

China International Water & Electric Corp

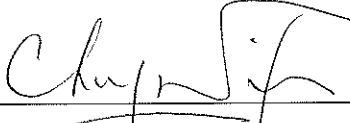
Contract No. CV/2013/02

**CEDD Maintenance Contract for Seawalls
and Navigation Channels (2013-2016)**

Dredging at Cruise Terminal Stage 2

Quarterly EM&A Report

**June to August 2014
(Version 1.0)**

Certified By	 _____ Dr. Priscilla Choy Environmental Team Leader (Date: 24 September 2014)
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REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

CINOTECH CONSULTANTS LTD

Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2151 2083 Fax: (852) 3107 1388
Email: info@cinotech.com.hk

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EXECUTIVE SUMMARY

Introduction

1. This is the 2nd Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the project “Contract No. CV/2013/02 – CEDD Maintenance Contract for Seawalls and Navigation Channels (2013 – 2016) Dredging at Cruise Terminal Stage 2” (hereinafter called the “Project”). This report documents the findings of EM&A Works in the period between June and August 2014.

Environmental Monitoring and Audit Progress

2. A summary of the monitoring activities under the Project in this reporting period is listed in **Table I** below:

Table I Summary Table for Monitoring Activities under Project in the Reporting Period

Parameter(s)	Date(s)
Water Quality Monitoring	3 rd , 5 th , 7 th , 10 th , 12 th , 14 th , 16 th , 18 th , 20 th , 23 rd , 25 th , 27 th and 30 th June 2014 2 nd , 4 th , 7 th , 9 th , 11 th , 14 th , 16 th , 22 nd , 24 th , 26 th , 28 th and 30 th July 2014 1 st , 5 th , 7 th , 9 th , 11 th , 13 th , 15 th , 19 th , 21 st , 23 rd , 25 th , 27 th and 29 th August 2014
Environmental Site Inspection	5 th , 12 th , 19 th and 27 th June 2014 3 rd , 9 th , 17 th , 23 rd and 31 st July 2014 7 th , 14 th , 21 th and 28 th August 2014

Breaches of Action and Limit Levels

3. Summary of the environmental exceedances of the reporting period is tabulated in **Table II**.

Table II Summary Table for Events Recorded in the Reporting Period

Environmental Monitoring	Parameter	No. of Exceedance		No. of Exceedance related to the Dredging Activities of this Project	
		Action Level	Limit Level	Action Level	Limit Level
	Turbidity	0	0	0	0
	Suspended Solids (SS)	0	0	0	0

Water Quality

4. All water quality monitoring was conducted as scheduled in the reporting period except the water quality monitoring on 18th July 2014 which was cancelled due to adverse weather (Typhoon Signal No. 3). No Action/Limit Level exceedance was recorded.

Noise Monitoring

5. Due to the non-existence of planned NSRs during the reporting period, no noise monitoring was required to be conducted at the planned noise monitoring locations NM1 and NM2.

Complaint Log

6. No environmental complaints were received in the reporting period.

Notification of Summons and Successful Prosecutions

7. No notification of summons and successful prosecution was received in the reporting period.

Reporting Changes

8. This report has been developed in compliance with the reporting requirements for the Quarterly EM&A Report as required by the EM&A Manual for Dredging Works for Proposed Cruise Terminal at Kai Tak (EM&A Manual).

Future Key Issues

9. The dredging works were completed and no dredging operation will be carried out in the coming months.

1 INTRODUCTION

1.1 Cinotech Consultants Limited (Cinotech) was appointed by China International Water & Electric Corp (hereinafter called “the Contractor”) as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme during dredging works of the Contract No. CV/2013/02 – CEDD Maintenance Contract for Seawalls and Navigation Channels (2013 – 2016) Dredging at Cruise Terminal Stage 2” (hereinafter called the “Project”) in accordance with EP Conditions 2.1.

1.2 The dredging works under the Project was commenced on 20th April 2014 and completed in August 2014.

Purpose of the report

1.3 This is the 2nd Quarterly EM&A report which summarises the monitoring results and audit findings for the EM&A programme in the period between June and August 2014.

Structure of the report

1.4 The structure of the report is as follows:

Section 1: **Introduction** - purpose and structure of the report.

Section 2: **Project Information** - summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3: **Environmental Monitoring and Audit Requirements** - summarises the monitoring parameters, monitoring frequency, monitoring locations, Action and Limit Levels, Event / Action Plans, site audit summary and environmental mitigation measures.

Section 4: **Environmental Monitoring Results** - summarises the environmental monitoring results in terms of water quality.

Section 5: **Environmental Non-conformance** - summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting period.

Section 6: **Conclusions and Recommendation**

2 PROJECT INFORMATION

Background

- 2.1 The former Kai Tak Airport located in the south-eastern part of Kowloon Peninsula was the international airport of Hong Kong. The Kai Tak Airport had come into operations since 1920s. The operation of the Kai Tak Airport was ceased and replaced by the new airport at Chek Lap Kok in July 1998. After closure, the disused airport site has been occupied by various temporary uses, including a golf driving range on the runway area.
- 2.2 In 2002, the Chief Executive in Council approved the Kai Tak Outline Zoning Plans (No. S/K19/3 and S/K21/3) to provide the statutory framework to proceed with the South East Kowloon Development at the former Kai Tak Airport. However, following the judgment of the Court of Final Appeal in January 2004 regarding the Harbour reclamation, the originally proposed development which involves reclamation has to be reviewed. The Kai Tak Planning Review (KTPR) has resulted with a Preliminary Outline Development Plan (PODP) for Kai Tak in October 2006. Subsequently, the Administration announced in October 2006 a plan to implement a cruise terminal at Kai Tak, as part of the development.
- 2.3 Development of the cruise terminal at Kai Tak would require dredging at the existing seawall at the southern tip of the former Kai Tak Airport runway for construction of a quay deck structure for two berths, and dredging the seabed fronting the new quay to provide necessary manoeuvring basin. The general layout of the proposed cruise terminal construction is shown in **Figure 1**.
- 2.4 The current Project involves a dredging operation exceeding 500,000m³ for construction and operation of the proposed cruise terminal at Kai Tak and is therefore classified as a Designated Project under Item C.12, Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Study for the Project has been undertaken in accordance with the EIA Study Brief (No. ESB-159/2006) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM).
- 2.5 Stage 1 dredging and removal and reconstruction of existing seawall were completed and Stage 2 dredging works were commenced on 20th April 2014 and also completed in August 2014.

Project Organisation

- 2.6 Different parties with different levels of involvement in the Project organization include:
- Project Proponent – Civil Engineering and Development Department (Kowloon Development Office) (CEDD)
 - Engineer's Representative (ER) – URS Hong Kong Ltd.
 - Contractor – China International Water & Electric Corp (CIWEC)
 - Environmental Team (ET) – Cinotech Consultants Ltd. (Cinotech)
 - Independent Environmental Checker (IEC) – Fugro (HK) Limited (Furgo)
- 2.7 The proposed project organization and lines of communication with respect to the on-site environmental management structure are shown in **Figure 4**. The key personnel

contact names and numbers are summarized in **Table 2.1**.

Table 2.1 Key Contacts of the Project

Party	Role	Position	Name	Phone No.	Fax No.
CEDD	Project Proponent	Senior Engineer	Ms. Esther Yung	2301 1302	2301 1277
URS Hong Kong Ltd.	Engineer's Representative	Resident Engineer	Mr. Tsui Shiu Kai	2148 7638	2148 7277
CIWEC	Contractor	Project Manager	Mr. YF Cho	2727 0128	2379 5931
		Site Agent	Mr. KM Mok	2727 0128	
		Environmental Officer	Mr. Jerry Lau	6353 5489	2379 5931
Fugro	Independent Environmental Checker (IEC)	IEC	Mr. Joseph Poon	2450 8238	2450 6138
Cinotech	Environmental Team Leader (ETL)	ETL	Dr. Priscilla Choy	2151 2089	3107 1388

Construction Programme

2.8 A copy of Contractor's construction programme is provided in **Appendix A**.

Summary of Construction Works Undertaken During Reporting Period

2.9 The major site activities of the Project undertaken in the reporting period included:

June 2014:

- (a) Dredging down to level -12.0 mCD & disposal of a Designated Dumping Grounds
- (b) Refuse collection at Tai Wan & Cha Kwo Ling WSD Flushing Water Intakes;
- (c) Replace silt curtain at grab;
- (d) Maintenance of silt curtains & silt screen; and
- (e) Conduct interim surveys.

July 2014:

- (f) Dredging down to level -12.0 mCD & disposal of a Designated Dumping Grounds;
- (g) Refuse collection at Tai Wan & Cha Kwo Ling WSD Flushing Water Intakes;
- (h) Demobilization of all the plant & equipment and remove silt curtains & silt screens due to typhoon on 16 July 2014;

- (i) Replace the silt curtain at the boundary by small size silt curtain to bound the working area for trimming work from 12 July 2014;
- (j) Maintenance of silt curtains and silt screen; and
- (k) Conduct interim surveys.

August 2014:

- (l) Trimming work for the high spots down to level -12.0 mCD & disposal of at Designated Dumping Grounds;
- (m) Refuse collection at Tai Wan & Cha Kwo Ling WSD Flushing Water Intakes;
- (n) Maintenance of silt curtains & silt screen;
- (o) Conduct final surveys; and
- (p) Remove silt screen at Cha Kwo Ling Intake & Tai Wan Intake

Status of Environmental Licences, Notification and Permits

- 2.10 The valid environmental licenses and permits were attached in the Monthly EM&A Reports.

3 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

- 3.1 The EM&A Manual designates locations for the ET to monitor environmental impacts in terms of water quality and noise to the Project. The monitoring locations are depicted in **Figures 2 and 3**. The details of monitoring requirements are presented in **Table 3.1**.

Table 3.1 Summary of Impact EM&A Requirements

Type of Monitoring	Parameter	Location	Frequency	Depth
Water Quality	<ul style="list-style-type: none"> • Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • dissolved oxygen (DO) (mg/L and % of saturation) • suspended solids (SS) (mg/L) 	WSD9 WSD10 WSD17	3 days per week, at mid-flood and mid-ebb tides during the course of dredging works	mid-depth

Noise Monitoring

- 3.2 In accordance with the EIA Report and the EM&A Manual, it is anticipated that construction activities, if unmitigated, would not cause any adverse noise impact to the nearest NSRs in the vicinity of the work site. The predicted noise levels at the NSRs would comply with construction noise criteria.
- 3.3 These nearest NSRs are designated for construction noise monitoring as listed in Table 3.2 and **Figure 3**.

Table 3.2 Planned Noise Monitoring Stations during Construction Phase

Monitoring Stations	Description
NM1	Planned Residential Development (R3 site)
NM2	Planned Residential Development (R3 site)

- 3.4 As per Section 3.1.1 of the EM&A Manual states that "Noise levels shall be monitored to evaluate the construction noise impact if there is any planned noise sensitive receivers (NSRs) occupied within 300m from the works area of this Project during the proposed dredging works". Therefore, the impact monitoring for construction noise shall only be carried out when the planned residential development at the two identified monitoring stations are occupied at a later stage.

Monitoring Methodology and Calibration Details

- 3.5 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly EM&A Reports.

Environmental Quality Performance Limits (Action and Limit Levels)

- 3.6 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results (except the Action and Limit Levels for underwater noise monitoring). Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Table 3.3**.

Table 3.3 Action and Limit Levels for Water Quality Monitoring

Station	Turbidity (NTU)				Suspended Solid (mg/L)			
	Action Level		Limit Level		Action Level		Limit Level	
	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season
WSD9	5.6	7.0	10.6	13.4	10.2	12.8	10.8	13.5
WSD10	6.3	8.1	9.4	12.1	10.0	11.2	11.8	13.2
WSD17	10.0	12.9	15.3	19.7	13.2	14.7	15.3	17.0

Implementation Status of Environmental Mitigation Measures

- 3.7 According to the EIA Study Report, Environmental Permit and the EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the EMIS is provided in **Appendix D**.
- 3.8 Closed grab dredger was used for dredging works to minimize release sediment and other contaminants during dredging.
- 3.9 Dredging works under the Project was not carried out concurrently with the dredging works in Stage 1 area.
- 3.10 No more than two dredgers were used at the same time during the dredging and the total maximum dredging rate was not exceed 4,000m³ per day and 334m³ per hour.
- 3.11 Silt curtain was installed around the dredgers during the dredging operation.
- 3.12 Silt screen was installed at the Water Supplies Department's flushing water intakes at Cha Kwo Ling, Quarry Bay and Tai Wan.
- 3.13 Regular maintenance of the silt screens and refuse collection was performed at the silt screens on daily basis.

Site Audit Summary

- 3.14 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The observations and recommendations made during the reporting period are summarized in **Appendix E**.

Status of Waste Management

- 3.15 According to the Contractor, only marine sediment (Type 1 – Open Sea Disposal) were

generated and disposed during the reporting period.

3.16 The amount of marine sediment under the Project during the reporting period is shown in **Table 3.4**.

Table 3.4 Summary of Marine Sediment in Reporting Period

Waste Type	Quantity in the Reporting Period, m³(Bulk Volume)	Cumulative-to-Date m³(Bulk Volume)	Disposal / Dumping Ground
Marine Sediment (Type1 – Open Sea Disposal)	81,500	124,000	East of Sha Chau / The South of Brothers
Marine Sediment (Type 1 – Open Sea Disposal (Dedicated Sites) and Type 2 – Confined Marine Disposal)	0	35,200	The South of Brothers

4 ENVIRONMENTAL MONITORING RESULTS

Water Quality Monitoring Results

- 4.1 The graphical presentation of water quality at the monitoring stations is shown in **Appendix B**.
- 4.2 No Action/Limit Level exceedance was recorded for water quality.

5 ENVIRONMENTAL NON-CONFORMANCE (EXCEEDANCES)

Summary of Exceedances

- 5.1 Summary of exceedance is provided in **Appendix F**.
- 5.2 No Action/Limit Level exceedance was recorded for water quality.

Summary of Environmental Complaint

- 5.3 No environmental related complaint was received in the reporting period. The Complaint Log is attached in **Appendix G**.

Summary of Notification of Summons and Successful Prosecution

- 5.4 There was no prosecution or notification of summons received since the Project commencement.

6 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 6.1 The Quarterly Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken in the period between June and August 2014 in accordance with EM&A Manual.
- 6.2 No Action/Limit Level exceedance was recorded for water quality.
- 6.3 Environmental site inspection was conducted on 5th, 12th, 19th and 27th June 2014, 3rd, 9th, 17th, 23rd and 31st July and 7th, 14th, 21th and 28th August by ET in the reporting period. All deficiencies identified during the site inspection have already rectified / improved during the follow-up audit session.
- 6.4 There were no environmental complaint, no notification of summons and successful prosecution received.
- 6.5 The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

- 6.6 According to the environmental audit performed in the reporting period, the following recommendations were made:


Water Impact

- To provide regularly check and maintenance for the silt curtain / screen throughout the dredging period.
 - To ensure the grab dredger is tightly closed to avoid splashing of dredged materials.
 - To clear the floating refuse at the silt screen at WSD flushing water intakes.
- 6.7 The dredging works were completed in August 2014, marine water quality monitoring will be continuous carried out to monitor the water quality and weekly site inspection will be also continuous conducted to check the following:-
- Conditions of the Tai Wan, Cha Kwo Ling and Quarry Bay WSD Flushing Water Intakes.
 - Conditions of site area.
 - Environmental situation outside the site area.

FIGURE(S)



LEGEND

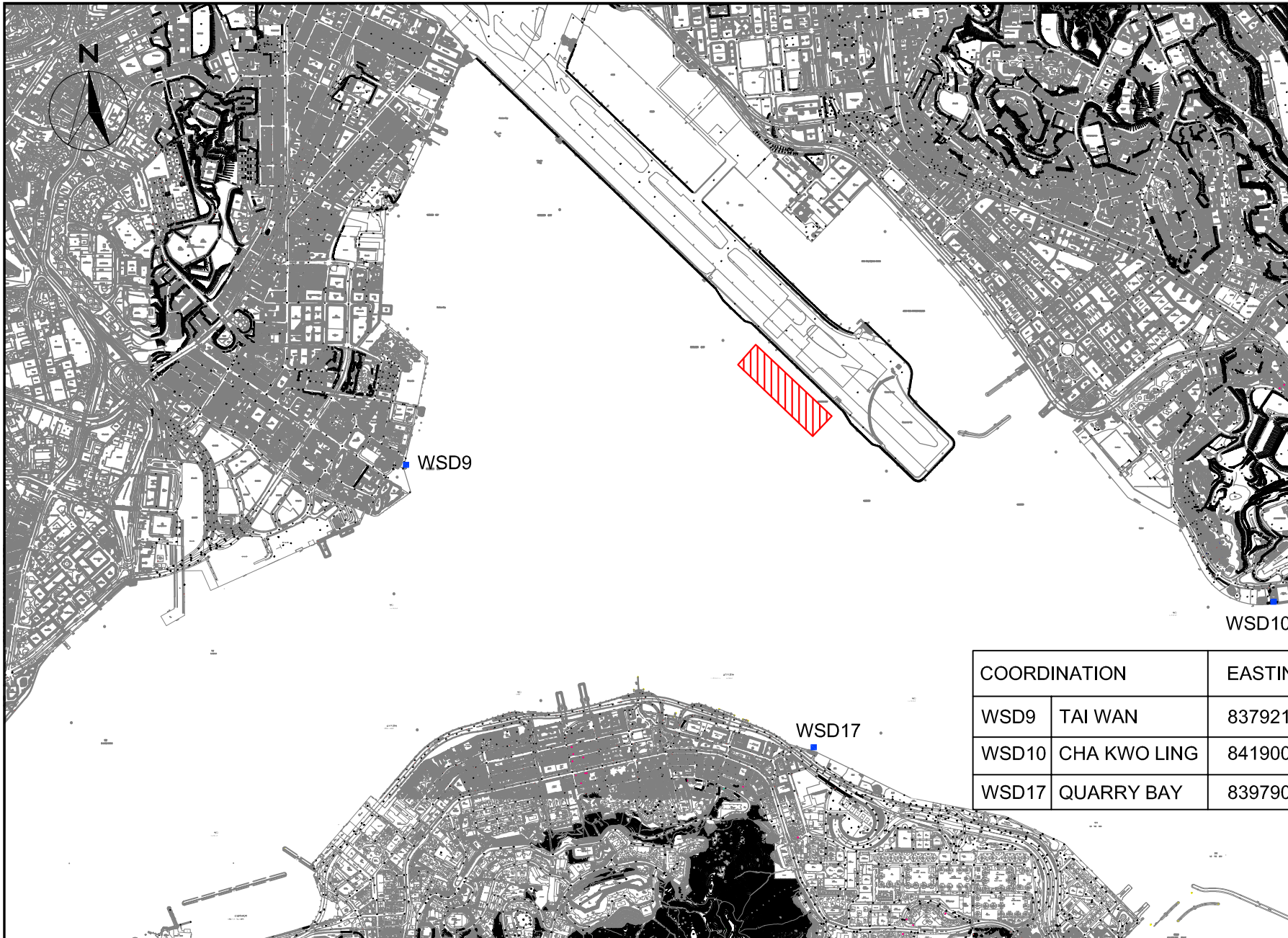
 DREDGING AREA

CONTRACT NO. CV/2013/02 - CEDD MAINTENANCE CONTRACT FOR SEAWALLS AND NAVIGATION CHANNELS


SITE LAYOUT PLAN



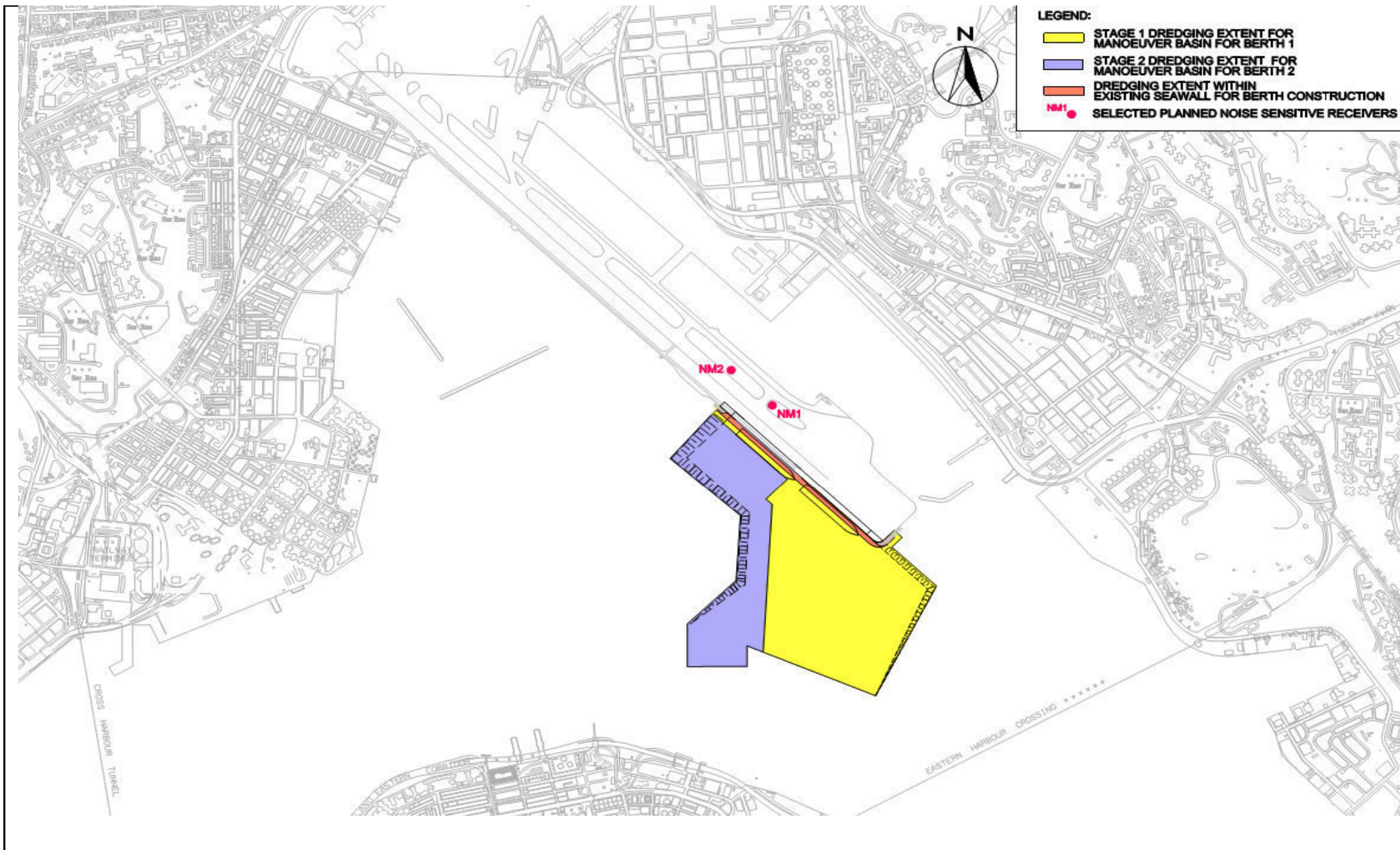
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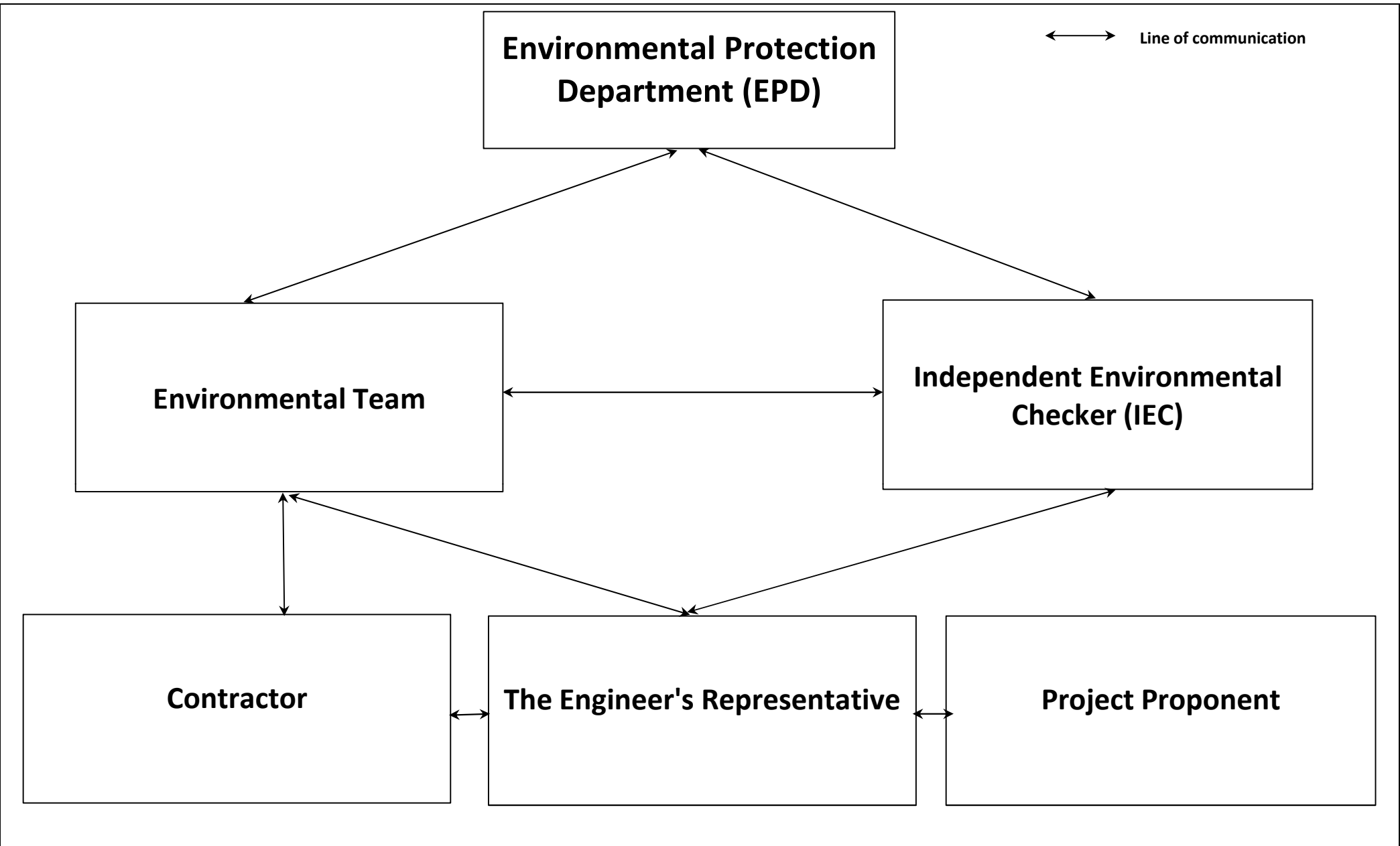
LEGEND

-  DREDGING AREA
-  WATER QUALITY MONITORING STATION

COORDINATION		EASTING (m)	NORTHING (m)
WSD9	TAI WAN	837921.0	818330.0
WSD10	CHA KWO LING	841900.9	817700.1
WSD17	QUARRY BAY	839790.3	817032.2



Title	Contract No. CV/2013/02	Scale	Propose	CINOTECH
	CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) Dredging at Cruise Terminal Stage 2	N.T.S	No. MA14015	
	Planned Noise Monitoring Stations during Construction Phase	Date	Figure	
		Apr-14	3	



↔ Line of communication

Title	Contract No. CV/2013/02	Scale	N.T.S	Propose	MA14015	CINOTECH
	CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) Dredging at Cruise Terminal Stage 2	Date	Apr-14	Figure	4	
Project Organisation for Environmental Works						

**APPENDIX A
CONSTRUCTION PROGRAMME**

Contract No. : CV/2013/02

Contract Title : CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

New ID	Task Name	Work Day	Start Date	Finish Date	Pre.Task	March	April	May	June	July	August	September
1	Working Programme for Dredging Works at Kai Tak Cruise Terminal Zone C(1) - Task Order No. MD/007/1302	169 days	15 March 2014	31 August 2014		[Gantt bar from March to August]						Working Pr
2	Task Order Key Date	169 days	15 March 2014	31 August 2014		[Gantt bar from March to August]						Task Order
3	Commencement date of task order	0 days	15 March 2014	15 March 2014		15/3						
4	Completion date of task order	0 days	31 August 2014	31 August 2014							31/8	Completion
5	Submission	14 days	18 March 2014	31 March 2014								
6	Submission MS, RA & Working Programme	1 day	22 March 2014	22 March 2014	3SS+7 days		22/3					
7	Submission proposal of Environmental Team	1 day	18 March 2014	18 March 2014	3SS+3 days		18/3					
8	Submission detail of floating silt curtain to be used at site	1 day	25 March 2014	25 March 2014	3SS+10 days		25/3					
9	Submission detail of silt screen to be used at WSD's flushing water intakes	1 day	25 March 2014	25 March 2014	3SS+10 days		25/3					
10	Submission Third Party Liability Insurance quotations for SMD selection	1 day	31 March 2014	31 March 2014	3SS+16 days		31/3					
11	Application Working Permit	21 days	20 March 2014	9 April 2014								
12	Application MDN	21 days	20 March 2014	9 April 2014	3SS+5 days		20/3					
13	Application CNP	18 days	21 March 2014	7 April 2014	3SS+6 days		21/3					
14	Application marine dumping permits	18 days	21 March 2014	7 April 2014	3SS+6 days		24/3					
15	Preparation	26 days	15 March 2014	9 April 2014								
16	Material procurement	10 days	15 March 2014	24 March 2014	3		15/3					
17	Third Party Liability Insurance procurement	10 days	31 March 2014	9 April 2014	10SS		31/3					
18	Fabrication of silt curtains (both floating & frame types) & silt screen at Cha Kwo Ling Depot	16 days	25 March 2014	9 April 2014	16		25/3					
19	Fabrication of concrete sinkers at casting yard in China and/or Cha Kwo Ling Depot	26 days	15 March 2014	9 April 2014	3		15/3					
20	Site Works	106 days	10 April 2014	24 July 2014								
21	Mobilization plant & equipment on site	1 day	10 April 2014	10 April 2014	12,17		10/4					
22	Installation silt screens at water intakes	3 days	10 April 2014	12 April 2014	21SS		10/4					
23	Installation concrete sinkers on site (Towngas witness)	1 day	13 April 2014	13 April 2014	21SS+3 days		13/4					
24	Installation floating silt curtain around the site	5 days	14 April 2014	18 April 2014	23		14/4					
25	Dredging & disposal works, estimated qty = 165,800m3, assume daily output is 2,600m3	64 days	19 April 2014	21 June 2014	22,24		19/4					
26	Trimming (optional - subject to interim survey result)	30 days	22 June 2014	21 July 2014	25		19/4		22/6			
27	Maintenance / Inspection silt curtains & silt screens during the course of works	94 days	19 April 2014	21 July 2014	25SS		19/4					
28	Relocation of floating silt curtain and/or other set up when necessary or as directed by SMD on site	94 days	19 April 2014	21 July 2014	25SS		19/4					
29	Remove set up & demobilization	3 days	22 July 2014	24 July 2014	26					22/7		
30	Environmental Issues	143 days	15 March 2014	4 August 2014								
31	Review previous WQM data and recommend Action & Limited Level by ET	14 days	15 March 2014	28 March 2014	3		15/3					
32	Submit WQM schedule for EPD acceptance in 1 week advance before starting monitoring	1 day	3 April 2014	3 April 2014	33SS-7 days		3/4					
33	Carry out Impact WQM during the course of site works	103 days	10 April 2014	21 July 2014	21SS		10/4					
34	Post-project WQM after completion of dredging works	14 days	22 July 2014	4 August 2014	26,33					22/7		
35	Conduct routine environmental audit	103 days	10 April 2014	21 July 2014	21SS		10/4					
36	Conduct archaeological object searching by Monitoring Officer during dredging in progress	94 days	19 April 2014	21 July 2014	25SS		19/4					
37	Conduct refuse collection at ares of the 3 WSD's flushing water intakes	94 days	19 April 2014	21 July 2014	25SS		19/4					
38	Safety	103 days	10 April 2014	21 July 2014								
39	Conduct routine safety inspection & training	103 days	10 April 2014	21 July 2014	21SS		10/4					
40	Survey	64 days	19 May 2014	21 July 2014								
41	Conduct inetrim survey for seabed profile at finished protion of works	34 days	19 May 2014	21 June 2014	25SS+30 days		19/5					
42	Conduct final survey	30 days	22 June 2014	21 July 2014	41				22/6			

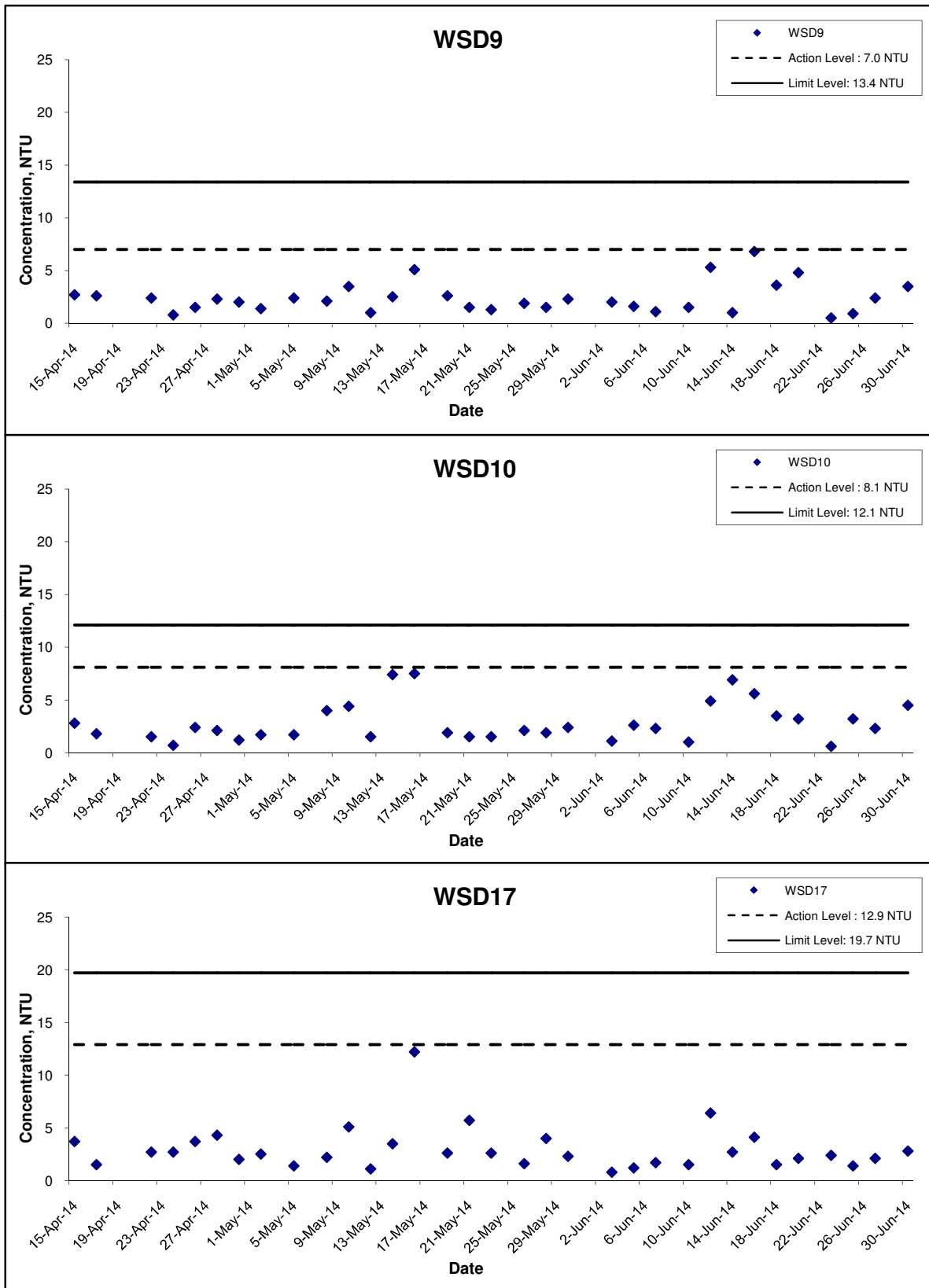
Working Programme for Dredging at Cruise Terminal Zone C(1) - v1
Date: 28-March-2014

Task [Blue bar] Summary [Grey bar] Deadline [Green bar]

Milestone [Diamond] External Milestone [Diamond] Critical Path [Red bar]

**APPENDIX B
GRAPHICAL PRESENTATION OF
WATER QUALITY MONITORING
RESULTS**

Turbidity at Mid-Ebb Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S

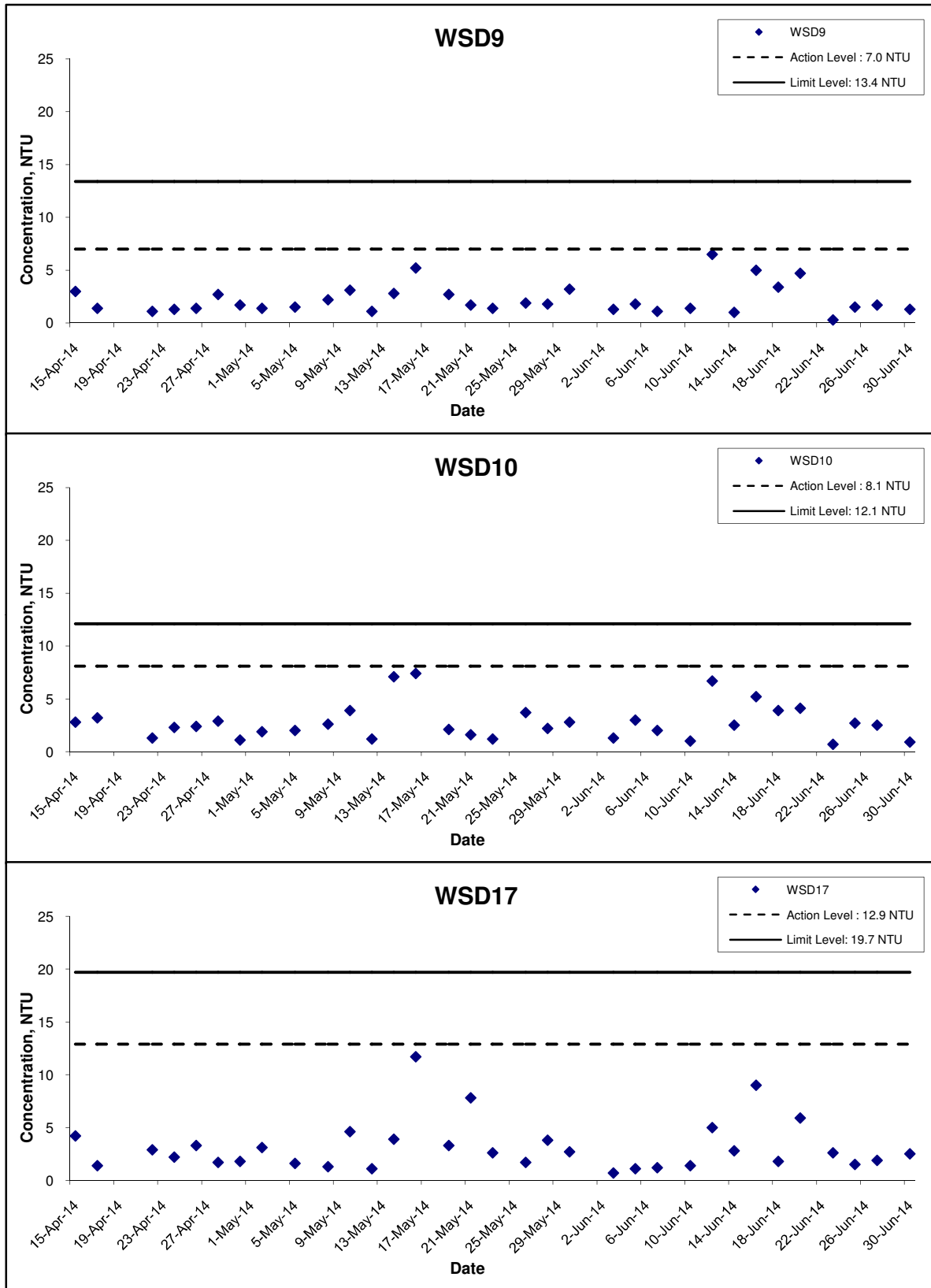
Date Jun 14

Project No. MA14015

Appendix B



Turbidity at Mid-Flood Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S

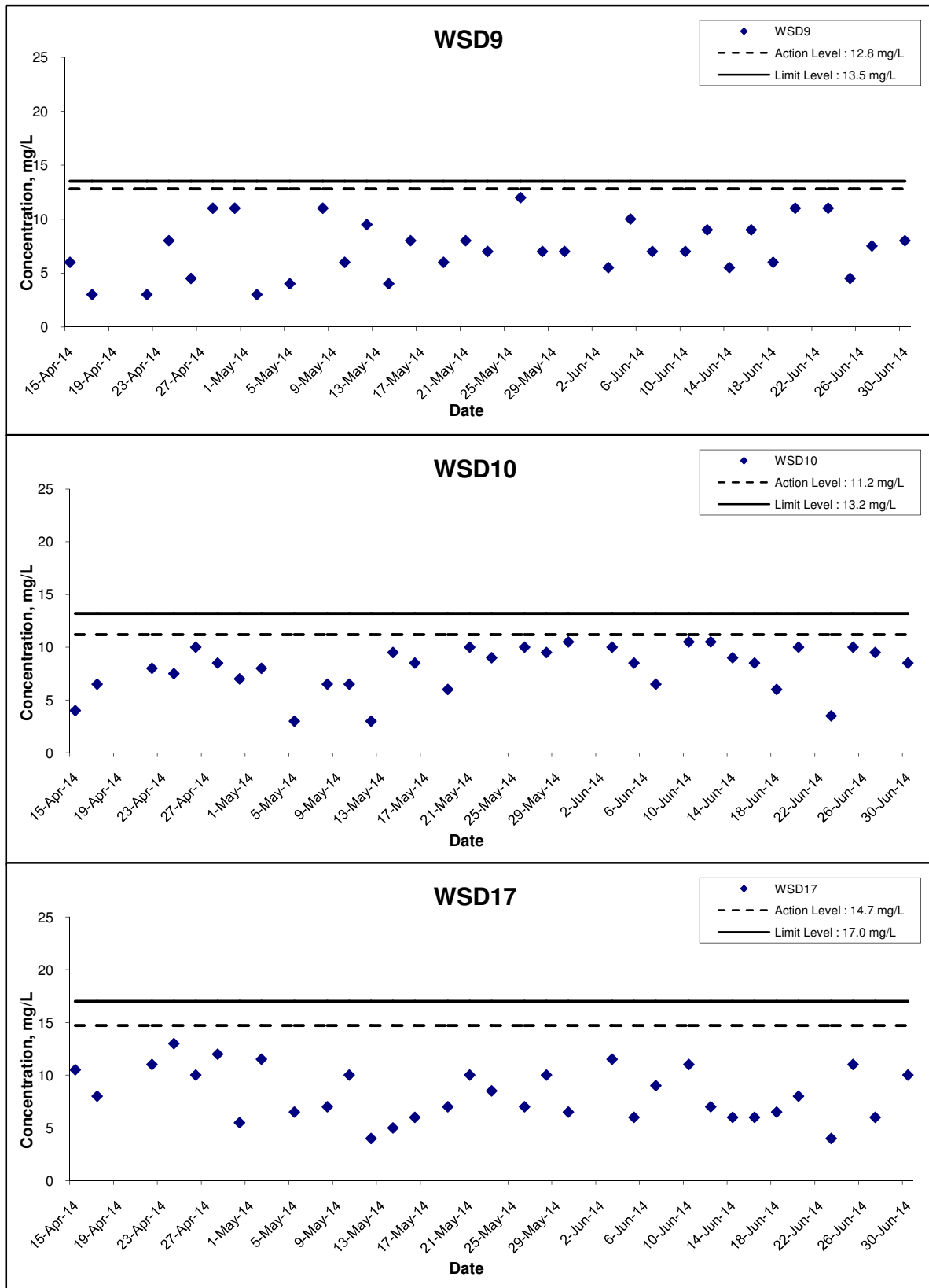
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Project No. MA14015

Appendix B



Suspended Solids at Mid-Ebb Tide



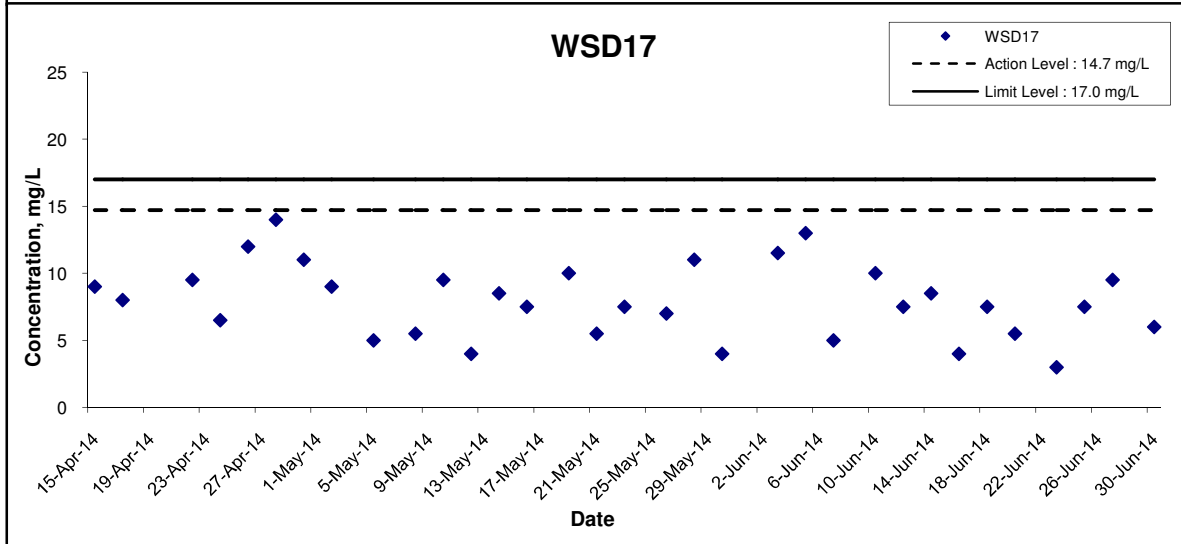
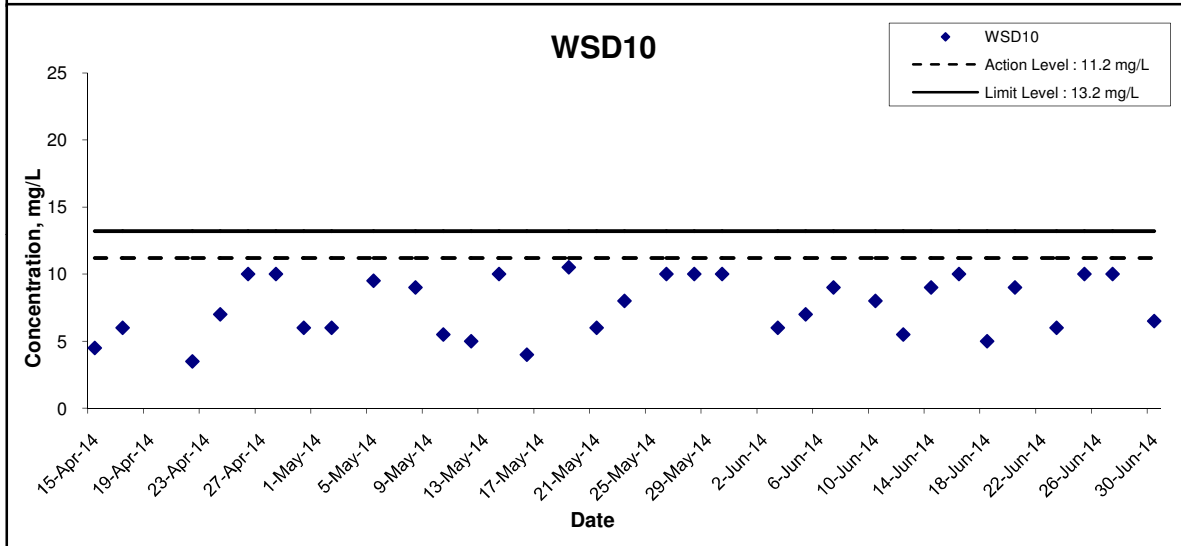
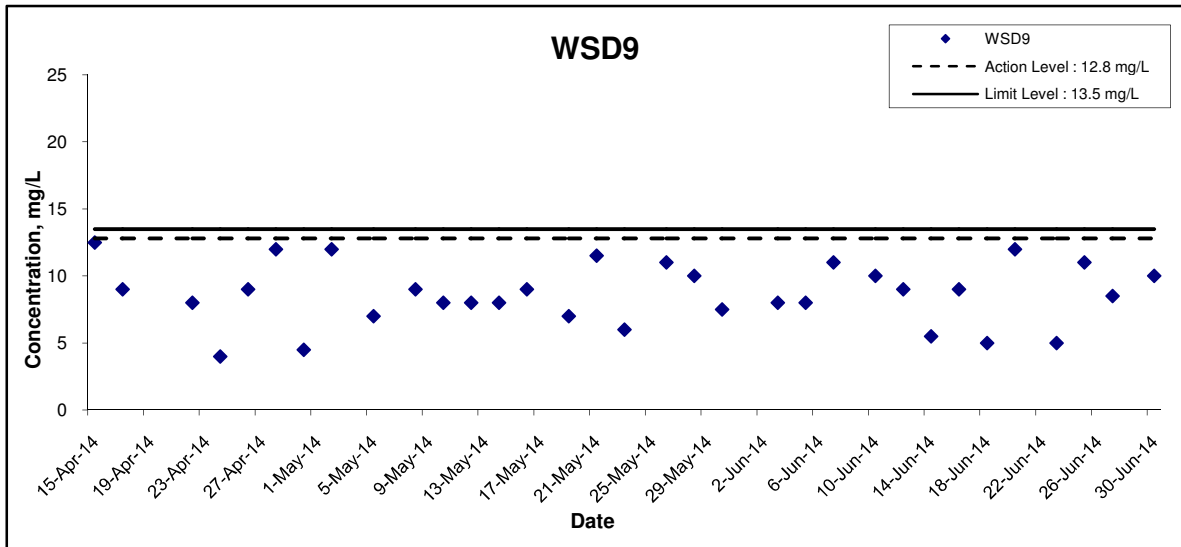
Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2
Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S
Date Jun 14

Project No. MA14015
Appendix B



Suspended Solids at Mid-Flood Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S

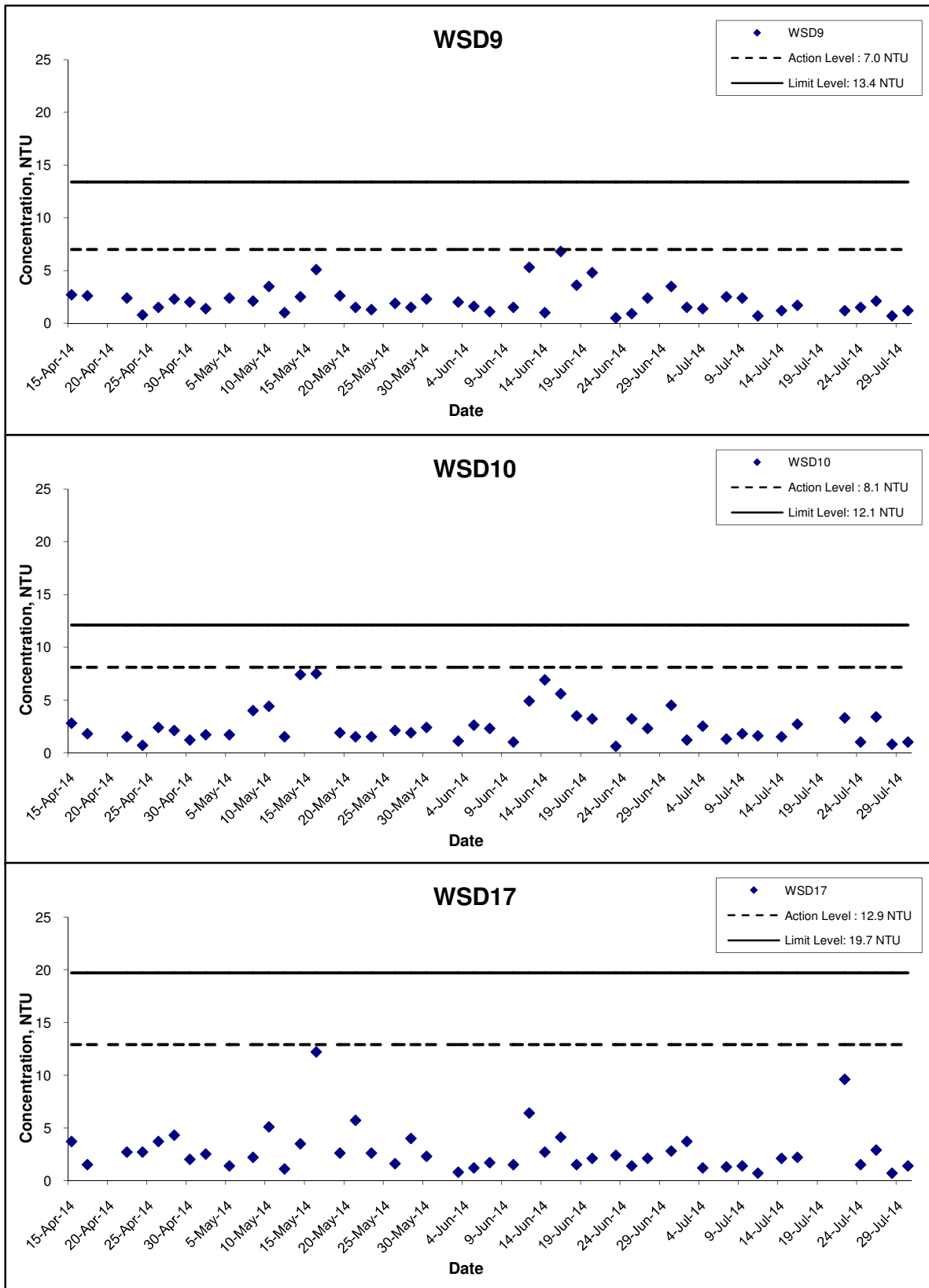
Date Jun 14

Project No. MA14015

Appendix B



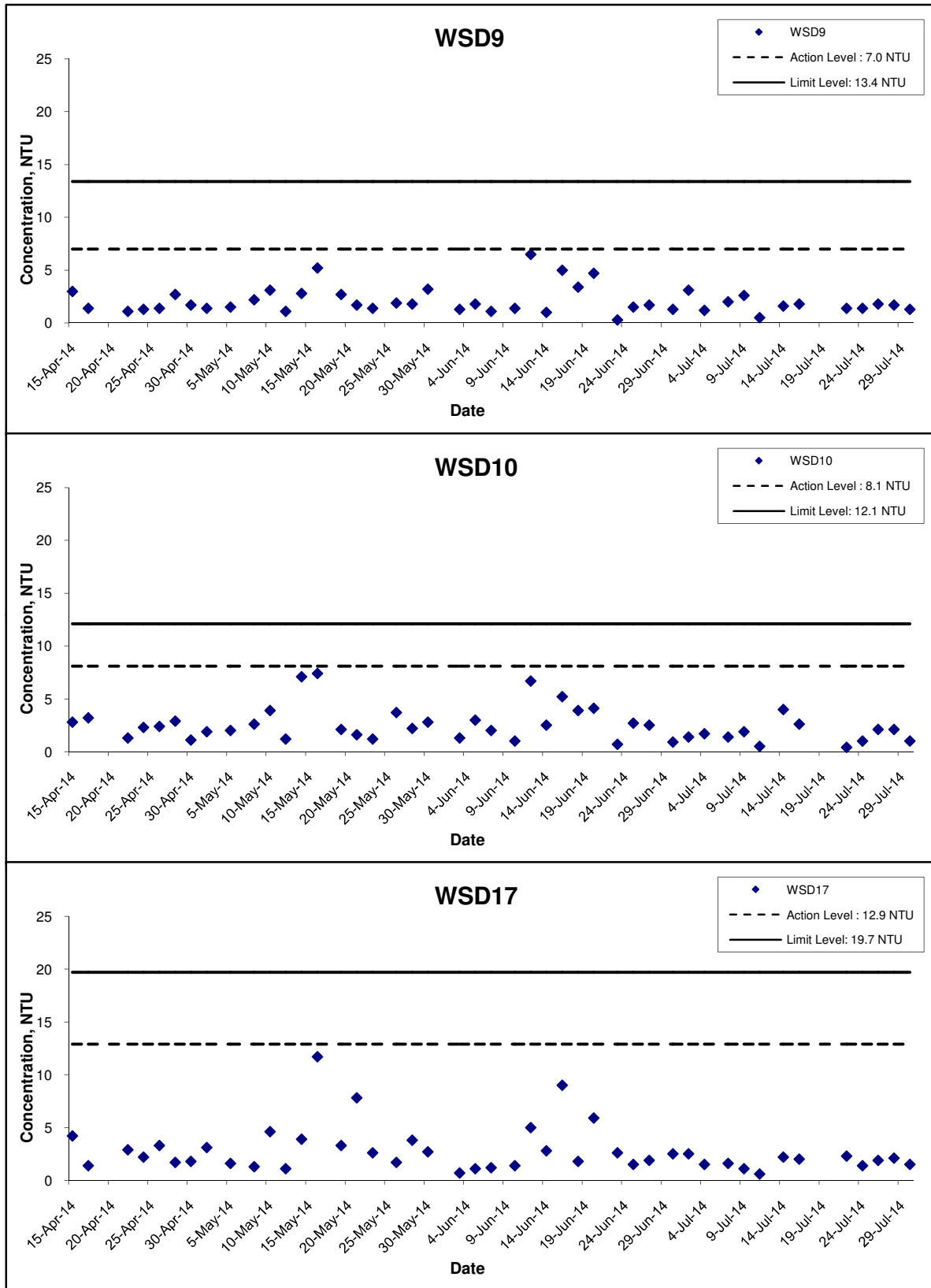
Turbidity at Mid-Ebb Tide



Remark: Water quality monitoring on 18 July 2014 was cancelled due to adverse weather (Typhoon Signal No. 3)

Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2 Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA14015	CINOTECH
	Date Jul 14	Appendix B	

Turbidity at Mid-Flood Tide

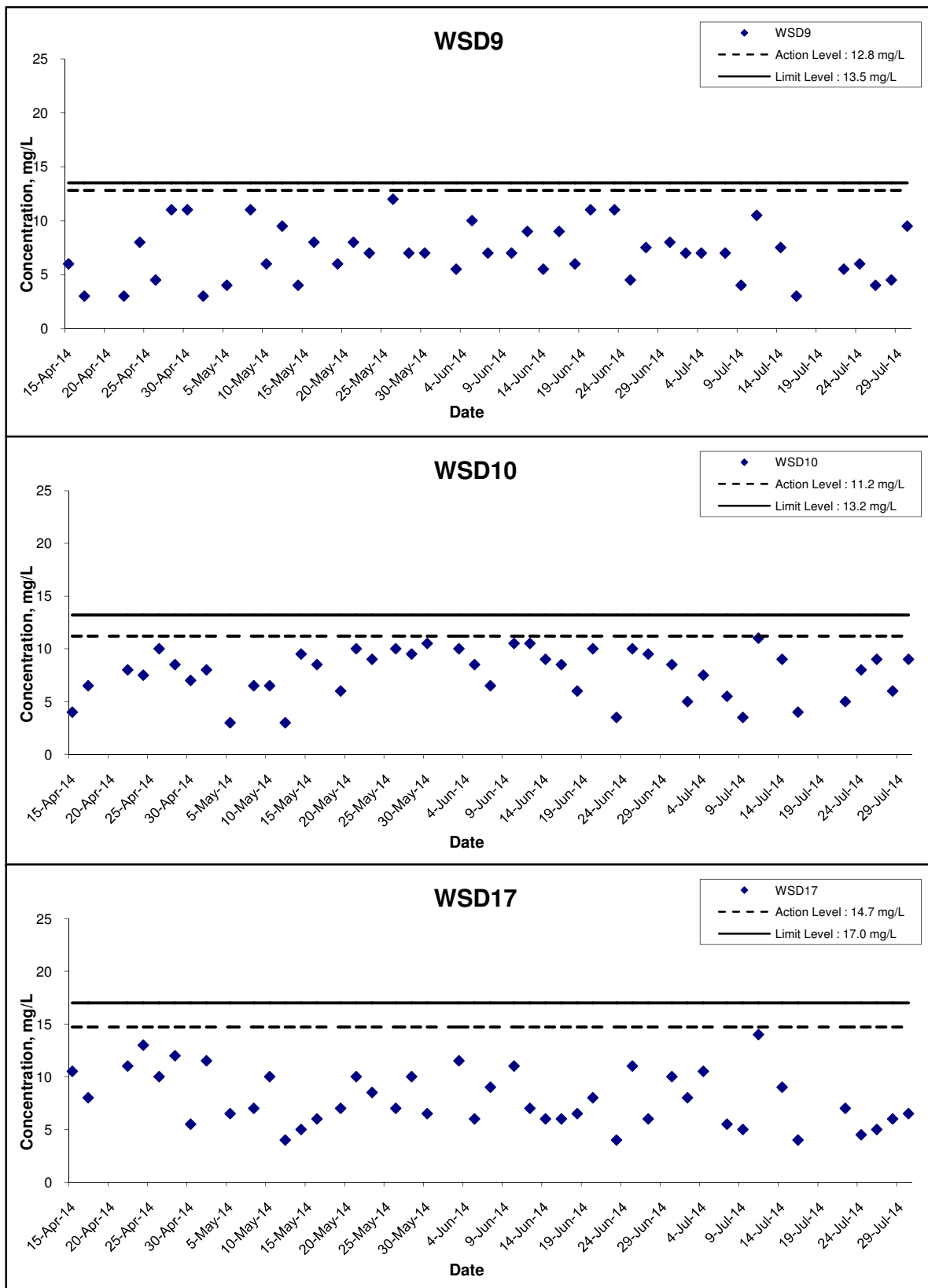


Remark: Water quality monitoring on 18 July 2014 was cancelled due to adverse weather (Typhoon Signal No. 3)

Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2 Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14015
	Date	Jul 14	Appendix	B

CINOTECH

Suspended Solids at Mid-Ebb Tide

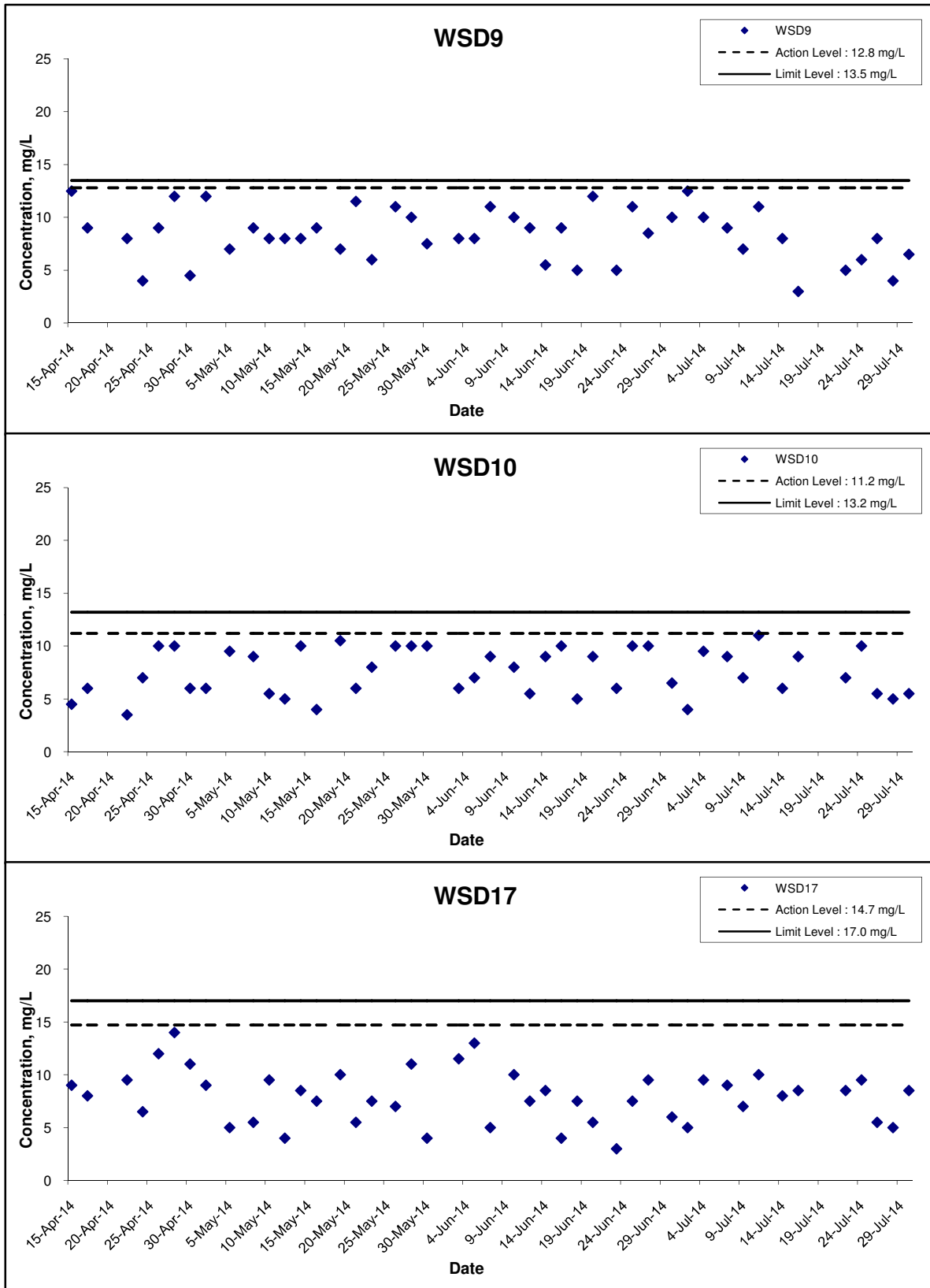


Remark: Water quality monitoring on 18 July 2014 was cancelled due to adverse weather (Typhoon Signal No. 3)

Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2 Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14015
	Date	Jul 14	Appendix	B

CINOTECH

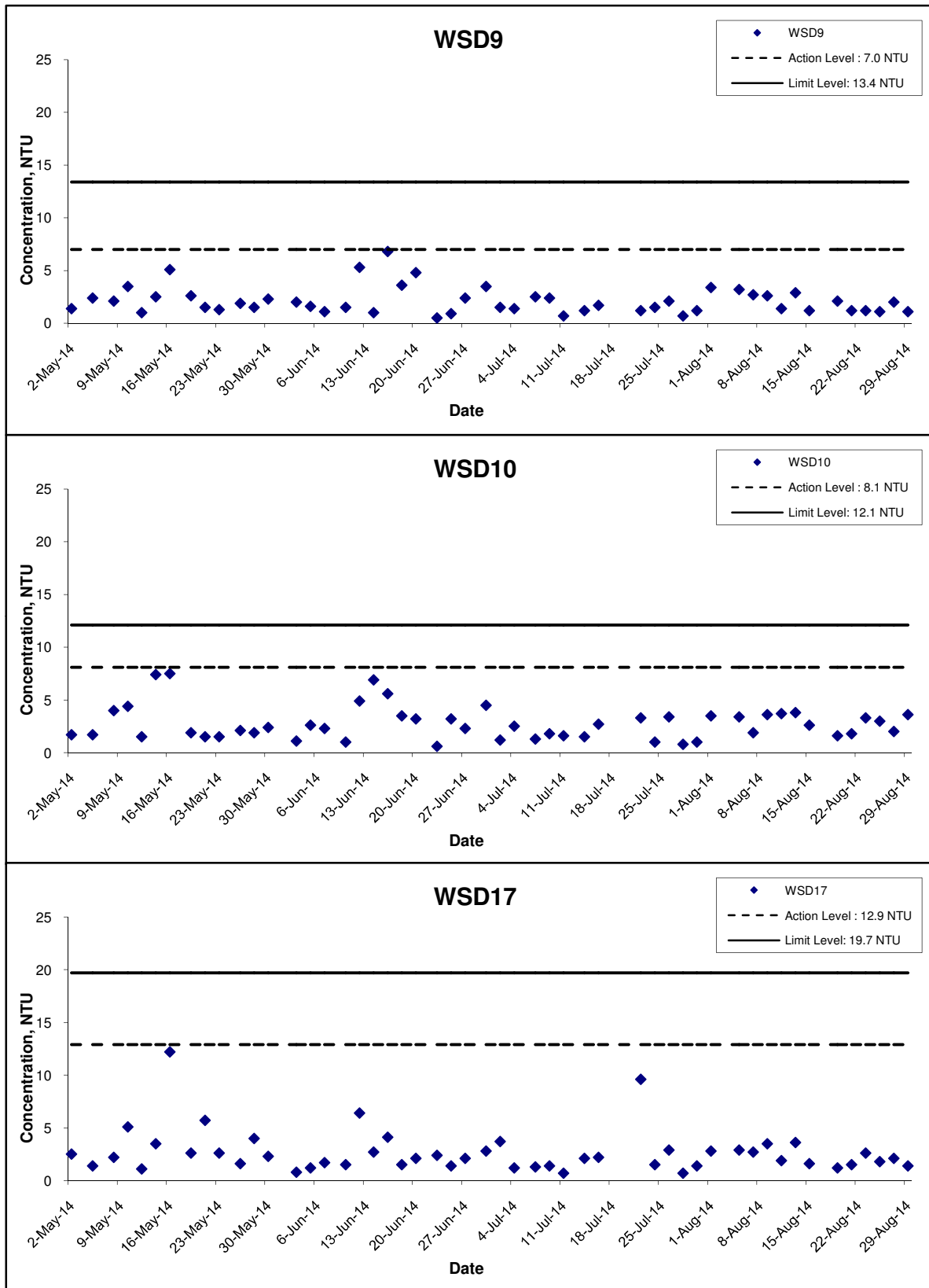
Suspended Solids at Mid-Flood Tide



Remark: Water quality monitoring on 18 July 2014 was cancelled due to adverse weather (Typhoon Signal No. 3)

Title	Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2	Scale	N.T.S	Project No.	MA14015	CINOTECH
	Graphical Presentation of Water Quality Monitoring Results	Date	Jul 14	Appendix	B	

Turbidity at Mid-Ebb Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S

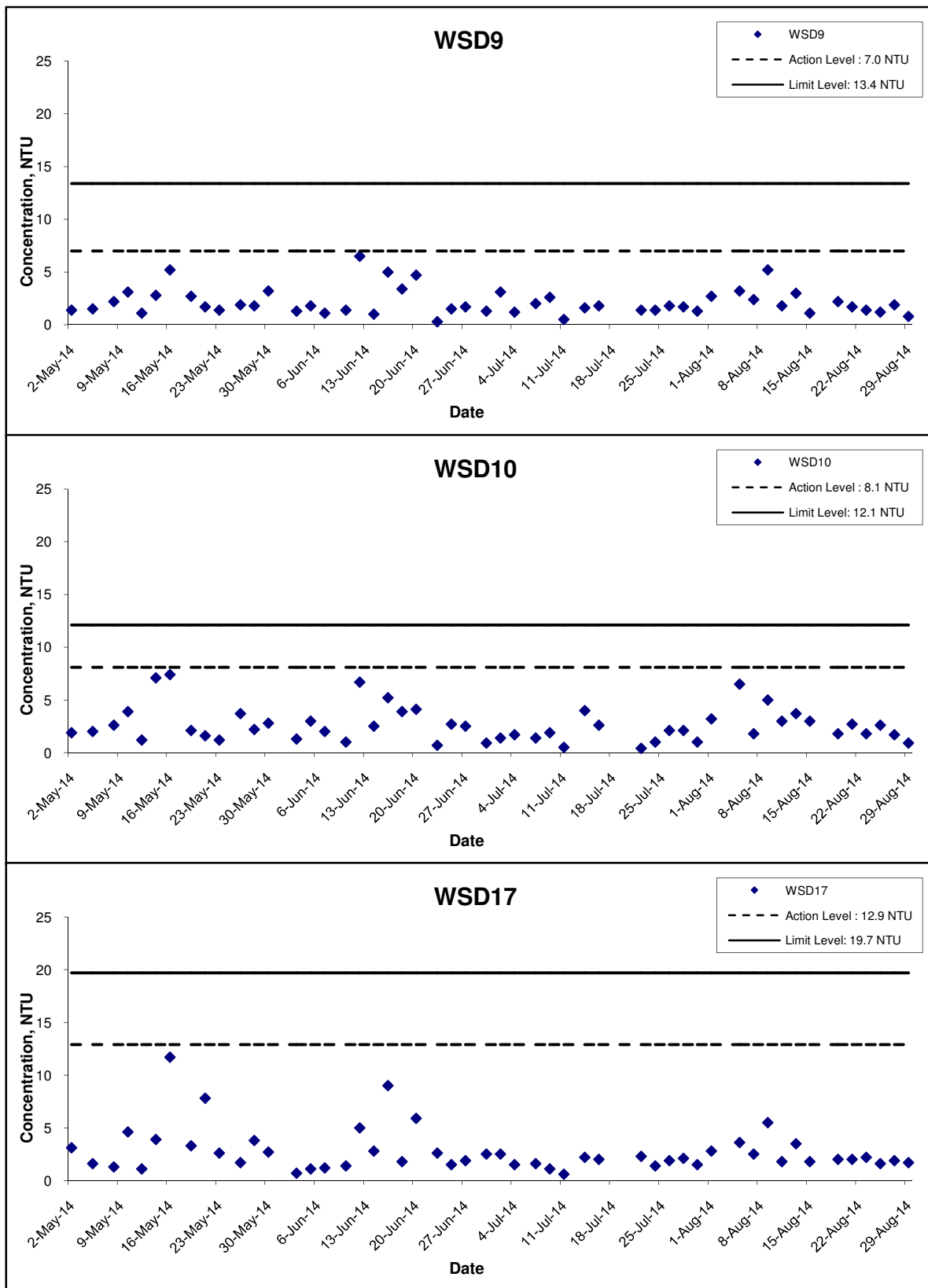
Date Aug 14

Project No. MA14015

Appendix B



Turbidity at Mid-Flood Tide



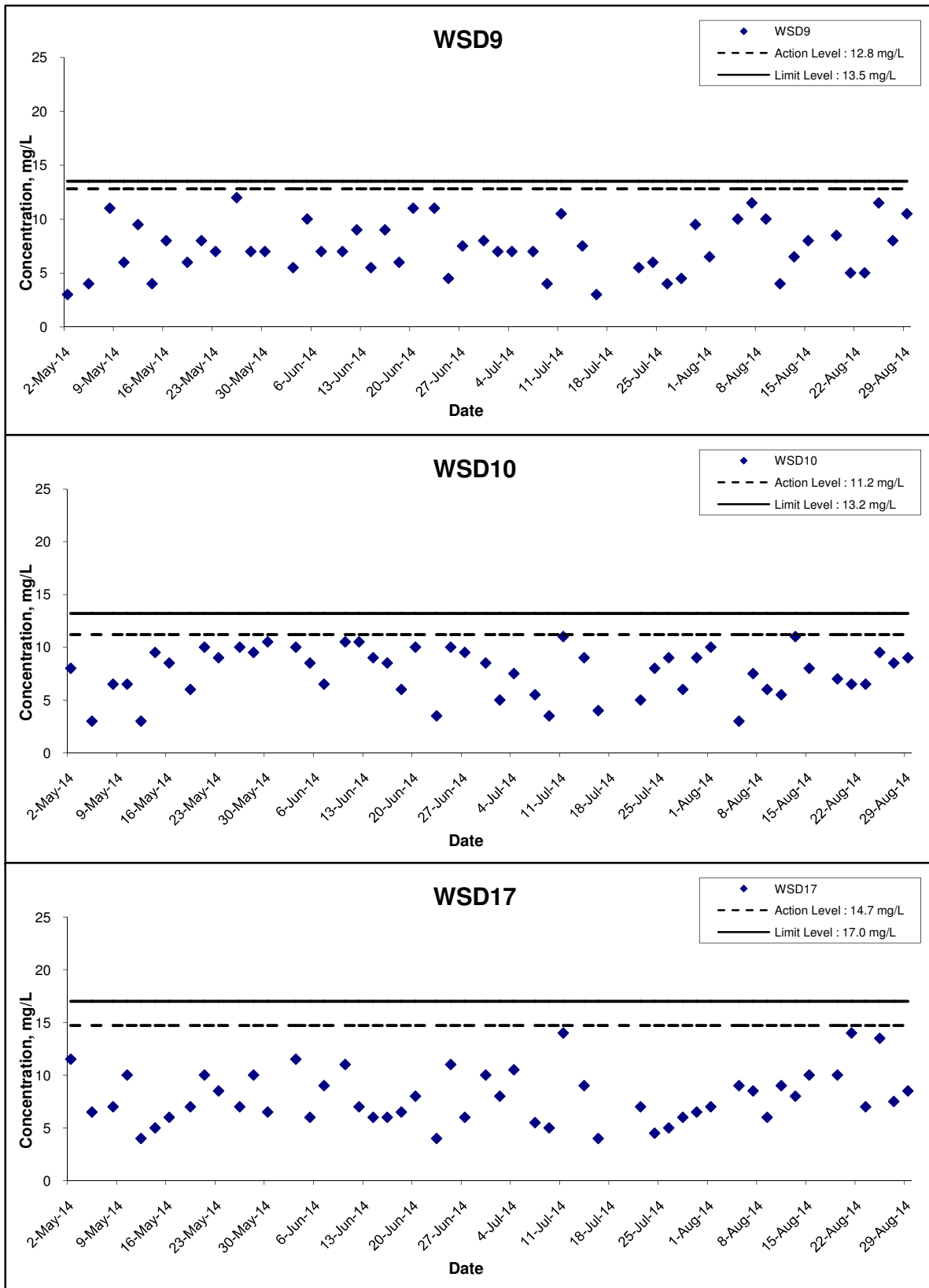
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Graphical Presentation of Water Quality Monitoring Results

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Suspended Solids at Mid-Ebb Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S

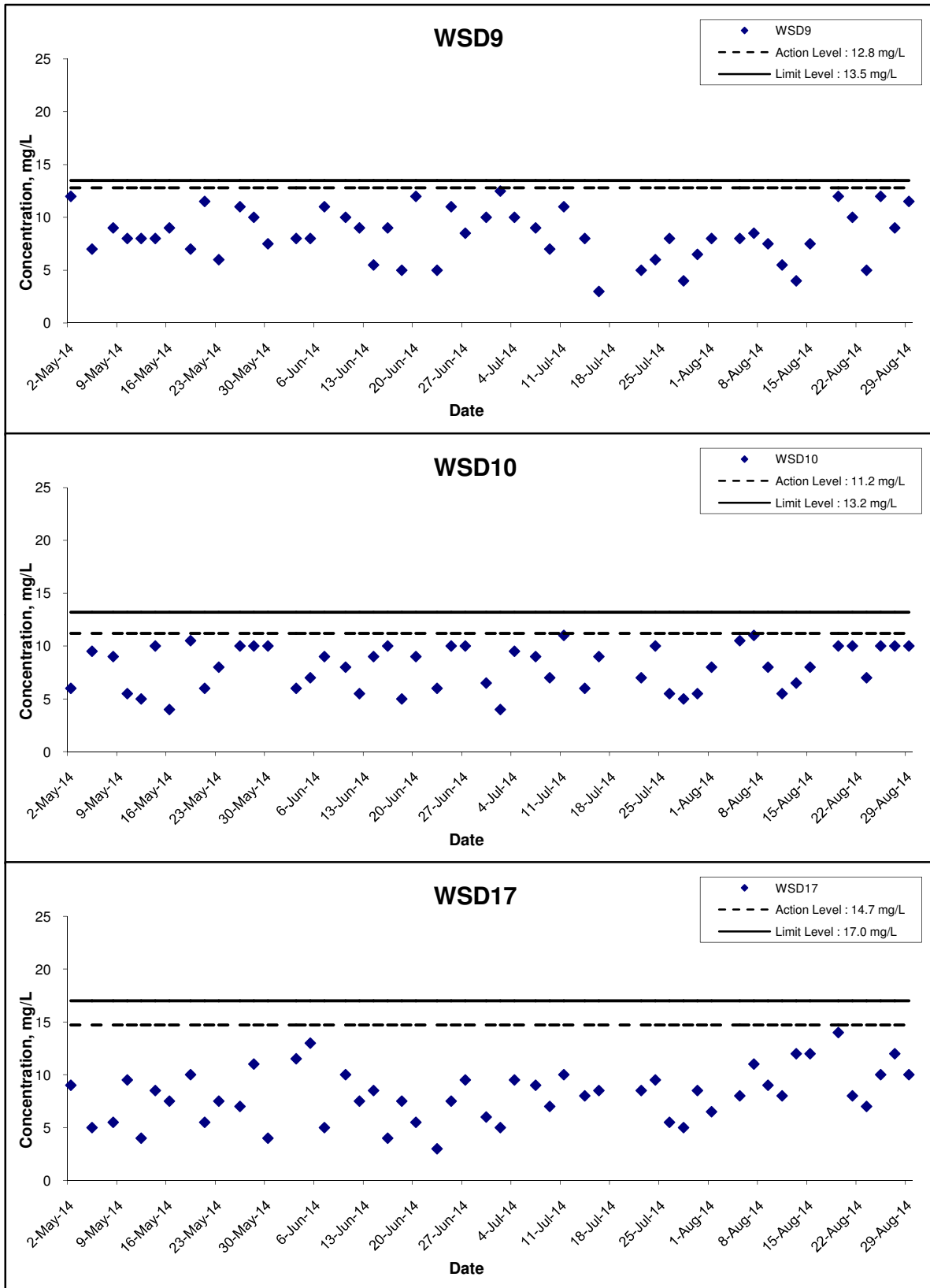
Date Aug 14

Project No. MA14015

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Suspended Solids at Mid-Flood Tide



Title Contract No. CV/2013/02 - CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016) - Dredging at Cruise Terminal Stage 2

Graphical Presentation of Water Quality Monitoring Results

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Appendix B



APPENDIX C
EVENT ACTION PLANS

Appendix C - Event and Action Plan for Water Quality

Event	ET	IEC	ER	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods. 5. Discuss mitigation measures with IEC and Contractor; 6. (The above actions should be taken within 1 working day after the exceedance is identified) 7. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified) 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented. 3. (The above actions should be taken within 1 working day after the exceedance is identified) 	<ol style="list-style-type: none"> 1. Inform ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Review the working methods and consider additional measures such as use of frame-type silt curtain, deployment of double silt curtains, slowing down, or rescheduling of works; 5. Discuss with ET and IEC and proposed mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures. 7. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform IEC and Contractor; 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures; 	<ol style="list-style-type: none"> 1. Inform ER and confirm notification of the non-compliance in writing;

Appendix C - Event and Action Plan for Water Quality

Event	ET	IEC	ER	Contractor
consecutive sampling days	<ol style="list-style-type: none"> 3. Check monitoring data, all plant, equipment and Contractor's working methods. 4. Discuss mitigation measures with IEC and Contractor; 5. Ensure mitigation measures are implemented; 6. Prepare to increase the monitoring frequency to daily; 7. (The above actions should be taken within 1 working day after the exceedance is identified) 8. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified) 	<ol style="list-style-type: none"> 2. Make agreement on the mitigation measures to be implemented. 3. Assess the effectiveness of the implemented mitigation measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified) 	<ol style="list-style-type: none"> 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Review the working methods and consider additional measures such as use of frame-type silt curtain, deployment of double silt curtains, slowing down, or rescheduling of works; 5. Discuss with ET and IEC and proposed mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures. 7. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and 	<ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the 	<ol style="list-style-type: none"> 1. Inform ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment;

Appendix C - Event and Action Plan for Water Quality

Event	ET	IEC	ER	Contractor
	<p>equipment and Contractor's working methods.</p> <p>5. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>6. Ensure mitigation measures are implemented;</p> <p>7. Increase the monitoring frequency to daily until no exceedance of Limit Level.</p> <p>8. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>advise the ER accordingly;</p> <p>3. Assess the effectiveness of the implemented mitigation measures.</p> <p>4. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>working methods;</p> <p>3. Make agreement on the mitigation measures to be implemented.</p> <p>4. Assess the effectiveness of the implemented mitigation measures.</p> <p>5. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>4. Review the working methods and consider additional measures such as use of frame-type silt curtain, deployment of double silt curtains, slowing down, or rescheduling of works;</p> <p>5. Discuss with ET and IEC and ER and proposed mitigation measures to IEC and ER within 3 working days;</p> <p>6. Implement the agreed mitigation measures.</p> <p>7. (The above actions should be taken within 1 working day after the exceedance is identified)</p>
<p>Limit level being exceeded by more than one consecutive sampling days</p>	<p>1. Identify source(s) of impact;</p> <p>2. Inform IEC, Contractor and EPD;</p> <p>3. Check monitoring data, all plant, equipment and Contractor's working methods.</p> <p>4. Discuss mitigation measures with IEC, ER and Contractor;</p>	<p>1. Discuss with ET and Contractor on the mitigation measures;</p> <p>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly;</p> <p>3. Assess the effectiveness of</p>	<p>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</p> <p>2. Request Contractor to critically review the working methods;</p> <p>3. Make agreement on the mitigation measures to be</p>	<p>1. Inform ER and confirm notification of the non-compliance in writing;</p> <p>2. Rectify unacceptable practice;</p> <p>3. Check all plant and equipment;</p> <p>4. Review the working methods and consider additional measures such as use of</p>

Appendix C - Event and Action Plan for Water Quality

Event	ET	IEC	ER	Contractor
	<ol style="list-style-type: none"> 5. Ensure mitigation measures are implemented; 6. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days. 7. (The above actions should be taken within 1 working day after the exceedance is identified) 	<p>the implemented mitigation measures.</p> <ol style="list-style-type: none"> 4. (The above actions should be taken within 1 working day after the exceedance is identified) 	<p>implemented.</p> <ol style="list-style-type: none"> 4. Assess the effectiveness of the implemented mitigation measures. 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. 6. (The above actions should be taken within 1 working day after the exceedance is identified) 	<p>frame-type silt curtain, deployment of double silt curtains, slowing down, or rescheduling of works;</p> <ol style="list-style-type: none"> 5. Discuss with ET and IEC and ER and proposed mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures. 7. As directed by the Engineer, to slow down or to stop all or part of construction activities. 8. (The above actions should be taken within 1 working day after the exceedance is identified)

**APPENDIX D
UPDATED ENVIRONMENTAL
MITIGATION IMPLEMENTATION
SCHEDULE (EMIS)**

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
<i>Air Quality</i>					
S3.6	Requirements of the Air Pollution Control (Construction Dust) Regulation shall be adhered to during the construction period.	Contractor for capital dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage	^
S3.6	In order to minimize the potential odour emissions, if any, the dredged sediment placed on barge should be properly covered as far as practicable to minimize the exposed area and hence the potential odour emissions during the transportation of the dredged sediment.	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
<i>Construction Noise (Air borne)</i>					
S4.8	<p>Good Site Practices:</p> <ul style="list-style-type: none"> • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. • Mobile plant, if any, should be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures should effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^ ^ ^ ^ ^
S4.9	If there is any planned NSRs within 300 m from the work area occupied during the dredging period, an EM&A programme is recommended to be	Developer of cruise terminal	Representative NSRs at the former Kai Tak Airport runway/ Prior and	Construction Stage and Operation stage	N/A

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	established according to the predicted occurrence of noisy activities. All the recommended mitigation measures for daytime normal working activities should be incorporated into the EM&A programme for implementation during dredging.		during the capital and maintenance dredging		
Water Quality					
S5.9	<ul style="list-style-type: none"> • Dredging will be carried out by closed grab dredger to minimize release of sediment and other contaminants during both capital and maintenance dredging. • The maximum production rate for dredging from the seabed to provide necessary manoeuvring area would not be more than 4,000m³ per day (and no more than 2 closed grab dredgers) during capital dredging and 2,000m³ per day maintenance dredging. • The maximum production rate for dredging at or near the seawall area would not be more than 4,000m³ per day for berth construction. No more than two closed grab dredger would be operated at the same time at or near the seawall for berth construction. 	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction Stage and Operation stage	* ^ ^
S5.9	Silt curtains should be deployed around the closed grab dredgers used for dredging at and near the existing seawall of the former Kai Tak runway for construction of the cruise berth structures.	Contractor for capital dredging	Work site/ during dredging in the construction stage	Construction stage	*
S5.9	Silt screens should be installed at the WSD flushing water intakes at Cha Kwo Ling, Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai and Tai Wan for dredging in the manoeuvring basin of the first berth during the capital dredging	Contractor for capital dredging	Seawater intakes in Victoria Harbour/ During the construction of cruise terminal	Construction stage	^

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
S5.9	Silt screens should be installed at the WSD flushing water intakes at Cha Kwo Ling, Quarry Bay, and Tai Wan for dredging in the manoeuvring basin of the second berth during the capital dredging.	Contractor for capital dredging	Seawater intakes in Victoria Harbour/ During the construction of cruise terminal	Construction stage	^
S5.9	If the opening has been introduced at the northern runway, silt screen should also be installed at the WSD flushing water intake at Sai Wan Ho, Sheung Wan and Wan Chai for dredging in the manoeuvring basin of the second berth during the capital dredging.	CEDD	Seawater intake at Sai Wan Ho, Sheung Wan and Wan Chai/ During the construction of cruise terminal	Construction stage	^
S5.9	Other good site practices that should undertaken during dredging include: <ul style="list-style-type: none"> • All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • All barges / dredgers should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; • Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation. 	Contractor for capital and maintenance dredging	Work site and adjacent waters/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^ ^ ^ ^
S5.9	Appropriate numbers of portable chemical toilets shall be provided by a licensed contractor to serve the construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices	Contractor for capital and maintenance dredging	Work site and adjacent waters/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
S5.9	Collection and removal of floating refuse should be performed at regular	Contractor for capital and	Work site and adjacent waters/	Construction stage and	*

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	intervals on a daily basis. The Contractor should be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish during the dredging works.	maintenance dredging	during dredging in the construction stage and maintenance dredging during operation stage	Operation stage	
S5.9	An environmental monitoring and audit programme should be implemented to verify whether or not impact predictions are representative, and to ensure that all the recommended mitigation measures are implemented properly. If the water quality monitoring data indicate that the proposed dredging works result in unacceptable water quality impacts in the receiving water, appropriate actions should be taken to review the dredging operation and additional measures such as use of frame-type silt curtain, deployment of double silt curtains, slowing down, or rescheduling or works should be implemented as necessary.	Developer of cruise terminal	Selected water receiver points in Victoria Harbour/ Prior and during the construction of cruise terminal and maintenance dredging	Construction stage and Operation stage	^
S5.9	Silt screens are recommended to be deployed at six selected WSD flushing water intakes during the capital dredging. The Contractor for capital dredging shall demonstrate and ensure that the design of the silt screen will not affect the normal operation of flushing water intake. The Contractor shall obtain consensus from all relevant parties, including WSD and Marine Department on the design of the silt screen at each of the six selected flushing water intake points before installation of the silt screen and commencement of the proposed dredging works. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection should be performed at the monitoring stations at regular intervals on a daily basis. The Contractor should be responsible for	Contractor for capital dredging	Selected water receiver points in Victoria Harbour/ during dredging in the construction stage	Construction stage	*

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.				
Waste Management					
S6.7	<p><i>Good Site Practices</i> It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during the dredging activities include:</p> <ul style="list-style-type: none"> • Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. • Training of site personnel in proper waste management and chemical waste handling procedures. • Provision of sufficient waste disposal points and regular collection for disposal. • Appropriate measure to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. • A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites). • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Encourage collection of aluminium cans, PET bottles and paper by providing separate labeled bins to enable these wastes to be 	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	<p>segregated from other general refuse generated by the work force.</p> <ul style="list-style-type: none"> • Any unused chemicals or those with remaining functional capacity shall be recycled. 				^
S6.7	<p><i>Marine Sediments</i> The dredged marine sediments would be loaded onto barges and transported to the designated disposal sites allocated by the MFC depending on their level of contamination. Sediment classified as Category L would be suitable for Type 1 –Open Sea Disposal (Dedicated Sites) or Type 2 –Confined Marine Disposal and must be dredged and transported with great care in accordance with ETWB TCW No. 34/2002. Subject to the final allocation of the disposal sites by MFC, the dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the East Sha Chau Contaminated Mud Pits that are designated for the disposal of contaminated mud in Hong Kong.</p>	Contractor for capital and maintenance dredging	Work site/ during dredging in construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
S6.7	<p>It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, prior to the dredging contract being tendered. The Contractor for the dredging works shall apply for the allocation of marine sediment disposal sites from all relevant authorities.</p>	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
S6.7	<p>During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimize potential impacts on water quality:</p> <ul style="list-style-type: none"> • Bottom opening of barges shall be fitted with tight fitting seals to 	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	<p>prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings or barges and hopper dredgers before the vessel is moved.</p> <ul style="list-style-type: none"> • Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. • Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 				* ^ ^
S6.7	<i>Chemical wastes</i> After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handles according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
S6.7	<i>General Refuse</i> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material.	Contractor for capital and maintenance dredging	Work site/ during dredging in the construction stage and maintenance dredging during operation stage	Construction stage and Operation stage	^
S6.7	<i>Construction and Demolition Material</i> It is recommended that the extend of dredging of the existing seawall should be kept to a minimum in the detailed design of the new cruise terminal to minimize generation of C&D material. Mitigation measures and good site practices should be	Contractor for capital dredging	Work site/ during the construction period	Construction stage	

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
	<p>incorporated in the contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include:</p> <ul style="list-style-type: none"> • Where it is unavoidable to have transient stockpiles of C&D material with the Project work site pending collection for disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible. • Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric. • Skip hoist for material transport should be totally enclosed by impervious sheeting. • Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site. • The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. • The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle. • All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. • The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading. 				<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>

Appendix D –Updated Environmental Mitigation Implementation Schedule

EIA Ref.	Recommended Mitigation Measures	Implementation Agent	Location/ Timing of the measures	Implementation Stage	Implementation Status
S6.7	When delivering inert C&D material to public fill reception facilities, the material shall consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	Contractor and Independent Environmental Checker	Work site/ During the construction period	Construction stage	N/A
Cultural Heritage					
S7.8	The dredging activities of the proposed cruise terminal should ensure that disturbance to the existing seawall masonry outside the Project boundary should be avoided as far as practicable.	Developer of cruise terminal	Work site/ During the design and construction of cruise terminal	Design stage and Construction stage	^
7.10, Appendix 7.1	It is recommended that the dredged spoil should be monitored for the presence of archaeological material. Guidelines for the monitoring brief have been prepared in consultation with the AMO. A qualified marine archaeologist needs to be on standby to provide specialist advice, if required, but the monitoring can be carried out by a member of staff of dredging barge.	Developer of cruise terminal/ Contractor for capital dredging	Work site/ during dredging in the construction stage	During construction	^

Remarks: ^ Compliance of mitigation measure
 * Recommendation was made during site audit but improved/rectified by the contractor
 N/A Not Applicable at this stage as no such site activities were conducted in the reporting month

APPENDIX E
SITE AUDIT SUMMARY

Contract No. CV/2013/02



CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	140605
Date	5 June 2014 (Thursday)
Time	13:45-15:15

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140605-R01	• Properly deploy the silt curtain at grab and the gap at the silt curtain should be avoided.	B13
140605-R02	• A closed grab which has been agreed by relevant parties should be used for dredging.	B1
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140528), follow-up action is required for the item 140528-R01.	

	Name	Signature	Date
Recorded by	Ivy Tam		5 June 2014
Checked by	Dr. Priscilla Choy		5 June 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)


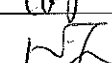
Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140612
Date	12 June 2014 (Thursday)
Time	14:20-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140612-R01	<ul style="list-style-type: none"> To repair the damage part of silt curtain surrounding the grab of 永合利 23 as soon as possible. 	B13
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 140605), all environmental deficiencies were improved/rectified by Contractor during the site inspection. 	

	Name	Signature	Date
Recorded by	Ivy Tam		12 June 2014
Checked by	Dr. Priscilla Choy		12 June 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)



Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140619
Date	19 June 2014 (Thursday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140619-R01	<ul style="list-style-type: none">Floating refuse was observed at the silt screens at WSD flushing water intake at Cha Kwo Ling and Tai Wan. The Contractor was reminded to clear the refuse regularly.	B9
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none">Follow-up on previous site audit session (Ref. No. 140612), all environmental deficiencies were improved/rectified by Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Harris Wong		19 June 2014
Checked by	Dr. Priscilla Choy		19 June 2014

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

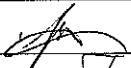
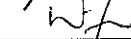
Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140627
Date	27 June 2014 (Friday)
Time	14:00-15:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 140619), all environmental deficiencies were improved/rectified by Contractor during the site inspection. 	

	Name	Signature	Date
Recorded by	Harris Wong		27 June 2014
Checked by	Dr. Priscilla Choy		27 June 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)



Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140703
Date	3 July 2014 (Thursday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140703-R01	• To check and re-deploy the perimeter silt curtain to avoid the gap.	B13
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140627), no major environmental deficiency was identified.	

	Name	Signature	Date
Recorded by	Ivy Tam		3 July 2014
Checked by	Dr. Priscilla Choy		3 July 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

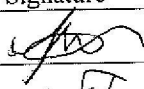

Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140709
Date	9 July 2014 (Wednesday)
Time	14:30-15:45

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 140703), all environmental deficiencies were improved/rectified by Contractor during the site inspection. 	

	Name	Signature	Date
Recorded by	Harris Wong		9 July 2014
Checked by	Dr. Priscilla Choy		9 July 2014



Contract No. CV/2013/02

**CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)
Dredging at Cruise Terminal Stage 2**

**Weekly Site Inspection Record Summary
Inspection Information**

Checklist Reference Number	140717
Date	17 July 2014 (Thursday)
Time	14:30-15:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 140709), no environmental deficiencies were identified during the site inspection. 	

	Name	Signature	Date
Recorded by	Ivy Tam		17 July 2014
Checked by	Dr. Priscilla Choy		17 July 2014

Contract No. CV/2013/02



CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	140723
Date	23 July 2014 (Wednesday)
Time	10:30-11:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140723-R01	<ul style="list-style-type: none">The silt curtain at Tai Wan WSD water intake should be deployed properly to minimize the gaps.	B13
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none">Follow-up on previous site audit session (Ref. No. 140717), no environmental deficiencies were identified during the site inspection.	

	Name	Signature	Date
Recorded by	Harris Wong		23 July 2014
Checked by	Dr. Priscilla Choy		23 July 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)

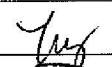
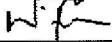
Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140731
Date	31 July 2014 (Thursday)
Time	14:30-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 140723), all environmental deficiencies were improved/rectified by Contractor during the site inspection. 	

	Name	Signature	Date
Recorded by	Ivy Tam		31 July 2014
Checked by	Dr. Priscilla Choy		31 July 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)



Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140807
Date	7 August 2014 (Thursday)
Time	14:30-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140731), no major environmental deficiency was identified.	

	Name	Signature	Date
Recorded by	Ivy Tam		7 August 2014
Checked by	Dr. Priscilla Choy		7 August 2014

Contract No. CV/2013/02

CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)



Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140814
Date	14 August 2014 (Thursday)
Time	15:30-16:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140814-R01	• Clear the floating waste within the silt screen at WSD Intake Tai Wan.	B 9
140814-R02	• To re-deploy the silt screen at WSD intake Tai Wan so that to minimize the gap.	B 13
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140807), no major environmental deficiency was identified.	

	Name	Signature	Date
Recorded by	Ivy Tam		14 August 2014
Checked by	Dr. Priscilla Choy		14 August 2014

Contract No. CV/2013/02

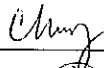
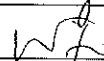
CEDD Maintenance Contract for Seawalls and Navigation Channels (2013-2016)
Dredging at Cruise Terminal Stage 2

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140821
Date	21 August 2014 (Thursday)
Time	14:30-15:00

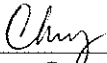

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
140821-R01	• Clear the floating waste within the silt screen at WSD Intake Tai Wan.	B 9
140821-R02	• To re-deploy the silt screen at WSD intake Tai Wan so that to minimize the gap.	B 13
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous audit sessions (ref: 140814): items of 140814-R01 and 140814-R02 will be followed up during the next site inspection as ref no. 140821-R01 and 140821-R02	

	Name	Signature	Date
Recorded by	KC Chung		21 August 2014
Checked by	Dr. Priscilla Choy		21 August 2014

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	140828
Date	28 August 2014 (Thursday)
Time	14:30-14:45

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
	No environmental deficiency was identified during site inspection.	
	E. Cultural Heritage Measures	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	<ul style="list-style-type: none"> Follow-up on the previous audit session (Ref. No. 140821), all environmental deficiencies were improved/ rectified by the Contractor. 	

	Name	Signature	Date
Recorded by	KC Chung		28 August 2014
Checked by	Dr. Priscilla Choy		28 August 2014

APPENDIX F
SUMMARY OF EXCEEDANCE

Appendix F - Exceedance Report

Exceedance Report for Water Quality

Environmental Monitoring	Parameter	No. of Exceedance		No. of Exceedance related to the Dredging Activities of this Project	
		Action Level	Limit Level	Action Level	Limit Level
Water Quality	Turbidity	0	0	0	0
	Suspended Solids (SS)	0	0	0	0

**APPENDIX G
COMPLAINT LOG**

Appendix G - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
--	--	--	--	--	--