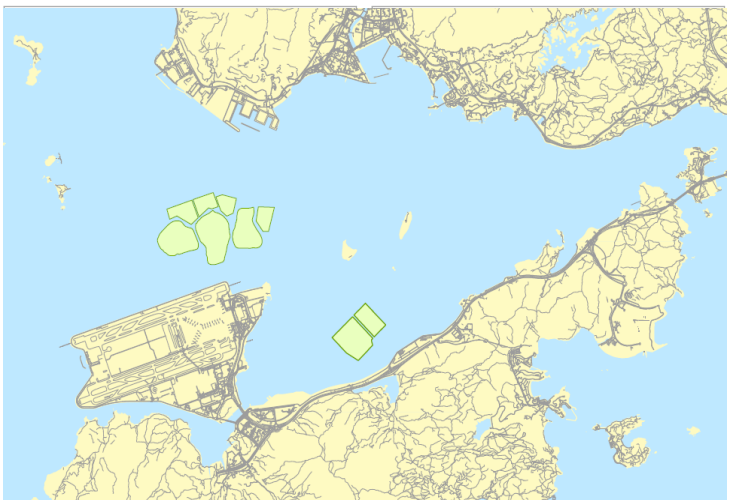

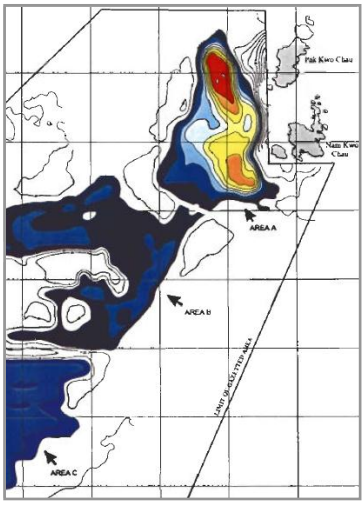

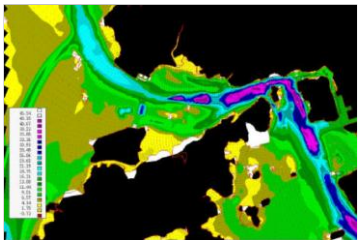

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Civil Engineering and Development Department

Environmental Monitoring and Audit for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012-2017) – Investigation

Agreement No. CE 23/2012(EP)

15th Monthly Progress Report for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau – November 2013

Revision 0

2 January 2014

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Document Code: 0175086 Monthly Nov_v0.doc

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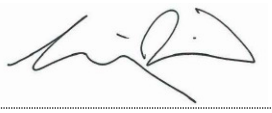
Client:	Project No:
Civil Engineering and Development Department (CEDD)	0175086
Summary: This document presents the 14th monthly progress report for Contaminated Mud Pits at the South of The Brothers and at East Sha Chau.	Date: 2 January 2014 Approved by:  Craig A. Reid *Partner*

Revision	Description	By	Checked	Approved	Date
v0	15th Monthly Progress Report for CMP V and SB CMPs	YL	JT	CAR	2/1/14

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Dredging, Management and Capping of Contaminated Sediment Disposal Facility to the South of The Brothers

Environmental Certification Sheet
EP-427/2011/A

Reference Document/Plan

Document/~~Plan~~ to be ~~Certified~~/ Verified:	15th Monthly Progress Report for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau - November 2013
Date of Report:	2 January 2014
Date prepared by ET:	2 January 2014
Date received by IA:	2 January 2014

Reference EP Condition

Environmental Permit Condition: Condition No.: 4.4

4 hard copies and 1 electronic copy of monthly EM&A Report shall be submitted to the Director within 2 weeks after the end of the reporting month. The EM&A Reports shall include a summary of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels). The submissions shall be certified by the ET Leader and verified by the Independent Auditor. Additional copies of the submission shall be provided to the Director upon request by the Director.

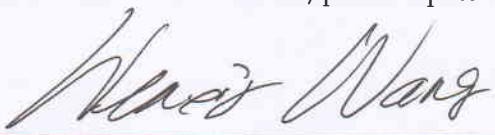
ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-427/2011/A

Craig A. Reid,
Environmental Team Leader:  Date: 2/1/2014

IA Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-427/2011/A

Dr Wang Wen Xiong,
Independent Auditor:  Date: 2/1/2014

CONTENTS

ANNEXES

Agreement No. CE 23/2012 (EP)
Environmental Monitoring and Audit
for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012-2017) - Investigation

15TH MONTHLY PROGRESS REPORT FOR NOVEMBER 2013

1.1 BACKGROUND

1.1.1 Since early 1990s, contaminated sediment (1) arising from various construction works (e.g. dredging and reclamation projects) in Hong Kong has been disposed of at a series of seabed pits at East of Sha Chau (ESC). In late 2008, a review indicated that the existing and planned facilities at ESC would not be able to meet the disposal demand after 2012. In order to meet this demand, the Hong Kong Special Administrative Region Government (HKSARG) decided to implement a new contained aquatic disposal (CAD) (2) facility at the South of The Brothers (SB CMPs) which had been under consideration for a number of years.

1.1.2 The environmental acceptability of the construction and operation of the Project had been confirmed by findings of the associated Environmental Impact Assessment (EIA) study completed in 2005 under *Agreement No. CE 12/2002(EP)* (3). The Director of Environmental Protection (DEP) approved this EIA report under the *Environmental Impact Assessment Ordinance* (*Cap. 499*) (*EIAO*) in September 2005 (*EIA Register No.: AEIAR-089/2005*).

1.1.3 In accordance with the EIA recommendation, prior to commencement of construction works for the SB CMPs, the Civil Engineering and Development Department (CEDD) undertook a detailed review and update of the EIA findings for the SB site (4). Findings of the EIA review undertaken in 2009/ 2010 confirmed that the construction and operation of the SB site had been predicted to be environmentally acceptable.

(1) According to the Management Framework of Dredged/ Excavated Sediment of ETWB TC(W) No. 34/2002, contaminated sediment in general shall mean those sediment requiring Type 2 – Confined Marine Disposal as determined according to this TC(W).

(2) CAD options may involve use of excavated borrow pits, or may involve purpose-built excavated pits. CAD sites are those which involve filling a seabed pit with contaminated mud and capping it with uncontaminated material such that the original seabed level is restored and the contaminated material is isolated from the surrounding marine environment.

(3) Detailed Site Selection Study for a Proposed Contaminated Mud Disposal Facility within the Airport East/ East of Sha Chau Area (Agreement No. CE 12/2002(EP))

(4) Under the CEDD study *Contaminated Sediment Disposal Facility to the South of The Brothers (Agreement No. FM 2/2009)*

1.1.4 *Environmental Permits (EPs)* (*EP-312/2008/A* and *EP-427/2011A*) were issued by the Environmental Protection Department (EPD) to the CEDD, the Permit Holder, on 28 November 2008 for East of Sha Chau (ESC) CMP V and on 23 December 2011 for SB CMPs, respectively. Under the requirements of the *EPs*, an Environmental Monitoring and Audit (EM&A) programme as set out in the EM&A Manuals (1) (2) is required to be implemented for the CMPs.

1.1.5 The present EM&A programme undertaken under *Agreement No. CE 23/2012 (EP)* covers the dredging, disposal and capping operations of the SB CMPs as well as CMPs at East of Sha Chau (ESC). In November 2013, the following works were being undertaken at the CMPs:

- Capping was being undertaken at CMP IVc and CMP Va;
- Disposal of contaminated mud was taking place at SB CMP 1; and
- Dredging operations were taking place at SB CMP 2.

1.2 REPORTING PERIOD

1.2.1 This Monthly Progress Report covers the EM&A activities for the reporting month of November 2013.

1.3 DETAILS OF SAMPLING AND LABORATORY TESTING ACTIVITIES

1.3.1 No monitoring activities were undertaken for CMP V in the monitoring month of November 2013.

1.3.2 The following monitoring activities have been undertaken for SB CMPs in November 2013 in accordance with the EM&A Manual:

- *Impact Water Quality Monitoring during Dredging Operations* was undertaken for CMP 2 three times per week on 1, 5, 7, 9, 11, 13, 15, 18, 20, 22, 25, 27 and 29 November 2013;
- *Routine Water Quality Monitoring* was conducted for CMP 1 three times per week on 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 26, 28 and 30 November 2013;
- *Water Column Profiling* was undertaken for CMP 1 on 7 November 2013; and,
- *Pit Specific Sediment Chemistry* was conducted for CMP 1 on 12 November 2013.

(1) ERM (2012) Environmental Monitoring and Audit (EM&A) Manual. Final First Review. Environmental Monitoring and Audit for Contaminated Mud Pits to the South of the Brothers and at East Sha Chau (2012-2017) – Investigation. Agreement No. CE 23/2012(EP). Submitted to EPD in November 2012.

(2) ERM (2010) Environmental Monitoring and Audit (EM&A) Manual. Final Second Review. Environmental Monitoring and Audit for Contaminated Mud Pit at Sha Chau (2009-2013) – Investigation. Agreement No. CE 4/2009(EP). Submitted to EPD in November 2010.

1.4 DETAILS OF OUTSTANDING SAMPLING AND/OR ANALYSIS

1.4.1 No outstanding sampling remained for November 2013. The following laboratory analyses were still in progress during the preparation of this monthly report:

- Laboratory analyses of sediment samples collected for *Pit Specific Sediment Chemistry of CMP 1* in October and November 2013;
- Laboratory analyses of Suspended Solids (SS) samples collected for *Water Quality Monitoring during Dredging Operations of CMP 2* from 18 to 29 November 2013; and
- Laboratory analyses of water samples collected for *Routine Water Quality Monitoring of CMP 1* from 19 October to 30 November 2013.

1.4.2 A summary of field activities conducted are presented in *Annex A*.

1.5 BRIEF DISCUSSION OF THE MONITORING RESULTS FOR CMP V

1.5.1 Brief discussion of the monitoring results of *Cumulative Impact Sediment Chemistry Monitoring* conducted in August 2013 is presented in this *15th Monthly Report*. Detailed discussion will be presented in the corresponding *Quarterly Report*.

1.5.2 Cumulative Impact Sediment Chemistry of CMP V – August 2013

1.5.3 Monitoring locations for *Cumulative Impact Sediment Chemistry for CMP V* are shown in *Figure 1.1*. A total of nine monitoring stations were sampled in August 2013.

1.5.4 Analyses of results for the *Cumulative Impact Sediment Chemistry Monitoring* indicated that the concentrations of all metals, except Arsenic, were below the Lower Chemical Exceedance Level (LCEL) in August 2013 (*Figures 1 and 2* of *Annex B*). Concentrations of Arsenic in sediments from all stations, except for Near Field stations RNA and RNB and Ma Wan Station, exceeded the LCEL.

Figure 1.1

Cumulative Impacts Sediment Quality Monitoring Stations for CMPV

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Date: 12/12/2013

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1.5.5 Whilst the average concentration of Arsenic in the Earth's crust is generally ~2mg/kg, significantly higher Arsenic concentrations (median = 14 mg/kg) have been recorded in Hong Kong's onshore sediments (1). It is presumed that the natural concentrations of Arsenic are similar in onshore and offshore sediments (2), and relatively high Arsenic levels may thus occur throughout Hong Kong. Therefore, the LECL exceedances of Arsenic are unlikely to be caused by the disposal operations at CMP Va but rather as a result of naturally occurring deposits. The slight exceedances of the LCEL for the Arsenic do not necessarily indicate any unacceptable impacts to sediment quality caused by disposal operation at CMP Va.

1.5.6 The concentration of Total Organic Carbon (TOC) shows variation amongst stations (*Figure 3* of *Annex B*). Tributyltin (TBTs) were recorded in sediment samples from all stations and Ma Wan station was recorded with a higher concentration (*Figure 4* of *Annex B*). Concentrations of Total Polychlorinated Biphenyls (PCBs), Low and High Molecular Weight Polycyclic aromatic hydrocarbons (Low and High MW PAHs), total Dichloro-diphenyl-trichloroethane (DDT) and 4,4'-Dichloro-diphenyl-dichloroethylene (4,4'-DDE) were recorded below the limit of detection at all the stations.

1.5.7 Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at CMP Va during this monthly period.

1.6 *BRIEF DISCUSSION OF THE MONITORING RESULTS FOR SB CMPS*

1.6.1 Brief discussion of the monitoring results of *Pit Specific Sediment Chemistry of CMP 1* conducted in September 2013, *Impact Water Quality Monitoring during Dredging Operations of CMP 2* conducted from 30 October to 15 November 2013 and *Water Column Profiling* conducted in November 2013 is presented in this *15th Monthly Report*. Detailed discussion will be presented in the corresponding *Quarterly Report*.

1.6.2 *Pit Specific Sediment Chemistry of CMP 1 – September 2013*

1.6.3 Monitoring locations for Pit Specific Sediment Chemistry for CMP 1 are shown in *Figure 1.2*. A total of six monitoring stations were sampled in September 2013.

1.6.4 The concentrations of all the metals except Arsenic complied with the LCEL at all stations in September 2013 (*Figures 5 and 6* of *Annex B*). Concentrations of Arsenic exceeded the LCEL at all stations except Active Pit station SB-NPAB (*Figures 5 and 6* of *Annex B*).

(1) Sewell RJ (1999) Geochemical Atlas of Hong Kong. Geotechnical Engineering Office, Government of the Hong Kong Special Administrative Region

(2) Whiteside PGD (2000) Natural geochemistry and contamination of marine sediments in Hong Kong. In: The Urban Geology of Hong Kong (ed Page A & Reels SJ). Geological Society of Hong Kong Bulletin No. 6, p109-121

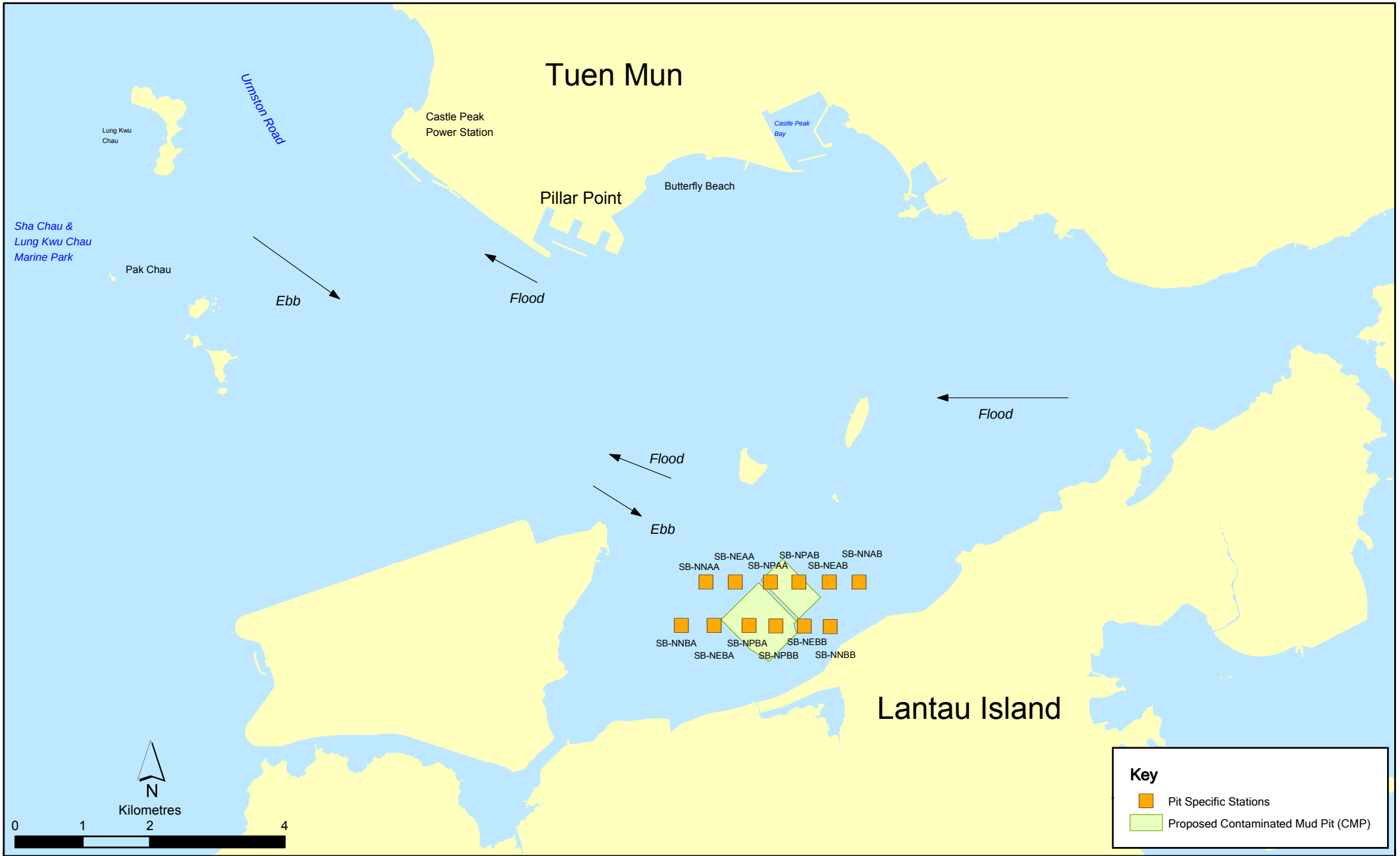

Figure 1.2

Pit Specific Sediment Quality Monitoring Stations for South Brothers Facility

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Date: 2/1/2014

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1.6.5 As discussed in *Section 1.5.5* above, relatively high natural levels of Arsenic are present in Hong Kong's marine sediments and hence the slight LCEL exceedances of Arsenic do not necessarily indicate any adverse impacts to sediment quality caused by disposal operation at CMP 1.

1.6.6 TOC concentration indicated variations amongst the stations in September 2013 (*Figure 7* of *Annex B*). TBT concentrations were found to be higher at Active Pit Station SB-NPAB and Near Pit Station SB-NNAB (*Figure 8* of *Annex B*) in September 2013.

1.6.7 Low and High MW PAHs concentrations were recorded below the limit of reporting at all stations except for High MW PAHs concentration at Active Pit station SB-NPAB in September 2013 (*Figure 9 of Annex B*).

1.6.8 Total DDT, 4,4'-DDE and Total PCBs were recorded below the limit of reporting at all the stations in September 2013.

1.6.9 Active Pit station SB-NPAB is located within CMP 1 which was receiving contaminated mud during the reporting period. Therefore, the higher concentrations of contaminants (including metals and organic contaminants) recorded at the Active Pit station only are not considered as indicating any dispersal of contaminated mud from CMP 1. Nevertheless, detailed analysis will be presented in the *Quarterly Report* to reveal any trend of increasing sediment contaminant concentrations towards CMP 1.

1.6.10 Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at CMP 1 during this monthly period.

1.6.11 Impact Water Quality Monitoring during Dredging Operations of CMP 2 – 30 October to 15 November 2013

1.6.12 Monitoring data collected for CMP 2 from 30 October to 15 November 2013 are presented in this monthly report. Detailed discussion will be presented in the corresponding *Quarterly Report*.

1.6.13 *Impact Water Quality Monitoring during Dredging Operations of CMP 2* (i.e. from 30 October to 15 November 2013) was conducted three times per week for a total of eight (8) sampling days. On each survey day, sampling was conducted during both mid-ebb and mid-flood tides at two Reference (Upstream) stations upstream and five Impact (Downstream) stations downstream of the dredging operations at CMP 2. Monitoring was also conducted at five Sensitive Receiver Stations (Ma Wan, Shum Shui Kok, Tai Mo To and Tai Ho Bay). A total of twelve stations were monitored and locations of the sampling stations are shown in *Figure 1.3*.

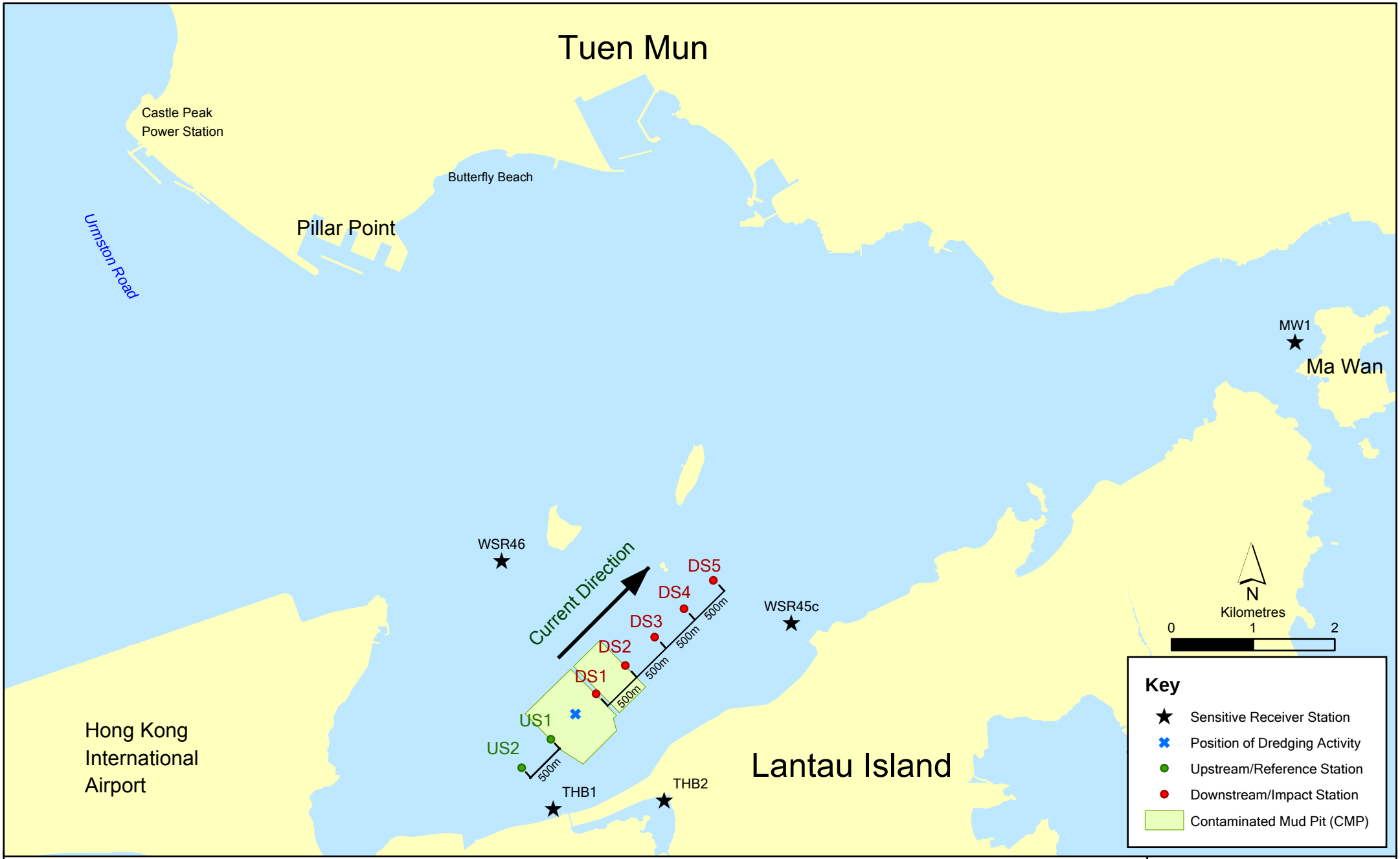

Figure 1.3

Indicative Dredging Impact Sampling Stations for South Brothers Facility

Note: The locations of sampling stations will be determined on site based on current direction and position of dredging activities.

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Date: 30/12/2013

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1.6.14 Monitoring results from 30 October to 15 November 2013 are presented in *Table C1* of *Annex C*. Daily dredging record of the reporting period is presented in *Annex D*. Levels of DO, Turbidity and SS generally complied with the Action and Limit Levels (see *Table C2* of *Annex C* for details) set in the Baseline Monitoring Report (1), except for the following occasions of exceedances shown in *Table 1.1* below.

Table 1.1 Details of exceedances recorded at SB CMP 2 in October/November 2013

Date	Tide	Parameter	Station	Type
30 October 2013	Mid-Flood	Turbidity	DS5	Limit
		SS	DS5	Action
1 November 2013	Mid-Ebb	Turbidity	DS1	Action
		SS	DS1	Action
	Mid-Flood	SS	DS1	Action
		SS	DS3	Action
5 November 2013	Mid-Flood	SS	DS3	Action
		SS	DS4	Action
7 November 2013	Mid-Flood	Turbidity	DS1	Limit
		SS	DS1	Limit
		SS	DS2	Action
		SS	DS3	Action
		SS	DS4	Action
		SS	WSR45C	Action
11 November 2013	Mid-Flood	SS	DS4	Action
13 November 2013	Mid-Flood	SS	DS3	Action
		SS	DS5	Action
15 November 2013	Mid-Flood	SS	WSR46	Action

1.6.15 It should be noted that the exceedances on 30 October 2013 and 5, 11, 13 and 15 November 2013 (mid-flood tide) were recorded at stations which are located further away from the works area when compared to station DS1 at which the levels of SS and Turbidity did not exceed the Action and Limit Levels during the same tidal period on the same day. As such, these recorded exceedances are not likely to be caused by the dredging works at CMP 2.

1.6.16 Linear Regression was conducted to determine any significant spatial trend of SS levels recorded at stations DS1 to DS4 during the mid-flood tide on 7 November 2013. The results of the statistical analysis did not indicate any significant spatial trend of increasing SS levels with proximity to the dredging operations (i.e. r^2 value < 0.6). As such, there did not appear to be any evidence of unacceptable water quality impact as a result of the dredging operations at the CMP 2 although exceedances were recorded during the mid-flood tide on 7 November 2013.

(1) ERM (2012) Baseline Monitoring Report. Environmental Monitoring and Audit for Contaminated Mud Pits to the South of the Brothers and at East Sha Chau (2012-2017) – Investigation. Agreement No. CE 23/2012(EP). Submitted to EPD in October 2012.

1.6.17 Exceedances at DS1 and other stations were also detected on 1 November (mid-ebb and mid-flood). However, these exceedances did not indicate any trend of increasing SS or Turbidity levels toward the dredging operations. Instead, high levels of Turbidity and SS and low levels of DO were occasionally recorded during baseline monitoring which are considered to be sporadic events and characteristic of water quality in this area of Hong Kong. Therefore, the Action and Limit Level exceedances may be caused by natural background variation in water quality of the area.

1.6.18 Overall, the results indicated that the dredging operations at CMP 2 did not appear to cause any unacceptable deterioration in water quality during this reporting period. Therefore, no further mitigation measures, except for those recommended in the Environmental Permit (*EP-427/2011/A*), are considered necessary for the dredging operations.

1.6.19 Water Column Profiling for CMP 1 – November 2013

In-situ Measurements

1.6.20 Water Column Profiling was undertaken at a total of two sampling stations (Upstream and Downstream stations) in November 2013. The water quality monitoring results for November 2013 have been assessed for compliance with the Water Quality Objectives (WQOs) set by Environmental Protection Department (EPD). This consists of a review of the EPD routine water quality monitoring data for the dry season period (November to March) of 2003-2012 from stations in the Northwestern Water Control Zone, where the CMPs are located. For Salinity, the average value obtained from the Upstream station was used for the basis as the WQO. Graphical presentation of the monitoring results is provided in *Annex B*.

1.6.21 Analyses of results for November 2013 indicated that levels of Salinity, pH and DO complied with the WQOs at both Upstream and Downstream stations (*Figures 10-12 of Annex B*). DO and Turbidity complied with the Action and Limit Levels set in the *EM&A Manual* (1).

Laboratory Measurements for Suspended Solids (SS)

1.6.22 Analyses of data obtained in November 2013 indicated that the SS levels at Downstream and Upstream stations complied the WQO (*Figure 13 of Annex B*). In addition, SS levels at all stations complied with the Action and Limit Levels set in the *EM&A Manual*.

1.6.23 Overall, the results indicated that the mud disposal operation at CMP 1 did not appear to cause any deterioration in water quality during this reporting period.

(1) ERM (2009). Draft Second Review of the EM&A Manual. Prepared for CEDD for EM&A for Contaminated Mud Pit at Sha Chau (2009-2013) – Investigation Agreement No. CE 4/2009 (EP).

1.7 ACTIVITIES SCHEDULED FOR THE NEXT MONTH

1.7.1 *Pit Specific Sediment Chemistry*, *Cumulative Impact Sediment Chemistry*, and *Water Column Profiling* for CMP 1 as well as *Impact Water Quality Monitoring during Dredging Operations* for CMP 2 will be conducted in the next monthly period of December 2013.

1.7.2 *Water Quality Monitoring during Capping* for CMP IVc and CMP V and *Benthic Recolonisation Studies* for CMP IV will be conducted in the next monthly period of December 2013.

1.7.3 The sampling schedule is presented in *Annex A*.

1.8 STUDY PROGRAMME

1.8.1 A summary of the Study programme is presented in *Annex E*.

Annex A

Sampling Schedule

Annex A1 - East of Sha Chau Environmental Monitoring and Audit Sampling Schedule for CMP IV (January 2012 - December 2013)

		2012												2013											
Tissue/ Whole Body Sampling		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Near-Pit Stations																									
	INA		*																						
	INB		*																						
Reference North																									
	TNA		*																						
	TNB		*																						
Reference South																									
	TSA		*																						
	TSB		*																						
Demersal Trawling		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Near Pit Stations																									
	INA 1-5	*	*																						
	INB 1-5	*	*																						
Reference North																									
	TNA 1-5	*	*																						
	TNB 1-5	*	*																						
Reference South																									
	TSA 1-5	*	*																						
	TSB 1-5	*	*																						
Capping		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Ebb Tide																									
Impact Station Downcurrent																									
	IPE1		*				*		*				*		*				*		*				*
	IPE2		*				*		*				*		*				*		*				*
	IPE3		*				*		*				*		*				*		*				*
	IPE4		*				*		*				*		*				*		*				*
	PFC1		*				*		*				*		*				*		*				*
Intermediate Station Downcurrent																									
	INE1		*				*		*				*		*				*		*				*
	INE2		*				*		*				*		*				*		*				*
	INE3		*				*		*				*		*				*		*				*
	INE4		*				*		*				*		*				*		*				*
	INE5		*				*		*				*		*				*		*				*
Reference Station Upcurrent																									
	RFE1		*				*		*				*		*				*		*				*
	RFE2		*				*		*				*		*				*		*				*
	RFE3		*				*		*				*		*				*		*				*
	RFE4		*				*		*				*		*				*		*				*
	RFE5		*				*		*				*		*				*		*				*
Flood Tide																									
Impact Station Downcurrent																									
	INF1		*				*		*				*		*				*		*				*
	PFC2		*				*		*				*		*				*		*				*
	INF3		*				*		*				*		*				*		*				*
Intermediate Station Downcurrent																									
	IPF1		*				*		*				*		*				*		*				*
	IPF2		*				*		*				*		*				*		*				*
	IPF3		*				*		*				*		*				*		*				*
Reference Station Upcurrent																									
	RFF1		*				*		*				*		*				*		*				*
	RFF2		*				*		*				*		*				*		*				*
	RFF3		*				*		*				*		*				*		*				*
Water Column Profiling		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Plume Stations	WCP1	*																							
	WCP2	*																							
Benthic Recolonisation Studies		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Capped Contaminated Mud Pits III																									
CPA	1 grab per station								*																
CPB	1 grab per station								*																
CPC	1 grab per station								*																
Reference Stations																									
RBA	1 grab per station								*																
RBB	1 grab per station								*																
RBC	1 grab per station								*																

"*" = Number of replicates depends on field catch or parameters

Sampling completed

Sampling to be completed

Annex A2 - East of Sha Chau Environmental Monitoring and Audit Sampling Schedule for CMP V (January 2012 - February 2014)

		2012												2013												2014	
Pit Specific Sediment Chemistry	**Code**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Active-Pit																											
	ESC-NPDA		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
	ESC-NPDB		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
Pit-Edge																											
	ESC-NEDA		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
	ESC-NEDB		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
Near-Pit																											
	ESC-NNDA		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
	ESC-NNDB		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						

Cumulative Impact Sediment Chemistry		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Near-field Stations																											
	ESC-RNA		*				*		*				*		*				*		*						
	ESC-RNB		*				*		*				*		*				*		*						
Mid-field Stations																											
	ESC-RMA		*				*		*				*		*				*		*						
	ESC-RMB		*				*		*				*		*				*		*						
Capped Pit Stations																											
	ESC-RCA		*				*		*				*		*				*		*						
	ESC-RCB		*				*		*				*		*				*		*						
Far-Field Stations																											
	ESC-RFA		*				*		*				*		*				*		*						
	ESC-RFB		*				*		*				*		*				*		*						
Ma Wan Station																											
	MW1		*				*		*				*		*				*		*						

Sediment Toxicity Tests		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Near-Field Stations																											
	ESC-TDA		*						*						*						*						
	ESC-TDB		*						*						*						*						
Reference Stations																											
	ESC-TRA		*						*						*						*						
	ESC-TRB		*						*						*						*						
Ma Wan Station																											
	MW1		*						*						*						*						

Tissue/ Whole Body Sampling		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Impact Stations																											
	ESC-INA								*						*						*						
	ESC-INB								*						*						*						
Reference																											
	ESC-TNA								*						*						*						
	ESC-TNB								*						*						*						
	ESC-TSA								*						*						*						
	ESC-TSB								*						*						*						

Demersal Trawling		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Impact Stations																											
	ESC-INA							*	*					*	*					*	*						
	ESC-INB							*	*					*	*					*	*						
Reference Stations																											
	ESC-TNA							*	*					*	*					*	*						
	ESC-TNB							*	*					*	*					*	*						
	ESC-TSA							*	*					*	*					*	*						
	ESC-TSB							*	*					*	*					*	*						

Capping		**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Ebb Tide																											
Impact Station																											
	ESC-IPE1																								*		*
	ESC-IPE2																								*		*
	ESC-IPE3																								*		*
	ESC-IPE4																								*		*
	ESC-IPE5																								*		*
Intermediate Station																											
	ESC-INE1																								*		*
	ESC-INE2																								*		*
	ESC-INE3																								*		*
	ESC-INE4																								*		*
	ESC-INE5																								*		*
Reference Station																											
	ESC-RFE1																								*		*
	ESC-RFE2																								*		*
	ESC-RFE3																								*		*
	ESC-RFE4																								*		*
	ESC-RFE5																								*		*
Ma Wan Station																											
	MW1																								*		*
Flood Tide																											
Impact Station																											
	ESC-IPF1																								*		*
	ESC-IPF2																								*		*
	ESC-IPF3																								*		*
Intermediate Station																											
	ESC-INF1																								*		*
	ESC-INF2																								*		*
	ESC-INF3																								*		*
Reference Station																											
	ESC-RFF1																								*		*
	ESC-RFF2																								*		*
	ESC-RFF3																								*		*
Ma Wan Station																											
	MW1																								*		*

	2012												2013												2014	
Routine Water Quality Monitoring	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Ebb Tide																										
Impact Station																										
ESC-IPE1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPE2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPE3		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPE4		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPE5		*		*	*		*	*		*	*		*	*		*	*		*	*						
Intermediate Station																										
ESC-INE1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INE2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INE3		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INE4		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INE5		*		*	*		*	*		*	*		*	*		*	*		*	*						
Reference Station																										
ESC-RFE1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFE2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFE3		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFE4		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFE5		*		*	*		*	*		*	*		*	*		*	*		*	*						
Ma Wan Station																										
MW1		*		*	*		*	*		*	*		*	*		*	*		*	*						
Flood Tide																										
Impact Station																										
ESC-IPF1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPF2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-IPF3		*		*	*		*	*		*	*		*	*		*	*		*	*						
Intermediate Station																										
ESC-INF1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INF2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-INF3		*		*	*		*	*		*	*		*	*		*	*		*	*						
Reference Station																										
ESC-RFF1		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFF2		*		*	*		*	*		*	*		*	*		*	*		*	*						
ESC-RFF3		*		*	*		*	*		*	*		*	*		*	*		*	*						
Ma Wan Station																										
MW1		*		*	*		*	*		*	*		*	*		*	*		*	*						

Water Column Profiling	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Plume Stations WCP1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
WCP2		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						

Benthic Recolonisation Studies	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Capped Contaminated Mud Pits IVa-c																										
ESC-CPA								*				*								*				*		
ESC-CPB								*				*								*				*		
ESC-CPC								*				*								*				*		
Reference Stations																										
ESC-RBA								*				*								*				*		
ESC-RBB								*				*								*				*		
ESC-RBC								*				*								*				*		

Impact Monitoring for Dredging	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**
Upstream/Reference Stations																										
US1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
US2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
Downstream/Impact Stations																										
DS1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
DS2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
DS3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
DS4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
DS5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
Ma Wan Station																										
MW1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									

Sampling completed

Sampling to be completed

Annex A3 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - December 2017)

			2012						2013												2014												2015												2016												2017											
Baseline Monitoring Prior to Dredging	**Code**	**Frequency**	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Far Field Stations																																																																				
	SB-WFA	3 days per week for 4 weeks	*	*																																																																
	SB-WFB	3 days per week for 4 weeks	*	*																																																																
Mid Field Stations																																																																				
	SB-WMA	3 days per week for 4 weeks	*	*																																																																
	SB-WMB	3 days per week for 4 weeks	*	*																																																																
Near Field Stations																																																																				
	SB-WNAA	3 days per week for 4 weeks	*	*																																																															
	SB-WNAB	3 days per week for 4 weeks	*	*																																																															
	SB-WNBA	3 days per week for 4 weeks	*	*																																																															
	SB-WNBB	3 days per week for 4 weeks	*	*																																																															
Reference Stations																																																																				
	NM1	3 days per week for 4 weeks	*	*																																																															
	NM2	3 days per week for 4 weeks	*	*																																																															
	NM3	3 days per week for 4 weeks	*	*																																																															
	NM5	3 days per week for 4 weeks	*	*																																																															
	NM6	3 days per week for 4 weeks	*	*																																																															
Sensitive Receiver Stations																																																																				
	MW1	3 days per week for 4 weeks	*	*																																																															
	THB1	3 days per week for 4 weeks	*	*																																																															
	THB2	3 days per week for 4 weeks	*	*																																																															
	WSR45C	3 days per week for 4 weeks	*	*																																																															
	WSR46	3 days per week for 4 weeks	*	*																																																															

Impact Monitoring for Dredging			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Upstream Stations																																																																				
	US1	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	US2	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
Downstream Stations																																																																				
	DS1	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	DS2	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	DS3	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	DS4	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	DS5	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
Sensitive Receiver Stations																																																																				
	MW1	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	THB1	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	THB2	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	WSR45C	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									
	WSR46	3 days per week					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*																																									

Pit Specific Sediment Chemistry			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
SB CMP 1 Active																																																																				
Near-Pit																																																																				
	SB-NNAA	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
	SB-NNAB	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
Pit-Edge																																																																				
	SB-NEAA	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
	SB-NEAB	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
Active-Pit																																																																				
	SB-NPAA	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
	SB-NPAB	Monthly														12	12	12	12	12	12	12	12	12	12	12	12	12	12																																									
SB CMP 2 Active																																																																				
Near-Pit																																																																				
	SB-NNBA	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								
	SB-NNBB	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								
Pit-Edge																																																																				
	SB-NEBA	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								
	SB-NEBB	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								
Active-Pit																																																																				
	SB-NPBA	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								
	SB-NPBB	Monthly																													12	12	12	12	12	12	12	12	12	12	12	12	12	12	12																								

Annex A3 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - December 2017)

			2012						2013												2014												2015												2016												2017											
Cumulative Impact Sediment Chemistry			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Near-field Stations																																																																								
	SB-RNA	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	SB-RNB	4 times per year														12				12		12				12		12				12		12				12		12				12																											
Mid-field Stations																																																																					
	SB-RMA	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	SB-RMB	4 times per year														12				12		12				12		12				12		12				12		12				12																											
Far-Field Stations																																																																			
	SB-RFA	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	SB-RFB	4 times per year														12				12		12				12		12				12		12				12		12				12																											
Capped Pit Stations																																																																			
	SB-RCA	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	SB-RCB	4 times per year														12				12		12				12		12				12		12				12		12				12																											
Sensitive Receiver Stations																																																																			
	MW1	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	THB1	4 times per year														12				12		12				12		12				12		12				12		12				12																											
	THB2	4 times per year														12				12		12				12		12				12		12				12		12				12																											

			2012						2013												2014												2015												2016												2017											
Sediment Toxicity Tests			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
SB CMP 1 Active																																																																								
Reference																																																																			
	SB-TRA	2 times per year														5						5																																																
	SB-TRB	2 times per year														5						5																																														
Near-Field																																																																		
	SB-TAA	2 times per year														5						5																																															
	SB-TAB	2 times per year														5						5																																														
Sensitive Receiver Stations																																																																	
	MW1	2 times per year														5						5																																														
	THB1	2 times per year														5						5																																													
	THB2	2 times per year														5						5																																													
SB CMP 2 Active																																																																		
Reference																																																																		
	SB-TRA	2 times per year																										5												5						5																				
	SB-TRB	2 times per year																										5												5						5																				
Near-Field																																																														
	SB-TBA	2 times per year																										5												5						5																				
	SB-TBB	2 times per year																										5												5						5																				
Sensitive Receiver Stations																																																														
	MW1	2 times per year																										5												5						5																				
	THB1	2 times per year																										5												5						5																				
	THB2	2 times per year																										5												5						5																				

			2012						2013												2014												2015												2016												2017											
Tissue/ Whole Body Sampling			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Near-Pit Stations																																																																							
	SB-INA	2 times per year																			*							*												*						*																				
	SB-INB	2 times per year																			*							*												*						*																				
Reference North																																																																			
	TNA	2 times per year																			*							*												*						*																				
	TNB	2 times per year																			*							*												*						*																				
Reference South																																																																		
	TSA	2 times per year																			*							*												*						*																				
	TSB	2 times per year																			*							*												*						*																				

			2012						2013												2014												2015												2016												2017											
Demersal Trawling			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Impact																																																																						
	SB-INA 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				
	SB-INB 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				
Reference North																																																																	
	TNA 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				
	TNB 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				
Reference South																																																																	
	TSA 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				
	TSB 1-5	4 times per year														5					5	5					5	5					5	5					5	5					5	5																				

Annex A3 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - December 2017)

			2012						2013												2014												2015												2016												2017											
Routine Water Quality Monitoring			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Ebb Tide																																																																		
Impact Stations Downcurrent																																																																		
	SB-IPE1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPE2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPE3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPE4	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPE5	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Intermediate Stations Downcurrent																																																																		
	SB-INE1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INE2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INE3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INE4	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INE5	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Reference Stations Upcurrent																																																																		
	SB-RFE1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFE2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFE3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFE4	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFE5	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Sensitive Receiver Stations																																																																		
	MW1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	THB1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	THB2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	WSR45C	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	WSR46	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Flood Tide																																																																		
Impact Stations Downcurrent																																																																		
	SB-IPF1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPF2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-IPF3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Intermediate Stations Downcurrent																																																																		
	SB-INF1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INF2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-INF3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Reference Stations Upcurrent																																																																		
	SB-RFF1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFF2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	SB-RFF3	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
Sensitive Receiver Stations																																																																		
	MW1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	THB1	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	THB2	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	WSR45C	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									
	WSR46	8 times per year														8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8																									

Water Column Profiling			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Plume Stations	WCP1	Monthly														4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4																								
	WCP2	Monthly														4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4																								

Annex A3 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - December 2017)

			2012						2013												2014												2015												2016												2017											
Capping Water Quality Monitoring			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Ebb Tide																																																																	
Impact Stations Downcurrent																																																																	
	SB-IPE1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPE2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPE3	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPE4	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPE5	8 times per year																																									3	3		3	3		3	3		3	3													
Intermediate Stations Downcurrent																																																																	
	SB-INE1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INE2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INE3	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INE4	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INE5	8 times per year																																									3	3		3	3		3	3		3	3													
Reference Stations Upcurrent																																																																	
	SB-RFE1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFE2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFE3	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFE4	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFE5	8 times per year																																									3	3		3	3		3	3		3	3													
Sensitive Receiver Stations																																																																	
	MW1	8 times per year																																									3	3		3	3		3	3		3	3													
	THB1	8 times per year																																																																
	THB2	8 times per year																																																																
	WSR45C	8 times per year																																									3	3		3	3		3	3		3	3													
	WSR46	8 times per year																																									3	3		3	3		3	3		3	3													
Flood Tide																																																																	
Impact Stations Downcurrent																																																																	
	SB-IPF1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPF2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-IPF3	8 times per year																																									3	3		3	3		3	3		3	3													
Intermediate Stations Downcurrent																																																																	
	SB-INF1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INF2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-INF3	8 times per year																																									3	3		3	3		3	3		3	3													
Reference Stations Upcurrent																																																																	
	SB-RFF1	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFF2	8 times per year																																									3	3		3	3		3	3		3	3													
	SB-RFF3	8 times per year																																									3	3		3	3		3	3		3	3													
Sensitive Receiver Stations																																																																	
	MW1	8 times per year																																									3	3		3	3		3	3		3	3													
	THB1	8 times per year																																																																
	THB2	8 times per year																																																																
	WSR45C	8 times per year																																									3	3		3	3		3	3		3	3													
	WSR46	8 times per year																																									3	3		3	3		3	3		3	3													

Benthic Recolonisation Studies			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Capped Contaminated Mud Pits																																																																	
	SB-CPA	2 times per year																																																12				12								12				12
	SB-CPB	2 times per year																																																12				12								12				12
																																																		12				12								12				12
Reference Stations																																																																	
	RBA	2 times per year																																																12				12								12				12
	RBB	2 times per year																																																12				12								12				12
	RBC	2 times per year																																																12				12								12				12

Notes:
"*" = Number of replicates depends on parameters
Naming of stations are tentative only and will be subjected to changes

Annex B

Graphs of Monitoring Results

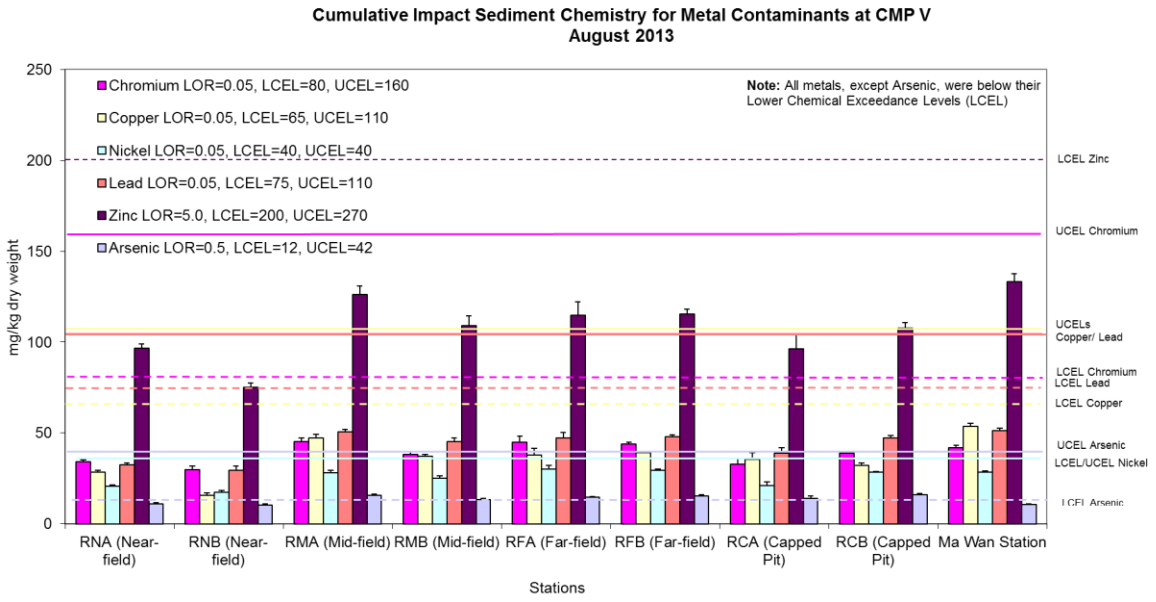


Figure 1: Concentration of Metals (Cr, Cu, Ni, Pb, Zn, As; mean +SD) in sediment samples collected for Cumulative Impact Sediment Chemistry Monitoring for CMP V in August 2013

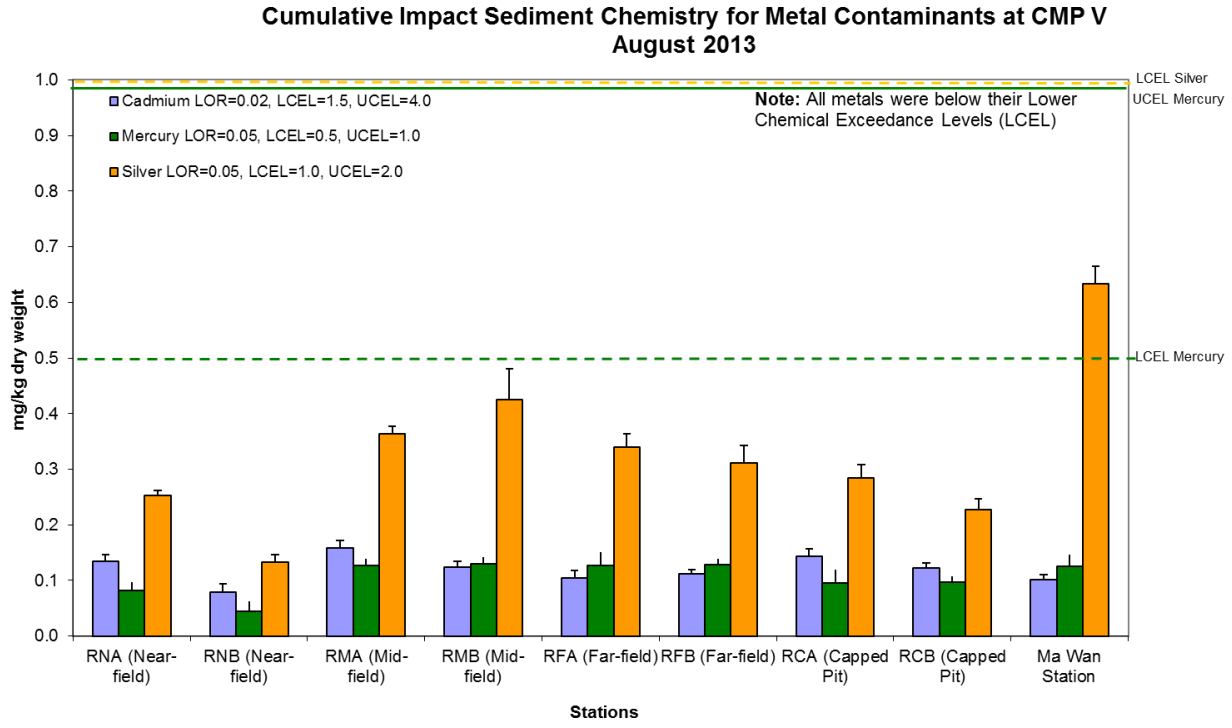


Figure 2: Concentration of Metals (Cd, Hg, Ag; mean +SD) in sediment samples collected for Cumulative Impact Sediment Chemistry Monitoring for CMP V in August 2013.

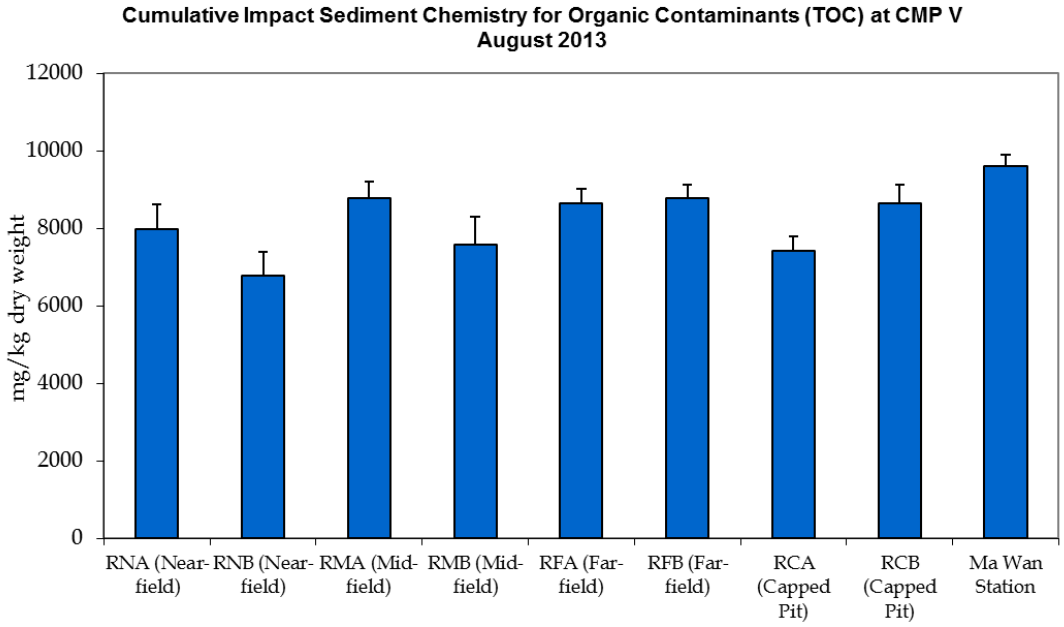


Figure 3: Concentration of Total Organic Carbon (mg/kg dry weight; mean +SD) in sediment samples collected for Cumulative Impact Sediment Chemistry Monitoring for CMP V in August 2013.

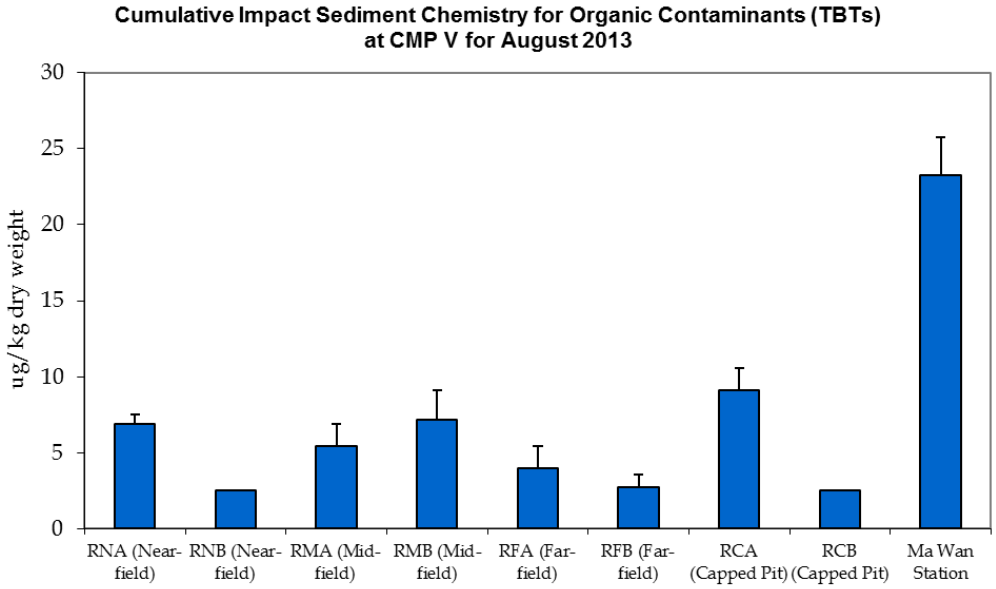


Figure 4: Concentration of Tributyltin (μg TBT/kg; mean +SD) in sediment samples collected for Cumulative Impact Sediment Chemistry Monitoring for CMP V in August 2013.

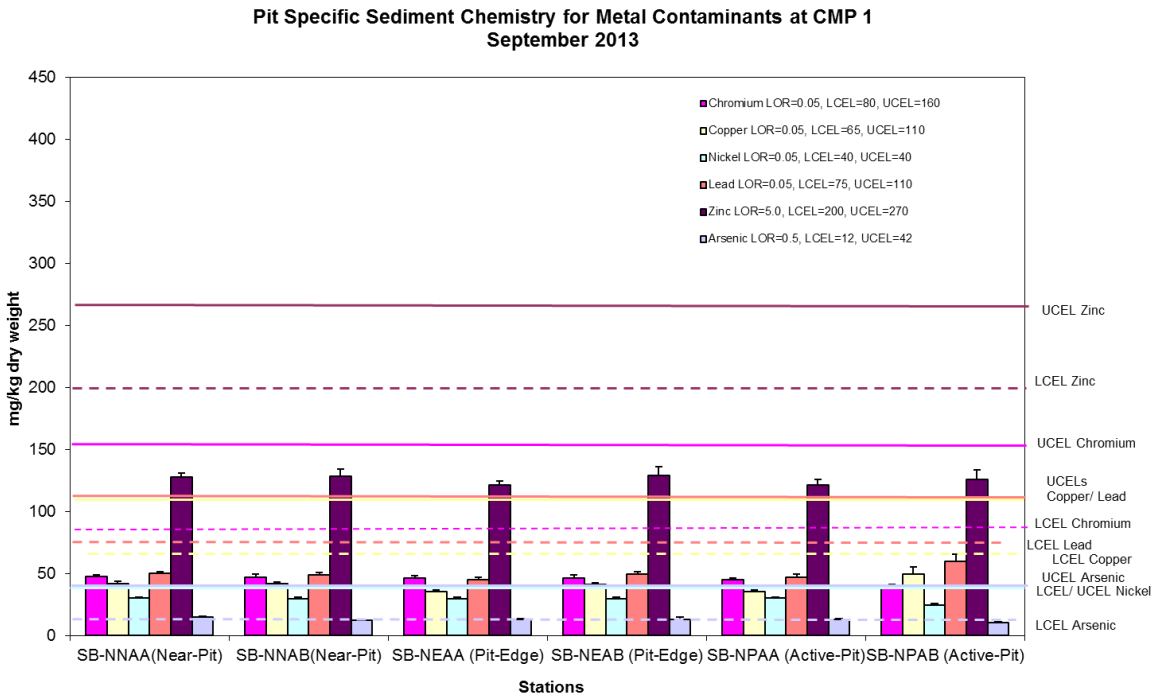


Figure 5: Concentration of Metals (Cr, Cu, Ni, Pb, Zn, As; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for CMP 1 in September 2013.

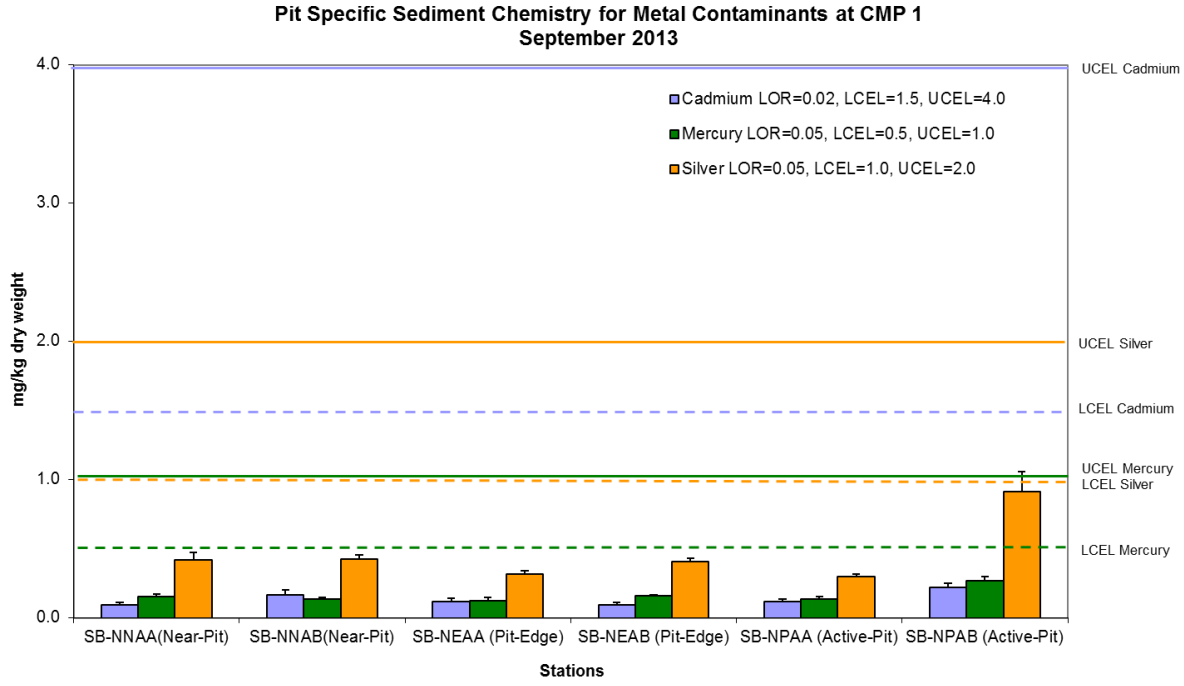


Figure 6: Concentration of Metals (Cd, Hg, Ag; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for CMP 1 in September 2013.

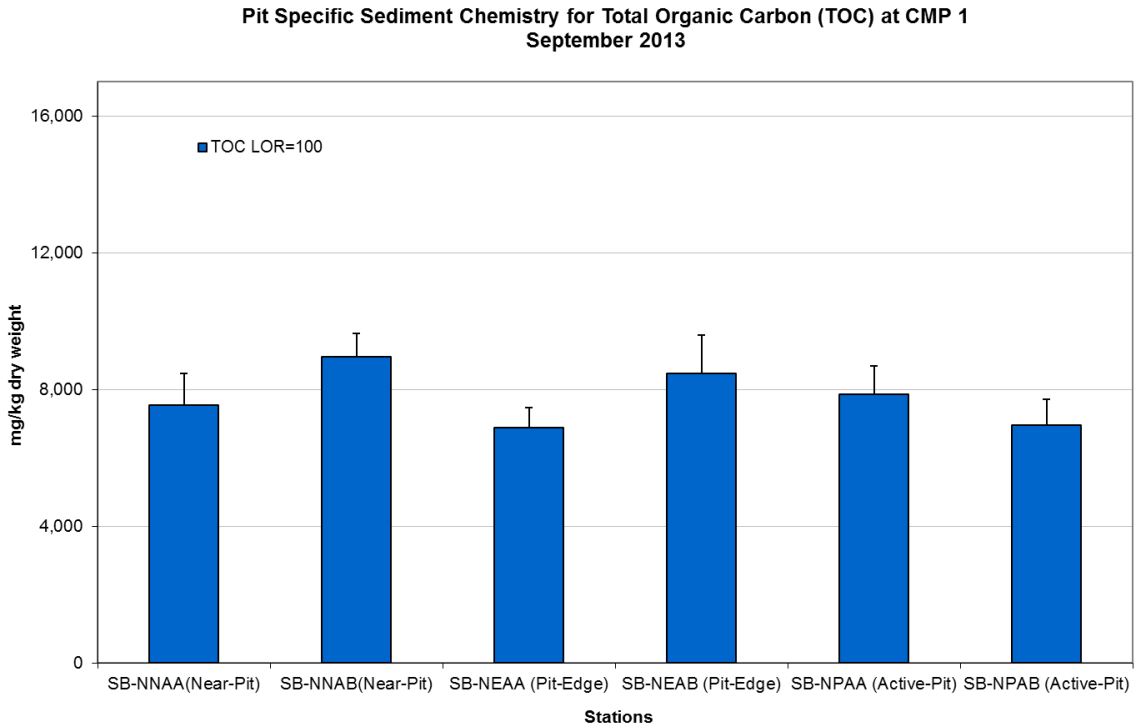


Figure 7: Concentration of Total Organic Carbon (mg/kg dry weight; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for CMP 1 in September 2013.

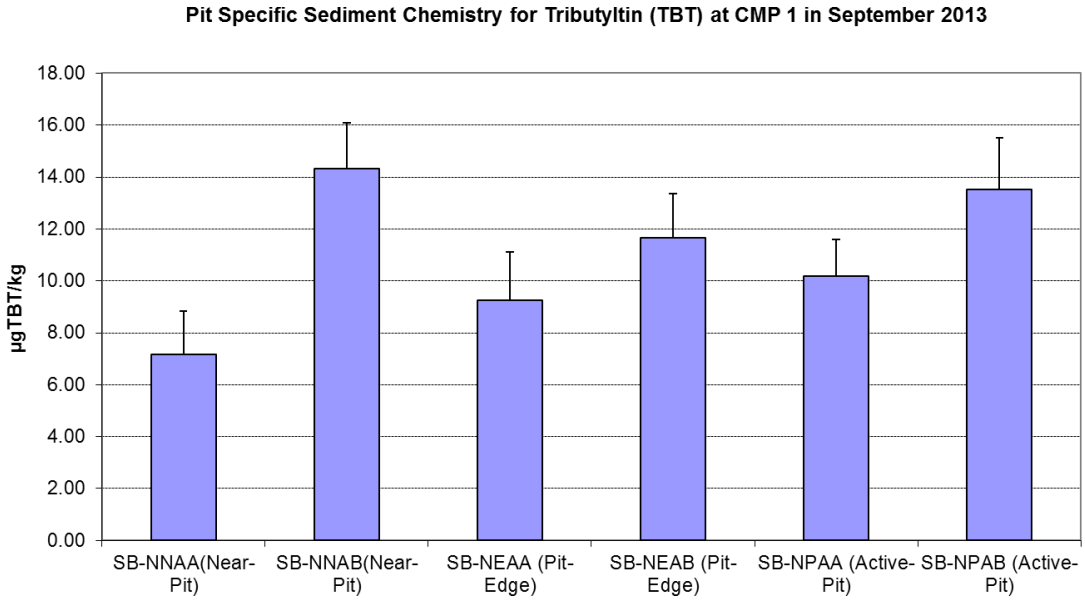


Figure 8: Concentration of Tributyltin (µg TBT/kg; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring of CMP 1 in September 2013.

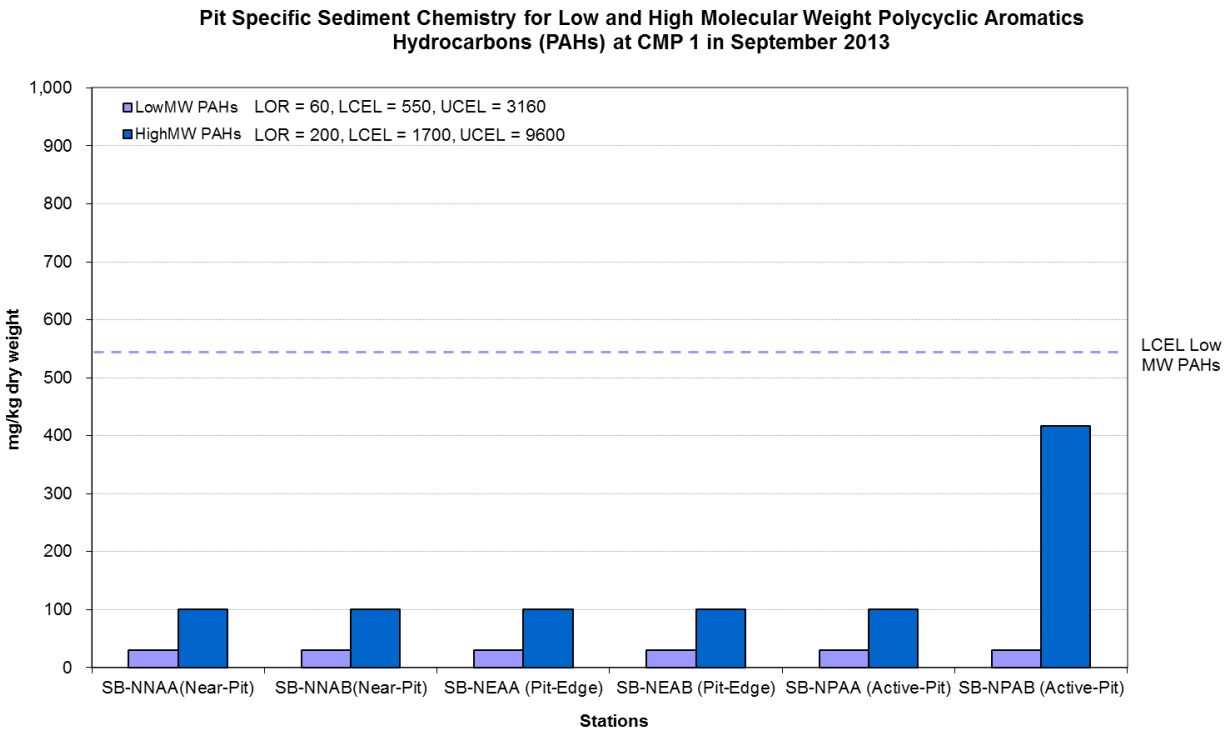


Figure 9: Concentration of Low and High Molecular Weight Polycyclic Aromatics Hydrocarbons (PAHs) (µg/kg; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for CMP 1 in September 2013.

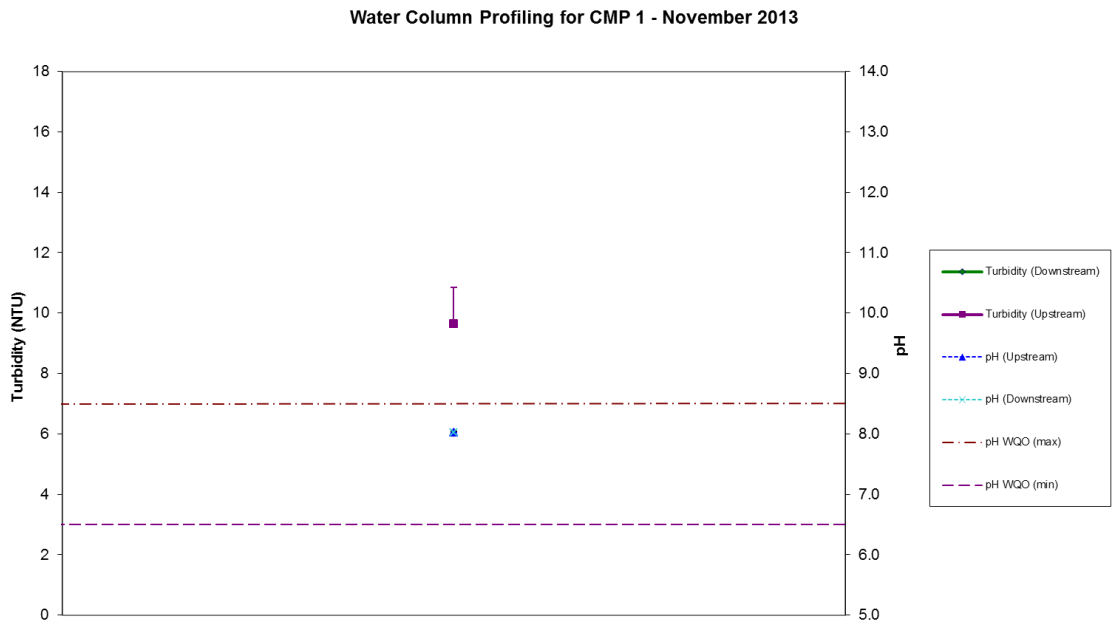


Figure 10: Turbidity and pH (mean + SD) recorded during Water Column Profiling for disposal operations at CMP 1 in November 2013.

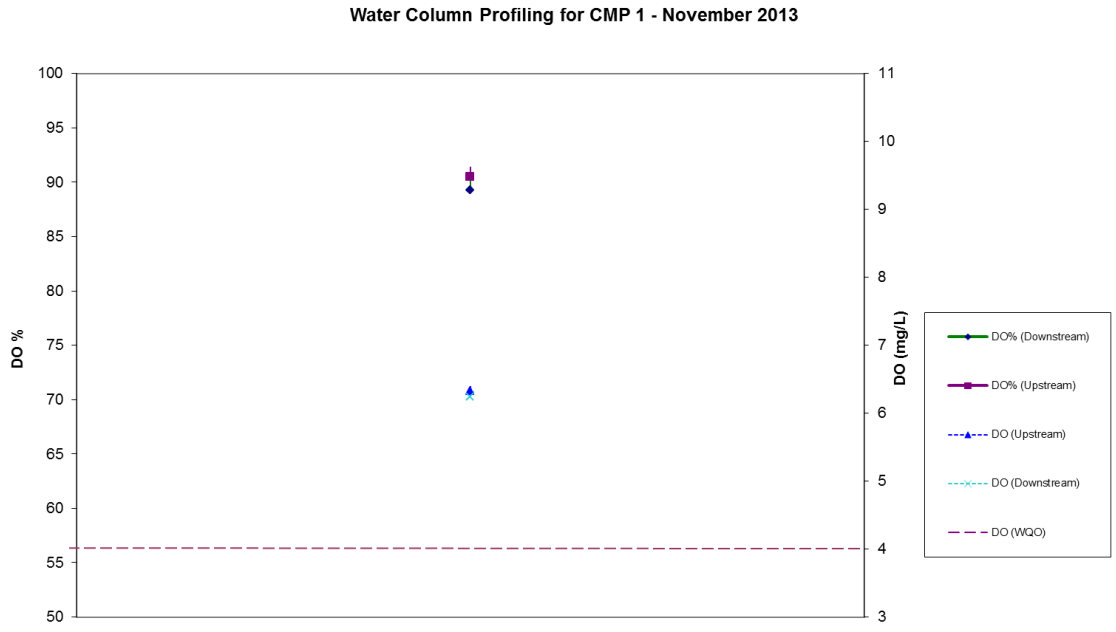


Figure 11: Dissolved Oxygen (mean + SD) recorded during Water Column Profiling for disposal operations at CMP 1 in November 2013.

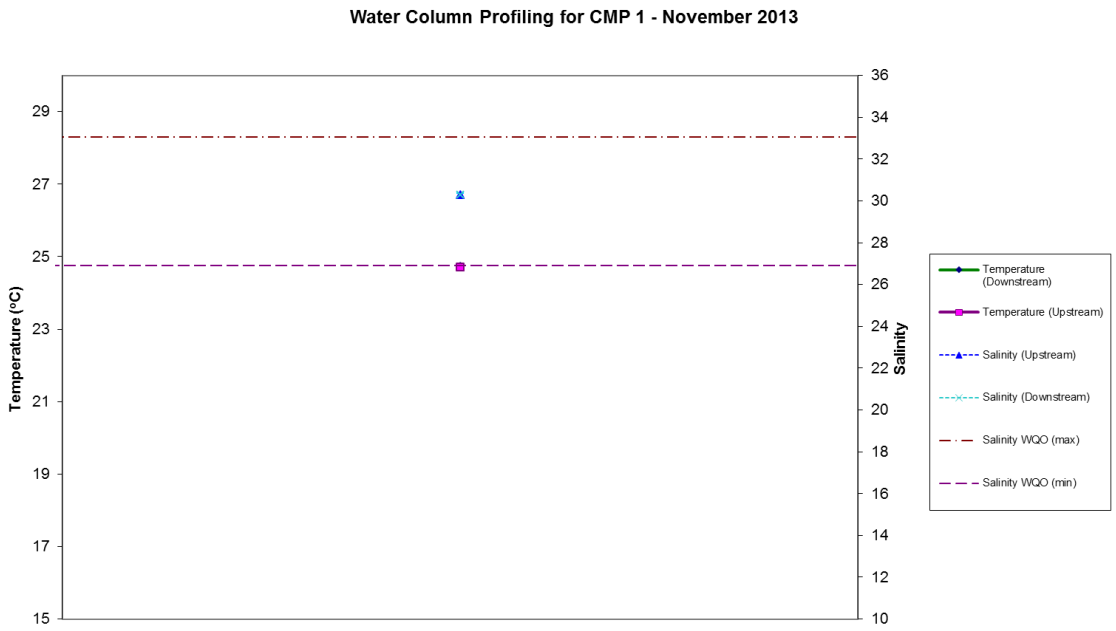


Figure 12: Salinity and Temperature (mean + SD) recorded during Water Column Profiling for disposal operations at CMP 1 in November 2013.

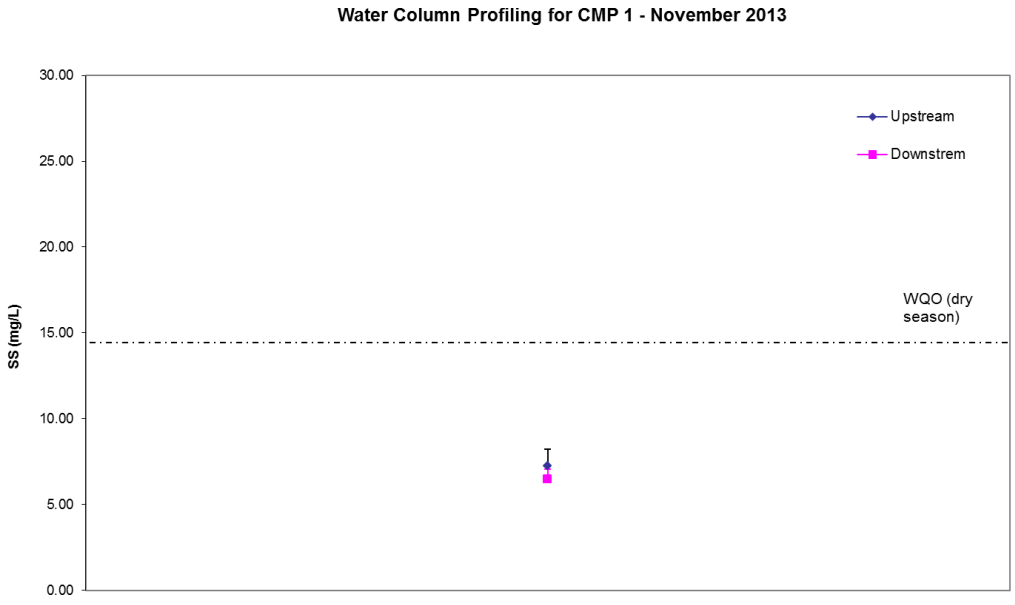


Figure 13: Suspended Solids (mean + SD) recorded during Water Column Profiling for disposal operations at CMP 1 in November 2013.

Annex C

Results of Impact Monitoring during Dredging Operations of CMP 2 in October and November 2013

Table C1 *Summary Table of DO, Turbidity and SS Levels Recorded in October and November 2013*

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2013/10/30	Mid-Ebb	DS1	7.39	7.45	10.15	14.50
		DS2	7.47	7.58	4.50	4.67
		DS3	7.09	7.42	5.20	5.78
		DS4	6.85	7.27	7.19	8.56
		DS5	6.48	7.22	6.06	5.11
		US1	7.83	7.85	5.89	7.83
		US2	8.01	8.24	11.18	14.83
		MW1	5.77	5.83	3.43	3.00
		THB1	8.00	8.03	5.73	6.00
		THB2	-	6.83	10.11	3.00
		WSR45C	6.11	7.19	4.69	3.89
		WSR46	7.15	7.59	7.95	8.44
	Mid-Flood	DS1	8.14	8.55	11.63	15.33
		DS2	9.05	9.21	6.42	7.33
		DS3	9.27	9.30	7.71	14.50
		DS4	9.53	9.68	8.05	15.67
		DS5	8.98	8.91	38.28	34.33
		US1	8.01	8.76	5.29	6.50
		US2	7.95	8.43	5.40	9.22
		MW1	6.03	6.09	4.61	12.67
		THB1	8.57	9.14	10.57	20.00
		THB2	-	8.42	16.66	14.00
		WSR45C	6.74	7.68	6.99	15.89
		WSR46	7.48	7.85	5.90	10.67
2013/11/01	Mid-Ebb	DS1	7.99	8.19	27.55	26.00
		DS2	7.98	8.54	6.25	8.50
		DS3	7.50	8.22	4.61	8.89
		DS4	7.08	8.32	4.97	5.22
		DS5	7.30	8.25	4.71	5.56
		US1	8.52	9.51	8.71	12.17
		US2	8.81	9.58	7.25	8.50
		MW1	6.22	6.28	5.31	8.56
		THB1	9.06	9.18	6.80	9.17
		THB2	-	7.54	7.68	5.33
		WSR45C	6.60	8.40	4.72	7.22
		WSR46	7.60	8.41	5.85	7.22
	Mid-Flood	DS1	8.84	9.90	21.93	22.17
		DS2	9.68	10.97	7.16	9.67
		DS3	9.64	10.46	16.47	22.67
		DS4	9.90	10.11	8.63	11.17
		DS5	10.06	10.22	6.84	8.22
		US1	9.45	9.48	6.16	8.00
		US2	8.51	9.71	5.88	6.50
		MW1	6.67	7.03	7.04	11.67
		THB1	9.80	9.95	5.19	8.67
		THB2	-	8.30	4.94	7.00
		WSR45C	6.80	8.64	10.31	13.56

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
		WSR46	7.80	8.11	12.07	13.56
2013/11/5	Mid-Ebb	DS1	6.64	6.76	9.89	13.44
		DS2	6.70	6.81	7.86	11.22
		DS3	6.57	6.69	13.12	21.00
		DS4	6.54	6.63	12.22	15.56
		DS5	6.54	6.65	12.14	16.00
		US1	6.57	6.79	12.85	13.33
		US2	6.64	6.86	13.39	16.33
		MW1	6.07	6.14	9.47	11.11
		THB1	6.54	6.78	9.00	9.00
		THB2	-	6.02	10.72	5.33
		WSR45C	6.25	6.51	16.02	20.11
		WSR46	6.57	6.65	16.62	18.22
	Mid-Flood	DS1	6.46	6.46	11.73	19.67
		DS2	6.40	6.44	11.58	17.83
		DS3	6.46	6.48	17.79	26.83
		DS4	6.49	6.49	16.22	26.00
		DS5	6.36	6.39	14.13	19.33
		US1	6.47	6.47	10.31	10.67
		US2	6.42	6.44	10.58	13.00
		MW1	6.22	6.24	12.79	16.00
		THB1	6.58	6.48	11.24	14.50
		THB2	-	5.87	5.32	6.67
		WSR45C	6.61	6.55	12.73	16.78
		WSR46	6.63	6.66	10.35	13.22
2013/11/7	Mid-Ebb	DS1	6.48	6.48	11.23	11.83
		DS2	6.36	6.40	8.10	6.89
		DS3	6.18	6.36	9.68	10.00
		DS4	6.13	6.24	11.45	13.00
		DS5	6.14	6.20	12.60	14.22
		US1	6.43	6.71	11.83	13.50
		US2	6.60	6.71	10.01	8.00
		MW1	5.97	5.99	8.60	10.00
		THB1	6.29	6.33	10.65	9.67
		THB2	-	6.14	10.72	9.33
		WSR45C	5.96	6.19	9.01	10.67
		WSR46	6.25	6.33	13.01	14.11
	Mid-Flood	DS1	6.16	6.17	75.90	120.67
		DS2	6.18	6.19	20.39	26.83
		DS3	6.20	6.22	24.20	28.67
		DS4	6.15	6.17	22.21	28.17
		DS5	6.17	6.16	17.02	18.89
		US1	6.29	6.30	16.02	18.83
		US2	6.29	6.30	12.83	14.67
		MW1	5.93	5.97	18.19	20.44
		THB1	6.11	6.12	12.83	17.00
		THB2	-	5.39	6.95	10.67
		WSR45C	6.13	6.17	23.33	29.00
		WSR46	6.25	6.26	10.83	10.89
2013/11/9	Mid-Ebb	DS1	6.34	6.28	9.68	12.50
		DS2	6.24	6.25	7.62	8.44

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
		DS3	5.97	6.14	8.64	10.44
		DS4	5.93	6.13	6.66	8.89
		DS5	5.94	6.11	6.05	7.33
		US1	6.44	6.43	7.91	8.67
		US2	6.47	6.47	11.10	15.67
		MW1	5.93	5.94	6.07	7.67
		THB1	6.62	6.63	7.06	8.50
		THB2	-	6.58	7.28	7.00
		WSR45C	5.95	6.10	7.03	9.56
		WSR46	6.32	6.34	16.11	19.67
	Mid-Flood	DS1	6.38	6.40	7.90	9.17
		DS2	6.47	6.48	7.15	8.17
		DS3	6.44	6.47	13.92	16.00
		DS4	6.42	6.47	11.74	13.78
		DS5	6.47	6.47	13.88	16.17
		US1	6.37	6.38	9.40	10.33
		US2	6.34	6.38	8.30	9.17
		MW1	5.82	5.86	9.27	11.44
		THB1	6.29	6.37	9.09	12.00
		THB2	-	5.80	10.78	11.00
		WSR45C	6.05	6.09	8.99	11.56
		WSR46	6.18	6.23	10.76	15.22
2013/11/11	Mid-Ebb	DS1	6.37	6.36	16.04	18.67
		DS2	6.29	6.31	14.07	14.00
		DS3	6.30	6.32	5.97	7.11
		DS4	6.06	6.23	5.18	5.89
		DS5	5.97	6.15	5.62	7.89
		US1	6.51	6.50	8.81	10.83
		US2	6.48	6.49	9.71	12.50
		MW1	5.85	5.86	4.75	7.56
		THB1	6.47	6.46	7.03	7.67
		THB2	-	6.42	5.75	7.00
		WSR45C	6.01	6.12	5.05	6.22
		WSR46	6.34	6.41	6.26	6.22
	Mid-Flood	DS1	6.56	6.57	13.18	18.83
		DS2	6.58	6.58	10.21	11.83
		DS3	6.64	6.63	10.70	16.00
		DS4	6.70	6.70	16.37	22.33
		DS5	6.60	6.60	15.26	20.78
		US1	6.52	6.51	7.46	10.00
		US2	6.36	6.37	8.47	9.67
		MW1	5.96	6.00	6.34	9.22
		THB1	6.44	6.44	8.56	12.17
		THB2	-	-	-	-
		WSR45C	6.24	6.28	5.91	10.00
		WSR46	6.26	6.37	9.27	13.22
2013/11/13	Mid-Ebb	DS1	6.29	6.30	4.71	7.50
		DS2	6.32	6.32	5.31	6.78
		DS3	6.29	6.30	6.60	7.44
		DS4	6.26	6.29	6.37	7.44
		DS5	6.15	6.32	5.92	8.44

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
		US1	6.45	6.50	6.89	7.67
		US2	6.48	6.53	13.46	17.00
		MW1	5.86	5.91	4.72	6.78
		THB1	6.27	6.42	7.58	9.33
		THB2	-	6.00	10.78	9.00
		WSR45C	5.98	6.16	5.54	7.78
		WSR46	6.24	6.36	6.00	7.00
	Mid-Flood	DS1	6.62	6.65	5.50	7.50
		DS2	6.69	6.70	5.73	8.17
		DS3	6.55	6.57	14.62	21.83
		DS4	6.58	6.58	10.26	16.17
		DS5	6.53	6.53	21.50	28.11
		US1	6.47	6.50	5.62	8.17
		US2	6.32	6.41	7.91	9.33
		MW1	6.07	6.11	6.95	8.89
		THB1	6.53	6.62	7.25	10.50
		THB2	-	6.63	8.82	9.33
		WSR45C	6.36	6.52	9.44	12.56
		WSR46	6.23	6.44	13.10	15.22
2013/11/15	Mid-Ebb	DS1	6.54	6.57	7.52	7.50
		DS2	6.44	6.58	7.20	5.67
		DS3	6.46	6.65	6.36	4.11
		DS4	6.26	6.54	7.33	10.00
		DS5	6.27	6.51	5.92	8.33
		US1	6.80	6.81	9.88	19.00
		US2	6.73	6.73	10.24	12.00
		MW1	5.94	5.99	5.41	6.89
		THB1	6.49	6.44	8.23	6.67
		THB2	-	6.67	15.32	6.00
		WSR45C	5.92	6.13	6.28	6.89
		WSR46	6.24	6.44	7.82	8.56
	Mid-Flood	DS1	6.57	6.64	7.52	7.33
		DS2	6.44	6.52	9.18	11.00
		DS3	6.49	6.50	19.22	17.83
		DS4	6.58	6.59	13.32	15.83
		DS5	6.54	6.64	8.21	7.78
		US1	6.51	6.58	7.07	7.00
		US2	6.34	6.50	8.89	7.67
		MW1	5.95	5.99	7.78	6.44
		THB1	6.58	6.60	7.45	10.33
		THB2	-	6.36	8.78	11.33
		WSR45C	5.97	6.23	11.03	20.33
		WSR46	6.13	6.34	13.54	24.56

Notes:

1. Please refer to Table B2 below for the Action and Limit Levels for dredging activities.
2. Cell shaded yellow indicated value exceeding the Action Level criteria.
3. Cell shaded red indicated value exceeding the Limit Level criteria.
4. Only mid-depth water was sampled at Station THB2 because water depth was less than 3m.
5. Sampling at THB2 was cancelled at mid-flood tide due to adverse weather condition on 11 November 2013.

Table C2 ***Action and Limit Levels of Water Quality for Dredging, Backfilling and Capping Activities***

Parameter	Action Level	Limit Level
Dissolved Oxygen (DO) (1)	Surface and Mid-depth (2) The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for surface and middle layer = **4.32 mg L^{-1}** and Significantly less than the reference stations mean DO (at the same tide of the same day)	Surface and Mid-depth (2) The average of the impact, WSR 45C and WSR 46 station readings are **< 4 mg L^{-1}** and Significantly less than the reference stations mean DO (at the same tide of the same day)
	Bottom The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for bottom layers = **3.12 mg L^{-1}** and Significantly less than the reference stations mean DO (at the same tide of the same day)	Bottom The average of the impact station, WSR 45C and WSR 46 readings are **< 2 mg L^{-1}** and Significantly less than the reference stations mean DO (at the same tide of the same day)
Depth-averaged Suspended Solids (SS) (3) (4)	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data for depth average = **21.60 mg L^{-1}** and 120% of control station's SS at the same tide of the same day	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data for depth average = **40.10 mg L^{-1}** and 130% of control station's SS at the same tide of the same day
Depth-averaged Turbidity (Tby) (3) (4)	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data = **25.04 NTU** and 120% of control station's Tby at the same tide of the same day	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data = **32.68 NTU** and 130% of control station's Tby at the same tide of the same day

Notes:

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

(2) The Action and Limit Levels for DO for Surface & Middle layers were calculated from the combined pool of baseline surface layer data and baseline middle layer data.

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

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

Annex D

Dredging Record for CMP 2 in November 2013

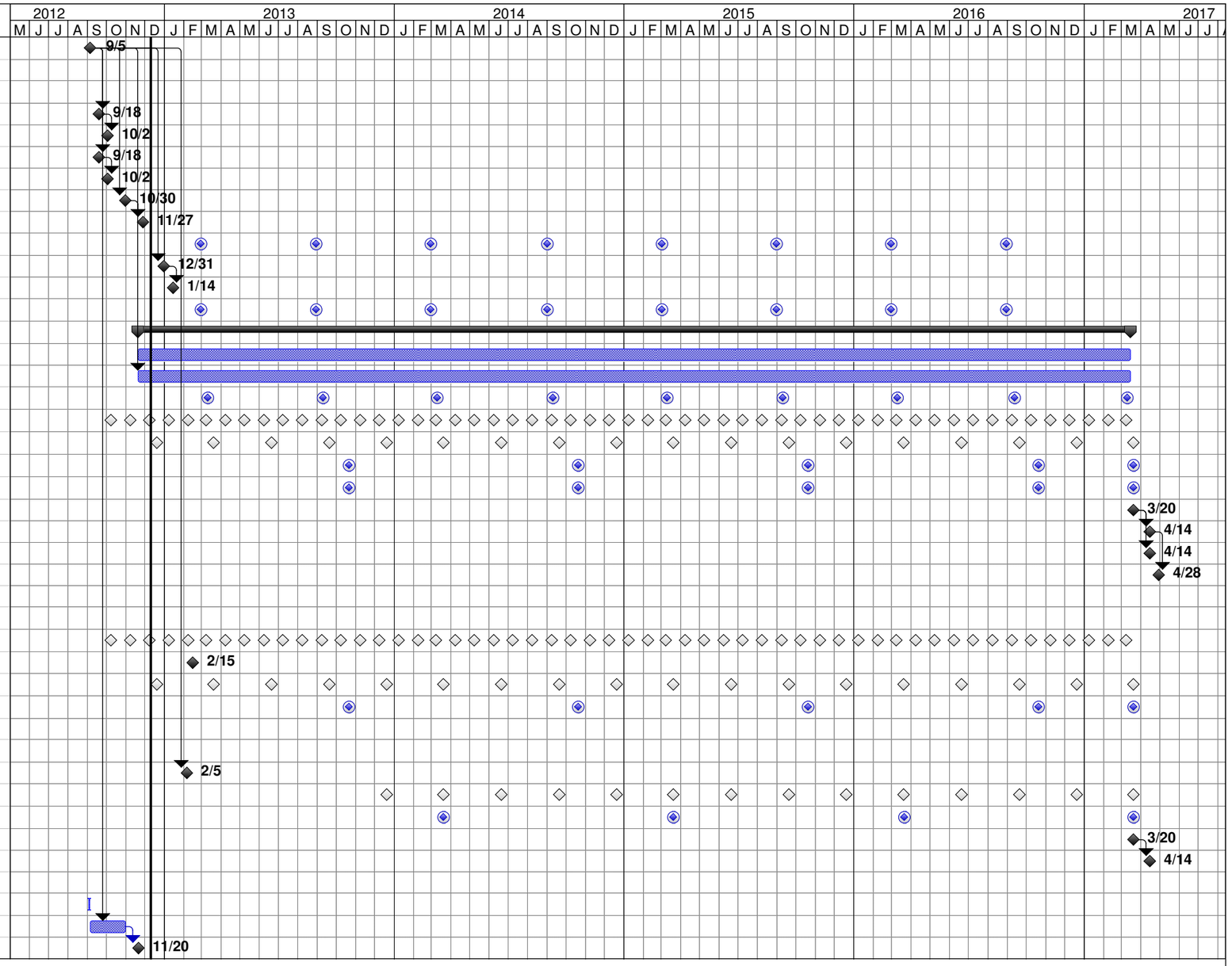
Table D1 Dredging Record at SB CMP 2 in November 2013

Date	Daily Dredging Volume (m^3)	Weekly Dredging Volume (m3)
01-Nov-2013	6,500	37,050
02-Nov-2013	5,850	30,550
03-Nov-2013	5,200	25,350
04-Nov-2013	6,500	22,750
05-Nov-2013	5,200	18,200
06-Nov-2013	5,850	13,000
07-Nov-2013	1,950	7,150
08-Nov-2013	0	5,200
09-Nov-2013	650	5,200
10-Nov-2013	2,600	8,450
11-Nov-2013	1,950	9,750
12-Nov-2013	0	11,050
13-Nov-2013	0	16,250
14-Nov-2013	0	20,150
15-Nov-2013	0	28,600
16-Nov-2013	3,900	33,150
17-Nov-2013	3,900	37,700
18-Nov-2013	3,250	44,200
19-Nov-2013	5,200	52,650
20-Nov-2013	3,900	59,150
21-Nov-2013	8,450	60,450
22-Nov-2013	4,550	58,500
23-Nov-2013	8,450	61,100
24-Nov-2013	10,400	63,050
25-Nov-2013	11,700	52,650
26-Nov-2013	11,700	40,950
27-Nov-2013	5,200	29,250
28-Nov-2013	6,500	24,050
29-Nov-2013	7,150	17,550
30-Nov-2013	10,400	10,400

Annex E

Study Programme

Task Name
Project Commencement
For South Brothers CMPs and East of Sha Chau CMPs
Submission of Draft Inception Report & Draft Programme
Submission of Final Inception Report & Final Programme
Submission of Draft EM&A Manual (First Review)
Submission of Final EM&A Manual (First Review)
Submission of Draft EM&A Manual (Second Review)
Submission of Final EM&A Manual (Second Review)
Submission of Subsequent EM&A Manual Updates
Submission of Draft Operations Manual
Submission of Final Operations Manual
Submission of Operations Manual Updates
Monitoring Contracts
Regular Site Inspections of CMP Contractors
Participate in Liaison Group Meetings/ Consultations as required by CEDD
Submission of Report on Dredging & Capping Operations
Submission of Monthly Progress Report
Submission of Quarterly EM&A Report
Submission of Annual Review Report
Submission of Annual Risk Assessment Report
Submission of Draft Final Report
Submission of the Final Report
Submission of Draft Executive Summary Report
Submission of Final Executive Summary Report
For East Tung Lung Chau Disposal Facility
Submission of Monitoring Results & Monthly EM&A Progress Report
Submission of Initial Review Report (assume disposal commences in November 2012)
Submission of Quarterly EM&A Report
Submission of Annual Report
Alternative / Modified Capping Design
Submission of Investigation Report
Submission of Quarterly Report
Submission of Annual Report
Submission of Draft Final Report
Submission of the Final Report
Baseline Pelagic and Demersal Fisheries Survey
Baseline Shrimp Trawl & Hang Trawl Surveys, twice before SB CMPs dredging
Submission of Baseline Pelagic and Demersal Fisheries Survey Report



Study Programme	Task	Milestone	Summary	Rolled Up Task	Rolled Up Milestone

Agreement No. CE 23/2012 (EP) Environmental Monitoring and Audit for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012-2017) - Investigation