CONTRACT NO: KL/2009/01

SITE FORMATION FOR KAI TAK CRUISE TERMINAL DEVELOPMENT

ENVIRONMENTAL MONITORING & AUDIT MONTHLY REPORT

- FEBRUARY 2014 -

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12 March 2014

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Priority ☐ normal / ☐ urgent

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Attn.	Mr. Raymond Dai	Date	12 March 2014
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Subject	**Agreement No. CE 19/2009 (EP) Dredging Works for Proposed Cruise Terminal at Kai Tak – Monthly Environmental Monitoring & Audit Report for February 2014**		

We refer to the revised Monthly EM&A Report for February 2014 that we received through email on 12 March 2014 and are pleased to confirm we have no further comment on the report.

Should you require further information, please feel free to contact us.

Best regards,

Joseph Poon
Independent Environmental Checker

JP/CY/by

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EXECUTIVE SUMMARY

i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – February 2014 for Site Formation for Kai Tak Cruise Terminal Development under Contract No. KL/2009/01. Dredging of marine sediment has been commenced since 28 June 2010 and stage 1 dredging for the Kai Tak Cruise Terminal was completed. Removal and reconstruction of existing seawall which was commenced since 22 November 2010 was completed. This report presents the environmental monitoring findings and information recorded from 1st to 28th February 2014.

Construction Activities for the Reporting Period

ii. During this reporting period, the principal work activities included:

- Site levelling and compactions works in WA1 area; and
- Improvement works for the existing seawall in Portion NDA.

Water Quality Monitoring

iii. Supplementary to Baseline Water Quality Monitoring Report – Review of Action and Limit Levels (Revision 1.2) was submitted to EPD on 13 October 2011. With respect to the EPD's no comment on the new Action and Limit Levels for water monitoring on 19 October 2011, the new set Action and Limit Levels for turbidity and SS was started to use from 19 October 2011.

iv. Water quality monitoring at 6 designated monitoring stations namely WSD9, WSD10, WSD15, WSD17, WSD19 and WSD21 were conducted during the reporting period. As per the EM&A Manual, water quality impact monitoring was conducted during the dredging works, which commenced on 28 June 2010. The recorded exceedances at various monitoring stations are summarized in ***Table I***. There were turbidity exceedance on 10 Feb 2014 and SS exceedance on 8 Feb 2014.

Table II Summary of the Exceedances Recorded in Reporting Month

Date	Tide	Station	Parameter	Exceedance	Value	Possible Cause of Exceedance
8/2/2014	Mid-ebb	WSD10	SS (mg/L)	LL	12.0	Localized impact or changes in ambient conditions
10/2/2014	Mid-ebb	WSD21	Turbidity (NTU)	AL	12.4	Localized impact or changes in ambient conditions at upstream of the Project

v. For the exceedance, further investigations were conducted to determine the cause of impact in terms of Water Quality against the Tidal Movement along Victoria Harbour and Natural Variation Comparison.

Water Quality against the Tidal Movement along Victoria Harbour

vi. There were one SS exceedances recorded in this reporting month. There were no marine works conducted by the contractor on that day. At WSD17, the immediate downstream station, there was no exceedance of SS and no rising of SS level after passing through the project site. No further exceedance of SS was recorded in the consecutive monitoring (10 Feb flood tide was 4.5mg/L). It is concluded that the exceedance was not caused by the Project works and may be caused by variations of water quality in the vicinity of the station, potential discharge from nearby nullah. Hence, no further mitigation nor repeated measurement under the EAP is required.

Natural Variation Comparison

vii. Based on the determination of upper bound of the natural variation levels from the Supplementary to Baseline Water Quality Monitoring Report, all SS results in reporting month were well within the upper bound of natural variation levels.

Noise Monitoring

viii. 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.

Waste Management

ix. There was no marine sediment (Type 1 – Open Sea Disposal) disposed to South Cheung Chau Spoil Disposal Area denoted “KTCT-1” and “KTCT -2” in this reporting month. The disposal of the sediment (Type 1 – Open Sea Disposal (Dedicate Sites) and Type 2 – Confined Marine Disposal) to East Sha Chau Contaminated Mud Disposal Site – Pit IVc was completed. There were no non-inert C&D materials related to dredging works disposed off site in the reporting month.

Complaints, Notifications of Summons and Successful Prosecutions

x. No complaint, notification of prosecutions or summons was received in the reporting period.

Site Inspections and Audit

xi. Site audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project site.

xii. The joint site audit was conducted on 27 February 2014 by the representatives of IEC, ER, the Contractor and the ET. Observation and/or recommendation related to the dredging work during the audit sessions can be referred to Section 7.

Compliance with Specific EP Conditions

xiii. Implementation of contractor's mitigation for dredging work and the associated dredging records were checked. There were no dredging operations in the reporting month.

Construction Activities for the Coming Reporting Period

xiv. In the coming reporting period, the principal work activities included:

- Site levelling and compactions works in WA1 area;
- Removal of Separation Fence between Berth I & II;
- Removal of Navigation Light at Bay G;
- Placing Road Markings between Bay G & H; and
- Improvement works for the existing seawall in Portion NDA.

1 INTRODUCTION

1.1 SCOPE OF THE REPORT

1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) for dredging works to implement the Environmental Monitoring and Audit (EM&A) programme for Site Formation for Kai Tak Cruise Terminal Development under Contract No. KL/2009/01. Dredging of marine sediment has been commenced since 28 June 2010 while removal and reconstruction of existing seawall has been commenced since 22 November 2010. Stage 1 dredging, removal and reconstruction of existing seawall were completed. The water quality monitoring would be continued.

1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.4 under Environmental Monitoring and Audit (EM&A) Manual.

1.1.3. This report documents the finding of EM&A works from 1st to 28th February 2014. The cut-off date of reporting is at the end of each reporting month.

1.2 STRUCTURE OF THE REPORT

Section 1 ***Introduction*** – details of the scope and structure of the report.

Section 2 ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 ***Implementation Status*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

Section 4 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

Section 5 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 6 ***Compliance Audit*** – summarizes the auditing of monitoring results and all exceedances environmental parameters.

Section 7 ***Site Inspection*** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 8 ***Complaints, Notification of Summons and Prosecution*** – summarizes the complaints, notification of summons and successful prosecution for breaches of environmental legislation and the actions taken within the reporting period.

Section 9 ***Conclusion***

2 PROJECT BACKGROUND

2.1 BACKGROUND

2.1.1. 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.

2.1.2. 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.

2.1.3. 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 2.1***.

2.1.4. The current Project involves a dredging operation exceeding 500,000m^3 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).

2.2 SCOPE OF THE PROJECT AND SITE DESCRIPTION

2.2.1. The scope of the Project comprises:

- Dredging of marine sediment of about 700,000 m^3 from the existing seabed (Stage 1 dredging) in the Harbour area off the southern tip of the former Kai Tak Airport runway to provide the necessary water depth within the manoeuvring area for cruise vessels; and
- Removal of existing seawall of about 322,300m^3 by dredging at the southern tip of the former Kai Tak Airport runway for cruise berth construction.

2.3 PROJECT ORGANIZATION AND CONTACT PERSONNEL

2.3.1. Kowloon Development Office of Civil Engineering and Development Department is the overall project controller. For the construction phase of KL/2009/01, Project Engineer, Contractor, Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.3.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2***. Key personnel and contact particulars are summarized in ***Table 2.1***:

Table 2.1 Contact Details of Key Personnel

Party	Role	Name	Post	Contact No.	Contact Fax
Civil Engineering and Development Department (Kowloon Development Office)	Project Proponent	Ms. Esther Yung	Senior Engineer	2301 1302	2301 1277
URS Hong Kong Limited	Engineer's Representative	Mr. Tsui Shiu Kai	Resident Engineer	2148 7638	2148 7277
Penta-Ocean Construction Company Limited	Contractor	Mr. H. Taguchi	Project Manager	2148 7238	2148 7138
		Mr. Yuen Tit	Sub Agent		
		Mr. Gideon Cheng	Environmental Officer		
Fugro (HK) Limited	Independent Environmental Checker (IEC)	Mr. Joseph Poon	Independent Environmental Checker (IEC)	2450 8238	2450 6138
Lam Environmental Services Limited	Environmental Team Leader	Mr. Raymond Dai	Environmental Team Leader (ETL)	2882 3939	2882 3331

2.4 CONSTRUCTION PROGRAMME AND WORKS

2.4.1. During this reporting period, the principal work activities included:

- Site levelling and compactions works in WA1 area; and
- Improvement works for the existing seawall in Portion NDA.

3 IMPLEMENTATION REQUIREMENTS

3.1 STATUS OF REGULATORY COMPLIANCE

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in ***Table 3.1***.

Table 3.1 Summary of Valid Licences and Permits

Permits and/or Licences	Reference No.	Issued Date	Valid Period	Status in Reporting Month
Environmental Permit	EP-328/2009/A	15 Jun 2009	N/A	Valid
Notification of Works Under APCO	KTCT/907/S/3.14/7.00/L/0060 (POC's REF. number) dated 9 December 2009	--	N/A	Valid
Construction Noise Permit (CNP)	GW-RE0792-13	1 Aug 2013	15 Aug 2013 (19:00) to 14 Feb 2014 (07:00)	Valid
Discharge Licence	WT00005933-2010	18 Mar 2010	Until 31 March 2015	Valid
Registration of Waste Producer	5213-247-P2984-01	14 Jan 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/14-086	1 Nov 2013	3 Nov 2013 to 2 May 2014	Valid

3.1.2. Implementation status of the recommended mitigation measures during this reporting period is presented in ***Appendix 3.1***.

4 MONITORING REQUIREMENTS

4.1 NOISE MONITORING

4.1.1. In accordance with the EIA Report and the approved 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. These nearest NSRs are designated for construction noise monitoring as listed in ***Table 4.1***.

Table 4.1 Planned Noise Monitoring Stations

Station	Description
NM1	Planned Residential Development (R3 site)
NM2	Planned Residential Development (R3 site)

4.1.2. As per S.3.1.1 of the approved 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.

4.2 WATER QUALITY MONITORING

4.2.1. The EIA Report has identified that suspended solids (SS) would be the most critical water quality parameter during the dredging operations. Water quality monitoring for SS and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works for cruise terminal construction to ensure the compliance with the water quality standards.

4.2.2. It is proposed to monitor the water quality at six WSD flushing water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations are shown in ***Table 4.2*** and ***Figure 4.1***.

Table 4.2 Water Quality Monitoring Stations for Baseline and Impact Monitoring

Station Ref.	WSD Flushing Water Intake	Easting	Northing
WSD9	Tai Wan	837921.0	818330.0
WSD10	Cha Kwo Ling	841900.9	817700.1
WSD15	Sai Wan Ho	841110.4	816450.1
WSD17	Quarry Bay	839790.3	817032.2
WSD21	Wan Chai	836220.8	815940.1
WSD19	Sheung Wan	833415.0	816771.0

4.3 WATER QUALITY PARAMETERS

4.3.1. During the period of dredging, monitoring should be undertaken three days per week, at mid-flood and mid-ebb tides, with sampling / measurement at the designated monitoring stations as shown in ***Table 4.2***. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. ***Table 4.3*** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should not be less than 0.5m.

4.3.2. Silt screens in frame type or floating type shall be deployed at these intakes during the dredging period. It is recommended to conduct the monitoring behind the silt screens at the seawater intake culvert at each seawater pumping station to collect information on the water quality condition after passed the silt screen.

Table 4.3 Water Quality Monitoring Frequency and Parameters

Activities	**Monitoring Frequency[1]**	**Parameters[2]**
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity (in NTU), Suspended Solids (SS in mg/L)
During dredging works for proposed cruise terminal at Kai Tak	Three days per week, at mid-flood and mid-ebb tides	Turbidity (in NTU), Suspended Solids (SS in mg/L)

Notes:
1. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
2. Turbidity should be measured in situ whereas SS should be determined by laboratory.

4.3.3. Supplementary to Baseline Water Quality Monitoring Report – Review of Action and Limit Levels (Revision 1.2) was submitted to EPD on 13 October 2011. With respect to the EPD's no comment on the new Action and Limit Levels for water monitoring on 19 October 2011, the new set Action and Limit Levels for turbidity and SS was adopted from 19 Oct 2011 and can be referred to ***Appendix 4.1***.

4.3.4. Current calibration certificates of equipment are presented in ***Appendix 4.2***.

4.4 SAMPLING PROCEDURES AND MONITORING EQUIPMENT

4.4.1. In-situ measurements and water sampling shall be conducted at mid-depth. Duplicate *in-situ* measurements and water sampling have been conducted in each sampling event. Water samples for all monitoring parameters shall be collected, stored, preserved and analysed according to the Standard Methods, APHA 17 and/or agreed by IEC and EPD.

Dissolved Oxygen and Temperature Measuring Equipment

4.4.2. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:

- a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
- a temperature of 0-45 degree Celsius

4.4.3. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

4.4.4. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

Turbidity Measurement Instrument

4.4.5. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

Suspended Solids

4.4.6. A water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

4.4.7. Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

Water Depth Detector

4.4.8. A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

Salinity

4.4.9. A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.

Locating the Monitoring Site

4.4.10. A hand-held or boat-fixed type digital Global Positioning System (GPS) with way point bearing indication or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

Calibration and Accuracy of Instrument

4.4.11. All in-situ monitoring instruments shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

4.4.12. For the on-site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.

4.4.13. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

4.4.14. The equipment used in the water quality monitoring in the reporting month are summarized in ***Table 4.4***. Current calibration certificates of the used equipment are presented in ***Appendix 4.2***

Table 4.4 Equipment Used in Water Quality Monitoring in the Reporting Month

Equipment	Model	Qty.
Multi-meter	YSI Professional Plus	2
Turbidimeter	WGZ-3B	3

5 MONITORING RESULTS

5.1 WATER MONITORING RESULTS

5.1.1. The water monitoring schedule for the reporting month and coming three months are presented in ***Appendix 5.1***.

5.1.2. Water monitoring results measured in reporting month are reviewed and presented in ***Appendix 5.2***. There were one turbidity exceedance and one SS exceedance in this reporting month. Investigation indicated the exceedances were not related to the Project works.

5.1.3. The details of Event and Action Plans and Notification of Exceedance can be referred to ***Appendix 5.3*** and ***Appendix 5.6***.

5.2 WASTE MONITORING RESULTS

5.2.1. There were no non-inert C&D material related to dredging works disposed off site in the reporting month.

6 COMPLIANCE AUDIT

6.1 NOISE MONITORING

6.1.1. Noise monitoring was not necessary in the reporting period due to non-presence of NSR.

6.2 WATER QUALITY MONITORING

6.2.1. With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

6.2.2. There were turbidity exceedance on 10 Feb 2014 and SS exceedance on 8 Feb 2014. ***Table 6.1*** summarizes the details of SS and turbidity exceedance recorded. Investigation indicated the exceedances were not related to the Project works.

Table 6.1 Summary of Exceedances recorded in the Reporting Month

Date	Tide	Station	Parameter	Exceedance	Value	Possible Cause of Exceedance
8/2/2014	Mid-ebb	WSD10	SS (mg/L)	LL	12.0	Localized impact or changes in ambient conditions
10/2/2014	Mid-ebb	WSD21	Turbidity (NTU)	AL	12.4	Localized impact or changes in ambient conditions at upstream of the Project

6.2.3. For the exceedances, further investigations were conducted to determine the cause of impact in terms of the following areas:

- Water Quality against the Tidal Movement along Victoria Harbour; and
- Natural Variation Comparison.

6.3 WATER QUALITY AGAINST THE TIDAL MOVEMENT ALONG VICTORIA HARBOUR

6.3.1 In order to conclude the cause of an adverse water quality impact, the trend across the 6 monitoring stations is reviewed. Whether the adverse impact is due to project work will be evaluated from the trend of SS level in downstream across the Victoria Harbour after passing the project location. By observing this trend of SS, contribution of the adverse water quality impact from the dredging activities under the project can be evaluated by checking if there is a significant rising up trend in the SS level in the WSD intakes at project downstream.

6.3.2 Moreover, a comparison of the monitoring station at project downstream stations with the upstream monitoring stations can also indicate whether the extent of exceedance in SS content recorded at the WSD intakes downstream to the project is likely to be caused by upstream source or not. If the SS values of the upstream and downstream show similar levels, the impact at the project downstream stations shall probably be due to the project upstream source and the contribution from

project work can be eliminated. A review on the tidal movement across the Victoria Harbour is plotted against the SS results and graphical presentation is presented in ***Appendix 5.4***.

6.3.3 For the recorded exceedances (SS) on 8 Feb 2014 (mid-ebb) at WSD10, there were no marine works conducted by the contractor on that day. At WSD17, the immediate downstream station, there was no exceedance of SS and no rising of SS level after passing through the project site. No further exceedance of SS was recorded in the consecutive monitoring (10 Feb flood tide was 4.5mg/L). It is concluded that the exceedance was not caused by the Project works and may be caused by variations of water quality in the vicinity of the station, potential discharge from nearby nullah. Hence, no further mitigation nor repeated measurement under the EAP is required.

6.4 NATURAL VARIATION COMPARISON

6.4.1 Referring to the ER Letter ref. CEDD/KL/2009/01/M45/130(369767) dated 14 February 2011, a Supplementary to Baseline Water Quality Monitoring Report – Review Action and Limit Levels (Revision 1.0) has been provided to EPD by ER in February 2011 in according to Sections 4.92 and 10.7 of EM&A Manual. This report in Revision 1.1 has been provided on 26 April 2011 in response to EPD's comments dated 1 April 2011. This report presents the methodology for enlargement baseline database and the review and determination of the Action and Limit Levels in dry and wet seasons.

6.4.2 On the basis of this Supplementary to Baseline Water Quality Monitoring Report, the maximum SS levels in the establishment of larger baseline database will be applied and acted as the upper bound of natural variation levels for the comparison with SS results in reporting quarter. The upper bound of natural variation levels are shown in **Table 6.2**. The graphic presentation of water quality results with respect to local variation is shown in ***Appendix 5.5***.

Table 6.2 Upper Bound of Natural Variation Levels at Water Monitoring Stations

Upper Bound of Natural Variation Levels (mg/L)	WSD9	WSD10	WSD15	WSD17	WSD19	WSD21
Dry Season	12.0	19.0	14.0	16.0	18.0	15.0
Wet Season	15.1	21.2	22.7	17.9	17.1	18.8

6.4.3 According to the graphic presentation, all SS results were well within the upper bound of natural variation level.

6.5 DREDGING AND DISPOSAL

6.5.1 Implementation of mitigation measures for dredging work and the associated dredging records were checked and the findings are summarized in ***Table 6.3***.

6.5.2 No dredging works were conducted in the reporting month. A letter of confirmation of the end of dredging operations dated 5th December, 2013 was sent to EPD by the contractor. No further dredging operations will be carried out without prior notification to EPD.

Table 6.3 Compliance with EP Conditions in the Reporting Month

EP Condition	Compliance Status and/or Recommendation
2.6 Silt Curtain Deployment	Completed
2.6 For removal of the existing seawall and the seabed, Daily Dredging Rate ≤ 4,000m3/d Hourly Dredging Rate ≤ 334m3/hr	Completed
2.7 For removal of marine sediment from seabed, Daily Dredging Rate ≤ 4,000m3/d Hourly Dredging Rate ≤ 334m3/hr	Completed
2.8 Silt Screen Deployment	Completed

6.5.3 There was no marine sediment (Type 1 – Open Sea Disposal) disposed to South Cheung Chau Spoil Disposal Area denoted "KTCT-1" and "KTCT -2" in this reporting month. The disposal of the sediment (Type 1 – Open Sea Disposal (Dedicate Sites) and Type 2 – Confined Marine Disposal) to East Sha Chau Contaminated Mud Disposal Site – Pit IVc was completed. There were no non-inert C&D materials related to dredging works disposed off site in the reporting month. The details can be referred to the ***Table 6.4***.

Table 6.4 Waste Quantities Related To Dredging Works

Waste Type	Quantity this month, m^3 (Bulk volume)	Cumulative-to-Date. m^3 (Bulk volume)	Disposal / Dumping Ground
Marine Sediment (Type 1 – Open Sea Disposal)	NIL	561,891	South Cheung Chau Spoil Disposal Area denoted "KTCT-1" and "KTCT -2"
Marine Sediment (Type 1 – Open Sea Disposal (Dedicated Sites) and Type 2 – Confined Marine Disposal) *	NIL	Completed	East Sha Chau Contaminated Mud Disposal Site – Pit IVc

* Remarks: The disposal of marine sediment (Type 1 – Open Sea Disposal (Dedicated Sites) and Type 2 – Confined Marine Disposal) was completed.

7 ENVIRONMENTAL SITE AUDIT

7.0.1. Site audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project site.

7.0.2. The joint site audit was conducted on 27 February 2014 by the representatives of IEC, ER, the Contractor and the ET. No particular findings were obtained on the dredging works during the site inspections.

8 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

8.0.1. In this reporting period, no complaint, inspection notice, notification of summons or prosecution was received. Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in ***Tables 8.1***, ***8.2*** and ***8.3*** respectively.

Table 8.1 Environmental Complaints Log

Complaint Log No.	Date of Receipt	Received From and Received By	Nature of Complaint	Date Investigated	Outcome	Date of Reply
NIL	-	-	-	-	-	-

Table 8.2 Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative No. Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	**0**	**0**	**0**

Table 8.3 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	**0**	**0**	**0**

9 CONCLUSION

9.0.1. Dredging of marine sediment and removal and reconstruction of existing seawall were commenced on 28 June and 22 November 2010 respectively. Stage 1 dredging and removal and reconstruction of existing seawall were completed. The EM&A programme was carried out in accordance with the EM&A Manual requirements. The water quality impact monitoring would be continued.

9.0.2. There were one SS exceedances on 8 February 2014 and one turbidity exceedance on 10 February 2014. Investigations indicated the exceedances were not related to the Project.

9.0.3. Supplementary to Baseline Water Quality Monitoring Report – Review of Action and Limit Levels (Revision 1.2) was submitted to EPD on 13 October 2011. With respect to the EPD's no comment on the new Action and Limit Levels for water monitoring on 19 October 2011, the new set Action and Limit Levels for turbidity and SS was started to use from 19 October 2011.

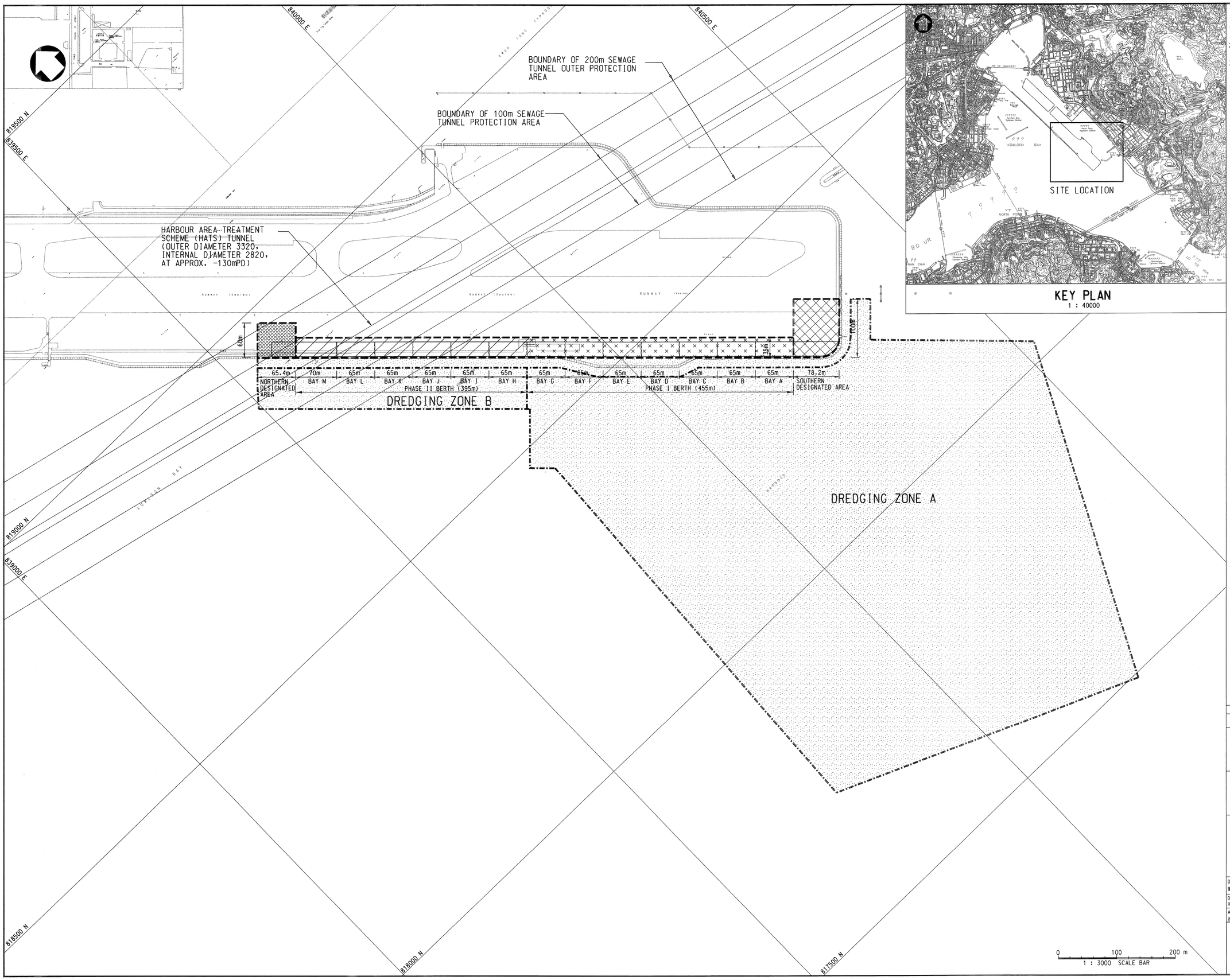
9.0.4. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in ***Table 9.1***. The construction programme of the Project is provided in ***Appendix 9.0***.

Table 9.1 Construction Activities and Recommended Mitigation Measures in Coming Report Month

Construction Works	**Recommended Mitigation Measures**
• Site levelling and compactions works in WA1 area; • Removal of Separation Fence between Berth I & II; • Removal of Navigation Light at Bay G; • Placing Road Markings between Bay G & H; and • Improvement works for the existing seawall in Portion NDA.	• Covering the stockpile and watering the dust surface to suppress dust emission; • 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.

Figure 2.1

General Layout



KEY PLAN
1 : 40000

NOTES:

1. ALL COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
3. SETTING OUT REFER TO DRAWING NO.08290/1021.

LEGEND:

- SOUTHERN DESIGNATED AREA
- NORTHERN DESIGNATED AREA
- DREDGING ZONE / SEAWALL REMOVAL
- PHASE I BERTH AREA
- PHASE II BERTH AREA

Rev. 修訂	Date 日期	Description 內容摘要	Drawn 繪圖	Checked 核核
-	06/09	TENDER	LC	WCS

土木工程拓展署
CEDD Civil Engineering and Development Department

Contract No.KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development

GENERAL LAYOUT PLAN

Drawing No. 圖則編號	08290/1011		
Designed 設計 BK	Drawn 繪圖 WHM	Checked 核核 WCS	Scale 比例 1:3000
Approved 批准		Date 日期 06/09	Status 現況 TENDER

Scott Wilson Ltd
偉信顧問集團有限公司

FILE
*ATE TIME

Figure 2.2

Project Organization Chart

Project Organization Chart

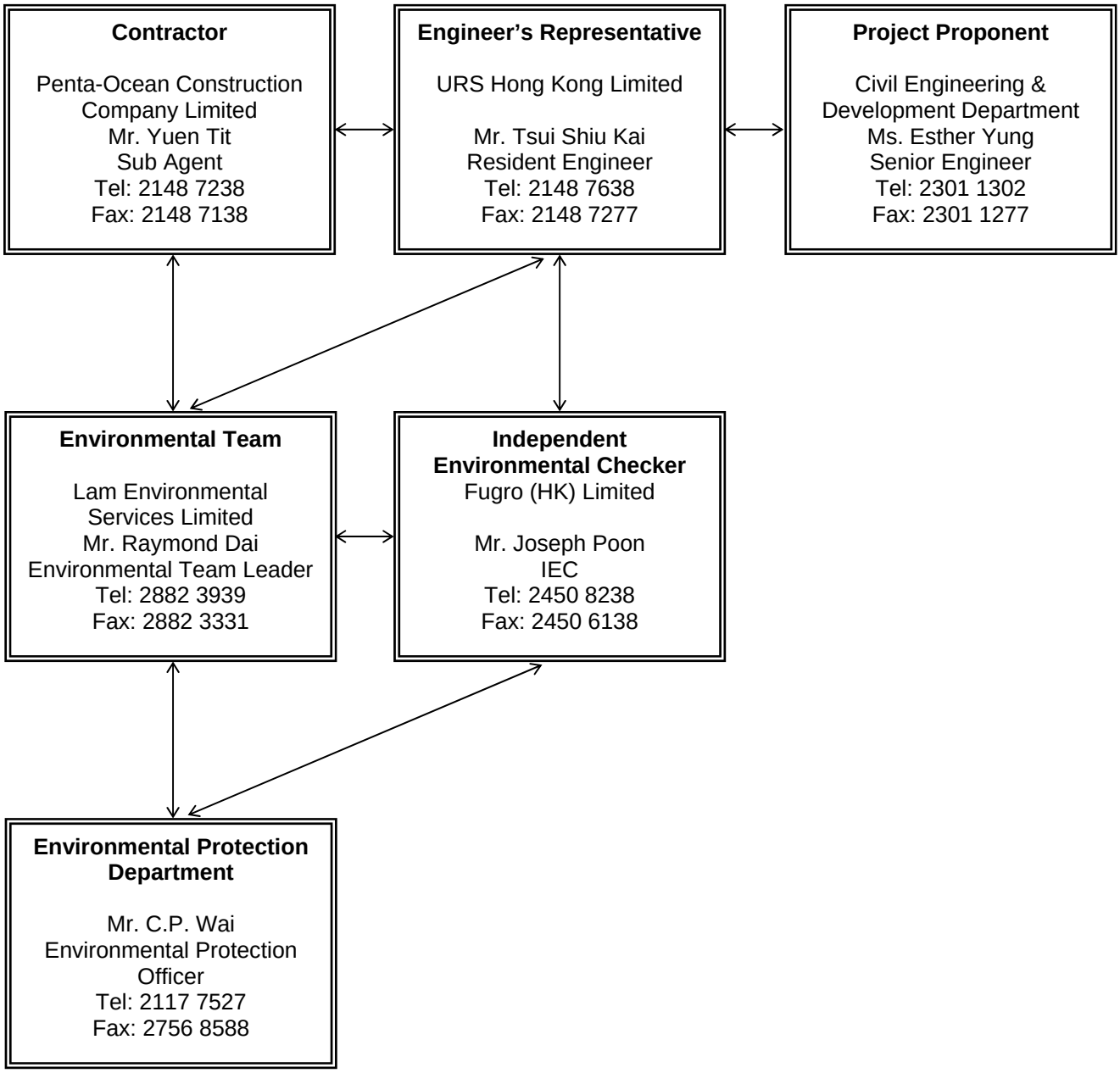
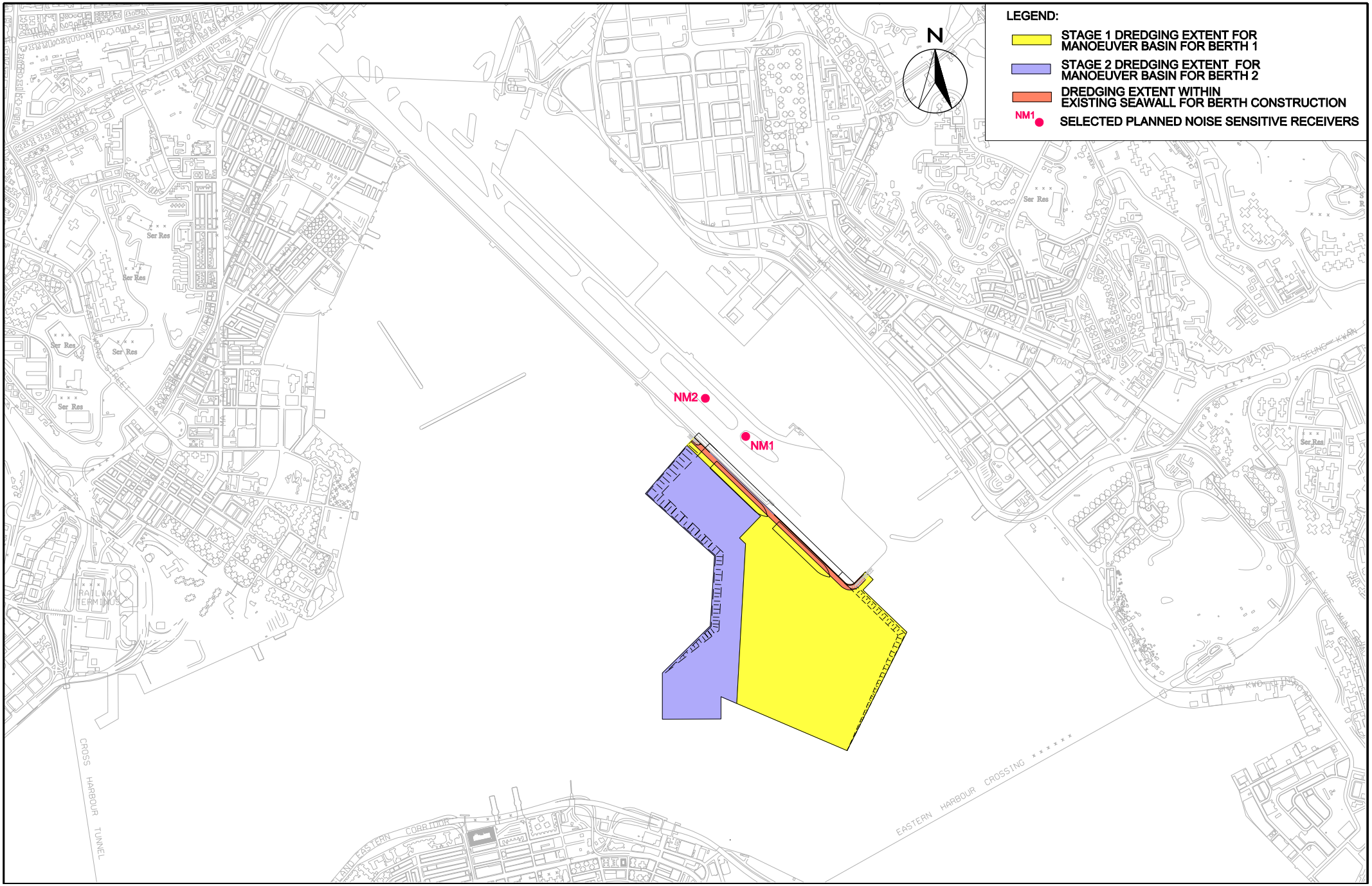


Figure 4.1

Layout of Environmental Monitoring Stations


LEGEND:
STAGE 1 DREDGING EXTENT FOR MANOEUVER BASIN FOR BERTH 1
STAGE 2 DREDGING EXTENT FOR MANOEUVER BASIN FOR BERTH 2
DREDGING EXTENT WITHIN EXISTING SEAWALL FOR BERTH CONSTRUCTION
NM1
SELECTED PLANNED NOISE SENSITIVE RECEIVERS
N
NM2
NM1
Ser Res
RAILWAY TERMINUS
CROSS HARBOUR TUNNEL
EASTERN HARBOUR CROSSING
TSEUNG KWAN O

LEGEND:

■ WSD Flushing Water Intake

WSD9 - Tai Wan
WSD10 - Cha Kwo Ling
WSD15 - Sai Wan Ho
WSD17 - Quarry Bay
WSD19 - Sheung Wan
WSD21 - Wan Chai

Kowloon

WSD9

WSD10

WSD17

WSD19

WSD15

WSD21

Hong Kong Island

MAUNSELL | AECOM

Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND
CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

WATER QUALITY MONITORING STATIONS

SCALE	A3 1:35000	DATE	AUG 07
CHECK	AKYC	DRAWN	WCM
JOB No.	60022503	DRAWING No.	4.1
		REV	-

P:/60022503/Reports/CT Dredging/EM&A Manual/Formal submission/Figures/Drawings/4.1.dgn

Appendix 3.1

Implementation Schedule of Environmental Mitigation Measures

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S3.6	Requirements of the Air Pollution Control (Construction Dust) Regulation shall be adhered to during the construction period.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	Air Pollution Control (Construction Dust) Regulation
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 minimise the exposed area and hence the potential odour emissions during the transportation of the dredged sediment.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM
S4.8	Good Site Practices: • 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 be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	NCO EIAO-TM

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S4.9	If there is any planned NSRs within 300m from the work area occupied during the dredging period, an EM&A programme is recommended to be 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.	Representative NSRs at the former Kai Tak Airport runway / Upon formal occupation	N/A	Not applicable	NCO EIAO-TM
S5.9	• 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 4,000m^3 per day (and no more than 2 closed grab dredgers) during capital dredging and 2,000m^3 per day (and no more than 1 closed grab dredger) during maintenance dredging. • The maximum production rate for dredging at or near the seawall area would not be more than 4,000m^3 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM WPCO
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 Airport runway for construction of the cruise berth structures.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM, WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
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.	Seawater intakes in Victoria Harbour/ During the construction of cruise terminal	Contractor for capital dredging	Implemented	EIAO-TM, WPCO
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.	Seawater intakes in Victoria Harbour / During the construction of cruise terminal	Contractor for capital dredging	Implemented	EIAO-TM, WPCO
S5.9	If the opening has been introduced at the northern runway, silt screens 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.	Seawater intake at Sai Wan Ho, Sheung Wan and Wan Chai / During the construction of cruise terminal	Contractor for capital dredging	Implemented	EIAO-TM, WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S5.9	Other good site practices that should be undertaken during dredging include: • 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.	Work site and adjacent waters / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO, EIAO-TM, WPCO, WDO
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.	Work site and adjacent waters / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM, WPCO, WDO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S5.9	Collection and removal of floating refuse should be performed at regular 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.	Work site and adjacent waters / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM, WPCO, WDO
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 of works should be implemented as necessary.	6 selected WSD flushing water intakes in Victoria Harbour/ During dredging in construction stage	Environmental Team and verified by Independent Environmental Checker	Implemented	EIAO-TM, WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S5.9	Silt screens are recommended to be deployed at 6 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 keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	6 selected WSD flushing water intakes in Victoria Harbour/ During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM, WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7	Good Site Practices 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: • 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 measures to minimise 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7 (cont.)	• Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce. • Any unused chemicals or those with remaining functional capacity shall be recycled.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	EIAO-TM
S6.7	Marine Sediments 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. Contaminated sediment would require either 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	ETWB TCW No. 34/2002

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7	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.	Work site / During dredging in construction stage	Contractor for capital dredging	Dumping Permits were issued by EPD	ETWB TCW No. 34/2002
S6.7	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: • Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. • 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	WDO; WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7	Chemical Wastes After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7	General Refuse 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.	Work site / During dredging in construction stage	Contractor for capital dredging	Implemented	WDO, WPCO

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7	Construction and Demolition Material It is recommended that the extent 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 incorporated in the contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include: • Where it is unavoidable to have transient stockpiles of C&D material within 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.	Work site / During the construction period	Contractor for capital dredging	Implemented	ETWB TCW No. 33/2002, 31/2004, 19/2005

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S6.7 (cont.)	• 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.	Work site / During the construction period	Contractor for capital dredging	Implemented	ETWB TCW No. 33/2002, 31/2004, 19/2005
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 the Contractor under the Waste Management Plan certified by the Environmental Team and verified by the Independent Environmental Checker who should be responsible for auditing the results of the system.	Work site / During the construction period	Contractor for capital dredging, Engineer, Environmental Team and Independent Environmental Checker	Not applicable	ETWB TCW No. 31/2004

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
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.	Work site/ During construction of cruise terminal	Contractor for capital dredging as per CEDD's advice	Implemented	Antiquities and Monuments Ordinance EIAO, EIAO-TM Guidance Notes on Assessment of Impact on Sites of Cultural Heritage in Environmental Impact Assessment Studies (GN-CH) Hong Kong Planning Standards and Guidelines (HKPSG)
S7.10, App. 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 on the dredging barge.	Work site / during dredging in construction stage	Contractor for capital dredging, Environmental Team	Implemented	Antiquities and Monuments Ordinance EIAO, EIAO-TM GN-CH HKPSG Marine Archaeological Investigation Guidelines

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
8.7	Translocate those existing coral colonies attached on boulders that are manually movable by a diver underwater (possibly longest dimension of less than 50cm) located within the hard substrata sea area within the dredging site as far as practicable prior to the commencement of the capital dredging activities. The entire translocation exercise include the preparation of a detailed translocation plan, the pre-translocation coral survey, the coral translocation, and the quarterly post-translocation monitoring for one year. Pre-translocation survey would be focused on identifying and mapping of coral colonies that would be directly impacted by the proposed dredging and investigating the translocation feasibility of these coral colonies. A detailed translocation plan (including pre-translocation coral survey, translocation methodology and monitoring of transplanted corals) should be prepared during the detailed design stage of the Project which, together with the ecologist involved in coral translocation, should be approved by AFCD prior to commencement of the translocation exercises. The proposed relocation of the coral colonies should not affect any private/public marine rights at the recipient site.	Along the section of the former Kai Tak Airport runway that will be directed affected by the cruise terminal construction / During detailed design stage	Other ET specifically employed for coral translocation works	Final Detailed Coral Translocation Plan was approved by EPD in letter ref. (18) in EP2/K19/C/19 Pt.5 dated 5 June 2009. Form 5 was submitted under CEDD's memo ref. (6) in KD 2/31/4 Pt.3 dated 10 June 2009 regarding minor alteration of the position of the coral recipient site. Coral Translocation Report was submitted in Scott Wilson letter ref. 08290/325723 dated 2 July 2009. Post-translocation report shall be referred to the submissions by another ET specifically employed for coral translocation works.	EIAO-TM

EIA Ref #	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
S8.7	New seawalls at the berth structure of the cruise terminal shall be constructed in order to provide large area of hard substrata for settlement and recruitment of intertidal and subtidal assemblages similar to those previously recorded from existing habitats.	The section of the former Kai Tak Airport runway that will be directed affected by the cruise terminal construction / During detailed design stage	To be confirmed at later stage	To be confirmed at later stage	EIAO-TM
9.6	No fisheries-specific mitigation measures would be required.	-	Not applicable	Not applicable	-

Appendix 4.1

Action and Limit Levels

Action and Limit Levels

Action and Limit Levels for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)

Remarks: No noise monitoring was conducted due to no planned noise sensitive receivers (NSRs) occupied within 300m from the works area of this Project during the dredging works.

Action and Limit Levels for Water Monitoring

Parameters	Action Level			Limit Level		
Turbidity in NTU		All Season			All Season	
	WSD9	5.67		WSD9	12.27	
	WSD10	6.26		WSD10	10.47	
	WSD15	8.15		WSD15	14.41	
	WSD17	11.60		WSD17	16.91	
	WSD21	9.11		WSD21	15.38	
	WSD19	13.09		WSD19	15.34	
Suspended Solids (SS) in mg/L		Dry Season	Wet Season		Dry Season	Wet Season
	WSD9	6.9	9.7	WSD9	7.8	10.9
	WSD10	7.7	9.1	WSD10	10.3	12.2
	WSD15	7.8	13.5	WSD15	8.4	14.5
	WSD17	9.5	11.2	WSD17	13.7	16.2
	WSD21	13.3	17.1	WSD21	13.9	17.8
	WSD19	16.3	15.1	WSD19	17.0	15.7

Remarks:
Wet season is the period from April to September.
Dry season is the period from October to March.

Revised Action and Limit Levels for Water Monitoring

Station	Turbidity (NTU)				Suspended Solid (mg/L)			
	Action Level for individual stations		Limit Level for individual stations		Action Level for individual stations		Limit Level for individual stations	
	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
WSD15	7.5	11.9	12.5	19.6	10.8	17.5	11.8	19.1
WSD17	10.0	12.9	15.3	19.7	13.2	14.7	15.3	17.0
WSD19	10.9	13.7	14.7	18.4	14.0	13.3	17.0	16.2
WSD21	8.9	11.6	13.4	17.6	13.3	16.7	14.0	17.5

Remarks:
Revised Action and Limit Levels for water monitoring was approved on 19 October 2011.

Appendix 4.2

Copies of Calibration Certificates

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO **WORK ORDER:** HK1310044

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 03/12/2013

DATE OF ISSUE: 10/12/2013

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD, WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory. Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	--
Date of Calibration:	10 December, 2013

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong
Phone +852 2527 6691 | Email info@pilot-testing.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

WORK ORDER: HK1310044
DATE OF ISSUE: 10th December, 2013
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	--
Date of Calibration:	10 December, 2013
Date of next Calibration:	10 March, 2014

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.68	-8.0
10	10.3	+3.0
40	38.2	-4.5
100	94.0	-6.0
400	416	+4.0
1000	970	-3.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong
Phone +852 2527 6691 | Email info@pilot-testing.com

領導檢測有限公司

PILOT TESTING LIMTIED

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: KATHIE HO **WORK ORDER: HK1310025**

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 04/11/2013

DATE OF ISSUE: 05/11/2013

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD, WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory. Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	5 November, 2013

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee

Director

Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

WORK ORDER: HK1310025

DATE OF ISSUE: 5th November 2013

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	5 November, 2013
Date of next Calibration:	5 February, 2014

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	+0.2
4	4.27	+6.8
10	10.3	+3.0
40	42.4	+5.2
100	105	+5.0
400	417	+4.2
1000	970	-3.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

Mr. Peter Lee
Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO **WORK ORDER:** HK1310059

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 30/01/2014

DATE OF ISSUE: 05/02/2014

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD, WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory. Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	05 February, 2014

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

WORK ORDER: HK1310059

DATE OF ISSUE: 05th February, 2014

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	05 February, 2014
Date of next Calibration:	05 May, 2014

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.72	-7.0
10	10.6	+6.0
40	42.6	+6.5
100	96.5	-3.5
400	430	+7.5
1000	972	-2.8
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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領導檢測有限公司

PILOT TESTING LIMTIED

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: KATHIE HO **WORK ORDER: HK1310026**

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 04/11/2013

DATE OF ISSUE: 05/11/2013

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD, WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory. Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	5 November, 2013

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee

Director

Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

WORK ORDER: HK1310026

DATE OF ISSUE: 5th November, 2013

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	5 November, 2013
Date of next Calibration:	5 February, 2014

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	4.20	+5.0
10	10.4	+4.0
40	42.0	+5.0
100	102	+2.0
400	400	0
1000	980	+2.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

Mr. Peter Lee
Director

Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: **DEREK LO** **WORK ORDER:** **HK1310060**

CLIENT: **LAM GEOTECHNICS LIMITED**

DATE RECEIVED: **30/01/2014**

DATE OF ISSUE: **05/02/2014**

ADDRESS: **11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD, WANCHAI, HONG KONG**

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory. Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	05 February, 2014

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee

Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

WORK ORDER: HK1310060

DATE OF ISSUE: 05th February, 2014

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	05 February, 2014
Date of next Calibration:	05 May, 2014

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.82	-4.5
10	10.4	+4.0
40	41.0	+2.5
100	95.0	-5.0
400	420	+5.0
1000	980	-2.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR DEREK LO	**WORK ORDER:**	HK1401751
CLIENT:	LAM GEOTECHNICS LIMITED	**LABORATORY:**	HONG KONG
ADDRESS:	11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG	**DATE RECEIVED:**	15/01/2014
		DATE OF ISSUE:	24/01/2014
PROJECT:	--		

COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.
Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal aceptance criteria of ALS will be followed.

Scope of Test:	Dissolved Oxygen, pH, Salinity and Temperature
Equipment Type:	Multimeter
Brand Name:	YSI
Model No.:	YSI Professional plus
Serial No.:	11F100597
Equipment No.:	--
Date of Calibration:	20 January, 2014

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1401751
Date of Issue: 24/01/2014
Client: LAM GEOTECHNICS LIMITED

Equipment Type: Multimeter
Brand Name: YSI
Model No.: YSI Professional plus
Serial No.: 11F100597
Equipment No.: --
Date of Calibration: 20 January, 2014 Date of next Calibration: 20 April, 2014

Parameters:

Dissolved Oxygen **Method Ref: APHA (21st edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.31	4.34	0.03
7.01	7.02	0.01
9.54	9.40	-0.14
	Tolerance Limit (±mg/L)	0.20

pH Value **Method Ref: APHA (21st edition), 4500H:B**

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.10	0.10
7.0	7.01	0.01
10.0	10.05	0.05
	Tolerance Limit (±pH unit)	0.20

Salinity **Method Ref: APHA (21st edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0	--
10	9.44	-5.6
20	19.37	-3.2
30	29.87	-0.4
	Tolerance Limit (±%)	10.0

Temperature **Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
9.0	9.7	0.7
18.5	18.6	0.1
38.5	38.6	0.1
	Tolerance Limit (±°C)	2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager
Greater China & Hong Kong

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MS EMILY KONG	**WORK ORDER:**	HK1400734
CLIENT:	LAM GEOTECHNICS LIMITED	**LABORATORY:**	HONG KONG
ADDRESS:	11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG	**DATE RECEIVED:**	08/01/2014
		DATE OF ISSUE:	14/01/2014
PROJECT:	--		

COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.
Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal aceptance criteria of ALS will be followed.

Scope of Test:	Dissolved Oxygen, pH, Salinity and Temperature
Equipment Type:	Multimeter
Brand Name:	YSI
Model No.:	YSI Professional plus
Serial No.:	11F100420
Equipment No.:	--
Date of Calibration:	13 January, 2014

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1400734
Date of Issue: 14/01/2014
Client: LAM GEOTECHNICS LIMITED

Equipment Type: Multimeter
Brand Name: YSI
Model No.: YSI Professional plus
Serial No.: 11F100420
Equipment No.: --
Date of Calibration: 13 January, 2014 Date of next Calibration: 13 April, 2014

Parameters:

Dissolved Oxygen **Method Ref: APHA (21st edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.27	3.16	-0.11
6.58	6.73	0.15
9.37	9.34	-0.03
	Tolerance Limit (±mg/L)	0.20

pH Value **Method Ref: APHA (21st edition), 4500H:B**

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.98	-0.02
7.0	6.96	-0.04
10.0	10.08	0.08
	Tolerance Limit (±pH unit)	0.20

Salinity **Method Ref: APHA (21st edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.85	-1.5
20	18.35	-8.2
30	27.53	-8.2
	Tolerance Limit (±%)	10.0

Temperature **Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
10.0	10.2	0.2
20.0	19.6	-0.4
39.0	39.7	0.7
	Tolerance Limit (±°C)	2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

Appendix 5.1

Monitoring Schedule for the Reporting Month and Coming Three Months

Contract No. KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development

Water Quality Monitoring Schedule

February 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Feb
02-Feb	**03-Feb**	04-Feb	05-Feb	06-Feb Impact WQM Mid-flood 11:13 Mid-ebb 17:54	07-Feb #REF!	08-Feb Impact WQM Mid-flood 12:42 Mid-ebb 20:50
09-Feb	10-Feb Impact WQM Mid-flood 10:08 Mid-ebb 22:27	11-Feb	12-Feb Impact WQM Mid-flood 16:29 Mid-ebb 23:36	13-Feb	14-Feb Impact WQM Mid-flood 17:50	15-Feb Impact WQM Mid-ebb 00:37
16-Feb	17-Feb Impact WQM Mid-ebb 13:46 Mid-flood 19:45	18-Feb	19-Feb Impact WQM Mid-flood 08:57 Mid-ebb 15:00	20-Feb	21-Feb Impact WQM Mid-flood 10:05 Mid-ebb 16:30	22-Feb
23-Feb	24-Feb Impact WQM Mid-flood 12:46 Mid-ebb 20:26	25-Feb	26-Feb Impact WQM Mid-flood 15:23 Mid-ebb 22:24	27-Feb	28-Feb Impact WQM Mid-ebb 11:51 Mid-flood 17:24	01-Mar

Notes:

1. Water Quality Monitoring for 6 water quality monitoring stations: WSD9, WSD10, WSD15, WSD17, WSD21, WSD19.

2. Actual monitoring will be subjected to change due to any safety concern or adverse weather condition.

3. Cut-off day is the end of day of each month.

4. With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring on 4 Feb 2014 was cancelled.

Contract No. KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development

Tentative Water Quality Monitoring Schedule

March 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
23-Feb	24-Feb Impact WQM Mid-flood 12:46 Mid-ebb 20:26	25-Feb	26-Feb Impact WQM Mid-flood 15:23 Mid-ebb 22:24	27-Feb	28-Feb Impact WQM Mid-ebb 11:51 Mid-flood 17:24	01-Mar
02-Mar	03-Mar Impact WQM Mid-ebb 13:51 Mid-flood 19:52	04-Mar	05-Mar Impact WQM Mid-flood 08:56 Mid-ebb 15:13	06-Mar	07-Mar Impact WQM Mid-flood 10:04 Mid-ebb 16:53	08-Mar
09-Mar	10-Mar Impact WQM Mid-flood 08:19 Mid-ebb 20:51	11-Mar	12-Mar Impact WQM Mid-flood 15:20 Mid-ebb 22:29	13-Mar	14-Mar Impact WQM Mid-flood 17:00 Mid-ebb 23:38	15-Mar
16-Mar	17-Mar Impact WQM mid-ebb 12:47 mid-flood 19:00	18-Mar	19-Mar Impact WQM Mid-ebb 13:57 Mid-flood 20:22	20-Mar	21-Mar Impact WQM Mid-ebb 15:17 Mid-flood 21:59	22-Mar
23-Mar	24-Mar Impact WQM Mid-flood 11:02 Mid-ebb 18:29	25-Mar	26-Mar Impact WQM Mid-flood 14:02 Mid-ebb 21:05	27-Mar	28-Mar Impact WQM Mid-ebb 10:47 Mid-flood 16:24	29-Mar
30-Mar	31-Mar Impact WQM Mid-ebb 12:47 Mid-flood 18:58	01-Apr	02-Apr Impact WQM Mid-ebb 14:04 Mid-flood 20:28	03-Apr	04-Apr Impact WQM Mid-ebb 15:25 Mid-flood 22:04	**05-Apr**

Notes:

1. Water Quality Monitoring for 6 water quality monitoring stations: WSD9, WSD10, WSD15, WSD17, WSD21, WSD19
2. Actual monitoring will be subjected to change due to any safety concern or adverse weather condition.
3. Cut-off day is the end of day of each month.

Contract No. KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development

Tentative Water Quality Monitoring Schedule

April 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-Mar	31-Mar Impact WQM Mid-ebb 12:47 Mid-flood 18:58	01-Apr	02-Apr Impact WQM Mid-ebb 14:04 Mid-flood 20:28	03-Apr	04-Apr Impact WQM Mid-ebb 15:25 Mid-flood 22:04	**05-Apr**
06-Apr	07-Apr Impact WQM Mid-flood 05:41 Mid-ebb 18:24	08-Apr	09-Apr Impact WQM Mid-flood 08:12 Mid-ebb 20:37	10-Apr	11-Apr Impact WQM Mid-flood 15:54 Mid-ebb 22:21	12-Apr
13-Apr	14-Apr Impact WQM Mid-ebb 11:47 Mid-flood 18:09	15-Apr	16-Apr Impact WQM Mid-ebb 12:57 Mid-flood 19:33	17-Apr	**18-Apr** Impact WQM Mid-ebb 14:16 Mid-flood 21:05	**19-Apr**
20-Apr	**21-Apr**	22-Apr Impact WQM Mid-flood 10:52 Mid-ebb 18:08	23-Apr	24-Apr Impact WQM Mid-flood 14:01 Mid-ebb 20:38	25-Apr	26-Apr Impact WQM Mid-ebb 10:25 Mid-flood 16:19
27-Apr	28-Apr Impact WQM Mid-ebb 11:47 Mid-flood 18:05	29-Apr	30-Apr Impact WQM Mid-ebb 13:04 Mid-flood 19:38	**01-May**	02-May Impact WQM Mid-ebb 14:20 Mid-flood 21:06	03-May

Notes:

1. Water Quality Monitoring for 6 water quality monitoring stations: WSD9, WSD10, WSD15, WSD17, WSD21, WSD19

2. Actual monitoring will be subjected to change due to any safety concern or adverse weather condition.

3. Cut-off day is the end of day of each month.

Contract No. KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development

Water Quality Monitoring Schedule

May 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Apr	28-Apr Impact WQM Mid-ebb 11:47 Mid-flood 18:05	29-Apr	30-Apr Impact WQM Mid-ebb 13:04 Mid-flood 19:38	**01-May**	02-May Impact WQM Mid-ebb 14:20 Mid-flood 21:06	03-May
04-May	05-May Impact WQM Mid-flood 08:43 Mid-ebb 16:20	**06-May**	07-May Impact WQM Mid-flood 05:41 Mid-ebb 18:09	08-May	09-May	10-May Impact WQM Mid-ebb 09:41 Mid-flood 21:24
11-May	12-May Impact WQM Mid-ebb 10:43 Mid-flood 17:10	13-May	14-May Impact WQM Mid-ebb 11:55 Mid-flood 18:41	15-May	16-May Impact WQM Mid-ebb 13:18 Mid-flood 20:13	17-May
18-May	19-May Impact WQM Mid-flood 08:50 Mid-ebb 15:44	20-May	21-May Impact WQM Mid-flood 10:52 Mid-ebb 17:48	22-May	23-May Impact WQM Mid-ebb 08:14 Mid-flood 13:55	24-May
25-May	26-May Impact WQM Mid-ebb 10:49 Mid-flood 17:11	27-May	28-May Impact WQM Mid-ebb 12:08 Mid-flood 18:51	29-May	30-May Impact WQM Mid-ebb 13:23 Mid-flood 20:16	31-May

Notes:

1. Water Quality Monitoring for 6 water quality monitoring stations: WSD9, WSD10, WSD15, WSD17, WSD21, WSD19.
2. Actual monitoring will be subjected to change due to any safety concern or adverse weather condition.
3. Cut-off day is the end of day of each month.

Appendix 5.2

Water Quality Monitoring Results and Graphical Presentation

Water Monitoring Result at WSD9 - Tai Wan
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	09:48	Fine	Middle	3	18.10	18.10	18.15	8.59	8.59	8.60	35.57	35.57	35.58	87.5	88.5	87.3	6.69	6.75	6.66	3.05	2.96	2.92	4	3.5
	09:50		Middle	3	18.20	18.20		8.60	8.60		35.58	35.58		86.3	86.7		6.58	6.61		2.86	2.80		3	
08/02/2014	11:10	Fine	Middle	4	18.10	18.10	18.10	8.97	8.97	8.95	35.96	35.96	35.96	83.3	83.0	81.9	6.35	6.33	6.25	1.52	1.54	1.46	<2	<2
	11:12		Middle	4	18.10	18.10		8.93	8.93		35.95	35.95		79.4	81.8		6.06	6.24		1.40	1.38		<2	
10/02/2014	08:33	Fine	Middle	3	15.80	15.80	15.75	8.40	8.40	8.43	35.81	35.81	35.83	83.7	83.2	83.6	6.67	6.63	6.66	1.74	1.83	1.82	4	3.5
	08:35		Middle	3	15.70	15.70		8.45	8.45		35.85	35.85		83.6	83.8		6.66	6.69		1.84	1.86		3	
12/02/2014	17:39	Cloudy	Middle	3	14.00	14.00	14.00	8.40	8.40	8.40	35.66	35.66	35.66	82.9	83.4	83.1	6.89	6.93	6.91	1.56	1.55	1.55	9	9.0
	17:41		Middle	3	14.00	14.00		8.40	8.40		35.66	35.66		83.1	82.8		6.91	6.89		1.54	1.53		9	
14/02/2014	18:20	Fine	Middle	3	15.90	15.90	15.90	8.61	8.61	8.62	36.14	36.14	36.15	88.8	88.7	88.5	7.06	7.05	7.03	2.26	2.25	2.22	4	5.0
	18:22		Middle	3	15.90	15.90		8.62	8.62		36.15	36.15		88.4	88.1		7.02	6.98		2.23	2.15		6	
17/02/2014	18:47	Cloudy	Middle	2	18.80	18.80	18.83	8.29	8.29	8.29	32.77	32.77	32.77	86.1	86.0	86.2	6.59	6.58	6.60	3.02	3.07	2.98	5	4.5
	18:48		Middle	2	18.90	18.80		8.29	8.29		32.77	32.77		86.6	86.1		6.62	6.59		2.97	2.87		4	
19/02/2014	07:45	Cloudy	Middle	3	13.60	13.60	13.40	7.53	7.53	7.61	33.75	33.75	33.76	79.0	79.4	79.3	6.62	6.66	6.65	3.82	3.82	3.81	3	3.5
	07:47		Middle	3	13.20	13.20		7.68	7.68		33.76	33.76		79.4	79.4		6.66	6.66		3.81	3.78		4	
21/02/2014	09:15	Fine	Middle	4	14.80	14.80	14.80	8.40	8.40	8.42	36.14	36.14	36.14	83.8	84.1	83.9	6.80	6.82	6.81	3.32	3.31	3.31	3	4.0
	09:17		Middle	4	14.80	14.80		8.43	8.43		36.14	36.14		84.1	83.7		6.82	6.79		3.30	3.30		5	
24/02/2014	11:00	Fine	Middle	3	16.70	16.70	16.70	8.51	8.51	8.53	36.32	36.32	36.32	87.6	88.3	88.3	6.83	6.90	6.89	1.73	1.71	1.71	2	2.5
	11:02		Middle	3	16.70	16.70		8.54	8.54		36.32	36.32		88.5	88.7		6.91	6.93		1.71	1.70		3	
26/02/2014	13:45	Cloudy	Middle	3	18.10	18.10	18.10	8.45	8.45	8.45	36.34	36.34	36.44	77.2	77.4	77.3	5.80	5.81	5.80	1.92	1.94	1.94	2	2.5
	13:47		Middle	3	18.10	18.10		8.45	8.45		36.53	36.53		77.3	77.2		5.80	5.80		1.95	1.95		3	
28/02/2014	18:44	Fine	Middle	4	18.00	18.00	18.00	8.43	8.43	8.45	36.44	36.44	36.45	92.1	91.3	91.6	7.00	6.95	6.96	2.27	2.29	2.34	4	3.5
	18:46		Middle	4	18.00	18.00		8.46	8.46		36.45	36.45		91.4	91.4		6.95	6.95		2.38	2.40		3	

Water Monitoring Result at WSD10 - Cha Kwo Ling
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	10:20	Fine	Middle	3	18.20	18.20	18.25	8.60	8.60	8.61	35.85	35.85	35.86	88.1	88.4	88.1	6.70	6.72	6.70	1.85	2.01	2.01	2	2.0
	10:22		Middle	3	18.30	18.30		8.62	8.62		35.86	35.86		88.0	87.7		6.69	6.67		2.03	2.15		2	
08/02/2014	11:35	Fine	Middle	3	18.10	18.10	18.05	8.76	8.76	8.76	35.61	35.61	35.63	92.1	92.7	92.6	7.04	7.08	7.08	2.31	2.34	2.37	2	2.5
	11:37		Middle	3	18.00	18.00		8.76	8.76		35.65	35.65		93.0	92.6		7.10	7.08		2.32	2.50		3	
10/02/2014	09:12	Fine	Middle	3	15.10	15.10	15.20	8.48	8.48	8.51	35.60	35.60	35.63	75.3	75.4	75.6	5.98	5.98	6.00	1.10	1.03	1.04	5	4.5
	09:14		Middle	3	15.30	15.30		8.53	8.53		35.65	35.65		75.9	75.8		6.03	6.02		1.01	1.00		4	
12/02/2014	17:19	Cloudy	Middle	3	15.00	15.00	15.00	8.45	8.45	8.45	35.96	35.96	35.96	87.2	86.7	86.5	7.07	7.04	7.03	2.94	2.97	2.97	9	8.0
	17:20		Middle	3	15.00	15.00		8.45	8.45		35.96	35.96		86.0	86.2		6.99	7.01		2.96	2.99		7	
14/02/2014	17:55	Fine	Middle	3	16.00	16.00	16.00	8.64	8.64	8.64	35.93	35.93	35.93	88.8	88.7	88.6	7.02	7.01	7.00	2.99	2.99	3.00	4	4.0
	17:57		Middle	3	16.00	16.00		8.64	8.64		35.93	35.93		88.4	88.4		6.98	6.98		3.01	3.02		4	
17/02/2014	18:17	Cloudy	Middle	2	18.80	18.80	18.85	8.26	8.26	8.26	32.80	32.80	32.80	88.1	88.9	88.9	6.74	6.80	6.80	1.01	1.08	1.07	<2	<2
	18:18		Middle	2	18.90	18.90		8.26	8.26		32.80	32.81		89.2	89.4		6.82	6.84		1.11	1.06		<2	
19/02/2014	08:30	Cloudy	Middle	3	14.40	14.40	14.40	8.00	8.00	8.00	35.97	35.97	35.98	81.0	81.7	81.7	6.67	6.73	6.73	2.21	2.22	2.22	4	3.0
	08:32		Middle	3	14.40	14.40		8.00	8.00		35.98	35.98		81.8	82.2		6.74	6.78		2.23	2.23		2	
21/02/2014	09:45	Fine	Middle	3	15.40	15.40	15.40	8.44	8.44	8.44	36.10	36.10	36.10	82.2	82.0	82.3	6.61	6.59	6.61	3.12	3.09	3.10	3	2.5
	09:47		Middle	3	15.40	15.40		8.44	8.44		36.10	36.10		82.4	82.4		6.63	6.62		3.08	3.09		2	
24/02/2014	11:30	Fine	Middle	3	16.40	16.40	16.40	8.55	8.55	8.55	36.34	36.34	36.34	93.7	93.0	92.9	7.34	7.28	7.28	2.01	2.01	2.01	3	2.5
	11:32		Middle	3	16.40	16.40		8.55	8.55		36.34	36.34		92.5	92.3		7.25	7.23		2.00	2.03		2	
26/02/2014	13:59	Cloudy	Middle	3	18.40	18.40	18.40	8.53	8.53	8.53	35.94	35.94	35.94	78.0	77.9	77.6	5.84	5.83	5.81	1.86	1.86	1.87	2	2.5
	14:01		Middle	3	18.40	18.40		8.53	8.53		35.94	35.94		77.2	77.4		5.78	5.79		1.87	1.88		3	
28/02/2014	18:11	Fine	Middle	3	17.80	17.80	17.60	8.51	8.51	8.52	36.33	36.33	36.33	65.9	69.7	67.8	5.05	5.37	5.22	2.23	2.23	2.28	<2	<2
	18:13		Middle	3	17.40	17.40		8.52	8.52		36.33	36.33		68.2	67.3		5.26	5.18		2.24	2.41		<2	

Water Monitoring Result at WSD15 - Sai Wan Ho
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	11:04	Fine	Middle	3	18.20	18.20	18.25	8.62	8.62	8.63	35.93	35.93	35.92	87.4	87.0	87.6	6.64	6.61	6.66	1.21	1.18	1.18	2	2.5
	11:06		Middle	3	18.30	18.30		8.64	8.64		35.90	35.90		86.1	89.8		6.58	6.82		1.17	1.17		3	
08/02/2014	12:08	Fine	Middle	3	18.00	18.00	18.00	8.71	8.71	8.71	35.82	35.82	35.83	87.3	87.1	87.0	6.67	6.66	6.65	1.28	1.44	1.42	<2	<2
	12:10		Middle	3	18.00	18.00		8.71	8.71		35.83	35.83		87.0	86.4		6.65	6.61		1.47	1.49		<2	
10/02/2014	09:49	Fine	Middle	3	16.10	16.10	16.00	8.53	8.53	8.56	35.83	35.83	35.84	81.4	81.6	81.0	6.46	6.48	6.43	2.61	2.62	2.61	2	2.5
	09:51		Middle	3	15.90	15.90		8.58	8.58		35.85	35.85		80.6	80.2		6.39	6.37		2.60	2.59		3	
12/02/2014	16:55	Cloudy	Middle	3	14.60	14.60	14.60	8.52	8.52	8.52	35.98	35.98	35.98	84.9	85.3	85.1	6.92	6.96	6.94	2.91	2.85	2.83	8	7.0
	16:57		Middle	3	14.60	14.60		8.52	8.52		35.98	35.98		85.1	85.0		6.95	6.94		2.80	2.77		6	
14/02/2014	17:16	Fine	Middle	3	16.30	16.30	16.25	8.61	8.61	8.62	35.91	35.91	35.92	90.1	89.9	90.2	7.11	7.10	7.12	2.92	2.91	2.94	3	3.0
	17:18		Middle	3	16.20	16.20		8.63	8.63		35.92	35.92		90.3	90.3		7.13	7.13		2.90	3.01		3	
17/02/2014	19:57	Cloudy	Middle	4	18.70	18.70	18.75	8.19	8.19	8.20	32.96	32.96	32.96	87.1	87.4	87.7	6.66	6.69	6.71	2.39	2.11	2.15	2	2.5
	19:58		Middle	4	18.80	18.80		8.20	8.20		32.96	32.96		88.1	88.2		6.75	6.74		2.08	2.02		3	
19/02/2014	08:45	Cloudy	Middle	3	14.40	14.40	14.30	8.32	8.32	8.34	36.09	36.09	36.09	84.4	84.4	84.6	6.92	6.93	6.94	2.05	2.14	2.13	3	3.0
	08:47		Middle	3	14.20	14.20		8.36	8.36		36.09	36.09		85.0	84.6		6.98	6.93		2.14	2.17		3	
21/02/2014	10:15	Fine	Middle	3	15.20	15.20	15.20	8.55	8.55	8.56	36.21	36.21	36.21	83.9	83.9	83.9	6.75	6.76	6.75	3.75	3.73	3.73	3	3.0
	10:17		Middle	3	15.20	15.20		8.56	8.56		36.20	36.20		83.9	83.7		6.75	6.74		3.73	3.71		3	
24/02/2014	11:50	Fine	Middle	3	16.60	16.60	16.60	8.58	8.58	8.58	36.33	36.33	36.33	84.9	85.9	86.3	6.64	6.72	6.75	1.90	1.86	1.86	3	3.0
	11:52		Middle	3	16.60	16.60		8.58	8.58		36.33	36.33		86.7	87.5		6.78	6.84		1.84	1.82		3	
26/02/2014	14:30	Cloudy	Middle	3	18.90	18.90	18.90	8.54	8.54	8.54	36.59	36.59	36.59	76.3	76.3	76.2	5.70	5.70	5.70	2.13	2.14	2.14	4	3.0
	14:32		Middle	3	18.90	18.90		8.54	8.54		36.59	36.59		76.1	75.9		5.69	5.69		2.14	2.14		2	
28/02/2014	17:38	Fine	Middle	3	17.40	17.40	17.40	8.52	8.52	8.52	36.54	36.54	36.54	90.8	91.0	91.0	6.98	7.04	7.00	1.75	1.78	1.79	<2	<2
	17:40		Middle	3	17.40	17.40		8.52	8.52		36.54	36.54		91.5	90.7		7.02	6.94		1.80	1.82		<2	

Water Monitoring Result at WSD17 - Quarry Bay
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	11:33	Fine	Middle	4	18.30	18.30	18.35	8.65	8.65	8.65	35.90	35.90	35.90	90.2	90.5	90.1	6.85	6.87	6.84	3.56	3.47	3.45	4	3.5
	11:35		Middle	4	18.40	18.40		8.65	8.65		35.90	35.90		90.0	89.7		6.82	6.80		3.38	3.39		3	
08/02/2014	12:47	Fine	Middle	3	17.90	17.90	17.90	8.66	8.66	8.67	35.79	35.79	35.79	89.3	88.8	88.2	6.83	6.80	6.75	1.96	1.91	1.91	4	4.5
	12:49		Middle	3	17.90	17.90		8.67	8.67		35.79	35.79		87.8	86.9		6.72	6.65		1.89	1.87		5	
10/02/2014	10:28	Fine	Middle	3	15.80	15.80	15.80	8.65	8.65	8.66	35.91	35.91	35.92	81.6	81.5	80.9	6.50	6.49	6.45	1.57	1.60	1.59	3	3.0
	10:30		Middle	3	15.80	15.80		8.66	8.66		35.93	35.93		80.8	79.8		6.44	6.36		1.60	1.60		3	
12/02/2014	16:15	Cloudy	Middle	3	15.30	15.30	15.30	8.52	8.52	8.54	35.78	35.78	35.80	80.3	81.1	81.4	6.49	6.54	6.57	1.70	1.70	1.68	7	7.0
	16:16		Middle	3	15.30	15.30		8.55	8.55		35.81	35.81		82.0	82.0		6.62	6.62		1.68	1.65		7	
14/02/2014	15:39	Fine	Middle	3	15.80	15.80	15.80	8.61	8.61	8.62	35.87	35.87	35.87	86.4	86.2	86.0	6.36	6.35	6.34	2.89	2.94	2.93	3	3.5
	15:41		Middle	3	15.80	15.80		8.62	8.62		35.87	35.87		85.7	85.5		6.32	6.31		2.96	2.94		4	
17/02/2014	19:35	Cloudy	Middle	4	18.80	18.80	18.80	8.29	8.29	8.29	32.92	32.92	32.92	87.9	89.3	88.9	6.73	6.83	6.80	4.04	4.18	4.02	5	5.0
	19:36		Middle	4	18.80	18.80		8.30	8.29		32.91	32.92		89.2	89.1		6.82	6.82		3.98	3.89		5	
19/02/2014	09:15	Cloudy	Middle	3	14.40	14.40	14.35	8.44	8.44	8.44	36.06	36.06	36.07	83.9	83.8	83.7	6.87	6.87	6.86	2.91	2.90	2.90	3	3.0
	09:17		Middle	3	14.30	14.30		8.44	8.44		36.07	36.07		83.5	83.7		6.84	6.86		2.90	2.90		3	
21/02/2014	10:35	Fine	Middle	3	15.30	15.30	15.30	8.59	8.59	8.59	36.19	36.19	36.19	86.3	86.5	86.5	6.93	6.95	6.95	2.45	2.43	2.43	3	3.0
	10:37		Middle	3	15.30	15.30		8.59	8.59		36.19	36.19		86.5	86.5		6.95	6.95		2.42	2.42		3	
24/02/2014	12:15	Fine	Middle	3	16.40	16.40	16.40	8.63	8.63	8.63	36.39	36.39	36.39	79.0	79.3	79.4	6.20	6.24	6.24	1.19	1.17	1.17	2	2.0
	12:17		Middle	3	16.40	16.40		8.63	8.63		36.38	36.38		79.6	79.7		6.25	6.26		1.17	1.16		2	
26/02/2014	16:05	Cloudy	Middle	3	17.50	17.50	17.60	8.54	8.54	8.55	36.28	36.28	36.28	87.5	88.7	88.6	6.76	6.79	6.80	4.09	4.09	4.12	7	7.5
	16:07		Middle	3	17.70	17.70		8.55	8.55		36.27	36.27		89.0	89.0		6.82	6.82		4.14	4.15		8	
28/02/2014	17:12	Fine	Middle	3	18.20	18.20	18.25	8.50	8.50	8.51	36.40	36.40	36.40	89.3	90.2	89.6	6.76	6.83	6.79	2.24	2.24	2.24	<2	<2
	17:14		Middle	3	18.30	18.30		8.51	8.51		36.40	36.40		89.3	89.6		6.76	6.79		2.24	2.24		<2	

Water Monitoring Result at WSD21 - Wan Chai
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	10:15	Fine	Middle	2	18.50	18.50	18.50	8.50	8.50	8.50	33.11	33.11	33.12	83.7	85.2	85.0	6.44	6.53	6.53	3.79	3.78	3.78	4	4.5
	10:17		Middle	2	18.50	18.50		8.50	8.50		33.12	33.12		85.6	85.3		6.60	6.56		3.77	3.76		5	
08/02/2014	13:28	Fine	Middle	2	18.20	18.20	18.15	8.33	8.33	8.33	33.20	33.20	33.20	77.2	77.0	76.8	5.97	5.96	5.95	5.48	5.44	5.40	9	9.0
	13:30		Middle	2	18.10	18.10		8.32	8.32		33.19	33.19		76.5	76.3		5.93	5.92		5.36	5.33		9	
10/02/2014	09:30	Fine	Middle	2	17.30	17.30	17.20	8.44	8.44	8.44	33.29	33.29	33.30	81.3	80.0	80.6	6.41	6.31	6.35	4.30	4.30	4.30	7	6.5
	09:32		Middle	2	17.10	17.10		8.43	8.43		33.30	33.30		80.5	80.4		6.35	6.34		4.30	4.31		6	
12/02/2014	15:16	Cloudy	Middle	2	16.60	16.60	16.55	8.42	8.42	8.42	33.34	33.34	33.37	65.0	64.8	65.1	5.17	5.16	5.19	4.36	4.32	4.32	7	6.5
	15:18		Middle	2	16.50	16.50		8.42	8.42		33.40	33.40		65.1	65.5		5.19	5.22		4.31	4.30		6	
14/02/2014	16:22	Fine	Middle	2	16.10	16.10	16.10	8.43	8.43	8.43	33.32	33.32	33.32	72.4	71.6	71.1	5.82	5.75	5.77	4.54	4.55	4.54	5	4.5
	16:24		Middle	2	16.10	16.10		8.43	8.43		33.32	33.32		70.5	70.0		5.87	5.62		4.54	4.53		4	
17/02/2014	20:45	Cloudy	Middle	2	16.90	16.90	16.95	8.31	8.31	8.31	33.44	33.44	33.45	77.0	76.7	76.6	6.09	6.07	6.06	4.87	4.84	4.82	4	4.5
	20:47		Middle	2	17.00	17.00		8.30	8.30		33.45	33.45		76.4	76.1		6.05	6.03		4.79	4.76		5	
19/02/2014	09:55	Cloudy	Middle	2	15.30	15.30	15.30	8.33	8.33	8.33	32.92	32.92	32.92	73.9	74.6	74.0	6.12	6.16	6.12	6.61	6.60	6.46	8	8.0
	09:57		Middle	2	15.30	15.30		8.33	8.33		32.92	32.92		73.6	74.0		6.08	6.13		6.60	6.01		8	
21/02/2014	10:16	Fine	Middle	2	16.00	16.00	16.00	8.39	8.39	8.39	33.48	33.48	33.48	72.7	74.5	73.6	5.86	6.02	5.93	4.98	4.97	4.97	7	6.0
	10:18		Middle	2	16.00	16.00		8.39	8.39		33.48	33.48		74.0	73.0		5.97	5.88		4.96	4.98		5	
24/02/2014	10:15	Fine	Middle	2	16.20	16.20	16.20	8.26	8.27	8.27	33.62	33.62	33.62	84.1	83.7	84.0	6.74	6.70	6.73	7.19	7.11	7.15	7	7.0
	10:17		Middle	2	16.20	16.20		8.27	8.26		33.62	33.62		83.8	84.5		6.70	6.77		7.19	7.09		7	
26/02/2014	14:35	Cloudy	Middle	2	17.20	17.20	17.25	8.26	8.26	8.27	33.63	33.63	33.63	81.9	80.2	81.4	6.43	6.28	6.38	4.27	4.28	4.24	3	4.0
	14:37		Middle	2	17.30	17.30		8.27	8.27		33.63	33.63		82.3	81.1		6.45	6.35		4.20	4.22		5	
28/02/2014	17:18	Fine	Middle	2	17.50	17.50	17.50	8.34	8.34	8.34	33.71	33.71	33.71	68.3	71.3	69.8	5.33	5.58	5.45	3.28	3.29	3.29	4	4.0
	17:20		Middle	2	17.50	17.50		8.33	8.33		33.70	33.70		70.2	69.5		5.47	5.43		3.29	3.29		4	

Water Monitoring Result at WSD19 - Sheung Wan
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	12:42	Fine	Middle	4	18.70	18.70	18.70	8.60	8.60	8.60	35.28	35.28	35.29	85.0	84.8	84.4	6.43	6.41	6.39	3.19	3.16	3.17	4	4.0
	12:44		Middle	4	18.70	18.70		8.59	8.59		35.29	35.29		84.2	83.7		6.37	6.33		3.13	3.20		4	
08/02/2014	13:56	Fine	Middle	4	18.00	18.00	18.00	8.59	8.59	8.59	35.40	35.40	35.41	80.2	80.0	79.6	6.15	6.13	6.10	4.71	4.73	4.74	7	6.5
	13:58		Middle	4	18.00	18.00		8.59	8.59		35.42	35.42		79.7	78.6		6.10	6.02		4.75	4.76		6	
10/02/2014	11:42	Fine	Middle	4	16.00	16.00	15.95	8.60	8.60	8.60	35.70	35.70	35.72	78.1	78.1	77.7	6.21	6.21	6.17	4.38	4.39	4.37	5	4.5
	11:44		Middle	4	15.90	15.90		8.60	8.60		35.74	35.74		77.6	77.1		6.12	6.13		4.38	4.31		4	
12/02/2014	15:40	Cloudy	Middle	4	15.20	15.20	15.20	8.46	8.46	8.46	35.72	35.72	35.72	80.2	79.2	79.0	6.51	6.43	6.42	3.63	3.64	3.64	7	8.0
	15:42		Middle	4	15.20	15.20		8.46	8.46		35.72	35.72		78.3	78.4		6.36	6.36		3.65	3.63		9	
14/02/2014	16:50	Fine	Middle	4	15.70	15.70	15.70	8.55	8.55	8.55	35.76	35.76	35.77	79.5	78.2	79.2	6.35	6.32	6.35	3.74	3.72	3.71	5	5.0
	16:52		Middle	4	15.70	15.70		8.55	8.55		35.77	35.77		79.4	79.7		6.34	6.37		3.70	3.69		5	
17/02/2014	20:24	Cloudy	Middle	2	18.10	18.10	18.10	8.06	8.06	8.06	32.38	32.38	32.38	82.4	83.2	82.9	6.40	6.46	6.45	3.79	3.75	3.74	6	5.5
	20:25		Middle	2	18.10	18.10		8.07	8.06		32.37	32.37		82.6	83.2		6.49	6.46		3.70	3.73		5	
19/02/2014	09:45	Cloudy	Middle	4	14.90	14.90	14.75	8.43	8.43	8.44	35.68	35.68	35.69	77.4	77.9	78.2	6.32	6.35	6.38	3.90	3.94	3.95	6	6.0
	09:47		Middle	4	14.60	14.60		8.44	8.44		35.70	35.70		78.7	78.8		6.42	6.43		3.97	3.98		6	
21/02/2014	11:10	Fine	Middle	4	15.80	15.80	15.80	8.50	8.50	8.50	35.86	35.86	35.86	71.5	71.9	72.1	5.70	5.74	5.75	3.29	3.29	3.30	6	6.0
	11:12		Middle	4	15.80	15.80		8.50	8.50		35.86	35.86		72.1	72.7		5.75	5.80		3.30	3.30		6	
24/02/2014	13:30	Fine	Middle	4	17.30	17.30	17.30	8.54	8.54	8.54	36.08	36.08	36.08	66.2	66.2	66.3	5.12	5.12	5.13	2.66	2.73	2.72	5	5.0
	13:32		Middle	4	17.30	17.30		8.54	8.54		36.08	36.08		66.4	66.4		5.13	5.13		2.74	2.74		5	
26/02/2014	14:58	Cloudy	Middle	4	18.80	18.80	18.80	8.48	8.48	8.48	36.02	36.02	36.02	56.2	56.4	56.8	4.22	4.24	4.27	2.15	2.15	2.16	4	4.0
	15:00		Middle	4	18.80	18.80		8.48	8.48		36.02	36.02		56.9	57.8		4.27	4.33		2.16	2.18		4	
28/02/2014	16:02	Fine	Middle	4	17.60	17.60	17.60	8.47	8.47	8.47	36.07	36.07	36.07	88.7	89.0	88.7	6.81	6.83	6.81	4.71	4.75	4.73	6	5.0
	16:04		Middle	4	17.60	17.60		8.47	8.47		36.07	36.07		88.7	88.5		6.81	6.79		4.73	4.74		4	

Water Monitoring Result at WSD9 - Tai Wan
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	19:16	Fine	Middle	3	18.70	18.70	18.70	8.67	8.67	8.68	35.68	35.68	35.68	92.5	93.0	92.7	6.98	7.02	6.99	1.78	1.74	1.64	4	3.0
	19:18		Middle	3	18.70	18.70		8.68	8.68		35.67	35.67		92.7	92.6		6.99	6.98		1.60	1.44		2	
08/02/2014	20:10	Cloudy	Middle	2	18.30	18.30	18.30	8.22	8.22	8.22	32.65	32.65	32.65	91.8	91.4	91.5	7.11	7.08	7.09	1.06	1.09	1.10	2	3.0
	20:11		Middle	2	18.30	18.30		8.22	8.22		32.65	32.65		91.7	91.2		7.10	7.06		1.11	1.14		4	
10/02/2014	21:53	Cloudy	Middle	2	12.90	12.90	12.85	8.09	8.09	8.11	32.77	32.77	32.77	87.6	88.0	87.7	7.55	7.58	7.56	1.20	1.08	1.13	4	4.0
	21:54		Middle	2	12.80	12.80		8.12	8.12		32.77	32.77		87.6	87.6		7.56	7.56		1.14	1.11		4	
12/02/2014	22:55	Cloudy	Middle	2	13.30	13.30	13.30	8.25	8.25	8.26	32.84	32.84	32.84	85.5	86.9	86.3	7.29	7.41	7.36	1.14	1.05	1.09	4	4.5
	22:56		Middle	2	13.30	13.30		8.26	8.26		32.84	32.84		86.9	86.0		7.41	7.33		1.08	1.10		5	
15/02/2014	23:54	Cloudy	Middle	2	13.70	13.70	13.70	8.22	8.22	8.22	32.67	32.67	32.68	85.1	87.0	86.5	7.21	7.36	7.33	1.00	1.12	1.07	3	3.0
	23:55		Middle	2	13.70	13.70		8.22	8.22		32.68	32.68		87.0	86.9		7.37	7.36		1.06	1.09		3	
17/02/2014	16:20	Cloudy	Middle	3	17.40	17.40	17.60	8.40	8.40	8.42	36.06	36.06	36.03	82.8	82.9	82.8	6.38	6.38	6.35	1.42	1.43	1.43	4	3.5
	16:22		Middle	3	17.80	17.80		8.43	8.43		36.00	36.00		82.8	82.6		6.37	6.26		1.44	1.44		3	
19/02/2014	12:16	Cloudy	Middle	3	14.80	14.80	14.70	8.48	8.48	8.50	36.07	36.07	36.09	84.8	86.4	86.1	6.90	7.04	7.01	2.60	2.60	2.60	3	3.0
	12:18		Middle	3	14.60	14.60		8.51	8.51		36.10	36.10		86.6	86.4		7.05	7.03		2.59	2.59		3	
21/02/2014	14:45	Fine	Middle	3	15.80	15.80	15.85	8.35	8.36	8.36	36.20	36.20	36.16	84.3	85.3	85.3	6.70	6.77	6.78	2.28	2.27	2.29	3	2.5
	14:46		Middle	3	15.90	15.90		8.36	8.36		36.12	36.12		85.9	85.8		6.83	6.82		2.29	2.33		2	
24/02/2014	19:22	Cloudy	Middle	3	17.80	17.80	17.80	8.28	8.28	8.29	33.20	33.20	33.20	93.2	95.5	94.8	7.27	7.44	7.40	1.14	1.05	1.10	2	3.0
	19:23		Middle	3	17.80	17.80		8.29	8.29		33.20	33.20		95.3	95.3		7.43	7.44		1.06	1.13		4	
26/02/2014	21:56	Cloudy	Middle	2	19.00	19.00	19.00	8.20	8.20	8.21	32.95	32.95	32.95	88.7	88.7	88.7	6.75	6.75	6.76	1.07	1.13	1.10	5	4.5
	21:57		Middle	2	19.00	19.00		8.21	8.21		32.95	32.95		88.8	88.5		6.77	6.75		1.18	1.03		4	
28/02/2014	09:45	Cloudy	Middle	3	17.60	17.60	17.60	8.41	8.41	8.41	36.16	36.16	36.16	76.5	79.3	77.6	5.88	6.09	5.98	1.45	1.47	1.47	3	2.5
	09:47		Middle	3	17.60	17.60		8.41	8.41		36.16	36.16		77.6	77.0		5.96	5.99		1.48	1.48		2	

Water Monitoring Result at WSD10 - Cha Kwo Ling
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	18:35	Fine	Middle	3	18.70	18.70	18.75	8.62	8.62	8.64	36.06	36.06	36.04	98.8	99.4	98.7	7.43	7.47	7.42	1.55	1.54	1.60	3	3.0
	18:37		Middle	3	18.80	18.80		8.65	8.65		36.02	36.02		99.2	97.4		7.46	7.33		1.60	1.70		3	
08/02/2014	19:45	Cloudy	Middle	2	18.40	18.40	18.40	7.96	7.96	7.97	32.82	32.82	32.83	96.5	97.3	96.7	7.44	7.50	7.46	1.85	1.96	1.88	12	12.0
	19:46		Middle	2	18.40	18.40		7.98	7.98		32.84	32.84		97.0	96.0		7.48	7.40		1.88	1.82		12	
10/02/2014	21:29	Cloudy	Middle	2	12.30	12.30	12.35	8.27	8.27	8.28	32.79	32.79	32.80	85.9	86.6	86.2	7.40	7.50	7.48	2.07	2.30	2.21	3	3.0
	21:30		Middle	2	12.40	12.40		8.29	8.29		32.80	32.80		86.0	86.4		7.49	7.53		2.22	2.26		3	
12/02/2014	22:30	Cloudy	Middle	2	13.50	13.50	13.50	8.03	8.03	8.04	32.88	32.88	32.86	89.9	89.9	90.1	7.64	7.63	7.65	1.90	1.96	1.91	6	7.0
	22:31		Middle	2	13.50	13.50		8.05	8.05		32.83	32.83		90.1	90.3		7.67	7.67		1.86	1.91		8	
15/02/2014	23:30	Cloudy	Middle	2	13.90	13.90	13.95	7.79	7.79	7.80	32.79	32.79	32.79	90.3	91.8	90.8	7.59	7.72	7.64	1.05	1.14	1.10	3	3.0
	23:31		Middle	2	14.00	14.00		7.80	7.81		32.78	32.78		90.5	90.5		7.62	7.62		1.07	1.12		3	
17/02/2014	15:45	Cloudy	Middle	3	17.70	17.70	17.85	8.35	8.35	8.36	36.12	36.12	36.13	90.7	90.1	90.4	6.92	6.87	6.88	1.14	1.11	1.11	3	3.5
	15:47		Middle	3	18.00	18.00		8.36	8.36		36.13	36.13		90.1	90.5		6.86	6.88		1.09	1.10		4	
19/02/2014	12:47	Cloudy	Middle	3	14.90	14.90	14.90	8.12	8.12	8.12	35.97	35.97	35.97	81.7	82.0	82.1	6.76	6.78	6.79	2.03	2.00	2.00	3	3.0
	12:48		Middle	3	14.90	14.90		8.12	8.12		35.97	35.97		82.4	82.1		6.82	6.80		2.00	1.97		3	
21/02/2014	15:39	Fine	Middle	3	15.20	15.20	15.15	8.50	8.50	8.50	36.13	36.13	36.13	82.5	82.7	82.8	6.65	6.67	6.68	3.12	3.12	3.13	2	2.0
	15:41		Middle	3	15.10	15.10		8.50	8.50		36.13	36.13		82.9	83.0		6.69	6.69		3.14	3.12		2	
24/02/2014	18:55	Cloudy	Middle	3	18.50	18.50	18.54	7.93	7.93	7.95	33.25	33.25	33.25	95.7	97.7	96.7	7.34	7.50	7.42	1.02	1.07	1.07	3	3.5
	18:56		Middle	3	18.56	18.60		7.96	7.96		33.24	33.24		96.8	96.7		7.42	7.41		1.15	1.05		4	
26/02/2014	21:28	Cloudy	Middle	2	19.60	19.60	19.65	8.02	8.03	8.04	32.97	33.10	33.09	94.7	95.7	95.4	7.10	7.20	7.16	1.08	1.05	1.10	4	4.5
	21:29		Middle	2	19.70	19.70		8.05	8.05		33.13	33.14		95.9	95.2		7.19	7.14		1.11	1.16		5	
28/02/2014	10:10	Cloudy	Middle	3	17.30	17.30	17.35	8.47	8.47	8.49	36.33	36.33	36.34	66.2	67.0	67.0	5.11	5.16	5.17	2.24	2.24	2.30	<2	<2
	10:12		Middle	3	17.40	17.40		8.50	8.50		36.34	36.34		68.0	66.8		5.25	5.15		2.34	2.37		<2	

Water Monitoring Result at WSD15 - Sai Wan Ho
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	17:59	Fine	Middle	3	18.60	18.60	18.60	8.62	8.62	8.63	35.97	35.97	35.96	96.7	96.8	96.6	7.30	7.30	7.29	2.04	2.14	2.17	4	3.5
	18:01		Middle	3	18.60	18.60		8.64	8.64		35.95	35.95		96.5	96.4		7.28	7.27		2.23	2.26		3	
08/02/2014	21:15	Cloudy	Middle	3	18.00	18.00	18.00	8.17	8.17	8.18	32.66	32.66	32.66	91.0	91.8	91.4	7.09	7.15	7.12	1.08	1.10	1.12	5	5.0
	21:16		Middle	3	18.00	18.00		8.18	8.18		32.66	32.66		91.6	91.2		7.14	7.10		1.17	1.12		5	
10/02/2014	22:55	Cloudy	Middle	3	13.20	13.20	13.20	8.25	8.25	8.25	31.92	31.92	31.92	79.4	79.7	79.1	6.83	6.85	6.80	1.71	1.76	1.54	3	3.0
	22:56		Middle	3	13.20	13.20		8.25	8.25		31.92	31.92		78.8	78.3		6.76	6.74		1.33	1.36		3	
12/02/2014	00:07	Cloudy	Middle	3	14.50	14.50	14.50	7.79	7.80	7.81	32.29	32.27	32.28	85.2	84.7	84.9	7.11	7.07	7.09	1.17	1.05	1.11	4	4.5
	00:08		Middle	3	14.50	14.50		7.82	7.82		32.27	32.27		85.0	84.7		7.10	7.07		1.07	1.14		5	
15/02/2014	01:08	Cloudy	Middle	3	14.50	14.50	14.45	8.24	8.24	8.25	32.79	32.79	32.79	81.3	81.5	81.6	6.78	6.81	6.81	1.07	1.08	1.11	2	2.0
	01:09		Middle	3	14.40	14.40		8.25	8.25		32.79	32.80		81.7	81.9		6.81	6.84		1.12	1.16		2	
17/02/2014	11:45	Cloudy	Middle	3	16.90	16.90	16.95	8.37	8.37	8.39	36.12	36.12	36.12	88.2	88.3	87.9	6.86	6.87	6.83	2.28	2.29	2.35	2	2.5
	11:47		Middle	3	17.00	17.00		8.41	8.41		36.12	36.12		87.2	88.0		6.76	6.84		2.41	2.41		3	
19/02/2014	13:15	Cloudy	Middle	3	14.70	14.70	14.70	8.22	8.22	8.22	36.05	36.05	36.05	85.5	85.6	85.5	6.99	6.99	6.99	2.15	2.15	2.16	2	2.5
	13:16		Middle	3	14.70	14.70		8.22	8.22		36.05	36.05		85.6	85.1		7.00	6.96		2.15	2.17		3	
21/02/2014	15:15	Fine	Middle	3	15.50	15.50	15.50	8.51	8.51	8.51	36.20	36.20	36.20	88.2	87.9	87.5	7.07	7.05	7.02	3.71	3.69	3.70	2	2.0
	15:16		Middle	3	15.50	15.50		8.51	8.51		36.20	36.20		87.2	86.7		7.00	6.95		3.69	3.69		2	
24/02/2014	20:33	Cloudy	Middle	4	17.40	17.40	17.45	8.20	8.20	8.20	33.32	33.32	33.29	95.7	96.0	95.7	7.49	7.52	7.49	1.20	1.17	1.11	2	2.0
	20:34		Middle	4	17.50	17.50		8.20	8.20		33.26	33.26		95.9	95.1		7.51	7.44		1.02	1.06		2	
26/02/2014	22:57	Cloudy	Middle	3	18.20	18.20	18.20	8.18	8.18	8.18	33.00	33.00	33.00	89.0	89.1	89.2	6.87	6.88	6.88	1.26	1.41	1.34	5	5.0
	22:58		Middle	3	18.20	18.20		8.18	8.18		32.99	32.99		89.2	89.5		6.88	6.90		1.37	1.33		5	
28/02/2014	10:45	Cloudy	Middle	3	17.50	17.50	17.50	8.54	8.54	8.54	36.54	36.54	36.54	90.5	90.3	90.3	6.94	6.93	6.93	1.58	1.59	1.59	4	3.5
	10:47		Middle	3	17.50	17.50		8.54	8.54		36.54	36.54		90.2	90.2		6.93	6.92		1.60	1.60		3	

Water Monitoring Result at WSD17 - Quarry Bay
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	17:31	Fine	Middle	3	18.50	18.50	18.55	8.59	8.59	8.60	35.93	35.93	35.93	89.8	89.7	89.4	6.79	6.78	6.75	2.23	2.24	2.24	3	4.0
	17:33		Middle	3	18.60	18.60		8.61	8.61		35.92	35.92		89.0	88.9		6.73	6.71		2.24	2.24		5	
08/02/2014	20:48	Cloudy	Middle	3	17.90	17.90	17.90	8.01	8.01	8.03	32.41	32.41	32.41	89.6	90.0	89.9	7.00	7.02	7.01	1.60	1.64	1.71	2	2.5
	20:49		Middle	3	17.90	17.90		8.04	8.04		32.41	32.41		89.5	90.3		6.98	7.04		1.82	1.79		3	
10/02/2014	22:26	Cloudy	Middle	3	12.70	12.70	12.70	8.19	8.19	8.21	31.03	31.03	31.03	79.2	79.8	79.2	6.92	6.97	6.93	3.84	3.96	3.87	3	3.0
	22:27		Middle	3	12.70	12.70		8.22	8.22		31.02	31.02		78.5	79.4		6.87	6.94		3.80	3.88		3	
12/02/2014	23:43	Cloudy	Middle	3	13.60	13.60	13.60	8.19	8.19	8.20	31.84	31.84	31.84	81.4	80.9	81.1	6.94	6.90	6.92	3.19	3.24	3.13	5	6.0
	23:44		Middle	3	13.60	13.60		8.20	8.20		31.84	31.84		81.0	81.0		6.91	6.91		3.10	2.99		7	
15/02/2014	00:46	Cloudy	Middle	3	14.30	14.30	14.30	8.11	8.11	8.12	32.47	32.47	32.47	80.6	80.1	80.3	6.76	6.71	6.73	2.16	2.08	2.09	3	3.0
	00:47		Middle	3	14.30	14.30		8.13	8.13		32.46	32.46		80.2	80.3		6.72	6.73		2.01	2.11		3	
17/02/2014	11:30	Cloudy	Middle	3	17.40	17.40	17.40	8.14	8.14	8.14	35.83	35.83	35.83	85.2	85.3	85.4	6.58	6.66	6.61	3.46	3.45	3.46	4	4.0
	11:32		Middle	3	17.40	17.40		8.14	8.14		35.83	35.83		85.7	85.2		6.62	6.58		3.46	3.46		4	
19/02/2014	13:45	Cloudy	Middle	3	14.60	14.60	14.55	8.51	8.51	8.51	36.05	36.05	36.05	82.8	82.6	82.5	6.75	6.74	6.60	3.30	3.30	3.30	6	6.0
	13:46		Middle	3	14.50	14.50		8.51	8.51		36.05	36.05		82.4	82.1		6.20	6.70		3.30	3.31		6	
21/02/2014	17:19	Fine	Middle	4	16.50	16.50	16.50	8.51	8.51	8.52	36.18	36.18	36.18	87.6	87.8	87.6	7.01	7.03	7.01	2.98	2.98	3.01	4	3.5
	17:20		Middle	4	16.50	16.50		8.53	8.53		36.18	36.18		87.5	87.4		7.00	6.99		3.00	3.06		3	
24/02/2014	20:06	Cloudy	Middle	4	17.40	17.40	17.40	8.31	8.31	8.31	33.15	33.15	33.15	91.4	91.9	91.9	7.17	7.21	7.21	2.20	2.15	2.18	2	2.5
	20:07		Middle	4	17.40	17.40		8.31	8.31		33.15	33.14		92.1	92.3		7.23	7.24		2.24	2.12		3	
26/02/2014	22:34	Cloudy	Middle	3	18.70	18.70	18.70	8.10	8.10	8.10	32.81	32.80	32.81	84.8	85.7	85.4	6.51	6.57	6.55	2.22	2.19	2.22	3	3.5
	22:35		Middle	3	18.70	18.70		8.10	8.10		32.81	32.81		85.5	85.5		6.56	6.56		2.25	2.20		4	
28/02/2014	11:45	Cloudy	Middle	3	17.50	17.50	17.50	8.57	8.57	8.57	36.44	36.44	36.44	91.7	91.9	91.9	7.04	7.05	7.04	5.21	5.19	5.19	4	4.0
	11:47		Middle	3	17.50	17.50		8.57	8.57		36.44	36.44		92.4	91.5		7.04	7.02		5.18	5.17		4	

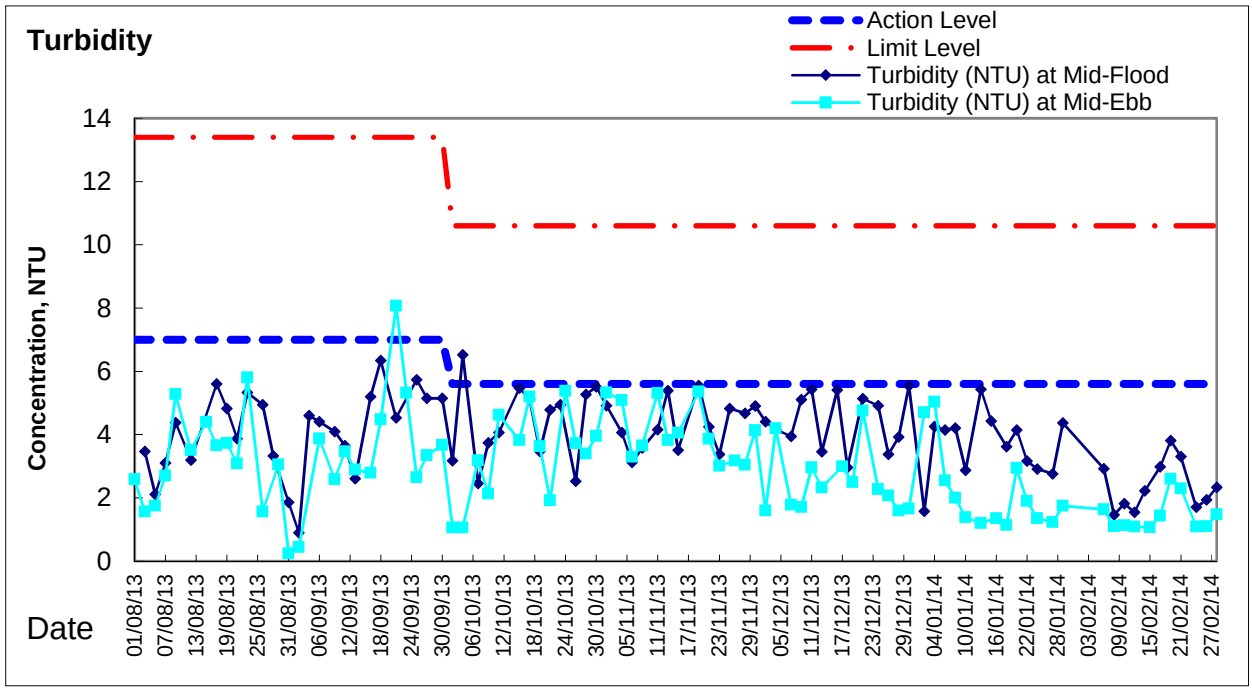
Water Monitoring Result at WSD21 - Wan Chai
Mid-Ebb Tide

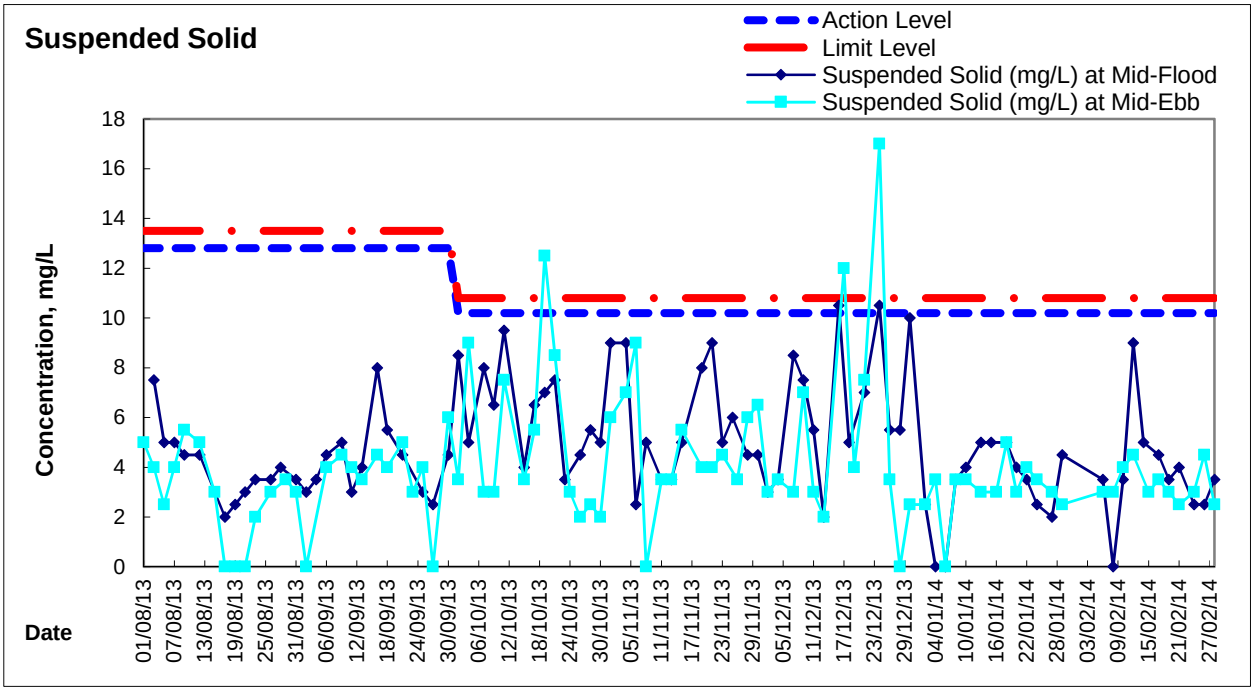
Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	16:18	Fine	Middle	2	18.70	18.70	18.70	8.40	8.40	8.40	33.17	33.17	33.17	90.0	90.1	89.3	6.89	6.89	6.83	3.91	3.92	3.90	3	3.5
	16:20		Middle	2	18.70	18.70		8.40	8.40		33.17	33.17		88.4	88.6		6.76	6.78		3.89	3.86		4	
08/02/2014	21:32	Cloudy	Middle	2	17.90	17.90	17.90	8.35	8.35	8.35	32.53	32.53	32.53	77.8	77.5	77.4	6.08	6.06	6.05	5.70	5.83	6.15	9	10.0
	21:34		Middle	2	17.90	17.90		8.34	8.34		32.52	32.52		77.2	76.9		6.04	6.01		7.10	5.98		11	
10/02/2014	23:13	Cloudy	Middle	2	15.40	15.40	15.20	8.47	8.43	8.44	32.91	32.91	32.89	81.4	81.2	80.9	6.69	6.68	6.66	12.33	12.43	12.42	11	10.5
	23:15		Middle	2	15.00	15.00		8.43	8.43		32.87	32.87		80.7	80.3		6.65	6.63		12.61	12.31		10	
12/02/2014	00:11	Cloudy	Middle	2	15.80	15.80	15.80	8.39	8.39	8.40	33.57	33.57	33.59	77.5	77.2	77.1	6.28	6.26	6.25	7.23	7.20	7.18	12	12.5
	00:13		Middle	2	15.80	15.80		8.40	8.40		33.61	33.61		76.9	76.7		6.24	6.23		7.18	7.11		13	
15/02/2014	01:24	Cloudy	Middle	2	15.30	15.30	15.15	8.40	8.40	8.41	33.54	33.54	33.54	82.9	82.8	82.7	6.79	6.79	6.78	4.75	4.72	4.71	4	4.0
	01:26		Middle	2	15.00	15.00		8.41	8.41		33.53	33.53		82.6	82.4		6.78	6.76		4.69	4.66		4	
17/02/2014	14:20	Cloudy	Middle	2	16.90	16.90	16.95	8.62	8.62	8.50	33.23	33.23	33.22	68.8	67.6	67.1	5.45	5.36	5.30	4.03	4.05	4.04	3	3.0
	14:22		Middle	2	17.00	17.00		8.38	8.38		33.20	33.20		66.5	65.5		5.21	5.19		4.04	4.05		3	
19/02/2014	14:41	Cloudy	Middle	2	15.80	15.80	15.80	8.35	8.35	8.35	33.22	33.22	33.22	74.4	75.7	75.4	6.09	6.28	6.18	5.54	5.55	5.54	6	5.0
	14:43		Middle	2	15.80	15.80		8.35	8.35		33.22	33.22		75.8	75.5		6.21	6.14		5.53	5.52		4	
21/02/2014	16:17	Fine	Middle	2	16.20	16.20	16.15	8.32	8.32	8.32	33.36	33.36	33.37	66.1	64.9	64.6	5.31	5.22	5.19	5.33	5.33	5.40	5	5.0
	16:19		Middle	2	16.10	16.10		8.32	8.33		33.38	33.38		64.6	62.6		5.19	5.03		5.45	5.48		5	
24/02/2014	20:54	Cloudy	Middle	2	16.60	16.60	16.65	8.39	8.39	8.38	32.94	32.94	32.94	78.2	77.8	77.6	6.23	6.21	6.20	7.76	7.73	7.70	3	2.5
	20:56		Middle	2	16.70	16.70		8.37	8.37		32.94	32.94		77.4	77.1		6.19	6.18		7.67	7.62		2	
26/02/2014	21:59	Cloudy	Middle	2	17.30	17.30	17.40	8.36	8.36	8.34	33.22	33.22	33.23	72.6	72.4	72.0	5.69	5.68	5.67	3.82	3.83	3.80	3	2.5
	22:01		Middle	2	17.50	17.50		8.32	8.32		33.23	33.23		71.8	71.3		5.66	5.63		3.79	3.75		2	
28/02/2014	10:54	Cloudy	Middle	2	17.30	17.30	17.30	8.40	8.40	8.40	34.08	34.08	34.08	81.6	84.8	83.7	6.40	6.64	6.55	4.94	4.95	4.96	8	8.0
	10:56		Middle	2	17.30	17.30		8.40	8.40		34.08	34.08		84.3	84.0		6.60	6.56		4.98	4.97		8	

Water Monitoring Result at WSD19 - Sheung Wan
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C			-			ppt			%			mg/L			NTU			mg/L	
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value		Average	Value	Average
06/02/2014	16:20	Fine	Middle	4	19.00	19.00	19.00	8.56	8.56	8.57	35.32	35.32	35.32	87.6	87.7	87.3	6.58	6.59	6.57	3.02	3.11	3.04	3	3.0
	16:22		Middle	4	19.00	19.00		8.57	8.57		35.31	35.31		87.2	86.8		6.56	6.53		3.02	3.00		3	
08/02/2014	21:43	Cloudy	Middle	2	17.90	17.90	17.93	8.24	8.24	8.24	32.20	32.20	32.20	86.8	87.4	86.9	6.78	6.83	6.79	1.95	2.02	2.02	3	3.0
	21:44		Middle	2	18.00	17.90		8.24	8.24		32.20	32.20		87.0	86.5		6.79	6.76		2.08	2.04		3	
10/02/2014	23:25	Cloudy	Middle	2	13.30	13.30	13.25	8.22	8.22	8.23	32.52	32.52	32.52	82.2	82.7	82.8	7.04	7.09	7.09	2.13	2.05	2.13	4	4.0
	23:26		Middle	2	13.20	13.20		8.23	8.23		32.52	32.52		83.0	83.3		7.10	7.13		2.20	2.15		4	
12/02/2014	00:25	Cloudy	Middle	2	14.30	14.30	14.30	8.26	8.26	8.26	32.40	32.40	32.40	79.4	80.1	79.8	6.56	6.71	6.67	2.70	2.67	2.76	6	6.0
	00:26		Middle	2	14.30	14.30		8.26	8.26		32.40	32.40		79.8	79.9		6.70	6.72		2.85	2.83		6	
15/02/2014	01:36	Cloudy	Middle	2	14.50	14.50	14.50	8.23	8.23	8.23	32.68	32.68	32.68	76.1	77.5	77.0	6.31	6.46	6.42	2.33	2.31	2.42	4	3.5
	01:37		Middle	2	14.50	14.50		8.23	8.23		32.68	32.68		77.2	77.3		6.46	6.45		2.48	2.54		3	
17/02/2014	12:35	Cloudy	Middle	3	18.60	18.60	18.70	8.39	8.39	8.40	35.91	35.91	35.91	81.9	82.1	81.8	6.17	6.18	6.16	2.42	2.41	2.41	6	6.5
	12:37		Middle	3	18.80	18.80		8.40	8.40		35.91	35.91		81.6	81.7		6.14	6.15		2.41	2.40		7	
19/02/2014	14:15	Cloudy	Middle	4	15.20	15.20	15.10	8.43	8.43	8.43	35.64	35.64	35.64	72.5	73.6	73.4	5.87	5.96	5.95	6.79	6.70	6.73	4	5.0
	14:17		Middle	4	15.00	15.00		8.43	8.43		35.64	35.64		73.7	73.8		5.97	5.98		6.71	6.71		6	
21/02/2014	16:45	Fine	Middle	4	16.10	16.10	16.05	8.43	8.43	8.43	35.79	35.79	35.79	73.1	74.4	74.5	5.79	5.90	5.91	3.31	3.33	3.31	3	3.0
	16:46		Middle	4	16.00	16.00		8.43	8.43		35.79	35.79		74.8	75.5		5.94	5.99		3.32	3.26		3	
24/02/2014	21:08	Cloudy	Middle	2	17.10	17.10	17.10	8.27	8.27	8.27	32.98	32.98	32.98	82.4	83.4	81.9	6.51	6.68	6.50	3.80	3.97	3.92	4	4.5
	21:09		Middle	2	17.10	17.10		8.26	8.26		32.98	32.98		81.3	80.4		6.43	6.36		3.92	3.99		5	
26/02/2014	23:31	Cloudy	Middle	2	18.00	18.00	18.00	8.17	8.17	8.17	32.79	32.79	32.79	80.0	81.3	81.1	6.22	6.31	6.30	2.86	3.01	2.92	4	4.5
	23:32		Middle	2	18.00	18.00		8.16	8.16		32.78	32.78		81.9	81.3		6.36	6.32		2.84	2.97		5	
28/02/2014	12:20	Cloudy	Middle	3	17.70	17.70	17.70	8.44	8.44	8.44	35.93	35.93	35.93	86.8	86.8	86.8	6.65	6.65	6.65	3.92	3.92	3.92	2	3.0
	12:22		Middle	3	17.70	17.70		8.44	8.44		35.93	35.93		87.0	86.6		6.67	6.63		3.91	3.92		4	

Graphic Presentation of Water Quality Result of WSD9 - Tai Wan

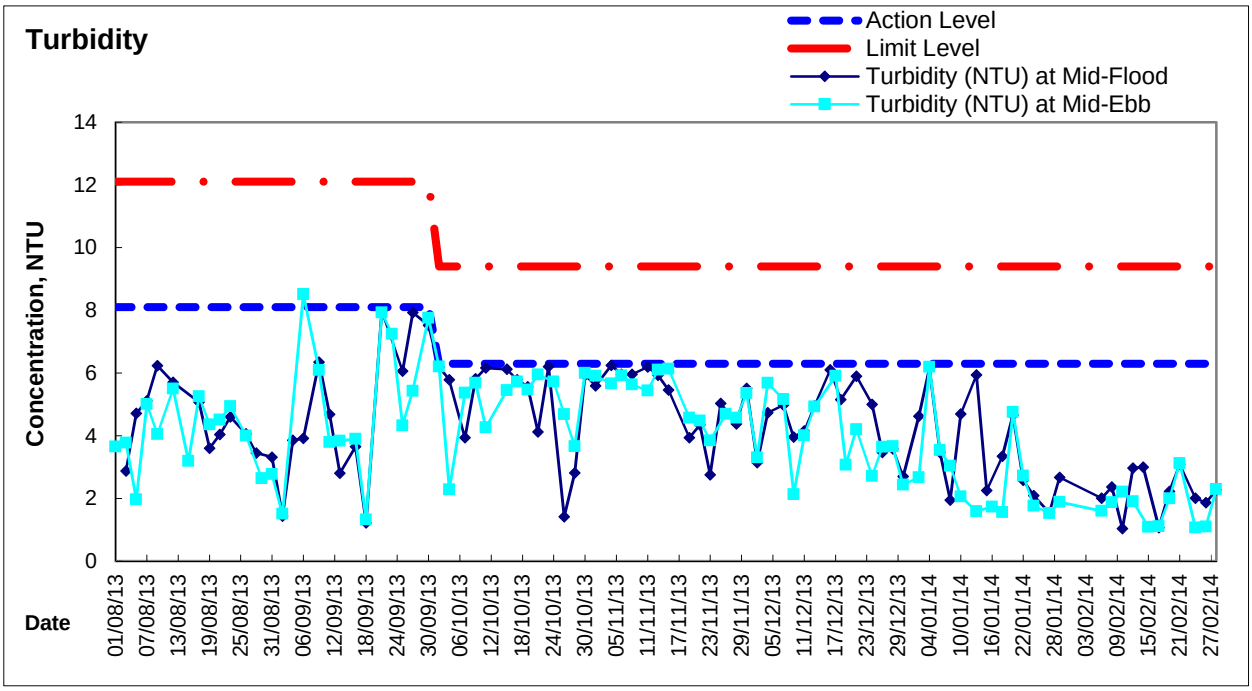


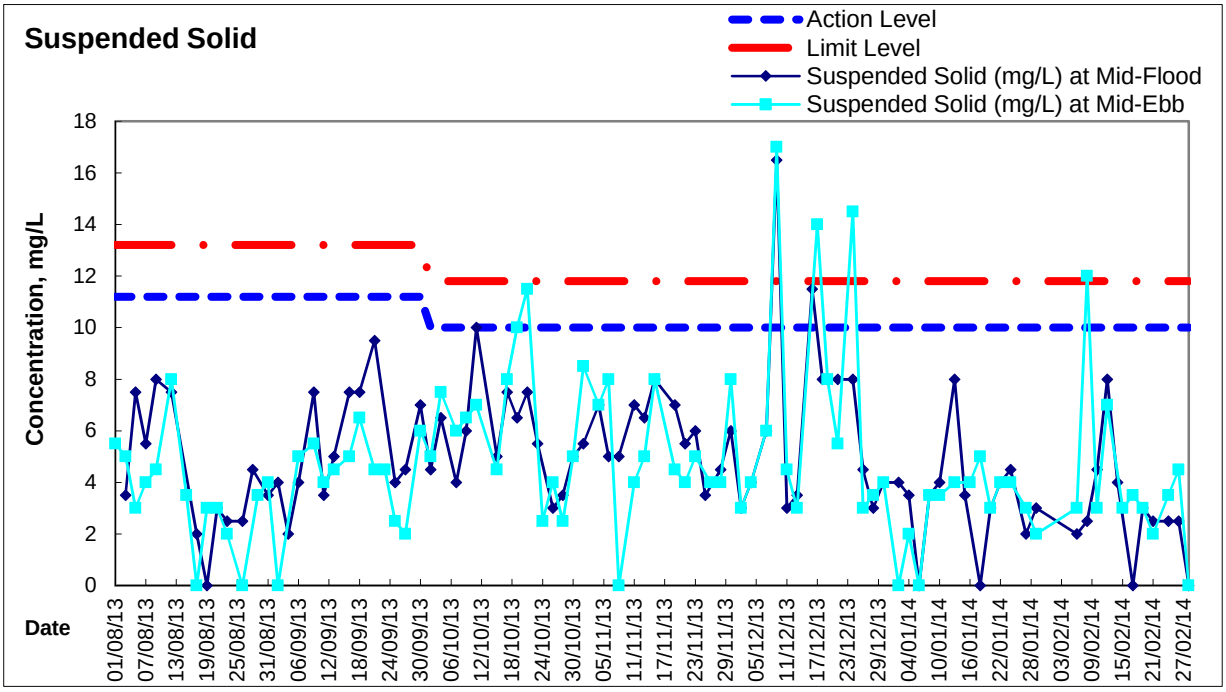


Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD10 - Cha Kwo Ling

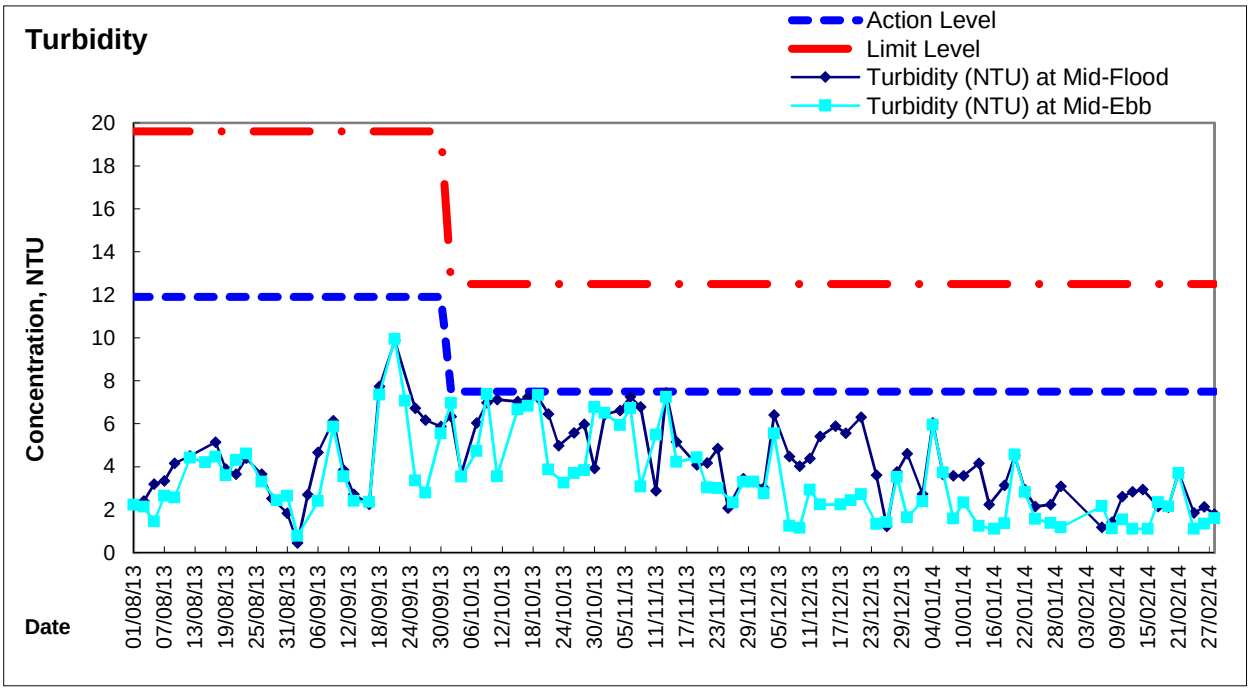


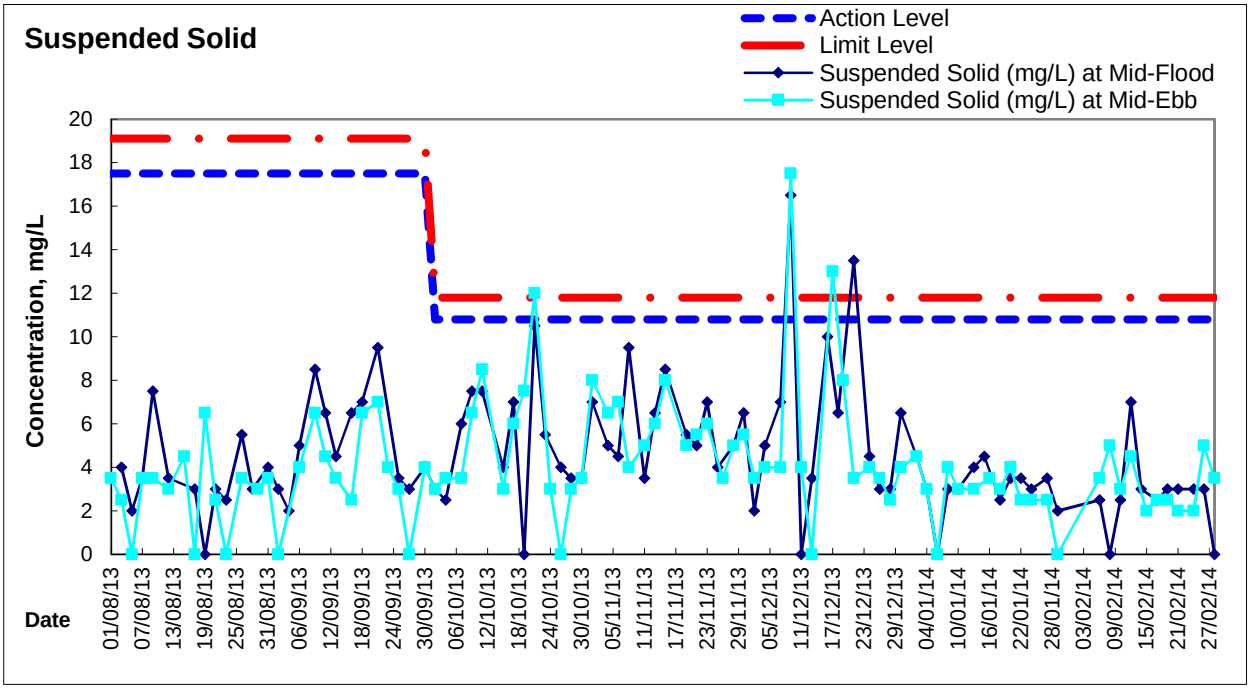


Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD15 - Sai Wan Ho

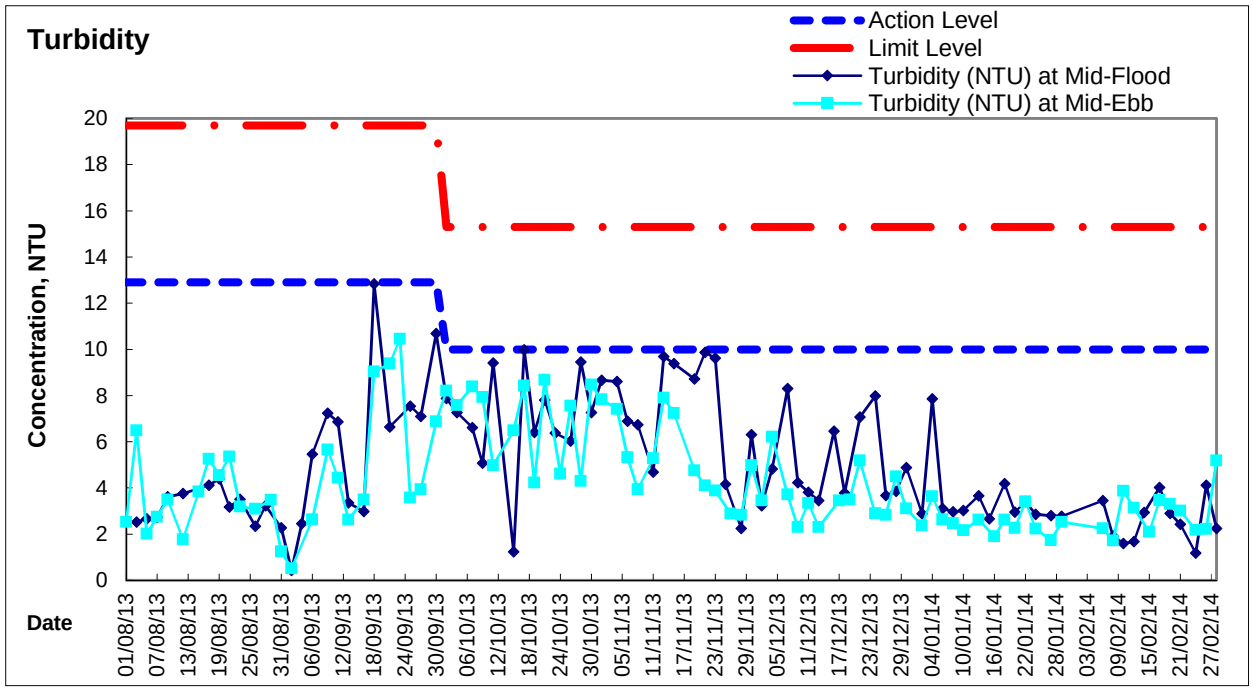


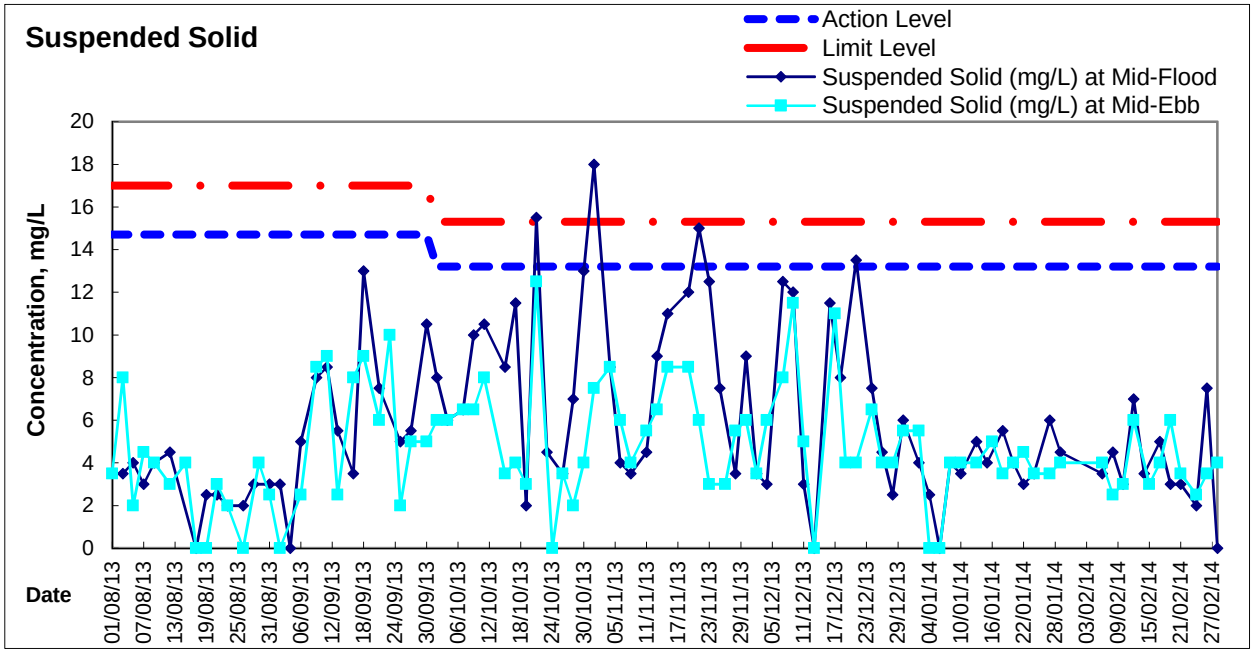


Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD17 - Quarry Bay

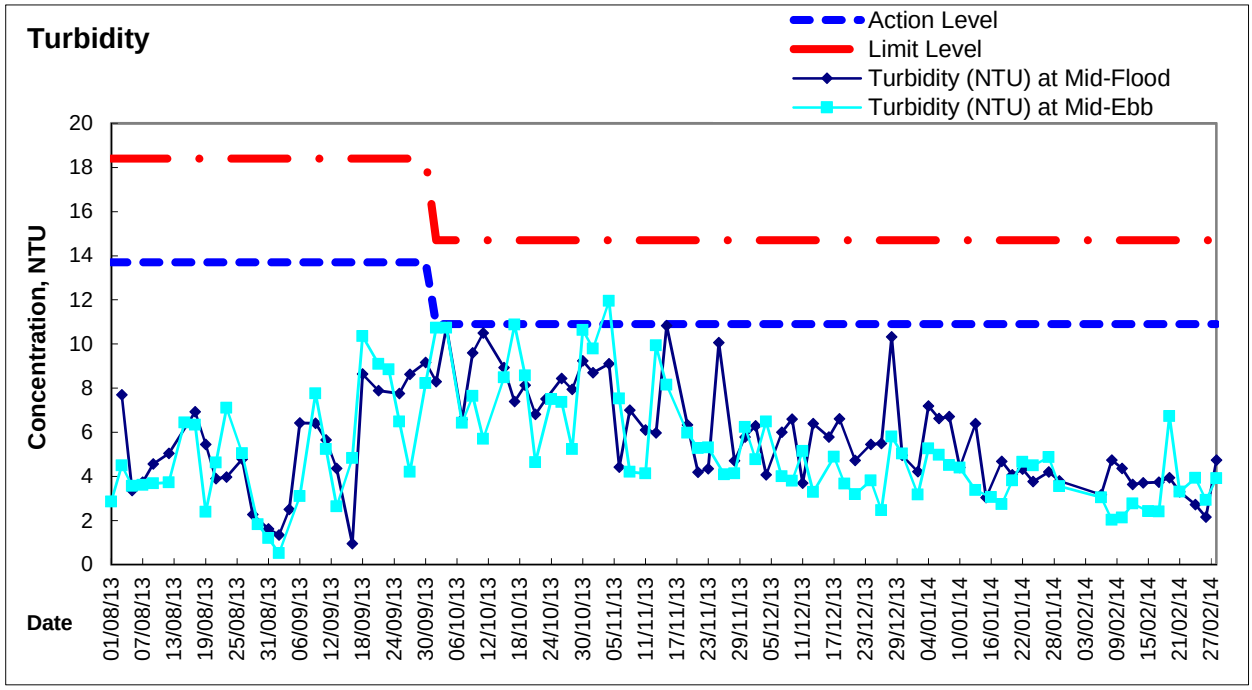


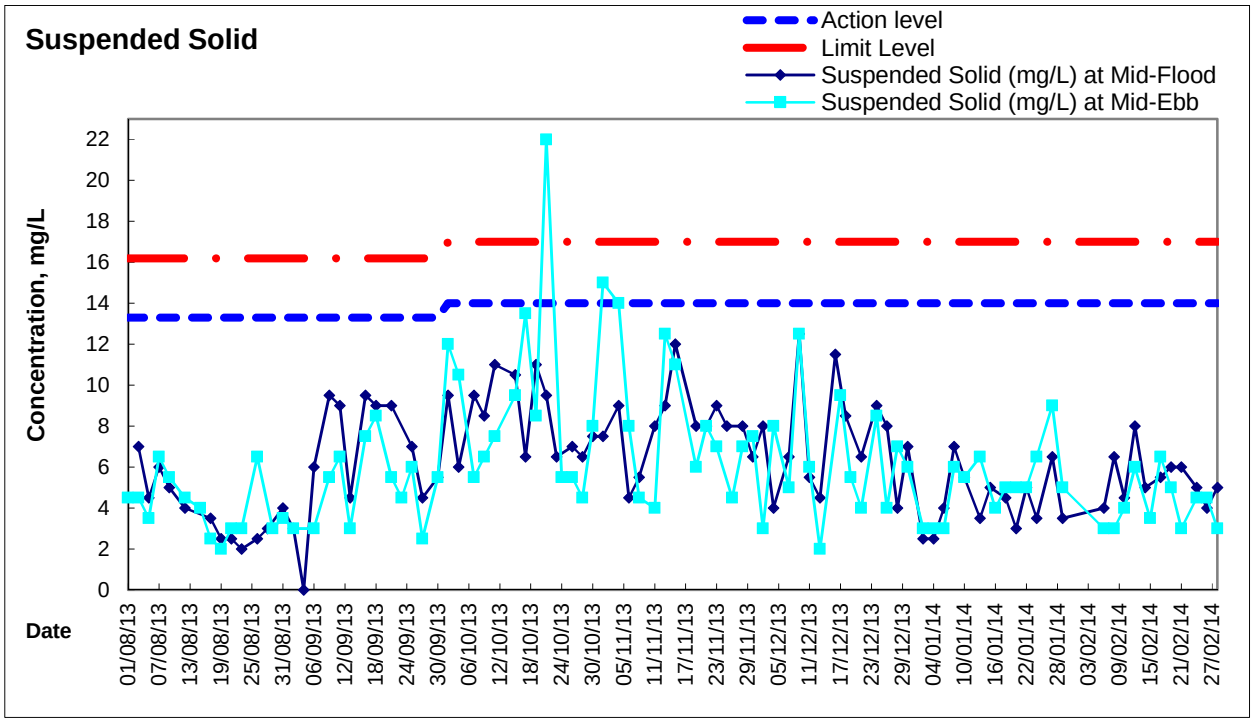


Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

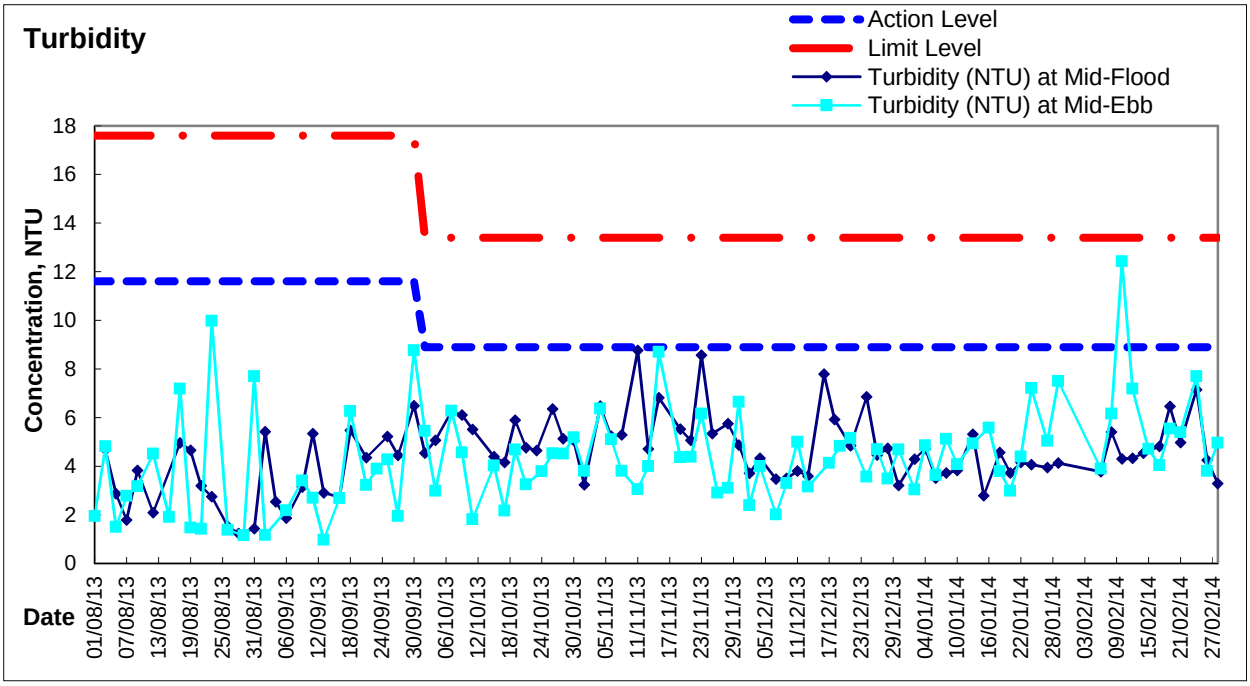


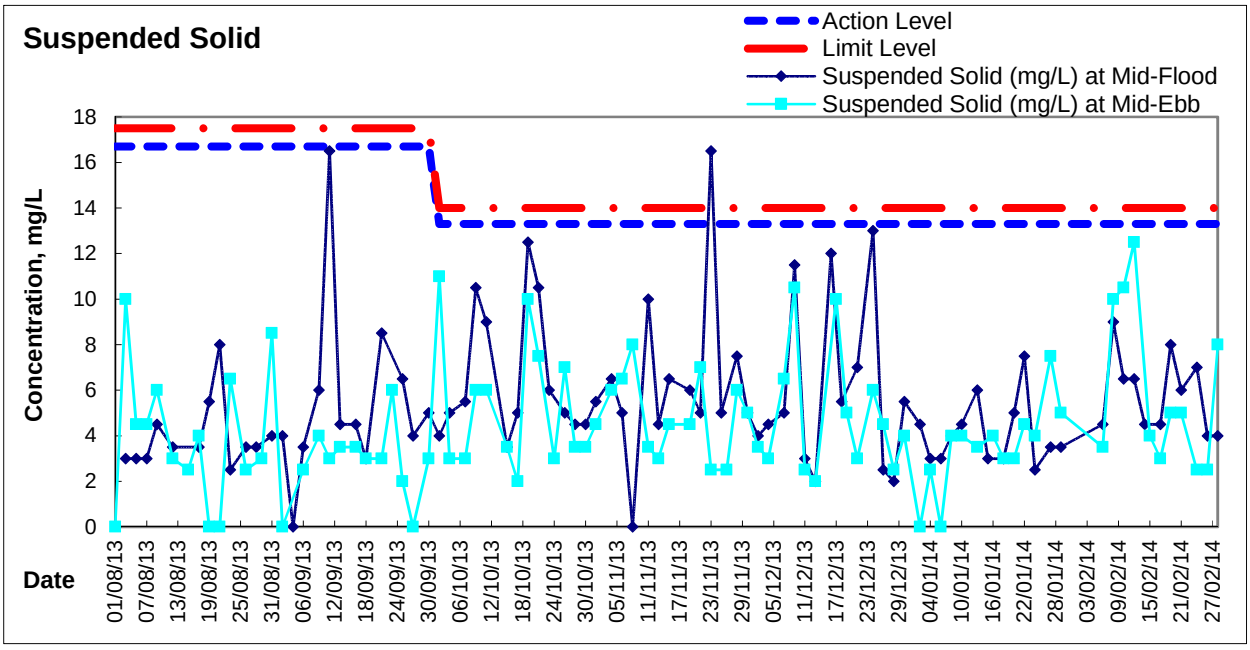


Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD21 - Wan Chai





Remarks:

- Two sets of Suspended Solid Action and Limit levels for the dry season (October to March) and wet season (April to September).
- New sets of Turbidity and SS Action Level and Limit Level for dry and wet season were approved by EPD on 19 Oct 2011
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Appendix 5.3

Event and Action Plan

Event and Action Plan for Construction Noise

EVENT	ACTION			
	ET	IC(E)	ER	CONTRACTOR
Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated.

Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	1. Repeat in-situ 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.	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)	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)	1. Inform the 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 propose 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 consecutive sampling days	1. Identify source(s) of impact; 2. Inform IEC and Contractor; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss mitigation measures with IEC and Contractor;	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness	1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and

EVENT	ACTION			
	ET	IEC	ER	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 working day of exceedance.	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)	of the implemented mitigation measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified)	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 propose 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)

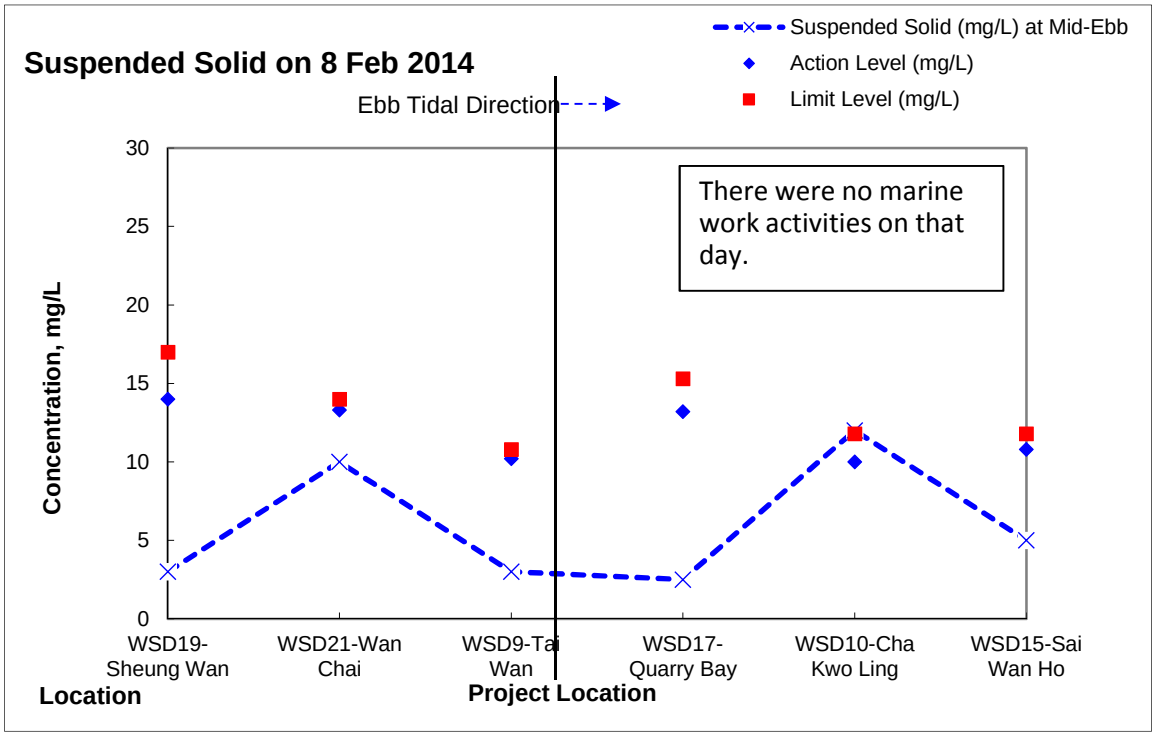
EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level. 8. (The above actions should be taken within 1 working day after the exceedance is identified)	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)	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures. 5. (The above actions should be taken within 1 working day after the exceedance is identified)	1. Inform the Engineer 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, IEC and ER and propose 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)

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by more than one consecutive sampling days	1. Identify source(s) of impact; 2. Inform IEC, Contractor and EPD; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss mitigation measures with IEC, ER and Contractor; 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)	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)	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. 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)	1. Inform the 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 , IEC and ER and propose 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 the marine work or construction activities. 8. (The above actions should be taken within 1 working day after the exceedance is identified)

Appendix 5.4

Graphic Presentation of SS Results against to Tidal Movement along Victoria Harbour

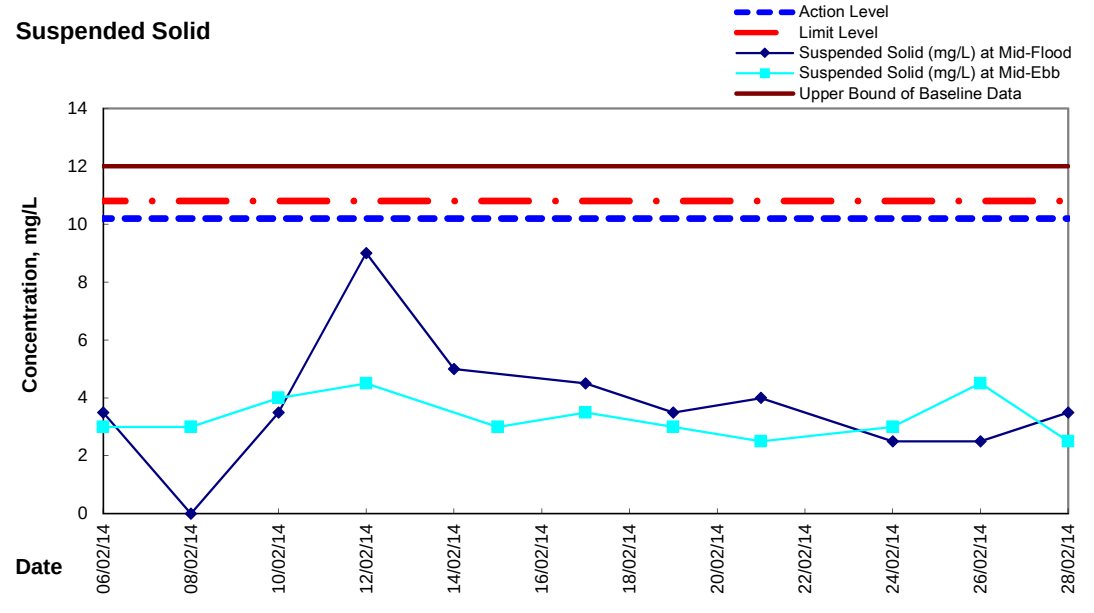
Graphic Presentation of SS Results Against the Tidal Movement along Victoria Harbour



Appendix 5.5

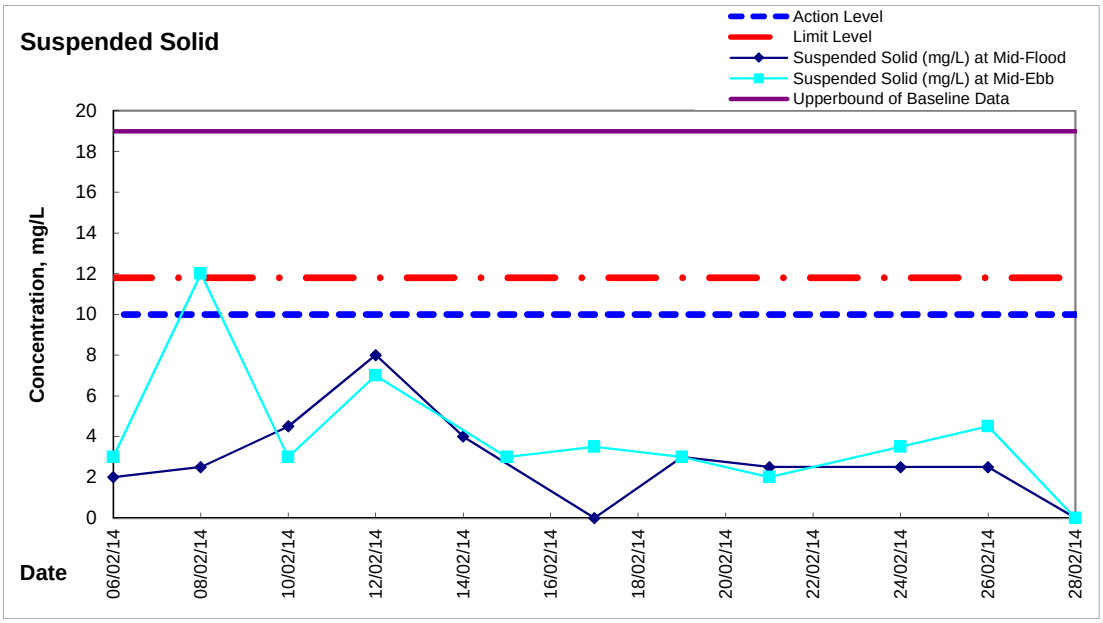
Graphic Presentation of Water Quality Result with respect to Local Variation

Graphic Presentation of Water Quality Result of WSD9 - Tai Wan with respect to Local Variation



Remarks: WSD9 is located at upstream during the ebb tides while at downstream during flood tides.

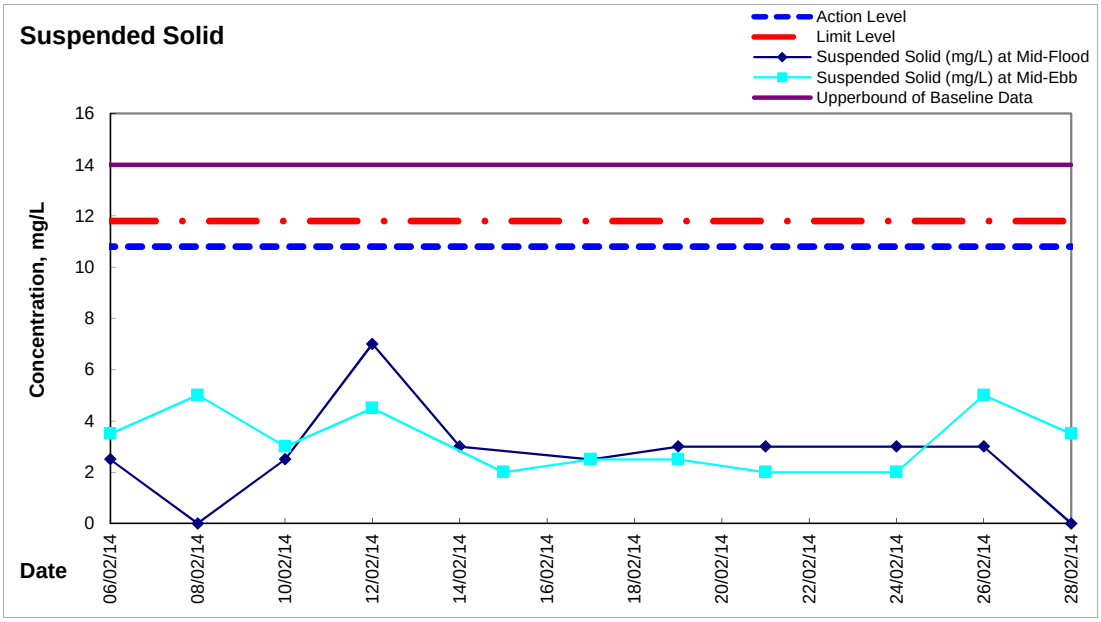
Graphic Presentation of Water Quality Result of WSD10 - Cha Kwo Ling with respect to Local Variation



Remarks: WSD10 is located at upstream during the flood tides while at downstream during ebb tides.

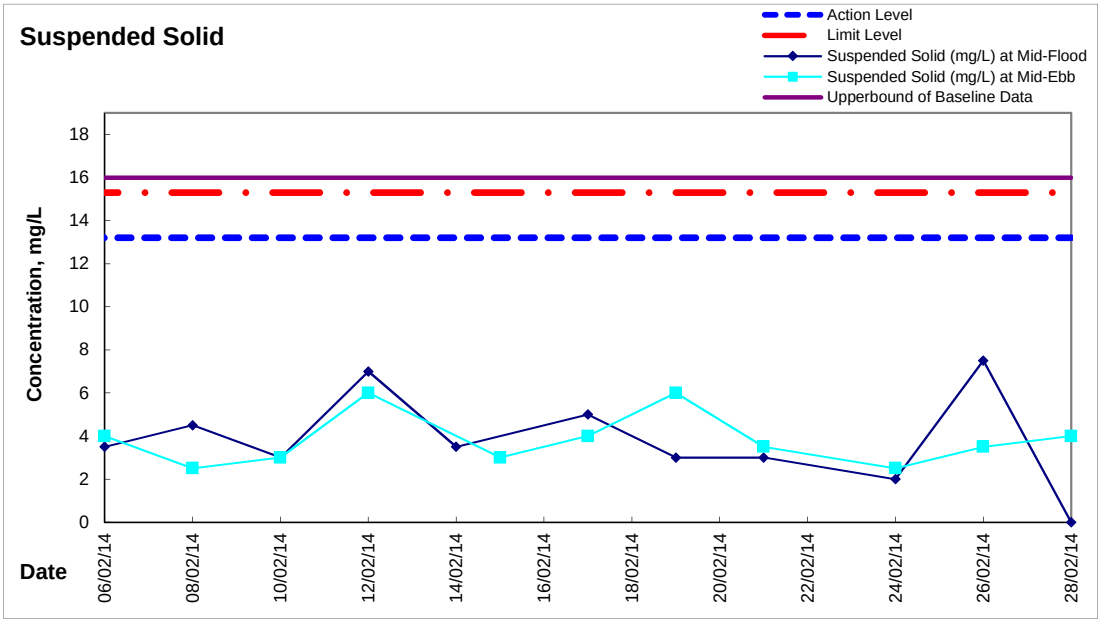
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD15 - Sai Wan Ho with respect to Local Variation



Remarks: WSD15 is located at upstream during the flood tides while at downstream during ebb tides.

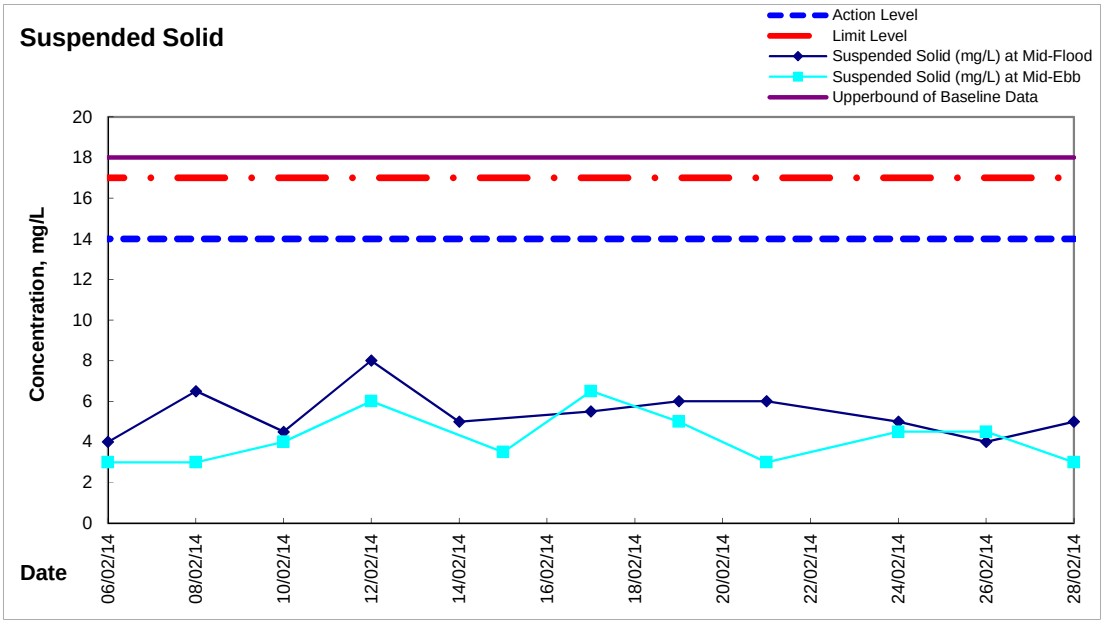
Graphic Presentation of Water Quality Result of WSD17 - Quarry Bay with respect to Local Variation



Remarks: WSD17 is located at upstream during the flood tides while at downstream during ebb tides.

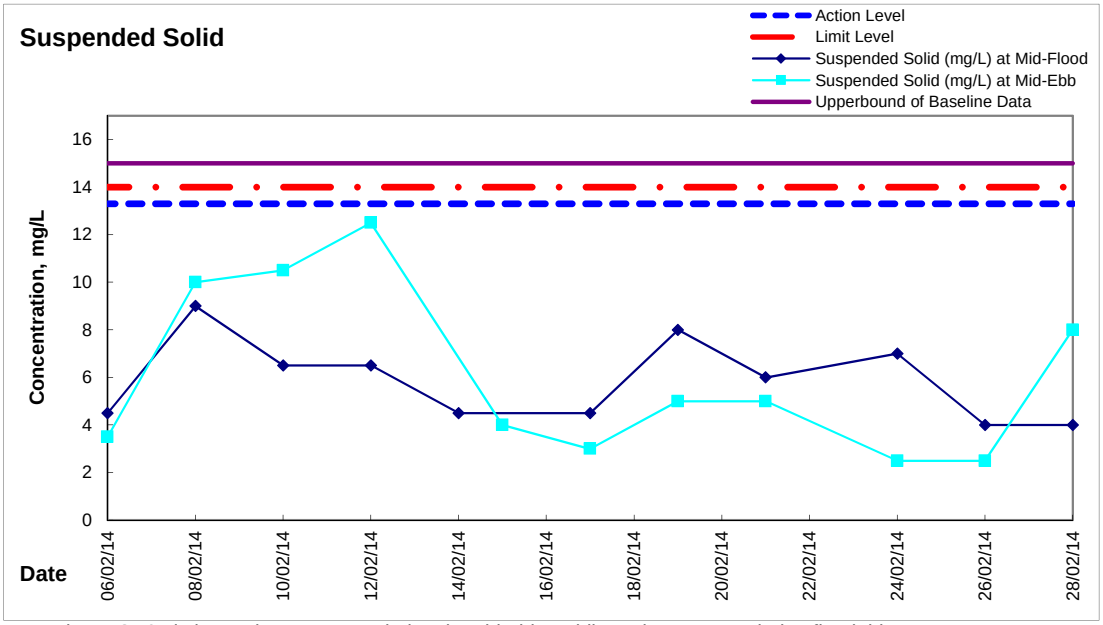
- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan with respect to Local Variation



Remarks: WSD19 is located at upstream during the ebb tides while at downstream during flood tides.

Graphic Presentation of Water Quality Result of WSD21 - Wan Chai with respect to Local Variation



Remarks: WSD21 is located at upstream during the ebb tides while at downstream during flood tides.

- With respect to the Chinese New Year Holiday and the information provided by the Contractor, the construction site was closed from 31 Jan 2014 to 4 Feb 2014. The water quality monitoring event on 31 Jan 2014 and 4 Feb 2014 was temporarily suspended.

Appendix 5.6

Details of Notification of Exceedances

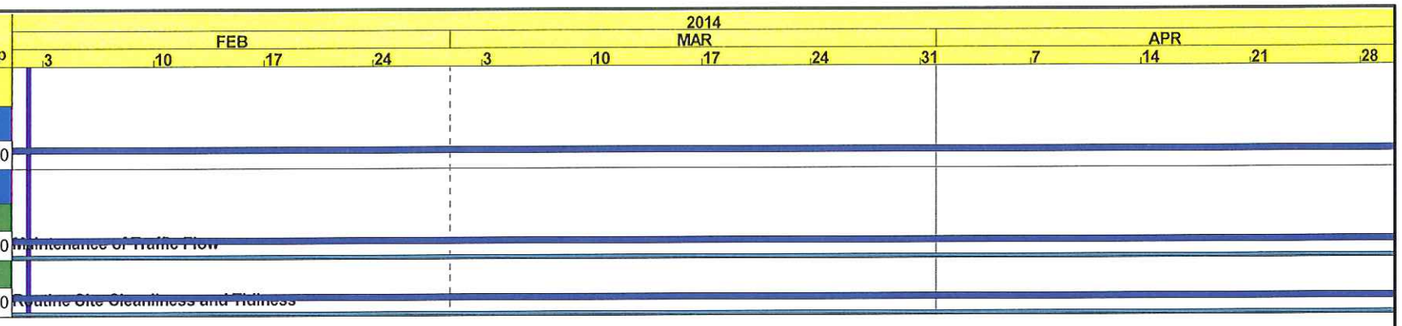
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Average	Action Level	Limit Level	Level of Exceedance	Follow-up action	
X322	10-Feb-14	Mid-ebb	WSD21	Turbidity (NTU)	**12.4**	8.9	13.4	Action Level	Action taken / to be taken: Possible reason: Remarks / Other Obs:	Reviewed the trend of monitoring results and checked contractor's construction activities. Silt screen was inspected and confirmed in a proper condition during the water monitoring. Any abnormal observation should be recorded, but no sign of traceable source was visualized and identified during monitoring. Localized impact or changes in ambient conditions Since WSD21 was located at the upstream of the Project, it is considered that the exceedance was not caused by the Project works and may be caused by influences in the vicinity of the station, discharge from nearby nullah or changes in ambient conditions at upstream. No exceedance in turbidity was recorded at the next monitoring tide (12 Feb flood-tide was 4.3 NTU). It is concluded that the source of impact was due to variations or changes around WSD21 and not related to the project work. Hence, no further mitigation nor repeated measurement under the EAP is required.
X323	08-Feb-14	Mid-ebb	WSD10	SS (mg/L)	**12.0**	10.0	11.8	Limit Level	Action taken / to be taken: Possible reason: Remarks / Other Obs:	Reviewed the trend of monitoring results and checked contractor's construction activities. Silt screen was inspected and confirmed in a proper condition during the water monitoring. Any abnormal observation should be recorded, but no sign of traceable source was visualized and identified during monitoring. Localized impact or changes in ambient conditions. There were no marine works conducted by the contractor on that day. At WSD17, the immediate downstream station, there was no exceedance of SS and no rising of SS level after passing through the project site. No further exceedance of SS was recorded in the consecutive monitoring (10 Feb flood tide was 4.5mg/L). It is concluded that the exceedance was not caused by the Project works and may be caused by variations of water quality in the vicinity of the station, potential discharge from nearby nullah. Hence, no further mitigation nor repeated measurement under the EAP is required.

Appendix 9.0

Construction Programme

Activity ID	Activity Description	Orig Dur	Early Start	Late Start	Early Finish	Late Finish	Total Float	% Comp
Site Formation KT Cruise Terminal Development								
Contract Period								
PD1400	Maintenance	1,495	02/01/14A	02/01/14A	02/01/15A	02/01/15A		100
Preliminaries & General Requirements								
Temporary Accommodation								
TA1070	Maintenance of Traffic Flow	1,344	28/02/10A	28/02/10A	01/01/15A	01/01/15A		100
Mobilization & Site Clearance								
MP1020	Routine Site Cleanliness and Tidiness	1,484	30/11/09A	30/11/09A	02/01/15A	02/01/15A		100



PENTA-OCEAN CONSTRUCTION CO., LTD. 五洋建設

?Primavera Systems, Inc.

Early Bar
Target
Progress Bar
Critical Activity

KTAP

Sheet 1 of 1

Penta-Ocean Construction Co., Ltd.

CEDD Contract No. KL/2009/01
Site Formation for Kai Tak Cruise Terminal Development
Three Months Rolling Programme
(February 2014 to April 2014)

Start Date	30/11/09
Finish Date	01/02/14
Data Date	02/02/14
Run Date	01/03/14 14:32

Date	Revision	Checked	Approved
31/05/11	K	TM	WT
10/10/12	L	TT	KT