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TEST REPORT

Kaden Construction Limited

CONTRACT NO. DC/2007/18

**YUNG SHUE WAN AND
SOK KWU WAN VILLAGE SEWERAGE,
STAGE 1 WORKS**

**QUARTERLY EM&A
SUMMARY REPORT NO.1**

(JUNE TO AUGUST 2008)

Prepared by:

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Environmental Team Leader

Issue Date: 30 September 2008

Report No.: ENA81023

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

Your reference:

Our reference: 05117/6/10/318101

Date: 13 October 2008

Attention: Mr. C K Au

BY FAX ONLY

Dear Sir

Agreement No. CE20/2005 (DS)
Outlying Islands Sewerage Stage 1 Phase 1 Part 2 and Phase 2
Yung Shue Wan and Sok Kwu Wan Sewerage, Sewage Treatment and Disposal – Design and Construction
Quarterly EM&A Summary Report No. 1 (June to August 2008)

I refer to the Environmental Permit (EP-281/2007) and the email from the environmental team, ETS-Testconsult Limited with the revised report, dated 10 October 2008. I do not have further comment and have verified the captioned report.

Yours faithfully
SCOTT WILSON CDM JOINT VENTURE



Rodney Ip

ANCP/ancp

cc	Kaden Construction Ltd	(Attn: Mr Stephen Leung)
	ETS-Testconsult	(Attn: Ms Linda Law)
	ER/LAMMA	(Attn: Mr Alfred Cheung)
	CDM	(Attn: Mr Mark Sin)



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EXECUTIVE SUMMARY

This is the first Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works" (the Project) under the requirements and specifications of "the Environmental Permit (Application No. AEP-281/2007)" (the EP) and "the Final EM&A Manual – Outlying Islands Sewerage Stage 1 Phase 2 Package J – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" (the EM&A Manual).

This report documents the findings of EM&A Works conducted during the construction phase of the Project from June to August 2008.

Construction Progress

The major construction works in this quarter were as below:

- *Project signboard and ER's secondary office at Works Area W2A and W2B;*
- *Pre-construction condition survey;*
- *Trench excavation work;*
- *Site clearance;*
- *Excavation works for laying of sewerage pipe and trenchless; and*
- *Pipe laying works.*

Environmental Monitoring Progress

The summary of the monitoring activities in this quarter is listed below:

- *Noise Monitoring (Day-time): 14 Occasions at 4 designated locations;*
- *24-hour TSP Monitoring: 17 Occasions at 3 designated locations;*
- *1-hour TSP Monitoring: 51 Occasions at 3 designated locations.*

Impact Air Quality Monitoring

No exceedances of Action and Limit levels were recorded for 24-hr and 1-hr TSP monitoring in the quarter.

Impact Noise Monitoring

No exceedances of Action and Limit levels for noise monitoring were recorded in the quarter.

Environmental Complaints, Notifications of Summons and Successful Prosecutions

No environmental complaints, notifications of summons and successful prosecutions were received in this quarter.

Internet Website

This Quarterly EM&A Summary Report can be accessed on the web at <http://www.skwsewer.com>.



1.0 INTRODUCTION

The Customer, Kaden Construction Limited (Kaden), appointed Environmental Team of ETS-Testconsult Limited to undertake the environmental impact monitoring for "Contract No. DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works" (the Project) under the requirements and specifications of "the Environmental Permit (Application No. AEP-281/2007)" (the EP) and "the Final EM&A Manual – Outlying Islands Sewerage Stage 1 Phase 2 Package J – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" (the EM&A Manual).

This Quarterly EM&A Summary Report documented the findings of EM&A Works conducted during the construction phase of the Project in June, July and August 2008.

2.0 PROJECT INFORMATION

2.1 Background

Under this Project, Kaden is required to construct village sewerage in Yung Shue Wan and Sok Kwu Wan, Lamma Island.

Village sewage works are undertaken in this Project. These will comprise laying approximately 1.4km of sewerage pipes from 220mm to 350mm diameter in Sok Kwu Wan Village. These works are carried out under a conventional Design, Bid, Build (DBB) contract, entirely separate from the single Design, Build and Operate (DBO) contract for Sewage Treatment Works (STW) construction.

As the main Contractor of the captioned project contracted by, Kaden will follow the environmental monitoring recommendation stated in the EM&A Manual that was prepared with reference to the EIA Report (Register No.: AEIAR-075/2003).

According to the EP and the EM&A Manual, the environmental programme is mainly focused on the construction activities of this Project in Sok Kwu Wan. At the same time, all air quality and noise monitoring stations proposed in the EM&A Manual are located in Sok Kwu Wan. The baseline report is prepared in accordance with EP (No. EP-281/2007) for the Designated Project "Outlying Islands Sewerage Stage 1 Phase 2 – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" and the EM&A Manual.

2.2 Site Description

The general layout plan of the project in Sok Kwu Wan is shown in Drawing No. 2005/C1/2004, 2005/C1/2005 and 2005/C1/2006.

Surrounding the construction site, there are air and noise sensitive receivers at Chung Mei Village, Sok Kwu Wan and Ta Shui Wan.

2.3 Construction Programme

The construction programme is shown in Appendix F.

2.4 Project Organization and Management Structure

The organization chart with respect to the on-site environmental management and monitoring program are shown in Appendix A.

2.5 Contact Details of Key Personnel

The key personnel contact names and telephone numbers, and construction programme are shown in table 2.1.

Table 2.1 Contact Details of Key Personnel

Organization	Project Role	Key Staff	Tel. No.	Fax No.
Scott Wilson CDM JV	Engineer Representative	Ir Ian J Jones	2982 0240	2982 4129
Scott Wilson CDM JV	Independent Environmental Checker	Mr. Rodney Ip	2410 3750	2428 9922
Kaden Construction Ltd	Contractor	Ir Stephen Leung	2454 9102	2465 1207
ETS-Testconsult Ltd	Environmental Team	Mr. C L Lau	2946 7791	2695 3944

3.0 SUMMARY OF EM&A REQUIREMENTS

3.1 EM&A Programme

In accordance with Section 5 of the EP, EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality and noise are required for the Project. The EM&A requirement for each parameter are described in details in subsequent sections, including:

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

The implementation status of environmental mitigation measures is summarized in Section 5.2 of the Report.

3.2 Monitoring Stations and Parameters

The EM&A Manual designates several locations to monitor environmental impacts in terms of air quality and noise due to the Project. The description and detailed locations of monitoring stations for air quality and noise are shown in Figures 2005/C1/2004, 2005/C1/2005 and 2005/C1/2006 and relevant sections of this Report.

3.3 Monitoring Methodology and Calibration Details

All monitoring works were conducted and monitoring equipment was calibrated in accordance with the EM&A Manual.

3.4 Environmental Quality Performance Limits (Action/Limit Levels)

The environmental quality performance limits, i.e. Action/Limit Levels (AL Levels) were derived from the baseline monitoring results. If the measured environmental quality parameters exceed the AL Levels, the respective action plan will be implemented. The AL Levels for each monitoring parameter are given in Appendix D. The event action plan is given in Appendix E.

3.5 Environmental Mitigation Measures

Relevant mitigation measures were recommended in the EM&A Manual for the Contractor to implement. A list of mitigation measures is given in Appendix G.

4.0 MONITORING RESULTS

4.1 Air Quality

In accordance with the EM&A Manual, 1-hr and 24-hr TSP air quality monitoring are to be conducted three times and one time per six days correspondingly. In the reporting quarter, all the 1-hr and 24-hr TSP monitoring results complied with the AL Levels. The monitoring trends of air quality during the reporting quarter are given in Appendix B2.

Major dust sources in the Project were excavation works and vehicle used for moving sand, aggregates and construction waste.

Table 4.1 presents the number of exceedances recorded in each month of the reporting quarter.

Table 4.1 Summary of Number of Exceedances for 1-hr and 24-hr TSP Monitoring

Monitoring Parameter	Level of Exceedance	June 2008	July 2008	August 2008
24-hr TSP	No of monitoring events	6	6	5
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0
1-hr TSP	No of monitoring events	18	18	15
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0

4.2 Noise

Noise monitoring is required to be conducted at least once per week. Only daytime noise was monitored in the reporting quarter. All recorded noise levels complied with the AL Levels. The registered noise levels in the past three months are plotted in Appendix C2.

Table 4.2 presents the number of exceedances recorded in each month of the reporting quarter.

Table 4.2 Summary of Impact Monitoring results of Noise Daytime Monitoring

Level of Exceedance	June 2008	July 2008	August 2008
No of monitoring events	5	5	4
Action Level	0	0	0
Limit Level	0	0	0
Total	0	0	0

The major noise sources in the reporting quarter were excavation works and vehicle used for moving sand, aggregates and construction waste near the site egress.

In this quarter, no exceedance was recorded and hence the noise impact to the NSRs was concluded to be in an acceptable manner.

5.0 INSPECTION RESULTS

5.1 Summary of site inspection findings and Action(s) taken by Kaden and ET in this quarter

ET conducted weekly site inspections to monitor the Contractor's implementation of environmental mitigation measures. After each site inspection, the Contractor was notified of ET's observations and recommendations and then the Contractor will arrange related remedial works.

Summary of the site inspection findings in this reporting month is shown in Table 5.1.

Table 5.1 Summary of Site Inspection Findings and Action(s) taken by Kaden and ET

Item	Aspect	Finding	Action(s) to be taken by the Contractor	ET Verification
<i>June and July 2008</i>				
---	---	---	---	---
<i>August 2008</i>				
1	Air	Stockpiles of fill materials were found covered improperly at S160. Area 2B and S51 during the weekly site inspection on 28/08/08.	The Contractor was reminded to cover all stockpiles by using tarpaulin sheets.	Since the finding was noted during the last weekly site inspection, it will be verified in the coming month.
2	Water	Stagnant water was observed accumulated at S56 near Chung Mei Village during the weekly site inspection on 28/08/08.	The Contractor was reminded to divert the stagnant water to desilting facilities before discharged or apply pesticides to avoid mosquito breeding.	Since the finding was noted during the last weekly site inspection, it will be verified in the coming month.
3	Site Practice	Timber and water pipes at Area 2B and S161 were noted stored improperly during the weekly site inspection on 28/08/08.	The Contractor was reminded to store all construction material properly and keep the site area tidy.	Since the finding was noted during the last weekly site inspection, it will be verified in the coming month.

5.2 Implementation Status of Environmental Mitigation Measures

According to the summary of the weekly site inspections carried out in this quarter, it indicated that site practices of the Kaden were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory.

Excavation works and vehicle used for moving sand, aggregates and construction waste were the major dust sources in the Project. Generally, the Contractor implemented adequate dust mitigation measures in this quarter, such as dampening of unpaved areas and fill material prior to handling or delivery and well maintenance of plant and equipment to avoid black smoke emission.

Vehicle traffic and construction activities near the site egress were the major noise sources. The powered mechanical equipment were generally operated and maintained properly.

5.3 Status of Environmental Licensing and Permitting

The status of licences and permits is summarized in Table 5.2.

Table 5.2 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-281/2007	29/06/07	End of Project	Valid
Water Discharge Licence	EP890/W2/XD 026	23/05/08	31/03/12	Valid Discharge of Industrial Trade Effluent arising from Construction Site to communal storm water drain
Notification under APCO	Application had been submitted to EPD on 15 April 2008			

5.4 Advice on Solids and Liquid Waste Management Status

The Contractor usually disposed of non-inert wastes such as general refuses and materials segregated to Sok Kwu Wan Re-fill Transfer Station (SKWRTS).

Table 5.3 summarizes data on offsite waste disposal in this quarter.

Table 5.3 Offsite Waste Disposal in this Quarter

Type of Waste		Quantity	Disposal Location	Cumulative Quantity
Inert C&D Materials	Total Quantity Generated (tonne)	323.03		323.03
	Broken Concrete (tonne)	0	N/A	0
	Reused in the Contract (tonne)	50	For Stockpile / Reuse	50
	Reused in other Projects (tonne)	181.6	N/A	181.6
	Disposal as Public Fill (tonne)	91.43	SKWRTS	91.43
C&D Waste	Metals (1000kg)	0	N/A	0
	Paper/Cardboard Packaging (1000kg)	0	N/A	0
	Plastics (1000kg)	0	N/A	0
	Chemical Waste (1000kg)	0	N/A	0
	Other, e.g. General Refuse (tonne)	1.34	SKWRTS	1.34

The Contractor should provide sufficient preventive measures during equipment maintenance works so as to avoid oil leakage on the ground. In the event of any oil leakage, the Contractor should clean up the polluted soil and handle all the materials used for this cleaning works as chemical waste.

The Contractor should use suitable containers with proper labels to store chemical wastes in accordance with Code of Practice on the Packaging, Labeling and Storage of Chemical Waste. The Contractor should also advise their workers of the proper procedures in handling the chemical waste. All the trip tickets for chemical waste disposal were properly kept in the site office. No chemical waste disposal was undertaken in the reporting month.

The Contractor was reminded to increase the frequency of inspection and cleaning of the site drainage system and desilting facilities. Moreover, the Contractor should apply approved pesticides in the stagnant water ponds.

All the runoff should be pumped to the desilting facilities to remove suspended solids prior to discharge.

6.0 NON-COMPLIANCE OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

6.1 Summary of Non-compliance

In this reporting quarter, no exceedances in Action and Limit Level of 24-hr and 1-hr TSP monitoring results were recorded. Besides, no day-time noise level measured at the monitoring station exceeded the Action and Limit Level in this quarter.

6.2 Review of the Reasons for and the Implications of Non-compliance

Since there were no exceedances on air quality and noise monitoring parameters recorded in this monitoring quarter, the review of the reasons for the non-compliance was not required.

6.3 Summary of Actions Taken

Since no exceedances were recorded, no further actions were required.



6.4 Summary of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

No complaints, notifications of summons and successful prosecutions were received. A summary of environmental complaints and prosecutions was given in Table 6.1.

Table 6.1 Summary of Environmental Complaints and Prosecutions

Period	Complaints logged	Summon served	Successful Prosecution
June 2008	0	0	0
July 2008	0	0	0
August 2008	0	0	0
Cumulative	0	0	0

7.0 COMMENTS, CONCLUSIONS AND RECOMMENDATION

This report presents the first quarter of the Project. Major site activities were excavation and pipe-laying works. Noise and air quality were the major environmental issues in the Project. Generally, the Contractor implemented most of the mitigation measures to minimize the dust impact.

No exceedances of Action and Limit Level of air quality and noise monitoring were recorded in this quarter.

No complaints, notification of summons and prosecutions with respect to environmental issues were received in this quarter.

According to the ET weekly site inspections carried out in this quarter, it was indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was up to standard. The Contractor generally implemented sufficient dust mitigation measures.

According to the environmental site inspections performed in this quarter, the following recommendations were provided:

Air Quality

- Ensure the frequency of water spraying on unpaved/unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Undertake water spraying on stockpiling area;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit; and
- Implement the dust mitigation measures for the construction activities.

Noise

- Conduct noisy activities at a farther location from the NSRs.

Water Quality

- Provide proper treatment for the wastewater discharged; and
- Remove the stagnant water or provide pesticide for the stagnant water in the permanent desilting chambers, if any.

Chemical and Waste Management

- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set;
- Maintain good housekeeping; and
- Avoid oil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.



Appendix A

Organization Chart and Lines of Communication

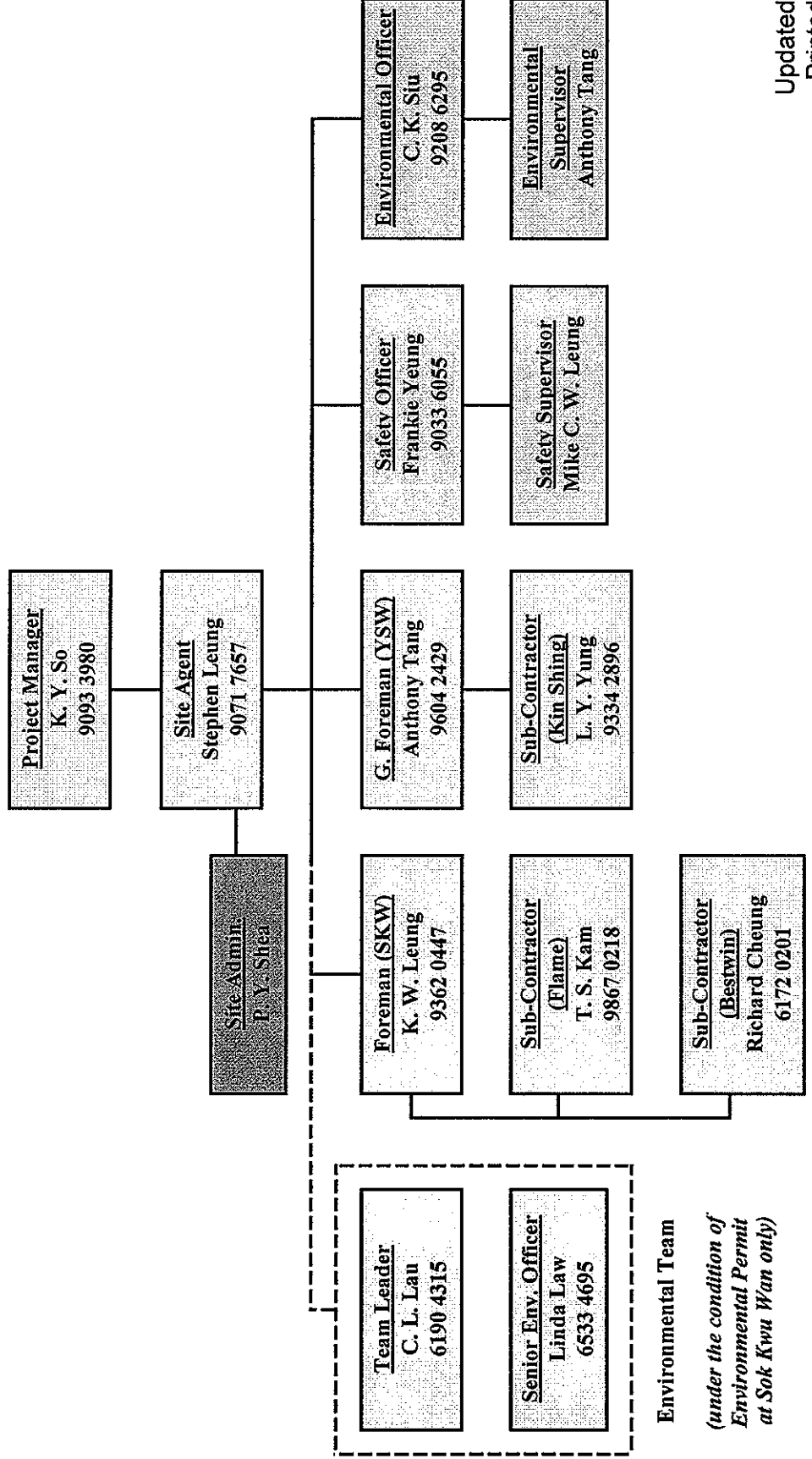


Kaden Construction Limited

DSD Contract No. DC/2007/18

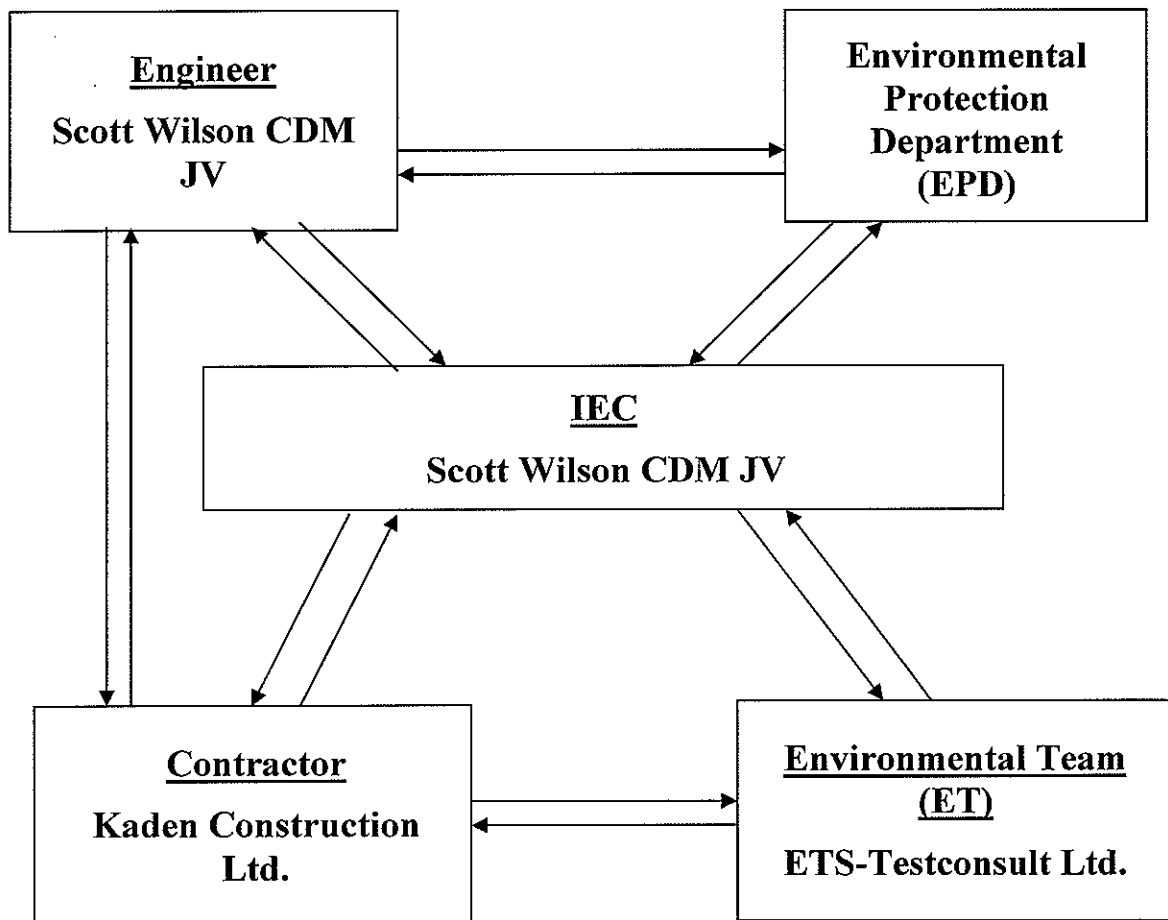
Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works

Organization Structure for Environmental Management





Lines of Communication





Appendix B1

Impact Air Quality Monitoring Results in this Quarter

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1

Start Date	Start Time	Finish Date	Finish Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final		Initial	Final		
30/05/08	08:40	31/05/08	08:41	12662.46	12686.47	24.01	1.1367	1.1367	1.1367	2.7576	2.8349	47	Cloudy
05/06/08	11:07	06/06/08	11:07	12686.47	12710.47	24.00	0.9335	0.9335	0.9335	2.7759	2.8299	40	Fine
11/06/08	14:02	12/06/08	14:01	12710.47	12734.46	23.99	1.1367	1.1367	1.1367	2.8297	2.8869	35	Cloudy
18/06/08	17:00	19/06/08	17:00	12743.23	12767.23	24.00	1.1526	0.9546	0.9546	2.8854	2.9443	35	Rainy
23/06/08	11:08	24/06/08	11:09	12767.23	12791.24	24.01	0.9546	1.1367	1.1367	2.8233	2.8971	54	Sunny
27/06/08	14:01	28/06/08	14:01	12791.24	12815.24	24.00	1.1278	1.1278	1.1278	2.8411	2.9227	50	Drizzle
03/07/08	11:52	04/07/08	11:52	12815.24	12839.24	24.00	1.1278	1.1278	1.1278	2.8670	2.9230	34	Fine
09/07/08	16:12	10/07/08	16:12	12839.24	12863.24	24.00	1.1278	1.1278	1.1278	2.8495	2.8960	29	Rainy
15/07/08	11:48	16/07/08	11:48	12863.24	12887.24	24.00	1.1526	1.1526	1.1526	2.8372	2.8786	25	Fine
21/07/08	09:40	22/07/08	09:40	12887.24	12911.24	24.00	0.9546	0.9546	0.9546	2.7847	2.8216	27	Sunny
25/07/08	09:20	26/07/08	09:20	12911.24	12935.24	24.00	0.9794	0.9794	0.9794	2.8335	2.8666	23	Sunny
31/07/08	13:15	01/08/08	13:16	12935.24	12959.25	24.01	1.1526	1.1526	1.1526	2.8581	2.8968	23	Cloudy
07/08/08	17:30	08/08/08	17:30	12959.25	12983.25	24.00	0.9546	0.9546	0.9546	2.8603	2.9673	78	Cloudy
12/08/08	16:01	13/08/08	16:00	12983.25	13007.24	23.99	1.0637	1.0637	1.0637	2.8110	2.8493	25	Fine
18/08/08	11:06	19/08/08	11:06	13007.24	13031.24	24.00	1.0887	1.0887	1.0887	2.8457	2.8824	23	Sunny
22/08/08	15:58	23/08/08	15:58	13031.24	13055.24	24.00	1.0887	1.0887	1.0887	2.8002	2.8380	24	Sunny
28/08/08	13:00	29/08/08	13:01	13055.24	13079.25	24.01	1.1137	1.1137	1.1137	2.8190	2.8470	17	Sunny

Monitoring Station : AM2

Start Date	Start Time	Finish Date	Finish Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final					
30/05/08	08:45	31/05/08	08:45	16694.74	16718.74	24.00	1.2236	1.2236	1.2236	2.7985	2.8828	48	Cloudy
05/06/08	11:00	06/06/08	11:00	16718.74	16742.74	24.00	1.0667	1.0667	1.0667	2.8131	2.8679	36	Fine
11/06/08	14:00	12/06/08	14:07	16742.74	16766.85	24.11	1.0667	1.0667	1.0667	2.8121	2.8623	33	Cloudy
18/06/08	17:10	19/06/08	17:10	16766.85	16790.96	24.00	1.0602	1.1863	1.1863	2.8411	2.8933	34	Rainy
23/06/08	11:22	24/06/08	11:22	16790.96	16815.07	24.00	1.1863	1.2236	1.2236	2.8193	2.8980	46	Sunny
27/06/08	14:15	28/06/08	14:15	16815.07	16839.18	24.00	1.1548	1.1548	1.1548	2.8372	2.9156	47	Drizzle
03/07/08	12:03	04/07/08	12:03	16839.18	16863.29	24.00	1.1863	1.1863	1.1863	2.8578	2.9137	33	Fine
09/07/08	12:32	10/07/08	12:32	16863.29	16887.40	24.00	1.3124	1.3124	1.3124	2.8007	2.8377	20	Rainy
15/07/08	11:59	16/07/08	11:59	16887.40	16911.51	24.00	1.1863	1.1863	1.1863	2.8141	2.8527	23	Fine
21/07/08	09:26	22/07/08	09:26	16911.51	16935.62	24.00	1.1863	1.1863	1.1863	2.8338	2.8701	21	Sunny
25/07/08	09:25	26/07/08	09:26	16935.62	16959.73	24.00	1.1863	1.1863	1.1863	2.8239	2.8533	17	Sunny
31/07/08	13:25	01/08/08	13:26	16959.73	16983.84	24.01	1.1863	1.1863	1.1863	2.8658	2.8990	19	Cloudy
07/08/08	17:30	08/08/08	17:30	16983.84	17007.95	24.00	1.1233	1.1233	1.1233	2.7954	2.9064	69	Cloudy
12/08/08	12:20	13/08/08	12:19	17007.95	17032.06	23.99	1.1980	1.1980	1.1980	2.7797	2.8159	21	Fine
18/08/08	11:11	19/08/08	11:11	17032.06	17056.17	24.00	1.0132	1.0132	1.0132	2.8042	2.8402	25	Sunny
22/08/08	16:14	23/08/08	16:15	17056.17	17080.28	24.02	1.0132	1.0132	1.0132	2.7764	2.8148	26	Sunny
28/08/08	16:12	29/08/08	16:12	17080.28	17104.39	24.00	1.0918	1.0918	1.0918	2.8250	2.8564	20	Sunny

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM3

Date	Time	Finish Date	Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final		Initial	Final		
30/05/08	11:34	31/05/08	11:34	767.48	791.48	24.00	1.2040	1.2040	1.2040	2.8605	2.9454	49	Cloudy
05/06/08	10:40	06/06/08	10:40	791.48	815.48	24.00	1.0778	1.0778	1.0778	2.8374	2.8795	27	Fine
11/06/08	17:18	12/06/08	17:18	815.48	839.48	24.00	1.2356	1.2356	1.2356	2.8097	2.8565	26	Cloudy
17/06/08	13:55	18/06/08	13:55	839.48	863.48	24.00	1.2211	1.2211	1.2211	2.8544	2.8891	20	Rainy
23/06/08	11:40	24/06/08	11:40	863.48	887.48	24.00	1.0957	1.0957	1.0957	2.8259	2.9127	55	Sunny
27/06/08	17:20	28/06/08	17:20	887.48	911.48	24.00	1.2211	1.2211	1.2211	2.8349	2.9276	53	Drizzle
03/07/08	11:17	04/07/08	11:17	911.48	935.48	24.00	1.2525	1.2525	1.2525	2.8434	2.9062	35	Fine
09/07/08	12:21	10/07/08	12:21	935.48	959.48	24.00	1.2838	1.2838	1.2838	2.8122	2.8540	23	Rainy
15/07/08	11:21	16/07/08	11:21	959.48	983.48	24.00	1.2838	1.2838	1.2838	2.7943	2.8313	20	Fine
21/07/08	10:40	22/07/08	11:41	983.48	1007.49	24.01	1.0643	1.0643	1.0643	2.8057	2.8460	26	Sunny
25/07/08	09:40	26/07/08	09:40	1007.49	1031.49	24.00	1.0643	1.0643	1.0643	2.8347	2.8869	34	Sunny
31/07/08	11:30	01/08/08	11:31	1031.49	1055.49	24.00	1.1584	1.1584	1.1584	2.8477	2.8968	29	Cloudy
07/08/08	16:00	08/08/08	16:00	1055.49	1079.49	24.00	1.0957	1.0957	1.0957	2.7935	2.8342	26	Cloudy
12/08/08	12:30	13/08/08	12:30	1079.49	1103.49	24.00	1.0169	1.0169	1.0169	2.8269	2.8723	31	Fine
18/08/08	10:37	19/08/08	10:37	1103.49	1127.49	24.00	1.1132	1.1132	1.1132	2.8155	2.9091	58	Sunny
22/08/08	16:30	23/08/08	16:30	1127.49	1151.49	24.00	1.1132	1.1132	1.1132	2.7957	2.8899	59	Sunny
28/08/08	13:00	29/08/08	13:00	1151.49	1175.49	24.00	1.2415	1.2415	1.2415	2.8191	2.8468	15	Sunny

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1

Date	Monitoring Period		1-hr TSP ($\mu\text{g}/\text{m}^3$)			Weather
	Start	Finish	Minimum	Maximum	Average	
30/05/08	08:32	09:32	29	366	80	Cloudy
30/05/08	09:32	10:32	35	385	93	Rainy
30/05/08	10:32	11:32	42	457	101	Cloudy
05/06/08	08:50	09:50	34	373	88	Fine
05/06/08	09:50	10:50	42	416	100	Fine
05/06/08	10:50	11:50	47	450	111	Fine
11/06/08	09:45	10:45	72	387	126	Cloudy
11/06/08	10:45	11:45	60	296	118	Cloudy
11/06/08	13:00	14:00	58	312	96	Cloudy
17/06/08	09:00	10:00	27	189	52	Rainy
17/06/08	10:00	11:00	26	168	51	Rainy
17/06/08	11:00	12:00	30	177	49	Cloudy
23/06/08	13:45	14:45	36	244	62	Sunny
23/06/08	14:45	15:45	45	270	73	Sunny
23/06/08	15:45	16:45	54	311	83	Sunny
27/06/08	09:50	10:50	39	214	71	Rainy
27/06/08	10:50	11:50	43	206	78	Rainy
27/06/08	13:00	14:00	47	197	62	Rainy
03/07/08	08:55	09:55	55	575	127	Sunny
03/07/08	09:55	10:55	60	612	133	Sunny
03/07/08	10:55	11:55	61	610	121	Sunny
09/07/08	13:10	14:10	81	207	80	Cloudy
09/07/08	14:10	15:10	85	211	76	Cloudy
09/07/08	15:10	16:10	90	199	83	Cloudy
15/07/08	08:40	09:40	43	357	87	Fine
15/07/08	09:40	10:40	50	387	95	Fine
15/07/08	10:40	11:40	48	412	91	Fine
21/07/08	08:50	09:50	41	296	92	Sunny
21/07/08	09:50	10:50	53	359	109	Sunny
21/07/08	10:50	11:50	46	323	99	Sunny
25/07/08	09:05	10:05	59	372	93	Sunny
25/07/08	10:05	11:05	52	364	84	Sunny
25/07/08	11:05	12:05	67	398	108	Sunny
31/07/08	13:00	14:00	50	279	97	Rainy
31/07/08	14:00	15:00	46	266	93	Cloudy
31/07/08	15:00	16:00	40	250	86	Cloudy
07/08/08	09:15	10:15	47	417	153	Cloudy
07/08/08	10:15	11:15	50	402	147	Cloudy
07/08/08	11:15	12:15	62	365	136	Cloudy
12/08/08	13:00	14:00	42	391	97	Fine
12/08/08	14:00	15:00	50	411	113	Fine
12/08/08	15:00	16:00	42	356	109	Fine
18/08/08	08:50	09:50	36	388	85	Sunny
18/08/08	09:50	10:50	40	396	93	Sunny
18/08/08	10:50	11:50	55	445	104	Sunny
25/08/08	08:50	09:50	40	394	104	Fine
25/08/08	09:50	10:50	47	426	117	Fine
25/08/08	10:50	11:50	55	447	128	Fine
28/08/08	10:40	11:40	62	500	174	Sunny
28/08/08	13:00	14:00	59	435	198	Sunny
28/08/08	14:00	15:00	64	465	181	Sunny

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM2

Date	Monitoring Period			1-hr TSP ($\mu\text{g}/\text{m}^3$)			Weather
	Start	Finish	Minimum	Maximum	Average		
30/05/08	08:34	09:34	33	398	84	Cloudy	
30/05/08	09:34	10:34	36	423	109	Rainy	
30/05/08	10:34	11:34	45	484	119	Cloudy	
05/06/08	09:00	10:00	37	392	89	Fine	
05/06/08	10:00	11:00	45	434	99	Fine	
05/06/08	11:00	12:00	50	472	113	Fine	
11/06/08	09:45	10:45	72	374	115	Cloudy	
11/06/08	10:45	11:45	66	306	123	Cloudy	
11/06/08	13:00	14:00	70	298	93	Cloudy	
17/06/08	13:10	14:10	39	201	53	Cloudy	
17/06/08	14:10	15:10	44	211	58	Rainy	
17/06/08	15:10	16:10	40	197	52	Drizzle	
23/06/08	13:00	14:00	39	253	59	Sunny	
23/06/08	14:00	15:00	51	287	70	Sunny	
23/06/08	15:00	16:00	47	284	68	Sunny	
27/06/08	09:56	10:56	41	207	65	Rainy	
27/06/08	10:56	11:56	43	189	69	Rainy	
27/06/08	13:00	14:00	50	195	50	Rainy	
03/07/08	09:00	10:00	56	588	127	Sunny	
03/07/08	10:00	11:00	66	629	135	Sunny	
03/07/08	11:00	12:00	57	621	124	Sunny	
09/07/08	09:30	10:30	77	189	84	Cloudy	
09/07/08	10:30	11:30	85	206	87	Cloudy	
09/07/08	11:30	12:30	70	194	78	Rainy	
15/07/08	08:50	09:50	54	386	93	Fine	
15/07/08	09:50	10:50	50	404	101	Fine	
15/07/08	10:50	11:50	55	409	104	Fine	
21/07/08	09:00	10:00	43	318	96	Sunny	
21/07/08	10:00	11:00	55	394	115	Sunny	
21/07/08	11:00	12:00	49	322	103	Sunny	
25/07/08	09:00	10:00	43	357	73	Sunny	
25/07/08	10:00	11:00	62	372	86	Sunny	
25/07/08	11:00	12:00	40	343	70	Sunny	
31/07/08	10:00	11:00	37	276	90	Fine	
31/07/08	11:00	12:00	41	292	108	Cloudy	
31/07/08	13:00	14:00	30	300	81	Rainy	
07/08/08	13:00	14:00	48	399	162	Cloudy	
07/08/08	14:00	15:00	50	405	152	Cloudy	
07/08/08	15:00	16:00	49	347	156	Cloudy	
12/08/08	09:20	10:20	37	380	110	Fine	
12/08/08	10:20	11:20	42	354	98	Fine	
12/08/08	11:20	12:20	35	371	94	Fine	
18/08/08	09:00	10:00	44	410	95	Sunny	
18/08/08	10:00	11:00	53	436	103	Sunny	
18/08/08	11:00	12:00	58	473	110	Sunny	
25/08/08	09:00	10:00	48	431	111	Fine	
25/08/08	10:00	11:00	57	456	132	Fine	
25/08/08	11:00	12:00	58	462	137	Fine	
28/08/08	13:00	14:00	70	463	194	Sunny	
28/08/08	14:10	15:10	68	526	216	Sunny	
28/08/08	15:10	16:10	56	562	189	Sunny	

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM3

Date	Monitoring Period		1-hr TSP ($\mu\text{g}/\text{m}^3$)			Weather
	Start	Finish	Minimum	Maximum	Average	
30/05/08	13:30	14:30	57	493	132	Cloudy
30/05/08	14:30	15:30	46	506	111	Drizzle
30/05/08	15:30	16:30	52	482	98	Cloudy
05/06/08	13:00	14:00	58	542	130	Cloudy
05/06/08	14:00	15:00	54	487	124	Cloudy
05/06/08	15:00	16:00	61	599	138	Cloudy
11/06/08	14:15	15:15	82	412	154	Drizzle
11/06/08	15:15	16:15	76	382	181	Cloudy
11/06/08	16:15	17:15	80	360	133	Cloudy
17/06/08	13:25	14:25	25	178	43	Cloudy
17/06/08	14:25	15:25	37	183	53	Cloudy
17/06/08	15:25	16:25	22	165	39	Rainy
23/06/08	10:35	11:35	42	245	73	Sunny
23/06/08	11:35	12:35	65	369	107	Sunny
23/06/08	12:35	13:35	58	307	91	Sunny
27/06/08	14:17	15:17	41	220	92	Rainy
27/06/08	15:17	16:17	52	210	82	Rainy
27/06/08	16:17	17:17	60	198	88	Rainy
03/07/08	13:00	14:00	88	758	204	Sunny
03/07/08	14:00	15:00	90	796	220	Sunny
03/07/08	15:00	16:00	80	747	192	Sunny
09/07/08	09:20	10:20	75	195	86	Cloudy
09/07/08	10:20	11:20	80	210	79	Cloudy
09/07/08	11:20	12:20	66	172	72	Rainy
15/07/08	13:00	14:00	40	348	85	Fine
15/07/08	14:00	15:00	47	371	90	Fine
15/07/08	15:00	16:00	51	386	97	Fine
21/07/08	13:00	14:00	66	419	122	Sunny
21/07/08	14:00	15:00	58	383	118	Sunny
21/07/08	15:00	16:00	52	352	111	Sunny
25/07/08	13:00	14:00	70	407	104	Sunny
25/07/08	14:00	15:00	66	395	96	Sunny
25/07/08	15:00	16:00	60	389	92	Sunny
31/07/08	09:15	10:15	42	360	119	Fine
31/07/08	10:15	11:15	39	311	100	Cloudy
31/07/08	11:15	12:15	28	290	80	Rainy
07/08/08	09:30	10:30	51	506	139	Cloudy
07/08/08	10:30	11:30	50	472	150	Cloudy
07/08/08	11:30	12:30	48	430	147	Cloudy
12/08/08	09:10	10:10	36	402	115	Fine
12/08/08	10:10	11:10	42	385	128	Fine
12/08/08	11:10	12:10	35	396	110	Fine
18/08/08	13:10	14:10	64	589	142	Sunny
18/08/08	14:10	15:10	71	635	151	Sunny
18/08/08	15:10	16:10	70	614	149	Sunny
25/08/08	13:10	14:10	68	568	165	Fine
25/08/08	14:10	15:10	70	611	171	Fine
25/08/08	15:10	16:10	67	600	168	Fine
28/08/08	09:10	10:10	72	572	220	Sunny
28/08/08	10:10	11:10	75	482	189	Sunny
28/08/08	11:10	12:10	68	427	162	Sunny

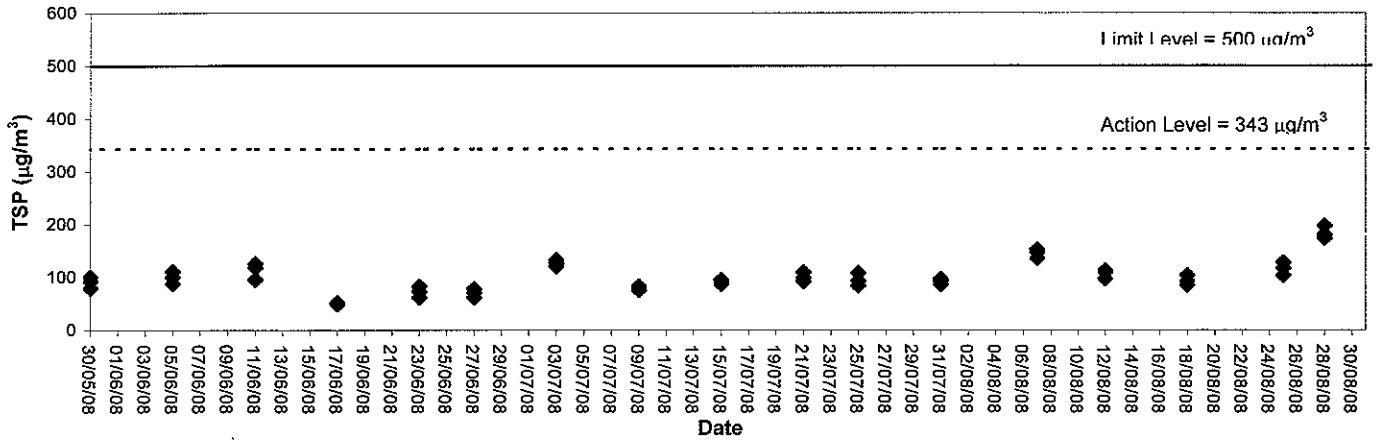


Appendix B2

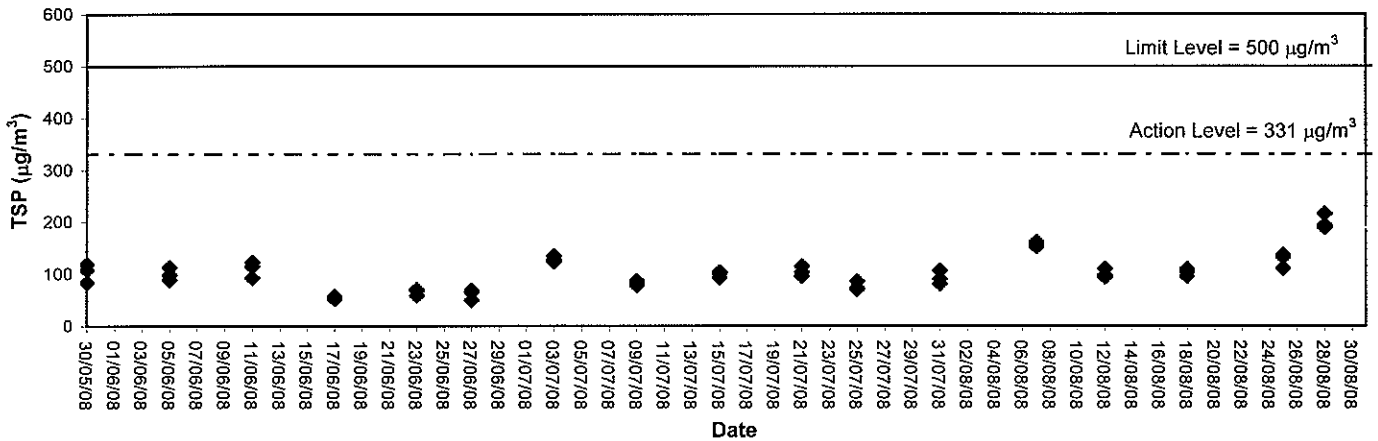
Graphical Plots of Impact Air Quality Monitoring Data in this Quarter



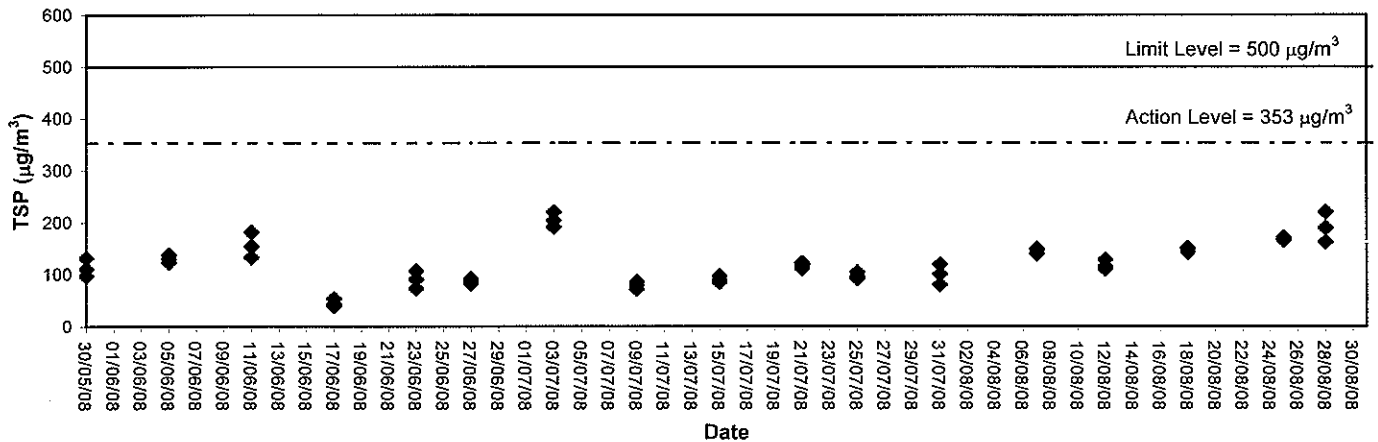
1-hour TSP level at AM1



1-hour TSP level at AM2

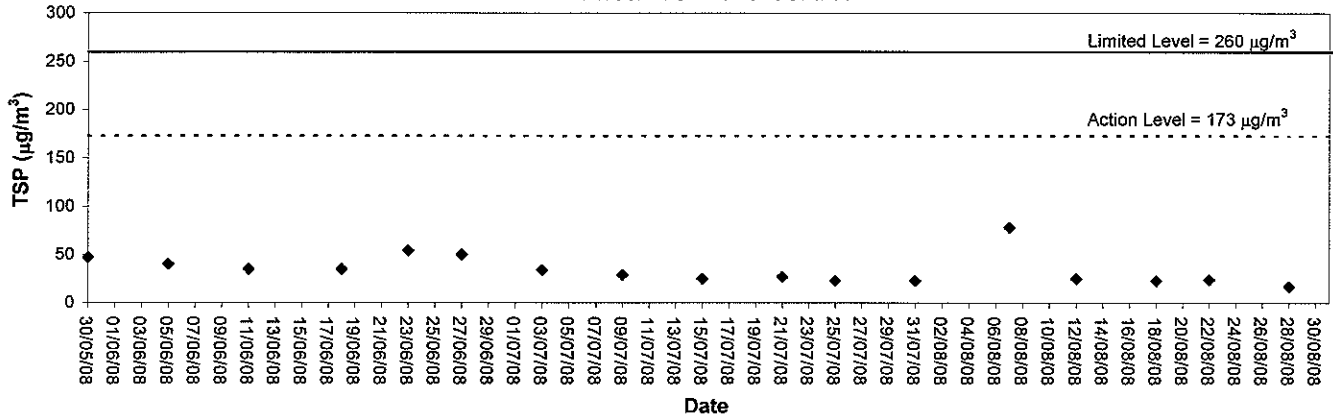


1-hour TSP level at AM3

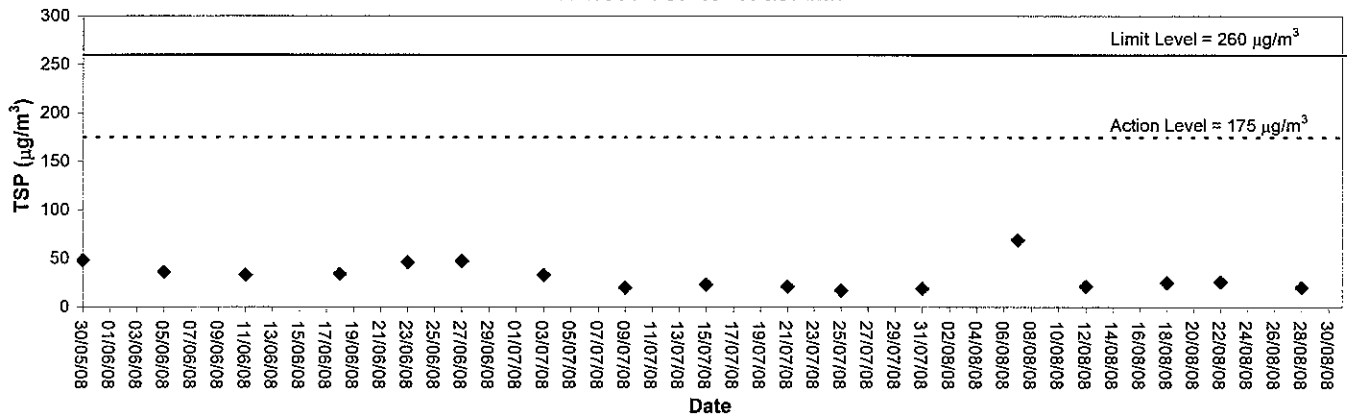




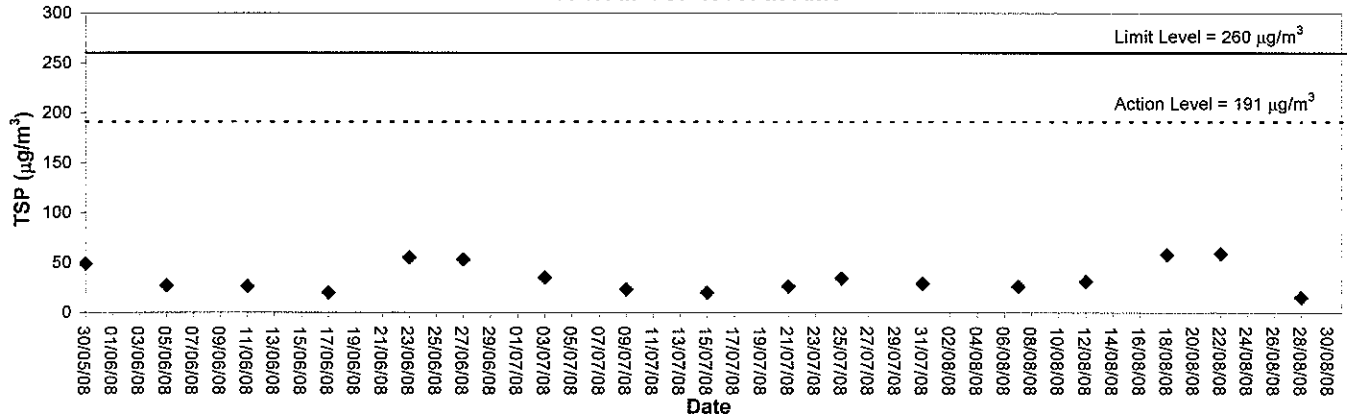
24-hour TSP level at AM1



24-hour TSP level at AM2



24-hour TSP level at AM3





Appendix C1

Impact Noise Monitoring Results in this Quarter



Day-time Noise Monitoring

Monitoring Station: NM1

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
30/05/08	Cloudy	08:35	09:05	49.6	52.2	43.0	0.7
05/06/08	Fine	09:15	09:45	53.0	56.2	46.7	1.2
11/06/08	Cloudy	11:10	11:40	59.2	61.1	54.3	0.2
17/06/08	Cloudy	11:00	11:30	52.4	55.1	47.8	0.7
23/06/08	Sunny	14:40	15:10	50.7	52.9	43.4	1.6
03/07/08	Sunny	09:15	09:45	54.8	58.0	51.0	0.8
09/07/08	Cloudy	10:35	11:05	59.9	62.1	55.6	0.5
15/07/08	Fine	09:00	09:30	52.5	55.0	48.2	1.1
21/07/08	Sunny	10:45	11:15	53.6	56.2	48.7	0.6
31/07/08	Cloudy	15:10	15:40	58.2	60.0	53.1	0.2
07/08/08	Cloudy	14:15	14:45	58.9	59.7	56.3	1.5
12/08/08	Fine	13:20	13:50	58.2	59.5	56.1	0.6
18/08/08	Sunny	09:10	09:40	51.8	54.3	47.2	0.9
28/08/08	Sunny	14:10	14:40	57.5	59.4	52.7	0.5

Monitoring Station: NM2

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
30/05/08	Cloudy	14:25	14:55	67.2	73.0	59.4	0.4
05/06/08	Fine	09:58	10:28	68.1	72.2	60.9	0.3
11/06/08	Cloudy	16:20	16:50	67.5	69.4	59.1	0.2
17/06/08	Cloudy	13:15	13:45	65.3	68.9	63.5	0.8
23/06/08	Sunny	13:55	14:25	66.4	74.1	58.3	1.1
03/07/08	Sunny	10:10	10:40	67.9	72.0	62.6	0.7
09/07/08	Cloudy	15:35	16:05	67.5	69.9	59.2	1.0
15/07/08	Fine	09:40	10:10	65.4	69.0	63.5	0.9
21/07/08	Sunny	11:30	12:00	65.8	68.5	61.2	0.9
31/07/08	Cloudy	14:15	14:45	68.2	70.1	62.4	0.5
07/08/08	Cloudy	11:45	12:15	63.5	65.2	59.1	2.2
12/08/08	Fine	14:15	14:45	64.7	66.0	59.9	0.5
18/08/08	Sunny	09:55	10:25	67.7	70.2	65.8	0.5
28/08/08	Sunny	13:15	13:45	67.5	70.1	60.2	0.5

Monitoring Station: RNM3

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
30/05/08	Cloudy	13:00	13:30	65.7	69.6	58.3	1.1
05/06/08	Fine	11:30	12:00	59.9	61.3	58.6	0.6
11/06/08	Fine	13:10	13:40	62.2	64.7	55.9	0.2
17/06/08	Cloudy	13:50	14:20	63.8	67.5	61.7	1.1
23/06/08	Sunny	13:15	13:45	64.2	68.5	56.4	0.4
03/07/08	Sunny	11:20	11:50	68.7	73.8	63.5	0.7
09/07/08	Cloudy	13:20	13:50	65.1	67.5	59.5	0.5
15/07/08	Fine	10:20	10:50	66.8	70.0	65.1	0.9
21/07/08	Sunny	14:10	14:40	64.5	70.3	61.2	0.5
31/07/08	Cloudy	10:58	11:28	65.3	67.5	61.5	0.5
07/08/08	Cloudy	11:05	11:35	60.9	62.5	59.5	2.5
12/08/08	Fine	10:50	11:20	62.7	63.8	58.0	1.0
18/08/08	Sunny	13:30	14:00	65.8	68.4	62.2	0.8
28/08/08	Sunny	11:45	12:15	62.4	65.3	59.4	0.2

Monitoring Station: NM4

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
30/05/08	Cloudy	13:42	14:12	59.2	62.1	53.0	1.6
05/06/08	Fine	13:15	13:45	65.8	68.3	56.6	1.5
11/06/08	Cloudy	15:20	15:50	61.4	63.0	54.2	0.5
17/06/08	Cloudy	14:33	15:03	51.4	53.7	48.2	1.7
23/06/08	Sunny	11:42	12:12	59.7	65.4	49.5	0.6
03/07/08	Sunny	13:20	13:50	60.2	64.3	58.4	1.6
09/07/08	Cloudy	14:20	14:50	61.2	63.7	58.7	0.6
15/07/08	Fine	11:00	11:30	55.9	62.2	48.8	0.8
21/07/08	Sunny	13:20	13:50	58.0	63.5	52.3	0.8
31/07/08	Fine	10:18	10:48	52.5	54.1	42.7	0.3
07/08/08	Cloudy	15:10	15:40	58.5	60.5	54.9	1.8
12/08/08	Fine	11:30	12:00	58.0	59.4	53.9	0.7
18/08/08	Sunny	14:15	14:45	67.0	69.2	64.6	1.3
28/08/08	Sunny	11:05	11:35	54.8	59.9	47.7	0.2



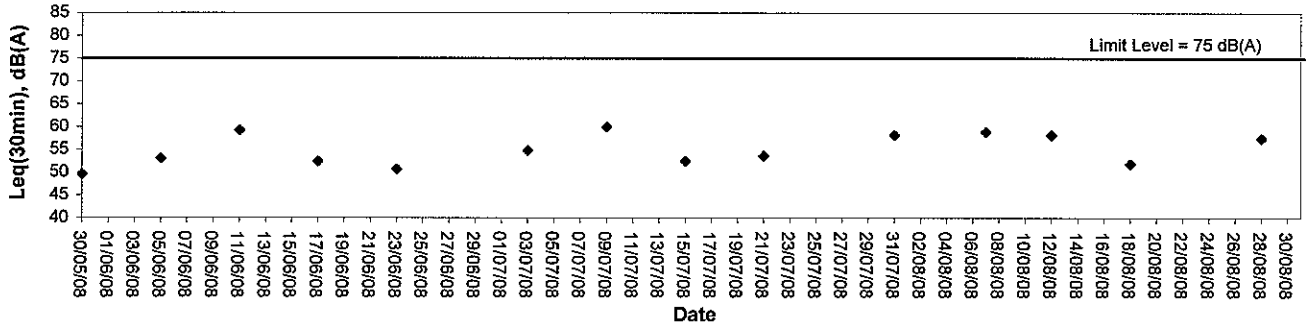
Appendix C2

Graphical Plots of Impact Noise Monitoring Data in this Quarter

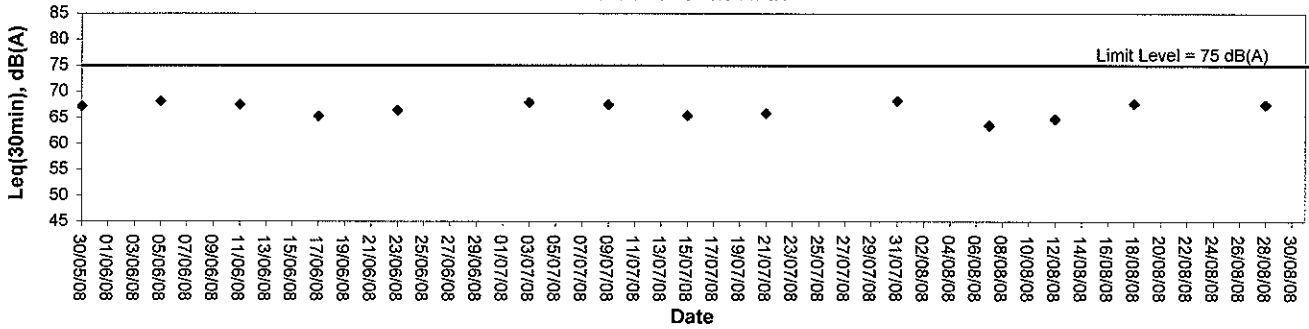


Noise Monitoring (Day-time)

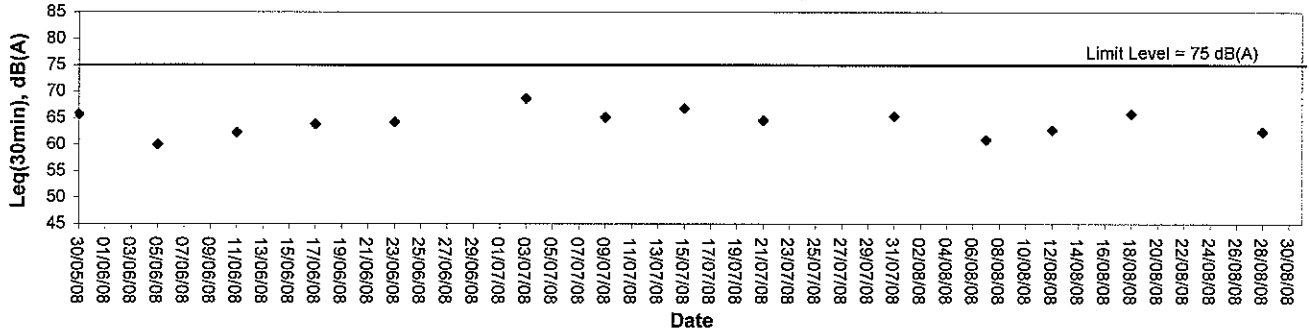
Noise level at NM1



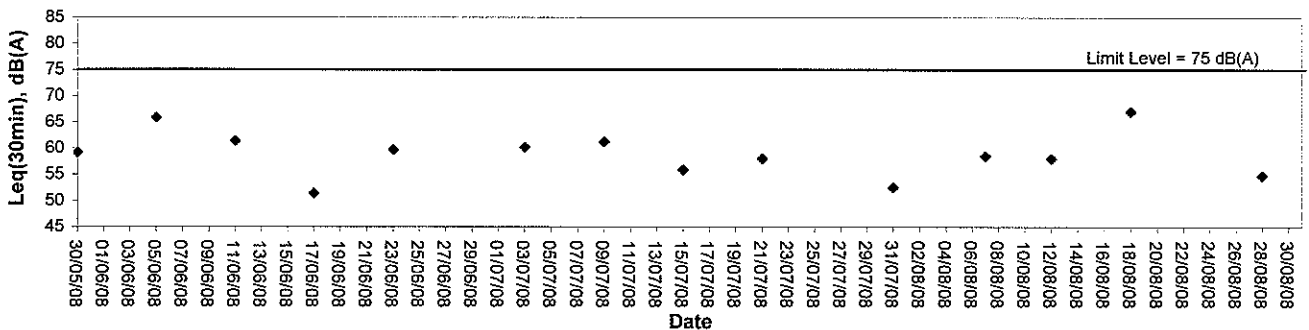
Noise level at NM2



Noise level at RNM3



Noise level at NM4





Appendix D

Environmental Quality Performance (Action / Limit Levels)



Action and Limit levels for 24-hr TSP and 1-hr TSP

<i>Monitoring Station</i>	<i>24-hr TSP ($\mu\text{g}/\text{m}^3$)</i>		<i>1-hr TSP ($\mu\text{g}/\text{m}^3$)</i>	
	<i>Action Level</i>	<i>Limit Level</i>	<i>Action Level</i>	<i>Limit Level</i>
<i>AM1</i>	<i>173</i>	<i>260</i>	<i>343</i>	<i>500</i>
<i>AM2</i>	<i>175</i>	<i>260</i>	<i>331</i>	<i>500</i>
<i>AM3</i>	<i>191</i>	<i>260</i>	<i>353</i>	<i>500</i>

Action and Limit Levels for Noise Monitoring

<i>Time Period</i>	<i>Action</i>	<i>Limit</i>
<i>0700 –1900 hrs normal weekdays</i>	<i>When one documented complaint is received</i>	<i>75 dB(A)</i>



Appendix E

Event-Action Plans

Event / Action Plan for Air Quality

EVENT	ACTION			CONTRACTOR
	ET	IC(E)	ER	
Action Level				
Action Level being exceeded for one sample	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method. 	<ol style="list-style-type: none"> Notify Contractor. 	<ol style="list-style-type: none"> Rectify any unacceptable practice; Amend working methods if appropriate.
Action Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> Same as the above; Advise the ER on the effectiveness of the proposed remedial measures; 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. 	<ol style="list-style-type: none"> Same as the above; 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. 	<ol style="list-style-type: none"> Same as the above; Confirm receipt of notification of failure in writing; Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Submit proposals for remedial actions to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit Level				
Limit Level being exceeded for one sample	<ol style="list-style-type: none"> Identify source; 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. 	<ol style="list-style-type: none"> Checking monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on the possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial actions properly implemented. 	<ol style="list-style-type: none"> 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.
Limit Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> Same as the above; Carry our 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; If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Discuss with ER, ET and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assume their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Same as the above; In consolidation with the IC(E), agree with the Contractor on the remedial measures to be 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. 	<ol style="list-style-type: none"> Same as the above; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated.



Event / Action Plan for Construction Noise

EVENT	ACTION				CONTRACTOR
	ET	IC(E)	ER	ER	
Action level	<ol style="list-style-type: none"> 1. Notify IC(E) and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IC(E), ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures ; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review and investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure proper implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IC(E); 2. Implement noise mitigation proposals. 	
Limit level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IC(E), ER, EPD and Contractor; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IC(E), ER and EPD the causes and actions taken for the exceedances; 7. Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions to ensure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Same as above; 2. If exceedances continue, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E); 3. Implement the agreed proposals; 4. Resubmit proposals if problem still out of control; 5. Stop the relevant portion of works as determined by ER, until the exceedance is abated. 	



Appendix F

Construction Programme

Project Key Date

Contract Date of Commencement	Contract Date of Completion	Rem Dur	Early Start	Early Finish	Start	Finish	Total Float
1d	1d	0	30 JAN 08	18 APR 10	31 JAN 08	19 APR 10	1d
Works Order							
Commencement of Works Order							
WO 005 - YSW Main St. & Clinic		73d	26 FEB 08	26 FEB 08	08 MAY 08	08 MAY 08	
WO 006 - North of Police Post		57d	26 FEB 08	26 FEB 08	23 APR 08	23 APR 08	
WO 008 - Po Wah Yuen MHY21 and Its Upstream		0	16 JUN 08	16 JUN 08	16 JUN 08	16 JUN 08	
WO 009 - PWY Y21-Y48 and Y83-Its Upstream		0	15 JUL 08	15 JUL 08	15 JUL 08	15 JUL 08	
WO 010 - SKW 3rd St. Branches & CM S37-S60-S57		73d	15 JUL 08	15 APR 09	08 OCT 08	08 OCT 08	
WO 013 - SPOV Y291-Y294, Y299-Y305 Rescue Exc		71d	18 AUG 08	18 AUG 08	08 NOV 08	08 NOV 08	
WO 014 - Y287-Y300, Y165-Y177, Y179-Y187, Y259-Y272		0	18 AUG 08	18 AUG 08	18 AUG 08	18 AUG 08	
WO 015 - Trenchless S36-S70		12d	18 AUG 08	01 SEP 08	01 SEP 08	01 SEP 08	
WO 016 - Y86-Y112-Y228 + Branches & AC removal		0	01 SEP 08	01 SEP 08	01 SEP 08	01 SEP 08	
Completion of Works Order							
KD1051	WO 005 - Date of Completion	0	26 FEB 08	26 FEB 08	26 FEB 08	26 FEB 08	
KD1061	WO 006 - Date of Completion	0	26 MAR 09	26 MAR 09	26 MAR 09	26 MAR 09	
KD1071	WO 008 - Date of Completion	0	14 JAN 09	14 JAN 09	14 JAN 09	14 JAN 09	
KD1081	WO 009 - Date of Completion	0	14 JUL 09	14 JUL 09	14 JUL 09	14 JUL 09	
KD1091	WO 010 - Date of Completion	0	15 APR 09	15 APR 09	14 JUL 09	14 JUL 09	73d
KD1101	WO 013 - Date of Completion	0	04 MAR 09	04 MAR 09	17 AUG 08	17 AUG 08	134d
KD1111	WO 014 - Date of Completion	0	17 AUG 09	17 AUG 09	17 AUG 09	17 AUG 09	
KD1121	WO 015 - Date of Completion	0	27 NOV 09	27 NOV 09	31 DEC 09	31 DEC 09	27d
KD1131	WO 016 - Date of Completion	0	30 JAN 10	30 JAN 10	31 JAN 10	31 JAN 10	1d

+General and Preparation

336	30 JAN 08	02 MAR 09	11 APR 08	20 APR 10	342d
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+Works by Utilities Undertakers

32	06 NOV 08	13 DEC 08	08 DEC 08	12 JAN 09	24d
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+Site Works at Works Area W1AW1B/W2A/W2B

51	03 MAR 08	30 APR 08	17 MAR 08	01 MAY 08	1d
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Mo Tat Road

Activity Description	Rem Dur	Early Start	Early Finish	Start	Finish	Total Float
S148-S165 Trenchless (WO 006)	2	05 JUN 08	06 JUN 08	07 JUN 08	09 JUN 08	2d
Implementation of TTA	14	10 JUN 08	25 JUN 08	10 JUN 08	25 JUN 08	0
Inspection Pit / Liaison with UUU UU Diversion	91	26 JUN 08	09 OCT 08	26 JUN 08	09 OCT 08	0
S148-150	60	10 OCT 08	18 DEC 08	10 OCT 08	18 DEC 08	0
S150-151	80	19 DEC 08	26 MAR 09	19 DEC 08	26 MAR 09	0
S151-165	21	23 APR 08	16 MAY 08	23 APR 08	16 MAY 08	0
S157-S162-Plug End, S152-S153-PlugEnd	10	17 MAY 08	28 MAY 08	17 MAY 08	28 MAY 08	0
Inspection Pit / Liaison with UUU UU Diversion	8	29 MAY 08	06 JUN 08	29 MAY 08	06 JUN 08	0
S152-153	7	07 JUN 08	14 JUN 08	07 JUN 08	14 JUN 08	0
S157-158	7	16 JUN 08	23 JUN 08	16 JUN 08	23 JUN 08	0
S158-159	7	24 JUN 08	01 JUL 08	24 JUN 08	01 JUL 08	0
S159-160	7	24 JUN 08	01 JUL 08	24 JUN 08	01 JUL 08	0
S160-161	7	24 JUN 08	01 JUL 08	24 JUN 08	01 JUL 08	0

Start Date 31 JAN 08	Finish Date 19 APR 10	DCI2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works Project Programme Rev. 3	Approved KYS
Progress point	▲	Early start point	▽
Critical point	▲	Early finish point	▽
Summary point	▲	Progress bar	◆
Start milestone point	◆	Critical bar	◆
Finish milestone point	◆	Summary bar	◆

MT4790	S161-162 (RFI 013)	7	02 JUL 08	09 JUL 08	02 JUL 08	09 JUL 08	0
MT4800	S162 to NOTS(2)	13	10 JUL 08	24 JUL 08	23 FEB 09	09 MAR 09	191d
MT4810	S163 to NOTS(2)	15	26 JUL 08	11 AUG 08	10 MAR 09	26 MAR 09	191d

SKW 1st/2nd/3rd St.

S132-S140 (WO 006)

SS4819	Inspection Pit / Liaison with UJ/ UU Diversion	60	23 APR 08	01 JUL 08	01 MAY 08	09 JUL 08	7d
SS4820	S132-133	30	10 JUL 08	13 AUG 08	10 JUL 08	13 AUG 08	0
SS4830	S133-134	30	14 AUG 08	17 SEP 08	14 AUG 08	17 SEP 08	0
SS4840	S134-135	30	18 SEP 08	22 OCT 08	18 SEP 08	22 OCT 08	0
SS4850	S135-140	30	23 OCT 08	26 NOV 08	23 OCT 08	26 NOV 08	0
SS4860	S136-138	30	27 NOV 08	31 DEC 08	27 NOV 08	31 DEC 08	0
SS4870	S137-138	27	02 JAN 09	05 FEB 09	02 JAN 09	05 FEB 09	0
SS4880	S138-139	21	06 FEB 09	02 MAR 09	06 FEB 09	02 MAR 09	0
SS4890	S139-140	21	03 MAR 09	26 MAR 09	03 MAR 09	26 MAR 09	0

S140-S148 (WO 006)

SS4899	Inspection Pit / Liaison with UJ/ UU Diversion	55	23 APR 08	25 JUN 08	23 APR 08	25 JUN 08	0
SS4900	S140-141	30	26 JUN 08	30 JUL 08	26 JUN 08	30 JUL 08	0
SS4910	S141-142	30	31 JUL 08	03 SEP 08	31 JUL 08	03 SEP 08	0
SS4920	S142-143	30	04 SEP 08	08 OCT 08	04 SEP 08	08 OCT 08	0
SS4930	S143-144	30	08 OCT 08	12 NOV 08	08 OCT 08	12 NOV 08	0
SS4940	S144-146	30	13 NOV 08	17 DEC 08	13 NOV 08	17 DEC 08	0
SS4950	S145-146	30	18 DEC 08	22 JAN 09	18 DEC 08	22 JAN 09	0
SS4960	S146-147	30	23 JAN 09	02 MAR 09	23 JAN 09	02 MAR 09	0
SS4970	S147-148	21	03 MAR 09	26 MAR 09	03 MAR 09	26 MAR 09	0

S110-S132, S127-S132

SS4978	Inspection Pit / Liaison with UJ/ UU Diversion	30	16 APR 09	22 MAY 09	10 AUG 09	12 SEP 09	95d
SS4980	S110-111	14	23 MAY 09	10 JUN 09	14 SEP 09	29 SEP 09	95d
SS4990	S111-113	14	11 JUN 09	26 JUN 09	30 SEP 09	17 OCT 09	95d
SS5010	S113-114	14	27 JUN 09	13 JUL 09	19 OCT 09	04 NOV 09	95d
SS5020	S114-123	14	14 JUL 09	29 JUL 09	05 NOV 09	20 NOV 09	95d
SS5030	S123-124	14	30 JUL 09	14 AUG 09	21 NOV 09	07 DEC 09	95d
SS5040	S124-125	14	15 AUG 09	31 AUG 09	08 DEC 09	23 DEC 09	95d
SS5050	S125-132	14	01 SEP 09	16 SEP 09	24 DEC 09	11 JAN 10	95d
SS5060	S126-128	14	17 SEP 09	05 OCT 09	12 JAN 10	27 JAN 10	95d
SS5070	S127-128	14	05 OCT 09	21 OCT 09	28 JAN 10	12 FEB 10	95d
SS5080	S128-131	14	22 OCT 09	07 NOV 09	13 FEB 10	01 MAR 10	95d
SS5100	S130-131	14	25 NOV 09	10 DEC 09	18 MAR 10	02 APR 10	95d
SS5110	S131-132	14	11 DEC 09	29 DEC 09	03 APR 10	19 APR 10	95d

S107-S110, S115-S123, S112-S113 (WO 010)

SS5119	Inspection Pit / Liaison with UJ/ UU Diversion	60	15 JUL 08	22 SEP 08	08 OCT 08	16 DEC 08	73d
SS5120	S107-108	14	23 SEP 08	08 OCT 08	17 DEC 08	02 JAN 09	73d
SS5130	S108-109	14	09 OCT 08	24 OCT 08	09 JAN 09	19 JAN 09	73d
SS5140	S109-110	14	25 OCT 08	10 NOV 08	20 JAN 09	07 FEB 09	73d
SS5150	S115-117	14	11 NOV 08	26 NOV 08	09 FEB 09	24 FEB 09	73d
SS5160	S116-117	14	27 NOV 08	12 DEC 08	25 FEB 09	12 MAR 09	73d
SS5170	S117-118	14	13 DEC 08	29 DEC 08	13 MAR 09	28 MAR 09	73d
SS5180	S118-119	14	30 DEC 08	15 JAN 09	30 MAR 09	18 APR 09	73d
SS5190	S119-120	14	16 JAN 09	04 FEB 09	20 APR 09	07 MAY 09	73d
SS5200	S120-121	14	05 FEB 09	20 FEB 09	08 MAY 09	23 MAY 09	73d

Start Date: 31 JAN 08 Finish Date: 19 APR 10			DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works Project Programme Rev. 3		Date Revision 0 Revision 1 Revision 2 Revision 3	Checked SIL SIL SIL SIL	Approved KYS KYS KYS KC
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Act ID	Rem Dur	Activity Description	Rem Early Start	Rem Early Finish	Late Start	Late Finish	Total Float
SS5210	S121-122		14 21 FEB 09	09 MAR 09	25 MAY 09	11 JUN 09	73d
SS5220	S122-123		14 10 MAR 09	25 MAR 09	12 JUN 09	27 JUN 09	73d
SS5230	S112-113		14 26 MAR 09	15 APR 09	29 JUN 09	14 JUL 09	73d
S102-S106-S132		Incl removal of AC Pipe					
SS5139	S102-S106-S132	Incl removal of AC Pipe	30 01 NOV 08	05 DEC 08	01 NOV 08	05 DEC 08	0
SS5240	S102-103	Inspection Pit / Liaison with UJ/ UU Diversion	30 06 DEC 08	10 JAN 09	06 DEC 08	10 JAN 09	0
SS5250	S103-104		21 12 JAN 09	07 FEB 09	12 JAN 09	07 FEB 09	0
SS5260	S104-105		21 09 FEB 09	04 MAR 09	09 FEB 09	04 MAR 09	0
SS5270	S105-106		30 05 MAR 09	09 APR 09	05 MAR 09	09 APR 09	0
SS5280	S106-132		21 14 APR 08	09 MAY 09	14 APR 09	09 MAY 09	0
S86-S102-S96-S102		Incl removal of AC Pipe					
SS5289	S86-S102-S96-S102	Incl removal of AC Pipe	32 11 MAY 09	18 JUN 09	11 MAY 09	18 JUN 09	0
SS5290	S86-87	Inspection Pit / Liaison with UJ/ UU Diversion	14 19 JUN 09	04 JUL 09	19 JUN 09	04 JUL 09	0
SS5300	S87-89		14 06 JUL 09	21 JUL 09	06 JUL 09	21 JUL 09	0
SS5310	S88-89		14 22 JUL 09	06 AUG 09	22 JUL 09	06 AUG 09	0
SS5320	S89-90		14 07 AUG 09	22 AUG 09	07 AUG 09	22 AUG 09	0
SS5330	S90-92		14 24 AUG 09	06 SEP 09	24 AUG 09	06 SEP 09	0
SS5340	S91-92		14 09 SEP 09	24 SEP 09	09 SEP 09	24 SEP 09	0
SS5350	S92-94		14 25 SEP 09	13 OCT 09	25 SEP 09	13 OCT 09	0
SS5360	S93-94		14 14 OCT 09	30 OCT 09	14 OCT 09	30 OCT 09	0
SS5370	S94-95		30 31 OCT 09	04 DEC 09	31 OCT 09	04 DEC 09	0
SS5380	S95-102		21 05 DEC 09	31 DEC 09	05 DEC 09	31 DEC 09	0
Tin Hau Temple & Footpath							
S78-S86		Incl removal of AC Pipe					
TH5389	S78-S86	Incl removal of AC Pipe	21 18 MAY 09	12 JUN 09	19 AUG 09	11 SEP 09	76d
TH5390	S78-79	Inspection Pit / Liaison with UJ/ UU Diversion	14 13 JUN 09	29 JUN 09	12 SEP 09	28 SEP 09	76d
TH5400	S79-81		7 30 JUN 09	07 JUL 09	28 SEP 09	08 OCT 09	76d
TH5410	S80-81		11 08 JUL 09	20 JUL 09	09 OCT 09	21 OCT 09	76d
TH5420	S81-83		14 21 JUL 09	05 AUG 09	22 OCT 09	07 NOV 09	76d
TH5430	S82-83		14 06 AUG 09	21 AUG 09	09 NOV 09	24 NOV 09	76d
TH5440	S83-84		11 22 AUG 09	03 SEP 09	25 NOV 09	07 DEC 09	76d
TH5450	S84-85		14 04 SEP 09	19 SEP 09	08 DEC 09	23 DEC 09	76d
TH5460	S85-86		10 21 SEP 09	02 OCT 09	24 DEC 09	06 JAN 10	76d
Twin DN150 Rising Main							
TH5469	S85-86	Inspection Pit / Liaison with UJ/ UU Diversion	14 05 OCT 09	20 OCT 09	07 JAN 10	22 JAN 10	76d
TH5470	PS1-81 (RM1)		60 21 OCT 09	01 JAN 10	23 JAN 10	02 APR 10	76d
TH5480	S75-PS1		14 02 JAN 10	18 JAN 10	03 APR 10	19 APR 10	76d
Crung Miei							
S1-S15-S36		Incl removal of AC Pipe					
CM5489	S1-S15-S36	Incl removal of AC Pipe	21 02 MAR 09	25 MAR 09	27 JUL 09	19 AUG 09	118d
CM5490	S1-2	Inspection Pit / Liaison with UJ/ UU Diversion	14 26 MAR 09	15 APR 09	20 AUG 09	04 SEP 09	118d
CM5500	S2-3		14 16 APR 09	04 MAY 09	05 SEP 09	21 SEP 09	118d
CM5510	S3-4		14 05 MAY 09	20 MAY 09	22 SEP 09	09 OCT 09	118d
CM5520	S4-5		13 21 MAY 09	06 JUN 09	10 OCT 09	24 OCT 09	118d
CM5530	S5-6		12 08 JUN 09	20 JUN 09	27 OCT 09	08 NOV 09	118d
CM5540	S6-7		12 22 JUN 09	04 JUL 09	10 NOV 09	23 NOV 09	118d
CM5550	S7-8		12 06 JUL 09	19 JUL 09	24 NOV 09	07 DEC 09	118d
CM5560	S8-9		12 20 JUL 09	01 AUG 09	08 DEC 09	21 DEC 09	118d
CM5570	S9-10		12 03 AUG 09	15 AUG 09	22 DEC 09	06 JAN 10	118d
CM5580	S10-11		12 17 AUG 09	29 AUG 09	07 JAN 10	20 JAN 10	118d

Act ID	Rem Dur	Activity Description	Rem Early Start	Rem Early Finish	Late Start	Late Finish	Total Float
TH5389	S78-S86	Incl removal of AC Pipe	21 18 MAY 09	12 JUN 09	19 AUG 09	11 SEP 09	76d
TH5390	S78-79	Inspection Pit / Liaison with UJ/ UU Diversion	14 13 JUN 09	29 JUN 09	12 SEP 09	28 SEP 09	76d
TH5400	S79-81		7 30 JUN 09	07 JUL 09	28 SEP 09	08 OCT 09	76d
TH5410	S80-81		11 08 JUL 09	20 JUL 09	09 OCT 09	21 OCT 09	76d
TH5420	S81-83		14 21 JUL 09	05 AUG 09	22 OCT 09	07 NOV 09	76d
TH5430	S82-83		14 06 AUG 09	21 AUG 09	09 NOV 09	24 NOV 09	76d
TH5440	S83-84		11 22 AUG 09	03 SEP 09	25 NOV 09	07 DEC 09	76d
TH5450	S84-85		14 04 SEP 09	19 SEP 09	08 DEC 09	23 DEC 09	76d
TH5460	S85-86		10 21 SEP 09	02 OCT 09	24 DEC 09	06 JAN 10	76d
TH5469	S85-86	Inspection Pit / Liaison with UJ/ UU Diversion	14 05 OCT 09	20 OCT 09	07 JAN 10	22 JAN 10	76d
TH5470	PS1-81 (RM1)		60 21 OCT 09	01 JAN 10	23 JAN 10	02 APR 10	76d
TH5480	S75-PS1		14 02 JAN 10	18 JAN 10	03 APR 10	19 APR 10	76d
S1-S15-S36		Incl removal of AC Pipe					
CM5489	S1-S15-S36	Incl removal of AC Pipe	21 02 MAR 09	25 MAR 09	27 JUL 09	19 AUG 09	118d
CM5490	S1-2	Inspection Pit / Liaison with UJ/ UU Diversion	14 26 MAR 09	15 APR 09	20 AUG 09	04 SEP 09	118d
CM5500	S2-3		14 16 APR 09	04 MAY 09	05 SEP 09	21 SEP 09	118d
CM5510	S3-4		14 05 MAY 09	20 MAY 09	22 SEP 09	09 OCT 09	118d
CM5520	S4-5		13 21 MAY 09	06 JUN 09	10 OCT 09	24 OCT 09	118d
CM5530	S5-6		12 08 JUN 09	20 JUN 09	27 OCT 09	08 NOV 09	118d
CM5540	S6-7		12 22 JUN 09	04 JUL 09	10 NOV 09	23 NOV 09	118d
CM5550	S7-8		12 06 JUL 09	19 JUL 09	24 NOV 09	07 DEC 09	118d
CM5560	S8-9		12 20 JUL 09	01 AUG 09	08 DEC 09	21 DEC 09	118d
CM5570	S9-10		12 03 AUG 09	15 AUG 09	22 DEC 09	06 JAN 10	118d
CM5580	S10-11		12 17 AUG 09	29 AUG 09	07 JAN 10	20 JAN 10	118d

<p>Start Date 31 JAN 08 Finish Date 19 APR 10</p>	<p>Progress point Critical point Summary point Start milestone point Finish milestone point</p>	<p>DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works Project Programme Rev. 3</p>	<p>Kaden</p>	<p>Date</p> <p>Revision 0 Revision 1 Revision 2 Revision 3</p>	<p>Checked</p> <p>SIL SIL SIL SIL</p>	<p>Approved</p> <p>KYS KYS KYS KC</p>
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Act ID	Activity Description	Rem Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
CM5590	S11-12	12	31 AUG 09	12 SEP 09	21 JAN 10	03 FEB 10	118d
CM5600	S12-13	12	14 SEP 09	26 SEP 09	04 FEB 10	17 FEB 10	118d
CM5610	S13-14	12	28 SEP 09	13 OCT 09	18 FEB 10	03 MAR 10	118d
CM5620	S14-15	12	14 OCT 09	26 OCT 09	04 MAR 10	17 MAR 10	118d
CM5630	S15-36	12	29 OCT 09	11 NOV 09	18 MAR 10	31 MAR 10	118d
S16-S36							
CM5539	Inspection Pit / Liaison with U/J UU Diversion	60	15 SEP 08	22 NOV 08	07 JAN 09	20 MAR 09	97d
CM5540	S16-175	14	24 NOV 08	09 DEC 08	21 MAR 09	07 APR 09	97d
CM5560	S175-17	14	10 DEC 08	25 DEC 08	08 APR 09	27 APR 09	97d
CM5560	S17-18	14	26 DEC 08	12 JAN 09	28 APR 09	15 MAY 09	97d
CM5570	S18-19	16	13 JAN 09	02 FEB 09	16 MAY 09	04 JUN 09	97d
CM5580	S19-20	14	18 FEB 09	19 FEB 09	05 JUN 09	20 JUN 09	97d
CM5590	S20-21	14	07 MAR 09	23 MAR 09	08 JUL 09	07 JUL 09	97d
CM5700	S21-22	14	14 APR 09	29 APR 09	10 AUG 09	25 AUG 09	97d
CM5710	S22-23	14	30 APR 09	19 MAY 09	26 AUG 09	10 SEP 09	97d
CM5720	S23-24	14	14 APR 09	29 APR 09	10 AUG 09	25 AUG 09	97d
CM5730	S24-25	14	30 APR 09	19 MAY 09	26 AUG 09	10 SEP 09	97d
CM5740	S25-28	14	18 MAY 09	06 JUN 09	11 SEP 09	26 SEP 09	97d
CM5750	S26-27	14	06 JUN 09	22 JUN 09	28 SEP 09	15 OCT 09	97d
CM5760	S27-166	14	23 JUN 09	08 JUL 09	16 OCT 09	02 NOV 09	97d
CM5770	S166-28	14	09 JUL 09	24 JUL 09	03 NOV 09	18 NOV 09	97d
CM5780	S28-29	14	25 JUL 09	10 AUG 09	18 NOV 09	04 DEC 09	97d
CM5790	S29-32	14	11 AUG 09	26 AUG 09	05 DEC 09	21 DEC 09	97d
CM5800	S30-31	14	27 AUG 09	11 SEP 09	22 DEC 09	06 JAN 10	97d
CM5810	S31-32	14	12 SEP 09	28 SEP 09	03 JAN 10	25 JAN 10	97d
CM5820	S32-33	14	29 SEP 09	16 OCT 09	26 JAN 10	10 FEB 10	97d
CM5830	S33-34	14	17 OCT 09	03 NOV 09	11 FEB 10	26 FEB 10	97d
CM5840	S34-35	14	04 NOV 09	19 NOV 09	27 FEB 10	15 MAR 10	97d
CM5850	S35-36	14	20 NOV 09	05 DEC 09	16 MAR 10	31 MAR 10	97d
S37-S60 (WO 010)							
CM5859	Inspection Pit / Liaison with U/J UU Diversion	21	15 JUL 08	07 AUG 08	08 DEC 08	02 JAN 09	126d
CM5860	S37-38	14	08 AUG 08	23 AUG 08	05 NOV 09	20 NOV 09	374d
CM5870	S38-39	14	25 AUG 08	09 SEP 08	21 NOV 09	07 DEC 09	374d
CM5880	S39-40	14	10 SEP 08	25 SEP 08	08 DEC 09	23 DEC 09	374d
CM5890	S40-167	14	26 SEP 08	11 OCT 08	24 DEC 09	11 JAN 10	374d
CM5900	S167-168	14	13 OCT 08	28 OCT 08	12 JAN 10	27 JAN 10	374d
CM5910	S168-41	14	29 OCT 08	13 NOV 08	28 JAN 10	12 FEB 10	374d
CM5920	S41-42	14	14 NOV 08	29 NOV 08	13 FEB 10	01 MAR 10	374d
CM5930	S42-43	14	01 DEC 08	16 DEC 08	02 MAR 10	17 MAR 10	374d
CM5940	S43-44	14	03 JAN 09	02 JAN 09	18 MAR 10	02 APR 10	374d
CM5950	S44-45	14	08 JAN 09	19 JAN 09	03 APR 10	19 APR 10	374d
CM5960	S45-46	14	25 AUG 08	09 SEP 08	03 JAN 09	19 JAN 09	126d
CM5970	S46-171	14	25 AUG 08	09 SEP 08	20 JAN 09	07 FEB 09	126d
CM5980	S171-50	14	10 SEP 08	25 SEP 08	09 FEB 09	24 FEB 09	126d
CM5990	S54-55	14	26 SEP 08	11 OCT 08	25 FEB 09	12 MAR 09	126d
CM6000	S55-56	14	13 OCT 08	28 OCT 08	13 MAR 09	28 MAR 09	126d
CM6010	S56-60	14	29 OCT 08	13 NOV 08	30 MAR 09	18 APR 09	126d
CM6020	S57-169	14	14 NOV 08	29 NOV 08	20 APR 09	07 MAY 09	126d
CM6030	S169-170	14	01 DEC 08	16 DEC 08	08 MAY 09	23 MAY 09	126d
CM6040	S170-58	14	17 DEC 08	02 JAN 09	25 MAY 09	11 JUN 09	126d
CM6050	S58-59	14	03 JAN 09	19 JAN 09	12 JUN 09	27 JUN 09	126d

Start Date 31 JAN 08
Finish Date 19 APR 10

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Checked Approved
SIL KYS
Revision 0
SIL KYS
Revision 1
SIL KYS
Revision 2
SIL KYS
Revision 3
SIL KC



DC/2007/18
Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works
Project Programme Rev. 3

▲ Early start point
▽ Early finish point
□ Early bar
▨ Progress bar
▩ Critical bar
▭ Summary bar

▲ Progress point
▽ Critical point
□ Summary point
▨ Start milestone point
▩ Finish milestone point

16 APR 08
02 MAY 08
16 JUN 08
03 SEP 08

Act ID	Activity Description	Rom	Early Start	Early Finish	Late Start	Late Finish	Total Float
CM6060	S59-60	14	20 JAN 08	07 FEB 09	29 JUN 09	14 JUL 09	126d
S57-S60 & Clearance of Squattered Huts (WO 010)							
CM6069	Inspection Pit / Liaison with UJ/ UU Diversion	21	15 JUL 08	07 AUG 08	18 FEB 09	13 MAR 09	183d
CM6070	S57-169	21	08 AUG 08	01 SEP 08	14 MAR 09	09 APR 09	183d
CM6080	S169-170	21	02 SEP 08	25 SEP 08	09 APR 09	09 MAY 09	183d
CM6090	S170-58	20	26 SEP 08	18 OCT 08	09 MAY 09	03 JUN 09	183d
CM6100	S58-59	14	20 OCT 08	04 NOV 08	04 JUN 09	19 JUN 09	183d
CM6110	S59-60	21	05 NOV 08	26 NOV 08	20 JUN 09	14 JUL 09	183d
S60-S70 (incl removal of AC Pipe at S68-S71)							
CM6119	Inspection Pit / Liaison with UJ/ UU Diversion	21	16 FEB 09	11 MAR 09	24 JUL 09	17 AUG 09	128d
CM6120	S60-61	12	23 MAR 09	25 MAR 09	18 AUG 09	31 AUG 09	128d
CM6130	S61-62	12	26 MAR 09	09 APR 09	01 SEP 09	14 SEP 09	128d
CM6140	S62-63	12	14 APR 09	27 APR 09	15 SEP 09	28 SEP 09	128d
CM6150	S65-66	12	28 APR 09	13 MAY 09	29 SEP 09	14 OCT 09	128d
CM6160	S66-68	12	14 MAY 09	27 MAY 09	15 OCT 09	29 OCT 09	128d
CM6170	S67-68	12	29 MAY 09	12 JUN 09	30 OCT 09	12 NOV 09	128d
CM6180	S68-69	12	13 JUN 09	26 JUN 09	13 NOV 09	26 NOV 09	128d
CM6190	S69-174	12	27 JUN 09	10 JUL 09	27 NOV 09	10 DEC 09	128d
CM6200	S174-70	12	11 JUL 09	24 JUL 09	11 DEC 09	24 DEC 09	128d
S36-S64, S36A-S64A (Trenchless) WO 015							
CM6209	Inspection Pit / Liaison with UJ/ UU Diversion	14	01 SEP 08	16 SEP 08	01 SEP 08	16 SEP 08	0
CM6210	S36A-63A (WO 015)	163	17 SEP 08	30 MAR 09	17 SEP 08	30 MAR 09	0
CM6220	S36-63 (WO 015)	163	17 SEP 08	30 MAR 09	17 SEP 08	30 MAR 09	0
S36-S70 (Trenchless) WO 015							
CM6229	Inspection Pit / Liaison with UJ/ UU Diversion	14	31 MAR 09	20 APR 09	31 MAR 09	20 APR 09	0
CM6230	S63-64 (WO 015)	53	21 APR 09	25 JUN 09	21 APR 09	25 JUN 09	0
CM6240	S64-70 (WO 015)	130	26 JUN 09	27 NOV 09	26 JUN 09	27 NOV 09	0
S70-S75 (Trenchless)							
CM6250	S70-73	70	28 NOV 09	19 FEB 10	28 NOV 09	19 FEB 10	0
CM6260	S73-75	50	20 FEB 10	19 APR 10	20 FEB 10	19 APR 10	0
Archaeological Watching Brief							
AW6269	Inspection Pit / Liaison with UJ/ UU Diversion	17	16 NOV 09	04 DEC 09	28 DEC 09	15 JAN 10	34d
AW6270	S47-172	9	05 DEC 09	15 DEC 09	16 JAN 10	26 JAN 10	34d
AW6280	S172-173	7	16 DEC 09	23 DEC 09	27 JAN 10	03 FEB 10	34d
AW6290	S173-48	7	24 DEC 09	02 JAN 10	04 FEB 10	11 FEB 10	34d
AW6300	S48-49	7	04 JAN 10	11 JAN 10	12 FEB 10	19 FEB 10	34d
AW6310	S49-50	10	12 JAN 10	22 JAN 10	20 FEB 10	03 MAR 10	34d
AW6320	S50-51	10	23 JAN 10	03 FEB 10	04 MAR 10	15 MAR 10	34d
AW6330	S51-52	10	04 FEB 10	15 FEB 10	16 MAR 10	26 MAR 10	34d
AW6340	S52-53	10	16 FEB 10	26 FEB 10	27 MAR 10	07 APR 10	34d
AW6350	S53-54	10	27 FEB 10	10 MAR 10	08 APR 10	19 APR 10	34d

Act ID	Activity Description	Revision	Date	Checked	Approved
CM6069	Inspection Pit / Liaison with UJ/ UU Diversion	Revision 0	16 APR 08	SIL	KYS
CM6070	S57-169	Revision 1	02 MAY 08	SIL	KYS
CM6080	S169-170	Revision 2	16 JUN 08	SIL	KYS
CM6090	S170-58	Revision 3	03 SEP 08	SIL	KC
CM6119	Inspection Pit / Liaison with UJ/ UU Diversion	Revision 0	16 APR 08	SIL	KYS
CM6120	S60-61	Revision 1	02 MAY 08	SIL	KYS
CM6130	S61-62	Revision 2	16 JUN 08	SIL	KYS
CM6140	S62-63	Revision 3	03 SEP 08	SIL	KC
CM6150	S65-66	Revision 0	16 APR 08	SIL	KYS
CM6160	S66-68	Revision 1	02 MAY 08	SIL	KYS
CM6170	S67-68	Revision 2	16 JUN 08	SIL	KYS
CM6180	S68-69	Revision 3	03 SEP 08	SIL	KC
CM6190	S69-174	Revision 0	16 APR 08	SIL	KYS
CM6200	S174-70	Revision 1	02 MAY 08	SIL	KYS
CM6209	Inspection Pit / Liaison with UJ/ UU Diversion	Revision 0	16 APR 08	SIL	KYS
CM6210	S36A-63A (WO 015)	Revision 1	02 MAY 08	SIL	KYS
CM6220	S36-63 (WO 015)	Revision 2	16 JUN 08	SIL	KYS
CM6229	Inspection Pit / Liaison with UJ/ UU Diversion	Revision 0	16 APR 08	SIL	KYS
CM6230	S63-64 (WO 015)	Revision 1	02 MAY 08	SIL	KYS
CM6240	S64-70 (WO 015)	Revision 2	16 JUN 08	SIL	KYS
CM6250	S70-73	Revision 3	03 SEP 08	SIL	KC
CM6260	S73-75	Revision 0	16 APR 08	SIL	KYS
AW6269	Inspection Pit / Liaison with UJ/ UU Diversion	Revision 0	16 APR 08	SIL	KYS
AW6270	S47-172	Revision 1	02 MAY 08	SIL	KYS
AW6280	S172-173	Revision 2	16 JUN 08	SIL	KYS
AW6290	S173-48	Revision 3	03 SEP 08	SIL	KC
AW6300	S48-49	Revision 0	16 APR 08	SIL	KYS
AW6310	S49-50	Revision 1	02 MAY 08	SIL	KYS
AW6320	S50-51	Revision 2	16 JUN 08	SIL	KYS
AW6330	S51-52	Revision 3	03 SEP 08	SIL	KC
AW6340	S52-53	Revision 0	16 APR 08	SIL	KYS
AW6350	S53-54	Revision 1	02 MAY 08	SIL	KYS

Start Date 21 JAN 08
 Finish Date 19 APR 10

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Progress point
 Critical point
 Summary point
 Start milestone point
 Finish milestone point

▲ Early start point
 ▽ Early finish point
 ▭ Early bar
 ■ Progress bar
 ▨ Critical bar
 ▩ Summary bar

DC/2007/18
 Yung Shue Wan and Sok Kwo Wan Village Sewerage, Stage 1 Works
 Project Programme Rev. 3

Kaden



Appendix G

Summary of Implementation Status of Mitigation Measures during Site Inspection

Environmental Mitigation Implementation Schedule

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
<ul style="list-style-type: none"> Stockpiles of imported material kept on site should be contained within hoarding, dampened and / or covered during dry and windy weather. 	All areas		√		
<ul style="list-style-type: none"> Material stockpiled alongside trenches should be covered with tarpaulins whenever works are close to village houses. 	All areas		√		
<ul style="list-style-type: none"> Water sprays should be used during the delivery and handling of cement, sands, aggregates and the like. 	All areas				√
<ul style="list-style-type: none"> 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. 	All areas				√
<ul style="list-style-type: none"> Unpaved areas should be watered regularly to avoid dust generation. 	Site Egress				√
<ul style="list-style-type: none"> The enclosures should be around the main dust-generating activities. 	All areas	√			
<ul style="list-style-type: none"> All plant and equipment should be well maintained e.g. without black smoke emission. 	All areas	√			
<ul style="list-style-type: none"> Open burning should be prohibited. 	All areas	√			
Noise Impact					
<ul style="list-style-type: none"> Quite powered mechanical equipment (PME) or method should be used. 	All areas	√			
<ul style="list-style-type: none"> The number plant should be restricted (1 item for each type of plant). 	All areas	√			
<ul style="list-style-type: none"> Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works. 	All areas	√			
<ul style="list-style-type: none"> Mobile plant, if any, should be sited as far away from NSRs as possible. 	All areas	√			
<ul style="list-style-type: none"> Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	All areas	√			
<ul style="list-style-type: none"> Plant known to emit noise strongly should be orientated so that the noise is directed away from nearby NSRs. 	All areas	√			
<ul style="list-style-type: none"> The constructions works should be scheduled to minimize noise nuisance. 	All areas	√			
<ul style="list-style-type: none"> Air compressors and hand held breakers should have noise labels. 	All areas	√			√
<ul style="list-style-type: none"> Compressors and generators should operate with door closed. 	All areas	√			
Water Quality					
General Construction Works					
<ul style="list-style-type: none"> Debris and rubbish generated on-site should be collected, handled and disposed of properly to avoid entering the nearby coastal water and stormwater drains. 	All areas	√			
<ul style="list-style-type: none"> All fuel tanks and storage areas should be provided with locks and be sited on sealed area, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. 	All areas				√
<ul style="list-style-type: none"> Open drainage channels and culverts near the works areas should be covered to block the entrance of large debris and refuse. 	All areas	√			

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Waste Management					
General Site Wastes					
<ul style="list-style-type: none"> Appropriate measures, such as transporting wastes in enclosed containers, should be taken to minimize windblown litter and dust to nearby environment. 	All areas	✓			
<ul style="list-style-type: none"> Sufficient waste disposal points and regular waste collection for disposal should be provided. 	All areas	✓			
<ul style="list-style-type: none"> A collection area for construction site waste should be provided where waste can be stored prior to removal from site. 	All areas	✓			
<ul style="list-style-type: none"> Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	All areas	✓			
<ul style="list-style-type: none"> Records of the quantities of waste generated, recycled and disposed should be kept and maintained. 	All areas	✓			
<ul style="list-style-type: none"> Different types of waste should be segregated and stored in different container, skips or stockpiles to enhance reuse or recycling of material and their proper disposal. 	All areas	✓			
Chemical Wastes					
<ul style="list-style-type: none"> After use, chemical waste should be handled according to the Code of Practice on the Package, Labelling and Storage of Chemical Wastes. 	All areas				✓
<ul style="list-style-type: none"> Any unused chemicals or those with remaining functional capacity should be recycled. 	All areas				✓
<ul style="list-style-type: none"> 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 licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordinance. 	All areas				✓
<ul style="list-style-type: none"> 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. 	All areas				✓
<ul style="list-style-type: none"> Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken within the designated areas equipped control these discharges. 	All areas				✓
Construction and Demolition (C&D) Wastes					
<ul style="list-style-type: none"> C&D waste should be separated on site before disposal. 	All areas				✓
<ul style="list-style-type: none"> Inert material, such as concrete and rubble, should be re-used on site. 	All areas				✓
<ul style="list-style-type: none"> Steel and other metals should be separated for re-use and / or recycling prior to disposal of C&D material. 	All areas				✓
Ecological Impact					
<ul style="list-style-type: none"> Labelling and fencing of the uncommon tree species. 	All areas	✓			
<ul style="list-style-type: none"> Avoidance of use of woodland habitats as Works Area, in particular where trees located. 	All areas	✓			

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Landscape and Visual Impact					
<ul style="list-style-type: none"> Existing trees should be retained. Damage to vegetation should be minimized by close coordination and on site alignment adjusted of rising main and gravity sewer pipelines. Short excavation and immediate backfilling section upon completion of works should be performed to reduce active site area. 	All areas	√			
<ul style="list-style-type: none"> Short excavation and immediate backfilling section upon completion of works should be performed to reduce active site area. 	All areas	√			
Site Practice					
<ul style="list-style-type: none"> The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. Proper storage and site practices to minimise the potential for damage or contamination of construction materials. All generators, fuel and oil storage are within bundle areas. Oil leakage from machinery, vehicle and plant should be prevented. The Environmental Permit should be displaced conspicuously on site. 	All areas		√		
	All areas		√		
	All areas	√			
	All areas	√			
	All areas	√			



Figures

SOK KWU WAN

LAMMA ISLAND

KEY PLAN

NOTES 1

1. FOR THE LATEST REVISIONS, REFER TO DRAWING NO. 2005/C1/2004.

NO.	DATE	DESCRIPTION	BY	CHKD.
1	11/01/04	ISSUED FOR CONSTRUCTION	JL	US
2	11/01/04	REVISIONS	JL	US
3	11/01/04	REVISIONS	JL	US
4	11/01/04	REVISIONS	JL	US
5	11/01/04	REVISIONS	JL	US
6	11/01/04	REVISIONS	JL	US
7	11/01/04	REVISIONS	JL	US
8	11/01/04	REVISIONS	JL	US
9	11/01/04	REVISIONS	JL	US
10	11/01/04	REVISIONS	JL	US

The Government of the Hong Kong Special Administrative Region
 Drainage Services Department

CONTRACT NO. DC/2007/18
 YUNG SHUE WAN AND SOK KWU WAN
 VILLAGE SEWERAGE, STAGE 1 WORKS

VILLAGE SEWERAGE LAYOUT
 PLANS - SOK KWU WAN
 (SHEET 1 OF 3)

Working No. 2005/C1/2004

Scale: 1:1000

Date: 11/01/04

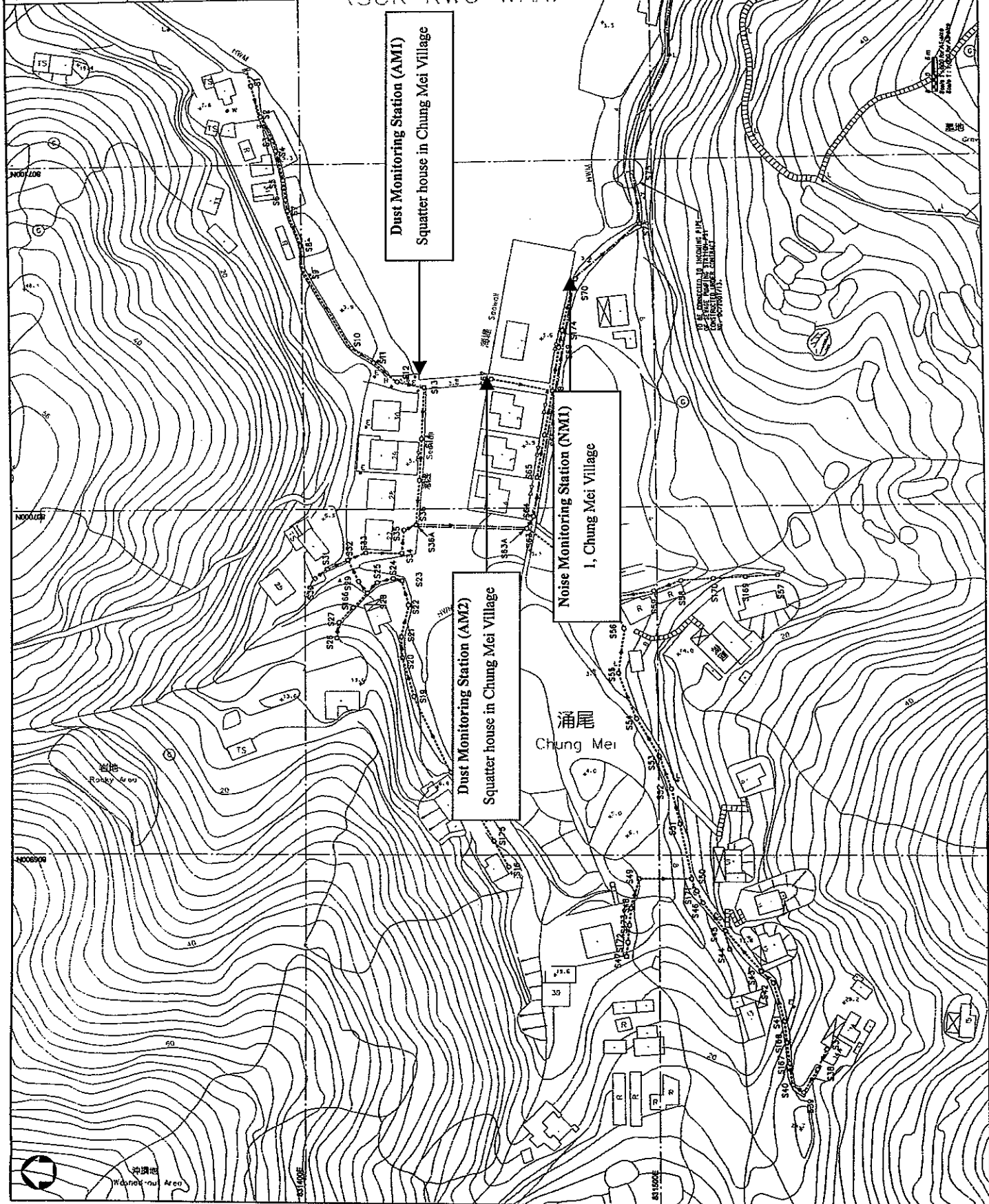
Drawn by: JL

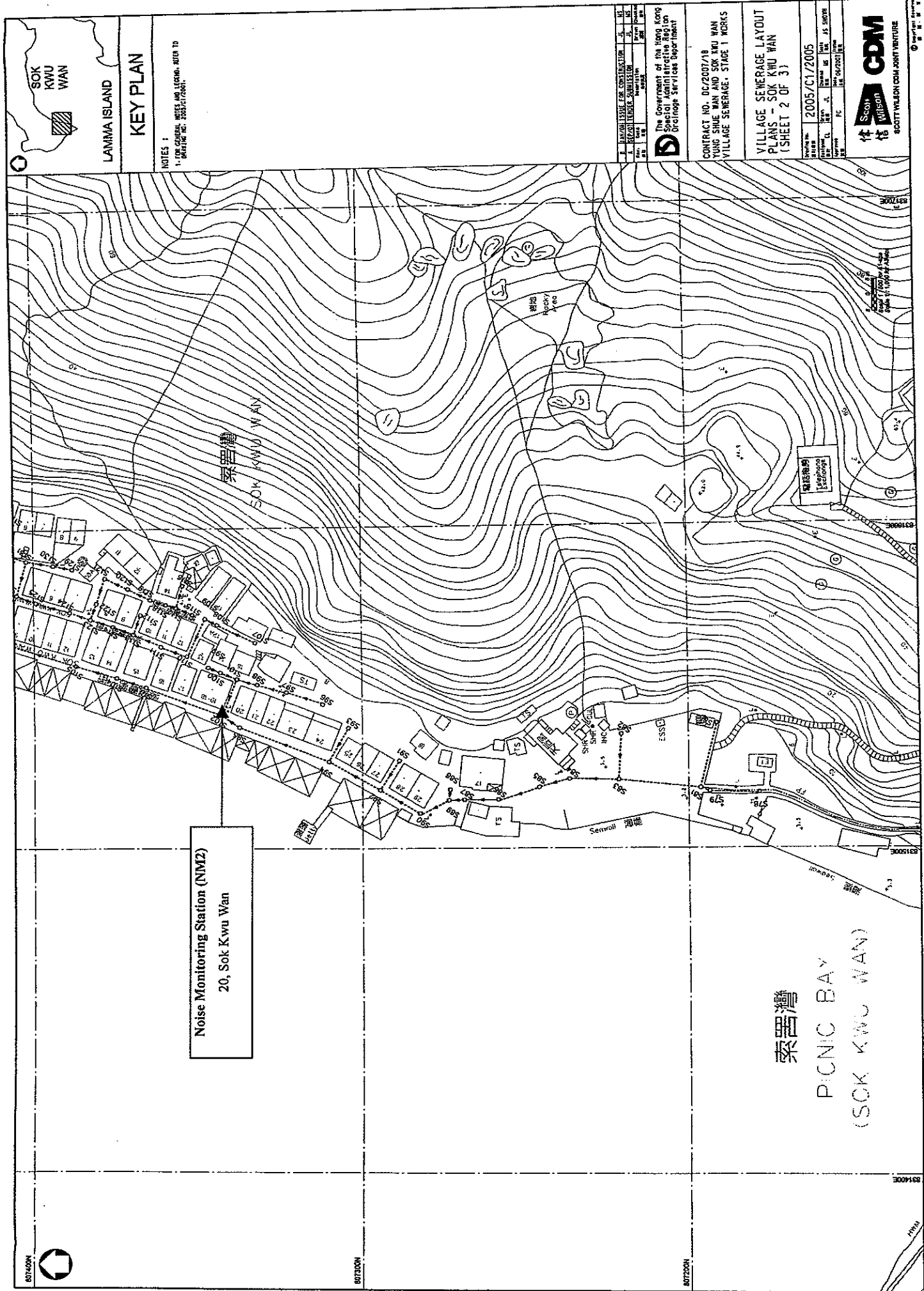
Checked by: US

Approved by: JL

CDM

SCOTT WILSON CONSULTANTS





KEY PLAN

NOTES :
 1. FOR GENERAL NOTES AND LEGEND, REFER TO
 1. MAIN PLAN NO. 2005/C1/2001.

A. BANGKOK ISSUE FOR CONSTRUCTION		J. US	
NO.	DATE	NO.	DATE
1.	15/01/05	1.	15/01/05
2.	15/01/05	2.	15/01/05

The Government of the Hong Kong Special Administrative Region
 Drainage Services Department

CONTRACT NO. DC2007/18
 SOK KWU WAN AND SOK KWU WAN
 VILLAGE SEWERAGE, STAGE 1 WORKS

VILLAGE SEWERAGE LAYOUT
 PLANS - SOK KWU WAN
 (SHEET 2 OF 3)

PROJECT NO.	2005/C1/2005
DATE	15/01/05
SCALE	AS SHOWN
DATE OF ISSUE	15/01/05
DATE OF REVISION	

Sok Kwu Wan
 Wilson
 SCOTT WILSON CONSULTANTS

CDM

Noise Monitoring Station (NM2)
 20, Sok Kwu Wan

索罟灣
 PICNIC BAY
 (SOK KWU WAN)

