

Chun Wo Construction &
Engineering Co Ltd

Contract No HY/2005/06
Castle Peak Road
Improvement – West of
Tsing Lung Tau

Monthly Environmental
Monitoring and Audit
Report for Reclamation
Works (EP No EP-
219/2005)
May 2006

Second Issue

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Engineering Co Ltd

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Tsing Lung Tau**

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June 2006

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By Fax (2417 0134) and Post

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Attn: Mr. Jeff S K Yu

12 June 2006

Dear Sir,

Contract No. HY/2005/06
Castle Peak Road Improvement – West of Tsing Lung Tau
Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – May 2006

We refer to the Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – May 2006 received via emails on 8 June 2006 from Ove Arup & Partners Hong Kong Ltd., the Environmental Team (ET) of Castle Peak Road Improvement – West of Tsing Lung Tau (Remaining Contract).

Having addressed the IEC's comment on 12 June 2006, the Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – May 2006 is verified to be acceptable for onward submission to the Engineer, HyD, EPD and AFCD.

Should you have any inquiry or comment, please do not hesitate to contact the undersigned or our Miss Connie Wong at 3105 8530.

Yours faithfully
for and on behalf of
**Maunsell Environmental
Management Consultants Ltd**



Y T Tang
Independent Environmental Checker

cc MHJV - Mr. Simon Illingworth (Fax: 2559 1613)
Arup - Mr. Sam Tsol / Mr. Fredrick Leong (Fax: 2268 3950)

Arup ACOUS				2006
Master Ref.	EP-219/2005	Date		
Reply Ref.		Date		
Action Required	(UK Trip Aug 8-10)			
Received	12 JUN 2006			
Ints.	ST	FL	RL	
Action			/	
Info.		^		
Conv				

Job title Contract No HY/2005/06 Castle Peak Road Improvement – West of Tsing Lung Tau Job number 24583

Document title Monthly Environmental Monitoring and Audit Report for Reclamation Works (EP No EP-219/2005) – May 2006 File reference

Document ref

Revision	Date	Filename	05-May-06 (Reclamation).doc		
First Issue	08/06/06	Description	Submit to IEC for comments		
			Prepared by	Checked by	Approved by
		Name	Raymond Liu	Fredrick Leong	Sam Tsoi
		Signature			
Second Issue	12/06/06	Filename	05-May-06 (Reclamation) – RevA.doc		
		Description	Submit to ER with IEC's verification letter		
			Prepared by	Checked by	Approved by
		Name	Raymond Liu	Fredrick Leong	Sam Tsoi
		Signature	<i>Raymond</i>	<i>[Signature]</i>	<i>[Signature]</i>
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Issue Document Verification with Document

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Executive Summary

This is the third monthly environmental monitoring and audit (EM&A) report presenting the progress of environmental monitoring and audit works for the reporting period between 1 May 2006 and 31 May 2006. Noise monitoring at Grand Bay Villa was temporarily suspended as the premises were vacant with no resident. Marine water monitoring and weekly environmental site audit were carried out during the reporting period.

Marine Water Quality

Impact marine water quality monitoring was conducted during mid-ebb and mid-flood tidal cycles at 10 designated locations including 5 impact and 5 control stations. A baseline check was conducted on 27 February 2006 prior to the commencement of marine works and a compliance checking mechanism was established in accordance with the criteria specified in Baseline Monitoring Report.

Summary of Mid-Ebb Tide

The lowest DO levels for surface & middle and bottom positions were 4.9 mg/L at WWA1 and 4.7 mg/L at WWFCZ2 respectively on 15 May 2006 respectively. There were 2 exceedances of DO levels during reporting period when compared with the established baseline check criteria in Section 3.3 of this report. However, it was unlikely due to the construction activities of this Project.

The highest depth-averaged Tby level was 16.4 Nephelometric Turbidity Unit (NTU) at WWA2 on 4 May 2006. There were 6 exceedances of Tby levels at WWA1, WWA2 and WWA3 on 4, 15, 24 and 26 May 2006 when compared with the established baseline check criteria in Section 3.3 of this report.

The highest depth-averaged SS level was 21.0 mg/L at WWA2 on 4 May 2006. There were 7 exceedances of SS levels at WWA1, WWA2 and WWA3 on 4, 15, 18, 24, 26 and 30 May 2006 when compared with the established baseline check criteria in Section 3.3 of this report.

Summary of Mid-Flood Tide

The lowest DO level for surface & middle position was 4.9 mg/L at WWA1 on 15 May 2006 and that for bottom position was 4.9 mg/L at WWA1, WWA3 and WWFCZ2 on 15 May 2006. There were 4 exceedances of DO levels during reporting period when compared with the established baseline check criteria in Section 3.3 of this report. However, it was unlikely due to the construction activities of this Project.

The highest depth-averaged Tby level was 28.3 NTU at WWA1 on 4 May 2006. There were 5 exceedances of Tby levels at WWA1, WWA2 and WWA3 on 2, 4 and 24 May 2006 respectively when compared with the established baseline check criteria in Section 3.3 of this report.

The highest depth-averaged SS level was 34.3 mg/L at WWA1 on 4 May 2006. There were 4 exceedances of SS levels at WWA1, WWA2, WWA3 and WWFCZ2 on 4, 15 and 24 May 2006 during reporting period when compared with the established baseline check criteria in Section 3.3 of this report.

Environmental Auditing

A total of 4 environmental site audits were conducted on a weekly basis in May 2006. No non-conformance to the environmental requirements was identified during the reporting period. The improvement actions against observations during the site audits for the CT included:

Air quality: Regular watering during dry and windy days;

Water quality: Regular maintenance of silt curtains, frequent clearing of mud trails and stagnant water;

Waste management: Frequent clearing of construction waste and general refuse; and

Handling of chemical waste: Provision of drip tray for oil drum.

Waste Disposal

A total of 41 tonnes of Construction & Demolition (C&D) waste and a total of 18,097 tonnes of C&D materials (17,127 tonnes by truck and 970 tonnes by barge) were disposed of at WENT Landfill and Public Filling Reception Facility at Tuen Mun Area 38 respectively in May 2006. No chemical waste was disposed of during the reporting period.

Complaint Records

No environmental complaint was received during the reporting period.

Exceedance

There were exceedances of DO, Tby and SS levels for marine water quality in May 2006 when compared with baseline check criteria. The exceedances of Tby and SS levels on 2, 4, 15, 18, 24 and 26 May 2006 were likely due to construction works of the Project. The CT mobilised workers to repair the rock bund and silt curtain immediately. With the remedial work implemented, the subsequent marine water quality monitoring data indicated resumption to normal ambient conditions.

Exceedances of DO recorded on 15 May 2006 were marginal and comparable to the levels at their respective control stations (ambient levels). This may be due to influence of typhoon or natural variation of marine water quality. The exceedance of SS at WWA1 on 30 May 2006 was only marginal to the Baseline Check Criteria and 0.1mg/L higher than the respective control station. Hence, the exceedance was unlikely due to the construction works of the Project.

Notification of Summons and Successful Prosecution

No notification of summon and prosecution was received during the reporting period.

Environmental Licences

The CT was approved to dispose of C&D materials to PFRF at Tuen Mun Area 38 in May 2006.

1 Introduction

Ove Arup & Partners Hong Kong Limited (Arup) was appointed by the Contractor (CT) – Chun Wo Construction & Engineering Co. Ltd as the Environmental Team (ET) for *Contract No. HY/2005/06 Castle Peak Road Improvements – West of Tsing Lung Tau* (hereafter called the “Project”). The reclamation at west of Tsing Lung Tau is covered by an Environmental Permit (EP) No. EP-219/2005 issued in June 2005 with reference to Section 6 of the Technical Memorandum on Environmental Impact Assessment Ordinance (TM-EIAO). The EP was issued following the approval of the application to apply directly for an EP based upon the Project Profile. In accordance with the EM&A Manual, environmental monitoring for construction noise and marine water quality will be required during the construction and operational phases. The construction phase of the Project commenced on 28 February 2006.

1.1 Project Background

The Castle Peak Road (CPR) Improvement works consist of upgrading the existing CPR to provide a dual two-lane carriageway of “Rural Road A” classification between Area 2 (Tusen Wan) and Ka Loon Tsuen. The CPR Improvement project is divided into three contracts, namely HY/99/18 (West Contract), HY/99/19 (Middle Contract) and HY/2000/02 (East Contract).

Prior to inviting tenders for Contract No. HY/99/18, a section of the proposed works, between Ch.1+800 and Ch.2+240, west of Tsing Lung Tau, was excised from the Project and entrusted to the Route 10 – North Lantau to Yuen Long Highway project. This 440m long section of CPR was located under the proposed Route 10 suspension bridge, and was to form part of the works area for the Route 10 project. The Route 10 project team revised the alignment of this section of CPR accordingly to suit the arrangement of the Route 10 suspension bridge.

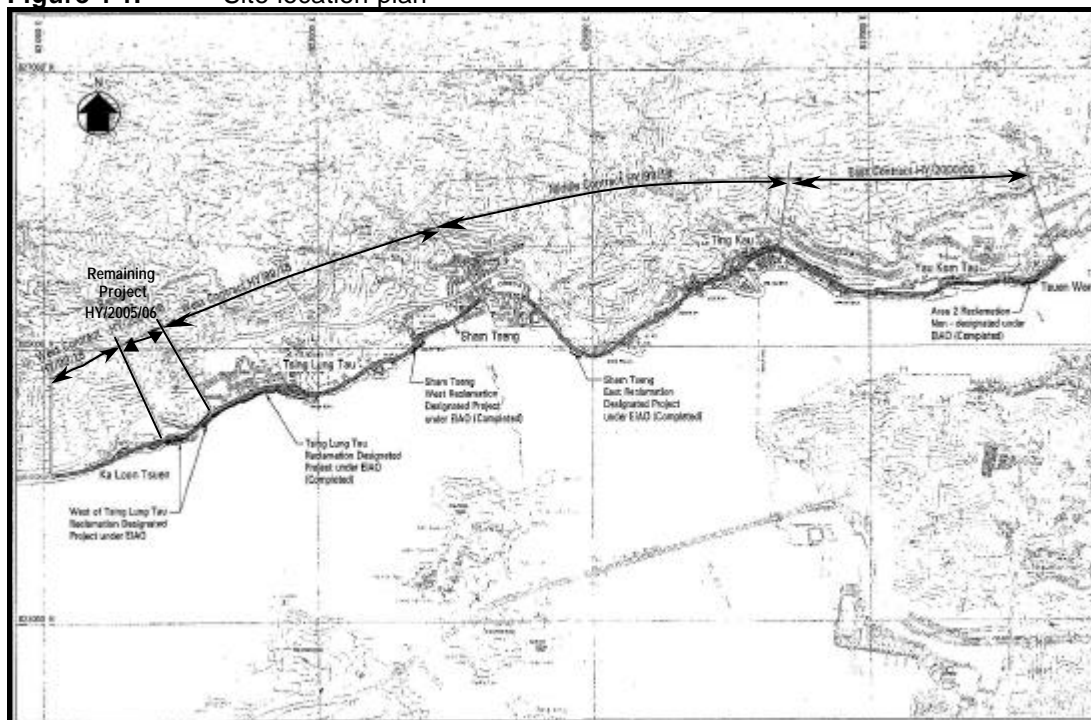
Following subsequent developments, the Route 10 project was placed under review, and Government therefore decided to implement the excised section of CPR (the Remaining Project) under the original CPR Improvement project. **Figure 1-1** shows the site location plan.

Additional reclamation (0.58 ha) at west of Tsing Lung Tau is required to support part of the remaining section of road improvement works and the additional reclamation works constitutes a material change to the reclamation works at Tsing Lung Tau.

The scope of the construction works covered by this Project is summarised as follows:

- The area of reclamation to the east of Grand Bay Villa is about 0.12 ha. The length of this part of the reclamation, measured parallel to the road, is about 107 m, and the maximum width, measured from the existing High Water Mark (HWM) to the proposed toe of the scour apron is about 16 m, of which about 13 m is sloping revetment;
- The area of reclamation west of Grand Bay Villa is about 0.46 ha. The length of this part of the reclamation, measured parallel to the road, is about 172 m, and the maximum width, measured from the existing High Water Mark (HWM) to the proposed toe of the scour apron is about 38 m, of which about 15 m is sloping revetment.

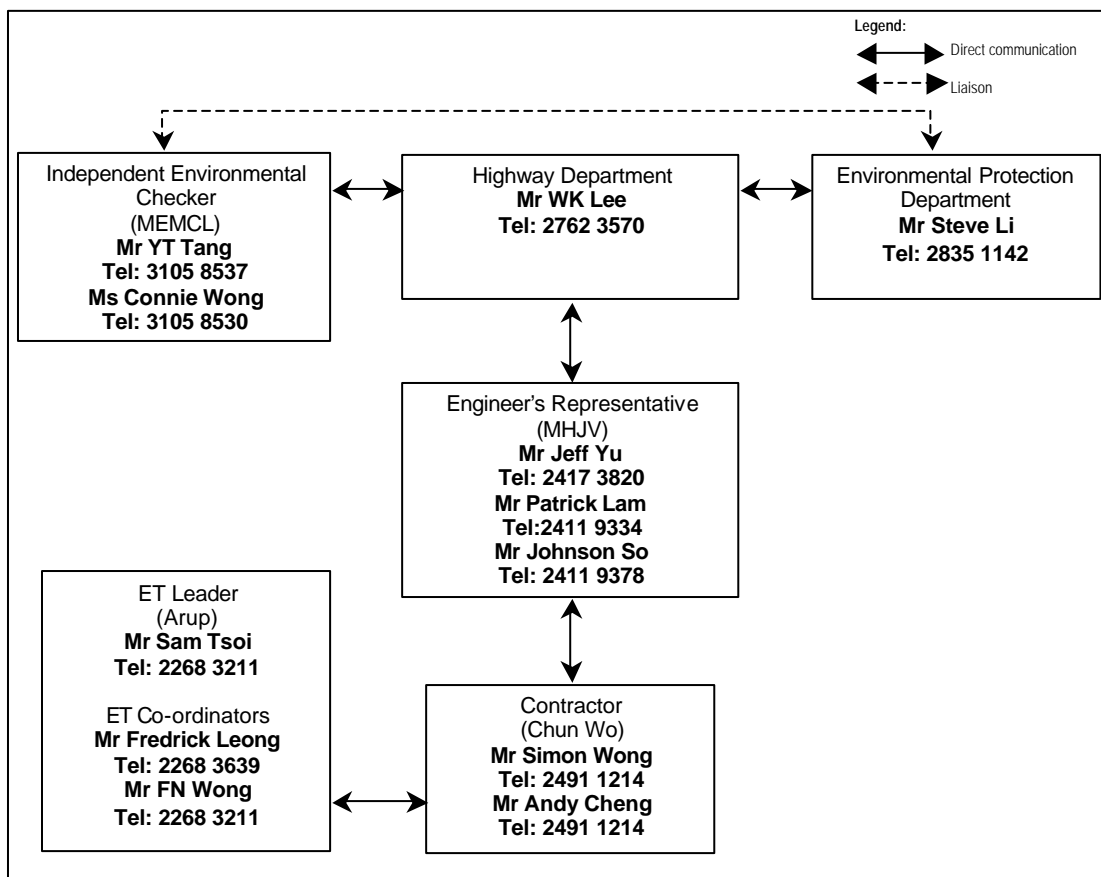
Figure 1-1: Site location plan



1.2 Project Organisation

The project organisation chart for environmental management is shown in **Figure 1.2**.

Figure 1-2: Project organisation chart



The Project Proponent is Highway Department; the Engineer's Representative (ER) is Mouchel Halcrow Joint Venture (MHJV); the Contractor (CT) is Chun Wo Construction & Engineering Co. Ltd; the Independent Environmental Checker (IEC) is Maunsell Environmental Management Consultants Ltd (MEMCL) and the ET leader is Arup.

The overall duties of ET Leader and the team are as follows:

- sampling, analysis and statistical evaluation of monitoring parameters with reference to the EIA study and subsequent reviews recommendations and requirements in respect of noise, dust and water quality;
- environmental site surveillance;
- audit of compliance with environmental protection and pollution prevention and control regulations;
- monitor the implementation of environmental mitigation measures;
- monitor compliance with the environmental protection clauses/specifications in the Contract;
- review construction programme and comment as necessary;
- review construction methodology and comment as necessary;
- complaint investigation, evaluation and identification of corrective measures;
- audit of the effectiveness of mitigation measures and EMS (if applicable) and recommend and implement any changes as appropriate.
- liaison with IEC on all environmental performance matters;
- advice to the CT on environmental improvement, awareness, enhancement matter, etc., on site; and
- Timely submission of the EM&A reports to the ER, IEC and DEP.

The duties of IEC include the followings:

- review and audit all aspects of the EM&A programme;
- validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and locations of sensitive receivers;
- carry out random sample check and audit on monitoring data and sampling procedures, etc;
- conduct random site inspection;
- audit the EIA, subsequent reviews and Environmental Permit recommendations and requirements against the status of implementation of environmental protection measures on site.
- review the effectiveness of environmental mitigation measures and project environmental performance;
- audit the CT's construction methodology and agree the least impact alternative in consultation with ET Leader and the CT;
- check compliant cases and the effectiveness of corrective measures;
- review EM&A report submitted by the ET Leader; and
- feedback audit results to ET Leader by signing off relevant EM&A proformas.

1.3 Impact EM&A Requirements

The impact environmental monitoring and audit for the Project included noise, marine water quality and environmental site audit.

1.4 Purpose of the Report

The purpose of the monthly EM&A report is to provide the information on monitoring methodology, monitoring results, environmental permit status, site audit findings, recommendations and conclusions for the scope of impact EM&A specified under EP No. EP-219/2005.

This is the third monthly EM&A report summarising the monitoring methodology, locations, periods, frequencies, results and any observation from the noise, marine water quality and environmental site audit from 1 May 2006 to 31 May 2006.

2 Scope of Construction Works

2.1 Construction Programme

The construction work was commenced on 28 February 2006. An up-to-date construction programme is attached in **Appendix A**.

2.2 Construction Activities of the Month

The major construction activities carried out by CT in May 2006 included:

- Construction of bored pile retaining wall;
- Construction of Seawall A;
- Construction of Seawall B; and
- Slope Remedial Works.

3 Summary of EM&A Requirements

Marine water quality and noise monitoring at Grand Bay Villa will be conducted by an ET at all specified monitoring locations during the construction stage. Environmental site audits will also be carried out.

The monitoring schedule for May 2006 and the tentative schedule for June 2006 are attached in **Appendix B**.

3.1 Construction Noise

3.1.1 Monitoring Parameters

Construction noise monitoring will be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{10} and L_{90} will also be recorded as supplementary reference information for data auditing.

3.1.2 Monitoring Frequency

Noise measurements will be conducted on a weekly basis. The monitoring time periods, monitoring parameters and frequency are summarised in **Table 3-1**.

Table 3-1: Construction noise monitoring parameters and frequency

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of Measurements for Each Monitoring
Between 0700-1900 hours on normal weekdays	$L_{eq}(30 \text{ min})$	Once per week	1
Between 1900-2300 hours on normal weekdays	$L_{eq}(5 \text{ min})^*$		3 (consecutive)
Between 2300-0700 hours of next day			
Between 0700-1900 hours on holidays			

* The $L_{eq}(5 \text{ min})$ will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

3.1.3 Monitoring Location

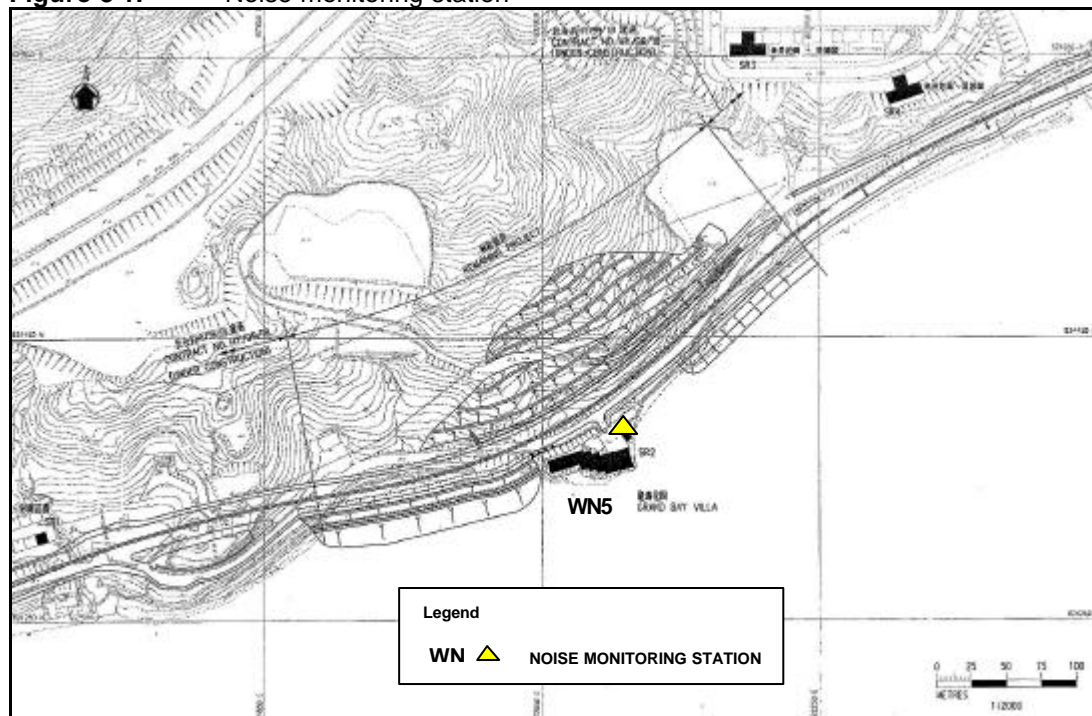
Noise monitoring will be conducted at one designated location as shown in **Figure 3-1**. The details of the noise monitoring location are given in **Table 3-2**. The measurements will be taken at a position 1m from the exterior of building façade and at a position of 1.2m above ground.

Table 3-2: Construction noise monitoring locations

Noise Monitoring Station No.	Location	Monitoring Point	Remarks
WN5	Grand Bay Villa	G/F, House 1	Monitoring temporarily suspended *

* Grand Bay Villa is currently vacant with no resident. Construction noise monitoring at WN5 temporarily suspended until the premises are occupied.

Figure 3-1: Noise monitoring station



3.2 Marine Water Quality

3.2.1 Monitoring Parameters

Marine water quality monitoring will include Turbidity (Tby) in the unit of NTU, Dissolved Oxygen (DO) in the unit of mg/L and Suspended Solids (SS) in the unit of mg/L. In addition to the water quality parameters, other relevant data such as monitoring location/position, time, water depth, water temperature, salinity, DO saturation, weather conditions, sea conditions, tidal stage will be recorded as far as practicable together with observations of any special phenomena, works underway at the construction site, etc.

3.2.2 Monitoring Frequency

Impact marine water quality monitoring will be conducted three times per week, at mid-flood and mid-ebb tides and at 10 designated monitoring locations. The interval between two sets of monitoring will not be less than 36 hours.

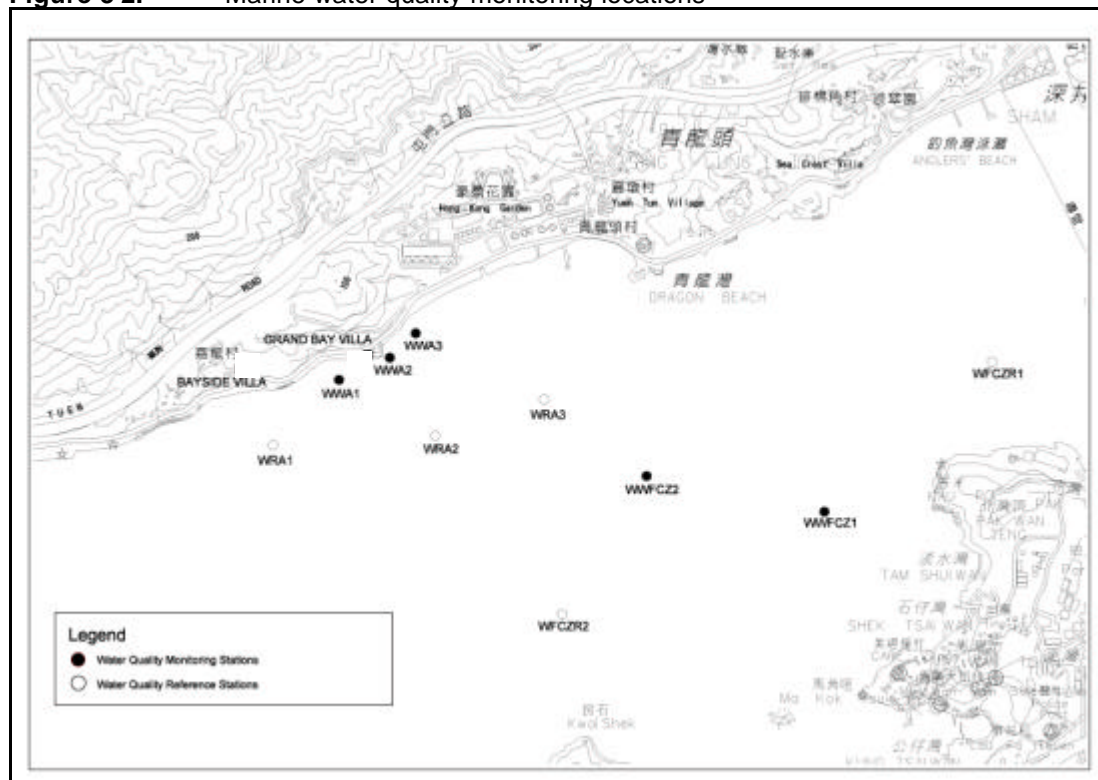
3.2.3 Monitoring Locations

A total of 10 locations, 5 for impact and 5 for control were specified for marine water quality monitoring in accordance with the EM&A Manual, which are summarised in **Table 3-3** and shown in **Figure 3-2**.

Table 3-3: Marine water quality monitoring locations

Marine Water Quality Monitoring Location No.		Location	
		Eastings	Northings
West of Grand Bay Villa	WWA1 (Impact Location)	821981	824282
	WRA1 (Control Location)	821776	824078
Grand Bay Villa	WWA2 (Impact Location)	822141	824352
	WRA2 (Control Location)	822283	824107
East of Grand Bay Villa	WWA3 (Impact Location)	822222	824429
	WRA3 (Control Location)	822625	824222
Ma Wan Fish Culture Zone	WWFCZ1 (Impact Location)	823500	823870
	WWFCZ2 (Impact Location)	822943	823983
	WFCZR1 (Control Location)	824024	824333
	WFCZR2 (Control Location)	822677	823547

Figure 3-2: Marine water quality monitoring locations



3.3 Performance Limits and Event and Action Plan

The monitoring results will be checked against appropriate standards and requirements. A two-tier system performance limits have been established in the Project specific EM&A Manual. The “Action Level” and the “Limit Level” (A/L) are established according to the EPD requirements. The ET, ER, IEC, and CT will take corresponding action in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

3.3.1 Construction Noise

The A/L Levels for the construction noise have been established during the baseline monitoring as summarised in **Table 3-4**.

Table 3-4: Action and Limit Levels of construction noise

Time Period	Action Level	Limit Level
0700 - 1900 hours on any day not being a Sunday or public holiday	When one documented complaint is received	75dB(A)

The action required to be taken by different parties in the case of exceedance of A/L Levels are summarised in the Event and Action Plan in **Table 3-5**.

Table 3-5: Event and Action Plan for construction noise

Event	Action			
	ET Leader	IEC	ER	CT
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and the CT. 2. Carry out investigation. 3. Report the results of investigation to the IEC and the CT. 4. Discuss with the CT and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review with the analysed results submitted by ET. 2. Review the proposed remedial measures by the CT and advise ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the CT. 3. Require the CT to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Notify the IEC, the ER, the DEP and the CT. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of CT's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, the ER, and the DEP the causes & actions taken for the exceedances. 7. Assess effectiveness of the CT's remedial actions and keep the IEC, the DEP and the ER informed of the results. 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Discuss amongst the ER, the ET Leader and the CT on the potential remedial actions. 2. Review the CT's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the CT. 3. Require the CT to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the CT to stop that activity of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

3.3.2 Marine Water Quality

Based on the baseline water quality monitoring data obtained. The A/L levels established using the baseline marine water quality monitoring data are shown in **Table 3-6**. If the water quality monitoring results at any impact stations exceeded the criteria, the actions in accordance with the Event-Action Plan in **Table 3-8** should be carried out.

As the baseline monitoring was conducted in September to October 2005, the established A/L Levels will be more representative to the marine water quality during summer months. To cope with any potential variation of baseline levels due to change in weather conditions, baseline check will be conducted in bi-annual basis in order to update any variation of the baseline water quality at the monitoring locations.

The first baseline check was conducted on 27 February 2006 prior to the commencement of marine works and the updated marine water quality monitoring data were summarised in **Table 3-7**. Compliance assessment for future impact monitoring data will be made against the updated baseline check criteria as follows:

- Tier 1 - Comparison of water quality monitoring data at Impact Stations with the A/L Levels (**Table 3-6**) established in the Baseline Monitoring Report. If the data comply with A/L Levels, go to Tier 2. Otherwise, non-compliance will be reported and Event and Action Plan will be triggered.
- Tier 2 - Comparison of water quality monitoring data at Impact Stations with the Baseline Check Level (80% of average values of baseline check data collected at 10 monitoring locations for DO and 120% of average values of baseline check data collected at 10 monitoring locations for Tby and SS) (**Table 3-7**). If the impact water quality is better than Baseline Check Level, compliance will be reported. Otherwise, go to Tier 3.
- Tier 3 - Comparison of water quality monitoring data at Impact Stations with the respective Control Stations. If the impact water quality is better than the respective Control Station, compliance will be reported. Otherwise, non-compliance will be reported and Event-Action Plan will be triggered for implementation of action based on exceedance of Action Level.

Table 3-6: Action and Limit Levels of marine water quality established in Baseline Monitoring Report #

Parameters		Monitoring locations									
		WWA1		WWA2		WWA3		WWFCZ1		WWFCZ2	
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level
Mid-ebb											
DO (mg/L)	Surface & middle	3.5	3.5	3.5	3.4	3.4	3.3	5.0 *	5.0	5.0 *	5.0
	Bottom	3.4	3.4	3.4	3.3	3.4	3.2	3.7	2.0	3.6	2.0
Tby (NTU)		7.4	7.7	6.7	6.9	7.8	8.3	6.4	8.6	6.7	7.0
SS (mg/L)		25.3	26.0	22.2	23.1	24.6	25.2	26.3	30.3	22.6	22.9
Mid-flood											
DO (mg/L)	Surface & middle	3.3	3.3	3.4	3.3	3.5	3.3	5.0 *	5.0	5.0 *	5.0
	Bottom	3.2	3.2	3.2	3.2	3.2	3.2	3.3	2.0	3.5	2.0
Tby (NTU)		6.9	7.2	7.6	8.2	8.7	10.7	7.4	11.0	5.9	6.5
SS (mg/L)		24.1	24.3	23.5	23.6	22.3	23.5	24.4	25.8	27.4	28.0

Notes:

Action and Limit Level for marine water quality were extracted from Baseline Monitoring Report, April 2006.

* Based on the criteria in Table 4-6 of Baseline Monitoring Report, the originally established action levels of DO for fish culture zone at surface & middle level were all below the 5.0 mg/L.

Table 3-7: Marine water quality data obtained in the baseline check on 27 February 2006

Parameters		Monitoring locations				
		WWA1	WWA2	WWA3	WWFCZ1	WWFCZ2
Mid-ebb						
DO (mg/L)	Surface & middle	5.4	5.4	5.4	5.4	5.4
	Bottom	5.4	5.4	5.4	5.4	5.4
Tby (NTU)		6.5	6.5	6.5	6.5	6.5
SS (mg/L)		13.0	13.0	13.0	13.0	13.0
Mid-flood						
DO (mg/L)	Surface & middle	5.3	5.3	5.3	5.3	5.3
	Bottom	5.3	5.3	5.3	5.3	5.3
Tby (NTU)		6.6	6.6	6.6	6.6	6.6
SS (mg/L)		17.0	17.0	17.0	17.0	17.0

Table 3-8: Event-Action plan for marine water quality

Event	Action			
	ET Leader	IEC	ER	CT
Action Level				
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC and the CT. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC and the CT. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with the IEC on the proposed mitigation measures. Make agreement on the mitigation measures to be implemented. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader and the IEC and propose mitigation measures to the IEC and the ER. Implement the agreed mitigation measures.
Action level being exceeded by more than one consecutive days	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC and the CT. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC and the CT. Ensure mitigation measures are implemented. Prepare to increase the monitoring frequency to daily. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader and the IEC and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures.
Limit Level				
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC, the CT and the DEP. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC, the ER and the CT. Ensure mitigation measures are implemented. Increase the monitoring frequency to daily until no exceedance of the Limit Level. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC, the ET Leader and the CT on the proposed mitigation measures. Request the CT to critically review the working methods. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader, the IEC and the ER, and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive days	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC, the CT and the DEP. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC, the ER and the CT. Ensure mitigation measures are implemented. Increase the monitoring frequency to daily until no exceedance of the Limit Level for two consecutive days. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC, the ET Leader and the CT on the proposed mitigation measures. Request the CT to critically review the working methods. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. Consider and instruct, if necessary, the CT to slow down or to stop all or part of the marine work until no exceedance of Limit Level. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader, the IEC and the ER, and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures. As directed by the ER, slow down or stop all or part of the construction activities.

3.4 Site Inspection and Environmental Complaint Handling

3.4.1 Site Inspection Frequency and Areas Covered

Regular site inspections will be carried out on a weekly basis. The areas of inspection cover the different environmental impacts, such as air, noise, water and waste, and their pollution controls and mitigation measures for both within and outside the site area.

Ad hoc site inspection will be carried out if significant environmental non-compliance is identified. Inspections may also be carried out subsequent to receipt of any environmental complaints, or as part of the investigation work, as specified in the Event and Action Plans.

3.4.2 Site Inspection Procedures

- a) The CT and/or ER will advise the Environmental Auditor (EA) of the ET for all information on any environmental related aspects.
- b) The EA will discuss with the CT and/or ER to sort out and forecast any potential environmental impact.
- c) The EA will conduct a site walk with the CT and/or ER, particularly the areas with extensive construction works.
- d) The EA will conduct inspection for the main environmental facilities and measures such as wheel washing facilities located at site exits, water spraying truck, temporary noise barrier, and internal noise-reducing measures of the heavy equipment etc, to ensure that these environmental facilities operate normally and effectively.
- e) The EA will fill up a site inspection checklist during the site inspection for recording any special observations.
- f) The EA will conduct post-discussion with the CT and/or ER for the establishment of additional/special measures if any non-conformance is found. The completion date for such additional measures will be confirmed during the post-discussion.
- g) The EA will propose a reasonable timeframe together with the CT and/or ER, for the preparation of the proposal for remediation of environmental non-compliance.
- h) The completed site inspection checklist will be signed by the EA, the CT and/or ER, for reference and for taking action in accordance with the agreed procedures, reporting systems and time frame.

3.4.3 Environmental Complaints

In accordance with the EM&A Manual, environmental complaints will be referred to the ET for initiation of the complaint investigation procedures. The ET will undertake the following procedures upon receipt of complaints:

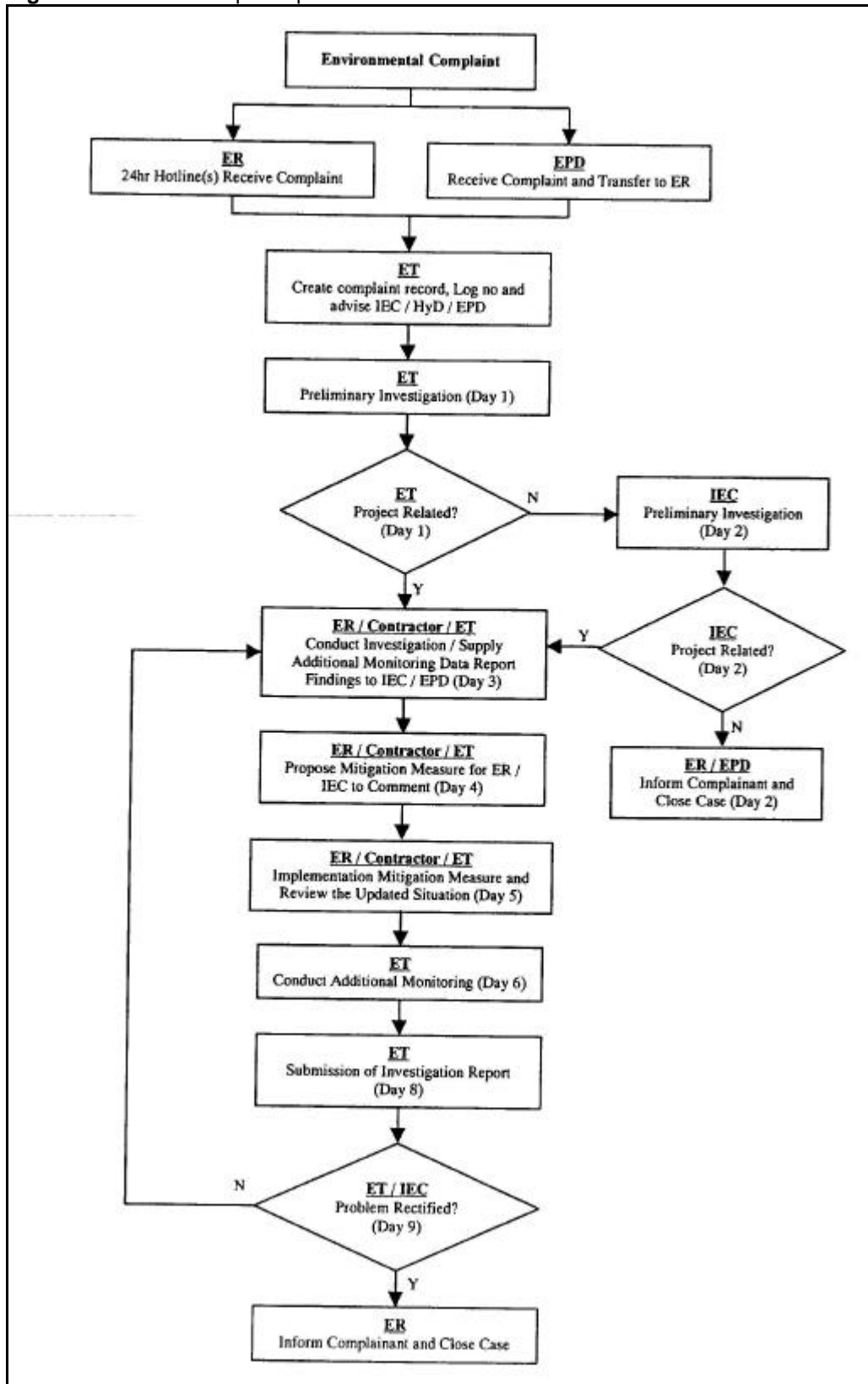
- a) The ET will record the details of the complaint and the date of receipt into the complaint database, and inform ER immediately.
- b) The ET will perform compliant investigation to determine its validity and to assess whether the source of the problem is due to work activities.
- c) The ER will instruct the CT to identify mitigation measures in consultation with the ET, if the compliant is valid and due to works.
- d) The ET will liaise with the CT on their mitigation measure proposals and implementation, if required.

- e) The ET will conduct review of the CT's response on the identified mitigation measures, and of the updated situation.
- f) The ET will submit interim report to EPD if the complaint is received via EPD. The interim report will clearly state the status of the complaint investigation and the follow-up action within the time frame assigned by EPD.
- g) The ET will undertake additional monitoring and audit to verify the situation if necessary, and ensure that any valid reason for complaint does not recur.
- h) The ET will report on the investigation results and the subsequent actions to the source of complaint for responding to the complainant. If the source of complaint is via EPD, the results will be reported within the time frame assigned by EPD.
- i) The ET will record the details of the complaint, investigation, subsequent actions and results in the monthly EM&A report.

During the complaint investigation work undertaken by the ET, the CT and ER should cooperate with the ET on providing all the necessary information and assistance for completion of the investigation. If mitigation measures are identified as necessary after the investigation, the CT should promptly carry out the required mitigation to the satisfaction of ET. The ER should ensure that the CT has carried out such identified measures.

A flow chart of the complaint response procedures is shown in **Figure 3-3** for reference.

Figure 3-3: Complaint procedure



4 Noise Monitoring

4.1 Monitoring Equipment

Details of the integrating sound level meters used in the noise monitoring are shown in **Table 5-1**.

Table 5-1: Equipment list for construction noise monitoring

Equipment	Manufacturer & Model No.	Precision Grade	Qty.
Integrating sound level meter	Rion NA-27	IEC 651 Type 1 IEC 804 Type 1	1
Windshield	Briel & Kjaer UA0237		1
Acoustical calibrator	Briel & Kjaer 4226		1
LCD wind speed indicator	Kestrel Vane Anemometer	--	1

4.2 Methodology

4.2.1 Occupancy Status of Grand Bay Villa

The property management company of Grand Bay Villa (WN5) will be coordinated a monthly basis within 10 working days of each month to confirm the occupancy status of these premises. Once this location is confirmed occupied, noise monitoring will be resumed within 1 week.

4.2.2 Field Measurement

- The sound level meter and battery were checked to ensure that they were in proper condition.
- The sound level meter was set on a tripod at 1.2m above ground and at 1m from the exterior of the building façade.
- Before conducting the measurement, the sound level meter was calibrated by an acoustical calibrator.
- The measurement parameter was set to A-weighted sound pressure level. The time weighting was set in fast response and the time period of measurement at 30 minutes.
- The wind speed was checked during noise monitoring to ensure the steady wind speed did not exceed 5m/s, or wind with gusts did not exceed 10m/s.
- Any abnormal conditions that generated intrusive noise during the measurement were recorded on the field record sheet.
- After each measurement, the equivalent continuous sound pressure level (L_{eq}), L_{10} and L_{90} were recorded on the field record sheet.
- The sound level meter was re-calibrated by the acoustical calibrator to confirm that there was no significant drift of reading.

4.2.3 Equipment Maintenance and Calibration

All sound level meters comply with the standards of IEC 651 (Fast, Slow, Impulse RMS detector tests) and IEC 804 (L_{eq} functions). The acoustical calibrator model no. 4226 complies with IEC 942.

4.3 Results and Observations

4.3.1 Occupancy Status of Grand Bay Villa

In the reporting period, Grand Bay Villa (WN5) was vacant with no resident and noise monitoring was temporarily suspended.

5 Marine Water Quality Monitoring

5.1 Marine Water Quality Monitoring Equipment

Monitoring of Turbidity (Tby) in NTU, Dissolved Oxygen (DO) in mg/L and Suspended Solids (SS) in mg/L was carried to ensure that any deteriorating water quality would be readily detected and timely action would be taken to rectify the situation. Tby and DO were measured in-situ while SS was determined in the laboratory. A list of the marine water quality monitoring equipment is summarised in **Table 5-1**.

Table 5-1: Marine water quality monitoring equipment

Equipment	Manufacturer & Model No.	Qty
Handheld DO, Temperature & Salinity Meter	YSI Model 85	1
pH meter	Hanna	1
Turbidimeter	HACH 2100P	1

5.2 Methodology

5.2.1 DO, Temperature and Salinity Measuring Equipment

The equipment to measure DO, temperature and salinity complied with the following:

- i. The instrument was a portable, weatherproof dissolved oxygen measuring instrument complete with cable and used a DC power source. It was capable of measuring:
 - A dissolved oxygen level in the range of 0-20 mg/L and 0-200% saturation;
 - A temperature of 0-45°C; and
 - A salinity level in the range of 0-40 ppt.
- ii. It had a membrane electrode with automatic temperature compensation complete with a cable.

5.2.2 Turbidity Measurement Instrument

The instrument was a portable, weatherproof turbidity-measuring instrument complete with comprehensive operations manual. The equipment used a DC power source. It had a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and was complete with a cable.

5.2.3 SS

The following equipment was used to monitor the SS:

- i. A water sampler comprised a transparent PVC cylinder, with a capacity of not less than 2 litres and which can be effectively sealed with latex cups at both ends. The sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.

- ii. Water samples for SS measurement were collected in high density polythene bottles, packed in ice (cooled at 4°C without being frozen) and delivered to the laboratory as soon as possible after collection.

5.2.4 Water Depth Detector

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring.

5.2.5 Location of the Monitoring Site

A hand-held Global Positioning System (GPS) was used during monitoring to ensure the monitoring vessel was at the correct location before taking measurements.

5.2.6 Calibration and Accuracy of Instrumentation

All *in-situ* monitoring instruments were checked, calibrated and certified by a HOKLAS accredited laboratory or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Response of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location. The calibration certificates are attached in **Appendix C**. For the on site calibration of field equipment, the BS 1427:1993, "Guide to Field and on-site test methods for the analysis of waters" was followed.

5.3 Results and Observations

5.3.1 Weather Conditions and Other Factors

No adverse weather conditions were recorded during the reporting period.

5.3.2 Summary of Results

Impact marine water quality monitoring was undertaken during mid-ebb and mid-flood tidal cycles at 10 designated locations including 5 impact and 5 control stations. A baseline check was conducted on 27 February 2006 prior to the commencement of marine works and a compliance checking mechanism was established in accordance with the Baseline Monitoring Report. Detailed water quality monitoring results are given in **Appendix D**. Graphical presentation of the monitoring results are illustrated in **Figures 5-1 to 5-8**.

Summary of Mid-Ebb Tide

The lowest DO levels for surface & middle and bottom positions were 4.9 mg/L at WWA1 and 4.7 mg/L at WWFCZ2 respectively on 15 May 2006 respectively. There were 2 exceedances of DO levels during reporting period when compared with the established baseline check criteria in Section 3.3 of this report.

The highest depth-averaged Tby level was 16.4 Nephelometric Turbidity Unit (NTU) at WWA2 on 4 May 2006. There were 6 exceedances of Tby levels at WWA1, WWA2 and WWA3 on 4, 15, 24 and 26 May 2006 when compared with the established baseline check criteria in Section 3.3 of this report.

The highest SS level was 21.0 mg/L at WWA2 on 4 May 2006. There were 7 exceedances of SS levels at WWA1, WWA2 and WWA3 on 4, 15, 18, 24, 26 and 30 May 2006 when compared with the established baseline check criteria in Section 3.3 of this report.

Summary of Mid-Flood Tide

The lowest DO level for surface & middle position was 4.9 mg/L at WWA1 on 15 May 2006 and that for bottom position was 4.9 mg/L at WWA1, WWA3 and WWFCZ2 on 15 May 2006. There were 4 exceedances of DO levels during reporting period when compared with the established baseline check criteria in Section 3.3 of this report.

The highest depth-averaged Tby level was 28.3 NTU at WWA1 on 4 May 2006. There were 5 exceedances of Tby levels at WWA1, WWA2 and WWA3 on 2, 4 and 24 May 2006 respectively when compared with the established baseline check criteria in Section 3.3 of this report.

The highest SS level was 34.3 mg/L at WWA1 on 4 May 2006. There were 4 exceedances of SS levels at WWA1, WWA2, WWA3 and WWFCZ2 on 4, 15 and 24 May 2006 during reporting period when compared with the established baseline check criteria in Section 3.3 of this report.

Figure 5-1: DO levels (surface and middle level) at mid-ebb tide in May 2006

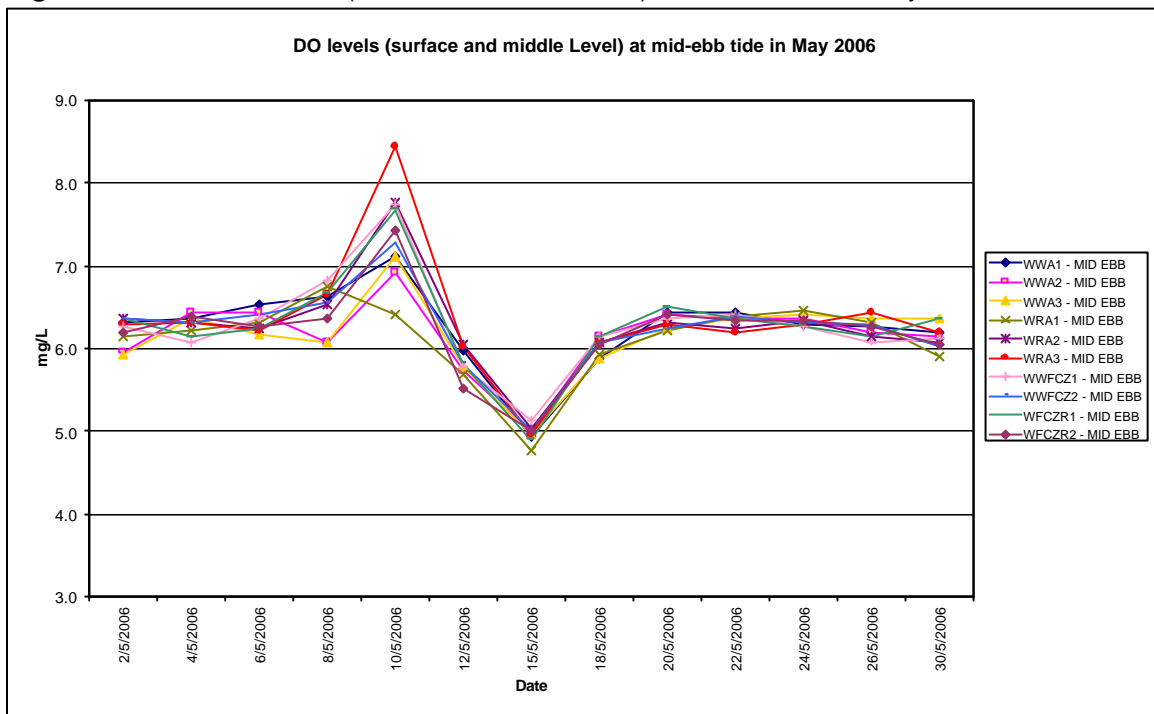


Figure 5-2: DO levels (bottom level) at mid-ebb tide in May 2006

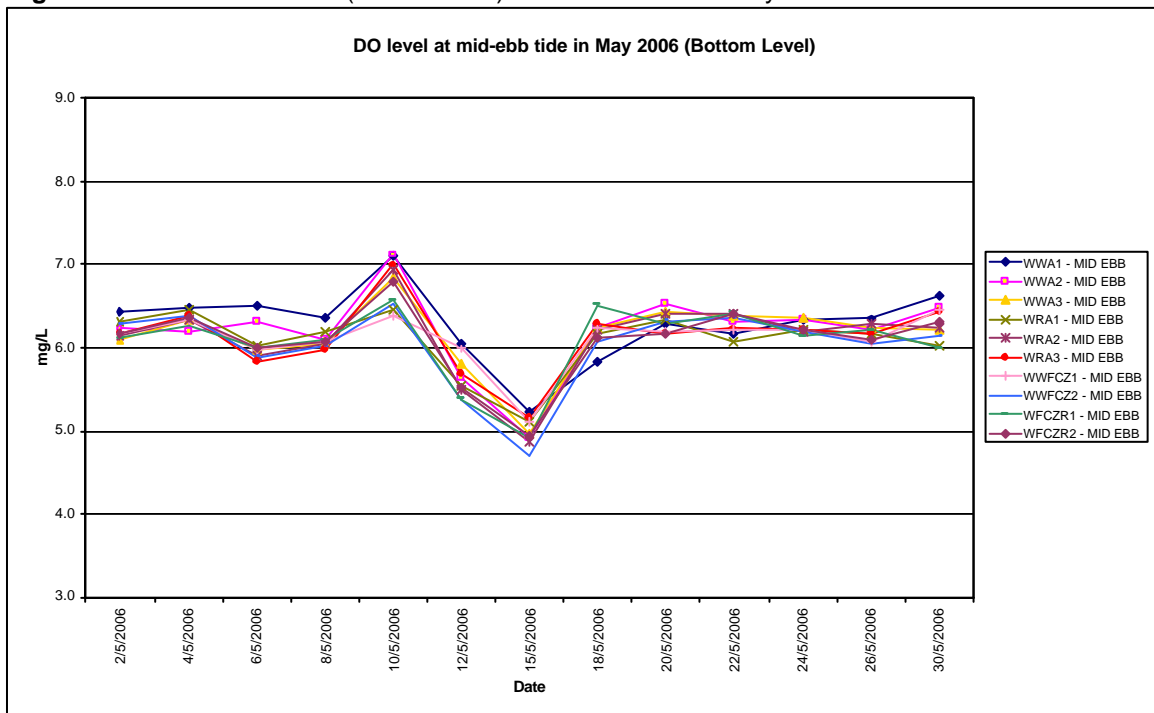


Figure 5-3: DO levels (surface and middle level) at mid-flood tide in May 2006

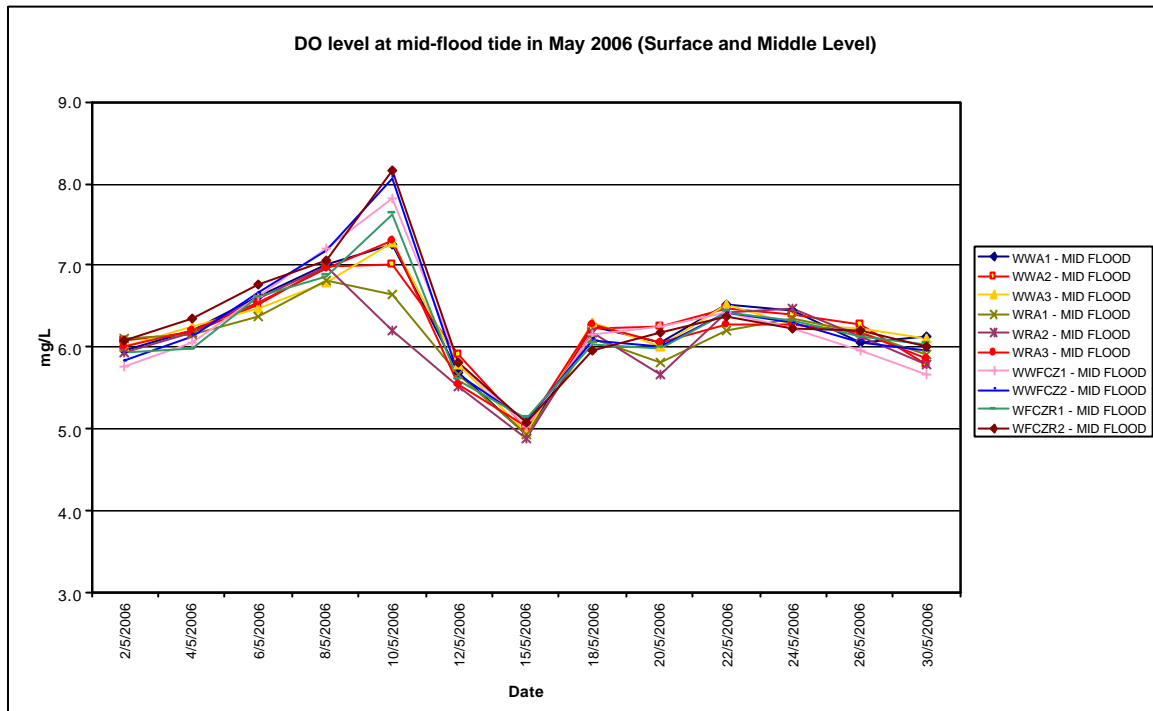


Figure 5-4: DO levels (bottom level) at mid-flood tide in May 2006

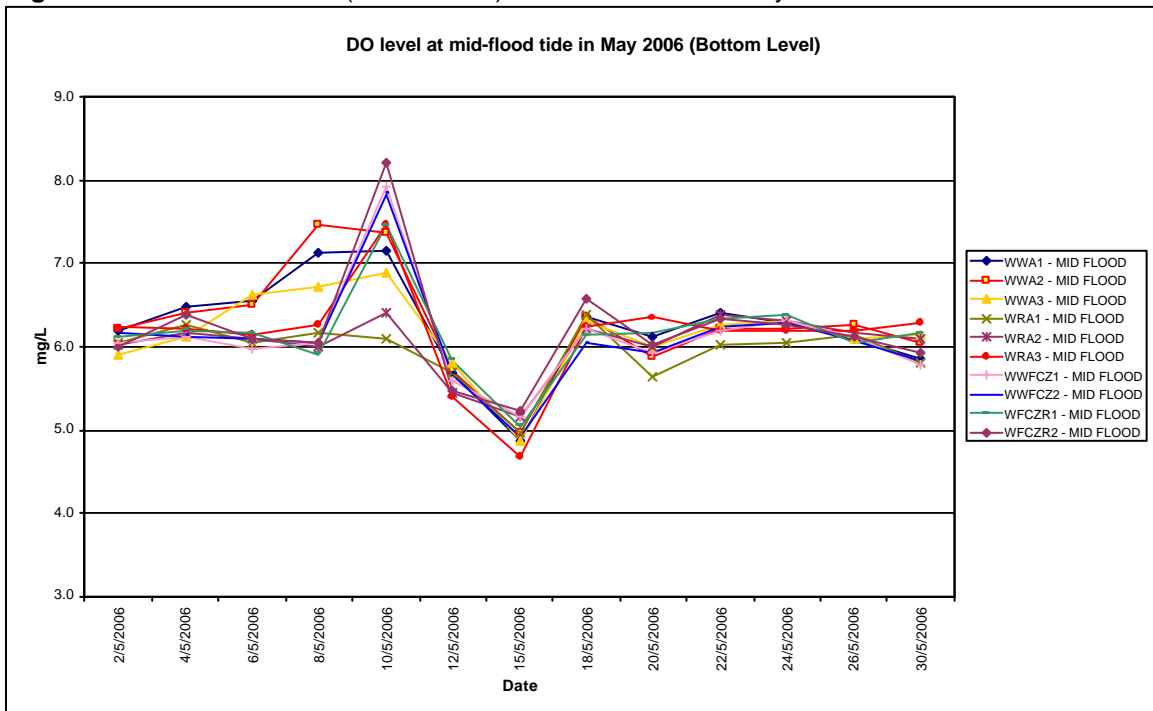


Figure 5-5: Turbidity levels at mid-ebb tide in May 2006

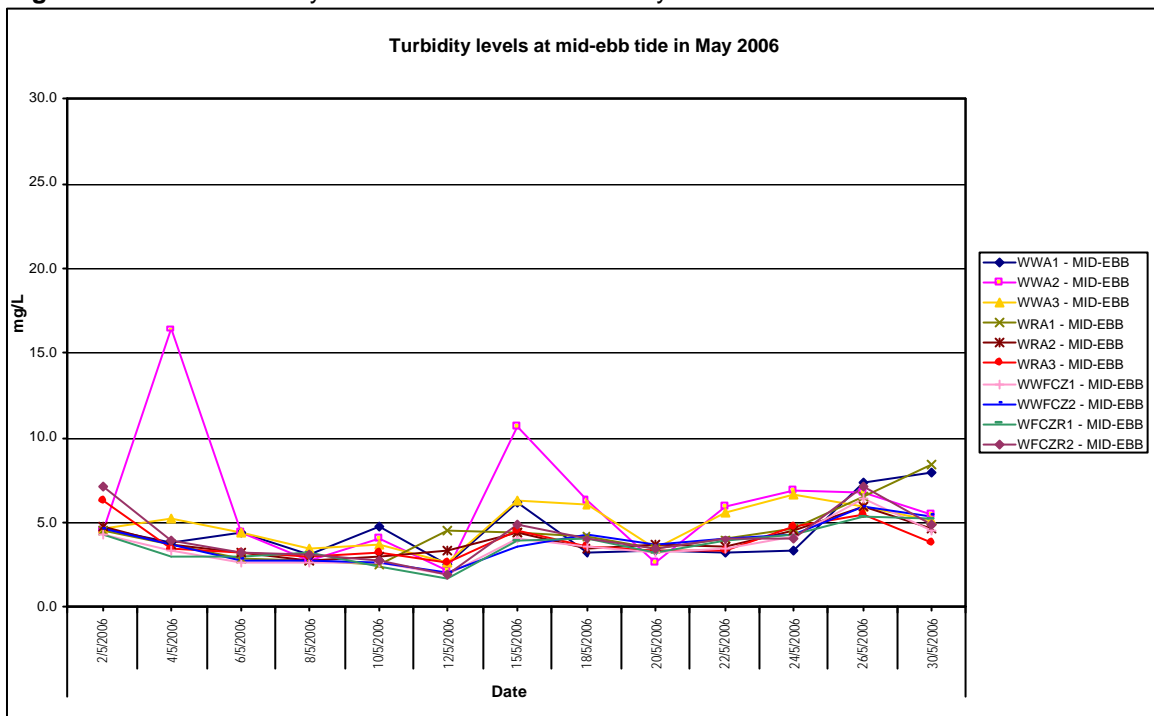


Figure 5-6: Turbidity levels at mid-flood tide in May 2006

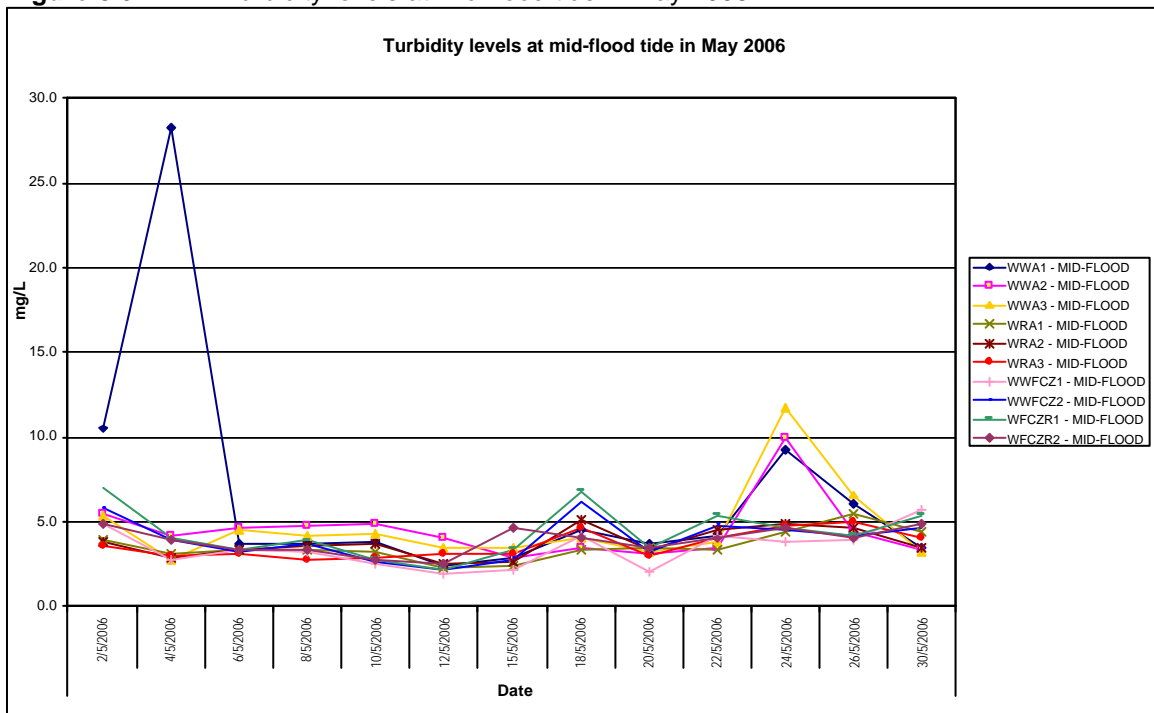


Figure 5-7: SS levels at mid-ebb tide in May 2006

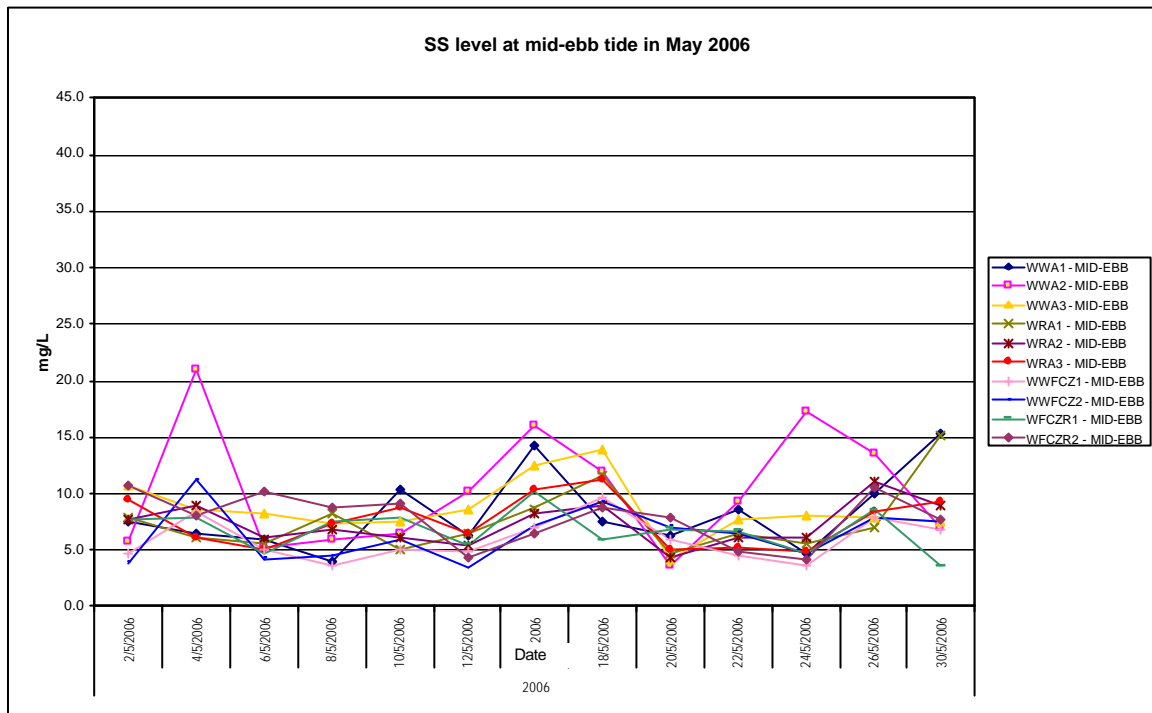
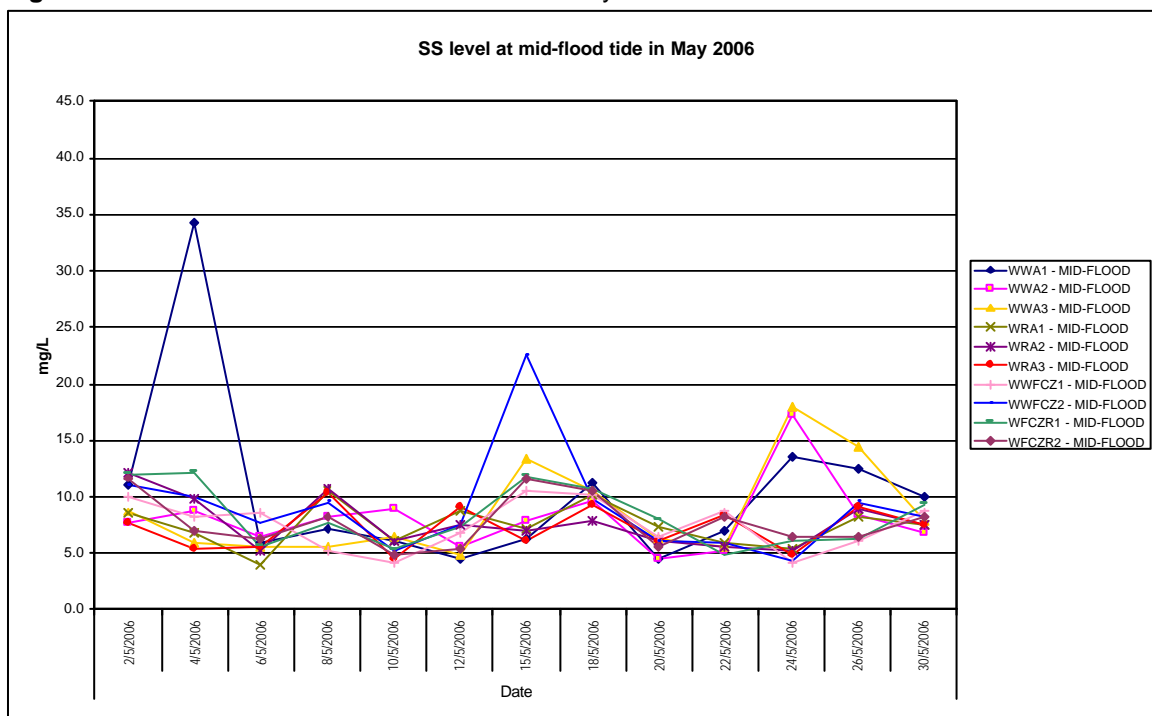


Figure 5-8: SS levels at mid-flood tide in May 2006



6 Site Inspection, Waste Disposal, environmental complaints, environmental licenses and non-compliance records

6.1 Site Audit Findings

Four weekly environmental site audits were carried out on 3, 11, 19 and 25 May 2006. The findings of the site audits are summarised in **Table 6-1**.

Table 6-1: Findings of weekly environmental site audit in May 2006

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
03 May 2006 (WTLT 015)	1. Stagnant water was observed along the site after raining.	CT was reminded to dry-off the stagnant water to avoid mosquito breeding.	Agreed with the ET's advice.	11 May 2006
	2. Muddy water was observed around the silt curtains at Seawall A and B.	CT was reminded to repair the silt curtains immediately.	Agreed with the ET's advice.	
	3. Muddy water was observed discharging to the sea from an outfall near to Seawall B. The source of the muddy water was suspected from the exposed slope beside Castle Peak Road.	CT was reminded to provide pretreatment of site runoff prior to discharging.	Agreed with the ET's advice.	
11 May 2006 (WTLT 016)	1. Excavation was observed within the site of carpark and Castle Peak Road near Seawall A.	CT was reminded to provide dust suppression measures during dry and windy days.	Agreed with the ET's advice.	19 May 2006
	2. Exposed areas / slopes were observed.	CT was reminded to provide water and air quality mitigation measures during rainy and dry days respectively.	Agreed with ET's advice.	
	3. Silt curtain at Seawall A was observed damage at one end.	CT was reminded to conduct regular and maintenance of silt curtain.	Agreed with ET's advice.	
	4. Water was not available at the wheel washing facility at Castle Peak Road near Grand Bay Villa.	CT was reminded to clear the soil left at the wheel washing facility and provide water supply to ensure the proper functioning of the wheel washing facility.	Agreed with ET's advice.	
	5. Silt was observed in a manhole at the exit of Castle Peak Road.	CT was reminded to conduct regular clearing.	Agreed with ET's advice.	

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
	6. Oil drum was observed without driptray at bore piling site.	CT was reminded to provide driptray for oil drum.	Agreed with ET's advice.	
19 May 2006 (WTLT 017)	1. Muddy water was observed beyond the silt curtains at the west of Seawall A and B that was likely due to leakage of silt curtain after a typhoon event.	CT was reminded to conduct regular checking and maintenance of the silt curtains.	Agreed with the ET's advice.	25 May 2006
25 May 2006 (WTLT 018)	1. Stockpile of construction waste/soil was observed at carpark.	CT was reminded to provide proper mitigation measures.	Agreed with the ET's advice.	01 June 2006
	2. Marine works were observed at Seawall B and muddy water was observed beyond the silt curtain.	CT was reminded to conduct regular checking and maintenance of the silt curtains.	Agreed with the ET's advice.	
	3. Oil drum was observed without driptray at bore piling site.	CT was reminded to provide drip tray to oil drum or store chemical properly.	Agreed with the ET's advice.	
	4. Oil leakage was observed from a drilling equipment.	CT was reminded to provide proper maintenance of the equipment immediately.	Agreed with the ET's advice.	

6.2 Waste Disposal

Disposal of waste material in the reporting period generally complied with the corresponding waste disposal requirements. The waste disposal quantity in the reporting period is summarised in **Table 6-2**.

Table 6-2: Waste disposal quantity in May 2006

Type of waste or material	Disposal at	No. of loads or quantities
C&D waste	WENT Landfill	41 tonnes
C&D material	By truck	17,127 tonnes
	By barge	970 tonnes
Chemical waste	Collected by licensed collector	0

In accordance with the Project Profile "Castle Peak Road Improvement between Area 2 and Ka Loon Tsuen, Tsuen Wan, Remaining Works Contract, Construction of Reclamation West of Tsing Lung Tau", all dredged material will be transported by trucks to Public Fill Reception Facility (PFRF) at Tuen Mun Area 38 for ultimate reuse by alternative projects. As the depth of marine water near the reclamation site is found to be sufficient for barges to manoeuvre, the CT proposed to deliver the dredged material by barge to the PFRF. It will reduce the double handling of dredged material to the seashore and then to trucks by backhoe. EPD agreed with the CT's proposal on 18 May 2006 via e-mail. The CT

commenced to transport the dredged material by barge on 24 May 2006. The record of disposal of C&D materials by barge in May 2006 is attached in **Appendix E**.

6.3 Complaint Record

There was no environmental complaint received in May 2006.

6.4 Exceedance

There were exceedances of DO, Tby and SS levels for marine water quality in May 2006 when compared with baseline check criteria. These exceedances levels are summarised in **Table 6.3**.

Table 6-3: Summary of exceedances of marine water quality monitoring in May 2006

Date	Tide	Location	Exceedances of monitoring data									
			DO (mg/L)			Tby (mg/L)			SS (mg/L)			
			Position	Baseline Check	Control Station	Impact Station	Baseline Check	Control Station	Impact Station	Baseline Check	Control Station	Impact Station
2-May	mid-flood	WWA1	-	-	-	-	6.6	3.9	10.5	-	-	-
4-May	mid-ebb	WWA2	-	-	-	-	6.5	3.7	16.4	13.0	9.0	21.0
4-May	mid-flood	WWA1	-	-	-	-	6.6	3.1	28.3	17.0	6.8	34.3
15-May	mid-ebb	WWA1	-	-	-	-	-	-	-	13.0	8.7	14.2
15-May	mid-ebb	WWA2	-	-	-	-	6.5	4.4	10.7	13.0	8.2	16.0
15-May	mid-ebb	WWA3	Bottom	5.4	5.2	5.0	-	-	-	-	-	-
15-May	mid-ebb	WWFCZ2	Bottom	5.4	4.9	4.7	-	-	-	-	-	-
15-May	mid-flood	WWA1	Bottom	5.3	5.0	4.9	-	-	-	-	-	-
15-May	mid-flood	WWA2	Bottom	5.3	5.1	5.0	-	-	-	-	-	-
15-May	mid-flood	WWFCZ1	Surface & Middle	5.3	5.1	5	-	-	-	-	-	-
15-May	mid-flood	WWFCZ2	Bottom	5.3	5.2	4.9	-	-	-	17.0	11.5	22.5
18-May	mid-ebb	WWA3	-	-	-	-	-	-	-	13.0	11.2	13.8
24-May	mid-ebb	WWA2	-	-	-	-	6.5	4.5	6.9	13	6.2	17.2
24-May	mid-ebb	WWA3	-	-	-	-	6.5	4.8	6.7	-	-	-
24-May	mid-flood	WWA1	-	-	-	-	6.6	4.4	9.3	-	-	-
24-May	mid-flood	WWA2	-	-	-	-	6.6	4.9	10.0	17	5.2	17.3
24-May	mid-flood	WWA3	-	-	-	-	6.6	4.8	11.7	17	4.8	18
26-May	mid-ebb	WWA1	-	-	-	-	6.5	6.5	7.4	-	-	-
26-May	mid-ebb	WWA2	-	-	-	-	6.5	5.9	6.8	-	11.0	13.5
30-May	mid-ebb	WWA1	-	-	-	-	-	-	-	13.0	15.2	15.3

The ET's field staff observed muddy water at WWA1 on 2 May 2006, which was likely due to leakage from silt curtain. The CT was advised to immediately check the integrity and normal functioning of the silt curtains and review the marine works procedures to avoid such

seepage recurrence, e.g. implementing precautionary measures to avoid breaking silt curtain materials, frequent checking of integrity and maintenance to ensure normal functioning, etc. The CT has immediately to check the integrity of silt curtain, then sealed and repaired the leakage area where required. On 4 and 6 May 2006, the CT constructed a bund wall inside silt curtain and along the work area of Seawall B. The CT closely monitored the effectiveness of silt curtain and maintained the performance to ensure normal functioning. With the remedial work implemented, the subsequent marine water quality monitoring data (6, 8, 10 and 12 May 2006) indicated resumption to normal ambient conditions. The exceedances of Tby and SS levels on 2 and 4 May 2006 were likely due to construction works of the Project.

Exceedances of DO, Tby and SS levels were recorded on 15 May 2006. All of the exceedances of DO level were marginal and comparable to the levels at their respective control stations (ambient levels). This may be due to influence of typhoon or natural variation of marine water quality. However, the exceedances of Tby and SS were likely due to leakage of silt curtains. The CT has immediately to mobilise underwater divers to check the integrity of silt curtain, then sealed and repaired the leakage area where required. The CT closely monitored the effectiveness of silt curtain and maintained the performance to ensure normal functioning. With the remedial work implemented, the subsequent marine water quality monitoring data (20 and 22 May 2006) indicated resumption to normal ambient conditions. The exceedances of Tby and SS levels on 15 and 18 May 2006 were likely due to construction works of the Project.

ET's field staff observed construction works were being conducted at Seawall A and B during marine water monitoring period on 24 and 26 May 2006. The exceedances were likely due to leakage from silt curtain. The CT mobilised workers to repair the rock bund and silt curtain at Seawall B on 24 and 25 May respectively. With the remedial work implemented, the subsequent marine water quality monitoring data (30 May 2006) indicated resumption to normal ambient conditions. The exceedances of Tby and SS levels on 24 and 26 May 2006 were likely due to construction works of the Project.

One exceedance of SS at WWA1 was recorded on 30 May 2006. However, no muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWA1 on 30 May 2006 by ET's field staff. The exceedance of SS was only marginal to the Baseline Check Criteria at this monitoring location and 0.1mg/L higher than the respective control station. In addition, there was no exceedance of Tby level. Hence, the exceedance was unlikely due to the construction works of the Project. Nevertheless, the Contractor has been reminded to monitor the effectiveness of silt curtain and maintain the performance to ensure normal functioning.

6.5 Notification of Summons and Successful Prosecution

No notification of summons and prosecution was received in May 2006.

6.6 Environmental Licenses

A summary of the valid environmental licenses is given in **Table 6-4**. CEDD approved the CT to deliver C&D materials to PFRF at Tuen Mun Area 38 in May 2006 and the approval letter is attached in **Appendix F**.

Table 6-4: Summary of valid environmental licences in May 2006

Type of Licence	Reference No.	Valid from	Valid to
Environmental Permit	EP-219/2005	20 Jun 2005	Not applicable
Registration of Chemical Waste Producer	5111-336-C2869-49	16 Feb 2006	Not applicable
Water Discharge Licence	EP760/336/011348 I	31 Mar 2006	31 Mar 2011
Delivery of C&D Materials to PFRF at Tuen Mun Area 38 by Barge	Application No.: CEDD00087 Billing Account No.: 5005407	12 May 2006	15 Aug 2006

7 Conclusions

The construction phase of the Project was commenced on 28 February 2006. The EM&A programme has been implemented since then, including marine water quality monitoring and environmental site audits. Noise monitoring at Grand Bay Villa was temporarily suspended as these premises were vacant with no resident.

Exceedances of marine water quality were detected from the monitoring data, which triggered the Event and Action Plan for remedial action. With the remedial work implemented in progress, the subsequent results of marine water quality monitoring indicated resumption of normal ambient conditions was achieved.

No complaint, summons or prosecution related to environmental issues was received during the reporting month.

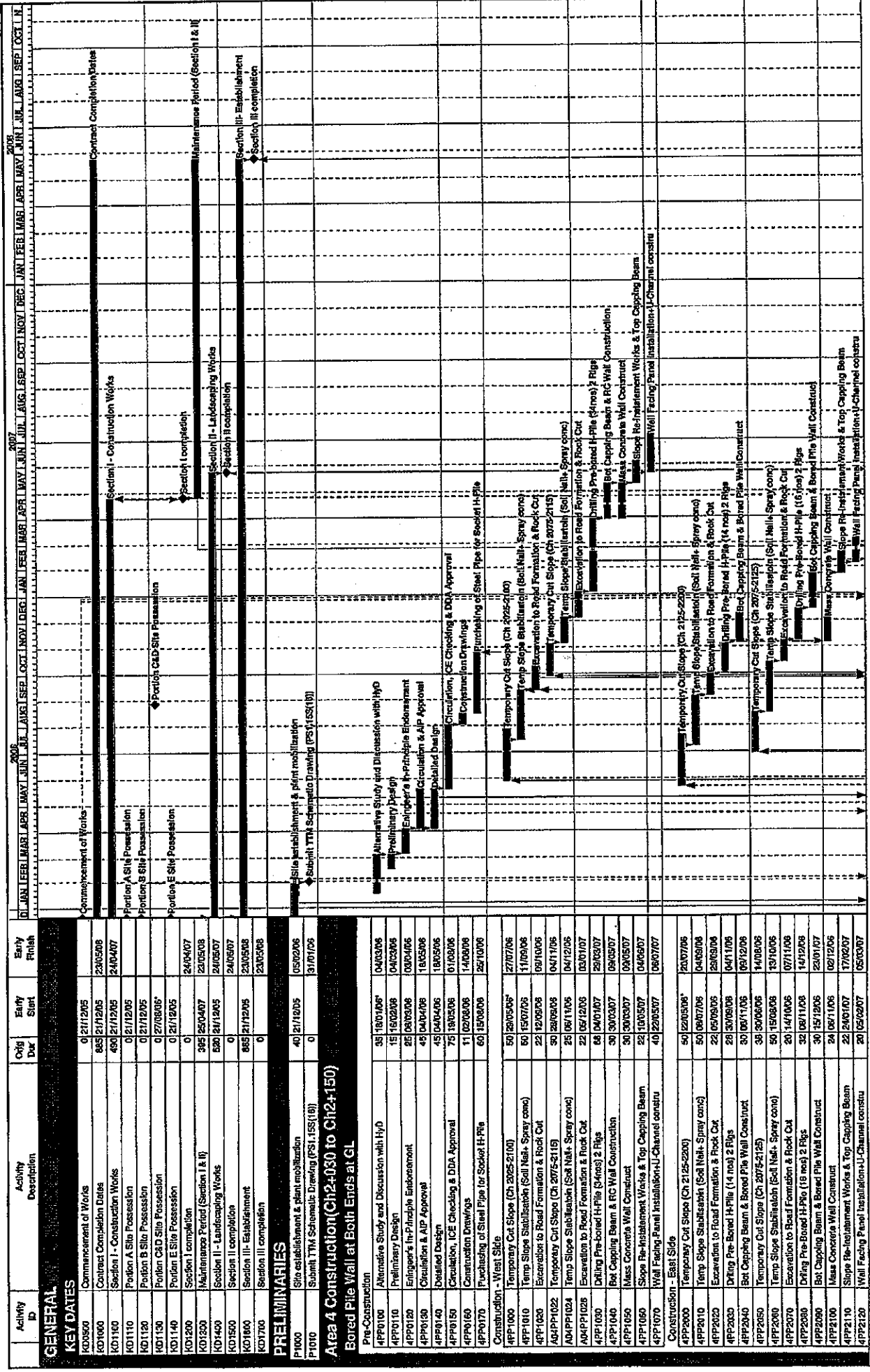
Weekly environmental site audit was carried out during the reporting month. The major environmental concerns were related to air quality, water quality, waste management and handling of chemical waste.

The CT commenced to deliver dredged materials to PFRF at Tuen Mun Area 38 on 24 May 2006.

8 References

- [1] Mouchel Halcrow Joint Venture. January 2006. Supplementary Agreement No.1 – Remaining Project EM&A Manual for Construction of Reclamation West of Tsing Lung Tau.
- [2] Ove Arup & Partners Hong Kong Limited. April 2006. Contract No.HY2005/06 Castle Peak Road Improvement – West of Tsing Lung Tau. Environmental Baseline Monitoring Report for Reclamation Works (EP No. EP-219/2005) (Second Issue)

Appendix A
**Construction
programme**



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
4PP000	Commencement of Works	0	01/21/2006	01/21/2006
4PP000	Contract Completion Date	885	21/12/06	23/05/08
4PP010	Section I - Construction Works	490	21/12/06	24/04/07
4PP011	Portion A Site Possession	0	21/12/06	21/12/06
4PP012	Portion B Site Possession	0	21/12/06	21/12/06
4PP013	Portion C&D Site Possession	0	27/08/07	27/08/07
4PP014	Portion E Site Possession	0	27/12/06	27/12/06
4PP020	Section I completion	0	21/12/06	24/04/07
4PP030	Maintenance Period (Section I & II)	395	25/04/07	23/05/08
4PP040	Section II - Landscaping Works	520	24/12/06	24/05/07
4PP050	Section II completion	0	24/05/07	24/05/07
4PP060	Section III - Establishment	865	21/12/06	23/05/08
4PP070	Section III completion	0	23/05/08	23/05/08
PRELIMINARIES				
P1000	Site establishment & plant mobilization	40	21/12/05	05/02/06
P1010	Submit TTM Schematic Drawing (PS1,15S(18))	0	0	31/01/06
Area 4 Construction (Ch2+030 to Ch2+150)				
Bored Pile Wall at Both Ends at GL				
Pre-Construction				
4PP0100	Alternative Study and Discussion with Hyd	35	19/01/06	04/03/06
4PP0110	Preliminary Design	15	19/02/06	04/03/06
4PP0120	Engineer's In-Principle Endorsement	25	04/03/06	09/04/06
4PP0130	Circulation & AIP Approval	45	04/04/06	18/05/06
4PP0140	Detailed Design	45	04/04/06	18/05/06
4PP0150	Finalization, ICE Checking & BDA Approval	75	18/05/06	01/08/06
4PP0160	Construction Drawings	11	02/08/06	14/08/06
4PP0170	Purchasing of Steel Pipe for Socket H-Pile	60	15/08/06	25/10/06
Construction - West Side				
4PP1000	Temporary Cut Slope (Ch 2095-2100)	50	28/05/06	27/07/06
4PP1010	Temp Slope Stabilisation (Soil Nail, Spray conc)	50	15/07/06	11/09/06
4PP1020	Excavation to Road Formation & Rock Cut	22	12/05/06	09/10/06
4PP1030	Temporary Cut Slope (Ch 2075-2115)	50	28/09/06	04/12/06
4PP1040	Temp Slope Stabilisation (Soil Nail, Spray conc)	25	06/11/06	03/01/07
4PP1050	Excavation to Road Formation & Rock Cut	22	08/12/06	29/03/07
4PP1060	Drilling Pre-bored H-Pile (4 nos) 2 Rigs	66	04/01/07	09/05/07
4PP1070	Box Capping Beam & RC Wall Construction	30	30/03/07	03/05/07
4PP1080	Mass Concrete Wall Construct	30	30/03/07	03/05/07
4PP1090	Slope Re-instatement Works & Top Capping Beam	28	10/05/07	04/06/07
4PP1100	Wall Facing Panel Installation - Channel constr	40	22/05/07	06/07/07
Construction - East Side				
4PP2000	Temporary Cut Slope (Ch 2125-2200)	50	22/05/06	20/07/06
4PP2010	Temp Slope Stabilisation (Soil Nail, Spray conc)	50	08/07/06	04/09/06
4PP2020	Excavation to Road Formation & Rock Cut	22	05/09/06	28/09/06
4PP2030	Drilling Pre-bored H-Pile (4 nos) 2 Rigs	28	30/09/06	04/11/06
4PP2040	Box Capping Beam & Bored Pile Wall Construct	30	06/11/06	09/12/06
4PP2050	Temporary Cut Slope (Ch 2075-2125)	38	30/06/06	14/08/06
4PP2060	Temp Slope Stabilisation (Soil Nail, Spray conc)	50	19/09/06	07/10/06
4PP2070	Excavation to Road Formation & Rock Cut	20	14/10/06	09/11/06
4PP2080	Drilling Pre-bored H-Pile (16 nos) 2 Rigs	32	08/11/06	14/12/06
4PP2090	Box Capping Beam & Bored Pile Wall Construct	30	15/12/06	23/01/07
4PP2100	Mass Concrete Wall Construct	24	06/11/06	06/12/06
4PP2110	Slope Re-instatement Works & Top Capping Beam	20	24/01/07	17/02/07
4PP2120	Wall Facing Panel Installation - Channel constr	20	28/02/07	05/03/07

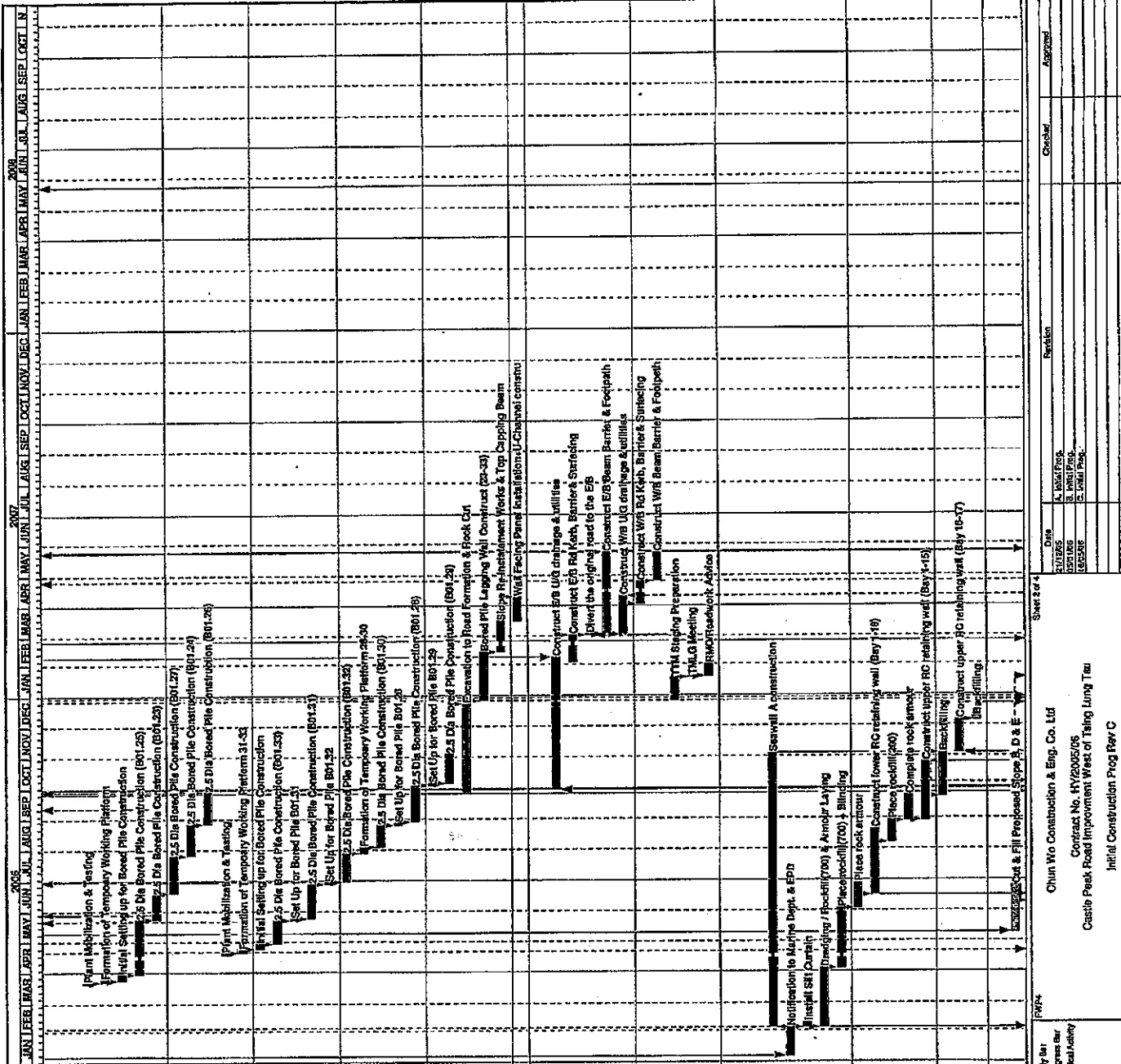
Sheet 4 of 4

Chun Wo Construction & Eng. Co. Ltd
 Contract No. HW2005/08
 Castle Peak Road Improvement West of Tsing Lung Tau
 Initial Construction Prog Rev C

21/12/05
 23/05/06
 31/01/06
 24/05/06 15:52

Early Bar
 Progress Bar
 Critical Activity

2P Primavera Systems, Inc.



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Bored Pile Retaining Wall Construction				
4BP3000	Plant Mobilization & Testing	2	20/03/18	21/03/18
4BP3010	Formation of Temporary Working Platform	3	22/03/18	24/03/18
4BP3020	Initial Setting up for Bored Pile Construction	5	24/03/18	29/03/18
4BP3030	2.5 Dia Bored Pile Construction (B01.25)	41	30/03/18	22/05/18
4BP3040	2.5 Dia Bored Pile Construction (B01.25)	21	24/05/18	17/06/18
4BP3050	2.5 Dia Bored Pile Construction (B01.27)	31	19/06/18	25/07/18
4BP3060	2.5 Dia Bored Pile Construction (B01.24)	27	28/07/18	25/08/18
4BP3070	2.5 Dia Bored Pile Construction (B01.26)	28	26/08/18	27/09/18
4BP3080	Plant Mobilization & Testing	2	19/04/18	20/04/18
4BP3090	Formation of Temporary Working Platform 31-33	3	20/04/18	22/04/18
4BP3100	Initial Setting up for Bored Pile Construction	5	24/04/18	29/04/18
4BP3110	2.5 Dia Bored Pile Construction (B01.33)	19	29/04/18	22/05/18
4BP3115	Set Up for Bored Pile B01.31	2	23/05/18	24/05/18
4BP3120	2.5 Dia Bored Pile Construction (B01.31)	29	25/05/18	27/08/18
4BP3125	Set Up for Bored Pile B01.32	2	20/06/18	29/06/18
4BP3130	2.5 Dia Bored Pile Construction (B01.32)	25	30/06/18	27/07/18
4BP3131	Formation of Temporary Working Platform 28-30	5	28/07/18	02/08/18
4BP3132	2.5 Dia Bored Pile Construction (B01.30)	19	03/08/18	24/08/18
4BP3133	Set Up for Bored Pile B01.28	2	25/08/18	26/08/18
4BP3134	2.5 Dia Bored Pile Construction (B01.28)	31	28/08/18	03/10/18
4BP3135	Set Up for Bored Pile B01.29	2	04/10/18	05/10/18
4BP3136	2.5 Dia Bored Pile Construction (B01.29)	25	06/10/18	03/11/18
4BP3150	Excavation to Road Formation & Hook Cut	71	28/09/18	03/12/18
4BP3160	Bored Pile Lagging Wall Construct (23-33)	40	27/12/18	12/02/19
4BP3170	Slope Re-instatement Works & Top Capping Beam	22	13/02/19	15/03/19
4BP3180	Wall Facing Panel Installation - U-Channel concrete	20	16/03/19	05/04/19
Roadworks Construction				
4RW4100	Construct E/B U/G drainage & utilities	105	03/09/18	07/06/19
4RW4110	Construct E/B Rd Kerb, Barrier & Surfacing	18	03/09/18	01/10/18
4RW4200	Event the original road to the E/B	1	02/10/18	02/10/18
4RW4205	Construct E/B Beam Barrier & Footpath	65	03/10/18	23/05/19
4RW4200	Construct W/B U/G drainage & utilities	32	03/10/18	10/04/19
4RW4510	Construct W/B Rd Kerb, Barrier & Surfacing	15	03/04/17	24/04/17
4RW4515	Construct W/B Beam Barrier & Footpath	24	25/04/17	20/05/17
4RW4520	TMG Slagging Preparation	19	27/11/18	18/01/19
4RW4530	TMG Meeting	1	18/01/17	18/01/17
4RW4540	RMC/Roadwork Advice	10	20/01/17	31/01/17
Area 3 Construction (Ch1+825 to Ch2+030)				
3SWA4500	Seawall A construction	223	14/02/18	03/11/18
3SWA4600	Notification to Marine Dept. & EPD	28	07/01/18	03/02/18
3SWA4610	Install Silt Curtain	4	04/02/18	08/02/18
3SWA4620	Dredging / Rockfill(700) & Armour Laying	50	04/02/18	03/04/18
3SWA4630	Pile rockfill(700) & Blinding	45	04/04/18	02/06/18
3SWA4640	Pile rock armour	21	03/06/18	27/06/18
3SWA4650	Construct lower RC retaining wall (Bay 1+1)	55	16/06/18	19/08/18
3SWA4660	Pile rockfill(200)	20	07/08/18	29/08/18
3SWA4670	Complete rock armour	22	29/08/18	27/09/18
3SWA4680	Construct upper RC retaining wall (Bay 1+1)	47	30/08/18	25/10/18
3SWA4690	Backfilling	34	22/09/18	02/11/18
3SWA4700	Construct upper RC retaining wall (Bay 1B-17)	28	04/11/18	06/12/18
3SWA4800	Backfilling	3	07/12/18	09/12/18
Slope Works				
3SW1000	Cut & Fill Proposed Slope B, D & E	40	08/05/18	24/06/18

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
SSW2000	Slope stabilization works	40	09/06/06	26/07/06

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Roadworks Construction				
SRW2100	Construct WB U/G drainage & utilities	64	09/10/06	29/12/06
SRW2110	Construct WB Rd Kerb, Barriers, Surfacing	18	20/12/06	16/01/07
SRW2500	Divert the original road to the WB	1	17/01/07	17/01/07
SRW2505	Construct WB Beam Barrier & Footpath	24	16/01/07	14/02/07
SRW2600	Construct E/B U/G drainage & utilities	50	16/01/07	29/03/07
SRW2605	Construct E/B Rd Kerb, Barriers & Surfacing	18	30/03/07	24/04/07
SRW2608	Construct E/B Beam Barrier & Footpath	24	29/04/07	23/05/07
SRW2610	T/M Staging Preparation	18	21/11/06	12/12/06
SRW2650	T/M LG Meeting	1	19/12/06	19/12/06
SRW2650	RMC/Roadwork Advice	10	1/11/2006	28/12/06
AGSRW6500	Construct Perm Drainage E/B for Temp Diversion	20	26/02/06	20/03/06
AGSRW1000	Construct Temp Road (S-Turn) Ch2-300	10	21/10/06	02/11/06
AGSRW2000	Divert the original road to the E/B	1	03/11/06	03/11/06
AGSRW2500	T/M Staging Preparation	18	06/02/06	29/03/06
AGSRW3000	T/M LG Meeting	1	30/03/06	30/03/06
AGSRW3500	RMC/Roadwork Advice	10	03/10/06	14/10/06

Area 5 Construction (Ch2-150 to Ch2-300)

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Seawall B Construction				
SSWB1000	Install S/N Curtain	3	04/02/06	07/02/06
SSWB1100	Grading / Backfill & Armour Laying (1st stage)	50	04/02/06	05/04/06
SSWB1100	Place rockfill & Construct L-shaped Wall Footing	28	04/04/06	12/05/06
SSWB1200	Place rock armour (2 stage)	14	19/03/06	29/03/06
SSWB1300	Construct RC retaining wall (Bay 5-12)	54	30/03/06	02/08/06
SSWB1400	Backfilling	29	27/07/06	28/08/06
SSWB1500	Complete rock armour	14	29/08/06	13/09/06
AGSSWB0200	Construct RC Retaining Wall (Bay 1-4)	28	08/11/06	11/12/06
AGSSWB1000	Backfilling	10	12/12/06	23/12/06
AGSSWB1100	Complete Rock Armour	5	27/12/06	02/01/07

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
Roadworks Construction				
2RW3000	Construct WB U/G drainage & utilities	63	2/1/006	08/01/07
2RW3010	Construct WB Rd Kerb, Barriers, Surfacing	18	30/12/06	23/01/07
2RW3500	Divert the original road to the WB	1	22/01/07	22/01/07
2RW3510	Construct WB Beam Barrier & Footpath	18	22/01/07	10/02/07
2RW3600	Construct E/B U/G drainage & utilities	62	22/01/07	11/04/07
2RW3610	Construct E/B Rd Kerb, Barriers, Surfacing	18	03/04/07	24/04/07
2RW3620	Construct E/B Beam Barrier & Footpath	18	20/04/07	16/05/07
2RW3700	T/M Staging Preparation	18	25/11/06	16/12/06
2RW3710	T/M LG Meeting	1	18/12/06	18/12/06
2RW3720	RMC/Roadwork Advice	10	19/12/06	03/01/07
AG2RW10100	Approval of Temporary Diversion Scheme	60	06/02/06	27/05/06
AG2RW0500	Temporary Diversion of Water Main	50	29/05/06	04/07/06
AG2RW10000	Construct Perm Drainage E/B for Temp Diversion	20	30/08/06	29/10/06
AG2RW1100	Construct Temp Road (S-Turn) Ch2-150	10	29/10/06	07/11/06
AG2RW1200	Divert the original road to the E/B	1	08/11/06	08/11/06
AG2RW1300	T/M Staging Preparation	18	13/09/06	05/10/06
AG2RW1400	T/M LG Meeting	1	06/10/06	06/10/06
AG2RW1500	RMC/Roadwork Advice	10	08/10/06	18/10/06

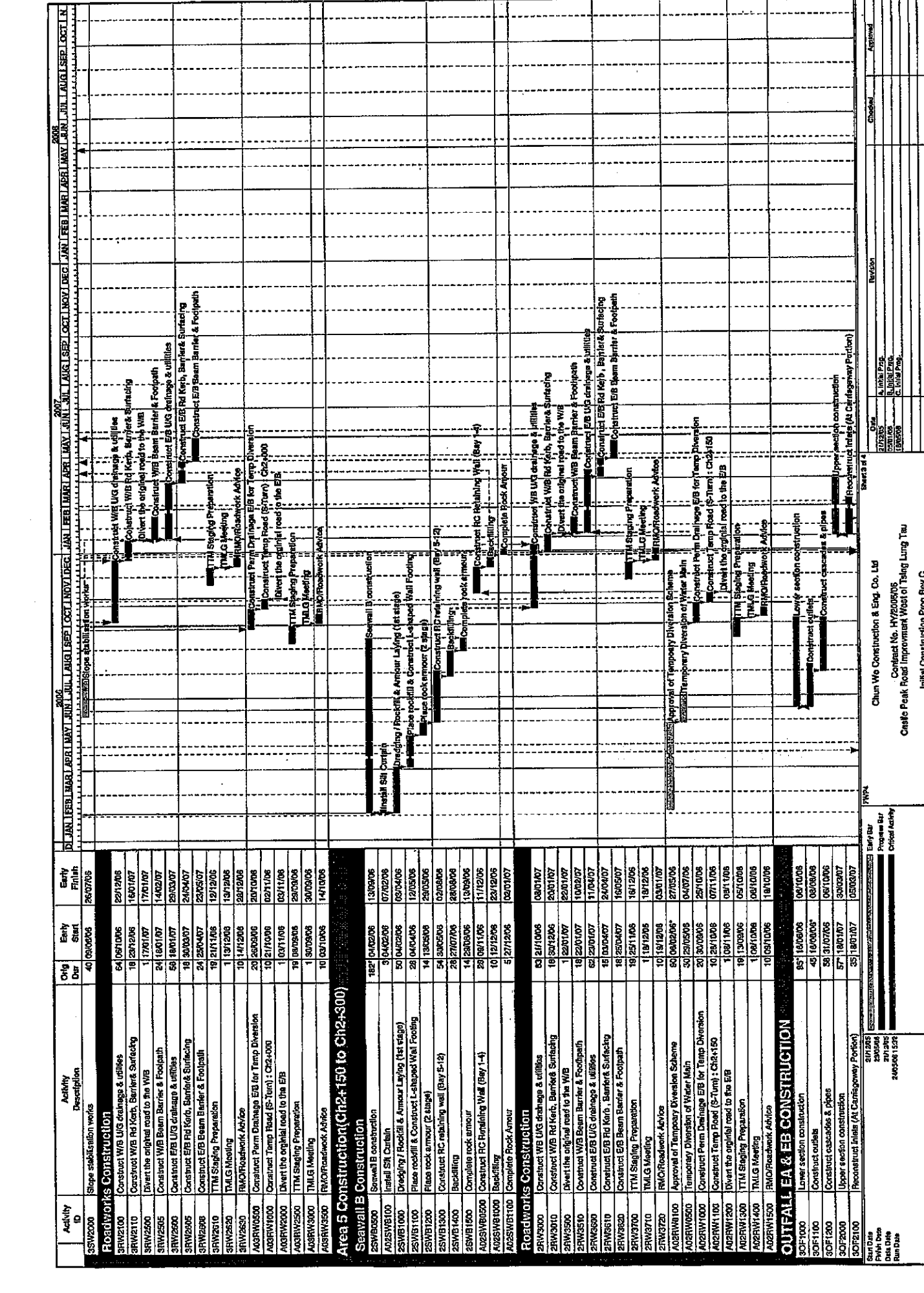
OUTFALL EA & EB CONSTRUCTION

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
3OF1000	Lower section construction	85	16/06/06	04/10/06
3OF1100	Construct outfall	45	19/06/06	08/08/06
3OF1200	Construct cascades & pipes	58	31/07/06	06/10/06
3OF2000	Upper section construction	57	16/01/07	30/03/07
3OF2100	Reconstruct Inlet (At Carriageway Portion)	35	16/01/07	05/03/07

Start Date: 20/12/06
 Finish Date: 24/06/07
 Data Date: 24/06/07
 Run Date: 24/06/07

Chun Wo Construction & Eng. Co. Ltd
 Contract No. HW200605
 Initial Construction Prog Rev C

PHVA
 Prepared By: [Redacted]
 Checked By: [Redacted]
 Approved By: [Redacted]



Appendix B

**Monitoring schedule for
May and June 2006**

Environmental Monitoring and Audit Schedule - May 2006

- Note 1: L30 denotes $L_{eq(30, min)}$ monitoring
- Note 2: TSP denotes Total Suspended Particulate monitoring
- Note 3: MW denotes Marine Water Quality monitoring
- Note 4: L&V denotes Landscape and Visual audit and monitoring

May-2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7	8	9	10	11	12	13
	MW	MW	MW	MW	MW	MW
		Site Inspection	Site Inspection	Site Inspection	Site Inspection	
14	15	16	17	18	19	20
	MW		MW		MW	
					Site Inspection	
21	22	23	24	25	26	27
	MW		MW	MW	MW	MW
				Site Inspection		
28	29	30	31			
	MW	MW	MW		MW	

Tentative Environmental Monitoring and Audit Schedule - June 2006

- Note 1: L30 denotes $L_{eq(30 min)}$ monitoring
- Note 2: TSP denotes Total Suspended Particulate monitoring
- Note 3: MW denotes Marine Water Quality monitoring
- Note 4: L&V denotes Landscape and Visual audit and monitoring

Jun-2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
				1	2	3

Appendix C

**Calibration certificates
of marine water
monitoring equipment**



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000073
Page No. : 1 of 5
Issue Date : 12/05/2006

Received Date : 09/05/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 11/05/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument

Serial No. : 99G0526 AJ

Calibration Method : APHA 18e 2520 A & B

Date of Calibration : 09/05/2006

Results :

Salinity

Expected Reading (ppt)	Recorded Reading (ppt)
0	0
7.4	7.4
15	14.9
35	34.1
39.3	38.0

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000073
Page No. : 2 of 5
Issue Date : 12/05/2006

Received Date : 09/05/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 11/05/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument

Serial No. : 99G0526 AJ

Calibration Method : In house method

Date of Calibration : 09/05/2006

Results: :

Temperature

Expected Reading (°C)	Recorded Reading (°C)
10.0	10.5
20.0	20.5
30.0	30.1
40.0	40.7

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000073
Page No. : 3 of 5
Issue Date : 12/05/2006

Received Date : 09/05/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 11/05/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument

Serial No. : 99G0526 AJ

Calibration Method : APHA 18e 4500-O A, B, C & D

Date of Calibration : 09/05/2006

Results: :

Dissolved Oxygen

Expected Reading (mg/L)	Recorded Reading (mg/L)
3.45	3.69
4.35	4.52
5.30	5.52
6.10	6.62
8.00	7.80
8.90	8.61

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000073
Page No. : 4 of 5
Issue Date : 12/05/2006

Received Date : 09/05/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 11/05/2006

Calibration Results:

Item : HACH 2100P Turbidimeter
Serial No. : 011100024354
Calibration Method : APHA 18e 2130 B
Date of Calibration : 09/05/2006
Results :

Turbidity

Expected Reading (NTU)	Recorded Reading (NTU)
0	0.15
2	2.18
4	4.12
16	14.4
40	37.6
80	75.9

Approval Signatory:



Environmental Management Division

CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000073
Page No. : 5 of 5
Issue Date : 12/05/2006

Received Date : 09/05/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 11/05/2006

Calibration Results:

Item : HANNA instrument HI 98128 membrane pH meter

Serial No. : 1377140

Calibration Method : In house method

Date of Calibration : 09/05/2006

Results: :

pH

Expected Reading (pH unit)	Recorded Reading (pH unit)
4	4.10
7	7.09
10	9.97

Approval Signatory:

Appendix D
**Marine water quality
monitoring results**

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring & Audit Service
Marine Water Quality Impact Monitoring - May

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value		
1	WWA1	S	MID-EBB	2-May-06	15:28	7.90	26.3	6.3	6.3	94.8	93.5	8.0	22.0	4.6	4.8	7.0		
2	WWA1	M	MID-EBB	2-May-06			26.2	6.3	6.3	6.3	92.7	91.6	8.0	23.4	4.3	4.5	7.5	
3	WWA1	B	MID-EBB	2-May-06			25.9	6.5	6.4	6.4	95.3	94.0	8.0	24.2	4.9	5.0	8.0	7.5
4	WWA2	S	MID-EBB	2-May-06			25.9	6.0	5.9		91.2	89.6	8.0	24.6	4.7	4.4	6.0	
5	WWA2	M	MID-EBB	2-May-06	15:12	9.20	25.9	6.0	6.0	90.8	89.7	8.0	24.6	4.5	4.4	6.0		
6	WWA2	B	MID-EBB	2-May-06			25.8	6.2	6.2	6.2	91.7	90.8	8.0	25.2	4.6	4.6	5.3	5.8
7	WWA3	S	MID-EBB	2-May-06			26.2	5.8	5.7		85.9	84.8	7.9	25.0	4.7	4.4	15.0	
8	WWA3	M	MID-EBB	2-May-06			26.0	6.0	6.2	5.9	89.4	91.1	7.9	24.2	5.0	5.1	8.0	
9	WWA3	B	MID-EBB	2-May-06	15:00	6.20	25.9	6.1	6.1	90.3	89.5	8.0	25.2	4.3	4.9	9.0	10.7	
10	WRA1	S	MID-EBB	2-May-06			26.3	6.3	6.2		92.9	91.6	8.0	20.9	3.6	4.0	5.0	
11	WRA1	M	MID-EBB	2-May-06			24.9	6.1	6.0	6.1	92.5	91.3	8.0	30.2	5.5	5.5	8.0	
12	WRA1	B	MID-EBB	2-May-06			24.8	6.3	6.3	6.3	96.3	95.0	8.0	30.2	4.3	4.2	10.5	7.8
13	WRA2	S	MID-EBB	2-May-06	15:52	26.60	26.3	6.5	6.4		95.5	93.7	8.0	20.9	4.5	4.3	4.5	
14	WRA2	M	MID-EBB	2-May-06			25.7	6.3	6.3	6.4	94.1	92.7	8.0	25.0	5.7	5.3	8.0	
15	WRA2	B	MID-EBB	2-May-06			25.1	6.2	6.1	6.1	94.5	92.7	8.0	28.7	4.4	4.4	10.5	7.7
16	WRA3	S	MID-EBB	2-May-06			26.3	6.4	6.3		94.7	93.6	8.0	21.5	7.0	6.4	6.5	
17	WRA3	M	MID-EBB	2-May-06	16:07	36.20	25.0	6.3	6.2	6.3	96.1	94.8	8.0	29.2	5.9	6.1	10.0	
18	WRA3	B	MID-EBB	2-May-06			24.8	6.2	6.2	6.2	95.7	94.5	8.0	30.5	6.5	6.0	12.0	9.5
19	WWFCZ1	S	MID-EBB	2-May-06			26.7	6.5	6.4		97.7	95.6	8.0	20.2	4.3	3.9	6.5	
20	WWFCZ1	M	MID-EBB	2-May-06			25.4	6.1	6.1	6.3	95.1	93.3	8.0	27.5	4.4	4.5	3.5	
21	WWFCZ1	B	MID-EBB	2-May-06	16:50	34.00	25.3	6.2	6.1	6.2	95.8	93.6	8.0	27.8	4.4	4.5	4.0	4.7
22	WWFCZ2	S	MID-EBB	2-May-06			26.8	6.7	6.6		98.9	97.5	8.0	19.5	3.9	4.5	3.5	
23	WWFCZ2	M	MID-EBB	2-May-06			25.3	6.1	6.0	6.4	92.1	90.9	8.0	28.5	4.8	4.8	3.5	
24	WWFCZ2	B	MID-EBB	2-May-06			25.0	6.3	6.3	6.3	97.2	95.3	8.0	28.8	4.7	5.1	4.5	3.8
25	WFCZR1	S	MID-EBB	2-May-06	17:03	47.60	26.4	6.5	6.5		96.8	95.4	8.0	20.2	4.0	4.0	4.5	
26	WFCZR1	M	MID-EBB	2-May-06			25.6	6.3	6.2	6.4	96.4	94.7	8.0	25.7	3.9	4.5	10.5	
27	WFCZR1	B	MID-EBB	2-May-06			25.1	6.2	6.1	6.1	96.1	94.2	8.0	28.9	5.0	4.7	8.0	7.7
28	WFCZR2	S	MID-EBB	2-May-06			26.8	6.4	6.4		97.0	94.7	8.0	19.6	4.8	4.0	12.5	
29	WFCZR2	M	MID-EBB	2-May-06	16:20	43.60	25.0	6.0	6.0	6.2	91.4	89.7	8.0	29.8	8.6	8.8	11.0	
30	WFCZR2	B	MID-EBB	2-May-06			24.8	6.2	6.2	6.2	92.6	91.1	8.0	30.1	8.6	7.8	8.5	10.7
31	WWA1	S	MID-FLOOD	2-May-06			25.4	5.8	5.7		88.5	86.7	8.0	26.1	14.2	14.5	15.5	
32	WWA1	M	MID-FLOOD	2-May-06			25.5	6.2	6.2	6.0	92.7	91.7	8.0	27.4	6.9	6.8	10.0	
33	WWA1	B	MID-FLOOD	2-May-06	10:45	7.70	25.4	6.2	6.2	6.2	94.0	92.6	8.0	27.4	10.5	10.0	7.5	11.0
34	WWA2	S	MID-FLOOD	2-May-06			25.5	6.0	6.0		91.4	89.7	8.1	27.1	6.7	6.7	9.5	
35	WWA2	M	MID-FLOOD	2-May-06			25.4	6.2	6.2	6.1	92.3	91.2	8.1	27.2	5.1	5.1	7.5	

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value			
36	WWA2	B	MID-FLOOD	2-May-06	11:18	7.10	25.5	6.2	6.2	6.2	91.8	91.0	8.1	26.3	4.9	4.4	5.5	7.7	
37	WWA3	S	MID-FLOOD	2-May-06			25.5	6.0	6.0		91.3	89.1	8.1	26.7	5.9	5.7	8.5		
38	WWA3	M	MID-FLOOD	2-May-06			25.4	6.1	6.0	6.0	92.0	90.9	8.1	27.3	5.3	5.0	9.5		
39	WWA3	B	MID-FLOOD	2-May-06			25.3	6.0	5.9	5.9	90.4	89.0	8.1	27.2	4.8	4.9	8.0	8.7	
40	WRA1	S	MID-FLOOD	2-May-06	10:29	26.90	26.0	6.2	6.2		92.0	90.1	8.0	22.0	3.0	2.9	5.5		
41	WRA1	M	MID-FLOOD	2-May-06			25.2	6.1	6.0	6.1	91.7	90.6	8.0	28.0	4.8	4.4	11.5		
42	WRA1	B	MID-FLOOD	2-May-06			25.2	6.1	6.0	6.1	94.0	92.4	8.0	28.4	3.8	4.4	3.9	8.5	8.5
43	WRA2	S	MID-FLOOD	2-May-06			25.2	6.1	6.0		93.8	92.0	8.1	27.8	3.7	3.7	14.5		
44	WRA2	M	MID-FLOOD	2-May-06	10:13	25.40	25.0	5.9	5.8	5.9	91.4	89.9	8.1	28.8	3.5	4.2	12.0		
45	WRA2	B	MID-FLOOD	2-May-06			25.2	6.0	6.0	6.0	94.3	92.8	8.1	28.2	3.6	3.7	3.8	10.0	12.2
46	WRA3	S	MID-FLOOD	2-May-06			25.4	6.1	6.0		91.4	90.0	8.1	27.2	3.1	3.3	8.0		
47	WRA3	M	MID-FLOOD	2-May-06			25.0	6.0	6.0	6.0	91.6	90.3	8.1	29.3	3.9	3.8	9.0		
48	WRA3	B	MID-FLOOD	2-May-06	9:58	30.00	24.9	6.3	6.2	6.2	93.3	92.1	8.1	29.4	4.0	3.9	3.6	6.0	7.7
49	WWFCZ1	S	MID-FLOOD	2-May-06			26.0	5.9	5.8		88.7	86.8	7.9	21.3	3.6	3.4	5.5		
50	WWFCZ1	M	MID-FLOOD	2-May-06			25.2	5.7	5.6	5.8	86.2	85.2	7.9	28.2	4.0	4.1	10.5		
51	WWFCZ1	B	MID-FLOOD	2-May-06			24.8	6.1	6.0	6.0	92.1	91.1	7.9	30.2	7.3	7.2	4.9	14.0	10.0
52	WWFCZ2	S	MID-FLOOD	2-May-06	9:32	38.50	25.4	5.9	5.8		91.1	89.0	8.0	26.5	4.3	3.9	11.0		
53	WWFCZ2	M	MID-FLOOD	2-May-06			25.0	5.8	5.8	5.8	84.3	83.3	8.0	28.5	6.2	6.3	9.5		
54	WWFCZ2	B	MID-FLOOD	2-May-06			24.9	6.2	6.1	6.2	94.5	93.3	8.0	29.6	6.9	6.9	5.8	12.5	11.0
55	WFCZR1	S	MID-FLOOD	2-May-06			25.4	6.0	5.9		89.5	88.1	8.0	26.4	3.0	3.2	6.0		
56	WFCZR1	M	MID-FLOOD	2-May-06	9:00	44.10	24.8	5.9	5.9	5.9	89.3	88.1	8.1	30.4	8.8	9.8	16.5		
57	WFCZR1	B	MID-FLOOD	2-May-06			24.6	6.1	6.1	6.1	92.2	90.6	8.1	31.7	8.8	8.5	7.0	13.5	12.0
58	WFCZR2	S	MID-FLOOD	2-May-06			25.9	6.1	6.1		92.3	90.3	8.0	21.8	4.6	5.1	11.0		
59	WFCZR2	M	MID-FLOOD	2-May-06			25.3	6.1	6.1	6.1	91.1	89.9	8.0	27.4	4.3	4.4	14.0		
60	WFCZR2	B	MID-FLOOD	2-May-06	25.2	6.0	5.9	6.0	91.5	89.8	8.0	27.4	5.5	5.3	4.9	10.0	11.7		
61	WWA1	S	MID-EBB	4-May-06	17:30	6.80	25.1	6.3	6.2		95.2	93.9	8.0	29.4	3.9	3.6	4.0		
62	WWA1	M	MID-EBB	4-May-06			25.0	6.5	6.4	6.4	99.7	98.1	8.0	29.4	3.8	3.8	7.0		
63	WWA1	B	MID-EBB	4-May-06			25.0	6.5	6.5	6.5	99.8	98.2	8.0	29.4	3.7	3.8	3.8	8.5	6.5
64	WWA2	S	MID-EBB	4-May-06			25.1	6.4	6.3		97.3	95.7	8.0	29.4	3.9	3.9	5.5		
65	WWA2	M	MID-EBB	4-May-06	17:42	7.30	25.0	6.6	6.5	6.4	101.2	99.1	8.0	29.5	18.5	18.5	21.5		
66	WWA2	B	MID-EBB	4-May-06			25.0	6.2	6.2	6.2	96.3	94.7	8.0	29.7	26.7	27.2	16.4	36.0	21.0
67	WWA3	S	MID-EBB	4-May-06			24.9	6.4	6.3		97.9	96.4	8.0	29.5	4.0	4.3	5.5		
68	WWA3	M	MID-EBB	4-May-06			24.9	6.4	6.4	6.4	97.6	96.4	8.0	29.7	6.2	6.0	9.0		
69	WWA3	B	MID-EBB	4-May-06	17:54	7.90	24.8	6.3	6.3	6.3	95.8	94.7	8.0	29.7	5.2	5.5	5.2	11.0	8.5
70	WRA1	S	MID-EBB	4-May-06			24.9	6.4	6.3		97.3	95.7	8.0	29.6	2.6	2.8	6.0		
71	WRA1	M	MID-EBB	4-May-06			24.6	6.1	6.1	6.2	94.1	92.3	8.0	30.9	4.3	3.9	5.0		
72	WRA1	B	MID-EBB	4-May-06			24.5	6.5	6.4	6.5	100.2	97.7	8.0	31.6	4.5	4.3	7.0	6.0	

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
73	WRA2	S	MID-EBB	4-May-06	17:03	29.40	25.0	6.8	6.1	95.6	94.0	8.0	29.4	3.0	3.2	8.5	
74	WRA2	M	MID-EBB	4-May-06			24.7	6.2	6.1	6.3	96.3	94.6	8.0	30.9	3.7	3.5	9.0
75	WRA2	B	MID-EBB	4-May-06			24.5	6.4	6.3	6.3	95.8	94.1	8.0	31.4	4.5	4.5	9.5
76	WRA3	S	MID-EBB	4-May-06	16:50	28.40	25.0	6.3	6.3	97.1	95.5	8.0	29.5	2.7	2.7	6.0	
77	WRA3	M	MID-EBB	4-May-06			24.6	6.3	6.3	6.3	97.4	95.9	8.0	31.3	4.2	4.3	6.5
78	WRA3	B	MID-EBB	4-May-06			24.8	6.4	6.4	6.4	99.0	97.3	8.0	29.8	3.8	3.1	6.0
79	WWFCZ1	S	MID-EBB	4-May-06	16:12	30.70	25.1	6.2	6.1	95.2	93.7	8.0	29.4	2.5	2.6	7.5	
80	WWFCZ1	M	MID-EBB	4-May-06			24.7	6.0	5.9	6.1	89.5	88.4	8.0	30.5	3.4	3.3	8.0
81	WWFCZ1	B	MID-EBB	4-May-06			24.6	6.4	6.3	6.3	97.8	96.3	8.0	31.3	4.4	4.4	9.8
82	WWFCZ2	S	MID-EBB	4-May-06	16:23	40.00	25.1	6.3	6.2	96.5	94.9	8.0	29.5	2.4	2.6	6.0	
83	WWFCZ2	M	MID-EBB	4-May-06			24.6	6.4	6.3	6.3	97.5	96.0	8.0	31.2	3.6	3.7	15.0
84	WWFCZ2	B	MID-EBB	4-May-06			24.5	6.4	6.4	6.4	98.3	96.8	8.0	29.7	4.6	5.1	12.5
85	WFCZR1	S	MID-EBB	4-May-06	16:00	41.30	25.2	6.0	6.0	92.0	90.3	8.0	29.1	2.8	2.7	7.5	
86	WFCZR1	M	MID-EBB	4-May-06			24.8	6.3	6.3	6.1	95.8	94.5	8.0	31.2	3.0	3.2	10.0
87	WFCZR1	B	MID-EBB	4-May-06			24.7	6.3	6.3	6.3	94.6	93.2	8.0	30.9	3.0	3.1	6.0
88	WFCZR2	S	MID-EBB	4-May-06	16:37	37.80	25.0	6.5	6.4	97.2	95.9	8.0	29.2	2.8	2.9	6.0	
89	WFCZR2	M	MID-EBB	4-May-06			24.5	6.4	6.3	6.4	98.2	96.4	8.0	31.6	4.1	4.4	5.0
90	WFCZR2	B	MID-EBB	4-May-06			24.5	6.4	6.3	6.4	97.0	95.4	8.0	31.6	4.5	4.5	13.0
91	WWA1	S	MID-FLOOD	4-May-06	10:45	12.10	24.9	6.0	6.0	89.1	87.8	8.0	28.8	3.9	3.9	11.5	
92	WWA1	M	MID-FLOOD	4-May-06			25.0	6.4	6.4	6.2	97.4	96.1	8.0	28.6	49.3	48.2	44.0
93	WWA1	B	MID-FLOOD	4-May-06			24.8	6.5	6.5	6.5	95.9	94.7	8.0	28.9	31.9	32.3	47.5
94	WWA2	S	MID-FLOOD	4-May-06	10:57	8.90	24.9	6.2	6.1	97.1	95.1	8.0	29.0	5.9	5.2	9.5	
95	WWA2	M	MID-FLOOD	4-May-06			24.8	6.2	6.2	6.2	96.5	94.5	8.0	29.1	4.7	4.1	8.0
96	WWA2	B	MID-FLOOD	4-May-06			24.8	6.4	6.4	6.4	94.7	93.7	8.0	29.1	2.6	2.8	9.0
97	WWA3	S	MID-FLOOD	4-May-06	11:03	7.80	24.8	6.3	6.2	98.6	95.7	8.0	28.9	2.9	2.9	5.5	
98	WWA3	M	MID-FLOOD	4-May-06			24.8	6.3	6.2	6.3	97.0	95.4	8.0	29.1	3.0	2.9	5.5
99	WWA3	B	MID-FLOOD	4-May-06			24.7	6.2	6.1	6.1	92.5	91.3	8.0	29.2	2.9	2.7	6.5
100	WRA1	S	MID-FLOOD	4-May-06	10:27	38.00	24.8	6.2	6.1	94.2	92.5	8.0	28.9	3.2	3.1	10.0	
101	WRA1	M	MID-FLOOD	4-May-06			24.8	6.2	6.2	6.2	94.5	93.1	8.0	29.4	3.6	3.8	7.0
102	WRA1	B	MID-FLOOD	4-May-06			24.8	6.3	6.2	6.3	97.4	95.1	8.0	29.4	2.5	2.4	3.5
103	WRA2	S	MID-FLOOD	4-May-06	10:13	29.70	25.0	6.3	6.2	96.8	94.8	8.0	28.7	3.2	3.2	7.0	
104	WRA2	M	MID-FLOOD	4-May-06			24.8	6.2	6.1	6.2	93.2	91.8	8.0	29.5	2.9	2.8	9.0
105	WRA2	B	MID-FLOOD	4-May-06			24.7	6.2	6.1	6.2	95.7	94.0	8.0	30.0	2.4	2.8	13.5
106	WRA3	S	MID-FLOOD	4-May-06	10:00	31.40	24.9	6.2	6.1	92.2	90.9	8.0	28.6	2.5	2.5	5.5	
107	WRA3	M	MID-FLOOD	4-May-06			24.6	6.3	6.2	6.2	94.3	92.8	8.0	30.4	2.8	3.1	7.3
108	WRA3	B	MID-FLOOD	4-May-06			24.6	6.3	6.2	6.2	95.3	93.8	8.0	30.4	3.0	4.3	3.5
109	WWFCZ1	S	MID-FLOOD	4-May-06	9:13	31.40	24.8	6.0	5.9	90.4	89.2	8.0	28.7	2.0	1.6	5.0	
110	WWFCZ1	M	MID-FLOOD	4-May-06			24.7	6.2	6.1	6.1	94.1	92.6	8.0	29.5	1.7	3.0	7.0
111	WWFCZ1	B	MID-FLOOD	4-May-06			24.6	6.1	6.1	6.1	93.9	92.5	8.0	30.8	4.4	4.1	12.5

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Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
112	WWFCZ2	S	MID-FLOOD	4-May-06	9:28	39.30	24.8	6.1	6.0	92.5	90.5	8.0	29.2	3.1	2.7	7.0	
113	WWFCZ2	M	MID-FLOOD	4-May-06			24.6	6.3	6.2	6.1	95.4	93.8	8.0	31.1	4.4	4.4	9.5
114	WWFCZ2	B	MID-FLOOD	4-May-06			24.5	6.2	6.1	6.1	95.2	93.7	8.0	31.7	4.4	4.5	13.5
115	WFCZR1	S	MID-FLOOD	4-May-06	9:00	48.50	25.0	6.0	5.9	92.3	90.3	8.0	28.3	2.5	2.6	17.0	
116	WFCZR1	M	MID-FLOOD	4-May-06			24.5	6.0	6.0	6.0	90.9	89.2	8.0	32.0	5.3	5.2	13.0
117	WFCZR1	B	MID-FLOOD	4-May-06			24.5	6.2	6.2	6.2	95.6	94.1	8.0	31.5	4.5	4.2	6.5
118	WFCZR2	S	MID-FLOOD	4-May-06	9:45	42.70	24.8	6.5	6.4	96.0	96.5	8.0	28.6	3.2	3.0	10.5	
119	WFCZR2	M	MID-FLOOD	4-May-06			24.7	6.3	6.2	6.4	96.3	94.7	8.0	30.8	5.3	4.8	5.0
120	WFCZR2	B	MID-FLOOD	4-May-06			24.7	6.4	6.4	6.4	97.2	95.8	8.0	29.9	3.4	3.8	5.5
121	WWA1	S	MID-EBB	6-May-06	16:28	7.20	26.5	6.4	6.4	92.2	91.1	8.1	15.0	4.0	4.1	5.0	
122	WWA1	M	MID-EBB	6-May-06			26.4	6.7	6.7	6.5	91.6	90.9	8.1	11.7	4.4	4.3	6.0
123	WWA1	B	MID-EBB	6-May-06			26.6	6.5	6.5	6.5	93.1	92.0	8.1	16.8	4.9	4.8	6.5
124	WWA2	S	MID-EBB	6-May-06	16:13	9.10	26.4	6.5	6.4	90.2	89.6	8.1	15.4	4.6	4.2	6.0	
125	WWA2	M	MID-EBB	6-May-06			26.4	6.5	6.4	6.4	90.3	89.6	8.1	16.8	4.3	4.4	5.0
126	WWA2	B	MID-EBB	6-May-06			26.2	6.3	6.3	6.3	91.8	91.0	8.1	20.1	4.5	4.5	5.5
127	WWA3	S	MID-EBB	6-May-06	16:00	6.00	26.4	6.3	6.3	90.4	89.8	8.1	17.5	5.3	5.3	6.5	
128	WWA3	M	MID-EBB	6-May-06			26.4	6.0	6.0	6.2	87.2	86.7	8.1	21.5	3.9	4.0	10.5
129	WWA3	B	MID-EBB	6-May-06			26.0	6.0	6.0	6.0	86.9	86.0	8.1	23.9	4.1	4.1	7.5
130	WRA1	S	MID-EBB	6-May-06	16:43	24.90	26.6	6.7	6.6	93.1	92.3	8.1	14.2	3.5	3.5	6.0	
131	WRA1	M	MID-EBB	6-May-06			25.9	6.0	6.0	6.3	92.1	90.5	8.1	27.5	1.9	2.1	4.0
132	WRA1	B	MID-EBB	6-May-06			25.4	6.1	6.0	6.0	90.9	90.1	8.1	29.9	3.1	3.2	6.5
133	WRA2	S	MID-EBB	6-May-06	17:00	30.40	26.3	6.5	6.5	92.5	91.3	8.1	14.3	3.2	3.3	7.5	
134	WRA2	M	MID-EBB	6-May-06			25.3	6.0	5.9	6.2	91.0	89.8	8.1	29.4	2.8	2.8	3.5
135	WRA2	B	MID-EBB	6-May-06			25.0	5.9	5.9	5.9	91.4	89.9	8.1	30.3	3.7	3.5	7.0
136	WRA3	S	MID-EBB	6-May-06	17:12	27.40	26.1	6.6	6.5	94.8	93.5	8.1	15.9	4.7	4.7	8.0	
137	WRA3	M	MID-EBB	6-May-06			25.2	5.9	5.9	6.2	90.0	88.9	8.0	29.3	2.4	2.4	3.5
138	WRA3	B	MID-EBB	6-May-06			25.0	5.9	5.8	5.8	91.5	89.1	8.0	30.4	2.7	2.6	3.5
139	WWFCZ1	S	MID-EBB	6-May-06	17:46	36.70	26.3	6.8	6.8	97.2	96.3	8.1	15.9	3.1	3.1	6.0	
140	WWFCZ1	M	MID-EBB	6-May-06			25.2	6.0	5.9	6.4	91.5	89.5	8.1	28.9	3.0	2.8	5.0
141	WWFCZ1	B	MID-EBB	6-May-06			25.1	6.0	6.0	6.0	92.4	89.9	8.1	30.1	1.9	2.0	4.0
142	WWFCZ2	S	MID-EBB	6-May-06	17:39	24.90	26.4	6.8	6.8	97.9	95.3	8.1	14.5	3.5	3.5	5.0	
143	WWFCZ2	M	MID-EBB	6-May-06			25.6	6.1	6.0	6.4	93.1	91.5	8.1	26.3	2.1	2.5	3.5
144	WWFCZ2	B	MID-EBB	6-May-06			25.2	5.9	5.9	5.9	90.0	88.1	8.1	29.1	2.6	2.7	4.0
145	WFCZR1	S	MID-EBB	6-May-06	17:58	40.50	26.2	6.8	6.7	96.1	94.9	8.1	15.5	3.5	3.7	6.0	
146	WFCZR1	M	MID-EBB	6-May-06			25.3	5.8	5.7	6.3	90.0	88.8	8.1	28.7	3.1	3.1	4.0
147	WFCZR1	B	MID-EBB	6-May-06			25.1	6.0	6.0	6.0	92.8	91.0	8.1	30.5	2.2	2.3	4.0
148	WFCZR2	S	MID-EBB	6-May-06	17:25	41.80	26.4	6.7	6.7	93.9	93.1	8.1	14.6	3.5	4.2	11.0	
149	WFCZR2	M	MID-EBB	6-May-06			25.3	5.9	5.8	6.3	88.7	87.8	8.1	29.0	2.8	3.0	11.0
150	WFCZR2	B	MID-EBB	6-May-06			25.3	6.0	6.0	6.0	93.6	92.2	8.1	28.6	2.8	2.7	8.5

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
151	WWA1	S	MID-FLOOD	6-May-06	12:59	7.70	27.1	6.8	6.8	97.1	95.8	8.1	13.9	4.2	4.2	5.5	
152	WWA1	M	MID-FLOOD	6-May-06			26.3	6.5	6.4	6.6	93.6	93.1	8.1	20.2	3.2	3.4	7.5
153	WWA1	B	MID-FLOOD	6-May-06			26.3	6.6	6.5	6.6	94.4	93.8	8.1	19.5	3.6	3.6	4.5
154	WWA2	S	MID-FLOOD	6-May-06	12:44	8.20	27.1	6.6	6.6	93.6	92.6	8.1	14.0	4.4	4.3	6.0	
155	WWA2	M	MID-FLOOD	6-May-06			27.0	6.5	6.4	6.5	92.5	91.6	8.1	15.9	4.6	4.6	6.5
156	WWA2	B	MID-FLOOD	6-May-06			26.9	6.5	6.5	6.5	92.9	92.0	8.1	16.0	5.0	5.1	7.0
157	WWA3	S	MID-FLOOD	6-May-06	12:30	7.70	27.4	6.4	6.3	92.2	91.3	8.1	13.7	4.3	4.3	8.0	
158	WWA3	M	MID-FLOOD	6-May-06			27.0	6.6	6.6	6.5	93.1	92.8	8.1	17.1	4.3	4.4	5.0
159	WWA3	B	MID-FLOOD	6-May-06			26.9	6.6	6.6	6.6	94.6	93.7	8.1	16.7	4.7	4.8	3.8
160	WRA1	S	MID-FLOOD	6-May-06	13:13	33.10	27.1	6.7	6.7	96.4	95.1	8.1	13.7	3.6	3.6	4.0	
161	WRA1	M	MID-FLOOD	6-May-06			25.3	6.1	6.0	6.4	92.9	91.6	8.0	29.9	3.1	3.3	4.0
162	WRA1	B	MID-FLOOD	6-May-06			25.1	6.1	6.0	6.1	93.9	92.2	8.0	30.3	3.1	3.3	4.0
163	WRA2	S	MID-FLOOD	6-May-06	13:27	31.40	26.9	7.2	7.1	101.3	100.3	8.0	13.7	4.2	4.3	4.5	
164	WRA2	M	MID-FLOOD	6-May-06			25.4	6.1	6.0	6.6	92.3	90.8	8.0	28.7	3.2	3.2	5.0
165	WRA2	B	MID-FLOOD	6-May-06			25.1	6.1	6.1	6.1	94.3	93.0	8.0	29.6	2.5	2.5	6.0
166	WRA3	S	MID-FLOOD	6-May-06	13:40	32.30	26.8	7.1	7.0	99.9	98.5	8.1	14.0	3.7	3.8	6.0	
167	WRA3	M	MID-FLOOD	6-May-06			25.4	6.1	6.0	6.6	92.3	90.9	8.1	28.5	2.8	2.8	6.5
168	WRA3	B	MID-FLOOD	6-May-06			25.1	6.2	6.1	6.1	94.6	92.7	8.1	29.9	2.9	2.9	4.0
169	WWFCZ1	S	MID-FLOOD	6-May-06	14:20	32.50	26.8	7.1	7.1	101.9	101.1	8.0	14.9	3.8	4.0	9.5	
170	WWFCZ1	M	MID-FLOOD	6-May-06			25.5	6.1	6.1	6.6	94.9	93.3	8.0	27.7	2.4	2.9	9.0
171	WWFCZ1	B	MID-FLOOD	6-May-06			25.2	6.0	5.9	6.0	93.5	91.8	8.0	29.9	3.4	3.3	7.0
172	WWFCZ2	S	MID-FLOOD	6-May-06	14:06	41.20	26.7	7.1	7.1	99.3	98.5	8.1	14.3	4.3	4.1	4.5	
173	WWFCZ2	M	MID-FLOOD	6-May-06			25.4	6.2	6.2	6.7	94.7	93.6	8.1	27.9	2.8	2.8	10.0
174	WWFCZ2	B	MID-FLOOD	6-May-06			25.2	6.2	6.0	6.1	95.3	93.3	8.1	30.2	2.7	2.8	8.5
175	WFCZR1	S	MID-FLOOD	6-May-06	14:33	39.70	26.9	7.0	6.9	96.7	97.6	8.1	14.7	4.3	4.4	6.0	
176	WFCZR1	M	MID-FLOOD	6-May-06			25.5	6.3	6.3	6.6	94.8	93.5	8.0	28.0	2.4	2.8	4.3
177	WFCZR1	B	MID-FLOOD	6-May-06			25.3	6.2	6.1	6.2	94.2	92.9	8.1	29.3	3.1	2.8	6.5
178	WFCZR2	S	MID-FLOOD	6-May-06	13:52	38.70	26.8	7.0	7.0	98.5	97.8	8.1	14.3	4.0	3.8	4.5	
179	WFCZR2	M	MID-FLOOD	6-May-06			26.0	6.5	6.5	6.8	94.0	93.3	8.1	21.1	3.0	3.2	8.0
180	WFCZR2	B	MID-FLOOD	6-May-06			25.2	6.1	6.1	6.1	95.2	93.2	8.1	30.0	3.1	2.9	6.5
181	WWA1	S	MID-EBB	8-May-06	10:57	7.50	27.1	7.0	6.9	98.3	98.1	8.2	18.8	3.6	3.7	4.0	
182	WWA1	M	MID-EBB	8-May-06			26.4	6.3	6.3	6.6	92.7	91.8	8.2	24.3	2.7	2.7	4.5
183	WWA1	B	MID-EBB	8-May-06			26.4	6.4	6.4	6.4	94.2	93.1	8.2	24.1	3.0	3.0	3.5
184	WWA2	S	MID-EBB	8-May-06	10:43	7.70	26.8	6.2	6.1	91.1	90.3	8.2	21.7	3.0	2.9	6.0	
185	WWA2	M	MID-EBB	8-May-06			26.4	6.0	6.0	6.1	88.8	87.8	8.2	24.3	2.8	2.8	7.0
186	WWA2	B	MID-EBB	8-May-06			26.3	6.1	6.1	6.1	90.5	89.5	8.2	25.1	2.6	2.6	4.5
187	WWA3	S	MID-EBB	8-May-06	10:30	6.00	27.0	6.1	6.1	88.7	88.2	8.2	19.9	2.4	2.5	10.0	
188	WWA3	M	MID-EBB	8-May-06			26.7	6.1	6.0	6.1	88.6	88.1	8.2	24.4	2.7	2.8	5.0
189	WWA3	B	MID-EBB	8-May-06			26.7	6.1	6.0	6.0	88.6	87.9	8.2	23.7	5.8	4.8	7.0

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
190	WRA1	S	MID-EBB	8-May-06	11:07	30.30	27.5	7.2	7.2	101.1	100.9	8.3	15.5	2.8	2.8	12.0	
191	WRA1	M	MID-EBB	8-May-06			26.4	6.3	6.2	6.8	93.1	92.4	8.2	24.2	2.8	2.9	7.5
192	WRA1	B	MID-EBB	8-May-06			25.9	6.2	6.2	6.2	92.1	91.3	8.1	27.7	2.7	2.9	5.0
193	WRA2	S	MID-EBB	8-May-06	11:22	26.10	27.3	7.1	7.1	101.9	101.4	8.3	16.6	3.9	3.8	7.5	
194	WRA2	M	MID-EBB	8-May-06			25.8	6.0	5.9	6.5	91.6	90.0	8.1	29.4	2.3	2.4	6.0
195	WRA2	B	MID-EBB	8-May-06			25.4	6.1	6.0	6.1	91.9	90.7	8.2	26.4	2.1	2.2	7.0
196	WRA3	S	MID-EBB	8-May-06	11:34	32.20	27.4	7.4	7.4	103.2	102.6	8.3	16.8	4.0	4.1	6.5	
197	WRA3	M	MID-EBB	8-May-06			25.9	5.9	5.8	6.7	90.4	89.1	8.1	28.9	2.3	2.3	6.5
198	WRA3	B	MID-EBB	8-May-06			25.5	6.0	5.9	6.0	92.9	91.4	8.1	30.4	2.7	2.9	7.0
199	WWFCZ1	S	MID-EBB	8-May-06	12:09	33.10	27.5	7.6	7.6	105.7	105.5	8.4	13.9	3.1	3.1	4.5	
200	WWFCZ1	M	MID-EBB	8-May-06			25.7	6.1	6.0	6.8	92.6	91.7	8.2	27.6	2.9	3.0	2.8
201	WWFCZ1	B	MID-EBB	8-May-06			25.4	6.1	6.1	6.1	92.2	91.5	8.2	29.5	2.0	2.1	3.8
202	WWFCZ2	S	MID-EBB	8-May-06	11:57	40.60	27.4	7.3	7.2	103.6	102.5	8.3	15.1	3.4	3.3	4.5	
203	WWFCZ2	M	MID-EBB	8-May-06			25.7	5.9	5.8	6.6	91.7	90.3	8.2	28.9	2.2	2.3	2.8
204	WWFCZ2	B	MID-EBB	8-May-06			25.3	6.1	6.0	6.0	91.8	90.9	8.2	30.7	2.7	2.9	6.0
205	WFCZR1	S	MID-EBB	8-May-06	12:25	41.10	27.3	7.5	7.5	105.8	105.5	8.4	15.1	3.7	3.6	5.0	
206	WFCZR1	M	MID-EBB	8-May-06			25.5	5.9	5.8	6.7	90.6	89.4	8.2	27.3	3.2	3.2	11.5
207	WFCZR1	B	MID-EBB	8-May-06			25.3	6.1	6.1	6.1	90.8	90.4	8.2	30.9	2.9	2.9	6.0
208	WFCZR2	S	MID-EBB	8-May-06	11:45	36.80	27.3	7.0	7.0	100.4	99.5	8.4	15.1	3.5	3.5	7.5	
209	WFCZR2	M	MID-EBB	8-May-06			25.4	5.8	5.7	6.4	91.5	88.3	8.2	30.8	3.0	3.0	10.5
210	WFCZR2	B	MID-EBB	8-May-06			25.3	6.1	6.1	6.1	93.3	91.7	8.2	30.5	2.8	2.9	8.5
211	WWA1	S	MID-FLOOD	8-May-06	16:27	9.50	28.3	7.2	7.2	101.2	100.9	8.3	14.1	4.2	4.2	11.0	
212	WWA1	M	MID-FLOOD	8-May-06			27.6	6.9	6.8	7.0	99.3	98.8	8.3	18.2	3.4	3.4	5.3
213	WWA1	B	MID-FLOOD	8-May-06			27.4	7.1	7.1	7.1	100.0	100.2	8.3	18.6	3.6	3.5	5.0
214	WWA2	S	MID-FLOOD	8-May-06	16:13	6.80	28.2	7.0	7.0	98.4	98.5	8.3	14.8	4.6	4.6	5.5	
215	WWA2	M	MID-FLOOD	8-May-06			27.8	7.0	7.0	7.0	99.1	98.9	8.3	17.0	4.5	4.6	5.0
216	WWA2	B	MID-FLOOD	8-May-06			28.1	7.5	7.5	7.5	103.3	103.7	8.3	15.7	5.2	5.1	14.0
217	WWA3	S	MID-FLOOD	8-May-06	16:00	7.00	28.2	6.8	6.8	97.4	97.2	8.3	16.2	4.3	4.1	4.0	
218	WWA3	M	MID-FLOOD	8-May-06			28.0	6.9	6.7	6.8	97.7	97.5	8.3	16.8	4.3	4.2	7.5
219	WWA3	B	MID-FLOOD	8-May-06			27.8	6.7	6.7	6.7	96.8	96.5	8.3	16.6	4.6	3.9	5.0
220	WRA1	S	MID-FLOOD	8-May-06	16:39	36.50	27.9	7.6	7.6	104.7	104.8	8.3	14.9	3.7	3.9	12.0	
221	WRA1	M	MID-FLOOD	8-May-06			26.5	6.1	6.0	6.8	92.2	90.8	8.3	25.0	2.9	2.9	13.5
222	WRA1	B	MID-FLOOD	8-May-06			26.0	6.2	6.2	6.2	91.8	90.7	8.3	26.3	3.1	3.2	6.0
223	WRA2	S	MID-FLOOD	8-May-06	16:53	37.20	27.9	8.0	8.0	109.2	109.7	8.4	14.9	4.2	4.3	14.0	
224	WRA2	M	MID-FLOOD	8-May-06			25.8	6.0	6.0	7.0	91.2	90.2	8.4	29.3	3.9	3.9	13.5
225	WRA2	B	MID-FLOOD	8-May-06			25.3	6.0	6.0	6.0	90.9	89.8	8.4	30.5	2.8	2.8	4.5
226	WRA3	S	MID-FLOOD	8-May-06	17:08	29.40	27.6	7.9	7.9	106.5	106.7	8.4	15.4	3.9	3.9	7.5	
227	WRA3	M	MID-FLOOD	8-May-06			26.0	6.1	6.1	7.0	94.2	91.0	8.4	28.0	2.2	2.6	11.0
228	WRA3	B	MID-FLOOD	8-May-06			25.5	6.3	6.3	6.3	93.1	92.4	8.4	29.7	2.2	2.2	12.5

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value
229	WWFCZ1	S	MID-FLOOD	8-May-06	17:48	38.80	27.7	8.3	8.3	115.4	115.8	8.4	16.0	3.9	3.9	5.5
230	WWFCZ1	M	MID-FLOOD	8-May-06			25.8	6.1	6.0	7.2	93.5	92.4	8.1	29.1	2.4	2.6
231	WWFCZ1	B	MID-FLOOD	8-May-06	17:33	39.50	25.5	6.1	6.0	91.2	90.1	8.1	29.6	3.4	3.3	4.5
232	WWFCZ2	S	MID-FLOOD	8-May-06			27.8	8.2	8.2	111.6	112.5	8.4	15.7	4.2	4.3	12.5
233	WWFCZ2	M	MID-FLOOD	8-May-06	17:33	39.50	25.9	6.2	6.1	94.2	93.1	8.4	28.4	4.4	4.3	4.0
234	WWFCZ2	B	MID-FLOOD	8-May-06			25.4	6.1	6.0	6.1	93.2	92.1	8.4	30.7	2.7	2.6
235	WFCZR1	S	MID-FLOOD	8-May-06	18:01	48.20	27.7	7.9	7.9	109.7	108.7	8.4	15.7	4.3	4.3	8.5
236	WFCZR1	M	MID-FLOOD	8-May-06			26.0	5.9	5.8	6.9	91.4	89.4	8.4	29.1	4.3	4.2
237	WFCZR1	B	MID-FLOOD	8-May-06	17:20	42.20	25.5	5.9	5.9	92.2	90.7	8.4	30.1	3.2	3.2	6.5
238	WFCZR2	S	MID-FLOOD	8-May-06			27.6	7.9	7.9	111.1	110.8	8.4	15.7	3.9	3.8	11.5
239	WFCZR2	M	MID-FLOOD	8-May-06	17:20	42.20	25.6	6.2	6.2	93.1	92.2	8.4	29.5	3.1	3.2	7.0
240	WFCZR2	B	MID-FLOOD	8-May-06			25.5	6.1	6.0	6.1	91.9	91.0	8.2	30.6	3.2	3.2
241	WWA1	S	MID-EBB	10-May-06	12:28	8.00	28.0	7.2	7.2	98.2	98.0	8.2	14.8	5.4	6.6	11.0
242	WWA1	M	MID-EBB	10-May-06			27.9	7.0	7.0	7.1	97.9	97.5	8.2	15.2	3.6	2.9
243	WWA1	B	MID-EBB	10-May-06	12:14	8.80	27.0	7.1	7.1	96.4	96.9	8.2	25.4	5.0	5.3	13.5
244	WWA2	S	MID-EBB	10-May-06			28.2	6.9	6.9	88.3	88.5	8.2	16.2	3.9	4.1	4.0
245	WWA2	M	MID-EBB	10-May-06	12:14	8.80	27.7	6.9	7.0	88.8	88.9	8.2	16.9	4.1	4.1	8.5
246	WWA2	B	MID-EBB	10-May-06			27.4	7.1	7.1	7.1	88.4	88.6	8.2	25.8	4.2	4.2
247	WWA3	S	MID-EBB	10-May-06	12:00	6.20	28.0	7.2	7.2	90.4	90.9	8.1	16.4	4.8	4.6	10.0
248	WWA3	M	MID-EBB	10-May-06			28.0	7.0	7.0	7.1	91.7	90.0	8.1	16.9	3.0	3.8
249	WWA3	B	MID-EBB	10-May-06	12:45	30.10	27.4	6.8	6.9	92.4	93.1	8.1	27.8	3.0	3.3	6.0
250	WRA1	S	MID-EBB	10-May-06			28.4	5.8	5.8	6.4	83.5	82.9	8.2	14.1	2.7	3.4
251	WRA1	M	MID-EBB	10-May-06	12:45	30.10	26.1	7.0	7.0	105.7	104.6	8.2	28.6	1.3	1.6	4.5
252	WRA1	B	MID-EBB	10-May-06			25.8	6.5	6.4	6.5	100.2	98.4	8.2	29.4	2.9	3.0
253	WRA2	S	MID-EBB	10-May-06	13:00	30.50	28.3	8.6	8.5	123.5	123.1	8.3	14.3	3.0	3.2	5.0
254	WRA2	M	MID-EBB	10-May-06			26.5	7.0	6.9	7.3	106.3	104.9	8.3	25.4	2.6	3.0
255	WRA2	B	MID-EBB	10-May-06	13:00	30.50	25.9	7.0	6.9	111.5	109.0	8.3	28.6	3.3	3.1	8.0
256	WRA3	S	MID-EBB	10-May-06			27.5	8.7	8.7	120.1	119.9	8.2	16.7	4.4	4.0	6.5
257	WRA3	M	MID-EBB	10-May-06	13:13	32.20	28.1	8.2	8.1	118.2	117.0	8.3	14.6	3.0	2.8	10.0
258	WRA3	B	MID-EBB	10-May-06			26.4	7.0	7.0	7.0	106.9	105.2	8.3	27.0	2.4	2.7
259	WWFCZ1	S	MID-EBB	10-May-06	13:57	34.10	27.5	8.2	8.1	115.9	115.6	8.4	16.0	3.2	3.2	5.8
260	WWFCZ1	M	MID-EBB	10-May-06			27.0	7.3	7.3	7.7	106.6	106.1	8.3	21.3	2.0	2.1
261	WWFCZ1	B	MID-EBB	10-May-06	13:40	41.20	26.1	6.4	6.4	98.1	96.8	8.3	27.3	2.8	2.4	6.0
262	WWFCZ2	S	MID-EBB	10-May-06			27.8	8.0	7.9	7.3	115.6	114.8	8.4	15.5	3.0	2.8
263	WWFCZ2	M	MID-EBB	10-May-06	13:40	41.20	26.3	6.6	6.6	105.1	102.5	8.3	26.3	2.3	2.2	4.5
264	WWFCZ2	B	MID-EBB	10-May-06			25.9	6.6	6.5	6.5	102.5	100.9	8.3	28.6	2.8	2.6
265	WFCZR1	S	MID-EBB	10-May-06	14:23	41.30	27.9	7.7	7.7	113.4	112.7	8.3	15.4	3.4	3.0	10.5
266	WFCZR1	M	MID-EBB	10-May-06			28.1	7.7	7.6	7.7	111.4	110.5	8.3	15.1	1.8	1.8
267	WFCZR1	B	MID-EBB	10-May-06	26.5	6.6	6.5	6.6	101.3	99.8	8.2	25.5	2.3	2.4	6.0	

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value
268	WFCZR2	S	MID-EBB	10-May-06	13:28	40.00	27.8	8.3	8.2	119.4	118.3	8.3	15.2	3.4	3.3	9.0
269	WFCZR2	M	MID-EBB	10-May-06			26.3	6.7	6.6	7.4	105.1	103.3	8.1	27.4	2.4	2.6
270	WFCZR2	B	MID-EBB	10-May-06	8:43	8.40	25.9	6.8	6.8	105.5	103.9	8.1	28.8	2.6	2.5	10.0
271	WWA1	S	MID-FLOOD	10-May-06			28.9	7.4	7.4	7.3	106.1	105.4	8.2	12.8	3.1	3.4
272	WWA1	M	MID-FLOOD	10-May-06	8:43	8.40	28.4	7.1	7.1	102.6	102.1	8.2	14.0	3.9	4.1	7.0
273	WWA1	B	MID-FLOOD	10-May-06			28.3	7.2	7.1	7.2	102.6	101.1	8.2	14.4	3.1	4.9
274	WWA2	S	MID-FLOOD	10-May-06	8:28	7.80	28.7	7.0	6.9	101.2	100.4	8.2	13.8	4.8	5.0	8.5
275	WWA2	M	MID-FLOOD	10-May-06			28.5	7.1	7.1	7.0	102.6	102.1	8.2	15.4	5.2	4.7
276	WWA2	B	MID-FLOOD	10-May-06	8:15	8.20	28.5	7.4	7.4	102.3	102.0	8.2	15.0	5.0	4.7	9.0
277	WWA3	S	MID-FLOOD	10-May-06			28.6	7.6	7.6	7.3	107.5	107.0	8.1	15.6	4.3	4.1
278	WWA3	M	MID-FLOOD	10-May-06	8:15	8.20	28.5	7.0	7.0	101.4	100.5	8.2	15.6	5.0	5.1	7.0
279	WWA3	B	MID-FLOOD	10-May-06			28.4	6.9	6.9	6.9	101.9	101.2	8.2	15.7	3.4	3.6
280	WRA1	S	MID-FLOOD	10-May-06	9:00	35.70	28.5	7.4	7.4	103.1	102.7	8.2	13.1	4.1	3.8	6.5
281	WRA1	M	MID-FLOOD	10-May-06			26.7	5.9	5.9	6.7	88.3	87.3	8.2	26.1	3.2	3.1
282	WRA1	B	MID-FLOOD	10-May-06	9:13	33.80	26.1	6.1	6.1	91.0	90.4	8.2	27.6	2.4	2.3	6.0
283	WRA2	S	MID-FLOOD	10-May-06			28.2	6.2	6.5	6.2	100.9	110.0	8.3	17.4	3.9	4.1
284	WRA2	M	MID-FLOOD	10-May-06	9:13	33.80	27.4	6.0	6.1	102.4	104.8	8.2	24.2	3.8	4.2	6.5
285	WRA2	B	MID-FLOOD	10-May-06			26.8	6.3	6.5	6.4	106.7	105.2	8.2	29.1	3.0	3.1
286	WRA3	S	MID-FLOOD	10-May-06	9:28	32.90	28.1	7.1	7.1	99.7	98.0	8.2	17.0	3.7	3.5	3.5
287	WRA3	M	MID-FLOOD	10-May-06			27.0	7.5	7.5	7.3	97.3	97.7	8.3	16.4	2.4	2.7
288	WRA3	B	MID-FLOOD	10-May-06	10:06	36.12	26.7	7.4	7.5	97.4	98.4	8.2	28.0	2.3	2.6	2.9
289	WWFCZ1	S	MID-FLOOD	10-May-06			28.0	7.9	7.9	7.8	100.2	100.6	8.2	18.0	3.2	3.7
290	WWFCZ1	M	MID-FLOOD	10-May-06	9:53	42.00	28.4	7.7	7.8	97.1	97.4	8.2	22.4	2.2	2.1	5.0
291	WWFCZ1	B	MID-FLOOD	10-May-06			27.6	7.9	7.9	7.9	95.6	95.7	8.3	29.2	1.8	2.0
292	WWFCZ2	S	MID-FLOOD	10-May-06	10:20	43.00	28.4	8.1	8.1	100.1	100.5	8.3	16.4	2.7	2.6	5.5
293	WWFCZ2	M	MID-FLOOD	10-May-06			28.1	8.0	8.0	8.1	92.1	92.6	8.3	24.1	1.9	2.3
294	WWFCZ2	B	MID-FLOOD	10-May-06	10:20	43.00	27.2	7.8	7.9	93.5	93.4	8.3	28.0	3.0	3.1	2.6
295	WFCZR1	S	MID-FLOOD	10-May-06			28.4	7.5	7.7	7.6	98.3	98.6	8.2	15.8	3.4	3.4
296	WFCZR1	M	MID-FLOOD	10-May-06	9:40	41.50	28.0	7.7	7.6	98.8	98.5	8.2	17.4	2.5	2.5	4.5
297	WFCZR1	B	MID-FLOOD	10-May-06			27.0	7.4	7.5	7.5	98.0	97.6	8.2	26.2	2.5	2.9
298	WFCZR2	S	MID-FLOOD	10-May-06	9:40	41.50	28.5	8.1	8.1	100.5	100.1	8.3	17.2	2.2	2.2	4.0
299	WFCZR2	M	MID-FLOOD	10-May-06			27.9	8.2	8.2	8.2	96.8	96.5	8.3	26.3	3.6	3.7
300	WFCZR2	B	MID-FLOOD	10-May-06	27.1	8.2	8.2	8.2	97.9	98.0	8.3	28.0	2.6	2.5	2.8	
301	WWA1	S	MID-EBB	12-May-06	14:00	13.15	27.6	6.0	5.9	95.3	92.4	8.3	24.0	1.6	1.4	4.0
302	WWA1	M	MID-EBB	12-May-06			27.6	6.0	6.0	6.0	90.1	89.0	8.3	24.5	3.5	2.8
303	WWA1	B	MID-EBB	12-May-06	13:45	6.40	27.3	6.1	6.0	92.6	91.5	8.3	25.7	3.0	2.9	2.5
304	WWA2	S	MID-EBB	12-May-06			27.8	5.6	5.6	5.7	89.4	87.6	8.2	25.2	1.6	1.7
305	WWA2	M	MID-EBB	12-May-06	13:45	6.40	27.4	5.9	5.8	92.3	90.4	8.2	25.8	2.4	3.1	12.0
306	WWA2	B	MID-EBB	12-May-06			27.4	5.7	5.6	5.6	91.4	89.1	8.2	25.8	2.4	2.1

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
307	WWA3	S	MID-EBB	12-May-06	13:30	6.00	28.1	5.8	5.7	89.5	88.3	8.1	24.9	2.1	1.8	6.5	
308	WWA3	M	MID-EBB	12-May-06			27.6	5.8	5.8	5.8	89.5	88.2	8.1	25.6	2.7	2.9	10.5
309	WWA3	B	MID-EBB	12-May-06			27.4	5.9	5.8	5.8	91.7	89.9	8.1	26.1	3.0	3.8	8.5
310	WRA1	S	MID-EBB	12-May-06	14:13	39.40	27.6	5.9	5.9	91.7	90.0	8.2	23.8	2.6	2.6	5.5	
311	WRA1	M	MID-EBB	12-May-06			26.8	5.5	5.5	5.7	86.6	84.9	8.2	27.2	3.8	3.6	3.0
312	WRA1	B	MID-EBB	12-May-06			26.3	5.6	5.5	5.6	89.2	86.8	8.2	28.9	6.9	7.7	11.0
313	WRA2	S	MID-EBB	12-May-06	14:28	29.20	27.6	6.2	6.1	92.6	91.4	8.2	24.0	1.8	3.0	4.5	
314	WRA2	M	MID-EBB	12-May-06			27.6	6.0	5.9	6.1	92.5	91.2	8.2	23.9	4.4	4.2	6.5
315	WRA2	B	MID-EBB	12-May-06			26.5	5.5	5.5	5.5	86.7	86.4	8.2	28.8	3.2	3.3	5.0
316	WRA3	S	MID-EBB	12-May-06	14:45	29.40	27.4	6.2	6.2	92.6	91.9	8.2	24.3	1.8	2.1	3.0	
317	WRA3	M	MID-EBB	12-May-06			26.7	5.9	5.8	6.0	89.5	88.3	8.2	27.8	2.8	2.9	8.0
318	WRA3	B	MID-EBB	12-May-06			26.4	5.7	5.7	5.7	91.7	89.1	8.2	28.7	3.2	3.1	8.5
319	WWFCZ1	S	MID-EBB	12-May-06	15:20	37.00	27.8	6.2	6.1	94.6	93.3	8.2	23.9	1.5	1.1	5.8	
320	WWFCZ1	M	MID-EBB	12-May-06			26.8	5.4	5.4	5.8	83.4	82.2	8.2	27.5	2.2	2.0	4.0
321	WWFCZ1	B	MID-EBB	12-May-06			27.0	6.0	5.9	6.0	95.0	93.1	8.2	25.6	2.3	2.4	5.0
322	WWFCZ2	S	MID-EBB	12-May-06	15:07	38.50	27.7	6.0	5.9	93.0	92.0	8.3	23.5	1.7	0.9	2.8	
323	WWFCZ2	M	MID-EBB	12-May-06			26.9	5.7	5.6	5.8	85.3	84.7	8.2	27.0	2.3	2.0	4.0
324	WWFCZ2	B	MID-EBB	12-May-06			26.6	5.4	5.4	5.4	83.3	83.1	8.2	27.9	2.7	2.4	3.5
325	WFCZR1	S	MID-EBB	12-May-06	15:33	29.20	27.6	6.1	6.1	94.0	92.8	8.2	23.7	1.1	1.0	5.0	
326	WFCZR1	M	MID-EBB	12-May-06			26.9	5.5	5.5	5.8	86.1	84.2	8.2	26.4	2.5	2.5	3.3
327	WFCZR1	B	MID-EBB	12-May-06			26.7	5.4	5.3	5.4	84.1	82.8	8.2	27.6	1.6	1.5	8.0
328	WFCZR2	S	MID-EBB	12-May-06	14:57	40.90	27.8	5.6	5.5	90.0	86.5	8.3	23.4	1.2	1.1	2.5	
329	WFCZR2	M	MID-EBB	12-May-06			26.9	5.5	5.5	5.5	90.3	87.6	8.2	26.2	1.5	1.8	3.0
330	WFCZR2	B	MID-EBB	12-May-06			26.7	5.5	5.5	5.5	84.3	80.4	8.2	27.5	2.8	2.9	7.5
331	WWA1	S	MID-FLOOD	12-May-06	9:40	11.40	26.2	5.8	5.6	94.1	91.0	8.2	29.4	1.6	1.8	2.8	
332	WWA1	M	MID-FLOOD	12-May-06			26.2	5.8	5.6	5.7	95.3	92.0	8.2	29.8	2.7	2.6	5.0
333	WWA1	B	MID-FLOOD	12-May-06			26.2	5.7	5.7	5.7	90.6	88.1	8.2	29.4	2.7	2.9	5.5
334	WWA2	S	MID-FLOOD	12-May-06	9:53	10.90	26.4	5.9	5.8	93.6	91.2	8.2	28.8	2.7	2.4	5.3	
335	WWA2	M	MID-FLOOD	12-May-06			26.5	6.0	5.9	5.9	95.3	93.2	8.2	28.7	4.5	4.2	5.3
336	WWA2	B	MID-FLOOD	12-May-06			26.4	5.8	5.7	5.7	95.8	93.0	8.2	29.1	5.6	5.2	6.0
337	WWA3	S	MID-FLOOD	12-May-06	10:16	9.50	26.5	5.8	5.7	95.1	92.3	8.2	29.2	3.8	3.4	4.0	
338	WWA3	M	MID-FLOOD	12-May-06			26.4	5.9	5.8	5.8	92.1	90.3	8.2	29.3	2.9	3.0	4.5
339	WWA3	B	MID-FLOOD	12-May-06			26.3	5.9	5.8	5.8	96.3	92.9	8.2	29.4	3.7	4.4	6.0
340	WRA1	S	MID-FLOOD	12-May-06	9:28	34.90	26.4	5.7	5.6	92.5	89.8	8.2	26.6	1.4	1.5	6.5	
341	WRA1	M	MID-FLOOD	12-May-06			26.1	5.7	5.6	5.7	93.2	89.9	8.2	29.9	2.4	2.3	6.5
342	WRA1	B	MID-FLOOD	12-May-06			25.9	5.7	5.6	5.7	94.3	91.0	8.2	30.6	2.9	3.1	13.5
343	WRA2	S	MID-FLOOD	12-May-06	9:13	37.00	26.4	5.7	5.5	89.1	87.5	8.2	29.1	1.4	2.0	9.3	
344	WRA2	M	MID-FLOOD	12-May-06			26.0	5.5	5.4	5.5	88.8	87.7	8.2	30.7	4.1	4.5	6.5
345	WRA2	B	MID-FLOOD	12-May-06			25.9	5.5	5.4	5.5	86.2	82.4	8.2	30.9	1.7	1.3	6.5

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
346	WRA3	S	MID-FLOOD	12-May-06	9:00	34.00	26.4	5.7	5.5	91.8	89.0	8.2	28.6	1.4	1.3	9.5	
347	WRA3	M	MID-FLOOD	12-May-06			26.3	5.6	5.4	5.5	90.5	87.7	8.2	30.3	3.2	3.3	10.5
348	WRA3	B	MID-FLOOD	12-May-06			26.2	5.5	5.3	5.4	92.5	91.7	8.2	30.2	4.5	4.9	7.5
349	WWFCZ1	S	MID-FLOOD	12-May-06	8:24	31.10	26.4	6.0	6.0	88.9	86.7	8.2	28.1	1.6	1.8	4.8	
350	WWFCZ1	M	MID-FLOOD	12-May-06			26.1	5.6	5.6	5.8	89.3	86.9	8.2	29.7	2.1	2.2	10.0
351	WWFCZ1	B	MID-FLOOD	12-May-06			26.0	5.6	5.6	5.6	94.3	91.0	8.2	30.0	2.2	1.2	5.5
352	WWFCZ2	S	MID-FLOOD	12-May-06	8:36	39.20	26.3	5.8	5.7	92.4	89.8	8.2	28.4	2.7	2.4	6.0	
353	WWFCZ2	M	MID-FLOOD	12-May-06			26.0	5.7	5.6	5.7	95.3	92.3	8.2	30.3	2.3	2.0	7.0
354	WWFCZ2	B	MID-FLOOD	12-May-06			25.9	5.7	5.6	5.7	92.0	89.6	8.2	30.4	2.1	1.9	9.5
355	WFCZR1	S	MID-FLOOD	12-May-06	8:15	46.30	26.3	5.7	5.6	85.7	84.6	8.1	28.8	1.8	1.8	6.0	
356	WFCZR1	M	MID-FLOOD	12-May-06			26.0	5.6	5.5	5.6	91.1	88.4	8.1	30.3	3.2	2.4	9.5
357	WFCZR1	B	MID-FLOOD	12-May-06			25.9	5.9	5.8	5.8	94.7	91.7	8.1	30.5	2.1	2.2	6.5
358	WFCZR2	S	MID-FLOOD	12-May-06	8:50	38.40	26.4	6.0	6.0	94.0	91.9	8.2	28.6	1.3	1.4	6.0	
359	WFCZR2	M	MID-FLOOD	12-May-06			25.9	5.7	5.6	5.8	94.7	91.4	8.2	30.2	3.2	3.5	4.5
360	WFCZR2	B	MID-FLOOD	12-May-06			26.1	5.5	5.4	5.5	94.3	89.9	8.2	29.9	2.5	2.8	5.5
361	WWA1	S	MID-EBB	15-May-06	14:28	6.30	26.1	4.8	4.7	81.8	78.7	8.2	30.7	5.8	5.3	12.0	
362	WWA1	M	MID-EBB	15-May-06			26.0	5.2	5.1	4.9	84.1	81.7	8.2	30.7	5.8	5.8	17.5
363	WWA1	B	MID-EBB	15-May-06			26.0	5.3	5.2	5.2	85.3	82.7	8.2	30.7	7.0	7.5	13.0
364	WWA2	S	MID-EBB	15-May-06	14:13	6.50	26.1	5.2	5.0	92.2	87.2	8.2	30.7	12.3	13.9	20.5	
365	WWA2	M	MID-EBB	15-May-06			26.2	4.9	4.8	5.0	78.5	75.9	8.2	30.7	10.8	9.8	16.5
366	WWA2	B	MID-EBB	15-May-06			26.1	4.9	4.9	4.9	82.3	79.8	8.2	30.7	8.7	8.6	11.0
367	WWA3	S	MID-EBB	15-May-06	14:00	7.00	26.3	4.9	4.8	76.7	75.7	8.1	30.8	5.3	5.5	6.5	
368	WWA3	M	MID-EBB	15-May-06			26.3	5.1	4.9	5.0	84.2	81.7	8.1	30.9	6.0	6.1	18.0
369	WWA3	B	MID-EBB	15-May-06			26.1	5.0	4.9	5.0	82.4	79.7	8.1	30.8	7.3	7.6	13.0
370	WRA1	S	MID-EBB	15-May-06	14:40	33.00	26.2	4.8	4.7	82.8	79.6	8.2	30.0	3.8	3.6	6.5	
371	WRA1	M	MID-EBB	15-May-06			26.0	4.8	4.7	4.8	82.7	78.9	8.2	30.8	5.3	4.8	10.0
372	WRA1	B	MID-EBB	15-May-06			26.1	5.2	5.1	5.1	81.7	79.2	8.2	30.8	4.4	4.8	9.5
373	WRA2	S	MID-EBB	15-May-06	14:51	35.00	25.8	5.1	4.9	82.2	79.2	8.2	30.5	4.1	3.7	7.0	
374	WRA2	M	MID-EBB	15-May-06			26.0	5.1	5.0	5.0	86.4	83.1	8.2	30.9	4.2	4.2	10.0
375	WRA2	B	MID-EBB	15-May-06			25.9	5.0	4.8	4.9	82.4	79.4	8.2	31.0	5.6	4.8	7.5
376	WRA3	S	MID-EBB	15-May-06	15:06	36.00	26.1	4.8	4.7	79.1	76.4	8.2	30.5	5.5	5.0	10.0	
377	WRA3	M	MID-EBB	15-May-06			26.0	5.2	5.1	5.0	86.1	82.6	8.2	30.8	4.5	3.8	11.0
378	WRA3	B	MID-EBB	15-May-06			25.8	5.2	5.1	5.2	86.5	82.2	8.2	31.0	3.8	4.4	10.0
379	WWFCZ1	S	MID-EBB	15-May-06	15:45	36.00	26.2	5.1	5.0	84.7	81.8	8.2	28.7	2.0	2.4	2.3	
380	WWFCZ1	M	MID-EBB	15-May-06			26.1	5.2	5.1	5.1	86.2	83.0	8.2	29.8	3.1	3.2	7.5
381	WWFCZ1	B	MID-EBB	15-May-06			26.0	5.2	5.1	5.1	85.7	81.4	8.1	30.2	6.5	6.7	11.0
382	WWFCZ2	S	MID-EBB	15-May-06	15:33	37.00	25.9	5.0	4.8	86.3	79.2	8.2	30.0	2.8	2.8	6.5	
383	WWFCZ2	M	MID-EBB	15-May-06			26.1	5.2	5.0	5.0	87.0	83.7	8.2	30.3	3.7	3.5	6.0
384	WWFCZ2	B	MID-EBB	15-May-06			26.0	4.8	4.6	4.7	82.7	78.6	8.2	30.9	4.2	4.4	9.0

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
385	WFCZR1	S	MID-EBB	15-May-06	16:00	37.00	25.8	5.1	5.0	87.6	82.2	8.2	30.2	2.6	2.8	14.0	
386	WFCZR1	M	MID-EBB	15-May-06			25.9	4.8	4.7	4.9	79.9	76.2	8.2	30.9	5.2	4.3	6.0
387	WFCZR1	B	MID-EBB	15-May-06			25.8	5.0	4.9	4.9	82.8	79.7	8.2	31.0	4.4	4.4	10.5
388	WFCZR2	S	MID-EBB	15-May-06			26.1	5.2	5.0		84.7	81.7	8.2	29.5	2.3	2.9	6.0
389	WFCZR2	M	MID-EBB	15-May-06	15:20	38.00	26.2	5.0	4.9	5.0	80.9	78.5	8.2	29.7	6.5	6.2	7.0
390	WFCZR2	B	MID-EBB	15-May-06			26.1	5.0	4.9	4.9	80.1	77.4	8.2	30.3	5.7	6.0	6.5
391	WWA1	S	MID-FLOOD	15-May-06			25.6	4.9	4.8		82.9	78.9	8.2	31.1	2.7	2.6	5.5
392	WWA1	M	MID-FLOOD	15-May-06			25.6	5.1	5.0	4.9	80.6	78.2	8.2	31.1	3.0	2.7	8.0
393	WWA1	B	MID-FLOOD	15-May-06	11:13	8.00	25.8	4.9	4.8	4.9	80.9	78.4	8.2	31.1	3.0	3.1	5.5
394	WWA2	S	MID-FLOOD	15-May-06			25.8	5.0	4.9		80.2	77.6	8.2	31.1	2.4	2.0	7.5
395	WWA2	M	MID-FLOOD	15-May-06			25.8	5.1	5.0	5.0	81.9	79.3	8.2	31.1	3.3	3.3	7.5
396	WWA2	B	MID-FLOOD	15-May-06			25.8	5.1	4.9	5.0	82.9	80.2	8.2	31.0	3.2	2.9	8.5
397	WWA3	S	MID-FLOOD	15-May-06	11:28	7.00	25.7	5.0	4.8		81.6	79.0	8.2	31.2	3.0	3.5	9.5
398	WWA3	M	MID-FLOOD	15-May-06			25.8	5.1	5.0	5.0	82.9	80.0	8.2	31.1	3.6	4.4	13.0
399	WWA3	B	MID-FLOOD	15-May-06			25.8	4.9	4.8	4.9	82.5	78.6	8.2	31.0	2.8	3.5	17.5
400	WRA1	S	MID-FLOOD	15-May-06			25.8	4.9	4.8		81.1	80.3	8.2	30.2	2.0	1.6	5.0
401	WRA1	M	MID-FLOOD	15-May-06	11:00	35.00	25.7	5.1	5.0	4.9	84.2	81.0	8.3	31.0	2.1	2.0	8.5
402	WRA1	B	MID-FLOOD	15-May-06			25.8	5.0	4.9	5.0	80.1	78.0	8.3	31.2	3.4	3.3	8.0
403	WRA2	S	MID-FLOOD	15-May-06			25.8	5.2	5.1		82.9	80.1	8.2	30.9	2.1	2.1	8.0
404	WRA2	M	MID-FLOOD	15-May-06			25.9	4.7	4.6	4.9	77.3	76.5	8.2	31.0	2.7	2.8	6.3
405	WRA2	B	MID-FLOOD	15-May-06	10:44	34.00	25.7	5.1	5.1	5.1	82.0	79.7	8.2	31.4	3.4	2.8	6.5
406	WRA3	S	MID-FLOOD	15-May-06			25.6	4.9	4.9		80.5	28.4	8.2	31.1	2.1	2.0	4.5
407	WRA3	M	MID-FLOOD	15-May-06			25.9	5.2	5.1	5.0	81.8	80.5	8.2	31.5	3.2	3.5	5.0
408	WRA3	B	MID-FLOOD	15-May-06			25.9	4.7	4.7	4.7	76.1	74.4	8.2	31.7	3.8	3.7	9.0
409	WWFCZ1	S	MID-FLOOD	15-May-06	9:42	35.00	25.8	5.0	4.8		79.5	76.8	8.2	30.9	3.2	2.8	6.0
410	WWFCZ1	M	MID-FLOOD	15-May-06			25.7	5.3	5.1	5.0	88.1	84.5	8.2	31.1	1.6	2.0	13.5
411	WWFCZ1	B	MID-FLOOD	15-May-06			25.6	5.2	5.1	5.2	80.3	78.1	8.2	31.3	1.5	1.9	12.0
412	WWFCZ2	S	MID-FLOOD	15-May-06			25.6	5.2	5.1		89.0	84.8	8.2	29.7	1.3	1.5	29.0
413	WWFCZ2	M	MID-FLOOD	15-May-06	9:57	36.00	25.8	5.1	5.0	5.1	83.9	79.8	8.2	31.0	3.3	3.2	21.0
414	WWFCZ2	B	MID-FLOOD	15-May-06			25.6	4.9	4.9	4.9	82.6	78.8	8.2	30.5	3.7	3.8	17.5
415	WFCZR1	S	MID-FLOOD	15-May-06			25.5	5.2	5.1		85.5	82.3	8.2	31.0	1.9	2.2	11.5
416	WFCZR1	M	MID-FLOOD	15-May-06			25.9	5.2	5.1	5.1	78.5	77.3	8.2	31.9	3.8	3.7	8.0
417	WFCZR1	B	MID-FLOOD	15-May-06	9:30	38.00	25.9	5.1	5.0	5.1	80.6	78.4	8.2	31.9	4.6	4.5	16.0
418	WFCZR2	S	MID-FLOOD	15-May-06			25.8	5.3	5.2		90.6	85.4	8.2	29.1	2.3	2.2	6.0
419	WFCZR2	M	MID-FLOOD	15-May-06			25.8	5.0	4.9	5.1	82.4	79.4	8.2	30.9	6.4	5.3	14.5
420	WFCZR2	B	MID-FLOOD	15-May-06			25.6	5.3	5.2	5.2	88.2	83.6	8.2	29.3	5.2	6.0	14.0
421	WWA1	S	MID-EBB	18-May-06	17:05	8.00	26.1	5.8	5.8		85.8	84.1	8.2	32.3	3.4	3.6	7.0
422	WWA1	M	MID-EBB	18-May-06			26.1	6.0	5.9	5.9	84.5	83.9	8.2	32.3	2.9	3.0	6.5
423	WWA1	B	MID-EBB	18-May-06			26.1	5.9	5.8	5.8	89.2	87.2	8.2	32.3	3.2	3.4	9.0

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L	Average value	DO, % saturation	pH, Unit	Salinity, ppt	Turbidity, NTU	Averaged Value	Suspended Solid, mg/L	Averaged Value	
424	WWA2	S	MID-EBB	18-May-06	17:12	11.00	26.3	6.1	6.1	88.4	86.5	8.2	32.4	6.7	6.3	10.5	
425	WWA2	M	MID-EBB	18-May-06			26.3	6.2	6.1	6.1	91.5	89.8	8.2	32.4	6.6	6.3	13.0
426	WWA2	B	MID-EBB	18-May-06			26.2	6.3	6.2	6.2	95.0	92.2	8.2	32.3	5.4	6.2	12.5
427	WWA3	S	MID-EBB	18-May-06			26.3	5.9	5.8		87.4	85.3	8.2	32.3	4.7	4.7	12.0
428	WWA3	M	MID-EBB	18-May-06	17:20	7.00	26.3	5.9	5.9	5.9	88.0	86.2	8.2	32.4	6.4	6.3	14.5
429	WWA3	B	MID-EBB	18-May-06			26.3	6.3	6.2	6.2	93.7	91.2	8.2	32.4	7.5	7.0	15.0
430	WRA1	S	MID-EBB	18-May-06			26.1	5.9	5.9		86.6	84.7	8.2	31.9	3.3	3.4	9.0
431	WRA1	M	MID-EBB	18-May-06			26.1	6.0	5.9	5.9	91.1	88.3	8.2	32.2	4.9	4.8	16.0
432	WRA1	B	MID-EBB	18-May-06	16:55	37.00	26.1	6.2	6.2	6.2	90.0	88.0	8.2	32.2	4.5	4.3	10.0
433	WRA2	S	MID-EBB	18-May-06			26.2	6.3	6.2		95.4	92.0	8.2	32.2	3.6	3.5	6.5
434	WRA2	M	MID-EBB	18-May-06			26.2	5.9	5.8	6.1	87.2	85.6	8.2	32.2	3.4	3.7	12.5
435	WRA2	B	MID-EBB	18-May-06			26.1	6.3	6.2	6.2	90.2	88.7	8.2	32.3	3.5	3.4	8.0
436	WRA3	S	MID-EBB	18-May-06	16:48	26.00	26.1	6.2	6.1		91.2	89.2	8.2	32.2	2.6	3.2	14.5
437	WRA3	M	MID-EBB	18-May-06			26.2	6.0	6.0	6.1	93.0	90.5	8.2	32.4	4.0	4.2	6.5
438	WRA3	B	MID-EBB	18-May-06			26.0	6.3	6.3	6.3	90.8	89.7	8.2	32.4	3.7	3.7	12.5
439	WWFCZ1	S	MID-EBB	18-May-06			26.2	6.0	6.0		85.8	84.3	8.1	32.0	2.9	3.1	8.0
440	WWFCZ1	M	MID-EBB	18-May-06	16:10	31.00	26.0	6.3	6.3	6.1	93.8	91.6	8.1	32.1	4.5	5.3	10.5
441	WWFCZ1	B	MID-EBB	18-May-06			26.0	6.3	6.2	6.2	94.7	91.2	8.1	32.3	2.7	2.8	10.5
442	WWFCZ2	S	MID-EBB	18-May-06			26.0	6.1	6.0		94.6	91.8	8.1	31.5	3.2	3.5	6.3
443	WWFCZ2	M	MID-EBB	18-May-06			25.9	6.1	6.0	6.1	87.2	85.9	8.1	32.1	4.9	5.2	9.0
444	WWFCZ2	B	MID-EBB	18-May-06	16:18	37.00	25.9	6.1	6.1	6.1	84.1	82.9	8.1	32.3	5.0	4.2	12.5
445	WFCZR1	S	MID-EBB	18-May-06			26.1	6.2	6.1		87.9	86.2	8.1	32.3	3.1	3.2	5.0
446	WFCZR1	M	MID-EBB	18-May-06			26.0	6.2	6.1	6.1	85.3	84.3	8.1	32.3	4.3	4.1	7.0
447	WFCZR1	B	MID-EBB	18-May-06			26.0	6.5	6.5	6.5	95.0	92.7	8.1	32.3	4.8	4.5	5.5
448	WFCZR2	S	MID-EBB	18-May-06	16:28	42.00	26.0	6.2	6.1		98.4	94.4	8.2	32.2	3.7	3.8	11.0
449	WFCZR2	M	MID-EBB	18-May-06			25.9	6.0	6.0	6.1	88.3	86.5	8.2	32.3	4.5	4.2	9.0
450	WFCZR2	B	MID-EBB	18-May-06			25.9	6.1	6.1	6.1	90.4	88.5	8.2	32.2	4.0	4.0	8.5
451	WWA1	S	MID-FLOOD	18-May-06			25.9	6.2	6.1		93.1	89.4	8.2	30.3	2.7	3.1	11.0
452	WWA1	M	MID-FLOOD	18-May-06	10:20	8.00	25.8	6.5	6.3	6.3	99.1	96.0	8.2	31.0	4.0	4.1	12.0
453	WWA1	B	MID-FLOOD	18-May-06			25.8	6.4	6.3	6.4	93.3	91.4	8.2	30.4	6.2	6.7	10.5
454	WWA2	S	MID-FLOOD	18-May-06			26.0	6.0	6.0		91.3	89.4	8.5	32.2	2.4	2.2	6.0
455	WWA2	M	MID-FLOOD	18-May-06			26.0	6.5	6.4	6.2	95.6	93.7	8.2	32.2	3.4	3.4	12.0
456	WWA2	B	MID-FLOOD	18-May-06	10:10	12.00	26.0	6.4	6.3	6.4	94.8	93.6	8.2	31.2	5.0	4.6	11.0
457	WWA3	S	MID-FLOOD	18-May-06			26.1	6.6	6.6		79.2	78.5	8.1	29.5	4.1	4.5	9.5
458	WWA3	M	MID-FLOOD	18-May-06			25.8	6.1	6.0	6.3	89.6	87.7	8.1	32.2	2.6	2.7	11.0
459	WWA3	B	MID-FLOOD	18-May-06			25.9	6.3	6.3	6.3	92.3	90.2	8.1	32.2	5.0	4.9	11.0
460	WRA1	S	MID-FLOOD	18-May-06	10:28	31.00	25.6	6.0	6.0		95.5	92.5	8.2	32.5	4.6	4.8	10.5
461	WRA1	M	MID-FLOOD	18-May-06			25.8	6.2	6.2	6.1	99.0	96.0	8.2	32.4	3.1	3.2	11.0
462	WRA1	B	MID-FLOOD	18-May-06			25.8	6.4	6.4	6.4	94.3	92.5	8.2	32.5	2.3	1.9	9.0

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring Audit Service
 Marine Water Quality Impact Monitoring

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L			Average value	DO, % saturation		pH, Unit	Salinity, ppt	Turbidity, NTU			Averaged Value	Suspended Solid, mg/L	Averaged Value			
775	WFCZR1	S	MID-FLOOD	30-May-06	10:15	43.80	25.0	6.0	5.9	6.0	91.6	89.6	8.2	21.5	3.9	3.7	5.4	12.0	9.3	4.5				
776	WFCZR1	M	MID-FLOOD	30-May-06			25.1	6.2	6.1		85.0	85.2								8.2	28.7	6.0	6.2	11.5
777	WFCZR1	B	MID-FLOOD	30-May-06			25.1	6.2	6.1		6.2	98.6								97.2	8.2	28.7	6.0	6.2
778	WFCZR2	S	MID-FLOOD	30-May-06	9:30	38.90	25.4	6.0	6.0	6.0	84.0	84.3	8.1	26.1	3.9	3.8	4.9	10.5	8.2	4.5				
779	WFCZR2	M	MID-FLOOD	30-May-06			25.4	6.1	6.0		82.4	83.6								8.1	28.0	5.2	5.0	9.5
780	WFCZR2	B	MID-FLOOD	30-May-06			25.3	6.0	5.9		5.9	92.7								90.4	8.2	29.4	5.6	5.7

Appendix E

**Records of disposal of
C&D materials by barge
in May 2006**

入帳票編號: 01067900



Construction and Demolition Materials Disposal Delivery Form

拆建物料運載記錄票

選擇 一個訂明設施: One Prescribed Facility: 篩選分類設施 Sorting Facilities

堆填區 Landfills

公眾填土接收設施 Public Fill Reception Facilities

離島廢物轉運站 Outlying Islands Transfer Facilities

離島廢物轉運站 Outlying Islands Transfer Facilities

車牌號碼 Vehicle Registration Mark: 21696V

使用日期: 24/05/06

簽發人: [Signature]

賬戶名稱: CHUN WO CONSTRUCTION & ENGINEERING CO. LTD.

賬戶名稱: CHUN WO CONSTRUCTION & ENGINEERING CO. LTD.

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賬戶名稱: CHUN WO CONSTRUCTION & ENGINEERING CO. LTD.

Serial No. 0000922559

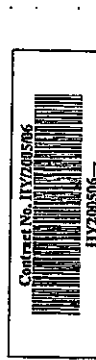


(Information contained in this form may be displayed on Internet 此表格所載資料可被上載於互聯網)

Date: 24-5-06 Time of departure from site: 2:50pm Vehicle Licence Plate Number: 21696V

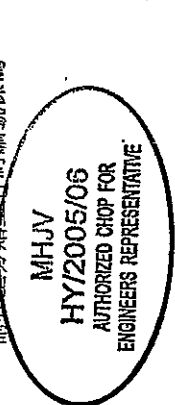
Designated Public Filling Facility/Landfill: 堆填區: 7438 Location of Site: 地盤位置:

- Central & Western 中西區
- Yau, Tsim, Mong 油尖旺
- Kwun Tong 觀塘
- Yuen Long 元朗
- Wanchai 灣仔
- Shaanhuipo 深水埗
- Kwai Tsing 葵青
- North 北區
- Eastern 東區
- Kowloon City 九龍城
- Tsuen Wan 荃灣
- Tai Po 大埔
- Southern 南區
- Wong Tai Sin 黃大仙
- Tuen Mun 屯門
- Sai Kung 西貢
- Outlying Islands 離島
- Shatin 沙田



Contract No. HY200506

Please stick contract no. barcode above 請在上方貼上合約編號條碼



Chop of Engineer's/Architect's Representative 工程師/建築師代表蓋印

Chop of Designated Public Filling Facility/Landfill 公眾填土設施/堆填區蓋印

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

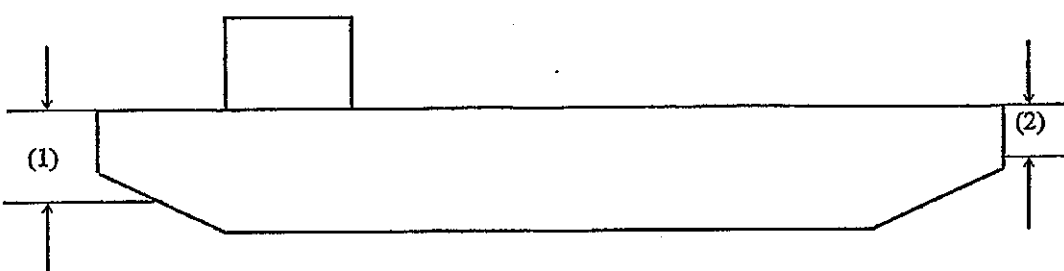

24-8 MW 42

24-8 MW 42

24-8 MW 42

24-8 MW 42

Shun Tat Construction Engineering Limited
信達建設工程有限公司

Date日期: <u>23.05.06</u>	Delivery Note No.: <u>1</u>								
BARGE DELIVERY RECORD 躉船載貨記錄									
Source 來源: <u>青龍豆腐</u>									
Type of materials 物料類別: <u>渣</u>									
Barge name 躉船名稱: <u>信達 22</u>									
Barge registration no. 躉船登記號碼: <u>21696V</u>									
Arrival time 到達時間:									
Unloading time 開始放料時間: <u>24.05.06</u>	<u>0830h</u>								
Departure time 離開時間:									
Deck level before loading 吉載 (1):	<table style="width:100%; border:none;"> <tr> <td style="border:none;">船頭</td> <td style="border:none;">綠 3.3 m</td> <td style="border:none;">船尾</td> <td style="border:none;">綠 3.4 m</td> </tr> <tr> <td style="border:none;"></td> <td style="border:none;">紅 3.3 m</td> <td style="border:none;"></td> <td style="border:none;">紅 3.4 m</td> </tr> </table>	船頭	綠 3.3 m	船尾	綠 3.4 m		紅 3.3 m		紅 3.4 m
船頭	綠 3.3 m	船尾	綠 3.4 m						
	紅 3.3 m		紅 3.4 m						
Deck level after loading 滿載 (2):	<table style="width:100%; border:none;"> <tr> <td style="border:none;">船頭</td> <td style="border:none;">綠 2.1 m</td> <td style="border:none;">船尾</td> <td style="border:none;">綠 2.2 m</td> </tr> <tr> <td style="border:none;"></td> <td style="border:none;">紅 2.1 m</td> <td style="border:none;"></td> <td style="border:none;">紅 2.2 m</td> </tr> </table>	船頭	綠 2.1 m	船尾	綠 2.2 m		紅 2.1 m		紅 2.2 m
船頭	綠 2.1 m	船尾	綠 2.2 m						
	紅 2.1 m		紅 2.2 m						
Estimated quantity (Base on Barge Information) 物料噸數:	<u>9.67.56 噸</u>								
Destination (of Materials) 目的地:	<u>土門 381²</u>								
									
Agreed By <u>[Signature]</u> Shun Tat Construction Eng. Ltd.	<div style="text-align:right;">  Agreed By <u>[Signature]</u> Chun Wo Construction & Eng. Co. Ltd. </div>								

Appendix F

**CEDD's approval letter
for delivery of C&D
materials to PFRF at
Tuen Mun Area 38 by
barge**



土木工程拓展署

Civil Engineering and

Development Department

土木工程處

Civil Engineering Office

Web site 網址 : <http://www.cedd.gov.hk>
E-mail 電子郵件 : stevelo@cedd.gov.hk
Telephone 電話 : (852) 2762 5581
Facsimile 傳真 : (852) 2714 0113
Our ref 本署編號 : FM PF/GEN/23
Your ref 來函編號 : CW/390/C1/S/05-334

香港九龍公主道 101 號
土木工程拓展署大樓
Civil Engineering and
Development Building,
101 Princess Margaret Road,
Kowloon, Hong Kong

By Fax (2744 6937) & Post

Chun Wo Construction & Engineering Co., Ltd.
C2, 5/F, Hong Kong Spinners Industrial Building,
601-603 Tai Nan West Street,
Cheung Sha Wan
Kowloon
(Attn.: Mr Simon Wong)

12 May 2006

Dear Sirs,

Waste Disposal (Charges for Disposal of Construction Waste) Regulation

Application for Vessel Disposal

Billing Account No. 5005407

Application No.: CEDD00087

I am pleased to inform you that your application for vessels to be used for delivering inert construction waste under the following construction works contract has been approved under Section 12 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation:

Contract No.: HY/2005/06

Contract Name: Castle Peak Road Improvement – West of Tsing Lung Tau

The approval is valid until 15 August 2006. The public fill reception facility at Tuen Mun Area 38 is designated to receive inert construction waste of maximum quantity of 20,000 tonnes generated from the construction work undertaken under the contract as stated above by vessels.

The receipt of inert construction waste by vessels will be subject to the availability of berthing space at the designated facility and will be on first-come-first-serve basis. Please liaise with the Engineer's Representative of the public fill reception facility at Tuen Mun Area 38, Mr Thomas Wong, at tel: 2762 5609 for the material delivery logistics.

興土木 利民生 齊拓展 創明天

We bring the best engineering to life

You are bound by the "Basic Conditions" and "Conditions of Use" for vessel disposal accompanied with this application, and the attached "Special Conditions of Use" for delivering inert construction waste to the public fill reception facility.

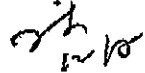
Your application for issuance of vessel chits is being processed, and 20 chits are being prepared. A separate notification letter will be sent to you by the Environmental Protection Department accordingly. Please note that one vessel chit is required for each barge load of inert construction waste to be disposed of at the designated public fill reception facility.

Yours faithfully,



(Steve LO)

for Chief Engineer/ Fill Management
Civil Engineering and Development Department



c.c.(w/encl.)

DEP	(Attn.: Ms Jenny Lui/ Mr Tom Lai)	Fax: 2872 0509
CE/MW2-1, HyD	(Attn.: Mr Fred C L Au)	2714 5289
Meinhardt Halcrow JV	(Attn.: Mr Simon Illingworth)	2559 1613
Meinhardt Halcrow JV	(Attn.: Mr Jeff Yu)	2492 6201

Special Approval Conditions of Use for Vessel Disposal

Application No.	CEDD00087		
Billing Account No.	5005407		
Name of Applicant	Chun Wo Construction & Engineering Co., Ltd.		
Contract No.	HY/2005/06		
Contact Name	Castle Peak Road Improvement – West of Tsing Lung Tau		
Total Quantity of Inert Construction Waste to be disposed of by Vessels	20,000 tonnes		
Period of using Vessels for Disposal	up to 15 August 2006		
Designated Public Fill Reception Facility	Tuen Mun Area 38		
Frequency of Disposal by Vessels	Subject to the availability of berthing space at the public fill reception facility at Tuen Mun Area 38		
Material Acceptance Criteria for Inert Construction Waste	Size less than 250mm		
Particulars of Approved Vessels to be used for Disposal	Vessel Type	Vessel Licence No.	Maximum Load (tonnes)
	Steel Lighter:		
	Shun Tat 22	21696V	2371.9

