

PROJECT No.: TCS/00512/09

DSD CONTRACT No. DC/2009/13 CONSTRUCTION OF SEWAGE TREATMENT WORKS AT YUNG SHUE WAN AND SOK KWU WAN

SOK KWU WAN PORTION AREA
MONTHLY ENVIRONMENTAL MONITORING AND AUDIT
(EM&A) REPORT (No.13) – AUGUST 2011

PREPARED FOR LEADER CIVIL ENGINEERING CORPORATION LIMITED

Date	Reference No.	Prepared By	Approved By
14 September 2011	TCS00512/09/600/R0324v2	Aula	Shum
		Nicola Hon Environmental Consultant	T.W. Tam Environmental Team Leader

Version	Date	Description
1	12 September 2011	First Submission
2	14 September 2011	Amended against IEC's comments on 14 September 2011

Scott Wilson CDM Joint Venture

Chief Engineer/Harbour Area Treatment

Scheme

Drainage Services Department

5/F Western Magistracy 2A Pok Fu Lam Road

Hong Kong

Attention: Mr. C K Au

Your reference:

Our reference:

05117/6/16/381105

Date:

15 September 2011

BY FAX ONLY

Dear Sirs,

Contract No. DC/2009/13
Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan Sok Kwu Wan Portion Area
Monthly Environmental Monitoring and Audit (EM&A) Report No. 13 (August 2011)

We refer to the Monthly EM&A Monitoring Report No. 13 for August 2011 received under cover of the email from the Environmental Team, Action-United Environmental Services and Consulting (AUES), dated 14 September 2011. We do not have further comment and have verified the captioned report.

Yours faithfully

SCOTT WILSON CDM JOINT VENTURE

Rodney Ip

ICWR/STKW/ecwc

cc Leader Civil Engineering

AUES

ER/LAMMA

CDM

(Attn: Mr Vincent Chan)

(Attn: Mr T.W. Tam)

(Attn: Mr Neil Wong)

(Attn: Mr Mark Sin)



EXECUTIVE SUMMARY

ES.01. This is the 13th monthly EM&A Report for Sok Kwu Wan (hereinafter 'this Report') for the designated works under Environmental Permit No.EP-281/2007/A, covering a period from 1 to 31 August 2011 (hereinafter 'the Reporting Period') during the construction of relevant land works commencement on 27 July 2010.

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. Environmental monitoring activities under the EM&A program in this Reporting Month are summarized in the following table.

Issues	Environmental Monitoring Parameters / Inspection	Occasions
Air Quality	1-hour TSP	45
All Quality	24-hour TSP	18
Construction Noise	Leq (30min) Daytime	20
Water Quality	Marine Water Sampling	14
Inspection / Audit	ET Regular Environmental Site Inspection	5

ES.03. As informed by the Contractor, the marine work of outfall construction has been commenced on 19 July 2011, therefore, water quality was undertaken in this Reporting Month.

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES.04. No exceedance of air quality, construction noise and marine water quality monitoring were recorded in this Reporting Month. No Notification of Exceedance (NOE) was, therefore, issued. The statistics of environmental exceedance, NOE issued and investigation of exceedance are summarized in the following table.

Environmental	Monitoring Parameters	Action Level	Limit Level	Event & Action		
Issues				NOE Issued	Investigation	Corrective Actions
Air Quality	1-hour TSP	0	0	0		
Air Quality	24-hour TSP	0	0	0		
Construction Noise	Leq _{30min} Daytime	0	0	0		
	DO	0	0	0		
Water Quality	Turbidity	0	0	0		
	SS	0	0	0		

Note: NOE – Notification of Exceedance

ENVIRONMENTAL COMPLAINT

ES.05. No written or verbal complaint was recorded in this Reporting Month. The statistics of environmental complaint are summarized in the following table.

Donouting Davied	Environmental Complaint Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
27 July 2010 – 31 July 2011	0	0	NA	
1 – 31 August 2011	0	0	NA	

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.06. No environmental summons or successful prosecutions were recorded in this Reporting Month. The statistics of environmental complaint are summarized in the following tables.



Danauting Davied	Environmental Summons Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
27 July 2010 – 31 July 2011	0	0	NA	
1 – 31 August 2011	0	0	NA	

Donauting David	Environmental Prosecution Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
27 July 2010 – 31 July 2011	0	0	NA	
1 – 31 August 2011	0	0	NA	

REPORTING CHANGE

ES.07. There is no reporting change in this reporting month.

SITE INSPECTION BY EXTERNAL PARTIES

ES.08. No site inspection was undertaken by external parties i.e. EPD or AFCD within the Reporting Period.

FUTURE KEY ISSUES

- ES.09. During wet season, muddy water and other water quality pollutants via site surface water runoff into the sea body within Fish culture zone at Picnic Bay and the Secondary recreation contact subzone at Mo Tat Wan is the key issue of the Project. Mitigation measures for water quality should be properly maintained to prevent any muddy or sandy runoff from the loose soil surface overflow on the site boundary.
- ES.10. Moreover, special attention should be also paid on the dust mitigation measures to avoid fugitive dust emissions from loose soil surface or haul road. Mitigation measures implemented for control the surface runoff including wheel wash facilities, covering of the loose soil surface or stockpile with tarpaulin sheet, etc., should fully implement.



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1 INTRODUCTION

PROJECT BACKGROUND

- 1.01 The Leader Civil Engineering Corporation Limited (Leader) has been awarded the *Contract DC/2009/13 Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan* (the Project) by the Drainage Services Department (DSD) on 4 May 2010. The Project is part of an overall plan approved under a statutory EIA for Outlying Islands Sewerage Stage 1 Phase 2 Package J Sok Kwu Wan Sewage Collection and Treatment (Register No. AEIAR-075/2003) and Disposal Facilities and Outlying Islands Sewerage Stage 1 Phase 1 Package C Yung Shue Wan Sewage Treatment Works and Outfall (Register No. EIA-124/BC). The Environmental Permit No. EP-281/2007 and EP-282/2007 for the Project have been obtained by the DSD on 29 June 2007 for the relevant works. After July 2009, EP-281/2007/A stead EP-281/2007 is EP for Sok Kwu Wan relevant Works.
- 1.02 The Project involves construction of sewage treatment works at Sok Kwu Wan and Yung She Wan with a capacity of 1,430m³/day and 2,850m³/day respectively to provide secondary treatment, construction of 2 pumping stations at Sok Kwu Wan and 1 pumping station at Yung Shue Wan, construction of submarine outfall from the coastline and lying of underground sewerage pipeline. The site layout plan for the captioned work under the Project is showing in *Appendix A*.
- 1.03 According to the Particular Specification (PS) and *Appendix 25* of the Project, Leader should establish an Environmental Team to implement the environmental monitoring and auditing works to fulfill the requirements as stipulated in the Environmental Monitoring and Audit (EM&A) Manual. This EM&A Manual is referred to the Appendix B of the Review Report on EIA Study Sok Kwu Wan (Final) in January 2007 (Agreement No. CE 20/2005(DS)).
- 1.04 Action-United Environmental Services and Consulting (AUES) has been commissioned by Leader as the ET to implement the relevant EM&A program. Organization chart of the Environmental Team for the Project is shown in *Appendix B*. For ease of reporting, the proposed EM&A programme for baseline and impact monitoring is spilt to following two stand-alone parts:
 - (a) Proposed EM&A Programme for Baseline and Impact Monitoring Sok Kwu Wan (under EP No. 281/2007/A varied on 23 September 2009)
 - (b) Proposed EM&A Programme for Baseline and Impact Monitoring Yung Shue Wan (under EP No. 282/2007)
- 1.05 According to the EM&A Manuals of Sok Kwu Wan and Yung Shue Wan, baseline water quality monitoring should be carried out for consecutive six months before the marine work commencement. Therefore, the baseline reports of Sok Kwu Wan and Yung Shue Wan are divided to two volumes i.e. the Volume 1 for air quality and noise monitoring; and the Volume II for water quality monitoring for separate submission.
- 1.06 There is a concurrent DSD contract "DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works" undertaking at Sok Kwu Wan since April 2008 and the works are ongoing.
- 1.07 Consider that the construction works of DC/2007/18 and DC/2009/13 at Sok Kwu Wan is under the same Environmental Permit and EM&A Manual, so the performance criteria of air quality and construction noise at Sok Kwu Wan under the Project is recommended to adopt the Action/Limit Levels established by contract DC/2007/18. The Baseline Monitoring Report Volume 1 under the Project for air quality and noise at Sok Kwu Wan was submitted on 9 July 2010 and verified by IEC and for EPD endorsement before the relevant land works commencement on 27 July 2010.
- 1.08 This is the 13th monthly EM&A report Sok Kwu Wan Portion Area presenting the monitoring results and inspection findings for the reporting period from 1 to 31 August 2011.



REPORT STRUCTURE

1.09 The Monthly Environmental Monitoring and Audit (EM&A) Report – Sok Kwu Wan is structured into the following sections:-

SECTION 1	INTRODUCTION
SECTION 2	PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS
SECTION 3	SUMMARY OF MONITORING REQUIREMENTS
SECTION 4	AIR QUALITY MONITORING RESULTS
SECTION 5	CONSTRUCTION NOISE MONITORING RESULTS
SECTION 6	WATER QUALITY MONITORING RESULTS
SECTION 7	WASTE MANAGEMENT
SECTION 8	SITE INSPECTIONS
SECTION 9	ENVIRONMENTAL COMPLAINTS AND NON-COMPLIANCE
SECTION 10	IMPLEMENTATION STATUES OF MITIGATION MEASURES
SECTION 11	IMPACT FORECAST
SECTION 12	CONCLUSIONS AND RECOMMENDATION



2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

2.01 Organization structure and contact details of relevant parties with respect to on-site environmental management are shown in *Appendix B*.

CONSTRUCTION PROGRESS

- 2.02 The master and three month rolling construction programs are enclosed in *Appendix C* and the major construction activities undertaken in this Reporting Month are listed below:-
 - Construction for pumping station no.1 & 2
 - Construction of the rising main
 - Rock slope cutting works

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.03 Summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in this Reporting Month is presented in *Table 2-1*.

Table 2-1 Status of Environmental Licenses and Permits

Item	Description	License/Permit Status
1	Air Pollution Control (Construction Dust) Regulation	Notified EPD on 19 May 2010
		Ref.: 317486
2	Chemical Waste Producer Registration	Issued on 8/6/2010
		WPN 5213-912-L2720-01
3	Water Pollution Control Ordinance	Approved on 29/9/2010
		Valid to: 30/09/2015
		Licence no.: WT00007567-2010
4	Billing Account for Disposal of Construction Waste	Issued on 26 May 2010
		A/C No: 7010815
5	Construction Noise Permit	Permit no. GW-RS044-11
		Valid from: 7 Feb 2011
		Until: 6 Aug 2011
6	Construction Noise Permit	Permit no. GW-RS0771-11
		Valid from: 2 Sep 2011
		Until: 1 Mar 2012

- 2.04 The "Baseline/Impact Monitoring Methodology (TCS00512/09/600/R0010Ver.4)" was set out in accordance with the Sok Kwu Wan Environmental Monitoring and Audit Manual. It was approved by the ER and agreed with the Independent Environmental Checker (IEC) and submitted to the EPD on 8 July 2010.
- 2.05 Baseline Monitoring Report Volume 1 for Sok Kwu Wan (TCS00512/09/600/R0020Ver.3) was issued by the ETL and verified by the IEC on 12 July 2010. The report was also submitted to EPD on 12 July 2010.
- 2.06 Baseline Water Quality Monitoring Report Volume 2 for Sok Kwu Wan (TCS00512/09/600/R0182v5) was revised against AFCD comments and re-submitted to EPD on 7 July 2011.



3 SUMMARY OF BASELINE MONITORING REQUIREMENTS

ENVIRONMENTAL ASPECT

- 3.01 The EM&A baseline monitoring program cover the following environmental issues:
 - Air quality;
 - · Construction noise; and
 - Marine water quality
- 3.02 The ET implements the EM&A programme in accordance with the aforementioned requirements. Detailed air quality, construction noise and water quality of the EM&A program are presented in the following sub-sections.
- 3.03 A summary of the Air, Noise and Marine Water monitoring parameters is presented in *Table 3-1*:

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters			
Air Quality	1-hour TSP Monitoring by Real-Time Portable Dust Meter; and			
All Quality	• 24-hour TSP Monitoring by High Volume Air Sampler.			
Noise	Leq (30min) during normal working hours; and			
Noise	Leq (15min) during Restricted Hours.			
	In-situ Measurements			
	Dissolved Oxygen Concentration (mg/L);			
	• Dissolved Oxygen Saturation (%);			
	• Turbidity (NTU);			
Marina Watan Quality	• pH unit;			
Marine Water Quality	• Salinity (ppt);			
	Water depth (m); and			
	• Temperature (°C).			
	Laboratory Analysis			
	Suspended Solids (mg/L)			

MONITORING LOCATIONS

Air Quality

3.04 Three air monitoring stations: AM1, AM2 and AM3 were designated in the *EM&A Manual Section* 2.5. The detailed air monitoring stations is described in *Table 3-2* and graphical is shown in *Appendix D*.

Table 3-2 Location of Air Quality Monitoring Station

Sensitive Receiver	Location
AM1	Squatter house in Chung Mei Village
AM2	Squatter house in Chung Mei Village
AM3	Football court

Construction Noise

3.05 According to *EM&A Manual Section 3.4*, there were four noise sensitive receivers (NM1-NM4) designated for the construction noise monitoring. NM1, NM2 and NM4 of the three designated monitoring stations were identified and are monitored by the current DSD contract DC/2007/18. However, the premises monitoring station NM3 was rejected by the owner of 1B Sok Kwu Wan and an alternative noise monitoring station RNM3 replacement was proposed by the contract DC/2007/18 ET and accepted by the IEC and EPD before the baseline monitoring commencement in April 2008. The location RNM3 is located at Sok Kwu Wan Sitting-out area which just 3m width footpath away from the original location house 1B. The detailed construction noise monitoring stations to also under the Project is described in *Table 3-3* and graphical is shown in *Appendix D*.



Table 3-3 Location of Construction Noise Monitoring Station

Sensitive Receiver	Location
NM1	1, Chung Mei Village
NM2	20, Sok Kwu Wan
RNM3	Sok Kwu Wan Sitting-out Area
NM4	2-storey village house at Ta Shui Wan

Water Quality

3.06 Three control stations (C1-C3) and three impact stations (W1-W3) were recommended in the *EM&A Manual Section 4.5*. Impact stations W1-W3 identified at the sensitive receivers (FCZ and secondary contact recreation subzone) to monitor the impacts from the construction of the submarine outfall as well as the effluent discharge from the proposed STW on water quality. Three control stations: C1, C2 & C3 were specified at locations representative of the project site in its undisturbed condition and located at upstream and downstream of the works area. Detailed and co-ordnance of marine water quality monitoring stations is described in *Table 3-4* and the graphical is shown in *Appendix D* and would be performed for EM&A programme.

Table 3-4 Location of Marine Water Quality Monitoring Station

Station	Description	Co-ordnance		
Station	Description	Easting	Northing	
W1	Secondary recreation contact subzone at Mo Tat Wan	832 968	807 732	
W2	Fish culture zone at Picnic Bay	832 607	807 985	
W3	Fish culture zone at Picnic Bay	832 045	807 893	
C1 (flood)	Control Station	833 703	808 172	
C2	Control Station	831 467	807 747	
C3 (ebb)	Control Station	832 220	808 862	

MONITORING FREQUENCY AND PERIOD

3.07 The Impact monitoring carried out in the EM&A programme is basically in accordance with the requirements in *EM&A Manual Sections* 2.7, 3.6, 4.7 and 4.8. The monitoring requirements are listed as follows.

Air Quality Monitoring

Parameters: 1-hour TSP and 24-hour TSP.

Frequency: Once in every six days for 24-hour TSP and three times in every six days for

1-hour TSP.

<u>Duration</u>: Throughout the construction period.

Noise Monitoring

Parameters: Leq (30min) & Leq (5min), L10 and L90.

Leq (15min) & Leq (5min), L10 and L90 during the construction undertaken during Restricted Hours (19:00 to 07:00 hours next of normal working day and full

day of public holiday and Sunday)

Frequency: Once per week during 0700-1900 hours on normal weekdays. Restricted Hour

monitoring should depend on conditions stipulated in Construction Noise Permit.

Duration: Throughout the construction period.

Marine Water Quality Monitoring

Parameters: Duplicate in-situ measurements: water depth, temperature, Dissolved Oxygen,

pH, turbidity and salinity;

HOKLAS-accredited laboratory analysis: Suspended Solids



<u>Frequency</u>: Three days a week, at mid ebb and mid flood tides. The interval between 2 sets of monitoring will be more than 36 hours.

Sampling Depth

- (i.) Three depths: 1m below water surface, 1m above sea bottom and at mid-depth when the water depth exceeds 6m.
- (ii.) If the water depth is between 3m and 6m, two depths: 1m below water surface and 1m above sea bottom.
- (iii.) If the water depth is less than 3m, 1 sample at mid-depth is taken

Duration: During the course of marine works

<u>Post-Construction Monitoring – Marine Water</u>

3.08 Upon the marine works (dredging and HDD pipe installation) completion, 4 weeks of post-construction monitoring would be undertaken in accordance with the *Section 4.8 of EM&A Manual*. The requirements of post-construction monitoring such as the parameter, frequency, location and sampling depth is same as the impact monitoring.

MONITORING EQUIPMENT

Air Quality Monitoring

3.09 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B*. If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to approve. The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.

Noise Monitoring

3.10 Sound level meter in compliance with the *International Electrotechnical Commission Publications* 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m s⁻¹

Water Quality Monitoring

- 3.11 **Dissolved Oxygen and Temperature Measuring Equipment** The instrument should be a portable and weatherproof dissolved oxygen (DO) measuring instrument complete with cable and sensor, and use a DC power source. The equipment should be capable of measuring as included a DO level in the range of 0 20 mg L-1 and 0 200% saturation; and a temperature of 0 45 degree Celsius.
- 3.12 *pH Meter* The instrument shall consist of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It shall be readable to 0.1 pH in a range of 0 to 14.
- 3.13 *Turbidity (NTU) Measuring Equipment* The instrument should be a portable and weatherproof turbidity measuring instrument using a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0 1000 NTU.
- 3.14 *Water Sampling Equipment* A water sampler should comprise a transparent PVC cylinder, with a capacity of not less than 2 litres, which can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.
- 3.15 *Water Depth Detector* A portable, battery-operated echo sounder should be used for the determination of water depth at each designated monitoring station. This unit can either be hand held or affixed to the bottom of the work boat.
- 3.16 *Salinity Measuring Equipment* A portable salinometer capable of measuring salinity in the range of 0 40 parts per thousand (ppt) should be provided for measuring salinity of the water at each



monitoring location.

- 3.17 **Sample Containers and Storage** Water samples for SS should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen).
- 3.18 *Monitoring Position Equipment* A hand-held or boat-fixed type digital Differential Global Positioning System (DGPS) with way point bearing indication and Radio Technical Commission for maritime (RTCM) Type 16 error message 'screen pop-up' facilities (for real-time auto-display of error messages and DGPS corrections from the Hong Kong Hydrographic Office), or other equipment instrument of similar accuracy, should be provided and used during marine water monitoring to ensure the monitoring vessel is at the correct location before taking measurements.
- 3.19 **Suspended Solids Analysis** Analysis of suspended solids shall be carried out in a HOKLAS or other international accredited laboratory.

EQUIPMENT CALIBRATION

- 3.20 Calibration of the HVS is performed upon installation in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A). The calibration data are properly documented and the records are maintained by ET for future reference.
- 3.21 The 1-hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment was checked before and after each monitoring event. In-house calibration with the High Volume Sampler (HVS) in same condition was undertaken in yearly basis.
- 3.22 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis.
- 3.23 The Water Quality Monitoring equipments such as Dissolved Oxygen meter, pH meter, Turbidity Measuring Instrument and Salinometer, are calibrated by HOKLAS accredited laboratory of three month intervals.
- 3.24 All updated calibration certificates of the monitoring equipment used for the impact monitoring program in the Reporting Month would be attached in *Appendix E*.

METEOROLOGICAL INFORMATION

3.25 The meteorological information during the construction phase is obtained from the Wong Chuk Hang Station of the Hong Kong Observatory (HKO) due to it nearly the Project site.

DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.26 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 3.27 The monitoring data recorded in the equipment e.g. 1-hour TSP meter, sound level meter and Multi-parameter Water Quality Monitoring System, are downloaded directly from the equipments 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. 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.

DETERMINATION OF ACTION/LIMIT (A/L) LEVELS

3.28 According to the Sok Kwu Wan Environmental Monitoring and Audit Manual, the air quality, construction noise and marine water quality were set up, namely Action and Limit levels are listed in *Tables 3-5*, *3-6 and 3-7* as below.



Table 3-5 Action and Limit Levels for Air Quality

Monitoring Station	Action Le	vel (μg/m³)	Limit Level (μg/m³)	
Wollitoring Station	1-hour	24-hour	1-hour	24-hour
AM1	343	173	500	260
AM2	331	175	500	260
AM3	353	191	500	260

Table 3-6 Action and Limit Levels for Construction Noise

Monitoring	Action Level	Limit Level		
Location	0700-1900 hours on normal weekdays			
NM1 NM2 RNM3 NM4	When one or more documented complaints are received	75 dB(A) of Leq(30min) during normal hours from 0700 to 1900 hours on normal weekdays, reduced to 70 dB(A) of Leq(30min) for schools and 65 dB(A) during school examination periods		

Table 3-7 Action and Limit Levels for Marine Water Quality

Parameter	Performance	Impact Station		
Parameter	Criteria	W1	W2	W3
DO Concentration (Surface and Middle)	Action Level	5.39	4.64	4.71
(mg/L)	Limit Level	5.29	4.56	4.54
DO Concentration (Bottom)	Action Level	N/A	3.60	3.37
(mg/L)	Limit Level	N/A	3.06	3.18
Turbidity (Depth-Average)	Action Level	4.39	4.84	6.48
(NTU)	Limit Level	6.06	5.99	6.71
Suspended Solids (Depth-Average)	Action Level	12.41	9.24	10.79
(mg/L)	Limit Level	12.68	11.28	12.25

3.29 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan enclosed in *Appendix F*.



4 IMPACT MONITORING RESULTS - AIR QUALITY

4.01 As informed by the Contractor, the construction of relevant land works at Sok Kwu Wan was commenced on 27 July 2010, therefore, the impact EM&A program was started as compliance with the contract Particular Specification, Sok Kwu Wan EM&A Manual, and the EP. The air quality monitoring results shared with Contract DC/2007/18 are presented in the following sub-sections.

Results of Air Quality Monitoring

4.02 In this reporting period, 45 and 18 monitoring events were performed for 1-hour TSP and 24-hour TSP monitoring respectively at the designated locations AM1, AM2 and AM3. The results for 24-hour and 1-hour TSP at AM1, AM2 and AM3 are summarized in *Tables 4-1, 4-2* and 4-3 respectively. The 24-hour TSP data are shown in *Appendix G*. The graphical plots of 24-hour and 1-hour TSP are shown in *Appendix H*.

Table 4-1 Summary of 24-hour and 1-hour TSP Monitoring Results – AM1

	24-hour	1-hour TSP (μg/m³)				
Date	TSP $(\mu g/m^3)$	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
2-Aug-11	11	3-Aug-11	12:06	52	46	61
8-Aug-11	19	9-Aug-11	9:35	62	68	69
13-Aug-11	15	15-Aug-11	14:41	52	49	53
19-Aug-11	20	25-Aug-11	13:42	59	64	61
25-Aug-11	39	31-Aug-11	14:08	61	54	56
31-Aug-11	35					
Average	23	Average		58		
(Range)	(11 - 39)	(Range)			(46 - 69)	

Table 4-2 Summary of 24-hour and 1-hour TSP Monitoring Results – AM2

	24-hour	1-hour TSP (µg/m³)				
Date	TSP (μg/m³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
2-Aug-11	21	3-Aug-11	12:09	62	54	58
8-Aug-11	30	9-Aug-11	9:35	58	50	56
13-Aug-11	33	15-Aug-11	15:04	52	47	54
19-Aug-11	28	25-Aug-11	14:09	62	59	53
25-Aug-11	60	31-Aug-11	14:17	49	57	58
31-Aug-11	32					
Average	34	Avera	ge		55	
(Range)	(21 - 60)	(Rang	e)	(47 - 62)		

Table 4-3 Summary of 24-hour and 1-hour TSP Monitoring Results – AM3

	24-hour	1-hour TSP (μg/m³)				
Date	TSP (μg/m³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
2-Aug-11	25	3-Aug-11	12:21	47	52	59
8-Aug-11	35	9-Aug-11	12:30	104	120	108
13-Aug-11	39	15-Aug-11	15:11	49	54	56
19-Aug-11	71	25-Aug-11	14:21	59	57	63
25-Aug-11	53	31-Aug-11	14:36	56	58	61
31-Aug-11	81					
Average	51	Avera	ge		67	
(Range)	(25 - 81)	(Rang	e)	(47–120)		

4.03 As shown in *Tables 4-1*, *4-2* and *4-3*, 24-hour and 1-hour TSP results fluctuated well below the Action Level during the Reporting Period. No Notification of Exceedance (NOE) of 24-hour and 1-hour TSP air quality criteria or corrective action was therefore required.

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4.04	The meteorological information during the impact monitoring days are summarized in <i>Appendix I</i> .



5 IMPACT MONITORING RESULTS - CONSTRUCTION NOISE

5.01 The noise monitoring results extracted from Contract DC/2007/18 are presented in the following sub-sections.

Results of Construction Noise Monitoring

5.02 In this reporting period, 5 construction noise monitoring events were undertaken at designated location NM1, NM2, RNM3 and NM4. The results for Leq_{30min} at NM1, NM2, RNM3 and NM3 are summarized in *Tables 5-1*, *5-2*, *5-3* and *5-4* and graphical plots are shown in *Appendix H*.

Table 5-1 Summarized of Construction Noise Monitoring Results at NM1

Date	Start Time	End time	1 st Leq5	2 nd Leq5	3 rd Leq5	4 th Leq5	5 th Leq5	6 th Leq5	Leq30
3-Aug-11	10:11	10:41	52.3	54.9	58.1	56.7	55.6	52.3	55.5
9-Aug-11	13:30	14:00	57.0	61.5	60.1	57.7	56.7	59.1	59.0
15-Aug-11	9:51	10:21	51.4	48.9	54.1	52.6	51.8	50.1	51.8
25-Aug-11	10:36	11:06	52.6	51.8	53.9	55.4	50.6	56.7	54.0
31-Aug-11	10:02	10:32	51.4	52.6	54.7	49.8	53.4	50.6	52.4
Limit Le	Limit Level in dB(A)					•			75

Table 5-2 Summarized of Construction Noise Monitoring Results at NM2

Date	Start Time	End time	1 st Leq5	2 nd Leq5	3 rd Leq5	4 th Leq5	5 th Leq5	6 th Leq5	Leq30
3-Aug-11	10:49	11:19	62.1	61.8	59.6	63.2	60.5	59.7	61.4
9-Aug-11	14:20	14:50	55.5	58.9	53.0	51.3	54.4	59.4	56.4
15-Aug-11	10:32	11:02	59.6	62.3	60.4	58.7	58.4	61.9	60.5
25-Aug-11	13:06	13:36	61.4	58.6	60.7	61.8	62.7	62.4	61.5
31-Aug-11	10:39	11:09	60.3	61.4	58.6	57.1	62.9	61.5	60.7
Limit Le	Limit Level in dB(A)					•			75

Table 5-3 Summarized of Construction Noise Monitoring Results at RNM3

Date	Start Time	End time	1 st Leq5	2 nd Leq5	3 rd Leq5	4 th Leq5	5 th Leq5	6 th Leq5	Leq30	Corrected* Leq30
3-Aug-11	11:28	11:58	58.0	57.6	61.3	56.2	57.7	62.8	59.6	62.6
9-Aug-11	14:50	15:20	56.2	57.3	55.6	59.7	57.2	55.3	57.2	60.2
15-Aug-11	11:17	11:47	54.6	54.1	50.8	55.3	56.2	51.7	54.2	57.2
25-Aug-11	13:51	14:21	56.4	57.9	52.3	58.1	57.4	55.3	56.6	59.6
31-Aug-11	11:38	12:08	62.3	60.2	58.3	56.7	59.8	55.4	59.4	62.4
Limit Le	vel in dE	B(A)				-				75

^{*} A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-4 Summarized of Construction Noise Monitoring Results at NM4

Date	Start Time	End time	1 st Leq5	2 nd Leq5	3 rd Leq5	4 th Leq5	5 th Leq5	6 th Leq5	Leq30
3-Aug-11	12:11	12:41	63.6	60.7	64.3	59.8	64.1	60.3	62.5
9-Aug-11	15:00	15:30	63.5	64.5	66.9	66.4	67.0	66.2	65.9
15-Aug-11	12:06	12:36	55.4	59.8	58.7	62.5	61.1	61.6	60.4
25-Aug-11	14:43	15:13	59.8	58.2	61.3	57.6	59.2	61.8	59.9
31-Aug-11	12:19	12:49	57.8	58.6	56.3	54.2	61.8	60.8	59.0
Limit Le	Limit Level in dB(A)								75

5.03 It was noted that no noise complaint (which is an Action Level exceedance) was received. In view of the results shown in *Tables 5-1*, *5-2*, *5-3 and 5-4* which were all below 75dB(A), no Action or Limit Level exceedance was triggered during this month.



6 IMPACT MONITORING RESULTS – WATER QULAITY

- 6.01 The construction of marine outfall works was commenced on 19 July 2011 and therefore marine water quality monitoring is required in this reporting period. In this reporting period, 4 events of water quality monitoring were carried out at the designated locations. The monitoring results including in-situ measurements and laboratory testing results are presented in *Appendix G*. The graphical plots are shown in *Appendix H*.
- 6.02 During the Reporting Period, field measurements of both control and impact stations showed that marine water of the depth average of the salinity concentration was within 23.33 to 33.26 ppt, and pH value was within 7.99 to 8.82.
- 6.03 Monitoring results of 3 key parameters: dissolved oxygen (DO), turbidity and suspended solids in this Reporting Period, are summarized in *Tables 6-1*, 6-2, 6-3 and 6-4. A summary of exceedances for the three parameters: dissolved oxygen (DO), turbidity and suspended solids are shown in *Table 6-5*.

Table 6-1 Summary of Water Quality Results – Mid-ebb Tides (Dissolved Oxygen)

Sampling date			• -	conc. of d Layer	Depth A (mg/L)	Dissolved Oxygen conc. of Depth Ave. of Bottom Layer (mg/L)						
	WY1	WY2	WY3	CY1	CY2	CY3	WY1	WY2	WY3	CY1	CY2	CY3
1-Aug-11	5.79	6.05	5.92	5.83	5.38	5.87	NA	4.42	4.41	4.76	4.84	4.92
3-Aug-11	5.63	5.50	7.32	7.23	5.67	6.23	NA	4.47	5.33	4.93	4.58	4.45
5-Aug-11	7.83	8.81	5.73	9.35	8.86	7.22	NA	5.18	5.19	5.12	5.90	4.34
9-Aug-11	6.29	8.50	7.90	7.01	7.57	7.14	NA	5.45	5.33	5.41	5.57	5.59
11-Aug-11	5.74	6.53	5.94	7.67	6.83	6.83	NA	5.25	5.26	5.51	5.11	5.11
13-Aug-11	6.13	6.62	7.38	6.89	7.19	7.19	NA	4.54	5.49	4.82	4.78	4.78
15-Aug-11	5.72	7.54	6.62	6.82	6.65	6.65	NA	5.23	4.37	4.80	4.75	4.75
17-Aug-11	5.72	7.32	5.50	6.67	6.93	6.93	NA	5.16	4.82	4.78	4.16	4.16
19-Aug-11	7.21	6.68	6.39	6.81	6.78	6.78	NA	4.78	4.85	4.68	5.06	5.06
23-Aug-11	6.34	5.93	6.08	5.70	6.27	6.27	NA	4.40	4.72	4.43	5.24	5.24
25-Aug-11	6.27	6.10	6.09	6.00	6.57	6.57	NA	5.27	5.31	4.85	5.66	5.66
27-Aug-11	5.42	6.04	6.02	5.97	5.83	5.83	NA	4.48	5.43	4.26	4.04	4.04
29-Aug-11	6.43	6.04	5.99	6.40	6.50	6.50	NA	5.43	4.57	4.48	4.26	4.26
31-Aug-11	7.39	8.00	5.87	8.34	7.94	7.94	NA	4.99	5.01	4.99	5.59	5.59

Table 6-2 Summary of Water Quality Results – Mid-ebb Tides (Turbidity & Suspended Solids)

Committee doto		Turb	idity De	pth Ave.	(NTU)		Susp	ended S	olids D	epth Av	ve. (mg	₅ /L)
Sampling date	WY1	WY2	WY3	CY1	CY2	CY3	WY1	WY2	WY3	CY1	CY2	CY3
1-Aug-11	4.20	4.33	5.70	5.62	3.92	6.05	5.80	3.80	3.53	3.30	3.80	4.43
3-Aug-11	4.17	4.39	5.62	5.46	5.85	6.23	3.50	3.47	5.00	4.70	4.33	4.17
5-Aug-11	4.05	4.19	5.23	5.73	6.15	6.27	1.20	3.17	3.10	3.47	3.37	3.20
9-Aug-11	3.85	4.35	5.57	5.80	6.02	6.72	3.20	2.37	3.13	2.77	2.50	3.53
11-Aug-11	3.80	4.27	5.88	5.25	5.62	5.77	2.30	2.10	2.05	2.43	2.83	2.87
13-Aug-11	4.10	3.93	4.82	5.63	5.82	5.75	3.20	4.30	2.30	2.50	1.90	4.43
15-Aug-11	3.80	3.72	4.72	5.28	5.65	5.90	4.10	3.10	3.37	3.53	2.47	2.23
17-Aug-11	4.00	4.32	4.55	5.45	5.73	5.48	5.80	4.50	4.07	1.83	3.67	2.33
19-Aug-11	3.90	4.25	5.07	5.58	5.58	6.17	4.40	2.73	3.60	3.90	3.40	4.47
23-Aug-11	3.10	3.86	4.65	5.05	5.09	5.80	4.60	3.60	4.60	2.45	2.80	3.23
25-Aug-11	3.18	4.15	3.49	4.58	5.53	4.78	3.30	2.00	2.70	2.13	3.13	3.00
27-Aug-11	2.82	3.96	3.99	4.16	3.63	5.48	2.20	3.23	2.73	2.43	1.97	3.93
29-Aug-11	2.82	3.96	3.99	4.16	3.63	5.48	4.00	3.30	4.30	3.60	4.27	2.97
31-Aug-11	1.35	1.45	1.78	1.84	1.55	2.07	3.10	6.67	3.53	2.70	3.37	3.53



Table 6-3 Summary of Water Quality Results – Mid-flood Tides (Dissolved Oxygen)

	Disso	olved O	xygen o	conc. of	Depth A	ve. of	Dissolv	ed Oxyg	gen con	c. of D	epth A	ve. of	
Sampling date		Surf.	and Mi	d Layer	(mg/L)		Bottom Layer (mg/L)						
	WY1	WY2	WY3	CY1	CY2	CY3	WY1	WY2	WY3	CY1	CY2	CY3	
1-Aug-11	5.70	6.33	6.20	5.89	5.27	5.29	NA	3.58	5.23	5.13	4.31	4.02	
3-Aug-11	5.70	5.24	5.28	5.04	5.29	5.62	NA	4.19	4.31	3.58	3.80	4.11	
5-Aug-11	8.23	6.38	5.52	7.31	5.65	6.59	NA	4.49	4.75	5.62	5.08	5.00	
9-Aug-11	8.24	7.15	6.29	7.64	6.55	7.92	NA	5.87	5.14	5.26	4.97	5.14	
11-Aug-11	5.91	7.74	6.80	6.38	4.91	6.09	NA	5.45	5.24	4.91	4.85	4.60	
13-Aug-11	7.24	5.96	8.90	6.14	4.76	6.58	NA	4.44	6.26	4.76	5.25	4.77	
15-Aug-11	5.22	5.95	5.92	6.15	4.77	6.07	NA	4.71	4.65	4.77	4.17	4.05	
17-Aug-11	6.43	6.06	5.76	5.97	4.90	6.03	NA	4.61	4.65	4.90	4.38	3.85	
19-Aug-11	7.29	7.01	7.33	7.01	4.91	6.92	NA	4.91	4.85	4.91	6.22	5.19	
23-Aug-11	6.01	5.90	6.11	5.86	4.45	6.78	NA	4.54	4.73	4.45	4.33	4.62	
25-Aug-11	6.01	5.88	6.08	5.83	5.56	7.08	NA	5.67	5.90	5.56	5.40	5.77	
27-Aug-11	6.40	6.25	6.36	6.58	5.27	6.70	NA	4.61	4.79	5.27	4.70	4.79	
29-Aug-11	6.40	6.25	6.36	6.60	5.32	6.79	NA	5.19	5.10	5.32	4.04	5.39	
31-Aug-11	7.66	6.48	5.94	7.03	5.89	6.43	NA	4.42	4.85	5.42	5.15	4.87	

Table 6-4 Summary of Water Quality Results – Mid-flood Tides (Turbidity & Suspended Solids)

		_										1
Complina data		Turb	idity De	pth Ave.	(NTU)		Sus	pended S	Solids E	Pepth A	ve. (mg	(L)
Sampling date	WY1	WY2	WY3	CY1	CY2	CY3	WY1	WY2	WY3	CY1	CY2	CY3
1-Aug-11	3.25	4.30	5.10	4.82	3.20	4.57	3.40	3.80	1.83	6.53	5.43	4.30
3-Aug-11	4.14	4.42	5.46	5.37	5.79	6.18	2.70	5.67	2.90	2.73	2.27	4.67
5-Aug-11	4.20	4.33	5.42	6.03	5.67	5.20	1.30	1.23	2.33	2.10	2.33	1.90
9-Aug-11	3.50	4.00	5.60	5.78	6.33	5.55	2.80	2.63	2.00	2.43	3.53	3.47
11-Aug-11	3.90	4.15	5.03	5.58	6.25	6.15	3.20	2.53	3.13	3.83	3.73	1.63
13-Aug-11	4.00	4.40	5.02	6.18	5.18	6.18	3.60	3.07	3.60	3.77	4.20	3.43
15-Aug-11	3.65	3.93	4.62	5.80	5.75	5.18	1.90	2.30	2.63	2.90	1.90	2.53
17-Aug-11	3.85	4.60	5.28	5.72	5.42	5.25	6.10	2.63	2.67	3.40	4.13	3.27
19-Aug-11	3.90	4.45	5.42	5.95	5.60	5.05	3.00	3.77	2.73	2.53	2.97	2.50
23-Aug-11	3.90	2.71	3.50	4.07	4.64	4.97	2.60	2.47	1.37	2.90	2.10	1.93
25-Aug-11	3.90	3.58	4.35	4.41	4.64	5.78	2.90	1.93	1.80	2.13	2.33	2.20
27-Aug-11	3.43	3.83	3.86	4.14	5.66	5.22	4.20	2.10	1.90	2.70	3.60	2.63
29-Aug-11	3.43	3.83	3.86	4.14	5.66	5.22	3.10	2.33	1.27	2.40	2.33	2.10
31-Aug-11	1.35	1.48	1.53	1.81	1.44	1.55	2.70	3.93	4.53	4.53	3.53	5.10

Table 6-5 Summarized Exceedances of Marine Water Quality

Station	DO (Ave of Surf. & mid-depth)		DO (Ave. of Bottom Layer)		Turbidity (Depth Ave.)		SS (Depth Ave)		Total Exceedance	
	Action	Limit	Action	Limit	Action	Limit	Action	Limit	Action	Limit
	Mid-Ebb									
WY1	0	0	0	0	0	0	0	0	0	0
WY2	0	0	0	0	0	0	0	0	0	0
WY3	0	0	0	0	0	0	0	0	0	0
				Mid	-Flood					
WY1	0	0	0	0	0	0	0	0	0	0
WY2	0	0	0	0	0	0	0	0	0	0
WY3	0	0	0	0	0	0	0	0	0	0
No of Exceedance	0	0	0	0	0	0	0	0	0	0

6.04 For marine water monitoring, no exceedance of Action/Limit level was recorded in this reporting month. Therefore, no associated corrective actions were then required.



7 ECOLOGY

- 7.01 According to Clause 3.7 and Figure 4 in the Environmental Permit No. EP-281/2007/A, a total of 12 numbers *Celtis Timorensis* (uncommon species) in Chung Mei at Sok Kwu Wan, are identified to require labeling, fencing and protection. Out of these, four numbers located in the Pumping Station No.1 area are required to be transplanted in advance of pumping station construction and the transplantation proposal has been submitted to EPD previously.
- 7.02 Regular inspection of the transplanted tree was carried out by the landscaping sub-Contractor (Melofield Nursery and Landscape Contractor Limited) on 9 and 26 August 2011. As a contingency measure in case that CT7 to CT10 can no longer be recovered, additional 7 no. of *Celtis Timorensis* were planted adjacent to the under-monitoring *Celtis Timorensis* CT7 to CT10 on 30 April 2011. The tree inspection report is presented in *Appendix M*.



8 WASTE MANAGEMENT

8.01 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

Records of Waste Quantities

- 8.02 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
- 8.03 The quantities of waste for disposal in this Reporting Period are summarized in *Table 8-1* and *8-2* and the Monthly Summary Waste Flow Table is shown in *Appendix J*. Whenever possible, materials were reused on-site as far as practicable.

Table 8-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity	Disposal Location
C&D Materials (Inert) ('000m ³)	0.006	Sok Kwu Wan Transfer Facility
Reused in the Contract (Inert) ('000m ³)	0	-
Reused in other Projects (Inert) ('000m ³)	3.519	-
Disposal as Public Fill (Inert) ('000m ³)	0	Sok Kwu Wan Transfer Facility

Table 8-2 Summary of Quantities of C&D Wastes

Type of Waste	Quantity	Disposal Location
Metal (kg)	0	-
Paper / Cardboard Packing (kg)	0	-
Plastic (kg)	0	-
Chemical Wastes (kg)	0	-
General Refuses (tonne)	1.83	Sok Kwu Wan Transfer Facility

8.04 There was no site effluent discharged but the estimated volume of surface runoff was less than 50m^3 in this monthly period.



9 SITE INSPECTION

- 9.01 According to the Environmental Monitoring and Audit Manual, the environmental site inspection should been formulated by ET Leader. Regular environmental site inspections had been carried out by the ET to confirm the environmental performance. In this reporting period, weekly site inspection by ET was carried out on 2, 9, 17, 23 and 30 August 2011 and a joint-site visit by IEC, RE, Leader and ET was carried out on 9 August 2011.
- 9.02 The findings/ deficiencies that observed during the weekly site inspection are listed in *Table 9-1* and the relevant checklists are attached in *Appendix K*.

Table 9-1 Site Observations

Date	Findings / Deficiencies	Follow-Up Status
2 August 2011	• The silt curtain was not completely enclosed the sea bank. The Contractor should modify the curtain to ensure its de-silting effectiveness.	The silt curtain was modified on 9 August 2011.
9 August 2011	No environmental issue was observed during the site inspection.	N.A
17 August 2011	No environmental issue was observed during the site inspection.	N.A
23 August 2011	The Contractor should provide enough drip trays or covering for the chemical containers.	Drip trays were provided for the containers on 30 August 2011.
30 August 2011	Oil leakage was observed. The Contractor should provide repairing and avoid further leakage for water or soil contamination.	To be followed



10 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

10.01 No environmental complaint, summons and prosecution was received in this reporting period. The statistical summary table of environmental complaint is presented in *Tables 10-1*, *10-2* and *10-3*.

Table 10-1 Statistical Summary of Environmental Complaints

Donarting Davied	Environmental Complaint Statistics		
Reporting Period	Frequency	Cumulative	Complaint Nature
27 July 2010 – 31 July 2011	0	0	NA
1 – 31 August 2011	0	0	NA

Table 10-2 Statistical Summary of Environmental Summons

Donouting Donied	Environmental Summons Statistics		
Reporting Period	Frequency	Cumulative	Complaint Nature
27 July 2010 – 31 July 2011	0	0	NA
1 – 31 August 2011	0	0	NA

Table 10-3 Statistical Summary of Environmental Prosecution

Donauting Davied	Environmental Prosecution Statistics		
Reporting Period	Frequency	Cumulative	Complaint Nature
27 July 2010 – 31 July 2011	0	0	NA
1 – 31 August 2011	0	0	NA



11 IMPLEMENTATION STATUS OF MITIGATION MEASURES

11.01 The environmental mitigation measures that recommended in the Sok Kwu Wan Environmental Monitoring and Audit Manual covered the issues of dust, noise, water and waste and they are summarized as following:

Dust Mitigation Measure

- 11.02 Installation of 2m high solid fences around the construction site of Pumping Station P2 is recommended. Implementation of the requirements stipulated in the Air Pollution Control (Construction Dust) Regulation and the following good site practices are recommended to control dust emission from the site:
 - (a) Stockpiles of imported material kept on site should be contained within hoardings, dampened and / or covered during dry and windy weather;
 - (b) Material stockpiled alongside trenches should be covered with tarpaulins whenever works are close to village houses;
 - (c) Water sprays should be used during the delivery and handling of cement, sands, aggregates and the like.
 - (d) Any vehicle used for moving sands, aggregates and construction waste shall have properly fitting side and tail boards. Materials should not be loaded to a level higher than the side and tail boards, and should be covered by a clean tarpaulin.

Noise Mitigation Measure

- 11.03 As detailed in the EIA report, concreting work of the Pumping Station P1a and sewer alignment construction activities would likely cause adverse noise impacts on some of the noise sensitive receivers. Appropriate mitigation measures have therefore been recommended. The mitigation measures recommended in the EIA report are summarised below:
 - (a) Use of quiet equipment for the construction activities of the Pumping Stations and sewer alignment;
 - (b) Use of temporary noise barrier around the site boundary of Pumping Station P1a;
 - (c) Use of kick ripper (saw and lift) method to replace the breaker for pavement removal during sewer alignment construction;
 - (d) Restriction on the number of plant during sewer alignment construction;
 - (e) Use of noise screening structures in the form of acoustic shed or movable barrier wherever practicable and feasible in areas with sufficient clearance and headroom during the construction of sewer alignment;
 - (f) Adoption of manual working method wherever practicable and feasible in areas where the worksites of the proposed sewer alignment are located less than 20m from the residential noise sensitive receivers and less than 30m from the temple and the public library; and
 - (g) Implementation of the following good site practices:
 - Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.
 - Mobile plant, if any, should be sited as far away from NSRs as possible.
 - Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.
 - Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.
 - Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.

Water Quality Mitigation Measure

No-dig method using Horizontal Directional Drilling (HDD) would be used for the installation of outfall pipe of about 480 m from shore to minimize the potential water quality impacts arising from the dredging works required for the submarine outfall construction. For the remaining outfall pipe of about 240m and the diffuser section, open trench dredging would still be required.



- 11.05 During the dredging works, the Contractor should be responsible for the design and implementation of the following mitigation measures.
 - Dredging should be undertaken using closed grab dredgers with a total production rate of 55m³/hr;
 - Deployment of 2-layer silt curtains with first layer enclosing the grab and the second layer at around 50, from the dredging area while dredging works are in progress;
 - all vessels should be sized such that adequate clearance (i.e. minimum clearance of 0.6m) is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;
 - all pipe leakages should be repaired promptly and plant shall not be operated with leaking pipes;
 - excess material should be cleaned from the decks and exposed fittings of barges before the vessel is moved;
 - adequate freeboard (i.e. minimum of 200m) should be maintained on barges to ensure that decks are not washed by wave action;
 - all barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and
 - loading of barges and hoppers should be controlled to prevent splashing of dredged material to the surrounding water, and barges and hoppers should not be filled to a level which would cause the overflow of materials or sediment laden water during loading or transportation; and
 - the decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard.

Construction Run-off and Drainage

- 11.06 The Contractor should observe and comply with the Water Pollution Control Ordinance and the subsidiary regulations. The Contractor should follow the practices, and be responsible for the design, construction, operation and maintenance of all the mitigation measures as specified in ProPECC PN 1/94 "Construction Site Drainage". The design of the mitigation measures should be submitted by the Contractor to the Engineer for approval. These mitigation measures should include the following practices to minimise site surface runoff and the chance of erosion, and also to retain and reduce any suspended solids prior to discharge:
 - Provision of perimeter channels to intercept storm-runoff from outside the site. These should be constructed in advance of site formation works and earthworks.
 - Works programmes should be designed to minimize works areas at any one time, thus minimising exposed soil areas and reducing the potential for increased siltation and runoff.
 - Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand/silt particles from run-off. These facilities should be properly and regularly maintained. These facilities shall be carefully planned to ensure that they would be installed at appropriate locations to capture all surface water generated on site.
 - Careful programming of the works to minimise soil excavation works during rainy seasons.
 - Exposed soil surface should be protected by paving or hydroseeding as soon as possible to reduce the potential of soil erosion.
 - Trench excavation should be avoided in the wet season, and if necessary, these should be excavated and backfilled in short sections.
 - Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric.

General Construction Activities

11.07 Debris and rubbish generated on-site should be collected, handled and disposed of properly to avoid entering the nearby coastal waters and stormwater drains. All fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. Open drainage channels and culverts near the works areas should be covered to block the entrance of large debris and refuse.



Wastewater Arising from Workforce

11.08 Portable toilets shall be provided by the Contractors, where necessary, to handle sewage from the workforce. The Contractor shall also be responsible for waste disposal and maintenance practices

Sediment Contamination Mitigation Measure

- 11.09 The basic requirements and procedures for dredged mud disposal are specified under the WBTC No. 34/2002. The management of the dredging, use and disposal of marine mud is monitored by the MFC, while the licensing of marine dumping is the responsibility of the Director of Environmental Protection (DEP).
- 11.10 The uncontaminated dredged sediment will be loaded onto barges and transported to the designated marine disposal site. Appropriate dredging methods have been incorporated into the recommended water quality mitigation measures including the use of closed-grab dredgers and silt curtains. Category L sediment would be suitable for disposal at a gazetted open sea disposal ground.
- During transportation and disposal of the dredged marine sediments, the following measures should be taken to minimize potential impacts on water quality:
 - Bottom opening of barges should be fitted with tight fitting seals to prevent leakage of material. Excess material should be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.
 - Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels should be equipped with automatic self-monitoring devices as specified by the DEP.

Construction Waste Mitigation Measure

Good Site Practices and Waste Reduction Measures

- 11.12 It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are strictly followed. Recommendations for good site practices for the construction waste arising include:
 - Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arranging for collection and effective disposal to an appropriate facility, of all wastes generated at the site.
 - Training of site personnel in proper waste management and chemical handling procedures.
 - Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.
 - Provision of sufficient waste disposal points and regular collection for disposal.
 - Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Facility.
 - Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.
 - Maintain records of the quantities of wastes generated, recycled and disposed.
- 11.13 In order to monitor the disposal of C&D waste at landfills and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.
- 11.14 Good management and control can prevent the generation of significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:
 - segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;



- to encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the work force:
- any unused chemicals or those with remaining functional capacity should be recycled;
- use of reusable non-timber formwork to reduce the amount of C&D material;
- prior to disposal of C&D waste, it is recommended that wood, steel and other metals should be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill:
- proper storage and site practices to minimise the potential for damage or contamination of construction materials; and
- plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.

General Site Wastes

11.15 A collection area should be provided where waste can be stored prior to removal from site. An enclosed and covered area is preferred for the collection of the waste to reduce 'wind blow' of light material.

Chemical Wastes

- 11.16 After use, chemical waste (eg. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Any unused chemicals or those with remaining functional capacity should be recycled. Spent chemicals should be properly stored on site within suitably designed containers, and should be collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licenced facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordinance.
- 11.17 Any service shop and minor maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakages and spillage should only be undertaken with the areas appropriately equipped to control these discharges.

Construction and Demolition Material

- 11.18 The C&D material should be separated on-site into three categories: (i) public fill, the inert portion of the C&D material (e.g. concrete and rubble), which should be re-used on-site or disposed of at a public filling area; (ii) C&D waste for re-use and/or recycling, the non-inert portion of the C&D material, (e.g. steel and other metals, wood, glass and plastic); (iii) C&D waste which cannot be re-used and/or recycled. The waste producers are responsible for its disposal at strategic landfills.
- 11.19 In order to minimise the impact resulting from collection and transportation of material for off-site disposal, it was recommended that inert material should be re-used on-site where possible. Prior to disposal of C&D material, it was also recommended that steel and other metals should be separated for re-use and/or recycling where practicable to minimise the quantity of waste to be disposed of to landfill.

Ecology Mitigation Measure

Terrestrial Ecology

- 11.20 The uncommon tree species should be labelled and probably fenced to avoid direct or indirect disturbance during construction. Works areas should avoid woodland habitats, in particular where these trees are located.
- 11.21 Construction and maintenance of site runoff control measures would be required at all work sites during construction. These should include barriers to direct runoff to sand/silt removal facilities (sand/silt/traps and/or sediment basins); minimisation of earthworks during rainy season (May to September); and coverage of sand/fill piles and exposed earth during storms.



11.22 Special attention should be paid during the breeding season of Romer's Tree Frog (March to September) to ensure their habitat landward to Pumping Station P2 site is well protected from site runoff. Barriers should be deployed completely along the landward side of the pumping station site boundary to prevent any site runoff from entering the tree frog habitat. Intactness of the barriers should be frequently inspected.

Intertidal and Subtidal Ecology

- 11.23 Construction and maintenance of site runoff control measures would be required at all work sites during construction. These should include barriers to direct runoff to sand/silt removal facilities (sand/silt/traps and/or sediment basins); use of silt curtains along coastline; minimisation of earthworks during rainy season (May to September); and coverage of sand/fill piles and exposed earth during storms.
- 11.24 To reduce impacts of sediment resuspension upon nearby habitats and organisms during dredging, all dredging should be done using a closed-grab dredger, and silt curtains should be deployed around the dredger during all dredging activity

Fisheries Mitigation Measure

11.25 Closed grab dredger, deployment of silt curtains around the immediate dredging area and low dredging rate have been recommended in Water Quality of the EIA report in order to minimise sediment release into the water column.

Landscape & Visual Mitigation Measure

- 11.26 Mitigation measures recommended in the EIA Report for landscape and visual impacts during the construction stage are summarised below.
 - Screening of site construction works by use of hoarding that is appropriate to its site context;
 - Retaining existing trees and minimising damage to vegetation where possible by close
 co-ordination and on site alignment adjusted of rising main and gravity sewer pipelines. Tree
 protective measures should be implemented to ensure trees identified as to be retained are
 satisfactorily protected during the construction phase;
 - Careful and efficient transplanting of affected trees (1 no.) to temporary or final transplant location (the proposed tree to be transported is a semi-mature *Macaranga tanarius* and is located at the proposed Pumping Station P2 location);
 - Short excavation and immediate backfilling of sections upon completion of works to reduce active site area;
 - Conservation of top-soil for reuse.
 - Night-time light source from marine fleets should be directed away from the residential units
- 11.27 The implementation schedule of mitigation measures is presented in *Appendix L*.
- 11.28 Leader had been implementing the required environmental mitigation measures according to the Sok Kwu Wan Environmental Monitoring and Audit Manual subject to the site condition. Environmental mitigation measures generally implemented by Leader in this Reporting Month are summarized in *Table 11-1*.

Table 11-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures		
Water Quality	 Drainage channels were provided to convey run-off into the treatment facilities; and Drainage systems were regularly and adequately maintained. 		
Air Quality	 Cover all excavated or stockpile of dusty material by impervious sheeting or sprayed with water to maintain the entire surface wet; Public roads around the site entrance/exit had been kept clean and free from dust; and Tarpaulin covering of any dusty materials on a vehicle leaving the site. 		



Issues	Environmental Mitigation Measures
Noise	Good site practices to limit noise emissions at the sources;
	• Use of quite plant and working methods;
	• Use of site hoarding or other mass materials as noise barrier to screen noise at
	ground level of NSRs; and
	To minimize plant number use at the worksite.
Waste and	• Excavated material should be reused on site as far as possible to minimize off-site
Chemical	disposal. Scrap metals or abandoned equipment should be recycled if possible;
Management	• Waste arising should be kept to a minimum and be handled, transported and
ivianagement	disposed of in a suitable manner;
	• The Contractor should adopt a trip ticket system for the disposal of C&D
	materials to any designed public filling facility and/or landfill; and
	• Chemical waste shall be handled in accordance with the Code of Practice on the
	Packaging, Handling and Storage of Chemical Wastes.
General	The site was generally kept tidy and clean.



12 IMPACT FORECAST

12.01 Key issues to be considered in the coming month include:

Water Quality

- Erect of sand bag in proper area to avoid any muddy surface runoff from the loose soil surface or haul road during the rainy days; and
- The accumulated stagnant water should be drained away.

Air Quality

- Vehicles shall be cleaned of mud and debris before leaving the site;
- Stockpile and loose soil surface shall be covered with tarpaulin sheet or other means to eliminate the fugitive dust;
- Water spaying on the dry haul road and exit/entrance of the site in regular basis is reminded;
 and
- Public roads around the site entrance/exit had been kept clean and free from dust.

Noise

- Works and equipment should be located to minimize noise nuisance from the nearest sensitive receiver; and
- Idle equipments should be either turned off or throttled down;

Waste and Chemical Management

- Housekeeping on site shall be improved;
- The Contractor is advised to fence off the construction waste at a designated area in order to maintain the tidiness of the site;
- Drip tray and proper label should be provided for all chemical containers.
- C&D waste should be disposed in regular basis.



13 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

- 13.01 This is the 13th Monthly EM&A Report covering the construction period from 1 to 31 August 2011 (the Reporting Period).
- 13.02 No 1-hour TSP or 24-hr TSP monitoring results was found to be triggered the Action or Limit Level in this Reporting Period.
- 13.03 No noise complaint (an Action Level exceedance) was received and no construction noise measurement results that exceeded the Limit Level were recorded in this reporting month.
- 13.04 As informed by the Contractor, the marine work of outfall construction has been commenced on 19 July 2011, therefore, water quality was undertaken in this Reporting Month. The monitoring result demonstrated no exceedance of Action or Limit Level in this Reporting Period.
- 13.05 No documented complaint, notification of summons or successful prosecution was received.
- 13.06 In this reporting period, weekly site inspection by ET was carried out on 2, 9, 17, 23 and 30

 August 2011 and a joint-site visit by IEC, RE, Leader and ET was carried out on 9 August 2011.

 All the observation has been rectified during the next week site inspection. The environmental performance of the Project was therefore considered as satisfactory.

RECOMMENDATIONS

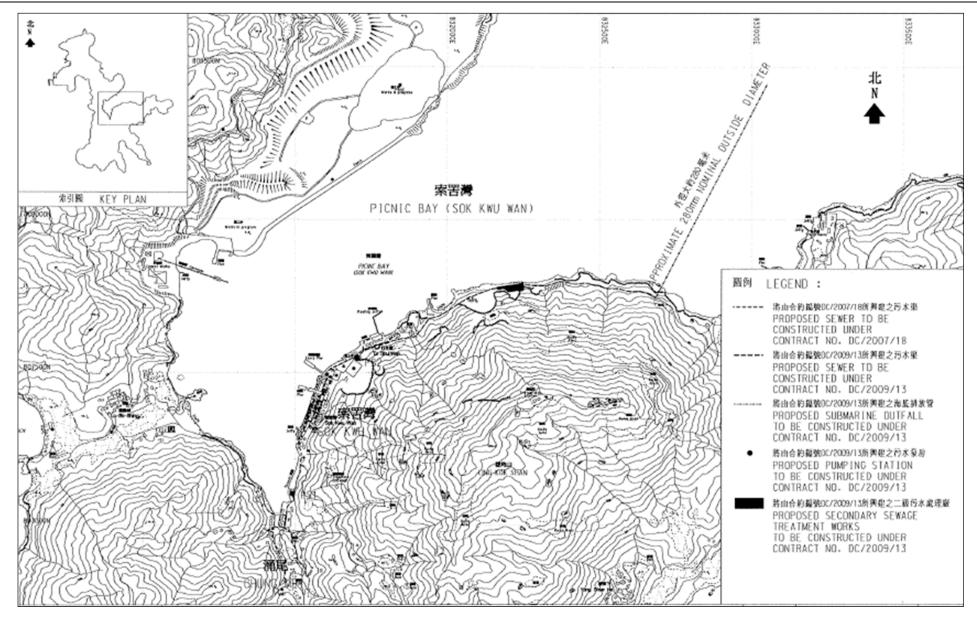
- 13.07 During wet season, muddy water and other water quality pollutants via site surface water runoff into the sea body within Fish culture zone at Picnic Bay and the Secondary recreation contact subzone at Mo Tat Wan is the key issue of the Project. Mitigation measures for water quality should be properly maintained to prevent any muddy or sandy runoff from the loose soil surface overflow on the site boundary.
- 13.08 Moreover, special attention should be also paid on the dust mitigation measures to avoid fugitive dust emissions from loose soil surface or haul road. Mitigation measures implemented for control the surface runoff including wheel wash facilities, covering of the loose soil surface or stockpile with tarpaulin sheet, etc., should fully implement.



Appendix A

Site Layout Plan – Sok Kwu Wan Portion Area







Appendix B

Organization Structure and Contact Details of Relevant Parties



Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. AU Chi Kwong	-	-
SCJV	Engineer's Representative	Mr. Neil Wong	2982 0240	2982 4129
SCJV	Resident Engineer	Mr. Alfred Cheung	2982 0240	2982 4129
Scott Wilson	Independent Environmental Checker	Mr. Rodney Ip	2410 3750	2428 9922
Leader	Project Manager	Mr. Vincent Chan	2982 1750	2982 1163
Leader	Site Agent	Mr. Stephen Leung	2982 1750	2982 1163
Leader	Environmental Officer	Mr. K.Y. So	2982 8652	2982 8650
Leader	Section Engineer	Mr. Burgess Yip	2982 1750	2982 1163
Leader	Safety Officer	Mr. Edwin Leung	2982 1750	2982 1163
AUES	Environmental Team Leader	Mr. T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959 6059	2959 6079
AUES	Assistance Environmental Consultant	Mr. Ray Cheung	2959 6059	2959 6079
AUES	Team Supervisor	Mr. Ben Tam	2959 6059	2959 6079

Legend:

DSD (Employer) – Drainage Services Department

CDM (Engineer) – Scott Wilson CDM Joint Venture

Leader (Main Contractor) – Leader Civil Engineering Corporation Limited

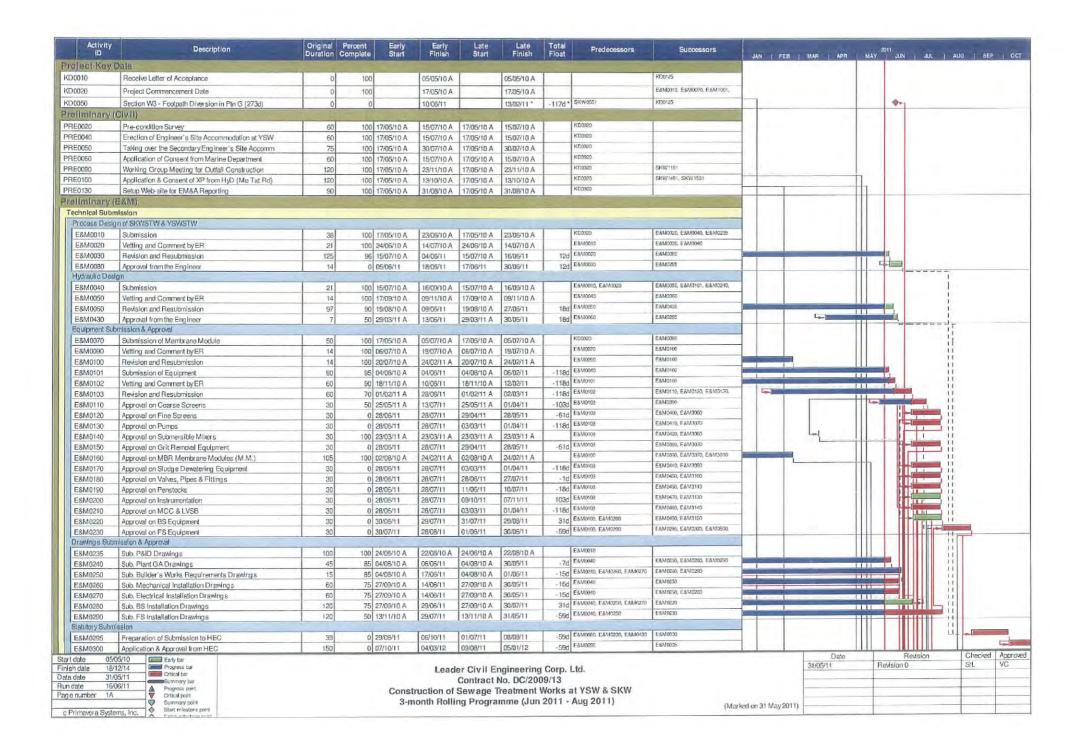
Scott Wilson (IEC) – Scott Wilson Limited

AUES (ET) – Action-United Environmental Services & Consulting

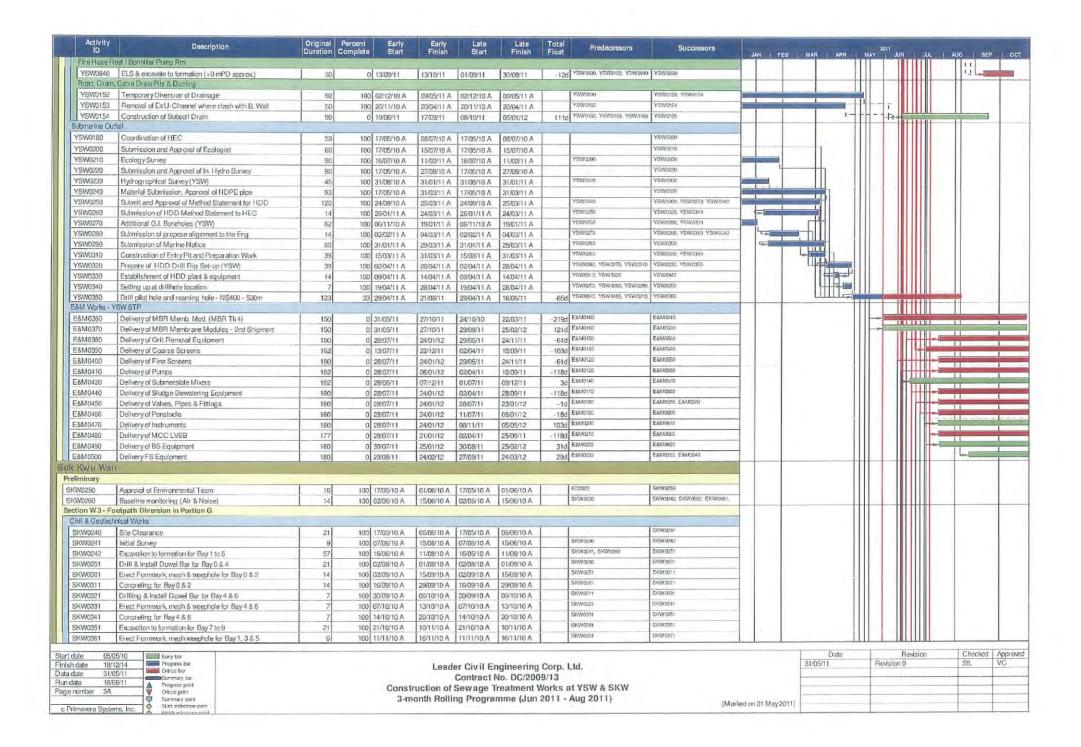


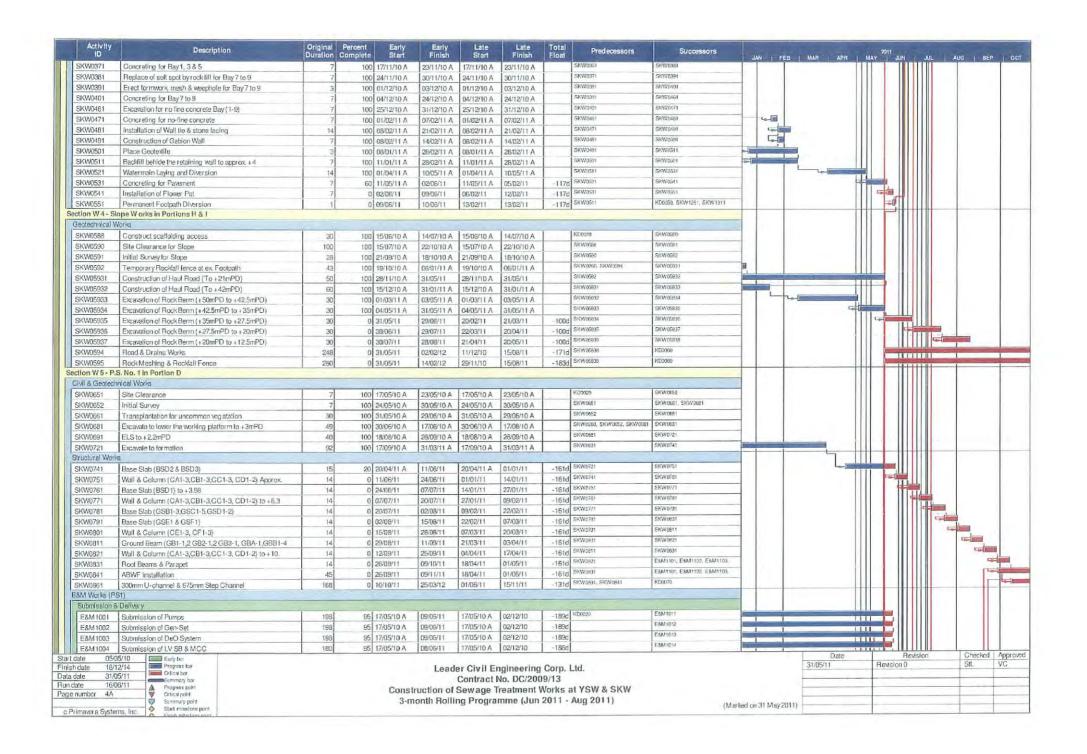
Appendix C

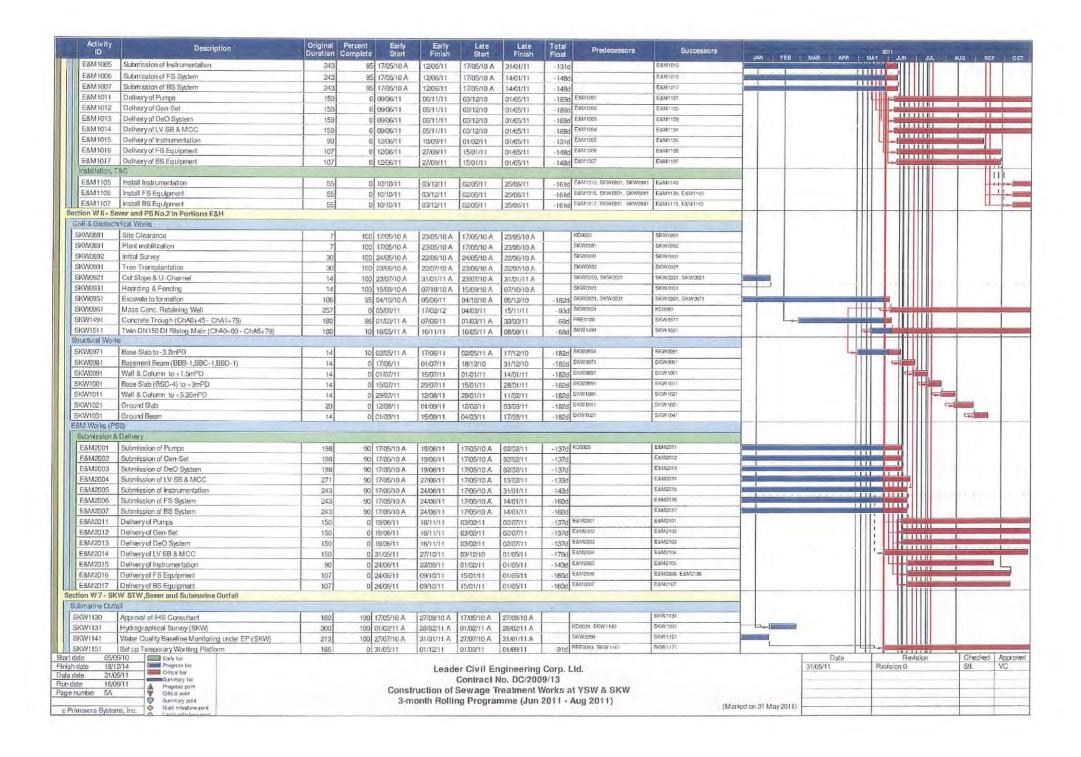
A Master and Three Months Rolling Construction Programs



Activity	Description	Duration 0	The second secon	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors	JAN	FEB	MAR APE	I MAY	2011 JUN	I JUL	AUG	SEP
E&M0320	Form 314 Submission to FSD	14	0 29/08/11	11/09/11	15/04/12	28/04/12	230d	E8M0230	E&M0325, E&M0070							-	
E8M0325	Submission to WSD	14	0 12/09/11	25/09/11	29/04/12	12/05/12	230d	E8M0320	E&M0570, E&M0900				1111	1 11	ШШ		
E&M0350	Form 501 Submission to FSD (PS1 & PS2)	28	0 09/10/11	06/11/11	18/01/14	14/02/14	832d	E8M2016									-
g Shue W	Van																
liminary													1111	1 11			
W0020	Approval of Environmental Team	16	100 17/05/10 A	01/06/10 A	17/05/10 A	01/06/10 A		FCD0026	YSW0000, YSW0010				1111	1 1			
W0030	Baseline monitoring (Air & Noise)	14	100 31/07/10 A	07/09/10 A	31/07/10 A	07/09/10 A		YSW0020	YSW0120, YSW0152, YSW0500,				1111	1 11			
W0040	Baseline monitoring (Water)	213	100 30/07/10 A	31/12/10 A	30/07/10 A	31/12/10 A		Y53V0020	YSW0050								
W0050	Erect Hoarding and Fencing	60	100 17/05/10 A	-		15/07/10 A					+	_	1111	1 11	ш	111	
	lope Works in Portion A& C															1-	
W0075	Mobilization	30	100 17/05/10 A	15/06/10 A	17/05/10 A	15/06/10 A		KD0020	YSW6100				1111	1 11		11:	
W0080	Site Clearance	30	100 17/05/10 A	15/06/10 A	17/05/10 A	15/06/10 A			YSW0065, YSW0120				1111	1 11		1	
W0085	Initial Survey	14	100 02/05/10 A	15/06/10 A	02/06/10 A	15/06/10 A		Y5W0000	YSW0120				1111	1 11		113	
W0090	Verify the Rock Boulder required Stablization Wk	30	100 19/07/10 A	21/03/11 A	19/07/10 A	21/03/11 A	-		YSW0100 YSW0110				1111	1 11		115	
W0100	Removal of Rock Boulder	280	85 20/09/10 A	31/07/11	20/09/10 A	15/08/11	15d	YSW0075, YSW0090	VSW0150						ШШ	m !	
and the same of th		280			_	The second secon	-223d		VSW0150		-		-1111-	1 111	HILLINI		-
W0110	Stablizing work for rockboulder	The second secon	0 20/06/11	25/03/12	09/11/10	15/08/11	-2230	YSW0030, YSW0080, YSW0085	YSW0131, YSW0165							1	
W0120	Cut the slope to design profile	100	100 13/09/10 A	14/09/10 A	13/09/10 A	14/09/10 A	-	YSW0120	YSW0132	-				1 11		115	
V0131	Mobilization of Plant and Material of Soll Natis	20	100 01/09/10 A	14/09/10 A	01/09/10 A	14/09/10 A		VSW0131	VSW0133	- 1				1 11		i.	
N0132	Erect Scaffold and Working Platform	20	100 15/09/10 A	16/09/10 A	15/09/10 A	16/09/10 A		Y5W0132	Y5W0134							1 1	
N0133	Setting out and Verify Locations of Soil Nails	10	100 14/09/10 A	31/10/10 A	14/09/10 A	31/10/10 A				-				1		l i	
N0134	Drilling and Soil Nalls Installation	20	100 08/10/10 A	19/11/10 A	08/10/10 A	19/11/10 A		Y5W0133	YSW0135	4 1						13	
N0135	Construction of Nail Heads	10	100 24/11/10 A	01/12/10 A	24/11/10 A	01/12/10 A		YSW0134	YSW013E	-							
W0136	Mesh installation on Cut Slope	10	100 04/12/10 A	04/12/10 A	04/12/10 A	04/12/10 A		Y5W0135	YSW0127							1 1	
WD137	Hydroseeding	30	0 31/05/11	29/06/11	10/04/11	09/05/11	-51d		YSW0140							117	
W0140	Construction of U-channels, Catch Pit on slope	120	90 02/04/11 A	11/07/11	02/04/11 A	21/05/11	-51d		YSW0150			-	1111	1 10		10	
W0165	Construction of Barrier Wall (below Ground Lev)	240	92 10/09/10 A	19/06/11	10/09/10 A	21/05/11	-28d	A2M0150	YSW0150, YSW0154, YSW0155							1	
tion W 2 - Y	SW STW & Submarine Outfall															1	
YSW0412	Mobilization	30	100 17/05/10 A	15/06/10 A	17/05/10 A	15/06/10 A		K00000	YSW0422				1111	1 11		115	
YSW0422	Site Clearance	30	100 17/05/10 A	15/06/10 A	17/05/10 A	15/06/10 A		KD0020 YSW0412	YSW0432, YSW0500, YSW0510.				- 1111	1 11		i i	
YSW0432	Initial Survey	14	100 02/06/10 A	15/06/10 A		15/06/10 A		Y8W9422	YSW0510								
	GLH+T	114	100 Jozobi lan	1 ISOUTU A	102007107	TIGORIUA							1111			11:	
		I col	400 17100110 4	Liounus A	17/09/10 A	16/12/10 A		YSW0030, YSW0422	Vsw6610				1111	1 11		110.1	
YSW0500	ELS & Excavation for Inlet Pumping Station	62	100 17/09/10 A	16/12/10 A 04/04/11 A	17/12/10 A	04/04/11 A		YSW0432, YSW0500	YSW0520		4		1111	1 11		1166	
YSW0510	Sub-structure construction (Inlet Pumping Stn)	30	100 17/12/10 A		4			YSW0510	YSW0630, YSW0610							1.5	
YSW0520	Backfill & Remove ELS (Inlet Pumping Stn)	30	100 03/01/11 A	05/05/11 A	03/01/11 A	05/05/11 A		YSW0620	YSW0640				TILL			1 1	
YSW0530	ELS & Excavation for Equalization Tank	40	100 11/01/11 A	08/06/11 A	11/01/11 A	08/06/11 A	1071	YSW0530	YSW0650							11	
YSW0540	Sub-structure construction (Equalization Tank)	40	0 31/05/11	09/07/11	25/11/10	03/01/11	-187d	YSW0540	YSW6570	- -				-11			
YSW0550	Backfilling & Remove ELS (Equalization Tank)	40	0 10/07/11	18/08/11	04/01/11	12/02/11	-187d	1 NA CARAME	YSW0580	- 1							
YSW0570	Excavate to formation by open cut	30	0 19/08/11	17/09/11	13/02/11	14/03/11	-187d		YSW0680	4				1 11		lii	La la
YSW0580	Base slab construction	30	0 18/09/11	17/10/11	15/03/11	13/04/11	-187d	Y8W0670	1441000		-		-1111-			- 111	
YSW STP - (-	,		-	Liamento Appropria Mentero	YSW0520	4				1 11	ШШ	1125	
YSW0510	Excavate to formation	50	100 0B/09/10 A	17/09/10 A	08/09/10 A	17/09/10 A		YSW0030, YSW0422, YSW0520	YSW090					1 11		1.1	
YSW0520	Base slab construction	60	100 18/09/10 A	23/05/11 A	18/09/10 A	23/05/11 A		Y8W0610	1411454		1		UUL			1 1	
YSW0530	G/F to 1/F construction	95	85 27/12/10 A	14/06/11	27/12/10 A	08/05/11	-36d		YSW0640		1		TITI				
YSW0640	1/F to Roof Construction	91	0 14/06/11	13/09/11	09/05/11	07/08/11	-36d	YSW0630	YSW0810, YSW0840	1				1	HILL	1.11	
YSW0810	ABWF Installation	100	0 24/07/11	01/11/11	18/06/11	25/09/11	-36d	YSW0640	E6M0610, E8M0600, E8M0630,		1					1111	
YSWSTP-	GLF - H & DN Tanks					02110										11	
YSW0550	ELS & Excavation for DN Tarks	72	100 21/08/10 A	14/10/10 A	21/08/10 A	14/10/10 A		YSW0030, YSW0422	YSW0660				1141			111	
YSW0660	Sub-struction construction (DN Tanks)	44	100 15/10/10 A	31/12/10 A	15/10/10 A	31/12/10 A		YSW0690	YSW0670							111	
YSW0670	Backfill & Remove ELS (DN Tanks)	32	100 08/01/11 A	15/03/11 A	08/01/11 A	15/03/11 A		YSW0660	YSW0660		-	1				111	1
YSW0580	Base slab construction	30	100 28/03/11 A	28/03/11 A	28/03/11 A	28/03/11 A		YSW0570	YSW0660			4-1				iii	
YSW0590	Superstructure construction upto +10.5mPD	60	80 30/03/11 A	11/06/11	30/03/11 A	16/01/11	-146d	YSW0990	YSW0700, YSW0020				1111			111	
YSW0700	Apply protective paint	35	0 12/06/11	16/07/11	17/01/11	20/02/11	-146d	YSW0890	YSW0710					-		ii	
YSW0710	Water test	30	0 17/07/11	15/08/11	21/02/11	22/03/11	-146d	YSW0700	EAM0510: EAM0630, EAM0640						111		
YSW0820	ABWF Installation	65	0 12/06/11	15/08/11	17/01/11	22/03/11	-1464	Y54V0090	ESM0510 ESM0530, ESM0540						11.00	-	
date 18/	705/10			struction of	Contract Sewage		9/13 Vorks	Ltd. at YSW & SKW Aug 2011)	(Mar			Date 31/05/11		Revision 0	levision	Ch StL	ecked A







Activity ID	Description	Original I Duration C	Percent Early omplete Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors	JAN FEB MAR APR MAY JUN JUL AUG SEP
SKWSTW							The same of			
Submission	& Delivery (E&M)									
E&M3010	Delivery of MBR M.M 1st shipment for Temp STP	150	0 31/05/11	27/10/11	24/04/13	20/09/13	6940	E8M0160	EBM3170	
E&M3030	Delivery of Grit Removal Equipment	180	0 28/07/11	24/01/12	31/08/11	26/02/12	340	E&M0150	E&M3190	
E&M3060	Delivery of Fine Screens	136	0 28/07/11	11/12/11	15/08/11	28/12/11	180	E&MOI20	E&M3210	
E&M3070	Delivery of Pumps	136	0 28/07/11	11/12/11	15/08/11	28/12/11	180	E&M0130	E8M3220	
E&M3080	Delivery of Submersible Mixers	180	0 28/06/11	25/12/11	15/09/11	12/03/12	790	E&M0140	E&M3230	
E&M3090	Delivery at Studge Dewatering Equipment	210	0 28/07/11	23/02/12	18/07/11	12/02/12		E&M0170	EBM3240	
E&M3100	Delivery of Valves, Pipes & Fittings	180	0 28/07/11	24/01/12	05/02/13	03/08/13	5580	E&M0180	E8M3250	
E&M3110	Delivery of Penstocks	180	0 28/07/11	24/01/12	18/02/13	16/08/13	5710	E&Md190	E&M3260	
E8M3130	Delivery of instruments	180	0 28/07/11	24/01/12	04/05/13	30/10/13	6460	E8M0200	E&M3270	
E&M3140	Delivery of MCC LVSB	180	0 28/07/11	24/01/12	09/05/11	04/11/11	-810	E&M0210	E8M3261	
E&M3150	Delivery of BS Equipment	180	0 30/07/11	25/01/12	20/02/13	18/08/13	5710	E&M0220	E8M3291	
E8M3160	Delivery of FS Equipment	180	0 29/08/11	24/02/12	14/01/12	11/07/12	1380	E8M0230	E8M0340, E6M3300	
Construction	n of Grid A-G									
SKW1261	Excavate for SKW STW Structure (Grid A - G)	164	0 10/06/11	21/11/11	14/02/11	27/07/11	-1170	SKW0551	SKW1271, SKW1371	
Rising Main										
SKW1481	Subm, Approval & Delivery of DI pipes	120	100 17/05/10 A	28/02/11 A	17/05/10 A	28/02/11 A		1(D0020	SKW 15(1)	
SKW1501	Concrete Trough (ChB0+00 - ChB1+20)	300	0 31/05/11	25/03/12	14/09/10	10/07/11	-2590	PRE0100, SKW1461	SKW 1521	
ection W8-L	andscape Softworks In All Portions									
3KW1591	Tree Survey	21	100 17/05/10 A	06/06/10 A	17/05/10 A	06/06/10 A		KD0020	SKW1621	
SKW1611	Preservation & Protection of Trees	822	46 17/05/10 A	16/08/12	17/05/10 A	15/08/12	-1d	KD0020	KD0100, SKW1631	
SKW1621	Transplantation at SKW	60	100 07/06/10 A	05/10/10 A	07/06/10 A	05/10/10 A		SKW1591		

Start date 05/05/10
Finish date 18/12/14
Data date 31/05/11
Run date 16/08/11
Page number 6A

o Primaver a Systems, Inc.

Leader Civil Engineering Corp. Ltd.
Contract No. DC/2009/13
Construction of Sewage Treatment Works at YSW & SKW
3-month Rolling Programme (Jun 2011 - Aug 2011)

Date	Revision	Checked	Approved
31/05/11	Revision 0	StL	VC
1			
		-	
			- the

Activity ID	Description	Original Duration 0	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors	JAN FEB MAR APR	MAY	2011 JUN JUL	AUG	SEP (
roject Key D	Date		100		1-171										
KD0010	Receive Letter of Acceptance	0	100		05/05/10 A		05/05/10 A			KD0125					
CD0020	Project Commencement Date	0	100		17/05/10 A		17/05/10 A			E8M0010, E5M0070, E8M1001,					
CD 0050	Section W3 - Footpath Diversion in Ptn G (273d)	0	0		10/06/11		13/02/11 *	-117d*	SKW0551	KD0125					
Preliminary				THE REAL PROPERTY.		-				THE RESERVE					
reliminary (E	TOBAN	191	100	17/05/10 A	23/11/10 A	17/05/10 A	23/11/10 A		K00050			-			
Technical Subm				1133											
	gn of SKWSTW & YSWSTW								1 10 10 10 10						
		398	90	17/05/10 A	18/06/11	17/05/10 A	30/06/11	12d				-			
+Hydraulic Des	sign														
		333	91	15/07/10 A	13/06/11	15/07/10 A	30/06/11	18d							
+Equipment Su	bmission & Approval														
		469	54	17/05/10 A	28/08/11	17/05/10 A	07/11/11	71d	,						
+Drawings Sub	omission & Approval		-					1						_	
+Statutory Subn	The Table	401	75	24/06/10 A	29/07/11	24/06/10 A	30/07/11	1d				T			
+Statutory Subn	rission	189	ام	29/08/11	04/03/12	01/07/11	14/02/14	712d							
ung Shue Wa	an.	189	U	29/08/11	04/03/12	101/0//11	14/02/14	/120				-			
+Preliminary	an			-							-	1			
Fremmary	I	229	100	17/05/10 A	31/12/10 A	17/05/10 A	31/12/10 A			1					
Section W1 - S	Rope Works in Partion A & C	223	100	17/00/10 /4	3//12/0A	17700FTG PC	Jameron	-							
		679	69	17/05/10 A	25/03/12	17/05/10 A	15/08/11	-223d				-			
Section W 2 - YS	W STW & Submarine Outfall	0,0	00]	17100 1071	I EUTOO IN	Timeorio	11010011	1							
+CMI & Structu															
		533	57	17/05/10 A	01/11/11	17/05/10 A	05/01/12	66d				-th -c-			
+Suomarine Ou	itali														
		461	91	17/05/10 A	21/08/11	17/05/10 A	16/06/11	-65d				-			
+E&M Works - 1	YSW STP														
		270	0	31/05/11	24/02/12	24/10/10	05/05/12	71d				-			
ok Kwu Wan						1000	1								
+Preliminary					1		1			_	_				
		30	100	17/05/10 A	15/06/10 A	17/05/10 A	15/06/10 A								
+Givil & Geotec	otpath Diversion in Portion G		_			_									
+ C/M/ & G80.80	Princer vitoris	390	ne	17/05/10 A	10/06/11	17/05/10 A	T10/05/11	-117d							
Section W 4 - Sic	ope Works in Portions H & I	390	30	17/00/10 A	TUOGIT	TIMOGRAM	Trocourte	1 -1170							
+Geotechnical \															
		610	38	15/06/10 A	14/02/12	15/06/10 A	15/08/11	-183d				-		-	
Section W 5 - P.S	S. No. 1 in Portion D														
+Civil & Geotec	hnical Works														
		319	100	17/05/10 A	31/03/11 A	17/05/10 A	31/03/11 A				A STATE OF THE STA	-			
+Structural Wor	ls .					-		-		1					
		341	1	20/04/11 A	25/03/12	01/01/11 A	15/11/11	-131d				1			
E&M Works (PS															
+Submission	& Delivery	T mark	ecl	47/05/49 4	Locustus	Lizingua	Intinetta	-189d	ľ	1					
+Installation,	TSC	539	59	17/05/10 A	06/11/11	17/05/10 A	101/05/11	1 -1890							
+wisituation,	TMV.	55	ol.	10/10/11	03/12/11	02/05/11	25/06/11	-161d		1					
Section W 6 - Sm	wer and PS No.2 in Portions E&H	(33)	0	13/19/11	Localett	120011	Legioniii	1010							
+Civil & Geotec															
		641	48	17/05/10 A	17/02/12	17/05/10 A	15/11/11	-93d				-			
+Structural Wor	ks														
		132	1	02/05/11 A	15/09/11	18/12/10 A	17/03/11	-182d							
art date 05/0 alsh date 18/1: ta date 31/0 n date 16/0 ge number 1A	2/14 Progress bar 5/11 Onlical har			Const	ruction of	Contract Sewage 1	ngineering No. DC/20 Treatment mme (Jun	09/13 Works a	at YSW & SKW	Willing (P. 1 of 2 YMa	Date 31/05/11	F	Revision levision 0	Chec StL	cked App VC

Activity ID	Description	Original Duration C	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors	JAN FEB MAR AF	B I MAY	2011 BIN	40 A	G SAP	1 00
E&M Works (PS2)													Juni			
+Submission & Delivery																
		549	57 17	05/10 A	16/11/11	17/05/10 A	02/07/11	-137d								
Section W7 - SKW STW,S	ewer and Submarine Outfall	1			100											
+Submarine Outfall																
		564	79 17	05/10 A	01/12/11	17/05/10 A	01/09/11	-91d							-	
SKWSTW																
+Submission & Delivery (E&M)															
		270	0 31/	05/11	24/02/12	09/05/11	30/10/13	614d								
+Construction of Grid A-C	G				Mary San						4					
		164	0 10	06/11	21/11/11	14/02/11	27/07/11	-117d								
+Rising Main																
		679	29 17/	05/10 A	25/03/12	17/05/10 A	10/07/11	-259d				-		-		
Section WB - Landscape S	Softworks in All Portions															
		823	51 17/	05/10 A	16/08/12	17/05/10 A	15/08/12	-10								

Start date	05/05/10		Early ber
Finish date	18/12/14	1000	Progress bar
Data date	31/05/11		Critical bar Summary bar
Run date	16/06/11	A	Progress port
Page number	2A	V	Ortical point
		0	Summary point
o Primavera S	ystems, Inc.	0	Stat missione point

Leader Clvil Engineering Corp. Ltd.
Contract No. DC/2009/13
Construction of Sewage Treatment Works at YSW & SKW
3-month Rolling Programme (Jun 2011 - Aug 2011)

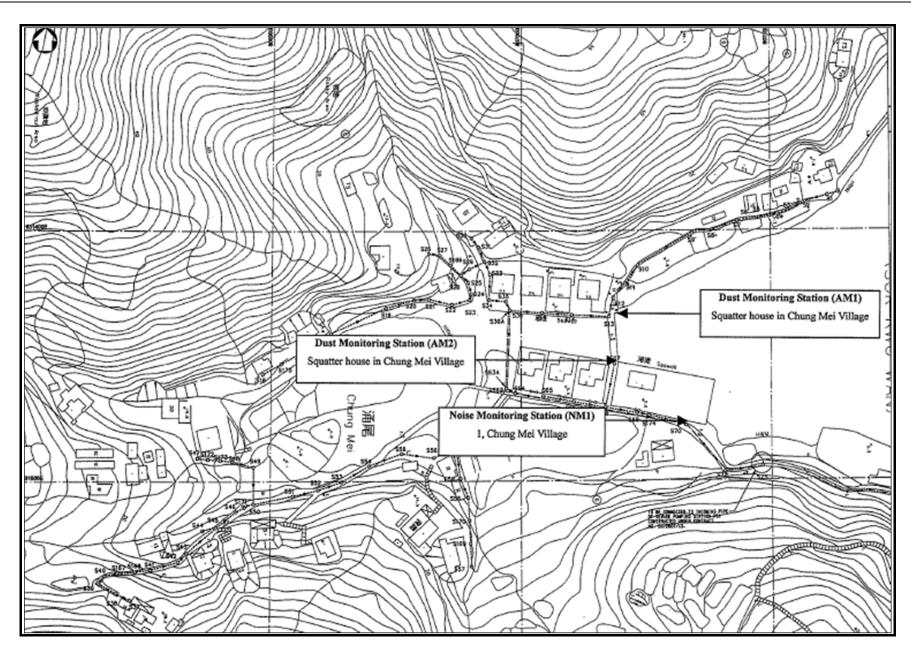
	Date	Revision	Checked	Approved
	31/05/11	Revision 0	StL	VC
			-	
N				
0 11 (P) (Marked on 31 May 2011)				
Cutline (PI-fz) marked of strong 2011,				



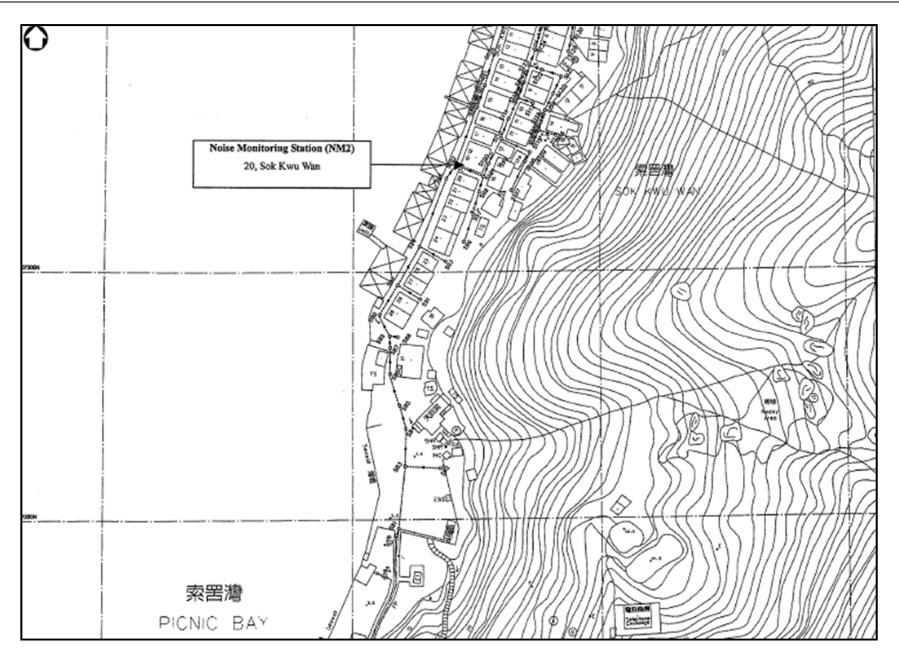
Appendix D

Location of Monitoring Stations (Air Quality / Construction Noise / Water Quality)

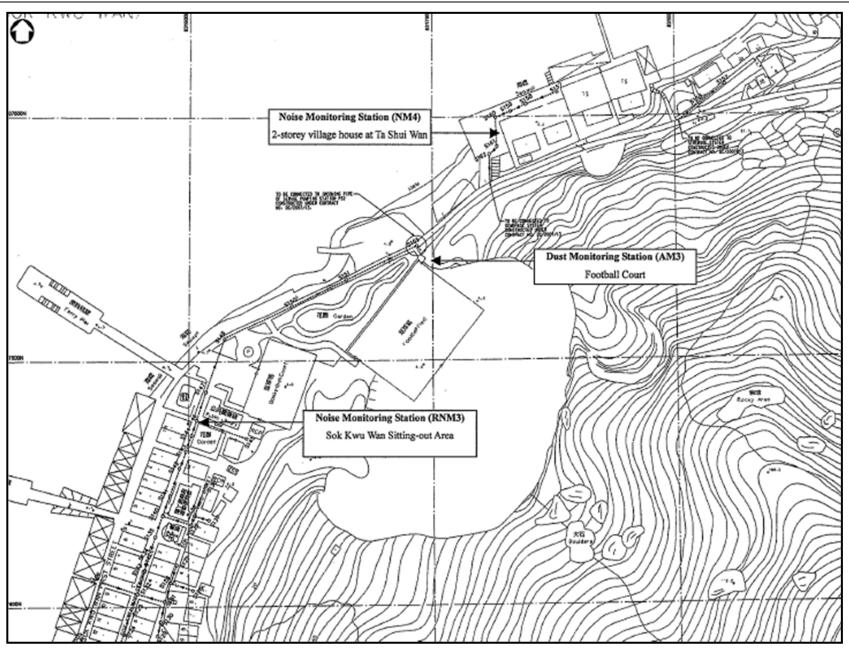




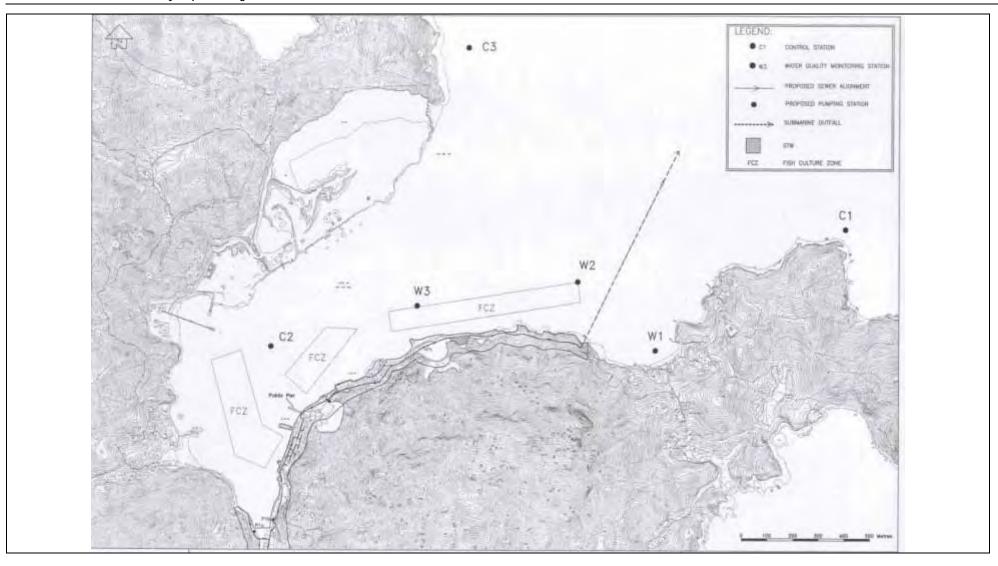














Appendix E

Monitoring Equipments Calibration Certificate



TISCH ENVIROMENTAL, INC. 145 SOUTH MIAMI AVE. VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Ju Operator		. Rootsmeter Orifice I.I	- ,	138320 1941	Ta (K) - Pa (mm) -	294 - 754.38
=======================================		=== === ==============================		== === ===============================	METER	ORFICE
PLATE	VOLUME START	VOLUME STOP	DIFF VOLUME	DIFF TIME	DIFF Hq	DIFF H2O
OR Run #	(m3)	(m3)	(m3)	(min)	(mm)	(in.)
1	NA	NA	1.00	1.4660	3.3	2.00
2	NA	NA	1.00	1.0410	6.4	4.00
3	AN	. NA	1.00	0.9310	8.1	5.00
4	NA	NA	1.00	0.8830	8.9	5.50
5	NA.	NA	1.00	0.7310	13.0	8.00
				<u> </u>	 	 -

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0017 0.9975 0.9952 0.9942 0.9887	0.6833 0.9582 1.0690 1.1260 1.3526	1.4185 2.0061 2.2429 2.3524 2.8371		0.9956 0.9914 0.9892 0.9882 0.9827	0.6791 0.9524 1.0625 1.1191 1.3444	0.8829 1.2486 1.3959 1.4641 1.7657
Qstd slop intercept coefficie	t (b) =	2.11693 -0.02568 0.99993		Qa slope intercept coefficie	t (b) =	1.32558 -0.01598 0.99993
v axis =	SORT [H20 (Pa/760)(298/	_] Га)]	y axis =	SQRT [H2O (7	[a/Pa)]

CALCULATIONS

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

Va = Diff Vol [(Pa-Diff Hg)/Pa] Qa = Va/Time

For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ $Qa = 1/m\{[SQRT H2O(Ta/Pa)] - b\}$

Location: Squatter house in Chung Mei Village

Date of Calibration: 30-Jun-11 Location ID: AM1 Next Calibration Date: 30-Aug-11

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa) Temperature (°C)

1007.6
27.5

Corrected Pressure (mm Hg) Temperature (K)

755.7 301

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

11693 0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5	5	10	1.495	58	57.35	Slope = 33.7386
13	4	4	8	1.339	53	52.41	Intercept = 7.0266
10	2.9	2.9	5.8	1.142	46	45.49	Corr. coeff. = 0.9999
7	1.7	1.7	3.4	0.877	37	36.59	
5	0.9	0.9	1.8	0.641	29	28.68	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

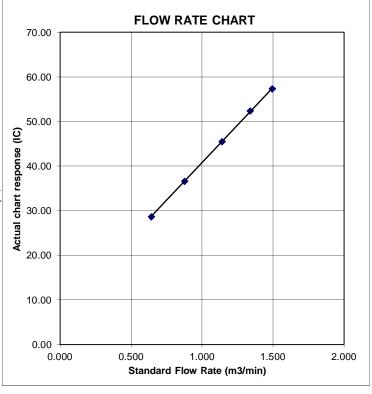
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope

b = sampler intercept

I = chart response

Tay = daily average temperature



Location: Squatter house in Chung Mei Village

Date of Calibration: 30-Jun-11 Location ID: AM2 Next Calibration Date: 30-Aug-11

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa) Temperature (°C)

1007.6
27.5

Corrected Pressure (mm Hg) Temperature (K)

755.7 301

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

11693 0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5.9	5.9	11.8	1.623	58	57.35	Slope = 27.8638
13	4.3	4.3	8.6	1.388	51	50.43	Intercept = 12.0521
10	3	3	6	1.161	45	44.50	Corr. coeff. = 0.9997
7	1.8	1.8	3.6	0.902	38	37.58	
5	0.9	0.9	1.8	0.641	30	29.67	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

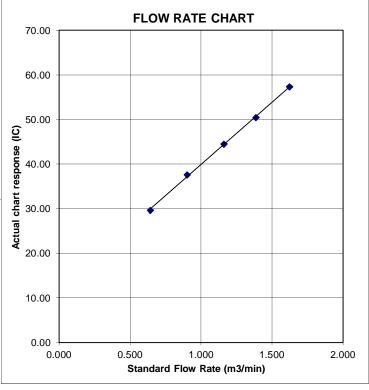
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope

b = sampler intercept

I = chart response

Tay = daily average temperature



Location: Football court

Location ID: AM3

Date of Calibration: 30-Jun-11

Next Calibration Date: 30-Aug-11

Tackgridgen Mr. Rev. Tag.

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)
Temperature (°C)

1007.6
27.5

Corrected Pressure (mm Hg)
Temperature (K)

755.7 301

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

2.11693 -0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5.3	5.3	10.6	1.539	51	50.43	Slope = 24.3244
13	4.1	4.1	8.2	1.355	46	45.49	Intercept = 12.7538
10	2.9	2.9	5.8	1.142	41	40.54	Corr. coeff. = 0.9998
7	1.5	1.5	3	0.825	33	32.63	
5	0.6	0.6	1.2	0.526	26	25.71	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

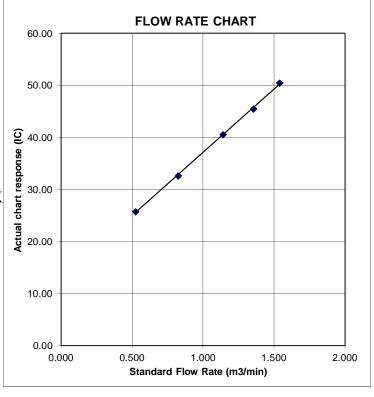
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature



Location: Squatter house in Chung Mei Village

Location ID: AM1

Date of Calibration: 30-Aug-11 Next Calibration Date: 30-Oct-11 Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa) Temperature (°C)

1001
30.9

Corrected Pressure (mm Hg)
Temperature (K)

750.75

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

2.11693 -0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5	5	10	1.482	58	56.53	Slope = 33.0652
13	4.1	4.1	8.2	1.343	53	51.65	Intercept = 7.3819
10	2.9	2.9	5.8	1.132	46	44.83	Corr. coeff. = 1.0000
7	1.7	1.7	3.4	0.869	37	36.06	
5	0.8	0.8	1.6	0.600	28	27.29	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

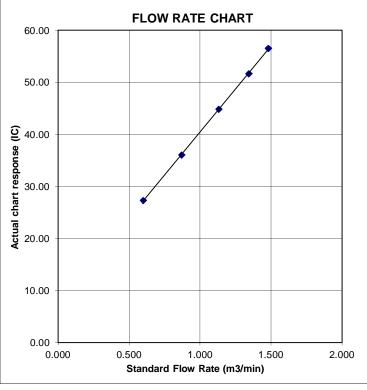
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope

b = sampler intercept

I = chart response

Tay = daily average temperature



Location: Squatter house in Chung Mei Village

Date of Calibration: 30-Aug-11 Location ID: AM2 Next Calibration Date: 30-Oct-11

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa) Temperature (°C)

1001
30.9

Corrected Pressure (mm Hg) Temperature (K)

750.75 304

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

11693 0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Ostd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5.9	5.9	11.8	1.609	58	56.53	Slope = 27.9593
13	4.3	4.3	8.6	1.376	51	49.70	Intercept = 11.3495
10	3.1	3.1	6.2	1.170	45	43.86	Corr. coeff. = 0.9999
7	1.9	1.9	3.8	0.918	38	37.03	
5	0.9	0.9	1.8	0.636	30	29.24	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

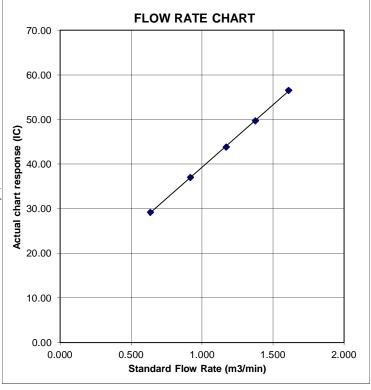
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope

b = sampler intercept

I = chart response

Tay = daily average temperature



Location: Football court

Location ID: AM3

Date of Calibration: 30-Aug-11

Next Calibration Date: 30-Oct-11

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)
Temperature (°C)

1001
30.9

Corrected Pressure (mm Hg)
Temperature (K)

750.75

CALIBRATION ORIFICE

Make->	TISCH
Model->	5025A
Serial # ->	1941

Qstd Slope -> Qstd Intercept ->

2.11693 -0.02568

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd	I	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	5.4	5.4	10.8	1.540	51	49.70	Slope = 23.8212
13	4.1	4.1	8.2	1.343	46	44.83	Intercept = 12.9602
10	2.9	2.9	5.8	1.132	41	39.96	Corr. coeff. = 1.0000
7	1.6	1.6	3.2	0.844	34	33.14	
5	0.6	0.6	1.2	0.521	26	25.34	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

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:

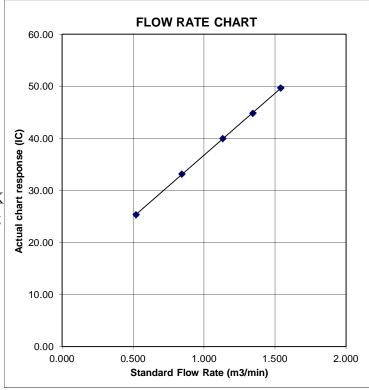
1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

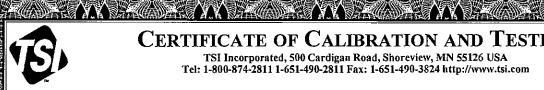
m = sampler slope

b = sampler intercept

I = chart response

Tay = daily average temperature



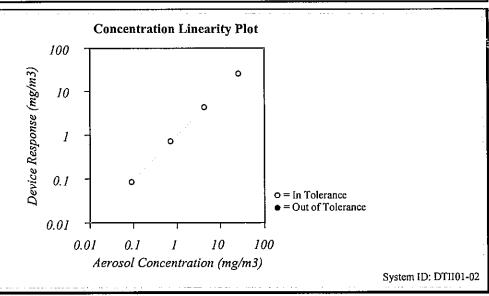


CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Condition			Model	8520	
Temperature	73.6 (23.1)	°F (°C)	Model	0020	
Relative Humidity	16	%RH	Serial Number	21060	
Barometric Pressure	28.76 (973.9)	inHg (hPa)	Serial Number	21000	

☑In Tolerance ⊠ As Left ☐ As Found Out of Tolerance



Zero Stability Results										
Average:		Minimum:		Maximum:			Time:			
0.000	:mg/m ³	0.	000	:mg/m ³	0.	001	:mg/m ³	4:	00	:hrs.

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adusted to respirable mass of standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 1.2:1

Measurement Variable	System ID	Last Cal.	Cal, Due	Measurement Variable	System ID	Last Cal.	Cal. Due
Barometric Pressure	E003733	01-15-11	02-15-12	Temperature	E002873	11-24-10	11-24-11
Humidity	E002873	11-24-10	11-24-11	DC Voltage	E003314	01-05-11	01-05-12
DC Voltage	E003315	01-05-11	01-05-12	Photometer	E003319	07-30-10	01-30-11
Microbalance	E001324	01-04-11	01-04-12	Flow and Temperature	E003769	06-15-10	06-15-11
Pressure	E003511	11-12-10	11-12-11	II.			

Final Function Check	January 27, 2011
Calibrated	Date



CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Condition			Model	8520	
Temperature	73.8 (23.2)	°F (°C)	Model	0320	
Relative Humidity	14	%RH	Serial Number	23080	
Barometric Pressure	29.41 (995.9)	inHg (hPa)	Serial Number	23060	

☐ As Found ☐ Out of Tolerance

Zero Stability Results								
Average:	Minimum:	Maximum:	Time:					
0.000 :mg/m ³	0.000 :mg/m ³	0.00 :mg/m ³	4:00 :hrs.					

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adusted to respirable mass of standard ISO 12103-1, AI test dust (Arizona dust). Our calibration ratio is greater than 1.2:1

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
Barometric Pressure	E003733	01-15-11	02-15-12	Temperature	E002873	11-24-10	11-24-11
Humidity	E002873	11-24-10	11-24-11	DC Voltage	E003314	01-05-11	01-05-12
DC Voltage	E003315	01-05-11	01-05-12	Photometer	E003319	01-27-11	07-27-11
Microbalance	E001324	01-04-11	01-04-12	Flow and Temperature	E003769	06-15-10	06-15-11
Pressure	E003511	11-12-10	11-12-11	1			

Limbaux Cirls

Final Function Check

February 1, 2011

Date



輝 創 工 程 有 限 公 司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112202

Calibration Report

ITEM TESTED

DESCRIPTION : Integrating Sound Level Meter (EQ010)

MANUFACTURER:

Bruel & Kjaer

MODEL NO.

2238

SERIAL NO.

2285721

TEST CONDITIONS

AMBIENT TEMPERATURE : $(23 \pm 2)^{\circ}$ C

RELATIVE HUMIDITY : $(55 \pm 20)\%$

LINE VOLTAGE

TEST SPECIFICATIONS

Calibration check

DATE OF TEST: 18 April 2011

JOB NO. : IC11-0947

TEST RESULTS

The results apply to the particular unit-under-test only.

All results are within manufacturer's specification.

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested by:

Date: 19 April 2011



Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112202

Calibration Report

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration using the B & K Acoustic Calibrator 4231, S/N: 2713428 was performed before the test.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment:

Equipment ID CL280

Description

Certificate No.

CL280 CL281 40 MHz Arbitrary Waveform Generator

C110018

Multifunction Acoustic Calibrator

C1006860

- 5. Test procedure: MA101N.
- 6. Results:
- 6.1 Sound Pressure Level

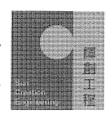
6.1.1 Reference Sound Pressure Level

		Applied	l Value	UUT	IEC 60651		
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0	± 0.7

6.1.2 Linearity

	UU	T Setting		Applied	d Value	UUT
Range	Parameter	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Spec. : \pm 0.4 dB per 10 dB step and \pm 0.7 dB for overall different.



Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112202

Calibration Report

6.2 Time Weighting

6.2.1 Continuous Signal

UUT Setting		Applied Value		UUT	IEC 60651		
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 130	L_{AFP}	A	F	94.00	1	94.0	Ref.
	L_{ASP}		S			94.0	± 0.1
	L_{AIP}		I			94.1	± 0.1

6.2.2 Tone Burst Signal (2 kHz)

UUT Setting			Арр	lied Value	UUT	IEC 60651	
Range	Parameter	Frequency	Time	Level	Burst	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	Duration	(dB)	(dB)
30 - 110	L_{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L_{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L_{ASP}		S		Continuous	106.0	Ref.
	L_{ASMax}				500 ms	101.9	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

		Setting		Appli	ed Value	UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
50 - 130	L_{AFP}	A	F	94.00	31.5 Hz	54.6	-39.4 ± 1.5
					63 Hz	67.7	-26.2 ± 1.5
					125 Hz	77.7	-16.1 ± 1.0
					250 Hz	85.2	-8.6 ± 1.0
					500 Hz	90.7	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.2	$+1.2 \pm 1.0$
					4 kHz	95.0	$+1.0 \pm 1.0$
					8 kHz	92.8	-1.1 (+1.5; -3.0)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)



Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112202

Calibration Report

6.3.2 C-Weighting

C Troisiting)						
	UUT	Setting		Applied Value		UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	_	(dB)	(dB)
50 - 130	L_{CFP}	С	F	94.00	31.5 Hz	91.1	-3.0 ± 1.5
					63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.2	-0.8 ± 1.0
					8 kHz	90.9	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

6.4 Time Averaging

UUT Setting			Applied Value					UUT	IEC 60804	
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Spec. (dB)
30 - 110	L _{Acq}	A	10 sec.	4	1	1/10 1/10 ²	110.0	100	99.9	± 0.5
			60 sec.		_	1/10		90 80	89.6 79.3	± 0.5 ± 1.0
			5 min.			1/104		70	69.9	± 1.0

Remarks: - Mfr's Spec.: IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value : 94 dB : $31.5 \, \text{Hz} - 125 \, \text{Hz}$: $\pm 0.40 \, \text{dB}$

250 Hz - 500 Hz : ± 0.30 dB 1 kHz : ± 0.20 dB 2 kHz : ± 0.40 dB 4 kHz : ± 0.50 dB 8 kHz : ± 0.70 dB

12.5 kHz : \pm 1.20 dB

104 dB: 1 kHz : \pm 0.10 dB (Ref. 94 dB) 114 dB: 1 kHz : \pm 0.10 dB (Ref. 94 dB)

Burst equivalent level : ± 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note

The values given in this Calibration Report only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.



Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No.: C112201

Certificate of Calibration

This is to certify that the equipment

Description: Acoustical Calibrator (EQ082)

Manufacturer: Bruel & Kjaer

Model No.: 4231

Serial No.: 2713428

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C112201.

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: 19 April 2011

Certified by:



Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112201

Calibration Report

ITEM TESTED

DESCRIPTION : Acoustical Calibrator (EQ082)

MANUFACTURER: Bruel & Kjaer

MODEL NO. : 4231

SERIAL NO. : 2713428

TEST CONDITIONS

AMBIENT TEMPERATURE : $(23 \pm 2)^{\circ}$ C RELATIVE HUMIDITY : $(55 \pm 20)^{\circ}$

LINE VOLTAGE : ---

TEST SPECIFICATIONS

Calibration check

DATE OF TEST: 18 April 2011 JOB NO.: IC11-0947

TEST RESULTS

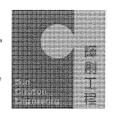
The results apply to the particular unit-under-test only. All results are within manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested by:

Date: 19 April 2011



Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No.: C112201

Calibration Report

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours before the commencement of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment:

Equipment ID CL130 CL281 TST150A

<u>Description</u>
Universal Counter
Multifunction Acoustic Calibrator
Measuring Amplifier

Certificate No. C103289 C1006860 C101008

4. Test procedure: MA100N.

5. Results:

5.1 Sound Level Accuracy

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark: - The uncertainties are for a confidence probability of not less than 95 %.

Note:

The values given in this Calibration Report only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.



ALS Technichem (HK) Pty Ltd

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR BEN TAM

CLIENT: ACTION UNITED ENVIRO SERVICES ADDRESS: RM A 20/F., GOLDEN KING IND BLDG,

NO. 35-41 TAI LIN PAI ROAD,

KWAI CHUNG, N.T., HONG KONG.

PROIECT: --

WORK ORDER: HK1111142
LABORATORY: HONG KONG
DATE RECEIVED: 17/05/2011
DATE OF ISSUE: 20/05/2011

COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal aceptance criteria of ALS will be followed.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature

Description: YSI Professional Plus

Brand Name: YS

srand Name: YSI

Model No.: YSI Professional Plus

Serial No.: 10G101946

Equipment No.: -

Date of Calibration: 19 May, 2011

NOTES

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

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F Chung Shun Knitting Centre

1-3 Wing Yip Street

Kwai Chung HONG KONG Phone: 852-2610 1044 Fax: 852-2610 2021

Email: hongkong@alsglobal.com

Mr Chan Kwok Fai, Godfrey Laboratory Managek - Hong Kong

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Page 1 of 2

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1111142 Date of Issue: 20/05/2011

Client: ACTION UNITED ENVIRO SERVICES



Description:

YSI Professional Plus

Brand Name:

YSI

Model No.:

YSI Professional Plus

Serial No.:

10G101946

Equipment No.:

--

Date of Calibration:

19 May, 2011

Date of next Calibration:

19 August, 2011

Parameters:

Dissolved Oxygen

Method Ref: APHA (21st edition), 45000: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.72	2.90	0.18
5.52	5.60	0.08
7.75	7.61	-0.14
	Tolerance Limit (±mg/L)	0.20

pH Value

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

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)	
4.00	4.19	0.19	
7.00	7.19	0.19	
10.00	10.10	0.10	
	Tolerance Limit (±unit)	0.20	

Salinity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0.00	0.00	
10.00	10.15	1.5
20.00	20.26	1.3
30.00	30.62	2.1
	Tolerance Limit (±%)	10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
14.5	13.9	-0.6
21.0	20.8	-0.2
32.5	32.2	-0.3
	Tolerance Limit (°C)	2.0

Mr Chan Kwok Fai, Godfrey Laboratory Manager - Hong Kong



ALS Technichem (HK) Pty Ltd

REPORT OF EOUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR BEN TAM

CLIENT: **ACTION UNITED ENVIRO SERVICES** ADDRESS: RM A 20/F., GOLDEN KING IND BLDG,

NO. 35-41 TAI LIN PAI ROAD.

KWAI CHUNG, N.T., HONG KONG.

PROIECT:

WORK ORDER: HK1119232 HONG KONG LABORATORY: DATE RECEIVED: 16/08/2011

DATE OF ISSUE:

17/08/2011

COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal aceptance criteria of ALS will be followed.

Scope of Test:

Dissolved Oxygen, pH, Salinity and Temperature

Description:

YSI Professional Plus

Brand Name:

Model No.:

YSI Professional Plus

Serial No.:

10G101946

Equipment No.:

Date of Calibration: 16 August, 2011

NOTES

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

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F Chung Shun Knitting Centre

1-3 Wing Yip Street

Kwai Chung HONG KONG Phone: 852-2610 1044

Fax: 852-2610 2021

Email: hongkong@alsglobal.com

> Mr Chan Kwok Fai, Godfrey Laboratory Manager Hong Kong

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Page 1 of 2

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1119232 Date of Issue: 17/08/2011

ACTION UNITED ENVIRO SERVICES Client:



Description: YSI Professional Plus

Brand Name: YSI

Model No.: YSI Professional Plus

Serial No.: 10G101946

Equipment No.:

Date of next Calibration: 16 November, 2011 Date of Calibration: 16 August, 2011

Parameters:

Method Ref: APHA (21st edition) 45000: G Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.61	4.76	0.15
6.82	7.00	0.18
8.12	8.31	0.19
	Tolerance Limit (±mg/L)	0.20

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

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.00	4.10	0.10
7.00	7.06	0.06
10.00	9.92	-0.08
	Tolerance Limit (±unit)	0.20

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

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
0.00	0.00	1
10.00	10.22	2.2
20.00	20.28	1.4
30.00	30.57	1.9
	Tolerance Limit (±%)	10.0

Method Ref: Section 6 of International Accreditation New Zealand Technical Temperature

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
9.5	9.1	-0.4
22.0	21.6	-0.4
35.5	35.1	-0.4
	Tolerance Limit (°C)	2.0

Mr Chan Kwok Fal Godfrey Laboratory Manager Hong Kong

ALS Technichem (HK) Pty Ltd



Hong Kong Accreditation Service 香港認可處

Certificate of Accreditation

認可證書

This is to certify that 特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong 香港新界葵涌永業街1-3號忠信針織中心11樓

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 為香港認可處執行機關根據認可諮詢委員會建議而接受的

HOKLAS Accredited Laboratory

「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025: 2005 - General requirements for the competence 此實驗所符合ISO / IEC 17025: 2005 -《測試及校正實驗所能力的通用規定》所訂的要求, of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as 獲認可進行載於香港實驗所認可計劃《認可實驗所名冊》內下述測試類別中的指定 listed in the HOKLAS Directory of Accredited Laboratories within the test category of 測試或校正工作

Environmental Testing

環境測試

This laboratory is accredited in accordance with the recognised International Standard ISO / IEC 17025: 2005. 本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。 This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory 這項認可資格演示在指定範疇所需的技術能力及實驗所質量管理體系的運作 quality management system (see joint IAF-ILAC-ISO Communiqué). (見國際認可論壇‧國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive 香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator

執行幹事 陳成城 Issue Date: 5 May 2009

簽發日期:二零零九年五月五日

Registration Number : HOKLAS 066

註冊號碼:



Date of First Registration: 15 September 1995 首次註冊日期:一九九五年九月十五日



Appendix F

Event/Action Plan



Air Quality



EVENT	ACTION			
	ET	IC(E)	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IC(E) and ER; 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. Exceedance for two or more consecutive samples	 Identify source; Inform IC(E) and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IC(E) and Contractor on remedial actions required; If exceedance continues, arrange meeting with IC(E) and ER; 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; Advise the ET 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 to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
		LIMIT LEVEL		
Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER 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 IC(E) within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Exceedance for two or more consecutive samples	 Notify IC(E), ER, Contractor 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 IC(E) and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures.	 Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IC(E), agree with the Contractor on the remedial measures to be implemented; 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 IC(E) 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 ER until the exceedance is abated.



Construction Noise



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

Water Quality



EVENT		ACTIO	ON .	
	ET	IC(E)	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sampling day	 Repeat in-situ measurement on the next day of exceedance to confirm findings; Identify source(s) of impact; Inform ICE, Contractor, ER, EPD and AFCD; and Check monitoring data, all plant, equipment and Contractor's working methods. 	Check monitoring data submitted by ET and Contractor's working methods	Confirm receipt of notification of non-compliance in writing; and Notify Contractor	 Information the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; and Amend working methods if appropriate
Exceedance for two or more consecutive sampling days	 Same as the above; Inform ICE, Contractor, ER, EPD and AFCD; Discuss mitigation measures with IC(E), RE and Contractor; Ensure well implementation of mitigation measures; and Increase the monitoring frequency to daily until no exceedance of Action Level 	 Same as the above; Discuss with ET and Contractor on possible remedial actions; Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; and Supervise the implementation of mitigation measures. 	 Discuss with IC(E) on the proposed mitigation measures; Ensure well implementation of mitigation measures; and Assess the effectiveness of the implemented mitigation measures 	 Same as the above; Check all plant and equipment and consider changes of working methods; Submit proposal of additional mitigation measures to ER within 3 working days of notification and discuss with ET, IC(E), and ER; and Implement the agreed mitigation measures
		LIMIT LEVEL		
Exceedance for one sampling day	 Repeat in-situ measurement on the next day of exceedance to confirm findings; Identify source(s) of impact; Inform ICE, Contractor, ER, EPD and AFCD; Check monitoring data, all plant, equipment and Contractor's working methods; and Discuss mitigation measures with IC(E), RE and Contractor 	Check monitoring data submitted by ET and Contractor's working method Discuss with ER and Contractor on possible remedial actions; and Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly	 Confirm receipt of notification failure in writing; and Discuss with IC(E), ET and Contractor on the proposed mitigation measures; and Request Contractor to review the working methods 	 Inform the ER and confirm notification of the failure in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; and Submit proposal of mitigation measures to ER within 3 working days of notification and discuss with ET and ER
Exceedance for two or more consecutive sampling days	 Same as the above; Ensure mitigation measures are implemented; and Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days 	Same as the above; and Supervise the Implementation of mitigation measures	Same as the above; Ensure well implementation of mitigation measures Make agreement on the mitigation measures to be implemented; and Consider and instruct, if necessary, the Contractor to stow down or to stop all or part of the construction activities until no exceedance of limit level	measures; 4. Resubmit proposals of mitigation measures if problem still not under control; and

Appendix G

Monitoring Data Sheet

Contract No. DC/2009/13 – Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan Sok Kwu Wan – EM&A Monthly Report- August 2011

24-hour TSP Monitoring Data Sheet

Air Qualtiy Monitoring - 24-hour TSP Monitoring data sheet

24-hour TSP Monitoring Results - AM1

		EI	LAPSED TI	ME	CHART READING					STANDARD)	INITIAL	FINAL	WEIGHT	DUST
DATE	SAMPLE							AVG	AVG	FLOW	AIR	FILTER	FILTER	DUST	24-hour TSP
	NUMBER	INITIAL	FINAL	ACTUAL	MIN	MAX	AVG	TEMP	PRESS	RATE	VOLUME	WEIGHT	WEIGHT	COLLECTED	IN AIR
				(min)				(oC)	(hPa)	(m3/min)	(std m3)	(g)	(g)	(g)	(ug/m^3)
2-Aug-11	23980	10834.75	10858.22	1408.20	29	34	31.5	29.5	1006.7	0.72	1007	2.9864	2.9978	0.0114	11
8-Aug-11	24028	10858.22	10881.89	1420.20	30	34	32.0	29.2	1004.3	0.73	1036	2.8341	2.8533	0.0192	19
13-Aug-11	24032	10881.89	10905.8	1434.60	30	33	31.5	29.6	1008.8	0.72	1027	2.8403	2.8555	0.0152	15
19-Aug-11	24107	10905.8	10929.49	1421.40	30	33	31.5	29.6	1010.9	0.72	1019	2.9097	2.9296	0.0199	20
25-Aug-11	23977	10929.49	10953.11	1417.20	29	34	31.5	28.6	1005.7	0.72	1015	2.9833	3.0226	0.0393	39
31-Aug-11	24182	10953.11	10976.59	1408.80	29	32	30.5	30.6	1001	0.68	961	2.8561	2.8894	0.0333	35

24-hour TSP Monitoring Results - AM2

		EI	LAPSED TI	ME	CHA	ART READ	ING			STANDARD		INITIAL	FINAL	WEIGHT	DUST
DATE	SAMPLE							AVG	AVG	FLOW	AIR	FILTER	FILTER	DUST	24-hour TSP
	NUMBER	INITIAL	FINAL	ACTUAL	MIN	MAX	AVG	TEMP	PRESS	RATE	VOLUME	WEIGHT	WEIGHT	COLLECTED	IN AIR
				(min)				(oC)	(hPa)	(m3/min)	(std m3)	(g)	(g)	(g)	(ug/m^3)
2-Aug-11	23979	9343.78	9367.67	1433.40	29	34	31.5	29.5	1006.7	0.69	983	2.9891	3.0097	0.0206	21
8-Aug-11	24027	9367.67	9391.63	1437.60	30	34	32.0	29.2	1004.3	0.70	1010	2.8367	2.8669	0.0302	30
13-Aug-11	23976	9391.63	9415.35	1423.20	30	33	31.5	29.6	1008.8	0.69	977	2.991	3.0228	0.0318	33
19-Aug-11	24106	9415.35	9439.07	1423.20	29	34	31.5	29.6	1010.9	0.69	979	2.8871	2.9148	0.0277	28
25-Aug-11	24113	9439.07	9462.63	1413.60	30	33	31.5	28.6	1005.7	0.69	971	2.8996	2.9582	0.0586	60
31-Aug-11	24182	9462.63	9486.1	1408.20	30	34	32.0	30.6	1001	0.70	983	2.8522	2.8834	0.0312	32

24-hour TSP Monitoring Results - AM3

24 Hour 151															
		EL	LAPSED TI	ME	CHA	ART READ	DING		STANDARD			INITIAL	FINAL	WEIGHT	DUST
DATE	SAMPLE							AVG	AVG	FLOW	AIR	FILTER	FILTER	DUST	24-hour TSP
	NUMBER	INITIAL	FINAL	ACTUAL	MIN	MAX	AVG	TEMP	PRESS	RATE	VOLUME	WEIGHT	WEIGHT	COLLECTED	IN AIR
				(min)				(oC)	(hPa)	(m3/min)	(std m3)	(g)	(g)	(g)	(ug/m^3)
2-Aug-11	24023	4900.38	4923.8	1405.20	30	34	32.0	29.5	1006.7	0.78	1092	2.7923	2.8199	0.0276	25
8-Aug-11	24026	4923.8	4947.66	1431.60	29	33	31.0	29.2	1004.3	0.74	1053	2.8313	2.8686	0.0373	35
13-Aug-11	24031	4947.66	4971.43	1426.20	30	33	31.5	29.6	1008.8	0.76	1081	2.8319	2.8744	0.0425	39
19-Aug-11	24105	4971.43	4995.34	1434.60	30	33	31.5	29.6	1010.9	0.76	1089	2.9043	2.9815	0.0772	71
25-Aug-11	23977	4995.34	5019.1	1425.60	30	33	31.5	28.6	1005.7	0.76	1081	2.91	2.9675	0.0575	53
31-Aug-11	24183	5019.1	5042.59	1409.40	30	33	31.5	30.6	1001	0.75	1058	2.8636	2.9498	0.0862	81

Marine Water Quality Monitoring Data Sheet	
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Marine Water Quanty Monitoring Data Siece	

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 3-Aug-11

Doto / Timo	Location	Tide*	Co-oro	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	11de*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/l
8/3/2011 15:05:23	W1	ME	832982	807753	2.6	1.100	27.60	5.83	81.1	4.1	29.56	8.38	3.5
8/3/2011 15:05:28	VV I	IVIE	032902	807733	2.0	1.200	27.50	5.43	81.9	4.2	29.65	8.41	3.3
8/3/2011 14:31:10						1.100	27.00	6.40	91.6	4.1	28.95	8.40	5.4
8/3/2011 14:31:15						1.100	27.40	5.67	84.3	4.3	28.96	8.39	J.,
8/3/2011 14:31:34	W2	ME	832595	807971	12.2	6.200	26.60	5.36	79.6	4.4	31.31	8.39	2
8/3/2011 14:31:39 8/3/2011 14:31:47						6.300 11.400	25.50 24.90	4.55 4.59	76.6 72.2	4.4	32.20 32.58	8.40 8.42	
8/3/2011 14:31:52	1					11.500	24.70	4.34	48.4	4.5	32.72	8.33	3
8/3/2011 14:14:13						1.000	31.20	9.16	125.4	5.1	27.85	8.78	
8/3/2011 14:14:17						1.100	28.30	9.22	125.8	5.3	27.65	8.66	6.3
8/3/2011 14:14:56	W3	ME	832063	807977	12.4	6.400	26.60	5.47	81.1	5.7	31.22	8.45	4.1
8/3/2011 14:15:02	W3	IVIE	632003	00/9//	12.4	6.400	26.40	5.41	80.2	5.7	31.38	8.45	4.1
8/3/2011 14:15:12						11.500	26.00	5.29	78.1	6.0	31.77	8.41	4.6
8/3/2011 14:15:17						11.500	25.10	5.37	73.6	5.9	32.45	8.40	1.0
8/3/2011 15:16:29						1.200	27.30	9.23	127.3	5.2	27.88	8.82	2.5
8/3/2011 15:16:34 8/3/2011 15:16:45						1.100	26.80	8.85	125.1	5.3	27.65 31.21	8.70	
8/3/2011 15:16:53	C1	ME	833686	808159	13.2	6.700 6.700	26.60 26.40	5.66 5.18	84.0 76.6	5.2 5.4	31.38	8.49 8.51	5.2
8/3/2011 15:17:04						12.400	26.30	5.14	76.0	5.7	31.51	8.45	
8/3/2011 15:17:09						12.500	25.70	4.71	69.1	6.0	31.96	8.48	6.4
8/3/2011 14:05:14						0.900	28.30	6.56	92.0	5.1	26.84	8.39	
8/3/2011 14:05:19						0.900	28.00	5.88	87.2	5.6	26.78	8.42	4.4
8/3/2011 14:05:34	C2	ME	831452	807761	10.3	5.200	26.40	5.32	78.7	6.0	31.39	8.43	3.6
8/3/2011 14:05:39	C2	ME	631432	807701	10.5	5.200	26.30	4.91	72.6	6.2	31.45	8.43	5.0
8/3/2011 14:05:48						9.200	26.20	4.75	70.2	6.1	31.53	8.47	5
8/3/2011 14:05:53						9.300	26.20	4.41	65.1	6.1	31.47	8.40	Ľ
8/3/2011 15:40:03						1.000	26.80	7.14	90.6	5.3	27.43	8.43	2.7
8/3/2011 15:40:08				808846	12.9	1.000	26.80	7.22	91.5	5.6	27.23	8.44	
8/3/2011 15:40:19 8/3/2011 15:40:24	C3	ME	832197			6.500 6.600	26.50 26.30	5.42	80.4 75.9	5.9 5.8	31.29 31.46	8.35 8.40	3.6
8/3/2011 15:40:34						12.800	26.10	4.88	72.0	7.2	31.40	8.37	
8/3/2011 15:40:39						12.300	25.10	4.01	58.4	7.5	32.43	8.37	6.2
0,0,201										7.10		0.10	
8/3/2011 09:07:58	11/1	ME	022002	007754	2.6	1.200	26.50	5.79	68.3	4.2	31.27	8.37	2.7
8/3/2011 09:08:02	W1	MF	832982	807754	2.6	1.200	26.40	5.61	69.3	4.1	31.29	8.37	2.7
8/3/2011 08:54:01						1.000	26.80	5.22	96.1	4.1	28.64	7.85	6.8
8/3/2011 08:54:06						1.000	26.80	5.83	85.0	4.1	28.45	8.24	0.0
8/3/2011 08:54:20	W2	MF											
8/3/2011 08:54:24		1411	832621	807969	12.4	6.100	26.40	5.04	68.6	4.3	31.37	8.43	2.6
		1711	832621	807969	12.4	6.200	26.40 26.40	5.04 4.86	69.0	4.3 4.5	31.37 31.38	8.43 8.40	2.6
8/3/2011 08:54:33 8/3/2011 08:54:37	1	1411	832621	807969	12.4	6.200 11.300	26.40 26.40 26.30	5.04 4.86 4.24	69.0 60.6	4.3 4.5 4.6	31.37 31.38 31.39	8.43 8.40 8.46	2.6 7.6
8/3/2011 08:54:37		IVII	832621	807969	12.4	6.200 11.300 11.200	26.40 26.40 26.30 26.30	5.04 4.86 4.24 4.14	69.0 60.6 58.7	4.3 4.5 4.6 4.9	31.37 31.38 31.39 31.42	8.43 8.40 8.46 8.38	7.6
8/3/2011 08:54:37 8/3/2011 08:33:25		1111	832621	807969	12.4	6.200 11.300 11.200 1.200	26.40 26.40 26.30 26.30 27.20	5.04 4.86 4.24 4.14 5.73	69.0 60.6 58.7 76.7	4.3 4.5 4.6 4.9 5.0	31.37 31.38 31.39 31.42 30.59	8.43 8.40 8.46 8.38 8.01	
8/3/2011 08:54:37	W.O					6.200 11.300 11.200	26.40 26.40 26.30 26.30	5.04 4.86 4.24 4.14	69.0 60.6 58.7	4.3 4.5 4.6 4.9	31.37 31.38 31.39 31.42	8.43 8.40 8.46 8.38	7.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29	W3	MF	832621 832056	807969	12.4	6.200 11.300 11.200 1.200 1.200	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40	5.04 4.86 4.24 4.14 5.73 5.50	69.0 60.6 58.7 76.7 76.8	4.3 4.5 4.6 4.9 5.0 5.1	31.37 31.38 31.39 31.42 30.59 30.60	8.43 8.40 8.46 8.38 8.01 8.08	7.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09	W3					6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40	7.6 3.7 3.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 08:34:13	W3					6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.40	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37	7.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 08:34:13 8/3/2011 09:35:32	- W3					6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.30 26.70	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 30.78	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41	7.6 3.7 3.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:49 8/3/2011 08:34:09 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36	W3					6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 30.78 30.79	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41	7.6 3.7 3.6
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:36	W3					6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.30 26.70 26.70 26.50	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 30.78 30.79 31.01	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41	7.6 3.7 3.6
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8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:35:50 8/3/2011 09:36:01		MF	832056	807991	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600 6.900	26.40 26.30 26.30 27.20 27.20 26.50 26.30 26.30 26.30 26.70 26.70 26.50 26.20	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.93 4.22 5.92 5.44 4.45	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 76.3 76.0 66.7	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 30.78 30.79 31.01 31.35	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28	7.6 3.7 3.6 1.4 2.7 2.4
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8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:35:60 8/3/2011 09:36:01 8/3/2011 09:36:01 8/3/2011 09:36:01	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 1.200 1.100 6.600 6.900 12.000 12.300 1.100	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 26.20 24.80 24.80 27.10	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45 3.68 3.48 5.69	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.1 5.0 5.0 5.1 5.0 5.1 5.0 6.1 5.0 6.1 5.0 6.1 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 30.78 30.79 31.01 31.35 31.87 32.63 30.61	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.28 8.36 8.38 8.34	7.6 3.7 3.6 1.4 2.7 2.4 3.1
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8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:50 8/3/2011 09:35:50 8/3/2011 09:36:01 8/3/2011 09:35:20 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:57 8/3/2011 08:02:57 8/3/2011 08:02:57	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.300 5.500 9.500	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 24.80 27.10 26.50 26.20 24.80 27.10 26.50 26.30	5.04 4.86 4.24 4.14 5.75 5.50 4.95 4.95 4.39 4.22 5.94 4.45 4.35 3.68 3.48 5.69 5.50 4.89 4.06	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 5.3 5.4	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.79 30.78 30.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.37 31.37	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.44 8.38	7.6 3.7 3.6 1.4 2.7 2.4 3.1 1.5
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 09:35:32 8/3/2011 09:35:32 8/3/2011 09:35:45 8/3/2011 09:36:06 8/3/2011 09:36:06 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:52 8/3/2011 08:02:57 8/3/2011 08:03:06 8/3/2011 08:03:06 8/3/2011 08:03:06	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.500 9.500	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 24.80 27.10 27.00 26.50 26.20 24.80 27.20 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45 4.35 3.68 3.48 5.69 5.54 4.95	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3 49.3	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 5.3 5.4 5.5 5.9	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.40 30.78 30.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.37 31.51 31.51	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.42 8.36 8.38 8.34 8.37	7.6 3.7 3.6 1.4 2.7 2.4 3.1
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:36:06 8/3/2011 08:02:35 8/3/2011 08:02:39 8/3/2011 08:02:52 8/3/2011 08:02:57 8/3/2011 08:02:57 8/3/2011 08:03:11 8/3/2011 08:03:11	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.500 9.500 9.200 1.100	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.70 26.50 24.80 27.10 27.00 26.50 26.30 26.30 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45 4.35 3.68 3.48 5.69 5.54 4.95	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3 49.3 94.5	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 6.3 5.4 5.4 5.5 5.9 6.1	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.40 30.78 30.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.35 31.37 31.51 31.52 30.30	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.41 8.41 8.42 8.36 8.38 8.31 8.40 8.31 8.40 8.31 8.40 8.32 8.31 8.40 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.36 8.36 8.37 8.41 8.42 8.36 8.37 8.42 8.37 8.42 8.43 8.43 8.43 8.44 8.45	7.6 3.7 3.6 1.4 2.7 2.4 3.1 1.5
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:35:45 8/3/2011 09:36:01 8/3/2011 09:36:01 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:57 8/3/2011 08:03:06 8/3/2011 08:03:06 8/3/2011 08:03:06 8/3/2011 08:03:51 8/3/2011 08:03:51	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.500 9.500 9.200 1.100 1.200	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 24.80 27.10 27.00 26.50 26.40 24.80 27.10 26.50 26.80 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45 3.68 3.48 5.69 5.54 5.04 5.69 5.54 5.69	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3 49.3 94.5 87.2	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 6.3 6.4 4.6 4.7	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.37 31.51 31.51 31.52 30.30 31.16	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.41 8.41 8.28 8.36 8.38 8.31 8.40 8.37 8.41 8.41 8.42 8.36 8.38 8.31 8.40 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.36 8.36 8.37 8.41 8.41 8.42 8.36 8.37 8.42 8.37 8.42 8.50	7.6 3.7 3.6 1.4 2.7 2.4 3.1 1.5 3.2
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:34:09 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:35:45 8/3/2011 09:36:01 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:55	C1	MF MF	832056 833725	807991 808158	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.500 9.500 9.200 1.100 1.200 6.700	26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 26.20 24.80 27.10 27.00 26.50 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.95 4.39 4.22 5.92 5.44 4.45 3.68 3.48 5.69 5.54 5.04 6.81 5.69 5.03	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3 49.3 94.5 87.2 75.6	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 5.3 5.4 5.6 6.3 6.5 4.6 4.7 5.4	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.40 30.78 30.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.37 31.51 31.52 30.30 31.16 31.33	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.42 8.50 8.40 8.60 8.60 8.60	7.6 3.7 3.6 1.4 2.7 2.4 3.1 1.5 3.2
8/3/2011 08:54:37 8/3/2011 08:33:25 8/3/2011 08:33:25 8/3/2011 08:33:29 8/3/2011 08:33:49 8/3/2011 08:33:53 8/3/2011 08:33:53 8/3/2011 08:34:13 8/3/2011 09:35:32 8/3/2011 09:35:36 8/3/2011 09:35:45 8/3/2011 09:35:45 8/3/2011 09:36:01 8/3/2011 09:36:01 8/3/2011 08:02:35 8/3/2011 08:02:35 8/3/2011 08:02:52 8/3/2011 08:02:52 8/3/2011 08:02:57 8/3/2011 08:03:06 8/3/2011 08:03:06 8/3/2011 08:03:06 8/3/2011 08:03:51 8/3/2011 08:03:51	C1 - C2	MF MF	832056 833725 831477	807991 808158 807736	12.1	6.200 11.300 11.200 1.200 1.200 6.300 6.500 11.600 11.500 1.200 1.100 6.600 6.900 12.000 12.300 1.100 1.300 5.300 5.500 9.500 9.200 1.100 1.200	26.40 26.40 26.30 26.30 27.20 27.20 26.50 26.40 26.30 26.70 26.70 26.50 24.80 27.10 27.00 26.50 26.40 24.80 27.10 26.50 26.80 26.30	5.04 4.86 4.24 4.14 5.73 5.50 4.95 4.95 4.39 4.22 5.92 5.44 4.45 3.68 3.48 5.69 5.54 5.04 5.69 5.54 5.69	69.0 60.6 58.7 76.7 76.8 68.4 66.6 55.9 55.0 76.3 76.0 66.7 64.0 51.6 42.5 79.0 79.9 67.2 63.9 55.3 49.3 94.5 87.2	4.3 4.5 4.6 4.9 5.0 5.1 5.4 5.2 5.9 6.1 4.9 4.7 5.0 5.5 5.9 6.2 5.6 6.3 6.4 4.6 4.7	31.37 31.38 31.39 31.42 30.59 30.60 31.18 31.21 31.40 31.79 31.01 31.35 31.87 32.63 30.61 30.62 31.33 31.37 31.51 31.51 31.52 30.30 31.16	8.43 8.40 8.46 8.38 8.01 8.08 8.32 8.31 8.40 8.37 8.41 8.41 8.28 8.36 8.38 8.34 8.37 8.41 8.41 8.28 8.36 8.38 8.31 8.40 8.37 8.41 8.41 8.42 8.36 8.38 8.31 8.40 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.31 8.40 8.32 8.36 8.36 8.37 8.41 8.41 8.42 8.36 8.37 8.42 8.37 8.42 8.50	7.6 3.7 3.6 1.4 2.7 2.4 3.1 1.5 3.2 2.1

MF- Mid Flood Tide

ME- Mid Ebb tide

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 1-Aug-11

Data / m!····	T ===*!-	T) 1 . 4	Co-oro	linates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS			
Date / Time	Location	Tide*	East	North	m	m	ဗ	mg/L	%	NTU	ppt	unit	mg/			
8/1/2011 13:13:43	W1	ME	832980	807754	2.4	1.180	27.70	5.82	86.8	4.2	31.71	8.49	5.8			
8/1/2011 13:13:52	** 1	IVIL	032700	007754	2.4	1.180	27.80	5.76	86.1	4.2	31.68	8.48	3.0			
8/1/2011 13:03:40 8/1/2011 13:03:47	-					0.900 0.920	28.30	6.35	89.1 92.1	4.0 4.0	30.54 30.48	8.83 8.69	5.8			
8/1/2011 13:03:47	-					6.100	28.30 26.50	6.16 5.82	86.5	4.0	31.68	8.46	╁			
8/1/2011 13:04:03	W2	ME	832605	807999	12.3	6.300	26.30	5.86	86.8	4.2	31.81	8.52	2.6			
8/1/2011 13:04:13						11.400	26.20	4.55	67.2	4.8	31.83	8.59	3			
8/1/2011 13:04:18						11.200	25.90	4.29	63.2	4.8	31.98	8.52	3			
8/1/2011 12:56:17						1.020	27.10	6.51	89.7	5.8	29.55	8.51	5.4			
8/1/2011 12:56:22	4					1.140	26.90	5.81	85.8	5.8	29.36	8.52	+			
8/1/2011 12:56:33 8/1/2011 12:56:38	- W3	ME	832036	807893	12.2	6.380 6.260	26.50 26.30	5.70 5.66	84.6 83.8	5.8 5.8	31.53 31.78	8.53 8.51	3.4			
8/1/2011 12:56:48						11.600	26.10	4.50	66.5	5.5	31.86	8.41				
8/1/2011 12:56:53						11.710	26.00	4.31	63.6	5.5	31.91	8.48	1.8			
8/1/2011 13:21:33						1.200	27.20	6.41	92.2	5.2	31.76	8.47	2.6			
8/1/2011 13:21:40						1.230	27.20	6.08	90.8	5.2	31.77	8.47	2.0			
8/1/2011 13:22:55	C1	ME	833693	808194	13.1	6.710	26.80	5.61	83.4	5.6	30.55	8.52	3.8			
8/1/2011 13:23:01 8/1/2011 13:23:13	-					6.550 12.160	26.80 26.10	5.23 4.82	77.7 72.4	5.6 6.0	30.49 31.45	8.50 8.49	+			
8/1/2011 13:23:18						12.190	26.10	4.70	70.2	6.1	31.60	8.48	3.5			
8/1/2011 12:48:07						1.160	26.60	5.67	84.3	3.4	31.37	8.56	0.5			
8/1/2011 12:48:14						1.300	26.50	5.74	85.1	3.5	31.39	8.54	3.7			
8/1/2011 12:48:46	C2	ME	831484	807756	10.6	5.100	25.90	5.08	74.9	3.6	31.97	8.44	3			
8/1/2011 12:48:51	- 02	IVIL	031404	007750	10.0	5.160	25.90	5.01	73.9	3.6	31.99	8.49				
8/1/2011 12:49:24	4					9.200	25.50	4.68	68.8	4.6	31.86	8.45 8.47	4.7			
8/1/2011 12:49:30 8/1/2011 13:50:33						9.360 1.030	25.50 26.60	4.99 6.47	73.4 93.5	4.8 6.5	31.98 30.10	8.48	+			
8/1/2011 13:50:39	-					1.210	26.60	5.96	88.2	6.5	29.80	8.45	6.0			
8/1/2011 13:51:16	- CO) (T	022210	000074	10.0	6.810	26.80	5.53	82.1	5.1	30.55	8.85	1.			
8/1/2011 13:51:22	C3	C3	1 (3	C3	ME	832218	808874	13.3	6.710	26.70	5.50	81.3	5.1	30.54	8.65	1.7
8/1/2011 13:51:35						12.300	26.30	4.98	74.2	7.1	31.80	8.65	5			
8/1/2011 13:51:40						12.200	26.20	4.86	72.3	6.0	31.89	8.62	_			
8/1/2011 08:56:07						1.200	26.90	5.79	85.4	3.2	30.62	8.64	_			
8/1/2011 08:56:12	W1	MF	832971	807754	2.6	1.200	26.90	5.61	82.8	3.3	30.55	8.59	3.4			
8/1/2011 08:52:39						1.100	26.20	7.92	112.1	4.1	30.80	8.88				
8/1/2011 08:52:47						1.100	26.10	7.62	112.0	4.1	30.82	8.65	6.1			
8/1/2011 08:53:19	W2	MF	832596	807891	12.4	6.200	25.60	4.94	72.5	4.0	32.11	8.66	2.			
8/1/2011 08:53:24						6.100	25.60	4.83	70.8	4.0	32.11	8.52	-			
8/1/2011 08:53:36 8/1/2011 08:53:40	-					11.300 11.200	25.40 25.40	3.68 3.48	53.7	4.8 4.8	32.21 32.22	8.47 8.47	2.4			
8/1/2011 08:32:26						1.200	26.40	6.80	92.7	4.0	31.31	8.43	T			
8/1/2011 08:32:33						1.200	26.50	7.00	103.1	3.9	31.31	8.47	1.			
8/1/2011 08:32:42	W3	MF	832031	807899	12	6.100	25.90	5.60	82.6	5.5	31.96	8.56	2.			
8/1/2011 08:32:49	- ""	1411	032031	007077	12	6.100	25.90	5.40	79.6	5.6	31.97	8.45	۷.			
8/1/2011 08:33:00						11.500	25.50	5.29	77.9	5.8	31.97	8.50	1.			
8/1/2011 08:33:04 8/1/2011 09:16:04						11.600 0.900	25.50 26.30	5.17 6.81	76.2 86.4	5.8 4.8	31.97 31.22	8.48 8.60	+			
8/1/2011 09:16:13						0.900	26.30	5.69	84.1	4.7	31.33	8.54	8.			
8/1/2011 09:16:33	C1	ME	022600	000101	12	6.800	25.90	5.58	82.2	4.7	31.95	8.54				
8/1/2011 09:16:38	C1	MF	833690	808191	13	6.500	26.00	5.49	81.0	4.7	31.93	8.46	6.			
8/1/2011 09:16:52						12.400	25.80	5.27	77.6	5.0	31.98	8.53	4.			
8/1/2011 09:16:56	-					12.200	25.80	4.99	73.4	5.0	31.99	8.50	+			
8/1/2011 08:20:13 8/1/2011 08:20:19						0.900	26.60 26.60	5.73 5.50	84.8 81.6	3.2	30.77 31.23	8.42 8.44	4.			
8/1/2011 08:20:19	1		0.5	0.0==		5.200	26.10	4.95	73.0	2.9	31.82	8.44	T			
8/1/2011 08:20:36	C2	MF	831453	807761	10.4	5.300	26.10	4.89	72.2	2.9	31.85	8.46	4.			
8/1/2011 08:20:46						9.200	25.80	4.39	64.8	3.5	31.94	8.57	7.			
8/1/2011 08:20:51						9.400	25.80	4.22	62.1	3.5	32.00	8.47	/.			
8/1/2011 08:07:15	4					1.100	26.40	5.69	84.3	4.1	31.25	8.17	3.			
8/1/2011 08:07:20	-					1.100	26.40	5.54	82.0	4.1	31.29	8.22	Ŧ.			
8/1/2011 08:07:33 8/1/2011 08:07:38	C3	MF	832218	808871	13.5	6.800	26.20	5.04 4.89	72.3	4.6 4.6	31.44	8.38 8.36	5.			
8/1/2011 08:07:56	┪ !					12.700	26.00	4.89	67.4	5.0	31.72	8.52	+			
8/1/2011 08:08:01	-1					12.500	26.00	3.98	58.7	5.0	31.76	8.43	4.4			

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

5-Aug-11 Date

Date / Time	Loostier	Tide*	Co-ore	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	1100*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/l
8/5/2011 16:03:11	W1	ME	832984	807754	2.3	1.200	31.30	7.64	116.8	4.0	23.55	8.57	1.2
8/5/2011 16:03:25	***1	IVIL	032704	007754	2.5	1.200	31.70	8.01	123.7	4.1	23.46	8.66	1.2
8/5/2011 15:56:28	4					1.000	29.80	10.18	147.8	3.9	23.60	8.55	2.6
8/5/2011 15:56:42	4					1.000	29.80	10.21	147.3	3.9	23.66	9.01	-
8/5/2011 15:56:51 8/5/2011 15:57:06	W2	ME	832591	807996	12.3	6.100	28.30 28.30	7.80 7.04	100.8 119.5	4.1	25.64 25.55	8.51 8.81	2.8
8/5/2011 15:57:15	1					11.200	27.50	5.71	77.6	4.2	27.22	8.59	1
8/5/2011 15:57:23	1					11.300	27.50	4.64	63.6	4.5	27.51	8.62	4.1
8/5/2011 15:45:45						0.900	29.70	6.95	101.7	4.8	25.46	8.58	_
8/5/2011 15:45:52	1					0.800	29.70	5.33	72.6	4.8	25.91	8.57	3
8/5/2011 15:46:00	W3	ME	832039	807884	10.6	5.200	28.50	5.21	70.9	5.1	26.56	8.43	2.2
8/5/2011 15:46:08	VV 3	IVIL	032039	007004	10.0	5.200	28.50	5.42	70.8	5.1	25.66	8.17	2,2
8/5/2011 15:46:15						9.500	27.00	5.16	67.0	5.8	28.32	8.36	4.1
8/5/2011 15:46:23						9.400	26.70	5.22	69.0	5.8	28.35	8.39	
8/5/2011 16:20:43	4					1.100	30.20	11.03	160.6	5.6	23.89	8.66	5.9
8/5/2011 16:20:54	-					1.100	30.30	10.67	151.4	5.6	24.01	8.79	
8/5/2011 16:21:03 8/5/2011 16:21:19	C1	ME	833716	808195	13.4	6.900 6.800	29.40 29.40	8.37 7.32	111.7 112.6	5.5 5.5	26.14 26.55	8.82 8.60	1.9
8/5/2011 16:21:19	1					12.300	27.50	5.56	79.7	6.1	27.85	8.48	
8/5/2011 16:21:38	1					12.200	27.80	4.67	65.9	6.1	27.65	8.46	2.6
8/5/2011 15:36:05						1.000	29.90	10.29	117.6	5.3	24.86	8.89	
8/5/2011 15:36:14	1					1.000	29.80	10.87	153.5	5.5	25.49	8.69	2.1
8/5/2011 15:36:22	CO.	ME	831470	807731	11.0	5.800	28.50	7.25	105.5	6.1	26.85	8.67	E 1
8/5/2011 15:36:30	C2	ME	831470	807731	11.8	5.900	28.40	7.03	106.0	6.2	26.89	8.45	5.4
8/5/2011 15:44:39						10.900	26.30	5.14	79.7	6.9	27.46	8.74	2.6
8/5/2011 15:44:49						10.700	26.30	6.65	96.8	6.9	27.55	8.45	2.0
8/5/2011 17:09:21	_					1.200	29.90	8.78	126.3	5.7	23.18	8.69	1.7
8/5/2011 17:09:30	4	ME		000000	13.3	1.100	29.50	8.82	125.4	5.7	23.54	8.45	117
8/5/2011 17:09:40	C3		832224	808879		6.700	27.80	6.05	76.7	5.9	25.46	8.73	5.5
8/5/2011 17:09:58	-					6.700	27.50	5.21	77.6	5.9	25.64	8.55	
8/5/2011 17:10:07	-					12.200	26.60	4.47 4.21	61.0	7.1	28.62 26.95	8.60 8.50	2.4
8/5/2011 17:10:16						12.300	26.80	4.21	00.3	1.3	20.93	0.30	
8/5/2011 11:15:10						1.200	29.20	7.83	112.9	4.2	23.58	8.08	
8/5/2011 11:15:17	W1	MF	832976	807743	2.4	1.200	29.20	8.62	119.2	4.2	23.08	8.32	1.3
8/5/2011 10:59:16						1.000	30.20	6.87	102.6	4.1	23.55	8.53	
8/5/2011 10:59:25	1					1.000	30.30	6.27	94.9	4.1	23.46	8.34	1.4
8/5/2011 10:59:33	71/2	ME	022507	207007	10.4	6.300	29.30	6.42	94.5	4.2	25.68	8.33	0.9
8/5/2011 11:00:01	W2	MF	832587	807997	12.4	6.300	29.30	5.96	91.0	4.2	25.49	8.36	0.9
8/5/2011 11:00:09						11.300	27.90	4.25	62.8	4.7	28.54	8.30	1.4
8/5/2011 11:00:18						11.500	27.90	4.73	67.3	4.7	28.64	8.41	1.7
8/5/2011 10:43:43	4					1.200	30.10	6.08	91.1	4.8	24.93	8.38	0.9
8/5/2011 10:43:51	4					1.200	30.10	5.87	87.7	4.8	24.58	8.32	
8/5/2011 10:44:06	W3	MF	832031	807898	12.1	6.100	28.80	4.75	72.4	5.3	27.46	8.25	4
8/5/2011 10:44:21 8/5/2011 10:44:29	-					6.000 11.300	28.80	5.38 4.79	80.2 68.4	5.3 6.1	27.75 28.64	8.45 8.27	
8/5/2011 10:44:29	-					11.000	26.90	4.79	67.9	6.2	28.49	8 44	2.1
8/5/2011 11:29:16						1.000	29.40	7.56	106.2	5.4	22.99	8.52	
8/5/2011 11:29:23	1					1.000	29.40	8.01	111.0	5.4	22.91	8.61	0.9
8/5/2011 11:29:29	G1) (F)	000.00	000150	10.0	6.600	28.50	6.65	92.8	5.5	26.91	8.61	1.5
8/5/2011 11:29:36	C1	MF	833687	808158	13.3	6.800	28.50	7.02	98.0	5.5	26.88	8.64	1.5
8/5/2011 11:29:43]					12.100	27.90	5.37	78.0	7.2	27.49	8.64	3.9
8/5/2011 11:29:50						12.200	27.90	5.87	82.8	7.2	24.55	8.51	3.9
8/5/2011 10:26:48	4					1.000	29.40	6.25	90.1	5.2	22.46	8.10	2.9
8/5/2011 10:26:56	4					1.100	29.40	5.67	84.1	5.2	22.51	8.14	1 2.7
8/5/2011 10:27:27	C2	MF	831459	807756	10.4	5.300	28.10	5.45	80.7	5.6	26.54	8.24	2.8
8/5/2011 10:27:34	-					5.500	28.10	5.23	77.8	5.6	26.44	8.30	+
	4					9.600	27.80	5.73	83.1	6.1	28.82	8.32	1.3
8/5/2011 10:27:43						9.500 1.100	27.80 29.80	4.43 7.04	70.0 103.3	6.3 4.7	28.54	8.35 8.63	╂
8/5/2011 10:28:13								7.04	100.0	4./	∠ఎ.७٥		1.7
8/5/2011 10:28:13 8/5/2011 11:48:35								7 28	101 Q	47	24.06	8 54	
8/5/2011 10:28:13 8/5/2011 11:48:35 8/5/2011 11:48:54						1.100	29.80	7.28 6.79	101.9 97.5	4.7 5.1	24.06	8.54 8.59	1
8/5/2011 10:28:13 8/5/2011 11:48:35 8/5/2011 11:48:54 8/5/2011 11:49:06	- C3	MF	832242	808874	13.1	1.100 6.500	29.80 26.30	6.79	97.5	5.1	26.43	8.59	2.2
8/5/2011 10:28:13 8/5/2011 11:48:35 8/5/2011 11:48:54	- C3	MF	832242	808874	13.1	1.100	29.80						1

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

9-Aug-11 Date

	1 1				777 -	G 1'		1	I								
Date / Time	Location	Tide*	Co-ore	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS				
			East	North	m	m	ပ	mg/L	%	NTU	ppt	unit	mg/l				
8/9/2011 10:30:22	W1	ME	832955	807750	1.9	1.000	31.70	6.23	92.6	3.9	29.18	8.53	3.2				
8/9/2011 10:30:39 8/9/2011 10:39:26			000,00			1.000	31.80	6.35	92.7	3.8	29.20	8.44					
8/9/2011 10:39:26	1					1.000	31.10 30.90	9.28 10.37	128.6 141.9	4.2	28.89 28.41	8.75 8.39	2.5				
8/9/2011 10:39:40	77/0) (F	020616	007007	11.4	5.700	28.40	6.97	102.0	4.4	29.42	8.73	1.				
8/9/2011 10:40:01	W2	ME	832616	807997	11.4	5.700	28.50	7.36	104.5	4.3	28.96	8.31	1.4				
8/9/2011 11:06:35	4					10.300	28.10	5.84	89.6	4.5	30.65	8.54	3.2				
8/9/2011 11:07:01 8/9/2011 11:15:40	1					10.400 0.900	28.10 28.40	5.06 8.51	79.7 119.4	4.5 5.2	30.37 25.77	8.60 8.80	+				
8/9/2011 11:15:40	1					1.000	28.40	7.89	110.4	5.2	25.97	8.62	2.5				
8/9/2011 11:16:26	W3	ME	832029	809879	11.1	5.600	27.10	7.72	110.0	5.3	27.40	8.58	3.6				
8/9/2011 11:16:41	W 3	IVIL	032029	009019	11.1	5.800	27.10	7.46	106.5	5.1	27.90	8.71	5.0				
8/9/2011 11:16:58	-					10.200	26.50	5.41	84.3	6.2	28.39	8.69	3.3				
8/9/2011 11:17:15 8/9/2011 10:20:26						10.200 0.900	26.50 31.10	5.25 7.71	81.6 107.7	6.4 5.3	28.55 23.33	8.70 8.41	+				
8/9/2011 10:20:47	1					0.900	31.00	7.89	112.3	5.4	23.92	8.56	2.2				
8/9/2011 10:21:14	C1	ME	833722	808188	11.8	5.800	29.60	5.86	85.0	5.2	25.91	8.49	3.2				
8/9/2011 10:21:38	CI	IVIL	033122	000100	11.0	5.900	29.60	6.58	95.7	5.4	25.48	8.33	J.2				
8/9/2011 10:22:26	-					10.700	28.50	5.29	81.9	6.6	28.76	8.11	2.9				
8/9/2011 10:22:45 8/9/2011 11:23:11						10.800 0.900	28.50 29.80	5.52 8.70	73.4 121.3	6.9 4.8	28.84 25.52	8.31 8.33	_				
8/9/2011 11:23:42	1					0.900	29.80	7.75	112.5	4.9	25.62	8.56	2.8				
8/9/2011 11:24:27	C2	ME	921460	007722	11.2	5.500	28.40	6.95	103.1	6.6	27.61	8.58	3				
8/9/2011 11:24:43	C2	ME	831460	807732	11.2	5.500	28.40	6.86	100.5	6.5	27.35	8.56	3				
8/9/2011 11:24:59	4					10.000	27.10	5.81	84.7	6.5	28.79	8.68	1.7				
8/9/2011 11:25:15 8/9/2011 10:00:59						10.100 0.900	27.10 28.90	5.33 7.38	77.4 105.5	6.8 5.8	29.09 24.67	8.38	+				
8/9/2011 10:00:39	-					0.900	28.50	8.78	122.2	5.8	24.88	8.38 8.48	2.9				
8/9/2011 10:02:05	C3	C3	С3) (F)	832233	808851	12.9	6.400	27.80	6.36	94.7	6.4	26.84	8.63	4.0		
8/9/2011 10:02:25				C3	C3	C3	ME	832233	808851	12.9	6.400	27.70	6.04	90.1	6.5	26.96	8.28
8/9/2011 10:02:52							11.800	26.50	5.53	84.8	7.9	28.49	8.30	2.9			
8/9/2011 10:03:08						11.900	26.50	5.65	86.2	7.8	28.71	8.35	2.,				
8/9/2011 17:04:52	W1	MF	832952	007710	2.1	1.100	27.90	8.36	116.8	3.5	30.36	8.67	20				
8/9/2011 17:05:15	VV I	IVIF	632932	807718	2.1	1.100	27.90	8.11	103.1	3.5	30.44	8.40	2.8				
8/9/2011 16:51:41	4					0.900	28.10	7.89	113.6	3.6	23.14	8.52	1.8				
8/9/2011 16:53:08 8/9/2011 16:53:25	-					0.900 5.900	28.10 27.90	7.53 6.63	110.7 101.9	3.7	23.88 27.60	8.39 8.35	+				
8/9/2011 16:53:42	W2	MF	832619	807973	11.6	6.000	27.90	6.53	98.2	4.1	27.86	8.65	3.9				
8/9/2011 16:53:58						10.500	26.40	5.76	90.6	4.4	30.39	8.36	2.2				
8/9/2011 16:54:20						10.400	26.40	5.98	91.9	4.4	30.24	8.40	2.2				
8/9/2011 16:39:11	-					1.100	27.60	7.20	97.9	5.3	26.01	8.45	1.3				
8/9/2011 16:39:50 8/9/2011 16:40:06	1					1.000 5.700	27.60 27.10	6.26 5.90	89.6 81.3	5.1 5.5	27.70 27.92	8.65 8.44	+				
8/9/2011 16:40:22	W3	MF	832029	807871	11.2	5.600	27.10	5.80	85.6	5.5	28.93	8.53	2.6				
8/9/2011 16:40:40						10.300	26.10	4.87	68.1	6.2	31.21	8.09	2.1				
8/9/2011 16:41:24						10.200	26.10	5.41	75.6	6.0	31.11	8.68	2.1				
8/9/2011 17:20:40	4					1.100	28.70	9.09	129.8	5.1	26.21	8.35	3.5				
8/9/2011 17:20:57 8/9/2011 17:25:29	1					1.100 6.100	28.70 28.10	8.47 6.63	125.1 103.3	5.1 5.6	26.58 27.86	8.63 8.58	+				
8/9/2011 17:25:44	C1	MF	833688	808159	12.3	6.200	28.10	6.36	99.3	5.6	27.76	8.53	1.9				
8/9/2011 17:26:02						11.400	27.40	5.04	77.5	6.7	29.22	8.70	1.9				
8/9/2011 17:26:20						11.400	27.40	5.48	84.0	6.6	29.43	8.51	1.9				
8/9/2011 16:27:51	4					1.100	28.60	8.35	118.2	5.6	25.84	8.37	1.8				
8/9/2011 16:28:07 8/9/2011 16:28:27	-					1.200 5.900	28.60 28.20	7.00 5.23	97.8 72.2	5.6 5.9	25.13 27.88	8.53 8.15	+				
8/9/2011 16:28:42	C2	MF	831478	807760	11.8	5.900	28.20	5.61	80.9	6.1	27.86	8.06	1.8				
8/9/2011 16:38:17]					10.700	26.80	4.95	75.4	7.4	29.54	8.49	7				
8/9/2011 16:38:48						10.700	26.70	4.99	73.4	7.4	29.44	8.62	/				
8/9/2011 17:26:47	4]					1.100	27.20	8.77	122.4	5.1	26.58	8.45	3				
8/9/2011 17:27:03	-					1.100	27.30	8.59	114.6	5.1	26.46	8.56	H				
8/9/2011 17:27:19 8/9/2011 17:27:35	C3	MF	832212	808877	12.8	6.300	26.50 26.50	7.21 7.12	105.1 106.3	5.6 5.6	28.46 28.94	8.71 8.55	3.5				
8/9/2011 17:27:50	1					11.900	26.10	5.22	80.5	5.8	30.44	8.52	2.0				
8/9/2011 17:28:05	1					11.800	26.10	5.06	78.4	6.1	30.54	8.55	3.9				

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 11-Aug-11

Date	11-A		•		r	•			_			1	
Date / Time	Location	Tide*	Co-ore	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
			East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/l
8/11/2011 10:37:44	W1	ME	832977	807744	1.9	1.000	30.20	5.86	81.3	3.8	29.46	8.32	2.3
8/11/2011 10:38:03	***	IVIL	032)11	007711	1.7	1.000	30.20	5.62	86.4	3.8	29.55	8.55	2.3
8/11/2011 10:25:39 8/11/2011 10:26:00	-					1.000	29.60 29.60	6.10 7.28	93.4 107.2	4.1	28.46 28.55	8.49 8.62	1.9
8/11/2011 10:26:19	11/0	ME	020506	007001	11.4	5.700	28.20	6.50	88.7	4.1	30.72	8.41	1.0
8/11/2011 10:26:41	W2	ME	832596	807991	11.4	5.700	28.20	6.23	77.0	4.1	33.07	8.45	1.8
8/11/2011 10:27:01						10.300	27.90	5.12	79.0	4.6	33.03	8.20	2.6
8/11/2011 10:27:22 8/11/2011 10:15:09						10.400 0.900	27.90 30.20	5.38 5.98	84.2 89.5	4.5 5.6	33.12 28.15	8.19 8.35	\vdash
8/11/2011 10:15:27						1.000	30.20	6.01	96.2	5.6	28.15	8.62	1.5
8/11/2011 10:16:00	W3	ME	832045	807883	11.1	5.600	29.40	5.77	89.7	5.9	29.46	8.41	2.6
8/11/2011 10:16:17			032013	007003	1111	5.800	29.40	5.98	92.4	5.9	29.14	8.29	- 2.0
8/11/2011 10:16:44 8/11/2011 10:17:00						10.200	26.60 26.60	5.24 5.28	82.0 77.3	6.1	32.55 32.46	8.43 8.45	<0.5
8/11/2011 10:17:00						0.900	31.60	9.33	123.8	4.8	27.55	8.42	
8/11/2011 10:46:51						0.900	31.60	9.22	129.6	4.8	27.65	8.37	2
8/11/2011 10:47:14	C1	ME	833714	808191	11.8	5.800	28.80	6.11	92.6	4.9	29.40	8.57	3.1
8/11/2011 10:47:31 8/11/2011 10:47:57						5.900 10.700	28.80 26.50	6.01 5.19	89.0 81.2	4.8 6.1	29.55 31.40	8.67 8.47	-
8/11/2011 10:47:37						10.700	26.50	5.82	88.5	6.1	31.40	8.47	2.2
8/11/2011 10:00:29						0.900	31.50	8.19	116.1	5.1	26.55	8.37	2.8
8/11/2011 10:00:44						0.900	31.50	7.08	102.2	5.1	26.54	8.42	2.8
8/11/2011 10:01:08	C2	ME	831453	807759	11.2	5.500	29.10	6.02	95.0	5.6	26.54	8.28	0.6
8/11/2011 10:01:25 8/11/2011 10:01:55						5.500 10.000	29.10 26.20	6.02 4.97	92.1 75.5	5.5 6.1	29.58 31.65	8.36 8.19	_
8/11/2011 10:01:33						10.100	26.20	5.24	82.9	6.3	31.22	8.20	5.1
8/11/2011 11:10:24						0.900	30.50	7.07	104.7	5.4	27.66	8.56	3.2
8/11/2011 11:10:45						0.900	30.50	7.26	103.4	5.3	27.44	8.48	3.2
8/11/2011 11:11:12	C3	ME	832216	808874	12.9	6.400	29.50	6.21	97.8	5.6	29.89	8.50	2.4
8/11/2011 11:11:29 8/11/2011 11:11:52		ME	832216			6.400 11.800	29.50 27.10	6.46 5.31	97.0 82.9	5.6 6.3	29.87 31.66	8.28 8.55	+
8/11/2011 11:12:09						11.900	27.10	5.02	73.6	6.4	31.78	8.51	3
8/11/2011 17:58:41						1.100	27.70	5.75	83.4	3.9	26.88	8.49	
8/11/2011 17:59:26	W1	MF	832949	807751	2.1	1.100	27.80	6.07	81.1	3.9	26.79	8.29	3.2
8/11/2011 17:39:03						0.900	28.10	8.35	110.7	3.9	26.84	8.43	2.2
8/11/2011 17:39:21						0.900	28.10	9.59	134.7	3.9	26.88	8.66	
8/11/2011 17:39:44 8/11/2011 17:40:01	W2	MF	832604	807999	11.6	5.900 6.000	27.80 27.80	6.44	89.7 99.5	4.0	30.65 30.55	8.26 8.38	2.8
8/11/2011 17:40:29						10.500	25.60	5.20	78.0	4.5	31.08	8.06	2.6
8/11/2011 17:40:50						10.400	25.60	5.70	80.2	4.5	31.58	8.17	2.6
8/11/2011 17:25:00	4					1.100	28.80	8.44	105.2	4.7	28.17	8.24	2.7
8/11/2011 17:25:16 8/11/2011 17:25:38						1.000 5.700	28.80	7.33 5.72	98.8 82.1	4.6	28.44 30.55	8.27 8.77	+
8/11/2011 17:25:55	W3	MF	832031	807891	11.2	5.600	27.60	5.72	82.7	4.9	30.46	8.24	2.5
8/11/2011 17:26:17						10.300	26.20	5.07	79.8	5.6	31.68	8.39	4.2
8/11/2011 17:26:43						10.200	26.20	5.41	79.4	5.5	31.87	8.24	4.2
8/11/2011 18:11:47	-					1.100	27.50	7.40	109.7	5.2	27.76	8.79	3.6
8/11/2011 18:12:05 8/11/2011 18:12:27						1.100 6.100	27.50 27.10	7.40 5.17	95.6 76.3	5.3 5.5	27.66 29.46	8.31 8.67	+
8/11/2011 18:12:45	C1	MF	833724	808191	12.3	6.200	27.10	5.53	74.4	5.2	29.31	8.21	3.8
8/11/2011 18:13:07						11.400	25.90	4.83	74.5	6.1	31.01	8.11	4.1
8/11/2011 18:13:25						11.400	25.90	4.99	78.3	6.2	30.22	7.96	1.1
8/11/2011 17:15:54 8/11/2011 17:16:13	1					1.100	29.10 29.10	7.60 6.26	96.0 88.8	5.8 5.8	28.85 28.46	7.93 8.08	4.2
8/11/2011 17:16:35	- CO	ME	021460	007756	11.0	5.900	28.40	5.16	80.3	5.8	30.12	8.31	2.7
8/11/2011 17:16:52	C2	MF	831468	807756	11.8	5.900	28.40	5.40	78.5	5.9	30.55	8.43	3.7
8/11/2011 17:17:18	4 !					10.700	26.80	4.70	67.5	7.0	32.22	8.43	3.3
8/11/2011 17:17:36 8/11/2011 18:33:26						10.700 1.100	26.80 27.80	5.00 6.96	70.8 86.1	7.2 5.4	32.66 27.54	8.30 8.49	
8/11/2011 18:33:43	1					1.100	27.80	6.53	91.6	5.4	27.66	8.44	2.2
8/11/2011 18:34:06	C3	MF	832227	808875	12.8	6.300	26.80	5.68	81.2	6.0	29.33	8.34	2.1
8/11/2011 18:34:24		INIL	632221	000073	12.8	6.300	26.80	5.18	70.1	6.2	30.10	8.15	2.1
8/11/2011 18:34:47	-					11.900	25.70	4.55	73.5	6.8	32.66	8.52	0.6
8/11/2011 18:35:05 ME. Mid Flood Tide	ı					11.800	25.70	4.65	75.1	7.1	32.64	8.49	

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 13-Aug-11

		ug-11											
Date / Time	Location	Tide*	Co-oro	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
			East	North	m	m	${\mathbb C}$	mg/L	%	NTU	ppt	unit	mg/l
8/13/2011 10:59:04	W1	ME	832977	807744	1.9	1.000	27.60	6.30	93.0	4.1	27.21	8.48	3.2
8/13/2011 10:59:30	"" 1	IVIL	032)11	007711	1.7	1.000	27.70	5.95	95.9	4.1	27.65	8.50	3.2
8/13/2011 11:04:31 8/13/2011 11:04:51	-					1.000	27.90 27.80	7.41 7.99	105.8 110.7	3.6	26.55 26.54	8.55 8.39	5.7
8/13/2011 11:05:28	1110	ME	020506	007001	11.4	5.700	26.90	5.79	86.2	4.1	29.57	8.58	2.7
8/13/2011 11:05:48	W2	ME	832596	807991	11.4	5.700	26.80	5.28	77.9	4.1	29.57	8.48	3.7
8/13/2011 11:06:23						10.300	25.60	4.73	72.2	4.2	30.12	8.34	3.5
8/13/2011 11:06:43 8/13/2011 11:20:40						10.400 0.900	25.30 27.90	4.34 8.49	67.7 116.9	4.0	30.15 26.55	8.29 8.43	+
8/13/2011 11:21:00						1.000	27.80	8.01	113.6	4.4	26.41	8.46	1.8
8/13/2011 11:21:23	W3	ME	832045	807883	11.1	5.600	27.00	6.15	92.6	4.9	28.65	8.66	2.3
8/13/2011 11:21:43	- ""	WIL	032013	007003	11.1	5.800	27.00	6.85	91.1	4.9	28.64	8.53	2.3
8/13/2011 11:22:09 8/13/2011 11:22:29						10.200	25.90 25.40	5.03 5.94	76.6 90.8	5.1	29.44 29.10	8.49 8.42	2.8
8/13/2011 10:42:43						0.900	28.00	7.87	112.8	5.2	27.66	8.52	
8/13/2011 10:43:03						0.900	28.00	7.24	102.5	5.2	27.61	8.42	3.5
8/13/2011 10:43:27	C1	ME	833714	808191	11.8	5.800	26.10	6.19	90.7	5.3	29.41	8.37	2.4
8/13/2011 10:43:48 8/13/2011 10:44:12	-					5.900	26.00	6.26	89.4	5.5	29.89	8.35	-
8/13/2011 10:44:12 8/13/2011 10:44:32	-					10.700 10.800	24.50 24.50	4.97 4.66	77.8 67.3	6.3	30.11 30.45	8.69 8.48	1.6
8/13/2011 11:47:57						0.900	27.60	8.13	111.5	5.4	28.11	8.45	1.0
8/13/2011 11:48:17						0.900	27.60	7.46	105.1	5.4	28.65	8.55	1.9
8/13/2011 11:48:40	C2	ME	831453	807759	11.2	5.500	26.60	6.73	90.3	5.8	29.50	8.53	1.6
8/13/2011 11:49:02 8/13/2011 11:49:32	-					5.500 10.000	26.40 25.60	6.42 4.89	91.4 73.2	5.7 6.3	29.45 30.50	8.62 8.28	-
8/13/2011 11:49:51	-					10.100	25.50	4.67	68.9	6.3	30.56	8.39	2.2
8/13/2011 10:23:02						0.900	28.50	7.60	107.0	4.9	27.82	8.03	<i>E</i> 1
8/13/2011 10:24:06						0.900	28.00	7.16	98.5	4.8	27.88	8.58	5.1
8/13/2011 10:24:54	C3	ME	832216	808874	12.9	6.400	26.80	6.98	94.3	5.3	32.66	8.21	5.2
8/13/2011 10:25:15 8/13/2011 10:25:36	-	ME	832216			6.400 11.800	26.80 26.00	5.01 3.27	74.1 51.8	5.3 7.1	32.55 33.12	8.17 8.52	+
8/13/2011 10:26:38						11.900	25.90	3.65	56.8	7.1	33.22	8.25	3
8/13/2011 17:41:29						1.100	27.50	7.05	98.7	4.0	28.56	8.47	
8/13/2011 17:41:50	W1	MF	832949	807751	2.1	1.100	27.50	7.03	109.6	4.0	28.55	8.48	3.6
8/13/2011 17:29:42						0.900	27.40	6.10	94.2	4.2	28.65	8.58	2
8/13/2011 17:30:02						0.900	27.40	6.97	105.4	4.1	28.67	8.52	Z
8/13/2011 17:30:28	W2	MF	832604	807999	11.6	5.900	26.50	5.07	75.9	4.5	29.19	8.47	4.2
8/13/2011 17:30:48 8/13/2011 17:31:48	-					6.000 10.500	26.40 25.80	5.70 4.37	86.0 64.4	4.5	29.15 30.52	8.52 8.42	+
8/13/2011 17:31:48						10.400	25.90	4.51	63.3	4.6	30.41	8.47	3
8/13/2011 17:16:28						1.100	28.60	9.97	136.2	4.3	27.55	8.65	3.5
8/13/2011 17:16:51	_					1.000	28.20	10.36	128.3	4.6	27.47	8.56	3.3
8/13/2011 17:17:16 8/13/2011 17:17:37	W3	MF	832031	807891	11.2	5.700 5.600	26.30 26.30	7.37 7.88	99.9 120.9	4.9 5.0	28.48 28.53	8.58 8.48	2.7
8/13/2011 17:18:04						10.300	25.40	6.18	98.4	5.6	30.50	8.53	1.0
8/13/2011 17:18:25						10.200	24.90	6.33	100.4	5.7	30.42	8.46	4.6
8/13/2011 18:06:15	_					1.100	28.30	6.48	96.5	5.5	27.58	8.88	3.3
8/13/2011 18:06:37 8/13/2011 18:07:08	-					1.100 6.100	28.40 26.90	6.69 5.71	98.3	5.4 6.2	27.64 29.48	8.25 8.74	-
8/13/2011 18:07:29	C1	MF	833724	808191	12.3	6.200	26.90	5.67	87.0 85.1	6.2	29.48	8.82	3.4
8/13/2011 18:07:56						11.400	25.50	4.73	68.7	6.8	31.23	8.41	4.6
8/13/2011 18:08:17						11.400	25.40	4.78	72.5	7.0	31.10	8.44	4.0
8/13/2011 17:04:07	_					1.100	27.40	10.67	129.1	4.9	28.44	8.39	2.5
8/13/2011 17:04:29 8/13/2011 17:04:57	1					1.200 5.900	27.40 26.50	10.66 6.24	125.3 90.1	4.9 4.9	28.55 29.97	8.50 8.51	
8/13/2011 17:05:18	C2	MF	831468	807756	11.8	5.900	26.70	6.28	97.3	5.0	29.87	8.51	7.4
8/13/2011 17:05:44	4					10.700	25.80	5.02	73.5	5.6	31.49	8.48	2.7
8/13/2011 17:06:05						10.700	25.80	5.48	79.1	5.8	31.54	8.36	2.7
8/13/2011 18:37:09 8/13/2011 18:37:36	-					1.100	27.80 27.80	7.55 7.81	111.1 112.3	5.1	26.91 26.72	8.42 8.60	6
8/13/2011 18:38:01) (F	00000	000055	10.0	6.300	27.30	5.24	82.8	6.2	28.63	8.67	
8/13/2011 18:38:23	C3	MF	832227	808875	12.8	6.300	27.10	5.71	86.4	6.2	28.66	8.59	3.8
8/13/2011 18:38:52	4 .					11.900	26.30	4.82	68.2	7.3	30.69	8.25	0.5
8/13/2011 18:39:14	1					11.800	26.20	4.71	62.3	7.3	30.56	8.41	1 7.5

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

15-Aug-11 Date

Data / Time	Taaatian	T:4.*	Co-or	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	Tide*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/l
8/15/2011 13:53:27	W1	ME	832981	807752	2.2	1.100	28.40	5.84	85.4	3.8	28.72	8.68	4.1
8/15/2011 13:53:51	** 1	IVIL	032701	007732	2.2	1.100	28.60	5.60	83.3	3.8	28.68	8.89	7.1
8/15/2011 13:44:51						0.900	28.60	8.45	111.8	3.2	28.66	8.53	3.4
8/15/2011 13:45:15	-					0.900	28.60	8.07	101.8	3.2	28.57	8.64	-
8/15/2011 13:45:49 8/15/2011 13:46:12	W2	ME	832591	807968	10.5	5.200	26.50 26.30	6.79 6.85	94.0 96.4	3.6	29.76 29.72	8.26 8.32	3.1
8/15/2011 13:46:36	1					9.500	26.10	5.16	77.4	4.3	31.99	8.35	
8/15/2011 13:47:18						9.500	26.10	5.30	78.5	4.3	32.00	8.24	2.8
8/15/2011 13:30:48						1.000	28.00	7.81	106.8	3.6	28.69	8.88	0.1
8/15/2011 13:31:14						1.000	28.10	7.18	101.8	3.5	28.92	8.93	3.1
8/15/2011 13:32:31	W3	ME	832031	807899	10.7	5.300	27.80	5.49	80.5	4.6	29.64	8.52	3.5
8/15/2011 13:33:16	***	IVIL	032031	007099	10.7	5.300	27.80	5.99	80.0	4.6	29.54	8.84	5.5
8/15/2011 13:34:31						9.600	25.30	4.10	57.6	6.0	32.42	8.83	3.5
8/15/2011 13:35:06						9.700	25.70	4.64	65.6	6.0	32.39	8.79	5.5
8/15/2011 14:09:31						0.900	29.30	7.97	109.4	4.6	28.20	8.90	2.6
8/15/2011 14:09:54 8/15/2011 14:10:43	-					0.900 6.800	29.30 27.80	7.88 5.69	107.5 75.7	4.6 4.6	28.09 30.55	8.58 8.98	1
8/15/2011 14:10:43 8/15/2011 14:11:11	C1	ME	833696	808159	13.4	6.800	27.80	5.74	81.3	4.0	30.33	8.90	3.9
8/15/2011 14:11:52						12.400	24.90	4.92	72.4	6.6	31.55	8.47	1
8/15/2011 14:11:32						12.400	24.80	4.67	69.2	6.6	31.23	8.23	4.1
8/15/2011 13:17:02						1.000	27.50	8.41	112.9	4.5	29.08	8.36	١.,
8/15/2011 13:18:33						1.000	27.50	7.39	99.6	4.5	29.07	8.02	1.6
8/15/2011 13:19:44	cn l	ME	922216	000071	10.2	6.100	25.90	5.39	80.3	5.2	29.76	8.80	1.4
8/15/2011 13:20:08	C2	ME	832216	808871	12.3	6.100	25.90	5.42	79.2	5.3	29.64	8.80	1.4
8/15/2011 13:20:34						11.400	24.80	4.63	67.5	7.1	31.62	8.86	4.4
8/15/2011 13:20:57						11.400	24.80	4.87	72.7	7.3	31.61	8.92	т
8/15/2011 14:36:02						1.000	28.90	6.34	90.8	4.5	28.73	8.18	1.5
8/15/2011 14:36:26						1.000	28.90	6.01	84.9	4.5	28.65	8.04	
8/15/2011 14:36:54	C3	ME	832215	808876	13.5	6.800	26.20	5.59	83.1	6.3	30.55	8.26	2.5
8/15/2011 14:37:22	C3					6.800	26.20	5.83	82.1 60.9	6.1 7.0	30.95	8.49	-
8/15/2011 14:37:54 8/15/2011 14:38:26						12.500 12.500	25.50 25.50	4.22 4.54	62.2	7.0	31.46 31.47	8.59 8.92	2.7
0/13/2011 14.30.20						12.500	23.30	7.57	02.2	7.0	J1.77	0.72	
8/15/2011 09:03:59						1.200	28.70	5.22	78.2	3.6	28,55	8.08	
8/15/2011 09:04:22	W1	MF	832954	807744	2.4	1.200	28.70	5.21	73.4	3.7	28.87	8.39	1.9
8/15/2011 08:48:58						1.000	29.50	6.41	84.2	3.5	29.66	8.31	
8/15/2011 08:49:20						1.000	29.50	6.45	84.0	3.5	29.42	8.54	1.9
8/15/2011 08:49:50	W2	MF	832625	807993	10.8	5.500	27.10	5.19	72.6	3.9	31.32	8.12	2.6
8/15/2011 08:50:13	W Z	1011	032023	001993	10.8	5.400	27.10	5.73	76.8	4.0	31.20	8.38	۷.(
8/15/2011 08:50:49						9.800	26.80	4.53	68.3	4.4	32.50	8.45	2.4
8/15/2011 08:51:17						9.800	26.80	4.89	70.1	4.3	32.20	8.10	
8/15/2011 08:37:29	-					1.000	28.60	6.00	80.7	3.6	28.06	8.20	3
8/15/2011 08:37:51 8/15/2011 08:38:19	-					1.000 5.300	28.60	6.61 5.55	90.9 81.2	3.6 4.7	28.76	8.24 8.35	-
8/15/2011 08:38:40	W3	MF	832057	807888	10.4	5.300	27.90	5.51	78.4	4.7	31.83	8.31	2.2
8/15/2011 08:39:21						9.500	26.50	4.62	65.6	5.5	32.58	8.30	1
8/15/2011 08:39:42						9.400	26.50	4.68	66.8	5.6	32.76	8.32	2.7
8/15/2011 09:20:17						1.000	29.10	6.40	84.4	4.8	28.49	8.29	
8/15/2011 09:20:39						1.000	29.00	6.74	86.7	4.8	28.31	8.43	4.5
8/15/2011 09:22:01	C1	MF	833695	808186	13.1	6.600	28.50	5.67	85.2	5.4	30.65	8.43	1.9
8/15/2011 09:22:23	CI	1011	033093	000100	13.1	6.600	28.40	5.77	84.4	5.4	30.68	8.34	1.,
8/15/2011 09:22:48	4					12.100	26.50	4.63	76.0	7.2	32.18	8.29	2.3
8/15/2011 09:24:06						12.100	26.50	4.91	79.9	7.2	31.85	8.39	1
8/15/2011 08:23:49	-					0.900	28.10	8.82	112.7	4.4	28.55	8.27	2.2
8/15/2011 08:24:11						0.900	28.10	8.80	115.1	4.3	28.67	8.13	1-
8/15/2011 08:24:39 8/15/2011 08:25:03	C2	MF	832197	808873	12.4	6.200	27.50 27.50	5.44 6.06	80.1 87.2	5.6 5.6	31.42 31.28	8.25 8.32	2.4
8/15/2011 08:25:32	1					11.300	26.20	4.41	68.0	7.3	32.21	8.44	1
8/15/2011 08:25:54	1					11.300	26.20	3.93	59.1	7.3	32.44	8.30	1.
8/15/2011 09:41:50						1.000	27.50	6.92	100.0	3.9	28.59	8.25	1
8/15/2011 09:42:16	1					1.000	27.60	6.50	95.0	3.9	28.72	8.36	2.7
8/15/2011 09:43:04	C?	ME	922224	909974	12.2	6.700	26.50	5.69	85.8	4.5	31.65	8.42	2.4
8/15/2011 09:43:28	C3	MF	832224	808874	13.3	6.700	26.50	5.17	74.5	4.6	31.69	8.28	2.5
0/15/2011 00:45:22				000074		12.300	25.80	4.34	62.7	7.1	32.90	8.33	2.4
8/15/2011 09:45:23 8/15/2011 09:45:45	-					12.300	25.80	3.76	55.0	7.1	32.72	8.27	

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 17-Aug-11

			Co.or	dinates	Water	Sampling	Temp	DO Coro	DO Saturation	Turbidity	Salinity	pH	SS
Date / Time	Location	Tide*	East	North	Depth m	Depth m	Temp C	mg/L	DO Saturation %	NTU	ppt	pH unit	mg/l
8/17/2011 08:51:22						1.400	28.10	5.84	85.4	4.0	27.10	8.68	
8/17/2011 08:51:38	W1	ME	832964	807751	2.8	1.400	28.10	5.60	83.3	4.0	26.82	8.89	5.8
8/17/2011 08:38:36						1.000	27.90	8.45	111.8	4.2	27.18	8.53	3.3
8/17/2011 08:38:49 8/17/2011 08:40:46	-					1.000	27.90	7.18	101.8 94.0	4.2	27.14	8.64	
8/17/2011 08:40:40	W2	ME	832597	807991	12.5	6.300 6.300	26.80 26.80	6.79 6.85	94.0	4.4	28.90 28.80	8.26 8.32	5.4
8/17/2011 08:41:42						11.400	25.70	5.16	77.4	4.4	30.38	8.35	4.8
8/17/2011 08:41:50						11.400	25.70	5.15	75.0	4.4	30.43	8.74	4.0
8/17/2011 08:25:50 8/17/2011 08:26:07	4					0.900	29.20	5.99	80.0	3.8	28.12	8.88 8.93	3.5
8/17/2011 08:27:02	1					6.200	29.20 28.50	5.83 5.13	82.1 68.2	3.9 4.2	27.95 29.71	8.52	
8/17/2011 08:27:14	W3	ME	832030	807898	12.4	6.200	28.50	5.04	74.8	4.2	29.86	8.84	4.8
8/17/2011 08:28:00						11.400	26.70	4.77	70.7	5.6	30.31	8.83	3.9
8/17/2011 08:28:14						11.400	26.70	4.87	72.8	5.6	30.23	8.91	
8/17/2011 09:01:30 8/17/2011 09:01:37	1					0.900	28.90 28.90	7.81 7.97	106.8 109.4	4.9 4.8	27.11 27.12	8.90 8.58	1.6
8/17/2011 09:02:32	C1	ME	022716	000102	12.0	6.600	27.50	5.39	80.3	5.2	29.43	8.98	2.5
8/17/2011 09:02:42	C1	ME	833716	808182	13.2	6.600	27.60	5.49	80.5	5.2	29.41	8.90	2.5
8/17/2011 09:03:53	4					12.300	25.50	4.64	65.6	6.3	29.74	8.47	1.4
8/17/2011 09:04:11 8/17/2011 08:03:22						12.300 1.100	25.50 28.40	4.92 8.07	72.4 101.8	6.3 4.8	28.27 26.62	8.23 8.36	
8/17/2011 08:03:41	1					1.100	28.40	8.41	112.9	4.8	26.87	8.02	3
8/17/2011 08:03:44	C2	ME	929016	000011	10.9	5.500	27.60	5.74	81.3	5.5	29.18	8.80	5.5
8/17/2011 08:03:00	C2	ME	828016	808811	10.9	5.500	27.60	5.51	78.4	5.3	29.15	8.80	3.3
8/17/2011 08:03:12						9.900	25.70	4.22	60.9	7.0	30.38	8.86	2.5
8/17/2011 08:03:25 8/17/2011 09:16:16						9.900 1.100	25.70 28.60	4.10 6.34	57.6 90.8	7.0 4.6	30.27 27.62	8.92 8.18	
8/17/2011 09:16:30	1					1.100	28.60	6.01	84.9	4.5	27.68	8.04	1.9
8/17/2011 09:17:40	<i>C</i> 2	ME	022210	000074	12.4	6.700	27.60	5.19	72.6	5.6	28.94	8.26	2
8/17/2011 09:17:59	C3	ME	832218	808874	13.4	6.700	27.60	5.73	76.8	5.6	28.96	8.49	
8/17/2011 09:19:45	4	IVIL				12.500	25.60	4.53	68.3	6.3	30.33	8.59	3.1
8/17/2011 09:19:51						12.500	25.60	4.63	76.0	6.3	30.80	8.92	
8/17/2011 14:21:59	W1	MF	832971	807741	2.6	1.300	28.70	6.41	84.2	3.8	27.63	8.08	6.1
8/17/2011 14:22:22		1111	032771	007711	2.0	1.300	28.70	6.45	84.0	3.9	27.57	8.39	0.1
8/17/2011 14:12:58 8/17/2011 14:13:20	1					1.000	29.10 29.10	6.40 6.74	84.4 86.7	4.1	27.07 27.07	8.31 8.54	1.6
8/17/2011 14:13:50	1110) (F)	000000	005005	10.0	6.100	28.50	5.67	77.1	4.2	28.66	8.12	1.0
8/17/2011 14:14:13	W2	MF	832602	807987	12.2	6.100	28.50	5.42	79.2	4.0	28.68	8.38	1.6
8/17/2011 14:14:49	4					11.300	26.50	4.54	62.2	5.6	29.53	8.45	4.7
8/17/2011 14:15:17 8/17/2011 14:01:29						11.300 1.000	26.60 28.50	4.67 6.00	69.2 80.7	5.5 4.5	29.75 27.51	8.10 8.20	
8/17/2011 14:01:51	1					1.000	28.50	6.61	90.9	4.5	27.64	8.24	2.9
8/17/2011 14:02:19	W3	ME	922026	907906	10.2	6.100	27.60	5.22	78.2	5.3	29.05	8.35	2.7
8/17/2011 14:02:40	W 3	MF	832036	807896	12.3	6.100	27.60	5.21	73.4	5.2	28.72	8.31	2.7
8/17/2011 14:03:21	1					11.200	26.40	4.67	65.3	6.1	30.09	8.30	2.4
8/17/2011 14:03:42 8/17/2011 14:31:17						11.200 1.200	26.40 28.40	4.63 6.50	66.7 95.0	6.1 4.5	30.13 27.83	8.32 8.29	
8/17/2011 14:31:39	1					1.200	28.40	6.06	87.2	4.6	27.89	8.43	3.4
	C1	ME	831459	807761	13	6.500	27.10	5.77	84.4	5.0	28.35	8.43	4.6
8/17/2011 14:32:01	CI	1411	051457	007701	13	6.500	27.10	5.55	81.2	5.0	28.52	8.34	1.0
8/17/2011 14:32:23	-	MF				12.100	26.50 26.50	4.89 4.91	70.1 79.9	7.6 7.6	29.65 29.63	8.29 8.39	2.2
8/17/2011 14:32:23 8/17/2011 14:32:48							20.50		112.7	4.8	28.12	8.27	.
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06						12.100 1.000		8.82					4.9
8/17/2011 14:32:23 8/17/2011 14:32:48							28.60 28.60	8.82 8.80	115.1	4.8	28.44	8.13	
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:54:39	C2.	MF	831459	807758	10.7	1.000 1.000 5.300	28.60 28.60 28.10	8.80 5.44	115.1 80.1	4.8 5.1	28.44 29.41	8.25	3.6
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:54:39 8/17/2011 13:55:03	C2	MF	831459	807758	10.7	1.000 1.000 5.300 5.300	28.60 28.60 28.10 28.10	8.80 5.44 5.17	115.1 80.1 74.5	4.8 5.1 5.1	28.44 29.41 29.44	8.25 8.32	3.6
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:54:39 8/17/2011 13:55:03 8/17/2011 13:55:32	C2	MF	831459	807758	10.7	1.000 1.000 5.300 5.300 9.800	28.60 28.60 28.10 28.10 27.10	8.80 5.44 5.17 4.41	115.1 80.1 74.5 68.0	4.8 5.1 5.1 6.3	28.44 29.41 29.44 29.66	8.25 8.32 8.44	3.6
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:54:39 8/17/2011 13:55:03	C2	MF	831459	807758	10.7	1.000 1.000 5.300 5.300	28.60 28.60 28.10 28.10	8.80 5.44 5.17	115.1 80.1 74.5	4.8 5.1 5.1	28.44 29.41 29.44	8.25 8.32	3.9
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:55:03 8/17/2011 13:55:03 8/17/2011 13:55:54 8/17/2011 14:57:50 8/17/2011 14:57:50	C2	MF	831459	807758	10.7	1.000 1.000 5.300 5.300 9.800 9.800	28.60 28.60 28.10 28.10 27.10 27.10 28.10 28.10	8.80 5.44 5.17 4.41 4.34 6.92 7.39	115.1 80.1 74.5 68.0 62.7 100.0 99.6	4.8 5.1 5.1 6.3 6.4 4.1 4.1	28.44 29.41 29.44 29.66 29.77 26.64 26.67	8.25 8.32 8.44 8.30 8.25 8.36	
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:55:03 8/17/2011 13:55:03 8/17/2011 13:55:54 8/17/2011 14:57:50 8/17/2011 14:57:50	C2	MF MF	831459	807758	10.7	1.000 1.000 5.300 5.300 9.800 9.800 1.000 1.000 6.600	28.60 28.60 28.10 28.10 27.10 27.10 28.10 28.10 27.40	8.80 5.44 5.17 4.41 4.34 6.92 7.39 5.69	115.1 80.1 74.5 68.0 62.7 100.0 99.6 85.8	4.8 5.1 5.1 6.3 6.4 4.1 4.1	28.44 29.41 29.44 29.66 29.77 26.64 26.67 28.01	8.25 8.32 8.44 8.30 8.25 8.36 8.42	3.9
8/17/2011 14:32:23 8/17/2011 14:32:48 8/17/2011 14:34:06 8/17/2011 13:53:49 8/17/2011 13:54:11 8/17/2011 13:55:03 8/17/2011 13:55:03 8/17/2011 13:55:54 8/17/2011 14:57:50 8/17/2011 14:57:50						1.000 1.000 5.300 5.300 9.800 9.800 1.000 1.000	28.60 28.60 28.10 28.10 27.10 27.10 28.10 28.10	8.80 5.44 5.17 4.41 4.34 6.92 7.39	115.1 80.1 74.5 68.0 62.7 100.0 99.6	4.8 5.1 5.1 6.3 6.4 4.1 4.1	28.44 29.41 29.44 29.66 29.77 26.64 26.67	8.25 8.32 8.44 8.30 8.25 8.36	3.9

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

19-Aug-11 Date

			Co-ore	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	Tide*	East	North	m	m	ဗ	mg/L	%	NTU	ppt	unit	mg/l
8/19/2011 15:28:22	W1	ME	832978	807748	2.6	1.300	27.50	6.70	84.7	3.9	31.15	8.16	4.4
8/19/2011 15:28:38	W I	IVIE	032970	607746	2.0	1.300	27.50	7.73	95.3	3.9	31.16	8.19	4.4
8/19/2011 15:21:36	-					1.000	28.90	6.76	88.7	3.8	30.47	8.15	2.7
8/19/2011 15:21:49 8/19/2011 15:22:46	-					1.000 6.300	29.00 27.30	6.76	89.5 84.2	3.8 4.3	30.47 31.35	8.30 8.16	l
8/19/2011 15:23:06	W2	ME	832601	807988	12.5	6.300	27.30	6.59	83.6	4.4	31.30	8.14	2.7
8/19/2011 15:24:42						11.500	25.80	4.76	71.6	4.6	32.04	8.09	2.8
8/19/2011 15:24:50 8/19/2011 15:12:50						11.500 0.900	25.80 27.60	4.80 6.36	72.4 87.2	4.6 3.9	32.02 29.96	8.30 8.13	
8/19/2011 15:13:07	1					0.900	27.80	6.37	87.1	4.0	30.10	8.14	2.1
8/19/2011 15:14:02	W3	ME	832035	807896	12.6	6.300	26.50	6.46	83.7	5.2	31.18	8.50	5.5
8/19/2011 15:14:14	***3	IVIL	032033	807890	12.0	6.300	26.50	6.38	82.5	5.2	31.12	8.12	5.5
8/19/2011 15:16:00 8/19/2011 15:16:14	-					11.500 11.500	26.10 26.10	4.90 4.80	73.7 72.2	6.1	31.89 31.91	8.07 8.31	3.2
8/19/2011 15:10:14						1.000	28.70	6.79	90.1	5.0	30.56	8.30	
8/19/2011 15:37:37]					1.000	28.80	6.82	90.3	5.1	30.55	8.08	5.8
8/19/2011 15:38:32	C1	ME	833683	808179	13.2	6.600	27.60	6.87	89.5	5.5	30.83	8.15	2.4
8/19/2011 15:38:42 8/19/2011 15:39:53	-					6.600 12.200	27.50 27.00	6.77 4.71	87.9 70.8	5.5 6.2	30.55 32.32	8.20 8.05	
8/19/2011 15:39:33 8/19/2011 15:40:11	1					12.200	27.00	4.71	70.8	6.2	32.32	8.06	3.5
8/19/2011 15:00:22						1.000	27.20	7.08	93.0	4.9	29.57	8.41	2.4
8/19/2011 15:00:41						1.000	27.20	7.09	92.8	4.9	29.66	8.42	2.4
8/19/2011 15:01:44	C2	ME	831459	807759	10.6	5.300	26.90	6.55	84.5	5.1	30.72	8.25	3.2
8/19/2011 15:02:00 8/19/2011 15:02:12	1					5.300 9.600	26.80 26.10	6.43 5.10	83.5 76.6	5.1 6.7	30.70 31.57	8.30 8.03	
8/19/2011 15:03:25						9.600	26.10	5.02	75.5	6.8	31.61	8.03	4.6
8/19/2011 16:08:16						1.000	29.60	6.83	87.8	4.1	30.69	8.16	2.8
8/19/2011 16:08:30						1.000	29.60	6.81	87.8	4.1	30.71	8.16	2.0
8/19/2011 16:09:40 8/19/2011 16:09:59	C3	ME	832209	808877	13.3	6.600	27.60	6.71	87.0 86.0	6.3	30.85 30.87	8.34 8.22	5.1
8/19/2011 16:10:45	1	ME	832209			12.300	27.60 26.10	4.49	66.8	8.1	32.84	7.97	
8/19/2011 16:10:51						12.300	26.10	4.27	63.5	8.1	32.87	7.97	5.5
8/19/2011 09:54:59	W1	MF	832949	807748	2.7	1.300	28.20	7.24	109.5	3.9	29.93	8.30	- 3
8/19/2011 09:55:22	VV I	IVII	032949	007740	2.1	1.300	28.20	7.34	111.1	3.9	29.92	8.30)
8/19/2011 09:55:58 8/19/2011 09:56:20	-					1.000	28.50	7.65	115.8	4.3	29.98	8.35 8.34	4.2
8/19/2011 09:57:50	1					1.000 6.300	28.40 27.90	7.61 6.37	115.5 96.4	4.3	30.00 30.74	8.25	1
8/19/2011 09:58:13	W2	MF	832600	807998	12.6	6.300	28.00	6.43	97.4	4.6	30.75	8.25	3.1
8/19/2011 09:58:49						11.600	27.10	4.90	73.8	4.5	32.07	8.13	4
8/19/2011 09:59:17 8/19/2011 09:27:29						11.600	27.10	4.93	74.0	4.5	32.01	8.13	<u> </u>
8/19/2011 09:27:51	1					1.000	28.50 28.60	7.52 7.59	114.0 115.2	4.5	29.75 29.74	8.34 8.33	1.7
8/19/2011 09:28:19	*****) (F)	000005	007000	10.4	6.300	27.70	7.08	107.5	5.3	30.28	8.28	2.0
8/19/2011 09:28:40	W3	MF	832035	807898	12.4	6.300	27.50	7.15	108.6	5.2	30.28	8.28	3.9
8/19/2011 09:29:21						11.400	25.20	4.86	73.5	6.5	31.61	8.14	2.6
8/19/2011 09:29:42 8/19/2011 10:15:17						11.400	24.60	4.84 7.40	72.3 111.5	6.5 4.5	31.90 29.84	8.13 8.30	
8/19/2011 10:15:39						1.100	28.00	7.42	111.8	4.6	29.90	8.29	3.1
8/19/2011 10:16:01	C1	MF	833702	808179	13.1	6.600	27.60	6.62	99.1	5.6	30.41	8.24	2.5
8/19/2011 10:16:23	- C1	IVII	033702	000179	13.1	6.600	27.50	6.59	99.1	5.6	30.36	8.25	2.3
8/19/2011 10:17:48 8/19/2011 10:17:06	-					12.000	26.50 26.50	4.93 4.89	73.8 73.1	7.7	32.47 32.42	8.12 8.12	2
8/19/2011 10:17:00						1.100	28.50	7.46	113.1	4.6	29.57	8.33	
8/19/2011 09:12:11						1.100	28.50	7.42	112.5	4.6	29.59	8.32	3.2
8/19/2011 09:12:39	C2	MF	831468	807757	10.7	5.400	27.60	7.49	113.5	5.5	30.09	8.30	3
8/19/2011 09:13:03	-					5.400 10.600	27.60	7.41 6.25	112.6 94.4	5.5	30.05 30.81	8.30	Ť
8/19/2011 09:13:32 8/19/2011 09:13:54	1					10.600	25.60 25.60	6.25	94.4	6.7 6.7	30.81	8.20 8.21	2.7
8/19/2011 09:14:50						1.100	28.10	7.65	115.5	3.9	29.68	8.34	2.4
]					1.100	28.10	7.50	113.2	3.9	29.79	8.32	2.4
8/19/2011 09:15:16								6.00	94.6	4.5	30.54	0 22	1
8/19/2011 09:16:04	C3	MF	832240	808871	13.3	6.700	27.60	6.29				8.22	3.2
	C3	MF	832240	808871	13.3	6.700 6.700 12.300	27.60 27.60 25.80	6.25 5.22	93.9 78.5	4.5	30.51 31.74	8.22 8.15	3.2

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

23-Aug-11 Date

			Co-ore	linates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	Tide*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/l
8/23/2011 17:50:22	3371	ME	922079	007740	2.4	1.200	27.10	6.39	94.7	3.1	32.06	8.32	1.6
8/23/2011 17:50:38	W1	ME	832978	807742	2.4	1.200	27.10	6.29	93.1	3.1	32.05	8.54	4.6
8/23/2011 17:36:36	-					1.000	27.00	6.68	98.6	2.9	31.87	8.11	2.6
8/23/2011 17:36:49 8/23/2011 17:37:46	-					1.000 6.200	27.00 26.10	6.52 5.25	96.2 77.2	2.9 3.9	31.86 32.13	8.17 8.27	
8/23/2011 17:37:06	W2	ME	832606	807984	12.4	6.200	26.10	5.25	77.2	4.4	32.10	8.26	3.6
8/23/2011 17:38:42						11.600	25.70	4.40	64.5	4.6	32.57	8.55	4.6
8/23/2011 17:38:50						11.400	25.70	4.40	64.7	4.5	32.53	8.76	1.0
8/23/2011 17:19:50 8/23/2011 17:20:07	1					1.100 1.100	27.50 27.50	6.62 6.71	97.3 98.6	3.6	31.61 31.67	8.19 8.30	7.3
8/23/2011 17:21:02	1112	ME	922025	007000	12.0	6.400	27.10	5.49	80.5	4.7	32.19	8.19	4.5
8/23/2011 17:21:14	W3	ME	832035	807889	12.8	6.400	27.10	5.49	80.5	4.6	32.13	8.32	4.5
8/23/2011 17:22:00	4					11.800	25.60	4.75	69.4	5.9	32.47	8.11	2
8/23/2011 17:22:14 8/23/2011 18:07:30						11.800 1.100	25.60 27.40	4.69 6.41	68.5 95.4	5.6 4.1	32.48 31.94	8.70 8.48	
8/23/2011 18:07:37						1.100	27.40	6.25	92.3	4.1	31.94	8.55	2.9
8/23/2011 18:08:32	C1	ME	833683	808170	13.9	6.800	26.50	5.10	75.2	5.1	32.07	8.34	<0.5
8/23/2011 18:08:42	CI	IVIE	033003	000170	13.9	6.900	26.50	5.05	74.4	5.3	32.06	8.49	\(0.5\)
8/23/2011 18:09:03	4					12.800	25.80	4.43	65.3	5.9	32.24	8.26	2
8/23/2011 18:09:11 8/23/2011 17:00:22						12.800 1.000	25.80 27.50	4.42 6.57	65.1 95.7	5.8 3.1	32.24 30.89	8.26 8.14	1
8/23/2011 17:00:41	1					1.000	27.50	6.60	96.4	3.3	30.89	8.21	3.1
8/23/2011 17:01:44	C2	ME	831459	807759	10.7	5.500	26.40	5.94	86.7	4.8	31.83	8.14	2.9
8/23/2011 17:02:00	C2	IVIL	031439	001139	10.7	5.500	26.40	5.95	87.0	4.7	31.55	8.15	2.9
8/23/2011 17:02:12 8/23/2011 17:03:25	-					9.700	26.10	5.25	76.6	7.0 7.7	32.19 32.24	8.16	2.4
8/23/2011 17:03:23						9.700 1.000	26.10 27.40	5.22 6.13	76.1 90.5	5.2	31.62	8.41 8.33	
8/23/2011 18:30:30	1					1.000	27.40	5.99	88.6	5.2	31.55	8.22	5.2
8/23/2011 18:31:40	C3	ME	832211	808879	13.4	6.700	26.80	4.93	72.8	4.9	32.22	8.12	0.7
8/23/2011 18:31:59	- 03	IVIE	032211	000019	13.4	6.700	26.80	4.86	71.7	5.4	32.46	8.23	0.7
8/23/2011 18:32:45 8/23/2011 18:32:51	4	IVIL				12.300 12.300	25.80 25.80	4.16 4.14	61.5 61.1	7.0	32.42 32.40	8.56 8.25	3.8
6/23/2011 16.32.31						12.300	23.60	4.14	01.1	1.2	32.40	0.23	
8/23/2011 08:54:59	W1	MF	832949	807748	2.7	1.300	27.50	6.00	87.2	3.9	31.54	8.34	2.6
8/23/2011 08:55:22		1111	0329 19	007710	2.7	1.300	27.50	6.02	87.2	3.9	31.99	8.34	2.0
8/23/2011 08:45:58 8/23/2011 08:46:20	-					1.000	27.20 27.20	6.60 6.62	96.4 96.5	2.4	30.11 30.11	8.31 8.02	4.6
8/23/2011 08:47:50			000644	005000	40.0	6.400	26.80	5.18	75.5	2.4	31.88	7.90	4.0
8/23/2011 08:48:13	W2	MF	832611	807989	12.8	6.400		5.18	75.5	2.4	31.81		1.2
8/23/2011 08:48:49						0.400	26.80	J.10	,5.5		31.01	7.82	
8/23/2011 08:49:17						11.800	25.50	4.52	66.0	3.5	32.99	8.13	1.6
0/22/2011 00:27:20						11.800 11.800	25.50 25.50	4.52 4.56	66.0 66.1	3.5 3.3	32.99 32.10	8.13 8.32	1.6
8/23/2011 08:27:29 8/23/2011 08:27:51						11.800 11.800 1.000	25.50 25.50 27.60	4.52 4.56 6.95	66.0 66.1 101.2	3.5 3.3 2.7	32.99 32.10 30.67	8.13 8.32 8.30	1.6
8/23/2011 08:27:29 8/23/2011 08:27:51 8/23/2011 08:28:19	W/2	ME	22225	007007	10.4	11.800 11.800	25.50 25.50	4.52 4.56	66.0 66.1	3.5 3.3	32.99 32.10	8.13 8.32	1.8
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40	W3	MF	832035	807887	12.4	11.800 11.800 1.000 1.000 6.300 6.200	25.50 25.50 27.60 27.60 26.80 26.80	4.52 4.56 6.95 6.96 5.25 5.28	66.0 66.1 101.2 101.4 76.2 76.5	3.5 3.3 2.7 2.7 3.0 2.9	32.99 32.10 30.67 30.55 31.78 31.55	8.13 8.32 8.30 8.31 8.32 8.57	1
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21	W3	MF	832035	807887	12.4	11.800 11.800 1.000 1.000 6.300 6.200 11.300	25.50 25.50 27.60 27.60 26.80 26.80 25.10	4.52 4.56 6.95 6.96 5.25 5.28 4.73	66.0 66.1 101.2 101.4 76.2 76.5 68.1	3.5 3.3 2.7 2.7 3.0 2.9 4.8	32.99 32.10 30.67 30.55 31.78 31.55 32.84	8.13 8.32 8.30 8.31 8.32 8.57 8.39	1.8
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42	W3	MF	832035	807887	12.4	11.800 11.800 1.000 1.000 6.300 6.200 11.300	25.50 25.50 27.60 27.60 26.80 26.80 25.10	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35	1.8
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42 8/23/2011 09:15:17	W3	MF	832035	807887	12.4	11.800 11.800 1.000 1.000 6.300 6.200 11.300 11.300 1.100	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32	1.8
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42						11.800 11.800 1.000 1.000 6.300 6.200 11.300	25.50 25.50 27.60 27.60 26.80 26.80 25.10	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35	1.8 1.4 0.9
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:01 8/23/2011 09:16:01 8/23/2011 09:16:23	W3	MF	832035 833713	807887	12.4	11.800 11.800 1.000 1.000 6.300 6.200 11.300 11.300 1.100 6.800 6.800	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14	1.8
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:01 8/23/2011 09:16:23 8/23/2011 09:17:48						11.800 11.800 1.000 1.000 6.300 6.200 11.300 11.300 1.100 6.800 6.800 12.500	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 25.60	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93 33.18	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56	1.8 1.4 0.9
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:01 8/23/2011 09:16:03 8/23/2011 09:17:48 8/23/2011 09:17:48						11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 25.60 26.60	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 4.72 5.09 5.06 4.44	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 30.75 32.93 33.18 33.21	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34	1.8 1.4 0.9 2.7 2.6 3.4
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:01 8/23/2011 09:16:23 8/23/2011 09:17:48						11.800 11.800 1.000 1.000 6.300 6.200 11.300 11.300 1.100 6.800 6.800 12.500	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 25.60	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93 33.18	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56	1.8 1.4 0.9 2.7
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:42 8/23/2011 08:29:42 8/23/2011 09:15:17 8/23/2011 09:16:01 8/23/2011 09:16:23 8/23/2011 09:17:06 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:12:11 8/23/2011 08:12:39	C1	MF	833713	808189	13.6	11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 1.100 1.100 1.100 5.300	25.50 25.50 27.60 27.60 26.80 25.10 25.10 27.60 27.20 27.20 27.20 25.60 27.30 27.30 26.80	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.71	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.6 98.9 100.5 81.0	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8	32.99 32.10 30.67 30.55 31.78 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 31.35	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34 8.51 8.60 8.32	- 1.8 - 1.4 - 0.9 - 2.7 - 2.6 - 3.4 - 3.2
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:01 8/23/2011 09:17:48 8/23/2011 09:17:48 8/23/2011 09:17:06 8/23/2011 08:11:41 8/23/2011 08:12:11 8/23/2011 08:12:39 8/23/2011 08:12:39						11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 12.500 1.100 1.100 5.300 5.300	25.50 25.50 27.60 27.60 26.80 25.10 25.10 27.60 27.60 27.20 27.20 25.60 26.60 27.30 26.80 26.80	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.71 5.70	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.5 64.6 98.9 100.5 81.0 79.8	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 31.35 31.45	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34 8.51 8.60 8.32	1.8 1.4 0.9 2.7 2.6 3.4
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:17 8/23/2011 09:16:01 8/23/2011 09:17:48 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:12:39 8/23/2011 08:12:39 8/23/2011 08:12:39	C1	MF	833713	808189	13.6	11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 1.100 1.100 5.300 5.300 9.800	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 27.20 26.60 27.30 27.30 27.30 26.80 26.80 26.80	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.71 5.70 4.39	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.6 98.9 100.5 81.0 79.8 62.1	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 30.44 31.35 31.45 32.00	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.34 8.56 8.34 8.51 8.60 8.32 8.33 8.31 8.15	- 1.8 - 1.4 - 0.9 - 2.7 - 2.6 - 3.4 - 3.2
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:17 8/23/2011 09:16:01 8/23/2011 09:16:03 8/23/2011 09:17:06 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:11:49 8/23/2011 08:13:33 8/23/2011 08:13:54	C1	MF	833713	808189	13.6	11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 1.100 1.100 5.300 5.300 9.800 9.800	25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 26.60 27.30 27.30 26.80 26.80 27.30 26.80 27.30 26.80 26.80	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.70 4.39 4.26	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.6 98.9 100.5 81.0 79.8 62.1 60.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 31.35 31.45 32.90 32.76	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34 8.51 8.60 8.32 8.31 8.31 8.31	- 1.8 - 1.4 - 0.9 - 2.7 - 2.6 - 3.4 - 3.2 - 1.1
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:21 8/23/2011 09:15:17 8/23/2011 09:15:17 8/23/2011 09:16:01 8/23/2011 09:17:48 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:12:39 8/23/2011 08:12:39 8/23/2011 08:12:39	C1	MF	833713	808189	13.6	11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 1.100 1.100 5.300 5.300 9.800	25.50 25.50 27.60 27.60 26.80 26.80 25.10 27.60 27.60 27.20 27.20 27.20 26.60 27.30 27.30 27.30 26.80 26.80 26.80	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.71 5.70 4.39	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.6 98.9 100.5 81.0 79.8 62.1	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 30.44 31.35 31.45 32.00	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.34 8.56 8.34 8.51 8.60 8.32 8.33 8.31 8.15	1.8 - 1.4 - 0.9 - 2.7 - 2.6 - 3.4 - 3.2 - 1.1
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:42 8/23/2011 08:29:42 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:03 8/23/2011 09:16:23 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:12:39 8/23/2011 08:13:03 8/23/2011 08:13:03 8/23/2011 08:13:54 8/23/2011 08:13:54 8/23/2011 08:13:54 8/23/2011 09:27:50 8/23/2011 09:28:16 8/23/2011 09:29:04	C1 C2	MF MF	833713 831468	808189	13.6	11.800 11.800 11.800 1.000 1.000 6.300 6.200 11.300 1.100 1.100 6.800 6.800 12.500 12.500 1.100 5.300 5.300 9.800 9.800 9.800 1.100 6.900	25.50 27.60 27.60 26.80 25.10 27.60 27.60 27.20 27.20 27.20 27.30 26.80 26.80 25.10 27.20 27.20 27.20 27.20 27.20 27.30 26.80 27.30 26.80 27.30 26.80 27.30	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.06 4.44 4.45 6.95 7.06 5.71 5.70 4.39 4.26 8.03 7.95 5.54	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.5 64.6 98.9 100.5 81.0 79.8 62.1 60.5 114.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 2.3 5.7	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 32.93 33.18 33.21 30.44 30.44 31.35 31.45 32.90 32.96 32.96 32.96 32.96 32.96 32.96 32.96 32.96 33.18	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34 8.51 8.60 8.32 8.31 8.51 8.60 8.32 8.32 8.33 8.34 8.51 8.60 8.32 8.32 8.33 8.34 8.51 8.60 8.32 8.33 8.34 8.51 8.51 8.52 8.53 8.53 8.54 8.55	1.8 1.4 - 0.9 - 2.7 - 2.6 - 3.4 - 3.2 - 1.1
8/23/2011 08:27:51 8/23/2011 08:28:19 8/23/2011 08:28:40 8/23/2011 08:29:21 8/23/2011 08:29:42 8/23/2011 09:15:17 8/23/2011 09:15:39 8/23/2011 09:16:01 8/23/2011 09:16:03 8/23/2011 09:17:06 8/23/2011 09:17:06 8/23/2011 08:11:49 8/23/2011 08:12:39 8/23/2011 08:13:30 8/23/2011 08:13:30 8/23/2011 08:13:54 8/23/2011 08:13:54 8/23/2011 08:13:55	C1	MF	833713	808189	13.6	11.800 11.800 1.000 1.000 1.000 6.300 6.200 11.300 1.100 1.100 1.100 1.100 1.100 5.300 12.500 1.100 1.100 5.300 5.300 9.800 9.800 1.100 1.100	25.50 27.60 27.60 26.80 25.10 27.60 27.60 27.60 27.20 27.20 27.20 26.80 26.80 26.80 27.30 26.80 25.10 27.20 27.20 27.20 27.20 27.30 26.80 27.30 27.30 26.80 27.30 27.30 26.80 27.30 27.30 27.50 27.50 27.50	4.52 4.56 6.95 6.96 5.25 5.28 4.73 4.72 6.60 6.67 5.09 5.09 5.06 4.44 4.45 6.95 7.06 5.71 5.70 4.39 4.39 4.30 4.30 4.30 4.40 4.40 6.60 6.67 6.60 6.67 6.60 6.63 7.06 6.70 6.80 6.80 6.80 7.06 6.80 7.06 6.80 6.80 7.06 6.80 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 7.06 6.80 6.80 6.80 7.06 6.80 6.80 6.80 6.80 7.06 6.80	66.0 66.1 101.2 101.4 76.2 76.5 68.1 68.4 96.0 96.8 73.9 73.5 64.6 98.9 100.5 81.0 79.8 62.1 60.5 114.5	3.5 3.3 2.7 2.7 3.0 2.9 4.8 5.1 2.7 2.6 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 2.3 2.3	32.99 32.10 30.67 30.55 31.78 31.55 32.84 32.91 32.75 30.75 30.75 33.318 33.21 30.44 30.44 31.35 31.45 32.90 32.76 29.54	8.13 8.32 8.30 8.31 8.32 8.57 8.39 8.35 8.32 8.33 8.14 8.56 8.34 8.51 8.60 8.32 8.31 8.15 8.32 8.33 8.34 8.34 8.34 8.36 8.36 8.36 8.36 8.36 8.36 8.36 8.36	1.8 1.4 0.9 2.7 2.6 3.4 3.2 1.1

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

25-Aug-11 Date

Data / Time	Togetien	TO Just	Co-oro	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	Tide*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg/
8/25/2011 10:08:22	W1	ME	832978	807742	2.3	1.200	30.70	6.27	94.7	3.2	28.76	8.21	3.3
8/25/2011 10:08:38	** 1	IVIL	032710	007742	2.5	1.200	30.80	6.27	94.6	3.2	28.98	8.40	5.5
8/25/2011 09:56:36						1.000	30.60	6.30	95.3	3.8	29.41	8.19	3
8/25/2011 09:56:49	4					1.000	30.50	6.10	92.2	3.1	29.09	8.18	-
8/25/2011 09:57:46 8/25/2011 09:57:06	W2	ME	832606	807984	12.4	6.200	28.00 28.10	5.99 6.02	90.4 90.8	3.2	30.69 30.46	8.50 8.20	1.6
8/25/2011 09:58:42						11.400	27.70	5.32	80.3	6.0	31.89	8.20	
8/25/2011 09:58:50						11.400	27.70	5.22	79.0	5.6	31.59	8.40	1.4
8/25/2011 09:42:50						1.100	28.50	6.34	95.6	2.2	27.30	8.00	0.1
8/25/2011 09:43:07						1.100	28.50	6.18	93.2	3.6	27.83	7.80	2.1
8/25/2011 09:44:02	W3	ME	832035	807889	12.1	6.100	27.40	5.87	88.6	3.5	30.36	7.90	2.4
8/25/2011 09:44:14	. ,,,	IVIL	032033	007009	12.1	6.100	27.40	5.96	90.0	3.1	30.52	8.18	۷
8/25/2011 09:45:00	_					11.200	26.50	5.34	80.5	4.1	31.19	8.14	3.6
8/25/2011 09:45:14						11.200	26.50	5.27	79.6	4.5	31.36	8.00	
8/25/2011 10:17:30						1.100	30.50	6.05	92.0	2.6	26.77	8.23	2.8
8/25/2011 10:17:37						1.100	30.40	6.02	91.0	2.7	26.85	8.40	-
8/25/2011 10:18:32 8/25/2011 10:18:42	C1	ME	833683	808170	13.2	6.700 6.700	29.30 29.20	5.95 5.96	89.9 90.1	4.5 4.6	29.07 28.95	8.54 8.20	2.6
8/25/2011 10:18:42	-					12.100	27.90	4.90	74.1	6.5	31.04	8.45	1
8/25/2011 10:19:11	1					12.100	27.90	4.80	72.4	6.5	30.85	8.15	1
8/25/2011 09:20:22						1.000	29.30	7.01	105.6	4.1	27.54	8.17	1 .
8/25/2011 09:20:41						1.000	29.30	6.72	101.1	4.6	27.66	8.17	0.9
8/25/2011 09:21:44	- CO) (II)	021450	007750	10.6	5.300	28.10	6.24	93.9	5.6	30.15	7.88	0.
8/25/2011 09:22:00	C2	ME	831459	807759	10.6	5.300	28.10	6.32	95.1	4.8	29.97	8.09	0.
8/25/2011 09:22:12						9.500	26.80	5.72	86.2	7.1	31.07	7.98	7.5
8/25/2011 09:23:25						9.600	26.80	5.59	84.4	7.1	31.33	7.65	/.
8/25/2011 10:40:10	_					1.000	28.50	5.87	88.5	2.1	27.29	8.21	2.
8/25/2011 10:40:30						1.000	28.20	5.98	90.1	2.0	27.44	8.21	
8/25/2011 10:41:40	C3	ME	832211	808879	13.4	6.700	27.40	5.86	88.3	5.6	30.05	8.23	2.
8/25/2011 10:41:59	C3					6.700	27.30	5.82	87.9	6.0	30.12	8.44	
8/25/2011 10:42:45	-					12.400	26.30	4.59	68.5	6.1	31.43	8.56	3.0
8/25/2011 10:42:51						12.400	26.30	4.34	64.9	6.9	31.39	8.07	
8/25/2011 17:0159						1,300	28.10	6.00	87.2	3,9	29.27	8.34	
8/25/2011 17:01:22	W1	MF	832949	807748	2.6	1.300	28.20	6.02	87.2	3.9	29.27	8.34	2.
8/25/2011 17:01:22	†					1.000	28.30	6.00	87.6	2.4	26.82	8.31	1
8/25/2011 16:55:20						1.000	28.30	6.02	87.7	2.4	27.01	8.02	1.
8/25/2011 16:55:50	****		000544	005000	4.0	6.100	27.50	5.75	83.8	4.1	29.04	7.90	
8/25/2011 16:56:13	W2	MF	832611	807989	12	6.100	27.40	5.75	83.8	4.1	29.10	7.82	2.
8/25/2011 16:56:49						11.100	26.30	5.65	82.4	4.3	31.46	8.13	1.
8/25/2011 16:57:17						11.100	26.30	5.69	82.6	4.2	31.42	8.32	1.
8/25/2011 16:47:29	_					1.000	27.80	6.31	92.0	3.7	27.80	8.30	1.
8/25/2011 16:47:51						1.000	27.80	6.32	92.2	3.6	28.52	8.31	1.
8/25/2011 16:48:19	W3	MF	832035	807887	12.4	6.100	27.40	5.83	84.7	4.4	29.07	8.32	0.
						6.200	27.40	5.86	85.0	4.5	29.34	8.21	
8/25/2011 16:48:40								5.91	85.1	4.8 5.1	32.02	8.39	3.
8/25/2011 16:49:21	_					11.400	25.90	_	05 1	7 1	31.97	8.35 8.32	+
8/25/2011 16:49:21 8/25/2011 16:49:42						11.400	26.00	5.90	85.4		27.54		2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17	-					11.400 1.100	26.00 28.90	5.90 6.00	87.2	3.7	27.54		
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39	-					11.400 1.100 1.100	26.00 28.90 28.90	5.90 6.00 6.06	87.2 88.0	3.7 3.7	27.59	8.38	
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01	- C1	MF	833713	808189	13.4	11.400 1.100 1.100 6.800	26.00 28.90 28.90 28.00	5.90 6.00 6.06 5.66	87.2 88.0 82.1	3.7 3.7 4.2	27.59 29.66	8.38 8.06	2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39	C1	MF	833713	808189	13.4	11.400 1.100 1.100	26.00 28.90 28.90	5.90 6.00 6.06	87.2 88.0	3.7 3.7	27.59	8.38	-
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:24:23	C1	MF	833713	808189	13.4	11.400 1.100 1.100 6.800 6.800	26.00 28.90 28.90 28.00 28.00	5.90 6.00 6.06 5.66 5.62	87.2 88.0 82.1 81.6	3.7 3.7 4.2 4.4	27.59 29.66 29.32	8.38 8.06 7.77	-
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:24:23 8/25/2011 17:25:48	C1	MF	833713	808189	13.4	11.400 1.100 1.100 6.800 6.800 12.400	26.00 28.90 28.90 28.00 28.00 26.60	5.90 6.00 6.06 5.66 5.62 5.55	87.2 88.0 82.1 81.6 80.6	3.7 3.7 4.2 4.4 5.5	27.59 29.66 29.32 30.78	8.38 8.06 7.77 7.90	1.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:23 8/25/2011 17:25:48 8/25/2011 17:25:48	C1	MF	833713	808189	13.4	11.400 1.100 1.100 6.800 6.800 12.400 12.400	26.00 28.90 28.90 28.00 28.00 26.60 26.60	5.90 6.00 6.06 5.66 5.62 5.55 5.56	87.2 88.0 82.1 81.6 80.6 80.7	3.7 3.7 4.2 4.4 5.5 5.1	27.59 29.66 29.32 30.78 30.63	8.38 8.06 7.77 7.90 7.67	1.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:24:23 8/25/2011 17:25:48 8/25/2011 17:25:06 8/25/2011 16:41:49 8/25/2011 16:42:11 8/25/2011 16:42:39						11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 1.100 5.300	26.00 28.90 28.90 28.00 28.00 26.60 26.60 28.30 28.30 27.50	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32	2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:24:03 8/25/2011 17:25:46 8/25/2011 17:25:06 8/25/2011 16:41:49 8/25/2011 16:42:11 8/25/2011 16:42:39 8/25/2011 16:43:03	C1 C2	MF	833713 831468	808189 807757	13.4	11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 1.100 5.300 5.300	26.00 28.90 28.90 28.00 26.60 26.60 28.30 27.50 27.50	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34 6.33	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31	2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:21 8/25/2011 17:25:48 8/25/2011 17:25:48 8/25/2011 16:42:31 8/25/2011 16:42:39 8/25/2011 16:42:39 8/25/2011 16:43:03 8/25/2011 16:43:03						11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 1.100 5.300 5.300 9.600	26.00 28.90 28.90 28.00 28.00 26.60 26.60 28.30 27.50 27.50 26.20	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34 6.33 5.48	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05 30.93	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31 8.51	2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:24:23 8/25/2011 17:25:48 8/25/2011 16:41:49 8/25/2011 16:42:11 8/25/2011 16:42:30 8/25/2011 16:43:32 8/25/2011 16:43:54						11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 5.300 5.300 9.600 9.700	26.00 28.90 28.90 28.00 26.60 26.60 28.30 28.30 27.50 27.50 26.20 26.10	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34 6.33 5.48 5.32	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05 30.93 30.89	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31 8.51 8.52	2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:23 8/25/2011 17:25:48 8/25/2011 17:25:06 8/25/2011 16:41:49 8/25/2011 16:42:11 8/25/2011 16:43:33 8/25/2011 16:43:33 8/25/2011 16:43:34 8/25/2011 16:43:54 8/25/2011 16:43:55						11.400 1.100 1.100 6.800 6.800 12.400 1.100 1.100 5.300 5.300 9.600 9.700 1.100	26.00 28.90 28.90 28.00 28.00 26.60 26.60 28.30 27.50 27.50 26.20 26.10 27.80	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34 6.33 5.48 5.32	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6 75.6 114.5	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 4.6	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05 30.93 30.89 28.02	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31 8.51 8.52	2. 2. 2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:25:48 8/25/2011 17:25:48 8/25/2011 16:41:49 8/25/2011 16:42:39 8/25/2011 16:43:32 8/25/2011 16:43:32 8/25/2011 16:43:35 8/25/2011 16:43:54 8/25/2011 16:43:54 8/25/2011 16:43:55						11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 5.300 5.300 9.600 9.700 1.100	26.00 28.90 28.90 28.00 26.60 26.60 28.30 27.50 27.50 26.20 26.10 27.80 27.90	5.90 6.00 6.06 5.66 5.55 5.55 5.56 6.95 7.06 6.34 6.33 5.48 5.82 8.03	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6 75.6 114.5	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 4.6 4.9	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05 30.93 30.89 28.02 27.92	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31 8.51 8.52 8.26	2. 1. 2. 2. 2. 2. 2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:25:06 8/25/2011 17:25:06 8/25/2011 16:41:49 8/25/2011 16:42:39 8/25/2011 16:43:30 8/25/2011 16:43:32 8/25/2011 16:43:51 8/25/2011 16:43:51 8/25/2011 17:56:50 8/25/2011 17:56:50						11.400 1.100 1.100 6.800 6.800 12.400 1.100 1.100 5.300 5.300 9.600 9.700 1.100 6.900	26.00 28.90 28.90 28.00 26.60 26.60 28.30 27.50 27.50 26.20 26.10 27.80 27.90 26.40	5.90 6.00 6.06 5.66 5.62 5.55 5.56 6.95 7.06 6.34 6.33 5.48 5.32 8.03 7.95 6.15	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6 75.6 114.5 113.4 87.5	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 4.6 4.9 5.7	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.15 30.93 30.89 28.02 27.92 29.86	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.51 8.51 8.52 8.26 8.25 8.23	2. 2. 2.
8/25/2011 16:49:21 8/25/2011 16:49:42 8/25/2011 17:23:17 8/25/2011 17:23:39 8/25/2011 17:23:39 8/25/2011 17:24:01 8/25/2011 17:25:48 8/25/2011 17:25:48 8/25/2011 16:41:49 8/25/2011 16:42:39 8/25/2011 16:43:32 8/25/2011 16:43:32 8/25/2011 16:43:35 8/25/2011 16:43:54 8/25/2011 16:43:54 8/25/2011 16:43:55	C2	MF	831468	807757	10.7	11.400 1.100 1.100 6.800 6.800 12.400 12.400 1.100 5.300 5.300 9.600 9.700 1.100	26.00 28.90 28.90 28.00 26.60 26.60 28.30 27.50 27.50 26.20 26.10 27.80 27.90	5.90 6.00 6.06 5.66 5.55 5.55 5.56 6.95 7.06 6.34 6.33 5.48 5.82 8.03	87.2 88.0 82.1 81.6 80.6 80.7 98.9 100.5 89.9 88.6 77.6 75.6 114.5	3.7 3.7 4.2 4.4 5.5 5.1 3.1 3.6 3.8 3.5 7.7 6.2 4.6 4.9	27.59 29.66 29.32 30.78 30.63 28.00 27.76 29.14 29.05 30.93 30.89 28.02 27.92	8.38 8.06 7.77 7.90 7.67 8.22 8.60 8.32 8.31 8.51 8.52 8.26	1. 2. 2. 2. 2. 2.

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 27-Aug-11

Date / Time	Location	Tide*	Co-ore	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
			East	North	m	m	${\mathfrak C}$	mg/L	%	NTU	ppt	unit	mg/l
8/27/2011 11:18:22	W1	ME	832707	807745	2.2	1.100	28.80	5.38	93.4	2.9	30.23	8.32	2.2
8/27/2011 11:18:38			032707	0077.5	2.2	1.100	28.80	5.45	94.5	2.8	30.20	8.50	
8/27/2011 11:06:36 8/27/2011 11:06:49	1					1.000	27.90 27.90	6.27 6.14	106.1 104.3	3.2	29.87 29.88	8.33 8.33	4.7
8/27/2011 11:07:46	W2	ME	022500	907096	12.3	6.100	25.70	5.88	100.2	3.3	30.82	8.12	3.2
8/27/2011 11:07:06	W Z	ME	832598	807986	12.3	6.100	25.70	5.85	99.8	3.3	30.81	8.40	3.2
8/27/2011 11:08:42 8/27/2011 11:08:50	-					11.200 11.200	24.90	4.55 4.41	81.5 79.5	5.2	29.92 31.52	8.39 8.12	1.8
8/27/2011 11:47:50						1.100	28.50	6.41	107.8	5.5 2.7	29.98	8.43	
8/27/2011 11:48:07						1.100	28.00	6.26	105.7	2.8	30.08	8.55	2.5
8/27/2011 11:49:02	W3	ME	832032	807892	12.1	6.100	27.10	5.91	100.2	4.1	31.04	8.16	3.4
8/27/2011 11:49:14 8/27/2011 11:50:00	-					6.100 11.000	27.10 26.70	5.50 5.45	94.6 94.0	4.2 5.1	30.85 31.69	8.20 8.33	-
8/27/2011 11:50:14	1					11.000	26.70	5.40	93.4	5.0	31.71	8.26	2.3
8/27/2011 11:34:20						1.100	28.10	6.29	106.3	2.1	30.23	8.36	3.6
8/27/2011 11:34:33						1.000	28.10	6.21	105.0	2.3	30.25	8.16	5.0
8/27/2011 11:35:02 8/27/2011 11:35:14	C1	ME	833683	808172	13.6	6.700 6.700	27.50 27.70	5.72 5.65	97.8 96.7	4.2	30.57 30.66	8.38 8.34	0.8
8/27/2011 11:36:21						12.600	26.50	4.30	78.1	6.3	31.26	8.24	2.0
8/27/2011 11:36:40						12.600	26.50	4.22	76.7	5.9	31.26	8.34	2.9
8/27/2011 10:26:22	_					1.000	28.10	6.16	103.9	3.2	30.13	8.20	1.1
8/27/2011 10:26:53 8/27/2011 10:27:12	-					1.000 5.300	28.10 27.80	6.10 5.55	102.9 95.3	3.2	30.30 31.02	8.11 8.24	-
8/27/2011 10:27:37	C2	ME	831455	807763	10.8	5.400	27.80	5.50	93.3	3.6	31.02	8.24	1.3
8/27/2011 10:28:11						9.800	26.30	4.05	74.2	4.2	31.32	8.40	3.5
8/27/2011 10:28:39						9.800	26.30	4.03	74.0	4.2	31.41	8.34	3.3
8/27/2011 11:58:27 8/27/2011 11:58:40	-					1.000	28.30	6.18	104.3 103.2	2.6	29.65	8.32 8.21	1.8
8/27/2011 11:59:12	1	ME				6.700	28.10	5.64	96.4	6.2	29.68 30.43	8.30	-
8/27/2011 11:59:31	C3	ME	832218	808881	13.6	6.700	26.20	5.63	95.8	6.0	30.47	8.21	8.2
8/27/2011 11:59:42		ME				12.500	25.50	5.58	87.3	9.0	31.59	8.30	1.8
8/27/2011 11:59:55						12.600	25.50	5.70	88.1	6.5	30.70	8.30	
8/27/2011 17:51:20	77/1	ME	922045	007740	2.2	1.200	28.00	6.42	98.1	3.5	30.50	8.52	4.2
8/27/2011 17:51:29	W1	MF	832945	807748	2.3	1.100	28.60	6.37	97.5	3.4	30.36	8.52	4.2
8/27/2011 17:36:23						1.100	27.50	6.70	104.8	3.6	30.53	8.50	0.8
8/27/2011 17:36:42 8/27/2011 17:37:22	1					1.000 6.100	27.30 25.50	6.84 5.75	105.7 89.3	3.6	29.98 31.40	8.33 8.48	-
8/27/2011 17:37:30	W2	MF	832614	807985	12.7	6.100	25.60	5.72	89.0	3.9	31.35	8.23	3.7
8/27/2011 17:38:19						11.800	24.70	4.61	71.5	4.0	32.17	8.41	1.8
8/27/2011 17:38:24 8/27/2011 17:24:12						11.700	24.50	4.60	71.4	4.2	32.19	8.37	1.0
8/27/2011 17:24:12 8/27/2011 17:24:44	1					1.000	27.90 27.30	6.93 6.95	107.9 108.1	3.6	31.00 30.91	8.51 8.51	1.7
8/27/2011 17:25:09	W3	ME	022025	007007	12.4	6.600	26.50	5.77	89.9	3.5	31.81	8.26	1.8
8/27/2011 17:25:23	W 3	MF	832035	807887	13.4	6.700	26.50	5.77	89.8	3.4	31.89	8.49	1.0
8/27/2011 17:26:11	-					12.500 12.500	25.50	4.79	73.4	5.2 4.0	32.15 32.11	8.35 8.48	2.2
8/27/2011 17:26:21 8/27/2011 18:19:09						1.100	25.50 28.90	4.78 7.26	73.4 111.7	3.5	30.50	8.51	1
8/27/2011 18:19:14						1.000	28.70	7.23	111.4	3.5	30.51	8.31	2.2
8/27/2011 18:19:58	C1	MF	833713	808195	13.1	6.800	27.10	5.90	91.2	4.0	31.69	8.50	4
8/27/2011 18:20:11 8/27/2011 18:20:39	-					6.800 12.300	27.10	5.92 5.27	91.4 80.7	4.5 4.6	31.67 31.85	8.40 8.49	-
8/27/2011 18:20:55	1					12.100	26.30 26.80	5.26	80.7	4.0	31.11	8.36	1.9
8/27/2011 17:09:04						0.900	27.90	6.05	92.8	2.9	29.73	8.52	17
8/27/2011 17:09:13	4					0.900	28.30	5.98	92.6	2.9	30.39	8.52	1.7
8/27/2011 17:10:20	C2	MF	831460	807755	10.5	5.300	26.90	6.01	92.2	5.6	31.05	8.21	2.9
8/27/2011 17:10:29 8/27/2011 17:11:11	1					5.300 9.500	26.80 26.30	5.94 4.72	92.0 72.9	6.1 8.1	31.55 32.17	8.39 8.15	
8/27/2011 17:11:30						9.500	26.30	4.67	72.2	8.5	32.12	8.53	6.2
8/27/2011 18:48:50						1.000	27.60	7.46	113.6	2.8	30.65	8.47	1.6
8/27/2011 18:49:10	4					1.000	28.30	7.44	113.3	2.6	30.69	8.37	1.0
8/27/2011 18:49:49 8/27/2011 18:50:11	C3	MF	832249	808871	13.4	6.900	27.60	5.95 5.95	91.7 91.7	6.8	31.36 31.37	8.40 8.42	4.6
8/27/2011 18:51:33	1					12.400	25.60	4.79	73.4	5.9	32.05	8.23	1.7
8/27/2011 18:51:40	1					12.400	25.60	4.78	73.4	6.7	32.29	8.19	1.7

Contract No. DC/2009/13 Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

Date 29-Aug-11

Date / Time	Location	Tide*	Co-oro	linates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	1 ide*	East	North	m	m	င	mg/L	%	NTU	ppt	unit	mg
8/29/2011 12:09:10	77/1	ME	022707	807745	2.2	1.100	28.10	6.45	112.0	2.9	31.82	8.32	4
8/29/2011 12:09:23	W1	ME	832707	807745	2.2	1.100	28.10	6.41	111.5	2.8	31.82	8.50	4
8/29/2011 12:01:36						1.000	28.80	6.27	106.1	3.2	31.55	8.33	3.3
8/29/2011 12:01:49						1.000	28.80	6.14	104.3	3.3	31.55	8.33	٥
8/29/2011 12:02:12	W2	ME	832598	807986	12.3	6.100	27.50	5.88	100.2	3.3	32.10	8.12	3.2
8/29/2011 12:02:24	-					6.100	27.50	5.85	99.8	3.3	32.22	8.40	1
8/29/2011 12:03:10	1					11.200 11.200	26.60	5.45 5.40	94.0	5.2	32.55	8.39	3.4
8/29/2011 12:03:19 8/29/2011 11:48:17						1.100	26.60 28.40	6.49	93.4	5.5 2.7	32.68 31.50	8.12 8.43	1
8/29/2011 11:48:23	1					1.100	28.40	6.42	99.3	2.8	31.50	8.55	3.8
8/29/2011 11:48:41	1110) (F)	000000	007000	10.1	6.100	27.40	5.55	95,3	4.1	31.80	8.16	
8/29/2011 11:48:48	W3	ME	832032	807892	12.1	6.100	27.40	5.50	94.6	4.2	31.80	8.20	5.
8/29/2011 11:49:21						11.000	26.50	4.73	80.2	5.1	32.90	8.33	4
8/29/2011 11:49:34						11.000	26.50	4.40	75.7	5.0	32.90	8.26	4
8/29/2011 12:24:11						1.100	28.50	7.20	122.8	2.1	30.50	8.36	5.3
8/29/2011 12:24:16						1.000	28.50	7.03	119.6	2.3	30.60	8.16	J.,
8/29/2011 12:24:29	C1	ME	833683	808172	13.6	6.700	27.40	5.72	97.8	4.2	31.20	8.38	2.
8/29/2011 12:24:37						6.700	27.40	5.65	96.7	4.2	31.20	8.34	
8/29/2011 12:25:08 8/29/2011 12:25:47	-					12.600	26.10	4.55	81.5	6.3	32.20	8.24	2.
8/29/2011 12:25:47						12.600 1.000	26.10	4.41 6.92	79.5 117.0	5.9 3.2	32.20 29.60	8.34 8.20	+
8/29/2011 11:36:20						1.000	28.10	6.83	117.0	3.2	29.60	8.11	7.
8/29/2011 11:36:48	1					5.300	27.60	6.16	103.9	3.5	30.20	8.24	1
8/29/2011 11:36:54	C2	ME	831455	807763	10.8	5.400	27.60	6.10	102.9	3.6	30.20	8.24	3.
8/29/2011 11:37:22						9.800	26.30	4.30	78.1	4.2	31.50	8.40	_
8/29/2011 11:37:42						9.800	26.30	4.22	76.7	4.2	31.50	8.34	2.
8/29/2011 12:48:14						1.000	28.00	7.05	118.6	2.6	29.80	8.32	- 2
8/29/2011 12:48:45						1.000	28.00	6.88	116.2	2.7	29.80	8.21	
8/29/2011 12:49:14	C3	ME	832218	808881	13.6	6.700	27.20	6.18	104.3	6.2	30.50	8.30	3
8/29/2011 12:49:19			032210	000001	15.0	6.700	27.20	6.11	103.2	6.0	30.50	8.21	
8/29/2011 11:50:30						12.500	26.00	5.07	86.8	9.0	32.80	8.30	3.
8/29/2011 11:50:58						12.600	26.00	5.07	86.2	6.5	32.80	8.30	
0/00/0011 17-50-20						1 200	27.20	(1)	00.1	2.5	21.00	0.50	
8/29/2011 17:50:20 8/29/2011 17:50:36	W1	MF	832945	807748	2.3	1.200	27.20 27.20	6.42	98.1 97.5	3.5 3.4	31.00 30.50	8.52 8.52	3
8/29/2011 17:30:36						1.100	27.30	6.70	104.8	3.4	30.20	8.50	+
8/29/2011 17:41:40						1.000	27.30	6.84	105.7	3.6	30.20	8.33	2
8/29/2011 17:42:24	1					6.100	25.50	5.75	89.3	3.9	32.90	8.48	╁
8/29/2011 17:42:41	W2	MF	832614	807985	12.7	6.100	25.50	5.72	89.0	3.9	32.90	8.23	1
8/29/2011 17:42:53						11.800	24.60	5.19	80.5	4.0	33.96	8.41	,
8/29/2011 17:42:58						11.700	24.60	5.18	80.4	4.2	33.95	8.37	1
8/29/2011 17:20:17						1.000	27.80	6.93	107.9	3.6	30.80	8.51	0
8/29/2011 17:20:22						1.000	27.50	6.95	108.1	3.6	30.80	8.51	U
8/29/2011 17:21:30	W3	MF	832035	807887	13.4	6.600	26.10	5.77	89.9	3.5	31.90	8.26	1
									89.8	3.4	31.80	8.49	╄
8/29/2011 17:21:44	W 3				15.4	6.700	26.10	5.77			32.99	8.35	1
8/29/2011 17:22:30	- wo				13.4	6.700 12.500	25.60	5.11	79.9	5.2			
8/29/2011 17:22:30 8/29/2011 17:22:38	- **3				15.4	6.700 12.500 12.500	25.60 25.60	5.11 5.09	79.5	4.0	32.90	8.48	
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09	- W3				15.4	6.700 12.500 12.500 1.100	25.60 25.60 28.10	5.11 5.09 7.26	79.5 111.7	4.0 3.5	32.90 29.80	8.51	-
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14	- - - - -					6.700 12.500 12.500 1.100 1.000	25.60 25.60 28.10 28.10	5.11 5.09 7.26 7.23	79.5 111.7 111.4	4.0 3.5 3.5	32.90 29.80 29.80	8.51 8.31	-
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41	C1	MF	833713	808195	13.1	6.700 12.500 12.500 1.100 1.000 6.800	25.60 25.60 28.10 28.10 26.90	5.11 5.09 7.26 7.23 5.95	79.5 111.7 111.4 91.7	4.0 3.5 3.5 4.0	32.90 29.80 29.80 31.90	8.51 8.31 8.50	+
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49	- - - - -					6.700 12.500 12.500 1.100 1.000 6.800 6.800	25.60 25.60 28.10 28.10 26.90 26.90	5.11 5.09 7.26 7.23 5.95 5.95	79.5 111.7 111.4 91.7 91.7	4.0 3.5 3.5 4.0 4.5	32.90 29.80 29.80 31.90 31.90	8.51 8.31 8.50 8.40	
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49 8/29/2011 18:08:17	- - - - -					6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300	25.60 25.60 28.10 28.10 26.90 26.90 25.50	5.11 5.09 7.26 7.23 5.95 5.95 5.31	79.5 111.7 111.4 91.7 91.7 82.1	4.0 3.5 3.5 4.0	32.90 29.80 29.80 31.90	8.51 8.31 8.50 8.40 8.49	
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 18:08:17	- - - - -					6.700 12.500 12.500 1.100 1.000 6.800 6.800	25.60 25.60 28.10 28.10 26.90 26.90	5.11 5.09 7.26 7.23 5.95 5.95	79.5 111.7 111.4 91.7 91.7	4.0 3.5 3.5 4.0 4.5 4.6	32.90 29.80 29.80 31.90 31.90 32.95	8.51 8.31 8.50 8.40	1
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 18:08:17 8/29/2011 18:08:14	- - - - -					6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100	25.60 25.60 28.10 28.10 26.90 26.90 25.50 25.50	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33	79.5 111.7 111.4 91.7 91.7 82.1 82.3	4.0 3.5 3.5 4.0 4.5 4.6 4.9	32.90 29.80 29.80 31.90 31.90 32.95 32.95	8.51 8.31 8.50 8.40 8.49 8.36	1
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49	C1	MF	833713	808195	13.1	6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900	25.60 25.60 28.10 28.10 26.90 26.90 25.50 25.50 27.20	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9	32.90 29.80 29.80 31.90 31.90 32.95 32.95 31.84	8.51 8.31 8.50 8.40 8.49 8.36 8.52	1
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49 8/29/2011 18:08:17 8/29/2011 18:08:26 8/29/2011 17:13:14 8/29/2011 17:13:56 8/29/2011 17:13:56	- - - - -		833713			6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 0.900 5.300	25.60 25.60 28.10 28.10 26.90 25.50 25.50 27.20 27.20 26.80 26.80	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1	32.90 29.80 29.80 31.90 31.90 32.95 32.95 31.84 31.84 32.92 32.92	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.52 8.39	1 1
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:14 8/29/2011 17:13:21 8/29/2011 17:13:41 8/29/2011 17:13:41 8/29/2011 17:13:41 8/29/2011 17:13:41	C1	MF	833713	808195	13.1	6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 0.900 5.300 9.500	25.60 25.60 28.10 28.10 26.90 26.90 25.50 27.20 27.20 26.80 26.80 25.60	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.05	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1 8.1	32.90 29.80 29.80 31.90 31.90 32.95 32.95 31.84 31.84 32.92 32.92 33.96	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.52 8.51 8.39 8.15	1 3
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:14 8/29/2011 17:13:21 8/29/2011 17:13:21 8/29/2011 17:13:43 8/29/2011 17:14:43 8/29/2011 17:14:43	C1	MF	833713	808195	13.1	6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 0.900 5.300 9.500	25.60 25.60 28.10 28.10 26.90 26.90 25.50 27.20 27.20 26.80 26.80 25.60	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.05 4.03	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2 74.0	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 5.6 6.1 8.1	32.90 29.80 29.80 31.90 31.90 32.95 32.95 31.84 31.84 32.92 32.92 33.96 33.96	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.21 8.39 8.15	1 3
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:21 8/29/2011 17:13:21 8/29/2011 17:14:43 8/29/2011 17:14:20 8/29/2011 17:14:35 8/29/2011 17:14:35	C1	MF	833713	808195	13.1	6.700 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 5.300 5.300 9.500 9.500	25.60 25.60 28.10 28.10 26.90 25.50 25.50 27.20 26.80 26.80 25.60 25.60 27.50	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.05 4.03 7.46	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2 74.0 113.6	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1 8.1 8.5 2.8	32.90 29.80 29.80 31.90 31.90 32.95 32.95 31.84 32.92 32.92 33.96 33.96 30.50	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.21 8.39 8.15 8.53	- 1 - 1 - 3
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:21 8/29/2011 17:13:56 8/29/2011 17:14:20 8/29/2011 17:14:43 8/29/2011 17:15:11 8/29/2011 18:35:30 8/29/2011 18:35:30	C1	MF	833713	808195	13.1	6.700 12.500 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 0.900 5.300 5.300 9.500 9.500 1.000	25.60 25.60 28.10 28.10 26.90 25.50 27.20 27.20 26.80 26.80 25.60 27.50 27.50	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.03 7.46 7.44	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2 74.0 113.6 113.3	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1 8.1 8.5 2.8 2.6	32.90 29.80 31.90 31.90 32.95 32.95 32.95 31.84 32.92 32.92 33.96 33.96 30.50	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.51 8.39 8.15 8.53 8.47	- 1 - 1 - 3
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:41 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:15 8/29/2011 17:13:56 8/29/2011 17:14:43 8/29/2011 17:14:43 8/29/2011 17:15:11 8/29/2011 18:35:30 8/29/2011 18:35:30 8/29/2011 18:35:30 8/29/2011 18:35:30	C1	MF	833713	808195 807755	13.1	6.700 12.500 12.500 12.500 1.100 1.000 6.800 12.300 12.100 0.900 5.300 5.300 9.500 9.500 1.000 1.000 6.900	25.60 25.60 28.10 28.10 26.90 25.50 27.20 27.20 26.80 25.60 25.60 27.50 27.50 27.50 27.50	5.11 5.09 7.26 7.23 5.95 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.05 4.03 7.46 7.44 6.13	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2 74.0 113.6 113.3 93.5	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1 8.1 8.5 2.8 2.6 6.8	32.90 29.80 31.90 31.90 32.95 32.95 32.95 31.84 31.84 32.92 32.92 33.96 30.50 30.50 31.55	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.51 8.39 8.15 8.53 8.47 8.37	3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
8/29/2011 17:22:30 8/29/2011 17:22:38 8/29/2011 18:06:09 8/29/2011 18:06:14 8/29/2011 18:07:41 8/29/2011 18:07:49 8/29/2011 18:08:17 8/29/2011 17:13:14 8/29/2011 17:13:21 8/29/2011 17:13:56 8/29/2011 17:14:20 8/29/2011 17:14:43 8/29/2011 17:15:11 8/29/2011 18:35:30 8/29/2011 18:35:30	C1 C2	MF MF	833713 831460	808195 807755	13.1	6.700 12.500 12.500 12.500 1.100 1.000 6.800 6.800 12.300 12.100 0.900 0.900 5.300 5.300 9.500 9.500 1.000	25.60 25.60 28.10 28.10 26.90 25.50 27.20 27.20 26.80 26.80 25.60 27.50 27.50	5.11 5.09 7.26 7.23 5.95 5.95 5.31 5.33 6.66 6.58 6.01 5.94 4.03 7.46 7.44	79.5 111.7 111.4 91.7 91.7 82.1 82.3 102.1 101.9 92.2 92.0 74.2 74.0 113.6 113.3	4.0 3.5 3.5 4.0 4.5 4.6 4.9 2.9 2.9 5.6 6.1 8.1 8.5 2.8 2.6	32.90 29.80 31.90 31.90 32.95 32.95 32.95 31.84 32.92 32.92 33.96 33.96 30.50	8.51 8.31 8.50 8.40 8.49 8.36 8.52 8.52 8.51 8.39 8.15 8.53 8.47	1 1 3

Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan



Sok Kwu Wan

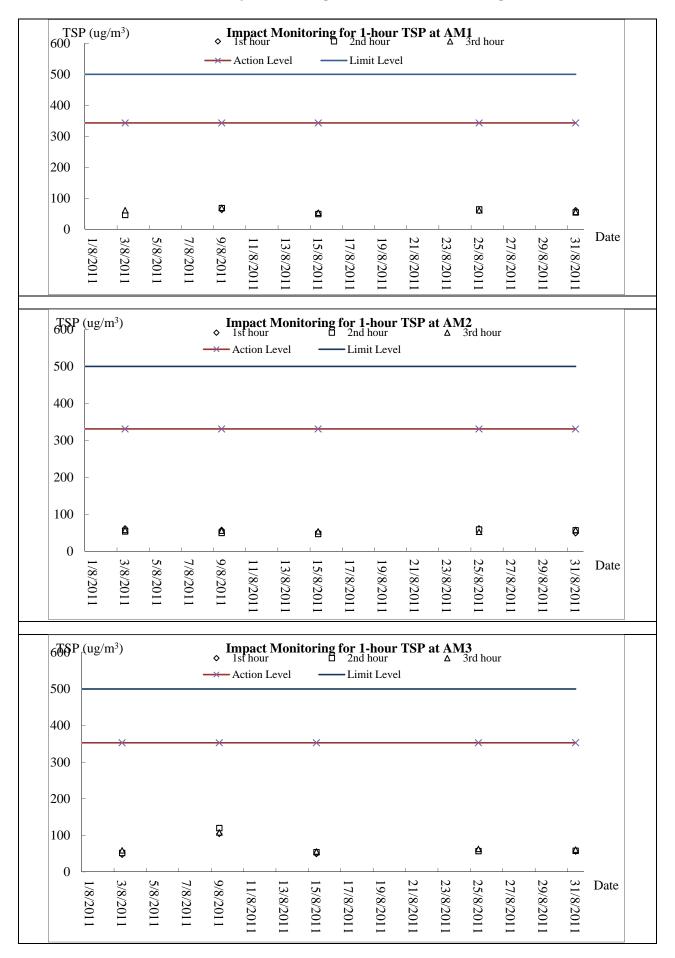
31-Aug-11 Date

D-4- /Ti	T 41	m: 1. e	Co-oro	dinates	Water Depth	Sampling Depth	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pН	SS
Date / Time	Location	Tide*	East	North	m	m	ဗ	mg/L	%	NTU	ppt	unit	mg/
8/31/2011 13:43:35	W1	ME	832976	807742	2.3	1.010	30.10	7.18	106.5	1.3	26.18	5.45	3.1
8/31/2011 13:43:58	** 1	IVIL	032770	007742	2.5	1.010	30.40	7.59	112.7	1.4	26.12	5.52	5.1
8/31/2011 13:34:56						1.000	29.40	8.98	128.2	1.3	25.91	5.43	7.4
8/31/2011 13:35:19 8/31/2011 13:35:45	-					1.000 6.300	29.50 27.90	8.96 7.28	128.5 95.7	1.4	25.94 27.60	5.44	1
8/31/2011 13:36:15	W2	ME	832605	807969	12.6	6.350	27.80	6.77	108.1	1.5	27.56	5.58	6.5
8/31/2011 13:36:37						11.600	27.00	5.36	74.9	1.5	28.80	5.78	6.1
8/31/2011 13:37:12						11.650	27.00	4.61	65.0	1.5	29.01	5.82	6.1
8/31/2011 13:20:45						1.050	29.00	6.78	97.3	1.5	26.90	5.98	4.3
8/31/2011 13:21:05	4					1.050	29.00	5.59	77.3	1.6	27.19	5.98	
8/31/2011 13:22:26 8/31/2011 13:23:05	W3	ME	832031	807899	12.7	6.350 3.300	27.90 27.80	5.50 5.62	75.4 75.0	1.8	28.16 27.60	6.24	- 3
8/31/2011 13:24:29						12.700	26.70	5.02	68.1	2.0	29.51	6.62	-
8/31/2011 13:24:40						12.650	26.50	5.00	68.7	2.0	29.54	6.67	3.3
8/31/2011 14:26:05						1.050	29.50	9.56	137.5	1.7	26.32	6.53	2.
8/31/2011 14:26:28						1.010	29.60	9.27	131.2	1.7	26.40	6.50	2.3
8/31/2011 14:26:56	C1	ME	833707	808179	13.7	6.800	28.70	7.66	103.3	1.8	27.66	6.45	3
8/31/2011 14:27:24	-					6.850	28.70	6.88	102.7	1.8	27.88	6.45	
8/31/2011 14:27:51 8/31/2011 14:28:30						12.700 12.650	27.20 27.40	5.30 4.68	77.1 67.3	2.0	29.20 29.09	6.83	2.
8/31/2011 13:06:05						1.050	28.90	8.99	108.0	1.4	26.74	6.37	
8/31/2011 13:07:30	1					1.100	28.90	9.39	132.0	1.4	27.17	6.50	3.
8/31/2011 13:08:45	- CO	ME	021450	007761	10.5	5.250	27.80	6.78	97.0	1.4	28.35	6.85	2
8/31/2011 13:09:08	C2	ME	831459	807761	10.5	5.300	27.80	6.60	96.9	1.5	28.38	6.94	3.
8/31/2011 13:09:31	_					9.500	26.20	5.06	77.4	1.8	28.88	7.35	2.
8/31/2011 13:09:55						9.550	26.20	6.11	89.4	1.8	28.97	7.35	
8/31/2011 14:00:21	-					1.005	29.30	8.07	114.5	1.6	25.59	6.58	3.
8/31/2011 14:00:52 8/31/2011 14:01:23	-					1.000 6.750	29.10 27.60	8.01 6.08	113.0 79.4	1.6 2.0	25.78 27.21	6.57	
8/31/2011 14:01:51	C3	ME	832219	808882	13.5	6.770	27.40	5.49	79.7	2.0	27.33	6.75	2.
8/31/2011 14:02:30	C3					12.500	26.50	4.56	64.2	2.6	29.86	7.51	4
8/31/2011 14:02:59						12.550	26.60	4.33	62.9	2.6	28.76	7.64	4.
8/31/2011 09:06:51	W1	MF	832971	807746	2.5	1.250	28.70	7.40	107.8	1.3	25.82	5.63	2.
8/31/2011 09:07:11 8/31/2011 08:35:42						1.250 1.050	28.70 29.30	7.91 7.18	111.8 106.4	1.4	25.47 25.83	5.62 5.61	
8/31/2011 08:35:42	1					1.000	29.30	6.72	100.4	1.4	25.78	5.57	3.
8/31/2011 08:36:45	1					6.200	28.50	6.17	91.2	1.5	27.60	5.62	
8/31/2011 08:37:10	W2	MF	832597	807991	12.4	6.200	28.50	5.85	88.7	1.5	27.47	5.60	1 4
8/31/2011 08:37:46						11.400	27.40	4.27	63.2	1.5	29.74	5.90	4.
8/31/2011 08:38:12						11.400	27.40	4.56	65.7	1.5	29.80	5.90	7.
8/31/2011 08:26:22	4					1.000	29.30	6.44	95.2	1.4	26.80	6.00	3.
8/31/2011 08:26:52 8/31/2011 08:27:30	-					1.000 6.450	29.30	6.35 5.28	94.9 80.0	1.4	26.57 28.68	6.00	-
8/31/2011 08:27:45	W3	MF	832025	807902	12.9	6.450	28.10	5.68	84.9	1.3	28.88	6.33	6.
8/31/2011 08:28:09	1					11.900	26.40	4.89	70.9	1.7	29.69	6.84	
8/31/2011 08:28:38						11.800	26.30	4.81	70.1	1.8	29.64	6.91	
8/31/2011 09:14:10						1.050	28.70	7.41	103.8	1.6	25.51	6.42	4.
8/31/2011 09:14:36						1.100	28.70	7.53	106.7	1.5	25.48	6.41	
8/31/2011 09:15:05	C1	MF	833702	808183	13.8	6.900	28.00	6.47	92.1	1.6	28.34	6.47	4.
8/31/2011 09:15:27 8/31/2011 09:15:59						6.880 12.800	28.00 27.40	6.70 5.28	95.4 77.3	2.2	28.31 29.07	6.46 7.58	-
8/31/2011 09:15:16	1					12.800	27.40	5.56	79.7	2.3	27.11	7.57	4.
8/31/2011 08:01:31						1.000	28.80	6.37	93.1	1.3	25.03	6.26	1
8/31/2011 08:02:12]					1.000	28.80	5.94	88.5	1.3	25.15	6.26	4
8/31/2011 08:02:40	C2	MF	831457	807761	10.3	5.150	27.70	5.71	84.9	1.4	28.02	6.54	3.
8/31/2011 08:03:10		1411	031437	007701	10.5	5.200	27.70	5.54	82.7	1.4	27.95	6.53	
8/31/2011 08:03:34	-					9.300	27.10	5.60	82.0	1.6	29.68	6.87	2.
8/31/2011 08:03:58	 					9.350 1.000	27.10 29.00	4.69 6.92	72.7 102.2	1.7	29.50	6.98	1
8/31/2011 09:35:51 8/31/2011 09:36:19	1					1.000	29.00	7.03	102.2	1.3	26.15 26.22	5.89 5.89	7.
8/31/2011 09:37:02	1 _		005511	205	40.0	6.800	26.50	6.42	91.8	1.4	27.95	6.17	t
8/31/2011 09:37:27	C3	MF	832218	808878	13.6	6.680	26.60	5.35	78.1	1.4	27.97	6.17	4.
	7		832218	000078	13.6			5.06	73.5	1.8	29.87	6.65	
8/31/2011 09:38:12						12.600	25.90	5.00	67.6	1.0	29.07	0.03	- 3

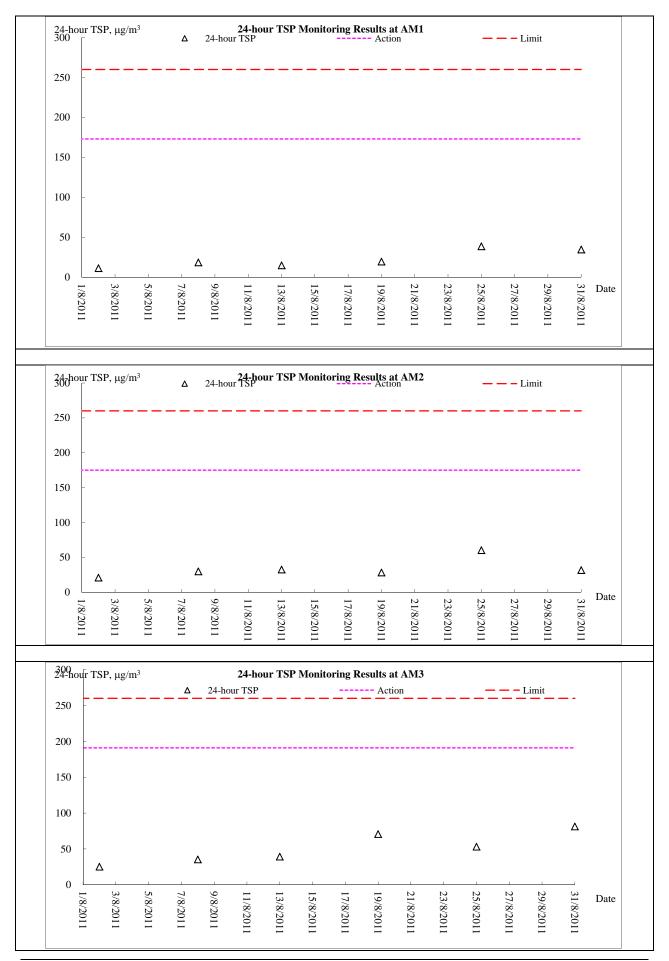
Appendix H

Graphical Plots of Monitoring Results

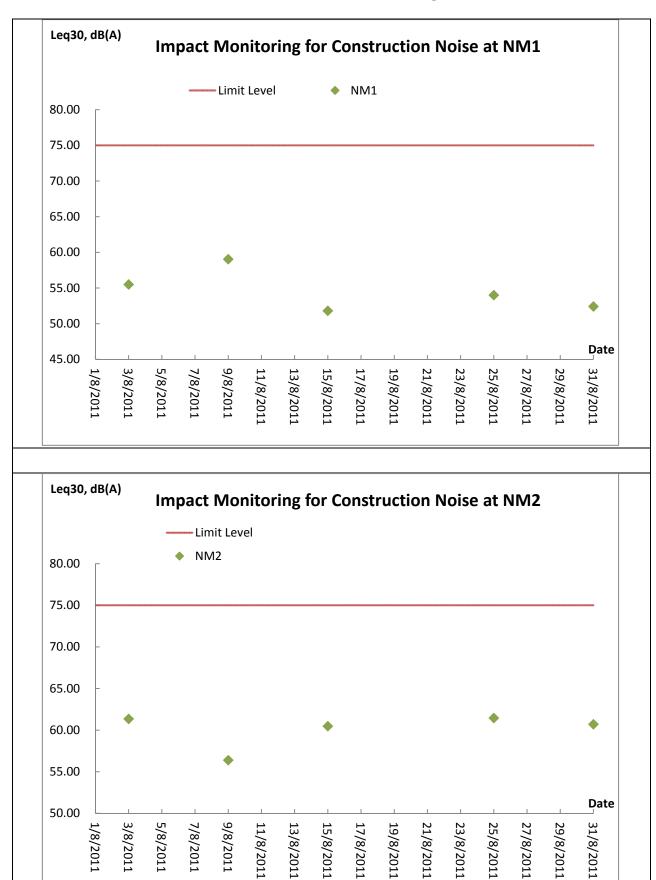
Air Quality Monitoring – 1 hour TSP Monitoring

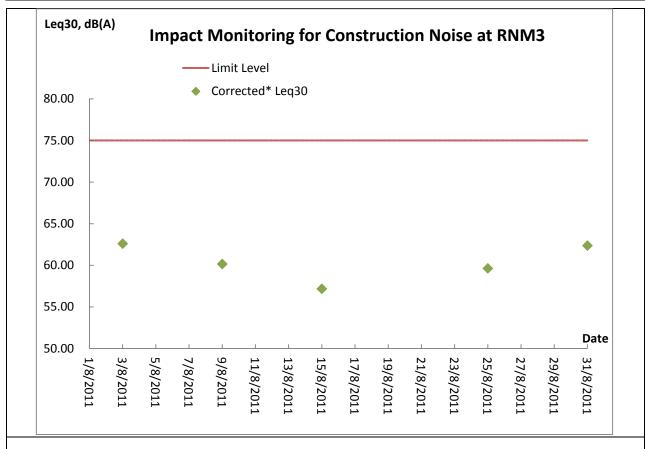


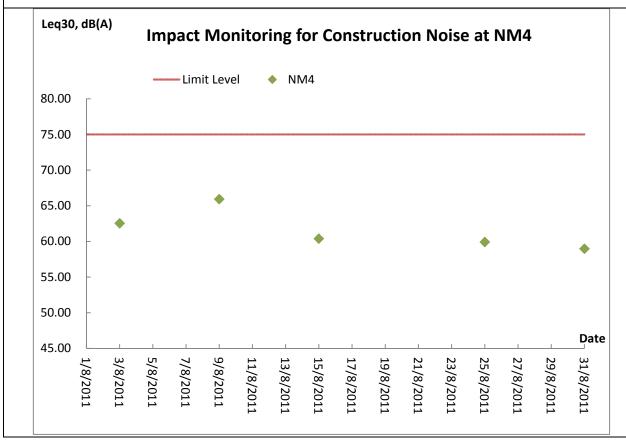
Air Quality Monitoring - 24 hour TSP Monitoring



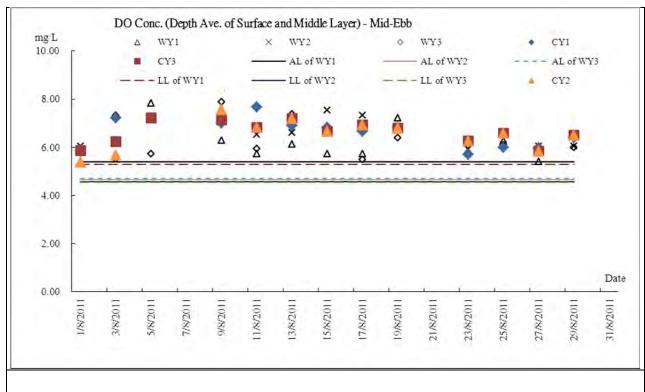
Construction Noise Monitoring

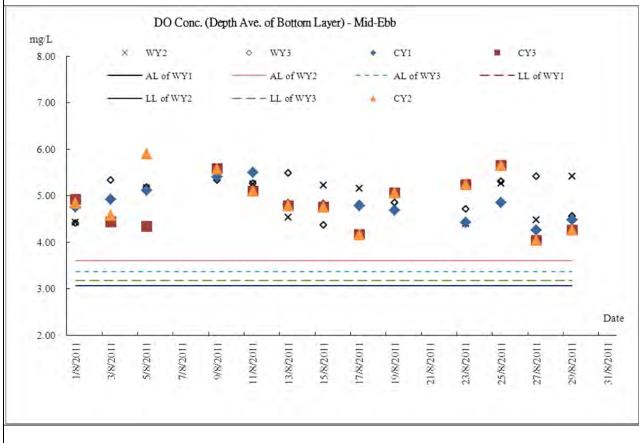


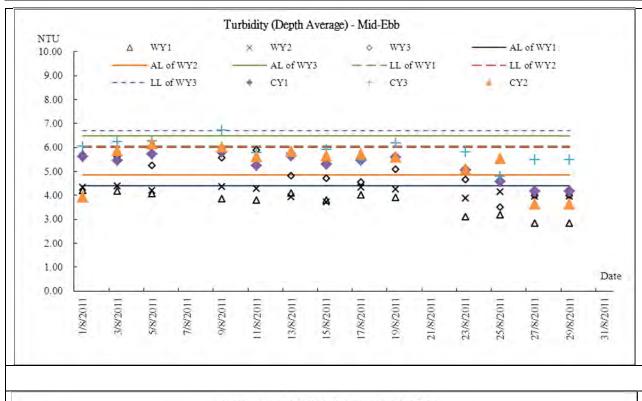


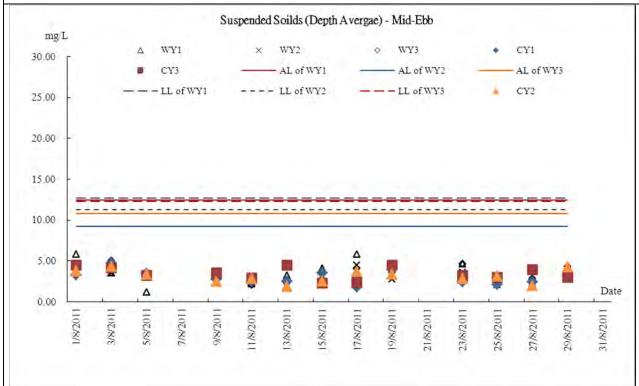


Marine Water Quality Monitoring - Mid-Ebb Tide

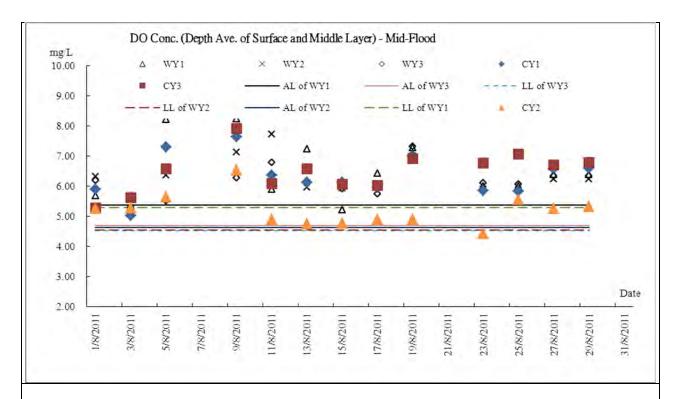


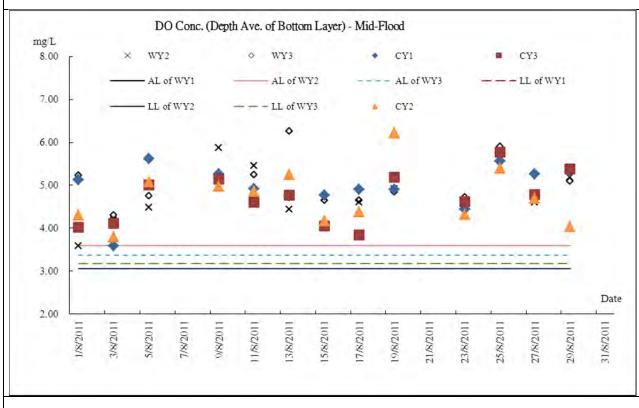


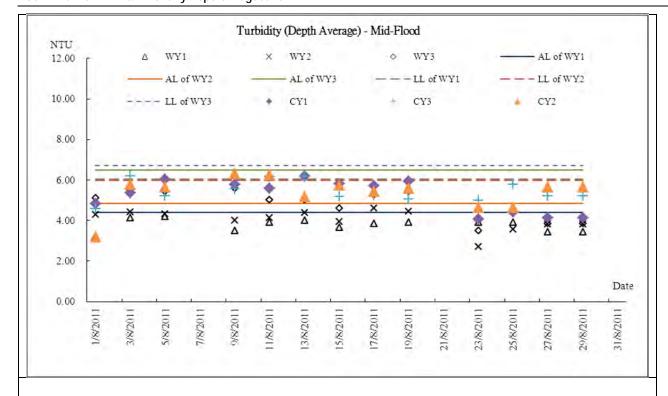


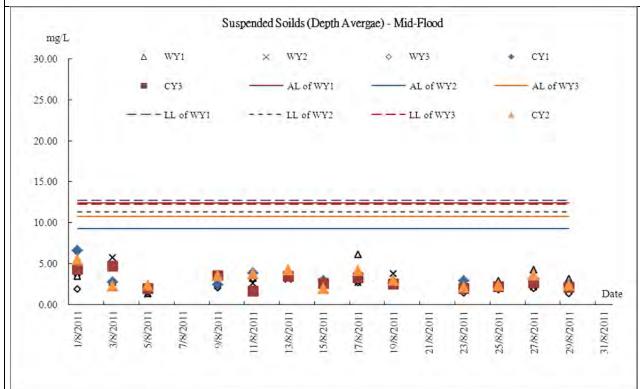


Marine Water Quality Monitoring - Mid-Flood Tide









Appendix I

Meteorological Information

Meteorological Data Extracted from HKO during the Reporting Period

Date		Weather
1-Aug-11	Mon	Fine and very hot
2-Aug-11	Tue	Fine and very hot. Light winds.
3-Aug-11	Wed	Fine and very hot.
4-Aug-11	Thu	There will be a few showers
5-Aug-11	Fri	Very hot with sunny periods
6-Aug-11	Sat	Light to moderate southwesterly winds.
7-Aug-11	Sun	Fine and very hot. Light winds.
8-Aug-11	Mon	Fine and very hot.
9-Aug-11	Tue	Light to moderate southerly winds.
10-Aug-11	Wed	Cloudy with showers and a few squally thunderstorms.
11-Aug-11	Thu	Fine and very hot.
12-Aug-11	Fri	Light to moderate easterly winds.
13-Aug-11	Sat	Very hot with sunny periods
14-Aug-11	Sun	Fine and very hot. Light winds.
15-Aug-11	Mon	Mainly fine.
16-Aug-11	Tue	Moderate southeasterly winds.
17-Aug-11	Wed	Mainly fine.
18-Aug-11	Thu	Very hot in the afternoon.
19-Aug-11	Fri	Light to moderate easterly winds.
20-Aug-11	Sat	Fine and very hot.
21-Aug-11	Sun	Very hot with sunny periods
22-Aug-11	Mon	Light to moderate northerly winds.
23-Aug-11	Tue	Mainly fine.
24-Aug-11	Wed	Fine and very hot. Light winds.
25-Aug-11	Thu	Light to moderate northerly winds.
26-Aug-11	Fri	Mainly cloudy with a few showers and thunderstorms.
27-Aug-11	Sat	A few showers
28-Aug-11	Sun	Moderate west to northwesterly winds.
29-Aug-11	Mon	Moderate southeasterly winds.
30-Aug-11	Tue	Fine and very hot. Light winds.
31-Aug-11	Wed	Fine and very hot.

Appendix J

Monthly Summary Waste Flow Table

Monthly Summary Waste Flow Table for August 2011

			Actu	ıal Quant	ities of In	nert C&D	Material	s Genera	ted Mont	hly				A	ctual Qu	antities	of C&D	Wastes	Generate	ed Month	nly	
Month	Gene	Quantity erated +(d)+(e)	Large 1	crete	Reused Con	tract	Reused Proj	ects	Dispo Publi (6	c Fill	Import (i	_	Ме	tals	Par cardt packa	oard	Plas	stics	Cher Wa		Oth e.g. ru	
	(in '00	00m ³)	(in '00	00m ³)	(in '00	00m ³)	(in '00)0m ³)	(in '00	00m ³)	(in '00	00m ³)	(in '0	00kg)	(in '00	00kg)	(in '0	00kg)	(in '00	00kg)	(in to	onne)
	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW	YSW	SKW
2010	4.522	0.030	0.068	0.104	0.488	0.000	0.000	0.000	4.033	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.460
Jan	0.985	3.045	0.003	0.013	0.120	0.419	0.000	2.626	0.865	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.240
Feb	0.377	0.000	0.000	0.043	0.000	0.000	0.000	0.000	0.377	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.350
Mar	0.758	1.175	0.002	0.106	0.006	0.000	0.000	1.175	0.752	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.360
Apr	1.135	1.339	0.017	0.025	0.112	0.180	0.000	1.159	1.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.830	5.160
May	0.614	1.362	0.030	0.036	0.014	0.400	0.000	0.962	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.150	0.860
Jun	0.505	1.014	0.000	0.022	0.000	0.060	0.000	0.954	0.505	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.610	1.510
<mark>Sub-total</mark>	8.8954	7.9653	0.1184	0.3497	0.7397	1.0590	0.0000	6.8760	8.1558	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	15.5900	28.9400
Jul	0.824	1.077	0.000	0.004	0.000	0.000	0.000	1.077	0.824	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000	0.510
Aug	0.491	3.519	0.004	0.006	0.000	0.000	0.000	3.519	0.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.990	1.830
Sep																						
Oct																						
Nov																						
Dec																						
Total	10.2102	12.5613	0.1229	0.3600	0.740	1.059	0.000	11.472	9.4705	0.0303	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.58	31.28
10001	22.3	771	0.4	83	1.7	99	11.4	172	9.5	01	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	59.	86

Remark: Assume 1.0 m^3 vehicle dump load = 1.6 tonnes C&D materials

YSW: Yung Shue Wan

SKW: Sok Kwu Wan

Appendix K

Weekly Site Inspection Checklist



Humi Wind	Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan 2 August 2011 F A: GENERAL INFORMATION ther: Sunny Fine Cloudy erature: 29.5 dity: High Moderate Low	Inspector ETL/ET RE's Re Contract IEC's Re Time: Rainy	TCS512B-020811 Permit No.				
PART	B: SITE AUDIT						
Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Sectio	n 1: Water Quality						
1.01	Is an effluent discharge license obtained for the Project?	Ш	\checkmark		Ш	Ш -	
1.02	Is the effluent discharged in accordance with the discharge licence?		$\overline{\checkmark}$				
1.03	Is the discharge of turbid water avoided?		\checkmark				
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?				\checkmark		
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?		\checkmark				
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?		\checkmark				
1.07	Is drainage system well maintained?		\checkmark				
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?		\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?		\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 within roofed areas?	\checkmark					
1.18	Is the oil leakage or spillage avoided?		\checkmark				
1.19	Are there any measures to prevent leaked oil from entering the drainage system?		\checkmark				
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?					\checkmark	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	\checkmark					
1.22	Are the oil interceptors/grease traps maintained properly?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?	\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 stream course.	\checkmark					
1.28	License collector should be employed for handling the sewage of mobile toilet.	\checkmark					
1.29	Is ponding /stand water avoided?		\checkmark				
1.30	Is open stockpiles well covered by impermeable sheet?		\checkmark				
Section	on 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?						
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				
Section	on 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				
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
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) Temporary/Moveable noise barrier equal to or more than 3m height	\checkmark					
3.14	with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	V					
Section	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 and storage area properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical container or equipment provided with drip tray?		\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 bounded?		\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?		$\overline{\checkmark}$				
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				
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?				\checkmark		Refer to Monthly EM&A report – August 2011 - Appendix M
5.02	Are retained and transplanted trees properly protected?		\checkmark				Refer to tree photos
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					
Section	Section 6: Others						
6.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

(Sok Kwu Wan)

Remarks:

Findings of Site Inspection: (2 August 2011)



The silt curtain was not completely enclosed the sea bank. The Contractor should modify the curtain to ensure its de-silting effectiveness.

Follow up:



The silt curtain was modified. (Rectified on 9-8-2011)



Tree Photos:



The transplanted and retained uncommon tree species trees were found to be labeled, fenced and protected.

IEC's representative	RE's representative	ET's representative	EO's representative	Contractor's representative
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		range		
		3		
(((Pay Chauna)	(/



Humi Wind	Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan 9 August 2011 T A: GENERAL INFORMATION ther: Sunny Fine Cloudy erature: 28.0 °C didity: High Moderate Low	RE's Re Contrac	's Represe presentati	ive: esentative	TW Jos Edv	Checklist No. TCS512B- TW Tam Joseph Ng Edwin Leung Shanika Chui 09:00 Environmental Permit No. EP- 281/2007A		
PART	B: SITE AUDIT							
Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks	
Sectio	on 1: Water Quality		_					
1.01	Is an effluent discharge license obtained for the Project?	Ш	$\overline{\mathbf{V}}$		Ш	Ш _		
1.02	Is the effluent discharged in accordance with the discharge licence?		\checkmark					
1.03	Is the discharge of turbid water avoided?		\checkmark					
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?				\checkmark			
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?		\checkmark					
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?		\checkmark					
1.07	Is drainage system well maintained?		\checkmark					
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?		\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?		\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 within roofed areas?	\checkmark						
1.18	Is the oil leakage or spillage avoided?		\checkmark					
1.19	Are there any measures to prevent leaked oil from entering the drainage system?		\checkmark					
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?					\checkmark		
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	\checkmark						
1.22	Are the oil interceptors/grease traps maintained properly?		\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?	\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 stream course.	\checkmark					
1.28	License collector should be employed for handling the sewage of mobile toilet.	\checkmark					
1.29	Is ponding /stand water avoided?		\checkmark				
1.30	Is open stockpiles well covered by impermeable sheet?		\checkmark				
Section	on 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?						
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				
Section	on 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				
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
3.08	Are flaps and panels of mechanical equipment closed during operation?		$\overline{\checkmark}$				
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) Temporary/Moveable noise barrier equal to or more than 3m height	\checkmark					
3.14	with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	\checkmark					
Section	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 and storage area properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical container or equipment provided with drip tray?		\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 bounded?		\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				
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	n 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?				\checkmark		Refer to Monthly EM&A report - August 2011 - Appendix M
5.02	Are retained and transplanted trees properly protected?		\checkmark				Refer to tree photos
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					
Section	nn 6: Others						
6.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

(Sok Kwu Wan)

Remarks:

Findings of Site Inspection: (9 August 2011)

Follow up:

No environmental issue was observed during the site inspection.



Tree Photos:



The transplanted and retained uncommon tree species trees were found to be labeled, fenced and protected.

IEC's representative	RE's representative	ET's representative	EO's representative	Contractor's representative	_
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Wea Temp Hum Wind	Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan 17 August 2011 RT A: GENERAL INFORMATION ather: Sunny Fine Cloudy perature: 28.0 °C anidity: High Moderate Low	Inspector ETL/ET RE's Re Contract IEC's Re Time: Rainy	TCS512B-170811 Permit No.				
PART	B: SITE AUDIT						
Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	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 discharge licence?		$\overline{\checkmark}$				
1.03	Is the discharge of turbid water avoided?		\checkmark				
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?				\checkmark		
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?		\checkmark				
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?		\checkmark				
1.07	Is drainage system well maintained?		\checkmark				
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?		\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?		\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 within roofed areas?	\checkmark					
1.18	Is the oil leakage or spillage avoided?		\checkmark				
1.19	Are there any measures to prevent leaked oil from entering the drainage system?		\checkmark				
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?					$\overline{\checkmark}$	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	\checkmark					
1.22	Are the oil interceptors/grease traps maintained properly?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?	\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 stream course.	\checkmark					
1.28	License collector should be employed for handling the sewage of mobile toilet.	\checkmark					
1.29	Is ponding /stand water avoided?		\checkmark				
1.30	Is open stockpiles well covered by impermeable sheet?		\checkmark				
Section	on 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?						
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				
Section	on 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				
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
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) Temporary/Moveable noise barrier equal to or more than 3m height	\checkmark					
3.14	with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	V					
Section	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 and storage area properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical container or equipment provided with drip tray?		\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 bounded?		\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?		$\overline{\checkmark}$				
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				
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	n 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?				\checkmark		Refer to Monthly EM&A report - August 2011 - Appendix M
5.02	Are retained and transplanted trees properly protected?		\checkmark				Refer to tree photos
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					
Section	on 6: Others						
6.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

(Sok Kwu Wan)

Remarks:

Findings of Site Inspection: (17 August 2011)

Follow up:

No environmental issue was observed during the site inspection.



Tree Photos:



The transplanted and retained uncommon tree species trees were found to be labeled, fenced and protected.

IEC's representative	RE's representative	ET's representative	EO's representative	Contractor's representative	
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		Kayer			
1	1	(Ray Cheung)	1	1	



Wea Temp Hum Wind	Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan 23 August 2011 RT A: GENERAL INFORMATION ather: Sunny Fine Cloudy perature: 29.8 °C nidity: High Moderate Low	RE's Re	ed by "'s Represe epresentat ctor's Repr epresentat	ive: resentative	Ra	y Cheung seph Ng win Leung	TCS512B-230811 Permit No.
PART	B: SITE AUDIT						
Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	on 1: Water Quality				<u> </u>		
1.01	Is an effluent discharge license obtained for the Project?		\checkmark				
1.02	Is the effluent discharged in accordance with the discharge licence?		\checkmark				
1.03	Is the discharge of turbid water avoided?		\checkmark				
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?				\checkmark		
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?		\checkmark				
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?		\checkmark				
1.07	Is drainage system well maintained?		\checkmark				
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?		\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?		\checkmark				
1.13	Are wheel washing facilities well maintained?	\checkmark					
1.14	Is runoff from wheel washing facilities avoided?	$\overline{\checkmark}$					
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 within roofed areas?	\checkmark					
1.18	Is the oil leakage or spillage avoided?		\checkmark				
1.19	Are there any measures to prevent leaked oil from entering the drainage system?		\checkmark				
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?					$\overline{\checkmark}$	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	\checkmark					
1.22	Are the oil interceptors/grease traps maintained properly?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?	\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 stream course.	\checkmark					
1.28	License collector should be employed for handling the sewage of mobile toilet.	\checkmark					
1.29	Is ponding /stand water avoided?		\checkmark				
1.30	Is open stockpiles well covered by impermeable sheet?		\checkmark				
Section	on 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?						
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				
Section	on 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				
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
3.08	Are flaps and panels of mechanical equipment closed during operation?		$\overline{\checkmark}$				
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) Temporary/Moveable noise barrier equal to or more than 3m height	\checkmark					
3.14	with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	\checkmark					
Section	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 and storage area properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical container or equipment provided with drip tray?				\checkmark		Remark 1
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 bounded?		\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				
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?				\checkmark		Refer to Monthly EM&A report - August 2011 - Appendix M
5.02	Are retained and transplanted trees properly protected?		\checkmark				Refer to tree photos
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					
Section	on 6: Others						
6.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

(Sok Kwu Wan)

Remarks:

Findings of Site Inspection: (23 August 2011)



The Contractor should provide enough drip trays or covering for the chemical containers.

Follow up:



The containers were provided drip trays and covered (Rectified on 30-8-2011)



Tree Photos:



The transplanted and retained uncommon tree species trees were found to be labeled, fenced and protected.

IEC's representative	RE's representative	ET's representative	EO's representative	Contractor's representative
		2		
		Kayer		
(((Ray Chauna)	((



Wea Temp Hum Wind	Construction of Sewage Treatment Works at Yung Shue Wan and Sok Kwu Wan 30 August 2011 RT A: GENERAL INFORMATION ather: Sunny Fine Cloudy perature: 30.9 °C midity: High Moderate Low	RE's Re	ed by "s Represo epresentati stor's Repr epresentat	ive: resentative	Ra	y Cheung seph Ng win Leung	TCS512B-300811		
PART	PART B: SITE AUDIT								
Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	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?		$\overline{\checkmark}$						
1.02	Is the effluent discharged in accordance with the discharge licence?		\checkmark						
1.03	Is the discharge of turbid water avoided?		\checkmark						
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?				\checkmark				
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?		\checkmark						
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?		\checkmark						
1.07	Is drainage system well maintained?		\checkmark						
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?		\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?		\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 within roofed areas?	\checkmark							
1.18	Is the oil leakage or spillage avoided?				\checkmark		Remark 1		
1.19	Are there any measures to prevent leaked oil from entering the drainage system?		\checkmark						
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?					$\overline{\checkmark}$			
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	\checkmark							
1.22	Are the oil interceptors/grease traps maintained properly?		\checkmark						



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
1.23	Is used bentonite recycled where appropriate?	\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 stream course.	\checkmark					
1.28	License collector should be employed for handling the sewage of mobile toilet.	\checkmark					
1.29	Is ponding /stand water avoided?		\checkmark				
1.30	Is open stockpiles well covered by impermeable sheet?		\checkmark				
Section	on 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?						
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				
Section	on 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				
3.07	Are air compressors fitted with valid noise emission labels during operation?		\checkmark				



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
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) Temporary/Moveable noise barrier equal to or more than 3m height	\checkmark					
3.14	with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	V					
Section	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 and storage area properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical container or equipment provided with drip tray?		\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 bounded?		\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?		$\overline{\checkmark}$				
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				
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	\checkmark					



Note:	Not Obs.: Not Observed; Yes: Compliance; No: Non-Compliance; Follow Up: Observations requiring follow-Up actions N/A: Not Applicable	Not Obs.	Yes	No	Follow Up	N/A	Photo/ Remarks
Section	n 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?				\checkmark		Refer to Monthly EM&A report - August 2011 - Appendix M
5.02	Are retained and transplanted trees properly protected?		\checkmark				Refer to tree photos
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					
Section	on 6: Others						
6.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

(Sok Kwu Wan)

Remarks:

Findings of Site Inspection: (30 August 2011)

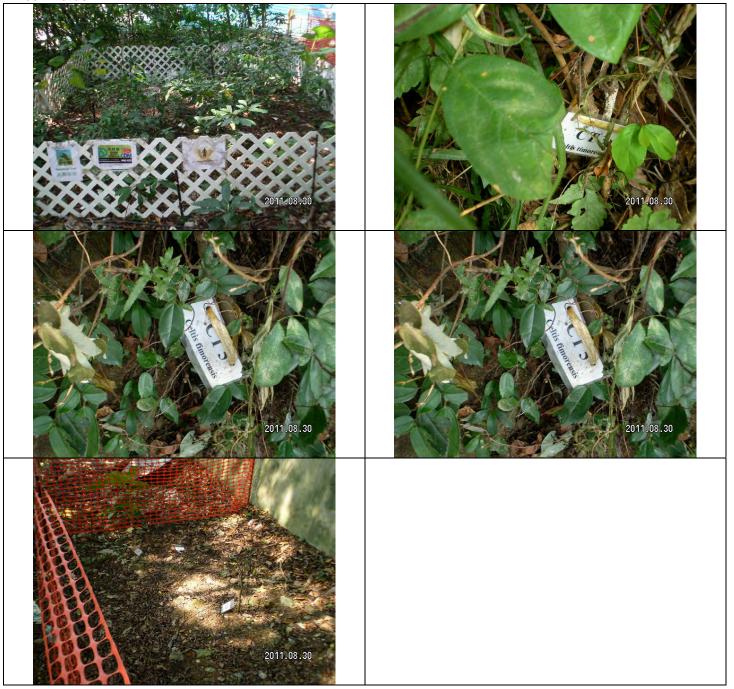




Oil leakage was observed. The Contractor should provide repairing and avoid further leakage for water or soil contamination.



Tree Photos:



The transplanted and retained uncommon tree species trees were found to be labeled, fenced and protected.

IEC's representative	RE's representative	ET's representative	EO's representative	Contractor's representative
		5		
		Kayer		
	· · · ·	-		
		(Ray Cheung)	(1

Appendix L

Implementation Schedule of Mitigation Measures



Implementation Schedule of Air Quality Measures

EIA	EM&A	Environmental Protection Measures*	Location /	Implementation	Implementation Stages**			Relevant Legislation
Ref	Ref		Timing	Agent	D	C	О	& Guidelines
Constr	uction Phase							
3.32	2.34	Installation of 2m high solid fences around the construction site of Pumping Station P2.	Work site / during construction	Contractor		√		
3.34	2.34	 Adopting the following good site practices and follow the dust control requirements of the Air Pollution Control (Construction Dust) Regulation: Stockpiles of imported material kept on site should be contained within hoardings, dampened and / or covered during dry and windy weather; Material stockpiled alongside trenches should be covered with tarpaulins whenever works are close to village houses; Water sprays should be used during the delivery and handling of cement, sands, aggregates and the like. Any vehicle used for moving sands, aggregates and construction waste should have properly fitting side and tail boards. Materials should not be loaded to a level higher than the side and tail boards, and should be covered by a clean tarpaulin. 	Work site / during construction	All contractors		~		EIAO-TM, APCO, Air Pollution Control (Construction Dust) Regulation
3.36	Section 2	1 hour and 24 hour dust monitoring and site audit	Designated air monitoring locations / throughout construction period	Contractor/ Environmental Team		V		EM&A Manual

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

N/A Not applicable

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Noise Measures

EIA	EM&A		Location/Timing	Implementation	Implementation Stages **			Relevant Legislation &
Ref	Ref	220,120,2222022022,122402020		Agent	D	C	О	Guidelines
Construct	tion Phase							
4.41-4.43	3.19	 Use of quiet PME for the construction of the pumping stations Use of temporary noise barrier during the construction of Pumping Station P1a 	Work site /during the construction of Pumping Stations	Contractor		1		EIAO-TM, NCO
4.44 – 4.49	3.19	 Implementation of following measures during the sewer construction: Use of quiet PME or method; Restriction on the number plant (1 item for each type of plant); and Good Site Practices Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. Mobile plant, if any, should be sited as far away from NSRs as possible. Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	Work site /during the construction of Sewer.	Contractor				



EIA	EM&A	Environmental Protection Measures*	Location/Timing I	Implementation	Implementation Stages **			Relevant Legislation &
Ref	Ref		g	Agent	D	C	O	Guidelines
4.50 – 4.53	3.19	 Use of noise screening structures such as acoustic shed and barrier wherever practicable and feasible in areas with sufficient clearance and headroom. Adoption of manual working method wherever practicable and feasible in areas where the worksites of the proposed sewer alignment are located less than 20 m from the residential NSRs and less than 30 m from the temple (THT) and the public library. Use of PME for the construction of the section of sewer between the NSR and the Pumping Station P1a should not be allowed during the excavation work of Pumping Station P1a. 	Work site /during the construction of Sewer.	Contractor		V		
4.60	Section 35	Noise monitoring	Designated noise monitoring locations / throughout construction period	Contractor/ Environmental Team		V		EM&A Manual

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

N/A Not applicable

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Water Quality Control Measures

	EM&A	Environmental Protection Measures*	Location (duration /completion of	Implementation	Implementation Stages**			Relevant Legislation
Ref	Ref		measures)	Agent	D	C	O	and Guidelines
	uction Phas							
5.77	4.35	No-dig method using Horizontal Directional Drilling (HDD) would be used for the installation of outfall pipe of about 480 m from shore to minimize the potential water quality impacts arising from the dredging works required for the submarine outfall construction. Silt curtains will be installed around the exit area of the pilot drill.	Marine works site / During construction of submarine outfall	Contractor		√ 		
5.73	4.36	Dredging Works	Marine works site	Contractor				
5.78		 Implementation of following measures during the dredging works: dredging should be undertaken using closed grab dredgers with a maximum total production rate of 55m³/hr; deployment of 2-layer silt curtains with the first layer enclosing the grab and the second layer at around 50m from the dredging area while dredging works are in progress; dredging operation should be undertaken during ebb tide only; all vessels should be sized such that adequate clearance (i.e. minimum clearance of 0.6m) is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; all pipe leakages should be repaired promptly and plant should not be operated with leaking pipes; excess material should be cleaned from the decks and exposed fittings of barges before the vessel is moved; adequate freeboard (i.e. minimum of 200mm) should be maintained on barges to ensure that decks are not washed by wave action; all barges should be fitted with tight fitting seals to their bottom 	and at the identified water sensitive receivers/ During construction					
		 openings to prevent leakage of material; loading of barges should be controlled to prevent splashing of dredged material to the surrounding water, and barges should not be filled to a level which will cause the overflow of materials or polluted water during loading or transportation; and 						



EIA	EM&A	M&A Environmental Protection Measures*	Location (duration /completion of	Implementation		lement Stages*	Relevant Legislation	
Ref	Ref		measures)	Agent	D	C	O	and Guidelines
		• the decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard.						
5.79	4.37	Construction Run-off and Drainage	Construction works	Contractor				ProPECC
		Implementation of the following site practices outlined in ProPECC PN 1/94 for "Construction Site Drainage"	sites					PN 1/94
		• Provision of perimeter channels to intercept storm-runoff from outside the site. These should be constructed in advance of site formation works and earthworks.						
		• Works programmes should be designed to minimize works areas at any one time, thus minimizing exposed soil areas and reducing the potential for increased siltation and runoff.						
		• Sand / silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand / silt particles from run-off. These facilities should be properly and regularly maintained. These facilities should be carefully planned to ensure that they would be installed at appropriate locations to capture all surface water generated on site.						
		• Careful programming of the works to minimise soil excavation works during rainy seasons.						
		• Exposed soil surface should be protected by paving or hydroseeding as soon as possible to reduce the potential of soil erosion.						
		• Trench excavation should be avoided in the wet season, and if necessary, these should be excavated and backfilled in short sections.						
		Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric						
5.80	4.38	General Construction Activities	Construction works	Contractor		V		
		Debris and rubbish generated on-site should be collected, handled and disposed of properly to avoid entering the nearby coastal waters and stormwater drains. All fuel tanks and storage areas should be provided	sites					



EIA	EM&A	Environmental Protection Measures*	Location (duration /completion of	Implementation	_	lement Stages*	Relevant Legislation	
Ref	Ref	Environmental Protection Weasures	measures)	Agent	D	C	O	and Guidelines
		with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. Open drainage channels and culverts near the works areas should be covered to block the entrance of large debris and refuse.						
5.81	4.39	Wastewater Arising from Workforce Portable toilets should be provided by the Contractors, where necessary, to handle sewage from the workforce. The Contractor should also be responsible for waste disposal and maintenance practices.	Construction works sites	Contractor		V		
5.96	Section 4	Water quality monitoring	Designated water monitoring locations/ throughout construction period	Contractor		√		EM&A Manual

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

N/A Not applicable

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Sediment Contamination Mitigation Measures

EIA	EM&A	Environmental Protection Measures*	Location / Timing	Implementation	Implementation Stages**			Relevant Legislation &
Ref	Ref	Linvinolinian i i vección iveasures	Location / Timing	Agent	D	C	O	Guidelines
6.17	5.3	Follow the requirement and procedures for dredged mud disposal specified under the WBTC No. 34/2002.	Marine works site / during dredging works	Contractor		V		WBTC No. 34/2002
6.18	5.4	Implement appropriate dredging methods which have been incorporated into the recommended water quality mitigation measures.	Marine works site, during dredging works	Contractor		√		
6.19	5.5	 During the transportation and disposal of the dredged sediment, the following measures should be taken: Bottom opening of barges should be fitted with tight fitting seals to prevent leakage of material. Excess material should be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels should be equipped with automatic self monitoring devices as specified by the DEP. 	Marine works site and at the identified sensitive receivers	Contractor		√		

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

N/A Not applicable

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Solid Waste Management Measures

EIA	EM&A	Environmental Protection Measures*	Location /	Implementation Agent	Implementation Stages **			Relevant Legislation &
Ref	Ref	Environmental Protection Measures*	Timing		D	C	0	Guidelines
Construc	tion Phase					1	1	
7.14	6.4	 Good site practices Nomination of an approved person, such as a site manager, to be responsible for implementation of good site practices, arranging for collection and effective disposal to an appropriate facility, of all wastes generated at the site Training (proper waste management and chemical handling procedure) should be provided for site staffs Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. Provision of sufficient waste disposal points and regular collection for disposal. Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Facility. Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors. Maintain records of the quantities of wastes generated, recycled and disposed. 	Work sites/During construction	Contractor		N		Waste Disposal Ordinance (Cap.54)
7.15	6.5	To monitor the disposal of C&D waste at landfills and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	Work sites/During construction	Contractor		V		WBTC No. 21/2002
7.16	6.6	Recommendations to achieve waste reduction include: • segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • to encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated	Work sites/During construction	Contractor		V		WBTC No. 4/98, 5/98



EIA	EM&A	Location /	Implementation	Implementation Stages **			Relevant Legislation &		
Ref	Ref	Environmental Protection Measures*	Timing	Timing Agent Agent		D C O		Guidelines	
		 by the work force; any unused chemicals or those with remaining functional capacity should be recycled; use of reusable non-timber formwork to reduce the amount of C&D material; prior to disposal of C&D waste, it is recommended that wood, steel and other metals should be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; proper storage and site practices to minimise the potential for damage or contamination of construction materials; and plan and stock construction materials carefully to minimise amount of waste generated and avoid 							
7.18	6.7	unnecessary generation of waste. General Site Wastes A collection area for construction site waste should be provided where waste can be stored prior to removal from site An enclosed and covered area for the collection of the waste is recommended to reduce 'wind blow' of light material	Work sites/During construction	Contractor		V		Public Health and Municipal Services Ordinance (Cap. 132)	
7.19-7.20	6.8 – 6.9	 Chemical Wastes After use, chemical waste should be handled according to the Code of Practice on the Package, Labelling and Storage of Chemical Wastes Any unused chemicals or those with remaining functional capacity should be recycled Waste should be properly stored on site within suitably designed containers and should be collected by an approved licensed waste collectors for disposal at the Chemical Waste Treatment Facility or other licenced facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordance. 	Work sites/During construction	Contractor		V		Waste Disposal (Chemical Waste) (General) Regulation, Code of Practice on the Packaging Labelling and Storage of Chemical Wastes	



EIA	EM&A	Location /	Implementation	Implementation Stages **			Relevant Legislation &	
Ref	Ref	Environmental Protection Measures*	Timing	Timing Agent	D	C	0	Guidelines
		 Any service shop and minor maintenance facilities should be located on hard standing within a bunded area, and sumps and oil interceptors should be provided. 						
		• Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken within the designated areas equipped control these discharges						
7.21-7.22	6.10 – 6.11	 Construction and Demolition Material The C&D waste should be separated on-site into three categories: public fill, the inert portion of the C&D material (e.g. concrete and rubble), which should be re-used on-site or disposed of at a public filling area; C&D waste for re-use and / or recycling, the non-inert portion of the C&D material, (e.g. steel and other metals, woods, glass and plastic); C&D waste which cannot be re-used and / or recycled (e.g. wood, glass and plastic) Where possible, inert material should be re-used on-site Where practicable, steel and other metals should be separated for re-use and/or recycling prior to disposal of C&D material 	During all construction phases	Contractors		V		WBTC No. 4/98, 5/98, 21/2002, 25/99, 12/2000

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Ecological Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures* Location / Implement Timing Agent		Implementation	Stages			Relevant Legislation & Guidelines	
			Tilling	Agent	D	C	O	Guidelines	
	ction Phase	I =	T	Τ~		1 1	1		
8.157	7.2	 Terrestrial Ecology Labeling and fencing of the uncommon tree species Avoidance of use of woodland habitats as Works Area, in particular where trees are located 	Work sites / during construction phase	Contractor		V			
8.159 – 8.160	7.3	Subtidal Ecology Use of HDD technique Dredging Use of closed-grab dredger Deploy silt curtains during dredging.	Marine works site / during dredging works	Contractor		V			
8.161	7.4	 Site runoff Construction and maintenance of sand / silt removal facilities Silt curtains Timing of earthworks Coverage of sand / fill piles during storms. Barriers along the landward side of Pumping Station P2 site boundary (to prevent site runoff from entering area with Romer's Tree Frog) 	All work sites / during construction phase	Contractor		V			

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Fisheries Impact Measures

EIA	EM&A	Environmental Protection Measures*	Location / Timing		_	Implementation		olementation Stages**		Relevant Legislation
Ref	Ref			Agent	D	C	O	& Guidelines		
9.29	8.3	Use of closed grab dredging and silt curtains around the immediate dredging area and low dredging rates as recommended in Water Quality of the EIA report	Marine works site, during dredging works	Contractor		V		TM on EIA Process		
9.32	Section 8	Water quality monitoring (see Implementation Schedule for Water Quality Control Measures)	Designated monitoring locations / throughout construction period and 1 year following operation of the STW	Contractor and Environmental Team		V	√	EM&A Manual		

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

^{**} D=Design, C=Construction, O=Operation



Implementation Schedule of Landscape and Visual Impact Measures

EIA EM& Ref Ref	EM&A	Environmental Protection Measures*	Location / Timing	Implementation	Implementation Stages **			Relevant Legislation &
Kei	ler Ref		Tilling	Agent	D	C	O	Guidelines
Constr	uction Pha	ase						
10.74	9.10	Retaining existing trees and minimizing damage to vegetation by close coordination and on site alignment adjusted of rising main and gravity sewer pipelines.	All sites	Contractor		√ 		WBTC No. 14/2002
		Careful and efficient transplanting of affected trees to temporary or final transplant location (the proposed tree to be transplanted is a semi-mature <i>Macaranga tanarius</i> and is located at the proposed Pumping Station P2 location).	All sites	Contractor		V		WBTC No. 14/2002
		Short excavation and immediate backfilling sections upon completion of works to reduce active site area.	All sites	Contractor		√		
		Screening of site construction works by use of hoarding that is appropriate to its site.	All sites	Contractor		V		WBTC No. 19/2001
		Conservation of topsoil for reuse.	All sites	Contractor		√		
		Night-time light source from marine fleets should be directed away from the residential units.	Outfall area.	Contractor		1		

^{*} All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

^{**} D=Design, C=Construction, O=Operation

Appendix M

Tree Inspection Report

經緯園藝有限公司

Melofield Nursery & Landscape Contractor Ltd

元朗下攸田村 125 號 125, Ha Yau Tin Tsuen, Yuen Long, N.T.

TEL: (852) 2572-0048 FAX: (822)2573-9099 E-mail: melofield@netvigator.com

Contract No. DC/2009/13

Project Name: Construction of Sewage Treatment works at Yung Shu Wan and Sok Kwu Wan

Sok Kwu Wan

Tree Inspection Report for Celtis timorensis

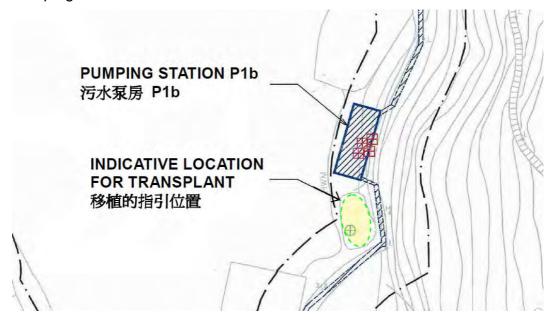
CT7, CT8, CT9, CT10 & CT_1a,CT_2a,CT_3a,CT_4a,CT_5a,CT_6a,CT7_a

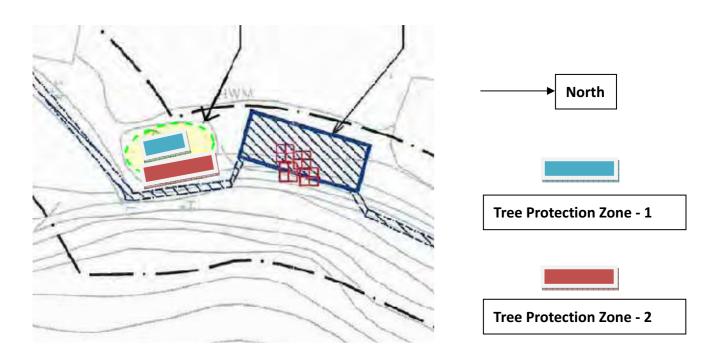
Inspection Date: 09-08-2011



1. Introduction

According to the requirement in the Environmental Permit EP-281/2007/A, the uncommon tree species, *Celtis Timorensis*, found in the pumping station P1b area as shown in figure below shall be properly transplanted to the area immediately south of the Pumping Station P1b before commencement of construction of the Pumping Station P1b





This Tree Inspection Report describes the bi weekly monitoring result of the *Celtis Timorensis*, (Label CT7, CT8, CT9, CT10(Original planted) & CT1_a to CT7_a (which were additionally planted as a contingency proposal in case CT7, CT8, CT9 & CT10 could not recovered).

2. Summary of Inspection

Date of Inspection	09 August 2011, around 14:30
Location	A soil ground adjacent to the Pumping
	Station P1b Chung Mei, at Sok Kwu Wan,
	Lamma Island.
Weather	Cloudy, the vegetation are located under
	the shade of existing trees.
The labeled Celtis Timorensis	CT7, CT8, CT9 & CT10
under Tree Protection Zone 1	
The labeled Celtis Timorensis	CT_1a, CT_2a, CT_3a, CT_4a, CT_5a,
under Tree Protection Zone 2	CT_6a & CT_7a,
Remedial measures taken	1) Adding fertilizer 15,9,15,2 to enchance
	growing of leaf and root
	2) Mixing the original topsoil with soil
	conditioner to improve soil conditions

3. Proposed Bi Weekly Inspection Schedule

Month	Actual / proposed Inspection Date		
July, 2011	14 and 25 July 2011		
August, 2011	9 and 26 August 2011		
September, 2011	9 and 26 September 2011		

4. Summary of Inspection Result

Tree No	Speciation	Health Status
CT7	Celtis timorensis	Very Poor
СТ8	Celtis timorensis	Very Poor
СТ9	Celtis timorensis	Very Poor
CT10	Celtis timorensis	Very Poor
CT_1a	Celtis timorensis	Poor
CT_2a	Celtis timorensis	Poor
CT_3a	Celtis timorensis	Poor
CT_4a	Celtis timorensis	Poor
CT_5a	Celtis timorensis	Poor
CT_6a	Celtis timorensis	Poor
CT_7a	Celtis timorensis	Poor

Inspection parameters or criteria

Good Leaves and stem grown very lush, additional or larger in size of leaves can be observed in each inspection

Fair Green leaves can be found. No major unhealthy condition of the plant is observed. The condition is stable.

Poor Fewer green leaves than usual are observed. No new leaf is grown and the condition keep stable. The bark is dry. The plant is weak.

Very Poor No new green leaf or bud can be observed. The bark is dry. The plant is weak.

5. Description of Inspection Results:

CT7 to CT10

CT7

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT8

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT9

The condition of this tree is very poor. Few buds were found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT10

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT_1a to CT_7a

CT 1a

The condition of this tree is poor. Less leaves were growth on the branches. The bark is dry. The plant is weak.

CT_2a

The condition of this tree is poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT 3a

The condition of this tree is poor. Some leaves were found wilting. The bark is dry. No significant improvement in health. The plant is weak.

CT_4a

The condition of this tree is poor. Some new leaves were found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT 5a

The condition of this tree is poor. Some new leaves were found on the branches. The bark is dry. The plant is weak.

CT 6a

The condition of this tree is poor. Less leaves were growth on the branches. The bark is dry. The plant is weak.

CT 7a

The condition of this tree is poor. Found some leaves wilt. The bark is dry. No Signification improvement in health. The plant is weak.

Overall Condition

The overall health conditions of CT7-10 in Tree protection Zone 1 were not satisfactory. They may better recover under this warm and rainy weather. Remove any insect found on the plant physically to prevent the bud attacked by leaf-feeding insect. No pesticide should be used when the plants are weak.

In the Tree Protection Zone 2, the condition of CT_1a-7a is Poor. Regular watering and weeding will be carried out during dry weather.

Annex A

Photo Records of Tree CT7, CT8, CT9, CT10 CT_1a,CT_2a,CT_3a,CT_4a,CT_5a,CT_6a,CT7_a

Tree ID: CT7

Photo 1: Overall view of CT7



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No

significant improvement in health. The plant is weak.

Tree ID: CT8

Photo 2: Overall view of CT8



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

Tree ID: CT9

Photo 3: Overall view of CT9



Current Status: Poor

Justification: Few bud were found in the top of the twig. The bark is dry.

No significant improvement in health. The plant is weak.

Tree ID: CT10

Photo 4: Overall view of CT10



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No

significant improvement in health. The plant is weak.

Tree ID: CT_1a

Photo 5: Overall view of CT_1A



Current Status: Poor

Justification: Less leaves were growth on the branches. The bark is dry.

The plant is weak.

Tree ID:CT_2a

Photo 6: Overall view of CT_2A



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No

significant improvement in health. The plant is weak.

Tree ID: CT_3a

Photo 7: Overall view of CT_3A



Current Status: Poor

Justification: Found some leaves wilt. The bark is dry. No significant

improvement in health. The plant is weak.

Tree ID: CT_4a

Photo 8: Overall view of CT_4a



Current Status: Poor

Justification: Some new leaves grown was found in the top of the twig. The

bark is dry. No significant improvement in health. The plant is weak.

Tree ID: CT_5a

Photo 9: Overall view of CT_5a



Current Status: Poor

Justification:

Some new leaves grown was found on the branches. The bark is dry. The plant is weak.

Tree ID: CT_6a

Photo 10: Overall view of CT_6a



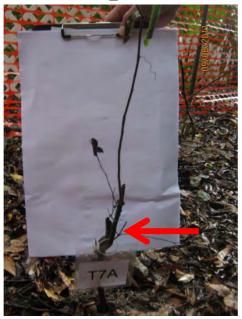
Current Status: Poor

Justification: Few leaves were growth on the branches. The bark is dry.

The plant is weak.

Tree ID: CT_7a

Photo 11: Overall view of CT_7a



Current Status: Poor

Justification: Found some leaves wilt. The bark is dry. No signification

improvement in health. The plant is weak.

經緯園藝有限公司

Melofield Nursery & Landscape Contractor Ltd

元朗下攸田村 125 號 125, Ha Yau Tin Tsuen, Yuen Long, N.T.

TEL: (852) 2572-0048 FAX: (822)2573-9099 E-mail: melofield@netvigator.com

Contract No. DC/2009/13

Project Name: Construction of Sewage Treatment works at Yung Shu Wan and Sok Kwu Wan

Sok Kwu Wan

Tree Inspection Report for Celtis timorensis

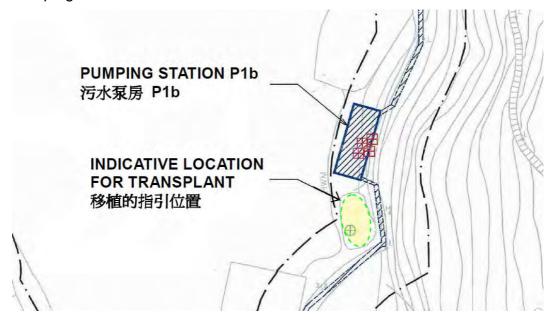
CT7, CT8, CT9, CT10 & CT_1a,CT_2a,CT_3a,CT_4a,CT_5a,CT_6a,CT7_a

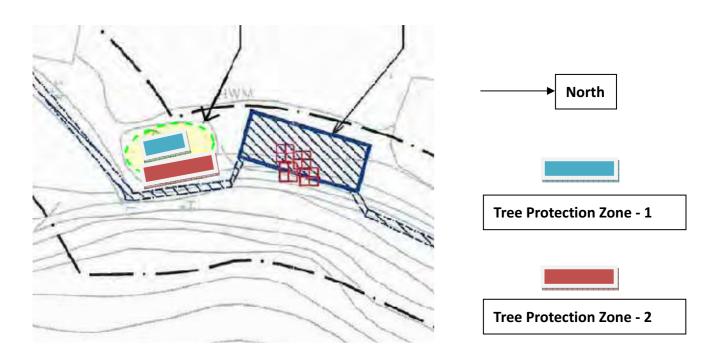
Inspection Date: 26-8-2011



1. Introduction

According to the requirement in the Environmental Permit EP-281/2007/A, the uncommon tree species, *Celtis Timorensis*, found in the pumping station P1b area as shown in figure below shall be properly transplanted to the area immediately south of the Pumping Station P1b before commencement of construction of the Pumping Station P1b





This Tree Inspection Report describes the bi weekly monitoring result of the *Celtis Timorensis*, (Label CT7, CT8, CT9, CT10(Original planted) & CT1_a to CT7_a (which were additionally planted as a contingency proposal in case CT7, CT8, CT9 & CT10 could not recovered).

2. Summary of Inspection

Date of Inspection	26 August 2011, around 13:30
Location	A soil ground adjacent to the Pumping
	Station P1b Chung Mei, at Sok Kwu Wan,
	Lamma Island.
Weather	Cloudy, the vegetation are located under
	the shade of existing trees.
The labeled Celtis Timorensis	CT7, CT8, CT9 & CT10
under Tree Protection Zone 1	
The labeled Celtis Timorensis	CT_1a, CT_2a, CT_3a, CT_4a, CT_5a,
under Tree Protection Zone 2	CT_6a & CT_7a,

3. Proposed Bi Weekly Inspection Schedule

Month	Actual / proposed Inspection Date		
July, 2011	14 and 25 July 2011		
August, 2011	9 and 26 August 2011		
September, 2011	9 and 26 September 2011		

4. Summary of Inspection Result

Tree No	Speciation	Health Status
CT7	Celtis timorensis	Very Poor
CT8	Celtis timorensis	Very Poor
СТ9	Celtis timorensis	Very Poor
CT10	Celtis timorensis	Very Poor
CT_1a	Celtis timorensis	Poor
CT_2a	Celtis timorensis	Poor
CT_3a	Celtis timorensis	Poor
CT_4a	Celtis timorensis	Poor
CT_5a	Celtis timorensis	Poor
CT_6a	Celtis timorensis	Poor
CT_7a	Celtis timorensis	Poor

Inspection parameters or criteria

Good Leaves and stem grown very lush, additional or larger in size of leaves can be observed in each inspection

Fair Green leaves can be found. No major unhealthy condition of the plant is observed. The condition is stable.

Poor Fewer green leaves than usual are observed. No new leaf is grown and the condition keep stable. The bark is dry. The plant is weak.

Very Poor No new green leaf or bud can be observed. The bark is dry. The plant is weak.

5. Description of Inspection Results:

CT7 to CT10

CT7

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT8

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT9

The condition of this tree is very poor. Few buds were found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT10

The condition of this tree is very poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT 1a to CT 7a

CT 1a

The condition of this tree is poor. Less leaves were growth on the branches. The bark is dry. The plant is weak.

CT 2a

The condition of this tree is poor. No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT_3a

The condition of this tree is poor. Some leaves were found wilting. The bark is dry. No significant improvement in health. The plant is weak.

CT 4a

The condition of this tree is poor. Some new leaves were found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

CT 5a

The condition of this tree is poor. Some new leaves were found on the branches. The bark is dry. The plant is weak.

CT 6a

The condition of this tree is poor. Less leaves were growth on the branches. The bark is dry. The plant is weak.

CT 7a

The condition of this tree is poor. Found some leaves wilt. The bark is dry. No Signification improvement in health. The plant is weak.

Overall Condition

The overall health conditions of CT7-10 in Tree protection Zone 1 were not satisfactory. They may better recover under this warm and rainy weather. Remove any insect found on the plant physically to prevent the bud attacked by leaf-feeding insect. No pesticide should be used when the plants are weak.

In the Tree Protection Zone 2, the condition of CT_1a-7a is Poor. Regular watering and weeding will be carried out during dry weather.

Annex A

Photo Records of Tree CT7, CT8, CT9, CT10 CT_1a,CT_2a,CT_3a,CT_4a,CT_5a,CT_6a,CT7_a

Tree ID: CT7

Photo 1: Overall view of CT7



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No

significant improvement in health. The plant is weak.

Tree ID: CT8

Photo 2: Overall view of CT8



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

Tree ID: CT9

Photo 3: Overall view of CT9



Current Status: Poor

Justification: Few bud were found in the top of the twig. The bark is dry.

No significant improvement in health. The plant is weak.

Tree ID: CT10

Photo 4: Overall view of CT10



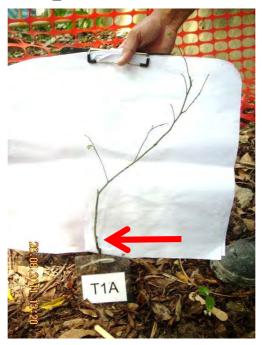
Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No

significant improvement in health. The plant is weak.

Tree ID: CT_1a

Photo 5: Overall view of CT_1A



Current Status: Poor

Justification: Less leaves were growth on the branches. The bark is dry.

The plant is weak.

Tree ID:CT_2a

Photo 6: Overall view of CT_2A



Current Status: Poor

Justification: No bud was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

Tree ID: CT_3a

Photo 7: Overall view of CT_3A



Current Status: Poor

Justification: Found some leaves wilt. The bark is dry. No significant

improvement in health. The plant is weak.

Tree ID: CT_4a

Photo 8: Overall view of CT_4a



Current Status: Poor

Justification: Some new leaves grown was found in the top of the twig. The bark is dry. No significant improvement in health. The plant is weak.

Tree ID: CT_5a

Photo 9: Overall view of CT_5a



Current Status: Poor

Justification:

Some new leaves grown was found on the branches. The bark is dry. The plant is weak.

Tree ID: CT_6a

Photo 10: Overall view of CT_6a



Current Status: Poor

Justification: Less leaves were growth on the branches. The bark is dry.

The plant is weak.

Tree ID: CT_7a

Photo 11: Overall view of CT_7a



Current Status: Poor

Justification: Found some leaves wilt. The bark is dry. No signification improvement in health. The plant is weak.