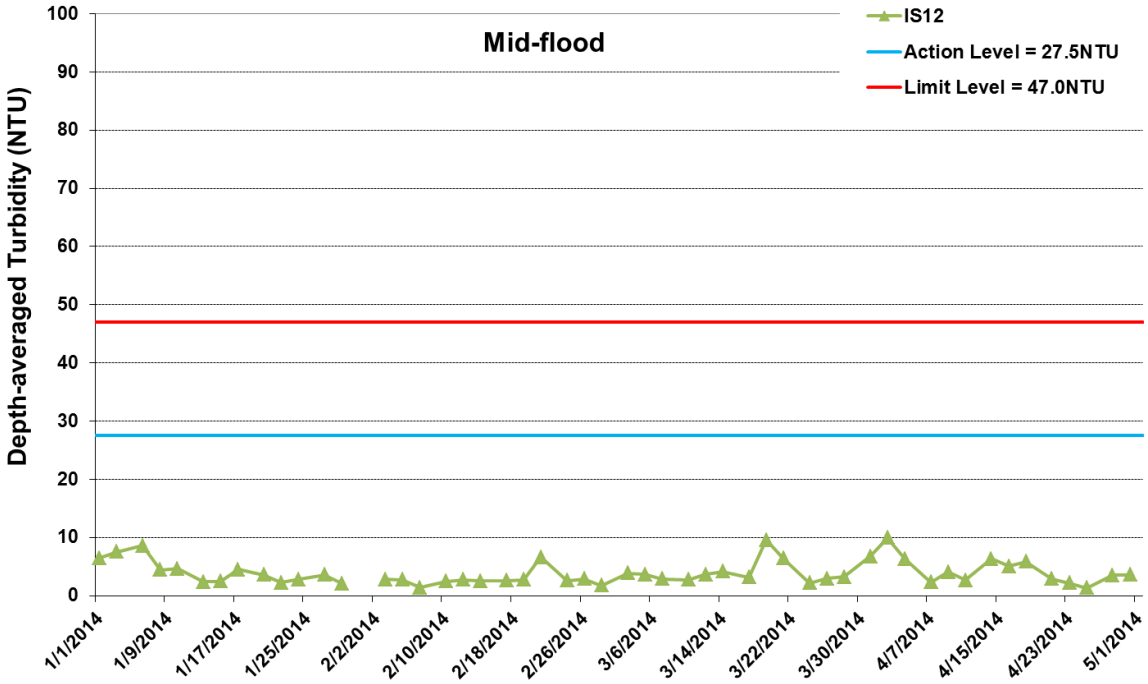
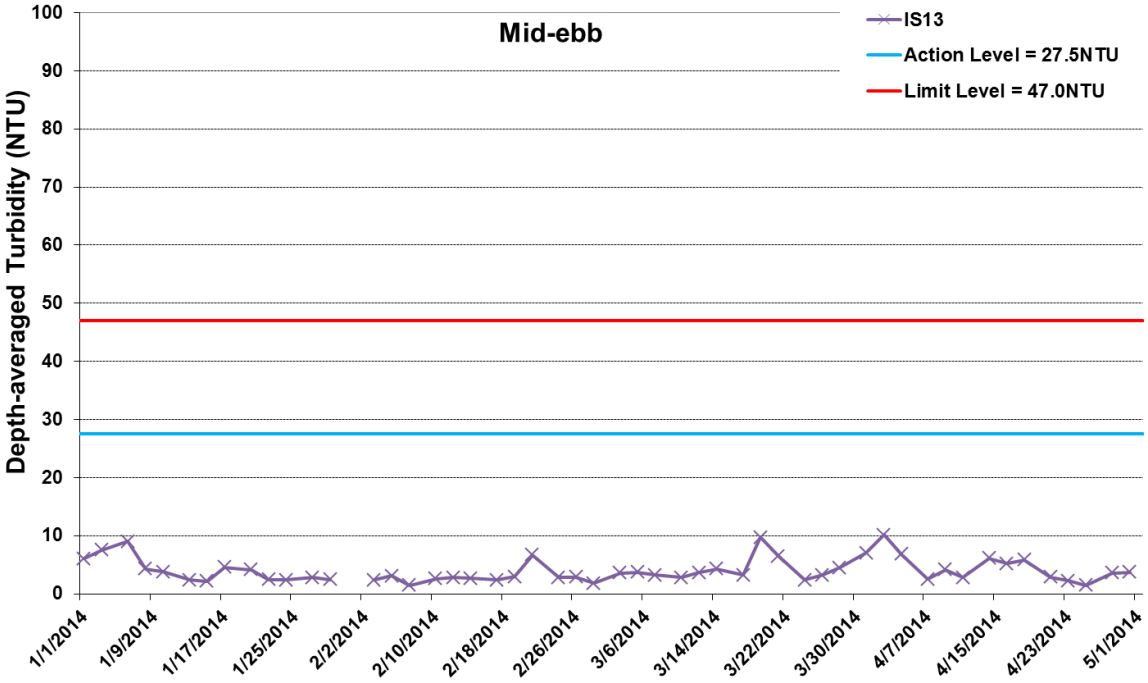


Figure I28 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



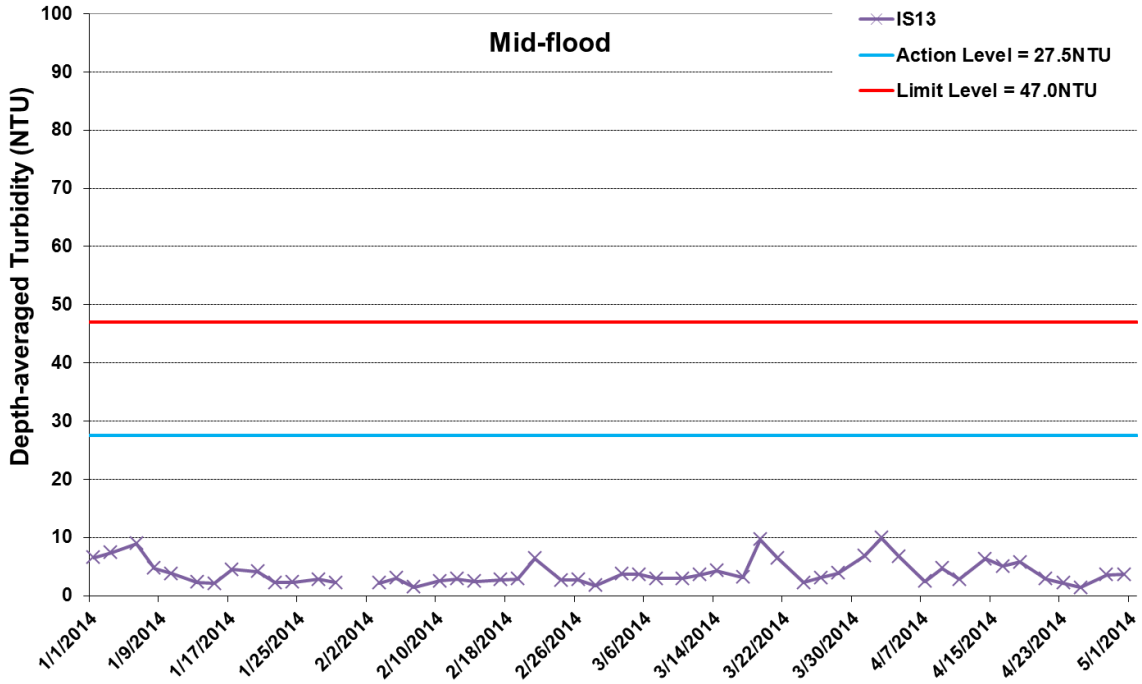
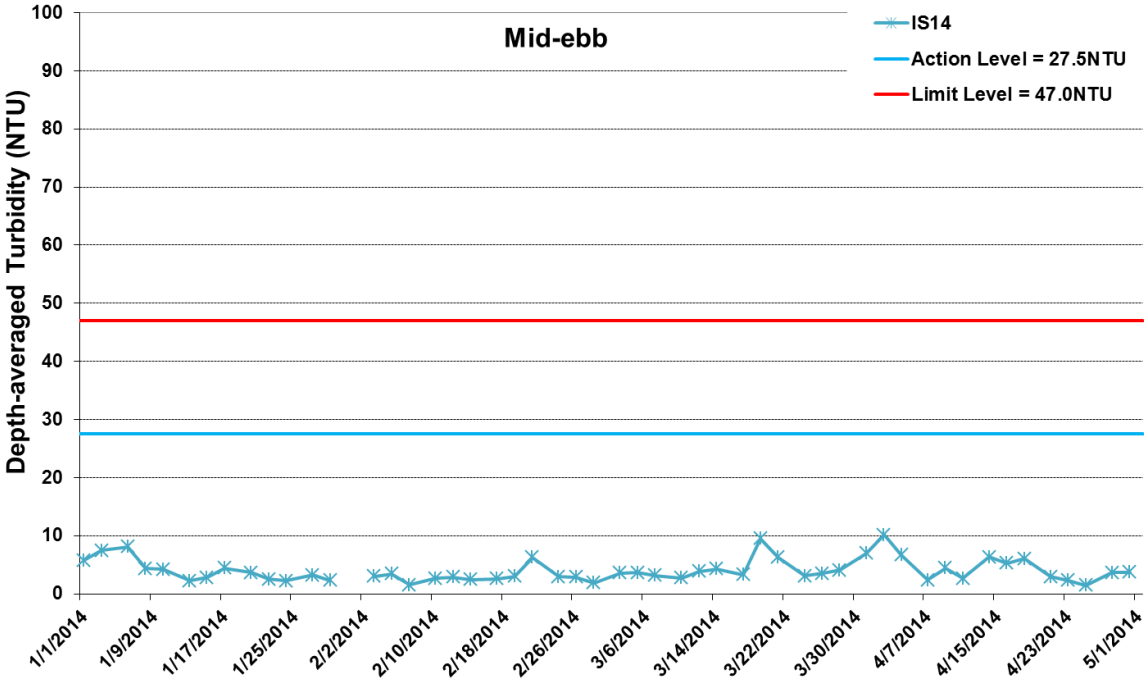


Figure I29 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



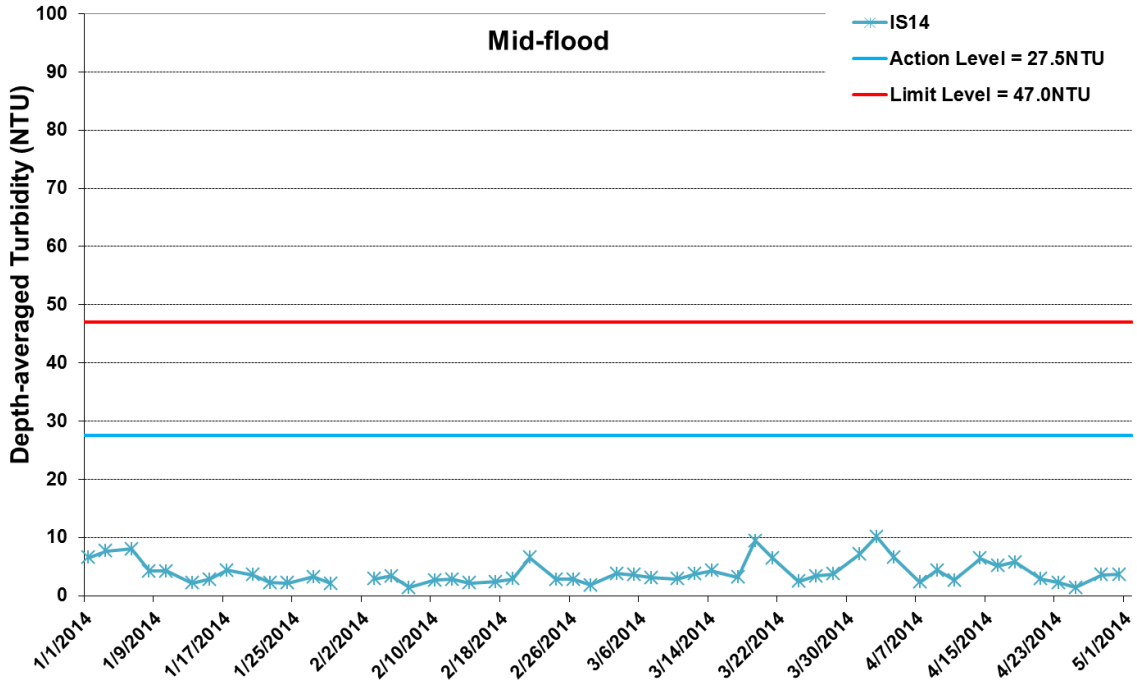
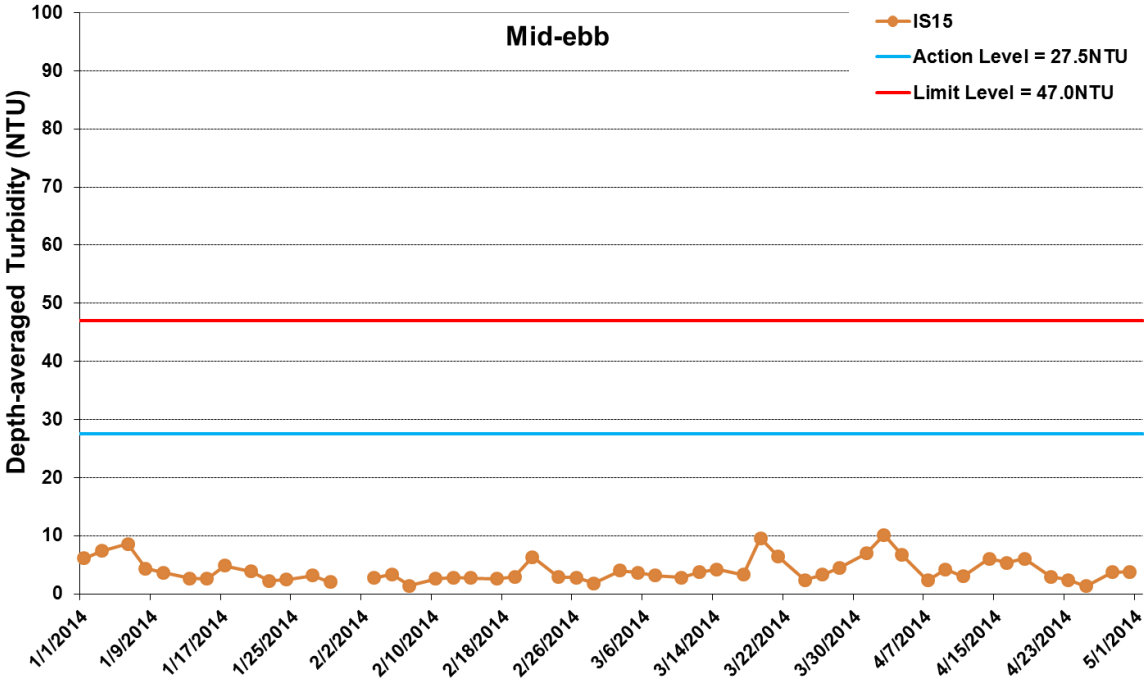


Figure I30 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



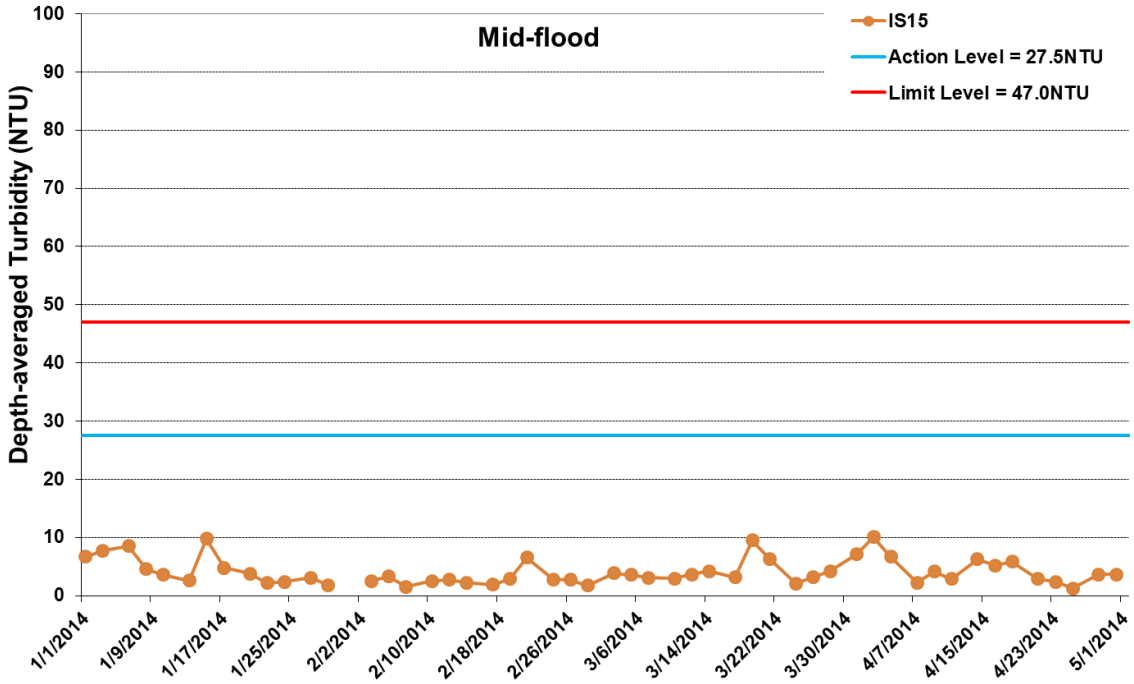
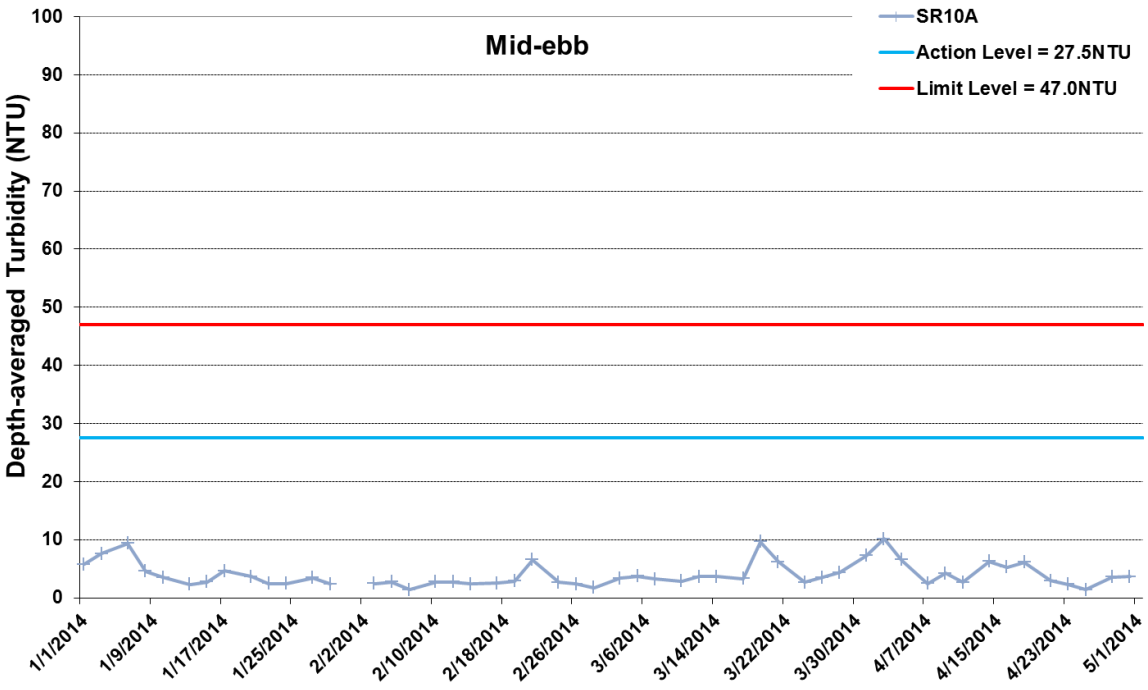


Figure I31 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



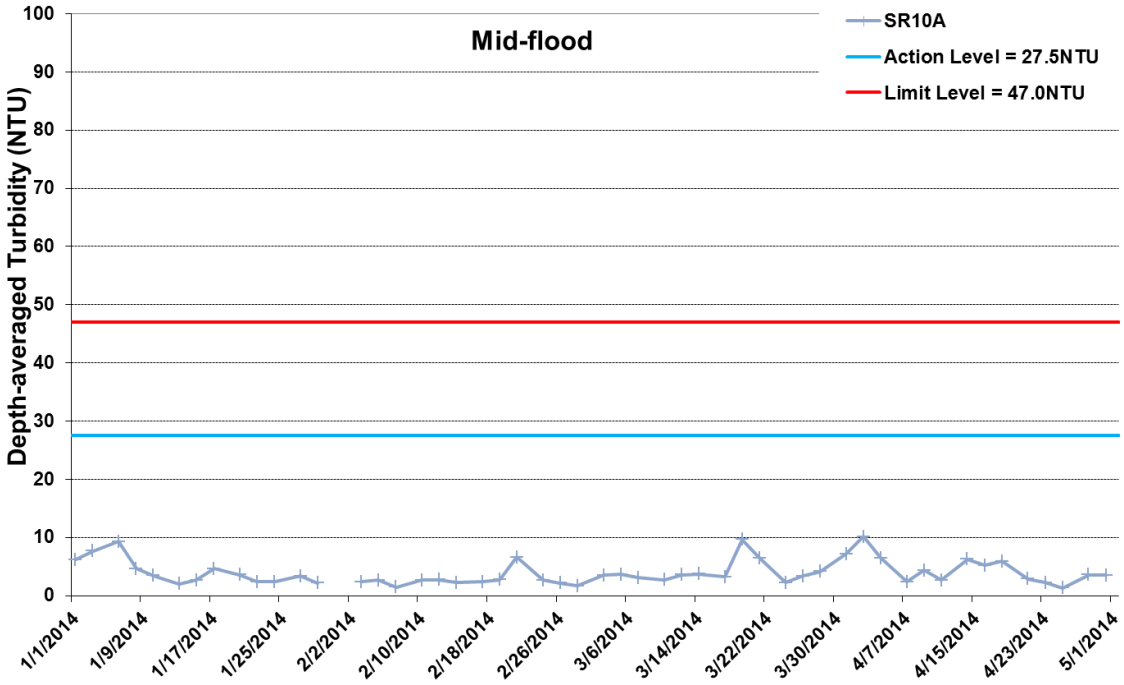
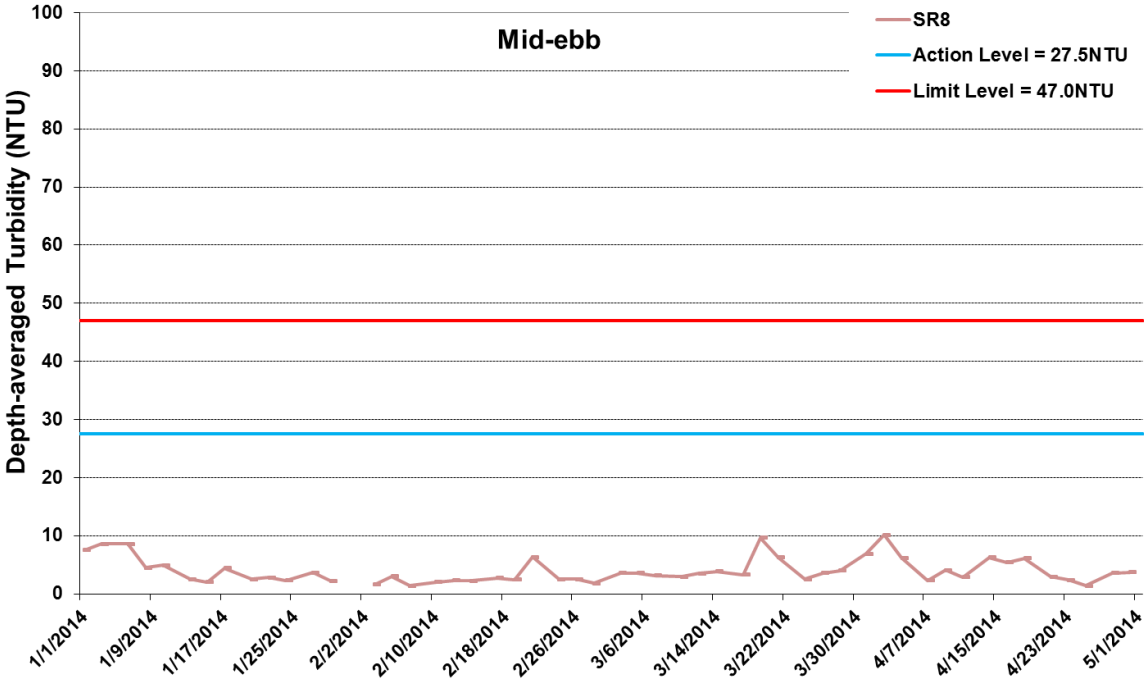


Figure I32 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



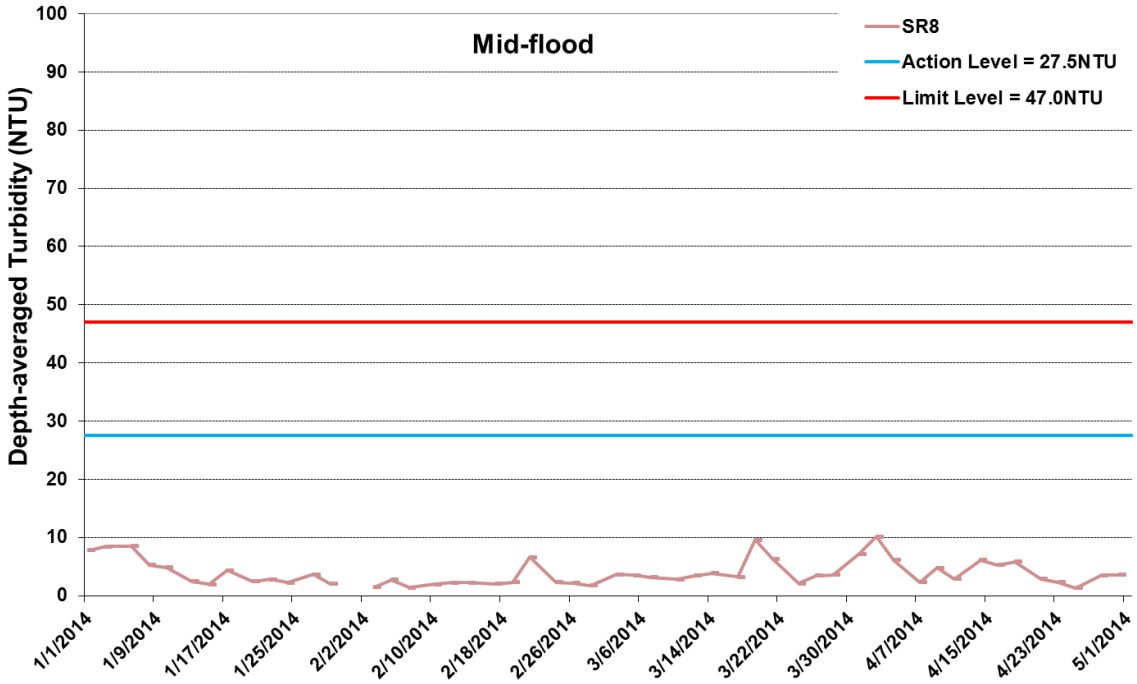
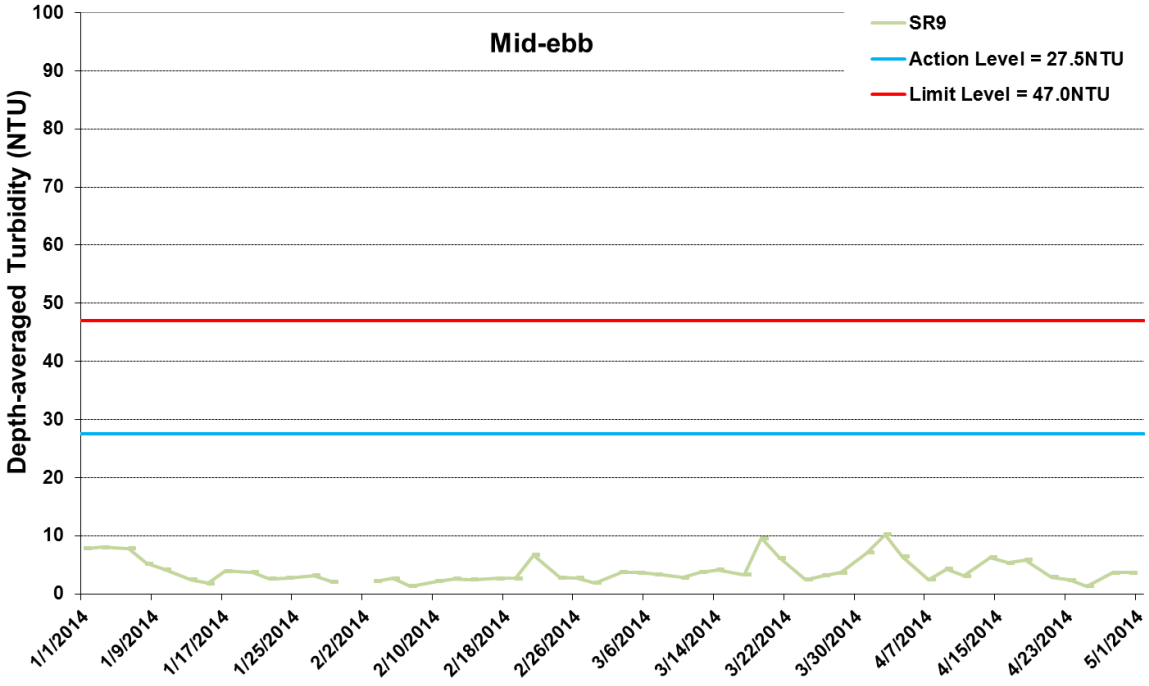


Figure I33 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



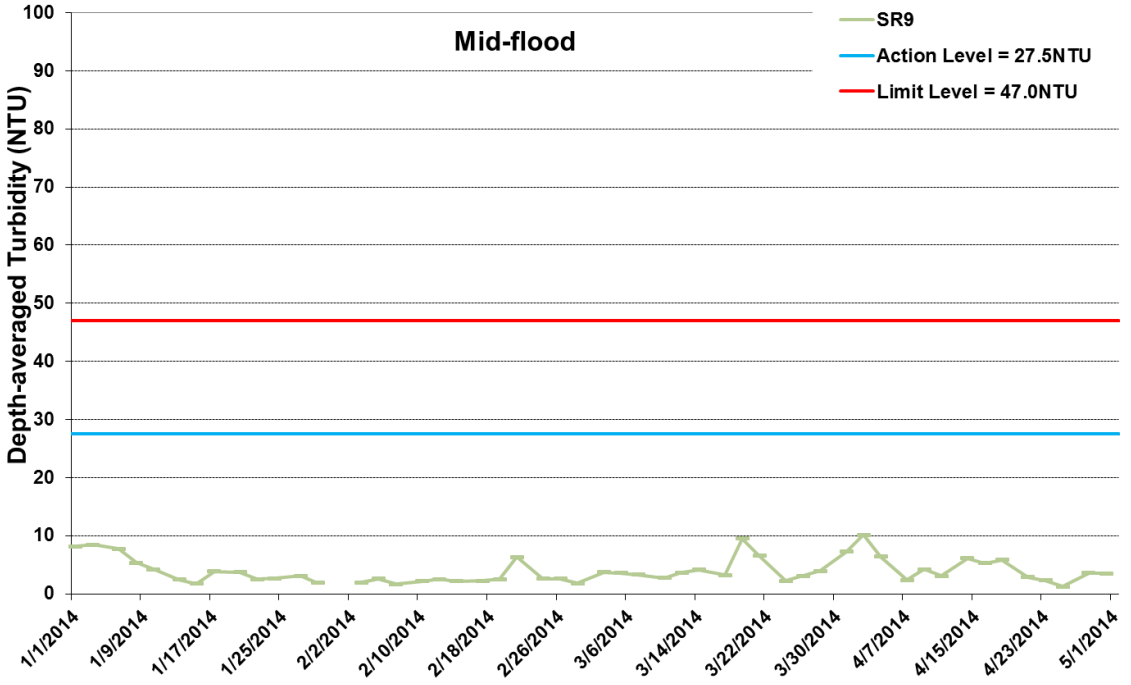
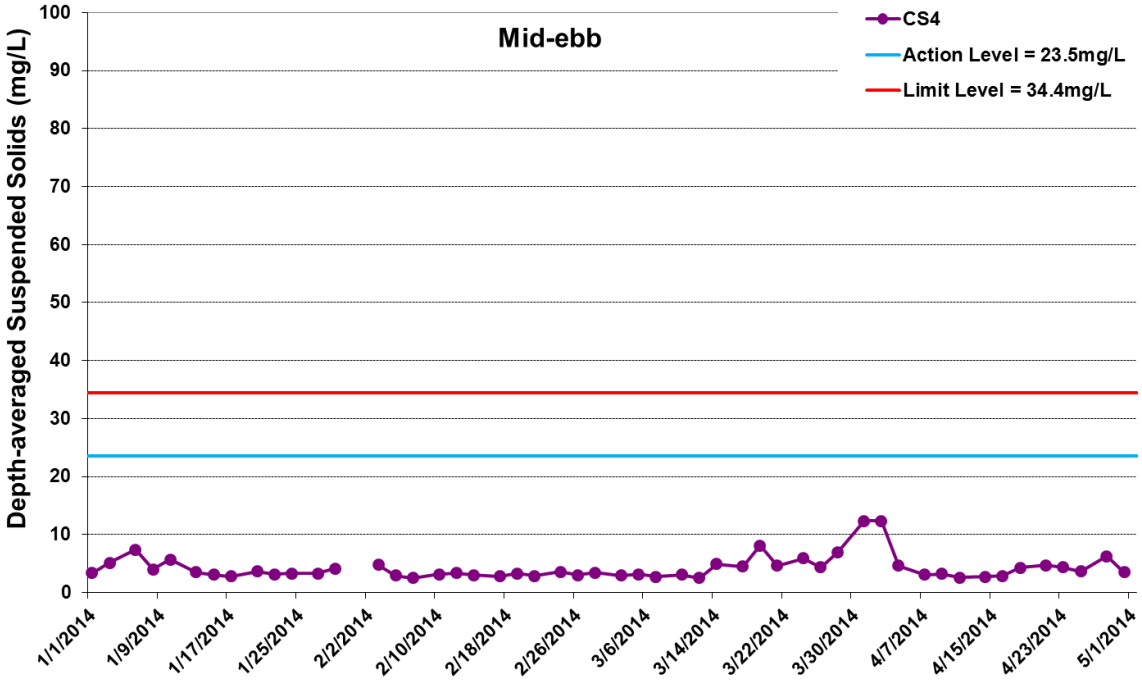


Figure I34 Impact Monitoring – Mean Depth-averaged Level of Turbidity (NTU) between 1 January 2014 and 30 April 2014 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



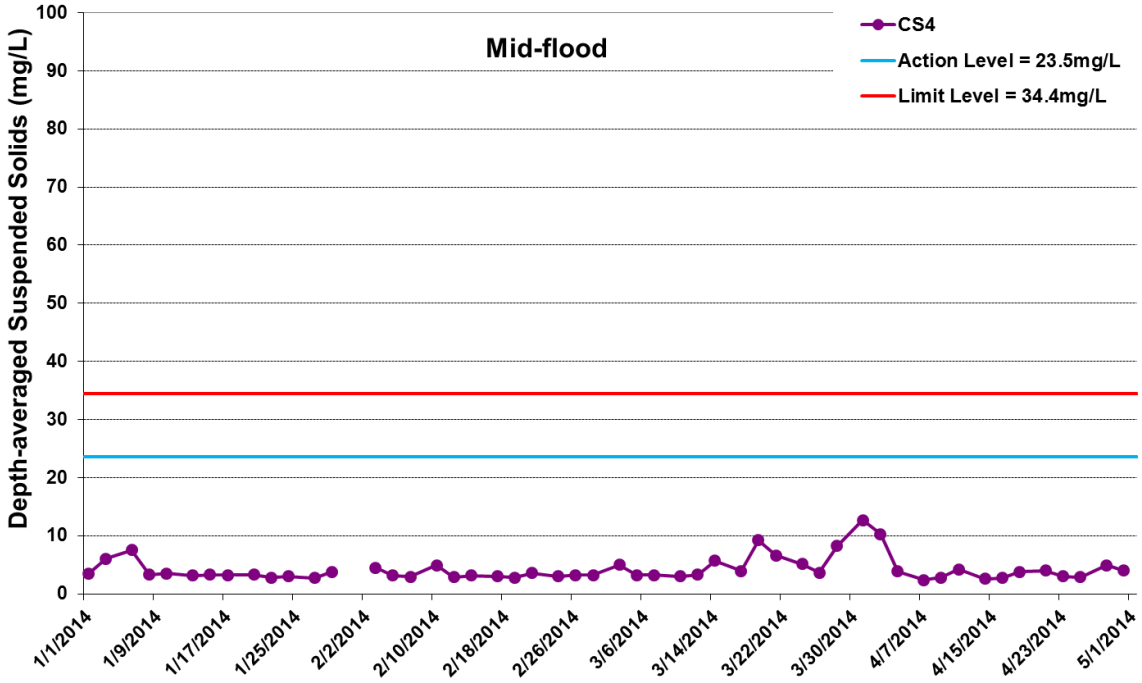
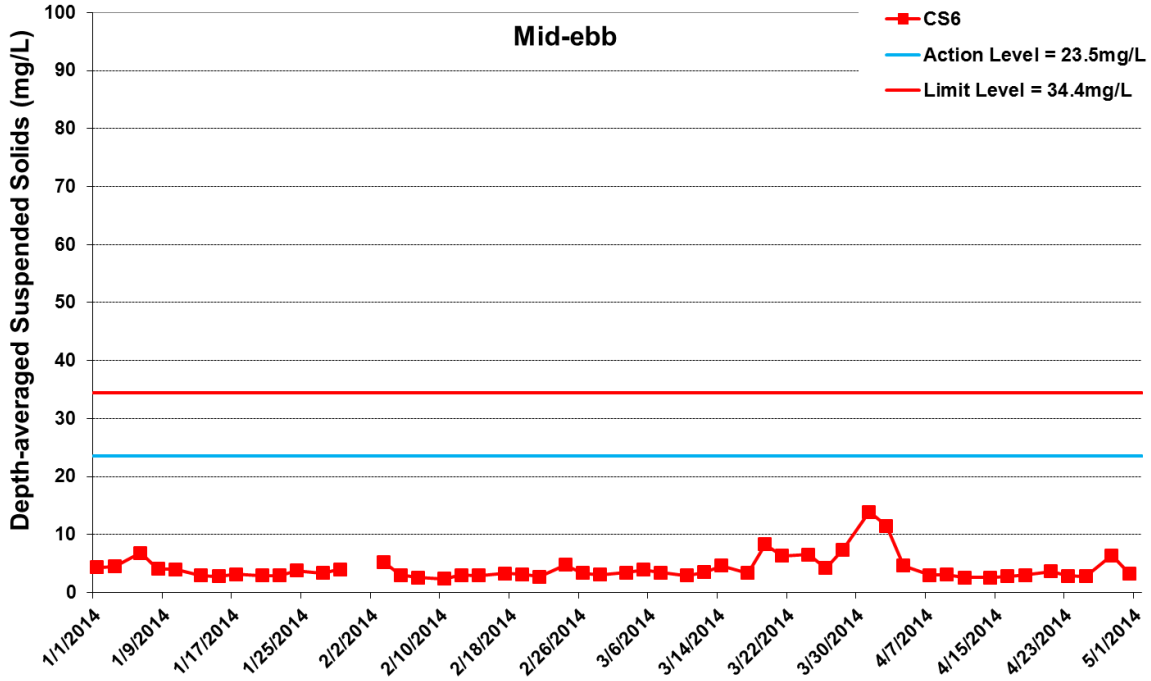


Figure I35 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at CS4. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



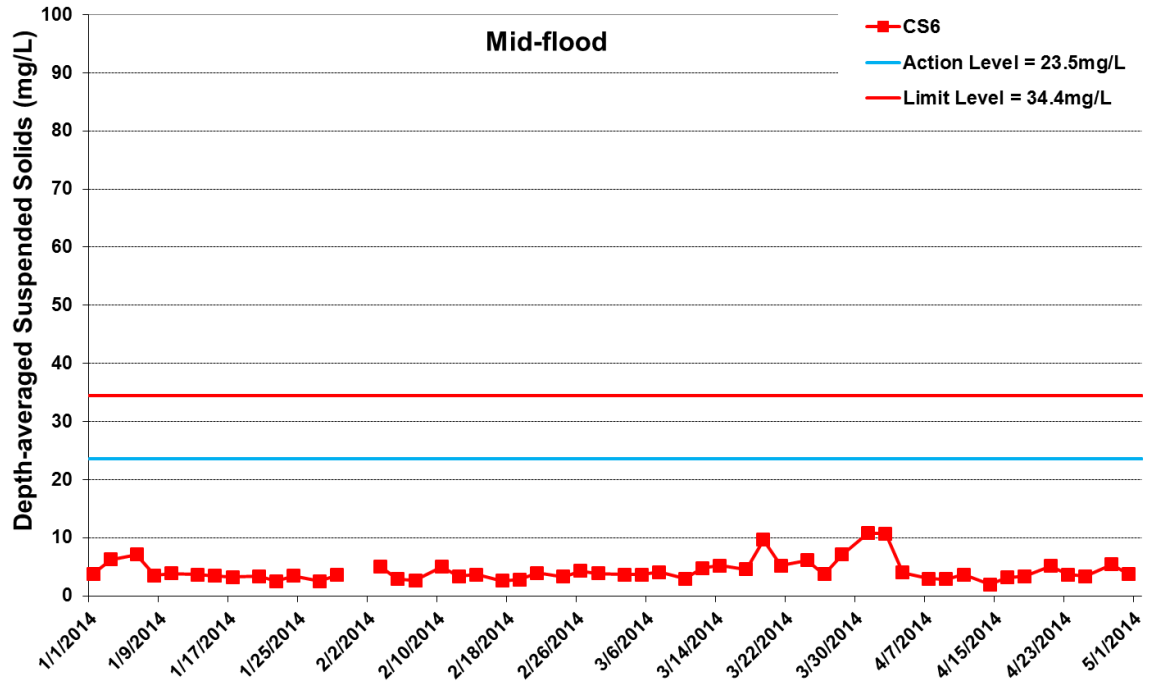
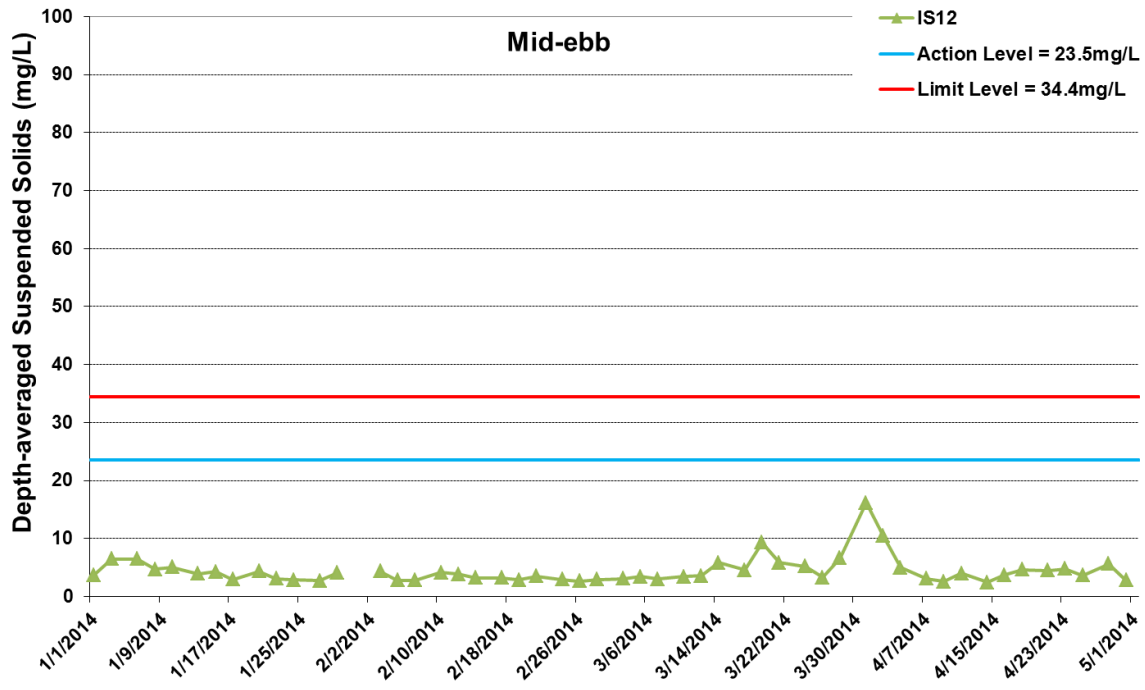


Figure I36 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at CS6. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



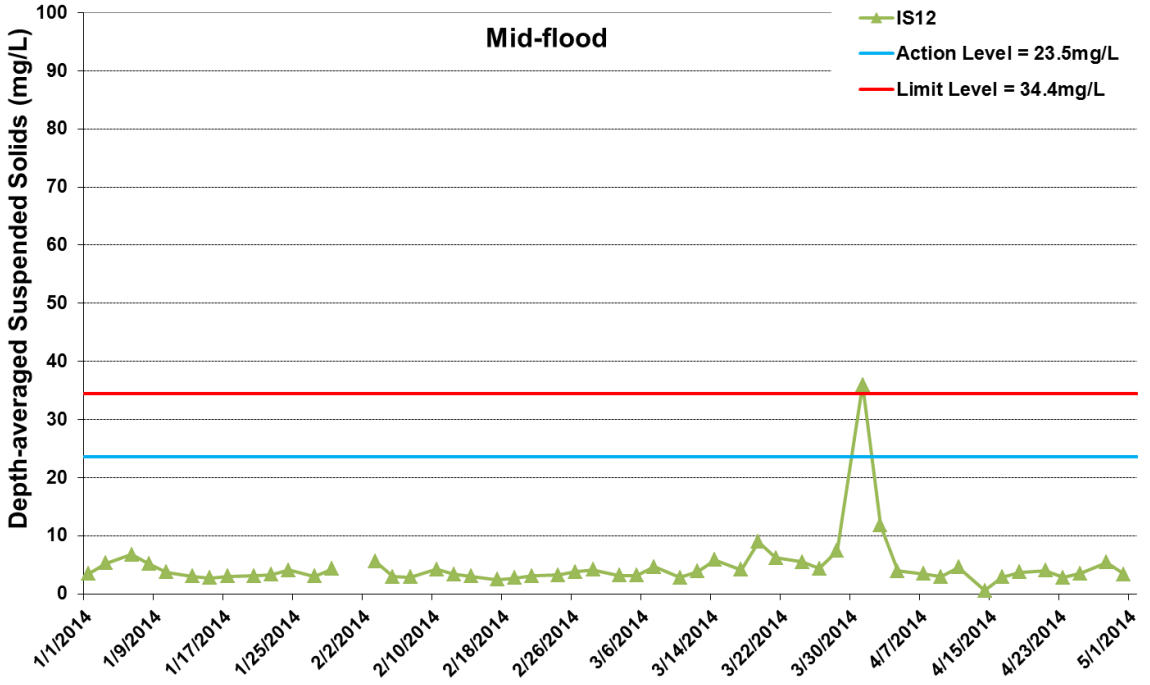
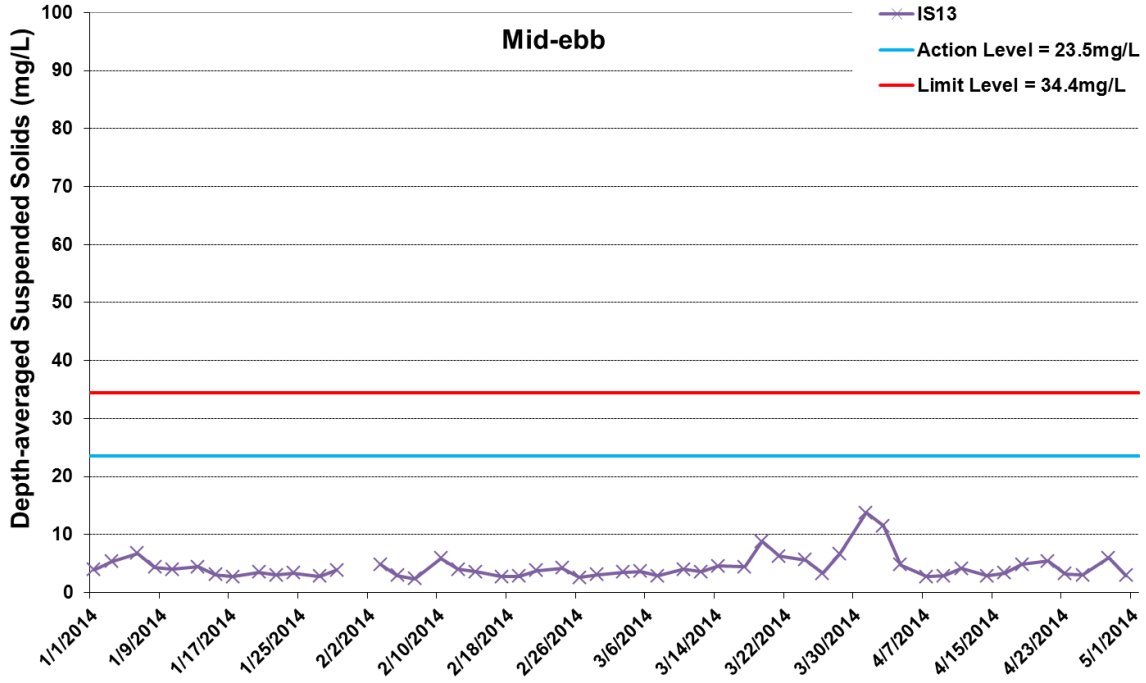


Figure I37 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at IS12. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



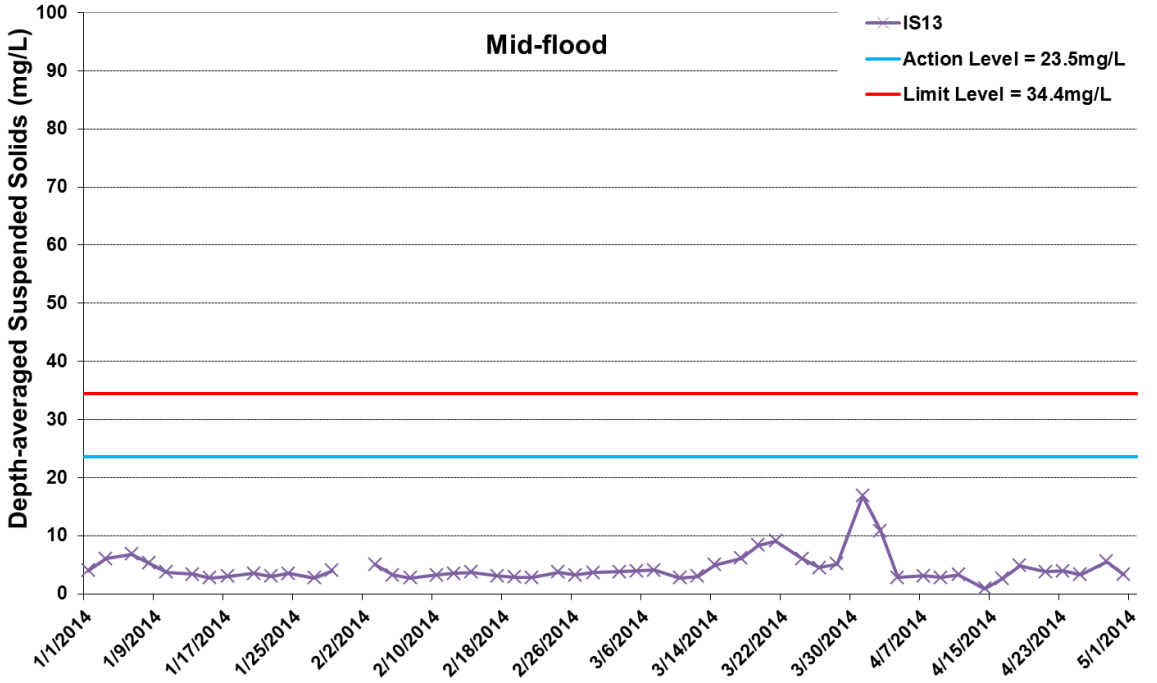
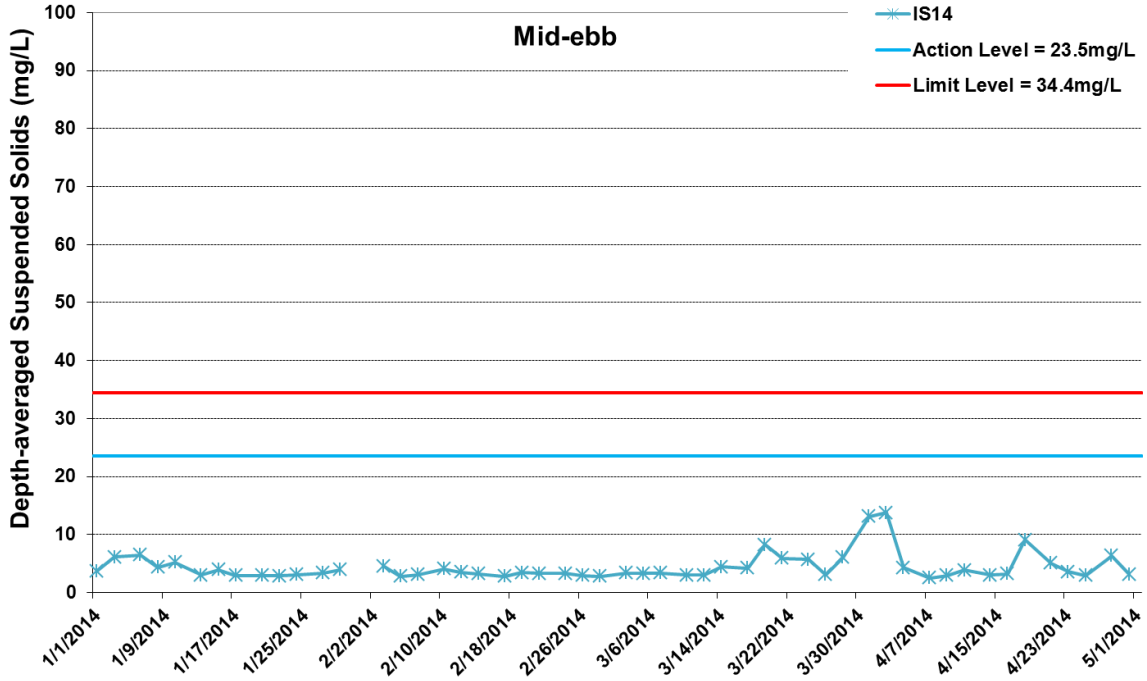


Figure I38 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at IS13. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



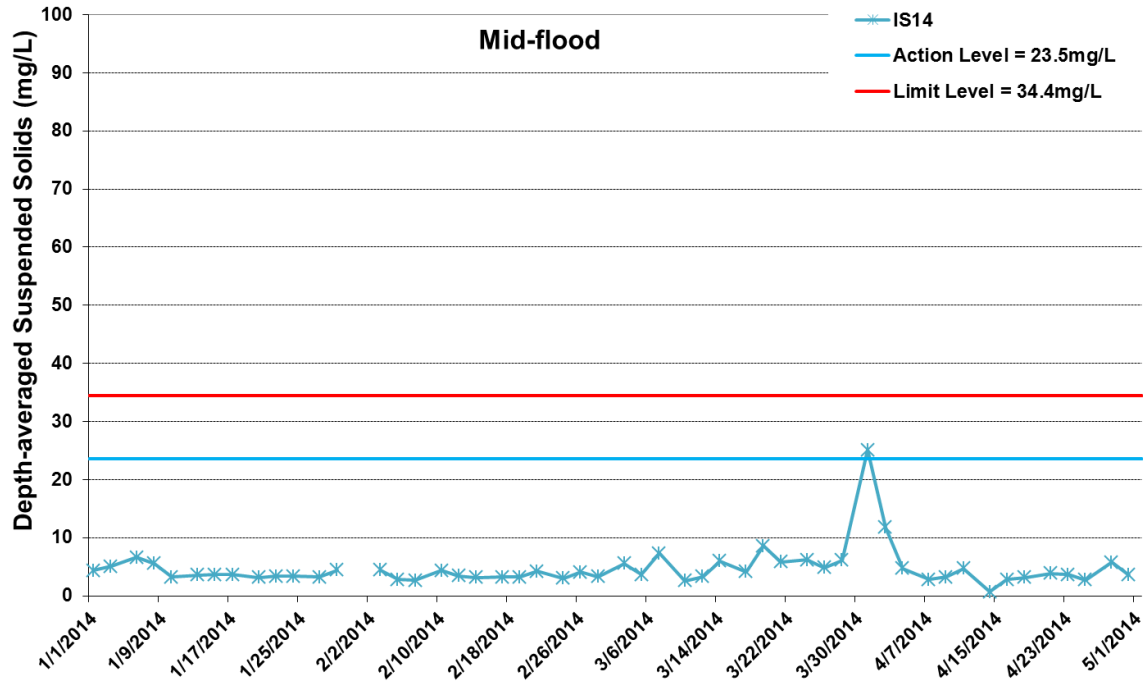
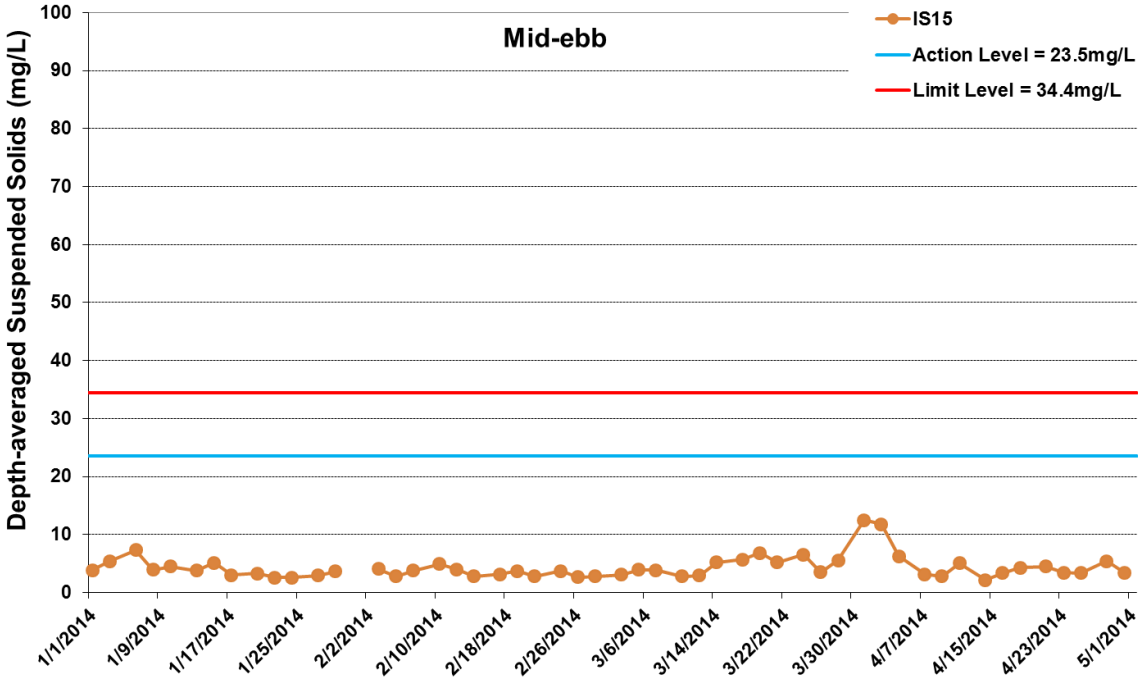


Figure I39 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at IS14. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



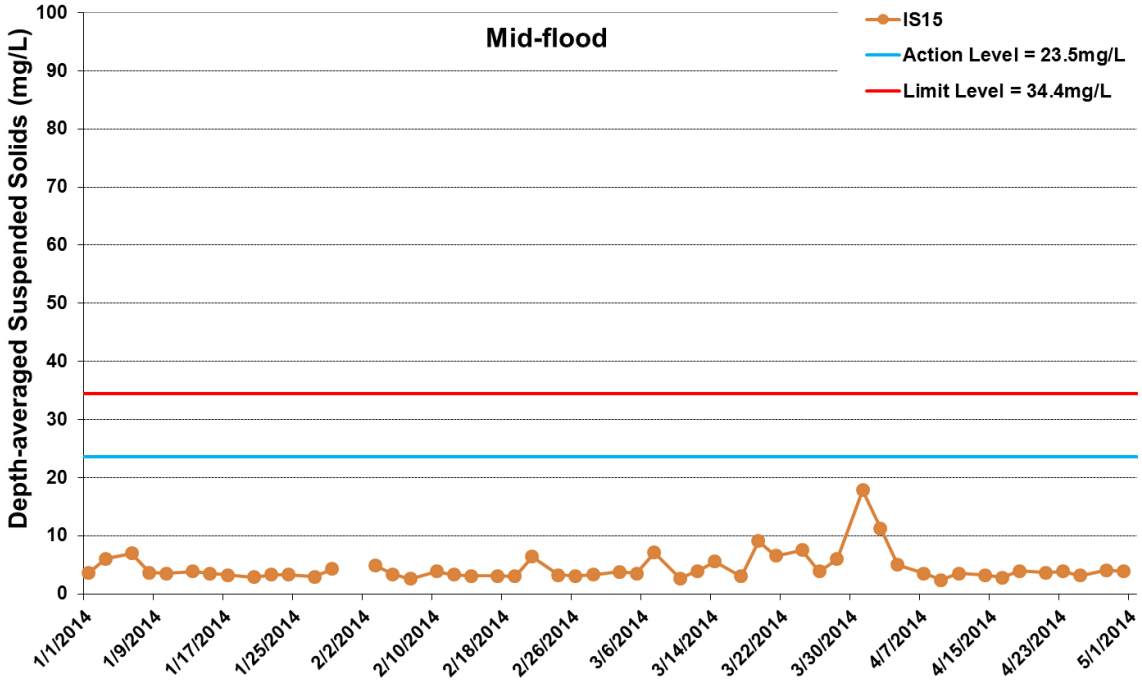
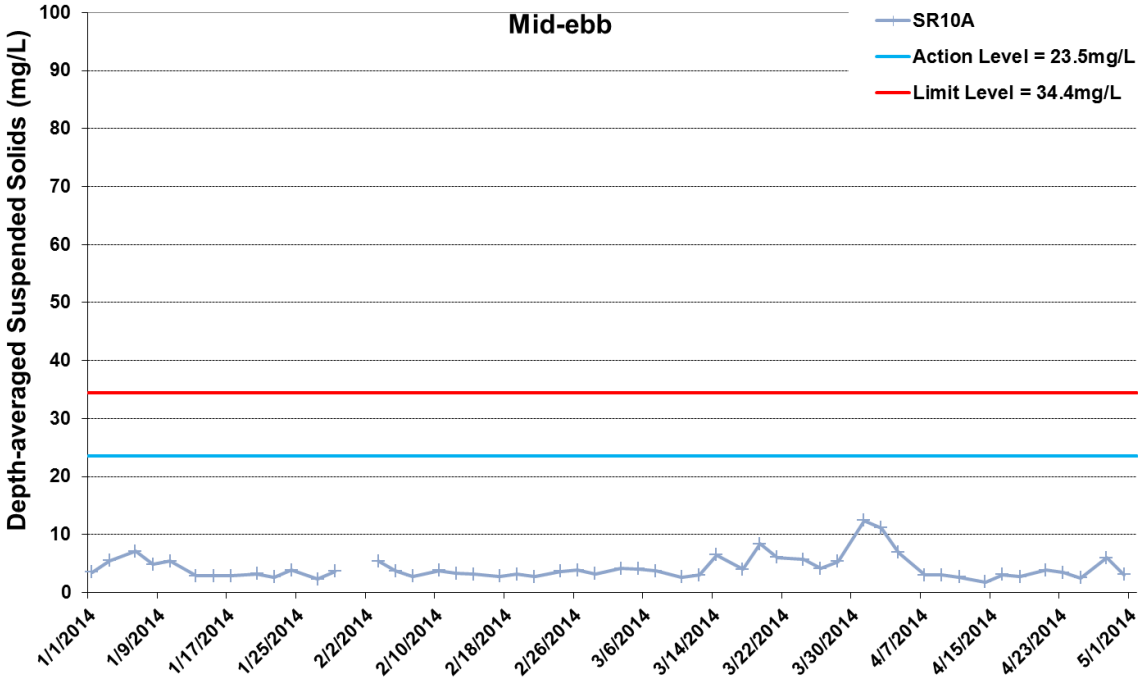


Figure I40 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at IS15. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



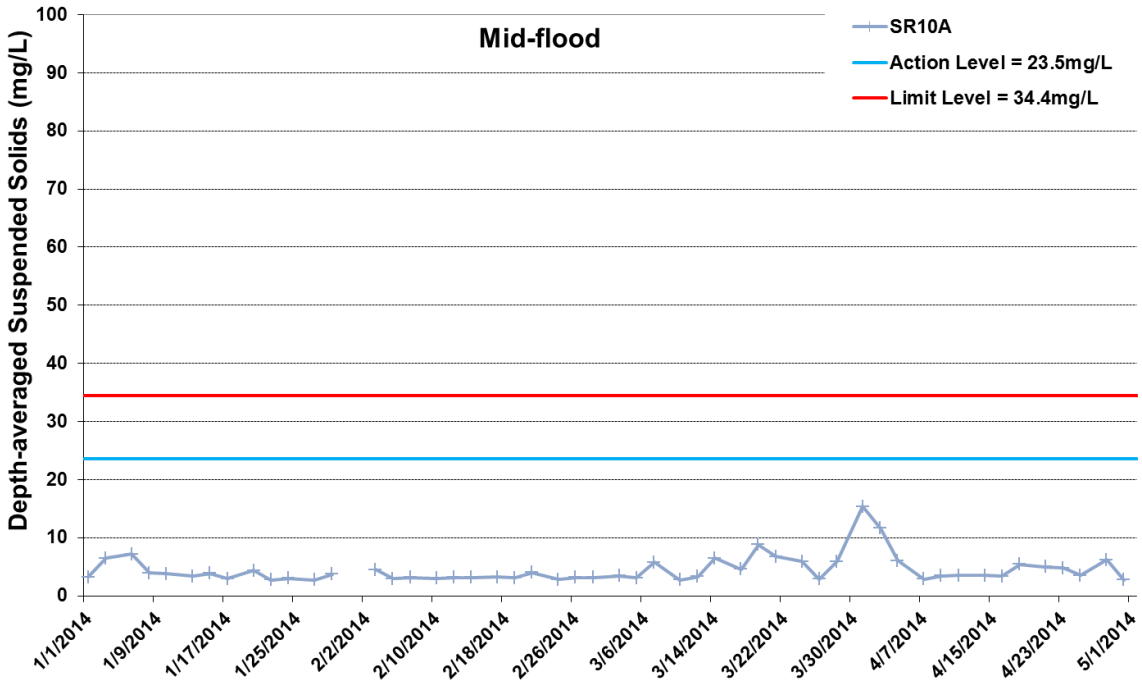
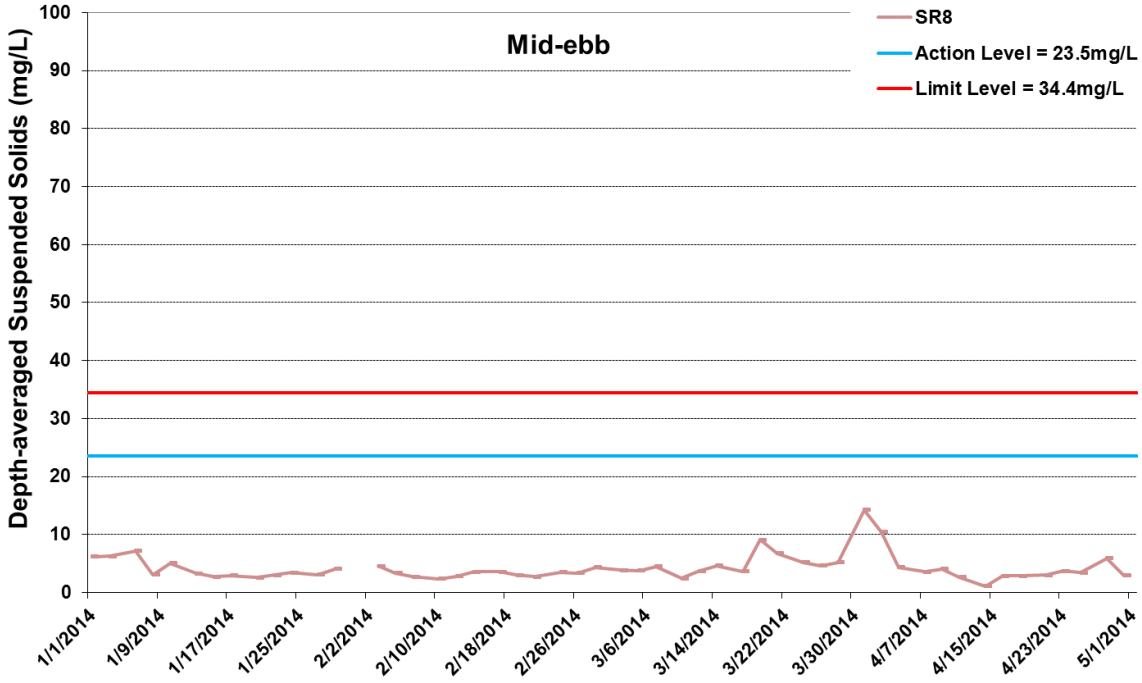


Figure I41 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at SR10A. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



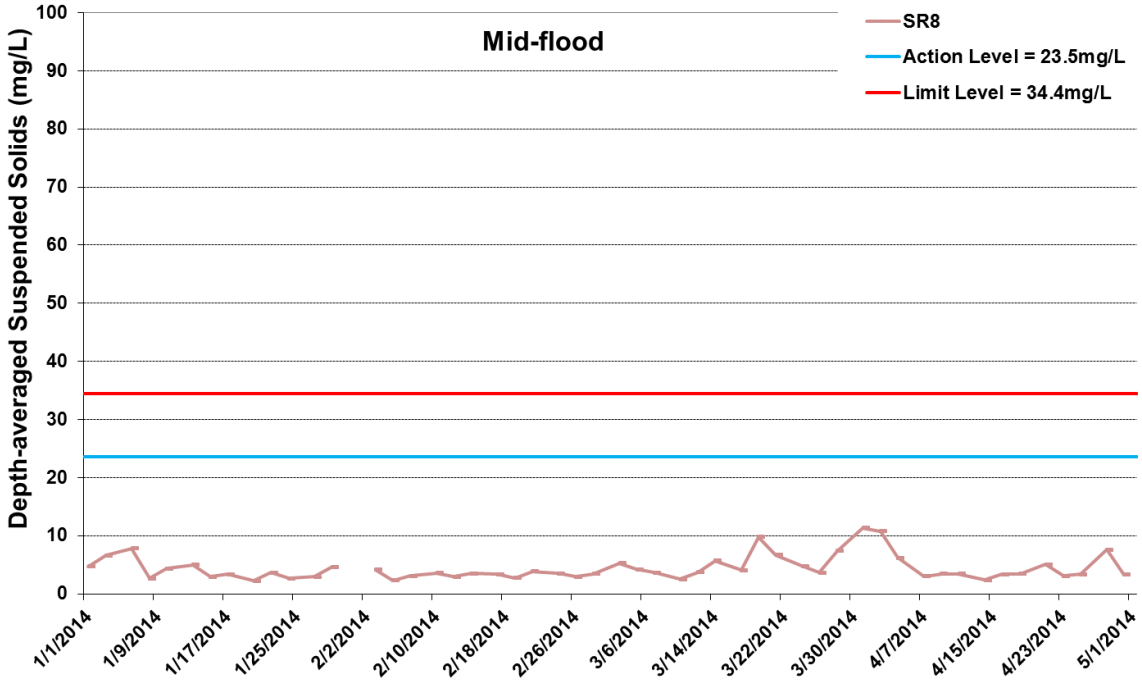
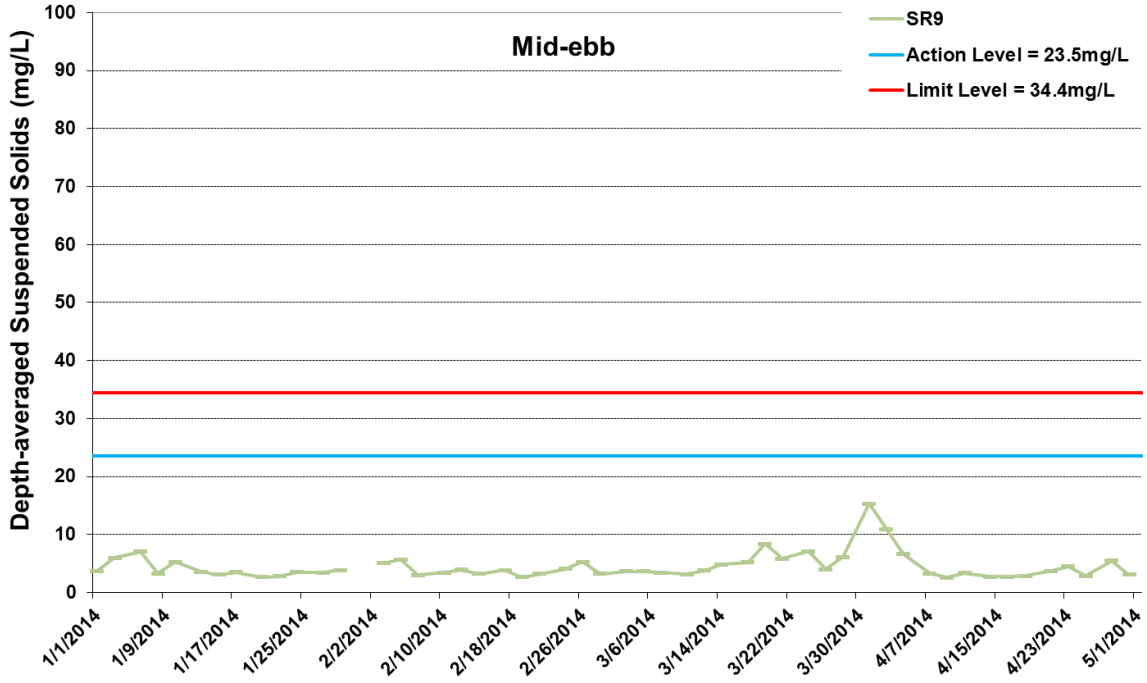


Figure I42 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at SR8. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls



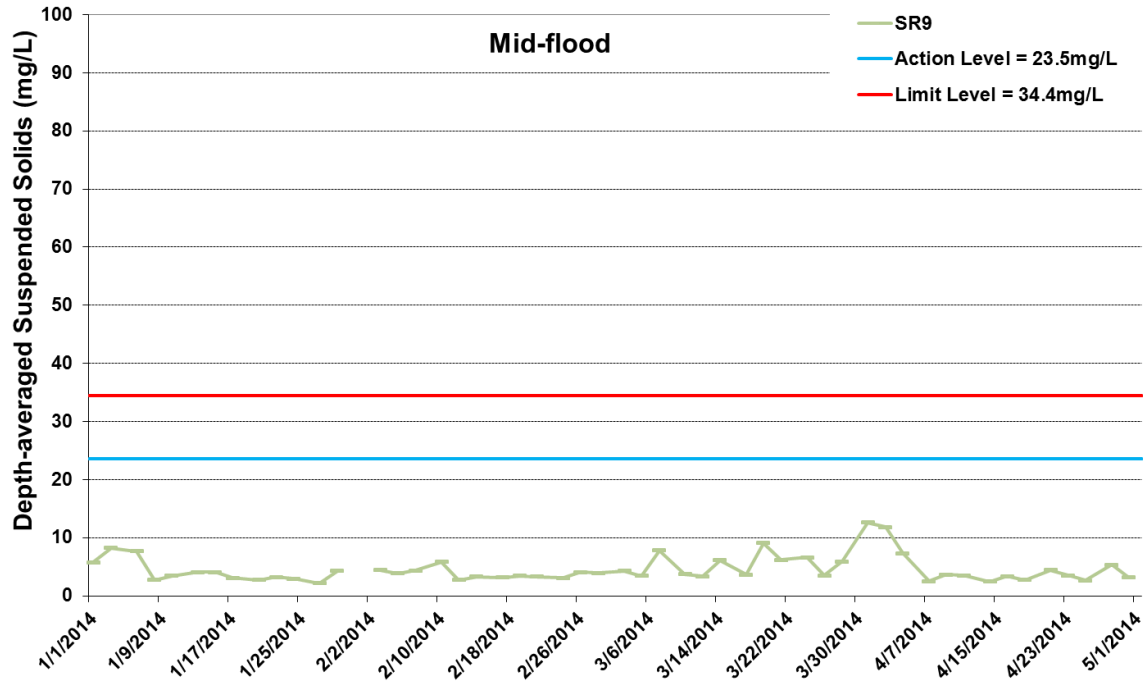


Figure I43 Impact Monitoring – Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 January 2014 and 30 April 2014 at SR9. The weather conditions during the monitoring period varied mostly from sunny to cloudy. Major marine construction activities included: Dredging (1/1/2014 – 4/30/2014, except 1/31/2014); Construction of Temporary Seawalls (1/1/2013 – 4/30/2014); Sheet Piling (1/1/2014 – 4/30/2014); Filling (3/23/2014 – 4/30/2014).

Ref: 0212330_Impact-WQM_April2014_graphs_Rev a.xls

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Surface	1	1	1	10:20	20.2	7.79	22.4	6.12	10.09	10
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Surface	1	1	2	10:20	20	7.78	22.1	6.09	10.06	8.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Middle	11.7	2	1	10:20	20	7.8	23.2	6.24	9.92	10.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Middle	11.7	2	2	10:20	20.1	7.8	23.1	6.29	9.94	11.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Bottom	21.3	3	1	10:20	20	7.79	23.1	6.31	10.04	11.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS4	Bottom	21.3	3	2	10:20	20	7.8	23.1	6.29	10.05	10.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Surface	1	1	1	08:20	20.3	7.79	22	6.32	10.11	10
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Surface	1	1	2	08:20	20.1	7.8	22.3	6.3	10.14	10.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Middle	6.9	2	1	08:20	20.2	7.82	23.1	6.45	10.02	10.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Middle	6.9	2	2	08:20	20.1	7.82	23	6.5	10.05	12
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Bottom	12.7	3	1	08:20	20.1	7.81	23.2	6.41	9.98	10.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	CS6	Bottom	12.7	3	2	08:20	20.1	7.8	23.1	6.39	9.99	10.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Surface	1	1	1	09:52	20.2	7.82	22.4	6.13	9.98	10.5
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Surface	1	1	2	09:52	20.1	7.83	22.1	6.11	9.97	11.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Middle	7.7	2	1	09:52	20.1	7.81	23.1	6.32	9.88	10.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Middle	7.7	2	2	09:52	20.1	7.8	23.2	6.39	9.86	12.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Bottom	14.3	3	1	09:52	20	7.8	23.1	6.32	9.96	11.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS12	Bottom	14.3	3	2	09:52	20.1	7.82	23	6.3	9.92	13.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Surface	1	1	1	09:39	20.2	7.81	22.3	6.14	10.14	10.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Surface	1	1	2	09:39	20.1	7.8	22.1	6.21	10.17	10.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Middle	6.1	2	1	09:39	20.1	7.78	23.2	6.22	9.89	10
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Middle	6.1	2	2	09:39	20.1	7.79	23.4	6.23	9.87	11.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Bottom	11.2	3	1	09:39	20.1	7.79	23.3	6.13	9.69	12.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS13	Bottom	11.2	3	2	09:39	20	7.79	23.2	6.15	9.72	10.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Surface	1	1	1	10:05	20.2	7.81	22.4	6.21	10.21	11.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Surface	1	1	2	10:05	20.1	7.82	22.1	6.26	10.23	11.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Middle	8.4	2	1	10:05	20	7.83	23.2	6.51	10.06	11.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Middle	8.4	2	2	10:05	20.1	7.82	23.1	6.49	10.05	11.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Bottom	15.8	3	1	10:05	20	7.83	23.1	6.27	10.09	11.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS14	Bottom	15.8	3	2	10:05	20	7.83	23.2	6.3	10.14	13.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Surface	1	1	1	09:26	20.3	7.79	22.1	6.12	10.1	10.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Surface	1	1	2	09:26	20.5	7.8	22.3	6.17	10.09	10.5
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Middle	6.4	2	1	09:26	20.6	7.82	23	6.19	10.01	12.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Middle	6.4	2	2	09:26	20.5	7.81	22.9	6.24	10.04	12
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Bottom	11.7	3	1	09:26	20.4	7.81	23.2	6.25	10.08	11.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	IS15	Bottom	11.7	3	2	09:26	20.3	7.81	23.1	6.29	10.07	10.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Surface	1	1	1	08:55	20.3	7.79	22.3	6.07	10.13	9.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Surface	1	1	2	08:55	20.2	7.8	22.4	6.04	10.1	9.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Middle		2	1	08:55						
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Middle		2	2	08:55						
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Bottom	4.7	3	1	08:55	20	7.81	23.1	6.27	10.09	11.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR8	Bottom	4.7	3	2	08:55	20.1	7.8	22.9	6.23	10.08	12.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Surface	1	1	1	09:11	20.1	7.82	22.3	6.17	10.17	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Surface	1	1	2	09:11	20.2	7.83	22.4	6.2	10.19	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Middle		2	1	09:11						
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Middle		2	2	09:11						
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Bottom	4.8	3	1	09:11	20.3	7.81	22.9	6.31	10.09	12.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR9	Bottom	4.8	3	2	09:11	20.2	7.82	23.2	6.28	10.13	13
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Surface	1	1	1	08:40	20.2	7.82	22.1	6.14	10.17	10.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Surface	1	1	2	08:40	20.1	7.81	22.3	6.1	10.16	10.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Middle	7.5	2	1	08:40	20.2	7.81	23.2	6.23	10.12	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Middle	7.5	2	2	08:40	20.3	7.79	23.1	6.26	10.11	12
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Bottom	14	3	1	08:40	20.1	7.81	23.3	6.31	10.07	12
TMCLKL	HY/2012/08	2014-04-02	Mid-Flood	Rainly	Small Wave	SR10A	Bottom	14	3	2	08:40	19.9	7.81	23.2	6.27	10.09	13.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Surface	1	1	1	12:55	20.3	7.83	22.4	6.02	10.12	11.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Surface	1	1	2	12:55	20.4	7.82	22.5	6.04	10.15	10.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Middle	11.5	2	1	12:55	20.1	7.81	23.2	6.18	10.09	13.8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Middle	11.5	2	2	12:55	20.2	7.82	23.1	6.15	10.08	12.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Bottom	21.9	3	1	12:55	20.2	7.81	23.4	6.22	10.1	12.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS4	Bottom	21.9	3	2	12:55	20.2	7.81	23.3	6.25	10.11	12.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Surface	1	1	1	16:05	20.3	7.83	22.4	6.21	10.17	10.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Surface	1	1	2	16:05	20.2	7.82	22.5	6.19	10.18	10.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Middle	6.7	2	1	16:05	20.2	7.82	23.2	6.31	10.12	11.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Middle	6.7	2	2	16:05	20.2	7.81	23.1	6.27	10.11	11.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Bottom	12.3	3	1	16:05	20.1	7.81	23.2	6.32	10.14	11.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	CS6	Bottom	12.3	3	2	16:05	20.2	7.81	23.3	6.29	10.11	11.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Surface	1	1	1	13:40	20.1	7.83	22.3	6.06	10.02	11.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Surface	1	1	2	13:40	20.2	7.82	22.4	6.03	10.03	10.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Middle	7.3	2	1	13:40	20.1	7.81	23.2	6.22	9.91	10.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Middle	7.3	2	2	13:40	20.1	7.82	23.1	6.17	9.88	10.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Bottom	13.5	3	1	13:40	20.1	7.79	23.4	6.24	9.98	10.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS12	Bottom	13.5	3	2	13:40	20	7.81	23.3	6.28	10.06	10.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Surface	1	1	1	14:05	20.3	7.79	22.4	6.03	10.19	11.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Surface	1	1	2	14:05	20.2	7.81	22.3	6.07	10.21	11.5
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Middle	5.8	2	1	14:05	20.2	7.83	23.3	6.13	10.13	11.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Middle	5.8	2	2	14:05	20.2	7.81	23.3	6.12	10.1	10.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Bottom	10.6	3	1	14:05	20.1	7.81	23.4	6.09	10.14	12.1
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS13	Bottom	10.6	3	2	14:05	20	7.82	23.3	6.08	10.17	11.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Surface	1	1	1	13:17	20.4	7.84	22.5	6.14	10.17	12.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Surface	1	1	2	13:17	20.6	7.81	22.4	6.11	10.18	13.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Middle	8.2	2	1	13:17	20.3	7.81	23.3	6.31	10.1	14.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Middle	8.2	2	2	13:17	20.2	7.82	23.1	6.37	10.07	13.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Bottom	15.3	3	1	13:17	20.2	7.82	23.3	6.21	10.13	15.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS14	Bottom	15.3	3	2	13:17	20.1	7.82	23.4	6.18	10.11	13.3
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Surface	1	1	1	14:30	20.4	7.81	22.5	6.07	10.13	12
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Surface	1	1	2	14:30	20.3	7.82	22.6	6.1	10.15	11.5
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Middle	6.2	2	1	14:30	20.3	7.83	23.5	6.14	10.06	11.5
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Middle	6.2	2	2	14:30	20.3	7.82	23.4	6.17	10.09	11.7
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Bottom	11.3	3	1	14:30	20.2	7.82	23.5	6.19	10.12	12.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	IS15	Bottom	11.3	3	2	14:30	20.1	7.82	23.5	6.2	10.1	11.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Surface	1	1	1	15:17	20.2	7.81	22.5	6.16	10.19	10.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Surface	1	1	2	15:17	20.1	7.83	22.4	6.19	10.17	10.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Middle		2	1	15:17						
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Middle		2	2	15:17						
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Bottom	4.3	3	1	15:17	20	7.83	23.1	6.21	10.13	10.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR8	Bottom	4.3	3	2	15:17	20.1	7.82	23	6.25	10.14	10.2
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Surface	1	1	1	14:54	20.4	7.81	22.4	6.04	10.18	10.9
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Surface	1	1	2	14:54	20.5	7.8	22.7	6.01	10.21	10.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Middle		2	1	14:54						
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Middle		2	2	14:54						
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Bottom	4.6	3	1	14:54	20	7.82	23.3	6.16	10.14	11.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR9	Bottom	4.6	3	2	14:54	20.3	7.81	23.1	6.11	10.18	10.6
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Surface	1	1	1	15:40	20.2	7.82	22.4	6.17	10.17	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Surface	1	1	2	15:40	20.3	7.81	22.3	6.19	10.18	9.8
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Middle	7.4	2	1	15:40	20.2	7.79	23.2	6.74	10.14	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Middle	7.4	2	2	15:40	20.1	7.81	23.3	6.78	10.12	11
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Bottom	13.7	3	1	15:40	20.2	7.8	23.3	6.22	10.1	11.4
TMCLKL	HY/2012/08	2014-04-02	Mid-Ebb	Rainly	Small Wave	SR10A	Bottom	13.7	3	2	15:40	20.2	7.79	23.3	6.24	10.11	12.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	10:35	20.5	7.82	20.3	6.79	6.11	4.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	10:35	20.4	7.81	20.3	6.82	6.16	3.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11	2	1	10:35	20.4	7.84	21.2	6.62	6.54	4.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11	2	2	10:35	20.3	7.83	21.2	6.58	6.5	4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	1	10:35	20.3	7.84	21.4	6.54	6.62	3.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	2	10:35	20.3	7.84	21.4	6.57	6.56	3.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	07:45	20.4	7.79	20.1	6.72	6.98	3.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	07:45	20.4	7.8	20.1	6.75	6.94	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7.1	2	1	07:45	20.4	7.79	20.9	6.58	6.28	2.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7.1	2	2	07:45	20.4	7.79	20.9	6.54	6.25	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	13.2	3	1	07:45	20.3	7.8	21.3	6.34	6.18	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	13.2	3	2	07:45	20.3	7.8	21.3	6.3	6.15	4.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	09:51	20.5	7.83	20.2	6.82	5.94	3.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	09:51	20.4	7.83	20.2	6.85	5.89	4.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.4	2	1	09:51	20.4	7.83	21.2	6.67	6.49	3.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.4	2	2	09:51	20.4	7.83	21.2	6.64	6.41	4.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	09:51	20.4	7.84	21.3	6.5	6.67	3.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	09:51	20.3	7.84	21.2	6.54	6.62	3.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	09:32	20.5	7.82	20.2	6.68	6.77	2.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	09:32	20.5	7.82	20.2	6.64	6.7	2.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.1	2	1	09:32	20.4	7.83	21.1	6.51	6.82	2.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.1	2	2	09:32	20.4	7.83	21.1	6.48	6.77	2.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.2	3	1	09:32	20.3	7.83	21.3	6.44	6.71	3
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.2	3	2	09:32	20.4	7.83	21.3	6.47	6.8	3.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	10:10	20.5	7.83	20.3	6.85	6.27	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	10:10	20.5	7.83	20.2	6.81	6.22	3.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	1	10:10	20.4	7.84	21.1	6.62	6.9	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	2	10:10	20.4	7.84	21.1	6.59	6.85	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.6	3	1	10:10	20.3	7.84	21.3	6.48	6.79	5.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.6	3	2	10:10	20.3	7.84	21.3	6.44	6.76	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	09:12	20.5	7.82	20.2	6.79	6.8	4.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	09:12	20.4	7.81	20.1	6.75	6.86	4.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	1	09:12	20.4	7.82	21	6.42	6.39	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	2	09:12	20.4	7.82	21.1	6.45	6.32	4
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	1	09:12	20.4	7.82	21.2	6.38	6.78	5.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	2	09:12	20.3	7.83	21.2	6.34	6.72	5.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	08:43	20.4	7.8	20.2	6.83	5.97	5.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	08:43	20.4	7.81	20.1	6.87	5.92	6.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	08:43						
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	08:43						
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	1	08:43	20.3	7.81	21.3	6.44	6.29	6.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	2	08:43	20.3	7.81	21.3	6.48	6.26	6.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	08:58	20.4	7.81	20.2	6.75	6.12	5.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	08:58	20.4	7.81	20.2	6.78	6.07	6.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	08:58						
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	08:58						
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	08:58	20.3	7.82	21	6.53	6.64	8.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	08:58	20.3	7.81	21	6.5	6.59	9
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	08:15	20.4	7.8	20.2	6.67	6.32	7.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	08:15	20.4	7.8	20.1	6.69	6.36	6.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.3	2	1	08:15	20.4	7.8	21	6.49	6.62	5.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.3	2	2	08:15	20.4	7.81	21	6.47	6.6	6.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.6	3	1	08:15	20.4	7.81	21.3	6.52	6.44	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.6	3	2	08:15	20.4	7.81	21.3	6.55	6.4	5.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	14:15	20.6	7.88	20.4	6.7	6.17	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	14:15	20.5	7.87	20.4	6.73	6.22	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.3	2	1	14:15	20.3	7.9	21.3	6.53	6.6	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.3	2	2	14:15	20.4	7.89	21.2	6.49	6.56	5.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.6	3	1	14:15	20.3	7.85	21.4	6.45	6.68	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.6	3	2	14:15	20.2	7.86	21.5	6.48	6.62	3.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	17:27	20.4	7.85	20.1	6.63	7.04	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	17:27	20.5	7.86	20.2	6.66	7	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	1	17:27	20.5	7.85	20.9	6.49	6.34	4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	2	17:27	20.4	7.87	21	6.45	6.31	4.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.6	3	1	17:27	20.3	7.86	21.4	6.25	6.24	5.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.6	3	2	17:27	20.4	7.87	21.3	6.21	6.21	3.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	15:03	20.5	7.88	20.2	6.73	6	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	15:03	20.6	7.87	20.3	6.76	5.95	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.2	2	1	15:03	20.5	7.88	21.3	6.58	6.55	5
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.2	2	2	15:03	20.4	7.89	21.2	6.55	6.47	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.4	3	1	15:03	20.2	7.89	21.3	6.41	6.73	4.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.4	3	2	15:03	20.3	7.89	21.4	6.45	6.68	5.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	15:27	20.6	7.88	20.2	6.59	6.83	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	15:27	20.5	7.87	20.3	6.55	6.76	5.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	1	15:27	20.5	7.88	21.2	6.42	6.88	4.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	2	15:27	20.4	7.89	21.1	6.39	6.83	3.9
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	15:27	20.2	7.89	21.3	6.35	6.77	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	15:27	20.3	7.88	21.4	6.38	6.86	5.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	14:39	20.5	7.89	20.3	6.76	6.33	3.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	14:39	20.6	7.88	20.4	6.72	6.28	4.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	1	14:39	20.4	7.89	21.1	6.53	6.96	4.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	2	14:39	20.5	7.9	21.2	6.5	6.91	3
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	1	14:39	20.4	7.91	21.4	6.39	6.85	5.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	2	14:39	20.3	7.9	21.3	6.35	6.82	4.1
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	15:51	20.6	7.88	20.3	6.7	6.86	6.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	15:51	20.5	7.87	20.3	6.66	6.92	6.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.1	2	1	15:51	20.4	7.89	21.2	6.33	6.45	5.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.1	2	2	15:51	20.5	7.87	21.3	6.36	6.38	6.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.2	3	1	15:51	20.4	7.88	21.3	6.29	6.84	5.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.2	3	2	15:51	20.3	7.89	21.2	6.25	6.78	6.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	16:39	20.5	7.86	20.2	6.74	6.03	4.3
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	16:39	20.4	7.87	20.3	6.78	5.98	4.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	16:39						
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	16:39						
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	16:39	20.4	7.86	21.3	6.35	6.33	3.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	16:39	20.3	7.85	21.4	6.39	6.32	4.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	16:15	20.4	7.87	20.2	6.66	6.18	5
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	16:15	20.5	7.88	20.3	6.69	6.13	5.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	16:15						
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	16:15						
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	1	16:15	20.3	7.89	21.1	6.44	6.7	7.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	2	16:15	20.2	7.88	21	6.41	6.65	8.2
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	17:03	20.5	7.86	20.3	6.58	6.38	7.5
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	17:03	20.4	7.87	20.2	6.6	6.42	7.8
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	1	17:03	20.3	7.86	21.1	6.4	6.68	6.4
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	2	17:03	20.4	7.87	21	6.38	6.66	7.7
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	1	17:03	20.3	7.88	21.4	6.43	6.5	5.6
TMCLKL	HY/2012/08	2014-04-04	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	2	17:03	20.2	7.87	21.4	6.46	6.46	6.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	11:39	20.3	7.82	23.7	6.62	2.11	2.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	11:39	20.3	7.81	23.7	6.58	2.07	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.4	2	1	11:39	20.1	7.83	25.2	6.4	2.67	2.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.4	2	2	11:39	20.2	7.82	25.2	6.44	2.61	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	21.8	3	1	11:39	20	7.83	25.4	6.31	2.77	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	21.8	3	2	11:39	20	7.83	25.3	6.34	2.82	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	08:50	20.2	7.79	23.6	6.72	2.47	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	08:50	20.1	7.78	23.6	6.76	2.42	3.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.4	2	1	08:50	20	7.78	24.9	6.52	1.96	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.4	2	2	08:50	20	7.77	24.9	6.48	1.92	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	1	08:50	20	7.78	25.3	6.38	2.41	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	2	08:50	20	7.75	25.3	6.35	2.47	4.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	10:47	20.3	7.82	23.6	6.57	1.89	4.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	10:47	20.3	7.82	23.6	6.54	1.95	4.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.3	2	1	10:47	20.2	7.83	25.2	6.43	2.46	3.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.3	2	2	10:47	20.2	7.83	25.1	6.47	2.41	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	13.6	3	1	10:47	20.1	7.83	25.3	6.39	2.51	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	13.6	3	2	10:47	20.1	7.83	25.2	6.36	2.49	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	10:28	20.3	7.81	23.7	6.7	2.44	4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	10:28	20.3	7.81	23.7	6.74	2.4	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Middle	8.7	2	1	10:28	20.2	7.81	25.1	6.53	2.34	2.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Middle	8.7	2	2	10:28	20.1	7.81	25	6.5	2.3	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	16.4	3	1	10:28	20	7.82	25.2	6.5	2.69	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	16.4	3	2	10:28	20	7.82	25.1	6.48	2.65	2.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	11:06	20.2	7.82	23.7	6.61	2.04	3.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	11:06	20.1	7.82	23.7	6.58	2.08	3.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.1	2	1	11:06	20.1	7.83	25.1	6.37	2.53	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.1	2	2	11:06	20.1	7.82	25.2	6.34	2.47	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.2	3	1	11:06	20	7.82	25.3	6.26	2.44	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.2	3	2	11:06	20.1	7.83	25.2	6.22	2.4	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	10:10	20.3	7.81	23.7	6.72	2.12	3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	10:10	20.3	7.81	23.7	6.79	2.15	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	1	10:10	20.1	7.82	25.1	6.67	2.27	4.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	2	10:10	20.1	7.82	25.1	6.64	2.3	3.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	1	10:10	20	7.82	25.2	6.49	2.36	3.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	2	10:10	20.1	7.81	25.1	6.46	2.32	3.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	09:46	20.2	7.81	23.7	6.71	1.98	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	09:46	20.2	7.81	23.6	6.75	1.92	3.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	09:46						
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	09:46						
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	1	09:46	20.1	7.8	25.2	6.4	2.55	3.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	2	09:46	20.1	7.8	25.2	6.44	2.59	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	09:58	20.3	7.81	23.7	6.68	2.21	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	09:58	20.3	7.82	23.7	6.65	2.27	2.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	09:58						
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	09:58						
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	09:58	20.1	7.82	25.1	6.58	2.53	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	09:58	20.1	7.82	25.1	6.54	2.47	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	09:19	20.2	7.8	23.6	6.69	2.14	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	09:19	20.2	7.81	23.5	6.66	2.1	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.9	2	1	09:19	20.1	7.79	25	6.41	2.54	3.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.9	2	2	09:19	20.1	7.78	25	6.38	2.5	2.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.8	3	1	09:19	20.1	7.8	25.1	6.37	2.39	3.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.8	3	2	09:19	20.1	7.81	25.1	6.34	2.37	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	16:30	20.4	7.87	23.7	6.53	2.17	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	16:30	20.3	7.86	23.8	6.49	2.13	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.1	2	1	16:30	20.2	7.88	25.3	6.31	2.73	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.1	2	2	16:30	20.1	7.87	25.2	6.35	2.67	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.2	3	1	16:30	20.1	7.88	25.4	6.22	2.83	4.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.2	3	2	16:30	20	7.89	25.5	6.25	2.88	3.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	19:58	20.1	7.85	23.6	6.63	2.53	3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	19:58	20.2	7.84	23.7	6.67	2.48	2.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	1	19:58	20.2	7.84	25	6.43	2.02	3.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	2	19:58	20.1	7.83	24.9	6.39	1.98	2.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	1	19:58	20.1	7.84	25.3	6.29	2.47	4.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	2	19:58	20	7.85	25.4	6.26	2.53	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	17:22	20.3	7.88	23.6	6.48	1.95	4.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	17:22	20.4	7.89	23.7	6.45	2.01	3.6
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.1	2	1	17:22	20.2	7.89	25.2	6.34	2.52	2.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.1	2	2	17:22	20.3	7.88	25.3	6.38	2.47	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.2	3	1	17:22	20.2	7.89	25.4	6.3	2.57	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.2	3	2	17:22	20.1	7.9	25.4	6.37	2.55	2.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	17:48	20.3	7.87	23.8	6.61	2.5	3.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	17:48	20.2	7.88	23.7	6.65	2.46	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	8.4	2	1	17:48	20.2	7.87	25.2	6.44	2.4	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	8.4	2	2	17:48	20.1	7.88	25.1	6.41	2.36	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	15.8	3	1	17:48	20.1	7.89	25.2	6.43	2.75	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	15.8	3	2	17:48	20	7.88	25.3	6.4	2.71	2.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	16:56	20.2	7.88	23.8	6.52	2.1	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	16:56	20.3	7.87	23.7	6.49	2.14	2.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	7.9	2	1	16:56	20.2	7.89	25.2	6.28	2.59	2.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	7.9	2	2	16:56	20.1	7.88	25.3	6.25	2.53	2.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	14.8	3	1	16:56	20.2	7.88	25.4	6.17	2.5	3.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	14.8	3	2	16:56	20.1	7.89	25.3	6.13	2.46	2.1
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	18:14	20.3	7.87	23.8	6.63	2.18	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	18:14	20.4	7.86	23.8	6.6	2.21	2.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.8	2	1	18:14	20.1	7.88	25.2	6.58	2.33	2.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.8	2	2	18:14	20.2	7.87	25.1	6.55	2.36	4.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.6	3	1	18:14	20.2	7.88	25.3	6.4	2.42	3.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.6	3	2	18:14	20.1	7.89	25.2	6.37	2.38	3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	19:06	20.3	7.87	23.7	6.62	2.04	3.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	19:06	20.2	7.86	23.8	6.66	1.98	2.9
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	19:06						
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	19:06						
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	19:06	20.2	7.86	25.2	6.31	2.61	4.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	19:06	20.1	7.86	25.3	6.35	2.65	3.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	18:40	20.4	7.87	23.7	6.59	2.27	3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	18:40	20.3	7.88	23.8	6.56	2.33	2.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	18:40						
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	18:40						
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	1	18:40	20.1	7.88	25.2	6.49	2.59	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	2	18:40	20.2	7.89	25.1	6.45	2.53	5.2
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	19:32	20.3	7.86	23.7	6.6	2.2	3.7
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	19:32	20.2	7.87	23.6	6.57	2.16	3.3
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	1	19:32	20.1	7.85	25	6.32	2.6	2.4
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	2	19:32	20.2	7.84	25.1	6.29	2.56	3.5
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	1	19:32	20.2	7.86	25.1	6.28	2.45	2.8
TMCLKL	HY/2012/08	2014-04-07	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	2	19:32	20.1	7.87	25.2	6.25	2.43	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	15:10	20.5	7.92	20.6	6.37	4.03	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	15:10	20.5	7.93	20.6	6.39	4.01	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Middle	11.3	2	1	15:10	20.4	7.96	20.7	6.26	4.18	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Middle	11.3	2	2	15:10	20.4	7.94	20.8	6.2	4.12	3.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.6	3	1	15:10	20.3	7.97	20.8	6.44	3.99	2.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.6	3	2	15:10	20.3	7.98	20.9	6.41	3.91	3.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	12:08	20.5	7.99	20.6	6.49	4.47	3.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	12:08	20.5	7.98	20.7	6.44	4.44	3.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Middle	7	2	1	12:08	20.3	7.89	20.8	6.37	4.74	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Middle	7	2	2	12:08	20.4	7.9	20.8	6.31	4.78	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Bottom	13	3	1	12:08	20.3	7.94	20.8	6.14	4.93	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	CS6	Bottom	13	3	2	12:08	20.3	7.95	20.9	6.18	4.99	2.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	14:26	20.5	7.9	20.6	6.26	4.01	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	14:26	20.4	7.98	20.7	6.28	4.09	2.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Middle	7.4	2	1	14:26	20.3	7.91	20.7	6.19	3.99	3.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Middle	7.4	2	2	14:26	20.4	7.92	20.8	6.16	3.94	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.8	3	1	14:26	20.2	7.94	20.8	6.08	4.15	4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.8	3	2	14:26	20.3	7.95	20.9	6	4.11	2.5

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	14:03	20.5	7.96	20.6	6.2	4.37	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	14:03	20.5	7.95	20.6	6.24	4.31	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Middle	8.9	2	1	14:03	20.4	7.98	20.8	6.06	4.74	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Middle	8.9	2	2	14:03	20.4	7.99	20.8	6.09	4.78	3.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Bottom	16.8	3	1	14:03	20.3	8.01	20.8	5.95	5.03	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS13	Bottom	16.8	3	2	14:03	20.2	8	20.9	5.93	5.09	2.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	14:49	20.5	7.94	20.6	6.19	4.27	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	14:49	20.5	7.93	20.6	6.2	4.29	4.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	1	14:49	20.4	7.98	20.7	6.02	4.4	3.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	2	14:49	20.3	7.99	20.7	6.08	4.3	4.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.4	3	1	14:49	20.3	7.95	20.8	5.95	4.37	2.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.4	3	2	14:49	20.3	7.96	20.8	5.97	4.32	2.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	13:40	20.4	7.98	20.7	6.42	4.1	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	13:40	20.5	7.99	20.6	6.48	4.14	2.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Middle	6.4	2	1	13:40	20.4	7.94	20.7	6.16	4.26	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Middle	6.4	2	2	13:40	20.4	7.93	20.8	6.1	4.29	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.8	3	1	13:40	20.3	7.96	20.8	6.04	4.09	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.8	3	2	13:40	20.3	7.97	20.8	6.01	4.04	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	12:54	20.4	7.96	20.7	6.45	4.99	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	12:54	20.4	7.9	20.6	6.38	4.94	4.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	12:54						
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	12:54						
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.8	3	1	12:54	20.3	7.94	20.9	6.19	4.57	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.8	3	2	12:54	20.3	7.95	20.9	6.14	4.53	3
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	13:17	20.5	7.96	20.7	6.57	4.06	3.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	13:17	20.5	7.97	20.6	6.51	4	4.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	13:17						
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	13:17						
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.6	3	1	13:17	20.3	7.96	20.8	6.14	4.34	3
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.6	3	2	13:17	20.3	7.97	20.8	6.18	4.31	3.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Surface	1	1	1	12:31	20.5	7.94	20.7	6.53	4.63	4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Surface	1	1	2	12:31	20.4	7.93	20.7	6.59	4.69	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Middle	8	2	1	12:31	20.4	7.96	20.8	6.26	4.27	3.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Middle	8	2	2	12:31	20.4	7.97	20.7	6.2	4.22	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Bottom	15	3	1	12:31	20.3	7.9	20.9	6.04	4.07	4.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Flood	Fine	Small Wave	SR10A	Bottom	15	3	2	12:31	20.3	7.91	20.9	6.01	4.01	3.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	09:08	20.5	7.97	20.7	6.3	4.46	3.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	09:08	20.5	7.99	20.7	6.34	4.45	2.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11	2	1	09:08	20.4	7.95	20.7	6.06	4.07	3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11	2	2	09:08	20.4	7.94	20.8	6.09	4.08	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21	3	1	09:08	20.3	7.96	20.9	5.92	4.26	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21	3	2	09:08	20.3	7.9	20.8	5.93	4.24	4.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	10:25	20.5	7.99	20.7	6.5	4.1	4.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	10:25	20.5	7.98	20.7	6.54	4.14	4.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	1	10:25	20.4	8.01	20.8	6.09	4.06	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	2	10:25	20.4	8	20.8	6.06	4	2.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.6	3	1	10:25	20.3	8	20.9	5.98	4.44	2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.6	3	2	10:25	20.3	7.99	20.8	5.92	4.41	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	09:28	20.5	7.92	20.7	6.59	4.1	2.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	09:28	20.5	7.91	20.7	6.54	4.16	2.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.1	2	1	09:28	20.4	7.94	20.8	6.45	4.69	3.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.1	2	2	09:28	20.3	7.96	20.8	6.41	4.66	2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.2	3	1	09:28	20.2	7.98	20.8	6	4.38	3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.2	3	2	09:28	20.3	7.99	20.8	6.03	4.3	2.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	09:38	20.5	7.91	20.7	6.26	3.75	2.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	09:38	20.5	7.92	20.6	6.24	3.73	3.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	8.4	2	1	09:38	20.4	7.95	20.8	6.06	4.35	2.7

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	8.4	2	2	09:38	20.4	7.96	20.8	6.04	4.34	3.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	15.8	3	1	09:38	20.3	7.98	20.8	5.95	4.37	2.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	15.8	3	2	09:38	20.3	7.97	20.9	5.93	4.3	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	09:18	20.4	7.9	20.7	6.27	4.22	3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	09:18	20.5	7.91	20.6	6.21	4.28	4.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	7.9	2	1	09:18	20.3	7.93	20.8	6.16	4.15	2.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	7.9	2	2	09:18	20.4	7.92	20.8	6.1	4.13	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	14.8	3	1	09:18	20.3	7.95	20.8	5.94	4.74	3.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	14.8	3	2	09:18	20.3	7.97	20.9	5.91	4.76	2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	09:48	20.5	7.95	20.7	6.47	3.89	2.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	09:48	20.5	7.96	20.7	6.41	3.86	2.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6	2	1	09:48	20.4	7.98	20.8	6.15	4.18	2.6
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6	2	2	09:48	20.3	7.99	20.8	6.13	4.1	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11	3	1	09:48	20.3	7.92	20.9	5.72	4.6	2.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11	3	2	09:48	20.3	7.93	20.9	5.71	4.68	4.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	10:08	20.5	7.95	20.7	6.22	3.76	3.4
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	10:08	20.4	7.94	20.6	6.23	3.7	3.7
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	10:08						
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	10:08						
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	1	10:08	20.3	7.91	20.7	6.01	4.34	4.9
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	2	10:08	20.3	7.9	20.7	6.07	4.31	4.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	09:58	20.4	7.89	20.7	6.39	4.08	2.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	09:58	20.5	7.9	20.7	6.36	4.04	2.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	09:58						
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	09:58						
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.4	3	1	09:58	20.3	7.94	20.8	5.98	4.49	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.4	3	2	09:58	20.3	7.95	20.9	5.94	4.47	2.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	10:18	20.5	7.97	20.7	6.32	3.8	3.2
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	10:18	20.5	7.96	20.7	6.38	3.84	3.1
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.7	2	1	10:18	20.4	7.94	20.8	6.15	4.26	2.3
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.7	2	2	10:18	20.3	7.93	20.8	6.13	4.29	3.5
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.4	3	1	10:18	20.2	7.97	20.9	5.89	4.54	2.8
TMCLKL	HY/2012/08	2014-04-09	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.4	3	2	10:18	20.3	7.96	20.9	5.85	4.58	3
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	18:00	20.6	7.81	23.9	6.71	2.95	2.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	18:00	20.6	7.82	23.9	6.74	2.9	2.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Middle	11.6	2	1	18:00	20.3	7.83	24.1	6.4	2.8	4.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Middle	11.6	2	2	18:00	20.3	7.82	24.1	6.44	2.84	5.3
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.2	3	1	18:00	20.3	7.83	24.2	6.27	3.02	4.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.2	3	2	18:00	20.2	7.83	24.2	6.24	3.05	6.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	14:55	20.5	7.8	23.9	6.67	2.81	4.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	14:55	20.5	7.79	23.9	6.69	2.86	3.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Middle	7.2	2	1	14:55	20.3	0.8	23.9	6.32	3.02	4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Middle	7.2	2	2	14:55	20.4	7.81	23.9	6.28	3.05	3.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Bottom	13.4	3	1	14:55	20.3	7.79	24	6.27	2.99	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	CS6	Bottom	13.5	3	2	14:55	20.3	7.8	24	6.24	2.95	3.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	17:08	20.5	7.81	23.9	6.68	2.44	3.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	17:08	20.6	7.81	23.8	6.64	2.4	4.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Middle	7.4	2	1	17:08	20.4	7.82	24.1	6.43	2.71	3.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Middle	7.4	2	2	17:08	20.3	7.82	24.1	6.4	2.75	4.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.8	3	1	17:08	20.2	7.82	24.1	6.25	2.83	5
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.8	3	2	17:08	20.1	7.83	24.1	6.28	2.78	5.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	16:48	20.6	7.81	23.9	6.64	2.66	3.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	10:23	20.6	7.81	23.9	6.6	2.69	4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Middle	6.2	2	1	10:23	20.4	7.82	24	6.28	2.79	3.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Middle	6.2	2	2	10:23	20.4	7.81	24.1	6.24	2.75	2.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Bottom	11.4	3	1	10:23	20.3	7.82	24	6.22	2.91	3.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS13	Bottom	11.4	3	2	10:23	20.2	7.82	24.1	6.18	2.95	3.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	17:30	20.6	7.82	23.9	6.62	2.62	5
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	17:30	20.6	7.82	23.9	6.59	2.66	4.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Middle	8.4	2	1	17:30	20.2	7.82	24	6.3	2.39	4.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Middle	8.4	2	2	17:30	20.2	7.83	24.1	6.33	2.45	4.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.8	3	1	17:30	20.2	7.83	24.1	6.34	2.88	5.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.8	3	2	17:30	20.1	7.83	24.1	6.3	2.85	4.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	16:27	20.6	7.8	23.9	6.6	2.92	5.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	10:53	20.5	7.8	23.9	6.64	2.96	3.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Middle	6.3	2	1	10:53	20.4	7.81	24	6.37	2.74	3
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Middle	6.3	2	2	10:53	20.4	7.82	24.1	6.34	2.7	2.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.6	3	1	10:53	20.2	7.82	24.1	6.3	2.88	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.6	3	2	10:53	20.2	7.82	24.1	6.33	2.85	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	15:55	20.6	7.81	23.8	6.75	2.92	3.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	15:55	20.5	7.81	23.8	6.71	2.96	3.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	15:55						
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	15:55						
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.8	3	1	15:55	20.1	7.82	23.9	6.29	2.88	3.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.8	3	2	15:55	20.1	7.82	23.9	6.25	2.81	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	16:11	20.6	7.81	23.8	6.53	3.01	4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	16:11	20.6	7.81	23.8	6.56	3.05	3.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	16:11						
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	16:11						
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	1	16:11	20.3	7.82	24	6.2	3.1	2.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	2	16:11	20.3	7.82	24	6.24	3.14	3.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Surface	1	1	1	15:26	20.6	7.8	23.9	6.7	2.64	3.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Surface	1	1	2	15:26	20.6	7.8	23.9	6.74	2.68	3.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Middle	7.9	2	1	15:26	20.4	7.79	24	6.41	2.71	3.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Middle	7.9	2	2	15:26	20.3	7.78	24.1	6.37	2.75	3.3
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Bottom	14.8	3	1	15:26	20.2	7.8	24.1	6.3	2.55	2.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Flood	Fine	Small Wave	SR10A	Bottom	14.8	3	2	15:26	20.2	7.81	24.1	6.34	2.51	4.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	09:15	20.4	7.78	23.8	6.81	2.55	2.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	09:15	20.4	7.77	23.8	6.84	2.5	2
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.1	2	1	09:15	20.2	7.77	23.9	6.69	2.78	2.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.1	2	2	09:15	20.2	7.76	23.9	6.65	2.84	2.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.2	3	1	09:15	20.1	7.78	24	6.5	2.97	2.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.2	3	2	09:15	20.1	7.78	24	6.53	2.92	2.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	11:55	20.5	7.81	23.8	6.72	2.52	2.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	11:55	20.5	7.81	23.8	6.75	2.6	2.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.8	2	1	11:55	20.3	7.82	24	6.43	2.91	2.3
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.8	2	2	11:55	20.3	7.82	24	6.46	2.87	2.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.6	3	1	11:55	20.2	7.82	24.1	6.36	3.08	2.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.6	3	2	11:55	20.1	7.81	24.1	6.33	3.02	2.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	10:03	20.3	7.78	23.9	6.82	2.59	3.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	10:03	20.3	7.78	23.9	6.85	2.55	2.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.2	2	1	10:03	20.1	7.79	23.9	6.77	2.87	3.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.2	2	2	10:03	20.1	7.79	23.9	6.74	2.81	4.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.4	3	1	10:03	20.1	7.79	24	6.64	2.74	4.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.4	3	2	10:03	20.2	7.79	24.1	6.61	2.7	4.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	10:23	20.4	7.79	23.9	6.74	2.86	2.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	10:23	20.4	7.8	23.8	6.7	2.81	5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	10:23	20.2	7.8	24	6.5	2.67	4.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	10:23	20.1	7.81	24	6.48	2.62	3.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	1	10:23	20.1	7.81	24	6.39	2.91	3.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	2	10:23	20.1	7.81	24.1	6.36	2.88	4.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	09:45	20.3	7.79	23.8	6.72	2.71	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	09:45	20.3	7.79	23.8	6.75	2.76	3.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	09:45	20.1	7.78	23.9	6.57	2.63	2.6

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	09:45	20.2	7.78	23.9	6.59	2.7	2.1
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	1	09:45	20	7.79	24	6.44	2.52	5.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	2	09:45	20	7.79	24	6.4	2.47	6.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	10:53	20.4	7.8	23.9	6.8	2.92	5.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	10:53	20.4	7.8	23.9	6.84	2.95	4.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Middle	6	2	1	10:53	20.3	7.81	23.9	6.62	2.87	5.3
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Middle	6	2	2	10:53	20.3	7.81	23.9	6.58	2.85	4.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Bottom	11	3	1	10:53	20.1	7.81	24	6.41	3.15	5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	IS15	Bottom	11	3	2	10:53	20.2	7.82	24	6.38	3.07	5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	11:37	20.4	7.8	23.9	6.7	2.7	2.3
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	11:37	20.5	7.81	23.9	6.75	2.76	4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	11:37						
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	11:37						
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	11:37	20.2	7.81	24	6.44	3.04	2.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	11:37	20.2	7.81	24	6.4	3.07	2
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	11:18	20.4	7.81	23.8	6.88	3.04	2.5
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	11:18	20.3	7.81	23.8	6.84	3.09	4.2
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	11:18						
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	11:18						
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.4	3	1	11:18	20.2	7.82	23.9	6.63	3.1	4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.4	3	2	11:18	20.2	7.82	23.9	6.6	3.16	2.8
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Surface	1	1	1	12:30	20.5	7.81	23.8	6.79	2.43	2.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Surface	1	1	2	12:30	20.5	7.8	23.9	6.75	2.4	2.9
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Middle	7.6	2	1	12:30	20.3	7.82	24.1	6.42	2.88	2.4
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Middle	7.6	2	2	12:30	20.2	7.82	24.1	6.45	2.85	2.7
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Bottom	14.2	3	1	12:30	20.2	7.83	24.2	6.31	2.71	2.6
TMCLKL	HY/2012/08	2014-04-11	Mid-Ebb	Fine	Small Wave	SR10A	Bottom	14.2	3	2	12:30	20.2	7.83	24.2	6.28	2.74	2.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	20:07	21.9	7.81	25.5	7.15	6.18	1.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	20:07	21.9	7.82	25.4	7.11	6.15	1.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	1	20:07	21.4	7.82	28.4	6.93	6.15	2.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	2	20:07	21.4	7.82	28.4	6.97	6.1	2.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	1	20:07	21.3	7.82	28.4	6.88	6.09	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	2	20:07	21.2	7.82	28.4	6.85	6.01	3.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	17:02	22	7.76	25.3	7.18	6.22	0.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	17:02	22	7.77	25.3	7.15	6.17	0.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	1	17:02	21.3	7.77	28.4	7.02	5.98	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	2	17:02	21.4	7.76	28.4	7.06	5.95	2.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	1	17:02	21.3	7.78	28.4	6.9	6.15	2.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	2	17:02	21.3	7.79	28.4	6.93	6.1	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	19:13	21.9	7.8	25.5	7.22	6.12	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	19:13	21.8	7.81	25.5	7.19	6.16	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	1	19:13	21.3	7.81	28.2	7.04	6.44	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	2	19:13	21.2	7.81	28.2	7.01	6.4	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.4	3	1	19:13	21.3	7.81	28.4	6.87	6.38	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.4	3	2	19:13	21.3	7.8	28.3	6.89	6.35	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	18:50	21.9	7.8	25.5	7.21	6.04	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	18:50	21.9	7.8	25.4	7.18	6.09	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	1	18:50	21.4	7.81	28.4	7.12	6.47	0.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	2	18:50	21.3	7.82	28.5	7.07	6.42	0.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	6.3	3	1	18:50	21.4	7.82	28.5	6.94	6.4	1.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	6.3	3	2	18:50	21.3	7.82	28.5	6.9	6.46	1.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	19:39	21.9	7.81	25.5	7.19	6.27	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	19:39	21.9	7.81	25.5	7.15	6.22	0.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	19:39	21.4	7.81	28.3	7.08	6.54	1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	19:39	21.3	7.82	28.3	7.13	6.59	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	1	19:39	21.3	7.82	28.4	6.96	6.27	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	2	19:39	21.3	7.82	28.4	6.93	6.3	1.1

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	18:30	22	7.8	25.5	7.14	6.12	3
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	18:30	22	7.81	25.5	7.11	6.15	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.7	2	1	18:30	21.5	7.81	28.3	7.01	6.27	3.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.7	2	2	18:30	21.5	7.81	28.3	7.04	6.3	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	12.4	3	1	18:30	21.4	7.81	28.4	6.85	6.2	3.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	12.4	3	2	18:30	21.4	7.82	28.4	6.88	6.26	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	18:00	22.1	7.79	25.4	7.19	6.04	2.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	18:00	22.1	7.78	25.4	7.15	6.08	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	18:00						
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	18:00						
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	1	18:00	21.4	7.79	28.4	6.95	6.18	2.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	2	18:00	21.4	7.79	28.4	6.91	6.15	2.9
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	18:15	22	7.79	25.4	7.11	5.89	2
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	18:15	21.9	7.8	25.4	7.07	5.85	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	18:15						
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	18:15						
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	18:15	21.4	7.8	28.3	6.93	6.33	2.9
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	18:15	21.4	7.8	28.3	6.9	6.38	2.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	17:32	22.1	7.78	25.4	7.27	6.17	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	17:32	22.1	7.78	25.4	7.24	6.4	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.1	2	1	17:32	21.4	7.79	28.3	6.94	6.43	3.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.1	2	2	17:32	21.4	7.78	28.3	6.9	6.4	3.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.2	3	1	17:32	21.3	7.79	28.4	6.88	6.09	3.7
TMCLKL	HY/2012/08	2014-04-14	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.2	3	2	17:32	21.3	7.79	28.4	6.84	6.02	4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	10:44	21.9	7.76	25.3	7.44	6.39	2.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	10:44	21.9	7.77	25.4	7.4	6.36	2.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.3	2	1	10:44	21.4	7.78	28.4	7.06	6.1	2.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.3	2	2	10:44	21.4	7.77	28.3	7.02	6.16	2.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.6	3	1	10:44	21.3	7.78	28.4	6.86	5.95	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.6	3	2	10:44	21.3	7.78	28.4	6.82	5.99	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	13:15	22	7.82	25.5	7.44	5.74	2
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	13:15	22	7.82	25.5	7.4	5.78	2.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.6	2	1	13:15	21.5	7.82	28.5	7.1	5.82	2.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.6	2	2	13:15	21.5	7.81	28.4	7.08	5.86	2.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.2	3	1	13:15	21.4	7.83	28.5	6.88	6.03	3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.2	3	2	13:15	21.3	7.82	28.5	6.84	6.05	3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	11:34	22	7.79	25.4	7.27	5.95	1.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	11:34	22	7.78	25.4	7.24	5.91	1.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	1	11:34	21.3	7.79	28.3	7.04	6.27	2.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	2	11:34	21.3	7.79	28.2	7.07	6.21	2.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	11:34	21.3	7.79	28.4	6.88	5.99	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	11:34	21.3	7.79	28.4	6.85	5.95	3.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	11:55	22	7.79	25.3	7.27	5.87	1.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	11:55	22	7.78	25.4	7.24	5.93	1.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	1	11:55	21.5	7.8	28.4	7.03	6.33	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	2	11:55	21.5	7.8	28.4	7.05	6.37	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	11:55	21.4	7.81	28.5	6.9	6.17	3.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	11:55	21.3	7.82	28.5	6.94	6.12	3.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	11:14	22	7.78	25.4	7.31	6.34	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	11:14	22	7.78	25.4	7.28	6.31	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	1	11:14	21.4	7.78	28.3	7.1	6.15	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	2	11:14	21.4	7.79	28.3	7.14	6.11	3.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	1	11:14	21.3	7.79	28.4	6.97	6.44	4.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	2	11:14	21.3	7.79	28.3	6.94	6.4	3.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	12:15	22	7.79	25.4	7.31	5.99	1.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	12:15	22	7.79	25.4	7.27	5.92	1.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.2	2	1	12:15	21.5	7.8	28.4	7.11	5.91	2.3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.2	2	2	12:15	21.5	7.81	28.4	7.08	5.98	2.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.4	3	1	12:15	21.3	7.81	28.5	6.92	6.24	2.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.4	3	2	12:15	21.3	7.81	28.5	6.89	6.2	2.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	12:52	22	7.81	25.4	7.29	5.95	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	12:52	21.9	7.81	25.4	7.26	5.9	0.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	12:52						
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	12:52						
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	12:52	21.4	7.81	28.5	6.92	6.5	1.6
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	12:52	21.3	7.82	28.4	6.89	6.54	1.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	12:35	22	7.8	25.4	7.36	6.04	2.1
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	12:35	22	7.81	25.4	7.32	6.08	2.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	12:35						
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	12:35						
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	1	12:35	21.4	7.81	28.2	7.02	6.42	3.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.2	3	2	12:35	21.4	7.82	28.2	7.05	6.46	3.2
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	13:50	22	7.81	25.4	7.3	6.11	1.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	13:50	22	7.82	25.4	7.26	6.06	1.3
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.2	2	1	13:50	21.4	7.8	28.4	7.05	6.27	1.8
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.2	2	2	13:50	21.4	7.81	28.4	7.01	6.3	1.5
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.4	3	1	13:50	21.3	7.82	28.5	6.84	6.33	2.4
TMCLKL	HY/2012/08	2014-04-14	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.4	3	2	13:50	21.3	7.82	28.5	6.87	6.3	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	21:36	21.3	7.76	25	6.37	5.13	2.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	21:36	21.2	7.79	25.1	6.33	5.1	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	1	21:36	21.2	7.75	25.2	6.42	5.11	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	2	21:36	21.1	7.77	25.1	6.46	5.08	3.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	1	21:36	21.1	7.75	25.4	6.29	5.32	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	2	21:36	21.1	7.78	25.4	6.31	5.37	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	18:23	21.4	7.84	25.1	6.53	5.06	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	18:23	21.5	7.81	25.1	6.58	5.11	3.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	1	18:23	21.5	7.82	25.3	6.68	5.01	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	2	18:23	21.5	7.79	25.1	6.64	4.97	4.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	1	18:23	21.4	7.81	25.5	6.49	5.14	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	2	18:23	21.3	7.77	25.4	6.51	5.18	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	20:46	21.3	7.76	25.2	6.39	5.07	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	20:46	21.4	7.72	25.1	6.32	5.02	3.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	1	20:46	21.2	7.68	25.6	6.44	4.92	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	2	20:46	21.1	7.71	25.4	6.49	4.97	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	15.4	3	1	20:46	21.1	7.64	25.6	6.27	5.14	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	15.4	3	2	20:46	21	7.66	25.6	6.32	5.17	2.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	20:22	21.4	7.76	25.2	6.46	5.04	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	20:22	21.2	7.74	25.1	6.48	5.11	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.2	2	1	20:22	21.2	7.73	25.4	6.69	4.97	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.2	2	2	20:22	21.3	7.77	25.1	6.61	4.94	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.4	3	1	20:22	21.1	7.68	25.6	6.39	5.16	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.4	3	2	20:22	21.1	7.72	25.5	6.44	5.12	2.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	21:11	21.4	7.72	25.1	6.47	5.17	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	21:11	21.4	7.74	25	6.44	5.13	4.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	21:11	21.3	7.71	25.1	6.62	5.04	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	21:11	21.1	7.67	25.3	6.65	5.02	2.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.7	3	1	21:11	21	7.76	25.5	6.39	5.22	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.7	3	2	21:11	21.1	7.73	25.4	6.42	5.26	2.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	19:58	21.2	7.75	25.1	6.44	5.27	2.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	19:58	21.3	7.78	25.1	6.41	5.22	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	1	19:58	21.2	7.73	25.3	6.59	5.09	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	2	19:58	21.1	7.76	25.2	6.64	5.04	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.8	3	1	19:58	21	7.72	25.6	6.33	5.33	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.8	3	2	19:58	21.1	7.76	25.5	6.34	5.36	3.1

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	19:11	21.3	7.78	25	6.44	5.21	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	19:11	21.2	7.77	25.1	6.41	5.18	3.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	19:11						
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	19:11						
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	1	19:11	21.2	7.79	25.1	6.32	5.29	3.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	2	19:11	21.2	7.76	25.1	6.27	5.26	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	19:37	21.3	7.77	25.2	6.46	5.22	3.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	19:37	21.2	7.73	25.1	6.41	5.19	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	19:37						
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	19:37						
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.7	3	1	19:37	21.3	7.79	25.2	6.32	5.25	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.7	3	2	19:37	21.3	7.76	25.3	6.28	5.23	3.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	18:47	21.4	7.79	25	6.42	5.15	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	18:47	21.3	7.82	25.1	6.45	5.18	3.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.5	2	1	18:47	21.3	7.78	25.2	6.56	5.04	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.5	2	2	18:47	21.2	7.76	25.3	6.51	5.02	3.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.9	3	1	18:47	21.3	7.72	25.5	6.33	5.25	4.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.9	3	2	18:47	21.3	7.75	25.6	6.31	5.29	3.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	11:50	22.2	7.78	25.2	6.26	5.21	2.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	11:50	21.9	7.74	25.3	6.28	5.24	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	1	11:50	21.7	7.78	25.5	6.35	5.17	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	2	11:50	21.9	7.81	25.4	6.31	5.12	2.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	23.2	3	1	11:50	21.8	7.82	25.6	6.23	5.46	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	23.2	3	2	11:50	21.5	7.78	25.7	6.18	5.42	3.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	15:02	21.8	7.79	25.6	6.46	5.22	2.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	15:02	22.1	7.83	25.4	6.39	5.16	2.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	1	15:02	21.9	7.81	25.6	6.53	5.07	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.8	2	2	15:02	21.8	7.78	25.6	6.57	5.13	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.5	3	1	15:02	21.6	7.72	25.8	6.37	5.24	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.5	3	2	15:02	21.7	7.75	25.7	6.34	5.27	4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	12:37	21.9	7.78	25.4	6.28	5.11	3.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	12:37	22.1	7.73	25.2	6.21	5.18	4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.6	2	1	12:37	21.7	7.73	25.8	6.41	5.07	3.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.6	2	2	12:37	21.5	7.69	25.6	6.36	5.01	3.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.1	3	1	12:37	21.5	7.68	25.7	6.13	5.26	4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.1	3	2	12:37	21.5	7.72	25.8	6.17	5.22	4.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	13:00	22.1	7.77	25.6	6.42	5.22	4.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	13:00	22	7.79	25.4	6.37	5.16	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.1	2	1	13:00	21.8	7.74	25.6	6.49	5.07	4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.1	2	2	13:00	21.6	7.76	25.6	6.53	5.02	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.2	3	1	13:00	21.5	7.74	25.8	6.26	5.28	3.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.2	3	2	13:00	21.6	7.71	25.7	6.21	5.31	2.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	12:14	21.8	7.75	25.3	6.38	5.22	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	12:14	22.1	7.77	25.4	6.35	5.19	3.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	1	12:14	21.8	7.73	25.6	6.54	5.12	4.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	2	12:14	21.7	7.68	25.5	6.51	5.15	3.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	1	12:14	21.4	7.74	25.7	6.33	5.36	3.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	2	12:14	21.5	7.78	25.7	6.27	5.31	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	13:25	21.9	7.79	25.4	6.32	5.33	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	13:25	21.7	7.82	25.3	6.36	5.36	3.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	1	13:25	21.5	7.78	25.6	6.49	5.15	3.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	2	13:25	21.7	7.75	25.5	6.46	5.19	3.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	1	13:25	21.6	7.75	25.6	6.29	5.43	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	2	13:25	21.4	7.77	25.7	6.27	5.47	4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	14:13	21.9	7.76	25.4	6.35	5.31	2.9
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	14:13	21.8	7.74	25.3	6.29	5.36	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	14:13						

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	14:13						
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.5	3	1	14:13	21.8	7.76	25.6	6.24	5.42	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.5	3	2	14:13	21.8	7.79	25.6	6.22	5.45	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	13:49	21.8	7.76	25.3	6.32	5.31	3.3
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	13:49	22	7.79	25.4	6.37	5.34	2.5
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	13:49						
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	13:49						
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.5	3	1	13:49	21.9	7.82	25.5	6.22	5.35	2.2
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.5	3	2	13:49	21.7	7.85	25.5	6.17	5.39	2.8
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	14:37	22.1	7.77	25.5	6.31	5.24	3
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	14:37	22.1	7.75	25.4	6.26	5.21	2.4
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.4	2	1	14:37	21.8	7.79	25.7	6.43	5.16	3.6
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.4	2	2	14:37	21.6	7.81	25.6	6.47	5.11	3.1
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.7	3	1	14:37	21.6	7.73	25.7	6.24	5.35	3.7
TMCLKL	HY/2012/08	2014-04-16	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.7	3	2	14:37	21.6	7.77	25.7	6.19	5.32	2.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	09:45	21.4	7.82	25.2	6.43	5.62	2.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	09:45	21.5	7.85	25.3	6.39	5.64	3.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.9	2	1	09:45	21.3	7.81	25.4	6.48	5.83	3.3
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.9	2	2	09:45	21.3	7.83	25.3	6.52	5.86	4.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.8	3	1	09:45	21.1	7.81	25.4	6.35	6.12	4.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.8	3	2	09:45	21.2	7.84	25.5	6.37	6.14	4.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	06:40	21.6	7.89	25.1	6.59	5.87	2.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	06:40	21.5	7.86	25.2	6.64	5.91	2.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7.1	2	1	06:40	21.4	7.88	25.3	6.74	5.99	3
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7.1	2	2	06:40	21.5	7.85	25.2	6.7	6.05	3.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	13.2	3	1	06:40	21.4	7.87	25.4	6.55	6.22	5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	13.2	3	2	06:40	21.3	7.83	25.3	6.57	6.19	3.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	08:58	21.5	7.82	25.3	6.45	5.63	4.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	08:58	21.4	7.78	25.2	6.38	5.61	3.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	1	08:58	21.4	7.74	25.3	6.5	5.72	3.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	2	08:58	21.3	7.77	25.4	6.55	5.76	4.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.6	3	1	08:58	21.2	7.7	25.6	6.33	6.08	3.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.6	3	2	08:58	21.1	7.72	25.5	6.38	6.1	2.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	08:35	21.4	7.82	25.2	6.52	5.59	3.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	08:35	21.5	7.8	25.3	6.54	5.61	5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	1	08:35	21.4	7.79	25.4	6.75	5.7	4.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	2	08:35	21.3	7.83	25.3	6.67	5.75	3.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.6	3	1	08:35	21.3	7.74	25.5	6.45	5.92	6.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.6	3	2	08:35	21.3	7.78	25.4	6.5	5.96	5.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	09:21	21.4	7.78	25.1	6.53	5.58	3
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	09:21	21.4	7.8	25.2	6.5	5.59	3.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	09:21	21.3	7.77	25.3	6.68	5.69	3.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	09:21	21.2	7.73	25.2	6.71	5.71	2.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	1	09:21	21.2	7.82	25.4	6.45	5.95	3.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	2	09:21	21.1	7.79	25.5	6.48	5.98	3
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	08:12	21.3	7.81	25.1	6.5	5.69	2.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	08:12	21.4	7.84	25.2	6.47	5.71	3.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.6	2	1	08:12	21.2	7.79	25.2	6.65	5.81	4.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.6	2	2	08:12	21.3	7.82	25.3	6.7	5.78	4.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	12.2	3	1	08:12	21.2	7.78	25.4	6.39	6.06	4.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	12.2	3	2	08:12	21.1	7.82	25.5	6.4	6.09	4.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	07:26	21.4	7.84	25.2	6.5	5.62	3.3
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	07:26	21.3	7.83	25.1	6.47	5.58	3.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	07:26						
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	07:26						
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	1	07:26	21.2	7.85	25.2	6.38	6.01	2.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.6	3	2	07:26	21.3	7.82	25.3	6.33	6.03	4.1

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	07:49	21.3	7.83	25.2	6.52	5.64	3.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	07:49	21.4	7.89	25.3	6.47	5.66	2.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	07:49						
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	07:49						
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.2	3	1	07:49	21.3	7.85	25.4	6.38	6.01	2.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.2	3	2	07:49	21.2	7.82	25.3	6.34	5.99	3.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	07:03	21.4	7.85	25.1	6.48	5.71	4.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	07:03	21.5	7.88	25.2	6.51	5.69	5.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.7	2	1	07:03	21.3	7.84	25.4	6.62	5.8	4.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.7	2	2	07:03	21.2	7.82	25.3	6.57	5.77	5.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.4	3	1	07:03	21.3	7.78	25.4	6.39	6.18	4.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	14.4	3	2	07:03	21.2	7.81	25.5	6.37	6.16	7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	13:07	21.6	7.8	25.2	6.67	5.87	5.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	13:07	21.6	7.8	25.2	6.64	5.9	5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Middle	10.8	2	1	13:07	21.5	7.81	25.4	6.4	5.98	3.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Middle	10.8	2	2	13:07	21.4	7.81	25.4	6.44	5.92	4.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.6	3	1	13:07	21.4	7.8	25.5	6.3	6.24	3.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.6	3	2	13:07	21.4	7.8	25.5	6.26	6.2	4
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	15:35	21.8	7.8	25.2	6.52	6.08	3
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	15:35	21.8	7.81	25.2	6.48	6.01	2.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.9	2	1	15:35	21.5	7.81	25.4	6.21	5.98	3
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.9	2	2	15:35	21.5	7.82	25.5	6.26	5.92	2.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.8	3	1	15:35	21.4	7.81	25.5	6.13	6.34	4
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.8	3	2	15:35	21.5	7.82	25.5	6.09	6.29	3.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	13:57	21.7	7.78	25.2	6.6	5.92	5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	13:57	21.7	7.76	25.2	6.63	5.98	4.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.6	2	1	13:57	21.5	7.79	25.5	6.44	5.98	4.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.6	2	2	13:57	21.4	7.8	25.4	6.47	5.92	3.2
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Bottom	14.2	3	1	13:57	21.4	7.8	25.5	6.32	6.14	6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS12	Bottom	14.2	3	2	13:57	21.4	7.81	25.5	6.28	6.07	4.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	14:16	21.7	7.82	25.1	6.58	5.62	4.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	14:16	21.7	7.82	25.1	6.54	5.59	5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.9	2	1	14:16	21.6	7.81	25.4	6.44	5.87	4.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.9	2	2	14:16	21.6	7.81	25.3	6.4	5.82	3.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.8	3	1	14:16	21.5	7.82	25.5	6.31	5.94	5.4
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.8	3	2	14:16	21.4	7.82	25.5	6.28	5.9	5.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	13:37	21.6	7.79	25.1	6.53	6.04	5.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	13:37	21.5	7.78	25.1	6.5	6.01	6.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	13:37	21.4	7.81	25.4	6.39	6.17	9.3
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	13:37	21.4	7.81	25.3	6.34	6.23	9.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	1	13:37	21.4	7.8	25.5	6.27	5.9	11.1
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	2	13:37	21.5	7.81	25.4	6.24	5.96	12.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	14:34	21.7	7.8	25.1	6.54	5.9	4.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	14:34	21.7	7.8	25.1	6.5	5.94	5.3
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Middle	6.2	2	1	14:34	21.5	7.81	25.3	6.26	6.03	3.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Middle	6.2	2	2	14:34	21.5	7.81	25.3	6.22	6.06	3.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Bottom	11.4	3	1	14:34	21.4	7.81	25.4	6.29	6.11	4.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	IS15	Bottom	11.4	3	2	14:34	21.5	7.81	25.5	6.25	6.07	3.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	15:15	21.7	7.8	25.3	6.47	5.95	2.3
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	15:15	21.7	7.8	25.3	6.44	5.98	2.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	15:15						
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	15:15						
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	15:15	21.5	7.81	25.4	6.26	6.27	2.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	15:15	21.5	7.81	25.3	6.3	6.22	3.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	14:59	21.6	7.81	25.2	6.63	5.74	2.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	14:59	21.6	7.81	25.2	6.6	5.7	2.8
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	14:59						

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	14:59						
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4	3	1	14:59	21.5	7.82	25.4	6.39	5.95	2.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4	3	2	14:59	21.5	7.83	25.4	6.36	5.9	3.43
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Surface	1	1	1	16:10	21.7	7.81	25.3	6.45	6.12	2.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Surface	1	1	2	16:10	21.7	7.81	25.3	6.41	6.16	2.5
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Middle	7.3	2	1	16:10	21.6	7.82	25.4	6.29	6.06	2.9
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Middle	7.3	2	2	16:10	21.5	7.82	25.4	6.25	6.02	2.7
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Bottom	13.6	3	1	16:10	21.5	7.82	25.4	6.11	6.22	3.6
TMCLKL	HY/2012/08	2014-04-18	Mid-Ebb	Fine	Small Wave	SR10A	Bottom	13.6	3	2	16:10	21.4	7.82	25.5	6.09	6.17	2
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	11:34	21.6	7.76	25.6	6.36	2.79	3.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	11:34	21.6	7.78	25.2	6.32	2.81	5.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	1	11:34	21.4	7.74	25.4	6.44	2.84	4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	2	11:34	21.5	7.76	25.8	6.48	2.85	3.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	1	11:34	21.6	7.75	25.1	6.31	2.85	3.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.4	3	2	11:34	21.5	7.78	25.2	6.32	2.87	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	08:30	21.5	7.82	25.3	6.54	2.86	4.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	08:30	21.6	7.84	25.2	6.56	2.87	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	1	08:30	21.5	7.8	25.2	6.69	2.89	5.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	2	08:30	21.5	7.78	25.2	6.67	2.9	5.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	1	08:30	21.5	7.81	25.4	6.5	2.86	5.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	2	08:30	21.4	7.77	25.6	6.49	2.87	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	10:48	21.5	7.75	25.3	6.4	2.82	3.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	10:48	21.5	7.74	25.2	6.38	2.84	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	1	10:48	21.6	7.68	25.5	6.44	2.89	3.2
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.7	2	2	10:48	21.5	7.7	25.6	6.4	2.87	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.4	3	1	10:48	21.7	7.65	25.5	6.29	2.86	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.4	3	2	10:48	21.6	7.67	25.3	6.33	2.87	4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	10:25	21.6	7.78	25.1	6.45	2.8	4.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	10:25	21.4	7.77	25.2	6.47	2.82	3.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.2	2	1	10:25	21.4	7.74	25.1	6.67	2.84	3.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.2	2	2	10:25	21.5	7.76	25.3	6.64	2.86	3.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.4	3	1	10:25	21.5	7.69	25.6	6.4	2.86	4.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.4	3	2	10:25	21.4	7.68	25.5	6.43	2.87	3.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	11:11	21.6	7.7	25	6.46	2.8	3.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	11:11	21.7	7.72	25.2	6.42	2.84	4.2
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	11:11	21.5	7.7	25.3	6.6	2.86	4.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	11:11	21.6	7.76	25.3	6.64	2.88	2.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.7	3	1	11:11	21.5	7.75	25.3	6.4	2.82	3.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.7	3	2	11:11	21.5	7.71	25.2	6.38	2.81	5.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	10:02	21.5	7.76	25.2	6.42	2.84	3.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	10:02	21.6	7.78	25.1	6.45	2.85	3.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	1	10:02	21.5	7.33	25.4	6.6	2.87	3.2
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	2	10:02	21.5	7.36	25.3	6.64	2.88	3.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.8	3	1	10:02	21.5	7.71	25.4	6.35	2.86	3.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.8	3	2	10:02	21.4	7.75	25.4	6.36	2.88	4.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	09:16	21.6	7.77	25.2	6.42	2.85	4.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	09:16	21.6	7.78	25	6.44	2.86	5.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	09:16						
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	09:16						
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	1	09:16	21.5	7.78	25.2	6.34	2.89	5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.8	3	2	09:16	21.6	7.76	25.1	6.3	2.9	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	09:39	21.6	7.76	25.3	6.48	2.82	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	09:39	21.4	7.72	25.5	6.44	2.83	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	09:39						
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	09:39						
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.6	3	1	09:39	21.4	7.8	25.3	6.3	2.86	3.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.6	3	2	09:39	21.5	7.76	25.4	6.32	2.85	4.4

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	08:53	21.6	7.8	25	6.4	2.83	4.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	08:53	21.5	7.82	25.2	6.43	2.85	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	1	08:53	21.5	7.76	25.4	6.58	2.86	4.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	2	08:53	21.4	7.78	25.2	6.53	2.87	4.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.8	3	1	08:53	21.5	7.7	25.1	6.34	2.85	6.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.8	3	2	08:53	21.5	7.74	25.5	6.32	2.87	5.2
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	15:41	21.5	7.77	25	6.33	2.73	5.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	15:41	21.5	7.75	25.1	6.31	2.75	4.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.8	2	1	15:41	21.4	7.64	25.2	6.4	2.89	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.8	2	2	15:41	21.3	7.66	25.3	6.38	2.91	5.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.6	3	1	15:41	21.2	7.82	25.4	6.23	2.96	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.6	3	2	15:41	21.1	7.84	25.3	6.25	2.98	4.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	18:50	21.6	7.77	25	6.43	2.77	5.2
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	18:50	21.6	7.75	25	6.45	2.79	4.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	7.1	2	1	18:50	21.5	7.67	25.1	6.63	2.86	2.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	7.1	2	2	18:50	21.4	7.69	25.2	6.61	2.88	2.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	13.1	3	1	18:50	21.4	7.78	25.3	6.43	2.96	3.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	13.1	3	2	18:50	21.3	7.8	25.4	6.45	2.97	2.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	16:22	21.6	7.67	25	6.35	2.75	4.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	16:22	21.7	7.69	25.1	6.33	2.77	4.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.8	2	1	16:22	21.6	7.73	25.2	6.24	2.93	5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.8	2	2	16:22	21.7	7.75	25.3	6.26	2.94	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.6	3	1	16:22	21.7	7.68	25.4	6.17	2.99	4.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.6	3	2	16:22	21.7	7.7	25.5	6.19	3.01	4.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	16:43	21.6	7.73	25	6.42	2.76	5.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	16:43	21.6	7.71	25.1	6.4	2.78	5.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.4	2	1	16:43	21.5	7.66	25.2	6.62	2.86	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.4	2	2	16:43	21.4	7.68	25.3	6.64	2.88	5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.7	3	1	16:43	21.3	7.72	25.4	6.35	2.94	5.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.7	3	2	16:43	21.3	7.74	25.4	6.37	2.96	6.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	16:02	21.5	7.73	25	6.43	2.84	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	16:02	21.6	7.75	25	6.41	2.86	5.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.5	2	1	16:02	21.5	7.62	25.1	6.54	2.96	4.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.5	2	2	16:02	21.4	7.64	25.2	6.52	2.98	5.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.9	3	1	16:02	21.3	7.69	25.3	6.33	3.02	4.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.9	3	2	16:02	21.3	7.67	25.4	6.31	3.04	5.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	17:04	21.5	7.74	25	6.37	2.87	4.7
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	17:04	21.5	7.76	25	6.35	2.89	4.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.6	2	1	17:04	21.4	7.79	25.1	6.54	2.96	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.6	2	2	17:04	21.3	7.81	25.2	6.52	2.98	4.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	12.1	3	1	17:04	21.3	7.67	25.3	6.31	3.03	4.6
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	12.1	3	2	17:04	21.2	7.69	25.4	6.29	3.05	4.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	17:43	21.5	7.73	25	6.37	2.89	3.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	17:43	21.5	7.75	25.1	6.35	2.91	3.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	17:43						
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	17:43						
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.9	3	1	17:43	21.4	7.66	25.2	6.31	2.96	2.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.9	3	2	17:43	21.4	7.68	25.3	6.29	2.98	2.9
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	17:26	21.6	7.66	25	6.41	2.8	4.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	17:26	21.5	7.68	25.1	6.39	2.82	4.4
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	17:26						
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	17:26						
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.9	3	1	17:26	21.5	7.73	25.2	6.25	2.93	3.8
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.9	3	2	17:26	21.4	7.75	25.2	6.23	2.95	2.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	18:13	21.5	7.67	25	6.34	2.84	4.1
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	18:13	21.6	7.69	25.1	6.36	2.86	3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	1	18:13	21.5	7.72	25.2	6.52	2.96	3.3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.6	2	2	18:13	21.4	7.74	25.3	6.5	2.94	4.5
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	1	18:13	21.4	7.77	25.4	6.32	3.06	4.3
TMCLKL	HY/2012/08	2014-04-21	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	14.2	3	2	18:13	21.3	7.75	25.4	6.34	3.09	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	14:32	22.5	7.77	25.5	6.26	2.22	2.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	14:32	22.5	7.73	25.7	6.28	2.26	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	1	14:32	22.6	7.76	26.2	6.35	2.16	2.1
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	2	14:32	22.7	7.71	26.4	6.31	2.11	2.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	1	14:32	22.6	7.72	26.5	6.23	2.26	4.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	2	14:32	22.6	7.68	26.4	6.19	2.23	3.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	11:22	22.6	7.8	25.2	6.31	2.13	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	11:22	22.5	7.76	25.4	6.24	2.09	3.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.5	2	1	11:22	22.7	7.81	25.9	6.42	2.06	3.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.5	2	2	11:22	22.6	7.83	26.2	6.45	2.01	2.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.9	3	1	11:22	22.3	7.81	26.3	6.39	2.17	4.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.9	3	2	11:22	22.5	7.78	26.1	6.36	2.15	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	13:36	22.5	7.68	25.4	6.24	2.13	2.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	13:36	22.4	7.71	25.5	6.21	2.09	4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	1	13:36	22.6	7.72	25.9	6.34	2.21	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	2	13:36	22.6	7.74	25.8	6.37	2.24	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.6	3	1	13:36	22.4	7.65	26.3	6.13	2.19	2.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.6	3	2	13:36	22.3	7.61	26.2	6.15	2.16	2
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	13:13	22.4	7.71	25.4	6.26	2.15	4.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	13:13	22.6	7.68	25.7	6.31	2.12	4.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	1	13:13	22.6	7.74	26.1	6.52	2.32	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	2	13:13	22.5	7.72	25.9	6.48	2.34	4.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.5	3	1	13:13	22.7	7.71	26.3	6.21	2.09	3.1
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.5	3	2	13:13	22.6	7.67	26.3	6.24	2.06	4.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	14:03	22.3	7.73	25.6	6.31	2.28	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	14:03	22.4	7.76	25.5	6.28	2.26	3.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	14:03	22.5	7.72	26.2	6.41	2.13	3.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	14:03	22.4	7.69	26.1	6.44	2.09	3.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	1	14:03	22.6	7.77	26.4	6.22	2.32	2.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	2	14:03	22.6	7.74	26.3	6.25	2.36	4.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	12:50	22.4	7.72	25.5	6.29	2.34	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	12:50	22.5	7.75	25.2	6.32	2.29	3.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.3	2	1	12:50	22.6	7.79	25.8	6.39	2.26	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.3	2	2	12:50	22.6	7.75	26.2	6.36	2.22	3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.6	3	1	12:50	22.7	7.73	26.1	6.24	2.46	4.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.6	3	2	12:50	22.6	7.75	26.3	6.21	2.42	4.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	12:06	22.4	7.71	25.7	6.32	2.32	3.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	12:06	22.5	7.72	25.5	6.35	2.37	2.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	12:06						
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	12:06						
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.7	3	1	12:06	22.6	7.75	25.9	6.29	2.28	3.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.7	3	2	12:06	22.6	7.73	25.7	6.23	2.31	3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	12:28	22.4	7.74	25.7	6.35	2.31	3.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	12:28	22.4	7.71	25.6	6.31	2.27	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	12:28						
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	12:28						
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	12:28	22.6	7.78	26.1	6.29	2.33	4.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	12:28	22.5	7.76	25.8	6.26	2.36	2.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	11:44	22.6	7.76	25.4	6.39	2.24	4.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	11:44	22.4	7.73	25.5	6.36	2.28	3.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	1	11:44	22.6	7.79	26.1	6.46	2.11	4.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	2	11:44	22.5	7.81	26.1	6.49	2.07	6.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.8	3	1	11:44	22.5	7.73	26.6	6.38	2.26	4.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.8	3	2	11:44	22.4	7.74	26.4	6.42	2.21	4.7

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	06:45	22.4	7.75	25.9	6.15	2.31	5.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	06:45	22.2	7.71	26.1	6.11	2.28	4.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.7	2	1	06:45	22.5	7.74	26.3	6.23	2.26	4.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.7	2	2	06:45	22.5	7.77	26.2	6.27	2.22	5.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.3	3	1	06:45	22.5	7.68	26.5	6.22	2.38	3
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.3	3	2	06:45	22.4	7.65	26.7	6.17	2.33	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	09:46	22.3	7.79	25.7	6.28	2.17	2.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	09:46	22.2	7.75	25.6	6.21	2.14	2.5
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.9	2	1	09:46	22.4	7.79	26.3	6.36	2.09	2.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.9	2	2	09:46	22.5	7.78	26.1	6.31	2.12	2.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.7	3	1	09:46	22.6	7.82	26.4	6.25	2.23	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.7	3	2	09:46	22.5	7.84	26.3	6.28	2.26	3
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	07:32	22.3	7.72	25.7	6.13	2.18	4.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	07:32	22.4	7.75	25.5	6.1	2.22	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.7	2	1	07:32	22.5	7.76	26.3	6.28	2.33	4.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.7	2	2	07:32	22.4	7.73	26.1	6.25	2.37	5.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.4	3	1	07:32	22.4	7.66	26.5	6.07	2.25	4.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.4	3	2	07:32	22.4	7.68	26.4	6.08	2.28	4.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	07:55	22.3	7.65	25.9	6.17	2.23	2.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	07:55	22.1	7.68	26.2	6.13	2.19	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.2	2	1	07:55	22.4	7.71	26.2	6.39	2.42	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.2	2	2	07:55	22.3	7.75	26.3	6.35	2.38	3.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.3	3	1	07:55	22.5	7.68	26.5	6.08	2.12	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.3	3	2	07:55	224	7.72	26.5	6.11	2.15	4.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	07:09	22.2	7.77	25.8	6.24	2.35	3.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	07:09	22.3	7.74	25.7	6.18	2.31	2.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.4	2	1	07:09	22.4	7.76	26.2	6.32	2.16	3.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.4	2	2	07:09	22.2	7.73	26.4	6.37	2.14	3.8
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.7	3	1	07:09	22.5	7.68	26.7	6.13	2.39	4.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.7	3	2	07:09	22.4	7.72	26.6	6.18	2.36	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	08:18	22.2	7.68	25.8	6.21	2.32	2.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	08:18	22.3	7.72	26.1	6.24	2.39	4.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	1	08:18	22.4	7.76	26.3	6.26	2.33	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	2	08:18	22.3	7.73	26.4	6.28	2.32	4.4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	1	08:18	22.5	7.69	26.6	6.13	2.51	3.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	2	08:18	22.5	7.73	26.5	6.1	2.47	2.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	09:04	22.3	7.68	26.2	6.28	2.42	4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	09:04	22.1	7.65	25.9	6.25	2.45	2.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	09:04						
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	09:04						
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.6	3	1	09:04	22.4	7.72	26.3	6.15	2.37	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.6	3	2	09:04	22.4	7.69	26.1	6.19	2.32	4.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	08:42	22.3	7.76	25.9	6.26	2.37	3.6
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	08:42	22.1	7.79	26.2	6.22	2.34	4
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	08:42						
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	08:42						
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.7	3	1	08:42	22.3	7.81	26.3	6.16	2.42	4.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.7	3	2	08:42	22.3	7.82	26.3	6.11	2.46	5.7
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	09:25	22.2	7.71	25.8	6.28	2.36	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	09:25	22.3	7.74	25.9	6.22	2.52	3.2
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.4	2	1	09:25	22.5	7.76	26.2	6.37	2.18	3
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.4	2	2	09:25	22.4	7.79	26.3	6.32	2.22	3.9
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.7	3	1	09:25	22.5	7.77	26.6	6.27	2.29	4.3
TMCLKL	HY/2012/08	2014-04-23	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.7	3	2	09:25	22.6	7.72	26.5	6.21	2.34	2.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	17:26	22.4	7.83	26.1	6.14	1.01	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	17:26	22.4	7.81	26.2	6.12	1.02	3.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	1	17:26	22.5	7.82	26.3	6.23	1.29	2.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	2	17:26	22.4	7.85	26.4	6.26	1.35	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	1	17:26	22.7	7.76	26.4	6.21	1.81	2.5
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	2	17:26	22.6	7.74	26.4	6.16	1.84	3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	14:12	22.5	7.87	25.9	6.3	1.03	4
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	14:12	22.4	7.86	25.7	6.24	1.05	4.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	1	14:12	22.5	7.84	26.3	6.37	1.36	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.9	2	2	14:12	22.6	7.82	26.2	6.33	1.4	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	1	14:12	22.7	7.89	26.4	6.28	1.6	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.8	3	2	14:12	22.6	7.9	26.5	6.3	1.59	3.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	16:38	22.5	7.8	25.5	6.12	1.06	3.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	16:38	22.6	7.79	25.6	6.1	1.08	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	16:38	22.5	7.82	26.4	6.27	1.27	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	16:38	22.5	7.8	26.3	6.26	1.25	3.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	16:38	22.4	7.73	26.5	6.05	1.59	5.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	16:38	22.4	7.74	26.6	6.08	1.47	3.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	16:14	22.2	7.73	26.4	6.17	1	3.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	16:14	22.3	7.75	26.3	6.15	1.02	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6	2	1	16:14	22.4	7.79	26.5	6.38	1.41	4.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6	2	2	16:14	22.4	7.8	26.4	6.34	1.44	2.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11	3	1	16:14	22.5	7.76	26.6	6.05	1.6	3.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11	3	2	16:14	22.6	7.79	26.7	6.09	1.65	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	17:02	22.3	7.85	25.8	6.29	0.98	2.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	17:02	22.3	7.81	25.7	6.28	0.96	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	1	17:02	22.5	7.88	26.3	6.29	1.41	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	2	17:02	22.4	7.84	26.2	6.34	1.4	4.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.6	3	1	17:02	22.6	7.7	26.6	6.11	1.67	2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.6	3	2	17:02	22.5	7.75	26.6	6.15	1.69	2.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	15:50	22.4	7.25	26.3	6.2	0.95	3.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	15:50	22.5	7.27	26.2	6.24	0.97	3.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	1	15:50	22.5	7.85	26.5	6.28	1.36	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.2	2	2	15:50	22.6	7.83	26.6	6.29	1.33	2.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	1	15:50	22.6	7.77	26.5	6.12	1.43	3.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.4	3	2	15:50	22.6	7.78	26.3	6.1	1.45	4.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	15:00	22.4	7.75	26.3	6.27	1.12	2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	15:00	22.3	7.73	26.1	6.24	1.11	4.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	15:00						
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	15:00						
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	15:00	22.6	7.77	26.4	6.14	1.43	3.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	15:00	22.5	7.76	26.3	6.18	1.45	4
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	15:24	22.4	7.84	26.3	6.25	1.09	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	15:24	22.3	7.85	26.2	6.2	1.05	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	15:24						
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	15:24						
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4	3	1	15:24	22.5	7.86	26.3	6.15	1.33	2.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4	3	2	15:24	22.5	7.87	26.5	6.1	1.35	3
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	14:36	22.4	7.79	26	6.29	0.99	2.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	14:36	22.5	7.8	26.1	6.23	0.97	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.2	2	1	14:36	22.4	7.81	26.5	6.36	1.3	4.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.2	2	2	14:36	22.5	7.83	26.4	6.32	1.31	3.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.4	3	1	14:36	22.6	7.8	26.6	6.26	1.53	5
TMCLKL	HY/2012/08	2014-04-25	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.4	3	2	14:36	22.6	7.78	26.5	6.2	1.55	3.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	08:40	22.3	7.81	26.1	6.06	1.09	3.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	08:40	22.4	7.77	26	6.02	1.1	4.5
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	1	08:40	22.6	7.8	26.2	6.14	1.38	4.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	2	08:40	22.5	7.83	26.3	6.18	1.44	3.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	23.2	3	1	08:40	22.6	7.74	26.4	6.13	1.89	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	23.2	3	2	08:40	22.7	7.71	26.5	6.08	1.92	3

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	12:04	22.4	7.85	25.8	6.22	1.11	3.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	12:04	22.3	7.81	25.7	6.15	1.14	2.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	1	12:04	22.6	7.86	26.2	6.3	1.44	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	2	12:04	22.5	7.84	26.3	6.25	1.48	2.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	1	12:04	22.6	7.88	26.5	6.19	1.68	3.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	2	12:04	22.7	7.9	26.4	6.22	1.64	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	09:28	22.4	7.78	25.6	6.04	1.12	4.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	09:28	22.5	7.81	25.7	6.01	1.16	3.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	1	09:28	22.6	7.82	26.3	6.19	1.36	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	2	09:28	22.5	7.79	26.2	6.16	1.31	3.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	09:28	22.4	7.72	26.4	5.98	1.66	4.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	09:28	22.3	7.74	26.5	5.99	1.55	3.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	09:54	22.2	7.71	26.2	6.08	1.09	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	09:54	22.3	7.74	26.1	6.04	1.1	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	1	09:54	22.5	7.77	26.4	6.3	1.5	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.9	2	2	09:54	22.4	7.81	26.3	6.26	1.52	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	09:54	22.6	7.74	26.5	5.98	1.69	3
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	09:54	22.5	7.78	26.6	6.01	1.73	3.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	09:04	22.4	7.83	25.9	6.15	1.05	2.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	09:04	22.3	7.8	25.8	6.1	1.03	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	1	09:04	22.4	7.82	26.2	6.23	1.5	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	2	09:04	22.5	7.79	26.3	6.28	1.48	3.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	1	09:04	22.7	7.74	26.5	6.04	1.71	3.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	2	09:04	22.6	7.78	26.6	6.09	1.74	3
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	10:20	22.3	7.74	26.1	6.12	1.04	2.5
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	10:20	22.4	7.78	26	6.15	1.07	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.1	2	1	10:20	22.4	7.82	26.4	6.17	1.44	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.1	2	2	10:20	22.5	7.79	26.5	6.19	1.42	3.4
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.2	3	1	10:20	22.5	7.75	26.6	6.04	1.51	4.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.2	3	2	10:20	22.4	7.79	26.7	6.02	1.52	3.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	11:12	22.3	7.74	26.2	6.19	1.2	3.5
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	11:12	22.3	7.71	26.2	6.16	1.19	3.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	11:12						
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	11:12						
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	1	11:12	22.5	7.78	26.3	7.78	1.51	3.5
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	2	11:12	22.4	7.75	26.2	7.75	1.55	3.1
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	10:46	22.3	7.82	26.1	6.17	1.16	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	10:46	22.2	7.85	26.2	6.13	1.13	3.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	10:46						
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	10:46						
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	3.8	3	1	10:46	22.3	7.87	26.3	6.07	1.4	2.8
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	3.8	3	2	10:46	22.4	7.88	26.4	6.02	1.43	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	11:38	22.3	7.77	25.9	6.2	1.08	2.7
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	11:38	22.4	7.8	26	6.14	1.05	2.6
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.1	2	1	11:38	22.5	7.82	26.4	6.28	1.37	2.9
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.1	2	2	11:38	22.6	7.85	26.3	6.23	1.39	2.3
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.2	3	1	11:38	22.7	7.83	26.6	6.18	1.61	2.2
TMCLKL	HY/2012/08	2014-04-25	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.2	3	2	11:38	22.6	7.78	26.5	6.12	1.64	2.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	20:14	22.2	7.73	25.5	6.12	3.5	4.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	20:14	22.3	7.75	25.6	6.14	3.48	3.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	1	20:14	22.4	7.81	25.7	6.22	3.62	4.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.8	2	2	20:14	22.4	7.83	25.8	6.24	3.64	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	1	20:14	22.5	7.66	25.9	6.19	3.75	5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.5	3	2	20:14	22.6	7.68	26	6.17	3.73	6.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	17:02	22.3	7.76	25.5	6.29	3.42	4.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	17:02	22.2	7.78	25.6	6.31	3.44	4.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.8	2	1	17:02	22.4	7.81	25.7	6.35	3.52	4.6

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.8	2	2	17:02	22.5	7.83	25.7	6.37	3.54	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.6	3	1	17:02	22.6	7.69	25.8	6.24	3.61	6.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.6	3	2	17:02	22.5	7.71	25.9	6.26	3.63	7
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	19:26	22.2	7.78	25.5	6.24	3.39	4.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	19:26	22.3	7.79	25.5	6.26	3.41	4.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	19:26	22.3	7.81	25.6	6.29	3.46	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	19:26	22.4	7.79	25.7	6.31	3.48	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	19:26	22.5	7.85	25.8	6.11	3.53	5.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	19:26	22.6	7.83	25.9	6.13	3.55	5.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	19:02	22.3	7.83	25.5	6.11	3.46	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	19:02	22.3	7.84	25.6	6.13	3.44	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.1	2	1	19:02	22.4	7.77	25.7	6.35	3.55	4.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.1	2	2	19:02	22.4	7.75	25.7	6.37	3.57	4.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.1	3	1	19:02	22.5	7.67	25.8	6.06	3.61	5.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.1	3	2	19:02	22.6	7.69	25.9	6.08	3.63	6.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	19:50	22.2	7.67	25.5	6.19	3.45	6.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	19:50	22.2	7.69	25.6	6.17	3.47	5.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	1	19:50	22.3	7.72	25.7	6.35	3.55	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	2	19:50	22.4	7.74	25.7	6.37	3.58	5.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	11.4	3	1	19:50	22.5	7.81	25.8	6.15	3.62	5.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	11.4	3	2	19:50	22.5	7.83	25.9	6.17	3.64	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	18:38	22.3	7.76	25.5	6.17	3.5	5.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	18:38	22.2	7.78	25.6	6.19	3.52	4.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.3	2	1	18:38	22.4	7.83	25.7	6.24	3.63	4.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.3	2	2	18:38	22.5	7.81	25.8	6.22	3.65	3.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.5	3	1	18:38	22.6	7.69	25.9	6.09	3.71	3.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.5	3	2	18:38	22.7	7.71	26	6.11	3.73	3.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	17:50	22.3	7.75	25.5	6.35	3.41	6.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	17:50	22.4	7.77	25.6	6.37	3.39	8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	17:50						
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	17:50						
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	17:50	22.5	7.82	25.7	6.27	3.55	7.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	17:50	22.4	7.8	25.6	6.25	3.57	7.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	18:14	22.2	7.81	25.5	6.23	3.39	4.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	18:14	22.3	7.79	25.5	6.25	3.41	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	18:14						
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	18:14						
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4	3	1	18:14	22.4	7.75	25.6	6.11	3.73	5.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4	3	2	18:14	22.5	7.73	25.7	6.13	3.71	5.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	17:26	22.2	7.83	25.5	6.2	3.47	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	17:26	22.3	7.85	25.5	6.22	3.49	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	8.3	2	1	17:26	22.3	7.69	25.6	6.31	3.46	6.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	8.3	2	2	17:26	22.4	7.67	25.7	6.33	3.44	6.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	15.5	3	1	17:26	22.5	7.73	25.8	6.2	3.71	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	15.5	3	2	17:26	22.6	7.75	25.8	6.18	3.69	6.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	10:42	22.2	7.74	25.5	6.09	3.52	5.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	10:42	22.2	7.76	25.6	6.07	3.54	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.7	2	1	10:42	22.3	7.81	25.7	6.14	3.66	6
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.7	2	2	10:42	22.4	7.83	25.8	6.16	3.68	6.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.3	3	1	10:42	22.5	7.66	25.8	6.1	3.8	8.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.3	3	2	10:42	22.6	7.68	25.9	6.08	3.82	5.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	13:42	22.2	7.73	25.5	6.25	3.47	6.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	13:42	22.3	7.71	25.5	6.23	3.49	6.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	1	13:42	22.4	7.66	25.6	6.31	3.59	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.7	2	2	13:42	22.5	7.68	25.7	6.29	3.61	6.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	1	13:42	22.5	7.69	25.8	6.17	3.66	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.4	3	2	13:42	22.6	7.71	25.9	6.19	3.68	5.9

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	11:20	22.3	7.73	25.5	6.17	3.43	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	11:20	22.3	7.71	25.6	6.19	3.45	4.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	1	11:20	22.4	7.65	25.7	6.23	3.53	5.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	2	11:20	22.5	7.67	25.7	6.25	3.51	6.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	11:20	22.6	7.83	25.8	6.07	3.6	5.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	11:20	22.5	7.85	25.9	6.05	3.62	6.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	11:44	22.2	7.83	25.5	6.09	3.49	5.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	11:44	22.3	7.85	25.5	6.07	3.51	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6	2	1	11:44	22.4	7.72	25.6	6.31	3.6	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6	2	2	11:44	22.5	7.74	25.7	6.29	3.62	6.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.9	3	1	11:44	22.6	7.69	25.8	6	3.65	5.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.9	3	2	11:44	22.7	7.67	25.7	6.02	3.67	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	11:00	22.2	7.65	25.5	6.3	3.51	6.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	11:00	22.3	7.67	25.5	6.25	3.53	6.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	1	11:00	22.4	7.72	25.6	6.27	3.64	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	2	11:00	22.4	7.74	25.7	6.25	3.62	5.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	1	11:00	22.5	7.77	25.7	6.11	3.66	7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	2	11:00	22.6	7.79	25.8	6.13	3.68	6.4
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	12:08	22.2	7.76	25.5	6.13	3.54	6.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	12:08	22.2	7.78	25.6	6.11	3.56	5.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.2	2	1	12:08	22.3	7.83	25.7	6.17	3.72	5.1
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.2	2	2	12:08	22.4	7.85	25.7	6.19	3.7	4.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.3	3	1	12:08	22.5	7.67	25.8	6	3.76	5.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.3	3	2	12:08	22.6	7.69	25.9	5.98	3.78	4.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	12:54	22.2	7.72	25.5	6.31	3.45	6.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	12:54	22.2	7.7	25.6	6.29	3.47	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	12:54						
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	12:54						
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.1	3	1	12:54	22.3	7.65	25.7	6.22	3.61	5.9
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.1	3	2	12:54	22.4	7.67	25.6	6.24	3.62	5.6
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	12:30	22.2	7.81	25.5	6.17	3.43	5.3
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	12:30	22.3	7.83	25.5	6.19	3.45	5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	12:30						
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	12:30						
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	3.8	3	1	12:30	22.4	7.77	25.6	6.07	3.81	5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	3.8	3	2	12:30	22.4	7.78	25.7	6.05	3.79	6.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	13:18	22.2	7.65	25.5	6.15	3.52	4.7
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	13:18	22.3	7.67	25.6	6.13	3.54	4.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	8.2	2	1	13:18	22.4	7.72	25.7	6.26	3.51	6.8
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	8.2	2	2	13:18	22.5	7.74	25.7	6.28	3.49	5.2
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	15.3	3	1	13:18	22.6	7.81	25.8	6.13	3.68	7.5
TMCLKL	HY/2012/08	2014-04-28	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	15.3	3	2	13:18	22.7	7.79	25.8	6.15	3.66	7.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	21:08	23.3	7.74	27.2	6.12	3.51	3.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	21:08	23.2	7.77	27.3	6.07	3.52	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	1	21:08	23.5	7.71	27.5	6.23	3.37	4.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.7	2	2	21:08	23.5	7.65	27.4	6.26	3.38	4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.3	3	1	21:08	23.6	7.63	27.6	6.01	3.63	4.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.3	3	2	21:08	23.7	7.68	27.7	5.97	3.66	4.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	18:40	23.5	7.79	27.1	5.97	3.62	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	18:40	23.3	7.82	27.3	5.92	3.65	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7	2	1	18:40	23.6	7.76	27.4	6.14	3.46	4.4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Middle	7	2	2	18:40	23.5	7.72	27.3	6.17	3.41	2.4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.9	3	1	18:40	23.6	7.66	27.5	5.83	3.68	4.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.9	3	2	18:40	23.7	7.69	27.5	5.85	3.73	4.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	20:28	23.2	7.74	27.2	6.04	3.61	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	20:28	23.3	7.71	27.3	6.08	3.64	3.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	1	20:28	23.4	7.65	27.5	6.23	3.43	3.2

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.8	2	2	20:28	23.4	7.69	27.5	6.17	3.46	3.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.5	3	1	20:28	23.5	7.58	27.7	5.93	3.7	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14.5	3	2	20:28	23.4	7.62	27.6	5.96	3.65	3.4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	20:10	23.4	7.67	27.3	6.11	3.63	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	20:10	23.3	7.71	27.2	6.06	3.64	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	1	20:10	23.6	7.61	27.5	6.21	3.45	3.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6.3	2	2	20:10	23.6	7.65	27.6	6.25	3.47	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.6	3	1	20:10	23.7	7.58	27.8	5.93	3.72	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	11.6	3	2	20:10	23.8	7.55	27.8	5.98	3.77	3.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	20:46	23.5	7.76	27.4	5.96	3.62	4.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	20:46	23.4	7.79	27.3	6.01	3.59	3.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	1	20:46	23.5	7.73	27.5	6.14	3.49	2.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.4	2	2	20:46	23.6	7.68	27.6	6.18	3.46	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	1	20:46	23.7	7.61	27.7	5.82	3.82	3.4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.8	3	2	20:46	23.7	7.66	27.5	5.84	3.85	4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	19:52	23.3	7.72	27.4	5.93	3.69	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	19:52	23.2	7.78	27.4	5.95	3.63	4
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	1	19:52	23.4	7.68	27.6	6.12	3.44	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6.4	2	2	19:52	23.5	7.65	27.5	6.16	3.49	3.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.7	3	1	19:52	23.7	7.64	27.8	5.88	3.72	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11.7	3	2	19:52	23.5	7.61	27.8	5.91	3.74	3.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	19:16	23.4	7.76	27.4	6.08	3.51	2.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	19:16	23.5	7.78	27.4	6.05	3.54	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	19:16						
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	19:16						
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.7	3	1	19:16	23.7	7.71	27.6	5.94	3.64	4.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.7	3	2	19:16	23.6	7.74	27.7	5.98	3.69	3.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	19:34	23.3	7.71	27.3	6.08	3.47	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	19:34	23.2	7.75	27.2	6.12	3.44	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	19:34						
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	19:34						
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.6	3	1	19:34	23.4	7.66	27.5	6.01	3.52	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.6	3	2	19:34	23.3	7.64	27.5	6.04	3.58	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	1	18:58	23.3	7.81	27.2	6.05	3.52	3
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Surface	1	1	2	18:58	23.4	7.83	27.2	6.08	3.54	2.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	1	18:58	23.6	7.73	27.3	6.15	3.35	2.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Middle	7.4	2	2	18:58	23.6	7.76	27.2	6.18	3.38	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.7	3	1	18:58	23.7	7.63	27.5	5.94	3.64	2.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Flood	Cloudy	Small Wave	SR10A	Bottom	13.7	3	2	18:58	23.6	7.68	27.6	5.92	3.67	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	12:00	23.4	7.72	27.4	6.01	3.61	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	12:00	23.6	7.67	27.5	5.96	3.63	2.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	1	12:00	23.7	7.62	27.8	6.15	3.43	3.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.6	2	2	12:00	23.9	7.65	27.8	6.11	3.47	5
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.1	3	1	12:00	24.1	7.57	27.9	5.82	3.88	2.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	22.1	3	2	12:00	24.1	7.61	28.1	5.85	3.85	4.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	15:01	23.6	7.74	27.7	5.84	3.72	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	15:01	23.7	7.75	27.6	5.88	3.76	3.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.9	2	1	15:01	23.8	7.71	27.8	6.04	3.53	3.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.9	2	2	15:01	23.9	7.68	27.7	5.97	3.49	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.7	3	1	15:01	24.1	7.62	27.8	5.76	3.82	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12.7	3	2	15:01	24.2	7.64	27.9	5.72	3.79	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	12:47	23.8	7.72	27.5	5.93	3.72	3.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	12:47	23.7	7.69	27.6	5.97	3.74	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.6	2	1	12:47	24.1	7.62	27.7	6.14	3.53	2.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.6	2	2	12:47	24.1	7.67	27.7	6.08	3.49	2.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.2	3	1	12:47	24.2	7.62	27.8	5.81	3.82	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	14.2	3	2	12:47	24.1	7.64	27.9	5.77	3.78	2.8

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	13:12	23.6	7.79	27.7	5.92	3.71	2.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	13:12	23.7	7.76	27.7	5.97	3.75	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.2	2	1	13:12	23.7	7.71	27.8	6.11	3.52	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	6.2	2	2	13:12	23.7	7.74	27.7	6.08	3.53	2.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.3	3	1	13:12	23.8	7.65	27.9	5.81	3.88	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	11.3	3	2	13:12	23.8	7.67	27.9	5.78	3.85	3.4
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	12:24	23.9	7.65	27.8	5.89	3.68	2.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	12:24	23.8	7.71	27.7	5.92	3.74	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	1	12:24	24.2	7.73	27.9	6.05	3.52	3.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.2	2	2	12:24	24.1	7.76	28.1	6.11	3.56	2.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	1	12:24	24.3	7.64	28.3	5.76	3.94	3.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.4	3	2	12:24	24.1	7.58	28.2	5.72	3.91	2.6
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	13:37	23.8	7.73	27.6	5.83	3.81	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	13:37	23.8	7.78	27.7	5.87	3.84	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	1	13:37	23.9	7.72	27.8	5.98	3.63	3.1
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	6.3	2	2	13:37	24.1	7.68	27.8	6.05	3.66	3.5
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	1	13:37	24.2	7.64	27.9	5.73	3.89	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	11.5	3	2	13:37	24.1	7.69	27.9	5.75	3.92	4.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	14:23	23.8	7.71	27.8	5.93	3.65	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	14:23	23.7	7.77	27.8	5.96	3.69	2.7
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	14:23						
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	14:23						
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.5	3	1	14:23	24	7.66	27.9	5.82	3.81	2.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.5	3	2	14:23	23.9	7.69	27.8	5.87	3.76	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	14:00	23.6	7.68	27.7	5.92	3.54	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	14:00	23.7	7.64	27.8	5.95	3.59	3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	14:00						
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	14:00						
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.5	3	1	14:00	23.9	7.62	28.1	5.81	3.67	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.5	3	2	14:00	23.8	7.64	27.9	5.84	3.69	3.3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	1	14:48	23.7	7.68	27.7	5.92	3.63	3.9
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Surface	1	1	2	14:48	23.7	7.73	27.8	5.95	3.67	3
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.2	2	1	14:48	23.8	7.62	27.9	6.07	3.42	2.8
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Middle	7.2	2	2	14:48	23.7	7.65	27.8	6.12	3.49	3.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.4	3	1	14:48	23.9	7.58	28.1	5.88	3.78	2.2
TMCLKL	HY/2012/08	2014-04-30	Mid-Ebb	Cloudy	Small Wave	SR10A	Bottom	13.4	3	2	14:48	23.9	7.63	28.1	5.91	3.81	3.2

Appendix J

Impact Dolphin Monitoring Survey

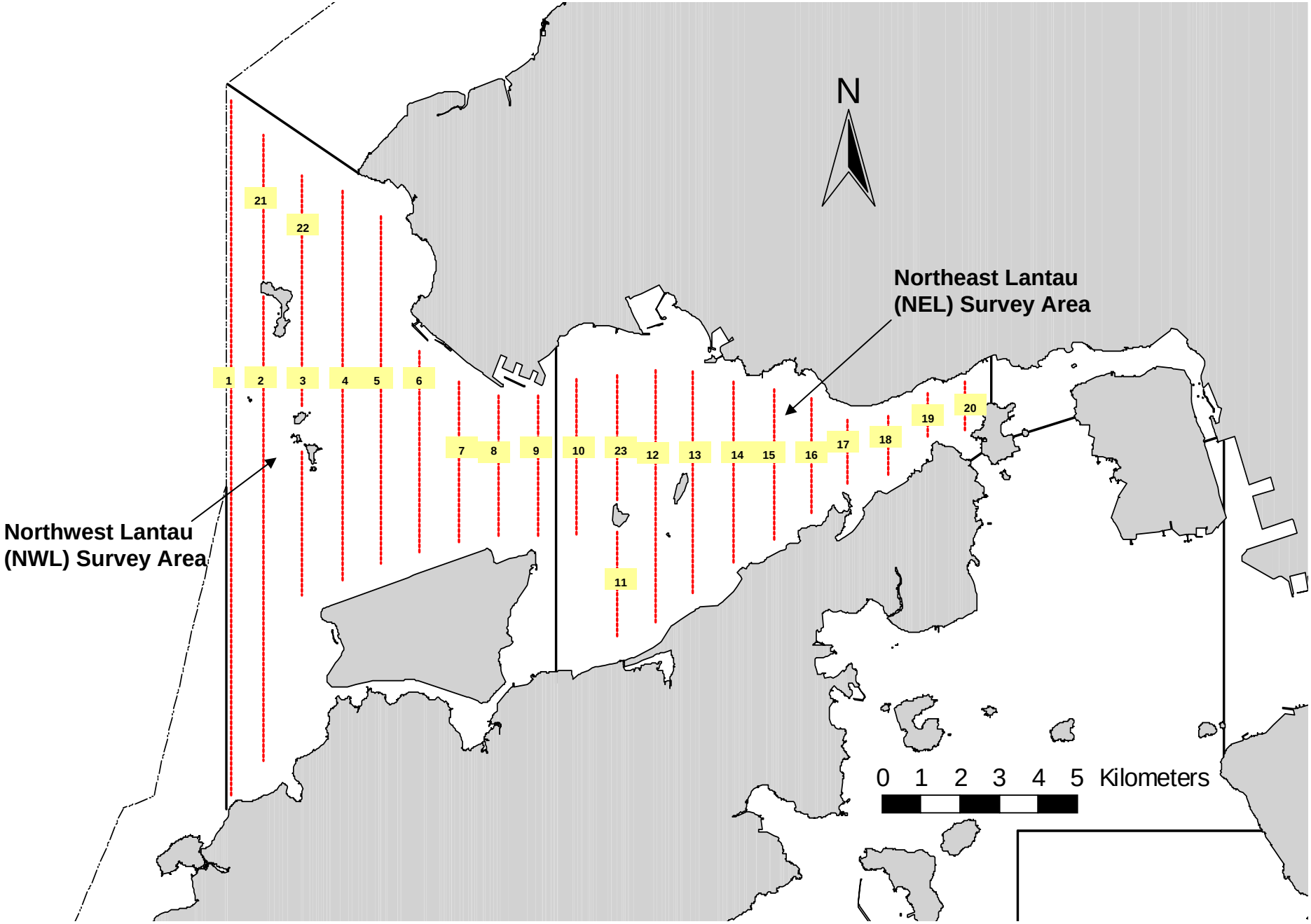


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

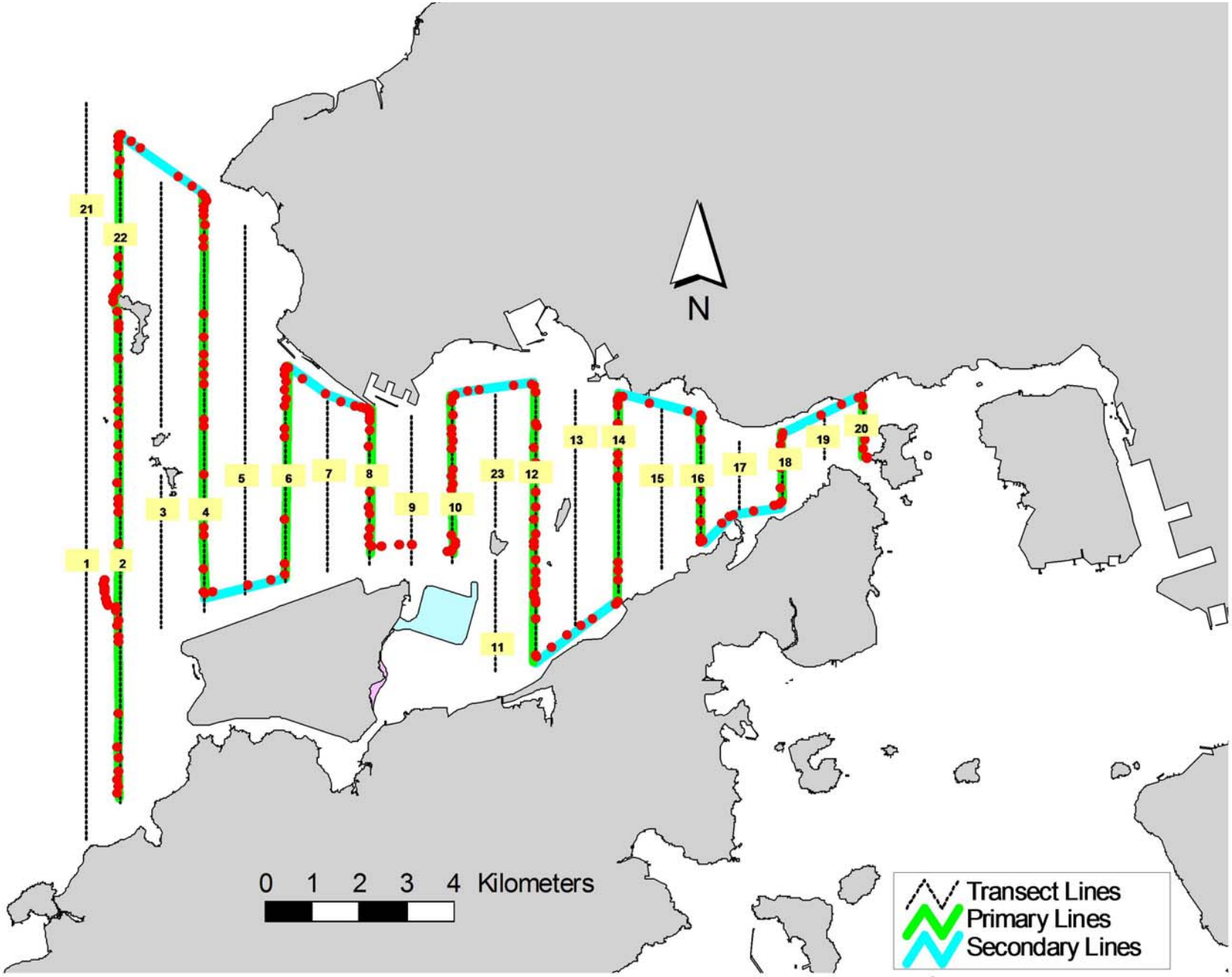


Figure 2. Survey Route on April 4th, 2014 (from HKLR03 project)

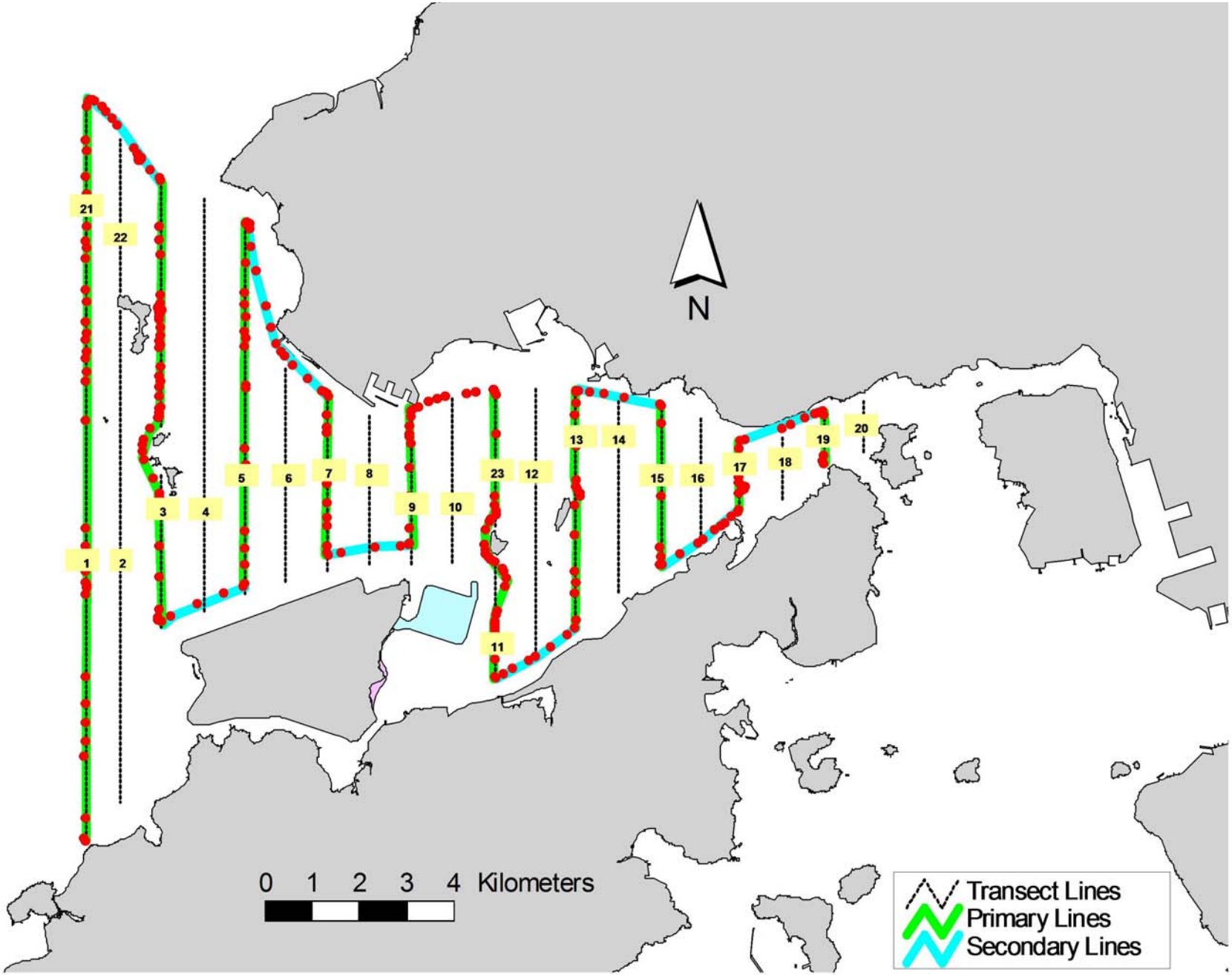


Figure 3. Survey Route on April 14th, 2014 (from HKLR03 project)

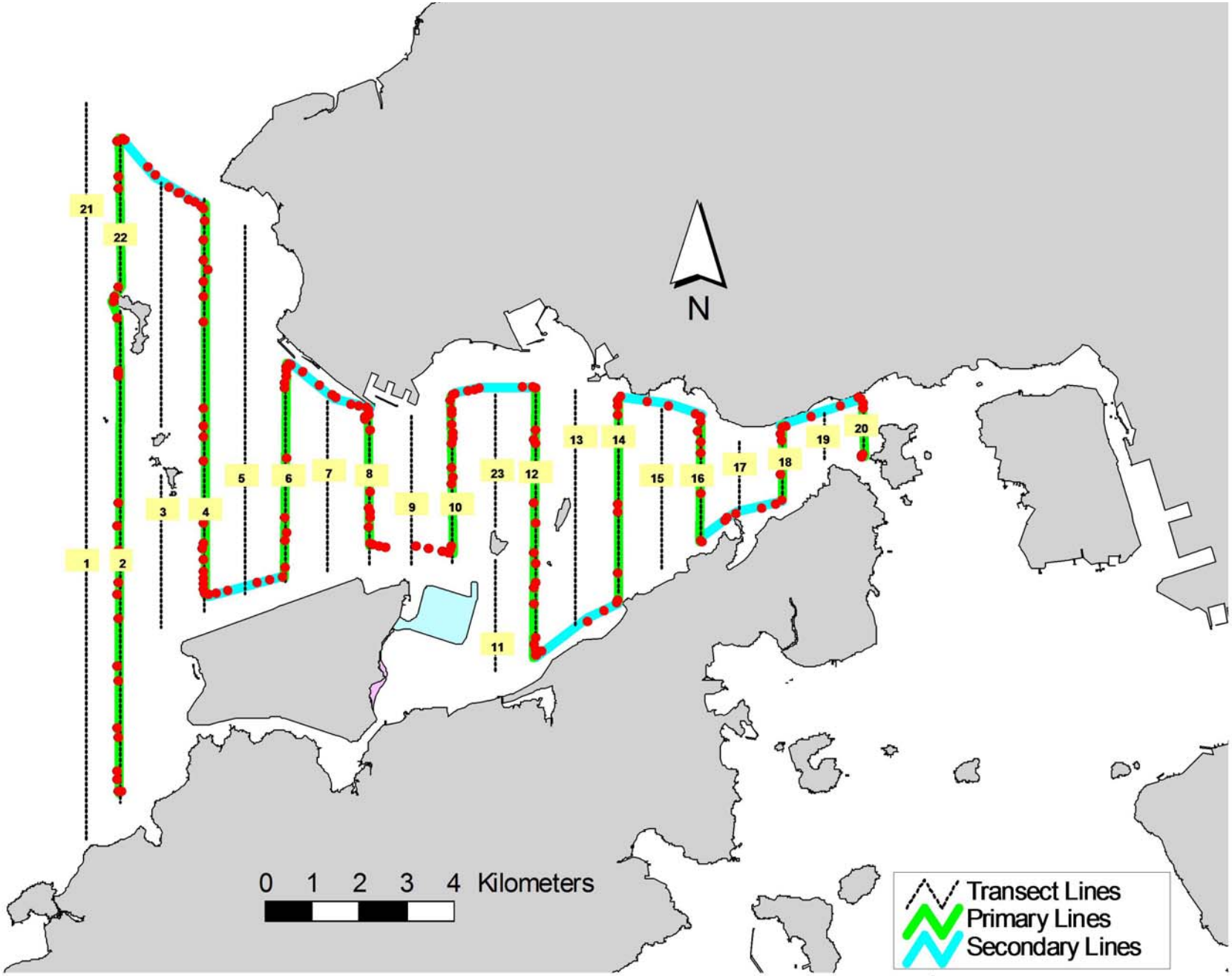


Figure 4. Survey Route on April 16th, 2014 (from HKLR03 project)

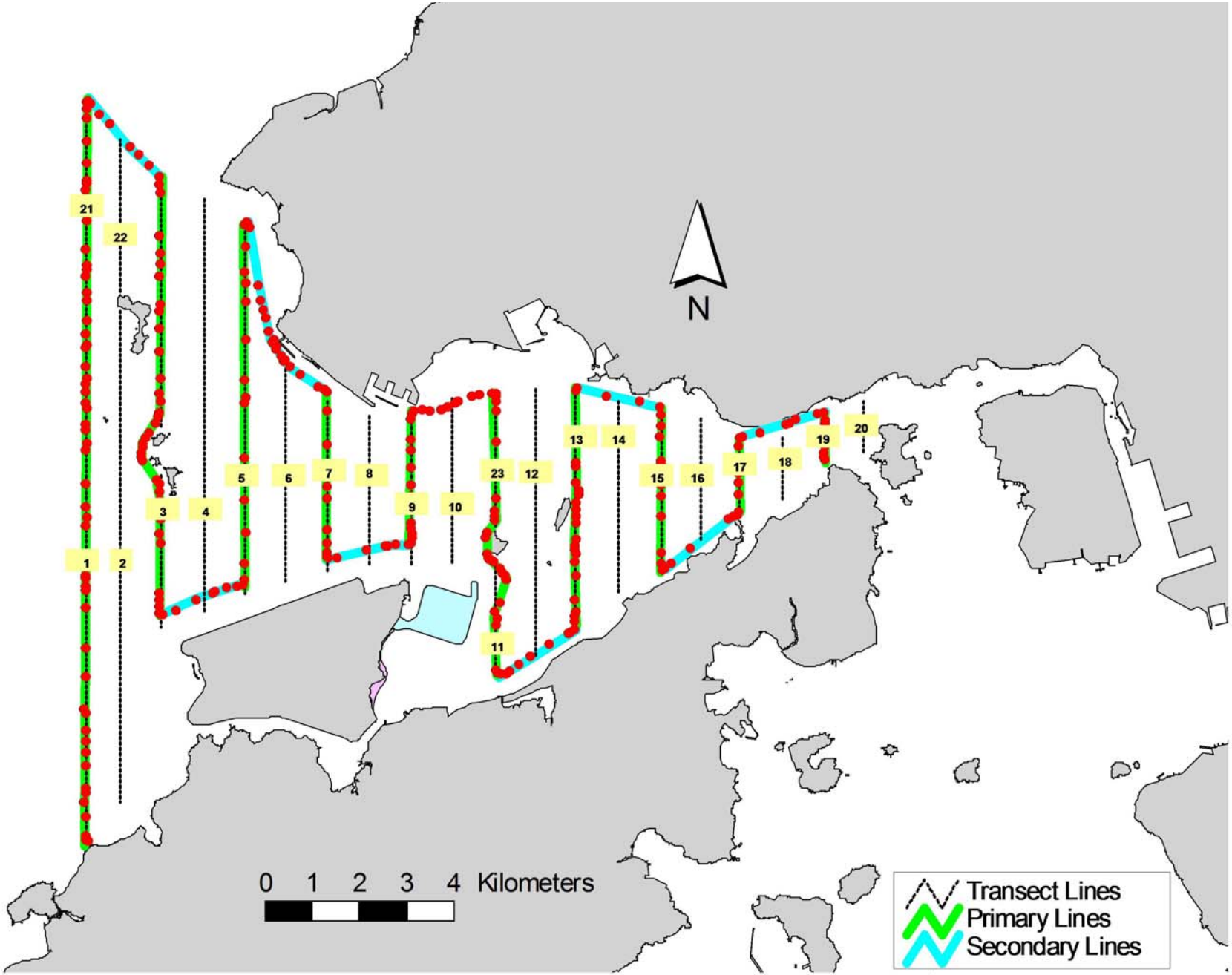


Figure 5. Survey Route on April 24th, 2014 (from HKLR03 project)

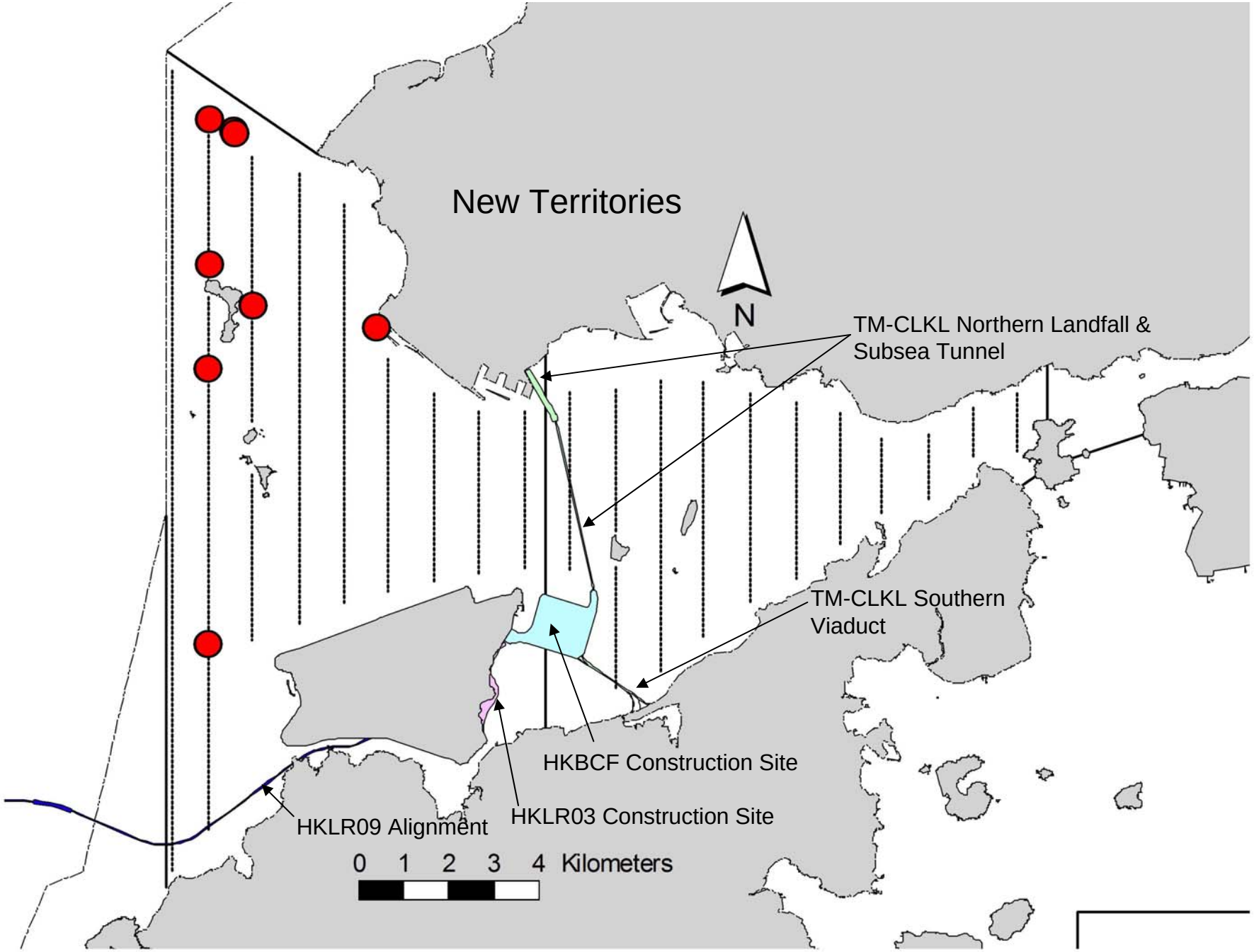


Figure 6. Distribution of Chinese White Dolphin Sightings During April 2014 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (April 2014)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
4-Apr-14	NW LANTAU	1	1.41	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NW LANTAU	2	8.57	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NW LANTAU	3	14.93	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NW LANTAU	4	3.00	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NW LANTAU	2	3.16	SPRING	STANDARD31516	HKLR	S
4-Apr-14	NW LANTAU	3	3.00	SPRING	STANDARD31516	HKLR	S
4-Apr-14	NW LANTAU	4	1.00	SPRING	STANDARD31516	HKLR	S
4-Apr-14	NE LANTAU	2	0.80	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NE LANTAU	3	15.53	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NE LANTAU	4	4.16	SPRING	STANDARD31516	HKLR	P
4-Apr-14	NE LANTAU	2	2.20	SPRING	STANDARD31516	HKLR	S
4-Apr-14	NE LANTAU	3	8.51	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NE LANTAU	2	0.90	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NE LANTAU	3	9.61	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NE LANTAU	4	6.20	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NE LANTAU	2	1.80	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NE LANTAU	3	6.39	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NE LANTAU	4	2.90	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NW LANTAU	2	1.40	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NW LANTAU	3	14.62	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NW LANTAU	4	23.91	SPRING	STANDARD31516	HKLR	P
14-Apr-14	NW LANTAU	2	2.10	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NW LANTAU	3	7.86	SPRING	STANDARD31516	HKLR	S
14-Apr-14	NW LANTAU	4	2.99	SPRING	STANDARD31516	HKLR	S
16-Apr-14	NW LANTAU	2	4.27	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NW LANTAU	3	24.56	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NW LANTAU	4	2.91	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NW LANTAU	2	2.45	SPRING	STANDARD31516	HKLR	S
16-Apr-14	NW LANTAU	3	4.20	SPRING	STANDARD31516	HKLR	S
16-Apr-14	NE LANTAU	2	3.94	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NE LANTAU	3	15.37	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NE LANTAU	4	1.10	SPRING	STANDARD31516	HKLR	P
16-Apr-14	NE LANTAU	2	1.20	SPRING	STANDARD31516	HKLR	S
16-Apr-14	NE LANTAU	3	9.49	SPRING	STANDARD31516	HKLR	S
24-Apr-14	NW LANTAU	2	1.91	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NW LANTAU	3	29.94	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NW LANTAU	4	8.44	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NW LANTAU	2	0.80	SPRING	STANDARD31516	HKLR	S
24-Apr-14	NW LANTAU	3	9.72	SPRING	STANDARD31516	HKLR	S
24-Apr-14	NW LANTAU	4	2.20	SPRING	STANDARD31516	HKLR	S
24-Apr-14	NE LANTAU	2	5.03	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NE LANTAU	3	10.14	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NE LANTAU	4	1.31	SPRING	STANDARD31516	HKLR	P
24-Apr-14	NE LANTAU	2	7.37	SPRING	STANDARD31516	HKLR	S
24-Apr-14	NE LANTAU	3	3.65	SPRING	STANDARD31516	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (April 2014)

(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
4-Apr-14	1	1021	3	NW LANTAU	3	43	ON	HKLR	819355	805442	SPRING	NONE	P
14-Apr-14	1	1438	8	NW LANTAU	3	94	ON	HKLR	826451	806445	SPRING	NONE	P
14-Apr-14	2	1517	2	NW LANTAU	4	273	ON	HKLR	830117	806010	SPRING	NONE	S
16-Apr-14	1	1048	4	NW LANTAU	2	541	ON	HKLR	825124	805454	SPRING	NONE	P
16-Apr-14	2	1113	1	NW LANTAU	2	385	ON	HKLR	827306	805458	SPRING	NONE	P
16-Apr-14	3	1137	2	NW LANTAU	2	17	ON	HKLR	830362	805465	SPRING	NONE	P
16-Apr-14	4	1150	9	NW LANTAU	2	49	ON	HKLR	830073	806051	SPRING	NONE	S
24-Apr-14	1	1328	1	NW LANTAU	3	123	ON	HKLR	825992	809184	SPRING	NONE	S

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in April 2014

ID#	DATE	STG#	AREA
EL01	16/04/14	2	NW LANTAU
NL24	14/04/14	1	NW LANTAU
NL48	16/04/14	4	NW LANTAU
NL104	16/04/14	4	NW LANTAU
NL120	14/04/14	1	NW LANTAU
NL145	16/04/14	1	NW LANTAU
NL182	24/04/14	1	NW LANTAU
NL202	16/04/14	4	NW LANTAU
NL214	16/04/14	3	NW LANTAU
NL224	16/04/14	3	NW LANTAU
NL226	04/04/14	1	NW LANTAU
NL259	04/04/14	1	NW LANTAU
	16/04/14	4	NW LANTAU
NL261	16/04/14	4	NW LANTAU
NL262	16/04/14	4	NW LANTAU
NL286	16/04/14	4	NW LANTAU
NL287	16/04/14	1	NW LANTAU
NL306	16/04/14	1	NW LANTAU
WL179	16/04/14	1	NW LANTAU

Appendix IV. Photographs of Identified Individual Dolphins in April 2014 (HKLR03)

Appendix IV. (cont'd)

Appendix IV. (cont'd)

Appendix K

Event and Action Plan

Event and Action Plan for Impact Air Monitoring

	Action			
	ET [(a)]	**IEC [(a)]**	**SOR [(a)]**	**Contractor(s)**
Action Level Exceedance				
	1. Identify the source. 2. Repeat measurement to confirm finding. If two consecutive measurements exceed Action Level, the exceedance is then confirmed. 3. Inform the IEC and the SOR. 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6. Discuss with the IEC and the Contractor on remedial actions required. 7. If exceedance continues, arrange meeting with the IEC and the SOR. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working method. 3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Rectify any unacceptable practice 2. Amend working methods if appropriate 3. If the exceedance is confirmed to be Project related, submit proposals for remedial actions to IEC within 3 working days of notification 4. Implement the agreed proposals 5. Amend proposal if appropriate

	Action			
	ET [(a)]	**IEC [(a)]**	**SOR [(a)]**	**Contractor(s)**
Limit Level Exceedance				
	1. Identify the source. 2. Repeat measurement to confirm finding. If two consecutive measurements exceed Limit Level, the exceedance is then confirmed. 3. Inform the IEC, the SOR, the DEP and the Contractor. 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 7. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken. 8. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 9. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. If the exceedance is confirmed to be Project related after investigation, in consultation with the IEC, agree with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. If the exceedance is confirmed to be Project related after investigation, submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Amend proposal if appropriate. 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.

Note: (a) ET – Environmental Team; IEC – Independent Environmental Checker; SOR – Supervising Officer's Representative

Event & Action Plan for Impact Water Quality Monitoring

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

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

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Officer's Representative

Event / Action Plan for Impact Dolphin Monitoring

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

EVENT	ACTION			
	ET	**IEC**	**SOR**	**Contractor**
	3. Identify source(s) of impact; 4. Inform the IEC, SOR and Contractor of findings; 5. Check monitoring data; 6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary. 7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.	Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise SOR of the results and findings accordingly. 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise SOR the results and findings accordingly.	proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, SOR to signify the agreement in writing on such proposals and any other mitigation measures. 3. Supervise the implementation of additional monitoring and/or any other mitigation measures.	potential mitigation measures. 3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary. 4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Officer's Representative

Appendix L

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

Table L1 *Cumulative Statistics on Exceedances*

Parameters	Level of Exceedance	Total No. recorded in this reporting month	Total No. recorded since project commencement
1-hr TSP	Action	1	24
	Limit	0	2
24-hr TSP	Action	0	5
	Limit	0	1
Water Quality	Action	0	6
	Limit	0	1
Impact Dolphin Monitoring	Action	0	1
	Limit	0	0

Table L2 *Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (Apr 2014)	0	0	0
Total No. received since project commencement	0	0	0

Email message

Environmental Resources Management

16/F DCH Commercial Centre,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com

To	ENVIRON - Hong Kong, Limited (ENPO)
From	ERM- Hong Kong, Limited
Ref/Project number	Contract No. HY/2012/08 Tuen Mun–Chek Lap Kok Link–Northern Connection Sub-sea Tunnel Section
Subject	Notification of Exceedance for Water Quality Impact Monitoring
Date	10 April 2014

ERM

Dear Sir or Madam,

Please find the Notification of Exceedance (NOE) of the following Log no.:

Action Level Exceedance
0212330_31March2014_SS_F_Station_IS14

Limit Level Exceedance
0212330_31March2014_SS_F_Station_IS12

A total of two exceedances were recorded on 31 March 2014.

Regards,

Mr Jovy Tam
Environmental Team Leader

ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08
TUEN MUN – CHEK LAP KOK LINK –
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Marine Water Quality Impact Monitoring
Notification of Exceedance

Log No.	**0212330_31March 2014_SS_F_Station IS12** **0212330_31March 2014_SS_F_Station IS14** **[Total No. of Exceedances = 2]**		
Date	31 March 2014 (Measured) 1 April 2014 (*In situ* results received by ERM) 10 April 2014 (Laboratory results received by ERM)		
Monitoring Station	CS4, CS6, SR8, SR9, SR10A, IS12, IS13, IS14, IS15		
Parameter(s) with Exceedance(s)	Depth-averaged Suspended Solids (SS, mg/L)		
Action Levels	SS	120% of upstream control station at the same tide of the same day (i.e., CS6: 10.8 x 120% = 13.0 mg/L for mid-flood; CS4: 12.4 x 120% = 14.9 mg/L for mid-ebb) and 95%-ile of baseline data (i.e., 23.5 mg/L).	
Limit Levels	SS	130% of upstream control station at the same tide of the same day and 10mg/L for WSD Seawater Intakes at Tuen Mun (i.e., CS6: 10.8 x 130% = 14.0 mg/L for mid-flood; CS4: 12.4 x 130% = 16.1 mg/L for mid-ebb) and 99%-ile of baseline data. (i.e., 34.4 mg/L)	
Measured Levels	Limit Level Exceedance for SS is observed at IS12 (36.0 mg/L) during mid-flood tide. Action Level Exceedance for SS is observed at IS14 (25.1 mg/L) during mid-flood tide.		
Sampling Time	Sampling Station	Start Time	End Time
	IS12 (Mid-Flood)	20:05	20:20
	IS14 (Mid-Flood)	20:27	20:42
Works Undertaken (at the time of monitoring event)	According to the information provided by the Contractor, marine works conducted on 31 March 2014 included: • Bottom dumping of G400 rock material to seawall trench was undertaken at Zone C of Portion N-B; • Unloading of seawall block at Zone D of Portion N-B; and • Filling at Zone E and driving marine sheet pile wall at Zone F of Portion N-A. No dredging activities were carried out throughout the day.		

Possible Reason for Action or Limit Level Exceedance(s)	The exceedances are unlikely to be due to the Project, in view of the following: • Elevated turbidity and suspended solids levels were observed in all monitoring stations which may be resulting from the adverse weather (Black Rainstorm Warning and Thunderstorm Warning) on both 30 and 31 March 2014, in which heavy rainfall and increased input from the Pearl River brought in turbid water from nearby surface runoff. • Apart from IS12 and IS14, SS levels at all other monitoring stations were in compliance with the Action and Limit Levels during both mid-flood and mid-ebb tides on the same day. • Depth-averaged Turbidity levels at all stations were in compliance with the Action and Limit Levels during both tides on the same day. Likewise, dissolved oxygen (DO) at all levels were relatively high and were in compliance with the Action and Limit Levels in both mid-ebb and mid-flood tides. • Whilst Suspended Solids exceedances were observed at IS12 and IS14 on 31 March 2014, the levels of SS at the monitoring stations on 28 March 2014 and 2 April 2014 were below the Action and Limit Levels. In addition, the level of SS at IS14 during mid-flood tide on 31 March 2014 was within the range of SS measured in the baseline survey (Mid-flood = 2.9 – 27.5 mg/L). • No malpractice was observed during the sampling process.
Actions Taken / To Be Taken	Reclamation filling was undertaken between the 200 m of leading seawalls using filling materials specified in the EP and the approved EIA Report with a single layer silt curtain being deployed as a precautionary measure to reduce dispersion of suspended solids. The level of reclamation filling was within the filling rate described in the EP. No immediate action is considered necessary. The ET will monitor for future trends in exceedances.
Remarks	The monitoring results and the locations of water quality monitoring stations are attached.

Email message

Environmental Resources Management

16/F DCH Commercial Centre,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com

To	ENVIRON - Hong Kong, Limited (ENPO)
From	ERM- Hong Kong, Limited
Ref/Project number	Contract No. HY/2012/08 Tuen Mun–Chek Lap Kok Link–Northern Connection Sub-sea Tunnel Section
Subject	Notification of Exceedance for Air Quality Impact Monitoring
Date	14 April 2014

Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following Log no.:

0212330_3April2014_1hrTSP_Station ASR10

A total of one Action Level Exceedance was recorded on 3 April 2014.

Regards,

Mr Jovy Tam
Environmental Team Leader

ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08
TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring
Notification of Exceedance

Log No.	**0212330_3April2014_1hrTSP_Station ASR10** **[Total No. of Exceedances = 1]**	
Date	3 April 2014 (Measured) 14 April 2014 (Laboratory results received by ERM)	
Monitoring Station	ASR1, ASR5, ASR6, ASR10 and AQMS1	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	1-hr TSP (µg/m³)	ASR10 = 337
	24-hr TSP (µg/m³)	ASR10 = 214
Limit Levels	1-hr TSP (µg/m³)	500
	24-hr TSP (µg/m³)	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR10 (381 µg/m³) during 1542 - 1642 hrs.	
Works Undertaken (at the time of monitoring event)	On 3 April 2014, marine dredging works were carried out by one dredger Crown Asia 1 at Portion N-C; seawall constructions at Portion N-B; filling at Area E and sheet piling at Portion N-A. At the time of monitoring during 1542 to 1642 hrs, land-based works were undertaken at Portion N6 for the CLP station structure works.	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedance(s) are unlikely to be due to the Project, in view of the following: • Monitoring station ASR10 is located distant (>1km) from the major construction works area, and the construction works is thus considered not directly associated with the observed Action Level of Exceedance. • According to the construction information provided by the Contractor, the majority of construction works on 3 April 2014 were marine-based with the dredging works being undertaken by one dredger (Crown Asia 1) at Portion N-C; filling works at Portion N-A, whilst only minor land-based construction works, the structure works of CLP power station at Portion N6. All land-based constructions at Portion N6 were considered to have minor effect on dust generation. • Whilst exceedance of Action Level were observed at ASR10, the average 1-hr TSP level at the monitoring station (ASR10 = 260 µg/m³) on 3 April 2014 were in compliance with the Action and Limit Levels. The 1-hr TSP at ASR10 returned to level below the Action/Limit Levels on the same day. • Same level and extent of construction works were carried out at the same works area on 28th March while no exceedance was recorded. • With reference to the recorded wind direction (ranged between 116° and 145°, blowing from a South-Easterly direction) during the period of the observed 1-hr TSP exceedance, Station ASR10 is located upstream to the marine-based construction activities at Portion N-A, N-B and N-C, and is located upstream from the land-based construction area (i.e. Site WA-18 and Portion N6), thus the observed exccedance should not be affected by the dust, if any, generated by the construction activities under this Contract. • As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedance may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project.	

Actions Taken / To Be Taken	The Contractor was reminded to ensure all dust mitigating measures are provided at Portion N6. The ET will monitor for future trends in exceedances.
Remarks	The monitoring results and the locations of air quality monitoring stations are attached.

Appendix M

Waste Flow Table

Name of Department: HyD **Contract No. / Works Order No.:** HY/2012/08

Monthly Summary Waste Flow Table for April 2014 [to be submitted not later than the 15th day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

Month	Actual Quantities of Inert Construction Waste Generated Monthly				
	(a)=(b)+(c)+(d)+(e) Total Quantity Generated	(b) Hard Rock and Large Broken Concrete	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill
	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)
Jan	9.012	0.000	0.000	0.000	9.012
Feb	0.000	0.000	0.000	0.000	0.000
Mar	0.105	0.000	0.000	0.000	0.105
Apr	0.022	0.000	0.000	0.000	0.022
May					
Jun					
Sub-total					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Total	12.857	0.000	0.000	0.000	12.857

Month	**Actual Quantities of <u>Inert</u> Construction Waste Generated Monthly**						
	Imported Fill to WA 23 & Reclamation Area (Rockfill 400)	Imported Fill to WA 23 & Reclamation Area (Rockfill 200)	Imported Fill to WA 23 & Reclamation Area (Rockfill Type A)	Imported Fill to Reclamation Area (Public Fill)	Imported Fill to Barging Point	Marine Disposal (Cat. L)	Marine Disposal (Cat. M_P &M_F)
	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 m^3)	(in '000 m^3)
Jan	177.300	4.050	8.544	0.000	124.412	34.000	12.500
Feb	143.891	27.825	5.371	0.000	81.296	18.500	24.500
Mar	257.304	53.388	27.958	113.789	63.961	37.300	40.450
Apr	198.245	10.186	41.702	191.094	26.640	28.600	15.400
May							
Jun							
Sub-total							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Total	947.855	92.941	103.035	304.883	341.781	180.000	111.050

Month	Actual Quantities of Non-inert Construction Waste Generated Monthly								
	Metals		Paper/ cardboard packaging		Plastics (see Note 3)		Chemical Waste		Others, e.g. General Refuse disposed at Landfill
	(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000ton)
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan	0.000	0.000	0.130	0.130	0.000	0.000	0.000	0.000	0.045
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.020	0.028
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036
Apr	0.000	0.000	0.160	0.160	0.000	0.000	0.000	0.000	0.026
May									
Jun									
Sub-total									
Jul									
Aug									
Sep									
Oct									
Nov									
Dec									
Total	0.000	0.000	0.670	0.670	0.000	0.000	0.020	0.020	0.307

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*							
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed of as Public Fill	Imported Fill	Marine Disposal (Cat. L)	Marine Disposal (Cat. M)
(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 m^3)	(in '000 m^3)
5.000	0.000	0.000	0.000	5.000	180.000	5.000	40.000

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*				
Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	General Refuse disposed of at Landfill
(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
0.000	0.050	0.000	0.000	0.100

Notes:
(1) The performance targets are given in the **ER Appendix 8J Clause 14** and the EM & A Manual(s).
(2) The waste flow table shall also include C&D materials to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3. (**ER Part 8 Clause 8.8.5 (d) (ii)** refers).