KWAN ON CONSTRUCTION CO. LTD.

Contract No. YL/2009/01
Hang Hau Tsuen Channel
at Lau Fau Shan

Monthly Environmental Monitoring and Audit Report
December 2012

(Version 1.1)

Certified By

(Environmental Team Leader)

REMARKS:

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

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ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
CEDD	Civil Engineering & Development Department
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HVS	High Volume Sampler
IEC	Independent Environmental Checker
RE	Resident Engineer
RH	Relative Humidity
TSP	Total Suspended Particulates
QA/QC	Quality Assurance / Quality Control
SLM	Sound Level Meter
WMP	Waste Management Plan

EXECUTIVE SUMMARY

Introduction

1. This is the Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for CEDD's Civil Contract No. YL/2009/01 "Hang Hau Channel at Lau Fau Shan" under an Environmental Permit (Permit No. EP-343/2009). This report documents the findings of EM&A Works conducted in December 2012.

2. The site activities undertaken for in the reporting month included:

- Tree transplanting work in progress;
- Laying of Street light U/G ducting and draw pit construction in progress;
- Irrigation pipe installation and water point construction;
- Installation of street furniture such as traffic post, water meter box etc.; and
- Water sampling test of DN 150 D.I. pipe laying work at Northern bank.

Environmental Monitoring Works

3. Environmental monitoring was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

4. Summary of the non-compliance of the reporting month is tabulated in Table I.

Table I Summary Table for Non-compliance Recorded in the Reporting Month

Parameter	No. of Exceedance		No. of Exceedance Due to the Project		Action Taken
	Action Level	Limit Level	Action Level	Limit Level	
1-hr TSP	0	0	0	0	N/A
24-hr TSP	0	0	0	0	N/A
Noise	0	0	0	0	N/A
Water	0	0	0	0	N/A

1-hour TSP Monitoring

5. All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

6. All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

7. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Water Quality

8. All water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

9. Licenses/Permits granted to the Project include the Environmental Permit (EP); waste water discharge licence; and waste Producer under Waste Disposal (Chemical Waste) (General) Regulation for the Project. Permits under Dumping at Sea Ordinance with No. EP/MD/11-006 and EP/MD/11-045 are expired.

Key Information in the Reporting Month

10. Summary of key information in the reporting month is tabulated in Table II.

Key Information in the EIA Report

11. According to the EIA Report, air quality, noise, water quality, ecology and landscape and visual would be the key environmental issues during the construction and operation of the Hang Hau Tsuen Channel. Details of the implementation of mitigation measures are provided in the **Appendix M**.

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---
Future Key Issues: Major site activities for the coming two months include: • Installation of street furniture such as traffic post, water meter box etc.; • Planting work; • Construction of additional cat ladder and concrete apron; and • Road marking.					

1. INTRODUCTION

Background

1.1 The Project comprises the construction of the Hang Hau Tsuen Channel and associated works to improve the local drainage systems in the Hang Hau Tsuen area. The Project is located in Hang Hau Tsuen at Lau Fau Shan, North West New Territories. It is located between Deep Bay Road and Deep Bay. The general location plan of the Project is shown in Figure 1.

1.2 The Project is a designated project (Register No.: AEIAR-134/2009) and an Environmental Permit (Permit No. EP-343/2009) was issued on 21st May 2009 to the Civil Engineering and Development Department (hereinafter called the CEDD) as the Permit Holder.

1.3 The implementation programme for the Project is tentatively expected to start in end 2009 for completion by end 2012.

1.4 Kwan On Construction Company Limited (hereafter called the Contractor) was commissioned by the CEDD to undertake the construction of the Contract No.YL/2009/01 "Hang Hau Channel at Lau Fau Shan"

1.5 Cinotech Consultants Limited was commissioned by Kawn On Construction Co. Ltd. to undertake the Environmental Monitoring and Audit (EM&A) works for "Hang Hau Tsuen Channel at Lau Fau Shan" and was appointed as the Environmental Team (ET) of the Project under Condition 2.1 of the EP.

1.6 This is the monthly EM&A report summarizing the EM&A works conducted for the Project in December 2012.

Project Organizations

1.7 Different parties with different levels of involvement in the project organization include:

- Project Proponent – Civil Engineering & Development Department (CEDD).
- Engineer's Representative (ER) –Black & Veatch Hong Kong Ltd (B&V).
- Environmental Team (ET) – Cinotech Consultants Limited (Cinotech).
- Independent Environmental Checker (IEC) – ENVIRON Hong Kong Limited (ENVIRON).
- Contractor – Kwan On Construction Co. Ltd. (Kwan On).

1.8 The responsibilities of respective parties are detailed in Sections 1.6 of the EM&A Manual of the Project.

1.9 The key contacts of the Project are shown in Table 1.1 and the organization chart of ET is shown in **Figure 5**.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
CEDD	Permit Holder	Mr. Y.M. Chan	Chief Engineer	2158 5612	2693 2918
		Mr. CK Choi	Engineer	2158 5613	
B&V	Engineer	Mr. Kelvin Lau	Director	2601 1000	2601 3988
	Engineer's Representative	Mr. Victor Go	Resident Engineer	2475 4871/ 9686 4575	2470 3266
		Mr. Vincent Wan	Assistant Resident Engineer	2442 8007/ 61178711	
		Mr. Tim Law	AIOW	2475 4871/ 9845 6346	
Cinotech	Environmental Team	Dr. Priscilla Choy	ET Leader	2151 2089	3107 1388
		Mr. Gary Lau	Project Coordinator & Audit Team Leader	2151 2098	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
ENVIRON	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	3743 0717/ 9019 3740	3548 6988
		Mr. Tony Cheng	Deputy Independent Environmental Checker	3743 0722	
		Mr. Carson Chan	IEC Team Member	3743 0709	
Kwan On	Contractor	Mr. Ambrose Kwong	Project Director	2889 2675	2558 6900
		Mr. P.H Ho	Project Manager	2889 2675	
		Mr. K.L. Lee	Site Agent	6113 6926	
		Mr. Michael Chung	Environmental Manager	6198 7781	
		Ms. Joey Wong	Environmental Officer	6108 7906	

Construction Programme

1.10 The site activities undertaken in the reporting month included:

- Tree transplanting work in progress;
- Laying of Street light U/G ducting and draw pit construction in progress;
- Irrigation pipe installation and water point construction;
- Installation of street furniture such as traffic post, water meter box etc.; and
- Water sampling test of DN 150 D.I. pipe laying work at Northern bank.

Summary of EM&A Requirements

1.11 The EM&A programme requires construction phase monitoring for air quality and construction noise, water quality, landscape and visual and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;

- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 5 of this report.

1.13 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely dust, noise levels, water quality, and audit works conducted for the Project in December 2012.

2. AIR QUALITY

Monitoring Requirements

2.1 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality. Appendix A shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2 Two designated monitoring stations, A1a and A2 were selected for impact dust monitoring. Table 2.1 describes the air quality monitoring locations, which are also depicted in Figure 2.

Table 2.1 Locations for Air Quality Monitoring

Monitoring Station	Description	Location of Measurement
A1a*	Village house at No. 88 Hang Hau Tsuen	At the outdoor area of the Village house at No. 88 Hang Hau Tsuen
A2**	Village house at No.29 Hang Hau Tsuen	At the outdoor area of the Village house at No. 29 Hang Hau Tsuen
A2b***	Village house at No.84 Hang Hau Tsuen	At the outdoor area of the Village house at No. 84 Hang Hau Tsuen

* Alternative location for Air Quality Monitoring Station A1.

** Air Quality Monitoring Station A2 (Village house at No.57 Hang Hau Tsuen) was not identifiable and therefore Village house at No. 29 Hang Hau Tsuen was proposed as the alternative station.

*** The monitoring works for Air Quality Monitoring Station at A2 have been replaced with A2b (Village house at No.84 Hang Hau Tsuen) from 15th July 2010. A2b (24-TSP) is temporarily suspended after 19 March 2011 due to stopping of the High Volume Sampler requested by the house's owner but resumed in normal state on 25 May 2011 afterward.

Monitoring Equipment

2.3 Table 2.2 summarizes the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in Appendix B.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Qty.
HVS Sampler	Tisch Environmental, Inc.; Model no. TE-5170	2
Laser Dust Monitor	Sibata, Model no. LD-3B AErocet-501	5
Calibrator	Thermo Andersen; Model no.: G25A	1

Monitoring Parameters, Frequency and Duration

2.4 Table 2.3 summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period is shown in Appendix D.

Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Period	Frequency
All monitoring locations	1-hour TSP	0700-1900	3 times/ every 6 days
	24-hour TSP	0000-2400	once in every 6 days

Monitoring Methodology and QA/QC Procedure

1-hour TSP Monitoring

Measuring Procedures

2.5 The measuring procedures of the 1-hour dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

- Pull up the air sampling inlet cover
- Change the Mode 0 to BG with once
- Push Start/Stop switch once
- Turn the knob to SENSI.ADJ and press it
- Push Start/Stop switch once
- Return the knob to the position MEASURE slowly
- Push the timer set switch to set measuring time
- Remove the cap and make a measurement

Maintenance/Calibration

2.6 The following maintenance/calibration was required for the direct dust meters:

- Check the meter at a 3-month interval and calibrate the meter at a 1-year interval throughout all stages of the air quality monitoring.

24-hour TSP Monitoring

Instrumentation

2.7 High volume (HVS) samplers (Model no. TE-5170) completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in section 2.3.1 of the EM&A Manual.

Operating/Analytical Procedures

2.8 Operating/analytical procedures for the operation of HVS were as follows:

- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.

- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The sampler was more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

2.9 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

2.10 For TSP sampling, fiberglass filters were used [Note: these filters have a collection efficiency of > 99% for particles of 0.3 mm diameter].

2.11 The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.

2.12 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

2.13 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

2.14 The shelter lid was closed and secured with the aluminum strip.

2.15 The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).

2.16 After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.

2.17 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.
Maintenance/Calibration

2.18 The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate

maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.

- High volume samplers were calibrated at bi-monthly intervals using Calibration Kit (Tisch Environmental, Inc.; Model no.TE-5025A) throughout all stages of the air quality monitoring.

Results and Observations

2.19 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in Appendix I.

2.20 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in Appendix I.

2.21 Alternative air quality monitoring station A2b (village house at No.84 Hang Hau Tsuen) was proposed for the replacement of station A2 (village house at No.29 Hang Hau Tsuen) to the EPD on 20 April 2010 for approval.

2.22 Referring to Email reply from EPD dated on 17 May 2010, no further comment from EPD was received for replacement of station A2 by A2b. The air quality monitoring works at A2b has been started from 15 July 2010.

2.23 The house's owners at A2b reported that the sound from the operating High volume sampler (HVS) might cause disturbance. Stopping the sampler is requested. 24-hour TSP is temporarily suspended after 19 Mar 2011 while 1-hour TSP is in normal state.

2.24 Referring to the letter sent to EPD by courier on 15 April 2011 and a copy of fax from CEDD to EPD on 18 May 2011, the shifting process of A2b was proposed and there is no need for approval from EPD. The course of action was completed and the 24-hour TSP monitoring has resumed in normal state on 25 May 2011.

2.25 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in Appendices E and F respectively.

2.26 In accordance with Condition 4.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website http://www.cinotech.com.hk/projects/LFS.

2.27 According to our field observations, the identified dust sources at the monitoring stations were mainly generated when loading materials and vehicles movement.

3. NOISE

Monitoring Requirements

3.1 Two noise monitoring stations, namely N2 and N3 were designated in the EM&A Manual for impact monitoring. Appendix A shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at two designated monitoring stations as listed in Table 3.1. Figure 3 shows the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Station	Description	Location of Measurement
N2	Village house at No.84 Hang Hau Tsuen	At the outdoor area of Village house at No.84 Hang Hau Tsuen
N3	Village house at No. 88 Hang Hau Tsuen	At the outdoor area of Village house at No. 88 Hang Hau Tsuen

Remarks: Noise Monitoring Station N1 (Wing Jan Kindergarten) was cancelled because it was found abandoned.

Monitoring Equipment

3.3 Table 3.2 summarizes the noise monitoring equipment. Copies of calibration certificates are provided in Appendix B.

Table 3.2 Noise Monitoring Equipment

Equipment	Model and Make	Quantity
Integrating Sound Level Meter	SVANTEK: SVAN 955	1
Acoustical Calibrator	SVANTEK: SV30A	1
RS232 Integral Vane Digital Anemometer	AZ Instrument: AZ8904	1

Monitoring Parameters, Frequency and Duration

3.4 Table 3.3 summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in Appendix D.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter	Period	Frequency	Measurement
N2	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	0700-1900 hrs. on weekdays	Once per week	Free Field
N3				Free Field

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was set on a tripod at a height of 1.2 m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused temporarily during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

Maintenance and Calibration

3.5 The microphone head of the sound level meter and calibrator was cleaned with soft cloth regularly.

3.6 The meters were sent to laboratory to check and calibrate on a yearly interval.

Results and Observations

3.7 All construction noise monitoring at two designated locations were conducted as scheduled in the reporting month.

3.8 No Action/Limit Level exceedance was recorded in the reporting month. Summary of exceedance is presented in Appendix I.

3.9 The proposal of the cancellation of Noise Monitoring Station N1 (Wing Jan Kindergarten) was approved by the EPD on 1 April 2010.

3.10 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = Measured CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the allowed CNL at each designated noise monitoring station are presented at Table 3.4.

3.11 Noise monitoring results and graphical presentations are shown in Appendix G. In accordance with Condition 4.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website http://www.cinotech.com.hk/projects/LFS.

3.12 The major noise sources identified at the designated noise monitoring stations were road noise and human activities.

Table 3.4 Baseline Noise Level and Allowed Construction Noise Level for Monitoring Stations

Station	Baseline Noise Level, dB (A)	Allowed CNL, dB (A)
N2 - Village house at No.84 Hang Hau Tsuen	57	75
N3 - Village house at No.88 Hang Hau Tsuen	58	

4. WATER QUALITY

Monitoring Requirements

4.1 Temperature, pH, Turbidity, Water Depth, Salinity, DO and SS monitoring were conducted to monitor the water quality. Appendix A shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

4.2 In accordance with the requirements set out in the approved EM&A Manual, seven water quality monitoring locations (W1, W2, W3, W4, W5, W6 and W7) were specified for baseline water quality monitoring. Table 4.1 describes the locations of these monitoring locations. The locations are also shown in Figure 4.

Table 4.1 Locations for Water Quality Monitoring

Monitoring Stations	Description	Purpose of Placing Sampling Station	Coordinates	
			N = Northing	E = Easting
W1	Downstream of the works immediately at the discharge point to Deep Bay	Monitor and audit potential impacts from the works, check water quality discharging to Deep Bay, impact station	836095	816023
W2	Near the oyster bed in Deep Bay	Monitor and audit potential impacts from the works, check water quality discharging to Deep Bay, impact station	836276	815791
W3	Near the oyster bed in Deep Bay	Monitor and audit potential impacts from the works, check water quality discharging to Deep Bay, impact station	836076	815673
W4	Immediate downstream of any specific works within Hang Hau Tsuen channel	Temporary / mobile station to monitor and audit potential impacts from any specific works, check water quality discharging to Deep Bay, impact station	See notes below	
W5	Upstream of the works at the confluence of San Hing Tsuen Channel and Fung Kong Tsuen Channel	Establish background water quality levels entering Hang Hau Tsuen stream, control station	836039	816390
W6	Waters of Deep Bay	Establish background water quality levels in Deep Bay, control station	836713	815496
W7	Waters of Deep Bay	Establish background water quality levels in Deep Bay, control station	835484	815174

Notes:
- Temporary / mobile station to be proposed by the Environmental Team Leader with reference to the contractor's working programme and works location.

Monitoring Equipment

4.3 Table 4.2 summarizes the equipment used in the water quality monitoring program. All the monitoring equipment complied with the specifications is stipulated in the Updated EM&A Manual. Copies of the calibration certificates of the equipment are shown in Appendix B.

Table 4.2 Water Quality Monitoring Equipment

Equipment	Model No. (Equipment No.)	Qty.
Sonde Environmental Monitoring System	YSI 6820-C-M (W.03.01) YSI 6920-M (W.03.03)	2

Monitoring Parameters, Frequency and Duration

4.4 Table 4.3 summarizes the monitoring parameters, monitoring period and frequencies of water quality monitoring.

Table 4.3 Frequency and Parameters of Water Quality Monitoring

Monitoring Stations	Parameters, unit (detection limit)	Depth	Frequency
All Monitoring Stations	• Temperature, °C (0.01°C) • pH, pH unit (0.01pH unit) • turbidity, NTU (0.1NTU) • water depth, m (0.001m) • salinity, mg/L (0.01ppt) • dissolved oxygen (DO), mg/L and % of saturation (0.01mg/L) • suspended solids (SS),mg/L) (0.5mg/L)	• 3 water depths: 1m below sea surface, mid-depth and 1m above sea bed. • If the water depth is less than 3m, mid-depth sampling only. • If water depth less than 6m, mid-depth may be omitted.	• 3 days per week at mid-flood and mid-ebb tides throughout construction phase.

Monitoring Methodology, Calibration Details and QA/QC Procedures

4.5 Multi-parameter meters (Model YSI 6820-C-M and YSI 6920-M) were used to measure DO, turbidity, salinity, pH and temperature.

4.6 At each measurement, two consecutive measurements of turbidity and pH were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.

4.7 For SS measurement, grab samples were collected. Water samples of about 500 ml were collected and stored in polyethylene bottles. The sample bottles were packed into an ice-box and delivered to a HOKLAS-accredited Laboratory, WELLAB Ltd., for the analysis of suspended solids contents within 24 hours.

Maintenance and Calibration

4.8 Before each round of monitoring, a zero check in distilled water was performed with the turbidity probe of YSI 6820-C-M/ YSI 6920-M. The probe was then calibrated with a solution of known NTU.

4.9 Quality Control Reports for SS analysis by the HOKLAS-accredited laboratory, WELLAB Ltd. are attached in Appendix C.

Results and Observations

4.10 All water quality monitoring were conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in Appendix I.

4.11 The monitoring data and graphical presentations of the monitoring results are shown in Appendix H.

4.12 Since the proposal of change of water quality monitoring station W2 and W3 was not approved by the EPD, all water quality monitoring stations will be maintained as that stated in the approved EM&A Manual.

4.13 In accordance with Condition 4.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website: http://www.cinotech.com.hk/projects/LFS.

5. ENVIRONMENTAL AUDIT

Site Audits

5.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in th*e* Project site.

5.2 Environmental site audits were conducted on 6, 13, 21 and 28 December 2012 in the reporting month. No non-compliance was observed during the site audits.

5.3 Site inspections were undertaken to ensure and check that the implementation and maintenance of landscape and visual mitigation measures are being properly carried out in the reporting month in accordance to section 8.3 of the EM&A Manual. No non-compliance was observed during the site inspections.

5.4 The summaries of site audits are attached in Appendix J.

Review of Environmental Monitoring Procedures

5.5 The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

Air Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations within and outside the construction site.
- The monitoring team recorded the temperature and weather conditions on the monitoring days.

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Water Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- The monitoring team recorded the weather condition on the monitoring day.

Status of Environmental Licensing and Permitting

5.6 All permits/licenses obtained for the Project are summarized in Table 5.1.

Table 5.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Status
	From	To		
Environmental Permit				
EP-343/2009	21/05/09	N/A	Waterways and drainage works for the Project - Hang Hau Tsuen Channel at Lau Fau Shan (Register No.: AEIAR-134/2009)	Valid
Wastewater Discharge License				
WT00006437-2010	13/04/10	30/04/15	Discharge of Industrial Trade Effluent at Deep Bay Water Control Zone	Valid
Waste Producer under Waste Disposal (Chemical Waste) (General) Regulation				
5123-513-K2958-01	16/01/10	N/A	Major Chemical Waste: Spent lubricating oil	Valid

Status of Waste Management

5.7 The amount of wastes generated by the activities of the Project in the reporting month is shown in Appendix K.

Implementation Status of Environmental Mitigation Measures

5.8 According to the EIA Report, air quality, noise, water quality, ecology and landscape and visual impact would be the key issues during the construction and operation of the Project. Details of the implementation of mitigation measures are provided in the Appendix M.

5.9 During the weekly environmental site inspections in the reporting period, no non-conformance was identified. The observations and recommendations for the Projects are summarized in Table 5.2.

Table 5.2 Observations and Recommendations of Site Audit

Parameters	Date (Ref. no.)	Observations	Remedial Actions
Water Quality	--	--	--
Air Quality	--	--	--
Waste / Chemical Management	--	--	--
Ecology	--	--	--
Noise	--	--	--
Landscape and Visual	--	--	--
Permit/ Licenses	--	--	--

Implementation Status of Event Action Plans

5.10 The Event Action Plans for air quality, noise and water quality are presented in Appendix L.

1-hr TSP

5.11 No Action/Limit Level exceedance was recorded.

24-hr TSP

5.12 No Action/Limit Level exceedance was recorded.

Construction Noise

5.13 No Action/Limit Level exceedance was recorded.

Water Quality

5.14 No Action/Limit Level exceedance was recorded.

Ecology

5.15 No non-compliance was recorded.

Landscape and Visual

5.16 No non-compliance was recorded.

Summary of Complaints and Prosecutions

5.17 No environmental complaint and prosecution was received for the Project in the reporting month.

5.18 There were no environmental complaint and prosecution received since the commencement of the Project. The Complaint Log is presented in Appendix N.

6. FUTURE KEY ISSUES

Key Issues for the Coming Month

6.1 Key environmental issues in the coming month include:

- Installation of street furniture such as traffic post, water meter box etc.;
- Planting work;
- Construction of additional cat ladder and concrete apron; and
- Road marking.

Monitoring Schedule for the Next Month

6.2 The tentative environmental monitoring schedules for the next month are shown in Appendix D.

Construction Program for the Next Month

6.3 The tentative construction program is provided in Appendix O.

7. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

7.1 Environmental monitoring and audit works were performed in the reporting month and all monitoring results were checked and reviewed.

1-hour TSP Monitoring

7.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

7.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

7.4 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Water Quality Monitoring

7.5 All water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Audit

7.6 Environmental site audits were conducted as weekly basis in the reporting month. No non-compliance was recorded.

Complaint and Prosecution

7.7 No environmental complaint and prosecution was received in the reporting month.

Recommendations

7.8 According to the environmental audit performed in the reporting month, the following recommendations were made:

Dust Impact

- To regularly maintain the machinery and vehicles on site;
- To follow up any exceedance caused by the construction works;
- To implement dust suppression measures on all haul roads, stockpiles, dried/unpaved surfaces and excavation/road breaking works; and
- To provide adequate wheel washing facilities at each exit.

Noise Impact

- To inspect the noise sources inside the site;
- To follow up any exceedance caused by the construction works;
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers; and

Water Impact

- To identify any discharge of wastewater from the construction site;
- To avoid any discharge of wastewater by-pass/ without the desilting facilities from the construction site;
- To regularly clear up and maintain the condition of u-channel, catch pits and wheel washing facilities on site;
- To regularly maintain the sediment control measures after rainstorms;
- To avoid water from accumulation on site and carry out larviciding against mosquito breeding for stagnant water when mosquito larvae are observed; and
- Containment structure shall be installed around the excavation area to facilitate a dry or confined excavation within the stream.

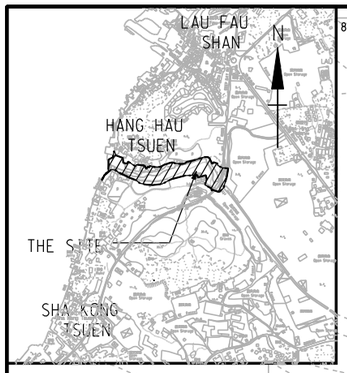
Waste/Chemical Management

- To provide proper rubbish bins / skips for waste collection;
- To check for any accumulation of wasted materials or rubbish on site;
- To avoid improper handling or storage of oil drum on site.

Air Quality

- Temporary stockpiles of excavated material shall be covered by tarpaulin or packed in plastic bags/enclosed skips and shall be removed off-site within 2 days; and
- Tightly sealed closed grab excavators shall be employed for conducting excavation works within the stream.

FIGURES



LOCATION PLAN

836 200 N A3 1 : 20000

836 300 N

816 100 E

816 200 E

816 300 E

816 400 E

836 100 N

836 000 N

835 900 N

坑口村
HANG HAU TSUEN

DEEP BAY ROAD

FUNG KONG TSUEN CHANNEL

露天貨倉
Open Storage

泥路
Track

Ramp 斜路

Sewer 渲渠

Stream Course 溪流

Graves 墳墓

骨灰龕

PO

FP

RCP

ESS

LEGEND

- SITE BOUNDARY
- PORTION A
- PORTION B
- PORTION D (A)

NOTES:

1. GRID LINES ARE HONG KONG METRIC GRID 1980.
2. THE EXACT BOUNDARY OF THE WORKS SITE AND THE WORKS AREA AND THE EXACT ALIGNMENT OF HOARDING AND SAFETY FENCE SHALL BE CONFIRMED BY THE ENGINEER ON SITE.
3. POSSESSION OF PORTION A AND B WOULD BE GIVEN TO CONTRACTORS ON 31 DEC. 2009 AND 1 FEB. 2010 RESPECTIVELY.

Revision	Date	Description			Initial
A	09/09	ADDENDUM NO.1			EY
	Designed	Checked	Drawn	Checked	
Initial	ZC	EY	SZ	SHT	
Date	06/09	06/09	06/09	06/09	

Approved

CONTRACT NO. YL/2009/01

AGREEMENT NO. CE 3/74

Contract Title

HANG HAU TSUEN CHANNEL
AT LAU FAU SHAN

Drawing Title

PORTION OF SITE
(SHEET 1 OF 2)

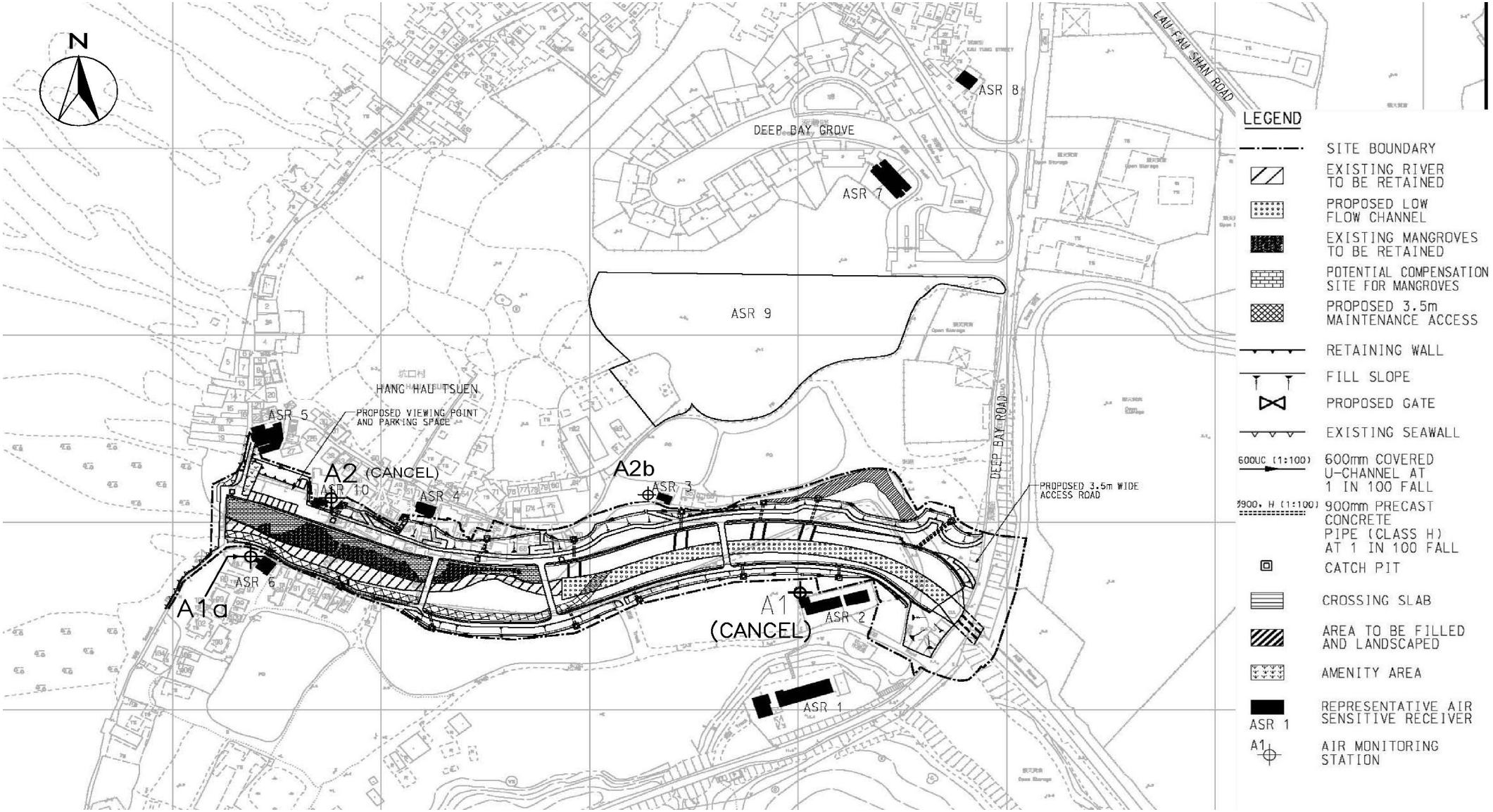
Plan Register No.	Revision
0095/LFS/003	A
Scale: A3 1:1500	Drawing No. 3

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

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date • 9/10/2009

CAD Filename • P:\infrastr\yl\0095-0201\Tender Drawing\Addendum No.1\0095-LFS-003A.dgn



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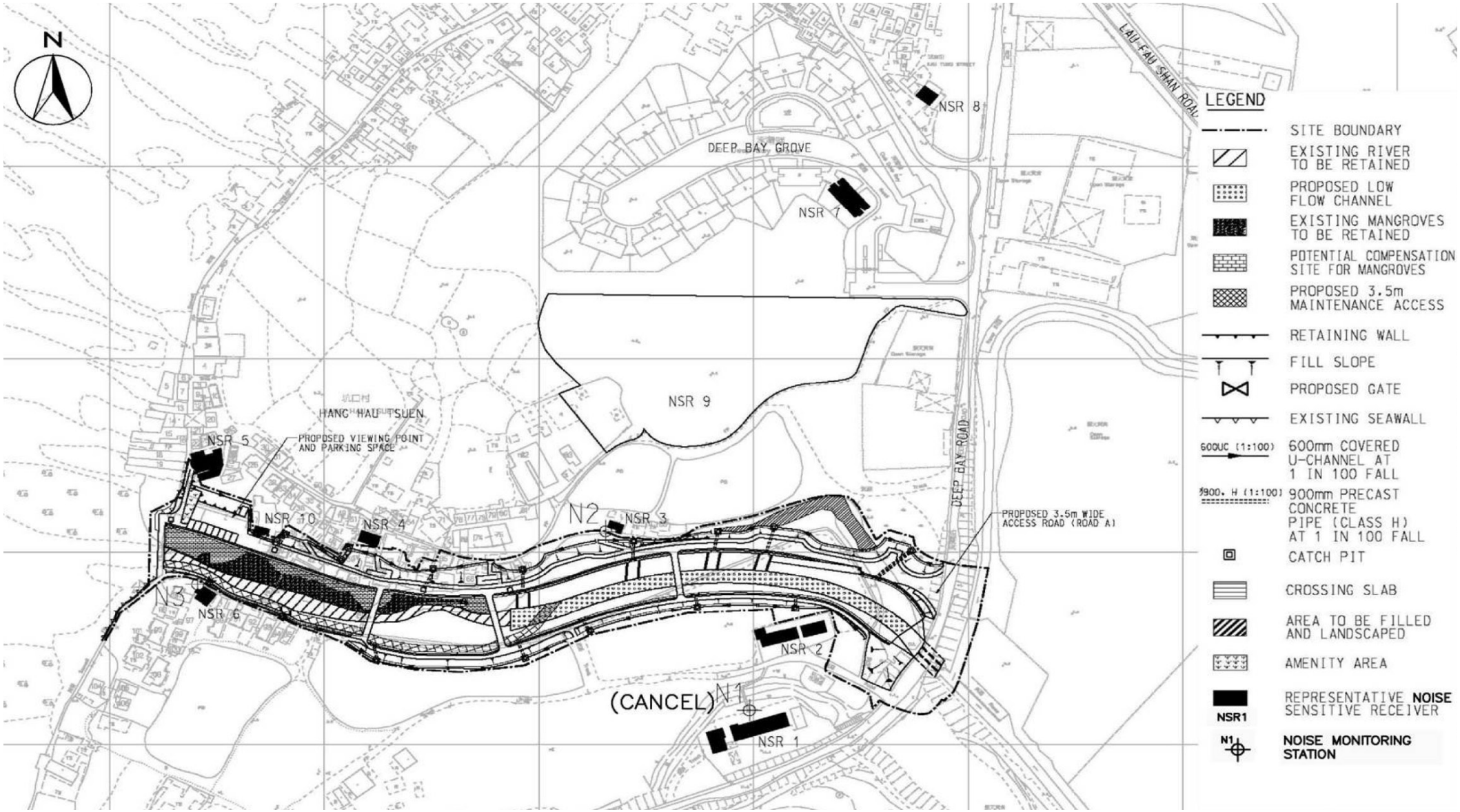
Cinotech Consultants Limited

YL/2009/01
HANG HAU TSUEN CHANNEL AT LAU FAU SHAN

Locations of Air Quality Monitoring Stations

SCALE	N.T.S.	DATE	Apr-10
CHECK	CH	DRAWN	SL
JOB NO.		DRAWING No.	Rev
	MA0002	Fig. 2	-

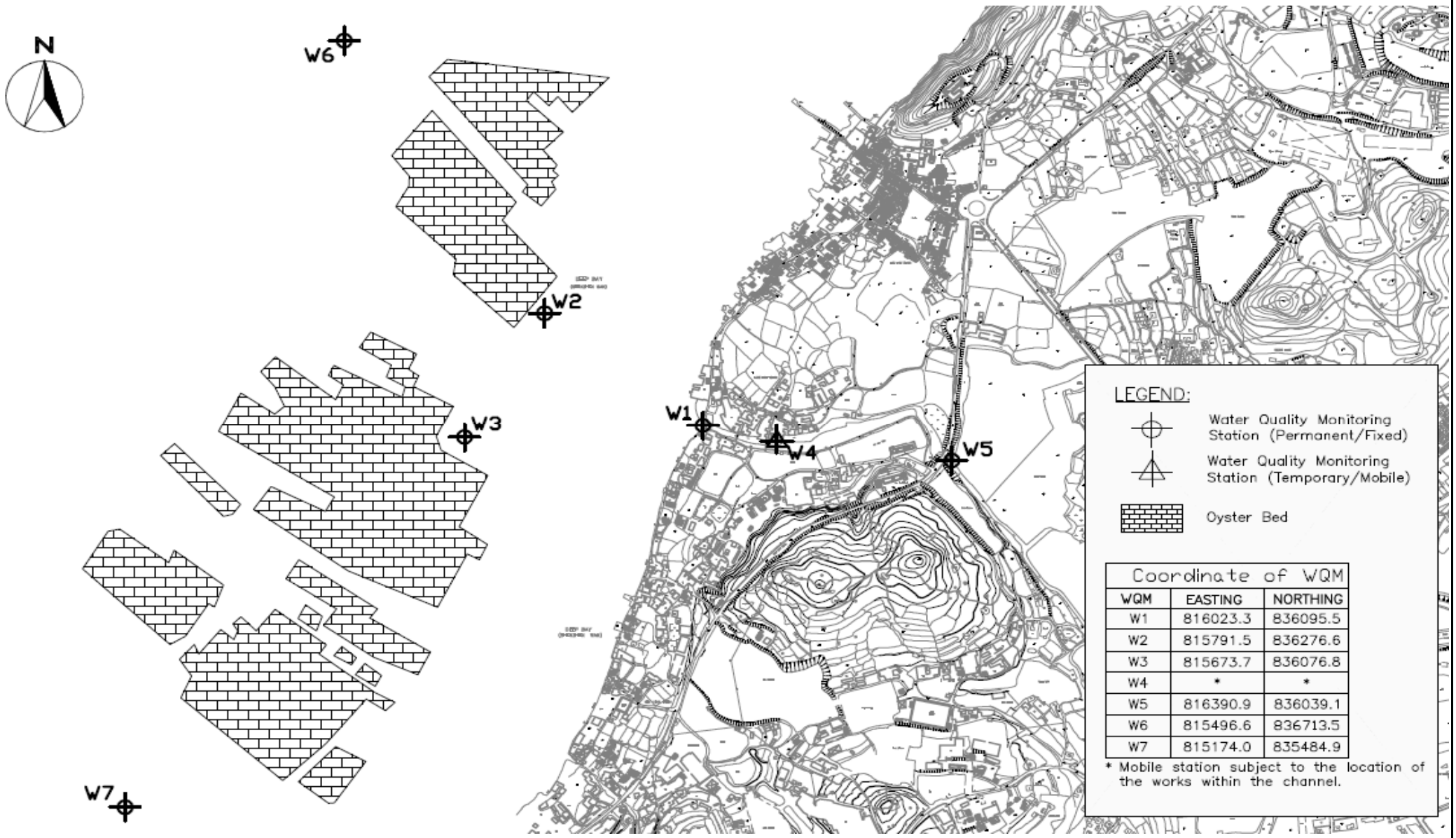


CINOTECH
Cinotech Consultants Limited

YL/2009/01
HANG HAU TSUEN CHANNEL AT LAU FAU SHAN

Locations of Noise Monitoring Stations

SCALE	N.T.S.	DATE	Jan-10
CHECK	CH	DRAWN	SL
JOB NO.	MA0002	DRAWING No. Fig. 3	Rev -



Coordinate of WQM

WQM	EASTING	NORTHING
W1	816023.3	836095.5
W2	815791.5	836276.6
W3	815673.7	836076.8
W4	*	*
W5	816390.9	836039.1
W6	815496.6	836713.5
W7	815174.0	835484.9

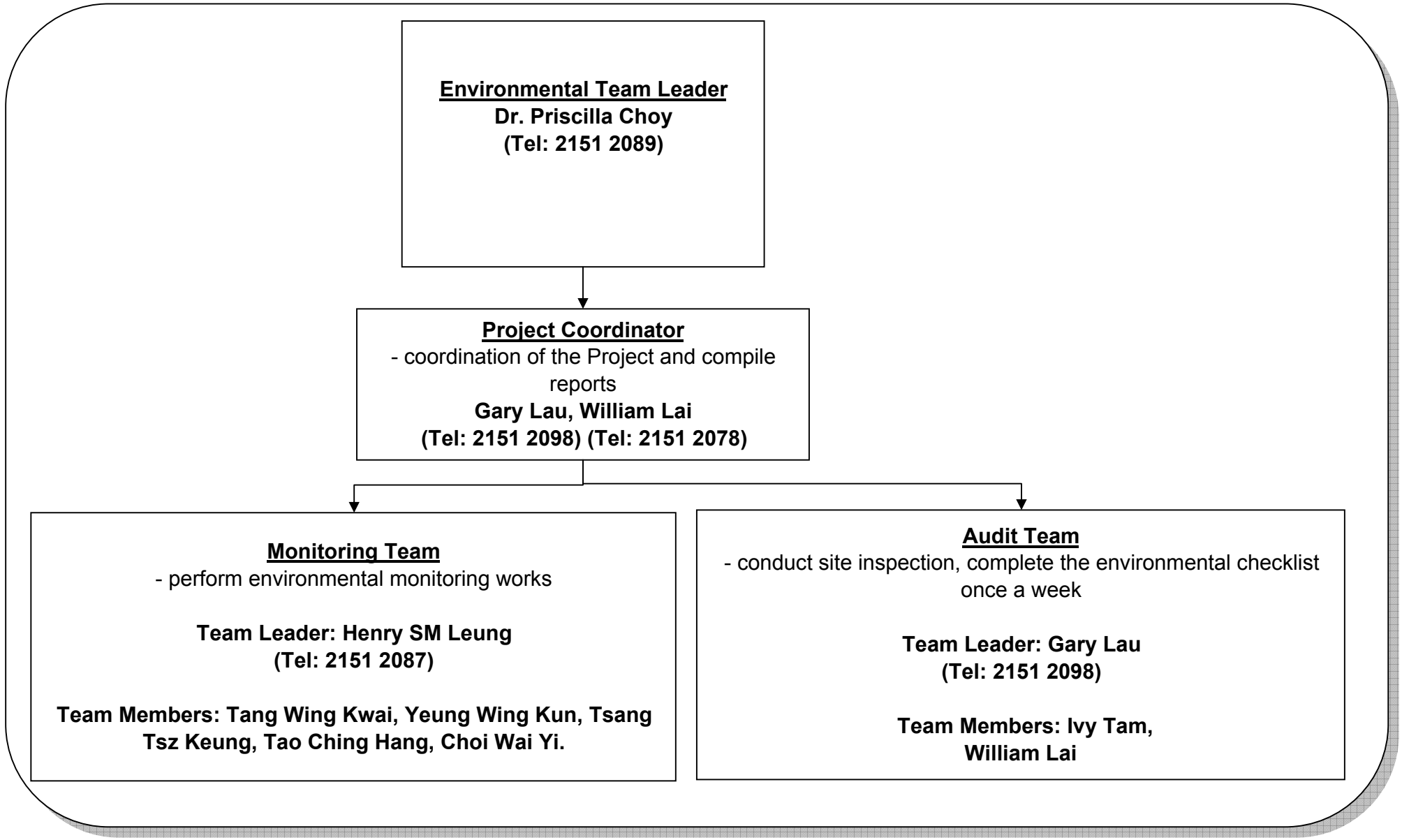
* Mobile station subject to the location of the works within the channel.

CINOTECH
Cinotech Consultants Limited

YL/2009/01
HANG HAU TSUEN CHANNEL AT LAU FAU SHAN

Locations of Water Quality Monitoring Stations

SCALE	N.T.S.	DATE	Jan-10
CHECK	CH	DRAWN	SL
JOB NO.	MA0002	DRAWING No. Fig. 4	Rev -



Title		Scale	Project No.
Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan		N.T.S	MA0002
Organization Chart		Date: Aug-10	Figure: 5

CINOTECH

APPENDIX A
ACTION AND LIMIT LEVELS FOR AIR QUALITY, NOISE AND WATER QUALITY

Appendix A Action and Limit Levels

Table A-1 Action and Limit Levels for 1-Hour TSP

Location	Action Level, μg/m^3	Limit Level, μg/m^3
A1a	320	500
A2b	324	500

Table A-2 Action and Limit Levels for 24-Hour TSP

Location	Action Level, μg/m^3	Limit Level, μg/m^3
A1a	159	260
A2b	156	260

Table A-3 Action and Limit Level for Construction Noise

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

* reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table A-4 Action and Limit Level for Water Quality

Parameter		Action		Limit	
DO, mg/L	Surface and Middle	W2, W3: 4.5	W1, W4: 5.1	W2, W3: 4.4	W1, W4: 5.0
	Bottom	N/A *		N/A *	
SS, mg/L		97.8		162.8	
		or 120% of upstream control station's SS at the same tide of the same day		or 130% of SS readings at the upstream control station at the same tide of same day and specific sensitive receiver water quality requirements	
Turbidity, NTU		W2, W3: 135.0	W1, W4: 49.1	W2, W3: 142.6	W1, W4: 177.7
		or 120% of upstream control station's turbidity at the same tide of the same day		or 130% of turbidity at the upstream control station at the same tide of same day	

* Since the water depths were less than 3 meters at all monitoring stations, only middle depth samples were taken.

APPENDIX B
COPIES OF CALIBRATION CERTIFICATES

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA0002/A52/0019

Station: A1a - Village House at no.88 Hang Hau Tsuen Operator: WK

Date: 16-Nov-12 Next Due Date: 15-Jan-13

Equipment No.: A-01-52 Serial No. 1955

Ambient Condition			
Temperature, Ta (K)	295.3	Pressure, Pa (mmHg)	767

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0574	Intercept, bc	-0.0478
Last Calibration Date:	3-Oct-12	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	2-Oct-13	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.8	3.47	61.23	7.9	2.84
2	9.8	3.16	55.87	6.4	2.55
3	7.6	2.78	49.30	5.0	2.26
4	5.3	2.32	41.31	3.3	1.83
5	3.3	1.83	32.77	1.9	1.39

By Linear Regression of Y on X

Slope , mw = 0.0506 **Intercept, bw =** -0.2582

Correlation coefficient* = 0.9997

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.61

Remarks:

Conducted by: WK Tang Signature: Date: 16/11/12

Checked by: Signature: Date: 16 November 2012

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA0002/A54/0018

Station: A2b - Village House at no.84 Hang Hau Tsuen Operator: WK

Date: 16-Nov-12 Next Due Date: 15-Jan-13

Equipment No.: A-01-54 Serial No. 1536

Ambient Condition			
Temperature, Ta (K)	295.3	Pressure, Pa (mmHg)	767

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0574	Intercept, bc	-0.0478
Last Calibration Date:	3-Oct-12	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	2-Oct-13	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.8	3.47	61.23	7.9	2.84
2	9.8	3.16	55.87	6.7	2.61
3	7.6	2.78	49.30	5.1	2.28
4	5.3	2.32	41.31	3.2	1.81
5	3.3	1.83	32.77	2.0	1.43

By Linear Regression of Y on X

Slope , mw = 0.0508 **Intercept, bw :** -0.2517

Correlation coefficient* = 0.9986

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.67**

Remarks:

Conducted by: Wh Tang Signature: Date: 16/11/12

Checked by: Signature: Date: 16 November 2012

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Testing & Research

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

Description	Calibration Orifice	**Manufacturer**	TISCH
Serial No.	0993	**Temperature,Ta (K)**	298
Model No.	TE-5025A	**Pressure, Pa (mmHg)**	759.2
Date	3 October 2012		

Plate	Diff.Vol (m^3)	Diff.Time (min)	Diff.Hg (mm)	Diff.H_2O (in.)
1	1.00	1.3820	3.2	2.00
2	1.00	0.9800	6.2	4.00
3	1.00	0.8770	7.8	5.00
4	1.00	0.8380	8.7	5.50
5	1.00	0.6930	12.7	8.00

DATA TABULATION

Vstd	(X axis) Qstd	(Y axis)
0.9947	0.7197	1.4134
0.9907	1.0109	1.9989
0.9886	1.1273	2.2348
0.9874	1.1783	2.3439
0.9822	1.4173	2.8268

Y axis= SQRT[H_2O(Pa/760)(298/Ta)]

Qstd Slope (m) = 2.02751
Intercept (b) = -0.04785
Coefficient (r) = 0.99999

Va	(X axis) Qa	(Y axis)
0.9958	0.7205	0.8861
0.9918	1.0121	1.2531
0.9897	1.1285	1.4010
0.9885	1.1796	1.4694
0.9833	1.4189	1.7721

Y axis= SQRT[H_2O(Ta/Pa)]

Qa Slope (m) = 1.26959
Intercept (b) = -0.03000
Coefficient (r) = 0.99999

CALCULATIONS

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

For subsequent flow rate calculations:
Qstd=I/m{[SQRT(H_2O(Pa/760)(298/Ta))]-b}
Qa=I/m{[SQRT H_2O(Ta/Pa)]-b}

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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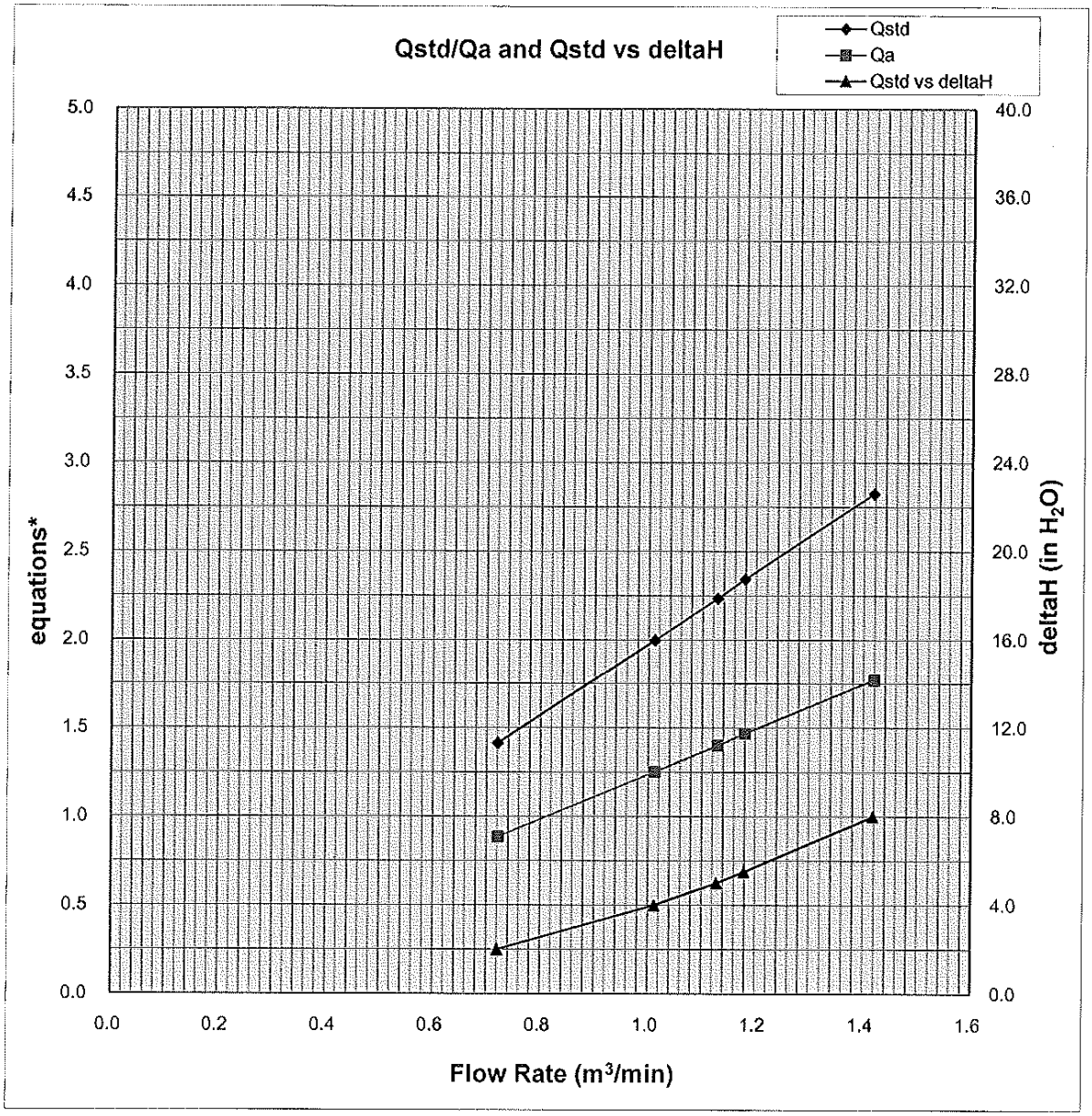
TEST REPORT



Y-axis equations:

Qstd series: SQRT[ΔH(Pa/Pstd)(Tstd/Ta)]

Qa series: SQRT[ΔH(Ta/Pa)]

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Website: www.wellab.com.hk

TEST REPORT

APPLICANT:	**Cinotech Consultants Limited** **Room 1710, Technology Park,** **18 On Lai Street,** **Shatin, NT, Hong Kong**	Test Report No.: Date of Issue: Date Received: Date Tested: Date Completed: Next Due Date:	C/12/120501 2012-05-02 2012-05-01 2012-05-01 2012-05-02 2013-05-01
ATTN:	**Mr. W.K Tang**	Page:	1 of 1

Certificate of Calibration

Item for calibration:

Description	: RS232 Integral Vane Digital Anemometer
Manufacturer	: AZ Instrument
Model No.	: AZ8904
Serial No.	: 974835
Equipment No.	: A-03-03

Test conditions:

Room Temperature	: 23 degree Celsius
Relative Humidity	: 67%
Pressure	: 101.2 kPa

Methodology:

The anemometer has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

	Reference Set Point	Instrument Readings
Measuring Air Velocity, m/s	2.00	2.00
Temperature, °C	21.0	21.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. WK Tang**

Test Report No.:	C/121012/1
Date of Issue:	2012-10-15
Date Received:	2012-10-12
Date Tested:	2012-10-12
Date Completed:	2012-10-15
Next Due Date:	2012-12-14
Page:	1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 954253
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 685 CPM
Equipment No.	: A-02-05

Test Conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 64%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0032

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

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Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/121214/1
Date of Issue:	2013-02-16
Date Received:	2012-12-14
Date Tested:	2012-12-14
Date Completed:	2012-12-17
Next Due Date:	2013-02-16

ATTN: **Mr. WK Tang**

Page: 1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 954253
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 685 CPM
Equipment No.	: A-02-05

Test Conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 64%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0032

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/121102/2
Date of Issue:	2012-11-05
Date Received:	2012-11-02
Date Tested:	2012-11-02
Date Completed:	2012-11-05
Next Due Date:	2013-01-04

ATTN: **Mr. W. K. Tang**

Page: 1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 014750
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 790 CPM
Equipment No.	: A-02-06

Test Conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 62%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0030

****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W. K. Tang**

Test Report No.:	C/121026/2
Date of Issue:	2012-10-29
Date Received:	2012-10-26
Date Tested:	2012-10-26
Date Completed:	2012-10-29
Next Due Date:	2012-12-28
Page:	1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 095039
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 764 CPM
Equipment No.	: A-02-08

Test Conditions:

Room Temperature	: 23 degree Celsius
Relative Humidity	: 64%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0032

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/121102/3
Date of Issue:	2012-11-05
Date Received:	2012-11-02
Date Tested:	2012-11-02
Date Completed:	2012-11-05
Next Due Date:	2013-01-04

ATTN: **Mr. W. K. Tang**

Page: 1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 095050
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 577 CPM
Equipment No.	: A-02-09

Test Conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 62%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0031

****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

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Laboratory Manager

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W. K. Tang**

Test Report No.:	C/121102/4
Date of Issue:	2012-11-05
Date Received:	2012-11-02
Date Tested:	2012-11-02
Date Completed:	2012-11-05
Next Due Date:	2013-01-04
Page:	1 of 1

Certificate of Calibration

Item for Calibration:

Description	: Laser Dust Monitor
Manufacturer	: Sibata
Model No.	: LD-3B
Serial No.	: 095029
Sensitivity (K) 1 CPM	: 0.001 mg/m^3
Sen. Adjustment Scale Setting	: 551 CPM
Equipment No.	: A-02-10

Test Conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 62%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Andersen Samplers, Inc.
2. In-house method in according to the instruction manual: The Laser Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Laser Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	0.0032

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/120120/1
Date of Issue:	2012-01-21
Date Received:	2012-01-20
Date Tested:	2012-01-20
Date Completed:	2012-01-21
Next Due Date:	2013-01-20
Page:	1 of 1

Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 955
Serial No.	: 14303
Microphone No.	: 17204
Equipment No.	: N-08-05

Test conditions:

Room Temperatre	: 21 degree Celsius
Relative Humidity	: 52%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/N/121005/1
Date of Issue:	2012-10-07
Date Received:	2012-10-05
Date Tested:	2012-10-05
Date Completed:	2012-10-07
Next Due Date:	2013-10-06
Page:	1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

Room Temperatre	: 23 degree Celsius
Relative Humidity	: 64%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

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PATRICK TSE
Laboratory Manager

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/W/120915-1
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14
Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6820-C-M
Serial No.	: 02D0126AA
Equipment No.	: W.03.01

Test conditions:

Room Temperature	: 25 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 11J100025
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution
Dissolved Oxygen Sensor, Model: 6562, L/N: 07E100029
1. Performance check against Winkler titration
Turbidity Sensor, Model: 6136, S/N: 11J1000475
1. Calibration check with Formazin standard solution
pH Meter, Model: 6561, L/N: 11H
1. Calibration check with standard pH buffer
Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

Test Report No.:	C/W/120915-1
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14
Page:	2 of 2

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

**********END OF REPORT**********

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
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Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/W/121215-1
Date of Issue:	2012-12-15
Date Received:	2012-12-15
Date Tested:	2012-12-15
Date Completed:	2012-12-15
Next Due Date:	2013-02-14
Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6820-C-M
Serial No.	: 02D0126AA
Equipment No.	: W.03.01

Test conditions:

Room Temperature	: 24 degree Celsius
Relative Humidity	: 63%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 11J100025
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 07E100029
1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 11J1000475
1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 11H
1. Calibration check with standard pH buffer

Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

Test Report No.:	C/W/121215-1
Date of Issue:	2012-12-15
Date Received:	2012-12-15
Date Tested:	2012-12-15
Date Completed:	2012-12-15
Next Due Date:	2013-02-14

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

**********END OF REPORT**********

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/W/120915-3
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14
Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6920-M
Serial No.	: 03H1764AA
Equipment No.	: W.03.03

Test conditions:

Room Temperature	: 25 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 03H1461
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 08C100610
1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 09M100672
1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 07E
1. Calibration check with standard pH buffer

Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:
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PATRICK TSE
Laboratory Manager

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TEST REPORT

Test Report No.:	C/W/120915-3
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14
Page:	2 of 2

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

**********END OF REPORT**********

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Website: www.wellab.com.hk

TEST REPORT

APPLICANT:	**Cinotech Consultants Limited** **Room 1710, Technology Park,** **18 On Lai Street,** **Shatin, NT, Hong Kong**	Test Report No.:	C/W/121215-3
		Date of Issue:	2012-12-15
		Date Received:	2012-12-15
		Date Tested:	2012-12-15
		Date Completed:	2012-12-15
		Next Due Date:	2013-02-14
ATTN:	**Mr. W.K. Tang**	Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6920-M
Serial No.	: 03H1764AA
Equipment No.	: W.03.03

Test conditions:

Room Temperature	: 24 degree Celsius
Relative Humidity	: 63%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 03H1461
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 08C100610
1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 09M100672
1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 07E
1. Calibration check with standard pH buffer

Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:
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Laboratory Manager

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TEST REPORT

Test Report No.:	C/W/121215-3
Date of Issue:	2012-12-15
Date Received:	2012-12-15
Date Tested:	2012-12-15
Date Completed:	2012-12-15
Next Due Date:	2013-02-14

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

**********END OF REPORT**********

APPENDIX C
QUALITY CONTROL REPORTS FOR SS LABORATORY ANALYSIS

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TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17387
Date of Issue:	2012/12/04
Date Received:	2012/12/03
Date Tested:	2012/12/03
Date Completed:	2012/12/04

Page: 1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/03
Number of Sample: 28
Custody No.: MA0002/121203

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W7me	59	58	1	101

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17397
Date of Issue:	2012/12/06
Date Received:	2012/12/05
Date Tested:	2012/12/05
Date Completed:	2012/12/06

Page: 1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/05
Number of Sample: 28
Custody No.: MA0002/121205

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	80	80	0	102

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17417
Date of Issue:	2012/12/10
Date Received:	2012/12/07
Date Tested:	2012/12/07
Date Completed:	2012/12/10

Page: 1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/07
Number of Sample: 14
Custody No.: MA0002/121207

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W7mf	59	58	3	103

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17426
Date of Issue:	2012/12/11
Date Received:	2012/12/10
Date Tested:	2012/12/10
Date Completed:	2012/12/11
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/10
Number of Sample: 28
Custody No.: MA0002/121210

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	69	70	2	107

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

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Laboratory Manager

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TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17437
Date of Issue:	2012/12/13
Date Received:	2012/12/12
Date Tested:	2012/12/12
Date Completed:	2012/12/13
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/12
Number of Sample: 28
Custody No.: MA0002/121212

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	66	65	1	102

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

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Laboratory Manager

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Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17449
Date of Issue:	2012/12/17
Date Received:	2012/12/14
Date Tested:	2012/12/14
Date Completed:	2012/12/17

Page: 1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/14
Number of Sample: 28
Custody No.: MA0002/121214

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	38	36	6	104

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of WELLAB Ltd.

PATRICK TSE
Laboratory Manager

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18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17461
Date of Issue:	2012/12/18
Date Received:	2012/12/17
Date Tested:	2012/12/17
Date Completed:	2012/12/18
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/17
Number of Sample: 28
Custody No.: MA0002/121217

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	70	69	1	101

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17477
Date of Issue:	2012/12/20
Date Received:	2012/12/19
Date Tested:	2012/12/19
Date Completed:	2012/12/20
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/19
Number of Sample: 14
Custody No.: MA0002/121219

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W7mf	73	77	5	103

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

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Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17486
Date of Issue:	2012/12/24
Date Received:	2012/12/21
Date Tested:	2012/12/21
Date Completed:	2012/12/24
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/21
Number of Sample: 14
Custody No.: MA0002/121221

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W7mf	66	68	3	7

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

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Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17496
Date of Issue:	2012/12/27
Date Received:	2012/12/24
Date Tested:	2012/12/24
Date Completed:	2012/12/27
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/24
Number of Sample: 28
Custody No.: MA0002/121224

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	58	59	2	98

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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Rms 816, 1516 & 1701, Technology Park,
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Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17507
Date of Issue:	2012/12/28
Date Received:	2012/12/27
Date Tested:	2012/12/27
Date Completed:	2012/12/28
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/27
Number of Sample: 28
Custody No.: MA0002/121227

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	76	76	0	97

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17522
Date of Issue:	2012/12/31
Date Received:	2012/12/29
Date Tested:	2012/12/29
Date Completed:	2012/12/31
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/29
Number of Sample: 28
Custody No.: MA0002/121229

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	91	91	0	99

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

QC REPORT

APPLICANT: Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Laboratory No.:	17532
Date of Issue:	2013/01/02
Date Received:	2012/12/31
Date Tested:	2012/12/31
Date Completed:	2013/01/02
Page:	1 of 1

ATTN: Ms. MeiLing Tang

Sampling Site: Lau Fau Shan
Project No.: MA0002
Sampling Date: 2012/12/31
Number of Sample: 28
Custody No.: MA0002/121231

****

Total Suspended Solids	Duplicate Analysis			QC Recovery, %
Sampling Point	Trial 1, mg/L	Trial 2, mg/L	Difference, %	
W3mf	73	72	2	100

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

APPENDIX D
ENVIRONMENTAL MONITORING SCHEDULES

Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan
Impact Air Quality and Noise Monitoring Schedule for December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
	1hr TSP Noise		1hr TSP 24hrs TSP		1hr TSP	
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
	1hr TSP Noise	24hrs TSP	1hr TSP		1hr TSP	
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
	1hr TSP Noise 24hrs TSP		1hr TSP		1hr TSP	24hrs TSP
23-Dec	24-Dec	**25-Dec**	**26-Dec**	27-Dec	28-Dec	29-Dec
	1hr TSP Noise			1hr TSP	24hrs TSP	1hr TSP
30-Dec	31-Dec					
	1hr TSP Noise					

Air Quality Monitoring Station

A1a - Village house at No.88 Hang Hau Tsuen
A2b - Village house at No.84 Hang Hau Tsuen

Noise Monitoring Station

N2 - Village house at No.84 Hang Hau Tsuen
N3 - Village house at No.88 Hang Hau Tsuen

Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan
Impact Water Quality Monitoring Schedule for December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
	Mid-Flood 11:20 Mid-Ebb 16:13		Mid-Flood 12:41 Mid-Ebb 17:59		Mid-Flood 14:21 Mid-Ebb N/A	
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
	Mid-Ebb 10:57 Mid-Flood 16:35		Mid-Ebb 12:53 Mid-Flood 18:01		Mid-Flood 9:12 Mid-Ebb 14:24	
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
	Mid-Flood 11:29 Mid-Ebb 16:52		Mid-Flood 13:06 Mid-Ebb N/A		Mid-Flood 14:42 Mid-Ebb N/A	
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec
	Mid-Ebb 10:55 Mid-Flood 16:19			Mid-Flood 8:03 Mid-Ebb 12:56		Mid-Flood 9:13 Mid-Ebb 14:04
30-Dec	31-Dec					
	Mid-Flood 10:15 Mid-Ebb 15:14					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)
NA indicated favourable tide occurs during non-working hours

Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan
Tentative Impact Air Quality and Noise Monitoring Schedule for January 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jan	2-Jan	3-Jan	4-Jan	5-Jan
			1hr TSP	24hrs TSP	1hr TSP	
6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan
	1hr TSP Noise		1hr TSP 24hrs TSP		1hr TSP	
13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan
	1hr TSP Noise	24hrs TSP	1hr TSP		1hr TSP	
20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
	1hr TSP Noise 24hrs TSP		1hr TSP		1hr TSP	24hrs TSP
27-Jan	28-Jan	29-Jan	30-Jan	31-Jan		
	1hr TSP Noise		1hr TSP			

Air Quality Monitoring Station

A1a - Village house at No.88 Hang Hau Tsuen
A2b - Village house at No.84 Hang Hau Tsuen

Noise Monitoring Station

N2 - Village house at No.84 Hang Hau Tsuen
N3 - Village house at No.88 Hang Hau Tsuen

Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan
Tentative Water Quality Monitoring Schedule for January 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jan	2-Jan	3-Jan	4-Jan	5-Jan
			Mid-Flood 11:13 Mid-Ebb 16:36		Mid-Flood 12:15 Mid-Ebb 18:16	
6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan
	Mid-Ebb 08:37 Mid-Flood 14:53		Mid-Ebb 11:53 Mid-Flood 16:49		Mid-Flood 08:16 Mid-Ebb 13:30	
13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan
	Mid-Flood 10:16 Mid-Ebb 15:46		Mid-Flood 11:18 Mid-Ebb 17:08		Mid-Flood 12:06 Mid-Ebb 18:30	
20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
	Mid-Ebb 08:52 Mid-Flood 14:22		Mid-Ebb 11:25 Mid-Flood 16:16		Mid-Ebb 12:38 Mid-Flood 17:46	
27-Jan	28-Jan	29-Jan	30-Jan	31-Jan		
	Mid-Flood 09:10 Mid-Ebb 14:24					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)
NA indicated favourable tide occurs during non-working hours

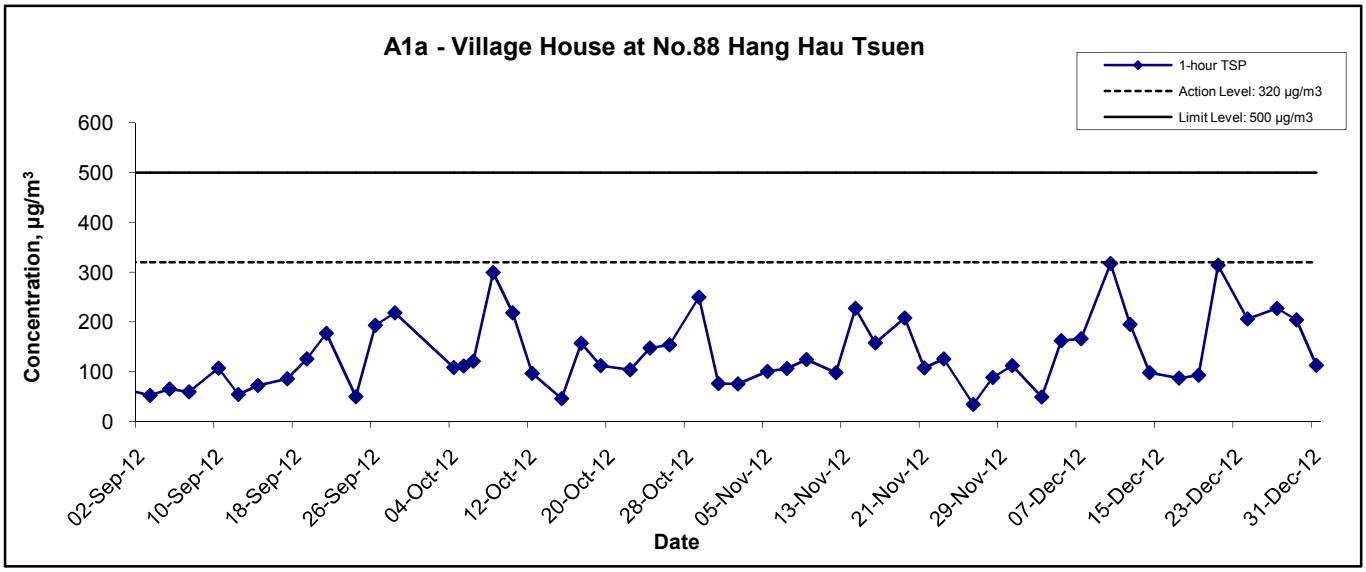
APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

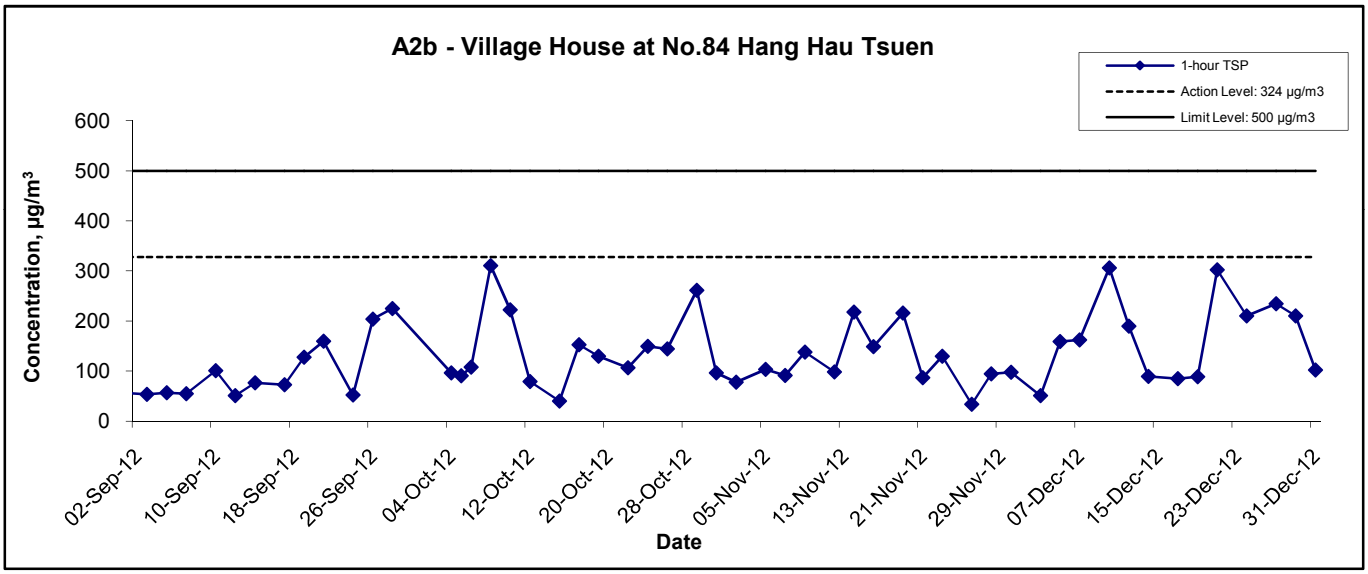
Appendix E - 1-hour TSP Monitoring Results

Location A1a - Village House at No.88 Hang Hau Tsuen			
Date	Time	Weather	Particulate Concentration (μg/m^3)
3-Dec-12	9:30	Cloudy	49.2
5-Dec-12	15:35	Cloudy	162.0
7-Dec-12	14:30	Sunny	166.0
10-Dec-12	13:00	Sunny	316.9
12-Dec-12	13:15	Cloudy	194.8
14-Dec-12	9:20	Fine	97.8
17-Dec-12	14:00	Fine	87.1
19-Dec-12	10:00	Cloudy	92.5
21-Dec-12	13:30	Fine	314.2
24-Dec-12	14:30	Sunny	205.7
27-Dec-12	8:00	Cloudy	226.9
29-Dec-12	13:00	Cloudy	203.8
31-Dec-12	13:00	Sunny	112.6
		Average	171.5
		Maximum	316.9
		Minimum	49.2

Location A2b - Village House at No.84 Hang Hau Tsuen			
Date	Time	Weather	Particulate Concentration (μg/m^3)
3-Dec-12	15:00	Cloudy	51.4
5-Dec-12	14:30	Cloudy	159.4
7-Dec-12	15:35	Sunny	162.5
10-Dec-12	14:05	Sunny	305.9
12-Dec-12	14:25	Cloudy	189.7
14-Dec-12	15:00	Sunny	89.7
17-Dec-12	15:05	Fine	85.2
19-Dec-12	11:05	Cloudy	89.0
21-Dec-12	14:35	Fine	302.6
24-Dec-12	15:35	Sunny	210.6
27-Dec-12	9:10	Cloudy	234.9
29-Dec-12	14:05	Cloudy	210.6
31-Dec-12	9:00	Sunny	102.4
		Average	168.8
		Maximum	305.9
		Minimum	51.4

1-hr TSP Concentration Levels





Title: Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Date: Dec 12	Project No.: MA0002 Appendix: E	CINOTECH

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PERSENTATIONS

Appendix F - 24-hour TSP Monitoring Results

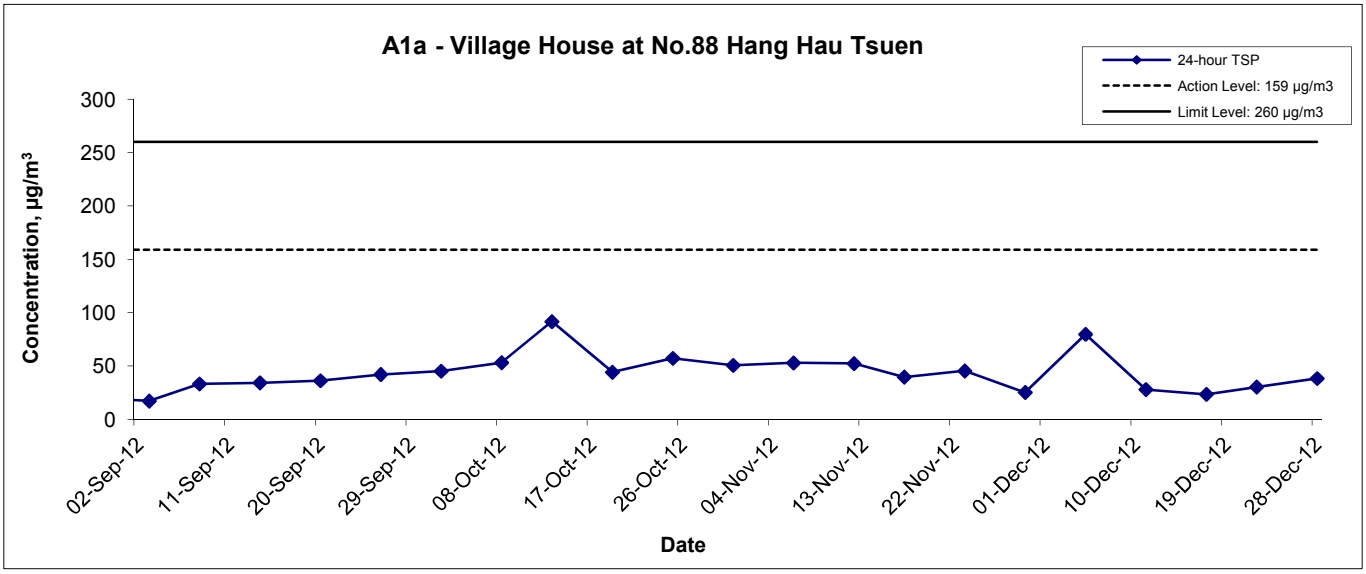
Location A1a - Village House at No.88 Hang Hau Tsuen

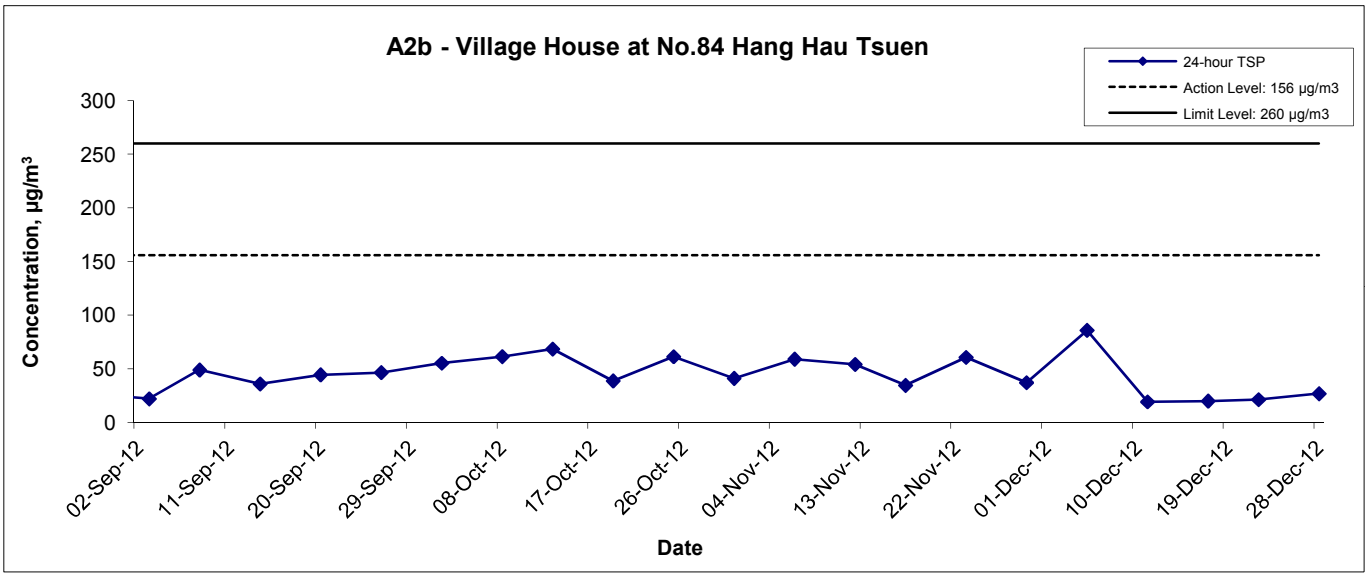
Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. (μg/m^3)
				Initial	Final		Initial	Final		Initial	Final			
5-Dec-12	Cloudy	288.1	767.2	3.0739	3.2149	0.1410	5192.7	5216.7	24.0	1.23	1.23	1.23	1769.4	79.7
11-Dec-12	Sunny	291.0	767.1	3.1639	3.2129	0.0490	5216.7	5240.7	24.0	1.22	1.22	1.22	1761.5	27.8
17-Dec-12	Sunny	293.9	765.7	3.2341	3.2750	0.0409	5240.7	5264.7	24.0	1.22	1.22	1.22	1752.4	23.3
22-Dec-12	Cloudy	290.6	767.5	3.0890	3.1423	0.0533	5264.7	5288.7	24.0	1.22	1.22	1.22	1762.9	30.2
28-Dec-12	Cloudy	291.6	766.7	3.1730	3.2403	0.0673	5288.7	5312.7	24.0	1.22	1.22	1.22	1759.5	38.2
													Min	23.3
													Max	79.7
													Average	39.9

Location A2b - Village House at No.84 Hang Hau Tsuen

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. (μg/m^3)
				Initial	Final		Initial	Final		Initial	Final			
5-Dec-12	Cloudy	288.1	767.2	3.0324	3.1851	0.1527	7714.3	7738.3	24.0	1.24	1.23	1.24	1778.7	85.8
11-Dec-12	Sunny	291.0	767.1	3.0438	3.0779	0.0341	7738.3	7762.3	24.0	1.23	1.23	1.23	1770.7	19.3
17-Dec-12	Sunny	293.9	765.7	3.0846	3.1197	0.0351	7762.3	7786.3	24.0	1.22	1.22	1.22	1761.5	19.9
22-Dec-12	Cloudy	290.6	767.5	3.0988	3.1366	0.0378	7786.3	7810.3	24.0	1.23	1.23	1.23	1772.2	21.3
28-Dec-12	Cloudy	291.6	766.7	3.0918	3.1393	0.0475	7810.3	7834.3	24.0	1.23	1.23	1.23	1768.7	26.9
													Min	19.3
													Max	85.8
													Average	34.6

24-hr TSP Concentration Levels





Title	Scale	Project No.
Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of 24-hour TSP Monitoring Results	N.T.S	MA0002
	Date: Dec 12	Appendix: F

CINOTECH

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

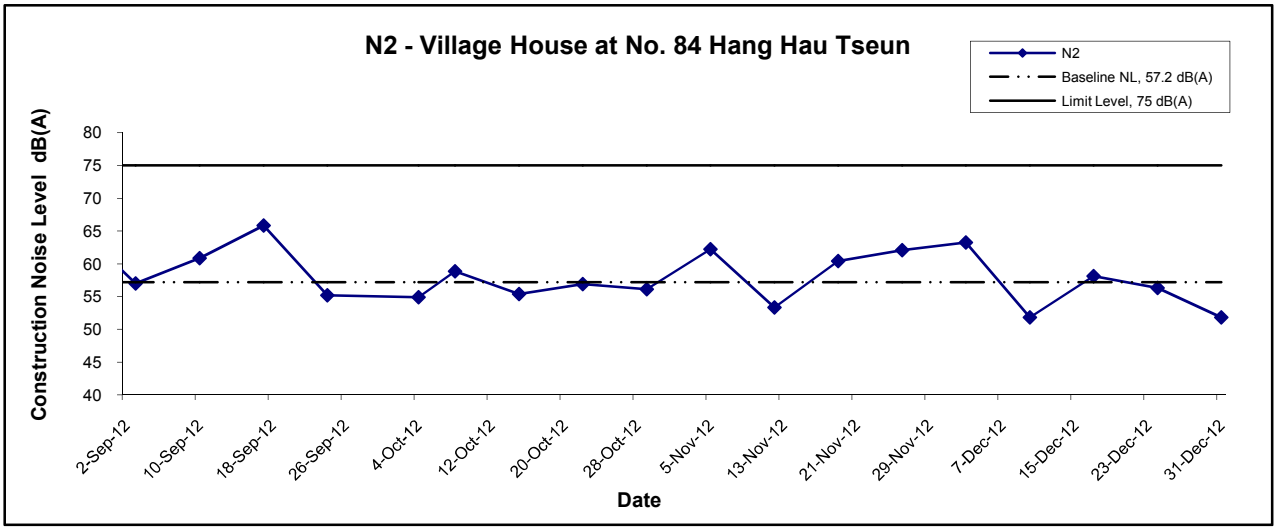
Appendix G - Noise Monitoring Results

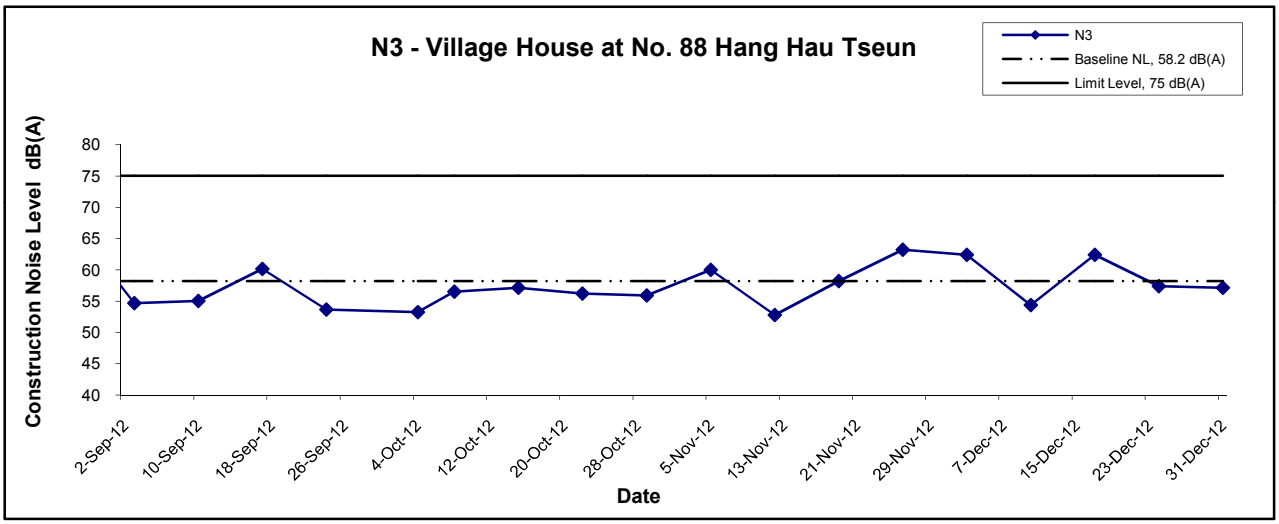
Location N2 - Village House at No. 84 Hang Hau Tseun							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Dec-12	15:00	Cloudy	64.2	65.7	62.6	57.2	63.2
10-Dec-12	13:00	Sunny	58.3	59.8	56.4		51.8
17-Dec-12	15:05	Sunny	60.7	62.2	58.4		58.1
24-Dec-12	15:35	Sunny	56.3	57.2	55.6		56.3 Measured ≦ Baseline
31-Dec-12	09:00	Sunny	58.3	60.8	57.1		51.8

Location N3 - Village House at No. 88 Hang Hau Tseun							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Dec-12	09:30	Cloudy	63.8	64.1	61.4	58.2	62.4
10-Dec-12	14:05	Sunny	59.7	61.2	56.3		54.4
17-Dec-12	14:00	Sunny	63.8	65.1	60.6		62.4
24-Dec-12	14:30	Sunny	57.4	58.0	56.1		57.4 Measured ≦ Baseline
31-Dec-12	13:20	Sunny	60.7	64.2	57.9		57.1

* Free-field adjustment is adopted for monitoring results at station N2 and N3.

Noise Levels





Title: Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Dec 12	Project No.: MA0002 Appendix: G	CINOTECH

APPENDIX H
WATER QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Water Quality Monitoring Results at W1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:32	Middle	0.3	20.9 20.6	20.8	7.4 7.5	7.5	18.4 18.2	18.3	70.1 69.2	69.7	5.3 5.2	5.3	17.0 17.2	17.1	64 66	65.0
5-Dec-12	Cloudy	Moderate	16:58	Middle	0.3	19.6 19.3	19.5	7.2 7.3	7.3	19.6 19.1	19.4	88.3 79.2	83.8	6.6 5.9	6.3	16.4 16.3	16.4	84 85	84.5
10-Dec-12	Sunny	Moderate	12:03	Middle	0.3	20.9 20.3	20.6	7.6 7.5	7.6	21.4 20.3	20.9	71.5 70.3	70.9	5.4 5.3	5.4	15.2 16.2	15.7	62 62	62.0
12-Dec-12	Cloudy	Moderate	12:01	Middle	0.3	20.9 21.0	21.0	7.4 7.1	7.3	22.7 20.6	21.7	88.4 89.2	88.8	6.7 6.7	6.7	15.8 16.6	16.2	48 48	48.0
14-Dec-12	Fine	Moderate	14:03	Middle	0.3	21.1 20.8	21.0	7.2 7.3	7.3	20.3 19.5	19.9	85.3 75.2	80.3	6.5 5.8	6.2	20.8 19.6	20.2	41 41	41.0
17-Dec-12	Fine	Moderate	17:33	Middle	0.3	22.4 22.0	22.2	7.3 7.4	7.4	19.4 19.0	19.2	88.7 78.4	83.6	6.6 5.9	6.3	19.8 19.4	19.6	59 60	59.5
24-Dec-12	Sunny	Moderate	12:02	Middle	0.3	19.9 19.3	19.6	7.5 7.4	7.5	19.3 18.3	18.8	71.8 70.7	71.3	5.4 5.3	5.4	19.2 20.1	19.7	58 58	58.0
27-Dec-12	Cloudy	Moderate	12:47	Middle	0.3	19.1 18.8	19.0	7.7 7.8	7.8	18.9 18.5	18.7	73.2 64.6	68.9	5.5 4.9	5.2	20.8 19.7	20.3	79 79	79.0
29-Dec-12	Cloudy	Moderate	14:05	Middle	0.3	20.5 20.1	20.3	7.2 7.3	7.3	18.2 18.8	18.5	89.1 78.5	83.8	6.8 6.0	6.4	24.5 23.0	23.8	78 78	78.0
31-Dec-12	Sunny	Moderate	15:33	Middle	0.3	17.6 18.2	17.9	8.1 7.6	7.9	15.1 15.2	15.2	81.5 73.3	77.4	6.1 5.5	5.8	14.0 14.0	14.0	72 71	71.5

Water Quality Monitoring Results at W1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:30	Middle	0.3	21.3 20.6	21.0	7.5 7.4	7.5	20.4 19.3	19.9	73.2 72.1	72.7	5.5 5.4	5.5	15.8 18.5	17.2	60 60	60.0
5-Dec-12	Cloudy	Moderate	12:22	Middle	0.3	20.0 19.3	19.7	7.3 7.3	7.3	21.3 20.2	20.8	86.5 84.6	85.6	6.5 6.3	6.4	14.8 17.2	16.0	72 71	71.5
7-Dec-12	Sunny	Moderate	14:19	Middle	0.3	21.5 21.2	21.4	7.1 7.2	7.2	19.4 19.6	19.5	75.7 66.7	71.2	5.8 5.1	5.5	14.3 14.8	14.6	59 58	58.5
10-Dec-12	Sunny	Moderate	16:42	Middle	0.3	20.6 20.3	20.5	7.4 7.6	7.5	20.0 19.2	19.6	73.5 65.1	69.3	5.5 4.9	5.2	19.1 18.2	18.7	55 55	55.0
12-Dec-12	Cloudy	Moderate	17:03	Middle	0.3	21.2 21.9	21.6	7.8 7.4	7.6	15.9 16.0	16.0	82.0 73.7	77.9	6.2 5.6	5.9	15.8 15.8	15.8	61 61	61.0
14-Dec-12	Fine	Moderate	09:31	Middle	0.3	20.7 20.0	20.4	7.3 7.2	7.3	21.7 20.6	21.2	82.9 81.6	82.3	6.3 6.2	6.3	19.8 20.0	19.9	36 36	36.0
17-Dec-12	Fine	Moderate	12:03	Middle	0.3	21.9 21.0	21.5	7.4 7.3	7.4	21.3 20.1	20.7	86.3 84.8	85.6	6.4 6.3	6.4	15.7 18.4	17.1	50 50	50.0
19-Dec-12	Cloudy	Moderate	12:44	Middle	0.3	20.4 19.7	20.1	7.4 7.4	7.4	20.7 19.6	20.2	88.6 86.6	87.6	6.6 6.5	6.6	18.4 21.4	19.9	91 92	91.5
21-Dec-12	Fine	Moderate	13:50	Middle	0.3	21.8 21.5	21.7	7.2 7.4	7.3	19.9 17.9	18.9	71.8 69.3	70.6	5.4 5.3	5.4	16.8 16.5	16.7	49 49	49.0
24-Dec-12	Sunny	Moderate	16:06	Middle	0.3	19.6 19.3	19.5	7.3 7.5	7.4	18.9 17.3	18.1	73.9 70.0	72.0	5.6 5.4	5.5	19.0 19.2	19.1	47 47	47.0
27-Dec-12	Cloudy	Moderate	08:03	Middle	0.3	19.4 18.8	19.1	7.8 7.7	7.8	20.7 19.5	20.1	71.0 69.9	70.5	5.3 5.3	5.3	16.3 19.1	17.7	80 80	80.0
29-Dec-12	Cloudy	Moderate	08:35	Middle	0.3	20.0 19.4	19.7	7.3 7.3	7.3	21.0 19.9	20.5	86.4 85.1	85.8	6.6 6.5	6.6	19.4 22.7	21.1	80 80	80.0
31-Dec-12	Sunny	Moderate	09:14	Middle	0.3	17.4 17.4	17.4	7.6 7.4	7.5	21.5 19.5	20.5	87.9 88.7	88.3	6.6 6.7	6.7	14.0 14.7	14.4	65 66	65.5

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:33	Middle	0.3	20.8 20.4	20.6	7.4 8.0	7.7	31.2 30.3	30.8	76.9 74.0	75.5	5.8 5.6	5.7	20.6 20.7	20.7	64 65	64.5
5-Dec-12	Cloudy	Moderate	16:59	Middle	0.3	19.5 19.2	19.4	7.2 7.9	7.6	32.3 31.4	31.9	101.0 97.2	99.1	7.6 7.3	7.5	19.2 19.3	19.3	87 86	86.5
10-Dec-12	Sunny	Moderate	12:05	Middle	0.3	20.5 20.1	20.3	7.7 7.7	7.7	31.4 31.3	31.4	79.0 79.0	79.0	5.9 5.9	5.9	19.4 18.6	19.0	67 67	67.0
12-Dec-12	Cloudy	Moderate	12:03	Middle	0.3	20.5 21.2	20.9	8.5 7.2	7.9	27.4 28.3	27.9	90.7 87.2	89.0	6.8 6.6	6.7	16.4 19.1	17.8	61 62	61.5
14-Dec-12	Fine	Moderate	14:05	Middle	0.3	20.9 20.6	20.8	7.2 7.8	7.5	33.0 32.1	32.6	96.6 92.9	94.8	7.4 7.1	7.3	22.3 23.2	22.8	43 42	42.5
17-Dec-12	Fine	Moderate	17:35	Middle	0.3	22.2 21.8	22.0	7.3 7.9	7.6	32.8 31.8	32.3	100.2 96.5	98.4	7.5 7.2	7.4	19.0 21.9	20.5	68 69	68.5
24-Dec-12	Sunny	Moderate	12:04	Middle	0.3	19.5 19.1	19.3	7.6 7.6	7.6	28.3 28.2	28.3	79.4 79.4	79.4	6.0 6.0	6.0	18.2 18.6	18.4	70 70	70.0
27-Dec-12	Cloudy	Moderate	12:49	Middle	0.3	19.0 18.7	18.9	7.7 8.3	8.0	31.6 30.7	31.2	82.5 79.5	81.0	6.2 6.0	6.1	19.8 22.9	21.4	84 86	85.0
29-Dec-12	Cloudy	Moderate	14:07	Middle	0.3	20.3 20.0	20.2	7.2 7.9	7.6	31.9 31.1	31.5	100.8 97.0	98.9	7.7 7.4	7.6	23.5 26.9	25.2	83 81	82.0
31-Dec-12	Sunny	Moderate	15:35	Middle	0.3	18.0 17.6	17.8	8.0 8.3	8.2	31.8 27.7	29.8	73.3 89.0	81.2	5.5 6.7	6.1	16.2 16.5	16.4	70 70	70.0

Water Quality Monitoring Results at W2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:32	Middle	0.3	20.8 20.4	20.6	7.6 7.6	7.6	29.8 29.7	29.8	73.1 73.1	73.1	5.5 5.5	5.5	19.5 18.9	19.2	63 62	62.5
5-Dec-12	Cloudy	Moderate	12:24	Middle	0.3	19.6 19.1	19.4	7.5 7.5	7.5	30.9 30.8	30.9	95.4 95.5	95.5	7.1 7.1	7.1	18.3 17.7	18.0	88 86	87.0
7-Dec-12	Sunny	Moderate	14:21	Middle	0.3	21.3 21.0	21.2	7.1 7.7	7.4	33.2 32.3	32.8	85.8 82.5	84.2	6.6 6.3	6.5	13.5 13.4	13.5	60 60	60.0
10-Dec-12	Sunny	Moderate	16:44	Middle	0.3	20.5 20.1	20.3	7.4 8.1	7.8	32.8 31.9	32.4	83.1 80.0	81.6	6.2 6.0	6.1	15.1 15.4	15.3	68 68	68.0
12-Dec-12	Cloudy	Moderate	17:05	Middle	0.3	21.7 21.2	21.5	7.8 8.1	8.0	33.5 29.2	31.4	73.7 89.7	81.7	5.6 6.8	6.2	18.3 18.6	18.5	53 54	53.5
14-Dec-12	Fine	Moderate	09:33	Middle	0.3	20.2 19.8	20.0	7.5 7.4	7.5	31.6 31.5	31.6	91.6 91.6	91.6	7.0 7.0	7.0	20.4 23.6	22.0	35 35	35.0
17-Dec-12	Fine	Moderate	12:05	Middle	0.3	21.3 20.7	21.0	7.5 7.5	7.5	31.3 31.2	31.3	95.2 95.2	95.2	7.1 7.1	7.1	19.4 18.8	19.1	66 67	66.5
19-Dec-12	Cloudy	Moderate	12:46	Middle	0.3	20.0 19.5	19.8	7.6 7.6	7.6	30.0 29.9	30.0	97.7 97.8	97.8	7.3 7.3	7.3	22.7 22.0	22.4	82 83	82.5
21-Dec-12	Fine	Moderate	13:52	Middle	0.3	21.6 21.3	21.5	7.2 7.9	7.6	30.6 29.8	30.2	81.2 83.8	82.5	6.1 6.4	6.3	19.1 19.3	19.2	63 64	63.5
24-Dec-12	Sunny	Moderate	16:08	Middle	0.3	19.4 19.1	19.3	7.3 8.0	7.7	29.6 28.8	29.2	83.5 85.0	84.3	6.3 6.5	6.4	20.8 24.0	22.4	57 58	57.5
27-Dec-12	Cloudy	Moderate	08:05	Middle	0.3	19.0 18.6	18.8	7.9 7.9	7.9	30.2 30.1	30.2	78.4 78.4	78.4	5.9 5.9	5.9	20.2 19.5	19.9	74 76	75.0
29-Dec-12	Cloudy	Moderate	08:37	Middle	0.3	19.6 19.2	19.4	7.5 7.5	7.5	30.6 30.4	30.5	95.6 95.6	95.6	7.3 7.3	7.3	23.9 23.2	23.6	79 81	80.0
31-Dec-12	Sunny	Moderate	09:16	Middle	0.3	17.0 17.6	17.3	8.8 7.4	8.1	26.0 26.8	26.4	90.1 86.7	88.4	6.8 6.5	6.7	14.6 16.9	15.8	69 70	69.5

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:36	Middle	0.3	20.9 20.3	20.6	7.7 7.4	7.6	29.7 29.6	29.7	72.0 72.0	72.0	5.4 5.4	5.4	19.6 19.8	19.7	60 60	60.0
5-Dec-12	Cloudy	Moderate	17:02	Middle	0.3	19.6 19.0	19.3	7.6 7.3	7.5	30.8 30.7	30.8	94.5 94.7	94.6	7.1 7.1	7.1	19.0 18.2	18.6	63 64	63.5
10-Dec-12	Sunny	Moderate	12:07	Middle	0.3	20.6 20.2	20.4	7.7 7.9	7.8	33.0 31.1	32.1	76.6 74.7	75.7	5.8 5.6	5.7	18.2 17.5	17.9	62 62	62.0
12-Dec-12	Cloudy	Moderate	12:06	Middle	0.3	21.1 20.6	20.9	7.3 8.1	7.7	33.4 29.1	31.3	86.9 91.6	89.3	6.6 6.9	6.8	17.2 17.3	17.3	62 65	63.5
14-Dec-12	Fine	Moderate	14:08	Middle	0.3	21.1 20.4	20.8	7.6 7.2	7.4	31.5 31.4	31.5	90.3 90.3	90.3	6.9 6.9	6.9	22.0 22.6	22.3	41 41	41.0
17-Dec-12	Fine	Moderate	17:37	Middle	0.3	22.4 21.6	22.0	7.6 7.3	7.5	31.2 31.1	31.2	93.9 93.9	93.9	7.0 7.0	7.0	21.0 17.9	19.5	70 70	70.0
24-Dec-12	Sunny	Moderate	12:06	Middle	0.3	19.5 19.2	19.4	7.6 7.8	7.7	29.7 28.0	28.9	77.0 75.1	76.1	5.8 5.6	5.7	20.1 21.3	20.7	64 64	64.0
27-Dec-12	Cloudy	Moderate	12:51	Middle	0.3	19.1 18.5	18.8	8.0 7.7	7.9	30.2 30.0	30.1	77.3 77.3	77.3	5.8 5.8	5.8	21.9 18.6	20.3	85 85	85.0
29-Dec-12	Cloudy	Moderate	14:09	Middle	0.3	20.4 19.8	20.1	7.6 7.3	7.5	30.5 30.3	30.4	94.3 94.3	94.3	7.2 7.2	7.2	25.8 26.6	26.2	85 85	85.0
31-Dec-12	Sunny	Moderate	15:37	Middle	0.3	18.1 18.0	18.1	7.2 6.7	7.0	30.4 25.6	28.0	79.1 70.6	74.9	6.0 5.3	5.7	18.2 15.2	16.7	77 78	77.5

Water Quality Monitoring Results at W3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:35	Middle	0.3	20.9 20.5	20.7	7.6 7.8	7.7	31.3 29.5	30.4	70.9 69.1	70.0	5.3 5.2	5.3	18.5 19.6	19.1	66 66	66.0
5-Dec-12	Cloudy	Moderate	12:27	Middle	0.3	19.6 19.2	19.4	7.4 7.7	7.6	32.4 30.6	31.5	93.0 90.6	91.8	7.0 6.8	6.9	17.2 18.3	17.8	80 78	79.0
7-Dec-12	Sunny	Moderate	14:23	Middle	0.3	21.5 20.8	21.2	7.5 7.2	7.4	31.7 31.5	31.6	80.1 80.1	80.1	6.1 6.1	6.1	15.1 12.9	14.0	61 60	60.5
10-Dec-12	Sunny	Moderate	16:47	Middle	0.3	20.6 20.0	20.3	7.8 7.5	7.7	31.3 31.1	31.2	77.7 77.7	77.7	5.8 5.8	5.8	18.5 18.6	18.6	69 70	69.5
12-Dec-12	Cloudy	Moderate	17:07	Middle	0.3	21.8 21.7	21.8	7.0 6.5	6.8	32.0 27.0	29.5	79.6 71.0	75.3	6.0 5.4	5.7	20.5 17.2	18.9	66 62	64.0
14-Dec-12	Fine	Moderate	09:35	Middle	0.3	20.3 19.9	20.1	7.4 7.7	7.6	33.2 31.3	32.3	89.2 86.6	87.9	6.8 6.6	6.7	21.8 21.3	21.6	38 36	37.0
17-Dec-12	Fine	Moderate	12:07	Middle	0.3	21.4 20.9	21.2	7.5 7.7	7.6	32.9 31.0	32.0	92.6 90.0	91.3	6.9 6.7	6.8	18.4 19.5	19.0	70 70	70.0
19-Dec-12	Cloudy	Moderate	12:49	Middle	0.3	20.0 19.6	19.8	7.5 7.8	7.7	31.5 29.8	30.7	95.3 92.7	94.0	7.1 6.9	7.0	21.4 22.7	22.1	77 76	76.5
21-Dec-12	Fine	Moderate	13:54	Middle	0.3	21.8 21.1	21.5	7.6 7.3	7.5	29.2 29.1	29.2	76.0 81.8	78.9	5.7 6.3	6.0	20.1 17.1	18.6	53 53	53.0
24-Dec-12	Sunny	Moderate	16:10	Middle	0.3	19.5 19.0	19.3	7.7 7.4	7.6	28.2 28.1	28.2	78.1 78.1	78.1	5.9 5.9	5.9	23.1 19.6	21.4	58 59	58.5
27-Dec-12	Cloudy	Moderate	08:07	Middle	0.3	19.1 18.7	18.9	7.9 8.1	8.0	31.8 29.9	30.9	76.1 74.2	75.2	5.7 5.6	5.7	19.1 20.3	19.7	76 76	76.0
29-Dec-12	Cloudy	Moderate	08:39	Middle	0.3	19.7 19.3	19.5	7.4 7.7	7.6	32.1 30.3	31.2	93.0 90.4	91.7	7.1 6.9	7.0	22.7 24.0	23.4	91 91	91.0
31-Dec-12	Sunny	Moderate	09:18	Middle	0.3	17.5 17.1	17.3	7.6 8.3	8.0	31.6 27.6	29.6	86.4 90.9	88.7	6.5 6.9	6.7	15.2 15.3	15.3	73 74	73.5

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W4 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:38	Middle	0.3	19.9 21.1	20.5	7.4 7.3	7.4	7.7 7.9	7.8	72.1 67.2	69.7	5.4 5.0	5.2	27.1 30.3	28.7	64 64	64.0
5-Dec-12	Cloudy	Moderate	17:04	Middle	0.3	18.7 19.8	19.3	7.3 7.2	7.3	8.3 8.5	8.4	85.6 79.0	82.3	6.4 5.9	6.2	25.2 28.1	26.7	82 82	82.0
10-Dec-12	Sunny	Moderate	12:09	Middle	0.3	20.4 20.5	20.5	7.1 7.7	7.4	6.7 6.5	6.6	71.5 67.1	69.3	5.4 5.0	5.2	28.9 28.0	28.5	61 61	61.0
12-Dec-12	Cloudy	Moderate	12:08	Middle	0.3	20.8 21.4	21.1	7.0 7.2	7.1	8.8 8.5	8.7	84.2 79.7	82.0	6.3 6.0	6.2	26.4 27.5	27.0	42 42	42.0
14-Dec-12	Fine	Moderate	14:10	Middle	0.3	20.1 21.3	20.7	7.3 7.1	7.2	6.4 6.6	6.5	81.6 75.2	78.4	6.2 5.8	6.0	28.1 34.9	31.5	46 46	46.0
17-Dec-12	Fine	Moderate	17:39	Middle	0.3	21.1 22.7	21.9	7.3 7.2	7.3	5.7 5.9	5.8	84.8 78.4	81.6	6.3 5.9	6.1	27.0 30.0	28.5	58 58	58.0
24-Dec-12	Sunny	Moderate	12:08	Middle	0.3	19.3 19.5	19.4	7.0 7.6	7.3	6.1 5.9	6.0	71.8 67.5	69.7	5.4 5.1	5.3	30.2 31.3	30.8	36 36	36.0
27-Dec-12	Cloudy	Moderate	12:53	Middle	0.3	18.2 19.3	18.8	7.8 7.6	7.7	5.8 6.0	5.9	69.9 70.2	70.1	5.3 5.3	5.3	28.0 31.3	29.7	81 81	81.0
29-Dec-12	Cloudy	Moderate	14:11	Middle	0.3	19.5 20.7	20.1	7.3 7.1	7.2	6.1 6.3	6.2	85.1 78.5	81.8	6.5 6.0	6.3	33.0 36.5	34.8	79 79	79.0
31-Dec-12	Sunny	Moderate	15:39	Middle	0.3	18.3 18.3	18.3	8.3 7.3	7.8	7.5 7.3	7.4	83.3 92.4	87.9	6.3 7.0	6.7	20.6 22.9	21.8	86 87	86.5

Water Quality Monitoring Results at W4 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:37	Middle	0.3	20.7 20.8	20.8	7.0 7.6	7.3	6.4 6.2	6.3	73.2 69.2	71.2	5.5 5.2	5.4	27.8 28.7	28.3	70 63	66.5
5-Dec-12	Cloudy	Moderate	12:29	Middle	0.3	19.4 19.5	19.5	6.8 7.5	7.2	7.0 6.8	6.9	86.9 80.7	83.8	6.5 6.0	6.3	25.9 26.7	26.3	75 75	75.0
7-Dec-12	Sunny	Moderate	14:25	Middle	0.3	20.5 21.7	21.1	7.2 7.0	7.1	6.4 6.6	6.5	72.5 66.7	69.6	5.5 5.1	5.3	19.2 21.3	20.3	58 59	58.5
10-Dec-12	Sunny	Moderate	16:49	Middle	0.3	19.6 20.8	20.2	7.5 7.4	7.5	6.1 6.2	6.2	70.3 70.5	70.4	5.3 5.3	5.3	28.2 29.8	29.0	68 65	66.5
12-Dec-12	Cloudy	Moderate	17:09	Middle	0.3	22.0 22.0	22.0	8.0 7.0	7.5	7.7 7.6	7.7	83.9 92.9	88.4	6.3 7.0	6.7	23.2 25.8	24.5	48 48	48.0
14-Dec-12	Fine	Moderate	09:37	Middle	0.3	20.1 20.2	20.2	6.8 7.4	7.1	7.1 6.9	7.0	82.9 77.8	80.4	6.3 6.0	6.2	28.7 33.4	31.1	35 36	35.5
17-Dec-12	Fine	Moderate	12:09	Middle	0.3	21.1 21.3	21.2	6.9 7.5	7.2	6.4 6.2	6.3	86.3 81.1	83.7	6.4 6.1	6.3	27.6 28.5	28.1	50 50	50.0
19-Dec-12	Cloudy	Moderate	12:51	Middle	0.3	19.8 19.9	19.9	6.9 7.6	7.3	6.8 6.6	6.7	89.0 82.7	85.9	6.7 6.2	6.5	32.2 33.1	32.7	80 80	80.0
21-Dec-12	Fine	Moderate	13:56	Middle	0.3	20.8 22.0	21.4	7.3 7.2	7.3	5.5 5.8	5.7	68.7 69.3	69.0	5.2 5.3	5.3	25.7 28.7	27.2	48 49	48.5
24-Dec-12	Sunny	Moderate	16:12	Middle	0.3	18.7 19.8	19.3	7.4 7.3	7.4	5.3 5.6	5.5	70.7 70.0	70.4	5.3 5.4	5.4	29.5 32.9	31.2	38 38	38.0
27-Dec-12	Cloudy	Moderate	08:09	Middle	0.3	18.9 19.0	19.0	7.3 7.9	7.6	6.5 6.3	6.4	71.0 66.7	68.9	5.3 5.0	5.2	28.7 29.7	29.2	79 79	79.0
29-Dec-12	Cloudy	Moderate	08:41	Middle	0.3	19.5 19.6	19.6	6.8 7.5	7.2	6.9 6.6	6.8	86.4 81.2	83.8	6.6 6.2	6.4	33.7 34.7	34.2	89 92	90.5
31-Dec-12	Sunny	Moderate	09:20	Middle	0.3	17.2 17.7	17.5	7.2 7.4	7.3	5.5 5.2	5.4	83.6 79.2	81.4	6.3 6.0	6.2	23.4 24.4	23.9	83 82	82.5

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W5 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:40	Middle	0.4	21.2 20.6	20.9	7.5 7.8	7.7	5.9 5.7	5.8	69.1 71.2	70.2	5.2 5.4	5.3	29.1 25.6	27.4	58 58	58.0
5-Dec-12	Cloudy	Moderate	17:06	Middle	0.4	20.0 19.3	19.7	7.3 7.6	7.5	6.5 6.3	6.4	87.9 80.7	84.3	6.6 6.0	6.3	29.7 23.9	26.8	92 91	91.5
10-Dec-12	Sunny	Moderate	12:11	Middle	0.4	20.5 20.8	20.7	7.6 7.2	7.4	6.8 6.1	6.5	68.2 70.3	69.3	5.1 5.3	5.2	28.5 26.7	27.6	60 61	60.5
12-Dec-12	Cloudy	Moderate	12:10	Middle	0.4	20.7 20.8	20.8	8.5 6.6	7.6	7.4 7.1	7.3	75.5 84.3	79.9	5.7 6.4	6.1	25.6 27.0	26.3	53 53	53.0
14-Dec-12	Fine	Moderate	14:12	Middle	0.4	21.4 20.8	21.1	7.3 7.6	7.5	6.6 6.3	6.5	84.1 77.8	81.0	6.4 6.0	6.2	32.9 30.2	31.6	47 47	47.0
17-Dec-12	Fine	Moderate	17:41	Middle	0.4	22.9 22.0	22.5	7.4 7.7	7.6	5.9 5.6	5.8	87.4 81.1	84.3	6.5 6.1	6.3	31.8 25.5	28.7	59 62	60.5
24-Dec-12	Sunny	Moderate	12:11	Middle	0.4	19.5 19.8	19.7	7.5 7.1	7.3	6.2 5.5	5.9	68.6 70.7	69.7	5.2 5.3	5.3	29.8 30.0	29.9	56 57	56.5
27-Dec-12	Cloudy	Moderate	12:55	Middle	0.4	19.4 18.8	19.1	7.8 8.1	8.0	6.0 5.8	5.9	72.0 66.7	69.4	5.4 5.0	5.2	26.1 26.5	26.3	76 77	76.5
29-Dec-12	Cloudy	Moderate	14:13	Middle	0.4	20.8 20.2	20.5	7.3 7.6	7.5	6.4 6.1	6.3	87.6 81.2	84.4	6.7 6.2	6.5	38.7 35.6	37.2	83 83	83.0
31-Dec-12	Sunny	Moderate	15:41	Middle	0.4	18.4 18.6	18.5	7.6 8.8	8.2	7.4 6.9	7.2	85.7 88.0	86.9	6.5 6.6	6.6	22.6 20.3	21.5	85 84	84.5

Water Quality Monitoring Results at W5 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:39	Middle	0.4	20.8 21.1	21.0	7.6 7.1	7.4	6.5 5.8	6.2	70.1 72.1	71.1	5.2 5.4	5.3	27.4 27.6	27.5	66 66	66.0
5-Dec-12	Cloudy	Moderate	12:31	Middle	0.4	19.6 19.8	19.7	7.4 6.9	7.2	7.1 6.4	6.8	82.8 84.9	83.9	6.2 6.4	6.3	25.5 25.7	25.6	77 76	76.5
7-Dec-12	Sunny	Moderate	14:27	Middle	0.4	21.8 21.2	21.5	7.2 7.5	7.4	6.6 6.4	6.5	74.6 69.1	71.9	5.7 5.3	5.5	22.6 18.1	20.4	59 58	58.5
10-Dec-12	Sunny	Moderate	16:51	Middle	0.4	20.9 20.3	20.6	7.5 7.9	7.7	6.2 6.0	6.1	72.5 67.1	69.8	5.5 5.0	5.3	30.5 24.5	27.5	58 58	58.0
12-Dec-12	Cloudy	Moderate	17:11	Middle	0.4	22.2 22.4	22.3	7.3 8.6	8.0	7.8 7.3	7.6	86.2 88.5	87.4	6.5 6.7	6.6	25.5 22.9	24.2	64 64	64.0
14-Dec-12	Fine	Moderate	09:39	Middle	0.4	20.2 20.5	20.4	7.4 6.9	7.2	7.2 6.4	6.8	79.1 81.6	80.4	6.1 6.2	6.2	28.4 32.3	30.4	37 37	37.0
17-Dec-12	Fine	Moderate	12:11	Middle	0.4	21.3 21.7	21.5	7.5 7.0	7.3	6.5 5.7	6.1	82.3 84.8	83.6	6.1 6.3	6.2	27.3 27.4	27.4	45 44	44.5
19-Dec-12	Cloudy	Moderate	12:53	Middle	0.4	20.0 20.2	20.1	7.5 7.0	7.3	6.9 6.2	6.6	84.8 86.9	85.9	6.3 6.5	6.4	31.7 31.9	31.8	85 86	85.5
21-Dec-12	Fine	Moderate	13:58	Middle	0.4	22.1 21.5	21.8	7.3 7.6	7.5	5.8 5.6	5.7	70.8 71.5	71.2	5.3 5.5	5.4	27.6 24.3	26.0	62 61	61.5
24-Dec-12	Sunny	Moderate	16:14	Middle	0.4	19.9 19.3	19.6	7.4 7.8	7.6	5.6 5.4	5.5	72.9 72.1	72.5	5.5 5.5	5.5	31.7 27.9	29.8	50 50	50.0
27-Dec-12	Cloudy	Moderate	08:11	Middle	0.4	19.1 19.3	19.2	7.9 7.4	7.7	6.6 5.8	6.2	67.8 69.9	68.9	5.1 5.3	5.2	28.3 28.5	28.4	75 74	74.5
29-Dec-12	Cloudy	Moderate	08:43	Middle	0.4	19.6 19.9	19.8	7.4 7.0	7.2	7.0 6.2	6.6	82.5 85.1	83.8	6.3 6.5	6.4	33.3 33.5	33.4	87 87	87.0
31-Dec-12	Sunny	Moderate	09:22	Middle	0.4	17.2 17.3	17.3	8.8 6.8	7.8	7.0 6.7	6.9	75.0 83.7	79.4	5.7 6.3	6.0	22.7 24.0	23.4	85 86	85.5

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W6 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:42	Middle	0.4	21.4 20.8	21.1	7.7 7.7	7.7	31.7 30.9	31.3	76.0 76.0	76.0	5.7 5.7	5.7	17.0 17.5	17.3	67 66	66.5
5-Dec-12	Cloudy	Moderate	17:08	Middle	0.4	20.1 19.5	19.8	7.5 7.6	7.6	32.8 32.1	32.5	99.1 99.3	99.2	7.4 7.4	7.4	17.5 17.3	17.4	73 72	72.5
10-Dec-12	Sunny	Moderate	12:13	Middle	0.4	20.9 20.5	20.7	8.0 7.9	8.0	33.0 31.8	32.4	79.0 76.6	77.8	5.9 5.8	5.9	19.0 21.2	20.1	59 60	59.5
12-Dec-12	Cloudy	Moderate	12:12	Middle	0.4	20.6 20.4	20.5	6.7 6.5	6.6	32.0 31.6	31.8	77.4 77.9	77.7	5.8 5.9	5.9	16.5 15.2	15.9	75 72	73.5
14-Dec-12	Fine	Moderate	14:14	Middle	0.4	21.5 21.0	21.3	7.5 7.6	7.6	33.5 32.8	33.2	95.3 95.3	95.3	7.3 7.3	7.3	17.8 22.2	20.0	43 46	44.5
17-Dec-12	Fine	Moderate	17:43	Middle	0.4	23.0 22.3	22.7	7.6 7.7	7.7	33.3 32.5	32.9	99.1 99.1	99.1	7.4 7.4	7.4	16.9 17.5	17.2	70 70	70.0
24-Dec-12	Sunny	Moderate	12:13	Middle	0.4	19.8 19.5	19.7	7.9 7.8	7.9	29.8 28.7	29.3	79.4 77.0	78.2	6.0 5.8	5.9	18.1 19.4	18.8	74 73	73.5
27-Dec-12	Cloudy	Moderate	12:57	Middle	0.4	19.5 19.0	19.3	8.0 8.1	8.1	32.1 31.4	31.8	81.6 81.6	81.6	6.1 6.1	6.1	17.6 18.1	17.9	72 72	72.0
29-Dec-12	Cloudy	Moderate	14:15	Middle	0.4	20.9 20.3	20.6	7.5 7.6	7.6	32.4 31.7	32.1	99.5 99.5	99.5	7.6 7.6	7.6	25.9 25.6	25.8	88 89	88.5
31-Dec-12	Sunny	Moderate	15:43	Middle	0.4	17.5 18.6	18.1	7.5 7.2	7.4	33.8 32.0	32.9	85.9 86.7	86.3	6.5 6.5	6.5	17.2 17.4	17.3	77 75	76.0

Water Quality Monitoring Results at W6 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:41	Middle	0.4	21.2 20.8	21.0	7.9 7.8	7.9	31.4 30.2	30.8	73.1 70.9	72.0	5.5 5.3	5.4	17.2 17.8	17.5	62 61	61.5
5-Dec-12	Cloudy	Moderate	12:33	Middle	0.4	19.9 19.5	19.7	7.8 7.7	7.8	32.5 31.3	31.9	95.2 92.9	94.1	7.1 7.0	7.1	17.9 18.1	18.0	79 80	79.5
7-Dec-12	Sunny	Moderate	14:29	Middle	0.4	22.0 21.4	21.7	7.4 7.5	7.5	33.7 32.9	33.3	84.6 84.6	84.6	6.5 6.5	6.5	12.2 12.6	12.4	57 57	57.0
10-Dec-12	Sunny	Moderate	16:53	Middle	0.4	21.1 20.5	20.8	7.7 7.8	7.8	33.3 32.6	33.0	82.2 82.2	82.2	6.2 6.2	6.2	16.5 15.1	15.8	78 75	76.5
12-Dec-12	Cloudy	Moderate	17:13	Middle	0.4	21.1 22.4	21.8	7.2 7.0	7.1	35.6 33.7	34.7	86.4 87.2	86.8	6.5 6.6	6.6	17.7 16.0	16.9	88 89	88.5
14-Dec-12	Fine	Moderate	09:42	Middle	0.4	20.6 20.2	20.4	7.7 7.7	7.7	33.2 32.0	32.6	91.6 89.2	90.4	7.0 6.8	6.9	20.0 19.3	19.7	39 39	39.0
17-Dec-12	Fine	Moderate	12:14	Middle	0.4	21.8 21.3	21.6	7.8 7.7	7.8	33.0 31.7	32.4	95.2 92.6	93.9	7.1 6.9	7.0	19.0 20.1	19.6	69 70	69.5
19-Dec-12	Cloudy	Moderate	12:55	Middle	0.4	20.3 19.9	20.1	7.9 7.8	7.9	31.6 30.4	31.0	97.5 95.2	96.4	7.3 7.1	7.2	19.3 19.2	19.3	78 78	78.0
21-Dec-12	Fine	Moderate	14:01	Middle	0.4	22.3 21.7	22.0	7.5 7.6	7.6	31.1 30.4	30.8	80.1 85.9	83.0	6.0 6.6	6.3	16.1 16.6	16.4	79 76	77.5
24-Dec-12	Sunny	Moderate	16:16	Middle	0.4	20.0 19.4	19.7	7.6 7.7	7.7	30.1 29.4	29.8	82.6 82.6	82.6	6.2 6.2	6.2	18.5 19.1	18.8	59 60	59.5
27-Dec-12	Cloudy	Moderate	08:13	Middle	0.4	19.4 19.0	19.2	8.2 8.1	8.2	31.8 30.6	31.2	78.4 76.1	77.3	5.9 5.7	5.8	19.8 19.6	19.7	78 78	78.0
29-Dec-12	Cloudy	Moderate	08:46	Middle	0.4	20.0 19.6	19.8	7.8 7.7	7.8	32.1 31.0	31.6	95.6 93.0	94.3	7.3 7.1	7.2	23.5 22.0	22.8	80 80	80.0
31-Dec-12	Sunny	Moderate	09:24	Middle	0.4	17.1 16.9	17.0	6.9 8.8	7.9	23.3 23.3	23.3	76.8 77.3	77.1	5.8 5.8	5.8	14.6 14.1	14.4	75 75	75.0

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at W7 - Mid-Ebb Tide

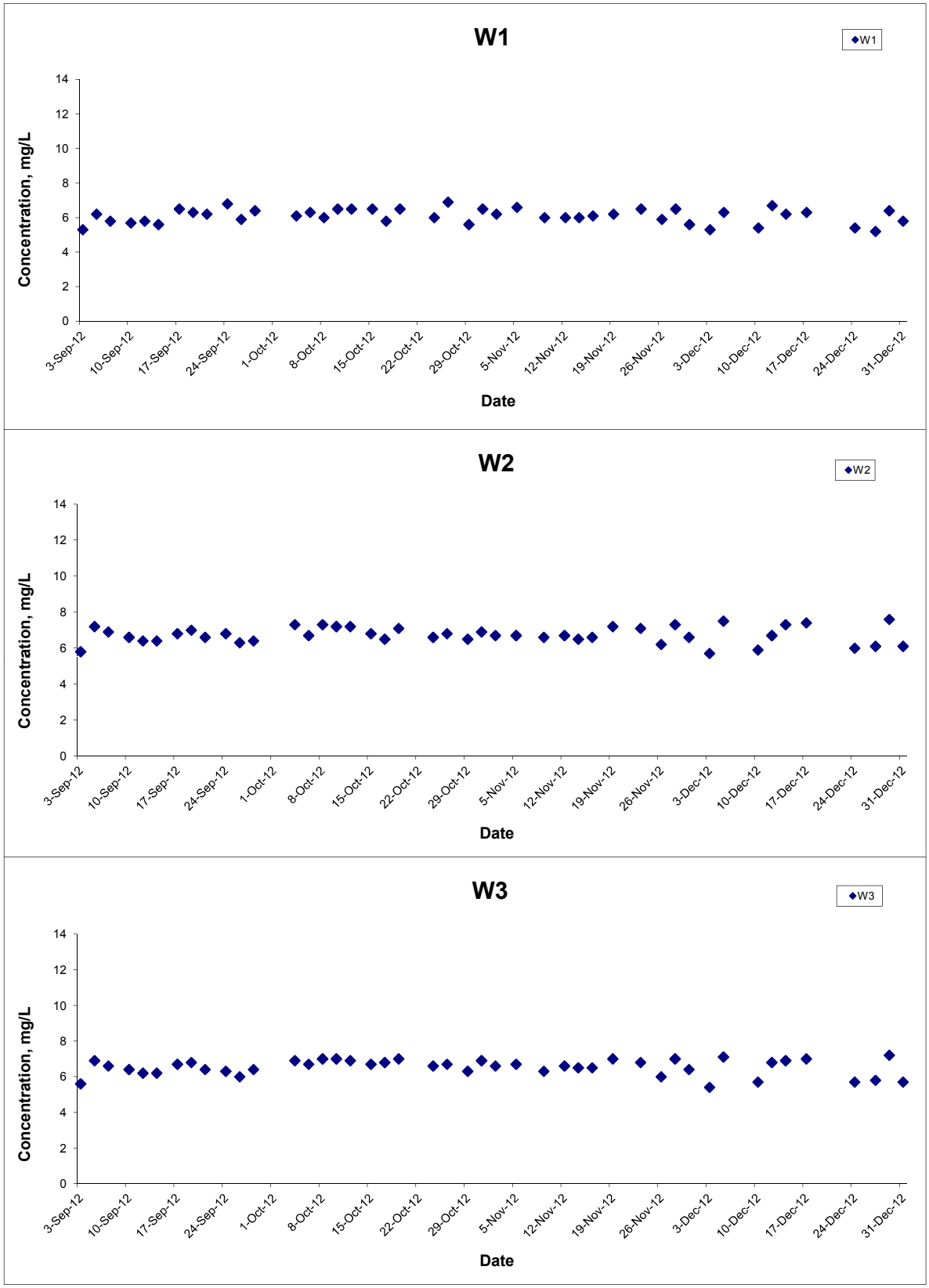
Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	16:44	Middle	0.4	20.9 20.6	20.8	7.8 7.8	7.8	31.4 30.2	30.8	78.9 68.1	73.5	5.9 5.1	5.5	18.9 16.6	17.8	59 59	59.0
5-Dec-12	Cloudy	Moderate	17:10	Middle	0.4	19.6 19.3	19.5	7.7 7.7	7.7	32.5 31.3	31.9	103.8 89.3	96.6	7.8 6.7	7.3	17.7 18.2	18.0	89 88	88.5
10-Dec-12	Sunny	Moderate	12:15	Middle	0.4	20.4 20.3	20.4	7.7 8.0	7.9	33.8 32.8	33.3	86.4 82.2	84.3	6.5 6.2	6.4	19.3 18.7	19.0	65 65	65.0
12-Dec-12	Cloudy	Moderate	12:13	Middle	0.4	20.5 20.4	20.5	7.7 7.5	7.6	35.6 33.7	34.7	79.5 80.3	79.9	6.0 6.1	6.1	14.7 15.3	15.0	62 62	62.0
14-Dec-12	Fine	Moderate	14:16	Middle	0.4	21.1 20.7	20.9	7.6 7.6	7.6	33.2 32.0	32.6	99.3 85.3	92.3	7.6 6.5	7.1	19.8 18.4	19.1	41 41	41.0
17-Dec-12	Fine	Moderate	17:45	Middle	0.4	22.4 22.0	22.2	7.7 7.7	7.7	33.0 31.7	32.4	103.0 88.7	95.9	7.7 6.6	7.2	18.8 17.3	18.1	82 82	82.0
24-Dec-12	Sunny	Moderate	12:14	Middle	0.4	19.4 19.3	19.4	7.6 7.9	7.8	30.4 29.6	30.0	86.8 82.6	84.7	6.5 6.2	6.4	16.0 18.8	17.4	76 75	75.5
27-Dec-12	Cloudy	Moderate	12:59	Middle	0.4	19.1 18.8	19.0	8.1 8.1	8.1	31.8 30.6	31.2	84.8 73.2	79.0	6.4 5.5	6.0	19.5 17.2	18.4	79 79	79.0
29-Dec-12	Cloudy	Moderate	14:17	Middle	0.4	20.4 20.1	20.3	7.7 7.7	7.7	32.1 30.9	31.5	103.5 89.1	96.3	7.9 6.8	7.4	23.2 21.6	22.4	86 86	86.0
31-Dec-12	Sunny	Moderate	15:45	Middle	0.4	18.3 18.1	18.2	8.5 7.3	7.9	27.0 27.7	27.4	88.9 81.5	85.2	6.7 6.1	6.4	16.5 16.7	16.6	75 75	75.0

Water Quality Monitoring Results at W7 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Dec-12	Cloudy	Moderate	10:42	Middle	0.4	20.7 20.6	20.7	7.6 7.9	7.8	32.1 31.2	31.7	79.9 76.0	78.0	6.0 5.7	5.9	19.2 19.8	19.5	58 58	58.0
5-Dec-12	Cloudy	Moderate	12:34	Middle	0.4	19.5 19.3	19.4	7.4 7.8	7.6	33.2 32.3	32.8	103.8 100.0	101.9	7.8 7.5	7.7	17.5 18.2	17.9	83 85	84.0
7-Dec-12	Sunny	Moderate	14:31	Middle	0.4	21.5 21.2	21.4	7.5 7.5	7.5	33.4 32.1	32.8	88.1 75.7	81.9	6.7 5.8	6.3	11.9 11.8	11.9	59 60	59.5
10-Dec-12	Sunny	Moderate	16:55	Middle	0.4	20.6 20.3	20.5	7.9 7.9	7.9	33.0 31.7	32.4	85.3 73.5	79.4	6.4 5.5	6.0	16.4 16.5	16.5	65 65	65.0
12-Dec-12	Cloudy	Moderate	17:15	Middle	0.4	22.0 21.8	21.9	8.3 7.1	7.7	28.4 29.2	28.8	89.6 82.0	85.8	6.8 6.2	6.5	19.2 19.7	19.5	59 62	60.5
14-Dec-12	Fine	Moderate	09:43	Middle	0.4	20.1 20.7	20.4	7.4 7.6	7.5	34.0 32.0	33.0	100.5 85.3	92.9	7.7 6.5	7.1	18.7 19.6	19.2	39 38	38.5
17-Dec-12	Fine	Moderate	12:16	Middle	0.4	21.2 21.0	21.1	7.5 7.8	7.7	33.7 32.8	33.3	104.3 99.1	101.7	7.8 7.4	7.6	17.6 17.2	17.4	80 76	78.0
19-Dec-12	Cloudy	Moderate	12:56	Middle	0.4	19.9 19.8	19.9	7.6 7.9	7.8	32.3 31.4	31.9	106.3 102.4	104.4	8.0 7.7	7.9	19.3 19.4	19.4	73 74	73.5
21-Dec-12	Fine	Moderate	14:02	Middle	0.4	21.8 21.4	21.6	7.7 7.7	7.7	30.8 29.6	30.2	83.3 77.6	80.5	6.3 6.0	6.2	17.9 15.7	16.8	66 70	68.0
24-Dec-12	Sunny	Moderate	16:18	Middle	0.4	19.6 19.2	19.4	7.8 7.8	7.8	29.8 28.6	29.2	85.7 85.5	85.6	6.4 6.4	6.4	20.6 18.0	19.3	61 61	61.0
27-Dec-12	Cloudy	Moderate	08:15	Middle	0.4	19.0 18.8	18.9	7.9 8.2	8.1	32.5 31.6	32.1	85.8 81.6	83.7	6.4 6.1	6.3	18.2 18.3	18.3	79 80	79.5
29-Dec-12	Cloudy	Moderate	08:47	Middle	0.4	19.5 19.4	19.5	7.4 7.7	7.6	32.8 32.0	32.4	104.9 99.5	102.2	8.0 7.6	7.8	18.2 21.2	19.7	82 80	81.0
31-Dec-12	Sunny	Moderate	09:26	Middle	0.4	17.0 17.0	17.0	8.0 7.7	7.9	33.8 32.0	32.9	79.0 79.8	79.4	6.0 6.0	6.0	13.1 13.6	13.4	75 77	76.0

Remarks: ** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

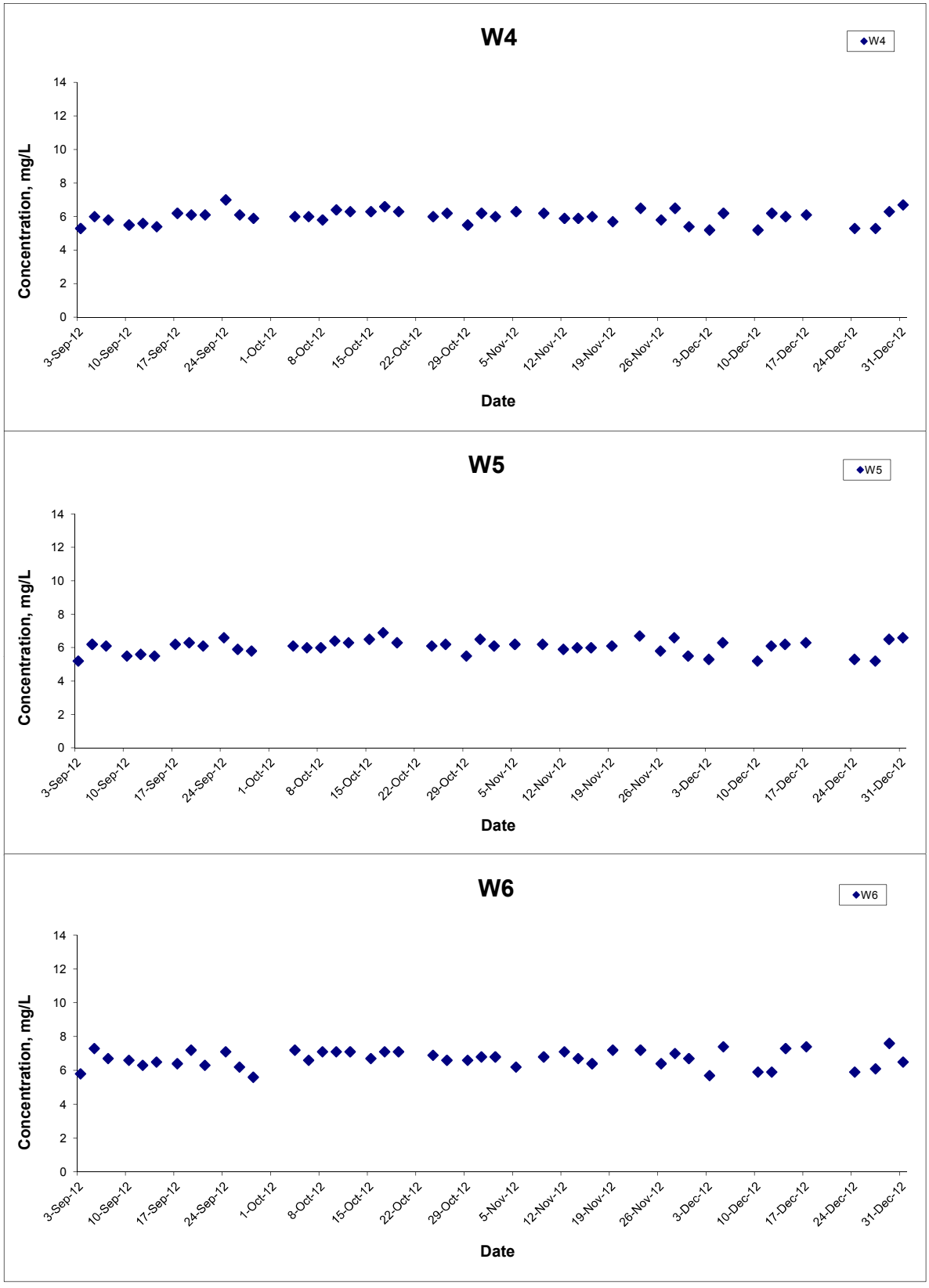
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



Title		Scale	Project No.
	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan	N.T.S	MA0002
	Graphical Presentation of Water Quality Monitoring Results	Date: Dec 12	Appendix: H

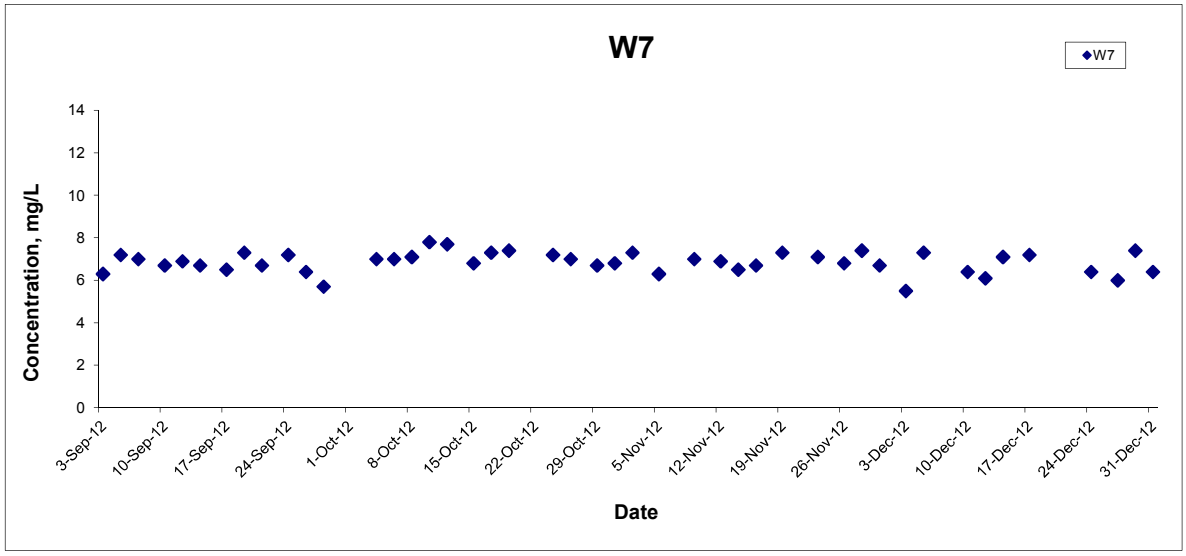
CINOTECH

Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



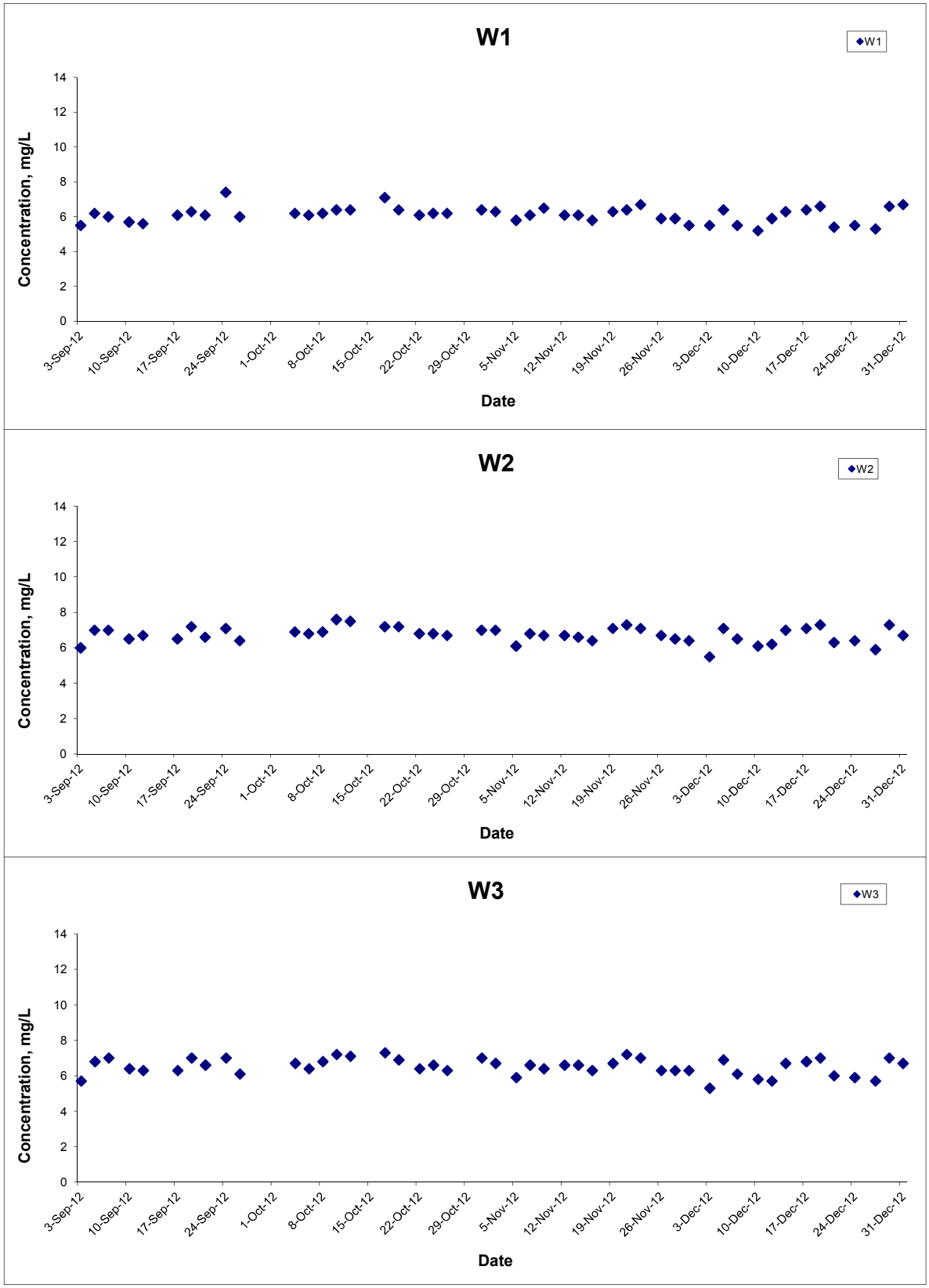
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



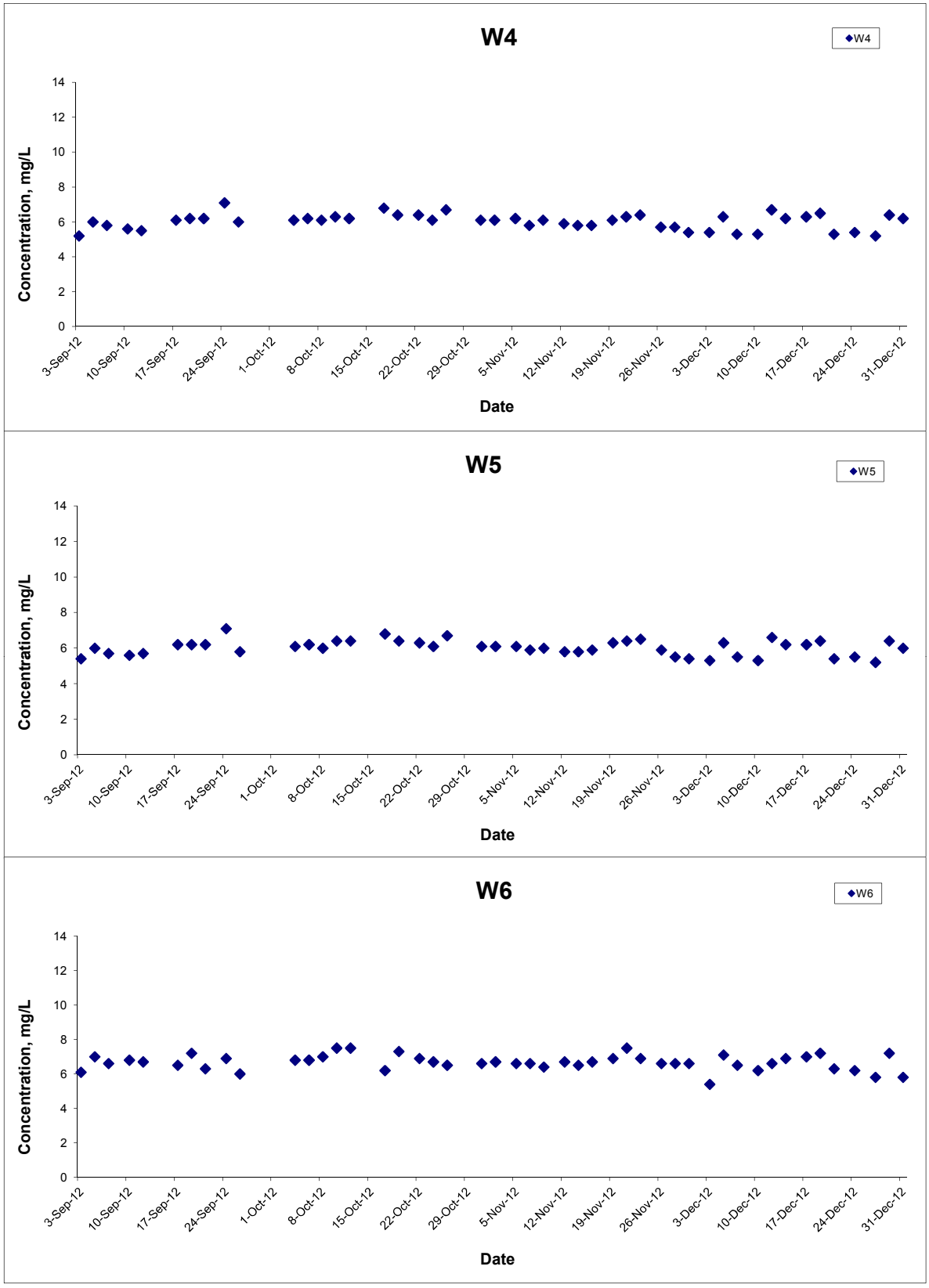
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



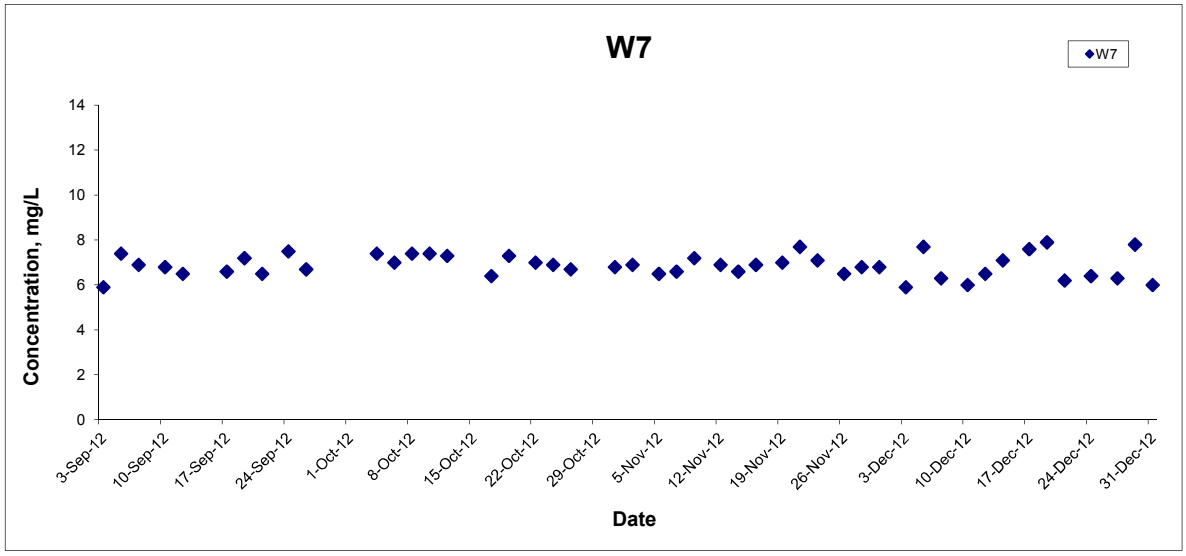
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



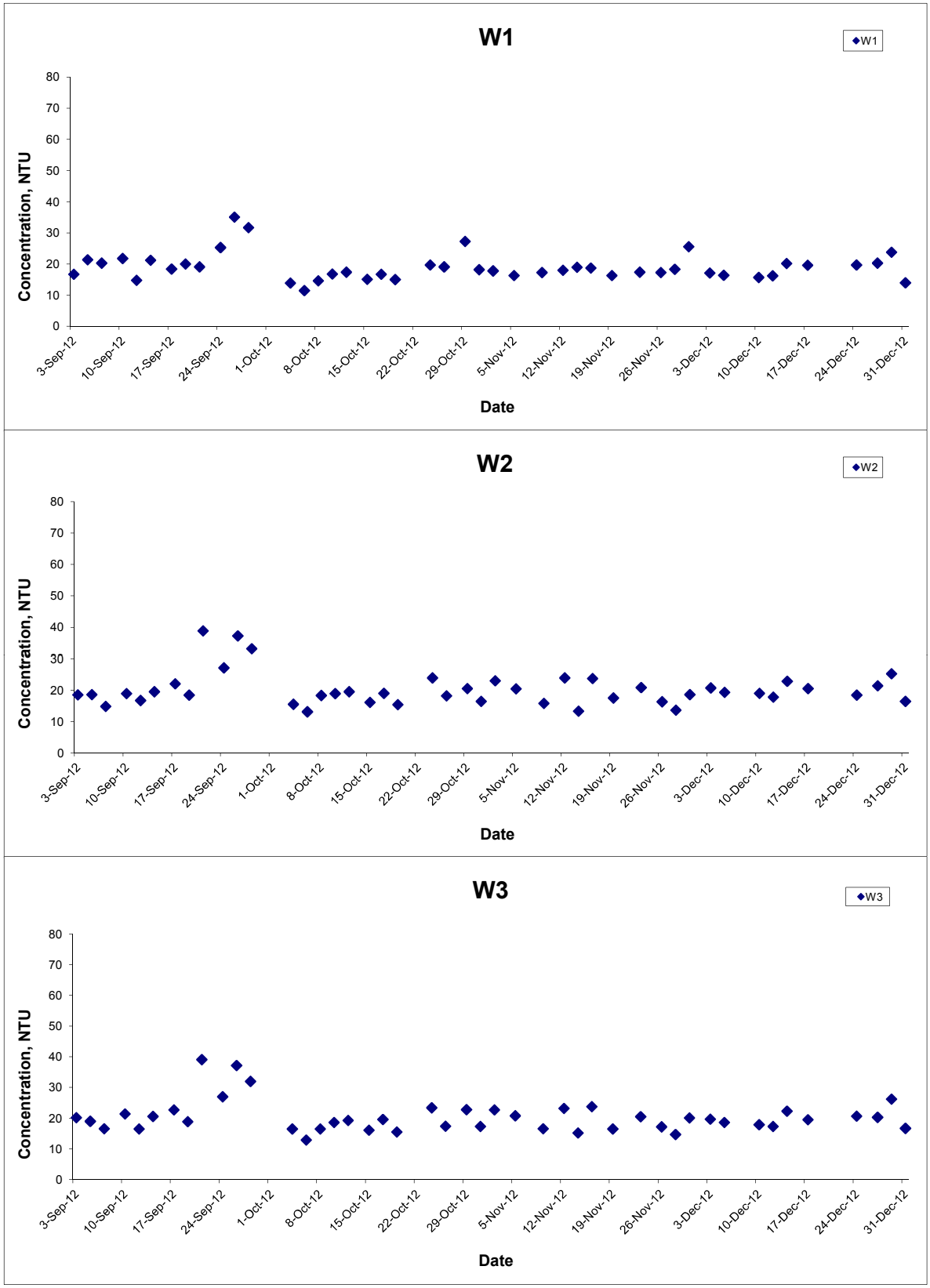
Title		Scale	Project No.	
	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan	N.T.S	MA0002	CINOTECH
	Graphical Presentation of Water Quality Monitoring Results	Date: Dec 12	Appendix: H	

Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

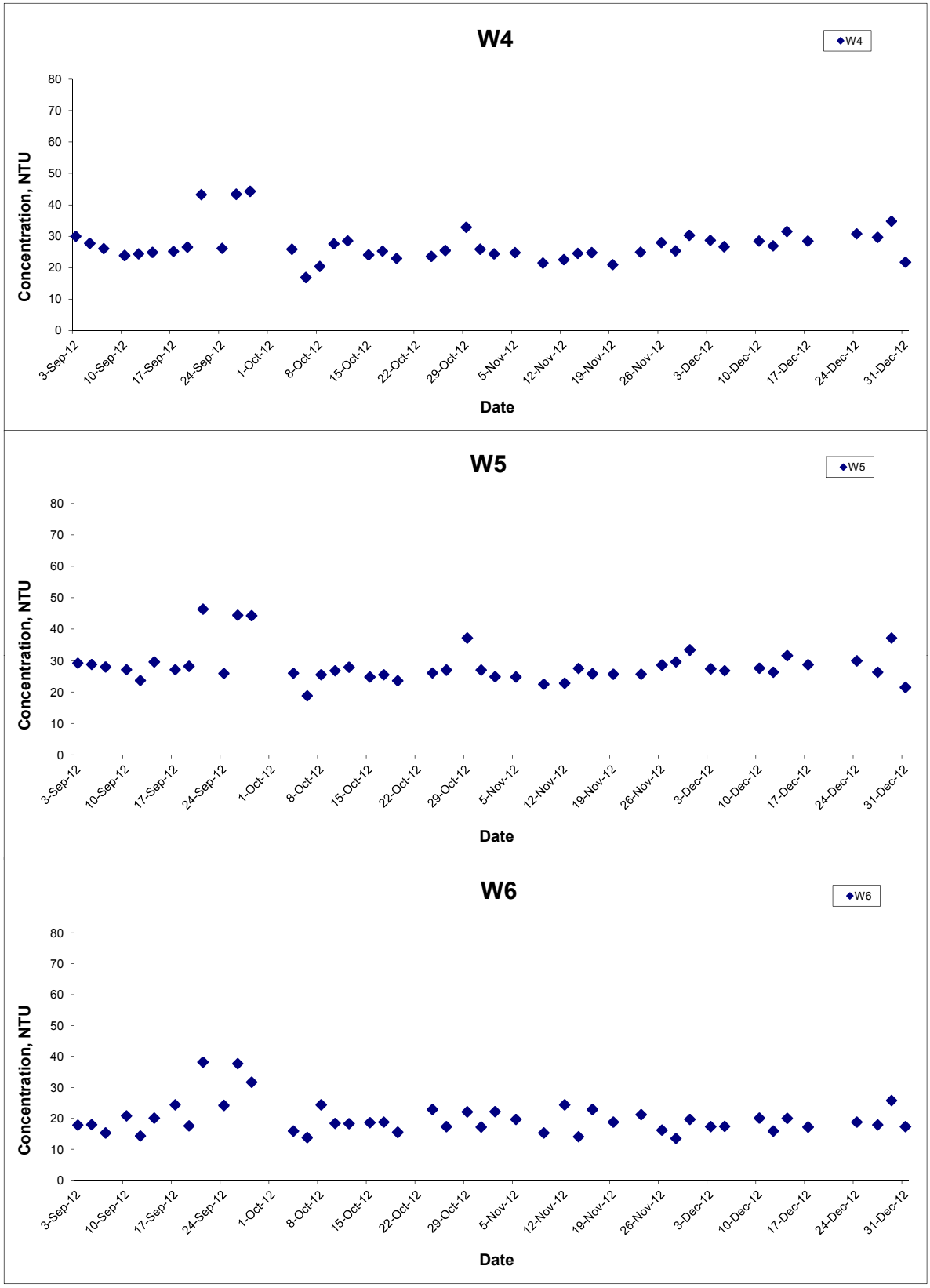
Turbidity (Depth-averaged) at Mid-Ebb Tide



Title		Scale	Project No.
	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan	N.T.S	MA0002
	Graphical Presentation of Water Quality Monitoring Results	Date: Dec 12	Appendix: H

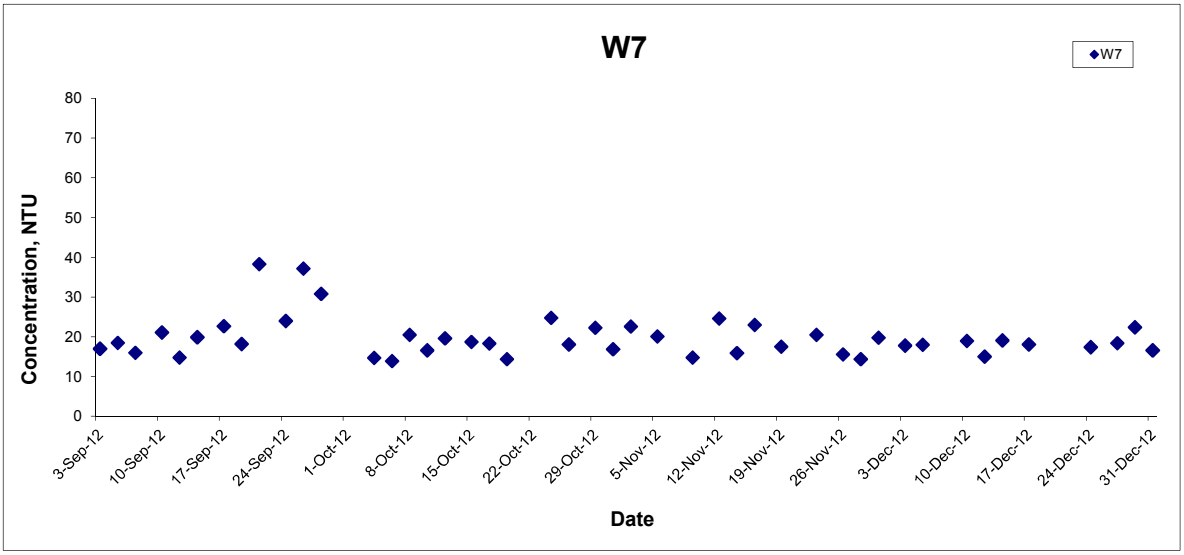
CINOTECH

Turbidity (Depth-averaged) at Mid-Ebb Tide



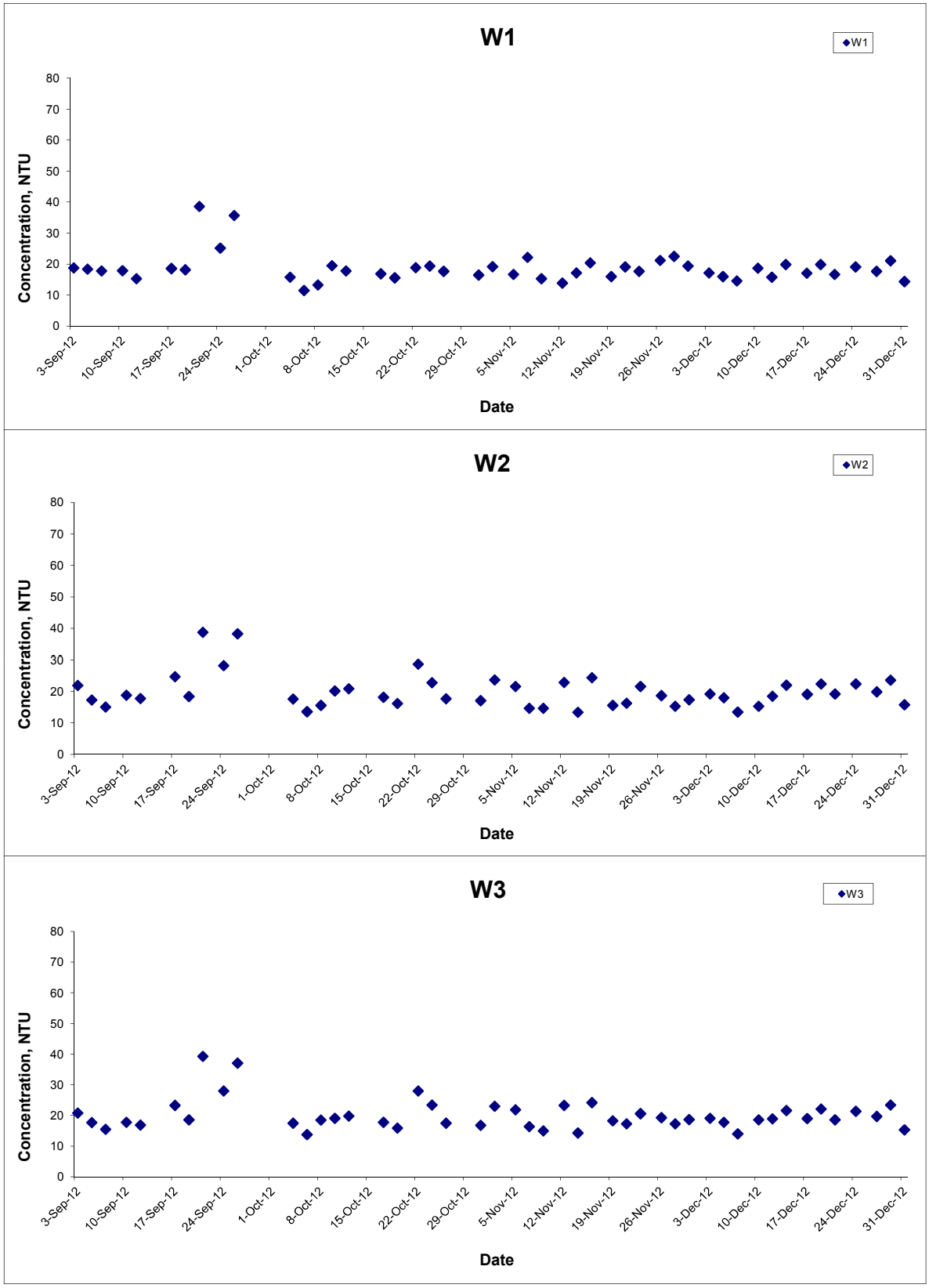
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Turbidity (Depth-averaged) at Mid-Ebb Tide



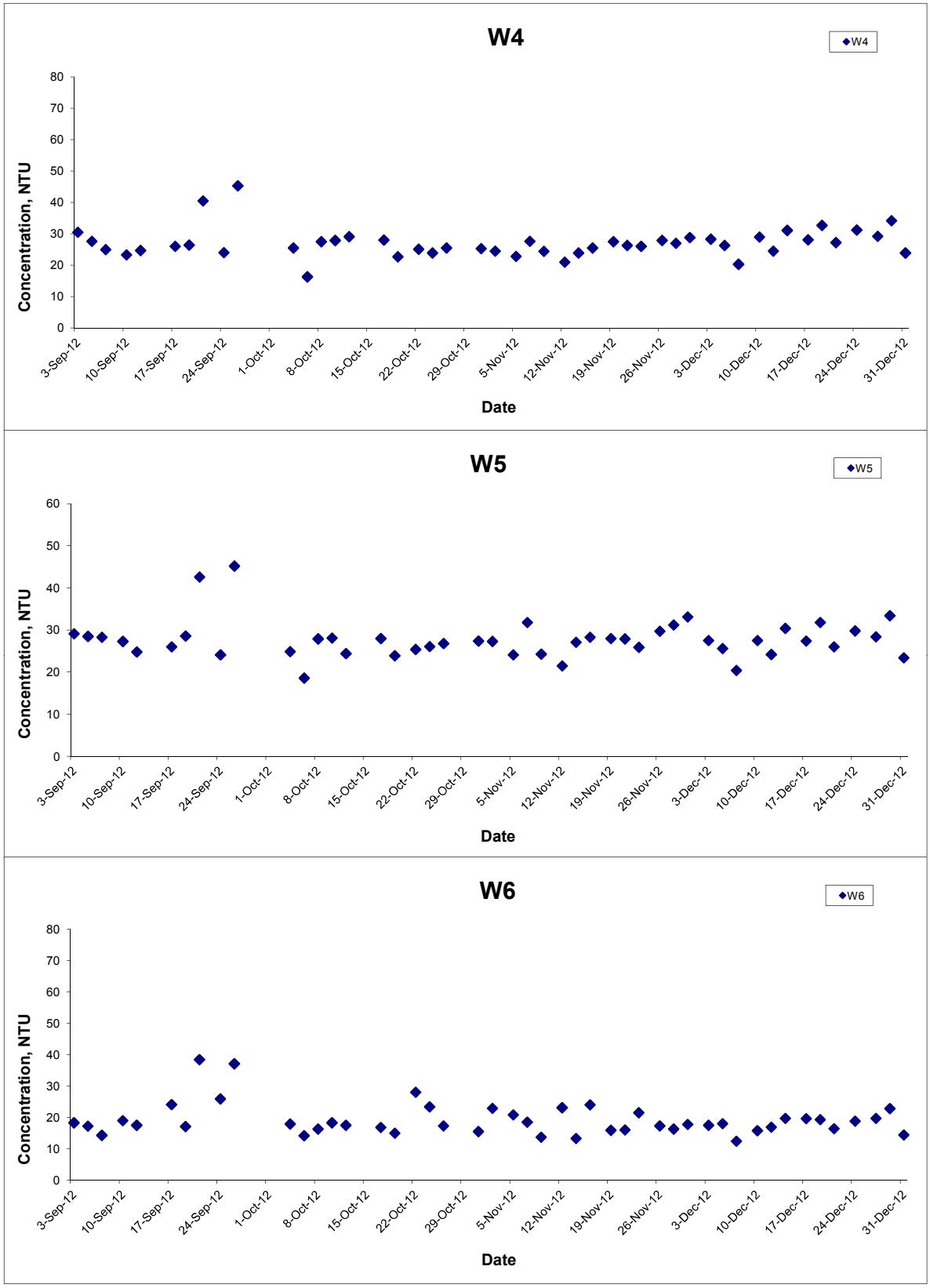
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Turbidity (Depth-averaged) at Mid-Flood Tide



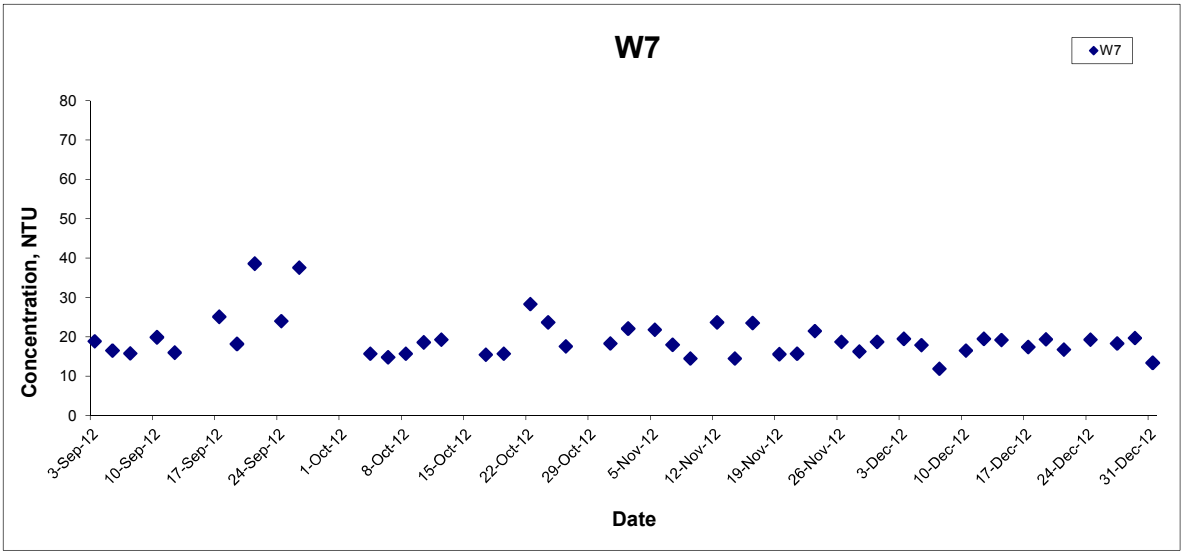
Title		Scale	Project No.	
	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan	N.T.S	MA0002	CINOTECH
	Graphical Presentation of Water Quality Monitoring Results	Date: Dec 12	Appendix: H	

Turbidity (Depth-averaged) at Mid-Flood Tide



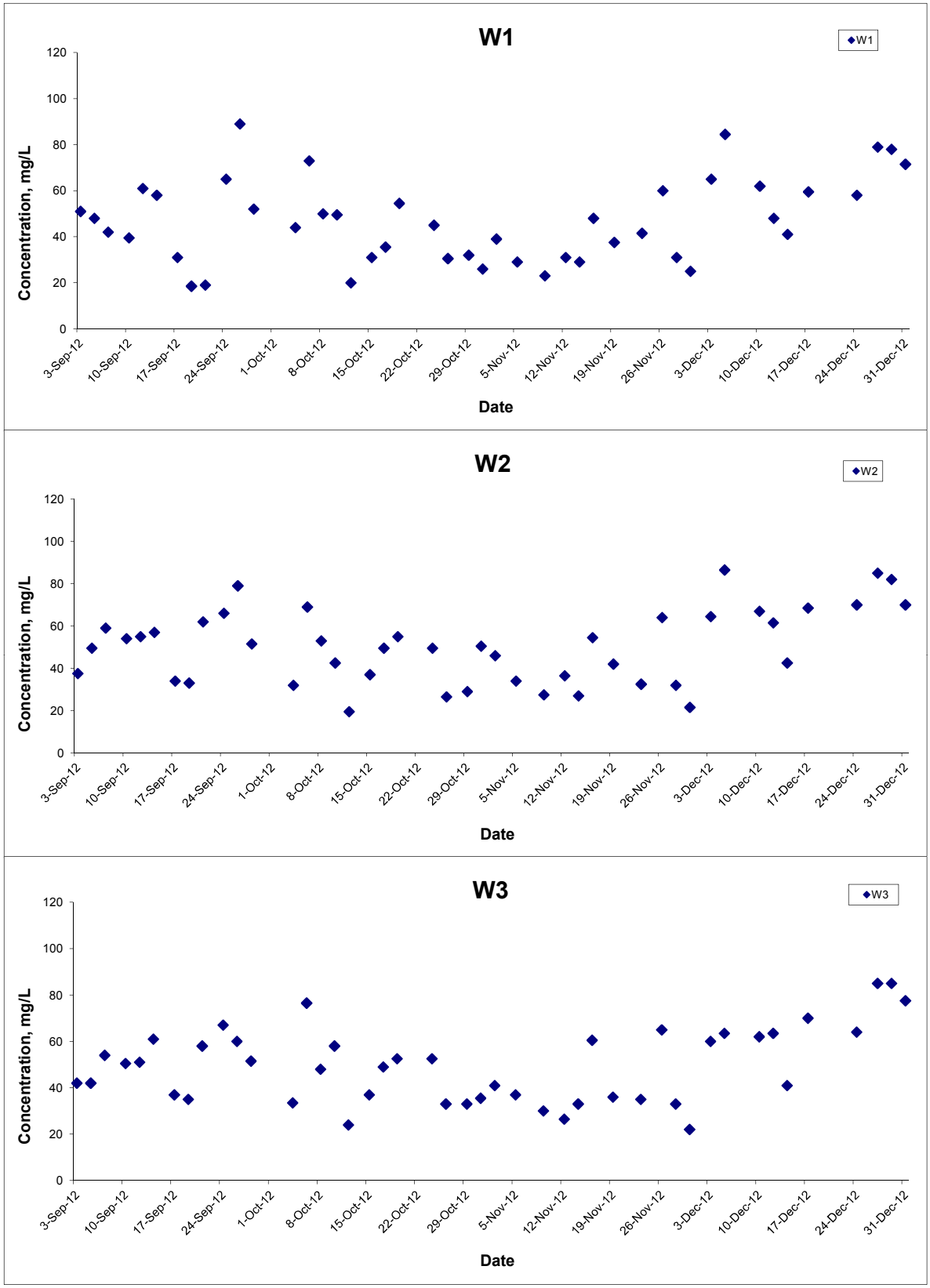
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Turbidity (Depth-averaged) at Mid-Flood Tide



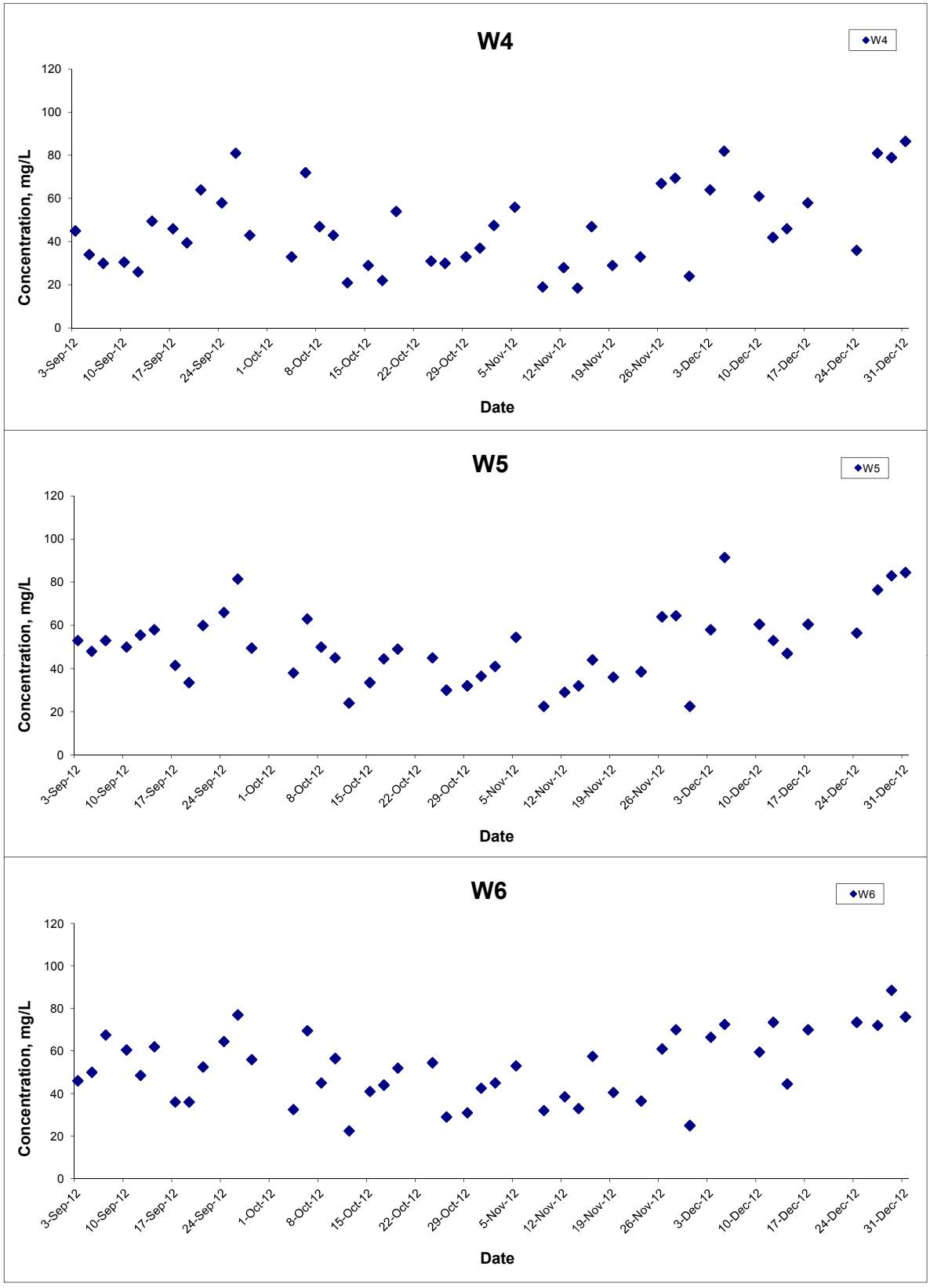
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

Suspended Solids (Depth-averaged) at Mid-Ebb Tide



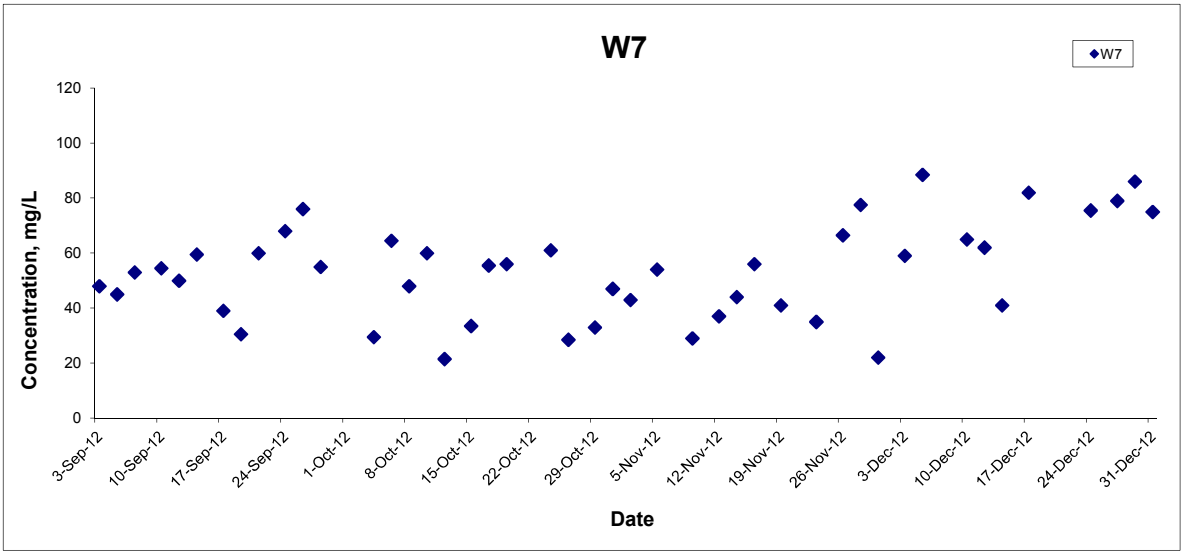
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Suspended Solids (Depth-averaged) at Mid-Ebb Tide



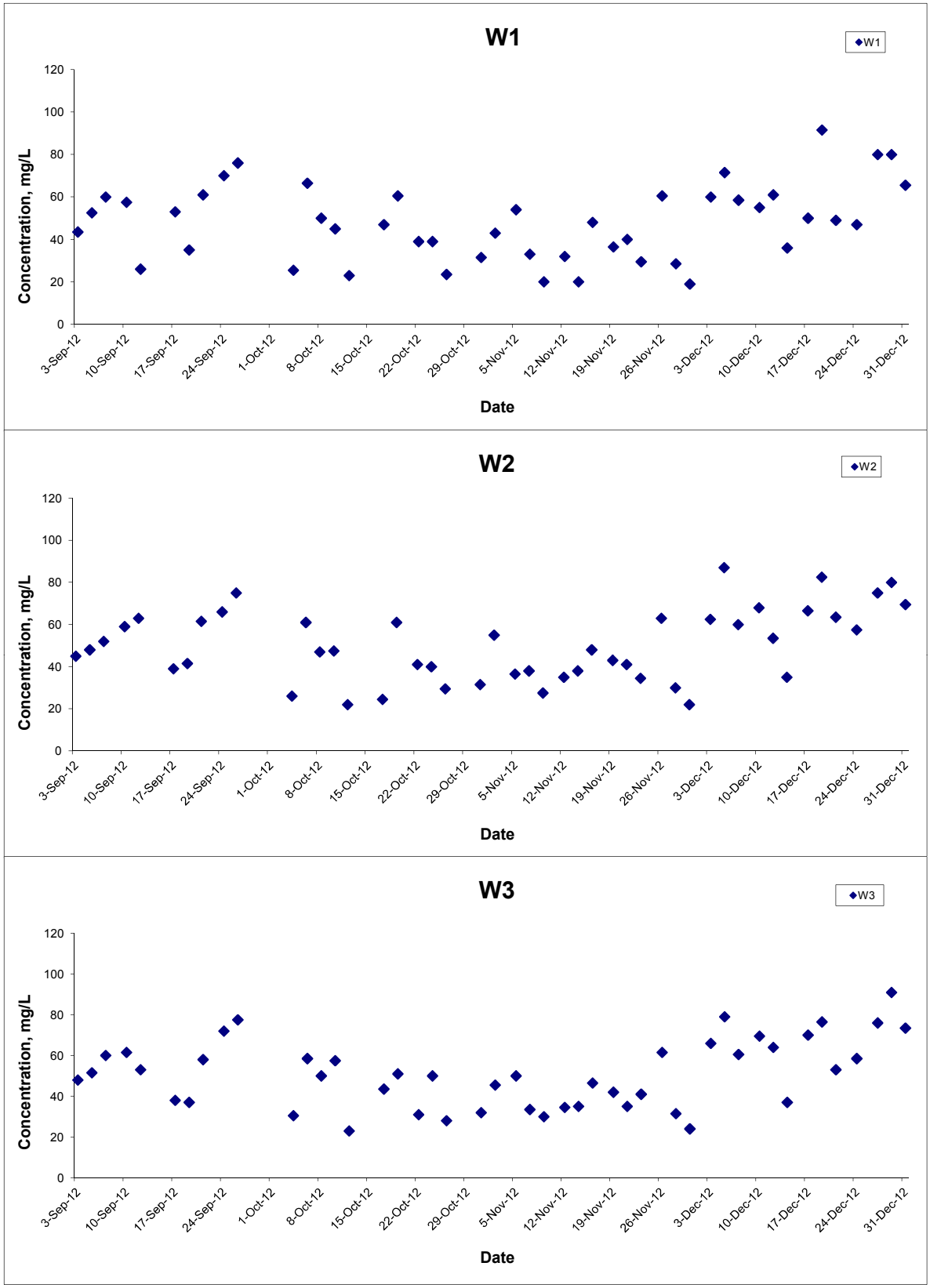
Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
		Date: Dec 12	Appendix: H	

Suspended Solids (Depth-averaged) at Mid-Flood Tide



Title		Scale	Project No.
	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan	N.T.S	MA0002
	Graphical Presentation of Water Quality Monitoring Results	Date: Dec 12	Appendix: H

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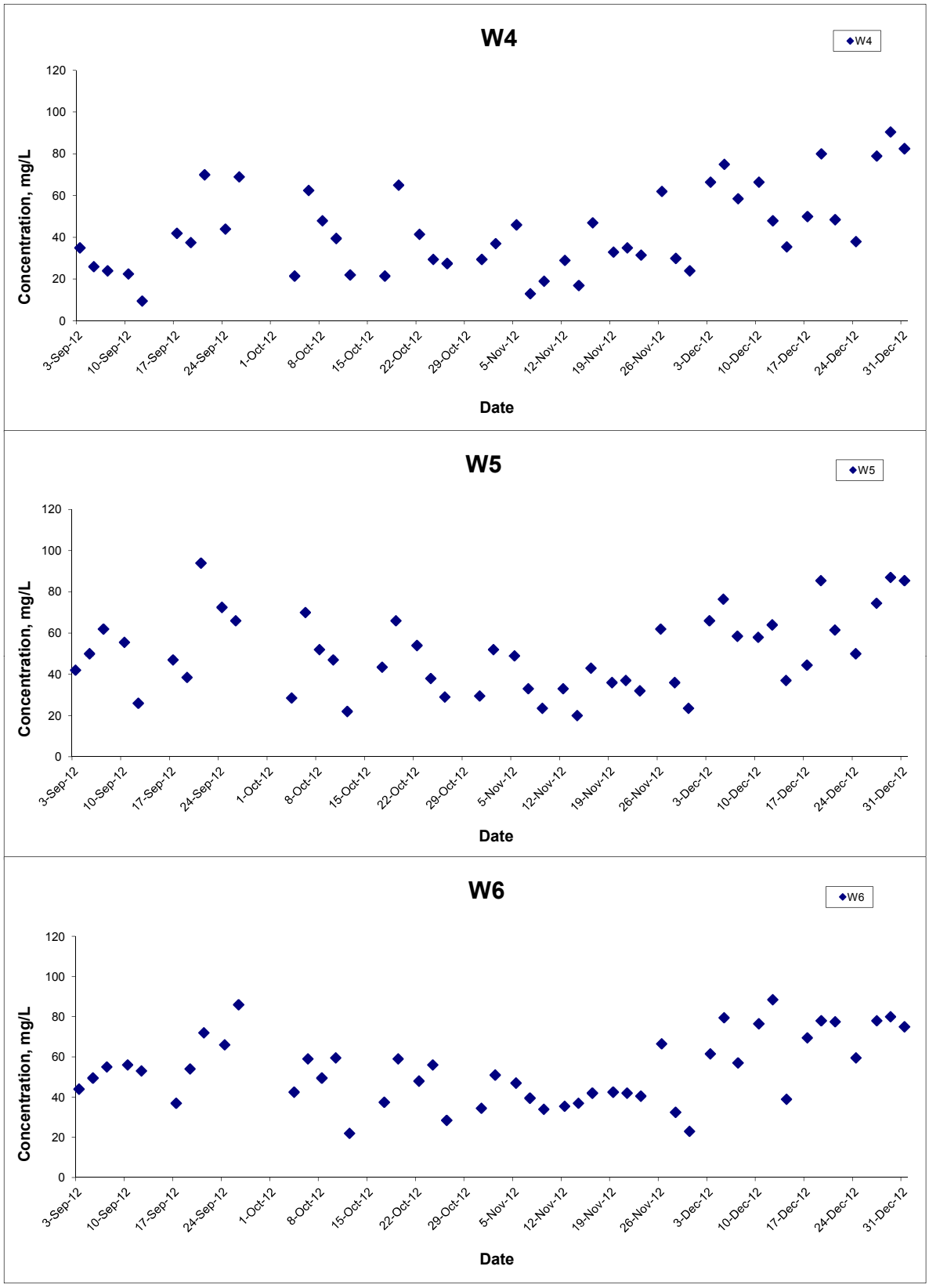
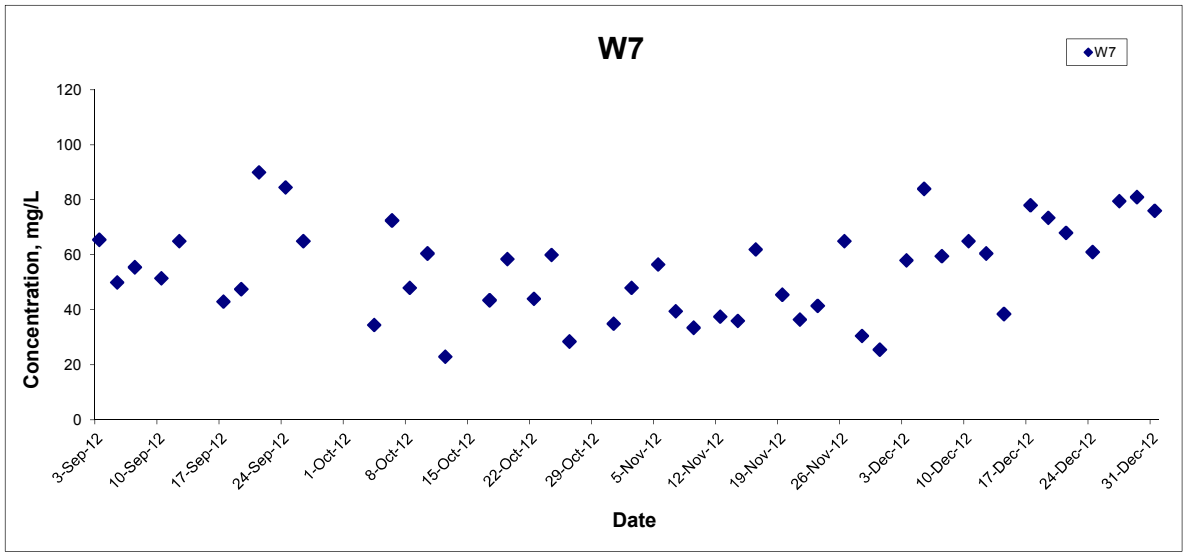
Suspended Solids (Depth-averaged) at Mid-Flood Tide



Title: Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: MA0002	CINOTECH
	Date: Dec 12	Appendix: H	

Suspended Solids (Depth-averaged) at Mid-Flood Tide



Title	Contract No. YL/2009/01 Hang Hau Tsuen Channel at Lau Fau Shan Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA0002	CINOTECH
		Date Dec 12	Appendix H	

APPENDIX I
SUMMARY OF EXCEEDANCE

APPENIDX I – SUMMARY OF EXCEEDANCE

Reporting Month: December 2012

a) Exceedance Report for 1-hr TSP (NIL)

b) Exceedance Report for 24-hr TSP (NIL)

c) Exceedance Report for Construction Noise (NIL)

d) Exceedance Report for water quality (NIL)

APPENDIX J
SITE AUDIT SUMMARY

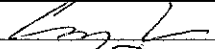
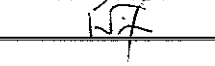
Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	121206
Date	6 December 2012 (Thursday)
Time	14:00-14:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Observations /Remarks	Related Item No.
	Part A – Water Quality • No environmental deficiency was identified during the site inspection. **Part B – Ecology** • No environmental deficiency was identified during the site inspection. **Part C – Landscape and Visual** • No environmental deficiency was identified during the site inspection. **Part D – Air Quality** • No environmental deficiency was identified during the site inspection. **Part E – Construction Noise Impact** • No environmental deficiency was identified during the site inspection. **Part F – Waste / Chemical Management** • No environmental deficiency was identified during the site inspection. **Part G – Permit / Licences** • No environmental deficiency was identified during the site inspection. **Part H – Others** Follow-up on previous audit session (Ref. No.121130): all the items were improved/ rectified during the site inspection. **Part I – Remarks** • N/A	

	Name	Signature	Date
Recorded by	Mr. Gary Lau		6 December 2012
Checked by	Dr. Priscilla Choy		6 December 2012

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	121213
Date	13 December 2012 (Thursday)
Time	13:30-14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Observations /Remarks	Related Item No.
	Part A – Water Quality • No environmental deficiency was identified during the site inspection. **Part B – Ecology** • No environmental deficiency was identified during the site inspection. **Part C – Landscape and Visual** • No environmental deficiency was identified during the site inspection. **Part D – Air Quality** • No environmental deficiency was identified during the site inspection. **Part E – Construction Noise Impact** • No environmental deficiency was identified during the site inspection. **Part F – Waste / Chemical Management** • No environmental deficiency was identified during the site inspection. **Part G – Permit / Licences** • No environmental deficiency was identified during the site inspection. **Part H – Others** Follow-up on previous audit session (Ref. No.121206): all the items were improved/ rectified during the site inspection. **Part I – Remarks** • N/A	

	Name	Signature	Date
Recorded by	Mr. Gary Lau		13 December 2012
Checked by	Dr. Priscilla Choy		13 December 2012

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	121221
Date	21 December 2012 (Friday)
Time	11:30-12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Observations /Remarks	Related Item No.
	Part A – Water Quality • No environmental deficiency was identified during the site inspection. **Part B – Ecology** • No environmental deficiency was identified during the site inspection. **Part C – Landscape and Visual** • No environmental deficiency was identified during the site inspection. **Part D – Air Quality** • No environmental deficiency was identified during the site inspection. **Part E – Construction Noise Impact** • No environmental deficiency was identified during the site inspection. **Part F – Waste / Chemical Management** • No environmental deficiency was identified during the site inspection. **Part G – Permit / Licences** • No environmental deficiency was identified during the site inspection. **Part H – Others** Follow-up on previous audit session (Ref. No.121213): all the items were improved/ rectified during the site inspection. **Part I – Remarks** • N/A	

	Name	Signature	Date
Recorded by	Mr. Gary Lau		21 December 2012
Checked by	Dr. Priscilla Choy		21 December 2012

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	121228
Date	28 December 2012 (Friday)
Time	13:30-14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Observations /Remarks	Related Item No.
	Part A – Water Quality • No environmental deficiency was identified during the site inspection. **Part B – Ecology** • No environmental deficiency was identified during the site inspection. **Part C – Landscape and Visual** • No environmental deficiency was identified during the site inspection. **Part D – Air Quality** • No environmental deficiency was identified during the site inspection. **Part E – Construction Noise Impact** • No environmental deficiency was identified during the site inspection. **Part F – Waste / Chemical Management** • No environmental deficiency was identified during the site inspection. **Part G – Permit / Licences** • No environmental deficiency was identified during the site inspection. **Part H – Others** Follow-up on previous audit session (Ref. No.121221): all the items were improved/ rectified during the site inspection. **Part I – Remarks** • N/A	

	Name	Signature	Date
Recorded by	Mr. Gary Lau		28 December 2012
Checked by	Dr. Priscilla Choy		28 December 2012

APPENDIX K
SUMMARY OF AMOUNT OF WASTE GENERATED

Kwan On Construction Co Ltd
Contract No.: YL/2009/01

Name of Department : CEDD Contract No. : YL/2009/01

Monthly Summary Waste Flow Table for 2010 (year)

Month	Annual Quantities of Inert C&D Materials Generated Monthly						Annual Quantities of C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
Jan	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00984
Feb	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01751
Mar	Nil	Nil	Nil	Nil	Nil	0.09225	Nil	Nil	Nil	Nil	0.14739
Apr	0.44356	Nil	Nil	Nil	0.44356	0.15015	Nil	Nil	Nil	Nil	0.15099
May	0.34204	Nil	Nil	Nil	0.34204	0.20970	Nil	Nil	Nil	Nil	0.01277
June	0.33543	Nil	Nil	Nil	0.33543	0.60841	Nil	Nil	Nil	Nil	0.02963
Sub-total	1.12103	Nil	Nil	Nil	1.12103	1.06051	Nil	Nil	Nil	Nil	0.45669
July	0.69356	Nil	0.00250	Nil	0.69106	0.74752	Nil	Nil	Nil	Nil	0.01077
Aug	0.03504	Nil	0.00110	Nil	0.03394	0.78783	Nil	Nil	Nil	Nil	0.00088
Sept	0.00200	Nil	0.00200	Nil	Nil	0.16154	1.10000	Nil	Nil	Nil	0.00056
Oct	1.25952	Nil	Nil	Nil	1.25952	0.12418	Nil	Nil	Nil	Nil	0.00239
Nov	Nil	Nil	Nil	Nil	Nil	Nil	1.30000	Nil	Nil	Nil	0.03107
Dec	0.00310	Nil	0.00310	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00255
Total	3.11425	Nil	0.00870	Nil	3.10555	2.88158	2.40000	Nil	Nil	Nil	0.50491

Forecast of Total Quantities of C&D Materials to be Generated from the Contractor*										
Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
21.00000		8.00000		12.00000	3.40000					3.80000

Notes:
(1) The performance targets are given in PS Clause 1.108(14).
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) *The Contractor shall also submit the latest forecast of the total amount C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3.

Kwan On Construction Co Ltd
Contract No.: YL/2009/01

Name of Department : CEDD Contract No. : YL/2009/01

Monthly Summary Waste Flow Table for 2011 (year)

Month	Annual Quantities of Inert C&D Materials Generated Monthly						Annual Quantities of C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
Jan	Nil	0.05000	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06000	0.00362
Feb	Nil	Nil	Nil	Nil	Nil	0.017958	Nil	Nil	Nil	Nil	0.00020
Mar	Nil	Nil	Nil	Nil	Nil	0.671667	Nil	Nil	Nil	Nil	0.02189
Apr	Nil	30.00000	30.00000	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00602
May	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00220
June	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00300	0.00198
Sub-total	Nil	30.05000	30.00000	Nil	Nil	0.689625	Nil	Nil	Nil	0.06300	0.03591
July	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00140
Aug	1.58417	Nil	Nil	Nil	1.58417	Nil	Nil	Nil	Nil	Nil	0.00897
Sept	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00337
Oct	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00098
Nov	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00087
Dec	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00230
Total	1.58417	30.05000	30.00000	Nil	1.58417	0.689625	Nil	Nil	Nil	0.06300	0.05380

Forecast of Total Quantities of C&D Materials to be Generated from the Contractor*										
Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
21.00000		8.00000		12.00000	3.40000					3.80000

Notes:
(1) The performance targets are given in PS Clause 1.108(14).
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) *The Contractor shall also submit the latest forecast of the total amount C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3.

Name of Department : CEDD Contract No. : YL/2009/01

Monthly Summary Waste Flow Table for 2012 (year)

Month	Annual Quantities of Inert C&D Materials Generated Monthly						Annual Quantities of C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
Jan	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00330
Feb	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00089
Mar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00316
Apr	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00147
May	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00161
June	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00081
Sub-total	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01124
July	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00127
Aug	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01170
Sept	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00110
Oct	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Nov	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Dec	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00169
Total	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.00270

Forecast of Total Quantities of C&D Materials to be Generated from the Contractor*										
Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)
21.00000		8.00000		12.00000	3.40000					3.80000

Notes:
(1) The performance targets are given in PS Clause 1.108(14).
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(4) *The Contractor shall also submit the latest forecast of the total amount C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3.

APPENDIX L
EVENT/ ACTION PLANS

APPENDIX L

Tale L- 1 Event/Action Plan for Air Quality

EVENT	ACTION			
	ET Leader	**IEC**	**ER**	**Contractor**
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source 2. Inform IEC, ER and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET Leader 2. Check Contractor's working method	1. Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform IEC, ER and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IEC, Contractor and ER on remedial actions required 6. If exceedance continue, arrange meeting with IEC, ER and Contractor 7. If exceedance stops, cease additional monitoring	1. Checking monitoring data submitted by ET Leader. 2. Check Contractor's working method 3. Discuss with ET Leader and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source 2. Inform IEC, ER, EPD and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and kept IEC, EPD and ER informed of the results	1. Check monitoring data submitted by ET Leader 2. Check Contractor's working method 3. Discuss with ET Leader and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Audit implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid for the exceedance 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken 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 leader 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. Audit the implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented 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 for the exceedance 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abate.

Table L-2 Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET LEADER	**IEC**	**ER**	**Contractor**
Action Level	1. Notify IEC, Contractor and ER 2. Carry out investigation and identify source 3. Report the results of investigation to the IEC, Contractor and ER 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency 6. Check compliance to Action/Limit Levels after application of mitigation measures	1. Review the analysed results submitted by the ET Leader 2. Review the proposed remedial measures by the Contractor and advise the ER & ET accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of complaint in writing 2. Notify Contractor 3. Check monitoring data submitted by the ET 4. Require Contractor to propose remedial measures for the analysed noise problem 5. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to ER and IEC within three working days of notification 2. Liaise with the ER to ensure the effectiveness of the agreed mitigation 3. Amend proposal if required 4. Implement noise mitigation proposals
Limit Level	1. Notify IEC, ER, EPD and Contractor 2. Identify Source 3. Repeat measurement 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 & 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. Check monitoring data submitted by ET 2. Discuss amongst ER, ET Leader and Contractor on the potential remedial actions 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER & ET accordingly 4. Supervise the implementation of remedial measures	1. Confirm receipt of notification of exceedance 2. Notify Contractor 3. Check monitoring data submitted by the ET 4. Require Contractor to propose remedial measures for the analysed noise problem 5. Discuss with ET, IEC and Contractor on proposed remedial actions to be implemented 6. Ensure remedial measures are properly implemented 7. Assess the effectiveness of the remedial actions and keep the Contractor informed 8. 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 ER within 3 working days of notification 3. Liaise with the ER to ensure the effectiveness of the agreed mitigation 4. Amend proposal if required 5. Implement the agreed proposals 6. Resubmit proposals if problem still not under control 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Table L-3 Event / Action Plan for Water Quality

Event	ET Leader	IEC	ER	Contractor
Action Level being exceeded by one sampling day	1. Repeat in-site 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. 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.	1. Discuss with IEC on the proposed mitigation measures. 2. Make agreement on the mitigation measures to be implemented. 3. Assess effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER. 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	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. Ensure mitigation measures are implemented. 7. Prepare to increase the monitoring frequency to daily. 8. 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.	1. Discuss with IEC on the proposed mitigation measures. 2. Make agreement on the mitigation measures to be implemented. 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days. 6. Implement the agreed mitigation measures.
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, AFCD 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.	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.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures. 2. Request Contract 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.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 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.
Limit Level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings. 2. Identify source(s) of impact. 3. Inform IEC, contractor, AFCD 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 for two consecutive days.	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.	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 work until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 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 ER, to slow down or to stop all or part of the work or construction activities.

Table L-4 Event / Action Plan for Ecology during Construction Phase

EVENT	ACTION			
	ET Leader	**IEC**	**Engineer**	**Contractor**
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor / audit / review remedial actions until rectification has been completed	1. Check monitoring / auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Check the implementation of remedial measures	1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of serious non-conformity until situation is rectified	1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions
Repeated Non-conformity	1. Identify source 2. Inform the IEC, ER, EPD and AFCD 3. Increase monitoring / auditing frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor / audit / review remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring / auditing	1. Check monitoring / auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Supervise the implementation of remedial measures 5. Advise the ER on effectiveness of proposed remedial measures and keep EPD and AFCD informed	1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of serious non-conformity until situation is rectified	1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions

Table L-5 Event / Action Plan for Landscape and Visual Impact

Action Level	Environmental Team (ET) Leader	Independent Environmental Checker (IEC)	Engineer's Representative (ER)	Contractor
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement
Repeated Non-conformity	1. Identify source 2. Inform the IEC, the ER and EPD 3. Increase monitoring (site audit) frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring (site audit)	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement

APPENDIX M
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

APPENDIX L

Tale L- 1 Event/Action Plan for Air Quality

EVENT	ACTION			
	ET Leader	**IEC**	**ER**	**Contractor**
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source 2. Inform IEC, ER and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET Leader 2. Check Contractor's working method	1. Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform IEC, ER and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IEC, Contractor and ER on remedial actions required 6. If exceedance continue, arrange meeting with IEC, ER and Contractor 7. If exceedance stops, cease additional monitoring	1. Checking monitoring data submitted by ET Leader. 2. Check Contractor's working method 3. Discuss with ET Leader and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source 2. Inform IEC, ER, EPD and Contractor 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and kept IEC, EPD and ER informed of the results	1. Check monitoring data submitted by ET Leader 2. Check Contractor's working method 3. Discuss with ET Leader and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Audit implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid for the exceedance 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken 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 leader 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. Audit the implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented 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 for the exceedance 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abate.

Table L-2 Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET LEADER	**IEC**	**ER**	**Contractor**
Action Level	1. Notify IEC, Contractor and ER 2. Carry out investigation and identify source 3. Report the results of investigation to the IEC, Contractor and ER 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency 6. Check compliance to Action/Limit Levels after application of mitigation measures	1. Review the analysed results submitted by the ET Leader 2. Review the proposed remedial measures by the Contractor and advise the ER & ET accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of complaint in writing 2. Notify Contractor 3. Check monitoring data submitted by the ET 4. Require Contractor to propose remedial measures for the analysed noise problem 5. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to ER and IEC within three working days of notification 2. Liaise with the ER to ensure the effectiveness of the agreed mitigation 3. Amend proposal if required 4. Implement noise mitigation proposals
Limit Level	1. Notify IEC, ER, EPD and Contractor 2. Identify Source 3. Repeat measurement 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 & 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. Check monitoring data submitted by ET 2. Discuss amongst ER, ET Leader and Contractor on the potential remedial actions 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER & ET accordingly 4. Supervise the implementation of remedial measures	1. Confirm receipt of notification of exceedance 2. Notify Contractor 3. Check monitoring data submitted by the ET 4. Require Contractor to propose remedial measures for the analysed noise problem 5. Discuss with ET, IEC and Contractor on proposed remedial actions to be implemented 6. Ensure remedial measures are properly implemented 7. Assess the effectiveness of the remedial actions and keep the Contractor informed 8. 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 ER within 3 working days of notification 3. Liaise with the ER to ensure the effectiveness of the agreed mitigation 4. Amend proposal if required 5. Implement the agreed proposals 6. Resubmit proposals if problem still not under control 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Table L-3 Event / Action Plan for Water Quality

Event	ET Leader	IEC	ER	Contractor
Action Level being exceeded by one sampling day	1. Repeat in-site 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. 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.	1. Discuss with IEC on the proposed mitigation measures. 2. Make agreement on the mitigation measures to be implemented. 3. Assess effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER. 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	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. Ensure mitigation measures are implemented. 7. Prepare to increase the monitoring frequency to daily. 8. 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.	1. Discuss with IEC on the proposed mitigation measures. 2. Make agreement on the mitigation measures to be implemented. 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days. 6. Implement the agreed mitigation measures.
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, AFCD 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.	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.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures. 2. Request Contract 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.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 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.
Limit Level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings. 2. Identify source(s) of impact. 3. Inform IEC, contractor, AFCD 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 for two consecutive days.	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.	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 work until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing. 2. Rectify unacceptable practice. 3. Check all plant and equipment. 4. Consider changes of working methods. 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 ER, to slow down or to stop all or part of the work or construction activities.

Table L-4 Event / Action Plan for Ecology during Construction Phase

EVENT	ACTION			
	ET Leader	**IEC**	**Engineer**	**Contractor**
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor / audit / review remedial actions until rectification has been completed	1. Check monitoring / auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Check the implementation of remedial measures	1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of serious non-conformity until situation is rectified	1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions
Repeated Non-conformity	1. Identify source 2. Inform the IEC, ER, EPD and AFCD 3. Increase monitoring / auditing frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor / audit / review remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring / auditing	1. Check monitoring / auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Supervise the implementation of remedial measures 5. Advise the ER on effectiveness of proposed remedial measures and keep EPD and AFCD informed	1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of serious non-conformity until situation is rectified	1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions

Table L-5 Event / Action Plan for Landscape and Visual Impact

Action Level	Environmental Team (ET) Leader	Independent Environmental Checker (IEC)	Engineer's Representative (ER)	Contractor
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement
Repeated Non-conformity	1. Identify source 2. Inform the IEC, the ER and EPD 3. Increase monitoring (site audit) frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring (site audit)	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement

APPENDIX N
COMPLAINT LOG

APPENDIX N – COMPLAINT LOG

Reporting Month: December 2012

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

Remarks: No environmental complaint was received in the reporting month.

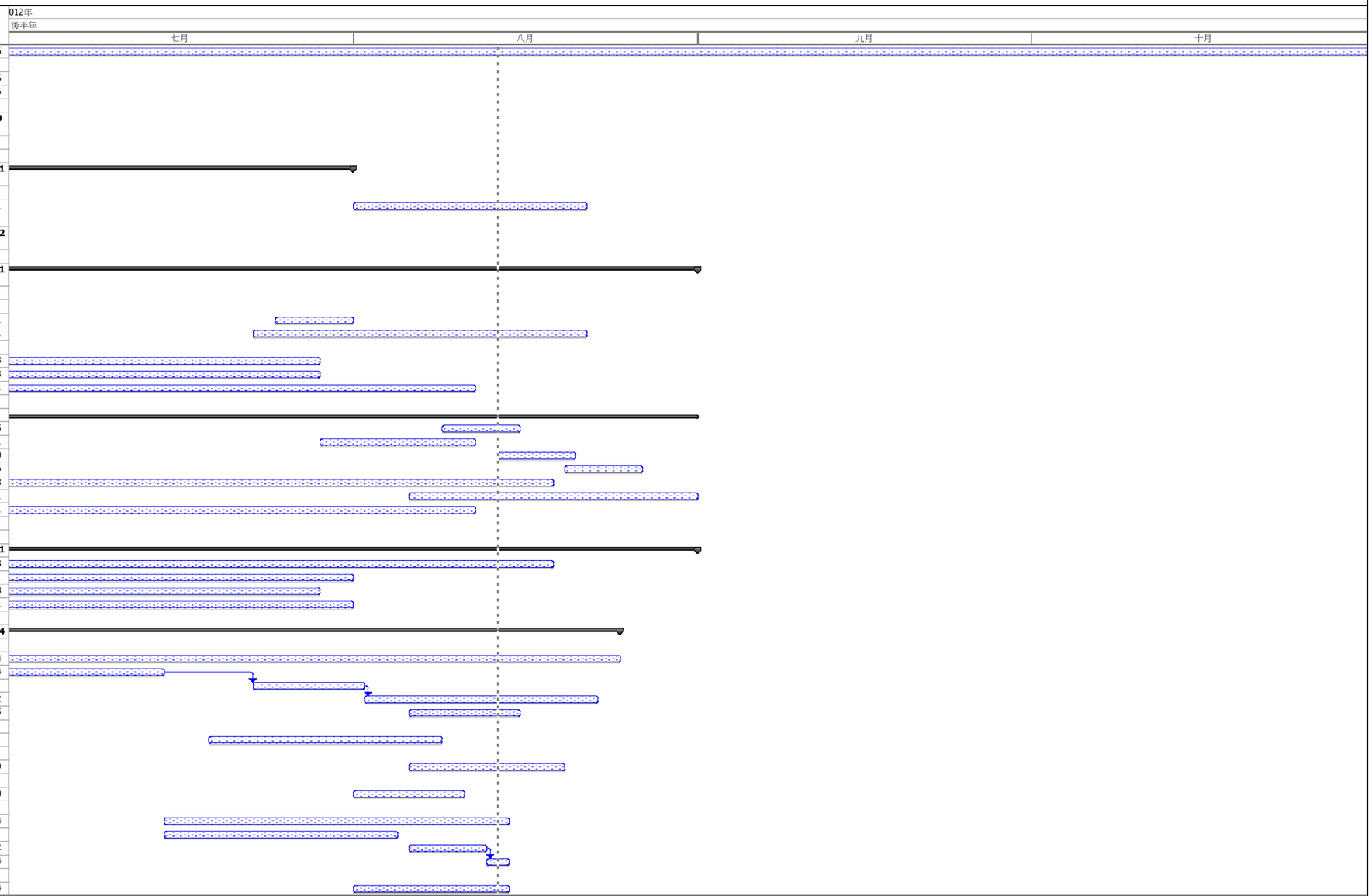
APPENDIX O
CONSTURCTION PROGRAMME

KWAN ON CONSTRUCTION CO. LTD.
CEDD Contract No. YL / 2009 / 01 Hang Hau Tsuen Channel at Lau Fau Shan

Acceleration programme

CEDD CONTRACT NO. YL / 2009 / 01

碼	Task Name	工期	開始時間	完成時間
1	**CONTRACT: YL/2009/01 Commencement and to Completion of Works**	1156 days	2009/12/29	2013/2/26
2				
3	Preliminary Works	733 days	2010/2/24	2012/2/26
4	Monitoring settlement / tilting of adjacent building structures	728 days	2010/3/1	2012/2/26
5				
6	**(C) SECTION III : Construction of Four Pedestrain Crossing H. H. T. Channel**	**875 days**	**2010/1/17**	**2012/6/9**
7	Bridge A - D Paving and finishes	38 days	2012/5/3	2012/6/9
8				
9	**(D) SECTION IV : Construction of Main Drainage Channel other than works in Section II**	**946 days**	**2009/12/29**	**2012/7/31**
10				
11	Installation of cat ladder /concrete apron	21 days	2012/8/1	2012/8/21
12				
13	**(E) SECTION V : All Remaining Works other than in Sections I, II, III, IV, VI, VII & VIII**	**773 days**	**2010/4/11**	**2012/5/22**
14				
15	**Amenity Area (formation only, road and drainage works included under 'Access Road & Footpath')**	**352 days**	**2011/9/15**	**2012/8/31**
16	**(Northern side)**			
17				
18	DN 150 watermain - water sampling test	7 days	2012/7/25	2012/7/31
19	Irrigation pipes & water points	30 days	2012/7/23	2012/8/21
20				
21	CLP works	44 days	2012/6/15	2012/7/28
22	PCCW works	43 days	2012/6/16	2012/7/28
23	PL cable ducts, drawpits & street light installation	72 days	2012/6/1	2012/8/11
24				
25	Road paving & footpath work	152 days	2012/4/2	2012/8/31
26	a.Installation of Manhole cover	7 days	2012/8/9	2012/8/15
27	b. Road Gully / pipe installation	14 days	2012/7/29	2012/8/11
28	*b. Road asphalt laying (wearing course)*	7 days	2012/8/14	2012/8/20
29	*d. Road Marking*	7 days	2012/8/20	2012/8/26
30	*e. Street Funiture installation*	71 days	2012/6/9	2012/8/18
31	*f. Paving block*	26 days	2012/8/6	2012/8/31
32	9. Planting work	48 days	2012/6/25	2012/8/11
33				
34				
35	**(F) SECTION VI : All Landscape Softworks**	**1000 days**	**2009/12/6**	**2012/8/31**
36	Trees transplanting	413 days	2011/7/3	2012/8/18
37	Ground preparation and soiling for planting	121 days	2012/4/2	2012/7/31
38	Hydroseeding	83 days	2012/5/7	2012/7/28
39	Trees and shrubs planting	60 days	2012/6/2	2012/7/31
40				
41	**(H) SECTION VIII : All Works Within Portion D**	**970 days**	**2009/12/29**	**2012/8/24**
42				
43	Modification of existing access road Jounction at Deep Bay Road	82 days	2012/6/4	2012/8/24
44	-XP application	41 days	2012/6/4	2012/7/14
45	-Road advice	10 days	2012/7/23	2012/8/1
46	-Road work construction	21 days	2012/8/2	2012/8/22
47	-Modification of existing Utilities services	10 days	2012/8/6	2012/8/15
48				
49	Made good river bed	21 days	2012/7/19	2012/8/8
50				
51	RCP construction	14 days	2012/8/6	2012/8/19
52				
53	Modification of staircase at bridge A	10 days	2012/8/1	2012/8/10
54				
55	Road Resurfacing of Deep Bay Road (New junction)	31 days?	2012/7/15	2012/8/14
56	Application of XP	21 days	2012/7/15	2012/8/4
57	Road Advice	7 days	2012/8/6	2012/8/12
58	Road resurfacing	2 days	2012/8/13	2012/8/14
59				
60	Modification of existing gully pipe at Deep Bay Road	14 days	2012/8/1	2012/8/14



Project: YL/2009/01 Rev 8
Date: 2012/7/28

Task Split Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

Master Programme (updated May 2012)
Hang Hau Tsuen Channel at Lau Fau Shan
Prepared by KLLee & [28/07/2012]