

JOB NO.: TCS00310/06

VISION NO.: 2

**DRAINAGE SERVICES DEPARTMENT (DSD)
CONTRACT NO.: DC/2005/02**



**CONSTRUCTION OF SEWERS, RISING MAINS &
SEWAGE PUMPING STATION AT KAM TIN, NAM
SANG WAI AND AU TAU IN YUEN LONG**

**BI-ANNUAL ENVIRONMENTAL MONITORING &
AUDIT (EM&A) SUMMARY REPORT FOR
October 2008 to March 2009 (No. 6)
(DESIGNATED ELEMENTS)**

PREPARED FOR

**LEADER CIVIL ENGINEERING CORPORATION
LIMITED**

Quality Index

Date	Reference No.	Prepared By	Certified By	Approved By	Verified By
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Rev. No.	Date	Remarks
1	6 June 2009	First Submission
2	9 June 2009	Response to IEC's comments received on 9 June 2009 via. e-mail

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EXECUTIVE SUMMARY

- ES01. Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project requires an Environmental Monitoring and Audit (EM&A) program to be implemented by an Environmental Team (ET) throughout the contract period in compliance with the requirements as stated in the project Environmental Permit (EP-220/2005) and the project's Updated EM&A (Designated Elements) Manual.
- ES02. This is the **Sixth Bi-Annual EM&A Summary Report for October 2008 to March 2008 (No. 6)** reporting the environmental impact monitoring and audit (EM&A) conducted from **01 October 2008 to 31 March 2009**. EM&A program implemented in this reporting period (**October 2008 to March 2009**) covered air quality, noise and waste management.

BREACH OF ACTION AND LIMIT (AL) LEVELS

- ES03. No noise exceedance was recorded in this bi-quarterly reporting period. However five action and five limit levels exceedances were found in 24-hr TSP during the period. The locations of 24-hr TSP exceedance were included AM1, AM5, AM6 and AM7 of all designated Sensitive Receivers. Based on the information and the investigation provided by the Contractor, the exceedances were not considered to be related the project. The detail of 24-hr TSP exceedance in this reporting period is list as below.

Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)	Date of Exceeded	Concentration ($\mu\text{g}/\text{m}^3$)	Exceedance Level
AM1	184	260	17 Dec 08	247	Action
			15 Jan 09	203	Action
			02 Feb 09	295	Limit
			09 Mar 09	196	Action
AM5	237	260	09 Jan 09	276	Limit
			03 Mar 09	251	Action
			14 Mar 09	347	Limit
AM6	183	260	25 Oct 08	213	Action
			29 Nov 08	646	Limit
AM7	204	260	02 Mar 09	284	Limit

ENVIRONMENTAL SITE INSPECTION

- ES04. In this reporting period, totally 19 weekly joint site inspections were undertaken by representatives of the Engineer, the Contractor and ET to evaluate the site environmental performance. Although total 28 observations were found no non-compliance was identified during the site weekly inspections. Six joint IEC site inspections had been taken in monthly basis, based on the joint IEC site audits to finding, no non-compliance is identified by IEC, however seventeen observations were recorded in the reporting period.

COMPLAINT LOG

- ES05. No environmental complaint was received in this reporting period.

NOTIFICATION OF ANY SUMMONS AND SUCCESSFUL PROSECUTION

ES06. There was no environmental summons or prosecution in this reporting period.

REPORTING CHANGES

ES07. There are no changes to be reported in this reporting period.

ADEQUACY OF EM&A

ES08. Based on the data collected and reviewed for the period between **October 2008 to March 2009** (as reported herein), it can be confirmed that the monitoring work is effective and that it is generating data to categorically confirm the observation of impact attributable to the works.

TABLE OF CONTENTS

1.0	BASIC PROJECT INFORMATION	1
2.0	ENVIRONMENTAL STATUS.....	3
3.0	SUMMARY OF EM&A REQUIREMENTS.....	4
4.0	IMPLEMENTATION STATUS AND ENVIRONMENTAL SUBMISSIONS	5
5.0	MONITORING RESULTS	6
6.0	SOLID AND LIQUID WASTE MANAGEMENT STATUS.....	8
7.0	REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NOS) AND SUCCESSFUL PROSECUTIONS.....	10
8.0	CONCLUSIONS FOR THE PERIOD OCTOBER 2008 TO MARCH 2009.....	11

LIST OF TABLES

TABLE 1-1	CONSTRUCTION ACTIVITIES IN THIS REPORTING PERIOD
TABLE 2-1	WORKS UNDERTAKEN IN THE REPORTING PERIOD WITH ILLUSTRATIONS OF MITIGATION MEASURES
TABLE 3-1	SUMMARY OF EM&A REQUIREMENTS
TABLE 3-2	ACTION AND LIMIT LEVELS FOR AIR QUALITY MONITORING
TABLE 3-3	ACTION AND LIMIT LEVELS FOR CONSTRUCTION NOISE
TABLE 4-1	STATUS OF ENVIRONMENTAL LICENSE AND PERMITS IN THE REPORTING PERIOD
TABLE 5-1	LOCATIONS OF AIR QUALITY AND CONSTRUCTION NOISE MONITORING STATIONS
TABLE 5-2	RE-SCHEDULED 24-HR TSP MONITORING IN REPORTING PERIOD
TABLE 5-3	DETAILS OF 24-HR TSP EXCEEDANCE IDENTIFIED IN REPORTING PERIOD
TABLE 6-1	CUMULATIVE QUANTITIES OF WASTES FOR DISPOSAL IN THE REPORTING PERIOD
TABLE 6-2	CUMULATIVE QUANTITIES OF WASTE FOR REUSE/RECYCLING IN THE REPORTING PERIOD
TABLE 6-3	DATE OF ENVIRONMENTAL WEEKLY SITE INSPECTION AND MONTHLY AUDIT IN THE REPORTING PERIOD
TABLE 7-1	SUMMARIES OF EXCEEDANCE IN THE REPORTING PERIOD
TABLE 7-2	SUMMARIES OF ENVIRONMENTAL COMPLAINT IN THE REPORTING PERIOD
TABLE 7-3	SUMMARIES OF ENVIRONMENTAL SUMMONS AND PROSECUTION IN THE REPORTING PERIOD

LIST OF ANNEXES

ANNEX A	PROJECT SITE LAYOUT
ANNEX B	PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE
ANNEX C	CONSTRUCTION PROGRAM
ANNEX D	PHOTOGRAPHICAL RECORDS
ANNEX E	LOCATIONS OF MONITORING STATIONS
ANNEX F	EVENT AND ACTION PLAN
ANNEX G	MITIGATION IMPLEMENTATION SCHEDULE
ANNEX H	MONITORING RESULTS & GRAPHICAL PLOTS OF AIR QUALITY AND NOISE MONITORING RESULTS
ANNEX I	METEOROLOGICAL DATA IN THE REPORTING PERIOD

1.0 BASIC PROJECT INFORMATION

1.01 Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project is part of the Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKTSSD) Scheme. A site layout map showing the site boundary and the work areas is shown in [Annex A](#).

1.02 This 6th **Bi-Annual EM&A Summary Report for October 2008 to March 2009 (No. 6)** summarizes the impact monitoring results and audit findings in the reporting period from **October 2008 to March 2009**.

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

1.03 The organization chart and management structure with lines of communication respect to the on-site environmental management and monitoring program are shown in [Annex B](#).

CONSTRUCTION PROGRAM FOR THE REPORTING PERIOD

1.04 A construction program showing the construction work undertaken in this reporting period is shown in [Annex C](#).

WORKS UNDERTAKEN DURING THE REPORTING PERIOD

1.05 The major construction work undertaken during the reporting period under the Environmental Permit (EP-220/2005) is shown in [Table 1-1](#).

Table 1-1 Construction Activities in this Reporting Period

Reporting Month	Construction Activities
Oct 2008	<ul style="list-style-type: none"> • Kam Tin Pumping Station (P1) and Sha Po Pumping Station (P2) – Backfilling, Concreting and Extract sheet pile • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • Nam Sang Wai Road (S4) and Pok Wai South Road (S5 and S6) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting, Pipe jacking and Extract sheet pile
Nov 2008	<ul style="list-style-type: none"> • Kam Tin Pumping Station (P1) – Concreting, Extract sheet pile • Sha Po Pumping Station (P2) – Backfilling, Concreting and Extract sheet pile • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting, Pipe jacking, Extract sheet pile, • Pok Wai South Road (S5 and S6) -Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile
Dec 2008	<ul style="list-style-type: none"> • Kam Tin Pumping Station (P1) – Excavation, Concreting • Sha Po Pumping Station (P2) - Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • Nam Sang Wai Road (S4) and Pok Wai South Road (S5 and S6) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile
Jan 2009	<ul style="list-style-type: none"> • Kam Tin Pumping Station (P1) – Excavation and Concreting • Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling, Concreting and Extract sheet pile • Nam Sang Wai Pumping Station (P3) – Backfilling, Concreting and Extract sheet pile • Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile • Pok Wai South Road (S5 and S6) – Backfilling and Concreting
Feb 2009	<ul style="list-style-type: none"> • Kam Tin Pumping Station (P1) - Sheet piling, Excavation, Backfilling,

Reporting Month	Construction Activities
	<p>Concreting and Pipe Jacking</p> <ul style="list-style-type: none">• Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting• Nam Sang Wai Pumping Station (P3) – Backfilling, Concreting and Extract sheet pile• Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile• Pok Wai South Road (S5 and S6) – Backfilling, Concreting
Mar 2009	<ul style="list-style-type: none">• Kam Tin Pumping Station (P1) – Excavation, Concreting and Pipe Jacking• Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting• Nam Sang Wai Pumping Station (P3) – Backfilling, Concreting and Extract sheet pile• Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile• Pok Wai South Road (S5 and S6) – Backfilling and Concreting

2.0 ENVIRONMENTAL STATUS

WORK UNDERTAKEN DURING THE REPORTING PERIOD WITH ILLUSTRATIONS

2.01 A summary of the work undertaken in the reporting period with illustrations and environmental mitigation measures implemented is shown in **Table 2-1**.

Table 2-1 Work Undertaken in Reporting Period with Illustrations of Mitigation Measures

Locations	Description of Construction Activities	Environmental Mitigation Measures	EM&A Ref.
P1 (Kam Tin Pumping Station)	<ul style="list-style-type: none"> Back filling Extract sheet pile Concreting 	<ul style="list-style-type: none"> Erect 2.4m high noise barrier hoarding around the works area at P1, P2 and P3 Remove dust and spray water at the construction access Cover the stockpiles of dusty material properly Spray water to all dusty materials immediately before loading and unloading 	A1 & F6 A2 A3 A4
P2 (Sha Po Pumping Station) and P3 (Nam Sang Wai Pumping Station)	<ul style="list-style-type: none"> Back filling Concreting Steel reinforcement work 	<ul style="list-style-type: none"> Wash the wheels of vehicles before leaving the site Install and use power-operated cover at the dump trucks Spray water at the pavement breaking locations Spray the working area of excavation frequently Maximize the use of quiet PME on site Apply and obtain appropriate waste disposal licenses 	A5 A6 A7 A8 B1, B2 & F5 D1
S4 (Nam Sang Wai Road) and S5 & S6 (Pok Wai South Road)	<ul style="list-style-type: none"> Sheet piling Excavation Pipe laying Backfilling Concreting Pipe jacking Extract sheet pile 	<ul style="list-style-type: none"> Handle, store and dispose of chemical wastes as per relevant regulations Implement trip-ticket system for waste disposal Restrict open fires and provide fire fighting equipment in the works area Perform weekly inspection with ET and monthly audit with IEC Conduct noise and dust monitoring as per EM&A Manual during construction Provide sedimentation tanks for treating site discharge. Recycle wheel washing water and provide sedimentation tanks for treating site discharge. 	D2, D3 & D4 D5 F9 H1 I1 & I2 - -

2.02 Photographic records showing the implemented 2.4m high noise barrier at the pumping station (S3) are shown in **Annex D**.

PROJECT DRAWINGS

2.03 There are four designated air and four designated construction noise monitoring stations under the EM&A Manual. Descriptions of monitoring stations are summary in **Table 2-2**. Drawings showing the designated monitoring stations are presented in **Annex E**.

Table 2-2 Description of the Monitoring Stations

Station ID	Nature of Premise	Site Work Description	Station Coordinates
AM1	Site Boundary in NSW	Excavation; Sheet piling; Backfilling; Pipe laying; Concreting; and Extract sheet pile	835829 N 822910 E
AM5	Site Boundary in FKH		835121 N 823515 E
AM6	Site Boundary in KT		833308 N 823987 E
AM7	Site Boundary in NSW		836171 N 822586 E
NM3	Village House in NSW		835808 N 822817 E
NM4	Village House in NSW		835282 N 822811 E
NM6	Village House in KT		833288 N 823999 E
NM7	Village House in FKH		835121 N 823495 E

2.04 In this reporting period, the impact monitoring was carried out at four designated air and four noise monitoring stations in according to the monitoring schedule.

3.0 SUMMARY OF EM&A REQUIREMENTS

MONITORING PARAMETERS

- 3.01 Environmental monitoring and audit requirements are set out in the Updated EM&A manual. Air quality and construction noise have been identified to be the key monitoring parameters during the impact phase for the construction of the project.
- 3.02 A summary of the impact EM&A requirements for air quality and construction noise as per the project Updated EM&A Manual are shown in [Table 3-1](#).

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	Monitoring Parameters
Air Quality	24-Hour TSP
Construction Noise	Leq 30min during day time 07:00 to 19:00 Supplementary L10 and L90 for reference.

ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

- 3.03 A summary of the Action/Limit (A/L) Levels for air quality and construction noise is shown in [Tables 3-2 and 3-3](#).

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

Monitoring Stations	Action Level ($\mu\text{g}/\text{m}^3$)		Limit Level ($\mu\text{g}/\text{m}^3$)	
	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
AM1	>391	>184	>500	>260
AM5	>353	>237	>500	>260
AM6	>329	>183	>500	>260
AM7	>383	>204	>500	>260

Table 3-3 Action and Limit Levels for Construction Noise

Monitoring Period	Action Level	Limit Level in dB(A)
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75 dB(A)

Event and Action Plans

- 3.04 An Event Action Plan for air quality and construction noise has been implemented for this project. Details of the Event Action Plan are presented in [Annex F](#).

ENVIRONMENTAL MITIGATION MEASURES

- 3.05 The project EIA report has recommended environmental mitigation measures to minimize potential environmental impacts arising from the construction of the project. A full list of the mitigation measures is detailed in [Annex G](#).

ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS

- 3.06 The environmental requirements in the contract documents generally refer to the compliance of the requirements as stipulated in the project EP and the updated EM&A Manual.

4.0 IMPLEMENTATION STATUS AND ENVIRONMENTAL SUBMISSIONS

- 4.01 The implementation status of environmental protection and pollution control/mitigation measures as recommended in the project EIA report is summarized in **Table 2-1** and the implementation schedule as shown in **Annex G**.
- 4.02 A summary status of the permits, licences, and/or notifications on environmental protection for this Project in the reporting period is presented in **Table 4-1**.

Table 4-1 Status of Environmental Licenses and Permits in the Reporting Period

Items	Item Description	Licenses/Permit Status
1	Environmental Permit No.: EP-220/2005	Issued in June 2005
2	Air Pollution Control (Construction Dust)	Notified EPD on 24 Dec 2005
3	Chemical Waste Producer Registration (5213-528-L2544-08)	Registration on 27 Jan 2006
4	Water Pollution Control (Discharge license No. 1U434/1)	Applied to EPD on 7 Feb 2006
5	Account for Disposal of Construction Waste No. 5004959	Registration on 27 Dec 2005
6	Piling Permit (PP No. RN0008-08)	Valid (22 May 2008 to 21 Feb 2009)
7	Construction Noise Permit (CNP No. GW-RN0479-07)	Valid (06 Nov 2007 to 05 May 2008)
8	Construction Noise Permit (CNP No. GW-RN0480-07)	Valid (06 Nov 2007 to 05 May 2008)

5.0 MONITORING RESULTS

PARAMETERS MONITORED

- 5.01 The environmental parameters monitoring in the reporting period is compliance with the monitoring requirements as in **Table 3-1**.

MONITORING LOCATIONS

- 5.02 There are four designated air quality and four noise monitoring stations under the project EP. For this reporting period, monitoring was carried out at four designated air (AM1, AM5, AM6 & AM7) and four noise (NM3, NM4, NM6 & NM7) monitoring stations/locations. The locations of the designated monitoring stations/locations are shown in **Table 5-1** and geographically in **Annex E**.

Table 5-1 Location of Air Quality and Construction Noise Monitoring Stations/Locations

Air Quality (4 Stations)	
AM1	Worksite boundary facing scattered house in Nam Sang Wai
AM5	Worksite boundary facing Fung Kat Heung
AM6	Worksite boundary facing scattered house near Route 3
AM7	Worksite boundary facing scattered house in Nam Sang Wai
Construction Noise (4 Locations)	
NM3	Village House in Nam Sang Wai
NM4	Village House in Nam Sang Wai
NM6	Scattered House near Route 3
NM7	Fung Kat Heung

MONITORING FREQUENCY AND PERIOD

- 5.03 The impact 24-Hour TSP monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A totally 12 events of power supply damage or failure incident were disturbed the monitoring programme. However 24-Hr TSP were re-scheduled to monitoring as following day or resumed or repair upon electric resumed to supporting the HVS operation. Details of power supply damage or repair to re-schedule 24-hr TSP monitoring is listed in follow **Table 5-2**.

Table 5-2 Re-scheduled 24-Hr TSP monitoring in Reporting Period

Station	Monitoring Date		Remarks
	Original	Re-Scheduling	
AM1	03 Mar 09	04 Mar 09	Power Supply Failure
AM5	29 Dec 08	30 Dec 28	Power Supply Failure
AM6	15 Jan 09	16 Jan 09	Power Supply Failure
	02 Feb 09	03 Feb 09	Power Supply Failure
	13 Feb 09	14 Feb 09	Power Supply Failure
	25 Feb 09	26 Feb 09	Power Supply Failure
	03 Mar 09	04 Mar 09	Power Supply Failure
	09 Mar 09	10 Mar 09	Power Supply Failure
AM7	26 Mar 09	27 Mar 09	Power Supply Failure
	19 Feb 09	20 Feb 09	Power Supply Failure
	25 Feb 09	02 Mar 09	Power Cable Damage

- 5.04 A total of **115** air quality monitoring events were carried out in the reporting period.

5.05 The impact noise monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of **120** monitoring events were carried out in the reporting period.

MONITORING RESULTS AND GRAPHICAL PLOT IN THE REPORTING PERIOD

5.06 The graphical plot and monitoring results of air quality and construction noise for the reporting period are summarized in **Annex H**.

5.07 Five action and five limit levels exceedances were found in 24-hr TSP during the period. The locations of 24-hr TSP exceedance were included AM1, AM5, AM6 and AM7 of all designated Sensitive Receivers. Based on the information and the investigation provided by the Contractor, the exceedances were not considered to relate the project. The investigation of exceedances was stipulated in each representative EM&A monthly report. The detail of 24-hr TSP exceedance in this period is list as below.

Table 5-3 Details of 24-hr TSP Exceedance identified in Reporting Period

Station	Action Level (µg/m ³)	Limit Level (µg/m ³)	Date of Exceeded	Concentration (µg/m ³)	Exceedance Level
AM1	184	260	17 Dec 08	247	Action
			15 Jan 09	203	Action
			02 Feb 09	295	Limit
			09 Mar 09	196	Action
AM5	237	260	09 Jan 09	276	Limit
			03 Mar 09	251	Action
			14 Mar 09	347	Limit
AM6	183	260	25 Oct 08	213	Action
			29 Nov 08	646	Limit
AM7	204	260	02 Mar 09	284	Limit

5.08 The notifications and investigation reports were issued and submitted for IEC to close the exceedances

5.09 All construction noise monitoring were complied with the Limit Level and no noise complaint (Action Level) was received in this reporting period.

WEATHER CONDITIONS DURING THE MONITORING PERIOD

5.10 The meteorological data on the monitoring dates are summarized in **Annex I**.

OTHER FACTORS INFLUENCING THE MONITORING RESULTS

5.11 There were no other noticeable external factors generally affecting the monitoring results in the reporting period.

QA/QC RESULTS AND DETECTION LIMITS

5.12 Not applicable.

6.0 SOLID AND LIQUID WASTE MANAGEMENT STATUS

SOLID AND LIQUID WASTE MANAGEMENT STATUS

6.01 The cumulative quantities of waste for disposal or reuse in the reporting period are summarized in **Tables 6-1** and **6-2**.

Table 6-1 Cumulative Quantities of Waste for Disposal in the Reporting Period

Type of Waste	Quantity							Disposal Location
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Total	
C&D Materials (Inert) (tons) – Disposed	3.856	1.727	1.709	2.126	1.006	1.078	11.502	Tuen Mun 38 Fill Bank
C&D Materials (Inert) (tons) – Reused	0.08	1.32	0	0	0	0	1.4	DSD Contract DC/2005/02
C&D Materials (Non-Inert) (tons)	0	0	0	0	0	0	0	NA
Chemical Waste (Litres)	0	0	0	0	0	1.2	1.2	NA
General Refuse (tons)	0.051	0.05	0.051	0.04	0.039	0.081	0.312	Refuse Collector

Table 6-2 Cumulative Quantities of Waste for Reuse/Recycling in the Reporting Period

Type of Waste	Quantity							Disposal Location
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Total	
Metals for Recycling (kg)	0	25.24	0	0	0	12.7	37.94	NA
Paper for Recycling (kg)	0	0	0	0	0	0	0	NA
Plastics for Recycling (kg)	0	0	0	0	0	0	0	NA

6.02 There was no site effluent discharged but an estimated volume of less than 50m³ of surface runoff was discharged for each reporting month. The sampling of effluent had been carried out by the Contractor in the reporting period.

ENVIRONMENTAL SITE INSPECTIONS

6.03 In this reporting period, totally 19 weekly joint site inspections were undertaken by representatives of the Engineer, the Contractor and ET to evaluate the site environmental performance. Although total 28 observations were found no non-compliance was identified during the site weekly inspections. Six joint IEC site inspections had been taken in monthly basis, based on the joint IEC site audits to finding, no non-compliance is identified by IEC, however seventeen observations were recorded in the reporting period. Date of inspection and audit are summarized in **Table 6-3**.

Table 6-3 Date of Environmental Weekly Site Inspection and Monthly Audit in the Reporting Period

Reporting Months	Site Inspection Date	Checklist Reference Number
October 2008	10 Oct 08	DSD-AT101008
	14 Oct 08	DSD-AT141008
	21 Oct 08	DSD-AT211008
	31 Oct 08*	DSD-AT311008
November 2008	04 Nov 08	DSD-AT041108
	11 Nov 08	DSD-AT111108
	18 Nov 08	DSD-AT181108
	25 Nov 08	DSD-AT251108
	27 Nov 08*	DSD-AT271108
December 2008	02 Dec 08	DSD-AT021208
	09 Dec 08	DSD-AT091208
	16 Dec 08	DSD-AT161208
	23 Dec 08*	DSD-AT231208
	29 Dec 08	DSD-AT291208
January 2009	05 Jan 09	DSD-AT050109
	13 Jan 09	DSD-AT130109
	20 Jan 09*	DSD-AT200109
February 2009	03 Feb 09	DSD-AT030209
	10 Feb 09	DSD-AT100209
	17 Feb 09*	DSD-AT170209
	27 Feb 09	DSD-AT270209
March 2009	03 Mar 09	DSD-AT030309
	10 Mar 09	DSD-AT100309
	17 Mar 09	DSD-AT170309
	24 Mar 09*	DSD-AT240309

Note: *Joint IEC monthly site audit

6.04 The weekly/monthly site inspection and audit checklists in this reporting period were presented in the related Monthly EM&A Reports.

7.0 REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NoS) AND SUCCESSFUL PROSECUTIONS

RECORD OF NON-COMPLIANCE OF ACTION AND LIMIT LEVELS

7.01 No project related Action or Limit Level exceedance was recorded in the reporting period. The summary of exceedance was presented in **Table 7-1**.

Table 7-1 Summaries of Exceedance in the Reporting Period

Reporting Month	Work-Related Exceedance (%) for 24-Hour TSP	Work-Related Exceedance (%) for Leq (30mins) Daytime
October 2008	0	0
November 2008	0	0
December 2008	0	0
January 2008	0	0
February 2009	0	0
March 2009	0	0

RECORD OF ENVIRONMENTAL COMPLAINTS RECEIVED

7.02 No environmental complaint was received in the reporting period and summary of was presented in **Table 7-2**.

Table 7-2 Summaries of Environmental Complaint in the Reporting Period

Reporting Month	Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
October 2008	0	0	NA
November 2008	0	0	NA
December 2008	0	0	NA
January 2008	0	0	NA
February 2009	0	0	NA
March 2009	0	0	NA

RECORD OF NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTION

7.03 No notification of summons or prosecution was received in the reporting period. The summary of environmental summons and prosecution was presented in **Table 7-3**.

Table 7-3 Summaries of Environmental Summons and Prosecution in the Reporting Period

Reporting Month	Environmental Summons and Prosecution Statistics		
	Summons	Prosecution	Nature
October 2008	0	0	NA
November 2008	0	0	NA
December 2008	0	0	NA
January 2008	0	0	NA
February 2009	0	0	NA
March 2009	0	0	NA

REVIEW OF REASONS FOR AND IMPLICATIONS OF NC, COMPLAINTS AND NOS

7.04 No NC, complaints or NoS received in the reporting period.

DESCRIPTION OF FOLLOW-UP ACTIONS TAKEN

7.05 No NC, complaints or NoS received in the reporting period.

8.0 CONCLUSIONS FOR THE PERIOD OCTOBER 2008 TO MARCH 2009

- 8.01 Based on the data collected and reviewed for the period between **October 2008 to March 2009** (as reported herein), it can be confirmed that the monitoring work is effective and that it is generating data to categorically confirm the observation of impact attributable to the works.

Annex A

Project Site Layout

DATE: 11/1/55
PROJECT: WATER SUPPLY
SHEET: 1 OF 2

SCALE: 1" = 100'

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

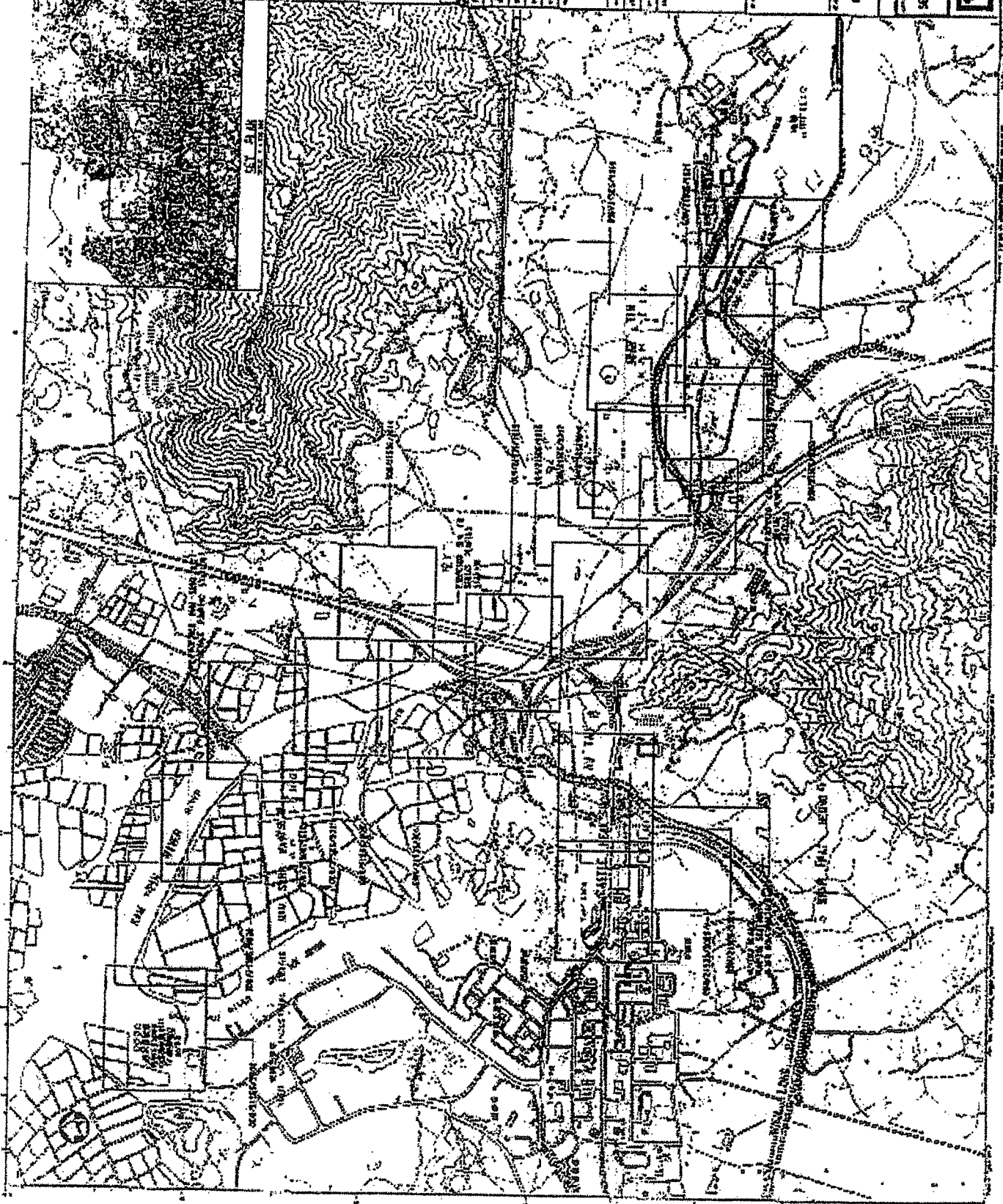
SHEET: 1 OF 2

PROJECT: WATER SUPPLY

DATE: 11/1/55

SHEET: 1 OF 2

PROJECT: WATER SUPPLY



NO.	DESCRIPTION	DATE
1
2
3
4
5
6
7
8
9
10

DATE: 11/1/55
PROJECT: WATER SUPPLY
SHEET: 1 OF 2

DATE: 11/1/55
PROJECT: WATER SUPPLY
SHEET: 1 OF 2

DATE: 11/1/55
PROJECT: WATER SUPPLY
SHEET: 1 OF 2

DATE: 11/1/55
PROJECT: WATER SUPPLY
SHEET: 1 OF 2

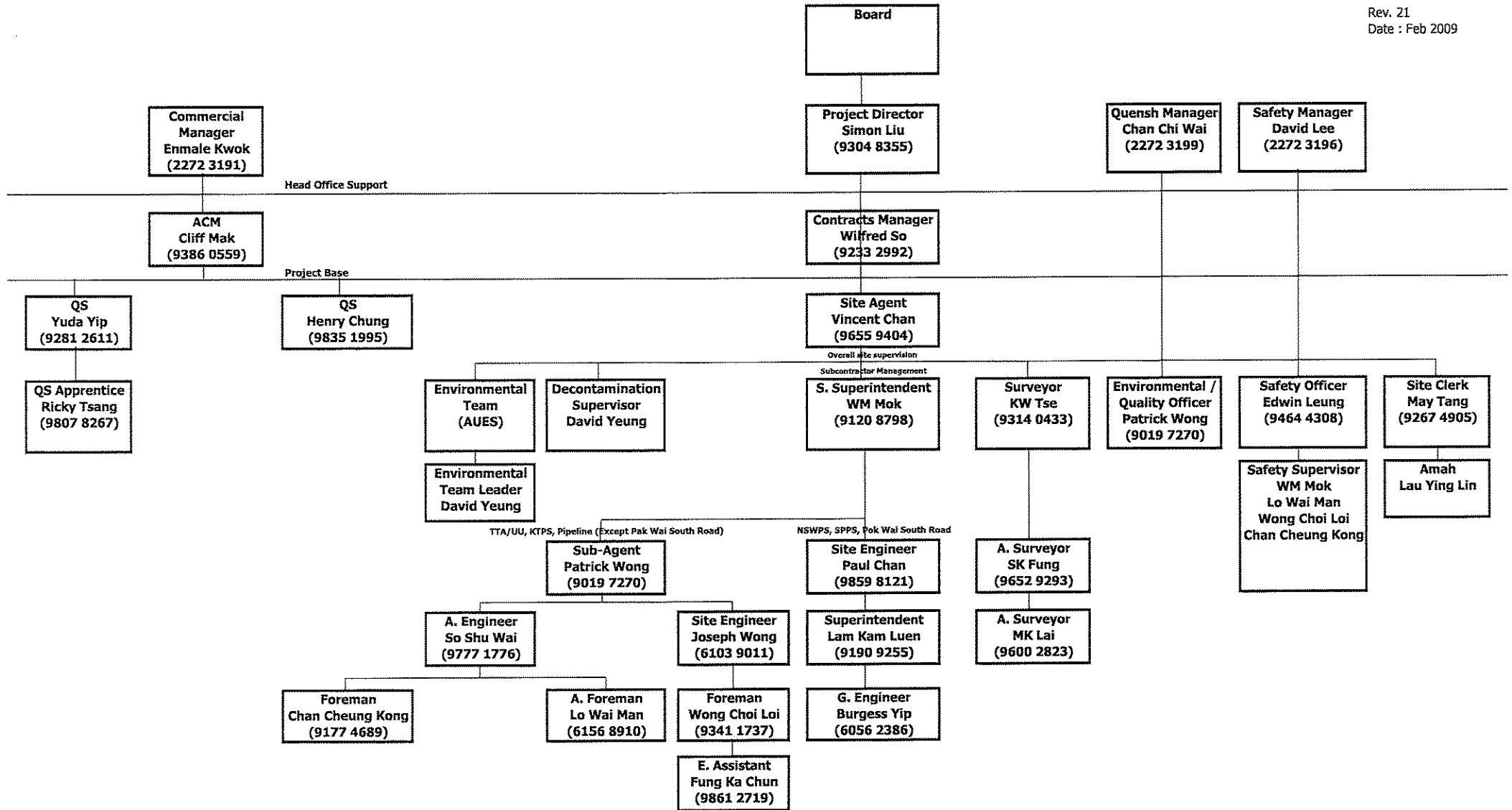
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PROJECT: WATER SUPPLY
SHEET: 1 OF 2

Annex B

Project Organization and Management Structure

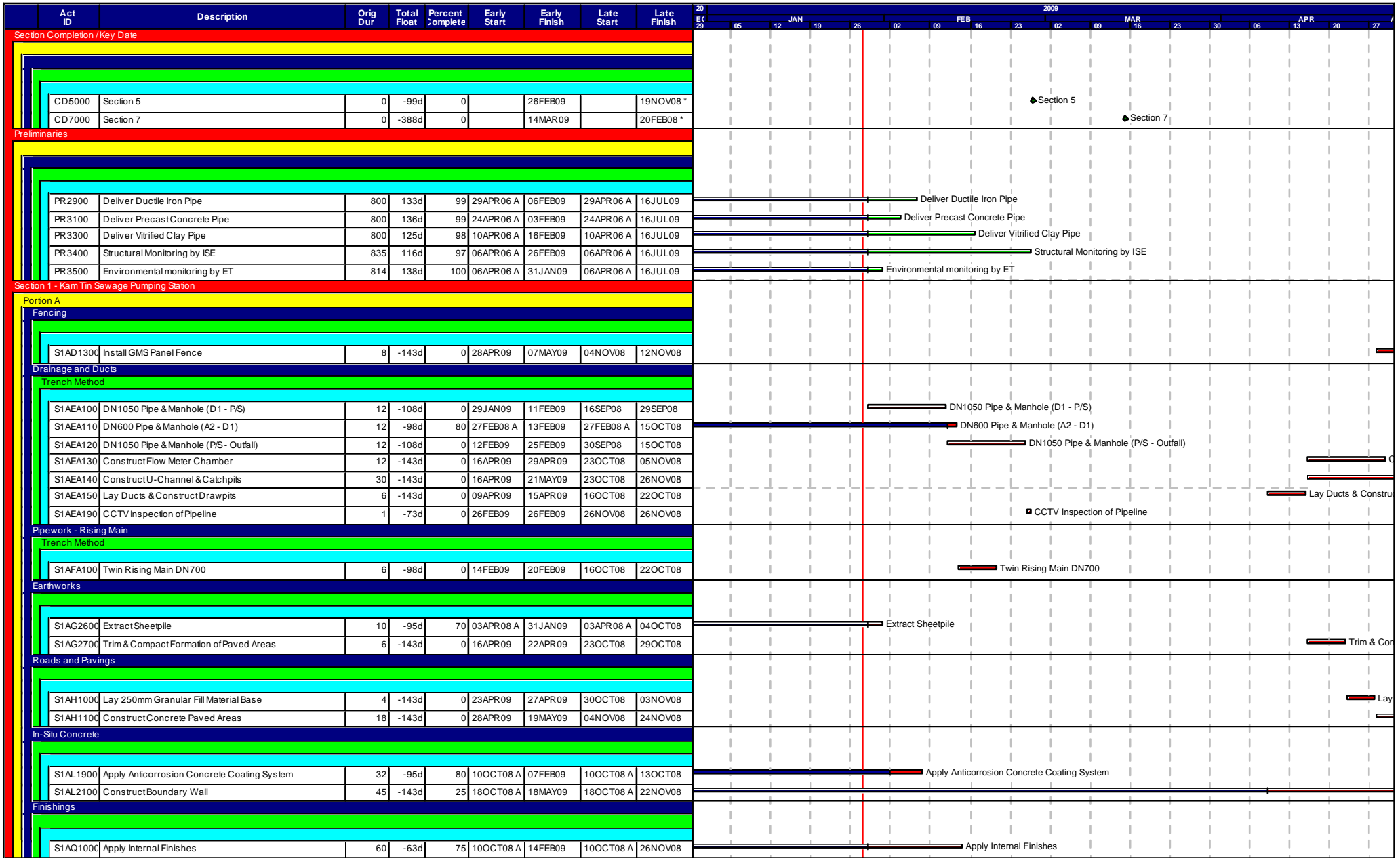
DSD Contract No. DC/2005/02
Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin
Nam Sang Wai and Au Tau in Yuen Long
Contractor's Site Organization Chart

Rev. 21
 Date : Feb 2009



Annex C

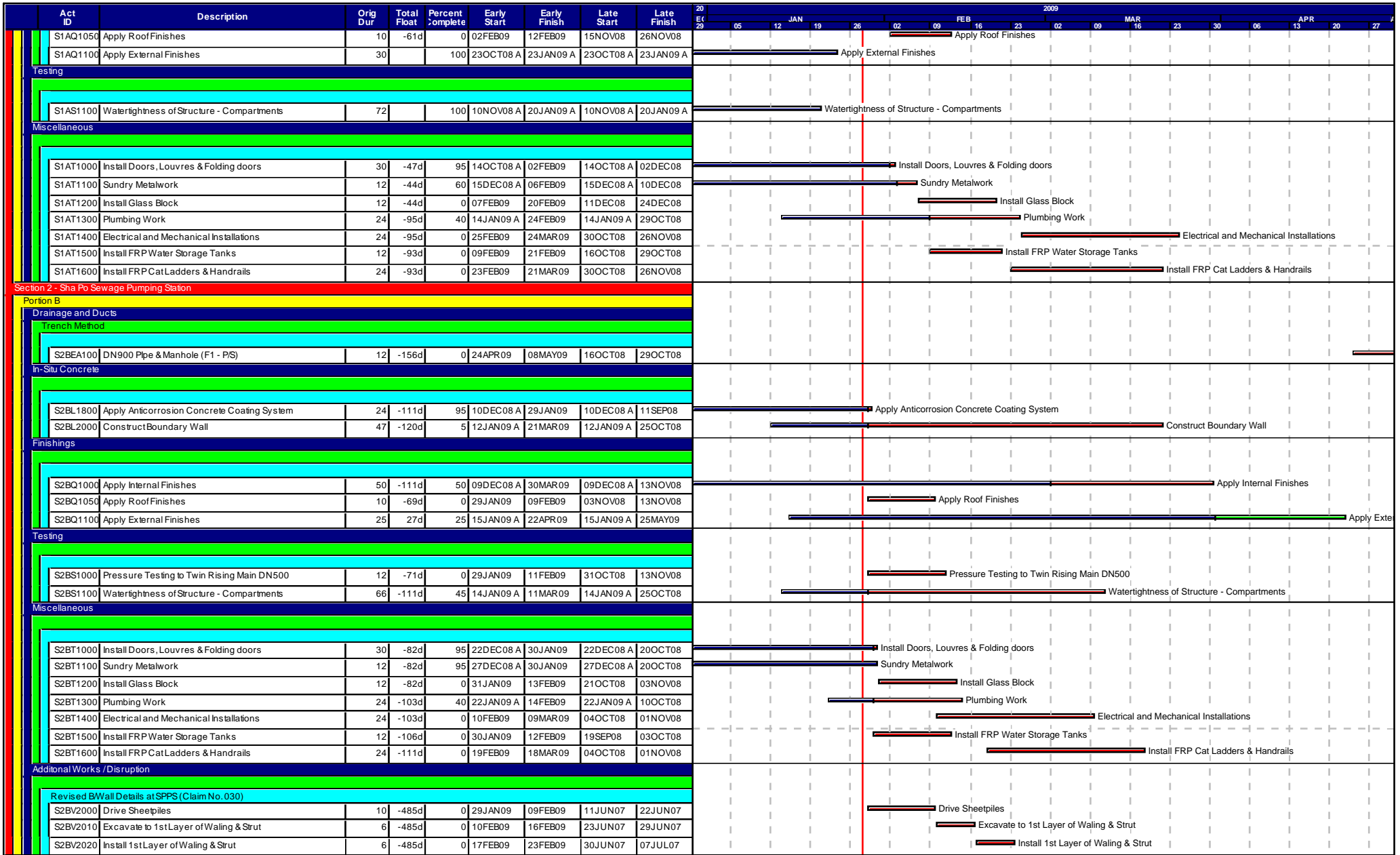
Construction Program



Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 1A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point



Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 2A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

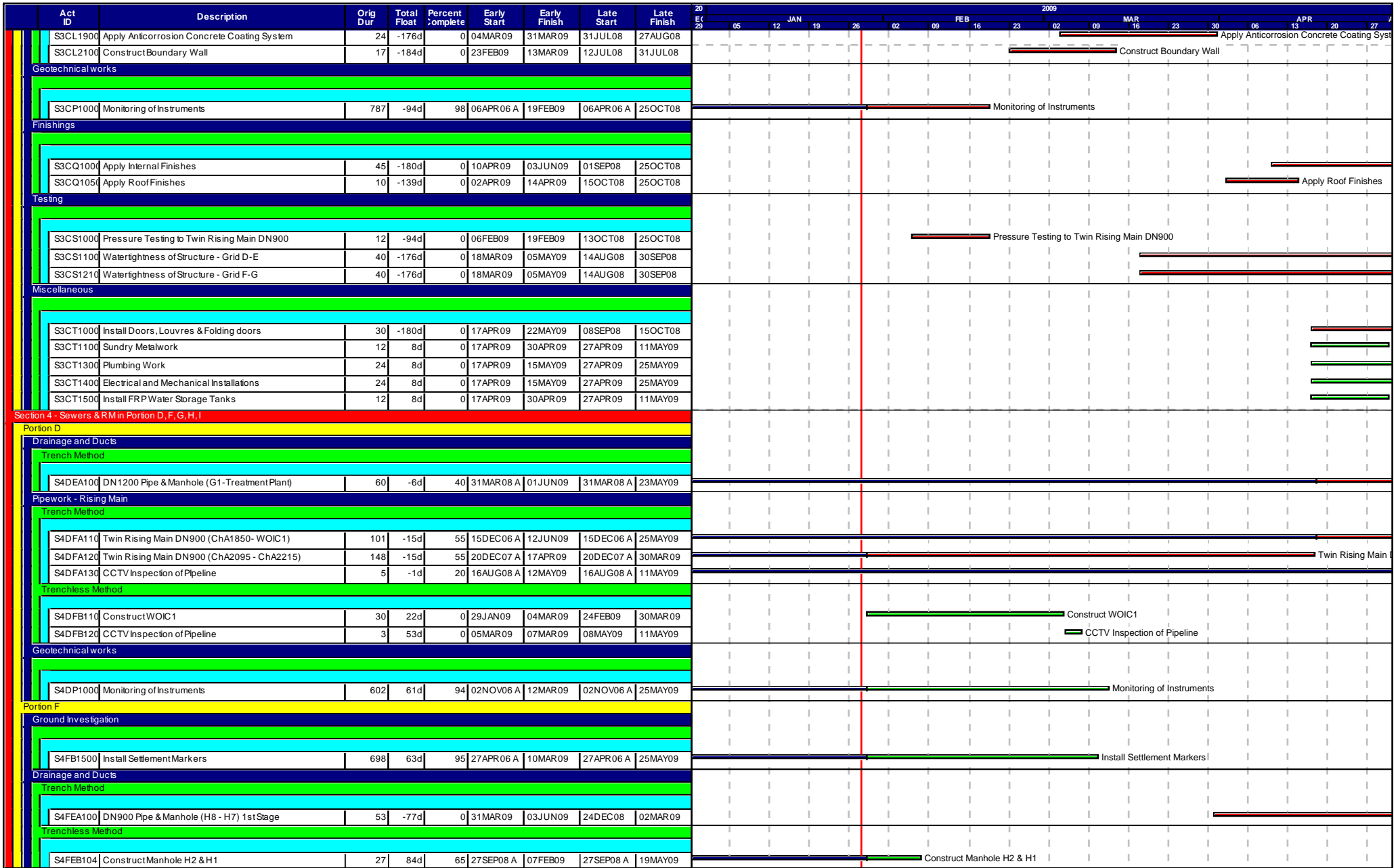
Legend:
 Green bar: Early bar
 Blue bar: Progress bar
 Red bar: Critical bar
 Purple bar: Summary bar
 Diamond: Start milestone point
 Diamond: Finish milestone point

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2009																	
									20	JAN			FEB			MAR			APR							
									29	05	12	19	26	02	09	16	23	02	09	16	23	30	06	13	20	27
S2BV2030	Excavate to 2nd Layer of Waling & Strut	6	-485d	0	24FEB09	02MAR09	09JUL07	14JUL07	Excavate to 2nd Layer of Waling & Strut																	
S2BV2040	Install 2nd Layer of Waling & Strut	6	-485d	0	03MAR09	09MAR09	16JUL07	21JUL07	Install 2nd Layer of Waling & Strut																	
S2BV2050	Excavate to 3rd Layer of Waling & Strut	6	-485d	0	10MAR09	16MAR09	23JUL07	28JUL07	Excavate to 3rd Layer of Waling & Strut																	
S2BV2060	Install 3rd Layer of Waling & Strut	6	-485d	0	17MAR09	23MAR09	30JUL07	04AUG07	Install 3rd Layer of Waling & Strut																	
S2BV2070	Excavate to Formation & Pour Blinding	6	-485d	0	24MAR09	30MAR09	06AUG07	11AUG07	Excavate to Formation & Pour Blinding																	
S2BV2080	Construct Base Slab for Bay 1 & 3	8	-485d	0	31MAR09	09APR09	13AUG07	21AUG07	Construct Base Slab for Bay 1 & 3																	
S2BV2090	Construct Base Slab for Bay 2 & 4	6	-485d	0	10APR09	16APR09	22AUG07	28AUG07	Construct Base Slab for Bay 2 & 4																	
S2BV2100	Backfill & Remove 3rd Layer of Waling & Strut	6	-485d	0	17APR09	23APR09	29AUG07	04SEP07	Backfill & Remove 3rd Layer of Waling & Strut																	
S2BV2110	Construct Wall Stem 1st Lift for Bay 1 & 3	8	-485d	0	24APR09	04MAY09	05SEP07	13SEP07	Construct Wall Stem 1st Lift for Bay 1 & 3																	
Section 3 - Nam Sang Wai Sewage Pumping Station																										
Portion C																										
Ground Investigation																										
S3CB1700	Install Settlement Markers for Pumping Station	2	-180d	75	01DEC07 A	10FEB09	01DEC07 A	04JUL08	Install Settlement Markers for Pumping Station																	
Drainage and Ducts																										
Trench Method																										
S3CEA100	DN1200 Pipe & Manhole (H1 - P/S)	12		100	13JUN08 A	28JAN09	13JUN08 A	28JAN09	DN1200 Pipe & Manhole (H1 - P/S)																	
S3CEA140	DN1200 Pipe & Manhole (P/S - Outfall)	12	-184d	0	09FEB09	21FEB09	27JUN08	11JUL08	DN1200 Pipe & Manhole (P/S - Outfall)																	
S3CEA150	Construct U-channel, Dish Channel & Catchpit	27	-184d	0	14MAR09	15APR09	01AUG08	01SEP08	Construct U-channel																	
S3CEA160	Lay Ducts & Construct Drawpit	6	-184d	0	16APR09	22APR09	02SEP08	08SEP08	Lay Ducts																	
S3CEA210	CCTV Inspection of Pipeline	1	-97d	0	23FEB09	23FEB09	25OCT08	25OCT08	CCTV Inspection of Pipeline																	
Pipework - Rising Main																										
Trench Method																										
S3CFA100	Twin Rising Main DN900	6	-184d	0	29JAN09	04FEB09	17JUN08	23JUN08	Twin Rising Main DN900																	
S3CFA120	CCTV Inspection of Pipeline	1	-94d	0	05FEB09	05FEB09	11OCT08	11OCT08	CCTV Inspection of Pipeline																	
Earthworks																										
S3CG2800	Backfill to Formation of Ground Slab	8	-184d	95	20OCT08 A	04FEB09	20OCT08 A	23JUN08	Backfill to Formation of Ground Slab																	
S3CG2900	Extract Sheetpile	11	-184d	45	04NOV08 A	07FEB09	04NOV08 A	26JUN08	Extract Sheetpile																	
S3CG3000	Trim & Compact Formation of Paved Areas	6	-184d	0	23APR09	29APR09	09SEP08	16SEP08	Trim & Compact Formation of Paved Areas																	
Formwork																										
S3CJ1600	Erect Formwork to Ground Slab	8	-180d	90	15NOV08 A	04FEB09	15NOV08 A	27JUN08	Erect Formwork to Ground Slab																	
S3CJ1700	Erect Formwork to +10.80mPD	12	-180d	40	23DEC08 A	24FEB09	23DEC08 A	18JUL08	Erect Formwork to +10.80mPD																	
S3CJ1800	Erect Formwork to +13.75mPD & Roof Slab	12	-180d	0	07MAR09	20MAR09	30JUL08	12AUG08	Erect Formwork to +13.75mPD & Roof Slab																	
Steel Reinforcement																										
S3CK1500	Fix Re-bar to Ground Slab	8	-180d	50	26NOV08 A	09FEB09	26NOV08 A	03JUL08	Fix Re-bar to Ground Slab																	
S3CK1600	Fix Re-bar to +10.80mPD	8	-180d	40	07JAN09 A	16FEB09	07JAN09 A	10JUL08	Fix Re-bar to +10.80mPD																	
S3CK1700	Fix Re-bar to +13.75mPD	8	-180d	0	26FEB09	06MAR09	21JUL08	29JUL08	Fix Re-bar to +13.75mPD																	
S3CK1800	Fix Re-bar to Roof Slab	8	-180d	0	21MAR09	30MAR09	13AUG08	21AUG08	Fix Re-bar to Roof Slab																	
In-Situ Concrete																										
S3CL1550	Cast Wall Stem to +5.00mPD	2	-184d	75	03OCT08 A	04FEB09	03OCT08 A	23JUN08	Cast Wall Stem to +5.00mPD																	
S3CL1600	Cast Ground Slab	2	-180d	50	18DEC08 A	10FEB09	18DEC08 A	04JUL08	Cast Ground Slab																	
S3CL1700	Cast Wall Stem to +13.75mPD	2	-180d	40	20JAN09 A	25FEB09	20JAN09 A	19JUL08	Cast Wall Stem to +13.75mPD																	
S3CL1800	Cast Wall Stem to +13.75mPD & Roof Slab	2	-180d	0	31MAR09	01APR09	22AUG08	23AUG08	Cast Wall Stem to +13.75mPD & Roof Slab																	

Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 3A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

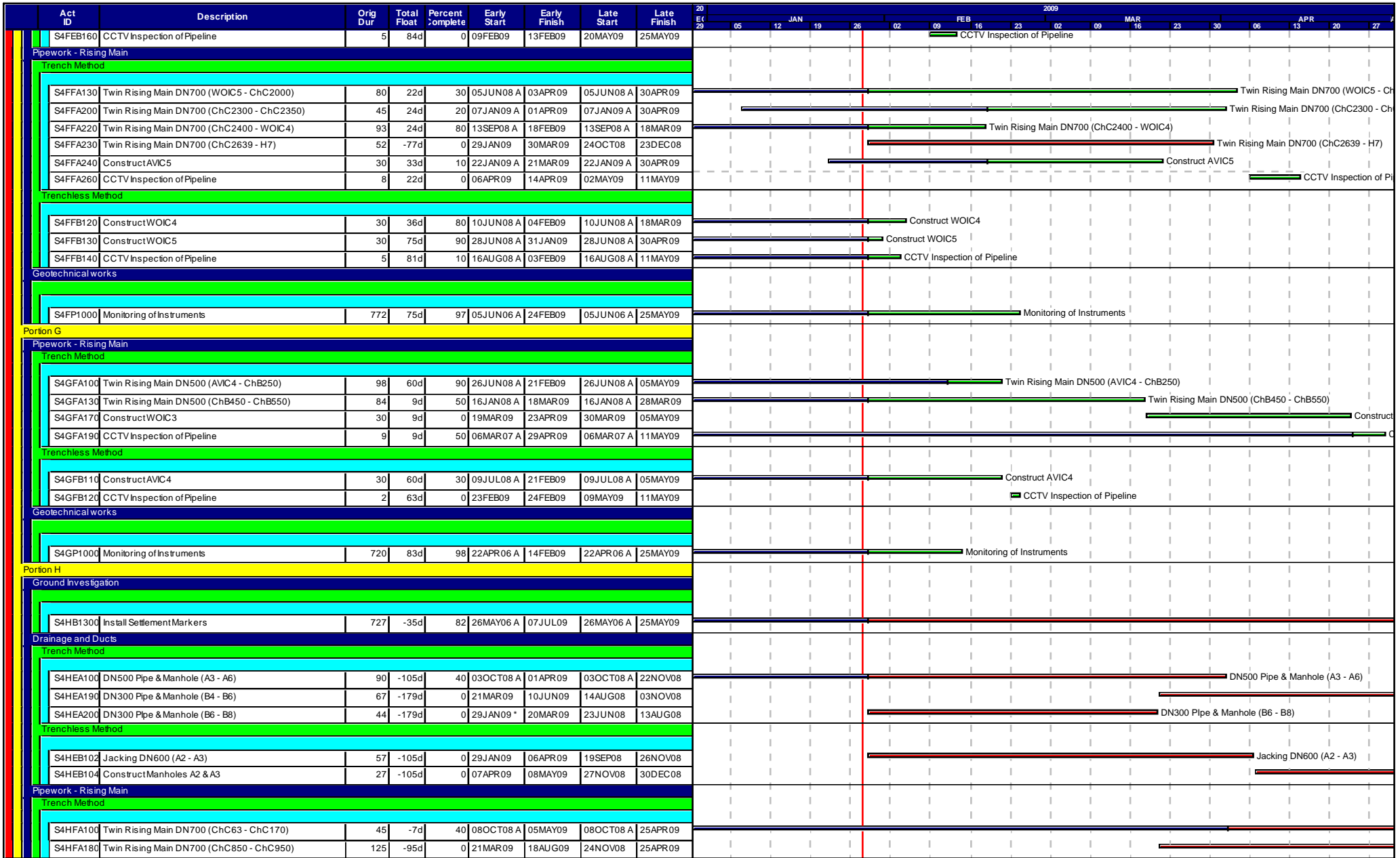
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- ◆ Finish milestone point



Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 4A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

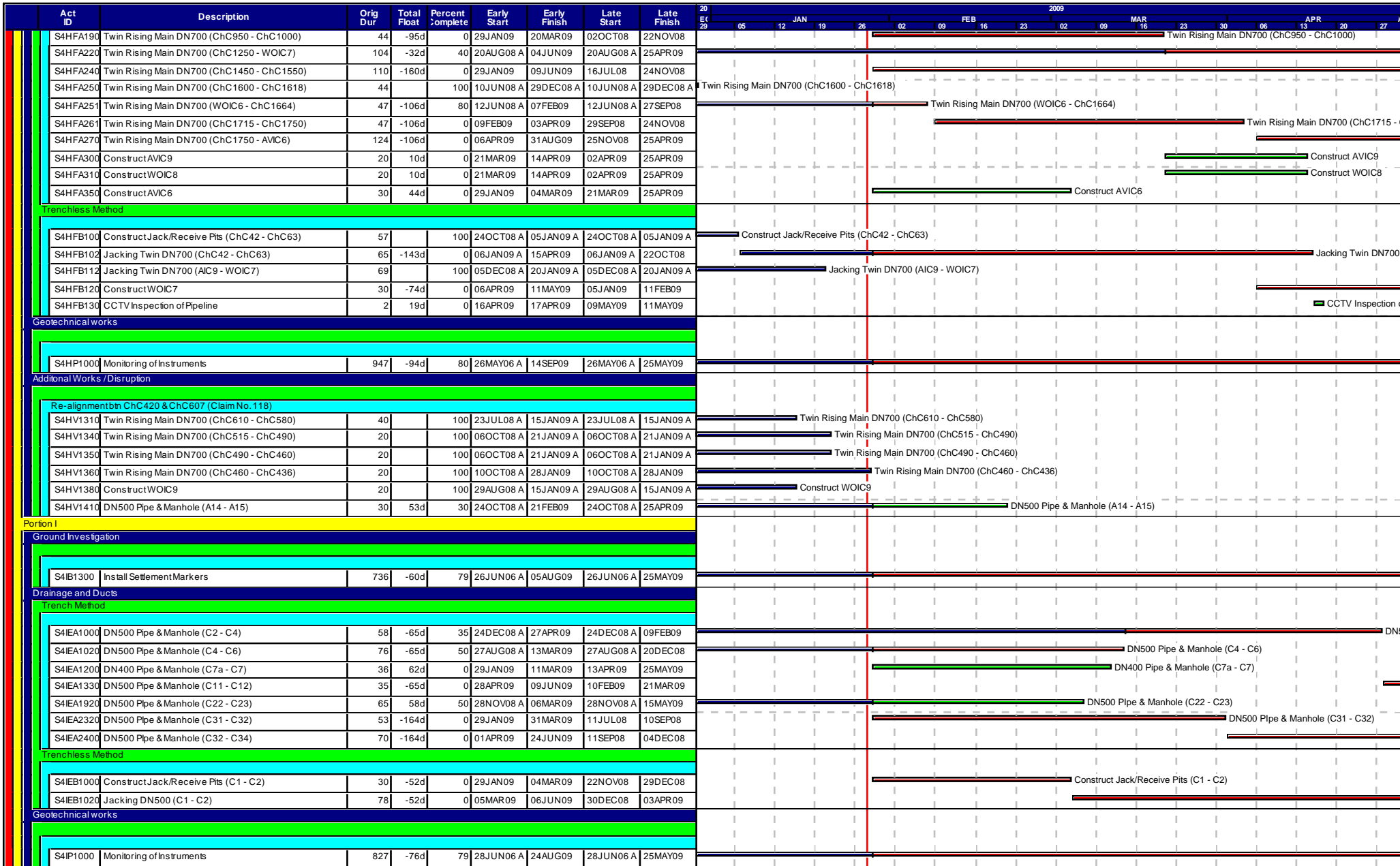
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- ◆ Start milestone point
- ◆ Finish milestone point



Startdate 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 5A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

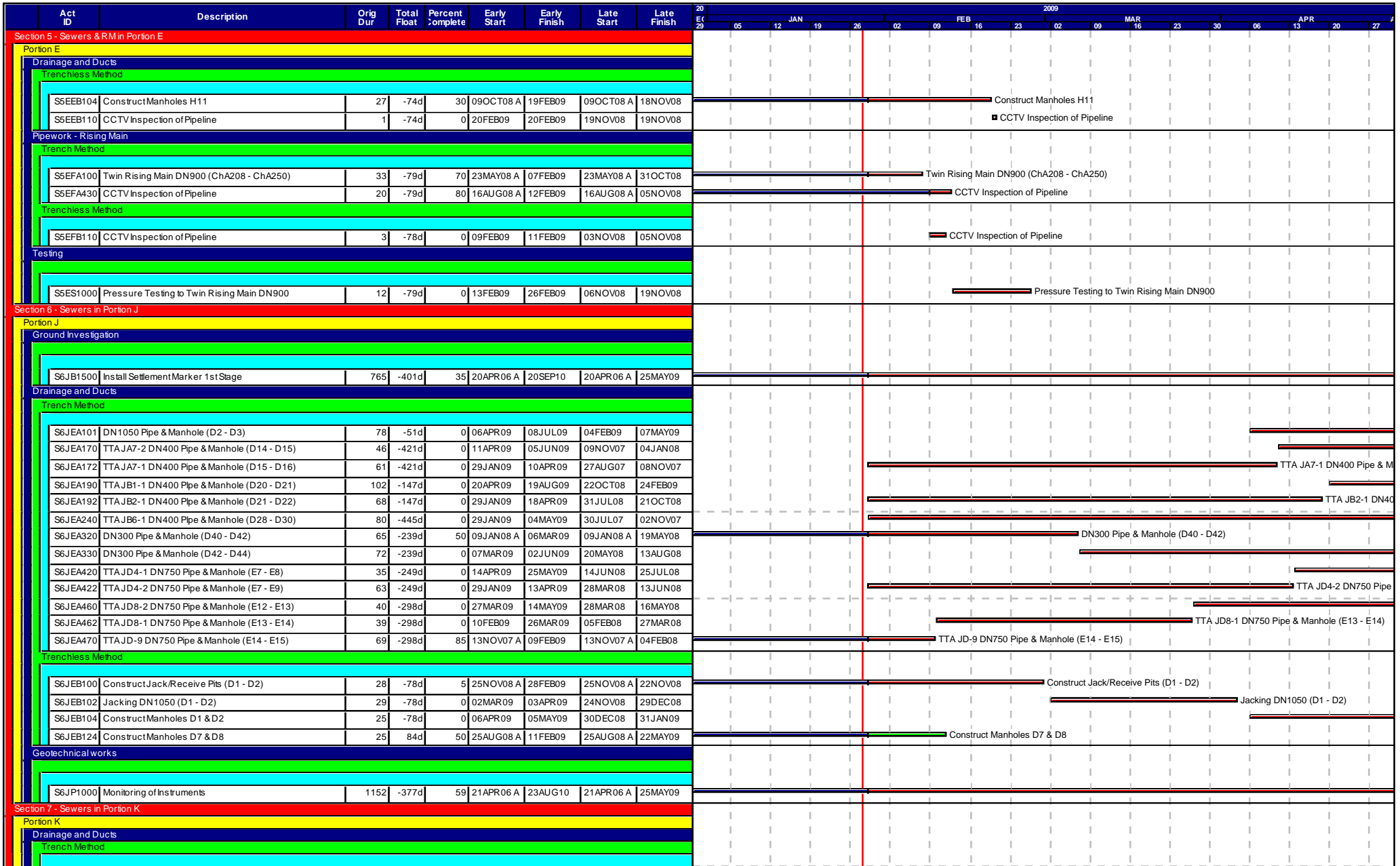
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- ◆ Start milestone point
- ◆ Finish milestone point



Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 6A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

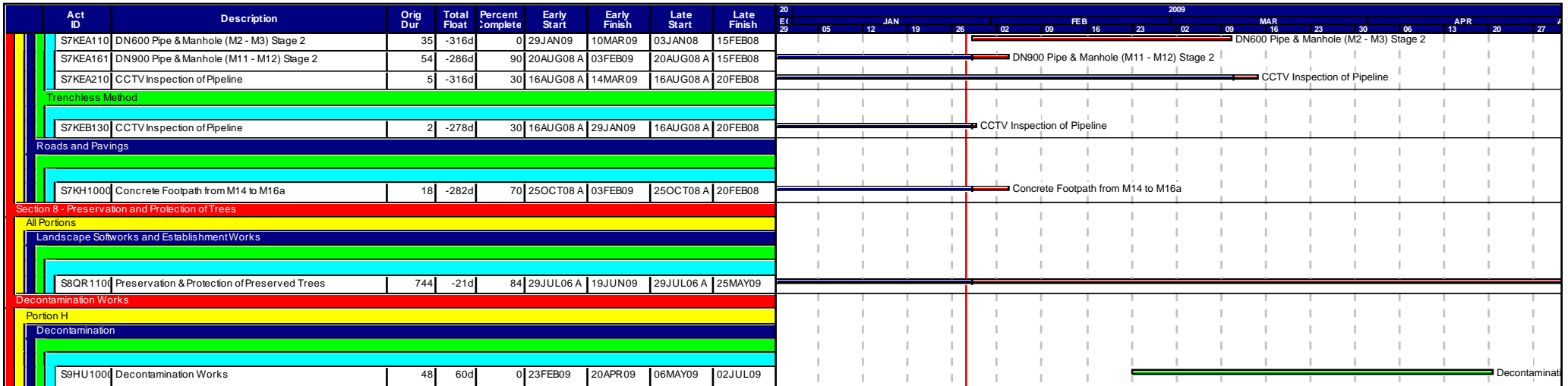




Startdate 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 7A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

- █ Early bar
- █ Progress bar
- █ Critical bar
- █ Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point



Start date 19DEC05
 Finish date 13NOV10
 Data date 28JAN09
 Page number 8A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 28 January 2009

- █ Early bar
- █ Progress bar
- █ Critical bar
- █ Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point

Annex D

Photographical Records – Noise Barrier On-Site



Annex E

Locations of Monitoring Stations



1. ALL DIMENSIONS OF THIS MAP
 2. ARE GIVEN IN METERS
 3. UNLESS OTHERWISE SPECIFIED

LEGEND:
 ——— ROAD
 ——— DRAINAGE

FOR WORKER PURPOSES ONLY

DATE	10/1/57
SCALE	1:25,000
SHEET NO.	21507
SERGEANT MANEGE DIVISION 10/1/57	

CONSTRUCTION OF THIS
 MAP WAS MADE BY
 THE SURVEYING
 DIVISION OF THE
 ARMY

SHEET NO. 21507
 OF 21507

SERGEANT MANEGE DIVISION
 10/1/57

ENGINEER GENERAL SERVICE
 DIVISION OF THE
 ARMY
 10/1/57

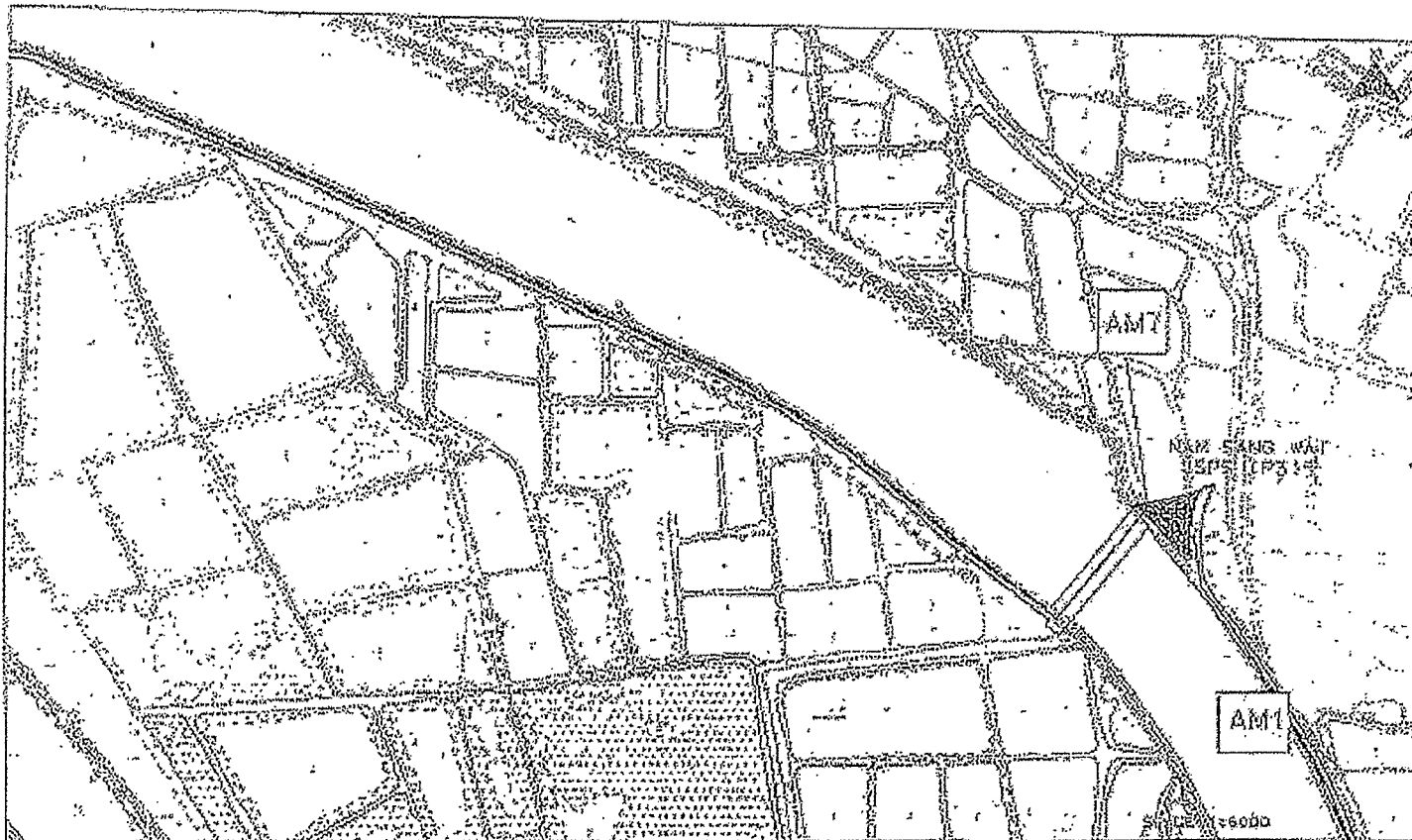


FIGURE C1

LOCATION OF BUS HERITAGE STATIONS (AM1) AND A (AM1)

SCALE 1:5000
 DATE 1985

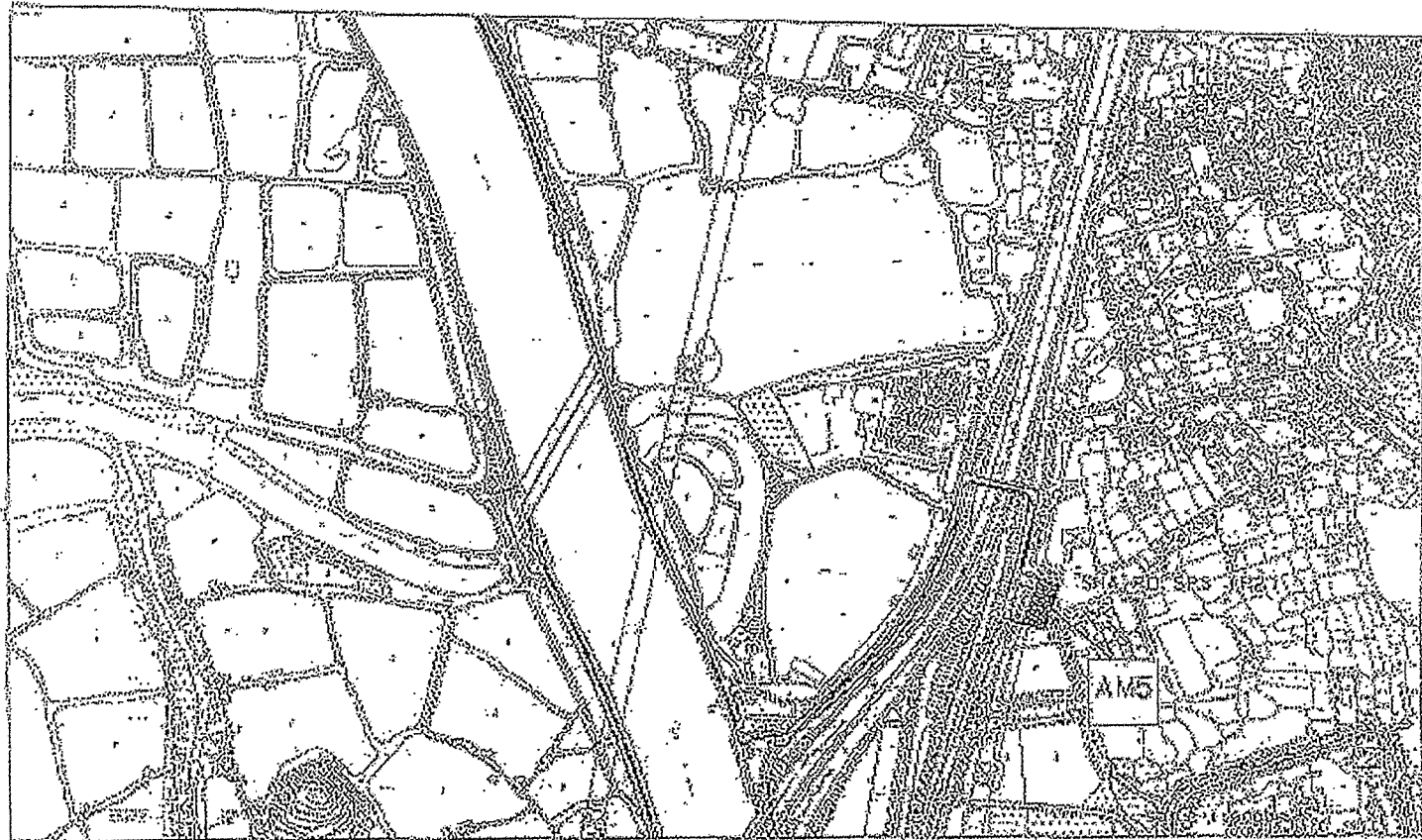


FIGURE C2

LOCATION OF DUST MONITORING STATION (AM5)

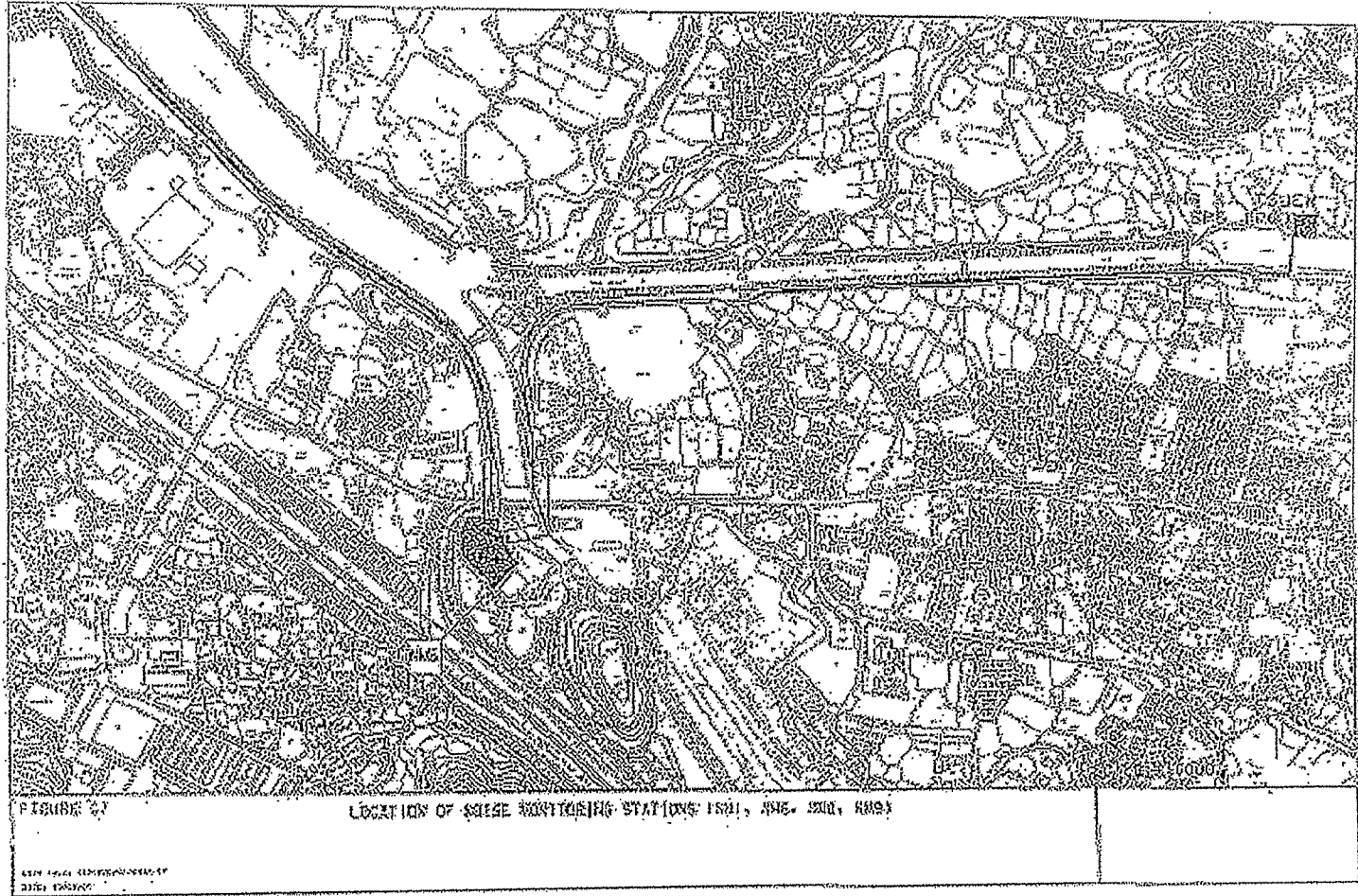
NO. 1011 10/10/1994
10/10/1994



FIGURE G-1

LOCATION OF DUST MONITORING STATIONS (AM4, AM5 & AM10)

Source: EPA, 1982
Scale: 1:25,000



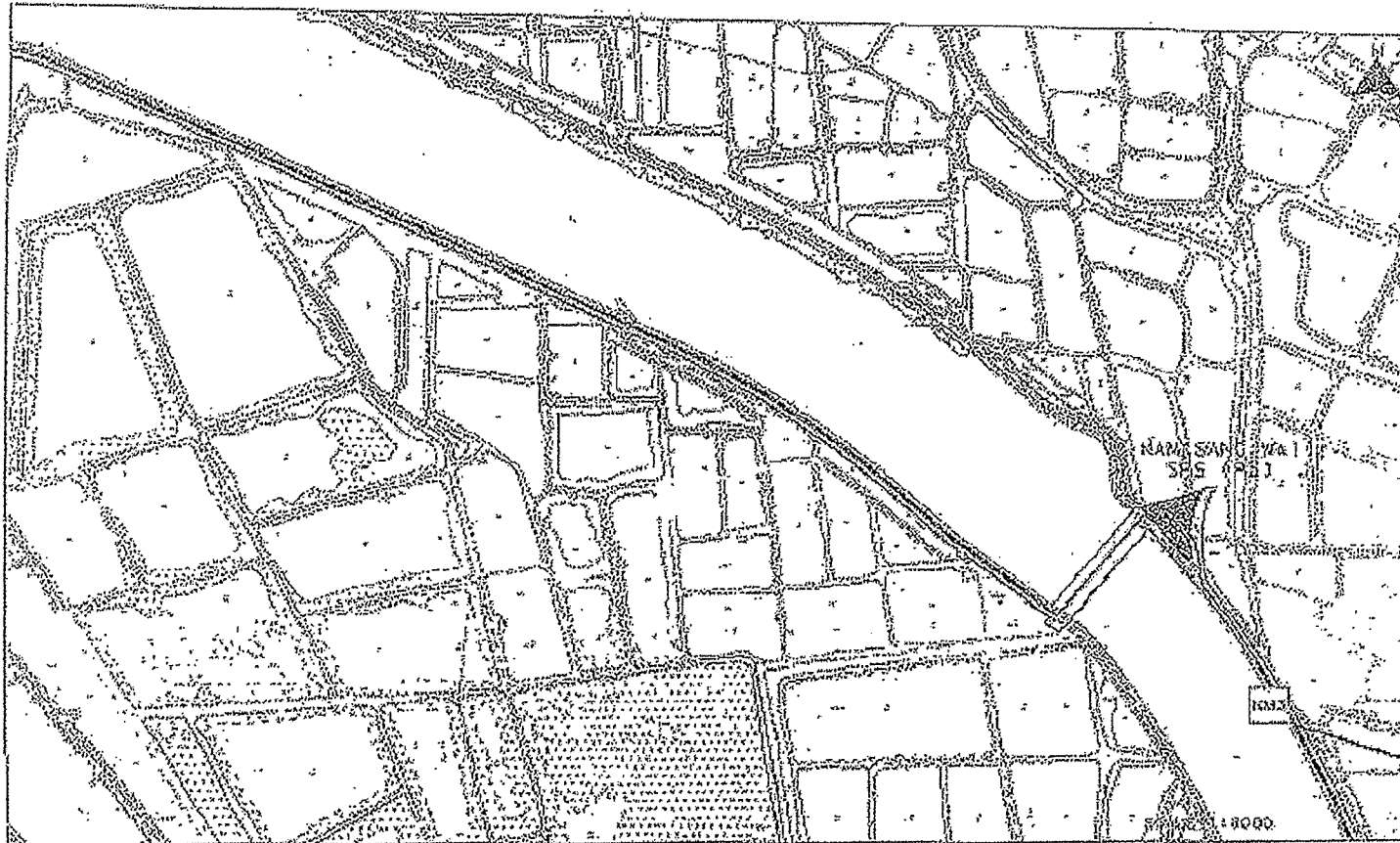


FIGURE 10

LOCATION OF NOISE MONITORING STATIONS (MNS, ENVI)

DEPARTMENT OF TRANSPORTATION
 STATE PLANNING



FIGURE 29.

LOCATION OF NOISE MONITORING STATIONS (DATA NOT)

ENVIRONMENTAL ENGINEERING
SUNY-BUFFALO

Annex F

Event and Action Plan

Event and Action Plan for Construction Phase Air Quality

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
<i>Action Level</i>				
Exceedance for one sample	<ol style="list-style-type: none"> Identify source (s) of exceedance and inform IEC, Contractor and Engineer Repeat dust measurements to confirm findings Increase monitoring frequency to daily Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check monitoring data trends and Contractors working methods Check and confirm Contractors proposed remedial actions and working methods are appropriate 	<ol style="list-style-type: none"> Confirm receipt of notification of exceedance in writing Remind the Contractor of his contractual obligations and review the Contractor's working methods Discuss remedial actions with the Contractor and IEC Inform complainant of actions taken, if necessary 	<ol style="list-style-type: none"> Rectify any unacceptable practice Liaise with Engineer and IEC to develop appropriate remedial measures to reduce dust impact Amend working methods and remedial proposals if required by the Engineer or IEC Implement the agreed remedial actions upon instruction from the Engineer and IEC
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source (s) of exceedance and inform IEC, Contractor and Engineer Repeat measurements to confirm findings Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed Discuss remedial actions with IEC and Contractor If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions If exceedance stops, inform the Contractor and cease additional monitoring 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check monitoring data trends and Contractors working methods Discuss with Contractor and Engineer on possible remedial measures Check and confirm Contractors proposed remedial measures are appropriate Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> Confirm receipt of notification of exceedance in writing Remind the Contractor of his contractual obligations and review the Contractor's working methods Discuss remedial actions with the Contractor and IEC Ensure remedial measures are properly implemented Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> Rectify any unacceptable practice, if possible Submit proposals for remedial actions to Engineer and IEC within three working days of notification Discuss and amend remedial actions, if required, by the Engineer and IEC Implement the remedial action (s) immediately upon instruction from the Engineer Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions

Event and Action Plan for Construction Phase Air Quality

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
<i>Limit Level</i>				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. Increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, Engineer and EPD informed 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC, 4. Ensure remedial measures are properly implemented 5. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed 4. Discuss remedial actions with IEC and Contractor 5. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 6. If exceedance stops, inform the Contractor and cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss with Contractor and Engineer on possible remedial measures 2. Check and confirm Contractors proposed remedial measures are appropriate 3. Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions

Event and Action Plan for Construction Noise				
EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
Limit Level				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. If repeat measurements confirm exceedance, increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed 5. If exceedance stops, inform Contractor and cease additional noise monitoring 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Inform complainant of actions taken, if necessary 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Liaise with Engineer and IEC to develop appropriate remedial measures to reduce noise impact 3. Amend working methods and remedial proposals if required by the Engineer or IEC 4. Implement the agreed remedial actions upon instruction from the Engineer and IEC
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily 4. Discuss remedial actions with IEC, Engineer and the EPD 5. Assess the efficacy of remedial measures and keep the Contractor informed 6. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 7. If exceedance stops, inform the Contractor and cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Discuss with Contractor and Engineer on possible remedial measures 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions 6. Stop the relevant portion of work as determined by the Engineer until the exceedance is abated

Annex G

Mitigation Implementation Schedule

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
CONSTRUCTION PHASE										
AIR QUALITY - Construction Phase										
		The following measures are enforceable under the <i>Air Pollution Control (Construction Dust) Regulations</i>								
3.5	A1	<p>Site boundary and entrance</p> <ul style="list-style-type: none"> where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the boundaries of the seven pumping stations sites and the works area where the Engineer's site office and the Contractor's site office erected; 	To prevent access to the site and control potential dust impacts from construction works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part III, Clause 13 (c), Air Pollution Control (Construction Dust) Regulations</i>
3.5	A2	<p>Access Road</p> <ul style="list-style-type: none"> the portion of any road leading only to a construction site that is within 30 m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials; 	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part III, Clause 14, (b), Air Pollution Control (Construction Dust) Regulations</i>
3.5	A3	<p>Stockpiling of Dusty Materials</p> <ul style="list-style-type: none"> any stockpile of dusty materials should be either covered entirely by impervious sheeting and placed in an area sheltered on the top and the 3 sides or sprayed with water so as to maintain the entire surface wet; 	To control potential dust impacts during excavation and stockpiling activities.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part IV, Clause 18, (a, b & c), Air Pollution Control (Construction Dust) Regulations</i>
3.5	A4	<p>Loading, unloading or transfer of dusty materials</p> <ul style="list-style-type: none"> all dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading and unloading so as to maintain the dusty materials wet; 	To control potential dust impacts during material handling and truck movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part IV, Clause 19, Air Pollution Control (Construction Dust) Regulations</i>
3.5	A5	<p>Use of vehicles</p> <ul style="list-style-type: none"> every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site; 	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part IV, Clause 21, (1), Air Pollution Control (Construction</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
3.5	A6	<ul style="list-style-type: none"> where a vehicle leaving a construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle; 	To control potential dust impacts during material transportation.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Dust) Regulations Part IV, Clause 21, (2), Air Pollution Control (Construction Dust) Regulations</i>
3.5	A7	<p>Power-driven drilling, and cutting</p> <ul style="list-style-type: none"> water should be continuously sprayed on the surface where any mechanical breaking operation that causes dust emission is carried out, unless the process is accompanied by the operation of an effective dusty extraction and filtering device; 	To control potential dust impacts during mechanical breaking.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part IV, Clause 22, Air Pollution Control (Construction Dust) Regulations</i>
3.5	A8	<p>Excavation and earth moving</p> <ul style="list-style-type: none"> the working area of excavation should be sprayed with water immediately before, during and immediately after the operation so as to maintain the entire surface wet; 	To control potential dust impacts arising from excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Part IV, Clause 24, Air Pollution Control (Construction Dust) Regulations</i>
3.5	A9	<p>Construction of the superstructure of a building</p> <ul style="list-style-type: none"> where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the round floor level of the SPS, or if a canopy is provided at the first floor level, from the first floor level, up to the highest level of the scaffolding; and 	To control potential dust impacts from SPS building construction works.	Full duration of SPS construction contract.	The Contractor		✓			<i>Part I, Clause 6, (a), Air Pollution Control (Construction Dust) Regulations</i>
3.5	A10	<ul style="list-style-type: none"> any skip hoist for material transport should be totally enclosed by the impervious sheeting. 	To control potential dust impacts during material transportation.	Full duration of SPS construction contract.	The Contractor		✓			<i>Part I, Clause 6, (b), Air Pollution Control (Construction Dust) Regulations</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		NOISE - Construction Phase								
4.7.1	B1	<p>General Site Clearance – Demolition Works</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i> (Examples of these PME are shown in Table F2), 	To control potential noise impacts during site clearance and demolition works	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B2	<p>Construction of Sewage Pumping Stations P1, P2 & P3</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, Adoption of temporary noise barrier, in the form of a site hoarding (with a superficial density of at least 20kg/m², with no substantial gaps), along the site boundary of the pumping station sites. 	To minimise potential noise impacts arising during the construction of P1, P2 & P3	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B3	<p>Sewers and Rising Mains using Open Trench Method</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, 	To minimise potential noise impacts arising during the construction of P1, P2 & P3	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B4	<ul style="list-style-type: none"> Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached. 	To control potential noise impacts during excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B5	<ul style="list-style-type: none"> Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached. 	To control potential noise impacts during road opening activities.	Where there are NSRs located within 50m of the line of sight. Throughout the full duration of the road opening activities.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B5	<ul style="list-style-type: none"> Use of movable noise barriers or 3 sided enclosures for all initial road opening activities 	To control potential noise impacts during road opening	Where there are NSRs located within 50m of the	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
4.7.1	B6	enclosures for all initial road opening activities (breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached), where there are NSRs located within 50m of the line of sight from the works area. Sewers and Rising Mains using Pipe Jacking Method • Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</i>	activities. To control potential noise impacts from PME during construction works	line of sight. Throughout the full duration of the road opening activities. Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
4.7.1	B7	Road Pavement and Finishes • Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</i>	To control potential noise impacts from PME during pavement and finish works	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			<i>Annex 5 of EIAO-TM</i>
		WATER QUALITY - Construction Phase No water quality monitoring is required under this study.								
6.6.2	D1	WASTE - Construction Phase The Contractor shall obtain the necessary waste disposal permits from the appropriate authorities for the disposal of chemical and C&D waste, • Chemical Waste Producer and Chemical Waste Disposal Licence (<i>Waste Disposal (Chemical Waste) (General) Regulations</i>); and • Dumping Licence (<i>Land (Miscellaneous Provisions) Ordinance (Cap 28)</i>)	To monitor the collection, handling and disposal of chemical waste and C&D waste, and in compliance with relevant Hong Kong Standards and Regulations.	Site wide and throughout the full duration of the construction contract.	The Contractor	✓	✓			<i>Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste)(General) Regulation (Cap 354), the Land (Miscellaneous Provisions) Ordinance (Cap 28)</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
6.6.2	D2	<p>Chemical Waste Chemical waste that is produced, as defined by Schedule 1 of the <i>Waste Disposal (Chemical Waste) (General) Regulation</i>, should be handled in accordance with the regulations and Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows. All chemical waste producers should be registered with the EPD.</p>	To control the handling, storage and disposal of chemical waste, in order to minimise potential spillages/leakages and human health and environmental impacts.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part II, (6) Waste Disposal (Chemical Waste) (General) Regulation</i>
6.6.2	D3	<p>Storage, Packaging and Labelling of Chemical Waste Containers used for storage of chemical wastes should:</p> <ul style="list-style-type: none"> be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 L unless the specifications have been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations. 	To ensure the proper storage, packaging and labelling of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (9, 10, 11 & 12) Waste Disposal (Chemical Waste) (General) Regulation</i>
6.6.2	D4	<p>Storage of chemical waste The storage area for chemical wastes should:</p> <ul style="list-style-type: none"> be clearly labelled and used solely for the storage of chemical waste; be enclosed on at least 3 sides; have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; have adequate ventilation; be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste, if necessary); and be arranged so that incompatible materials are 	To ensure the proper storage of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (13,14, 15, 16, 17, & 18) Waste Disposal (Chemical Waste) (General) Regulation</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		adequately separate								
6.6.2	D5	<p>Disposal of chemical waste</p> <ul style="list-style-type: none"> The Contractor should ensure that the disposal of chemical waste is via a licensed Waste Collector and in accordance with the <i>Waste Disposal (Chemical Waste) (General) Regulations</i>. <p><i>Management of Waste Disposal</i> A trip-ticket system should be established which monitors the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping, in accordance with <i>Land (Miscellaneous Provisions) Ordinance (Cap28)</i> and the <i>Works Bureau Technical Circular No. 5/99</i>.</p>	<p>To control the disposal of chemical waste in accordance with the Regulations.</p>	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (20 -25) Waste Disposal (Chemical Waste) (General) Regulation</i>
		<p>LAND CONTAMINATION- Construction Phase</p> <p>A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites. If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the</p>	<p>To monitor the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping.</p>	To be implemented at all worksites throughout the full duration of the construction phase.	The Engineer/ Contractor		✓			<i>Land (Miscellaneous Provisions) Ordinance (Cap 295) and Works Bureau Technical Circular No. 5/99.</i>
7.5.6	E1	<p>A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites. If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the</p>	<p>To determine the presence of soil and groundwater contamination and remedy any potential concerns to acceptable levels.</p>	To be implemented before the commencement of the construction works.	To be Implemented by DSD or their sub-consultants at the Detailed Design Stage, depending upon when site access can be gained.	✓				<i>EIAO TM Annex 19/3.1.1 & 3.1.2</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		EPD, the contaminated site(s) shall be remediated in accordance with the approved CAR/RAP.								
8.7.1	F1	<p>ECOLOGY - Construction Phase Mitigation Measures Adopted - Avoidance Construction activities shall be prohibited during the winter season (November to March) along the section of the proposed sewerage alignment, which fall within the Deep Bay Wetland Conservation Area and the Deep Bay Wetland Buffer Area (WCA and WBA) and close to the locations of ecologically sensitive species (including Intermediate Egret, Black-faced Spoonbill, Buzzard, Imperial Eagle and Avocet). (See Figure 8.7a attached). Regular site inspections (at least twice a month) should be conducted by the Environmental Team during the winter season (November to March) to ensure proper implementation of this restriction</p>	To schedule construction works in order to minimise potential impacts to winter visiting birds. To be confirmed by regular site inspections.	At identified location (<i>Figure 8.7a</i>) for the full duration of the construction contract.	The Contractor		✓			
8.7.2	F2	<p>Mitigation Measures Adopted - Minimisation Pipe jacking method should be used instead of dredging where sewers and rising mains cross over existing MDC within the WCA and WBA.</p>	To minimise potential construction noise impacts to ecological sensitive receivers within the WCA/WBA.	For the full duration of the construction contract.	The Contractor		✓			
8.7.2	F4	<p>Regular inspections (at least twice a month) should be conducted by the ET during the winter season (November to March) for the remaining sections of the proposed sewerage alignment (including parts of S4, S5 and S6) within the WCA and WBA, where construction activities cannot be rescheduled.</p> <p>The site inspections shall check and report the number of workfronts and implementation of</p>	To schedule noisy construction activities to minimise potential impacts to winter visiting birds.	Work fronts other than identified sections within WBA & WCA (see <i>Figure 8.7a</i> attached) throughout the full duration of the construction contract.	The Contractor		✓			

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
8.7.3	F5	mitigation measures (i.e. erection of movable noise barriers with a suitable footing along the sites) in the monthly EM&A reports. Mitigation Measures Adopted Quietened construction plant and equipment (as shown in <i>Table F2</i>) should be used for the construction of pumping stations (P3 and P2) and sewerage alignment (S4, S5 and S6) located within the WCA and WBA.	Quiet construction plant shall minimise potential noise impacts to the wildlife, particularly rare birds including Black-faced Spoonbill, Buzzard, Hobby, Imperial Eagle, Intermediate Egret, Avocet and Black-eared Kite	At described locations and throughout the full duration of the construction contract.	The Contractor		✓			
8.7.4	F6	Erection of fences along the boundary of pumping station construction sites (P1 to P3) before the commencement of construction works to prevent tipping, vehicle movements, and encroachment of personnel into adjacent areas, and P2 to avoid disturbance to the remaining pond areas (0.7 ha);	To erect fences to prevent encroachment of construction activities onto adjacent areas.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F7	No filling and dumping to the remaining abandoned fishpond at P2.	To avoid disturbance to abandoned fishponds from construction activities and illegal dumping.	At P2 for full duration of the construction contract	The Contractor		✓			
8.7.4	F8	Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage. The minimal total combined volume of the silt removal facilities at Nam Sang Wai SPS (P3) should be 15m ³ .	To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F9	No open fires within the site boundary during	To prohibit open fires, thereby	Site wide and throughout	The Contractor		✓			<i>Air Pollution Control</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
8.7.4	F7	construction and provide temporary fire fighting equipment in the work areas. No filling and dumping to the remaining abandoned fishpond at P2.	minimising potential damage to trees and shrubs. To avoid disturbance to abandoned fishponds from construction activities and illegal dumping.	the full duration of the construction contract. At P2 for full duration of the construction contract	The Contractor		✓			(Open Burning) Regulation
8.7.4	F8	Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage.	To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F9	No open fires within the site boundary during construction and provide temporary fire fighting equipment in the work areas.	To prohibit open fires, thereby minimising potential damage to trees and shrubs.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Air Pollution Control (Open Burning) Regulation
		FISHERIES - Construction Phase No specific mitigation measures are required for inclusion in the EP.								
		CULTURAL HERITAGE – Not Applicable for Package 1A-1T (DC/2005/02)								
		LANDSCAPE AND VISUAL - Construction Phase								
	H1	The site inspections shall check and report the implementation of mitigation measures (i.e. top-soil are reused and new compensatory planting works are carried out immediately after the construction of the civil structure) in the monthly EM&A reports. The first monthly EM&A Report should also report the appearance of the temporary hoarding barriers.	To minimise potential landscape and visual impacts.	To be implemented during the construction phases of the project.	The Contractor		✓			
	H2	Prior to application for an Environmental Permit, a set of landscape plans and building elevations of the proposed pumping stations should be	To minimise potential landscape and visual impacts.	To be implemented during the design and construction phases of the	DSD and The Contractor	✓	✓			

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		submitted for approval by the EPD. The landscape plans and pumping station elevations should demonstrate that the following elements are considered: <ul style="list-style-type: none"> existing landscape elements (such as mature trees), transplantation of valuable trees, new compensatory planting 		project.						
		<ul style="list-style-type: none"> incorporate information on materials, details and textures so as to be as visually recessive as possible and in a style that fits with the surrounding village buildings. colour should be of low chromatic intensity to reduce the potential contrast between the structures and their background. The external finishing of the Pumping Stations shall be designed in conjunction with the landscape scheme. a minimum screen planting of 3m width and use of trees with a dense canopy of up to 5 m in height subject to constraints such as engineering and land availability. felling of mature trees are kept to a minimum. 								
3.7	I1	<p>EM&A REQUIEMENTS - Construction Phase</p> <p><i>Air Quality</i> Subject to the Environmental Protection Departments (EPDs) agreement, construction phase dust monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA.</p> <ul style="list-style-type: none"> Worksite boundary facing Scattered house in Nam Sang Wai (AM1); Worksite boundary facing Fung Kat Heung (AM5); Worksite boundary facing Scattered House near Route 3 (AM6); 	Installations of the dust monitoring stations to ensure the action and limit levels are not exceeded.	At specified dust monitoring locations for the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer /DSD		✓			<i>Air Pollution Control (Construction Dust) Regulations</i>

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
4.9.1	I2	<ul style="list-style-type: none"> at any additional locations, where considered necessary, in agreement with EPD. <p><i>Construction Noise</i> Subject to the Environmental Protection Departments (EPDs) agreement, construction phase noise monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA.</p> <ul style="list-style-type: none"> (NM3) Scattered House in Nam San Wai (D12); (NM4) Scattered House in Nam San Wai (D11); (NM6) Scattered House near Route 3 (D17); (NM7) Fung Kat Heung (D19); and at any additional locations, where considered necessary, in agreement with EPD 	Installations of the noise monitoring stations to ensure the action and limit levels are not exceeded.	At specified noise monitoring locations throughout the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer		✓			<i>Noise Control Ordinance</i>

Des = Design, C = Construction, O = Operation, Dec = Decommissioning

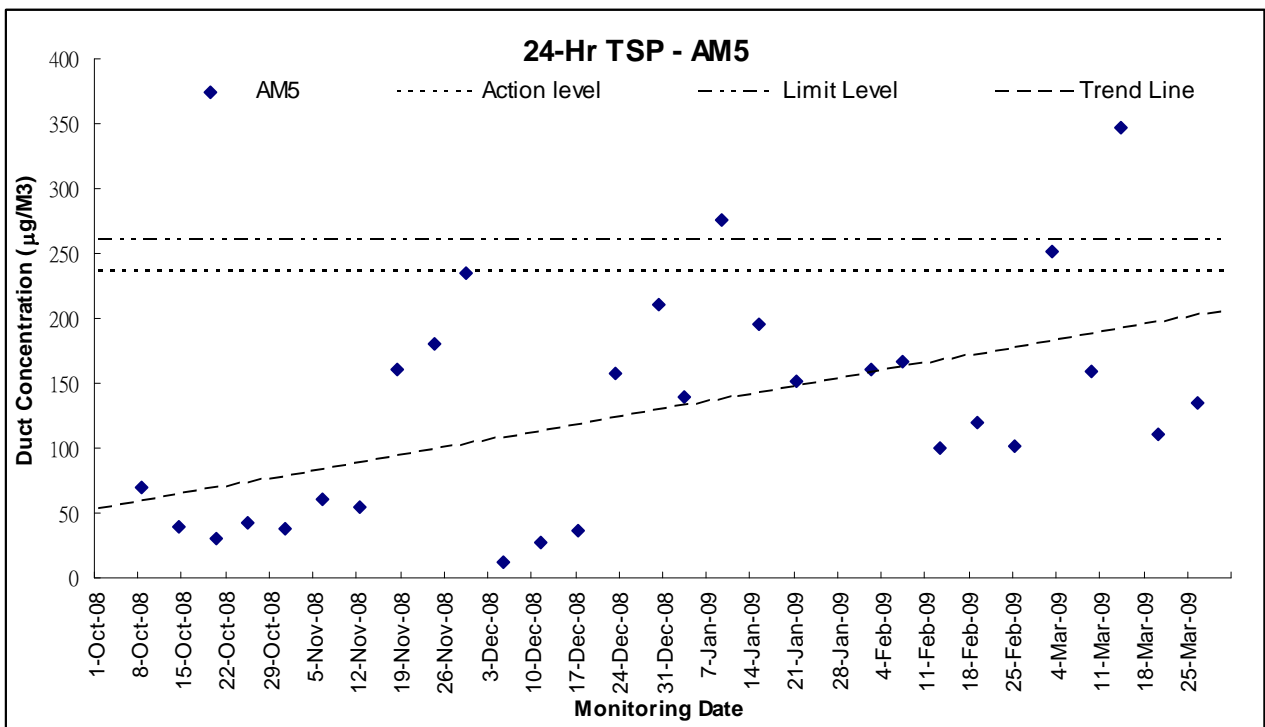
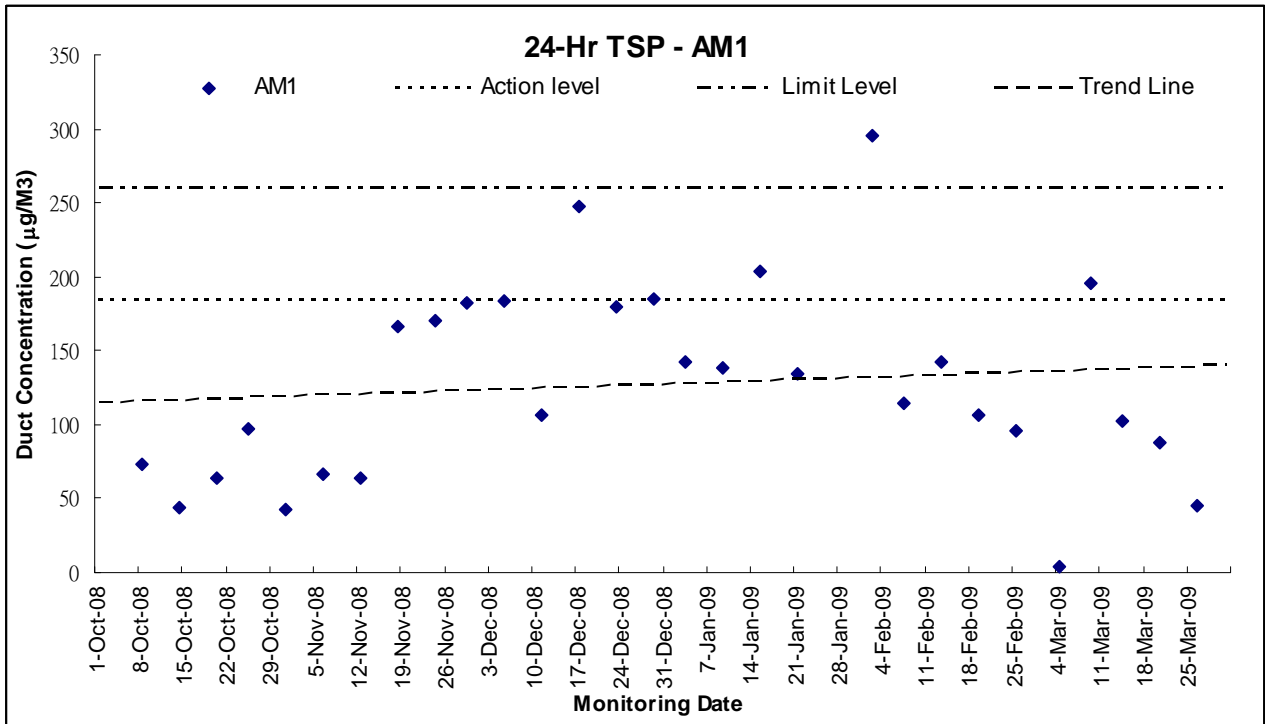
Annex H

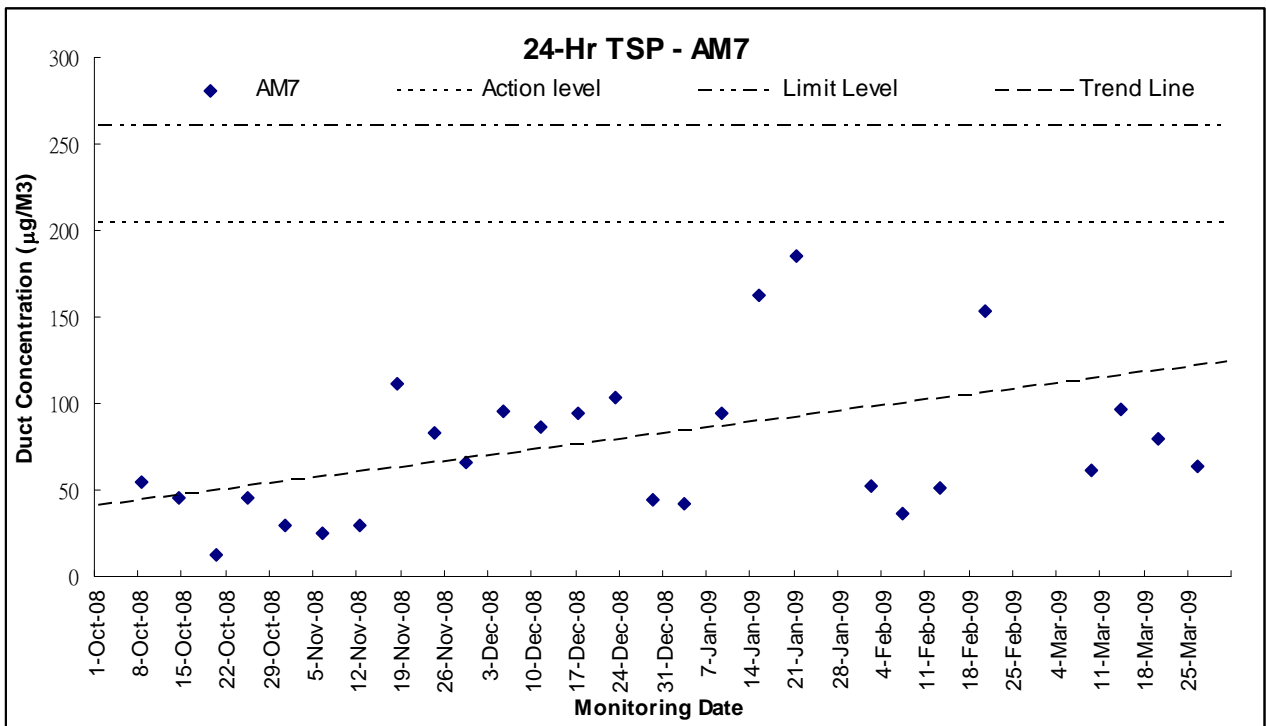
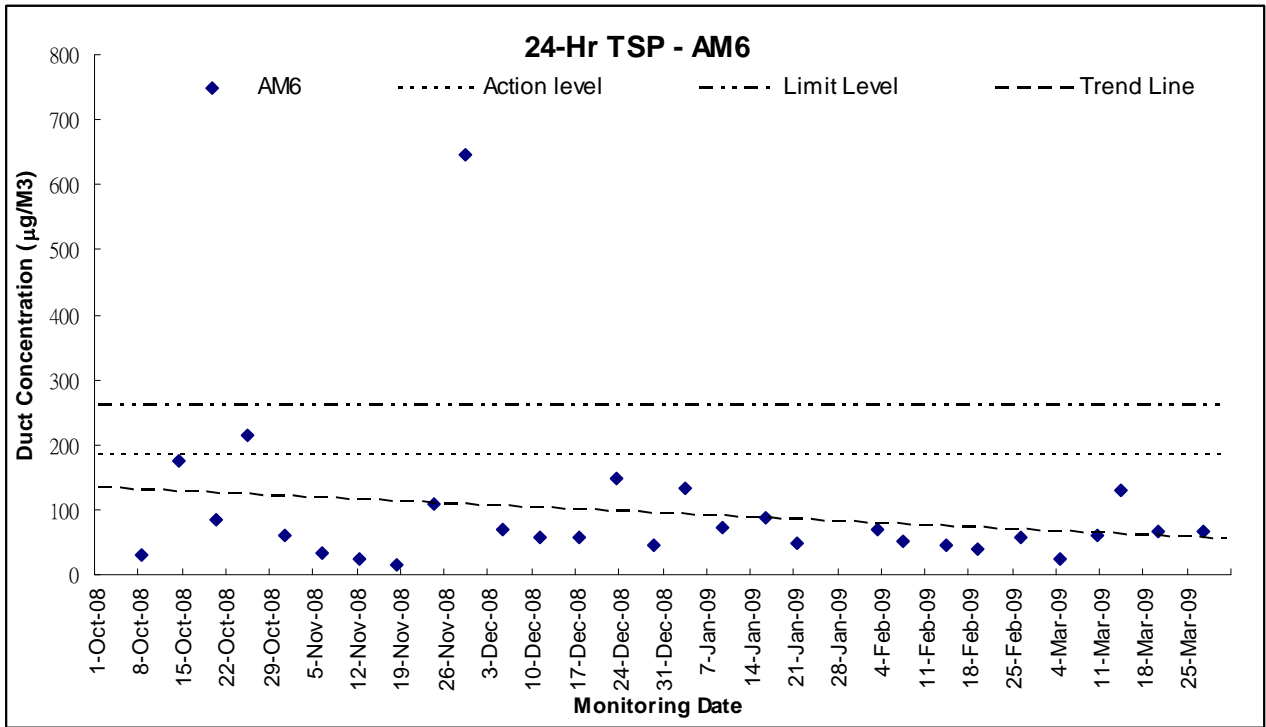
**Monitoring Results & Graphical Plots of Air Quality
and
Noise Monitoring Results**

Air Quality Monitoring Results & Graphical Plot

Date	24-Hr TSP ($\mu\text{g}/\text{m}^3$)			
	AM1	AM5	AM6	AM7
8-Oct-08	73	69	31	54
14-Oct-08	44	39	174	46
20-Oct-08	64	31	85	13
25-Oct-08	97	42	213	46
31-Oct-08	43	38	60	30
6-Nov-08	67	60	33	25
12-Nov-08	64	54	24	30
18-Nov-08	166	160	16	111
24-Nov-08	170	181	109	83
29-Nov-08	182	235	646	66
05-Dec-08	183	12	69	96
11-Dec-08	106	28	56	86
17-Dec-08	247	36	56	94
23-Dec-08	180	158	149	103
29-Dec-08	185	210 (30-Dec-08)	45	44
3-Jan-09	143	139	133	42
9-Jan-09	139	276	71	94
15-Jan-09	203	195	87 (16-Jan-09)	163
21-Jan-09	134	151	47	185
2-Feb-09	295	160	69 (03-Feb-09)	52
7-Feb-09	115	167	50	36
13-Feb-09	142	100	45 (14-Feb-09)	51
19-Feb-09	107	120	40	153 (20-Feb-09)
25-Feb-09	96	102	56 (26-Feb-09)	284 (02-Mar-09)
3-Mar-09	4 (04-Mar-09)	251	24 (4-Mar-09)	
9-Mar-09	196	159	61 (10-Mar-09)	61
14-Mar-09	103	347	130	97
20-Mar-09	88	110	65	79
26-Mar-09	45	135	65 (27-Mar-09)	64
Average (Range)	61 (14 – 177)	76 (13 - 186)	36 (5 - 232)	40 (13 - 78)

All 24-Hr TSP monitoring were preset to start at 00:00 on each monitoring date.





Construction Noise Monitoring Results & Graphical Plot

Noise Monitoring Results at NM3

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
02-Oct-08	09:16	46.3	45.7	45.4	45.8	46.7	45.1	45.9	48.9
09-Oct-08	09:18	52.0	51.8	52.1	52.5	52.7	52.4	52.3	55.3
15-Oct-08	09:34	48.5	48.5	49.6	52.6	9.5	50.2	49.4	52.4
21-Oct-08	11:07	50.4	49.2	48.7	49.0	55.0	50.1	51.1	54.1
27-Oct-08	09:40	58.8	47.4	49.3	45.1	45.0	42.4	52.1	55.1
01-Nov-08	11:20	49.9	49.1	50.2	57.9	49.8	52.2	52.9	55.9
07-Nov-08	11:00	61.0	60.2	59.1	59.1	59.4	60.0	59.9	62.9
13-Nov-08	11:30	54.2	51.3	57.0	55.5	51.6	54.7	54.5	57.5
19-Nov-08	11:00	67.2	66.6	66.0	67.1	67.3	68.7	67.2	70.2
25-Nov-08	11:20	47.0	50.4	43.2	42.3	45.8	53.9	49.0	52.0
01-Dec-08	10:45	54.6	53.6	55.9	57.8	56.7	58.7	56.6	59.6
06-Dec-08	11:10	63.7	62.7	63.9	61.9	60.5	62.7	62.7	65.7
12-Dec-08	10:30	47.3	45.5	46.7	48.3	45.2	47.5	46.9	49.9
18-Dec-08	10:40	46.1	42.6	43.8	43.7	44.9	46.5	44.8	47.8
24-Dec-08	10:40	50.4	52	53.2	56.3	53.9	52.4	53.4	56.4
30-Dec-08	10:30	56.5	50.2	46.7	47.3	44.7	45.2	50.8	53.8
05-Jan-09	10:35	53.2	43.9	44.9	43.4	44.7	53.5	49.5	52.5
10-Jan-09	10:20	57.1	58.4	56.9	58.1	56.4	69.8	63.1	66.1
16-Jan-09	10:30	56.3	58.9	56.4	55.7	49.8	51.4	55.7	58.7
22-Jan-09	10:30	45.1	51.7	51.8	54.9	56.7	60.7	55.8	58.8
03-Feb-09	11:20	50.9	49.5	52.3	54.8	53.9	55.4	53.3	56.3
09-Feb-09	11:10	50.6	49.7	53.2	54.9	50.4	51.5	52.1	55.1
14-Feb-09	10:40	54.2	50.5	50.9	48.2	51.2	49.7	51.2	54.2
20-Feb-09	11:00	50.4	55.7	52.8	50.3	49.6	53.1	52.5	55.5
26-Feb-09	09:40	55.3	49.5	46.0	57.2	60.9	54.2	56.2	59.2
04-Mar-09	10:26	54.9	60.4	63.2	59.3	61.2	58.7	60.3	63.3
10-Mar-09	09:55	47.5	50.9	55.4	57.9	53.2	50.3	53.9	56.9
16-Mar-09	09:42	48.9	50.1	49.2	49.3	51.7	50.9	50.1	53.1
21-Mar-09	09:40	49.3	48.2	50.7	51.9	48.4	50.9	50.1	53.1
27-Mar-09	10:15	50.9	54.8	56.7	50.3	49.7	51.4	53.1	56.1
Limit Level									75

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

Noise Monitoring Results at NM4

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
02-Oct-08	13:03	52.5	53.4	52.9	53.7	54.5	53.7	53.5	56.5
9-Oct-08	13:41	60.5	62.1	63.7	64.3	62.1	63.6	62.9	65.9
15-Oct-08	13:40	63.4	65.2	64.9	64.7	63.5	65.6	64.6	67.6
21-Oct-08	14:27	55.4	50.9	50.7	50.1	55.5	49.2	52.7	55.7
27-Oct-08	10:45	54.1	51.6	50.2	49.8	48.7	51.4	51.3	54.3
1-Nov-08	09:50	64.9	65.4	62.3	60.6	61.2	61.1	63.0	66.0
7-Nov-08	09:15	69.6	65.3	62.4	62.4	61.1	62.7	65.0	68.0
13-Nov-08	09:45	54.7	53.0	57.1	55.5	49.3	54.0	54.5	57.5
19-Nov-08	09:30	69.2	67.5	69.9	70.5	67.4	68.6	69.0	72.0
25-Nov-08	09:40	49.9	52.8	53.3	51.1	50.2	48.9	51.3	54.3
1-Dec-08	09:45	71.7	71.5	71.3	71.9	71.5	71.2	71.5	74.5
06-Dec-08	09:50	61.2	62.4	60.7	63.8	64.7	63.9	63.0	66.0
12-Dec-08	09:00	54.4	55.3	54.1	56.6	54.1	53.0	54.7	57.7
18-Dec-08	09:00	63.3	54.6	48.5	49.9	55.4	51.8	57.1	60.1
24-Dec-08	08:50	64.9	65.6	62.0	61.7	63.4	62.9	63.7	66.7
30-Dec-08	09:00	59.1	56.0	55.1	56.6	62.1	58.4	58.6	61.6
05-Jan-09	09:00	59.2	57.6	59.4	53.5	59.5	56.1	58.0	61.0
10-Jan-09	11:00	56.7	57.9	56.4	58.5	59.4	62.1	59.0	62.0
16-Jan-09	09:00	58.9	59.4	57.6	56.2	61.5	58.7	59.0	62.0
22-Jan-09	09:00	60.3	60.8	60.9	58.2	59.7	56.8	59.7	62.7
3-Feb-09	10:00	63.4	60.5	57.9	58.2	59.9	56.3	60.0	63.0
9-Feb-09	09:40	63.9	61.3	56.5	58.2	59.7	57.3	60.3	63.3
14-Feb-09	09:00	59.5	61.4	58.4	62.9	61.2	59.7	60.8	63.8
20-Feb-09	09:00	59.7	62.3	61.7	54.8	63.9	60.7	61.3	64.3
26-Feb-09	10:30	58.7	59.2	60.4	54.9	62.8	60.7	60.0	63.0
4-Mar-09	11:15	59.9	62.3	63.4	64.9	60.1	59.8	62.2	65.2
10-Mar-09	10:42	61.2	60.9	57.3	56.2	59.1	61.3	59.7	62.7
16-Mar-09	10:31	58.2	61.7	63.4	57.4	56.9	58.7	60.1	63.1
21-Mar-09	10:13	60.3	62.5	61.7	60.4	58.9	58.7	60.6	63.6
27-Mar-09	11:00	59.7	61.2	63.3	58.2	58.9	60.8	60.7	63.7
Limit Level									75

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

Noise Monitoring Results at NM6

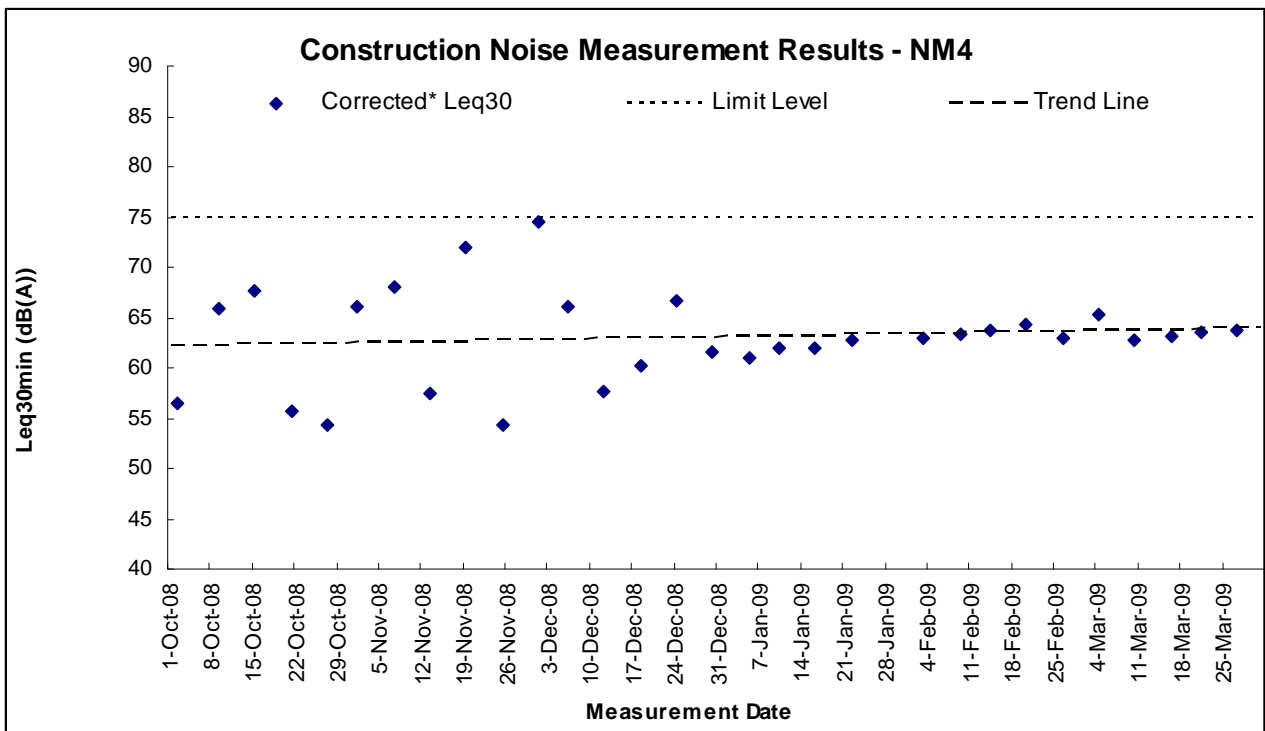
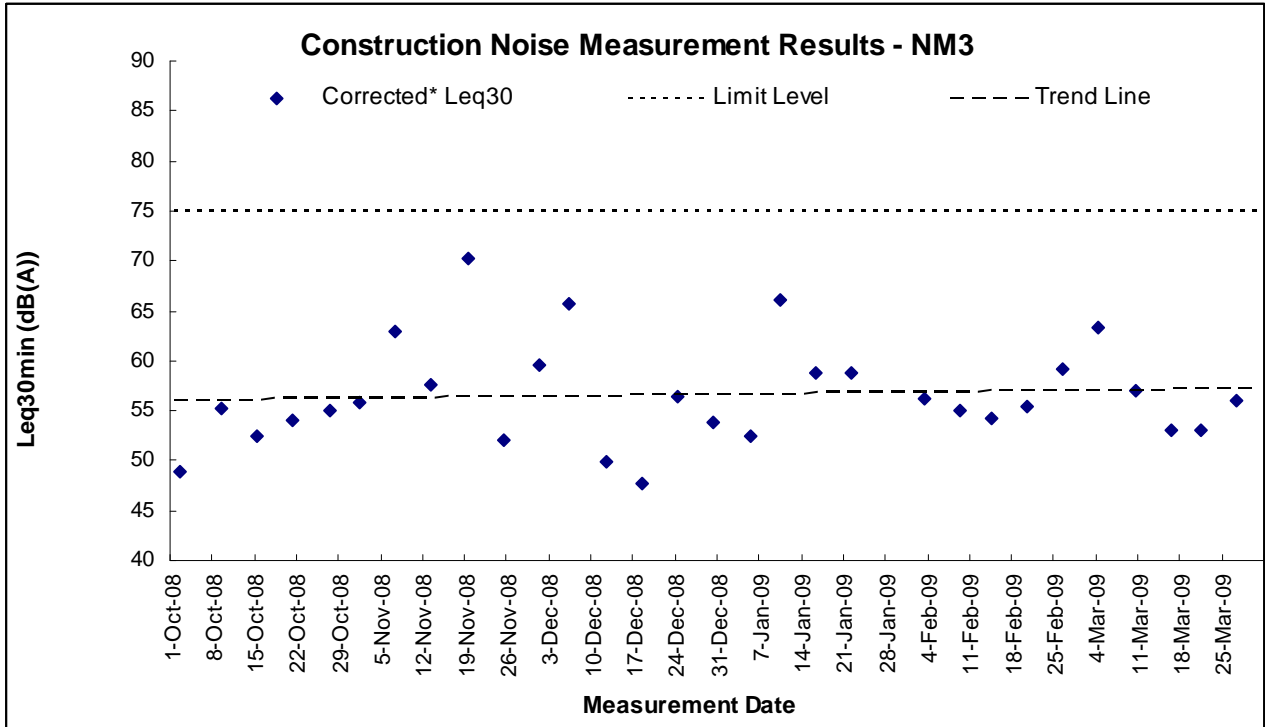
Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
02-Oct-08	11:28	55.3	54.8	51.9	52.4	54.4	52.1	53.7
09-Oct-08	11:27	54.8	56.0	54.3	53.1	53.8	55.3	54.7
15-Oct-08	11:23	60.7	61.4	59.8	61.2	62.3	60.8	61.1
21-Oct-08	11:23	55.3	58.0	60.1	55.6	57.5	56.6	57.5
27-Oct-08	11:30	57.6	60.6	57.9	56.8	59.6	61.0	59.2
01-Nov-08	11:26	59.5	62.8	61.6	58.8	57.6	60.3	60.4
07-Nov-08	11:27	56.2	54.4	58.2	50.7	52.5	51.0	54.7
13-Nov-08	11:28	61.3	63.0	54.3	52.7	51.6	53.6	58.4
19-Nov-08	11:27	59.9	58.8	55.7	56.9	58.3	58.3	58.2
25-Nov-08	14:24	61.6	58.8	51.6	50.7	55.8	56.9	57.5
01-Dec-08	11:25	50.8	56.5	57.3	52.8	53.2	52.6	54.5
06-Dec-08	11:25	57.8	55.0	57.2	56.3	54.3	55.8	56.2
12-Dec-08	11:27	56.7	57.8	54.7	53.9	53.0	55.3	55.5
18-Dec-08	11:30	54.9	56.9	54.8	52.6	52.9	53.3	54.5
24-Dec-08	15:40	53.9	52.1	54.3	52.8	52.0	53.1	53.1
30-Dec-08	11:29	55.8	53.5	58.3	55.2	55.1	54.0	55.6
05-Jan-09	11:30	53.0	53.2	54.7	53.2	54.3	54.8	53.9
10-Jan-09	11:27	54.4	54.6	54.1	55.1	53.2	54.1	54.3
16-Jan-09	11:26	55.1	56.4	57.1	55.8	55.6	56.2	56.1
22-Jan-09	11:26	58.2	55.7	54.2	56.3	57.4	55.1	56.4
03-Feb-09	11:28	56.3	66.4	61.0	60.8	58.1	59.4	61.6
09-Feb-09	11:29	55.2	55.1	55.9	55.5	54.7	54.4	55.2
14-Feb-09	11:26	57.2	57.6	59.4	57.9	56.3	56.7	57.6
20-Feb-09	11:30	57.0	57.3	58.8	57.6	59.1	58.3	58.1
26-Feb-09	11:26	54.0	55.5	60.2	55.7	53.8	56.3	56.5
04-Mar-09	11:30	61.2	59.1	58.2	59.3	60.6	58.3	59.6
10-Mar-09	11:28	56.3	58.3	64.7	63.6	64.5	59.4	62.2
16-Mar-09	11:28	57.8	56.9	55.8	55.5	56.2	56.9	56.6
21-Mar-09	11:30	56.6	55.3	55.9	55.1	55.5	55.6	55.7
27-Mar-09	11:29	56.3	55.6	57.2	56.7	56.2	56.3	56.4
Limit Level								75

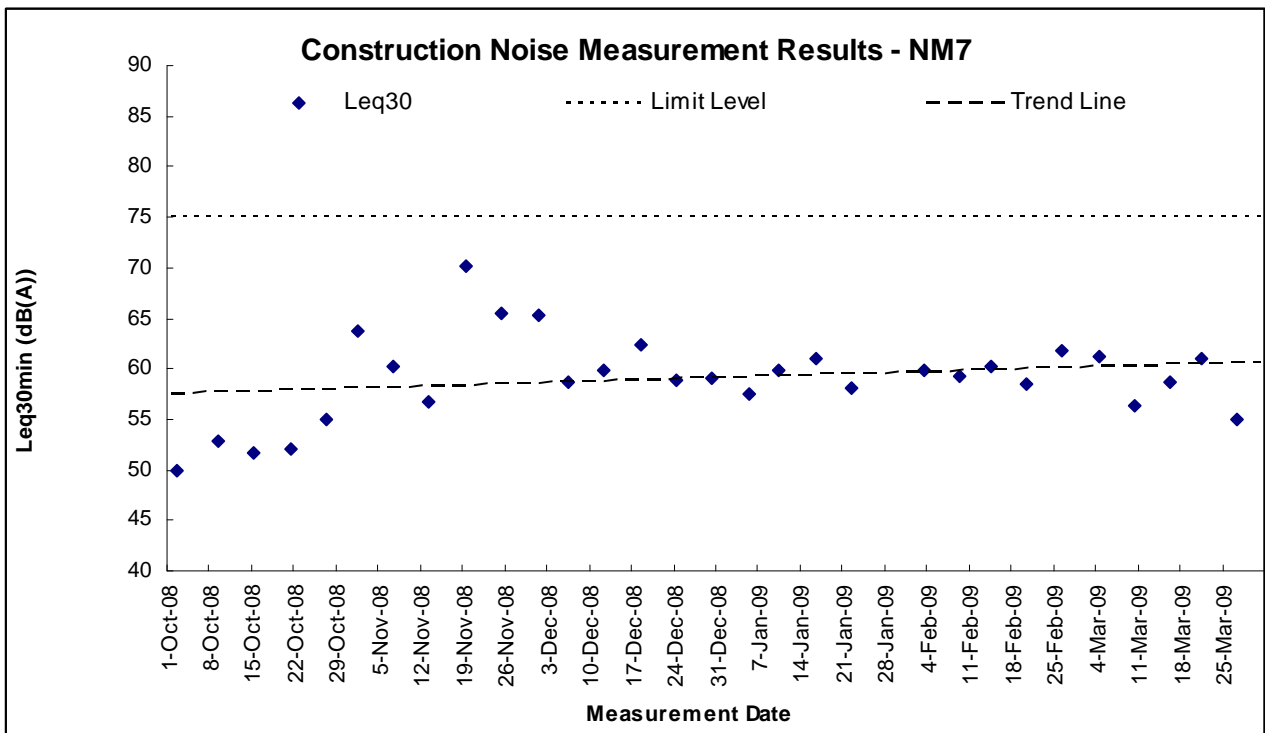
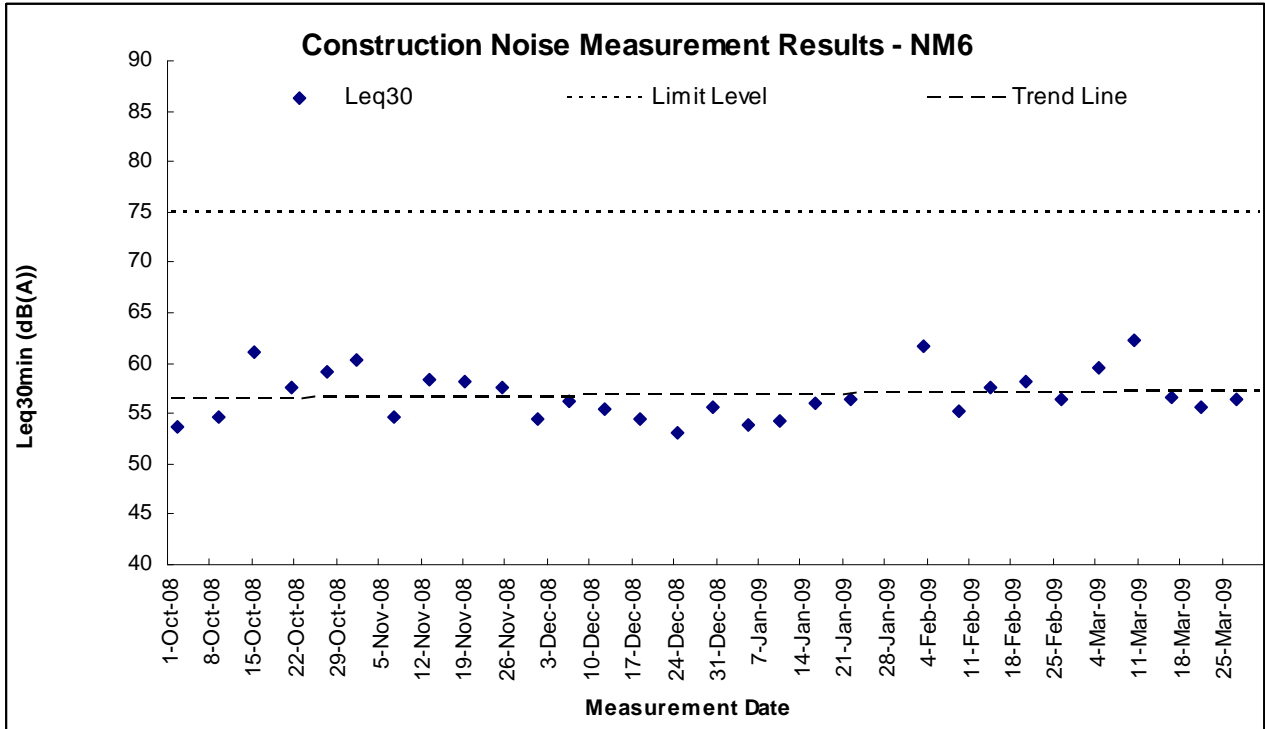
* No façade correction was required

Noise Monitoring Results at NM7

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
02-Oct-08	10:15	51.9	49.7	49.1	48.6	49.1	50.4	49.9
09-Oct-08	10:21	52.7	52.8	52.4	53.6	53.3	52.7	52.9
15-Oct-08	10:27	51.9	51.9	50.8	50.5	51.2	53.2	51.7
21-Oct-08	13:00	54.7	50.6	50.1	49.7	47.8	54.8	52.1
27-Oct-08	11:50	42.2	59.4	58.5	48.8	49.0	51.3	55.0
1-Nov-08	13:00	66.1	68.4	60.6	57.5	60.3	56.6	63.8
7-Nov-08	12:00	60.1	60.2	60.0	62.4	58.2	59.1	60.2
13-Nov-08	12:20	63.1	51.8	54.1	52.4	51.1	51.3	56.8
19-Nov-08	11:45	67.8	69.9	70.4	69.8	70.3	71.4	70.1
25-Nov-08	13:00	68.4	65.2	67.1	64.3	63.7	58.4	65.5
1-Dec-08	11:30	67.0	63.5	64.7	64.5	67.5	61.5	65.2
06-Dec-08	09:00	61.8	58.7	57.6	56.2	57.0	58.2	58.7
12-Dec-08	11:15	56.4	60.7	59.4	59.3	61.2	60.7	59.9
18-Dec-08	11:20	62.4	61.5	63.4	61.4	61.5	62.9	62.3
24-Dec-08	10:05	57.9	55.9	60.1	60.3	59.4	58.6	58.9
30-Dec-08	11:10	57.7	55.5	60.9	62.5	57.2	56.3	59.1
05-Jan-09	11:20	56.7	58.9	60.0	57.4	56.3	54.1	57.6
10-Jan-09	09:00	60.0	61.2	59.4	58.4	60.2	59.3	59.8
16-Jan-09	11:15	61.2	59.7	62.9	58.7	59.3	62.5	61.0
22-Jan-09	11:20	56.4	57.9	56.5	60.5	57.8	58.4	58.1
3-Feb-09	09:00	61.9	59.4	58.7	60.5	58.2	59.6	59.9
9-Feb-09	09:00	59.2	57.3	60.2	58.9	57.4	60.9	59.2
14-Feb-09	11:30	60.9	61.2	58.2	60.4	59.7	60.2	60.2
20-Feb-09	13:00	56.4	57.9	60.2	60.3	59.1	54.7	58.5
26-Feb-09	09:00	62.5	60.4	61.7	59.5	63.1	62.7	61.8
4-Mar-09	09:34	63.4	60.9	62.3	59.7	61.3	58.9	61.3
10-Mar-09	09:08	56.2	55.1	55.8	56.7	58.2	55.9	56.4
16-Mar-09	09:00	56.4	56.9	55.5	58.7	60.2	61.3	58.7
21-Mar-09	09:00	56.2	58.3	60.9	62.7	63.5	60.9	61.1
27-Mar-09	09:22	54.2	55.7	55.1	53.1	54.5	56.7	55.0
Limit Level								75

* No façade correction was required





Annex I

Meteorological Data in the Reporting Period

Meteorological Data Extracted From the HK Observatory at Lau Fau Shan Weather Station
October 2008

Date	Weather	Lau Fau Shan Weather Station					
		Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction	
1-Oct-08	Wed	Holiday					
2-Oct-08	Thu	sunny periods/moderate	3	27.9	9	68	E/NE
3-Oct-08	Fri	cloudy/overcast/rain/moderate/fresh/strong	2.4	27.6	17	70	E
4-Oct-08	Sat	cloudy/scattered showers/squally thunderstorm/moderate/fresh	14	28.1	17	78	E
5-Oct-08	Sun	cloudy/moderate/fresh	122.6	25	29.5	88.5	S/SE
6-Oct-08	Mon	cloudy/moderate/fresh	Trace	24	27.5	80.5	N/NW
7-Oct-08	Tue	Holiday					
8-Oct-08	Wed	cloudy/sunny periods/moderate/fresh	0.5	25	12	77	E/NE
9-Oct-08	Thu	sunny periods/cloudy/moderate/fresh	Trace	27.7	14	72	E
10-Oct-08	Fri	fine/dry/moderate	0	28.3	10	70	E/SE
11-Oct-08	Sat	fine/dry/moderate/fresh	0	28.2	13.5	68.5	E/NE
12-Oct-08	Sun	cloudy/rain/fresh/strong	Trace	26.6	12	73	E/NE
13-Oct-08	Mon	cloudy/rain/fresh/strong	0.3	24.5	11	83	E/NE
14-Oct-08	Tue	cloudy/haze/sunny periods/moderate/fresh	Trace	25.6	13.5	75.5	E/NE
15-Oct-08	Wed	fine/dry/moderate/fresh	Trace	26.9	9	71	E
16-Oct-08	Thu	fine/hazy/cloudy/moderate	0	27.4	12	71	E/SE
17-Oct-08	Fri	cloudy/rain/moderate/fresh	0.1	26.8	11.7	69.5	E/SE
18-Oct-08	Sat	sunny periods/cloudy/moderate/fresh	0	28.5	10.7	71.5	E/SE
19-Oct-08	Sun	fine/dry/moderate/fresh	1.6	28.6	9.5	66.2	E/SE
20-Oct-08	Mon	fine/dry/moderate/fresh	Trace	28.3	14.5	66.5	E/SE
21-Oct-08	Tue	fine/moderate	0	27.4	13.5	66.5	E
22-Oct-08	Wed	fine/moderate	0	27	9	74	E/SE
23-Oct-08	Thu	fine/hot/haze/light winds	0	26.7	10.5	76.2	S/SE
24-Oct-08	Fri	cloudy/sunny intervals/moderate/fresh	0	28	11.5	68	E/NE
25-Oct-08	Sat	cloudy/sunny intervals/moderate/fresh	Trace	27.6	15.5	68	E
26-Oct-08	Sun	cloudy/sunny intervals/moderate/fresh	0	27.4	11.7	70.5	E/SE
27-Oct-08	Mon	fine/haze/moderate	Trace	27.3	10.5	74.3	E/NE
28-Oct-08	Tue	fine/cloudy/rain/moderate/fresh	0.1	26	9.7	73.5	E
29-Oct-08	Wed	sunny intervals/cloudy/moderate	0	27.5	10.2	6.9	E/SE
30-Oct-08	Thu	fine/moderate/fresh/rain	0	28	9	71.5	E/SE
31-Oct-08	Fri	sunny intervals/cloudy/moderate/fresh	0	28.5	12.5	71.7	E

November 2008

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Nov-08	Sat	cloudy/sunny intervals/rain/moderate/fresh	0.2	27.1	15.5	70.7	E
2-Nov-08	Sun	cloudy/rain/moderate/fresh	2.6	27.7	13.5	77	E/SE
3-Nov-08	Mon	cloudy/rain/thunderstorm/moderate/fresh	51.2	23.7	12	91	E/NE
4-Nov-08	Tue	cloudy/rain/moderate/fresh	Trace	25.1	17	81	E/NE
5-Nov-08	Wed	cloudy/sunny intervals/rain/moderate/fresh	0.3	26.6	15	76	E/NE
6-Nov-08	Thu	sunny periods/cloudy/moderate	0	27.6	11	75.5	E
7-Nov-08	Fri	fine/cloudy/rain/moderate	Trace	27.9	9	76.5	E/SE
8-Nov-08	Sat	cloudy/rain/fresh/strong	Trace	27.5	16.5	78	N/NW
9-Nov-08	Sun	fine/very dry/fresh/strong	Trace	Maintenance	27.5	Maintenance	N/NE
10-Nov-08	Mon	fine/very dry/fresh/strong	0	19.5	26	Maintenance	N/NE
11-Nov-08	Tue	fine/very dry/moderate/fresh	0	18.9	20.5	45	NE
12-Nov-08	Wed	fine/very dry/moderate	0	19.6	15	42	E/NE
13-Nov-08	Thu	fine/dry/moderate	Trace	21.5	11	45	E
14-Nov-08	Fri	fine/dry/moderate	Trace	23.7	9.2	61.5	E/NE
15-Nov-08	Sat	fine/moderate	0	24.1	7.2	66	E/NE
16-Nov-08	Sun	fine/moderate	0	25.8	13.2	54	E/SE
17-Nov-08	Mon	fine/moderate	0	24.8	12	68.5	E/SE
18-Nov-08	Tue	fine/dry/haze/cloudy/fresh/strong	0	21.2	14.5	64	E/NE
19-Nov-08	Wed	fine/dry/cool/moderate/fresh	0	18.7	21.5	47	NE
20-Nov-08	Thu	fine/dry/cool/moderate/fresh	0	16.9	12.7	42.5	E/NE
21-Nov-08	Fri	fine/dry/moderate/fresh	0	18.7	8.2	52.5	E/NE
22-Nov-08	Sat	sunny periods/dry/cloudy/moderate	0	20.6	8.5	59	E/NE
23-Nov-08	Sun	fine/moderate/fresh	Trace	22.9	10	96.5	W/SW
24-Nov-08	Mon	fine/dry/moderate/fresh	0	22.6	15	95.5	N/NE
25-Nov-08	Tue	fine/dry/moderate	0	21.7	15	50	E/NE
26-Nov-08	Wed	fine/dry/moderate	0	20.8	11.2	57.5	E/NE
27-Nov-08	Thu	fine/very dry/cool/fresh/strong	0	18.3	22.7	44.5	N/NE
28-Nov-08	Fri	fine/very dry/moderate/fresh	0	15.2	33.5	27.2	NE
29-Nov-08	Sat	fine/very dry/cool/moderate	0	17.1	12	30	E/NE
30-Nov-08	Sun	fine/dry/moderate	0	16.9	9.2	38	N

December 2008

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Dec-08	Mon	fine/dry/moderate	0	17.3	8.5	57.2	E/SE
2-Dec-08	Tue	fine/dry/light winds/moderate	0	17.4	8.5	49.5	E/SE
3-Dec-08	Wed	sunny intervals/cloudy/moderate/fresh	Trace	19.9	11.5	58.5	E/NE
4-Dec-08	Thu	sunny intervals/moderate/rain/cool	0.2	23.9	11	59	E
5-Dec-08	Fri	fine/very dry/cool/moderate/fresh	Trace	18.2	22	52	NE
6-Dec-08	Sat	fine/very dry/moderate/fresh	0	15.4	14.5	33.5	NE
7-Dec-08	Sun	sunny periods/dry/moderate	0.4	15.6	8.7	35.2	E/SE
8-Dec-08	Mon	sunny periods/very dry/moderate	Trace	18.1	16	38.7	N/NE
9-Dec-08	Tue	fine/very dry/moderate	0	16.8	13	36	E/SE
10-Dec-08	Wed	fine/very dry/moderate	0	19.5	11	54	E/SE
11-Dec-08	Thu	fine/very dry/haze/moderate	0	18.6	8.5	44	E/SE
12-Dec-08	Fri	dry/sunny intervals/cloudy/moderate/fresh	0	22.3	10	54.5	E
13-Dec-08	Sat	sunny periods/dry/fine/moderate/fresh	0	21.4	10	63	E/NE
14-Dec-08	Sun	fine/dry/hazy/moderate	0	18.7	4	12	E/NE
15-Dec-08	Mon	fine/dry/hazy/moderate	0	15.4	14.5	Maintenance	E/NE
16-Dec-08	Tue	fine/dry/hazy/moderate	0	16.1	9	62	E
17-Dec-08	Wed	fine/dry/haze/moderate	0	17.2	7.2	58	E/SE
18-Dec-08	Thu	fine/dry/haze/light winds/moderate	0	17.4	9.2	53	E/SE
19-Dec-08	Fri	fine/dry/haze/moderate	0	21.2	13.5	51	E
20-Dec-08	Sat	fine/dry/haze/moderate	0	21.9	9	57.5	E/SE
21-Dec-08	Sun	fine/dry/haze/moderate	0	21.8	8.5	56	E
22-Dec-08	Mon	fine/dry/fresh/strong	Trace	14.9	19	59.7	E/NE
23-Dec-08	Tue	fine/dry/moderate	0	12.6	19	45	NE
24-Dec-08	Wed	cloudy/dry/sunny intervals/moderate	0	17.3	10.5	49.7	N/NE
25-Dec-08	Thu	Holiday					
26-Dec-08	Fri	Holiday					
27-Dec-08	Sat	cloudy/rain/moderate/fresh	Trace	20	9	64	E/NE
28-Dec-08	Sun	cloudy/haze/moderate/fresh	0.1	19.4	8.2	81	N/NE
29-Dec-08	Mon	cloudy/haze/moderate/fresh	2	19.5	11.7	76	N/NE
30-Dec-08	Tue	cloudy/rain/cool/moderate/fresh	5.2	15.9	12.2	76	E/NE
31-Dec-08	Wed	rain/fine/moderate/fresh	1.1	13.9	19	72.5	NE

January 2009

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Jan-09	Thu	Holiday					
2-Jan-09	Fri	fine/dry/moderate	0	10.7	19	35.5	E/NE
3-Jan-09	Sat	fine/dry/cloudy/moderate/fresh	0	14.7	9	48.5	E/NE
4-Jan-09	Sun	fine/dry/moderate/fresh	Trace	18	13	50	E/NE
5-Jan-09	Mon	fine/dry/moderate/fresh	0	18	7.5	43.5	E/NE
6-Jan-09	Tue	fine/fresh/strong	0	19.3	10.5	66.7	E/SE
7-Jan-09	Wed	fine/dry/hazy/moderate/fresh	0	16.5	14.7	65	E/NE
8-Jan-09	Thu	fine/dry/moderate/fresh	0	13.8	17	57	NE
9-Jan-09	Fri	fine/dry/cold/fresh/strong	0	12.1	22.5	48.5	N/NE
10-Jan-09	Sat	fine/very dry/cold/fresh/strong	0	12.1	21.5	32.5	NE
11-Jan-09	Sun	fine/cold/very dry/moderate/fresh	0	11.6	9	Maintenance	E/SE
12-Jan-09	Mon	fine/very dry/cold/moderate/fresh	0	13.8	17.7	Maintenance	E/NE
13-Jan-09	Tue	fine/cold/very dry/moderate/fresh	0	12.5	18.7	28	E/NE
14-Jan-09	Wed	fine/dry/cold/moderate/fresh	0	11.8	16.5	25	E/NE
15-Jan-09	Thu	fine/very dry/cool/moderate	0	12.9	10.7	47.5	E/NE
16-Jan-09	Fri	fine/dry/cool/moderate	0	13.4	11.5	52.7	E/SE
17-Jan-09	Sat	fine/dry/cool/moderate	0	15.9	11	57.5	E/SE
18-Jan-09	Sun	fine/haze/moderate/fresh	0	17.7	8	63.5	W/SW
19-Jan-09	Mon	fine/haze/moderate/fresh	0	22	10	60.5	E/SE
20-Jan-09	Tue	sunny periods/cloudy/moderate/fresh	0	18.8	12.2	54.5	E
21-Jan-09	Wed	fine/hazy/light winds/moderate	0	21.7	9	63	E
22-Jan-09	Thu	fine/dry/hazy/moderate	0	18.5	12	66	W/SW
23-Jan-09	Fri	cloudy/dry/hazy/moderate/fresh	0	16.3	16	70	E/NE
24-Jan-09	Sat	cloudy/very dry/cold/fresh/strong			22.5	47	NE
25-Jan-09	Sun	cloudy/very dry/cold/fresh/strong	0	12.6	24	43.5	NE
26-Jan-09	Mon	Holiday					
27-Jan-09	Tue	Holiday					
28-Jan-09	Wed	Holiday					
29-Jan-09	Thu	cloudy/haze/sunny intervals/moderate	0	14.9	12	72	W/SW
30-Jan-09	Fri	fine/dry/moderate/fresh	0	16.1	14.5	75.5	W/NW
31-Jan-09	Sat	fine/cloudy/moderate/fresh	0	17.4	18.5	58.5	E/NE

February 2009

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Feb-09	Sun	sunny periods/moderate/fresh	Trace	20.4	13.5	57.5	E
2-Feb-09	Mon	fine/moderate	0	20.5	10.5	58.7	E/NE
3-Feb-09	Tue	fine/haze/light winds	0	17.8	13	67.5	E/SE
4-Feb-09	Wed	sunny periods/cloudy/moderate/fresh	0	19.9	11.7	67.2	E/SE
5-Feb-09	Thu	fine/haze/moderate	0	18.3	13.2	68.7	E/NE
6-Feb-09	Fri	fine/moderate/fresh	0	19.5	11.2	73	E/SE
7-Feb-09	Sat	fine/haze/moderate	0	19.7	14.5	68	E/SE
8-Feb-09	Sun	fine/haze/moderate	0	22	10	61	E/SE
9-Feb-09	Mon	fine/moderate/haze	0	20.2	13.5	67.5	E/NE
10-Feb-09	Tue	fine/hazy/moderate/fresh	0	27.3	13.5	67	E/SE
11-Feb-09	Wed	fine/hazy/light winds	0	19.2	10.5	66	E/SE
12-Feb-09	Thu	fine/misty/moderate	0	22.2	15.5	70.5	S/SE
13-Feb-09	Fri	cloudy/warm/sunny intervals/moderate	0	23.9	15.5	68	S/SE
14-Feb-09	Sat	cloudy/rain/fog/moderate	Trace	24.5	16	79.5	S/SE
15-Feb-09	Sun	cloudy/rain/mist/strong	0.1	24.3	18	79	E/NE
16-Feb-09	Mon	Cloudy/rain/mist/fresh/strong	0.06	23.5	14.5	73.5	E
17-Feb-09	Tue	sunny periods/fresh/strong	Trace	20.2	15	68.5	E/NE
18-Feb-09	Wed	sunny periods/cloudy/moderate	Trace	21.5	10.5	63.5	E/NE
19-Feb-09	Thu	cloudy/rain/moderate	0.3	23	13	74.5	E/NE
20-Feb-09	Fri	cloudy/bright/moderate/fresh	Trace	20.9	19	73.5	E/NE
21-Feb-09	Sat	sunny intervals/rain/fresh/strong	Trace	22.6	12	64.5	E/SE
22-Feb-09	Sun	fog/sunny periods/moderate	Trace	24.6	26.5	67	S/SE
23-Feb-09	Mon	cloudy/fog/sunny periods/moderate	0	26	15	72.5	S/SE
24-Feb-09	Tue	cloudy/sunny periods/mist/moderate	Trace	26.7	17	71	S/SE
25-Feb-09	Wed	sunny periods/cloudy/fog/moderate	Trace	25.5	13.5	69.2	S/SE
26-Feb-09	Thu	cloudy/foggy/drizzle/moderate/fresh	0.3	24.8	11.7	73.5	E/SE
27-Feb-09	Fri	cloudy/mist/moderate	Trace	24.1	15.5	72	E
28-Feb-09	Sat	cloudy/rain/moderate/fresh	Trace	22.6	12.7	73.7	E/NE

March 2009

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Mar-09	Sun	cloudy/rain/moderate/fresh	0.8	18.6	8.7	74.5	E/NE
2-Mar-09	Mon	cloudy/rain/moderate/fresh	Trace	18.1	10	80.5	E/NE
3-Mar-09	Tue	cloudy/sunny intervals/moderate	Trace	18.6	9.2	67	E/NE
4-Mar-09	Wed	cloudy/rain/mist/moderate/fresh	0.4	19.7	9.5	72.5	E/NE
5-Mar-09	Thu	foggy/rain/moderate/fresh	28.5	23.3	21.5	78	E/NE
6-Mar-09	Fri	cloudy/rain/squally thunderstorm/cool/moderate/fresh	11.6	15.4	27	84.5	E/NE
7-Mar-09	Sat	cool/rain/moderate/fresh	0.2	12.9	17	85.7	N/NE
8-Mar-09	Sun	cloudy/moderate/sunny intervals	0.1	13.7	8.5	90	E/NE
9-Mar-09	Mon	sunny intervals/cloudy/moderate/warm	0.4	16.1	10.2	77.7	N/NE
10-Mar-09	Tue	cloudy/fresh/strong	0	19.2	10.5	67.7	E/SE
11-Mar-09	Wed	cloudy/sunny intervals/fresh/strong	Trace	22.4	11.5	69.5	E
12-Mar-09	Thu	cloudy/sunny intervals/misty/fresh/strong	Trace	23.2	19.5	71	E/SE
13-Mar-09	Fri	cloudy/rain/fog/light winds	Trace	19.1	19	75.5	E/NE
14-Mar-09	Sat	fine/dry/moderate/fresh	Trace	16.4	34	58.5	N/NE
15-Mar-09	Sun	fine/moderate	0	17.4	9	52	S/SE
16-Mar-09	Mon	fine/moderate	0	19.4	7.7	72	E/NE
17-Mar-09	Tue	fine/moderate	0	22.3	12	74.5	W/SW
18-Mar-09	Wed	fine/warm/cloudy/light winds	0	23	11.5	66.5	S/SE
19-Mar-09	Thu	mist/sunny periods/cloudy/light winds	0	22	14.5	80	S/SE
20-Mar-09	Fri	fog/sunny periods/cloudy/light winds	0	24.1	8.5	84.5	W/SW
21-Mar-09	Sat	cloudy/fog/rain/moderate/fresh	0.1	25.1	12.2	78.7	S/SE
22-Mar-09	Sun	fog/light winds/rain	Trace	26.4	15.2	78	SW
23-Mar-09	Mon	foggy/rain/moderate	Trace	26.7	9.7	80.7	S/SE
24-Mar-09	Tue	cloudy/rain/moderate/fresh	27.1	20.8	18	76.5	E/NE
25-Mar-09	Wed	cloudy/rain/squally thunderstorm/moderate/fresh	27.9	18.1	13	83.2	E/NE
26-Mar-09	Thu	cloudy/rain/moderate/fresh	Trace	18.1	11.5	76.5	E/NE
27-Mar-09	Fri	cloudy/rain/mist/moderate/fresh	10.4	20.6	14	84.5	E
28-Mar-09	Sat	cloudy/fog/rain/thunderstorm/moderate	0.6	24.4	10	86.2	E/NE
29-Mar-09	Sun	cloudy/rain/fresh/strong	2.6	19.1	11.5	84.5	E/NE
30-Mar-09	Mon	sunny intervals/cloudy/fresh/strong	Trace	18.7	12.5	78.5	E/NE
31-Mar-09	Tue	sunny periods/cloudy/iterate/fresh	Trace	20	12	75	E/NE