

JOB NO.: TCS00371/07

DRAINAGE SERVICES DEPARTMENT (DSD) CONTRACT NO. DC/2006/02

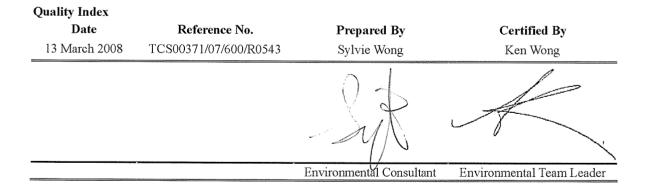
YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B – CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

KT15 - MONTHLY EM&A REPORT FOR FEBRUARY 2008 (NO. 8)

REVISION NO.: 1

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED



This report has been prepared by Action-United Environmental Services & Consulting with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.



TABLE OF CONTENTS

INTRODUCTION	1
PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS	2
SUMMARY OF IMPACT MONITORING REQUIREMENTS	2
IMPACT MONITORING METHDOLOGY	5
IMPACT MONITORING RESULTS	11
WASTE MANAGEMENT	15
SITE INSPECTION	15
ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE	16
IMPLEMENTATION STATUS OF MITIGATION MEASURES	16
IMPACT FORECAST	17
CONCLUSION	17
	PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS SUMMARY OF IMPACT MONITORING REQUIREMENTS IMPACT MONITORING METHDOLOGY IMPACT MONITORING RESULTS WASTE MANAGEMENT SITE INSPECTION ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE IMPLEMENTATION STATUS OF MITIGATION MEASURES IMPACT FORECAST

List of Tables

Table 2-1	Status of Environmental License and Permits
Table 3-1	Summary of EM&A Requirements
Table 3-2	Action and Limit Levels for Air Quality Monitoring
Table 3-3	Action and Limit Levels for Construction Noise Monitoring
Table 3-4	Action and Limit Levels for Stream Water Quality Monitoring
Table 3-5	Action and Limit Levels for Construction Ecology Monitoring
Table 4-1	Locations of Air Quality, Construction Noise and Stream Water Quality Monitoring Station/Locations
Table 4-2	Monitoring Equipment Used in EM&A Program
Table 4-3	Analytical Method Applied to Water Quality Samples
Table 5-1	Summary of 1-Hour TSP Monitoring Results at A10
Table 5-2	Summary of 24-Hour TSP Monitoring Results at A10
Table 5-3	Summary of Noise Monitoring Results at N10a
Table 5-4	Summary of Stream Water Quality Results at W9A & W9B
Table 5-5	Summary of Ecology Impact Monitoring Results
Table 6-1	Summary of Quantities of Inert C&D Materials
Table 6-2	Summary of Quantities of C&D Wastes
Table 6-3	Summary of Excavated Soil for Marine Disposal
Table 8-1	Statistical Summary of Environmental Complaints
Table 8-2	Statistical Summary of Environmental Summons
Table 8-3	Statistical Summary of Environmental Prosecution
Table 11-1	Summary of the Exceedances for Impact Monitoring



List of Appendices

Appendix A	Project Site Layout
Appendix B	Three-Month Construction Program
Appendix C	Environmental Organisation Structure
Appendix D	Locations of Designated Monitoring Station/Locations/Area
Appendix E	Event/Action Plan for Air Quality, Construction Noise, Stream Water Quality and Ecology
Appendix F	Equipment Calibration Certificates
Appendix G	Impact Monitoring Schedule
Appendix H	Graphical Plots of Air Quality, Construction Noise and Stream Water Quality Monitoring Results
Appendix I	Meteorological Data in the Reporting Period

- Appendix J Environmental Team Site Inspection Checklists
- Appendix K Response to Comments



Executive Summary

- ES.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements an Environmental Monitoring & Audit program to be implemented by an Independent Environmental Team (ET) throughout the contract period.
- ES.02 Under the Project Profile for Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai, Drainage Improvement Stage 1 Phase 2B – Kam Tin Secondary Drainage Channels KT14 & KT15 (Ref.: 382047/E/PP/Issue 5), KT14 & KT15 was defined as Designated Project and governed by Environmental Permit (EP-231/2005/A).
- ES.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be an Independent Environmental Team (ET) to implement the EM&A program in compliance with the requirements as stated in the Environmental Permit (EP-231/2005/A) and Environmental Monitoring &Audit Manual (EM&A Manual) for Secondary Channel KT14 & KT15 (August 2005). For this Contract (DC/2006/02) only covered KT15 and KT14 will carried out under other contract.
- ES.04 This Monthly EM&A Report for **February 2008** (No. 8) is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **February 2008** during the period from **26 January 2008 to 25 February 2008**.

Breach of Action and Limit (AL) Levels

ES.05 The Limit Level exceedance was recorded in ecology (18 February 2008) during this reporting month. The wetland dependent bird individual number and species number recorded fell within the limit level (decrease > 40%). No Action/Limit Level exceedance was recorded for air, noise and stream water in this reporting period.

Complaints Log

ES.06 No environmental complaint was received in this reporting period.

Notifications of Any Summons and Successful Prosecutions

ES.07 There was no environmental summons or successful prosecution was recorded in this reporting period.

Reporting Changes

ES.08 There are no changes to be reported in this reporting period.



Future Key Issues

ES.09 Construction activities to be undertaken in March 2008 included construction and excavation works at Ch.11-439, Ch.504-668 and Ch.675-797; Stream Diversion; Sheet Piles Driving; Tree protection and tree transplanting works; Carrying out joined survey; Utilities companies liaison; Dumping activities of inert materials and Gabion installation. Potential environmental impacts for this project generally include air quality, noise, ecology, surface runoff and construction waste. The contractor shall properly implement the required environmental mitigation measures as per the Implementation Schedule in the EM&A manual to ensure no significant adverse environmental impact arises from the construction works. The contractor was reminded to maintain good house-keeping throughout the construction phase.

EM&A Activities in the Reporting Period

ES.10 A summary of the monitoring activities in this reporting period is listed below:

15 Events

4 Events5 Events

18 Events

1 Event

4 Times

- 1-Hour TSP Monitoring
- 24-Hour TSP Monitoring
- Noise Monitoring
- Stream Water Quality
- Ecology (Fauna)
- Site Inspection Audit

Air Quality

ES.11 No Action or Limit Level of 1-Hour and 24-Hour TSP exceedance was recorded in this reporting period.

Construction Noise

ES.12 No exceedance in construction noise measurements was recorded and no construction noise complaint was received in this reporting period.

Stream Water Quality

ES.13 No exceedance in stream water quality was recorded in the reporting period.

Ecology (Fauna)

ES.14 Non-compliance (Limit Level) with the ecological criteria was found in the individual number and species number of wetland dependent bird recorded during the reporting period (18 February 2008). No intrusions of construction activities into the wetland areas nor adverse impact was observed. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.



Summary of Monitoring Exceedances

ES.15 A summary of monitoring exceedances during the reporting period for air quality, construction noise, stream water quality and ecology (fauna) monitoring are presented below:

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air	1-Hour TSP	0	Not Required for 0% Exceedance
Quality	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
Stream	Turbidity (NTU)	0	Not Required for 0% Exceedance
Water	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (µg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance
	Decrease in the total number of species or individuals of wetland faunal from baseline	NA	(monitoring not required in this reporting month)

Site Inspection by External Parties

ES.16 No site inspection was undertaken by external parties in this reporting period.



1.0 INTRODUCTION

- 1.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15. Location plan of the project site is presented in Appendix A and the construction program is presented in Appendix B.
- 1.02 The works to be executed at the propose drainage Channel KT15 mainly comprise the following:
 - Construction of about 0.8 km secondary drainage channels;
 - Construction of DSD maintenances access;
 - Provisioning and re-provisioning of pedestrian crossings;
 - Associated ancillary works; and
 - Construction of temporary vehicular access in Portion 5A1 of the site for vehicular access from Kam Sheung Road to Lot Nos. 398RP, 395 in DD106 which are adjacent to the site.
- 1.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be the Independent Environmental Team (ET) for implementation of the EM&A program in accordance with the requirements as set out in the contract particular specification, Environmental Permit (EP-231/2005/A), EM&A Manual for KT15 and the Environment Impact Assessment Ordinance (EIAO).
- 1.04 This report presents the results of the project EM&A program for the reporting month **February 2008** during the period from **26 January 2007 to 25 February 2008**.

REPORT STRUCTURE

- 1.05 The EM&A report is structured into the following sections:
 - Section 1 INTRODUCTION
 - Section 2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS
 - Section 3 SUMMARY OF MONITORING REQUIREMENTS
 - Section 4 IMPACT MONITORING METHODOLOGY
 - Section 5 IMPACT MONITORING RESULTS
 - Section 6 WASTE MANAGEMENT
 - Section 7 SITE INSPECTION
 - Section 8 Environmental Complaint and Non-Compliance
 - Section 9 IMPLEMENTATION STATUS OF MITIGATION MEASURES
 - Section 10 IMPACT FORECAST
 - Section 11 CONCLUSIONS



2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

2.01 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in **Appendix C**.

CONSTRUCTION PROGRESS

- 2.02 The major construction activities undertaken in this reporting period are list below:-
 - Construction of channel wall at CH11 439 and CH645-668;
 - Provision of temporary entrance at Kam Po Road and Kam Sheung Road;
 - Dumping activities;
 - Tree protection and tree transplanting works;
 - Utilitiesd companies liasion; and
 - Carrying out joined survey.

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.03 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in **Table 2-1**.

Item	Item Description	License/Permit Status
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	с .
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License) License No.: 1U450/1	Obtained on 20 July 2007
7	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007
8	Dumping at Sea Permit of Type 1 Contaminated Material (Permit No. EP/MD/08-051)	Validity period (10 Oct – 09 Apr 2008)

 Table 2-1
 Status of Environmental Licenses and Permits

3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

- 3.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project.
- 3.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in Table 3-1. The designated station of the air quality, construction noise, stream water quality locations and ecology monitoring area are shown in Appendix D.



Environmental Aspect	Monitoring Parameters		Monitoring Stations
Air Quality	1-Hour and 24-Hour TS	SP	A10
Construction Noise	Leq(30min) during norma	l working hours	N10a*
	Supplementary data of	L_{10} and L_{90} for reference.	
Stream Water Quality	In Situ Measurement	 Dissolved Oxygen Concentration (mg/L); 	W9A & W9B
		 Dissolved Oxygen Saturation (% Sat); 	
		• Turbidity (NTU);	
		• pH;	
		• Salinity (%); Water Depth (m) and	
		• Temperature (°C).	
	Laboratory Analysis • Suspended Solids (mg/L);		
		• Ammonia Nitrogen (mg/L); and	
		• Zinc (μg/L).	
Ecology	Monthly monitoring of	f construction activities adjacent to the wetland	
	areas to identify any intrusions of construction activities into the		
	wetland areas;		
	Monthly monitoring of wetland areas themselves to check that there is		
	no adverse impact on the wetlands as a consequence of changes to the		
	water table that are attributable to the project, if any;		
	Photographic records at six-month intervals; and		
	Monthly surveys of fauna in the wetland areas during the wet season		
	(April to July inclusive) for reptiles, amphibians, dragonflies, and		
Note: * The poise an	butterflies, and throughout the year for birds.		

Table 3-1	Summary of EM&A Requirements
-----------	------------------------------

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10.

- 3.03 Air monitoring is carried out once every six days for 24-Hour TSP and 3 times every six days for 1-Hour TSP at one designated monitoring station A10.
- 3.04 Noise monitoring is conducted once per week at one designated monitoring location (N10a). Measurements of $Leq_{(30min)}$ shall be taken between 0700 and 1900 with supplementary L_{10} and L_{90} data will be collected for reference.
- 3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH and Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.
- 3.06 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly through the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) only. Photographic record should be made at six month intervals.
- 3.07 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology are shown in Tables 3-2, 3-3, 3-4 and 3-5.

				0
Monitoring Station	Monitoring Station Action Level (µg/m ³) Limit Level (µg/m		evel (µg/m ³)	
Womtoring Station	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

 Table 3-2
 Action and Limit Levels for Air Quality Monitoring



Action and Limit Levels for Construction Noise Monitoring Table 3-3

Time Period	Action Level in dB(A)	Limit Level in dB(A)	
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75* dB(A)	
Note: * Reduces to 70dB(A) for	schools and 65dB(A) during the school ex-	amination periods	

dB(A) for schools and 65dB(A) during the school examination periods.

Table 3-4 Action and Limit Levels for Stream Water Quality Monitoring

Dissolved Oxygen (mg/l)	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	< 0.3	
Limit Level	NA	< 0.2	
	4		
Turbidity (NTU)	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	> 73.5*	
Limit Level	NA	> 78.2**	
TT			
рН	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	> 7.0*	
Limit Level	NA	> 7.1**	
Suspended Solids (mg/L)	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	> 148*	
Limit Level	NA	> 159**	
Ammonia Nitrogen (mg/L)	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	> 30.91*	
Limit Level	NA	> 32.20**	
Zinc (µg/L)	W9A (Upstream) [#]	W9B (Downstream)	
Action Level	NA	> 242*	
Limit Level	NA	> 252**	

Notes: # Act as Control Station for the Impact Water Quality Monitoring.

* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

 Table 3-5
 Action and Limit Levels for Construction Ecology Monitoring

Parameters	Action Level	Limit Level
Bird: decrease in the total number of wetland dependent bird species or individuals of the wetland dependent bird species from baseline	20 – 40% of 1.2 individuals and 3 species	

3.08 The Event/Action Plan of air quality, construction noise, stream water quality and ecology has been implemented for this project. Details of the Event/Action Plan were presented in the Appendix E.



4.0 IMPACT MONITORING METHDOLOGY

MONITORING LOCATIONS

4.01 The 1-Hour and 24-Hour TSP monitoring was carried out at one designated station A10. Impact construction noise monitoring was undertaken at the designated location N10a. Stream water quality monitoring was undertaken at two designated locations (W9A & W9B). The ecology monitoring was conducted within the wetland area in according to the EM&A Manual of KT15. The descriptions of monitoring stations are presented in Tables 4-1. The geographically location are shown in Appendix D.

Table 4-1Location of Air Quality, Construction Noise & Stream Water Quality
Monitoring Station/Locations

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise I	Location
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Locat	ions
W9A [#]	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen
Note: * The noise ambient	t condition within the victim area without significant change. Due to the accessibility, noise monitoring wil

* The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10

Act as control station in impact monitoring

4.02 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

MONITORING FREQUENCY AND PERIOD

<u>1-HOUR TSP MONITORING</u>

4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of 15 monitoring events were carried out in this reporting period.

24-HOUR TSP MONITORING

4.04 The 24-Hour TSP monitoring was conducted at station A10 once every six days. Total of 4 monitoring events were carried out in this reporting period.

NOISE MONITORING

4.05 Impact noise monitoring was undertaken at one location N10a once per week. Total of 5 monitoring events were carried out in this reporting period.

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B two times per week. Total of 16 monitoring events were carried out in this reporting period.



ECOLOGY MONITORING

4.07 Bird survey should be conducted in monthly throughout the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) in the seasonal wetland area. Photographic record should be made at six monthly intervals.

MONITORING EQUIPMENT

4.08 The monitoring equipment used by the ET in the EM&A program is presented in the Table 4-2.

Parameters	s Equipment Monitoring Equipment					
1-Hour TSP	Portable dust meter	Sibata LD-3 Laser Dust Meter				
24-Hour TSP	High Volume Sampler	Grasby Anderson GMWS 2310 HVS / Tisch High Volume Sampler 515N				
	Calibration Kit	TISCH Model TE-5028A				
Leq30min	Integrating Sound Level Meter (Type1)	B&K Type 2238				
_	Calibrator	B&K Type 4231				
	Portable Wind Speed Indicator	Testo Anemometer				
Water Depth	Water Depth Detector	Eagle Sonar				
Temperature	Thermometer & DO Meter	YSI 85/10FT				
DO	Thermometer & DO Meter	YSI 85/10FT				
pН	pH Meter	Hanna HI 98128				
Turbidity	Turbidimeter	Hach 2100P				
Salinity	Salinometer	ATAGO refractometer				
-	Water Sampler	Teflon bailer / bucket				
-	Sample Container	High density polythene bottles (provided by laboratory)				
-	Storage Container	'Willow' 33-litter plastic cool box				

Table 4-2Monitoring Equipment Used in EM&A Program

24-HOUR TSP MONITORING

- 4.09 The 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.
 - Power supply of 220v/50 hz for 24-Hour continuous operation;
 - 0.6-1.7 $\text{m}^{3/\text{min}}$ (20-60 SCFM) adjustable flow rate;
 - A 7-day mechanical timer for 24-Hour operation;
 - An elapsed time indicator with ± 2 minutes accuracy for 24-Hour operation;
 - Minimum exposed area of 63 in^2 ;
 - Flow control accuracy of $\pm 2.5\%$ deviation over 24-Hour operation;
 - An anodized aluminum shelter to protect the filter and sampler;
 - A motor speed-voltage control to control mass flow rate with accuracy of $\pm 2.5\%$ deviation over 24-Hour sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 4.10 The filter papers used in 24-Hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis.



<u>1-HOUR TSP MONITORING</u>

4.11 Measurements of 1-Hour TSP monitoring were taken by Sibata LD-3 Laser Dust Meter that is a portable and battery-operated laser photometer capable of performing real time 1-Hour TSP measurements. A comparison test with HVS was carried out prior to baseline monitoring in compliance with the EM&A requirements and a conversion factor for direct reading of the dust meter has been established.

WIND DATA MONITORING

4.12 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

NOISE MONITORING

- 4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels (dB). Supplementary statistical results such as L_{10} and L_{90} were also obtained for reference.
- 4.14 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.
- 4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}).
- 4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

STREAM WATER QUALITY MONITORING

<u>Water Depth</u>

- 4.17 Water quality monitoring will be conducted at the middle of the water columns (Mid-Depth) if the depths of the water columns at the sampling locations are less than 3 meters during monitoring. Or else, monitoring will be performed at two depths, at 1 meter from surface and bottom respectively when the water depth is less than 6m.
- 4.18 Water depths will be determined prior to measurement and sampling at W9A and W9B, using a portable battery operated depth detector, brand named 'Eagle Sonar', if the depths exceed 3 meter. For the depths well below 1 meter, an appropriate steel ruler or rope with appropriate weight will be used for the depth estimation.

Water Temperature

4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.



Dissolved Oxygen (DO)

- 4.20 A portable YSI 85/10FT DO Meter will be used for in-situ DO measurement. The DO meter is capable of measuring DO in the range of 0 20 mg/L and 0 200 % saturation and checked against water saturated ambient air on each monitoring day prior to monitoring.
- 4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 200°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

<u>pH</u>

4.22 A portable Hanna pH Meter will be used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 - 14 and readable to 0.1. Standard buffer solutions of at least pH7 and pH10 shall be used for calibration of the instrument before and after use. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Turbidity (NTU)

4.23 A portable Hach 2100p turbidity Meter will be used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 - 1000 NTU. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

<u>Salinity</u>

4.24 A portable salinometer capable of measuring salinity in percentage (g/L) will be used for measuring salinity of the water at each monitoring location.

Water Sampler

4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 40°C and delivered to ALS upon completion of the sampling by end of each sampling day. Sampling in the stream with shallow water condition, plastic bucket will be used for sample collection.

Sample Container

4.26 Water samples will be contained in screw-cap PE (Poly-Ethylene) bottles, which will be provided and pretreated immediately prior to sampling according to HOKLAS quality requirements by ALS. The sampling bottles will be rinsed with the water to be contained. Water sample is then transferred from the sampler to the sample bottles to 95% bottle capacity to allow possible volume changes during delivery and storage.

Sample Storage

4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4°C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.



4.28 DO, water temperature, turbidity (NTU), pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

ECOLOGY MONITORING

<u>Study Area</u>

4.29 The study area for the ecological monitoring programme for KT15 covers the seasonal wetland area as shown in Project Profile of KT15 Figures ATT 4-7.2.

Survey Method

- 4.30 Monthly monitoring was conducted by means of walk through survey, along the boundary and within the wetland areas in KT15. Any adverse impacts to the habitat, intrusions of construction activities into the wetland areas, and adverse changes in the wetlands were checked and reported if any.
- 4.31 Photographic records on the fixed photo record points selected during the baseline survey are made every six months. The photos from the construction phase ecological monitoring will be compared with those taken during the baseline which are used as the baseline conditions.
- 4.32 Bird monitoring was conducted in the study areas monthly for KT15. Survey areas in KT15 was the seasonal wetland area covered same as the Project Profile of KT15 Figures ATT 4-7.2.
- 4.33 Fauna monitoring is conducted only during the wet season (April to July inclusive for KT15) in the same survey areas for bird monitoring. For KT15, the survey frequency is monthly, and the surveys cover reptiles, amphibians, dragonflies and butterflies.

<u>Equipment</u>

4.34 Standard portable field survey equipment was used for ecological monitoring, including 1) Binoculars of 10 x 40 magnification; 2) Digital camera; 3) Notebook; and/or 4) Butterfly net (when it is necessary to confirm identities of butterflies and dragonflies).

EQUIPMENT CALIBRATION

- 4.35 Initial calibration of the HVS was performed upon installation and thereafter at bi-monthly intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator. The calibration data are properly documented and the records are maintained by ET for future reference.
- 4.36 The 1-Hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.



- 4.37 The sound level meters are calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 4.38 All in-situ monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all stages of the water quality monitoring.
- 4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in **Appendix F**.

ANALYTICAL LABORATORY

4.40 Our ET has commissioned a local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66) to provide analytical services for this project. ALS carried out sample and analysis control in accordance with the HOKLAS QA/QC requirements. The specified testing services provided by ALS as shown in Table 4-3.

Determinant	Standard Method	Detection Limit		
Suspended Solids	ALS Method EA025	2 mg/L		
Ammonia Nitrogen	ALS Method EK055A	0.01 mg/L		
Zinc	ALS Method EG020	10 µg/L		

Table 4-3Analytical Method applied to Water Quality Samples

4.41 The analysis of suspended solids, ammonia nitrogen and zinc concentrations were follow the APHA Standard Methods for the Examination of Water and Wastewater 19ed 2540D. ALS Environmental has comprehensive quality assurance and quality control programs and has attained HOKLAS accreditation for a range of environmental testing. For QA/QC procedures, one duplicate sample for every batch of samples were analyses as required by the HOKLAS. The QA/QC results are presented in **Appendix H**.

DATA MANAGEMENT AND DATA QA/QC CONTROL

- 4.42 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house certified (ISO 9001:2000) Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 4.43 The monitoring data recorded in the equipment e.g. 1-Hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.
- 4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.

5.0 **IMPACT MONITORING RESULTS**

5.01 The impact EM&A program was carried out by the ET in compliance with the project specific EM&A Manual in this reporting period. The impact monitoring schedules are presented in Appendix G and the monitoring results are detailed in the following sub-sections.

AIR QUALITY

5.02 The 1-Hour and 24-Hour TSP impact air quality monitoring data are summarized in Tables 5-1 and 5-2. Graphical plots of the monitoring results are shown in Appendix **H** respectively.

Monitoring Date	Start Time	1 st Result (µg/m ³)	2 nd Result (µg/m ³)	3 rd Result (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)
26-Jan-08	9:16	138	145	141	> 307	> 500
01-Feb-08	9:17	116	110	119	> 307	> 500
11-Feb-08	9:20	110	107	116	> 307	> 500
16-Feb-08	9:30	185	202	193	> 307	> 500
22-Feb-08	9:53	301	287	257	> 307	> 500
Note: * Mor	nitoring result wa	s exceeded the	Action Level			

Summary of 1-Hour TSP Monitoring Results at A10 Table 5-1

* Monitoring result was exceeded the Action Level # Monitoring result was exceeded the Limit Level

Table 5-2 Summary of 24-mout 151 mountoring Results at A10	Table 5-2	Summary of 24-Hour TSP Monitoring Results at A10
--	-----------	--

Monitoring Date	Monitoring Results (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)				
31-Jan-08	20	> 165	> 260				
06-Feb-08	41	> 165	> 260				
15-Feb-08	31	> 165	> 260				
21-Feb-08	21-Feb-08 63 > 165 > 260						
Note: * Monitoring	result was exceeded the Action Level						

* Monitoring result was exceeded the Action Level

Monitoring result was exceeded the Limit Level

- No 1-Hour and 24-Hour TSP Action or Limit Level exceedance was recorded in this 5.03 reporting period.
- 5.04 The meteorological data during the monitoring period are summarized in Appendix I.

CONSTRUCTION NOISE

5.05 The impact construction noise monitoring results are summarized in Table 5-3. Graphical plots of the monitoring data are presented in Appendix H.

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6 th Leq5	Leq30
26-Jan-08	10:07	47.0	46.8	45.4	46.7	45.3	45.7	46.2
01-Feb-08	10:20	50.6	49.3	49.3	49.2	50.5	50.1	49.9
11-Feb-08	9:51	47.4	47.7	49.0	48.4	49.2	50.5	48.8
16-Feb-08	10:06	52.8	56.4	46.4	45.9	44.8	45.2	51.1
22-Feb-08	11:01	48.3	48.7	50.0	51.3	50.5	51.5	50.2
Limit Level -					>75 dB(A)			

 Table 5-3
 Summary of Noise Monitoring Results at N10a

Note: The noise ambient condition within the victim area without significant change. Due to the accessibility, baseline monitoring will undertake at N10a. The impact monitoring will undertake at N10 once the access is available.



5.06 No construction noise exceedance (Action/Limit Level) was recorded in this reporting period.

STREAM WATER QUALITY

- 5.07 The stream water quality monitoring results are summarized in **Table 5-4**. Details of the monitoring results and graphical plots for each parameter are presented in **Appendix H**.
- 5.08 No exceedance in stream water quality was recorded in the reporting period.

Monitoring	DO in	mg/L	Turbidi	ty (NTU)	р	H	SS in	mg/L	Ammoni	ia (mg/L)	Zinc	(µg/L)
Date	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B
26-Jan-08	4.6	3.7	154.0	96.8	8.3	8.3	121	56	148.00	35.20	502	131
29-Jan-08	5.4	3.5	73.7	33.8	8.2	8.1	80	38	79.20	11.60	221	61
01-Feb-08	5.9	5.5	34.0	13.0	8.5	8.2	35	16	56.60	3.78	115	43
04-Feb-08	5.2	4.3	30.6	23.2	8.2	8.2	48	23	9.38	5.46	83	60
11-Feb-08	6.1	3.2	189.5	50.9	8.6	8.7	183	62	120.00	33.40	656	165
16-Feb-08	4.9	4.0	21.6	11.7	8.3	8.4	30	15	11.30	6.09	50	18
19-Feb-08	4.2	2.3	364.0	43.2	8.3	8.6	343	35	58.40	10.70	846	83
22-Feb-08	2.2	1.8	1000.0	23.8	8.7	8.7	1110	30	436.00	8.39	4330	95
25-Feb-08	4.9	1.8	49.0	29.7	8.7	8.7	74	41	40.00	14.70	165	127
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

 Table 5-4
 Summary of Stream Water Quality Results at W9A & W9B

Notes: # Act as Control Station for the Impact Water Quality Monitoring.

* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.



KT15 – Monthly EM&A Report for February 2008 (No. 8)

ECOLOGY

- 5.09 47 individuals of birds from 13 species were recorded during the survey for the present monthly monitoring on 18 February 2008. Among the birds recorded, no individual of any wetland bird species with abundance from the baseline (i.e. Cattle Egret and Chinese Pond Heron) was recorded. Compared with the average abundance of 1.2 individuals from 2 species of wetland dependent birds recorded during the baseline study for the KT15 Project Profile, the individual number and the species number of wetland dependent bird recorded fell within the Limit Level for the monitoring requirements for ecology (i.e. decrease in the number of species or individuals > 40% from the baseline).
- 5.10 No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 5.11 Photographic records are scheduled in six-month intervals, while fauna survey is conducted during the wetland season (April to July), and thus both are not required in the present monthly monitoring.
- 5.12 Ecology Impact Monitoring Results are presented in the Table 5-5.

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (18 Feb 08)
Birds			
Bubulcus ibis	Cattle Egret	0.4	
Ardeola bacchus	Chinese Pond Heron	0.8	
Amaurornis phoenicurus	White-breasted Waterhen	Recorded only	2
Streptopelia chinensis	Spotted Dove	Recorded only	5
Hirundo rustica	Barn Swallow	Recorded only	
Motacilla alba	White Wagtail	Recorded only	2
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	3
Pycnonotus sinesis	Chinese Bulbul	Recorded only	8
Lanius schach	Long-tailed Shrike	Recorded only	
Copsychus saularis	Oriental Magpie Robin	Recorded only	1
Orthotomus sutorius	Common Tailorbird	Recorded only	1
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	4
Sturnus nigricollis	Black-collared Starling	Recorded only	2
Acridotheres cristatellus	Crested Myna	Recorded only	3
Prinia flaviventris	Yellow-bellied Prinia	\	2
Eudynamis scolopacea	Common Koel	١	
Halcyon smyrnensis	White-throated Kingfisher	\	
Garrulax perspicillatus	Masked Laughingthrush	1	6
Zosterops japonica	Japanese White Eye	\	
Lonchura punctulata	Scaly-breasted Munia	\	
Egretta garzetta	Little Egret	1	
Anthus hodgsoni	Olive-backed Pipit	\	
Phylloscopus subaffinis	Dusky Warbler	\	
Phylloscopus inornatus	Yellow-Browed Warbler	l l	
Parus major	Great Tit	\	
Anthus hodgsoni	Olive-backed Pipit		
Zosterops japonica	Japanese White Eye	l l	
Sturnus sericeus	Red-billied Starling		8
Species Number		15 spp. recorded, (only 2 species of wetland birds with abundance)	13 spp. (0 sp. from the wetland birds with abundance in the baseline)
Individual Number		1.2 (from the 2 species of wetland birds with abundance)	47 (0 from the wetland birds with abundance in the baseline)

 Table 5-5
 Summary of Ecology Impact Monitoring Results

*Wetland dependent species recorded with abundance during the baseline study with the names bolded



6.0 WASTE MANAGEMENT

6.01 The waste management was implemented by on-site Environmental Officer or Environmental Supervisor from time to time.

RECORDS OF WASTE QUANTITIES

- 6.02 All types of waste arising from the construction work are classified into the following:
 - Construction & Demolition (C&D) Material;
 - Chemical Waste;
 - General Refuse; and
 - Excavated Soil.
- 6.03 The quantities of waste for disposal in this reporting period are summarized in Tables 6-1 and 6-2. Whenever possible, materials were reused on-site as far as practicable.

Table 6-1Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity	Disposal Location
Broken Concrete (Inert) (m ³)	0	Public Filling
Reused in this Contract (Inert) (m ³)	0	N/A
Reused in other Projects (Inert) (m ³)	0	N/A
Disposal as Public Fill (Inert) (m ³)	0	Tuen Mun Area 38

Table 6-2Summary of Quantities of C&D Wastes

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0	NA
Recycled Paper / Cardboard Packing (kg)	3	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (m ³)	0	NENT Landfill

6.04 The quantities of excavation soil for marine disposal in this reporting period are summarized in Table 6-3.

Table 6-3	Summary of Excavated Soil for Marine Disposal
-----------	---

Type of Waste	Quantity	Disposal Location
Type 1 Materials (m ³)	0	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m ³)	0	East Sha Chau (Pitch 4c)

7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should been formulation by ET Leader. ET had carried out the environmental site inspection on 31 January 2008, 05, 14 and 21 February 2008 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly IEC site audit conducted on 21 February 2008 by IEC's representative with the Engineer's, the Contractor's and ET's representative. No non-compliance and two observations were noted.



- 7.02 The details of observation during the site inspections and monthly audit as follows:
 - Stagnant water accumulated in the work front was observed at CH0270, the Contractor was reminded to clean up and prevent any stagnant water accumulated on site; and
 - Some C&D material scattered on-site was observed at CH080, the Contractor was reminded to tight up the working area.
- 7.03 The ET site inspection checklists are shown in **Appendix J**. In general, the construction area of KT15 was kept clean and tidy.
- 7.04 No site inspection was undertaken by external parties in this reporting period.

8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.01 No environmental complaint, summons and prosecution was received in this reporting period. The statistical summary table of environmental complaint is presented in **Table 8-1**, **8-2** and **8-3**.

Table 8-1Statistical	l Summary	of Environmental	Complaints
----------------------	-----------	------------------	------------

Reporting Period	Enviro	onmental Complaint S	tatistics
hepot mig i erioù	Frequency	Cumulative	Complaint Nature
Jul 2007 – January 2008	0	0	NA
February 2008	0	0	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Envir	onmental Summons Sta	atistics
heporting i criou	Frequency	Cumulative	Nature
Jul 2007 – January 2008	0	0	NA
February 2008	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Enviro	nmental Prosecution S	tatistics
Reporting I criou	Frequency	Cumulative	Nature
Jul 2007 – January 2008	0	0	NA
February 2008	0	0	NA

9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

- 9.01 CCC has been implementing the required environmental mitigation measures according to the EM&A Manual of KT15 Mitigation Measures Implementation Schedule.
- 9.02 A summary of environmental mitigation measures generally implemented by CCC in this reporting period is presented as follows;

Water Quality

- Wastewater were appropriately treated by treatment facilities;
- Drainage channels were provided to convey run-off into the treatment facilities;
- Drainage systems were regularly and adequately maintained.



<u>Air Quality</u>

- Vehicles were cleaned of mud and debris before leaving the site;
- Site vehicles were limited to within 8 km/hr;
- Public roads around the site entrance/exit had been kept clean and free from dust;
- Dust suppression measures were properly provided to reduce dust emission from stockpile.

Noise

- Works and equipment were located to minimise noise nuisance from the nearest sensitive receiver;
- Idle equipments were either turned off or throttled down;
- Some of the Powered Mechanical Equipments were covered or shielded by appropriate acoustic materials if practicable.

Waste and Chemical Management

- Wastes were properly segregated into inert and non-inert in appropriate containers/areas;
- Excavated materials were reused where practicable.
- A chemical waste storage area had been provided on site;

General

• The site was generally kept tidy and clean.

10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

- 10.01 Key issues to be considered in the coming month include:
 - Implementation of dust suppression measures at all times;
 - Potential wastewater quality impact due to surface runoff;
 - Potential fugitive dust quality impact due to dry/windy season (November to March) from the dry/loose/exposure soil surface/dusty material;
 - Disposal of empty engine oil containers within site area;
 - Ensure dust suppression measures are implemented properly;
 - Sediment catch-pits and silt removal facilities should be regularly maintained;
 - Management of chemical wastes;
 - Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
 - Follow-up of improvement on general waste management issues; and
 - Implementation of construction noise preventative control measures.
- 10.02 The tentative 3-month rolling program is presented in Appendix B.

11.0 CONCLUSION

11.01 The EM&A program in **February 2008** was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented in **Table 11-1**.



Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air	1-Hour TSP	0	Not Required for 0% Exceedance
Quality	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
Stream	Turbidity (NTU)	0	Not Required for 0% Exceedance
Water	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (μ g/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance
	Decrease in the total number of species or individuals of wetland faunal from baseline	NA	(monitoring not required in this reporting month)

Table 11-1Summary of the Exceedances for Impact Monitoring

- 11.02 No 1-Hour and 24-Hour TSP exceeded the Action/Limit Level was recorded in this reporting period.
- 11.03 All measured daytime construction noise levels were below the Limit level and no complaint was received in this reporting period.
- 11.04 No stream water quality exceeded the Action/Limit Level was recorded during the reporting period.
- 11.05 No intrusions into the wetland area/adverse impact on the wetlands were found during the reporting period. Wetland bird individual number and species number on 18 February 2008 fell within the Limit Level (decrease >40 % from baseline). Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 11.06 No environmental complaint, summons or prosecution was received in this reporting period.

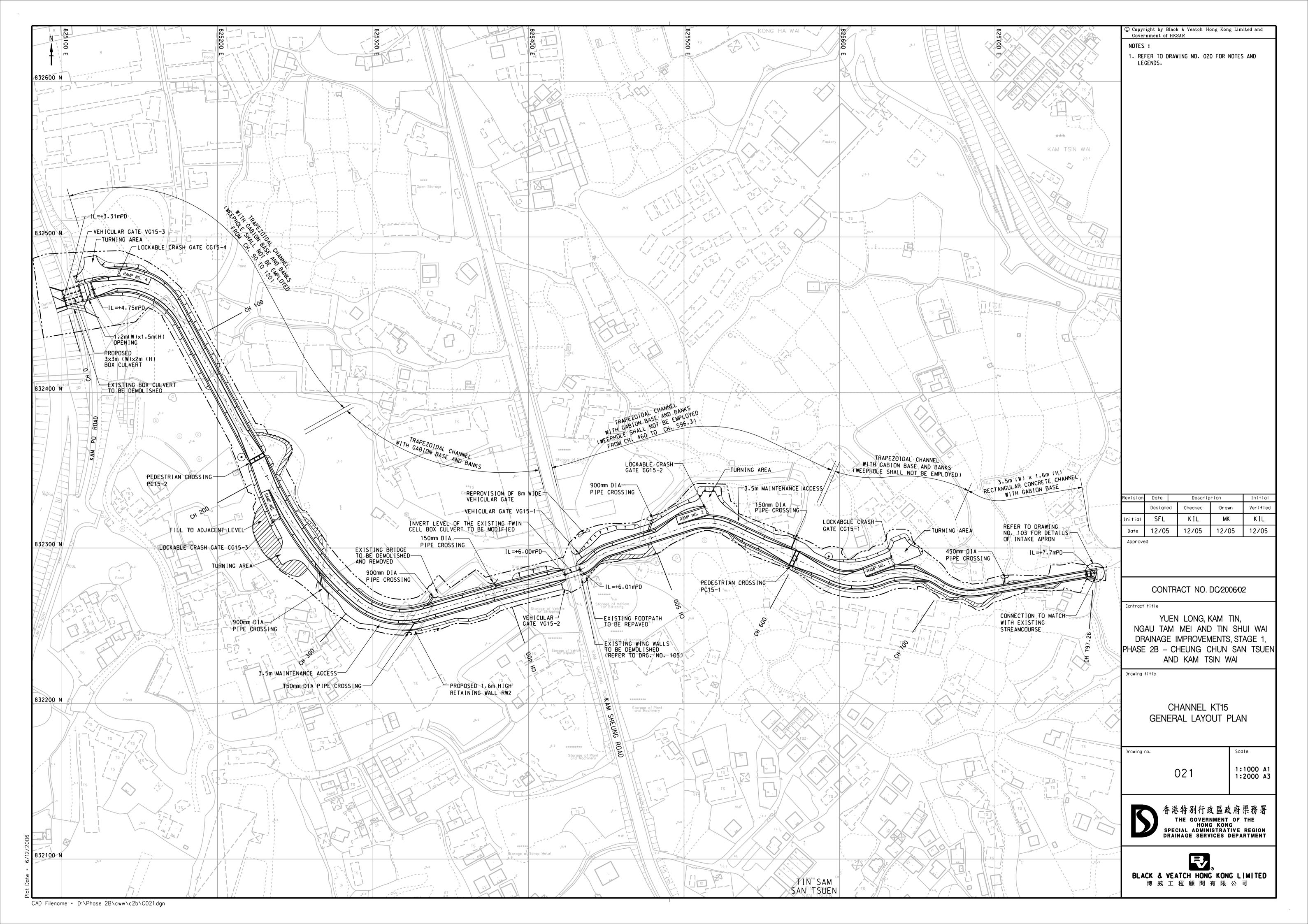
RECOMMENDATIONS

- 11.07 Based on the ET regular and monthly IEC site audit inspection records on 31 January 2008, 05, 14 and 21 February 2008, no non-compliance and two observations were recorded. Details of the observations as follows:-
 - Stagnant water accumulated in the work front was observed at CH0270, the Contractor was reminded to clean up and prevent any stagnant water accumulated on site; and
 - Some C&D material scattered on-site was observed at CH080, the Contractor was reminded to tight up the working area.
- 11.08 No site inspection was undertaken by external parties in this reporting period.
- 11.09 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.



Appendix A

Project Site Layout

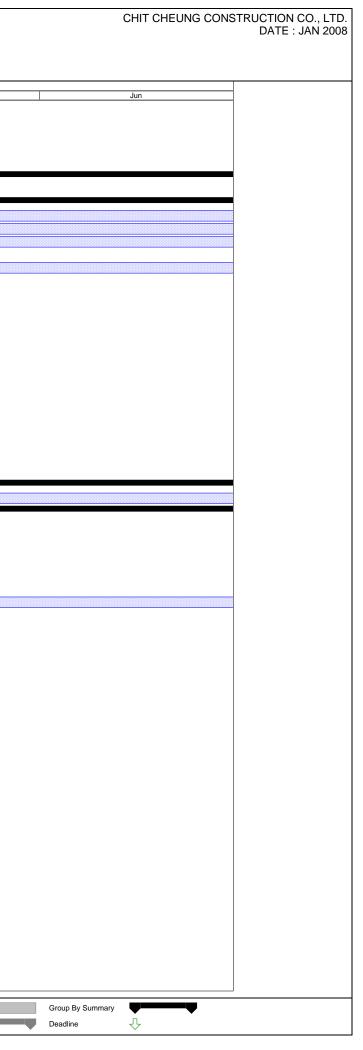




Appendix B

Three-Month Construction Program

ID	Task Name	Duration	Start	Finish Predecessors								
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07		Mar			Apr		May	
	· · · · · · · · · · · · · · · · · · ·											
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07								
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07								
4												
5	Master Programme of the Works	839 days	Wed 21/3/07	Mon 6/7/09								
6												
7	Completion Dates	830 days	Fri 30/3/07	Mon 6/7/09								
8	Section I - portions 1, 2 and 3	830 days	Fri 30/3/07	Mon 6/7/09 2SS								
9	Section II - portions 4, 5 and 5C	830 days	Fri 30/3/07	Mon 6/7/09 2SS								
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09 20FS-1 day								
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07 20FS-1 day								
12	Section V - preservation and protection of existing tr	rees 830 days	Fri 30/3/07	Mon 6/7/09 2SS								
13												
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07								
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07 2SS								
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07 2SS								
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07 2SS								
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07 2SS								
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07 2SS								
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07 2SS								
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07 2SS								
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07 11								
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07 2SS								
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07 2SS								
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07 2SS								
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07 2SS								
27												
28	A. Preliminary Works	839 days	Wed 21/3/07	Mon 6/7/09								
28	A. Preliminary works 1. Setting out of Works		Fri 30/3/07	Mon 6/7/09 2SS								
	2. Environmental Monitoring and Audit	830 days	Fri 30/3/07	Mon 6/7/09 255								
30	-	830 days										
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07 8SS								
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07 31								
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07								
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07 32								
35	b. Approval by the Engineer	7 days		Thu 3/5/07 34								
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07 35								
37	2.4 Environmental impact monitoring and audit		Sun 8/7/07	Mon 6/7/09 36,8FF								
38	3. Environmental Management and Environment	tal 73 days	Fri 30/3/07	Sun 10/6/07								
39	Management Plan 3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07 2SS								
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07 39								
40	3.3 Submission of EMP	45 days		Sun 10/6/07 40								
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07								
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07 26SS								
43	4.1 Kenovatori 4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07								
44	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07 26SS								
45	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07 26SS								
46	c. Contract computer facilities	45 days 51 days	Fri 30/3/07	Sun 13/5/07 2655								
47			Fri 30/3/07	Thu 12/4/07 26SS								
	submission	14 days										
49	approval	7 days		Thu 19/4/07 48								
50	installation	21 days	Sun 22/4/07	Sat 12/5/07 49,43FS-7 days								
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07 50								
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07								
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07 26SS								
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07 26SS								
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07								
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07 26SS								
57	new service	19 days	Fri 13/4/07	Tue 1/5/07								
58	application	5 days	Fri 13/4/07	Tue 17/4/07 56SS+14 days								
59	installation	14 days	Wed 18/4/07	Tue 1/5/07 58								
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07								
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07 26SS								
62	new service	19 days	Fri 13/4/07	Tue 1/5/07								
63	application	5 days	Fri 13/4/07	Tue 17/4/07 61SS+14 days								
64	installation	14 days	Wed 18/4/07	Tue 1/5/07 63								
65	e. Internet broadband	33 days	Fri 30/3/07	Tue 1/5/07								
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07 26SS								
					I							
D		sk	Progre	SS	Summary		Rolled Up Critical Task	(Rolled Up Progress		External Tasks	
Project: Page: 1	PROGRAMME OF WORKS		-	•	-	▼ ▼						
. ago. 1	Cri	itical Task	Milesto	one 🕈	Rolled Up Task		Rolled Up Milestone	\checkmark	Split		Project Summary	
			-							-		



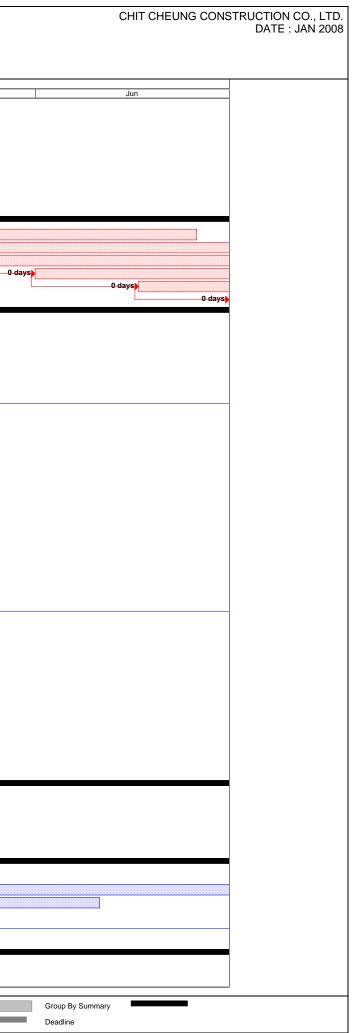
Summary
Rolled Up Task

CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : JAN 2008 Jun Group By Summary Deadline 仑

tra	RAMME OF WORKS - RP09 ct No. : DC / 2006 / 02 ct Title : Yuen Long, Kam Tin, Ngau Tam Mei ar	nd Tin Shui Wa	ai Drainage I	mprovements	5,	CHIT CHEUNG CONST
liu	Stage 1, Phase 2B - Cheung Chun Sar	Tsuen and K	am Tsin Wai	i	•1	
Та	sk Name	Duration	Start	Finish	Predecessors	Mar Apr May Jun
┢	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS	
	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136	
	10.9. Condition survey and structral monitoring	830 days	Fri 30/3/07	Mon 6/7/09		
	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07		
-	 b. Comment & approval c. Proposal for condition survey & structural monitoring 	7 days 209 days	Fri 13/4/07 Fri 20/4/07	Thu 19/4/07 Wed 14/11/07	139	
	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140	
-	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07		
	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21	
	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07	22	
	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07		
	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07		
	Portion 2 Portion 3, 5, 5A1, 5A2	14 days	Fri 29/6/07 Sun 29/7/07	Thu 12/7/07 Sat 11/8/07		
-	Portion 5B	14 days 14 days	Thu 15/11/07	Wed 28/11/07		
-	e. Condition survey & structural monitoring	765 days	Sun 3/6/07	Mon 6/7/09	-	
+	Portion 1, 4, 6, 7, 8	765 days	Sun 3/6/07	Mon 6/7/09	147	
1	Portion 2	725 days	Fri 13/7/07	Mon 6/7/09		
	Portion 3, 5, 5A1, 5A2	695 days	Sun 12/8/07	Mon 6/7/09		
	Portion 5B	546 days	Thu 29/11/07	Wed 27/5/09	150	
	10.10 Handling & disposal of Type 1 & 2 contaminated mate	erial: 74 days	Sat 14/7/07	Tue 25/9/07		
	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07		
	Submission	30 days	Sun 15/7/07		705SS-44 days	
	Comment & approval	14 days	Tue 14/8/07 Mon 30/7/07	Mon 27/8/07 Tue 11/9/07	158	
	b. Proposal of berthing area arrangement Submission	44 days 30 days	Mon 30/7/07 Mon 30/7/07	Tue 11/9/07 Tue 28/8/07		
+	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161	
	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07		
1	Submission	60 days	Sat 14/7/07	Tue 11/9/07		
1	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164	
1	10.11 Handling & treatment of Type 3 contaminated materia	al 581 days	Fri 30/3/07	Thu 30/10/08		
1	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07		
	Submission	120 days	Fri 30/3/07	Fri 27/7/07		
	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168	
╢	b. Statement & treatment programme (1) Submission	42 days 28 days	Sat 11/8/07 Sat 11/8/07	Fri 21/9/07 Fri 7/9/07	160	
	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07		
-	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171	
	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171	
	c. Setting up of Treatment Plant	60 days	Mon 1/9/08		174,529SS-61 days	
	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07	100	
	a. Submission of draft Safety Plan b. Comment by the Engineer	14 days	Wed 21/3/07 Wed 4/4/07	Tue 3/4/07 Tue 10/4/07		
	c. Submission of Safety Plan	7 days 14 days	Wed 4/4/07 Wed 11/4/07	Tue 10/4/07		
	10.13 Sub-contractor Management Plan	839 days	Wed 11/4/07 Wed 21/3/07	Mon 6/7/09		
-	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	ISS	
	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07		
	c. Update SMP	795 days	Fri 4/5/07	Mon 6/7/09	182	
	10.14 proof of plant ownership	830 days	Fri 30/3/07	Mon 6/7/09		
	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07 Thu 26/4/07		
-	b. Comment by the Engineer / Employer c. Engineer's request	14 days 802 days	Fri 13/4/07 Fri 27/4/07	Thu 26/4/07 Mon 6/7/09		
-	10.15 Contractor's Management Team	830 days	Fri 30/3/07	Mon 6/7/09		
╎	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS	
1	b. Update management / site supervision team	816 days	Fri 13/4/07	Mon 6/7/09	189	
	10.16 Water supply pipeworks material	28 days	Wed 21/3/07	Tue 17/4/07		
	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07		
_	Submission	14 days	Wed 21/3/07	Tue 3/4/07		
	comment & approval b. Manufacturer	14 days 28 days	Wed 4/4/07 Wed 21/3/07	Tue 17/4/07 Tue 17/4/07	190	
-	Submission	14 days	Wed 21/3/07 Wed 21/3/07	Tue 3/4/07	1SS	
	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07		
┢	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07		
	Submission	14 days	Wed 21/3/07	Tue 3/4/07		
1	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199	
	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07		
	Submission comment & approval	14 days 14 days	Wed 21/3/07 Wed 4/4/07	Tue 3/4/07 Tue 17/4/07		
	τ	14 Uays	vveu 4/4/07	iue 17/4/07		
t. Di	ROGRAMME OF WORKS		Progre	SS	Summary	nary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

PROGRAMME OF WORKS - RP09 Contract No. : DC / 2006 / 02				CHIT CHEUNG CONSTRU
ontract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Stage 1, Phase 2B - Cheung Chun San Ti	Fin Shui Wai Drainage In suen and Kam Tsin Wai	nprovements,		
ID Task Name	Duration Start	Finish Predecessors	Mar Apr May	Jun
205 a. Submission of technical information	14 days Fri 30/3/07	Thu 12/4/07 2SS	iviai Api iviay	Jun
206 b. Comment & approval	14 days Fri 13/4/07	Thu 26/4/07 205		
207 10.18 Preservation and protection of existing trees 208 a. Specialist contractor (landscaping Class I)	59 days Wed 21/3/07 28 days Fri 30/3/07	Fri 18/5/07 Thu 26/4/07		
209 Submission	28 days Fri 30/3/07 14 days Fri 30/3/07	Thu 12/4/07 2SS		
210 Comment & approval	14 days Fri 13/4/07	Thu 26/4/07 209		
211 b. Site supervisory staff	59 days Wed 21/3/07	Fri 18/5/07		
212 Submission	45 days Wed 21/3/07	Fri 4/5/07 1SS		
213 Comment & approval	14 days Sat 5/5/07	Fri 18/5/07 212		
214 10.19 Concrete (ready mix)	28 days Fri 30/3/07	Thu 26/4/07		
215 a. Submission of supplier & design mix	21 days Fri 30/3/07	Thu 19/4/07 2SS		
216 b. Comment & approval 217 10.20 Steel reinforcement	7 days Fri 20/4/07	Thu 26/4/07 215 Thu 3/5/07		
217 10.20 Steel reinforcement 218 a. Submission of supplier	35 days Fri 30/3/07 28 days Fri 30/3/07	Thu 26/4/07 2SS		
219 b. Comment & approval	7 days Fri 27/4/07	Thu 3/5/07 218		
220 10.21 Submissions of method statement / materials	750 days Tue 15/5/07	Tue 2/6/09		
221 a. Submission of materials	750 days Tue 15/5/07	Tue 2/6/09 15FS+45 days		
222 b. Submission of method statement	750 days Tue 15/5/07	Tue 2/6/09 15FS+45 days		
223 11. Provision of wheel washing facilities	180 days Fri 30/3/07	Tue 25/9/07		
224 11.1 Channel KT2	120 days Fri 30/3/07	Fri 27/7/07 2SS		
225 11.2 Channel KT15 226 11.3 Berthing area	90 days Thu 28/6/07	Tue 25/9/07 19FS-1 day		
226 11.3 Berthing area 227 11.4 Portion 6	90 days Fri 30/3/07 45 days Fri 30/3/07	Wed 27/6/07 2SS Sun 13/5/07 2SS		
227 11.4 Pollon 6 228 12. Setting up of traffic management liaison group	30 days Fri 30/3/07	Sat 28/4/07 2SS		
229				
230 B. Section I of the Works	830 days Fri 30/3/07	Mon 6/7/09		
231 B1. Portion 1	790 days Fri 30/3/07	Wed 27/5/09		
232 1. Site clearance	30 days Sat 28/7/07	Sun 26/8/07		
33 1.1 General site clearance	30 days Sat 28/7/07	Sun 26/8/07 36,224,893,891		
2. Temporary Traffic Management Scheme	59 days Fri 30/3/07	Sun 27/5/07		
23.5 2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities) 236 a. Submission	59 days Fri 30/3/07	Sun 27/5/07		
a. Submission b. comments & approvals by Engineer & TMLG	45 days Fri 30/3/07 14 days Mon 14/5/07	Sun 13/5/07 2SS Sun 27/5/07 236		
238 2.2 TTMS Proposal (for construction of box culvet)	59 days Fri 30/3/07	Sun 27/5/07		
239 a. Submission	45 days Fri 30/3/07	Sun 13/5/07		
240 b. comments & approvals by Engineer & TMLG	14 days Mon 14/5/07	Sun 27/5/07 239		
241 3. Excavation Permits	521 days Mon 28/5/07	Wed 29/10/08		
242 3.1 application and issue of permit (trial pits in Chi Ho Road	-	Fri 23/11/07 237		
243 3.2 application and issue of permits (for construction of box culvert)	180 days Sat 3/5/08	Wed 29/10/08 240	0 days	
244 4. Underground utilities detection	253 days Fri 30/3/07	Fri 7/12/07		
245 4.1 utilities detection	28 days Fri 30/3/07	Thu 26/4/07 2SS		
4.2 trial trench excavtion & identification	14 days Sat 24/11/07	Fri 7/12/07 245,242		
5. Utilities temporary diversion / protection	493 days Thu 27/9/07	Sat 31/1/09		
248 a. WSD watermain along village vehicular access 249 b. Street lighting along village vehicular access	103 days Wed 7/5/08	Sun 17/8/08 284SS Sun 17/8/08 284SS	44 days)	
249 b. Street lighting along village vehicular access 250 c. PCCW along village vehicular access	103 days Wed 7/5/08 103 days Wed 7/5/08	Sun 17/8/08 284SS Sun 17/8/08 284SS	44 days	
251 d. CLP overhead cable at Bay 4	90 days Thu 7/2/08	Tue 6/5/08 282	++ udy>p	
252 e. CH 816~CH841 underground cables (33kV)	42 days Thu 27/9/07	Wed 7/11/07 259		
f. CH 816~CH841 underground cables (132kV)	56 days Thu 8/11/07	Wed 2/1/08 252		
g. Street lighting at Chi Ho Road	92 days Sat 1/11/08	Sat 31/1/09 264SS,246		
h. Irrigation pipe at Chi Ho Road	92 days Sat 1/11/08	Sat 31/1/09 264SS		
6. Drainage Management Plan (Ch810 to Ch850)	77 days Thu 12/7/07	Wed 26/9/07		
257 6.1 Submission of DMPs 258 6.2 Comments by the Engineer	1 day Thu 12/7/07	Thu 12/7/07		
6.2 Comments by the Engineer 59 6.3 Implementation of DMP	14 days Fri 13/7/07 3 days Mon 24/9/07	Thu 26/7/07 257 Wed 26/9/07 258SF		
60 7. Box Culvert and Channel	3 days Mon 24/9/07 550 days Wed 1/8/07	Sat 31/1/09		
61 7.1 Box Culvert BC2-1	550 days Wed 1/8/07	Sat 31/1/09		
a. Ch0-Ch15 (Bay 1 and Outlet)	94 days Thu 30/10/08	Sat 31/1/09		
Remove road pavement and expose existing utiliti		Fri 31/10/08 243,324		
64 Excavation	9 days Sat 1/11/08	Sun 9/11/08 263		
65 Granular Bedding	5 days Mon 10/11/08	Fri 14/11/08 264		
Base Slab	21 days Sat 15/11/08	Fri 5/12/08 265		
267 Wall and Deck 268 Curing	31 days Sat 6/12/08	Mon 5/1/09 266		
Curing 269 Trench Backfill	14 days Tue 6/1/09 3 days Tue 20/1/09	Mon 19/1/09 267 Thu 22/1/09 268,390FF,391FF,392FF,395FF,5		
209 Trench Backfill 270 Reinstatement of Chi Ho Road	6 days Mon 26/1/09	Sat 31/1/09 254FF,255FF,308		
271 b. Temporary Bund in AFCD Pond	87 days Wed 1/8/07	Fri 26/10/07		
272 1. Proposal	31 days Wed 1/8/07	Fri 31/8/07		
	· · · · · · · · · · · · · · · · · · ·	<u> </u>		
Project: PROGRAMME OF WORKS Task	Progres	s Summary	Rolled Up Critical Task Rolled Up Progress External Tasks Group By Sun	mary
critical Task	Milestor	ne Rolled Up	ask Rolled Up Milestone Split Project Summary Deadline	
Chucai rask	winestor	io Rolled Up	ask Project Summary Deadline	

					1							
ID	Task Name	Duration	Start	Finish	Predecessors			lar		Apr		May
274	3.Modified chain link fence	11 days	Mon 1/10/07	Thu 11/10/07	273		יו יו		1	ויקר		iviay
275	4. Construction of temporary bund	15 days	Fri 12/10/07	Fri 26/10/07	274							
276	c. Ch15-Ch32 (Bays 2 & 3)	103 days	Sat 27/10/07	Wed 6/2/08								
277	Excavation	25 days	Sat 27/10/07	Tue 20/11/07	275							
278	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07	277							
279	Base Slab	18 days	Wed 28/11/07	Sat 15/12/07	278							
280	Wall and Deck	32 days	Sun 16/12/07	Wed 16/1/08	279							
281	Curing	14 days	Thu 17/1/08	Wed 30/1/08	280							
282	Trench Backfill	7 days	Thu 31/1/08	Wed 6/2/08								
283	d. Ch32-Ch88 (Bays 4 - 8)	137 days	Wed 7/5/08	Sat 20/9/08								
284	Excavation	50 days	Wed 7/5/08	Wed 25/6/08							0 days	
285	Granular Bedding	60 days	Sat 17/5/08		284SS+10 days							
286	Base Slab	75 days	Fri 23/5/08		285SS+6 days						T	0 days
287	Wall and Deck											0 days
		87 days	Sun 1/6/08		286SS+9 days							
288	Curing	85 days	Tue 17/6/08		287SS+16 days							
289	Trench Backfill	82 days	Tue 1/7/08		288SS+14 days							
290	7.2 Channel	339 days	Thu 3/1/08	Sat 6/12/08								
291	a. Ch840-Ch844 (Bay 56b)	91 days	Thu 3/1/08	Wed 2/4/08								
292	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08								
293	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	292							
294	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	293							
295	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	294			L				
296	Curing	14 days	Sun 16/3/08	Sat 29/3/08	295		281 days	•	<u> </u>			
297	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	296			281 da	iys			
298	b. Demolition of existing crossing	20 days	Thu 11/9/08	Tue 30/9/08	311							
299	c. Ch800-840 (Bay 56a)	67 days	Wed 1/10/08	Sat 6/12/08								
300	Excavation (including contamination materials)	12 days	Wed 1/10/08	Sun 12/10/08	298							
301	Granular Bedding	3 days	Mon 13/10/08	Wed 15/10/08								
302	Base Slab	12 days	Thu 16/10/08	Mon 27/10/08								
303	Wall and Deck	22 days	Tue 28/10/08	Tue 18/11/08								
304	Curing	22 days 26 days	Fri 7/11/08		303SS+10 days							
305	Trench Backfill	16 days	Fri 21/11/08		304SS+14 days							
305												
	8. Filling in Platform	142 days	Sat 6/9/08	Sun 25/1/09								
307	8.1 Box Culvert	127 days	Sun 21/9/08	Sun 25/1/09								
308	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Fri 23/1/09	Sun 25/1/09								
309	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Sun 21/9/08		289,248FF,249FF,250FF	-						
310	8.2 Channel	112 days	Sat 6/9/08	Fri 26/12/08								
311	a. Ch840-Ch844 (Bay 56b)	5 days	Sat 6/9/08	Wed 10/9/08								
312	b. Ch800-840 (Bay 56a)	20 days	Sun 7/12/08	Fri 26/12/08	305							
313	9. Geotechnical Instrumentation for CLP Pylon	4 days	Mon 24/9/07	Thu 27/9/07								
314	10. Drainage works (except Bays 56a and 56b)	45 days	Wed 1/10/08	Fri 14/11/08								
315	a. storm drain with manhole	30 days	Wed 1/10/08	Thu 30/10/08	309							
316	b. surface drain	45 days	Wed 1/10/08	Fri 14/11/08	309							
317	11. Water supply pipeworks	60 days	Fri 31/10/08	Mon 29/12/08	315SS+30 days							
318	12. Roads and paving (except Bays 56a and 56b)	52 days	Fri 31/10/08	Sun 21/12/08	315							
319	13. Street furnitures / traffic sign / road marking (except I	Bay 52 days	Sun 30/11/08	Tue 20/1/09	318SS+30 days							
320	14. Landscape softworks / hardworks (except Bays 56a a		Thu 5/3/09	Wed 27/5/09			_					
321	15. Diversion of Village Vehicular Access to Bays 9 -11	1 day	Sat 15/3/08	Sat 15/3/08			52 days					
322	16. Road Diversion in Chi Ho Road	8 days	Wed 1/10/08	Wed 8/10/08			Π					
323	a. Construction of temporary road above Box Culvert	7 days	Wed 1/10/08	Tue 7/10/08								
324	b. Implementation of road diversion	1 day	Wed 8/10/08	Wed 8/10/08	323							
325												
326	B2. Portion 2	830 days	Fri 30/3/07	Mon 6/7/09								
327	1. Site clearance	90 days	Tue 14/8/07	Sun 11/11/07								
328	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,897,224,899							
329	2. Underground utilities detection	42 days	Tue 3/7/07	Mon 13/8/07								
330	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07								
331	2.2 trial trench excavtion & identification	14 days	Tue 31/7/07	Mon 13/8/07								
332	3. Utilities temporary diversion / protection	463 days	Fri 30/3/07	Fri 4/7/08								
333	a. WSD water main along village vehicular access	90 days		Mon 7/1/08								
334	b. Street lighting along village vehicular access	269 days		Fri 4/7/08								
335	c. PCCW along village vehicular access	269 days 245 days		Tue 10/6/08								
335	 d. CLP overhead cables / street lighting at CH 290 ~ CH 			Wed 27/6/07								
337	4. Geotechnical Instrumentation for AFCD	6 days		Tue 2/10/07								
338	5. Discussion with Pond Owner	39 days		Sat 8/9/07								
339	6. Box Culvert, Channel and Crossings	533 days	Sun 9/9/07	Sun 22/2/09								
340	a. Ch88-Ch120 (Bays 9 - 11)	63 days		Sun 22/2/09								
341	Excavation	21 days	Mon 22/12/08	Sun 11/1/09	313,337,318							
Project	PROGRAMME OF WORKS Task		Progr	ess	S	ummary		Rolled Up Critic	al Task	Rolled Up Progress	\$	External Tasks
Page: 5			Miles	one	R	olled Up Task		Rolled Up Miles	tone	Split		Project Summary
			inited inited									-,,



ID Tas	k Name	Duration	Start	Finish	Predecessors			Mar Apr May
343	Base Slab	15 days	Wed 7/1/09	Wed 21/1/09	342SS+6 days			
44	Wall and Deck	22 days	Wed 14/1/09		343SS+7 days			
45	Curing	25 days	Sun 25/1/09		344SS+11 days			
6 7	Trench Backfill	15 days	Sun 8/2/09		345SS+14 days	_		
8	b. Ch120-Ch205 (Bay 12 - Bay 17) Haul access	111 days 16 days	Sun 23/9/07 Sun 23/9/07	Fri 11/1/08 Mon 8/10/07	356	_		
<u>}</u>	Excavation	46 days	Wed 10/10/07		337,331,348	_		
		-						
0	Granular Bedding	43 days	Sat 20/10/07		349SS+10 days	_		
1	Base Slab Wall and Deck	50 days	Fri 26/10/07		350SS+6 days			
3	Curing	53 days	Tue 6/11/07 Tue 13/11/07		351SS+11 days 352SS+7 days	_		
4	Trench Backfill	53 days 46 days	Tue 13/11/07 Tue 27/11/07		353SS+14 days,333FF	_		
5	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07	33300+14 days,33311	_		
6	Haul access	14 days	Sun 9/9/07	Sat 22/9/07	338	-		
7	Excavation	27 days	Sun 23/9/07	Fri 19/10/07		_		
8	Granular Bedding	23 days	Wed 3/10/07		357SS+10 days,356	-		
59	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	358SS+6 days	-		
50	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	359SS+11 days			
1	Curing	42 days	Sat 27/10/07	Fri 7/12/07	360SS+7 days			
62	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	361SS+14 days			
3	d. Ch310-Ch375 (Bay 25 - Bay 28)	257 days	Sun 23/9/07	Thu 5/6/08				
64	Haul access	15 days	Sun 23/9/07	Sun 7/10/07	356			
5	Excavation	40 days	Wed 27/2/08	Sun 6/4/08				
66	Granular Bedding	26 days	Sat 8/3/08		365SS+10 days	- 16 <mark>2</mark> d		
7	Base Slab	27 days	Fri 14/3/08		366SS+6 days		162 days	
68	Wall and Deck	30 days	Tue 25/3/08		367SS+11 days		L	162 days)
9	Curing	30 days	Tue 1/4/08		368SS+7 days			162 days
0	Trench Backfill	23 days	Tue 15/4/08		369SS+14 days	_		425 days)
2	Demolition of Existing crossing at Ch410	7 days	Fri 30/5/08	Thu 5/6/08	444			
3	e. Ch375-Ch413 (Bay 29 - Bay 31)	314 days	Mon 8/10/07	Sat 16/8/08	264			
3	Haul access Excavation	10 days 40 days	Mon 8/10/07 Fri 30/5/08	Wed 17/10/07 Tue 8/7/08		_		
4 '5	Granular Bedding	28 days	Mon 9/6/08		374SS+10 days			
76	Base Slab	29 days	Thu 19/6/08		375SS+10 days	_		
77	Wall and Deck	27 days	Thu 3/7/08		376SS+14 days	-		
78	Curing	34 days	Thu 10/7/08		377SS+7 days			
79	Trench Backfill	24 days	Thu 24/7/08		378SS+14 days	_		
30	f. Ch413-Ch436 (Bay 32)	87 days	Sat 1/3/08	Mon 26/5/08				
81	Flow diversion	7 days	Sat 1/3/08	Fri 7/3/08	382SS-7 days			
82	Excavation	15 days	Sat 8/3/08	Sat 22/3/08	442	0 d	lays	
83	Granular Bedding	4 days	Sun 23/3/08	Wed 26/3/08	382		↑	0 days
84	Base Slab	14 days	Thu 27/3/08	Wed 9/4/08	383			0 days
5	Wall and Deck	22 days	Thu 10/4/08	Thu 1/5/08				0 days
36	Curing	11 days		Mon 12/5/08				0 days
37	Trench Backfill	14 days	Tue 13/5/08	Mon 26/5/08	386			0 days
88	6. Gabion	354 days	Sat 8/12/07	Tue 25/11/08				
89 90	Ch120-Ch145.5 (Bay 12 - Bay 13)	19 days	Sat 5/1/08	Wed 23/1/08		_		
	Ch163 - Ch205 (Bay 15 - Bay 17)	103 days	Thu 24/1/08	Mon 5/5/08				
91 92	Ch205 - Ch310 (Bay 18 - Bay 24) Ch310 - Ch325, Ch348 - Ch375 (Bay 25, Bay 27 - Bay 28)	187 days 105 days	Sat 8/12/07 Thu 1/5/08	Wed 11/6/08 Wed 13/8/08		_		
92 93	Ch375 - CH413 (Bay29 - Bay31)	105 days	Wed 13/8/08	Tue 25/11/08		_		162 days
93	7. Granite Stone Facing	134 days	Sat 5/1/08	Sat 17/5/08				
95	Ch100 -Ch120 (Bay 10 - Bay 11)	134 days 11 days	Sat 5/1/08	Tue 15/1/08	353			
96	Ch325 - Ch348 (Bay 26)	6 days	Thu 1/5/08	Tue 6/5/08		_		261 days
97	Ch120 - Ch310 (Bay 12 - Bay 24)	16 days	Sat 5/1/08	Sun 20/1/08				
98	Ch413 - Ch436 (Bay 32)	5 days	Tue 13/5/08	Sat 17/5/08		$\dashv \top$		250 days
9	8. Ramp No. 3 (Ch356 - Ch405)	17 days	Thu 1/5/08	Sat 17/5/08		-		
0	General fill	5 days	Thu 1/5/08	Mon 5/5/08	369	-		415 days
1	Granular fill and blinding	2 days	Tue 6/5/08	Wed 7/5/08		-		415 days
2	Road slab	10 days	Thu 8/5/08	Sat 17/5/08	401	-		415 days
3	8. Filling in Platform	450 days	Tue 11/12/07	Wed 4/3/09				
4	8.1 Box Culvert BC2-1	10 days	Mon 23/2/09	Wed 4/3/09		\neg		
5	a. Ch88-Ch120 (Bay 9 - Bay 11)	10 days	Mon 23/2/09	Wed 4/3/09	346			
6	8.2 Channel and Crossing	264 days	Tue 11/12/07	Sat 30/8/08				
7	a. Ch120-Ch205 (Bay 12 - Bay 17)	28 days	Sat 12/1/08	Fri 8/2/08				
8	b. Ch205-Ch310 (Bay 18 - Bay 24)	28 days	Tue 11/12/07	Mon 7/1/08				
09	c. Ch310-Ch375 (Bay 25 - Bay 28)	31 days	Fri 6/6/08	Sun 6/7/08				
10	d. Ch375-Ch413 (Bay 29 - Bay 31)	14 days	Sun 17/8/08	Sat 30/8/08	379			
							_	Rolled Up Critical Task Rolled Up Progress

CHIT CHEUNG CONSTRUCTION CO., LTD. DATE : JAN 2008 Jun days 58 days 58 days 58 d _ 293 days Group By Summary Deadline

ID	Task Name	Duration	Start	Finish	Predecessors	Mar	Apr	May	
412	9.1 storm drain with manhole and headwall	463 days	Tue 18/12/07	Tue 24/3/09		Mar	Apr	Мау	
413	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Thu 5/3/09	Tue 24/3/09	405SS+10 days				
414	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Sat 19/1/08	Thu 7/2/08	407SS+7 days				
415	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Tue 18/12/07		408SS+7 days				
416	d. Ch310-Ch375 (Bay 25 - Bay 28)	20 days	Fri 13/6/08		409SS+7 days				
417	e. Ch375-Ch413 (Bay 29 - Bay 31)	25 days	Wed 27/8/08		410SS+10 days				
418 419	f. Ch413-Ch436 (Bay 32)	4 days	Tue 13/5/08	Fri 16/5/08				416 days	
419	9.2. surface drain a. Ch88-Ch 120 (Bay 9 - Bay 11)	432 days 10 days	Tue 8/1/08 Thu 5/3/09	Sat 14/3/09 Sat 14/3/09					
420	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/09					
422	c. Ch205-Ch310 (Bay 18 - Bay 24)	45 days	Tue 8/1/08	Thu 21/2/08					
423	d. Ch310-Ch375 (Bay 25 - Bay 28)	35 days	Mon 7/7/08	Sun 10/8/08					
424	e. Ch375-Ch413 (Bay 29 - Bay 31)	10 days	Sun 31/8/08	Tue 9/9/08	410				
425	10. Water supply pipeworks	60 days	Sat 4/4/09	Tue 2/6/09	413SS+30 days				
426	11. Roads and paving	529 days	Tue 8/1/08	Fri 19/6/09					
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Wed 3/6/09		414,425,405,413				
428	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08		[_]			
429 430	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Tue 8/1/08	Tue 26/2/08					
430	d. Ch310-Ch436 (Bay 25 - Bay 32)	58 days	Sun 31/8/08	Mon 27/10/08	410				
431	12. Road furnitures	516 days	Thu 7/2/08	Mon 6/7/09					
432	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Sat 20/6/09	Mon 6/7/09					
433	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Mon 10/3/08		428SS+30 days	1-days)			
434	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Thu 7/2/08		429SS+30 days				
435 436	d. Ch310-Ch436 (Bay 25 - Bay 32) 13. Landscape softworks / hardworks	33 days 452 days	Tue 30/9/08 Tue 8/1/08	Fri 3/4/09	430SS+30 days				
437	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Thu 5/3/09	Fri 3/4/09					
438	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Sat 9/2/08	Fri 18/4/08					
439	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Tue 8/1/08	Sun 9/3/08	422SS				
440	d. Ch310-Ch436 (Bay 25 - Bay 32)	72 days	Sun 31/8/08	Mon 10/11/08	423SS,424SS				
441	14. Temporary Village Access on Bay 9 - Bay 11	10 days	Wed 5/3/08	Fri 14/3/08	321SS-10 days				
442	15. Temporary Village Access on Bay 29 - Bay 31	10 days	Wed 27/2/08	Fri 7/3/08					↓
443	16. Temporary Village Access on Bay 32	3 days	Tue 27/5/08	Thu 29/5/08					58 days
444	17. Diversion of Existing Traffic to Cheung Chun San Tsuen	7 days	Fri 23/5/08	Thu 29/5/08	374SS-7 days			293 days	
445 446	B3. Portion 3	726 days	Thu 12/7/07	Mon 6/7/09					
440	1. Site clearance	90 days	Sat 15/9/07	Thu 13/12/07					
448	1.1 General clearance	90 days	Sat 15/9/07		17,224,903,905				
449	2. Underground utilities detection	42 days	Tue 31/7/07	Mon 10/9/07					
450	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	330				
451	2.2 trial trench excavtion & identification	14 days	Tue 28/8/07	Mon 10/9/07	450				
452	3. Utilities temporary diversion / protection	153 days	Sat 1/11/08	Thu 2/4/09					
453	a. WSD water main along village access at CH 1150	153 days	Sat 1/11/08		529SS,534FF+60 days				
454	 b. Street lighting along village access at CH 1150 	93 days	Sat 1/11/08		529SS,534FF				
455 456	c. PCCW along village access at CH 1150	153 days	Sat 1/11/08		529SS,534FF+60 days				
456	4. Drainage Management Plan 4.1 Submission of DMPs	706 days	Thu 12/7/07 Thu 12/7/07	Tue 16/6/09 Thu 12/7/07					
457	4.1 Submission of DMPs 4.2 Comments by the Engineer	1 day 14 days	Fri 13/7/07	Thu 12/7/07 Thu 26/7/07					
459	4.2 Comments by the Engineer 4.3 Implementation of DMP	659 days	Tue 28/8/07	Tue 16/6/09					
460	5. Channel and Crossings	633 days	Sat 28/7/07	Mon 20/4/09					
461	a. Ch436-Ch535 (Bay 33 - Bay 39)	176 days	Fri 9/5/08	Fri 31/10/08					
462	Haul access	6 days	Tue 13/5/08	Sun 18/5/08	387SS			0 days	
463	Flow diversion	10 days	Fri 9/5/08		464SS-10 days			0 days	
464	Excavation (including contamination material)	56 days	Mon 19/5/08	Sun 13/7/08				0 days	
465	Granular Bedding	80 days	Wed 18/6/08		464SS+30 days			†	
466	Base Slab	82 days	Sat 28/6/08		465SS+10 days				
467 468	Wall and Deck	85 days	Sat 12/7/08 Sat 19/7/08		466SS+14 days				
	Curing	92 days			467SS+7 days				
469	Trench Backfill	91 days	Sat 2/8/08		468SS+14 days				
470	b. Ch535-Ch625 (Bay 40 - Bay 45)	559 days	Sat 28/7/07	Thu 5/2/09					
471 472	Haul access Flow diversion	15 days	Sat 28/7/07	Sat 11/8/07					
472	Excavation (including contamination material)	10 days 32 days	Sun 2/11/08 Sat 1/11/08	Tue 11/11/08 Tue 2/12/08	473SS-10 days				
473	Granular Bedding	41 days	Tue 11/11/08		473SS+10 days				
475	Base Slab	45 days	Mon 17/11/08		474SS+6 days				
476	Wall and Deck	48 days	Fri 28/11/08		475SS+11 days				
477	Curing	55 days	Fri 5/12/08		476SS+7 days				
478	Trench Backfill	49 days	Fri 19/12/08	Thu 5/2/09	477SS+14 days				
479	c. Ch625-Ch738 (Bay 46 - Bay 53)	295 days	Sun 12/8/07	Sun 1/6/08					
			Droct		Summary	Rolled Up Critical Task	Rolled Up Progress	External Tasks	
	T PROGRAMME OF WORKS		Progre						
i aye.	Critical Task		Milest	one	Rolled Up	Rolled Up Milestone	Split	Project Summary	

		CHIT CHEUNG CONS	TRUCTION CO., LTD. DATE : JAN 2008
_		Jun	
		369-days)	
<u> </u>			
		0 days	
		0 days	
	Grou	p By Summary	
	Dead		

PROGRAMME OF WORKS - RP09

	Stage 1, Phase 2B - Cheung Chun San Tsu									
	Task Name	Duration	Start	Finish	Predecessors					
31	Flow diversion	10 days	Tue 12/2/08		482SS-10 days	Mar	Apr	May		Jun
2	Excavation (including contamination material)	49 days	Fri 22/2/08	Thu 21/2/08						
	Granular Bedding	45 days	Mon 3/3/08		482SS+10 days	ys)				
	Base Slab	50 days	Sun 9/3/08	Sun 27/4/08	483SS+6 days	160-days				
	Wall and Deck	53 days	Thu 20/3/08	Sun 11/5/08	484SS+11 days	160 days)				
	Curing	60 days	Thu 27/3/08		485SS+7 days	160-days			h	
	Trench Backfill	53 days	Thu 10/4/08		486SS+14 days	282	days			Ъ
	d. Ch738-Ch800 (Bay 54 - Bay 55)	174 days	Sat 1/9/07	Thu 21/2/08	400	-				
	Haul access Flow diversion	6 days 10 days	Sat 1/9/07 Sat 17/11/07	Thu 6/9/07 Mon 26/11/07	480 491SS-10 days					
	Excavation (including contamination material)	38 days	Thu 1/11/07		448SS+10 days,451,903,489,226	-				
		-	Sun 11/11/07		491SS+10 days	-				
	Granular Bedding Base Slab	34 days 49 days	Sat 17/11/07		49133+10 days 492SS+6 days	-				
	Wall and Deck	62 days	Wed 28/11/07		493SS+11 days	-				
	Curing	69 days	Wed 5/12/07		494SS+7 days					
	Trench Backfill	65 days	Wed 19/12/07	Thu 21/2/08	495SS+14 days	-				
j	e. Ch844-Ch925 (Bay 56c - Bay 59)	365 days	Fri 7/9/07	Fri 5/9/08						
	Haul access	10 days	Fri 7/9/07	Sun 16/9/07		1				
_	Flow diversion	10 days	Sun 6/7/08		500SS-10 days	-		•		
_	Excavation (including contamination material) Granular Bedding	66 days 64 days	Tue 22/4/08 Fri 2/5/08	Thu 26/6/08 Fri 4/7/08	498,514 500SS+10 days	-	118 days	118 days		
	Base Slab	79 days	Thu 8/5/08		501SS+6 days	-		118 days		
1	Wall and Deck	82 days	Mon 19/5/08		502SS+11 days	-		- 110 days	•	
_	Curing	89 days	Mon 26/5/08		503SS+7 days	-			118 days	
	Trench Backfill	89 days	Mon 9/6/08	Fri 5/9/08	504SS+14 days					125 days
	f. Ch925-Ch1038 (Bay 60 - Bay 66)	218 days	Mon 17/9/07	Mon 21/4/08						
	Haul access	10 days	Mon 17/9/07	Wed 26/9/07		_				
	Flow diversion Excavation and Handling of Type 3 Contaminated Mat	10 days	Wed 10/10/07		509SS-10 days	-				
	Granular Bedding	116 days 116 days	Sat 20/10/07 Tue 30/10/07	Tue 12/2/08 Eri 22/2/08	509SS+10 days					
	Base Slab	127 days	Mon 5/11/07		510SS+6 days					
	Wall and Deck	130 days	Fri 16/11/07		511SS+11 days					
	Curing	137 days	Fri 23/11/07	Mon 7/4/08	512SS+7 days		Ъ			
	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	513SS+14 days			-		
	f. Ch1038-Ch1146 (Bay 67 - Bay 71)	572 days	Thu 27/9/07	Mon 20/4/09						
_	Haul access	5 days	Thu 27/9/07	Mon 1/10/07		-				
	Flow diversion Excavation and Handling of Type 3 Contaminated	10 days 33 days	Fri 23/1/09 Mon 2/2/09	Sun 1/2/09 Fri 6/3/09	518SS-10 days					
	Material									
	Granular Bedding Base Slab	29 days 30 days	Thu 12/2/09 Wed 18/2/09		518SS+10 days 519SS+6 days	-				
	Wall and Deck	34 days	Sun 1/3/09		520SS+11 days	-				
	Curing	41 days	Sun 8/3/09		521SS+7 days	-				
	Trench Backfill	30 days	Sun 22/3/09		522SS+14 days	-				
	g. Ch1146-Ch1330 (Bay 72 - Bay 84)	108 days	Fri 17/10/08	Sun 1/2/09						
j	Haul access	5 days	Fri 17/10/08		529SS-15 days					
	Flow diversion	10 days	Wed 22/10/08		529SS-10 days	-				
	Demolition of existing crossing (Bay 72)	3 days	Sun 16/11/08	Tue 18/11/08		-				
_	Demolition of existing footbridge (Bay 83) Excavation and Handling of Type 3 Contaminated	7 days 57 days	Mon 17/11/08 Sat 1/11/08	Sun 23/11/08 Sat 27/12/08		-				
	Material	cr days	Sat 1/11/00	Jul 21/12/00						
	Granular Bedding	53 days	Tue 11/11/08	Fri 2/1/09	529SS+10 days	1				
	Base Slab	53 days	Mon 17/11/08	Thu 8/1/09	530SS+6 days					
	Wall and Deck	49 days	Fri 28/11/08		531SS+11 days					
	Curing	56 days	Fri 5/12/08		532SS+7 days	-				
	Trench Backfill	45 days	Fri 19/12/08	Sun 1/2/09	533SS+14 days					
	6. Gabion	491 days	Tue 12/2/08	Tue 16/6/09						
	a. Bay 33- Bay39 (Ch436-Ch535)	100 days	Fri 8/8/08		468SS+20 days					
	b. Bay 40 - Bay 45 (CH535-Ch625)	120 days	Thu 29/1/09	Thu 28/5/09						
	c. Bay 46 - Bay 53 (Ch625-Ch738)	247 days	Mon 26/5/08	Tue 27/1/09		-			160 days	
	d. Bay 54 - Bay 55 (Ch738-Ch800)	37 days	Tue 12/2/08	Wed 19/3/08	495					
	e. Bay 56c - Bay 59 (Ch844-Ch925)	200 days	Sat 23/8/08	Tue 10/3/09			Ļ			
1	f. Bay 60 - Bay 66 (Ch925-Ch1038)	130 days	Tue 8/4/08	Fri 15/8/08		325 day	s			
	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	60 days	Sat 18/4/09	Tue 16/6/09		-				
_					033					
					495					
-	Bay 67 and Bay 69a (Ch1038 - Ch100)	23 days	Sat 18/4/09	Sun 10/5/09						
	h. Bay 72 - Bay 84 (Ch1146-Ch1330) 7. Granite Stone Facing Bay 54 to Bay 55 (Ch738 - Ch800) Bay 67 and Bay 69a (Ch1038 - Ch1108) PROGRAMME OF WORKS of 14 Task Critical Task	130 days 454 days 78 days 23 days	Fri 30/1/09 Tue 12/2/08 Tue 12/2/08 Sat 18/4/09 Progress Milestor	s	495	Rolled Up Critical Task	Rolled Up Progre	ess External Tasks Project Summary	_	Group By Summary

PROGRAMME OF WORKS - RP09 Contract No. : DC / 2006 / 02

ontract No. :	E OF WORKS - RP09 · DC / 2006 / 02 · Yuen Long, Kam Tin, Ngau Tam Mei and	Tin Shui Wai Drainage Improvements	CHIT CHEUNG CONSTRUCTION DATE
	Stage 1, Phase 2B - Cheung Chun San T	suen and Kam Tsin Wai	
Task Name		Duration Start Finish Predecessors	Mar Apr May Jun
	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days Fri 30/1/09 Thu 5/2/09 533	
j	8. Temp Crossing at Bay 71 (Ch1145)	86 days Mon 10/11/08 Tue 3/2/09	
	8.1 Construction	5 days Mon 10/11/08 Fri 14/11/08 529SS+9 days	
	8.2 Pesdestrian diversion 8.3 Demolition of Temp crossing	1 day Sat 15/11/08 Sat 15/11/08 549 2 days Mon 2/2/09 Tue 3/2/09 534	
	9. Ramp No. 2 (Ch752 - Ch800, Bay 55)	17 days Tue 12/2/08 Thu 28/2/08	
	General fill	5 days Tue 12/2/08 Sat 16/2/08 495	
	Granular fill and blinding	2 days Sun 17/2/08 Mon 18/2/08 553	
	Road slab	10 days Tue 19/2/08 Thu 28/2/08 554	
	10. Ramp No. 1 (Ch1052 - Ch1103, Bay 68) base slab	31 days Sat 18/4/09 Mon 18/5/09 12 days Sat 18/4/09 Wed 29/4/09 522,521SS+21 days	
	Wall	10 days Thu 30/4/09 Sat 9/5/09 557	
	General fill	5 days Sun 10/5/09 Thu 14/5/09 558	
	Granular fill and blinding	2 days Fri 15/5/09 Sat 16/5/09 559	
	Road slab	2 days Sun 17/5/09 Mon 18/5/09 560	
	11. Pedestrian Temporary Crossing at Bay 83 (Ch1306) 11.1 Construction	85 days Tue 11/11/08 Tue 3/2/09 5 days Tue 11/11/08 Sat 15/11/08 529SS+10 days	
	11.2 Pedestrian diversion	Sodays Tue 11/11/08 Sat 15/11/08 52955+10 days 1 day Sun 16/11/08 Sun 16/11/08 563	
	11.3 Demolition of Temp crossing	2 days Mon 2/2/09 Tue 3/2/09 534	
<u> </u>	12. Retaining Wall RW1 (Ch430-Ch490)	109 days Sat 10/11/07 Tue 26/2/08	
	Excavation	26 days Sat 10/11/07 Wed 5/12/07 618	
]	Granular bedding Base slab	7 days Thu 6/12/07 Wed 12/12/07 567 24 days Thu 13/12/07 Sat 5/1/08 568	
-	Wall	24 days Thu 13/12/07 Sat 5/1/08 568 26 days Sun 6/1/08 Thu 31/1/08 569	
-	Curing	14 days Fri 1/2/08 Thu 14/2/08 570	
	Backfilling	12 days Fri 15/2/08 Tue 26/2/08 571	
	13. Filling in Platform	434 days Fri 22/2/08 Thu 30/4/09	
	a. Bay 33- Bay39 (Ch436-Ch535) b. Bay 40 - Bay 45 (CH535-Ch625)	25 days Sat 1/11/08 Tue 25/11/08 469 28 days Fri 6/2/09 Thu 5/3/09 478	
	c. Bay 46 - Bay 53 (Ch625-Ch738)	28 days Mon 2/6/08 Sun 29/6/08 478	282 days
	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days Fri 22/2/08 Tue 11/3/08 496,555FF	
	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days Sat 6/9/08 Fri 26/9/08 505	
9	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days Tue 22/4/08 Sun 1/6/08 514	355 days
1	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	10 days Tue 21/4/09 Thu 30/4/09 523,551 14 days Mon 2/2/09 Sun 15/2/09 534	
2	h. Bay 72 - Bay 84 (Ch1146-Ch1330) 14. Drainage works	14 days Mon 2/2/09 Sun 15/2/09 534 469 days Mon 3/3/08 Sun 14/6/09 534	
3	14.1 storm drain with manhole	444 days Mon 3/3/08 Wed 20/5/09	
1	a. Bay 33- Bay39 (Ch436-Ch535)	30 days Tue 11/11/08 Wed 10/12/08 574SS+10 days	
5	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days Mon 16/2/09 Sat 7/3/09 575SS+10 days	
3	c. Bay 46 - Bay 53 (Ch625-Ch738) d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days Thu 12/6/08 Tue 1/7/08 576SS+10 days 20 days Mon 3/3/08 Sat 22/3/08 577SS+10 days	325 days)
	e. Bay 56c - Bay 59 (Ch844-Ch925)	20 days Mon 3/3/08 Sat 22/3/08 577SS+10 days 30 days Thu 27/11/08 Fri 26/12/08 578SS+10 days,312FF	
	f. Bay 60 - Bay 66 (Ch925-Ch1038)	60 days Fri 2/5/08 Mon 30/6/08 579SS+10 days	
	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	20 days Fri 1/5/09 Wed 20/5/09 580SS+10 days	
	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	20 days Thu 12/2/09 Tue 3/3/09 581SS+10 days,565	
	14.2. surface drain	460 days Wed 12/3/08 Sun 14/6/09	
3	a. Bay 33- Bay39 (Ch436-Ch535) b. Bay 40 - Bay 45 (CH535-Ch625)	45 days Wed 26/11/08 Fri 9/1/09 574 45 days Fri 6/3/09 Sun 19/4/09 575	
- -	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days Mon 30/6/08 Wed 13/8/08 576	282 days
;	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days Wed 12/3/08 Fri 25/4/08 577	392 days
	e. Bay 56c - Bay 59 (Ch844-Ch925)	45 days Sat 27/9/08 Mon 10/11/08 578	
	f. Bay 60 - Bay 66 (Ch925-Ch1038) g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days Mon 2/6/08 Wed 16/7/08 579 45 days Fri 1/5/09 Sun 14/6/09 580	355 days
	g. Bay 67 - Bay 71 (Cn1038-Cn1146) h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days Fri 1/5/09 Sun 14/6/09 580 45 days Mon 16/2/09 Wed 1/4/09 581	
1	15. Roads and paving	276 days Sat 27/9/08 Mon 29/6/09	
<u> </u>	a. Ch800-Ch881	60 days Sat 27/9/08 Tue 25/11/08 578	
	b. Ch881-CH1037	52 days Sat 27/12/08 Mon 16/2/09 602,588	
	c. CH1037-CH1165 16. Street furnitures / traffic sign / road marking	60 days Fri 1/5/09 Mon 29/6/09 580,453,454,455,561FF 253 days Mon 27/10/08 Mon 6/7/09 580,453,454,455,561FF	
	a. Ch800-Ch881	37 days Mon 27/10/08 Tue 2/12/08 602SS+30 days	
	b. Ch881-CH1037	37 days Mon 26/1/09 Tue 3/3/09 603SS+30 days	
<u> </u>	c. CH1037-CH1165	37 days Sun 31/5/09 Mon 6/7/09 604SS+30 days	
	17. Landscape softworks / hardworks	193 days Fri 26/12/08 Mon 6/7/09	
-	a. Bay 33- Bay 39 (Ch436-Ch535)	30 days Fri 26/12/08 Sat 24/1/09 593SS+30 days,584 45 days Sup 5/4/09 Tue 19/5/09 594SS+30 days,585	
	b. Bay 40 - Bay 45 (CH535-Ch625) c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days Sun 5/4/09 Tue 19/5/09 594SS+30 days,585 45 days Tue 24/2/09 Fri 10/4/09 613SF,586,595	
	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days Fri 10/4/09 Mon 25/5/09 614SF,587,596	
	e. Bay 56c - Bay 59 (Ch844-Ch925)	22 days Mon 25/5/09 Mon 15/6/09 615	
5	f. Bay 60 - Bay 66 (Ch925-Ch1038)	23 days Sat 2/5/09 Sun 24/5/09 617	
	ME OF WORKS Task	Progress Sun	Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

PROGRAMME OF WORKS - RP09 Contract No. : DC / 2006 / 02 Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

10	Taak Nama	Duratia	C1	Fi-i-b	Dradaaaaaa			
ID	Task Name	Duration	Start	Finish	Predecessors	Mar	Apr	Мау
616	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Sat 23/5/09	Mon 6/7/09	599SS+22 days		· · · ·	· · · ·
617	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Wed 18/3/09	Fri 1/5/09	600SS+30 days			
618	18. Lower down existing village access	9 days	Thu 1/11/07	Fri 9/11/07				
619	C. Section II of the Works	830 days	Fri 30/3/07	Mon 6/7/09				
620	C1. Portion 4	812 days	Fri 30/3/07	Thu 18/6/09				
621	1. Site clearance	14 days	Wed 26/9/07	Tue 9/10/07				
622	1.1 General clearance	14 days	Wed 26/9/07		225,36,909,911			
623	2. Temporary Traffic Management Scheme	60 days	Fri 30/3/07	Mon 28/5/07				
624	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07				
625	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18			
626	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	625			
627	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07				
628	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07				
629	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	628			7
630	3. Excavation Permits	520 days	Tue 29/5/07	Wed 29/10/08				
631	3.1 application and issue of permit (trial pits for utilities	60 days	Tue 29/5/07	Fri 27/7/07	626			
632	and site entrance in Kam Po Road) 3.2 application and issue of permits (for construction of	180 days	Sat 3/5/08	Wed 29/10/08	629		0 days	
	box culvert)						,-	
633	4. Underground utilities detection	43 days	Fri 29/6/07	Fri 10/8/07	005054			
634	4.1 utilities detection	28 days	Fri 29/6/07		635SF-1 day			
635	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07				
636	5. Utilities temporary diversion / protection	85 days	Sat 1/11/08	Sat 24/1/09				
637	a. WSD water main along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09 Sat 24/1/09				
638	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08					
639 640	c. DSD storm Drain 6. Drainage Management Plan	85 days	Sat 1/11/08 Fri 30/3/07	Sat 24/1/09 Mon 19/1/09	04033			
640 641		662 days						
641	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07 Fri 13/4/07	644			
642	6.2 Comments by the Engineer 6.3 Implementation of DMPs	14 days	Sat 31/3/07 Mon 24/11/08	Mon 19/1/09				
643	7. Box Culvert Ch0-Ch15 (Bay 1 and Outlet)	57 days	Thu 30/10/08	Sat 31/1/09				
645		94 days						
645	Remove road pavement and expose existing utilities Excavation	2 days	Thu 30/10/08 Sat 1/11/08	Sat 8/11/08	635,632,833			
647	Remove existing box culvert	8 days 14 days	Mon 10/11/08	Sun 23/11/08				
648	flow diversion	14 days	Sun 9/11/08	Sun 9/11/08				
649	Granular Bedding	5 days	Fri 14/11/08		647SS+4 days			
650	Base Slab	18 days	Wed 19/11/08	Sat 6/12/08	-			
651	Wall and Deck	30 days	Sun 7/12/08	Mon 5/1/09				
652	Curing	14 days	Tue 6/1/09	Mon 19/1/09				
653	Trench Backfill	5 days	Tue 20/1/09		652,637FF,638FF,639FF,647,764			
654	Reinstatement of Kam Po Road	7 days	Sun 25/1/09	Sat 31/1/09				
655	9. Modification to invert level of box culvert at Kam Sheung	45 days	Fri 9/1/09	Sun 22/2/09				
656 657	10. Fill in Platform	30 days	Mon 2/2/09	Tue 3/3/09				
657 658	11. Roads and paving	30 days	Wed 4/3/09	Thu 2/4/09				
659	12. Street furnitures	14 days	Fri 3/4/09	Thu 16/4/09				
660	13. Landscape softworks / hardworks	77 days	Fri 3/4/09	Thu 18/6/09	007			
661	C2. Portion 5 and 5C	920 dave	Fri 30/3/07	Mon 6/7/09				
662	1. Site clearance	830 days 90 days	Thu 20/9/07	Tue 18/12/07				
663	1. Site clearance 1.1 General clearance	90 days 90 days	Thu 20/9/07 Thu 20/9/07		36,225SS+75 days,915,917			
664	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07	55,22000 1 0 days, 310,317			
665	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07 Sun 27/5/07				
666	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07				
667	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	666			
668	3. Excavation Permits	741 days	Mon 28/5/07	Sat 6/6/09	007			
669	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	667			
670	3.2 application and issue of permits (for construction of	180 days	Tue 9/12/08	Sat 6/6/09	7FS-210 days			
671	permanent entrance) 4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07				
672	a. utilities detection	28 days	Fri 29/6/07	Thu 9/6/07	19			
673	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07				
674	5. Utilities temporary diversion / protection	553 days	Fri 10/8/07	Thu 12/2/09	, 21 E			
675	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07	673			
676	b. CLP overhead cables at CH 530 ~ CH 550	90 days	Fri 10/8/07	Wed 7/11/07				
677	c. CLP overhead cables at CH 670 ~ CH 690	90 days 90 days	Fri 10/8/07	Wed 7/11/07 Wed 7/11/07				
678	d. Gas main at Kam Sheung Road	84 days	Fri 21/11/08		714SS,719FF			
679	6. Drainage Management Plan	722 days	Fri 30/3/07	Fri 20/3/09				
680	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS			
681	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07				
					<u> </u>	L		
	PROGRAMME OF WORKS	_	Progr	ess	Summary	Rolled Up Critical Tas	k Rolled Up Progress	External Tasks
Project								
	0 of 14 Critical Task		Milest	one	Rolled Up 1	ask Rolled Up Milestone	Split	Project Summary

CHIT CHEUNG CONS	TRUCTION CO., LTD. DATE : JAN 2008
Jun	
Group By Summary Deadline	

Next An Joseph Nature Northware Nature Northware Nature Northware Nature Northware Nature Northware De La state 1960 Nature Northware 1960 Nature Northware 1960 Nature Northware De La state 1960 Nature Northware 1960 Nature Northware 1960 1960 De La state 1960 Nature Northware 1960 Nature Northware 1960 1960 De La state 1960 Nature Northware 1960 1960 1960 Control Control Northware 1960 1960 1960 1960 1960 De La state 1960 1960 1960 1960 1960 1960 De La state 1960	OGRAMME OF WOR ntract No. : DC / 2000 ntract Title : Yuen Lo Stage 1,		n Shui Wai Drainag Jen and Kam Tsin V	e Improvement /ai	S,	CHIT CHEUNG CONS
Name Autor Name Name <t< th=""><th>Task Name</th><th></th><th>Duration Start</th><th>Finish</th><th>Predecessors</th><th></th></t<>	Task Name		Duration Start	Finish	Predecessors	
P. A. H. Market Market Balage NAME NAME NAME P. M. H. M. Market NAME NAME NAME NAME M. M		montation of DMP				Mar Apr May Jun
National State National State National State - Val Colling, Ser. 19 Ross National State			-		70455,681	
Image: Product in the state of the		_	-			
National (14) mynether (14) mynethe			-		694	
Box 2008k From 100 km/sp Cox 2000k From 100 km/sp Cox 2000k From 100 km/sp Transmission From 100 km/sp Transmission <td></td> <td>diversion</td> <td>10 days Tue 1/1/0</td> <td>3 Thu 10/1/08</td> <td>687SS-10 days</td> <td></td>		diversion	10 days Tue 1/1/0	3 Thu 10/1/08	687SS-10 days	
No. No. No. No. No. No. No. No. No. No. A water The set of the se		, , , , , , , , , , , , , , , , , , ,	-			
Status Pate		-	-		,	
					-	
					-	
1 1.0000 200 201 X10 X10 V11 10.00 10.000 200 X10 X10 X101 1 10.000 200 X10 X10 X101 10.00 10.000 200 X10 X10 X101 1 10.000 200 X10 X10 X101 10.000 700 X10 X100 10.000 700 X101 1 10.000 200 X10 X10 X101 10.000 700 X100 700 X100 10.000 700 X100 700 X100 1 10.000 200 X10 X10 X100 700 X100 X1			-			
			-		daya	
Norwee Norwee<					703	
Burket DAAL (unit al. mind) Biolog Like Biolog Biolo			-			455 days
Carry Barry Barry Triffettion Triffettion Triffettion Carry Barry Ware Nickel Second (Mark) Second (Mark)	Exc	vation (including contamination material)	33 days Tue 8/4/0	3 Sat 10/5/08	694,692	
Walk of Sulf Walk Walk of Sulf			-		,	53-days)
Cong On Add The Gold Market All Market All Market Law State All Market All Ma			-			
Two-hold No. No. 1000 No. 2000					,	
I. Cantolizating (-1, -1, -1), -1) H		-	-			
Novo 2003 4.68 No 1000 74.700 76.76 74.700 76.76					10055+14 days	53 days)
National No. No. No. No. Backer/Linking under values 0.0000 No. No. <t< td=""><td></td><td></td><td>-</td><td></td><td>705SS-15 days</td><td></td></t<>			-		705SS-15 days	
Induction (add or softwards (add or softwar			-		,	
Source Training Privage			-			
Actualization Actualiz		, ,	-		705SS+10 days	
Gung Bigg The USAN Bigs 7 Aug The Charles M Bigs 7 Aug Bigs 7 Aug <td< td=""><td></td><td>Slab</td><td>78 days Thu 13/9/0</td><td>7 Thu 29/11/07</td><td>706SS+6 days</td><td></td></td<>		Slab	78 days Thu 13/9/0	7 Thu 29/11/07	706SS+6 days	
International Bis Age		and Deck	85 days Thu 27/9/0			
10.362 Cold Part 2011 50.500 Ph. 10000 Ph. 2010 10.462 Cold Part 2011 10.500 Ph. 20100 Ph. 20100 10.462 Cold Part 2011 10.500 Ph. 20100 Ph. 20100 Ph. 20100 10.462 Cold Part 2011 10.500 Ph. 20100 Ph. 20100 Ph. 20100 Ph. 20100 10.462 Cold Part 2011 10.500 Ph. 20100 Ph. 20100 Ph. 20100 Ph. 20100 10.462 Cold Part 2010 Ph. 20100 Ph. 20100 Ph. 20100 Ph. 20100 Ph. 20100 10.462 Cold Part 2010 Ph. 20100 Ph. 2010		-	-			
Heines 0.490 Tu 1000 T			-		709SS+14 days	
He skawen 17007 1702900 7102900 <t< td=""><td></td><td></td><td></td><td></td><td>670</td><td></td></t<>					670	
Landon Variantia Badrag 74 dag Mac 28400 Trict 2641 Guida Badrag 74 dag Mac 28400 Trict 2641 Base Ost 74 dag Mac 29500 Trict 2641 Na al Colum 74 dag Mac 29500 Trict 2641 Na al Colum 74 dag Mac 29500 Trict 2641 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Mac 29500 Trict 2643 Na al Colum 74 dag Trict 2643 Trict 2643 Na al Colum 74 dag Trict 2643 Trict 2643 Na al Colum 74 dag Trict 2643 Trict 2643 Na al Colum 74 dag Trict 2643 Trict 2643 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td>			-			
Orange Good 97 Good 56 J2 2000 Tu 2010			-			
Bab Silk 17 Bad Sur 201003 The 2010 T			-			
Ourg Rt dyn Sort (0110) The 2000 Tride dyn dyn - Cred ClobB (04 - 102 40) 16 dyn Var 1000 To		-			-	
Trave havenity 76 4gay 76 4gay 76 4gay 76 4gay e 0.0000-0000 (0) 14 4gay 76 4gay 76 4gay Heat access 3 4gay 76 7gay 76 17 7gay 76 4gay Heat access 3 4gay 76 7gay 76 17 7gay 76 4gay 76 4gay Heat access 3 4gay 76 7gay 76 4gay 76 4gay 76 4gay Box doubt 6 4gay 76 7gay 76 4gay 76 4gay 76 4gay Gravity Heat 6 4gay 76 7gay 76 4gay 76 4gay 76 4gay Gravity Heat 6 4gay 76 4gay 76 4gay 76 4gay 76 4gay Gravity Heat 6 4gay 6 4gay 76 4gay 77 4gay 76 4gay Gravity Heat 6 4gay 76 4gay 77 7gay 78 4gay 77 7gay Heat access 6 4gay 76 4gay 77 7gay 78 4gay 77 7gay Gravity Heat 6 4gay 76 4gay 77 7gay 76 4gay 77 7gay Gravator <	Wal	and Deck	75 days Sun 9/11/0	3 Thu 22/1/09	716SS+14 days,799	
• 0.084 0768 089,41 089,40 • 147 080 • 148 080 • 148 080 • Head Access • 569 • 17 7807 • 108 1000 • 128 080 • Fixed Access in policing communities manage of the policing communit co the p		9	82 days Sun 16/11/0	3 Thu 5/2/09	717SS+7 days	
Hair Dook 3 day Min 1980 Fit 1780 To 1000 Fit Dookship Includig Dooksmits Busingeling 6 day Min 1780 Weig 31000 Exceeding Includig Dooksmits Busingeling 6 day Min 1780 Weig 31000 Base Sab 61 day Weig 31000 Ta 4 (12) 78881 0 days Granuits Booking 61 day Weig 31000 Ta 4 (12) 78881 0 days Granuits Booking 61 day Weig 31000 Ta 4 (12) 78881 0 days Granuits Booking 70 day Weig 31000 Ta 4 (12) 78881 0 days Granuits Booking 70 day Weig 31000 Ta 4 (12) 78881 4 days Granuits Booking 61 day Sin 28800 Yeig 2000 7811 4 days Granuits Booking 61 day Sin 28800 Yeig 2000 7811 4 days Granuits Booking 61 day Sin 28800 Yeig 2000 7811 4 days Granuits Booking 61 day Sin 28800 Yeig 2000 7811 4 days Granuits Booking 61 day Fit 10000 Sin 28800 7811 4 days<			75 days Sun 30/11/0		,	
File State File Wind Ten 2000 Wind						
Example roluting basis 63 days Mu 17997 Two 23007 Set 1000 Bee 58 ds 63 days We3 3/0007 Two 1702 Set 56 days Bue 58 ds 63 days We3 3/0007 Two 1702 Set 56 days Curing 70 days We3 2/0007 Two 1708 Two 1708 Two 1708 Curing 70 days We3 2/0007 Two 1708 Two 1708 Two 1708 Curing 70 days We3 2/0007 Two 1708 Two 1708 Two 1708 Curing 63 days Sat 18907 We3 2/0007 Two 1708 Two 1708 Curing 63 days Sat 18907 We3 2/0007 Two 1708 Two 1708 Roads addition contraviolon matching 3 days Sat 18907 We3 2/0007 Two 1708 Curing 61 days Fat 180007 We3 2/0007 Two 1708 Two 1708 Curing 61 days Fat 180007 We3 2/0007 Two 1708 Two 1708 Curing 61 days Fat 180007 We3 2/0007 Two 1708 Tw3 2/000						
Granus Rading 95 day Nu 27047 Tu 20107 2983/10 days Biss Sib 95 day Wei 17007 Tu 19120 2985/10 days Granus Rading 97 day Wei 17007 Tu 19120 2985/11 days Granus Rading 97 day Wei 17007 Tu 19120 2985/11 days Granus Rading 97 day Wei 17007 Tu 19120 2985/11 days Granus Rading 97 day Wei 17007 Tu 19120 2985/11 days Granus Rading 97 day Wei 17007 Tu 19120 2985/11 days Granus Rading 97 day Tu 19120 2985/11 days 10 Granus Rading 98 day Wei 27007 710 70,203 Granus Rading 90 days Tu 28107 50,303 10 Granus Rading 91 days <t< td=""><td></td><td></td><td>-</td><td></td><td>723SS-10 days</td><td></td></t<>			-		723SS-10 days	
Base Bab 60 day Ned Y007 Tue 41207 AdS76 day Guing 70 day Ned Y0170 Tue 11207 AdS76 day Guing 70 day Ned Y0170 Tue 11207 AdS76 day Guing 70 day Ned Y0170 Tue 1160 AdS76 day Guing 70 day Ned Y0170 Tue 1160 AdS76 day Haid Access 56 day Shi 19807 Max 2000 721 Haid Access 56 day Shi 19807 Max 2000 721 Base Bab 66 day Fri 177207 7026 725 day General Roding contamination material 80 day Fri 177207 7265 day General Roding 60 day Fri 172070 726 day General Roding 60 day Fri 122007 728 day Genard Roding 60 day Fr		, ,	-		723SS+10 days	
Wail and Dack Gi dags Weit Vitront Ture (19/207) Ture (19/207) </td <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td>		-	-			
Curing 70 days Wei 24/007 Tus 1/100 2025:7-4 days Tranch Backlil 60 days Sei 10807 Tus 2010 2525:4-4 days L. Deldé Chi?S (Day 47 - Eay 54) 160 days Sei 10807 2325:4-1 days Head access 3 days Sei 20807 271 Base dimension 3 days Sei 20807 271 Gassuité footding 60 days Fi 191007 Main 2025 Gassuité footding 60 days Fi 191007 Sile 51 days Gassuité footding 60 days The 20100 Sile 20107 Juite days Sile 20107 7855:1 days Table 201 Gassuité footding Sile 2017 Table 201 785:1 days Hall acces Sile 30 day Thable 201 782:5 days						
1. Chose-Grift (Bay 47- Bay 54) 193 days Set 18907 Xen 271108 Had naces 5 days Set 18907 Mon 17007 7225-10 days Flow diversion 3 days Set 18907 Mon 17007 7225-10 days Excavation (incluing costamination material) 60 days Fin 71207 7033 Gennual Fedding 60 days Fin 71207 7225-10 days Set 18907 60 days Fin 221007 Mon 221008 Wall and Deck 60 days Thu 2261007 Sta 2540 days Outring 67 days Thu 161107 Sta 2540 days Thome BackHill 60 days Thu 226107 Sta 2540 days All and Deck 3 days Thu 228107 Sta 2540 days Thome BackHill 60 days Thu 228107 Sta 2540 days Find ducesion 3 days Thu 228007 Sta 2540 days Find ducesion 3 days Fin 4230 days 710 Sta 254007 Sta 254007 Sta 2540 days 720 Base Bla 3 days Fin 42300 days 7455-days <td></td> <td></td> <td>-</td> <td></td> <td>,</td> <td></td>			-		,	
Head access Sat 18007 Wed 2007 724 Poor deversion 63 days Sat 28007 Mon 1771207 722551-04 days Escenation (including contamination material) 66 days Tin 971007 Fin 1771007 722551-04 days Base Slato 60 days Tin 971007 Sat 71007 722551-04 days Fin 1771007 Canvalar Bedding 60 days Tin 971007 Sat 71007 722551-04 days Fin 177107 Canvalar Bedding 60 days Tin 971007 Sat 71007 722551-04 days Fin 177107 Curing Tin 97107 San 271007 728551-04 days Fin 177107 Sat 721007 Curing Tin 97 tays Tin 17107 San 271007 728551-04 days Fin 177107 Curing Tin 271 days Sat 25007 Tin 271007 72851-04 days Fin 1771007 Poor developing Sat 49 Tin 27108 San 277007 Fin 287007 Fin 287007 Canvalar Bedding Sat 49 Tin 28700 Fin 287007 Fin 287007 Fin 287007 Curing Sat 49<		h Backfill	63 days Wed 7/11/0	7 Tue 8/1/08	727SS+14 days	
Flor Star 280 007 Mon 11007 728 58 00 yr Excavation (including contamination material) 60 days Fn 171200 728 58 00 yr Ganaular Bodong 60 days Fn 1871007 Mon 1171207 73258 10 days Base Slab 60 days Fn 1871007 San 231207 73358 10 days Curing 67 days Thu 1281107 San 231207 73358 12 days Curing 67 days Thu 1281107 San 231207 73358 12 days Curing 67 days Thu 1281107 San 231207 73358 12 days Curing 67 days Thu 28007 700 Tax857 days Curing 67 days Thu 28007 San 237108 7858 - 14 days Curing 3 days Fn 122007 San 237108 7858 - 3 days Curing 3 days Fn 122008 7458 - 3 days Image: San 237108 Curing 3 days Fn 122008 7458 - 3 days Image: San 237108 F188 - 3 days Curing 33 days Fn 122008 F2458 + 14 days Image: San 2400						
Excavation including contamination material) 60 days Titu 91/1007 Fit 17/1207 728.93 Granular Bedding 60 days Fit 197/1007 Sou 92.007 Sou 92.007 Base Slab 60 days Titu 25/1007 Sou 92.007 Sou 92.007 Curing 60 days Titu 25/1007 Sou 92.000 7355-16 days Curing 60 days Titu 25/1007 Sou 92.000 7355-16 days Granular Bedding 60 days Titu 25/1007 Sou 92.000 7355-17 days Granular Bedding 60 days Titu 25/1007 Sou 92.000 7355-14 days Granular Bedding 60 days Titu 25/1007 Sou 92.000 7355-14 days Granular Bedding 3 days Titu 28/107 Sou 55-3 days Sou 92.000 Granular Bedding 27 days Titu 72/08 7455-6 days Sou 92.000 7455-6 days Granular Bedding 31 days Wed 13/08 Ked 22/08 Fit 124.000 7455-76 days Sou 92.000 Granular Bedding 27 days Titu 72/08 Titu 72/08 7455-76 days Sou 92.000 Fit 124.000 7455-76 days Sou 92.000			-			
Granular Bedding 60 days Fri 19/10/07 Xon 237/207 72258+10 days Base Siab 60 days Tru 25/10/07 Son 237/207 73258+6 days Curing 67 days Tru 15/11/07 Son 237/207 73258+7 days Trench Backill 60 days Tru 28/10/07 Son 227/100 73585+1 days Granular Deck 60 days Tru 28/10/07 Son 227/100 73585+7 days Granular Deck 60 days Tru 28/10/07 Son 227/100 73585+1 days Granular Deck 3 days Tru 28/10/07 Son 227/100 73585+1 days Granular Deck 3 days Tru 28/10/07 Son 227/100 7355 Granular Deck 3 days Tru 28/10/07 Son 227/100 730 Granular Decking 3 days Tru 28/10/07 Son 28/20/07 730 Granular Decking 31 days Ved 12/20/8 Fru 4/30/8 74555-0 days Granular Decking 31 days Ved 13/20/8 Fru 4/30/8 74555-0 days Granular Decking 31 days Ved 13/20/8 <			-			
Base Siah 60 days Tru 251007 Sun 27107 73353:6 days Wall and Deck 60 days Tru 811107 Sun 27108 73453:6 days Curing 67 days Tru 1511107 Sun 27108 73853:6 days Curing 67 days Tru 23807 7853:5 1 days Curing 60 days Tru 23807 San 250007 70 Haul accoss 3 days Tru 23807 San 250007 70 Flow diversion 30 days Kno 221008 7853:5 1 days Flow diversion San 250007 Granular Bodding 30 days Kno 221008 San 258007 70 Flow diversion San 258007 Granular Bodding 30 days Kno 221008 San 258007 70 Flow diversion San 258007 70 Granular Bodding 10 days Kno 221008 San 258007 70 Flow diversion Flow 23			-			
Mail and Deck 60 days Thu 0/1107 Sun 0/108 7485+14 days Curing 67 days Thu 1/1107 Sun 20/108 7885+14 days 0.0.675 Ch741 (Bay 65 - Bay 59) 243 days Thu 23807 San 21708 7805+11 days Mail access 3 days Thu 23807 San 21708 7815-3 days Flow dversion 3 days Thu 23807 San 21708 7145-3 days Granular Bedding 27 days Thu 27108 7415-3 days Granular Bedding 27 days Thu 27208 737.57 Granular Bedding 27 days Thu 27208 74155-3 days Mail and Deck 31 days Wed 13208 7455+1 days Granular Bedding 27 days Thi 1/108 7455+1 days Granular Bedding 31 days Wed 13208 Tass+1 days Houlan Deck						
Curing 67 days Thu 15/1107 Sun 20/108 736SS+14 days Thench Backilli 60 days Thu 22/1107 Sun 22/1108 736SS+14 days g. Ch675; Ch71 (Bay 55-Bay 59) 243 days Thu 23/807 Non 21/408 Sun 22/108 736SS+14 days Haul access 3 days Thu 23/807 Sun 21/108 745S-3 days Sun 22/108 741S-3 days Exervation (ncluding contamination material) 30 days Mon 22/108 741S-3 days Sun 22/807 730 Ganular Bedding 27 days Thu 72/80 Sun 22/708 741S-3 days Sun 22/108 741S-3 days Ganular Bedding 27 days Thu 72/80 Tu 24/208 Fin 14/308 742SS-6 days Sun 22/108 741SS-3 days Gunding 31 days Wed 13/208 Fin 14/308 742SS-6 days Sun 22/108 Fin 14/308 742SS-6 days Gunding 31 days Wed 13/208 Fin 14/308 742SS-6 days Sun 22/108 745SS+14 days Sun 22/108 Fin 14/408 745SS+14 days Sun 22/108 170 daye) Sun 22/108			-			
Trench Back/ll 60 days Thu 29/11/07 Sun 27/108 7 36SS 14 days G.Ch675-Ch741 (Bay 55-Bay 59) 243 days Thu 23/807 Mon 21/408 Haul access 3 days Thu 23/807 Xinon 21/408 Flow diversion 3 days Thi 23/807 Xinon 21/408 Flow diversion 3 days Thi 28/807 70 Granular Bedding Sino 21/408 Sun 27/108 Sun 27/108 Sun 27/108 Granular Bedding 13 days Mon 28/108 Tue 28/208 Syn 37/7 Granular Bedding 13 days Wed 13/208 Fil 14/308 74554 days Gunduar Bedding 13 days Wed 13/208 Fil 18/308 143554 days Gunduar Bedding 13 days Wed 13/208 Fil 18/308 143554 days Gunduar Bedding 13 days Wed 13/208 Fil 18/308 143554 days 143554 days Gunduar Bedding 13 days Wed 13/208 Fil 18/308 143554 days 1470 daye) 1470 daye) Gunduar Bedding 3 days Sun 23/808 Sun 23/808						
g. Ch675-Ch741 (Bay 55 - Bay 59) 243 days Thu 23807 Mon 214/08 Haul access 3 days Thu 23807 Sai 25/07 730 Flow diversion 3 days Fri 25/08 745 - 5 days Carnular Bodding 30 days Mon 214/08 Sun 27/108 7415 + 3 days Garnular Bodding 77 days Thu 7700 Tu 47007 7415 + 10 days Garnular Bodding 77 days Tu 47008 7415 + 10 days Tu 47008 Mall an Deck 31 days Wed 27/208 Fri 14708 7425 + 6 days Curing 38 days Wed 5708 Fri 14708 7455 + 14 days Curing 38 days Wed 19708 Mon 214/08 7455 + 14 days In Ch741-Ch797 (Bay 60-Bay 63) 211 days Sun 26/007 Sun 26/007 Sun 26/007 Haul access 3 days Sun 26/007 Tue 28/007 748,728 Tue 28/007 Tue 28/007 Flow diversion 3 days Sun 26/007 Sun 26/007 Sun 26/007 Sun 26/007 Sun 26/007 Flow diversion 3 da						
Flow diversion 3 day Fri 25/108 Sun 27/108 741 SS-3 days C Excavation (including contamination material) 30 days Mon 28/108 739, 73 C Granular Bedding 27 days Tue 42/08 741 SS+10 days Image: Contamination material) 741 SS+10 days G Granular Bedding 13 days Wed 13/208 Fni 14/208 742 SS+6 days G Wall and Deck 31 days Wed 13/208 Fni 14/208 742 SS+7 days G Sub Statistic 31 days Wed 13/208 Fni 14/208 742 SS+7 days G Curing 38 days Wed 53/308 Fni 14/208 745 SS+1 days Image: Statistic Image: Statistic G Curing 34 days Wed 53/308 Fni 14/208 745 SS+1 days Image: Statistic Image: Statistic Image: Statistic G Curing Statistic Statistic Statistic Statistic Statistic Image: Statistic Image: Statistic Image: Statistic Image: Statistic Image: Statistic Image: Statistic I			-			
A Cavation (including contamination material) 30 day Mon 28/1/08 Tue 26/208 739,737 A Granular Bedding 27 day Thu 7/2/08 Tue 4/3/08 7415\$±10 days Image: Slab 31 day Wed 13/208 Fri 14/3/08 7425\$±6 days Image: Slab 31 day Wed 12/208 Fri 12/3/08 7425\$±6 days Image: Slab Image: Sl		access	3 days Thu 23/8/0	7 Sat 25/8/07	730	
Granular Bedding 27 day Thu 7/200 Tu 4/300 741SS+10 days Base Slab 31 day Wed 13/208 Fri 14/308 742SS+6 days Image: Component and Component			-			
Base Slab 31 day Wed 13/208 Fri 14/308 742S+6 days Wall and Deck 31 day Wed 27/208 Fri 28/308 743S+14 days Curing 38 days Wed 5/308 Fri 11/408 744S+7 days Curing 38 days Wed 19/308 Mon 21/408 745S+14 days Mon 21/408 34 days Wed 19/308 Mon 21/408 745S+14 days Mon 21/408 Sun 26/807 Sun 26/807 Sun 26/807 Sun 26/807 Haul access 3 days Sun 26/807 Sun 28/108 709 Flow diversion 3 days Sun 26/807 Tue 28/807 739 Excavation (including contamination material) 20 days Wed 9/108 748,728						
Wall and Deck 31 days Wed 27/2/08 Fri 28/3/08 743S + 14 days Curing 38 days Wed 5/3/08 Fri 11/4/08 74SS + 7 days days Trench Backfill 34 days Wed 19/3/08 Mon 21/4/08 74SS + 14 days days h. Ch741-Ch797 (Bay 60 - Bay 63) 211 days Sun 26/8/07 Sun 23/3/08 rester 100 (SSS + 14 days) 170 days) Image: 100 (SSS + 100 (SSS		-	-		-	
Cuing 38 day Wed 5/308 Fri 11/40 74SS+7 days days 170 days 1 <th1< <="" td=""><td></td><td></td><td></td><td></td><td></td><td></td></th1<>						
Image: Constraint of the state of the s			-			dave)
h. Ch741-Ch797 (Bay 60 - Bay 63) 211 days Sun 26/8/07 Sun 23/3/08 Haul access 3 days Sun 26/8/07 Tue 28/8/07 Flow diversion 3 days Sun 61/08 Tue 81/08 Excavation (including contamination material) 20 days Wed 91/108 Mon 281/08 Test Flow diversion Sun 26/8/07 Sun 26/8/07		-				
Haul access 3 days Sun 26/8/07 Tue 28/8/07 739 Flow diversion 3 days Sun 61/08 Tue 81/08 750SS-3 days Excavation (including contamination material) 20 days Wed 91/08 Mon 281/08 748,728						
Excavation (including contamination material) 20 days Wed 9/1/08 Mon 28/1/08 748,728						
	Flow	diversion	3 days Sun 6/1/0	3 Tue 8/1/08	750SS-3 days	
Task Progress Summary Rolled Up Critical Task Science Summary	Exc	vation (including contamination material)	20 days Wed 9/1/0	Mon 28/1/08	748,728	
		Task	Pre	gress	Summar	Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

PROGRAMME OF WORKS - RP09 Contract No. : DC / 2006 / 02 Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

51	Granular Bedding	16 days	Sat 19/1/08	Sun 3/2/08	750SS+10 days	Mar		Apr	May
2									
	Base Slab	20 days	Fri 25/1/08		751SS+6 days				
3	Wall and Deck	20 days	Fri 8/2/08		752SS+14 days				
1	Curing	28 days	Fri 15/2/08	Thu 13/3/08	753SS+7 days				
5	Trench Backfill	24 days	Fri 29/2/08	Sun 23/3/08	754SS+14 days			∦	
6	8. Retaining Wall RW2 (Ch340-Ch350)	73 days	Mon 22/9/08	Wed 3/12/08					
57	Excavation	10 days	Mon 22/9/08	Wed 1/10/08	864	-			
58	Granular bedding	4 days	Thu 2/10/08	Sun 5/10/08	757	-			
59	Base slab	21 days	Mon 6/10/08	Sun 26/10/08	758	-			
50	Wall	14 days	Mon 27/10/08	Sun 9/11/08	759	-			
61	Curing	14 days	Mon 10/11/08	Sun 23/11/08		-			
62	Backfilling	10 days	Mon 24/11/08	Wed 3/12/08		-			
63	9. Gabion	466 days	Fri 4/1/08	Mon 13/4/09					
64	Bay 5- Bay 11 (Ch35-Ch130)	147 days	Tue 1/4/08	Mon 25/8/08		-	147 days		
65			Thu 17/7/08	Fri 17/10/08		_	147 days		
	Bay 12 - Bay 19 (Ch130-Ch233)	93 days							
66	Bay 20 - Bay 27 (Ch233-Ch340)	159 days	Fri 4/1/08	Tue 10/6/08					
67	Bay 37 - Bay 43 (Ch449-Ch549)	67 days	Fri 6/2/09	Mon 13/4/09					
68	Bay 48 - Bay 54 (Ch609-Ch675)	79 days	Mon 21/1/08	Tue 8/4/08					
69	Bay 55 - Bay 59 (Ch675-Ch741)	20 days	Sat 12/4/08	Thu 1/5/08			431	days	
70	Bay 60 - Bay 63 (Ch741-Ch797)	17 days	Fri 14/3/08	Sun 30/3/08	754	463 days			
71	10. Granite Stone Facing	318 days	Tue 1/4/08	Thu 12/2/09					
72	Bay 4 (Ch19.5-Ch35)	5 days	Tue 1/4/08	Sat 5/4/08			457 days		
73	Bay 12 - Bay 19 (Ch130-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	700				
74	Bay 37 - Bay 40 (Ch449-Ch504)	7 days	Fri 6/2/09	Thu 12/2/09	718				
75	Bay 41 - Bay 46 (Ch504-Ch586)	6 days	Fri 1/8/08	Wed 6/8/08	869				
76	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	775	-			
77	11. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)	39 days	Mon 21/1/08	Thu 28/2/08		-			
78	base slab	12 days	Mon 21/1/08	Fri 1/2/08	736	_			
79	Wall	10 days	Sat 2/2/08	Mon 11/2/08	778				
80	General fill	5 days	Tue 12/2/08	Sat 16/2/08		_			
81	Granular fill and blinding	5 days	Sun 17/2/08	Thu 21/2/08		_			
82	Road slab	7 days	Fri 22/2/08	Thu 28/2/08		_			
83	12. Ramp No. 2 (Ch516 - Ch537, Bay 42)	54 days	Fri 6/2/09	Tue 31/3/09		_			
84	base slab	12 days	Fri 6/2/09	Tue 17/2/09		_			
85	Wall	10 days	Wed 18/2/09	Fri 27/2/09		_			
86	General fill								
		20 days	Sat 28/2/09	Thu 19/3/09		_			
87	Granular fill and blinding	5 days	Fri 20/3/09	Tue 24/3/09					
88	Road slab	7 days	Wed 25/3/09	Tue 31/3/09					
89	13. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)	54 days	Thu 17/7/08	Mon 8/9/08					
90	base slab	12 days	Thu 17/7/08	Mon 28/7/08					
91	Wall	10 days	Tue 29/7/08	Thu 7/8/08					
92	General fill	20 days	Fri 8/8/08	Wed 27/8/08	791				
93	Granular fill and blinding	5 days	Thu 28/8/08	Mon 1/9/08	792				
94	Road slab	7 days	Tue 2/9/08	Mon 8/9/08	793				
95	14 Ramp No. 4 (Ch35 - Ch55, Bay5)	32 days	Tue 1/4/08	Fri 2/5/08					
96	General fill	7 days	Tue 1/4/08	Mon 7/4/08	691		323 days		·
97	Granular fill and blinding	8 days	Tue 8/4/08	Tue 15/4/08	796	-	323 days		
98	Sloping side wall and road slab	17 days	Wed 16/4/08	Fri 2/5/08	797	-		323 days	
99	15. Demolition of existing wing walls Ch449	14 days	Sun 26/10/08	Sat 8/11/08		1			
00	16. Filling in Platform	212 days	Mon 28/1/08	Tue 26/8/08					
01	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 24/7/08	Tue 26/8/08	692,701	-			
02	b. Bay 37 - Bay 55 (Ch449-Ch688)	54 days	Mon 28/1/08	Fri 21/3/08		-			
03	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Tue 22/4/08	Mon 28/4/08		_		170 days	
04	17. Drainage works	236 days	Thu 7/2/08	Mon 29/9/08					
04	17.1 storm drain with manhole and headwall	198 days	Thu 7/2/08	Fri 22/8/08					
05	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Sun 3/8/08		801SS+10 days	-			
06									
	b. Bay 37 - Bay 55 (Ch449-Ch688)	90 days	Thu 7/2/08		802SS+10 days				
08	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08				4:	20 days
09	17.2 surface drain	192 days	Sat 22/3/08	Mon 29/9/08		_			
10	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Wed 27/8/08	Mon 29/9/08		_			
11	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 22/3/08	Tue 20/5/08		262 days			
12	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08	803			17	70 days
13	18. Roads and paving	465 days	Sat 22/3/08	Mon 29/6/09					
14	a. Ch233 - Ch340	50 days	Mon 2/2/09	Mon 23/3/09	801,874SS-30 days,794,806				
15	b. Ch449 - Ch549	50 days	Mon 30/6/08	Mon 18/8/08	816,807				
16	c. Ch549 - Ch609	50 days	Sun 11/5/08	Sun 29/6/08	817	1			285 days
17	d. Ch609 - Ch688	50 days	Sat 22/3/08	Sat 10/5/08	802	285 days			
18	e. Permanent Entrance at Ch449	23 days	Sun 7/6/09	Mon 29/6/09	670	_			
19	19. Street furnitures	422 days	Sun 11/5/08	Mon 6/7/09		-			
					1			<u></u>	
	Task		Progres		Summary		d Up Critical Task	Rolled Up Progress	External Tasks

CHIT CHEUNG CONS	TRUCTION CO., LTD. DATE : JAN 2008
Jun	
285 days	
Group By Summary Deadline	

PROGRAMME OF WORKS - RP09 Contract No. : DC / 2006 / 02 Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

ID	Task Name	Duration	Start	Finish Pre	edecessors	Mar	I	Apr		May
820	a. Ch233 - Ch340	30 days	Tue 24/3/09	Wed 22/4/09 814	4	war		Арг	I	ividy
821	b. Ch449 - Ch549	30 days	Tue 19/8/08	Wed 17/9/08 81	5	-				
822	c. Ch549 - Ch609	30 days	Mon 30/6/08	Tue 29/7/08 816	6	-				\perp
823	d. Ch609 - Ch688	30 days	Sun 11/5/08	Mon 9/6/08 81	7	-			392 day	s
824	e. Permanent Entrance at Ch449	7 days	Tue 30/6/09	Mon 6/7/09 818	8,821	-				
825	20. Landscape softworks / hardworks	420 days	Tue 13/5/08	Mon 6/7/09		-				
826	a. Ch35 - Ch340	45 days	Sat 23/5/09	Mon 6/7/09 87	7,810	-				
827	b. Ch449 - Ch549	45 days	Thu 21/8/08	Sat 4/10/08 828	8,811	-				
828	c. Ch549 - Ch609	45 days	Mon 7/7/08	Wed 20/8/08 829	9	-				
829	d. Ch609 - Ch688	45 days	Fri 23/5/08	Sun 6/7/08 830	0					170 days
830	e. Ch688 - Ch797	10 days	Tue 13/5/08	Thu 22/5/08 812	2				170	days 🗖
831	21. Road Diversion in Kam Po Road	159 days	Wed 27/8/08	Sun 1/2/09						
832	a. Temp Decking above Bay 3 and temp road pavement	10 days	Wed 27/8/08	Fri 5/9/08 80	1					
833	b. Implementation of road diversion	1 day	Sat 6/9/08	Sat 6/9/08 833	2					
834	c. Removal of decking	1 day	Sun 1/2/09	Sun 1/2/09 654	4					
835										
836	D. Section III of the Works - Portions 5A1, 5A2 and 5B	830 days	Fri 30/3/07	Mon 6/7/09						
837	1. Site clearance	4 days	Mon 31/12/07	Thu 3/1/08						
838	1.1 General site clearance	4 days	Mon 31/12/07		1,923,927,929,933,935					
839	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07						
840	TTMS Proposal (trial pits for utilities and site entrance in Kam Sh	59 days	Fri 30/3/07	Sun 27/5/07						
841	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07 2S	S	1				
842	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07 84	1	-				
843	3. Excavation Permits	741 days	Mon 28/5/07	Sat 6/6/09		-				
844	3.1 application and issue of permit (trial pits for utilities and	60 days	Mon 28/5/07	Thu 26/7/07 842	2	1				
845	temporary site entrance in Kam Sheung Road) 3.2 application and issue of permits (for construction of	180 days	Tue 9/12/08	Sat 6/6/09 7F	S-210 davs					
	permanent entrance)									
846	4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07						
847	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07 20						
848	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07 844	4,847					
849	5. Utilities temporary diversion / protection	424 days	Thu 26/7/07	Sun 21/9/08		_				
850	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07						
851 852	b. Telephone line 6. Drainage Management Plan	87 days	Fri 27/6/08 Fri 30/3/07	Sun 21/9/08 859 Mon 19/1/09	955,864FF,848	_				
853	a Submission of DMPs	662 days		Fri 30/3/07 64	199	-				
854	b Comments by the Engineer	1 day 14 days	Fri 30/3/07 Sat 31/3/07	Fri 13/4/07 85		_				
855	c Implementation of DMP	558 days	Thu 12/7/07	Mon 19/1/09 854						
856	7. Channel - Ch340-Ch439 (Bay 28 - Bay 35)	277 days	Thu 20/12/07	Sun 21/9/08	4,04311					
857	Haul access	15 days	Thu 20/12/07	Thu 3/1/08 92	1 838FF	-[
858	Flow diversion	4 days	Fri 4/4/08	Mon 7/4/08 692		_	0 days			
859	Excavation (including contamination material)	70 days	Tue 8/4/08	Mon 16/6/08 692		_		ays		
860	Granular Bedding	70 days	Mon 28/4/08	Sun 6/7/08 859		-	04	ays	0 days)	
861	Base Slab	77 days	Mon 12/5/08	Sun 27/7/08 860		_			0 days	
862	Wall and Deck	77 days	Mon 2/6/08		1SS+21 days,866	-1				
863	Curing	84 days	Mon 9/6/08	Sun 31/8/08 862	-	-				
864	Trench Backfill	91 days	Mon 23/6/08	Sun 21/9/08 863		-				
865	8. Demolition of existing structures	147 days	Mon 12/5/08	Sun 5/10/08		-				
866	a. Existing wing walls Ch439 (Bay35)	14 days	Mon 12/5/08	Sun 25/5/08 86	1SS	-			7 da	ays
867	b. Existing footbridge at Ch350 (Bay 29)	14 days	Mon 22/9/08	Sun 5/10/08 864		-				-]
868	9. Gabion	124 days	Mon 1/9/08	Fri 2/1/09 863		-				
869	10. Granite Stone Facing	3 days	Tue 29/7/08	Thu 31/7/08 773		-				
870	11. Fill in Platform	90 days	Thu 4/12/08		4,762,867SF+14 days	-				
871	12. Drainage works	100 days	Sun 14/12/08	Mon 23/3/09		-				
872	a. storm drain with manhole	45 days	Sun 14/12/08	Tue 27/1/09 870	0SS+10 days	1				
873	b. surface drain	20 days	Wed 4/3/09	Mon 23/3/09 870		-				
874	13. Roads and paving	45 days	Wed 4/3/09	Fri 17/4/09 870	0,872	1				
875	14. Permanent Entrance and street furnitrures at Ch439	30 days	Sun 7/6/09	Mon 6/7/09 84	5,874	-				
876	15. Street furnitures / traffic sign / road marking	45 days	Fri 3/4/09	Sun 17/5/09 874	4SS+30 days	1				
877	16. Landscape softworks / hardworks	60 days	Tue 24/3/09	Fri 22/5/09 82	7,873					
878	17. Temp vehicular access in Portion 5A1	191 days	Wed 26/9/07	Thu 3/4/08						
879	a. Maintenance and operation	188 days	Wed 26/9/07	Mon 31/3/08 88	5					
880	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08 879	9		0 days			
881						7				
882	E. Section IV of the Works	20 days	Thu 6/9/07	Tue 25/9/07		1				
883	1. Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07 92		7				
884	2. Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07 883	3,11FF-1 day					
885	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07 884	4					
886										
			· · · · ·							
Project	: PROGRAMME OF WORKS Task		Progre	ess and the second seco	Summary		Rolled Up Critical Task	Rolled Up Progres	s E	kternal Tasks
	13 of 14 Critical Task		Milesto		Rolled Up	Task	Rolled Up Milestone	Split	Pr	oject Summary
Ĺ	Chucar Fask		wiiesto	710 710	Rolled Up	i uon		Spin	Pr	ojoor Ourninary

CHIT CHEUNG CONS	STRUCTION CO., LTD. DATE : JAN 2008
Jun	
342 days	
288 days)	
-0 days	
0 days)0 days)	
Group By Summary	

	Task Name	Duration	Start	Finish Predecessors	
╞	F. Section V of the Works - Preservation and protection to existing	804 days	Sat 31/3/07	Thu 11/6/09	Mar Apr May Jun
1	trees	-			
	1. Portion 1 1.1 Tree survey	789 days 14 days	Sat 31/3/07 Sat 31/3/07	Wed 27/5/09 Fri 13/4/07 15	
ł	1.2 Tree transplant	740 days	Sat 19/5/07	Wed 27/5/09	
ł	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07 889,213	
İ	b. To final location	90 days	Fri 27/2/09	Wed 27/5/09 320FF	
	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07 891SS	
ļ	2. Portion 2	454 days	Wed 30/5/07	Mon 25/8/08	
_	2.1 Tree survey 2.2 Tree transplant	14 days 440 days	Wed 30/5/07 Wed 13/6/07	Tue 12/6/07 16 Mon 25/8/08	
	a. To Temp holding nursery	62 days	Wed 13/6/07 Wed 13/6/07	Mon 13/8/07 895,213,227	
-	b. To final location	231 days	Tue 8/1/08	Mon 25/8/08 436SS	
	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07 897SS	
	3. Portion 3	697 days	Fri 29/6/07	Mon 25/5/09	
	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07 17	
	3.2 Tree transplant	683 days	Fri 13/7/07	Mon 25/5/09	
	a. To Temp holding nursery b. To final location	64 days 151 days	Fri 13/7/07 Fri 26/12/08	Fri 14/9/07 901,213 Mon 25/5/09 609SS	
	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07 903SS	
-	4. Portion 4	804 days	Sat 31/3/07	Thu 11/6/09	
	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07 18	
	4.2 Tree transplant	755 days	Sat 19/5/07	Thu 11/6/09	
	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07 907,213	
	b. To final location	70 days	Fri 3/4/09	Thu 11/6/09 659SS	
	4.3 Tree protection 5. Portion 5	62 days	Sat 19/5/07 Fri 29/6/07	Thu 19/7/07 909SS Wed 7/1/09	
_	5. Portion 5 5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07 19	
-	5.2 Tree transplant	545 days	Fri 13/7/07	Wed 7/1/09	
i	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07 913,213	
j	b. To final location	240 days	Tue 13/5/08	Wed 7/1/09 825SS	180 days
1	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07 915SS	
ļ	6. Portion 5A1	694 days	Fri 29/6/07	Fri 22/5/09	
	6.1 Tree survey 6.2 Tree transplant	7 days 687 days	Fri 29/6/07 Fri 6/7/07	Thu 5/7/07 20 Fri 22/5/09	
]	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07 919,213	
	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09 877SS	
	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07 921SS	
-	7. Portion 5A2	694 days	Fri 29/6/07	Fri 22/5/09	
	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07 21	
	7.2 Tree transplant	680 days	Fri 13/7/07	Fri 22/5/09 Wed 12/9/07 925,213	
	a. To Temp holding nursery b. To final location	62 days 60 days	Fri 13/7/07 Tue 24/3/09	Wed 12/9/07 925,213 Fri 22/5/09 877SS	
	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07 927SS	
	8. Portion 5B	585 days	Tue 16/10/07	Fri 22/5/09	
	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07 22	
	8.2 Tree transplant	571 days	Tue 30/10/07	Fri 22/5/09	
	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07 931,213	
	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09 877SS	
	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07 933SS	
	G. Berthing Area	148 days	Wed 12/9/07	Wed 6/2/08	
	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07 162	
	2. Removal of Loading Facilities	2 days	Tue 29/1/08	Wed 30/1/08 750,73	
	3. Reinstatement of Berthing Area	7 days	Thu 31/1/08	Wed 6/2/08 939	

Project: PROGRAMME OF WORKS	Task	Progress	Summary	Rolled Up Critical Task	Rolled Up Progress	External Tasks	
Page: 14 of 14	Critical Task	Milestone	Rolled Up Task	Rolled Up Milestone	Split	 Project Summary	

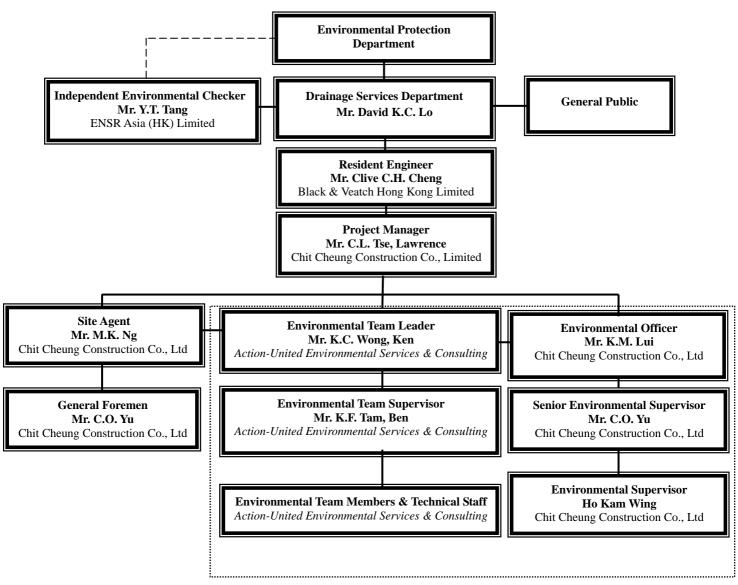


Appendix C

Environmental Organization Structure



Environmental Organization Structure



Contractor's Environmental Team (CET)



Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Employer Mr. David K.C. LO		2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	Ho Kam Wing	9016-0592	2479-1365
CCC	Safety Officer	Mr. SHEA Yan Keung	6086-4658	2479-1365
AUES	Environmental Team Leader	Ken Wong	2959-6059	2959-6079
AUES	Environmental Team Supervisor	Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Sylvie Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	David Yeung	2959-6059	2959-6079

Contact Details of Key Personnel

Legend: DSD (Employer) B&V (Engineer)

Drainage Services Department

Black & Veatch Hong Kong Limited Chit Cheung Construction Company Limited.

CCC (Contractor) ENSR (IEC) AUES (ET)

-

-

-

-

ENSR Asia (HK) Ltd.

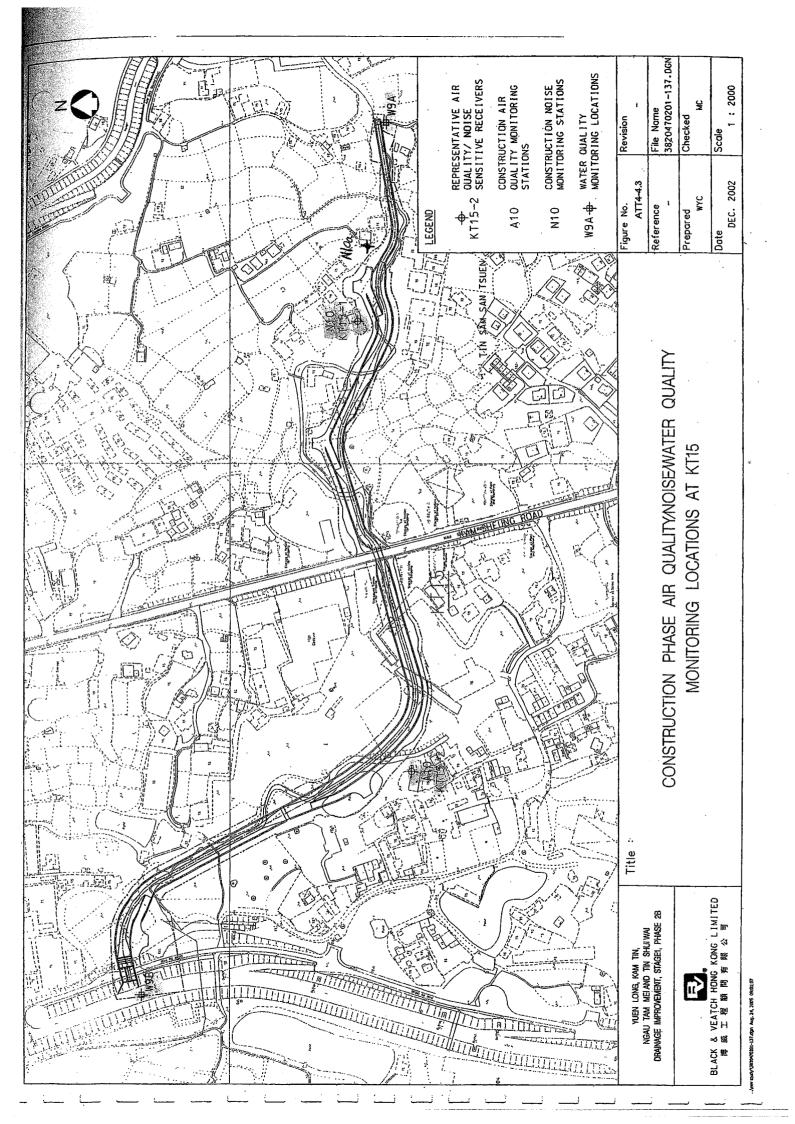
Action-United Environmental Services & Consulting

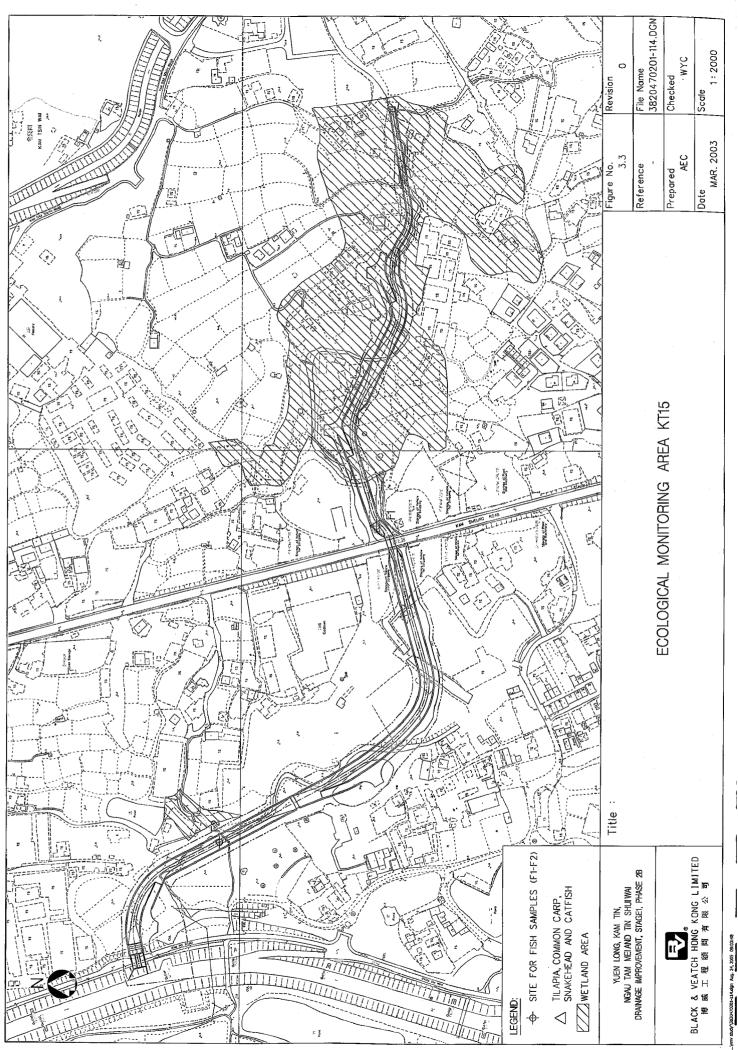


KT15 – Monthly EM&A Report for February 2008 (No. 8)

Appendix D

Locations of Designated Monitoring Station/Locations/Area







Appendix E

Event/Action Plan for Air Quality, Construction Noise, Stream Water Quality and Ecology



Event/Action Plan for Air Quality

EVENT		ACTION		
EVENI	ET	IEC	Engineer	Contractor
ACTION LEVEL				
1. Exeedance for one sample	 Identify source Inform IEC and Engineer Repeat measurement to confirm finding Increase monitoring frequency to daily 	 Check monitoring data submitted by ET Check Contractor's working method 	Notify Contractor	 Rectify any unacceptable practice Amend working methods if appropriate
2. Exeedance for two or more consecutive samples	 Identify source Inform IEC and Engineer Repeat measurements to confirm findings Increase monitoring frequency to daily Discuss with IEC and Contractor on remedial actions required If exceedance continues, arrange meeting with IEC and Engineer 7. If exceedance stops, cease additional monitoring 	 Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	 Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	 Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
LIMIT LEVEL				
1. Exeedance for one sample	 Identify source Inform Engineer and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 	 Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	 Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	 Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	 Notify IEC, Engineer and EPD Identify source Repeat measurement to confirm findings Increase monitoring frequency to daily Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results If exceedance stops, cease additional monitoring 	 Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures 	 Confirm receipt of notification of failure in writing Notify Contractor In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented Discuss amongst Environmental Team Leader and the Contractor potential remedial actions Ensure remedial measures properly implemented If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	 Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by the Engineer until the exceedance is abated



EVENT		ACTION		
	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL	 Notify Contractor and Engineer Carry out investigation Report the results of investigation to the IEC and Contractor Discuss with the Contractor and formulate remedial measures Increase monitoring frequency to check mitigation effectiveness 	 Review the analysed results submitted by ET Review the proposed remedial measures by the Contractor and advice the Engineer accordingly Supervise implementation of remedial measures 	 Confirm receipt of notification of failure in writing Notify Contractor Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures properly implemented 	 Submit noise mitigation proposals for remedial actions to IEC Implement the agreed proposals
LIMIT LEVEL	 Notify IEC, Engineer, EPD and Contractor Identify source Repeat measurement to confirm findings Increase monitoring frequency Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented Inform IEC, Engineer and EPD the causes & actions taken for the exceedances Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results If exceedance stops, cease additional monitoring 	 Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures 	 Confirm receipt of notification of failure in writing Notify Contractor Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures properly implemented If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	 Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event/Action Plan for Construction Noise



Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC and Contractor Repeat measurement on next day of exceedance 	 Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures 	 Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer Implement the agreed mitigation
ACTION LEVEL (being exceeded by more than one sampling day)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Repeat measurement on next day of exceedance Ensure mitigation measures are implemented Prepare to increase the monitoring frequency to daily Repeat measurement on next day of exceedance 	 Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures 	 Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented Assees the effectiveness of the implemented mitigation measures 	 measures Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	 Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Ensure mitigation measures are implemented Increase the monitoring frequency to daily until no exceedance of Limit level 	 Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures 	 Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	 Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, Engineer, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level 	 Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures 	 Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor 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 Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit level 	 Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days Implement the agreed mitigation measures; As directed by Engineer, to slow down or to stop all or part of the construction activities

 $\label{eq:loos} $$ Z:Jobs/2007/TCS00371 (DC-2006-02)/600/Monthly Rpt/KT15/2008/Feb 08/R0543r1.doc Action-United Environmental Services and Consulting $$ Provide the term of ter$



Event/Action Plan for Ecology

Event	ET Leader	IEC	Engineer	Contractor
Fauna The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline	 Notify IEC and Contractor; Check the position and state of the current works to identify the causes; Discuss mitigation measures with IEC and Contractor 	 Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures 	 Discuss with IEC on the proposed mitigation measures; Reach agreement on the mitigation measures to be implemented 	 Inform Engineer and confirm notification of the non-compliance in writing Take immediate action to avoid further exceedances; Check all plant and equipment and working methods, especially noise emanating ones Discuss with ET and IEC and propose mitigation measures to IEC and Engineer Implement the agreed mitigation measures



Appendix F

Equipment Calibration Certificates



KT15 – Monthly EM&A Report for February 2008 (No. 8)

Equipment Calibration List for Construction of Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai Project

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1	Air	Greasby Anderson GMWS2310 High Volume Sampler	07 Jan 08	07 Mar 08
2		EQ094 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
3		EQ096 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	17 Apr 07	17 Apr 08
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	17 Apr 07	17 Apr 08
6	Water	YSI 550A or YSI 85/10FT DO Meter	12 Jan 08	12 Apr 08
7		Hanna HI 98128	15 Jan 08	15 Apr 08
8		Hach 2100p	11 Jan 08	11 Apr 08
9		ATAGO Refractometer	11 Jan 08	11 Apr 08

Note: *Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location: Tin Sam San Tsuen Location ID: A10							Calibration: 7-Jan-08 ration Date: 7-Mar-08
							Technician: Mr. Ben Tam
					CONDIT	IONS	
	:	Sea Level			1018.4		Corrected Pressure (mm Hg) 763.8
		Tem	perature	(°C)	20.2		Temperature (K) 293
				C	ALIBRATIO	N ORIFICE	
				Mala	TIOOLI		
				Make-> Model->			Qstd Slope -> 1.94872 Qstd Intercept -> 0.00202
				Serial # ->			
					CALIBR	ATION	
Plate H20 (L) H2O (R) H20 Qstd			I	IC	LINEAR		
No. (in) (in) (in) (m3/min)			(chart)	corrected	REGRESSION		
18	4.4	4.4	8.8	1.537	43	43.81	Slope = 34.3383
13	3.2 3.2 6.4 1.311		36	36.68	Intercept = -9.0446		
10 7	2.4 1.5	2.4 1.5	4.8 3	1.135 0.897	28 22	28.53 22.42	Corr. coeff. = 0.9968
5	1.5	1.5	2.2	0.768	17	17.32	
	-			L1			FLOW RATE CHART
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]				·o]	50.00		
Qstd = star					40.00		y = 34.338x - 9.0446
IC = corrected chart response							
I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration (deg K) Pstd = actual pressure during calibration (mm Hg) For subsequent calculation of sampler flow:					se (I		
					ö 30.00		
				n (dea K)	res		
					00.05 Vectual chart response (IC)		•
				* flow			•
1/m((1)[Sq				r now:	Act		
.,((. ,[04		·/(:,:	,)] ~)		10.00	-	
m = sample	•						
b = sample		ot			0.00	-	
I = chart rea Tav = daily		omnorativ				.000	0.500 1.000 1.500 2.000
Tav = daily Pav = daily	•	•	e				Standard Flow Rate (m3/min)
. uv – ually	average	probbuie					

Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	Sibata
Serial No.	362337
Equipment Ref:	EQ094
Sensitivity	722 CPM

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Au Tau abutment next to Yoho Town Phase 2
Equipment Ref:	AM 7
Last Calibration Date:	20 May 2007

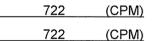
Equipment Calibration Results:

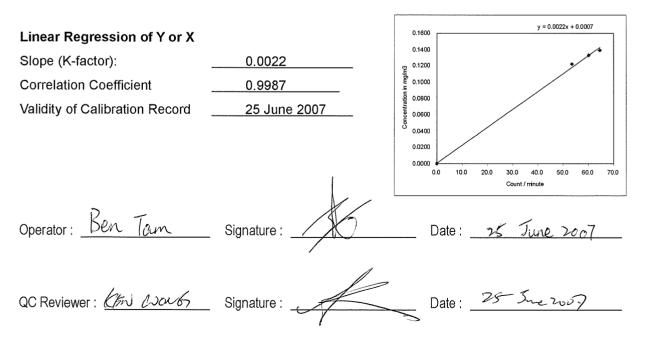
Calibration Date:

22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3613	60.2
1	14:15 ~ 15:15	31.7	77	0.139	3872	64.5
1	15:20 ~ 16:20	31.3	79	0.122	3204	53.4

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)







Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	Sibata
Serial No.	362359
Equipment Ref:	EQ096
Sensitivity	769 CPM

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	Au Tau abutment next to Yoho Town Phase 2
Equipment Ref:	AM 7
Last Calibration Date:	20 May 2007

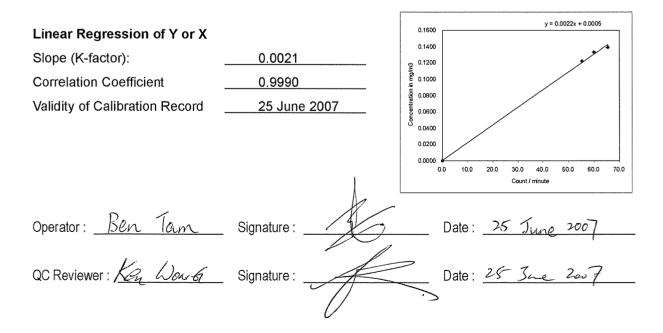
Equipment Calibration Results:

Calibration Date:

22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3603	60.1
1	14:15 ~ 15:15	31.7	77	0.139	3930	65.5
1	15:20 ~ 16:20	31.3	79	0.122	3311	55.2

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM) 709 (CPM)





Certificate No. : C071764

Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ017) Manufacturer : Bruel & Kjaer Model No. : 4231 Serial No. : 2292168

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071764.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 17 April 2007

Certified by : K Q Lee

The test equipment used for testing are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration and Testing Laboratory of Sun Creation Engineering Limited

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com



Certificate No. : C071765

Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ010) Manufacturer : Bruel & Kjaer Model No. : 2238 Serial No. : 2285721

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071765.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 17 April 2007

Certified by : K C Lee

The test equipment used for testing are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration and Testing Laboratory of Sun Creation Engineering Limited

c/o 4/F. Tsing Shan Wan Exchange Building, I Hing On Lane, Tuen Mun. New Territories, Hong Kong Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com



CERTIFICATE OF ANALYSIS

Batch: Date of Issue: Client: Client Reference:

HK0800538 14/01/2008 ACTION UNITED ENVIRO SERVICES

Calibration of DO System

Item :	YSI Multimeter
Model No. :	YSI 550A
Serial No. :	05F2063AZ
Equipment No. :	
Calibration Method :	This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-0C & G
Date of Calibration :	12 January, 2008

Testing Results :

Recording Reading	0.00 mg/L 3.25 mg/L 5.38 mg/L 8.64 mg/L	±0.2 mg/L
Expected Reading	0.00 mg/L 3.22 mg/L 5.45 mg/L 8.83 mg/L	Allowing Deviation

Ms Wong Wai/Man, Alice Laboratory Manager - Hong Kong



 Batch:
 HK0800542

 Date of Issue:
 15/01/2008

 Client:
 ACTION UNITED ENVIRO SERVICES

 Client Reference:
 ACTION UNITED ENVIRO SERVICES

Calibration of pH System

Item :	HANNA pH Meter	
Model No. :	HI98128	
Serial No. :	S229924	
Equipment No. :	EQ110	
Calibration Method :	This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-H	I.) 4500-H
Date of Calibration :	15 January, 2008	

Testing Results :

Recording Reading	4.1	10.2	± 0.2
Expected Reading	4.00	10.0	Allowing Deviation

ALS Technichem (HK) Pty Ltd





ALS



HK0800539 14/01/2008 ACTION UNITED ENVIRO SERVICES

Calibration of Tubidimeter

ltem :	HACH Turbidimeter
Model No. :	HACH 2100P
Serial No. :	95090008735
Equipment No. :	EQ091
Calibration Method :	This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B
Date of Calibration :	11 January, 2008

Recording Reading	0.1 NTU 3.8 NTU	17.1 NTU	38.8 NTU	83.8 NTU	±10%
Expected Reading	0.0 NTU 4.0 NTU	16.0 NTU	40.0 NTU	80.0 NTU	Allowing Deviation

Testing Results :

Ms Wong Wai Man, Alice Laboratory Manager - Hong Kong

ALS Environmental

ALS Technichem (HK) Pty Ltd



ALS)



HK0800541 14/01/2008 ACTION UNITED ENVIRO SERVICES

Calibration of Salinity System

Item :	HAND REFRACTOMETER
Model No. :	ATAGO
Serial No. :	289468
Equipment No. :	EQ114
Calibration Method :	This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B
Date of Calibration :	11 January, 2008
Tootion Doortho	

Testing Results :

Recording Reading	10 g/L 20 g/L 30 g/L	±10%
Expected Reading	10 g/L 20 g/L 30 g/L	Allowing Deviation

Ms Wong Wai Man, Alice Laboratory Manager - Hong Kong

ALS Environmental

ALS Technichem (HK) Pty Ltd



Appendix G

Impact Monitoring Schedules



KT15 – Monthly EM&A Report for February 2008 (No. 8)

Date		Air	Quality	Noise Leq 30min	Stream Water	Ecology Surveys
Date	•	1-Hour TSP	24-Hour TSP	Torse Leg Somm	Quality	Leology Bui veys
26-Jan-08	Sat					
27-Jan-08	Sun					
28-Jan-08	Mon					
29-Jan-08	Tue					
30-Jan-08	Wed					
31-Jan-08	Thu					
1-Feb-08	Fri					
2-Feb-08	Sat					
3-Feb-08	Sun					
4-Feb-08	Mon					
5-Feb-08	Tue					
6-Feb-08	Wed					
7-Feb-08	Thu					
8-Feb-08	Fri					
9-Feb-08	Sat					
10-Feb-08	Sun					
11-Feb-08	Mon					
12-Feb-08	Tue					
13-Feb-08	Wed					
14-Feb-08	Thu					
15-Feb-08	Fri					
16-Feb-08	Sat					
17-Feb-08	Sun					
18-Feb-08	Mon					
19-Feb-08	Tue					
20-Feb-08	Wed					
21-Feb-08	Thu					
22-Feb-08	Fri					
23-Feb-08	Sat					
24-Feb-08	Sun					
25-Feb-08	Mon					

Impact Monitoring Schedules in this Reporting Period

Monitoring Day
Sunday or Public Holiday



Date		Air	Quality	Noise Leq 30min	Stream Water	Ecology Surveys
Date		1-Hour TSP	24-Hour TSP	Tolse Ley Somm	Quality	Leology Surveys
24-Feb-08	Sun					
25-Feb-08	Mon					
26-Feb-08	Tue					
27-Feb-08	Wed					
28-Feb-08	Thu					
29-Feb-08	Fri					
1-Mar-08	Sat					
2-Mar-08	Sun					
3-Mar-08	Mon					
4-Mar-08	Tue					
5-Mar-08	Wed					
6-Mar-08	Thu					
7-Mar-08	Fri					
8-Mar-08	Sat					
9-Mar-08	Sun					
10-Mar-08	Mon					
11-Mar-08	Tue					
12-Mar-08	Wed					
13-Mar-08	Thu					
14-Mar-08	Fri					
15-Mar-08	Sat					
16-Mar-08	Sun					
17-Mar-08	Mon					
18-Mar-08	Tue					
19-Mar-08	Wed					
20-Mar-08	Thu					
21-Mar-08	Fri					
22-Mar-08	Sat					
23-Mar-08	Sun					
24-Mar-08	Mon					
25-Mar-08	Tue					

Impact Monitoring Schedules in the Next Reporting Period

Monitoring Day Sunday or Public Holiday

Z:Jobs\2007\TCS00371 (DC-2006-02)\600\Monthly Rpt\KT15\2008\Feb 08\R0543r1.doc Action-United Environmental Services and Consulting



Appendix H

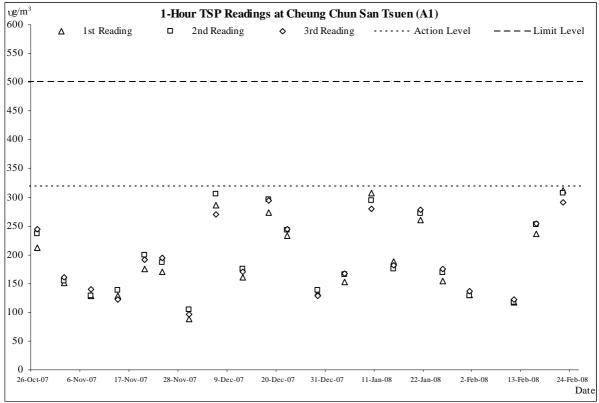
Graphical Plots of Air Quality, Construction Noise and Stream Water Quality Monitoring Results

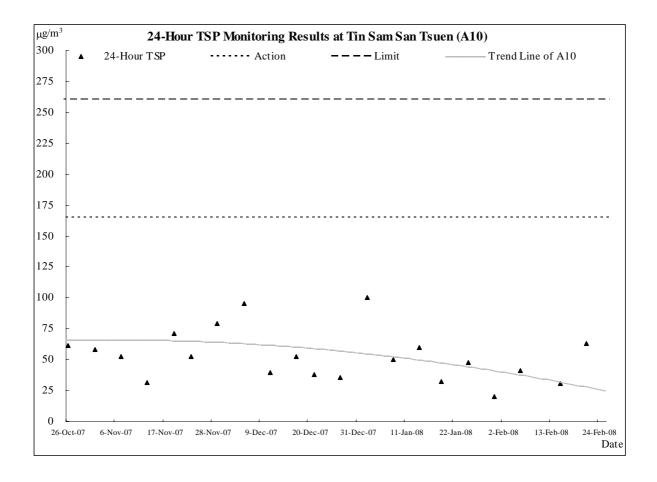
DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for February 2008 (No. 8)



K115 – Monuny EM&A Report for Februa

Air Quality

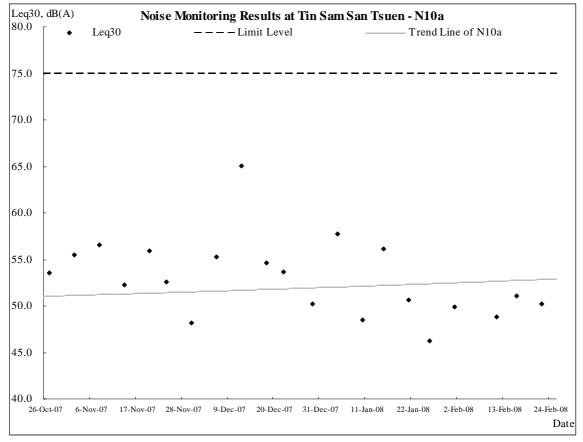




DSD Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for February 2008 (No. 8)

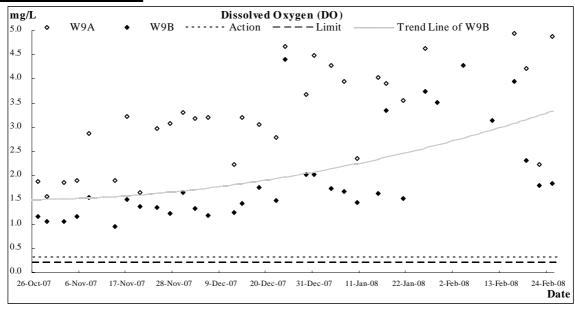


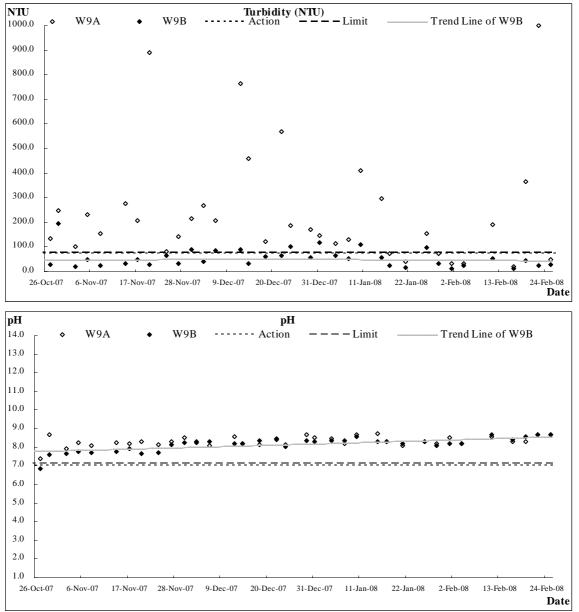
Construction Noise

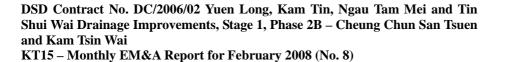




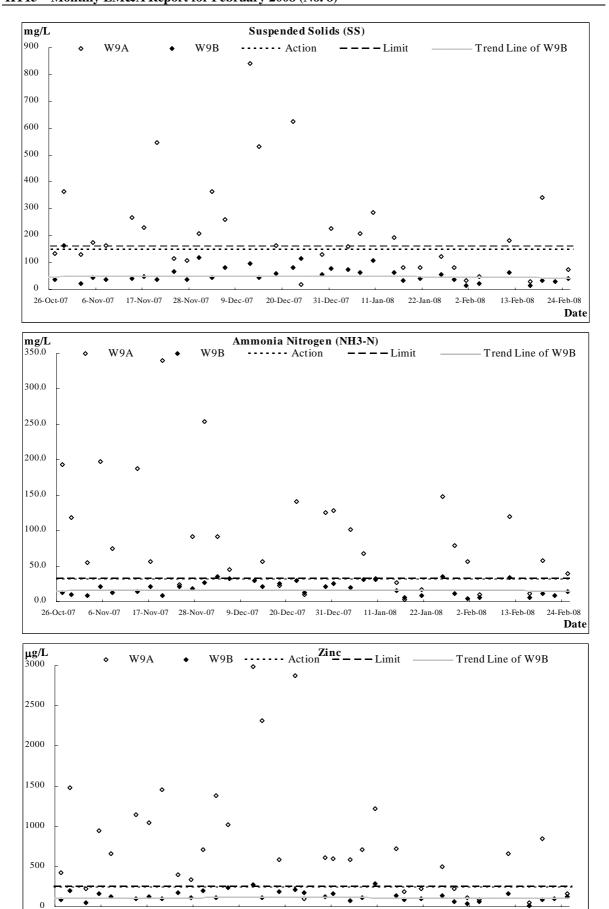
Stream Water Quality











Z:\Jobs\2007\TCS00371 (DC-2006-02)\600\Monthly Rpt\KT15\2008\Feb 08\R0543r1.doc Action-United Environmental Services and Consulting

17-Nov-07 28-Nov-07

9-Dec-07

20-Dec-07 31-Dec-07

11-Jan-08

22-Jan-08

2-Feb-08

13-Feb-08

24-Feb-08 Date

26-Oct-07

6-Nov-07

Date	20	6-Jan-08															
Location	Time	Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	13:05	0.13	14.4	14.4	4.64	4.63	45.9	45.7	157.0	154.0	0	0.0	8.30	8.30	121.0	148.0	502.0
w 9A	13.05	0.15	14.4	14.4	4.62	4.05	45.5	45.7	151.0	134.0	0	0.0	8.30	0.50	121.0	146.0	502.0
W9B	13:24	0.23	15.9	15.9	3.76		39.2	20.0	95.5	96.8	0	0.0	8.30	8.30	56.0	35.2	121.0
W9D	15:24	0.25	15.9	15.9	3.72	3.74 38.4	38.4	- 38.8	98.0	90.8	0	0.0	8.30	8.50	56.0	35.2	131.0

Date	2	9-Jan-08															
Location	Time	Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	5 (%)	Turbidi	ty (NTU)	S	alinity]	pН	SS	NH3-N	Zinc
W9A	14:47	0.08	13.6	13.6	5.42	5.41	53.2	53.0	74.3	73.7	0	0.0	8.20	8.20	80.0	79.2	221.0
WJA	14.47	0.08	13.6	15.0	5.4	5.41	52.7	55.0	73.1	15.1	0	0.0	8.20	0.20	80.0	19.2	221.0
W9B	14:56	0.25	15.2	15.2	3.52	3.51	35.3	35.1	34.3	33.8	0	0.0	8.10	8.10	38.0	11.6	61.0
W9B	14.30	0.23	15.2	13.2	3.49	5.51	34.8	55.1	33.3	33.0	0	0.0	8.10	0.10	38.0	11.0	01.0

Date	1-Feb-08																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pН		SS	NH3-N	Zinc
W9A	15:35	0.07	12.3	12.4	5.86	5.86	56.7	56.6	34.2	34.0	0	0.0	8.50	8.50	35.0	56.6	115.0
W9A	15.55	0.07	12.4	12.4	5.85	5.80	56.4	50.0	33.8	54.0	0	0.0	8.50	0.50	35.0	50.0	115.0
W9B	15.42	0.22	14.3	14.3	5.55	5.54	55.1	55.0	13.7	12.0	0	0.0	8.20	8.20	16.0	3.8	43.0
W9D	15:42	0.33	14.3	14.5	5.53	5.54	54.8	55.0	12.3	13.0	0	0.0	8.20	0.20	16.0	5.8	45.0

Date	4	-Feb-08															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pН		SS	NH3-N	Zinc
W9A	15:30	0.08	13.5	13.5	5.16	5.15	50.2	50.0	29.7	30.6	0	0.0	8.20	8.20	48.0	9.4	83.0
w 9A	15.50	0.08	13.5	15.5	5.14	5.15	49.7	50.0	31.4	30.0	0	0.0	8.20	0.20	46.0	9.4	65.0
W9B	15:42	0.33	15.5	15.5	4.29	4 20	43.8	43.7	23.6	23.2	0	0.0	8.20	8.20	23.0	5 5	60.0
W9D	13:42	0.55	15.5	13.5	4.28	4.29 —	43.6	43.7	22.7	25.2	0	0.0	8.20	8.20	25.0	5.5	00.0

Date	11	1-Feb-08															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pН		SS	NH3-N	Zinc
W9A	11:00	0.12	12.0	12.0	6.11	6.10	57.2	56.9	189.0	- 189.5	0	0.0	8.60	8.60	183.0	120.0	656.0
WJA			12.0	12.0	6.08	0.10	56.6		190.0		0	0.0	8.60				
W9B	11:05	0.36	13.7	13.7	3.16	3.15	30.9	30.7	51.5	50.9	0	0.0	8.70	8.70	62.0	33.4	165.0
W9D			13.7	15.7	3.14	5.15	30.4		50.3	50.9	0		8.70	0.70			

Date	1	6-Feb-08															
Location	Time	Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	10:41	0.12	12.6	12.6	5	4.93	47.2	46.4	20.9	21.6	0	0.0	8.30	8.30	30.0	11.3	50.0
WJA	10.41	0.12	12.6	12.0	4.86	4.75	45.6	40.4	22.2	21.0	0	0.0	8.30	0.50	50.0	11.5	50.0
W9B	10:56	0.51	15.4	15.4	3.96	3.96	39.7	39.6	11.6	11.7	0	0.0	8.40	8.40	15.0	6.1	18.0
W D	10.50	0.51	15.4	13.4	3.95	5.70	39.4	37.0	11.7	11.7	0	0.0	8.40	0.40	15.0	0.1	10.0
Date	19	9-Feb-08															
Date Location	19 Time	9-Feb-08 Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	alinity		pH	SS	NH3-N	Zinc
Location	Time	Depth (m)	Tem 16.6		DO 4.24		DO 43.8		Turbidi 392.0		S 0		8.30	1			
	-			p (oC) 16.6		(mg/L) 4.23		S (%) 43.6		ty (NTU) 364.0	S 0 0	Salinity 0.0		рН 8.30	SS 343.0	NH3-N 58.4	Zinc 846.0
Location	Time	Depth (m)	16.6		4.24		43.8		392.0		0		8.30	1			

Date	22	2-Feb-08															
Location	Time	Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	pН	SS	NH3-N	Zinc
W9A	11:45	0.21	17.5	17.5	2.25	2.23	23.6	23.3	1000.0	1000.0	0	0.0	8.70	8.70	1110.0	436.0	4330.0
w 9A	11.45	0.21	17.4	17.5	2.21	2.23	22.9	23.3	1000.0	1000.0	0	0.0	8.70	8.70	1110.0	430.0	4550.0
W9B	11:59	0.67	19.2	19.3	1.83	1.81	20.1	19.7	24.3	23.8	0	0.0	8.70	8.70	30.0	8.4	95.0
W 9D	11:39	0.07	19.3	19.5	1.78	1.01	19.2	19.7	23.3	23.8	0	0.0	8.70	0.70	30.0	0.4	93.0

Date	25	5-Feb-08															
Location	Time	Depth (m)	Tem	p (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	pН	SS	NH3-N	Zinc
W9A	11:16	0.08	17.0	17.0	4.89	4.88	50.9	50.8	47.3	49.0	0	0.0	8.70	8.70	74.0	40.0	165.0
w 9A	11.10	0.08	17.0	17.0	4.87	4.00	50.6	50.8	50.6	49.0	0	0.0	8.70	0.70	/4.0	40.0	105.0
W9B	11:24	0.26	18.8	18.8	1.86	1.84	20.1	19.8	28.7	29.7	0	0.0	8.70	8.70	41.0	14.7	127.0
W9D	11.24	0.20	18.8	10.0	1.82	1.04	19.4	19.0	30.6	29.1	0	0.0	8.70	0.70	41.0	14.7	127.0



Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lot	: 584562)						
HK0801407-004	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	30	31	4.9
HK0801467-001	W1A - 1 & 2 MIX	EA025: Suspended Solids (SS)		2	mg/L	17	16	0.0
ED/EK: Inorganic Nonr	netallic Parameters (QC Lot:	583834)						
HK0801456-009	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.86	0.87	1.2
HK0801456-027	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.35	0.37	5.6
EG: Metals and Major (Cations (QC Lot: 583443)	·		-				
HK0801467-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	105	108	2.3

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME) Results		Single Cor	ntrol Spike (SCS) and Du	uplicate Con	trol Spike (DC	CS) Results			
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL	s (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit		
A/ED: Physical and Aggregate Properties (QCLot: 584562)													
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115				
ED/EK: Inorganic Nonmetallic Parameters	s (QCLot: 583834)												
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.7		85	115				
EG: Metals and Major Cations (QCLot: 5	83443)												
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	105		85	115				

Matrix Type: WATER					Matrix S	pike (MS) and Matrix S	pike Duplica	ate (MSD) Re	sults				
	Sample ID Client Sample ID Method: Analysis Description CAS or				Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%	6)			
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit			
ED/EK: Inorganic Nonmet	D/EK: Inorganic Nonmetallic Parameters (QCLot: 583834)												
HK0801230-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125					
EG: Metals and Major Cati	ions (QCLot: 583443)												
HK0801467-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	100		75	125					



Matrix Type: WATER						Duplicate (DUP)	Results								
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)							
EA/ED: Physical and Agg	/ED: Physical and Aggregate Properties (QC Lot: 585040)														
HK0801559-001	W1A - 1 & 2 MIX	EA025: Suspended Solids (SS)		2	mg/L	6	5	0.0							
D/EK: Inorganic Nonmetallic Parameters (QC Lot: 586289)															
HK0801503-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	7.5	7.6	0.0							
HK0801568-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	2.2	2.0	7.7							
EG: Metals and Major Ca	tions (QC Lot: 584479)														
HK0801535-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	104	104	0.0							

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME	3) Results		Single Cor	ntrol Spike (SCS) and D	uplicate Con	trol Spike (DC	CS) Results	
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL)s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 585040)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	105		85	115		
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 586289)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.1		85	115		
EG: Metals and Major Cations (QCLot:	584479)										
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.2		85	115		

Matrix Type: WATER					Matrix S	pike (MS) and Matrix S	pike Duplica	ate (MSD) Res	sults					
				Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%)				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit				
ED/EK: Inorganic Nonme	D/EK: Inorganic Nonmetallic Parameters (QCLot: 586289)													
HK0801503-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125						
EG: Metals and Major Cat	EG: Metals and Major Cations (QCLot: 584479)													
HK0801514-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	85.8		75	125						



Matrix Type: WATER						Duplicate (DUP)	Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)						
EA/ED: Physical and Age	/ED: Physical and Aggregate Properties (QC Lot: 587519)													
HK0801718-003	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	14	15	9.0						
D/EK: Inorganic Nonmetallic Parameters (QC Lot: 590300)														
HK0801771-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0						
HK0801888-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	18.6	18.7	0.6						
EG: Metals and Major Ca	tions (QC Lot: 586288)													
HK0801723-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	79	78	1.8						

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB	8) Results		Single Cor	Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results					
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL)s (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Propert	ties (QCLot: 587519)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.0		85	115			
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 590300)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.5		85	115			
EG: Metals and Major Cations (QCLot:	586288)			·								
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	91.2		85	115			

Matrix Type: WATER					Matrix S	pike (MS) and Matrix S	pike Duplica	ate (MSD) Res	sults					
				Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%)				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit				
ED/EK: Inorganic Nonme	D/EK: Inorganic Nonmetallic Parameters (QCLot: 590300)													
HK0801761-001	Anonymous	EK055A: Ammonia as N	7664-41-7	5.0 mg/L	Not Determined		75	125						
EG: Metals and Major Cat	EG: Metals and Major Cations (QCLot: 586288)													
HK0801723-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	91.2		75	125						



Matrix Type: WATER				Duplicate (DUP) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)		
EA/ED: Physical and Age	regate Properties (QC Lot: 59004	2)								
HK0801845-003	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	46	43	7.1		
HK0801880-002	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	263	256	2.7		
ED/EK: Inorganic Nonme	tallic Parameters (QC Lot: 59030	1)								
HK0801788-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	30.2	28.7	5.3		
HK0801788-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	20.8	20.9	0.3		
ED/EK: Inorganic Nonme	tallic Parameters (QC Lot: 590302	2)					·			
HK0801846-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0		
EG: Metals and Major Ca	tions (QC Lot: 590001)	· ·				·	<u> </u>			
HK0801833-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	277000	274000	0.9		

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB	3) Results		Single Co	ntrol Spike (SCS) and L	Duplicate Con	trol Spike (DC	S) Results	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Ds (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 590042)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	104		85	115		
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 590301)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	96.5		85	115		
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 590302)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	97.8		85	115		
EG: Metals and Major Cations (QCLot:	590001)										
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	86.3		85	115		

Matrix Type: WATER					Matrix S	pike (MS) and Matrix S	pike Duplica	ate (MSD) Re	sults	
				Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonn	netallic Parameters (QCLo	t: 590301)								
HK0801778-001	Anonymous	EK055A: Ammonia as N	7664-41-7	5.0 mg/L	Not Determined		75	125		
ED/EK: Inorganic Nonn	netallic Parameters (QCLo	t: 590302)								
HK0801758-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	89.8		75	125		
EG: Metals and Major O	Cations (QCLot: 590001)									
HK0801833-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	Not Determined		75	125		



Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and Ag	ggregate Properties (QC Lot	:: 592105)									
HK0802006-008	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	218	249	13.4			
HK0802021-006	W9B 1 & 2 MIX	EA025: Suspended Solids (SS)		2	mg/L	62	59	5.4			
ED/EK: Inorganic Nonm	netallic Parameters (QC Lot:	592524)									
HK0801999-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.9	1.0	0.0			
HK0802021-005	W9A 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	120	128	6.4			
EG: Metals and Major C	ations (QC Lot: 592059)				<u> </u>	·					
HK0801983-010	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB) Results		Single Cor	ntrol Spike (SCS) and D	uplicate Con	trol Spike (DC	S) Results	
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Propertie	es (QCLot: 592105)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115		
ED/EK: Inorganic Nonmetallic Parameter	s (QCLot: 592524)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	91.9		85	115		
EG: Metals and Major Cations (QCLot: 5	92059)										
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	87.8		85	115		

Matrix Type: WATER	x Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results							
					Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%)			
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit		
ED/EK: Inorganic Nonme	etallic Parameters (QCLot:	592524)										
HK0801998-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	112		75	125				
EG: Metals and Major Ca	tions (QCLot: 592059)											
HK0801980-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	Not Determined		75	125				



Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and Ag	gregate Properties (QC Lo	ot: 599045)									
HK0802520-001	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	108	108	0.0			
HK0802605-002	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	25	26	4.3			
ED/EK: Inorganic Nonm	etallic Parameters (QC Lot	t: 600285)					•				
HK0802539-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	2.6	2.7	0.0			
HK0802519-008	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	366	369	0.6			
EG: Metals and Major Ca	ations (QC Lot: 599049)										
HK0802537-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	28	25	11.7			
HK0802605-005	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	83	88	5.1			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB) Results		Single Cor	ntrol Spike (SCS) and Du	uplicate Cont	trol Spike (DC	S) Results	
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Propert	ies (QCLot: 599045)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	103		85	115		
ED/EK: Inorganic Nonmetallic Paramete	rs (QCLot: 600285)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.8		85	115		
EG: Metals and Major Cations (QCLot: \$	599049)										
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	98.3		85	115		

Matrix Type: WATER	ix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results							
					Spike Rec	Recovery	Limits (%)	RPDs (%)				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit		
ED/EK: Inorganic Nonme	D/EK: Inorganic Nonmetallic Parameters (QCLot: 600285)											
HK0718886-011	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125				
EG: Metals and Major Ca	tions (QCLot: 599049)											
HK0802537-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	95.2		75	125				



Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lot	: 599045)						
HK0802520-001	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	108	108	0.0
HK0802605-002	W1B - 1 & 2 MIX	EA025: Suspended Solids (SS)		2	mg/L	25	26	4.3
ED/EK: Inorganic Noni	metallic Parameters (QC Lot:	600286)		•			•	•
HK0802605-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	10.7	10.9	2.0
HK0802605-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	10.7	10.9	2.0
EG: Metals and Major	Cations (QC Lot: 599049)				·	·	·	·
HK0802537-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	28	25	11.7
HK0802605-005	W9B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	83	88	5.1

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB) Results		Single Co	ntrol Spike (SCS) and D	uplicate Cont	trol Spike (DC	S) Results	
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL)s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properti	es (QCLot: 599045)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	103		85	115		
ED/EK: Inorganic Nonmetallic Parameter	rs (QCLot: 600286)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.2		85	115		
EG: Metals and Major Cations (QCLot: 5	99049)										
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	98.3		85	115		

Matrix Type: WATER					sults					
					Spike Rec	Recovery	Limits (%)	RPDs (%)		
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmet	allic Parameters (QCLot: 6	600286)								
HK0802664-019	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
EG: Metals and Major Cat	ions (QCLot: 599049)									
HK0802537-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	95.2		75	125		



Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and Age	gregate Properties (QC Lot:	602039)									
HK0802849-001	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	175	189	7.7			
HK0802922-002	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	255	291	12.9			
ED/EK: Inorganic Nonme	etallic Parameters (QC Lot:	602106)									
HK0802809-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	15.6	17.8	13.3			
HK0802766-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	419	396	5.5			
EG: Metals and Major Ca	tions (QC Lot: 602049)				·			·			
HK0802904-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	15	13	12.0			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB) Results Single Control Spike (SCS) and Duplicate Control Spike (DCS) Re-						S) Results		
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPL	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 602039)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115		
ED/EK: Inorganic Nonmetallic Parameter	rs (QCLot: 602106)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	92.5		85	115		
EG: Metals and Major Cations (QCLot: 602049)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	86.7		85	115		

Matrix Type: WATER	< Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results								
				Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%)			
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit			
ED/EK: Inorganic Nonme	etallic Parameters (QCLot:												
HK0802904-001	W1A - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125					
EG: Metals and Major Ca	EG: Metals and Major Cations (QCLot: 602049)												
HK0802832-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	86.9		75	125					



Appendix I

Meteorological Data in the Reporting Period



Meteorological Data Extracted from HKO in the Reporting Period

				Lau Fau Shan Weather Station						
Date		Weather	Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction			
26-Jan-08	Sat	overcast/cold/rain/moderate	Trace	9.5	14.5	75	E/NE			
27-Jan-08	Sun	cloudy/mist/rain/moderate	0	8	11	89	N/NE			
28-Jan-08	Mon	cloudy/mist/rain/cold/moderate/fresh	Trace	10.5	6	91.5	Е			
29-Jan-08	Tue	cloudy/mist/rain/cold/moderate/fresh	0.6	9.8	17	85	N/NW			
30-Jan-08	Wed	overcast/cold/mist/moderate	10.4	8.1	11	90.5	E/NE			
31-Jan-08	Thu	cold/overcast/rain/moderate/fresh	1.9	7.4	14.5	91.5	E/NE			
1-Feb-08	Fri	cold/cloudy/rain/moderate/fresh	0	8.8	13.2	82.5	E/NE			
2-Feb-08	Sat	overcast/rain/cold/moderate/fresh/strong	12.3	6.8	15.5	83	N/NE			
3-Feb-08	Sun	cloudy/cold/rain/moderate	0.3	10	12.2	61.5	W/SW			
4-Feb-08	Mon	cloudy/cold/rain/moderate	Trace	9.5	10.5	75	E/NE			
5-Feb-08	Tue	cold/rain/moderate	1.6	10.4	9.5	79.5	E/NE			
6-Feb-08	Wed	sunny periods/cloudy/cold/moderate	0.3	10.6	71.5	N/NE				
7-Feb-08	Thu			Holiday						
8-Feb-08	Fri			Holiday						
9-Feb-08	Sat				Hol	iday				
10-Feb-08	Sun	cloudy/dry/cold/moderate	0	10.6	12	49	N/NE			
11-Feb-08	Mon	cloudy/dry/cold/moderate	Trace	8.8	12	52	N/NE			
12-Feb-08	Tue	very dry/sunny periods/cold/moderate/fresh	Trace	10.2	18.5	60	N/NE			
13-Feb-08	Wed	cold/very dry/sunny	Trace	11.4	16	36.5	NE			
14-Feb-08	Thu	cloudy/cold/dry/moderate	Trace	12.2	12	44	N/NE			
15-Feb-08	Fri	cloudy/very dry/cold/moderate	0.3	13.2	12	49.5	Ν			
16-Feb-08	Sat	cloudy/rain/cold/moderate	Trace	12.8	12	48.5	Е			
17-Feb-08	Sun	sunny periods/moderate	0.4	14.8	14	70	W/SW			
18-Feb-08	Mon	sunny periods/moderate	0	16.4	13.5	71.5	E/NE			
19-Feb-08	Tue	cloudy/sunny periods/moderate	Trace	15.6	11.5	70	Е			
20-Feb-08	Wed	fine/dry/haze/moderate	0	15.2	12.5	71.5	E/NE			
21-Feb-08	Thu	fine/dry/haze/moderate	0	15.9	12	66.5	Е			
22-Feb-08	Fri	cloudy/rain/moderate	3.8	17.6	12.5	72.5	Е			
23-Feb-08	Sat	cloudy/rain/moderate/cool	7.1	18.4	7.5	84	E/SE			
24-Feb-08	Sun	cloudy/rain/cool/fresh/strong	0.4	15.2	17.5	79	Е			
25-Feb-08	Mon	cloudy/rain/fresh/strong	0.5	16.2	12	83	E/NE			



Appendix J

Environmental Team Site Inspection Checklists



Proje	ct:	Contract No.: DC/2006/02	Inspected	by							
		Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui									
		Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	RE/RE's r	epresentat	tive:	Mr. W.L.	Chan				
Inspe	ction		IEC/IEC's	representa	ative:						
Date:		31 January 2008	ETL/ ET's	represent	ative:	Ben Tan					
Time:		10:00	Contracto	r's represe	entative:	M.K. Ng / Man / Siu					
			Checklist	No.		KT15-310108					
PART	· A:	GENERAL INFORMATION Environmental	l Permit No.	: EP-231/2	005/A						
Weath	ner:	Sunny Fine 🖌 Cloudy	Rainy	,							
Temp	erature:	9 °C									
Humic	dity:	✓ High Moderate Low									
Wind:	-	Strong Breeze V Light	Calm								
PART	В:	SITE AUDIT									
			Not	Yes	No	Follow	N/A	Photo/			
Santi	on 1 : 11/	ater Quality	Obs.			up	-	Remarks			
1.01		ffluent discharge license obtained for the Project?		\checkmark							
1.02	Is the licence	effluent discharged in accordance with the discharge?	e	\checkmark							
1.03	Is the o	discharge of turbid water avoided?		\checkmark							
1.04		ere proper desilting facilities in the drainage systems to SS levels in effluent?	D	\checkmark							
1.05		ere channels, sandbags or bunds to direct surface run-off to entation tanks?	° 🗹								
1.06		ere any perimeter channels provided at site boundaries to pt storm runoff from crossing the site?	° 🗹								
1.07	Is drair	nage system well maintained?	\checkmark								
1.08		avation proceeds, are temporary access roads protected by d stone or gravel?	у 🗌	\checkmark							
1.09	Are ter	nporary exposed slopes properly covered?		\checkmark							
1.10	Are ea	rthworks final surfaces well compacted or protected?					\checkmark				
1.11	Are ma	anholes adequately covered or temporarily sealed?		\checkmark							
1.12	Are the	ere any procedures and equipment for rainstorm protection?		\checkmark							
1.13	Are wh	neel washing facilities well maintained?									
1.14	ls runc	ff from wheel washing facilities avoided?		\checkmark							
1.15	Are the	ere toilets provided on site?									
1.16		lets properly maintained?		\checkmark							
1.17		e vehicle and plant servicing areas paved and located within areas?	n				\checkmark				
1.18		bil leakage or spillage avoided?									
1.19	draina	ere any measures to prevent leaked oil from entering the ge system?		\checkmark							
1.20	washir	ere any measures to collect spilt cement and concrete ags during concreting works?					\checkmark				
1.21	Are the for veh	ere any oil interceptors/grease traps in the drainage systems icle and plant servicing areas, canteen kitchen, etc?	s 🗌				\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.28	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.29	Prevent stagnant water accumulated within the excavation trench or site working area.			\checkmark			
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?			\checkmark			
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

Last Site Inspection (25 January 2008):

Nil

Findings of Site Inspection on 31 January 2008:

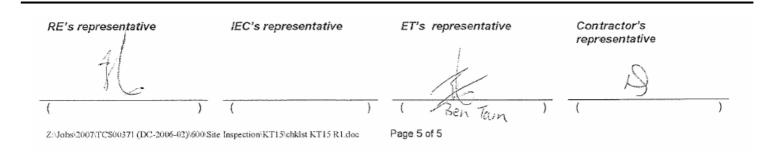
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).



Stagnant water accumulated in the work front was observed at CH0270, the Contractor was reminded to clean up and prevent any stagnant water accumulated on site.



Some C&D material scattered on-site was observed at CH080, the Contractor was reminded to tight up the working area.





Proje	ct: Contract No.: DC/2006/02	li li	nspected b	у							
	Yuen Long, Kam Tin, Ngau Tam Mei and Tin Sh										
	Wai Drainage Improvements, Stage 1, Phase 28 Cheung Chun San Tsuen and Kam Tsin Wai		RE/RE's rej	presentati	ive:	Mr. C.F.	Cheng				
Inspe	ction	II	EC/IEC's re	epresenta	tive:						
Date:	05 February 2008	E	ETL/ ET's r	epresenta	ative:	Ben Tarr)				
Time:	14:00	c	Contractor	's represe	entative:	M.K. Ng / Man / Siu					
		C	Checklist N	lo.		KT15-050208					
PART	A: GENERAL INFORMATION Environ	mental P	ermit No.:	EP-231/2	005/A						
Weath	her: Sunny 🖌 Fine Clou	ldy	Rainy								
Temp	erature: 14 °C										
Humic	dity: High 🖌 Moderate Low										
Wind:	Strong Breeze 🗸 Ligh	t 🗌	Calm								
PART	B: SITE AUDIT										
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks			
Section	on 1: Water Quality										
1.01	Is an effluent discharge license obtained for the Project?			\checkmark							
1.02	Is the effluent discharged in accordance with the di licence?	scharge		\checkmark							
1.03	Is the discharge of turbid water avoided?			\checkmark							
1.04	Are there proper desilting facilities in the drainage sys reduce SS levels in effluent?	tems to		\checkmark							
1.05	Are there channels, sandbags or bunds to direct surface resedimentation tanks?	un-off to	\checkmark								
1.06	Are there any perimeter channels provided at site bound intercept storm runoff from crossing the site?	laries to	\checkmark								
1.07	Is drainage system well maintained?		\checkmark								
1.08	As excavation proceeds, are temporary access roads prote crushed stone or gravel?	ected by		\checkmark							
1.09	Are temporary exposed slopes properly covered?			\checkmark							
1.10	Are earthworks final surfaces well compacted or protected?	•					\checkmark				
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark							
1.12	Are there any procedures and equipment for rainstorm prot	ection?		\checkmark							
1.13	Are wheel washing facilities well maintained?			\checkmark							
1.14	Is runoff from wheel washing facilities avoided?			\checkmark							
1.15	Are there toilets provided on site?			\checkmark							
1.16	Are toilets properly maintained?			\checkmark							
1.17	Are the vehicle and plant servicing areas paved and locate roofed areas?	ed within					\checkmark				
1.18	Is the oil leakage or spillage avoided?			\checkmark							
1.19	Are there any measures to prevent leaked oil from ente drainage system?	-		\checkmark							
1.20	Are there any measures to collect spilt cement and o washings during concreting works?						\checkmark				
1.21	Are there any oil interceptors/grease traps in the drainage for vehicle and plant servicing areas, canteen kitchen, etc?	systems					\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.28	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.29	Prevent stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

Last Site Inspection (31 January 2008):



Stagnant water at CH 270 was cleared



C&D waste at CH 080 was cleaned and tight up

Findings of Site Inspection on 05 February 2008:

Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

No environmental issue was observed during the site inspection. In general, the site was kept clean and tidy.

) (Ben Tam



Proje		006/02 n, Ngau Tam Mei and		nspected b	y						
	Wai Drainage Impro	ovements, Stage 1, P Tsuen and Kam Tsin	hase 2B –	RE/RE's representative:		Mr. A.F. Ng					
Inspe				RE/RE's representative: IEC/IEC's representative:				ing			
Date:	14 February 2008			IEC/IEC's representative: ETL/ ET's representative:)			
Time:	13:00		c	Contractor's representative:			M.K. Ng	l			
			C	Checklist N		KT15-14	0208				
PART	A: GENERAL INFOR	RMATION	Environmental P	ermit No.:	EP-231/20	05/A					
Weath	ner: Sunny	✓ Fine	Cloudy	Rainy							
	erature: 12	°C	- .								
Humic		✓ Moderate	Low	Colm							
Wind:	Strong	Breeze	✓ Light	Calm							
PART	B: SITE AUDIT										
				Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: Water Quality			_	_	_	_				
1.01	Is an effluent discharge licen	se obtained for the Pr	oject?		\checkmark						
1.02	Is the effluent discharged licence?	in accordance with	n the discharge		\checkmark						
1.03	Is the discharge of turbid wat	er avoided?			\checkmark						
1.04	Are there proper desilting reduce SS levels in effluent?	facilities in the drair	nage systems to		\checkmark						
1.05	Are there channels, sandbag sedimentation tanks?			\checkmark							
1.06	Are there any perimeter cha intercept storm runoff from cr		te boundaries to	\checkmark							
1.07	Is drainage system well main	tained?		\checkmark							
1.08	As excavation proceeds, are crushed stone or gravel?	temporary access ro	ads protected by		\checkmark						
1.09	Are temporary exposed slope	es properly covered?			\checkmark						
1.10	Are earthworks final surfaces	s well compacted or p	rotected?					\checkmark			
1.11	Are manholes adequately co	vered or temporarily s	sealed?		\checkmark						
1.12	Are there any procedures an	d equipment for rainst	torm protection?		\checkmark						
1.13	Are wheel washing facilities	well maintained?			\checkmark						
1.14	Is runoff from wheel washing	facilities avoided?			\checkmark						
1.15	Are there toilets provided on	site?			\checkmark						
1.16	Are toilets properly maintaine				\checkmark						
1.17	Are the vehicle and plant ser roofed areas?	rvicing areas paved a	nd located within					\checkmark			
1.18	Is the oil leakage or spillage	avoided?			\checkmark						
1.19	Are there any measures to drainage system?		-		\checkmark						
1.20	Are there any measures to washings during concreting w	vorks?						\checkmark			
1.21	Are there any oil interceptors for vehicle and plant servicing							\checkmark			

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.28	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.29	Prevent stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?						
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	on 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

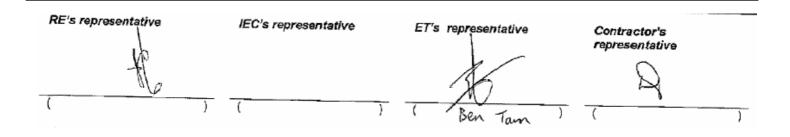
Last Site Inspection (05 February 2008):

Nil

Findings of Site Inspection on 14 February 2008:

Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

No environmental issue was observed during the site inspection. In general, the site was kept clean and tidy.





Project Inspect Date: Time: PART Weath Tempo Humic Wind: PART	Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai action 21 February 2008 14:00 A: GENERAL INFORMATION Environmen her: Sunny Sunny Fine Cloudy erature: 18 %C dity: High Strong Breeze Strong Breeze	RE/RE's representative: IEC/IEC's representative: ETL/ ET's representative: Contractor's representative: Checklist No. tal Permit No.: EP-231/2005/A Rainy Calm				Mr. W. L. Benny Li Ben Tam M.K. Ng KT15-21	u / Man / Si	u
Sector	on 1. Wotor Quality	[Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Sectio 1.01	on 1: Water Quality Is an effluent discharge license obtained for the Project?			$\overline{\mathbf{A}}$				
1.02	Is the effluent discharged in accordance with the dischar licence?	rge		$\overline{\mathbf{V}}$				
1.03	Is the discharge of turbid water avoided?			\checkmark				
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to		\checkmark				
1.05	Are there channels, sandbags or bunds to direct surface run-of sedimentation tanks?	f to	\checkmark					
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	s to	\checkmark					
1.07	Is drainage system well maintained?		\checkmark					
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	l by		\checkmark				
1.09	Are temporary exposed slopes properly covered?			\checkmark				
1.10	Are earthworks final surfaces well compacted or protected?						\checkmark	
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark				
1.12	Are there any procedures and equipment for rainstorm protection	n?		\checkmark				
1.13	Are wheel washing facilities well maintained?			\checkmark				
1.14	Is runoff from wheel washing facilities avoided?			\checkmark				
1.15	Are there toilets provided on site?			\checkmark				
1.16	Are toilets properly maintained?			\checkmark				
1.17	Are the vehicle and plant servicing areas paved and located wit roofed areas?	thin					\checkmark	
1.18	Is the oil leakage or spillage avoided?			\checkmark				
1.19	Are there any measures to prevent leaked oil from entering drainage system?	the		\checkmark				
1.20	Are there any measures to collect spilt cement and concr washings during concreting works?	rete					\checkmark	
1.21	Are there any oil interceptors/grease traps in the drainage syste for vehicle and plant servicing areas, canteen kitchen, etc?	ems					\checkmark	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.28	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.29	Prevent stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		\checkmark				
Sectio	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Sectio	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Sectio	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

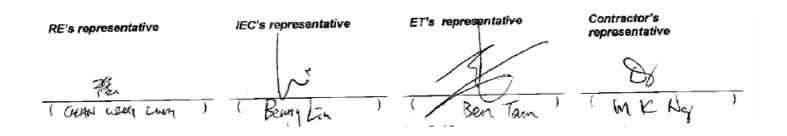
Last Site Inspection (14 February 2008):

Nil

Findings of Site Inspection on 21 February 2008:

Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

No environmental issue was observed during the site inspection. In general, the site was kept clean and tidy.





Appendix K

Response to Comments

Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai Response to IEC's comments on <u>KT15 Monthly EM&A Report for February 2008 (R0543 Revision 0) [Received from e-mail on 13 Mar 2008 11:15]</u>

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Table 5-1	The 1-Hour TSP monitoring result at A10 on 22-Feb-08 is missing. Please check.	-	Table 5-1 had been updated.
2	Various	There is a discrepancy between the date of Ecology Surveys mentioned in the report and that scheduled in Appendix G. Please revise accordingly.	-	Appendix G had been updated.