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

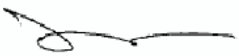
BI-ANNUAL ENVIRONMENTAL MONITORING & AUDIT (EM&A) SUMMARY REPORT FOR APRIL TO SEPTEMBER 2009 (NO. 7) (DESIGNATED ELEMENTS)

PREPARED FOR

LEADER CIVIL ENGINEERING CORPORATION LIMITED

Quality Index

Date	Reference No.
26 November 2009	TCS00310/06/600/R0995v2

Prepared By	Certified By	Approved By	Verified By
Nicola Hon	David Yeung	TW Tam	Dr. Anne F Kerr
			
Environmental Consultant	Environmental Team Leader	General Manager	Independent Environmental Checker

Rev. No.	Date	Remarks
1	17 Nov 2009	First Submission
2	26 Nov 2009	Amended against IEC's comments on 25 November 2009

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 **7th Bi-Annual EM&A Summary Report for April to September 2009 (No. 7)** reporting the environmental impact monitoring and audit (EM&A) conducted from **01 April to 30 September 2009**. EM&A program implemented in this reporting period covered air quality, noise and waste management.

BREACH OF ACTION AND LIMIT (AL) LEVELS

ES03. No noise exceedance was recorded in this bi-annual reporting period. However one (1) limit levels exceedance was found in 24-hr TSP at designated Sensitive Receivers AM5 during the period. Based on the information and the investigation provided by the Contractor, the exceedance was 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 ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Date of Exceeded	Concentration ($\mu g/m^3$)	Exceedance Level
AM5	237	260	23 April 2009	385	limit

ENVIRONMENTAL SITE INSPECTION

ES04. In this reporting period, totally 26 weekly joint site inspections were undertaken by representatives of the Engineer, the Contractor and ET to evaluate the site environmental performance. Although total 56 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 **April to September 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

LIST OF TABLES

LIST OF ANNEXES

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 **7th Bi-Annual EM&A Summary Report for April to September 2009 (No. 7)** summarizes the impact monitoring results and audit findings in the reporting period from **April to September 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
April 2009	• Kam Tin Pumping Station (P1) – Excavation and Pipe Jacking • Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • 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
May 2009	• Kam Tin Pumping Station (P1) – Excavation, Pipe Jacking and Grouting • Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • 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
June 2009	• Kam Tin Pumping Station (P1) – Excavation, Pipe Jacking and Grouting • Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • 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, Excavation and Pipe laying
July 2009	• Kam Tin Pumping Station (P1) – Pipe Jacking and Grouting • Sha Po Pumping Station (P2) - Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling, Concreting and Extract sheet pile • Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling,

Reporting Month	Construction Activities
	Concreting and Extract sheet pile • Pok Wai South Road (S5 and S6) – Sheet piling, Excavation, Pipe Laying, Backfilling and Concreting
August 2009	• Kam Tin Pumping Station (P1) - Pipe Jacking and Grouting • Sha Po Pumping Station (P2) - 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) –Sheet piling, Excavation, Pipe laying, Backfilling and Concreting
September 2009	• Kam Tin Pumping Station (P1) – Excavation, and Sheet piling • Sha Po Pumping Station (P2) - Sheet piling, Excavation, Backfilling and Concreting • Nam Sang Wai Pumping Station (P3) – Backfilling and Concreting • Nam Sang Wai Road (S4) - Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile • Pok Wai South Road (S5 and S6) –Sheet piling, Excavation, Pipe laying, Backfilling, Concreting and Extract sheet pile

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)	● Pipe jacking ● Excavation ● Grouting	• 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	● Sheet piling ● Excavation ● Backfilling ● Concreting	• 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
P3 (Nam Sang Wai Pumping Station	● Backfilling ● Concreting ● Excavation ● Extract sheet pile	• Erect 2.4m high noise barrier hoarding around the works area at P1, P2 and P3 • 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	A1 & F6 A5 A6 A7 A8 B1, B2 & F5 D1
S4 (Nam Sang Wai Road) and	● Sheet piling ● Excavation ● Pipe laying ● Backfilling ● Concreting ● Extract sheet pile	• 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 • Wash the wheels of vehicles before leaving the site	A2 A3 A4 A5
S5 & S6 (Pok Wai South Road)	● Sheet piling ● Excavation ● Pipe laying ● Backfilling ● Concreting ● Extract sheet pile	• 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 ($\mu g/m^3$)		Limit Level ($\mu g/m^3$)	
	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

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 total of 17 events of power supply damage or failure incident were disturbed the monitoring programme. Some of lost samples were re-scheduled in following day or once the electric was resumed to support the HVS operation. However, in some cases when power supply has not yet rectified, no subsequent monitoring was made. Details of power supply damage or repair and re-schedule 24-hour TSP monitoring is listed in follow ***Table 5-2***.

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

Station	Monitoring Date		Remarks
	Original	Re-Scheduling	
AM1	6 June 2009	-	Power Supply Failure
	12 June 2009	-	Power Supply Failure
	18 June 2009	-	Power Supply Failure
	22 August 2009	-	Power Supply Failure
	28 August 2009	-	Power Supply Failure
	3 September 2009	-	Power Supply Failure
	9 September 2009	-	Power Supply Failure
	26 September 2009	-	Power Supply Failure
AM5	18 Jul 2009	20 Jul 2009	Power Supply Failure
AM6	8 Apr 2009	9 Apr 2009	Power Supply Failure
	13 May 2009	14 May 2009	Power Supply Failure
	13 Jul 2009	14 Jul 2009	Power Supply Failure
	22 August 2009	24 August 2009	Power Supply Failure
AM7	29 Apr 2009	30 Apr 2009	Power Supply Failure

	24 June2009	-	technical parts
	18 Jul 2009	20 Jul 2009	Power Supply Failure
	30 Jul 2009		Power Supply Failure

5.04 A total of **110** 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 **110** 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 One (1) limit level exceedance was found in 24-hour TSP at designated Sensitive Receivers AM5 during the period. Based on the information and the investigation provided by the Contractor, the exceedance was not considered to relate the project. The investigation of exceedance 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 ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	Date of Exceeded	Concentration ($\mu g/m^3$)	Exceedance Level
AM5	237	260	23 April 2009	385	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
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	**Total**	
C&D Materials (Inert) (tons) – Disposed	1.806	2.440	0.556	0.594	3.402	3.159	**11.957**	Tuen Mun 38 Fill Bank
C&D Materials (Inert) (tons) – Reused	1.140	0	0	0	0	0	**1.14**	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	0	**0**	NA
General Refuse (tons)	0.048	0.042	0.043	0.069	0.024	0.062	**0.288**	Refuse Collector

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

Type of Waste	Quantity							Disposal Location
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	**Total**	
Metals for Recycling (kg)	0	0	0	46.1	12.14	7.13	**65.37**	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 50m^3 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 **26** weekly joint site inspections were undertaken by representatives of the Engineer, the Contractor and ET to evaluate the site environmental performance. Although total **56** 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
April 2009	7 April 2009	DSD-AT0070409
	14 April 2009	DSD-AT140409
	21 April 2009	DSD-AT210409
	28 April 2009*	DSD-AT280409
May 2009	6 May 2009	DSD-AT060509
	12 May 2009	DSD-AT120509
	19 May 2009*	DSD-AT190509
	26 May 2009	DSD-AT260509
June 2009	3 June 2009	DSD-AT030609
	9 June 2009	DSD-AT090609
	16 June 2009	DSD-AT160609
	23 June 2009*	DSD-AT230609
July 2009	2 July 2009	DSD-AT020709
	7 July 2009	DSD-AT070709
	14 July 2009	DSD-AT140709
	21 July 2009	DSD-AT210709
	28 July 2009*	DSD-AT280709
August 2009	4 August 09	DSD-AT040809
	11 August 09	DSD-AT110809
	18 August 09	DSD-AT180809
	25 August 09	DSD-AT250809
September 2009	1 September 09	DSD-AT010909
	8 September 09	DSD-AT080909
	17 September 09	DSD-AT170909
	22 September 09*	DSD-AT220909
	29 September 09	DSD-AT290909

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
April 2009	0	0
May 2009	0	0
June 2009	0	0
July 2009	0	0
August 2009	0	0
September 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
April 2009	0	0	NA
May 2009	0	0	NA
June 2009	0	0	NA
July 2009	0	0	NA
August 2009	0	0	NA
September 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
April 2009	0	0	NA
May 2009	0	0	NA
June 2009	0	0	NA
July 2009	0	0	NA
August 2009	0	0	NA
September 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

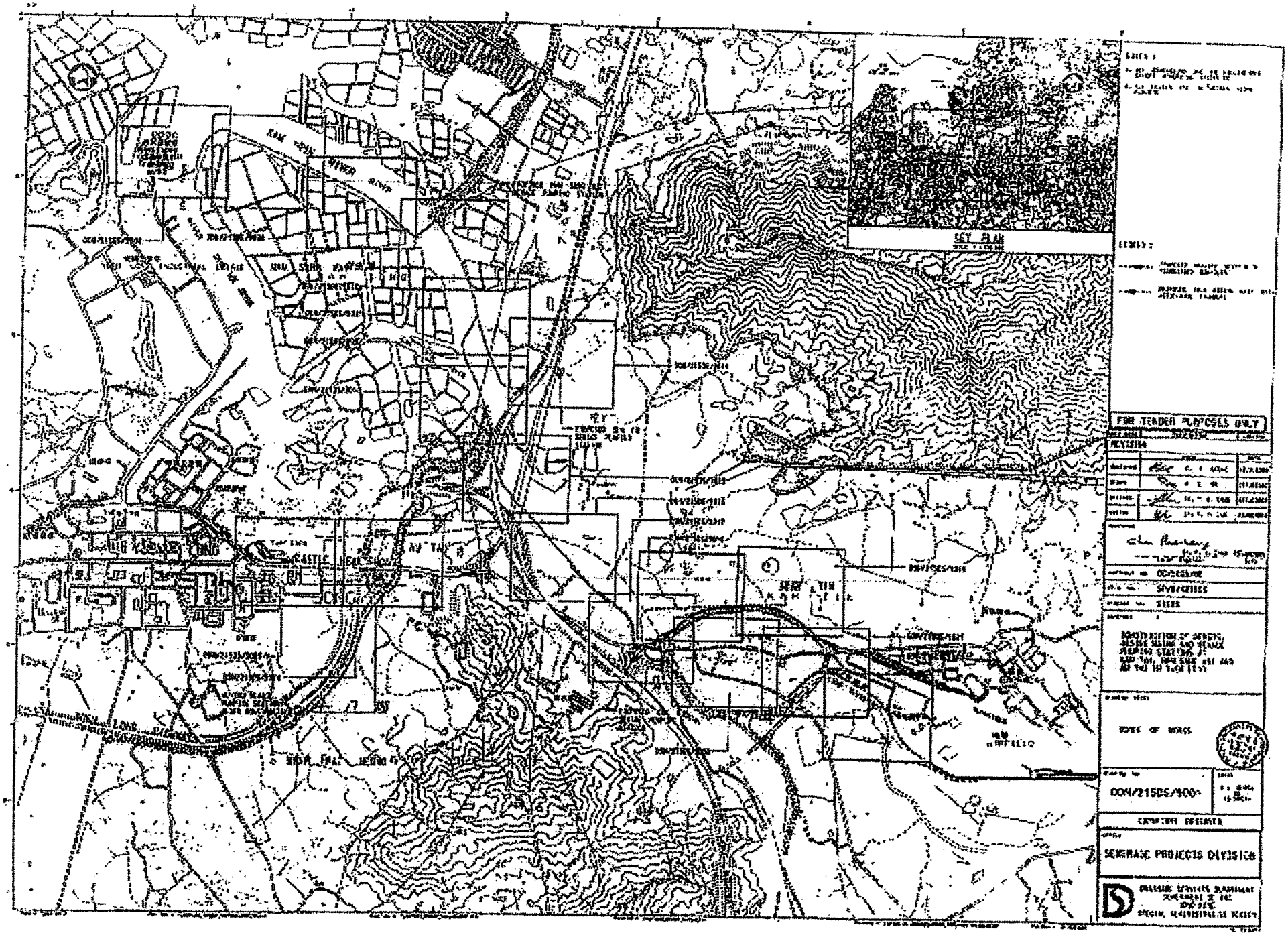
7.05 No NC, complaints or NoS received in the reporting period.

8.0 CONCULSIONS FOR THE PERIOD ARPIL TO SEPTEMBER 2009

8.01 Based on the data collected and reviewed for the period between **April to September 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

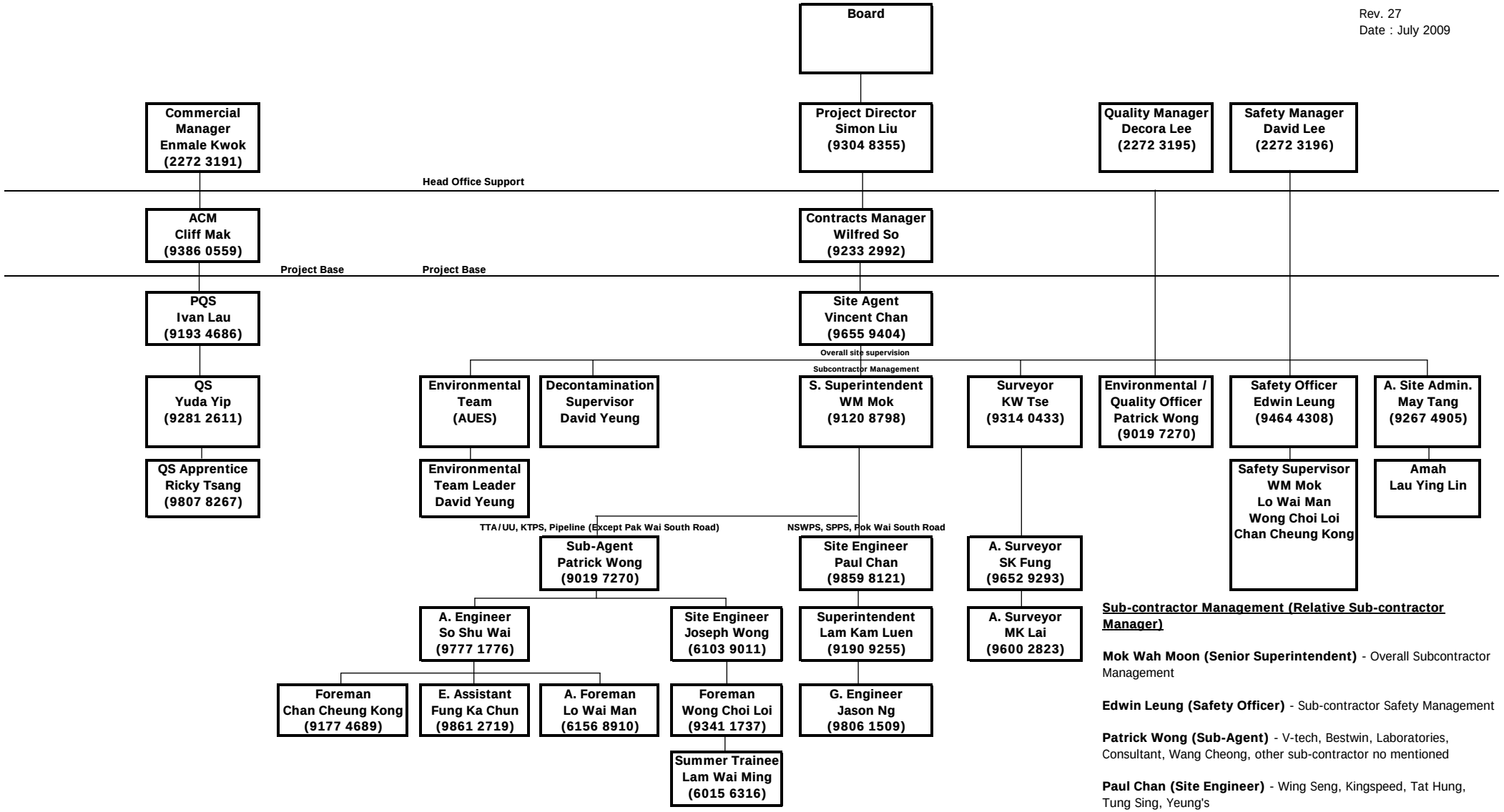

KEY PLAN
FOR TENDER PURPOSES ONLY
SEWERAGE PROJECTS DIVISION

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. 27
Date : July 2009



Sub-contractor Management (Relative Sub-contractor Manager)

Mok Wah Moon (Senior Superintendent) - Overall Subcontractor Management

Edwin Leung (Safety Officer) - Sub-contractor Safety Management

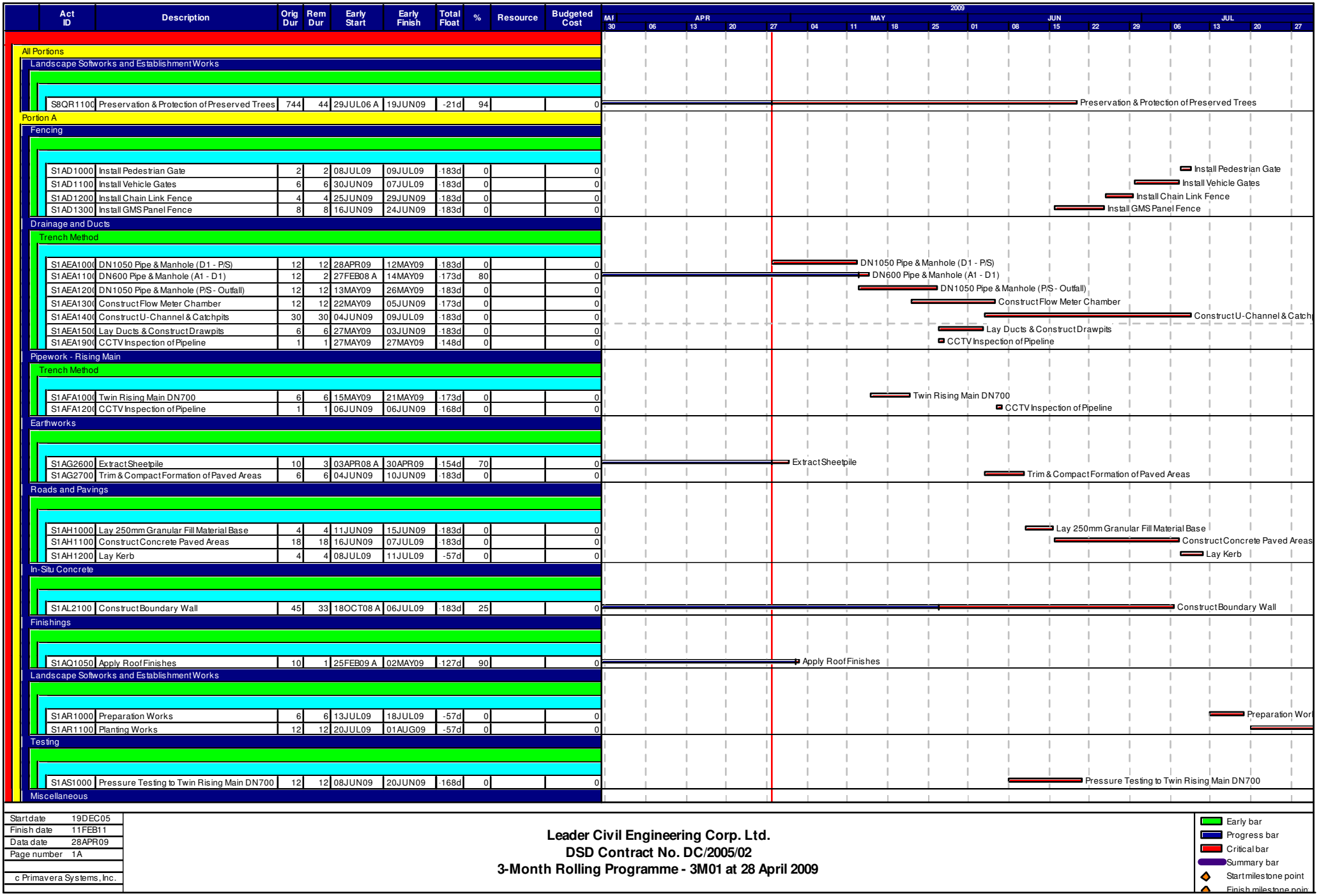
Patrick Wong (Sub-Agent) - V-tech, Bestwin, Laboratories, Consultant, Wang Cheong, other sub-contractor no mentioned

Paul Chan (Site Engineer) - Wing Seng, Kingspeed, Tat Hung, Tung Sing, Yeung's

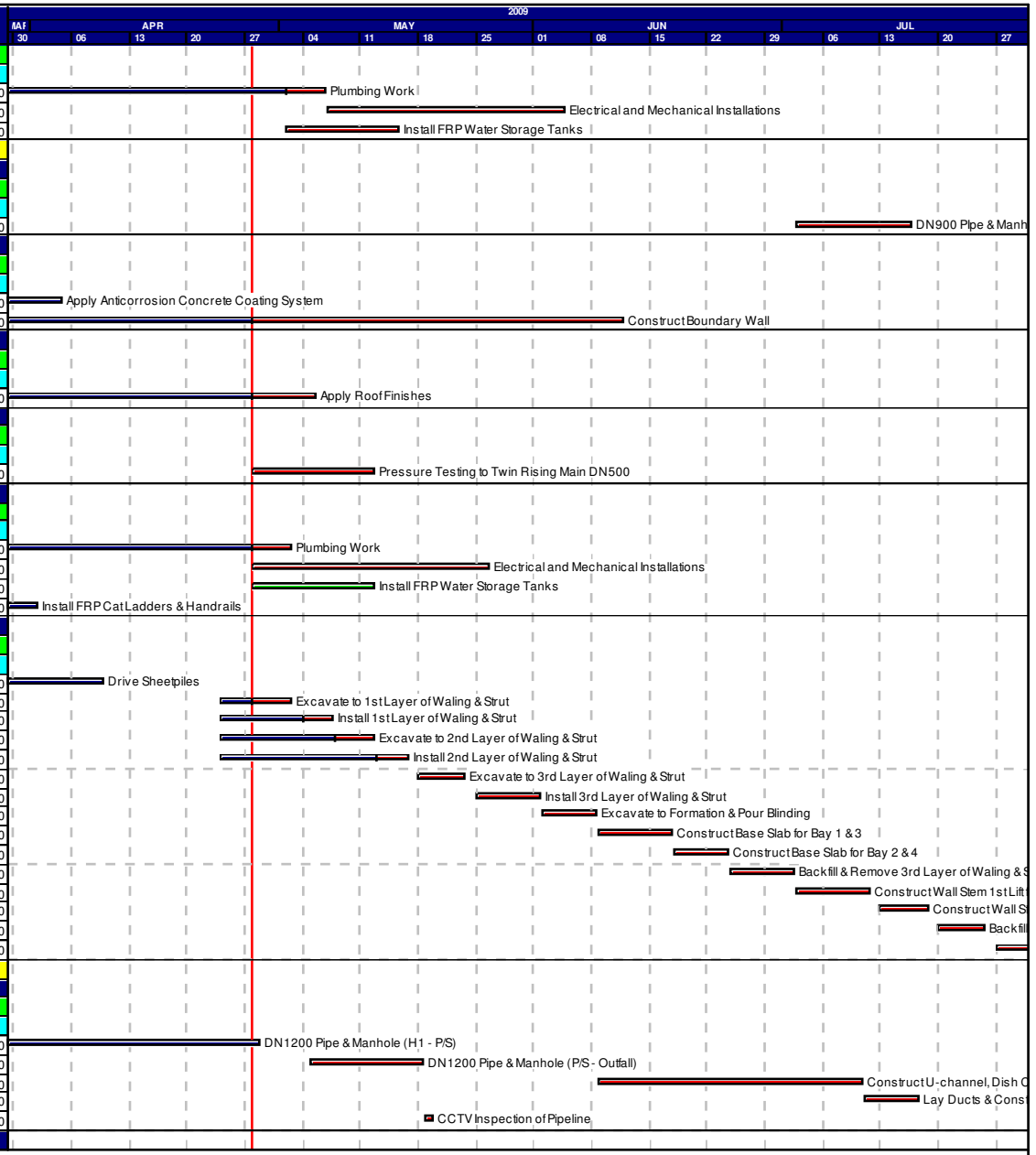
Joseph Wong (Site Engineer) - Fairmax, Harvest. Pegasus

Annex C

Construction Program


Act ID
Description
Orig Dur
Rem Dur
Early Start
Early Finish
Total Float
%
Resource
Budgeted Cost
2009
MAR
APR
MAY
JUN
JUL
30 06 13 20 27 04 11 18 25 01 08 15 22 29 06 13 20 27
All Portions
Landscape Softworks and Establishment Works
S8QR1100 Preservation & Protection of Preserved Trees 744 44 29JUL06 A 19JUN09 -21d 94 0
Preservation & Protection of Preserved Trees
Portion A
Fencing
S1AD1000 Install Pedestrian Gate 2 2 08JUL09 09JUL09 183d 0 0
S1AD1100 Install Vehicle Gates 6 6 30JUN09 07JUL09 183d 0 0
S1AD1200 Install Chain Link Fence 4 4 25JUN09 29JUN09 183d 0 0
S1AD1300 Install GMS Panel Fence 8 8 16JUN09 24JUN09 183d 0 0
Install Pedestrian Gate
Install Vehicle Gates
Install Chain Link Fence
Install GMS Panel Fence
Drainage and Ducts
Trench Method
S1AEA100 DN1050 Pipe & Manhole (D1 - P/S) 12 12 28APR09 12MAY09 183d 0 0
S1AEA110 DN600 Pipe & Manhole (A1 - D1) 12 2 27FEB08 A 14MAY09 173d 80 0
S1AEA120 DN1050 Pipe & Manhole (P/S - Outfall) 12 12 13MAY09 26MAY09 183d 0 0
S1AEA130 Construct Flow Meter Chamber 12 12 22MAY09 05JUN09 173d 0 0
S1AEA140 Construct U-Channel & Catchpits 30 30 04JUN09 09JUL09 183d 0 0
S1AEA150 Lay Ducts & Construct Drawpits 6 6 27MAY09 03JUN09 183d 0 0
S1AEA190 CCTV Inspection of Pipeline 1 1 27MAY09 27MAY09 148d 0 0
DN1050 Pipe & Manhole (D1 - P/S)
DN600 Pipe & Manhole (A1 - D1)
DN1050 Pipe & Manhole (P/S - Outfall)
Construct Flow Meter Chamber
Construct U-Channel & Catch
Lay Ducts & Construct Drawpits
CCTV Inspection of Pipeline
Pipework - Rising Main
Trench Method
S1AFA1000 Twin Rising Main DN700 6 6 15MAY09 21MAY09 173d 0 0
S1AFA1200 CCTV Inspection of Pipeline 1 1 06JUN09 06JUN09 168d 0 0
Twin Rising Main DN700
CCTV Inspection of Pipeline
Earthworks
S1AG2600 Extract Sheetpile 10 3 03APR08 A 30APR09 154d 70 0
S1AG2700 Trim & Compact Formation of Paved Areas 6 6 04JUN09 10JUN09 183d 0 0
Extract Sheetpile
Trim & Compact Formation of Paved Areas
Roads and Pavings
S1AH1000 Lay 250mm Granular Fill Material Base 4 4 11JUN09 15JUN09 183d 0 0
S1AH1100 Construct Concrete Paved Areas 18 18 16JUN09 07JUL09 183d 0 0
S1AH1200 Lay Kerb 4 4 08JUL09 11JUL09 57d 0 0
Lay 250mm Granular Fill Material Base
Construct Concrete Paved Areas
Lay Kerb
In-Situ Concrete
S1AL2100 Construct Boundary Wall 45 33 18OCT08 A 06JUL09 183d 25 0
Construct Boundary Wall
Finishings
S1AQ1050 Apply Roof Finishes 10 1 25FEB09 A 02MAY09 127d 90 0
Apply Roof Finishes
Landscape Softworks and Establishment Works
S1AR1000 Preparation Works 6 6 13JUL09 18JUL09 57d 0 0
S1AR1100 Planting Works 12 12 20JUL09 01AUG09 57d 0 0
Preparation Wor
Testing
S1AS1000 Pressure Testing to Twin Rising Main DN700 12 12 08JUN09 20JUN09 168d 0 0
Pressure Testing to Twin Rising Main DN700
Miscellaneous
Start date 19DEC05
Finish date 11FEB11
Data date 28APR09
Page number 1A
c Primavera Systems, Inc.
Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 28 April 2009
Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

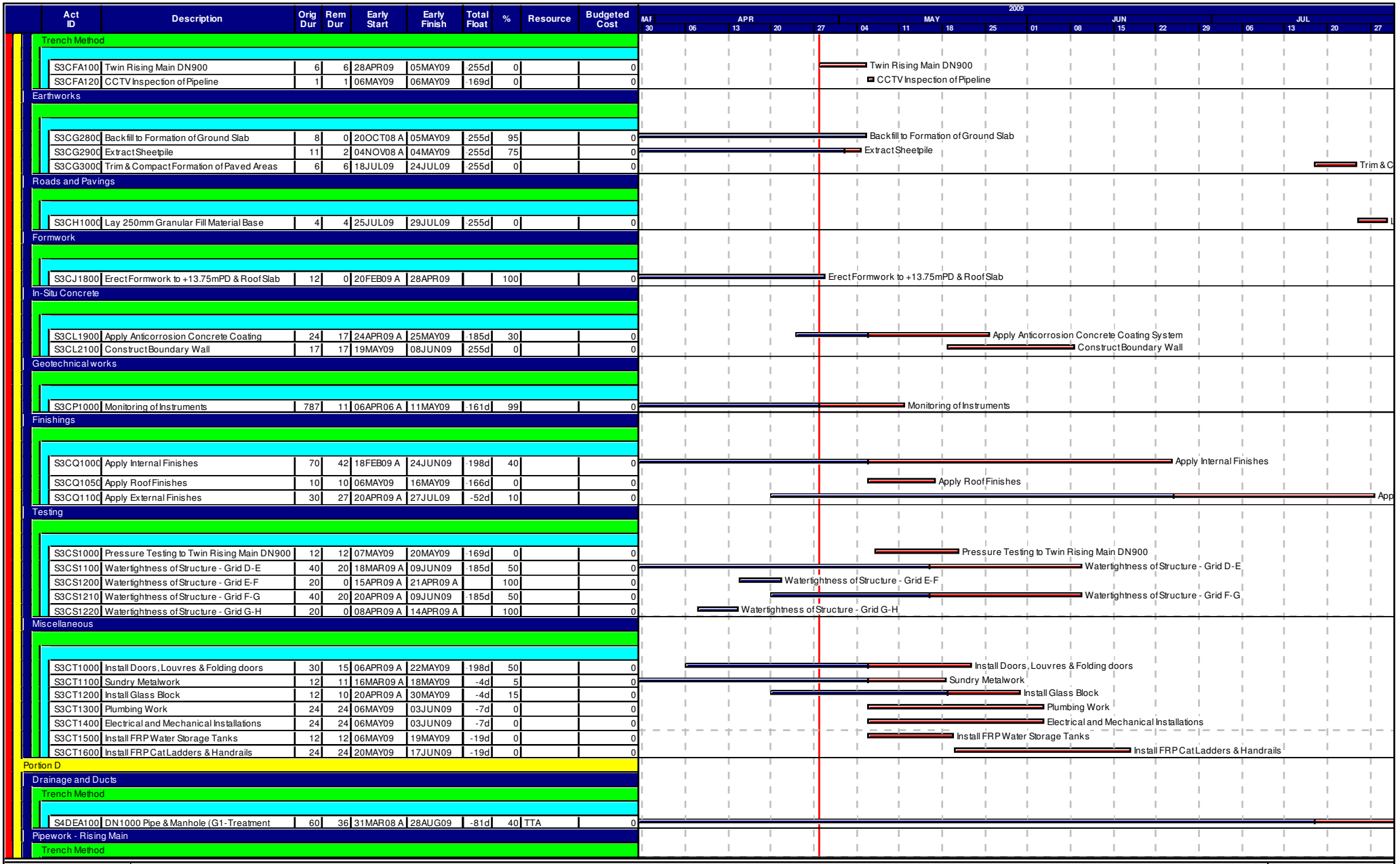
Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	Total Float	%	Resource	Budgeted Cost
S1AT1300	Plumbing Work	24	4	14JAN09 A	06MAY09	-154d	80		0
S1AT1400	Electrical and Mechanical Installations	24	24	07MAY09	04JUN09	-154d	0		0
S1AT1500	Install FRP Water Storage Tanks	12	12	02MAY09	15MAY09	-138d	0		0
Portion B									
Drainage and Ducts									
Trench Method									
S2BEA100	DN900 Pipe & Manhole (F1 - P/S)	12	12	03JUL09	16JUL09	-213d	0		0
In-Situ Concrete									
S2BL1800	Apply Anticorrosion Concrete Coating	24	0	10DEC08 A	04APR09 A		100		0
S2BL2000	Construct Boundary Wall	47	37	12JAN09 A	11JUN09	-187d	20		0
Finishings									
S2BQ1050	Apply Roof Finishes	10	6	23MAR09 A	05MAY09	-140d	40		0
Testing									
S2BS1000	Pressure Testing to Twin Rising Main DN500	12	12	28APR09	12MAY09	-146d	0		0
Miscellaneous									
S2BT1300	Plumbing Work	24	4	22JAN09 A	02MAY09	-143d	80		0
S2BT1400	Electrical and Mechanical Installations	24	24	28APR09	26MAY09	-143d	0		0
S2BT1500	Install FRP Water Storage Tanks	12	12	28APR09	12MAY09	11d	0		0
S2BT1600	Install FRP Cat Ladders & Handrails	24	0	26MAR09 A	01APR09 A		100		0
Additonal Works / Disruption									
Revised B/Wall Details at SPPS (Claim No. 030)									
S2BV2000	Drive Sheetpiles	45	0	16MAR09 A	09APR09 A		100		0
S2BV2010	Excavate to 1st Layer of Waling & Strut	6	4	24APR09 A	02MAY09	-542d	30		0
S2BV2020	Install 1st Layer of Waling & Strut	6	4	24APR09 A	07MAY09	-542d	30		0
S2BV2030	Excavate to 2nd Layer of Waling & Strut	6	4	24APR09 A	12MAY09	-542d	30		0
S2BV2040	Install 2nd Layer of Waling & Strut	6	4	24APR09 A	16MAY09	-542d	30		0
S2BV2050	Excavate to 3rd Layer of Waling & Strut	6	6	18MAY09	23MAY09	-542d	0		0
S2BV2060	Install 3rd Layer of Waling & Strut	6	6	25MAY09	01JUN09	-542d	0		0
S2BV2070	Excavate to Formation & Pour Blinding	6	6	02JUN09	08JUN09	-542d	0		0
S2BV2080	Construct Base Slab for Bay 1 & 3	8	8	09JUN09	17JUN09	-542d	0		0
S2BV2090	Construct Base Slab for Bay 2 & 4	6	6	18JUN09	24JUN09	-542d	0		0
S2BV2100	Backfill & Remove 3rd Layer of Waling & Strut	6	6	25JUN09	02JUL09	-542d	0		0
S2BV2110	Construct Wall Stem 1st Lift for Bay 1 & 3	8	8	03JUL09	11JUL09	-542d	0		0
S2BV2120	Construct Wall Stem 1st Lift for Bay 2 & 4	6	6	13JUL09	18JUL09	-542d	0		0
S2BV2130	Backfill & Remove 2nd Layer of Waling & Strut	6	6	20JUL09	25JUL09	-542d	0		0
S2BV2140	Construct Wall Stem 2nd Lift for Bay 1 & 3	8	8	27JUL09	04AUG09	-542d	0		0
Portion C									
Drainage and Ducts									
Trench Method									
S3CEA100	DN1200 Pipe & Manhole (H1 - P/S)	12	0	13JUN08 A	28APR09		100		0
S3CEA140	DN1200 Pipe & Manhole (P/S - Outfall)	12	12	05MAY09	18MAY09	-255d	0		0
S3CEA150	Construct U-channel, Dish Channel &	27	27	09JUN09	10JUL09	-255d	0		0
S3CEA160	Lay Ducts & Construct Drawpit	6	6	11JUL09	17JUL09	-255d	0		0
S3CEA210	CCTV Inspection of Pipeline	1	1	19MAY09	19MAY09	-168d	0		0
Pipework - Rising Main									



Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	2A
c Primavera Systems, Inc.	

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

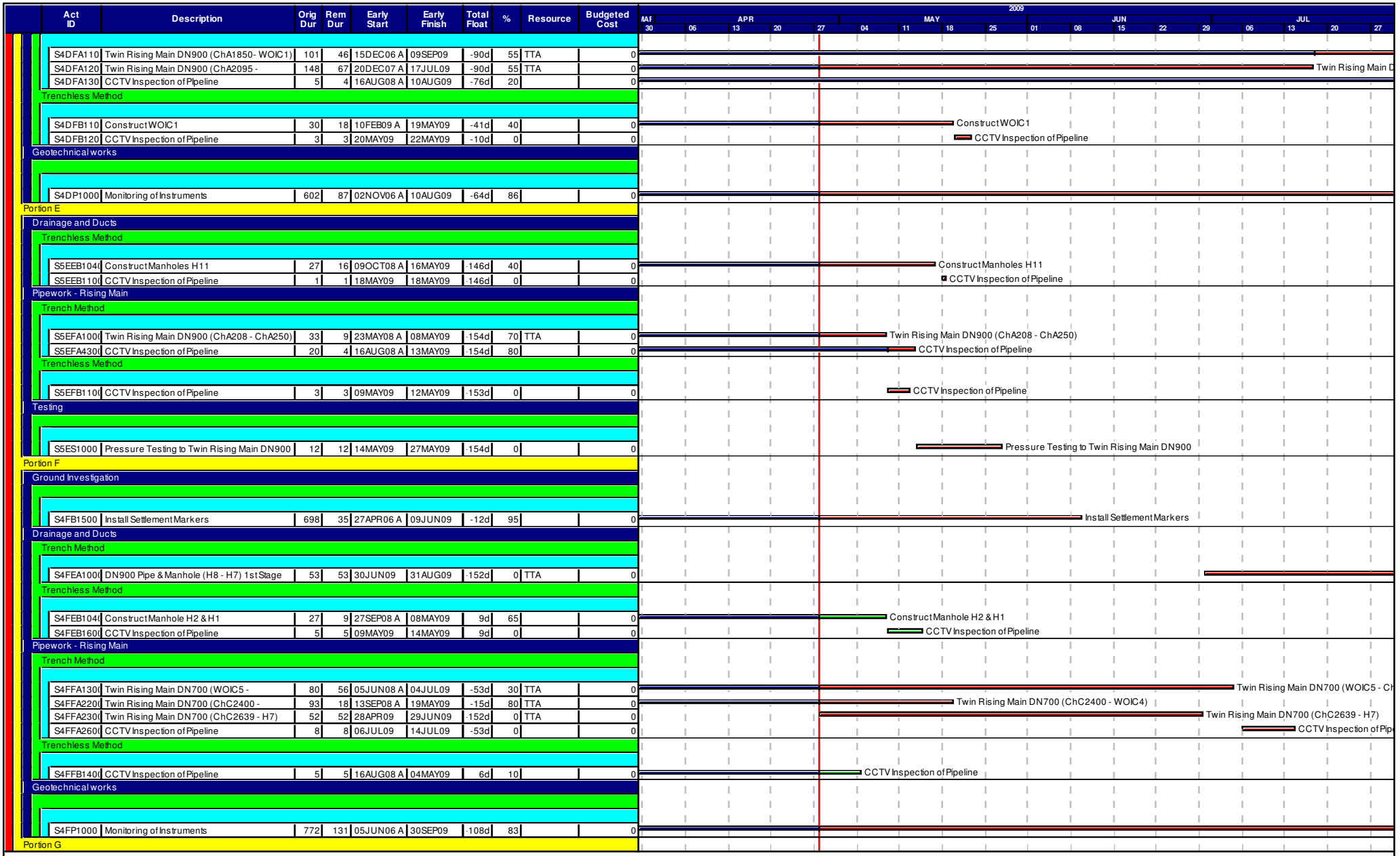
Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone poin



Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	3A
c Primavera Systems, Inc.	

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

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone poin



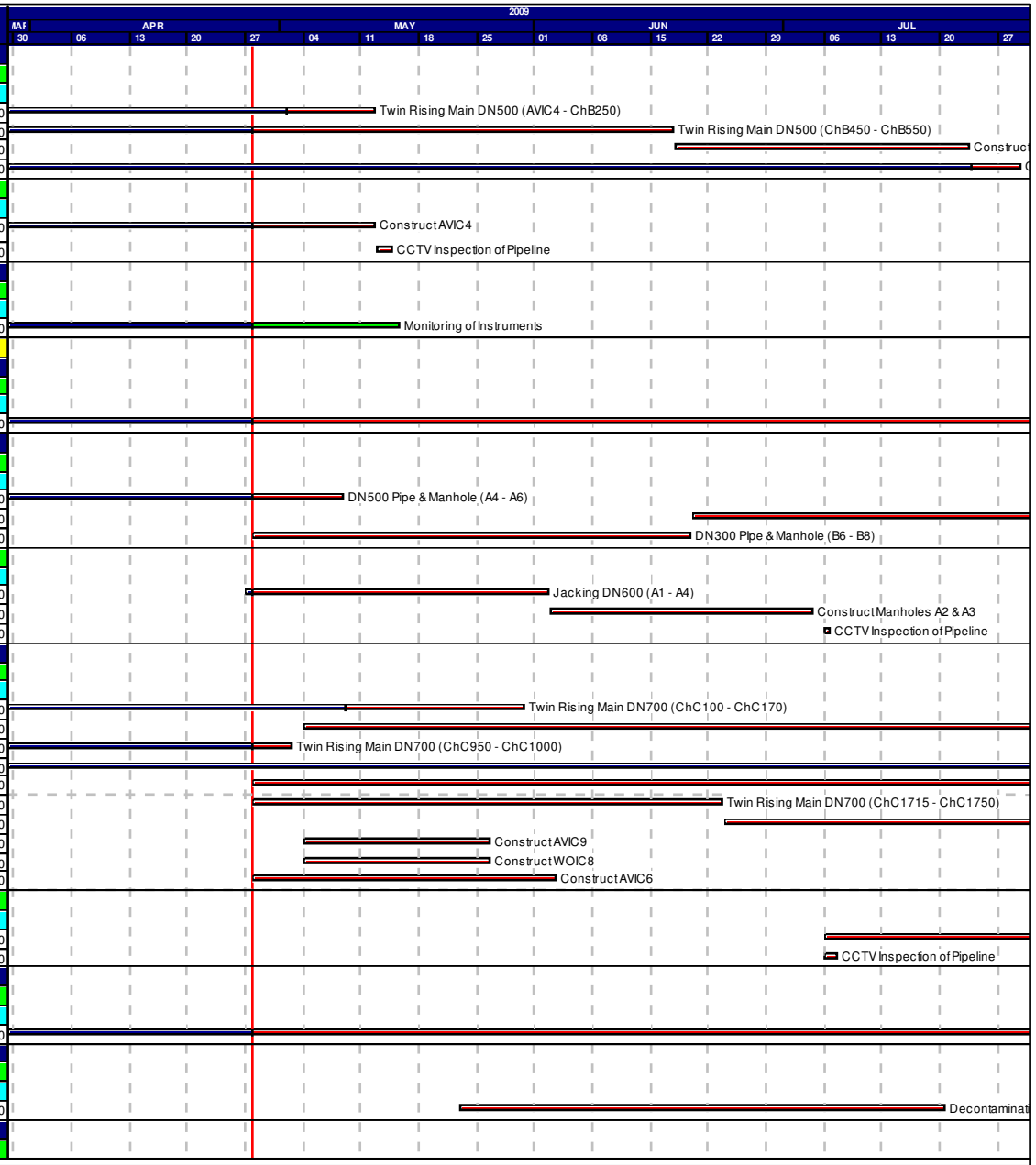
Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	Total Float	%	Resource	Budgeted Cost
S4DFA110	Twin Rising Main DN900 (ChA1850- WOIC1)	101	46	15DEC06 A	09SEP09	-90d	55	TTA	0
S4DFA120	Twin Rising Main DN900 (ChA2095 -	148	67	20DEC07 A	17JUL09	-90d	55	TTA	0
S4DFA130	CCTV Inspection of Pipeline	5	4	16AUG08 A	10AUG09	-76d	20		0
	Trenchless Method								
S4DFB110	Construct WOIC1	30	18	10FEB09 A	19MAY09	-41d	40		0
S4DFB120	CCTV Inspection of Pipeline	3	3	20MAY09	22MAY09	-10d	0		0
	Geotechnical works								
S4DP1000	Monitoring of Instruments	602	87	02NOV06 A	10AUG09	-64d	86		0
	Portion E								
	Drainage and Ducts								
	Trenchless Method								
S5EEB104(	Construct Manholes H11	27	16	09OCT08 A	16MAY09	-146d	40		0
S5EEB110	CCTV Inspection of Pipeline	1	1	18MAY09	18MAY09	-146d	0		0
	Pipework - Rising Main								
	Trench Method								
S5EFA100(	Twin Rising Main DN900 (ChA208 - ChA250)	33	9	23MAY08 A	08MAY09	-154d	70	TTA	0
S5EFA430(	CCTV Inspection of Pipeline	20	4	16AUG08 A	13MAY09	-154d	80		0
	Trenchless Method								
S5EFB110(	CCTV Inspection of Pipeline	3	3	09MAY09	12MAY09	-153d	0		0
	Testing								
S5ES1000	Pressure Testing to Twin Rising Main DN900	12	12	14MAY09	27MAY09	-154d	0		0
	Portion F								
	Ground Investigation								
S4FB1500	Install Settlement Markers	698	35	27APR06 A	09JUN09	-12d	95		0
	Drainage and Ducts								
	Trench Method								
S4FEA100(	DN900 Pipe & Manhole (H8 - H7) 1st Stage	53	53	30JUN09	31AUG09	-152d	0	TTA	0
	Trenchless Method								
S4FEB104(	Construct Manhole H2 & H1	27	9	27SEP08 A	08MAY09	9d	65		0
S4FEB160(	CCTV Inspection of Pipeline	5	5	09MAY09	14MAY09	9d	0		0
	Pipework - Rising Main								
	Trench Method								
S4FFA130(	Twin Rising Main DN700 (WOIC5 -	80	56	05JUN08 A	04JUL09	-53d	30	TTA	0
S4FFA220(	Twin Rising Main DN700 (ChC2400 -	93	18	13SEP08 A	19MAY09	-15d	80	TTA	0
S4FFA230(	Twin Rising Main DN700 (ChC2639 - H7)	52	52	28APR09	29JUN09	-152d	0	TTA	0
S4FFA260(	CCTV Inspection of Pipeline	8	8	06JUL09	14JUL09	-53d	0		0
	Trenchless Method								
S4FFB140(	CCTV Inspection of Pipeline	5	5	16AUG08 A	04MAY09	6d	10		0
	Geotechnical works								
S4FP1000	Monitoring of Instruments	772	131	05JUN06 A	30SEP09	-108d	83		0
	Portion G								

Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	4A
c Primavera Systems, Inc.	

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

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

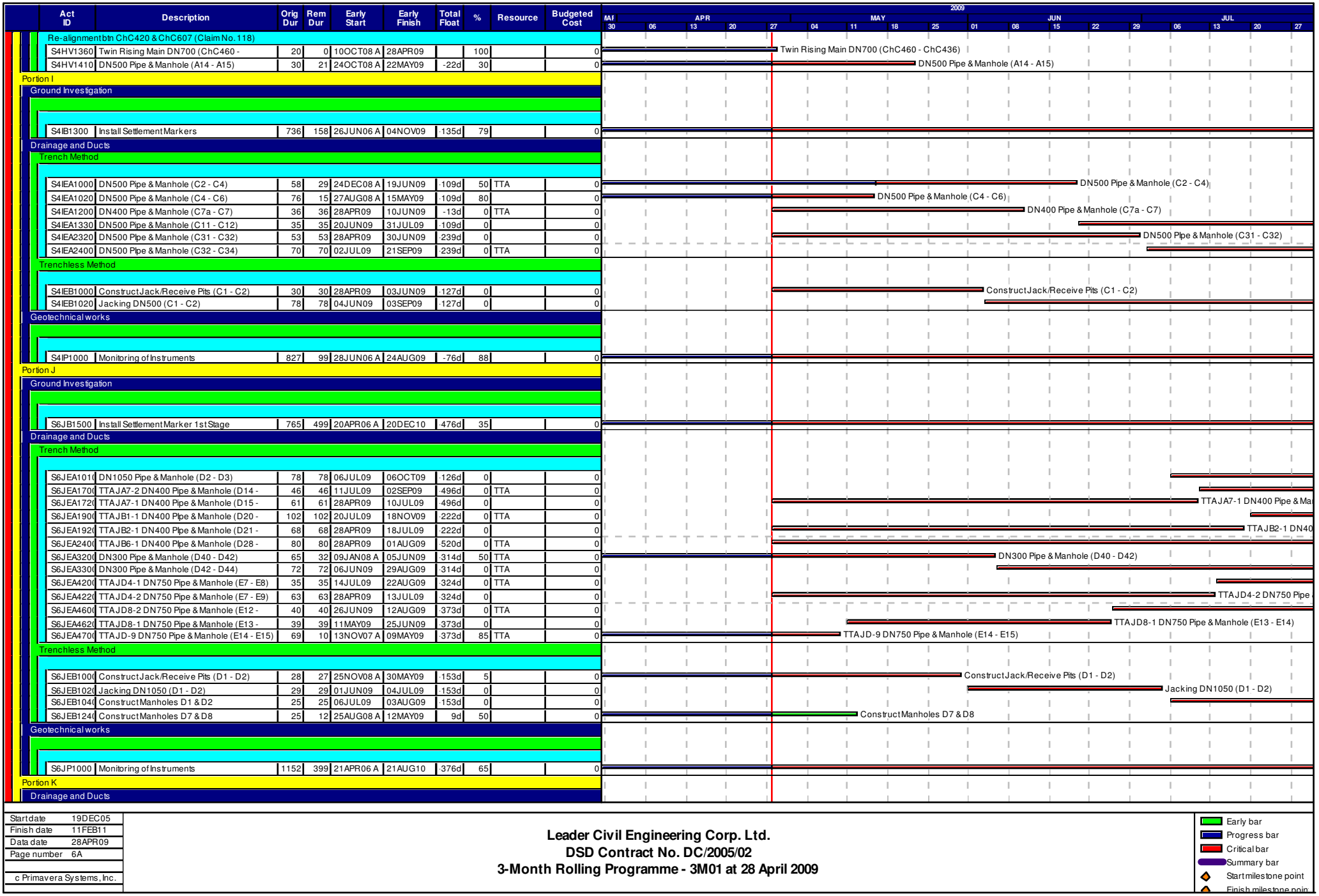
Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	Total Float	%	Resource	Budgeted Cost
Pipework - Rising Main									
Trench Method									
S4GFA100	Twin Rising Main DN500 (AVIC4 - ChB250)	98	9	26JUN08 A	12MAY09	-6d	90	TTA	0
S4GFA130	Twin Rising Main DN500 (ChB450 - ChB550)	84	42	16JAN08 A	17JUN09	-66d	50	TTA	0
S4GFA170	Construct WOIC3	30	30	18JUN09	23JUL09	-66d	0		0
S4GFA190	CCTV Inspection of Pipeline	9	5	06MAR07 A	29JUL09	-66d	50		0
Trenchless Method									
S4GFB110	Construct AVIC4	30	12	09JUL08 A	12MAY09	-6d	60		0
S4GFB120	CCTV Inspection of Pipeline	2	2	13MAY09	14MAY09	-3d	0		0
Geotechnical works									
S4GP1000	Monitoring of Instruments	720	15	22APR06 A	15MAY09	8d	98		0
Portion H									
Ground Investigation									
S4HB1300	Install Settlement Markers	727	133	26MAY06 A	03OCT09	-110d	82		0
Drainage and Ducts									
Trench Method									
S4HEA100	DN500 Pipe & Manhole (A4 - A6)	90	9	03OCT08 A	08MAY09	-152d	90	TTA	0
S4HEA190	DN300 Pipe & Manhole (B4 - B6)	67	67	20JUN09	07SEP09	-254d	0	TTA	0
S4HEA200	DN300 Pipe & Manhole (B6 - B8)	44	44	28APR09 *	19JUN09	-254d	0	TTA	0
Trenchless Method									
S4HEB102	Jacking DN600 (A1 - A4)	57	29	27APR09 A	02JUN09	-152d	50		0
S4HEB104	Construct Manholes A2 & A3	27	27	03JUN09	04JUL09	-152d	0		0
S4HEB110	CCTV Inspection of Pipeline	1	1	06JUL09	06JUL09	-34d	0		0
Pipework - Rising Main									
Trench Method									
S4HFA100	Twin Rising Main DN700 (ChC100 -	45	18	08OCT08 A	30MAY09	-28d	60	TTA	0
S4HFA180	Twin Rising Main DN700 (ChC850 -	125	125	04MAY09	28SEP09	-130d	0	TTA	0
S4HFA190	Twin Rising Main DN700 (ChC950 -	44	4	28FEB09 A	02MAY09	-130d	90	TTA	0
S4HFA230	Twin Rising Main DN700 (WOIC7 -	62	6	15DEC08 A	05MAR10	-258d	90	TTA	0
S4HFA240	Twin Rising Main DN700 (ChC1450 -	110	110	28APR09	05SEP09	-87d	0	TTA	0
S4HFA261	Twin Rising Main DN700 (ChC1715 -	47	47	28APR09	23JUN09	-258d	0		0
S4HFA270	Twin Rising Main DN700 (ChC1750 - AVIC6)	124	124	24JUN09	19NOV09	-258d	0	TTA	0
S4HFA300	Construct AVIC9	20	20	04MAY09	26MAY09	-25d	0		0
S4HFA310	Construct WOIC8	20	20	04MAY09	26MAY09	-25d	0		0
S4HFA350	Construct AVIC6	30	30	28APR09	03JUN09	-117d	0		0
Trenchless Method									
S4HFB120	Construct WOIC7	30	30	06JUL09	08AUG09	-93d	0		0
S4HFB130	CCTV Inspection of Pipeline	2	2	06JUL09	07JUL09	-47d	0		0
Geotechnical works									
S4HP1000	Monitoring of Instruments	947	116	26MAY06 A	12SEP09	-93d	88		0
Decontamination									
S9HU1000	Decontamination Works	48	48	23MAY09	20JUL09	-15d	0		0
Additonal Works / Disruption									



Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	5A
c Primavera Systems, Inc.	

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

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone poin



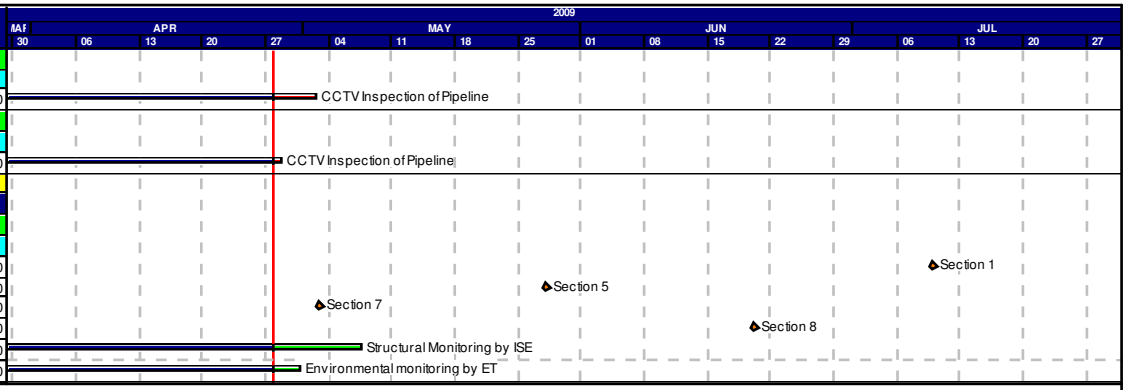
Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	Total Float	%	Resource	Budgeted Cost
	Re-alignment btn ChC420 & ChC607 (Claim No. 118)								
S4HV1360	Twin Rising Main DN700 (ChC460 -	20	0	10OCT08 A	28APR09		100		0
S4HV1410	DN500 Pipe & Manhole (A14 - A15)	30	21	24OCT08 A	22MAY09	-22d	30		0
Portion I									
	Ground Investigation								
S4IB1300	Install Settlement Markers	736	158	26JUN06 A	04NOV09	135d	79		0
	Drainage and Ducts								
	Trench Method								
S4IEA1000	DN500 Pipe & Manhole (C2 - C4)	58	29	24DEC08 A	19JUN09	109d	50	TTA	0
S4IEA1020	DN500 Pipe & Manhole (C4 - C6)	76	15	27AUG08 A	15MAY09	109d	80		0
S4IEA1200	DN400 Pipe & Manhole (C7a - C7)	36	36	28APR09	10JUN09	-13d	0	TTA	0
S4IEA1330	DN500 Pipe & Manhole (C11 - C12)	35	35	20JUN09	31JUL09	109d	0		0
S4IEA2320	DN500 Pipe & Manhole (C31 - C32)	53	53	28APR09	30JUN09	239d	0		0
S4IEA2400	DN500 Pipe & Manhole (C32 - C34)	70	70	02JUL09	21SEP09	239d	0	TTA	0
	Trenchless Method								
S4IEB1000	Construct Jack/Receive Pits (C1 - C2)	30	30	28APR09	03JUN09	127d	0		0
S4IEB1020	Jacking DN500 (C1 - C2)	78	78	04JUN09	03SEP09	127d	0		0
	Geotechnical works								
S4IP1000	Monitoring of Instruments	827	99	28JUN06 A	24AUG09	-76d	88		0
Portion J									
	Ground Investigation								
S6JB1500	Install Settlement Marker 1st Stage	765	499	20APR06 A	20DEC10	476d	35		0
	Drainage and Ducts								
	Trench Method								
S6JEA101(	DN1050 Pipe & Manhole (D2 - D3)	78	78	06JUL09	06OCT09	126d	0		0
S6JEA170(	TTAJA7-2 DN400 Pipe & Manhole (D14 -	46	46	11JUL09	02SEP09	496d	0	TTA	0
S6JEA172(	TTAJA7-1 DN400 Pipe & Manhole (D15 -	61	61	28APR09	10JUL09	496d	0		0
S6JEA190(	TTAJB1-1 DN400 Pipe & Manhole (D20 -	102	102	20JUL09	18NOV09	222d	0	TTA	0
S6JEA192(	TTAJB2-1 DN400 Pipe & Manhole (D21 -	68	68	28APR09	18JUL09	222d	0		0
S6JEA240(	TTAJB6-1 DN400 Pipe & Manhole (D28 -	80	80	28APR09	01AUG09	520d	0	TTA	0
S6JEA320(	DN300 Pipe & Manhole (D40 - D42)	65	32	09JAN08 A	05JUN09	314d	50	TTA	0
S6JEA330(	DN300 Pipe & Manhole (D42 - D44)	72	72	06JUN09	29AUG09	314d	0	TTA	0
S6JEA420(	TTAJD4-1 DN750 Pipe & Manhole (E7 - E8)	35	35	14JUL09	22AUG09	324d	0	TTA	0
S6JEA422(	TTAJD4-2 DN750 Pipe & Manhole (E7 - E9)	63	63	28APR09	13JUL09	324d	0		0
S6JEA460(	TTAJD8-2 DN750 Pipe & Manhole (E12 -	40	40	26JUN09	12AUG09	373d	0	TTA	0
S6JEA462(	TTAJD8-1 DN750 Pipe & Manhole (E13 -	39	39	11MAY09	25JUN09	373d	0		0
S6JEA470(	TTAJD-9 DN750 Pipe & Manhole (E14 - E15)	69	10	13NOV07 A	09MAY09	373d	85	TTA	0
	Trenchless Method								
S6JEB100(	Construct Jack/Receive Pits (D1 - D2)	28	27	25NOV08 A	30MAY09	153d	5		0
S6JEB102(	Jacking DN1050 (D1 - D2)	29	29	01JUN09	04JUL09	153d	0		0
S6JEB104(	Construct Manholes D1 & D2	25	25	06JUL09	03AUG09	153d	0		0
S6JEB124(	Construct Manholes D7 & D8	25	12	25AUG08 A	12MAY09	9d	50		0
	Geotechnical works								
S6JP1000	Monitoring of Instruments	1152	399	21APR06 A	21AUG10	376d	65		0
Portion K									
	Drainage and Ducts								

Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	6A
c Primavera Systems, Inc.	

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

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone poin

Act ID	Description	Orig Dur	Rem Dur	Early Start	Early Finish	Total Float	%	Resource	Budgeted Cost
Trench Method									
S7KEA210(	CCTV Inspection of Pipeline	5	4	16AUG08 A	02MAY09	356d	30		0
Trenchless Method									
S7KEB130(	CCTV Inspection of Pipeline	2	1	16AUG08 A	28APR09	353d	30		0
CD1000	Section 1	0	0		09JUL09	225d	0		0
CD5000	Section 5	0	0		27MAY09	189d	0		0
CD7000	Section 7	0	0		02MAY09	437d	0		0
CD8000	Section 8	0	0		19JUN09	27d	0		0
PR3400	Structural Monitoring by ISE	835	8	06APR06 A	07MAY09	58d	99		0
PR3500	Environmental monitoring by ET	814	3	06APR06 A	30APR09	63d	100		0

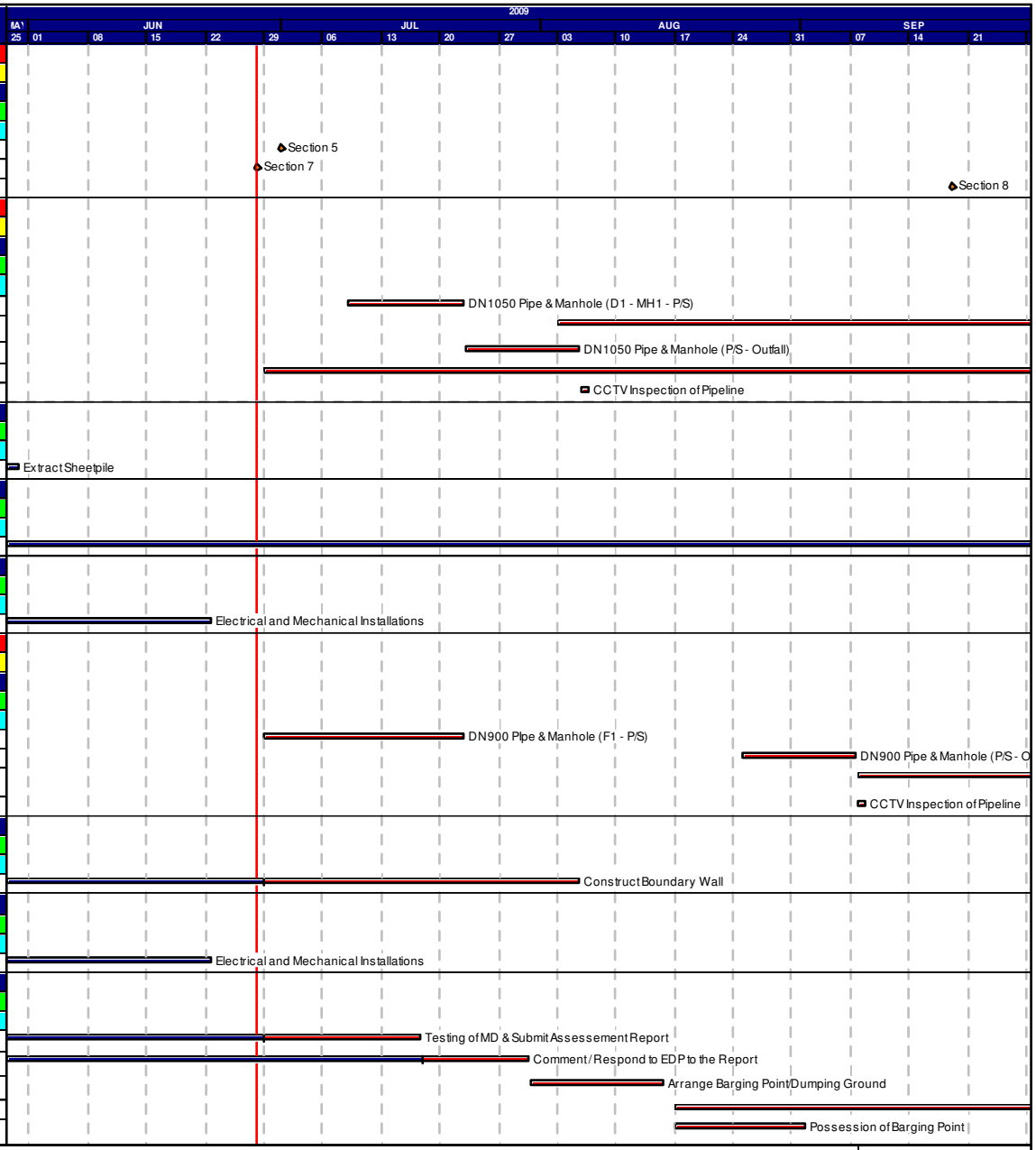


Start date	19DEC05
Finish date	11FEB11
Data date	28APR09
Page number	7A
c Primavera Systems, Inc.	

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
Section Completion / Key Date								
CD5000	Section 5	0	222d	0		30JUN09		19NOV08 *
CD7000	Section 7	0	491d	0		27JUN09		20FEB08 *
CD8000	Section 8	0	-64d	0		18SEP09		16JUL09 *
Section 1 - Kam Tin Sewage Pumping Station								
Portion A								
Drainage and Ducts								
Trench Method								
S1AEA1000	DN1050 Pipe & Manhole (D1 - MH1 - P/S)	12	265d	0	09JUL09	22JUL09	18AUG08	30AUG08
S1AEA1100	DN600 Pipe & Manhole (A1 - D1)	35	357d	0	03AUG09	31OCT09	24MAY08	21AUG08
S1AEA1200	DN1050 Pipe & Manhole (P/S - Outfall)	12	265d	0	23JUL09	05AUG09	01SEP08	13SEP08
S1AEA1300	Construct Flow Meter Chamber (FMC)	90	328d	0	29JUN09	14OCT09	24MAY08	08SEP08
S1AEA1900	CCTV Inspection of Pipeline	1	206d	0	06AUG09	06AUG09	26NOV08	26NOV08
Earthworks								
S1AG2600	Extract Sheetpile	10		100	03APR08 A	30MAY09 A	03APR08 A	30MAY09 A
In-Situ Concrete								
S1AL2100	Construct Boundary Wall	45	337d	78	18OCT08 A	12NOV09	18OCT08 A	26SEP08
Miscellaneous								
S1AT1400	Electrical and Mechanical Installations	24		100	16MAR09 A	22JUN09 A	16MAR09 A	22JUN09 A
Section 2 - Sha Po Sewage Pumping Station								
Portion B								
Drainage and Ducts								
Trench Method								
S2BEA1000	DN900 Pipe & Manhole (F1 - P/S)	20	535d	0	29JUN09	22JUL09	07SEP07	02OCT07
S2BEA1100	DN900 Pipe & Manhole (P/S - Outfall)	12	245d	0	25AUG09	07SEP09	30OCT08	12NOV08
S2BEA1150	GCVC3 & Pipes (VO)	20	108d	0	08SEP09	30SEP09	02MAY09	25MAY09
S2BEA1700	CCTV Inspection of Pipeline	1	245d	0	08SEP09	08SEP09	13NOV08	13NOV08
In-Situ Concrete								
S2BL2000	Construct Boundary Wall	47	-60d	30	12JAN09 A	05AUG09	12JAN09 A	25MAY09
Miscellaneous								
S2BT1400	Electrical and Mechanical Installations	24		100	03MAR09 A	22JUN09 A	03MAR09 A	22JUN09 A
Additonal Works / Disruption								
Revised B/Wall Details at SPPS (Claim No. 030)								
S2BV1640	Testing of MD & Submit Assessement Report	80	137d	80	29NOV08 A	17JUL09	29NOV08 A	02FEB09
S2BV1650	Comment / Respond to EDP to the Report	14	137d	20	18MAY09 A	30JUL09	18MAY09 A	14FEB09
S2BV1660	Arrange Barging Point/Dumping Ground	14	137d	0	31JUL09	15AUG09	16FEB09	04MAR09
S2BV1670	Application of Marine Dumping Permit	60	137d	0	17AUG09	28OCT09	05MAR09	15MAY09
S2BV1700	Possession of Barging Point	14	-90d	0	17AUG09	01SEP09	30APR09	16MAY09

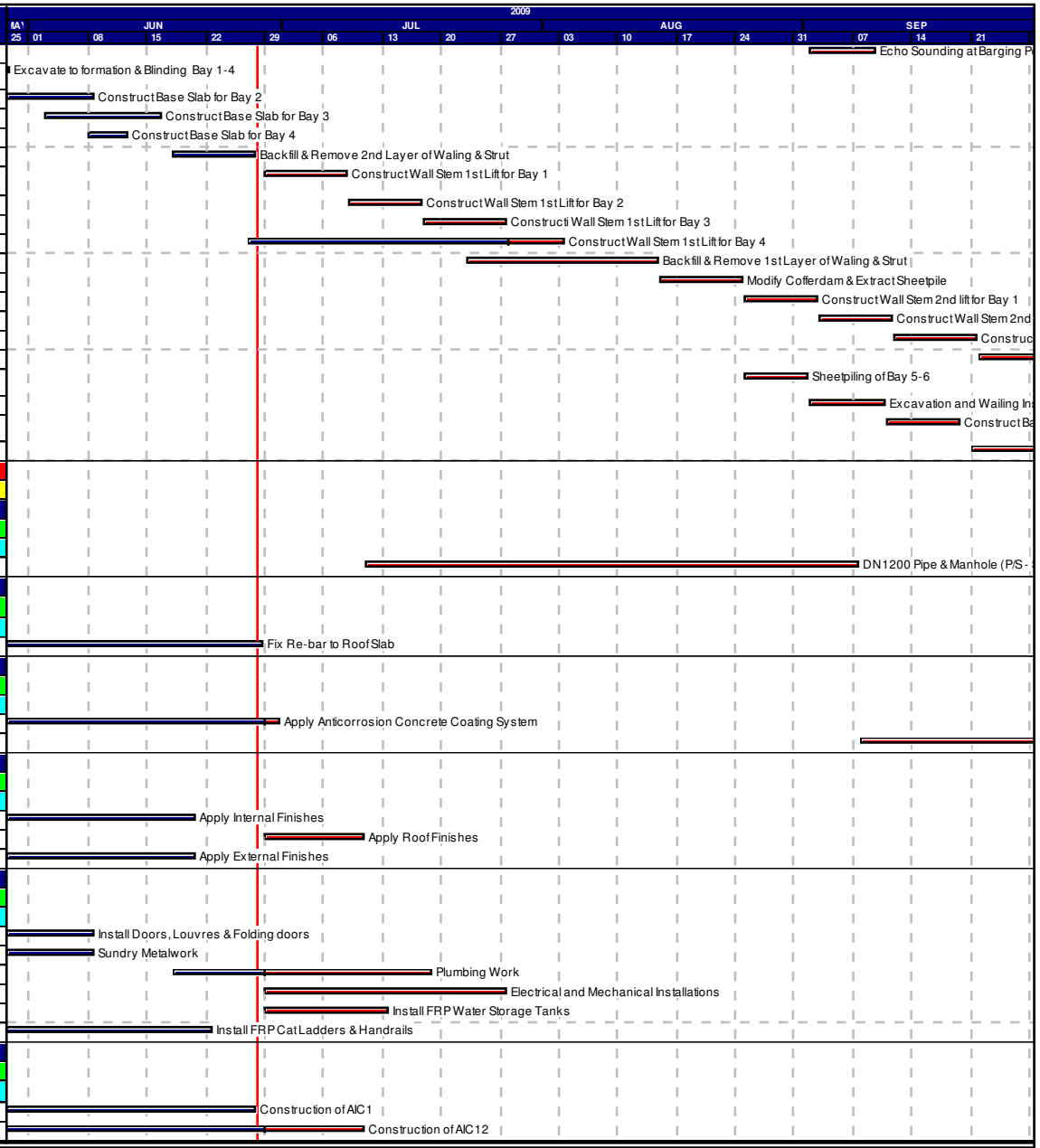


Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	1A
c Primavera Systems, Inc.	

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
S2BV1710	Echo Sounding at Barging Point & Dumping	7	-90d	0	02SEP09	09SEP09	18MAY09	25MAY09
S2BV2010	Excavate to formation & Blinding Bay 1-4	40		100	10APR09 A	29MAY09 A	10APR09 A	29MAY09 A
S2BV2085	Construct Base Slab for Bay 2	8		100	29MAY09 A	08JUN09 A	29MAY09 A	08JUN09 A
S2BV2090	Construct Base Slab for Bay 3	8		100	03JUN09 A	16JUN09 A	03JUN09 A	16JUN09 A
S2BV2095	Construct Base Slab for Bay 4	8		100	08JUN09 A	12JUN09 A	08JUN09 A	12JUN09 A
S2BV2100	Backfill & Remove 2nd Layer of Waling & Strut	6		100	18JUN09 A	27JUN09 A	18JUN09 A	27JUN09 A
S2BV2110	Construct Wall Stem 1st Lift for Bay 1	8	531d	0	29JUN09	08JUL09	12SEP07	20SEP07
S2BV2120	Construct Wall Stem 1st Lift for Bay 2	8	531d	0	09JUL09	17JUL09	21SEP07	02OCT07
S2BV2123	Construct Wall Stem 1st Lift for Bay 3	8	-58d	0	18JUL09	27JUL09	09MAY09	18MAY09
S2BV2125	Construct Wall Stem 1st Lift for Bay 4	8	-58d	30	27JUN09 A	03AUG09	27JUN09 A	25MAY09
S2BV2130	Backfill & Remove 1st Layer of Waling & Strut	20	535d	0	23JUL09	14AUG09	03OCT07	26OCT07
S2BV2140	Modify Cofferdam & Extract Sheetpile	8	535d	0	15AUG09	24AUG09	27OCT07	05NOV07
S2BV2150	Construct Wall Stem 2nd lift for Bay 1	8	535d	0	25AUG09	02SEP09	06NOV07	14NOV07
S2BV2160	Construct Wall Stem 2nd lift for Bay 2	8	535d	0	03SEP09	11SEP09	15NOV07	23NOV07
S2BV2170	Construct Wall Stem 2nd lift for Bay 3	8	535d	0	12SEP09	21SEP09	24NOV07	03DEC07
S2BV2180	Construct Wall Stem 2nd lift for Bay 4	8	535d	0	22SEP09	30SEP09	04DEC07	12DEC07
S2BV2200	Sheetpiling of Bay 5-6	7	315d	0	25AUG09	01SEP09	06AUG08	13AUG08
S2BV2210	Excavation and Wailing Install to formation	8	315d	0	02SEP09	10SEP09	14AUG08	22AUG08
S2BV2230	Construct Base Slab for Bay 5	8	315d	0	11SEP09	19SEP09	23AUG08	01SEP08
S2BV2240	Construct Base Slab for Bay 6	8	315d	0	21SEP09	29SEP09	02SEP08	10SEP08
Section 3 - Nam Sang Wai Sewage Pumping Station								
Portion C								
Drainage and Ducts								
Trench Method								
S3CEA1400	DN1200 Pipe & Manhole (P/S - SC1 - Outfall)	50	353d	0	11JUL09	07SEP09	06MAY08	05JUL08
Steel Reinforcement								
S3CK1800	Fix Re-bar to Roof Slab	8		100	28FEB09 A	28JUN09	28FEB09 A	28JUN09
In-Situ Concrete								
S3CL1900	Apply Anticorrosion Concrete Coating System	24	200d	95	24APR09 A	30JUN09	24APR09 A	28OCT08
S3CL2100	Construct Boundary Wall	24	353d	0	08SEP09	07OCT09	07JUL08	02AUG08
Finishings								
S3CQ1000	Apply Internal Finishes	45		100	18FEB09 A	20JUN09 A	18FEB09 A	20JUN09 A
S3CQ1050	Apply Roof Finishes	10	210d	0	29JUN09	10JUL09	15OCT08	25OCT08
S3CQ1100	Apply External Finishes	30		100	20APR09 A	20JUN09 A	20APR09 A	20JUN09 A
Miscellaneous								
S3CT1000	Install Doors, Louvres & Folding doors	30		100	06APR09 A	08JUN09 A	06APR09 A	08JUN09 A
S3CT1100	Sundry Metalwork	12		100	16MAR09 A	08JUN09 A	16MAR09 A	08JUN09 A
S3CT1300	Plumbing Work	24	-52d	30	18JUN09 A	18JUL09	18JUN09 A	16MAY09
S3CT1400	Electrical and Mechanical Installations	24	-52d	0	29JUN09	27JUL09	27APR09	25MAY09
S3CT1500	Install FRP Water Storage Tanks	12	-40d	0	29JUN09	13JUL09	12MAY09	25MAY09
S3CT1600	Install FRP Cat Ladders & Handrails	24		100	18MAY09 A	22JUN09 A	18MAY09 A	22JUN09 A
Additonal Works / Disruption								
Construction of AIC1 & AIC12 (Claims No. 150)								
S3CV1630	Construction of AIC1	200		100	15OCT08 A	27JUN09 A	15OCT08 A	27JUN09 A
S3CV1640	Construction of AIC12	200	353d	95	15OCT08 A	10JUL09	15OCT08 A	05MAY08

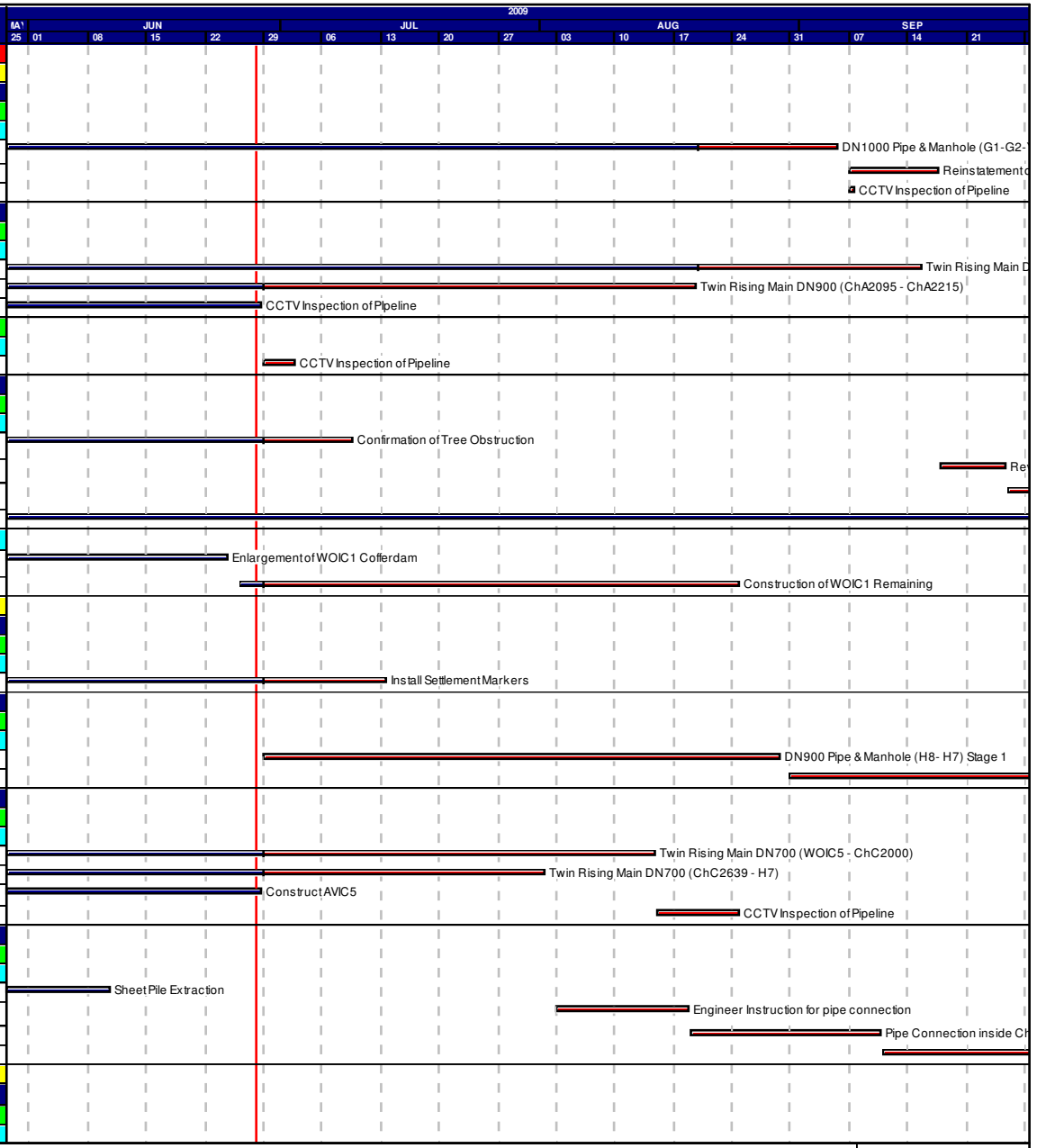


Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	2A
c Primavera Systems, Inc.	

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
Section 4 - Sewers & RM in Portion D, F, G, H, I								
Portion D								
Drainage and Ducts								
Trench Method								
S4DEA1000	DN1000 Pipe & Manhole (G1-G2-YLSTP) (VO)	50	215d	70	27APR09 A	05SEP09	27APR09 A	16DEC08
S4DEA1010	Reinstatement of the road at G1	10	215d	0	07SEP09	17SEP09	17DEC08	30DEC08
S4DEA1100	CCTV Inspection of Pipeline	1	-88d	0	07SEP09	07SEP09	25MAY09	25MAY09
Pipework - Rising Main								
Trench Method								
S4DFA1100	Twin Rising Main DN900 (ChA1850- WOIC1)	101	-95d	77	15DEC06 A	15SEP09	15DEC06 A	25MAY09
S4DFA1200	Twin Rising Main DN900 (ChA2095 -	148	215d	70	20DEC07 A	19AUG09	20DEC07 A	28NOV08
S4DFA1300	CCTV Inspection of Pipeline	5		100	16AUG08 A	28JUN09	16AUG08 A	28JUN09
Trenchless Method								
S4DFB1200	CCTV Inspection of Pipeline	3	-43d	0	29JUN09	02JUL09	08MAY09	11MAY09
Additonal Works / Disruption								
AIC2								
S4DV1530	Confirmation of Tree Obstruction	30	-37d	70	13FEB09 A	09JUL09	13FEB09 A	25MAY09
S4DV1540	Revise hoarding layout	7	215d	0	18SEP09	25SEP09	31DEC08	08JAN09
S4DV1560	Enlarge Cofferdam	18	215d	0	26SEP09	19OCT09	09JAN09	02FEB09
S4DV1590	Construction of AIC 2	75	215d	20	25APR09 A	30DEC09	25APR09 A	15APR09
WIC1								
S4DV1610	Enlargement of WOIC1 Cofferdam	45		100	08MAY09 A	24JUN09 A	08MAY09 A	24JUN09 A
S4DV1620	Construction of WOIC1 Remaining	60	-76d	20	26JUN09 A	24AUG09	26JUN09 A	25MAY09
Portion F								
Ground Investigation								
S4FB1500	Install Settlement Markers	698	-40d	98	27APR06 A	13JUL09	27APR06 A	25MAY09
Drainage and Ducts								
Trench Method								
S4FEA1000	DN900 Pipe & Manhole (H8- H7) Stage 1	53	151d	0	29JUN09	29AUG09	23DEC08	02MAR09
S4FEA1100	DN900 Pipe & Manhole (H8 - H7) Stage 2	53	151d	0	31AUG09	03NOV09	03MAR09	05MAY09
Pipework - Rising Main								
Trench Method								
S4FFA1300	Twin Rising Main DN700 (WOIC5 - ChC2000)	80	-88d	50	05JUN08 A	14AUG09	05JUN08 A	30APR09
S4FFA2300	Twin Rising Main DN700 (ChC2639 - H7)	52	121d	44	29MAY09 A	01AUG09	29MAY09 A	09MAR09
S4FFA2400	Construct AVIC5	30		100	22JAN09 A	28JUN09	22JAN09 A	28JUN09
S4FFA2600	CCTV Inspection of Pipeline	8	-88d	0	15AUG09	24AUG09	02MAY09	11MAY09
Additonal Works / Disruption								
AIC5								
S4FV1030	Sheet Pile Extraction	18		100	06APR09 A	10JUN09 A	06APR09 A	10JUN09 A
S4FV1040	Engineer Instruction for pipe connection	14	121d	0	03AUG09	18AUG09	10MAR09	25MAR09
S4FV1050	Pipe Connection inside Chamber	20	121d	0	19AUG09	10SEP09	26MAR09	18APR09
S4FV1060	Cast of Chamber Top Slab	30	121d	0	11SEP09	17OCT09	20APR09	25MAY09
Portion G								
Pipework - Rising Main								
Trench Method								

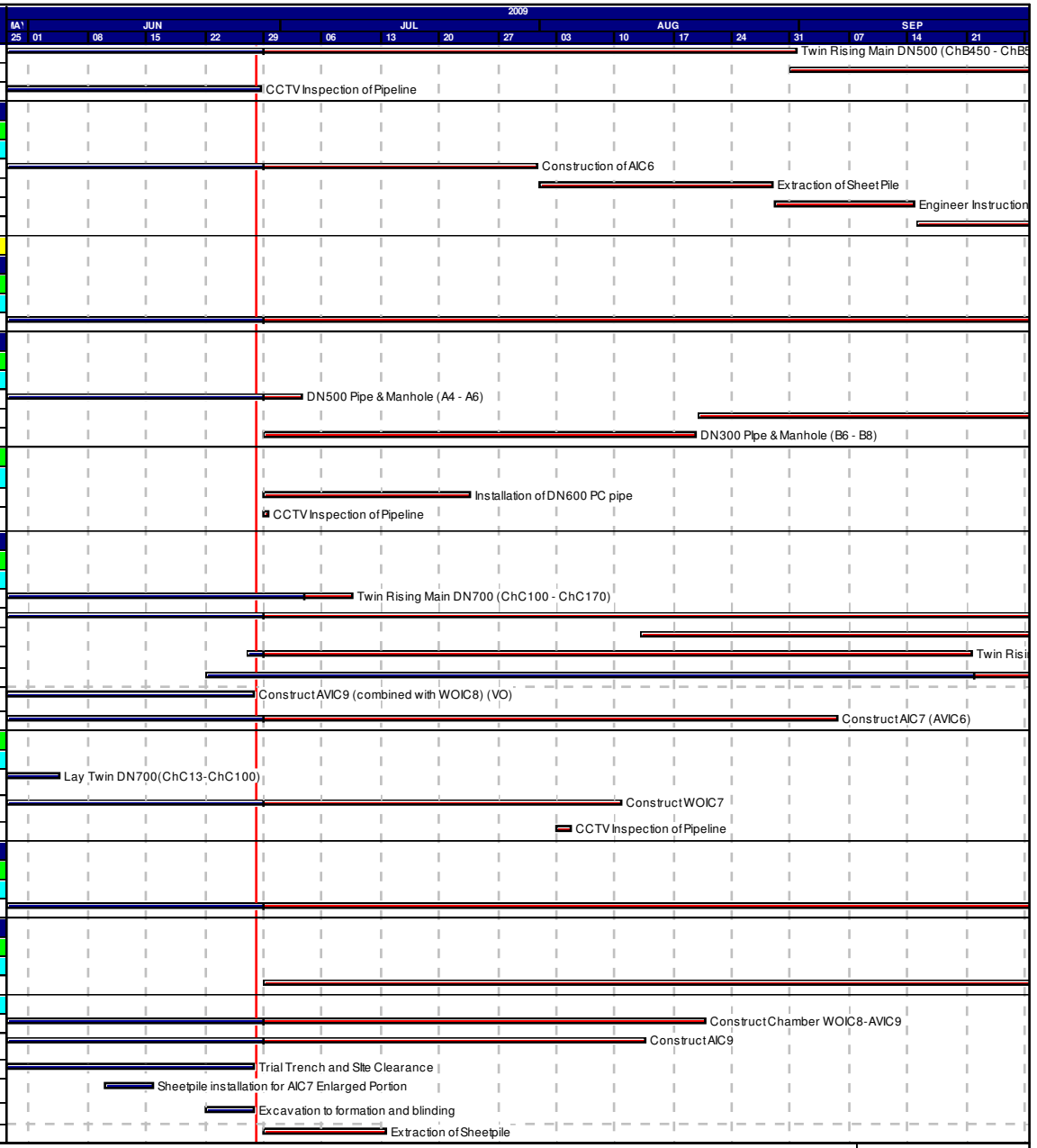


Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	3A
c Primavera Systems, Inc.	

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
S4GFA1300	Twin Rising Main DN500 (ChB450 - ChB550)	89	123d	40	16JAN08 A	31AUG09	16JAN08 A	03APR09
S4GFA1700	Construct WOIC3	30	123d	0	31AUG09	07OCT09	06APR09	11MAY09
S4GFA1900	CCTV Inspection of Pipeline	9		100	06MAR07 A	28JUN09	06MAR07 A	28JUN09
Additonal Works / Disruption								
AIC6								
S4GV1020	Construction of AIC6	280	114d	90	02OCT08 A	31JUL09	02OCT08 A	16MAR09
S4GV1025	Extraction of Sheet Pile	24	114d	0	01AUG09	28AUG09	17MAR09	14APR09
S4GV1030	Engineer Instruction of Pipe Connection	14	114d	0	29AUG09	14SEP09	15APR09	30APR09
S4GV1040	Pipe Connection inside Chamber	20	114d	0	15SEP09	09OCT09	02MAY09	25MAY09
Portion H								
Ground Investigation								
S4HB1300	Install Settlement Markers	727	138d	85	26MAY06 A	07NOV09	26MAY06 A	25MAY09
Drainage and Ducts								
Trench Method								
S4HEA1000	DN500 Pipe & Manhole (A4 - A6)	90	328d	95	03OCT08 A	03JUL09	03OCT08 A	28MAY08
S4HEA1900	DN300 Pipe & Manhole (B4 - B6)	67	305d	0	20AUG09	09NOV09	13AUG08	01NOV08
S4HEA2000	DN300 Pipe & Manhole (B6 - B8)	44	305d	0	29JUN09	19AUG09	21JUN08	12AUG08
Trenchless Method								
S4HEB1030	Installation of DN600 PC pipe	21	-49d	0	29JUN09	23JUL09	30APR09	25MAY09
S4HEB1100	CCTV Inspection of Pipeline	1	-29d	0	29JUN09	29JUN09	25MAY09	25MAY09
Pipework - Rising Main								
Trench Method								
S4HFA1000	Twin Rising Main DN700 (ChC100 - ChC170)	45	-60d	90	08OCT08 A	09JUL09	08OCT08 A	25APR09
S4HFA1800	Twin Rising Main DN700 (ChC850 - ChC950)	125	140d	30	14APR09 A	12OCT09	14APR09 A	25APR09
S4HFA2400	Twin Rising Main DN700 (ChC1450 -	110	262d	0	13AUG09	23DEC09	26SEP08	10FEB09
S4HFA2610	Twin Rising Main DN700 (ChC1715 -	80	258d	10	27JUN09 A	21SEP09	27JUN09 A	11NOV08
S4HFA2700	Twin Rising Main DN700 (ChC1790 -	90	258d	20	22JUN09 A	17DEC09	22JUN09 A	10FEB09
S4HFA3000	Construct AVIC9 (combined with WOIC8) (VO)	0	-52d	40	13MAY09 A	27JUN09	13MAY09 A	25APR09
S4HFA3500	Construct AIC7 (AVIC6)	91	173d	35	05MAY09 A	05SEP09	05MAY09 A	10FEB09
Trenchless Method								
S4HFB1030	Lay Twin DN700(ChC13-ChC100)	30		100	05MAR09 A	04JUN09 A	05MAR09 A	04JUN09 A
S4HFB1200	Construct WOIC7	60	-64d	40	11MAY09 A	10AUG09	11MAY09 A	25MAY09
S4HFB1300	CCTV Inspection of Pipeline	2	-71d	0	03AUG09	04AUG09	09MAY09	11MAY09
Geotechnical works								
S4HP1000	Monitoring of Instruments	947	171d	85	26MAY06 A	16DEC09	26MAY06 A	25MAY09
Additonal Works / Disruption								
Combine A4/AIC10 (Claim No. 183)								
S4HV1510	Construct combine A4/AIC10	100	128d	0	29JUN09	27OCT09	22JAN09	25MAY09
S4HV1570	Construct Chamber WOIC8-AVIC9	75	-73d	40	14MAY09 A	20AUG09	14MAY09 A	25MAY09
S4HV4510	Construct AIC9	70	262d	45	07MAY09 A	13AUG09	07MAY09 A	25SEP08
S4HV5010	Trial Trench and Site Clearance	14	258d	99	25MAY09 A	27JUN09	25MAY09 A	15AUG08
S4HV5020	Sheetpile installation for AIC7 Enlarged Portion	10		100	10JUN09 A	15JUN09 A	10JUN09 A	15JUN09 A
S4HV5030	Excavation to formation and blinding	12		100	22JUN09 A	27JUN09 A	22JUN09 A	27JUN09 A
S4HV5040	Extraction of Sheetpile	12	140d	0	29JUN09	13JUL09	08JAN09	21JAN09

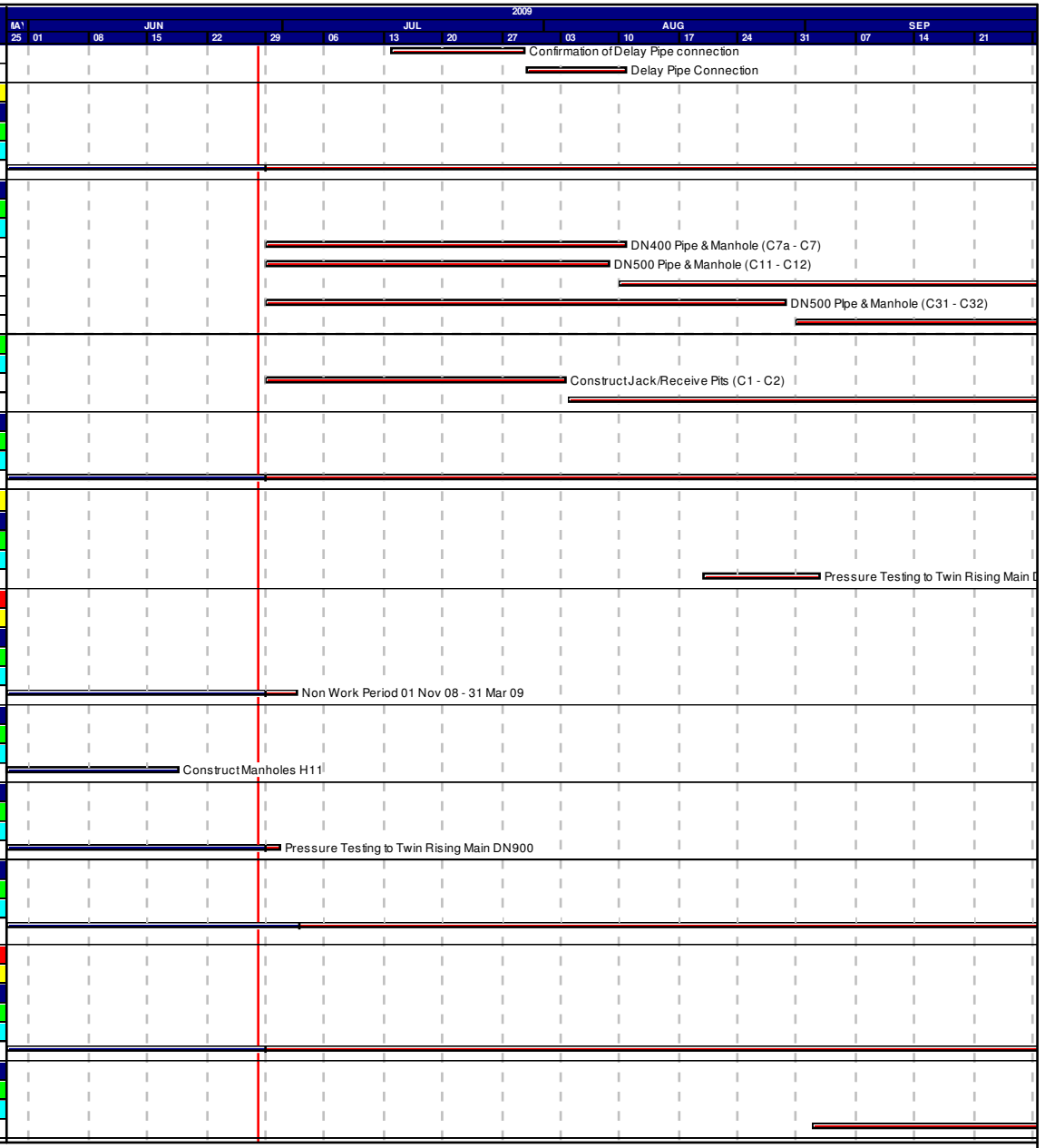


Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	4A
c Primavera Systems, Inc.	

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
S4HV5050	Confirmation of Delay Pipe connection	14	-140d	0	14JUL09	29JUL09	22JAN09	10FEB09
S4HV5060	Delay Pipe Connection	10	-64d	0	30JUL09	10AUG09	14MAY09	25MAY09
Portion I								
Ground Investigation								
S4IB1300	Install Settlement Markers	736	-163d	82	26JUN06 A	07DEC09	26JUN06 A	25MAY09
Drainage and Ducts								
Trench Method								
S4IEA1200	DN400 Pipe & Manhole (C7a - C7)	36	-64d	0	29JUN09	10AUG09	13APR09	25MAY09
S4IEA1330	DN500 Pipe & Manhole (C11 - C12)	35	-116d	0	29JUN09	08AUG09	09FEB09	21MAR09
S4IEA1600	DN500 Pipe & Manhole (C14 - C15)	45	-116d	0	10AUG09	30SEP09	23MAR09	15MAY09
S4IEA2320	DN500 Pipe & Manhole (C31 - C32)	53	-290d	0	29JUN09	29AUG09	10JUL08	09SEP08
S4IEA2400	DN500 Pipe & Manhole (C32 - C34)	70	-290d	0	31AUG09	23NOV09	10SEP08	03DEC08
Trenchless Method								
S4IEB1000	Construct Jack/Receive Pits (C1 - C2)	30	-178d	0	29JUN09	03AUG09	21NOV08	27DEC08
S4IEB1020	Jacking DN500 (C1 - C2)	78	-178d	0	04AUG09	05NOV09	29DEC08	03APR09
Geotechnical works								
S4IP1000	Monitoring of Instruments	827	-153d	85	28JUN06 A	25NOV09	28JUN06 A	25MAY09
Miscellaneous								
Testing								
S4PS1300	Pressure Testing to Twin Rising Main DN900	12	-84d	0	20AUG09	02SEP09	12MAY09	25MAY09
Section 5 - Sewers & RM in Portion E								
Portion E								
Preliminaries								
S5EA1300	Non Work Period 01 Nov 08 - 31 Mar 09	121	-136d	98	01NOV08 A	02JUL09	01NOV08 A	15JAN09
Drainage and Ducts								
Trenchless Method								
S5EEB1040	Construct Manholes H11	30		100	09OCT08 A	18JUN09 A	09OCT08 A	18JUN09 A
Testing								
S5ES1000	Pressure Testing to Twin Rising Main DN900	12	-181d	83	17MAR09 A	30JUN09	17MAR09 A	19NOV08
Additonal Works / Disruption								
Additional Chambers (Claim No. 151)								
S5EV1070	Construct AIC4 (VO)	150	-136d	30	01APR09 A	05NOV09	01APR09 A	25MAY09
Section 6 - Sewers in Portion J								
Portion J								
Ground Investigation								
S6JB1500	Install Settlement Marker 1st Stage	765	-504d	38	20APR06 A	24JAN11	20APR06 A	25MAY09
Drainage and Ducts								
Trench Method								
S6JEA1000	DN500 Pipe & Manhole (C1 - D2)	80	-178d	0	02SEP09	07DEC09	31JAN09	07MAY09

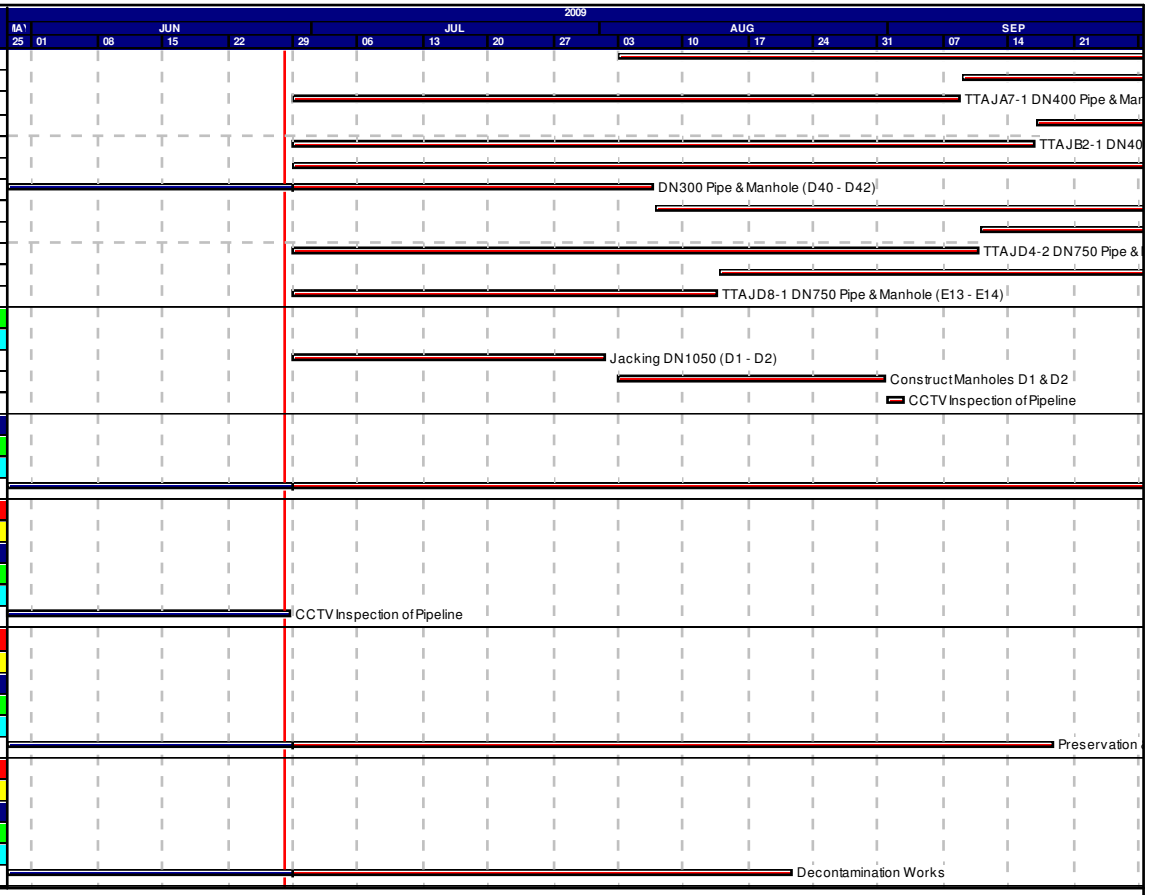


Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	5A

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

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

Act ID	Description	Orig Dur	Total Float	%	Early Start	Early Finish	Late Start	Late Finish
S6JEA1010	DN1050 Pipe & Manhole (D2 - D3)	78	150d	0	03AUG09	04NOV09	03FEB09	07MAY09
S6JEA1700	TTAJA7-2 DN400 Pipe & Manhole (D14 - D15)	46	547d	0	09SEP09	04NOV09	07NOV07	02JAN08
S6JEA1720	TTAJA7-1 DN400 Pipe & Manhole (D15 -	61	547d	0	29JUN09	08SEP09	24AUG07	06NOV07
S6JEA1900	TTAJB1-1 DN400 Pipe & Manhole (D20 - D21)	102	273d	0	17SEP09	19JAN10	21OCT08	23FEB09
S6JEA1920	TTAJB2-1 DN400 Pipe & Manhole (D21 - D22)	68	273d	0	29JUN09	16SEP09	30JUL08	20OCT08
S6JEA2400	TTAJB6-1 DN400 Pipe & Manhole (D28 - D30)	80	571d	0	29JUN09	30SEP09	27JUL07	31OCT07
S6JEA3200	DN300 Pipe & Manhole (D40 - D42)	65	366d	50	09JAN08 A	06AUG09	09JAN08 A	17MAY08
S6JEA3300	DN300 Pipe & Manhole (D42 - D44)	72	366d	0	07AUG09	02NOV09	19MAY08	12AUG08
S6JEA4200	TTAJD4-1 DN750 Pipe & Manhole (E7 - E8)	35	375d	0	11SEP09	23OCT09	13JUN08	24JUL08
S6JEA4220	TTAJD4-2 DN750 Pipe & Manhole (E7 - E9)	63	375d	0	29JUN09	10SEP09	27MAR08	12JUN08
S6JEA4600	TTAJD8-2 DN750 Pipe & Manhole (E12 - E13)	40	414d	0	14AUG09	29SEP09	27MAR08	15MAY08
S6JEA4620	TTAJD8-1 DN750 Pipe & Manhole (E13 - E14)	39	414d	0	29JUN09	13AUG09	02FEB08	26MAR08
	Trenchless Method							
S6JEB1020	Jacking DN1050 (D1 - D2)	29	357d	0	29JUN09	01AUG09	18APR08	23MAY08
S6JEB1040	Construct Manholes D1 & D2	25	177d	0	03AUG09	31AUG09	29DEC08	30JAN09
S6JEB1300	CCTV Inspection of Pipeline	2	-84d	0	01SEP09	02SEP09	23MAY09	25MAY09
	Geotechnical works							
S6JP1000	Monitoring of Instruments	1152	454d	63	21APR06 A	24NOV10	21APR06 A	25MAY09
	Section 7 - Sewers in Portion K							
	Portion K							
	Drainage and Ducts							
	Trench Method							
S7KEA2100	CCTV Inspection of Pipeline	5		100	16AUG08 A	28JUN09	16AUG08 A	28JUN09
	Section 8 - Preservation and Protection of Trees							
	All Portions							
	Landscape Softworks and Establishment Works							
S8QR1100	Preservation & Protection of Preserved Trees	744	-98d	91	29JUL06 A	18SEP09	29JUL06 A	25MAY09
	Decontamination Works							
	Portion H							
	Decontamination							
S9HU1000	Decontamination Works	48	-43d	4	26MAR09 A	21AUG09	26MAR09 A	02JUL09



Start date	19DEC05
Finish date	13APR11
Data date	28JUN09
Page number	6A
c Primavera Systems, Inc.	

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

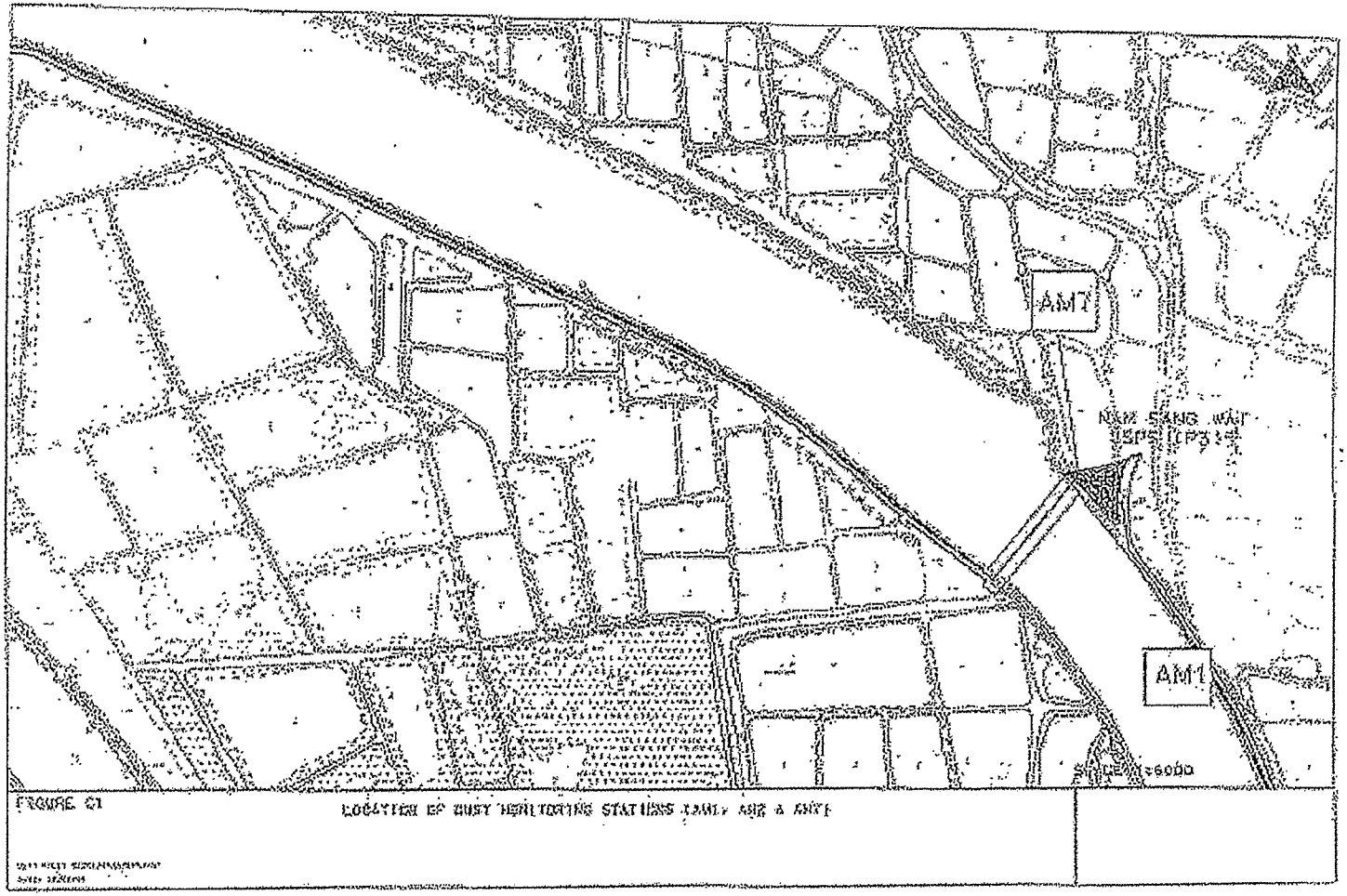


FIGURE 01 LOCATION OF DUST MONITORING STATIONS AM1 AND A AM1

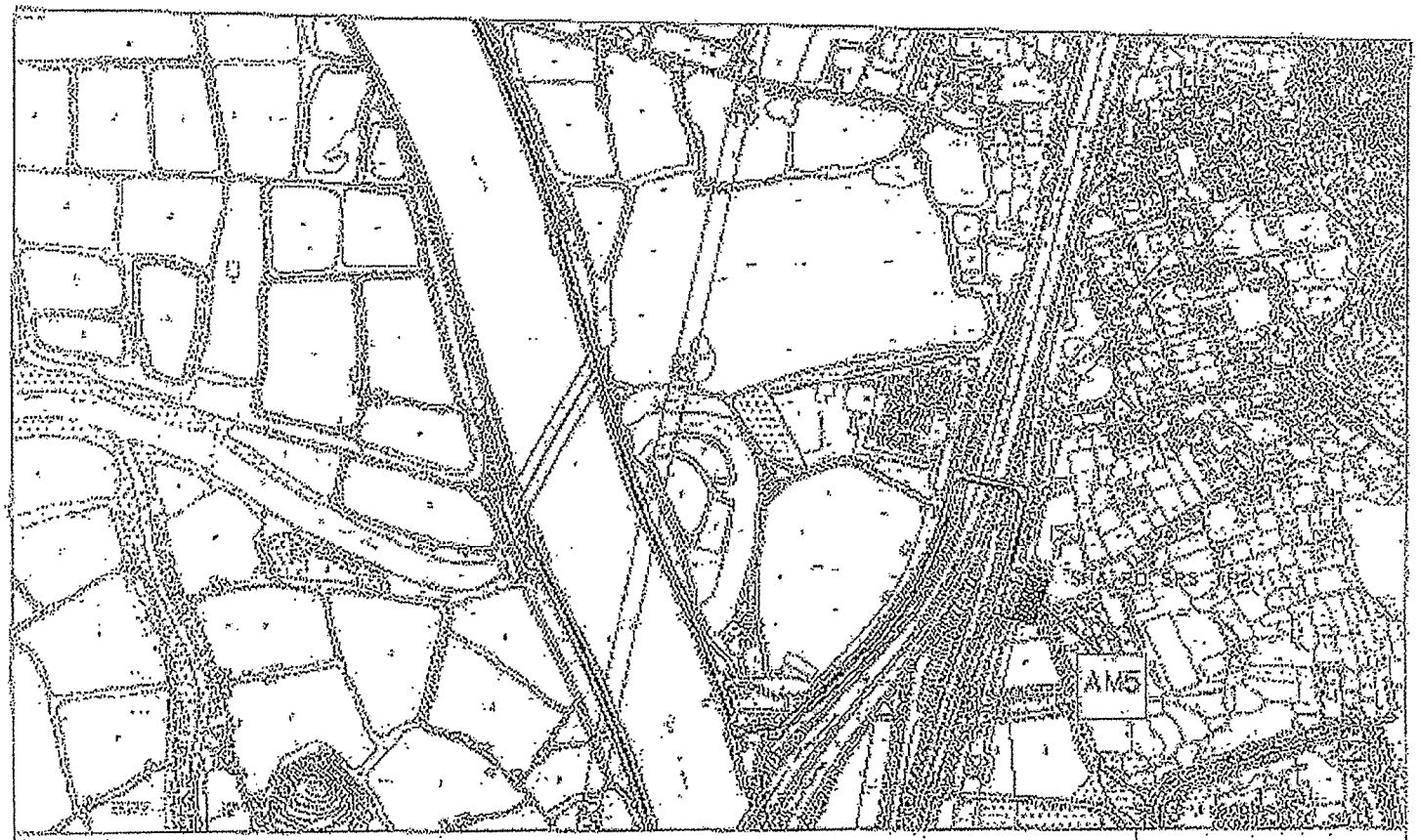


FIGURE 02 LOCATION OF DUST MONITORING STATION (AM5)

FIGURE 6.0 LOCATION OF DUST MONITORING STATIONS (AQM1, AM5 & AM10)

FIGURE 4.7 LOCATION OF NOISE MONITORING STATIONS (NM1, NM2, NM3, NM4)

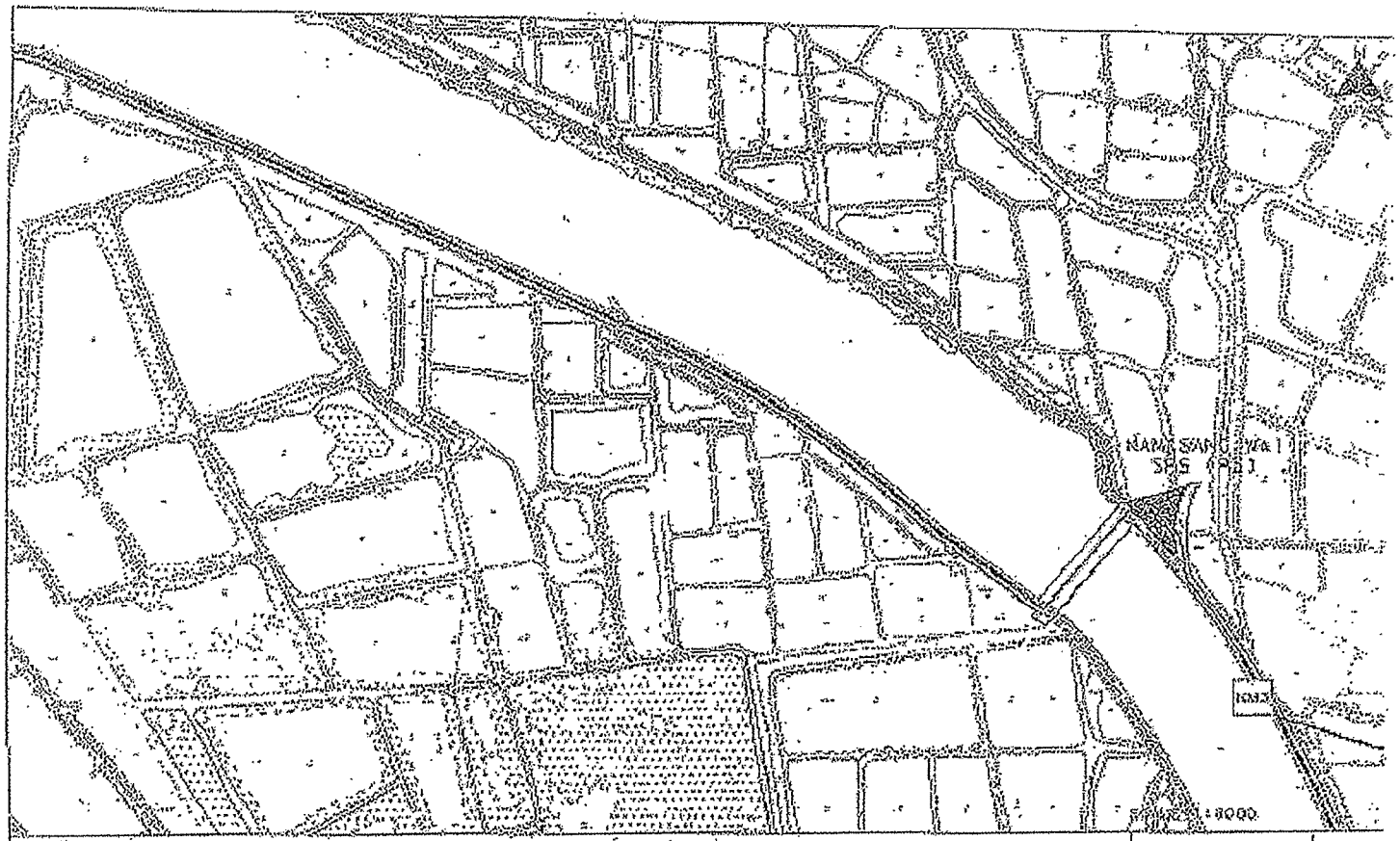


FIGURE C8

LOCATION OF NOISE MONITORING STATIONS (NMS. 6 & 7)

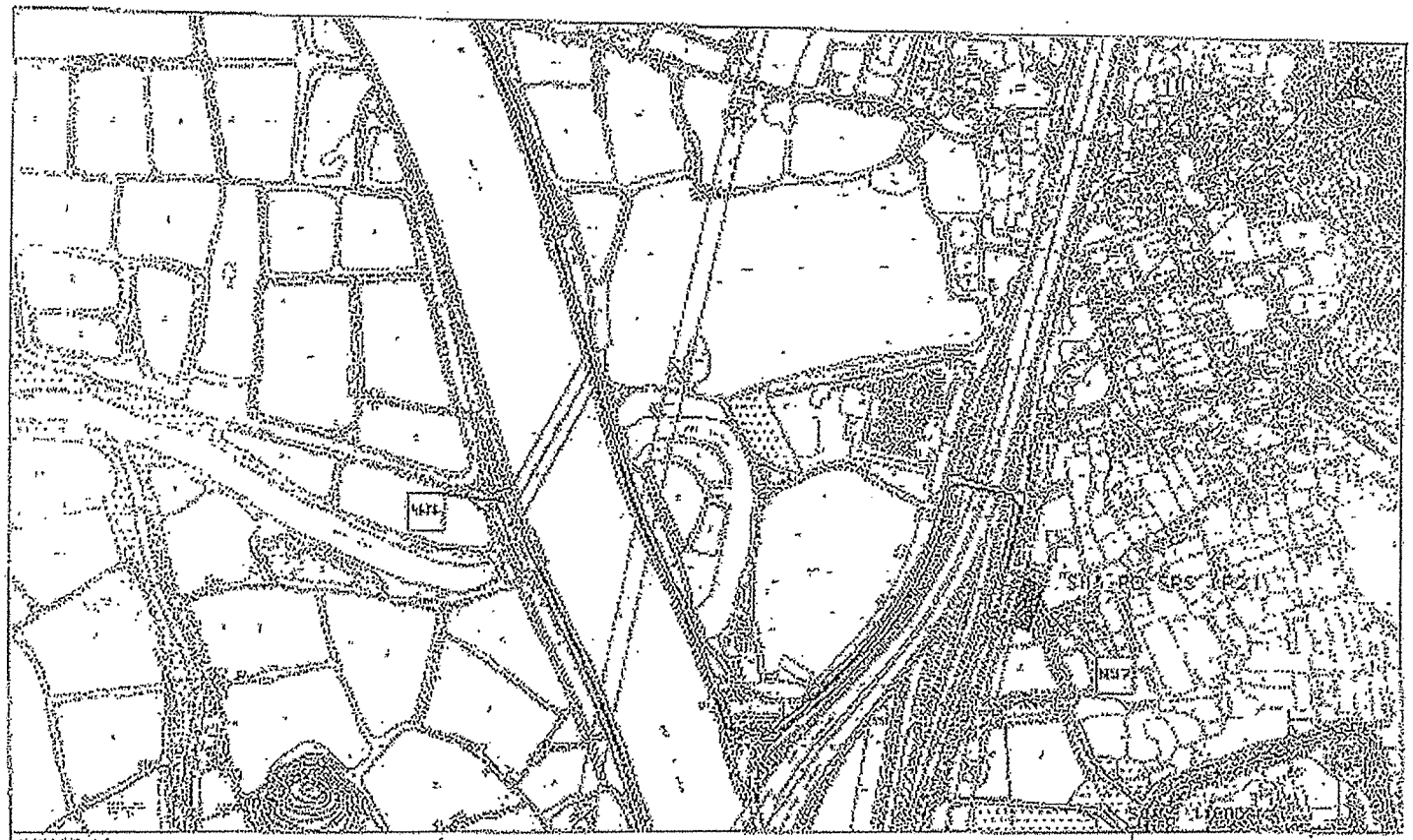


FIGURE 20.

LOCATION OF NOISE MONITORING STATIONS (NM1, NM2)

Annex F

Event and Action Plan

Event and Action Plan for Construction Phase Air Quality

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
Action Level				
Exceedance for one sample	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, and Engineer informed	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	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	1. Rectify any unacceptable practice 2. Liaise with Engineer and IEC to develop appropriate remedial measures to reduce dust 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	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	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	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.	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 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
Limit Level				
Exceedance for one sample	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	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	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.	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	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.	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	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.	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	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	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	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	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	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.	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	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.	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 *Air Pollution Control (Construction Dust) Regulations*								
		Site boundary and entrance								
3.5	A1	• 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		✓			*Part III, Clause 13 (c), Air Pollution Control (Construction Dust) Regulations*
		Access Road								
3.5	A2	• 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		✓			*Part III, Clause 14, (b), Air Pollution Control (Construction Dust) Regulations*
		Stockpiling of Dusty Materials								
3.5	A3	• 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		✓			*Part IV, Clause 18, (a, b & c), Air Pollution Control (Construction Dust) Regulations*
		Loading, unloading or transfer of dusty materials								
3.5	A4	• 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		✓			*Part IV, Clause 19, Air Pollution Control (Construction Dust) Regulations*
		Use of vehicles								
3.5	A5	• 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		✓			*Part IV, Clause 21, (1), Air Pollution Control (Construction*

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	• 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		✓			*Dust) Regulations Part IV, Clause 21, (2), Air Pollution Control (Construction Dust) Regulations*
		Power-driven drilling, and cutting								
3.5	A7	• 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		✓			*Part IV, Clause 22, Air Pollution Control (Construction Dust) Regulations*
		Excavation and earth moving								
3.5	A8	• 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		✓			*Part IV, Clause 24, Air Pollution Control (Construction Dust) Regulations*
		Construction of the superstructure of a building								
3.5	A9	• 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 a 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		✓			*Part I, Clause 6, (a), Air Pollution Control (Construction Dust) Regulations*
3.5	A10	• 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		✓			*Part I, Clause 6, (b), Air Pollution Control (Construction Dust) Regulations*

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*								
		General Site Clearance – Demolition Works								
4.7.1	B1	• Use of quiet PME which meet the SWLs taken from British Standard, *Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997 (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		✓			*Annex 5 of EIAO-TM*
		Construction of Sewage Pumping Stations P1, P2 & P3								
4.7.1	B2	• Use of quiet PME which meet the SWLs taken from British Standard, *Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997*,	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		✓			*Annex 5 of EIAO-TM*
		• 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		✓			*Annex 5 of EIAO-TM*
		Sewers and Rising Mains using Open Trench Method								
4.7.1	B3	• Use of quiet PME which meet the SWLs taken from British Standard, *Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997*,	To control potential noise impacts during excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			*Annex 5 of EIAO-TM*
4.7.1	B4	• 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		✓			
4.7.1	B5	• 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		✓			

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	
		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.	activities.	line of sight. Throughout the full duration of the road opening activities.						
		Sewers and Rising Mains using Pipe Jacking Method								
4.7.1	B6	• Use of quiet PME which meet the SWLs taken from British Standard, *Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997*,	To control potential noise impacts from PME during construction works	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			*Annex 5 of EIAO-TM*
		Road Pavement and Finishes								
4.7.1	B7	• Use of quiet PME which meet the SWLs taken from British Standard, *Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997*,	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		✓			*Annex 5 of EIAO-TM*
		WATER QUALITY - *Construction Phase*								
		No water quality monitoring is required under this study.								
		WASTE - *Construction Phase*								
6.6.2	D1	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 *(Waste Disposal (Chemical Waste) (General) Regulations); and* • Dumping Licence (*Land (Miscellaneous Provisions) Ordinance (Cap 28))*	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	✓	✓			*Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste)(General) Regulation (Cap 354), the Land (Miscellaneous Provisions) Ordinance (Cap 28))*

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	
		Chemical Waste								
6.6.2	D2	Chemical waste that is produced, as defined by Schedule 1 of the *Waste Disposal (Chemical Waste) (General) Regulation,* 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.	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		✓			*Part II, (6) Waste Disposal (Chemical Waste) (General) Regulation*
		Storage, Packaging and Labelling of Chemical Waste								
6.6.2	D3	Containers used for storage of chemical wastes should: • 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		✓			*Part IV, (9, 10, 11 & 12) Waste Disposal (Chemical Waste) (General) Regulation*
		Storage of chemical waste								
6.6.2	D4	The storage area for chemical wastes should: • 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		✓			*Part IV, (13,14, 15, 16, 17, & 18) Waste Disposal (Chemical Waste) (General) Regulation*

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								
		Disposal of chemical waste • The Contractor should ensure that the disposal of chemical waste is via a licensed Waste Collector and in accordance with the *Waste Disposal (Chemical Waste) (General) Regulations*.	To control the disposal of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			*Part IV, (20 -25) Waste Disposal (Chemical Waste) (General) Regulation*
6.6.2	D5	*Management of Waste Disposal* 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 *Land (Miscellaneous Provisions) Ordinance (Cap28)* and the *Works Bureau Technical Circular No. 5/99.*	To monitor the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping.	To be implemented at all worksites throughout the full duration of the construction phase.	The Engineer/ Contractor		✓			*Land (Miscellaneous Provisions) Ordinance (Cap 295) and Works Bureau Technical Circular No. 5/99.*
		LAND CONTAMINATION- *Construction Phase*								
7.5.6	E1	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	To determine the presence of soil and groundwater contamination and remedy any potential concerns to acceptable levels.	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.	✓				*EIAO TM Annex 19/3.1.1 & 3.1.2*

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.								
		ECOLOGY - *Construction Phase*								
		Mitigation Measures Adopted - Avoidance								
8.7.1	F1	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	To schedule construction works in order to minimise potential impacts to winter visiting birds. To be confirmed by regular site inspections.	At identified location (*Figure 8.7a*) for the full duration of the construction contract.	The Contractor		✓			
		Mitigation Measures Adopted - Minimisation								
8.7.2	F2	Pipe jacking method should be used instead of dredging where sewers and rising mains cross over existing MDC within the WCA and WBA.	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	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. The site inspections shall check and report the number of workfronts and implementation of	To schedule noisy construction activities to minimise potential impacts to winter visiting birds.	Work fronts other than identified sections within WBA & WCA (see *Figure 8.7a* 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	
		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								
8.7.3	F5	Quietened construction plant and equipment (as shown in *Table F2*) 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		✓			*Air Pollution Control*

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 and provide temporary fire fighting equipment in the work areas.	minimising potential damage to trees and shrubs.	the full duration of the construction contract.						*(Open Burning) Regulation*
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.	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: • existing landscape elements (such as mature trees), transplantation of valuable trees, new compensatory planting		project.						
		• 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.								
		EM&A REQUIEMENTS - *Construction Phase* *Air Quality*								
3.7	I1	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. • 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		✓			*Air Pollution Control (Construction Dust) Regulations*

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	
		• at any additional locations, where considered necessary, in agreement with EPD.								
4.9.1	I2	*Construction Noise* 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. • (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		✓			*Noise Control Ordinance*
Des = Design, C = Construction, O = Operation, Dec = Decommissioning										

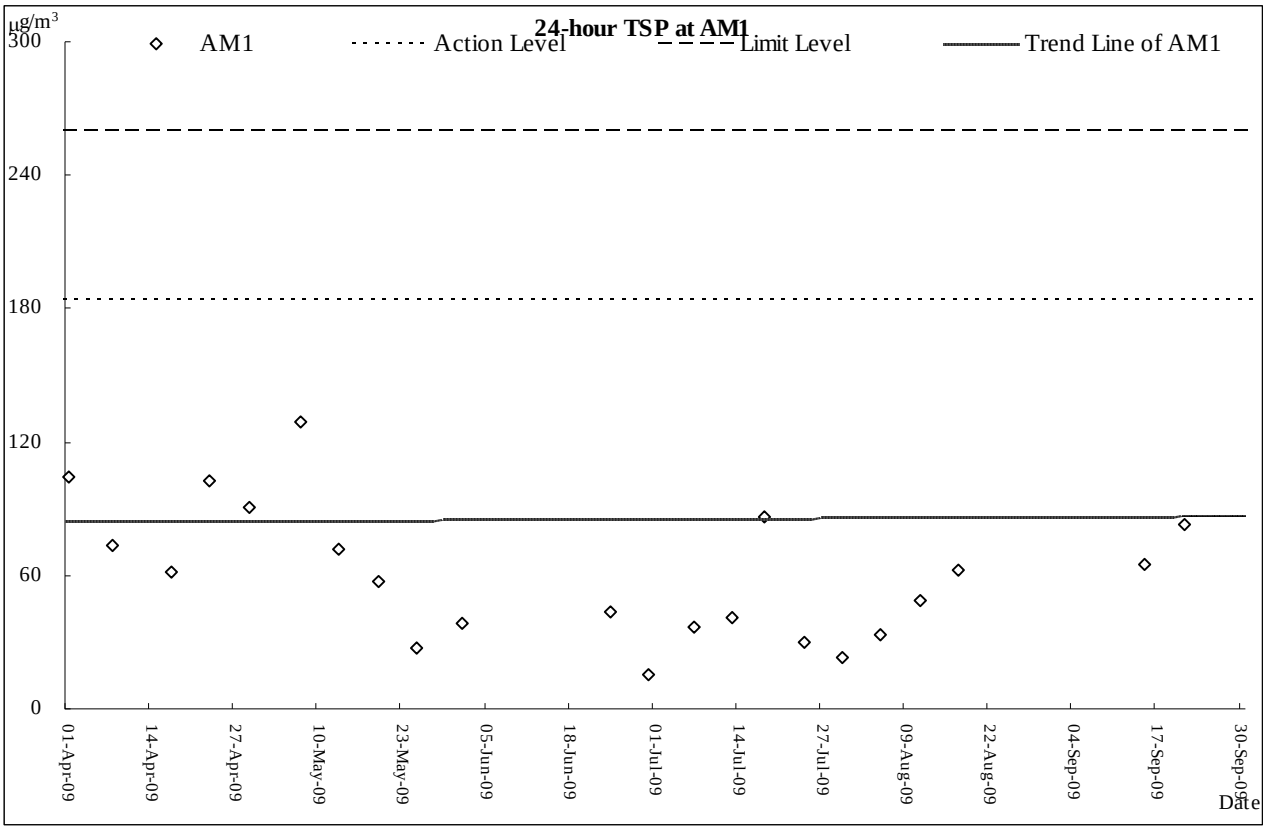
Annex H

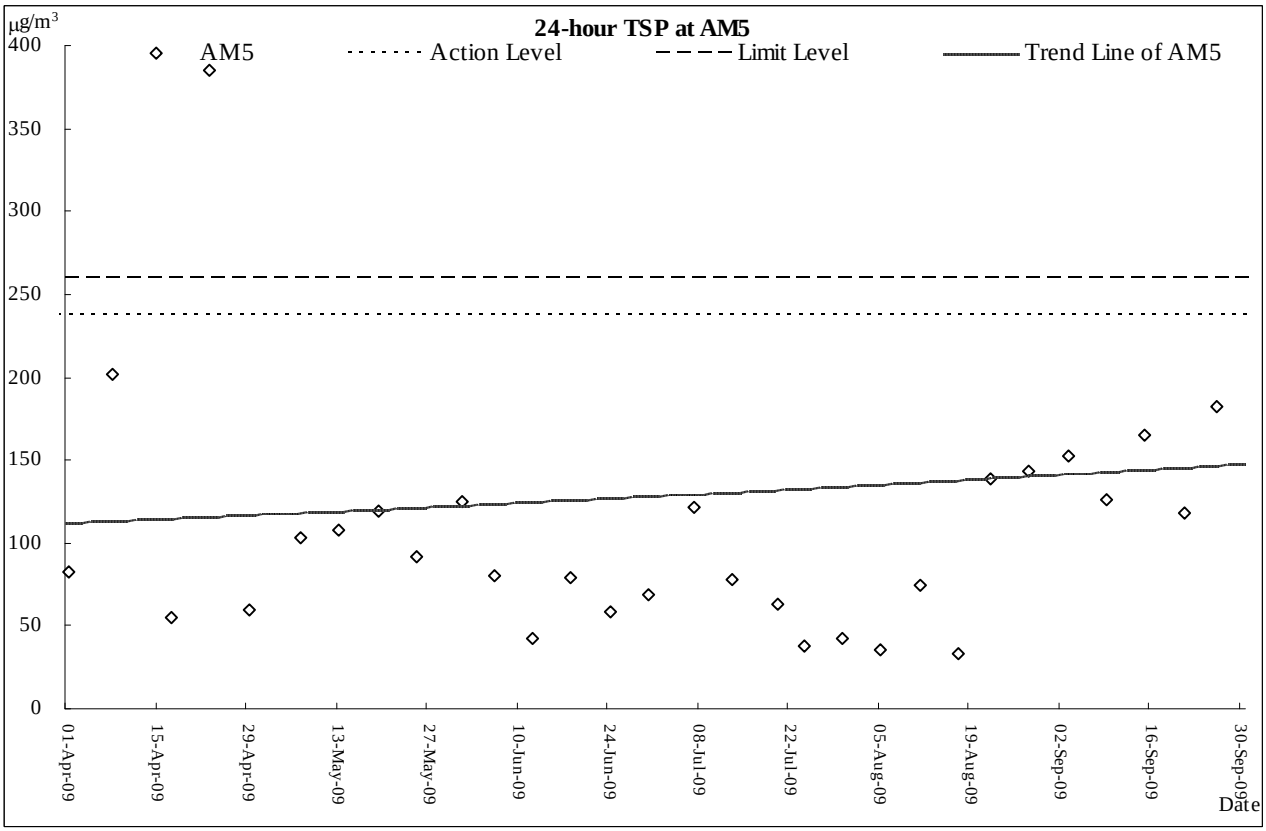
Monitoring Results & Graphical Plots of Air Quality and Noise Monitoring Results

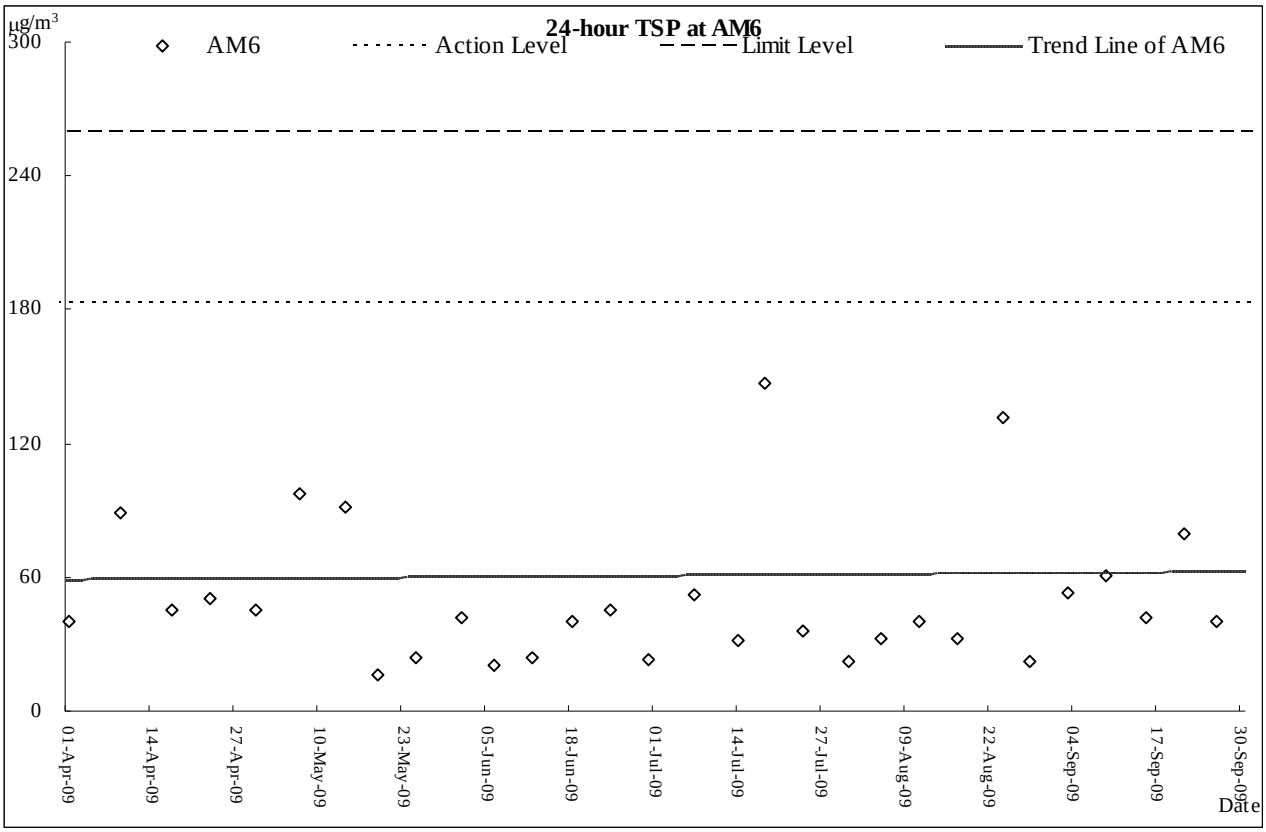
Air Quality Monitoring Results & Graphical Plot

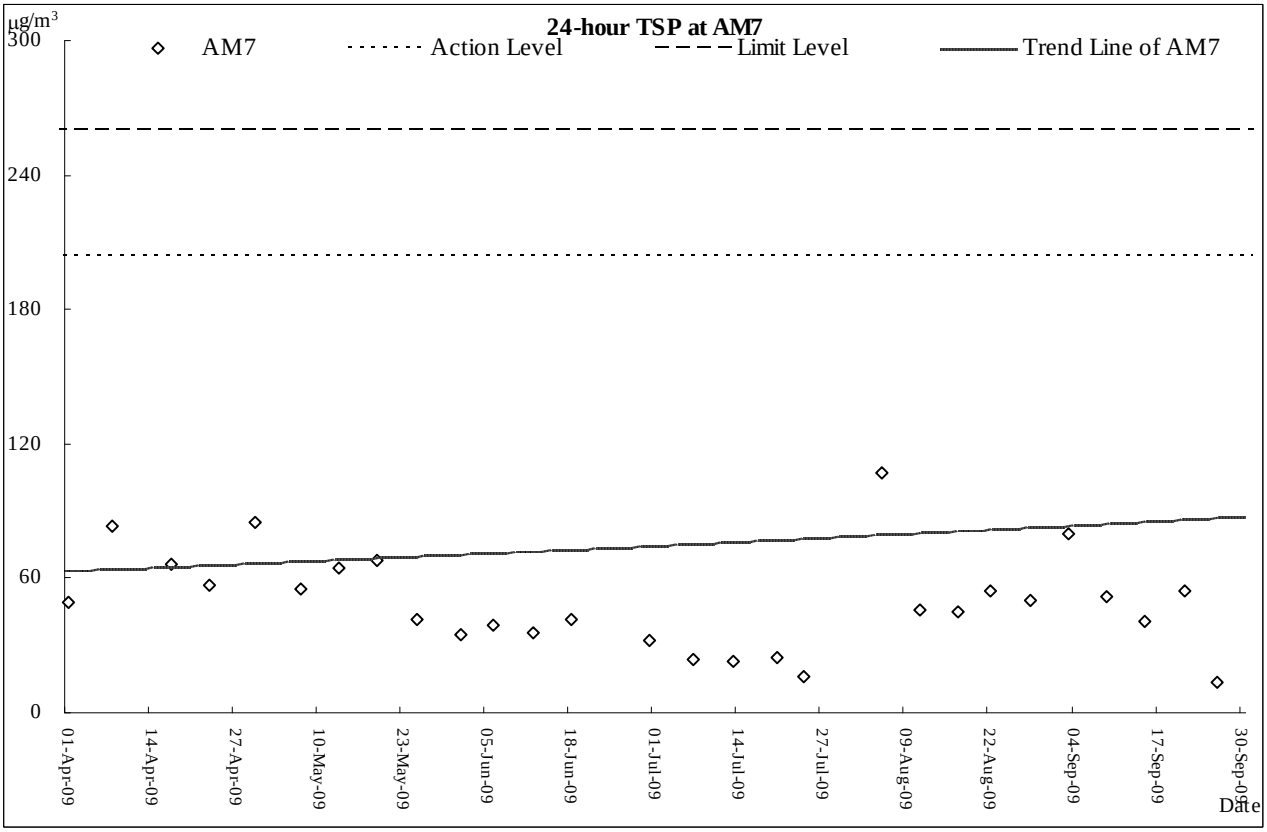
Date	24-hour TSP (μg/m^3)			
	AM1	AM5	AM6	AM7
1-Apr-09	104	82	40	49
8-Apr-09	73	202	89 (9 Apr 09)*	83
17-Apr-09	61	55	45	66
23-Apr-09	103	385	50	57
29-Apr-09	91	60	45	85 (30 Apr 09)*
7-May-09	129	103	98	55
13-May-09	72	107	91 (14 May 09)*	65
19-May-09	58	119	17	68
25-May-09	27	91	24	42
1-June-09	39	125	42	35
6-June-09	#Power failure	80	21	39
12-June-09	#Power failure	42	24	36
18-June-09	#Power failure	80	41	42
24-June-09	44	58	45	#Power failure
30-June-09	16	69	23	32
7-Jul-09	37	122	52	24
13-Jul-09	41	78	31 (14-Jul-09)*	23
18-Jul-09	86	63 (20-Jul-09)*	147	25 (20-Jul-09)*
24-Jul-09	30	38	36	16
30-Jul-09	23	43	22	#Power failure
05-Aug-09	34	36	32	107
12-Aug-09	48	76	41	46
18-Aug-09	62	34	33	45
22-Aug-09	#Power failure	141	132 (24 Aug 09)*	54
28-Aug-09	#Power failure	145	22	50
3-Sep-09	#Power failure	155	53	80
9-Sep-09	#Power failure	128	60	52
15-Sep-09	65	168	42	41
21-Sep-09	83	120	79	54
26-Sep-09	#Power failure	185	40	14
Average (Range)	60 (16 – 129)	106 (34 - 385)	51 (17 - 147)	49 (14 – 107)

All 24-Hr TSP monitoring were preset to start at 00:00 on each monitoring date.
Power failure while no subsequent monitoring was made.
* Power failure and () is the re-sampling date to make up the lost sample.


24-hour TSP at AM1
μg/m3
AM1
Action Level
Limit Level
Trend Line of AM1
300
240
180
120
60
0
01-Apr-09
14-Apr-09
27-Apr-09
10-May-09
23-May-09
05-Jun-09
18-Jun-09
01-Jul-09
14-Jul-09
27-Jul-09
09-Aug-09
22-Aug-09
04-Sep-09
17-Sep-09
30-Sep-09
Date


24-hour TSP at AM5
μg/m3
AM5
Action Level
Limit Level
Trend Line of AM5
400
350
300
250
200
150
100
50
0
01-Apr-09
15-Apr-09
29-Apr-09
13-May-09
27-May-09
10-Jun-09
24-Jun-09
08-Jul-09
22-Jul-09
05-Aug-09
19-Aug-09
02-Sep-09
16-Sep-09
30-Sep-09
Date


24-hour TSP at AM6
µg/m3
AM6
Action Level
Limit Level
Trend Line of AM6
300
240
180
120
60
0
01-Apr-09
14-Apr-09
27-Apr-09
10-May-09
23-May-09
05-Jun-09
18-Jun-09
01-Jul-09
14-Jul-09
27-Jul-09
09-Aug-09
22-Aug-09
04-Sep-09
17-Sep-09
30-Sep-09
Date


24-hour TSP at AM7
µg/m3
AM7
Action Level
Limit Level
Trend Line of AM7
300
240
180
120
60
0
01-Apr-09
14-Apr-09
27-Apr-09
10-May-09
23-May-09
05-Jun-09
18-Jun-09
01-Jul-09
14-Jul-09
27-Jul-09
09-Aug-09
22-Aug-09
04-Sep-09
17-Sep-09
30-Sep-09
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
2-Apr-09	10:34	51.4	50.9	48.2	48.7	49.5	48.6	49.7	52.7
9-Apr-09	10:00	60.4	51.4	52.9	56.3	54.7	53.6	56.0	59.0
18-Apr-09	11:00	52.8	51.1	51.9	52.4	54.6	54.3	53.0	56.0
24-Sep-09	11:25	52.3	51.9	53.4	53.1	52.9	50.4	52.4	55.4
30-Apr-09	16:09	48.9	47.2	46.3	46.7	46.1	47.3	47.2	50.2
8-May-09	11:04	45.9	48.7	48.5	51.4	50.3	48.8	49.3	52.3
14-May-09	09:45	46.7	50.2	51.3	48.6	46.7	45.9	48.7	51.7
20-May-09	09:46	45.9	45.3	46.7	48.7	51.3	50.4	48.6	51.6
26-May-09	09:52	48.7	49.2	49.9	50.3	51.4	49.5	49.9	52.9
2-Jun-09	10:34	44.8	45.6	45.4	46.7	45.9	44.3	45.5	48.5
8-Jun-09	09:55	46.5	45.7	46.9	47.4	47.5	46.3	46.8	49.8
13-Jun-09	10:41	51.4	53.5	50.4	52.1	49.4	49.9	51.3	54.3
19-Jun-09	11:19	44.1	45.4	45.6	46.3	44.9	45.1	45.3	48.3
25-Jun-09	11:25	44.6	44.9	45.1	45.3	44.9	45.7	45.1	48.1
2-Jul-09	11:30	45.1	46.4	45.7	44.3	47.6	46.5	46.1	49.1
8-Jul-09	09:45	53.9	47.6	50.9	50.1	48.9	46.7	50.4	53.4
14-Jul-09	10:00	53.4	52.6	43.9	49.3	52.9	51.4	51.5	54.5
20-Jul-09	10:40	55.6	59.5	57.5	56.5	53.3	53.3	56.5	59.5
25-Jul-09	09:45	55.0	56.7	57.2	56.9	54.8	55.3	56.1	59.1
31-Jul-09	11:14	55.5	55.5	55.2	47.4	52.6	53.3	54.0	57.0
6-Aug-09	10:05	52.4	49.2	51.2	52.1	51.2	49.5	51.1	54.1
12-Aug-09	09:57	58.7	52.0	51.9	51.7	51.6	52.1	54.0	57.0
18-Aug-09	13:00	52.2	51.5	50.8	53.4	50.9	52.3	51.9	54.9
24-Aug-09	10:39	48.4	53.6	40.6	40.4	49.3	40.9	48.4	51.4
29-Aug-09	10:15	51.1	50.3	51.7	52.6	51.6	50.9	51.4	54.4
4-Sep-09	10:05	46.7	47.8	51.1	45.8	46.2	46.5	47.8	50.8
10-Sep-09	14:35	58.6	59.3	57.5	60.7	59.9	60.3	59.5	62.5
16-Sep-09	rainy								
22-Sep-09	15:00	53.4	54.6	56.4	52.4	55.9	54.9	54.8	57.8
28-Sep-09	09:15	62.6	63.4	62.7	63.2	62.4	62.7	62.8	65.8
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
2-Apr-09	09:00	58.9	57.2	60.4	61.3	59.1	57.4	59.3	62.3
9-Apr-09	11:25	59.3	60.0	59.0	58.2	59.5	61.2	59.6	62.6
18-Apr-09	10:05	61.3	60.5	64.1	63.5	63.8	61.4	62.7	65.7
24-Apr-09	10:45	54.3	52.7	53.3	54.3	52.4	54.7	53.7	56.7
30-Apr-09	15:23	49.4	50.9	55.7	55.4	53.1	50.9	53.2	56.2
8-May-09	10:13	44.5	45.9	45.7	43.2	44.6	44.9	44.9	47.9
14-May-09	10:42	45.9	47.3	47.6	49.4	51.3	48.2	48.6	51.6
20-May-09	09:00	46.8	45.4	44.7	47.2	49.5	50.1	47.7	50.7
26-May-09	10:51	55.2	53.9	54.8	56.7	55.5	52.6	55.0	58.0
2-Jun-09	11:30	52.6	55.9	53.7	56.4	51.5	53.8	54.3	57.3
8-Jun-09	10:42	53.4	50.1	52.7	49.5	49.3	47.2	50.9	53.9
13-Jun-09	09:55	45.1	44.8	46.5	46.7	45.9	45.6	45.8	48.8
19-Jun-09	09:00	44.9	45.1	45.6	46.7	45.2	44.6	45.4	48.4
25-Jun-09	09:00	45.8	46.7	46.5	46.4	47.3	50.1	47.4	50.4
2-Jul-09	09:55	47.2	48.9	50.9	52.7	50.4	49.3	50.2	53.2
8-Jul-09	10:40	59.5	51.6	58.8	55.6	55.8	51.8	56.5	59.5
14-Jul-09	11:25	43.9	50.2	43.6	47.8	42.3	44.6	46.3	49.3
20-Jul-09	13:50	56.6	58.7	55.1	56.9	56.3	56.6	56.8	59.8
25-Jul-09	11:25	56.6	52.7	56.3	52.7	56.4	55.6	55.3	58.3
31-Jul-09	13:46	54.0	54.4	57.8	58.7	54.4	54.4	56.1	59.1
6-Aug-09	14:10	53.2	52.8	53.8	52.4	53.2	52.6	53.0	56.0
12-Aug-09	13:48	56.0	60.8	56.2	58.8	58.3	59.6	58.6	61.6
18-Aug-09	11:30	58.6	59.4	57.6	60.7	59.9	58.8	59.3	62.3
24-Aug-09	11:26	58.0	59.9	60.3	56.8	57.3	59.1	58.8	61.8
29-Aug-09	13:00	47.2	50.4	48.6	49.2	48.4	48.6	48.8	51.8
4-Sep-09	11:30	47.1	49.2	50.9	47.3	47.9	46.6	48.4	51.4
10-Sep-09	11:30	59.9	62.4	59.8	62.2	59.4	63.1	61.4	64.4
16-Sep-09	rainy								
22-Sep-09	11:30	62.0	61.4	63.6	59.4	62.4	65.7	62.9	65.9
28-Sep-09	11:20	56.9	57.8	57.2	57.9	57.6	56.4	57.3	60.3
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

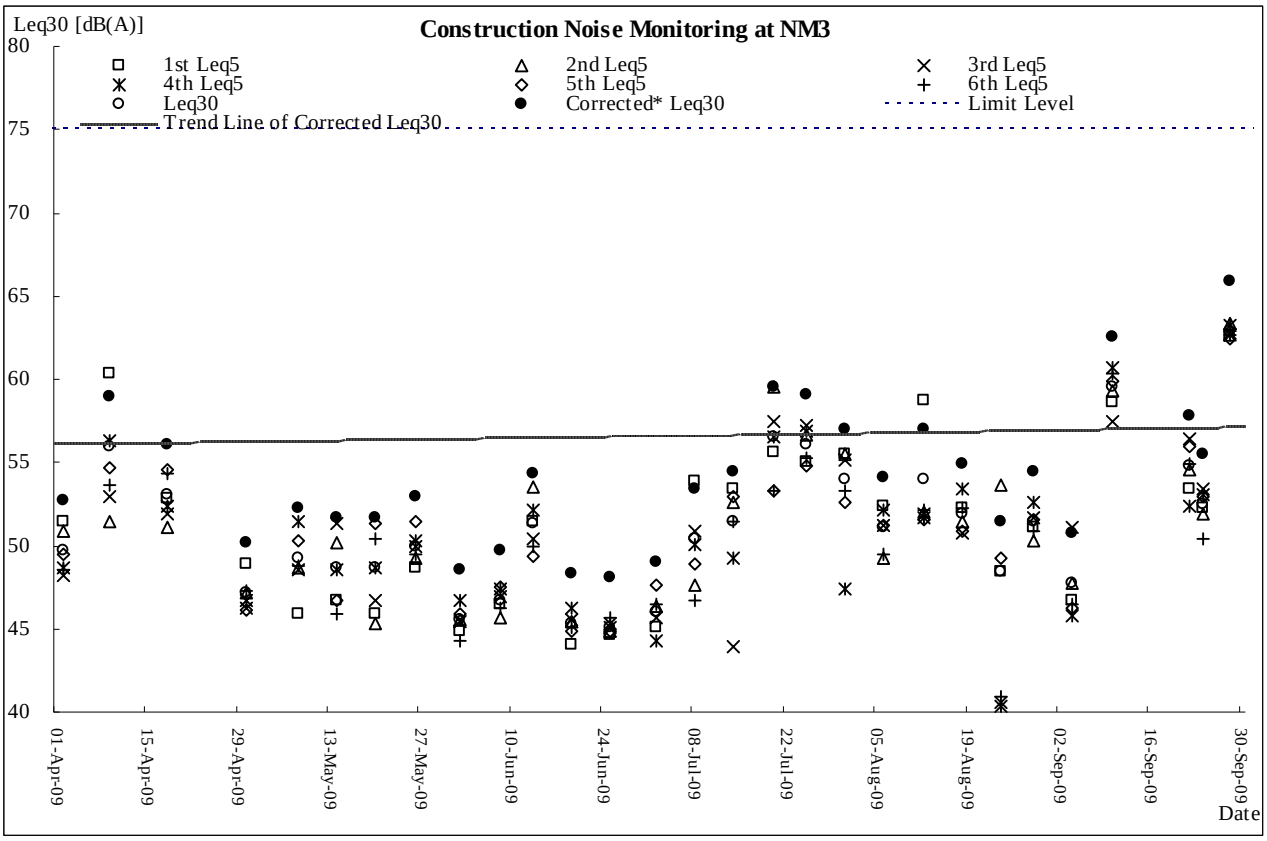
Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
2-Apr-09	11:30	55.1	54.7	55.5	55.0	54.2	55.2	55.0
9-Apr-09	11:25	54.9	54.1	55.7	56.0	55.0	55.4	55.2
18-Apr-09	11:27	54.4	56.2	55.3	55.0	54.8	55.5	55.2
24-Apr-09	15:30	55.5	56.3	55.8	54.8	54.5	55.4	55.4
30-Apr-09	10:15	55.6	56.3	57.2	56.9	54.1	54.5	55.9
8-May-09	11:27	59.3	55.7	56.2	55.5	55.0	54.8	56.4
14-May-09	11:28	56.5	56.4	55.5	54.5	55.7	55.4	55.7
20-May-09	11:30	60.7	59.3	61.6	57.3	60.0	62.1	60.4
26-May-09	11:27	63.0	61.9	60.4	62.8	64.0	65.4	63.2
2-Jun-09	11:25	67.5	66.4	68.3	61.4	61.8	58.3	65.3
8-Jun-09	11:28	67.8	64.9	63.5	67.0	65.5	68.1	66.4
13-Jun-09	11:30	65.1	63.1	66.4	65.7	64.3	65.2	65.1
19-Jun-09	11:26	60.7	60.7	61.3	62.0	59.1	57.5	60.5
25-Jun-09	11:28	64.0	54.9	55.6	56.9	58.6	55.8	59.0
2-Jul-09	11:25	61.3	64.1	66.3	61.4	67.7	64.8	64.9
8-Jul-09	11:27	52.2	52.5	52.6	51.5	52.0	55.5	52.9
14-Jul-09	11:29	57.1	55.9	64.1	54.9	55.2	56.6	58.8
20-Jul-09	11:30	55.6	56.1	57.2	55.2	55.9	56.4	56.1
25-Jul-09	11:26	56.4	55.5	54.7	53.9	54.9	55.1	55.2
31-Jul-09	11:28	55.1	54.7	55.8	57.7	56.1	55.0	55.9
6-Aug-09	11:30	53.1	52.8	52.3	53.1	53.1	52.6	52.8
12-Aug-09	11:26	52.8	53.0	53.1	54.6	54.4	54.1	53.7
18-Aug-09	11:30	56.3	53.3	55.8	55.1	54.9	54.0	55.0
24-Aug-09	11:29	53.0	53.0	53.4	54.4	54.1	53.6	53.6
29-Aug-09	11:28	53.5	54.2	53.9	53.5	54.4	53.7	53.9
4-Sep-09	11:29	53.9	53.5	54.2	53.3	53.3	54.7	53.8
10-Sep-09	11:27	56.3	54.8	55.5	55.0	54.6	54.1	55.1
16-Sep-09	rainy							
22-Sep-09	11:27	60.3	59.0	58.6	56.4	58.9	60.3	59.1
28-Sep-09	11:26	59.1	60.4	60.9	61.0	60.7	61.4	60.6
Limit Level								**75**

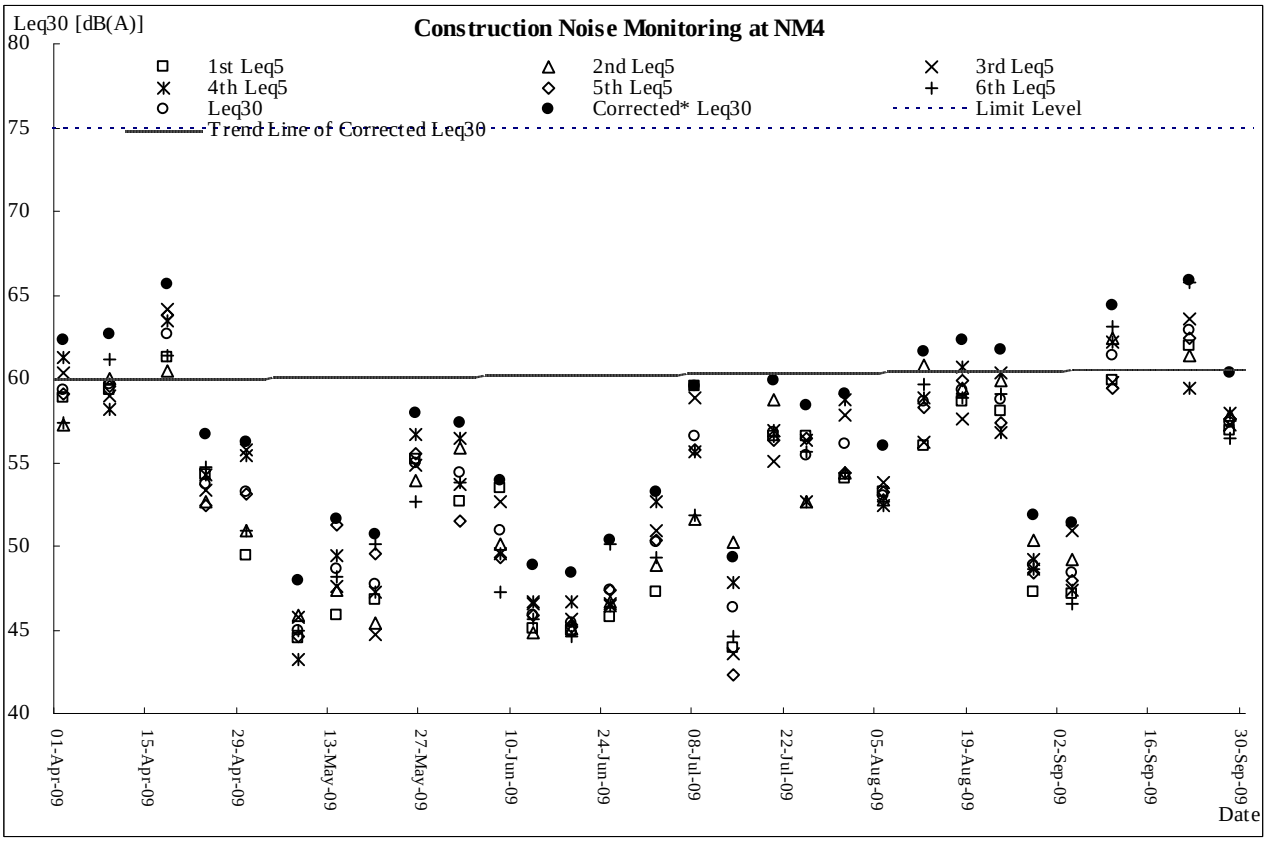
* No façade correction was required

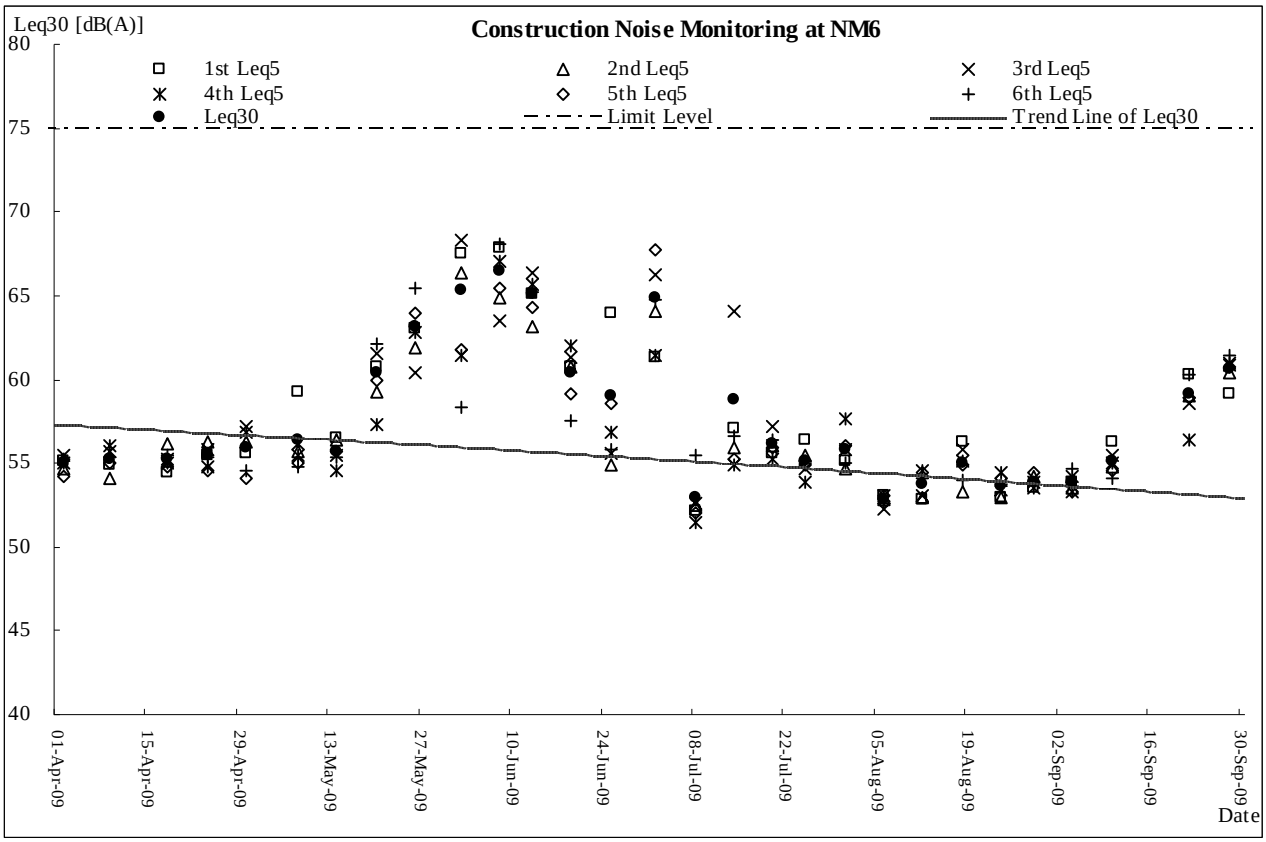
Noise Monitoring Results at NM7

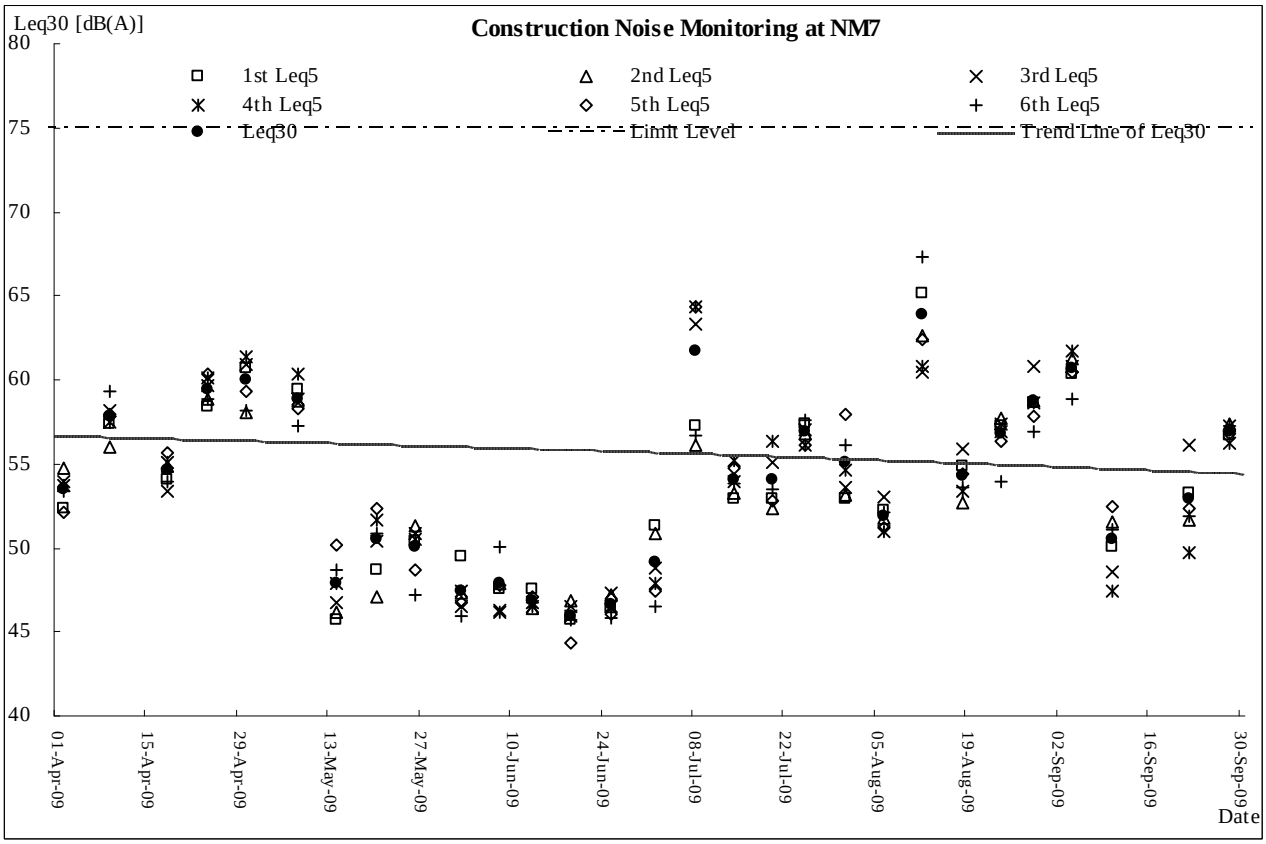
Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
2-Apr-09	11:19	52.3	54.8	53.9	53.7	52.1	53.4	53.5
9-Apr-09	09:00	57.4	56.0	58.2	57.5	58.0	59.3	57.8
18-Apr-09	10:34	54.1	54.9	53.4	55.1	55.7	53.9	54.6
24-Apr-09	09:35	58.4	58.9	59.7	60.1	60.4	58.9	59.5
30-Apr-09	14:45	60.7	58.1	60.9	61.4	59.3	58.2	60.0
8-May-09	09:00	59.4	58.7	58.9	60.3	58.3	57.2	58.9
14-May-09	09:00	45.7	46.2	46.8	47.9	50.2	48.7	47.9
20-May-09	11:15	48.7	47.1	50.4	51.7	52.4	50.9	50.5
26-May-09	09:00	50.4	51.3	50.9	50.5	48.7	47.2	50.0
2-Jun-09	09:43	49.5	47.3	46.5	47.4	46.8	45.9	47.4
8-Jun-09	09:00	47.5	47.9	46.3	46.2	47.8	50.1	47.8
13-Jun-09	09:00	47.5	46.4	46.7	46.5	47.1	46.8	46.8
19-Jun-09	10:32	45.7	46.9	46.5	45.9	44.3	45.7	45.9
25-Jun-09	10:03	46.4	47.2	47.3	46.5	46.1	45.8	46.6
2-Jul-09	09:00	51.3	50.9	48.8	47.9	47.4	46.5	49.2
8-Jul-09	09:05	57.3	56.1	63.3	64.3	64.3	56.7	61.7
14-Jul-09	09:00	52.9	53.2	53.9	55.2	54.7	53.8	54.0
20-Jul-09	09:45	52.9	52.4	55.1	56.4	52.8	53.5	54.1
25-Jul-09	09:05	57.4	56.8	57.0	56.1	56.1	57.6	56.9
31-Jul-09	10:17	52.9	53.1	53.6	54.6	58.0	56.1	55.1
6-Aug-09	09:25	52.2	51.8	53.0	51.0	51.2	52.1	51.9
12-Aug-09	09:13	65.1	62.6	60.5	60.8	62.4	67.3	63.8
18-Aug-09	09:30	54.9	52.7	55.9	53.4	54.4	53.6	54.3
24-Aug-09	09:36	57.3	57.7	57.4	56.9	56.3	54.0	56.8
29-Aug-09	09:05	58.6	58.7	60.8	58.6	57.8	56.9	58.7
4-Sep-09	10:30	60.4	61.2	60.8	61.7	60.5	58.9	60.7
10-Sep-09	02:24	50.1	51.5	48.6	47.4	52.5	51.1	50.5
22-Sep-09	09:20	53.2	51.7	56.1	49.7	52.4	51.9	53.0
28-Sep-09	10:00	56.7	57.4	57.2	56.2	56.8	57.2	56.9
Limit Level								**75**

* No façade correction was required


Construction Noise Monitoring at NM3
Leq30 [dB(A)]
1st Leq5
2nd Leq5
3rd Leq5
4th Leq5
5th Leq5
6th Leq5
Leq30
Corrected* Leq30
Limit Level
Trend Line of Corrected Leq30
80
75
70
65
60
55
50
45
40
01-Apr-09
15-Apr-09
29-Apr-09
13-May-09
27-May-09
10-Jun-09
24-Jun-09
08-Jul-09
22-Jul-09
05-Aug-09
19-Aug-09
02-Sep-09
16-Sep-09
30-Sep-09
Date


Construction Noise Monitoring at NM4
Leq30 [dB(A)]
1st Leq5
2nd Leq5
3rd Leq5
4th Leq5
5th Leq5
6th Leq5
Leq30
Corrected* Leq30
Limit Level
Trend Line of Corrected Leq30
80
75
70
65
60
55
50
45
40
01-Apr-09
15-Apr-09
29-Apr-09
13-May-09
27-May-09
10-Jun-09
24-Jun-09
08-Jul-09
22-Jul-09
05-Aug-09
19-Aug-09
02-Sep-09
16-Sep-09
30-Sep-09
Date


Construction Noise Monitoring at NM6
Leq30 [dB(A)]
1st Leq5
2nd Leq5
3rd Leq5
4th Leq5
5th Leq5
6th Leq5
Leq30
Limit Level
Trend Line of Leq30
80
75
70
65
60
55
50
45
40
01-Apr-09
15-Apr-09
29-Apr-09
13-May-09
27-May-09
10-Jun-09
24-Jun-09
08-Jul-09
22-Jul-09
05-Aug-09
19-Aug-09
02-Sep-09
16-Sep-09
30-Sep-09
Date


Construction Noise Monitoring at NM7
Leq30 [dB(A)]
1st Leq5
2nd Leq5
3rd Leq5
4th Leq5
5th Leq5
6th Leq5
Leq30
Limit Level
Trend Line of Leq30
80
75
70
65
60
55
50
45
40
01-Apr-09
15-Apr-09
29-Apr-09
13-May-09
27-May-09
10-Jun-09
24-Jun-09
08-Jul-09
22-Jul-09
05-Aug-09
19-Aug-09
02-Sep-09
16-Sep-09
30-Sep-09
Date

Annex I

Meteorological Data in the Reporting Period

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

April 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-Apr-09	Wed	sunny	0	21.8	11.2	68.5	E/NE
2-Apr-09	Thu	cloudy/dry/rain/fresh/strong	Trace	19.7	17.2	58.5	E
3-Apr-09	Fri	cloudy/sunny intervals/fresh/strong	Trace	20.4	16.5	62.5	E
4-Apr-09	Sat	Holiday	-	-	-	-	-
5-Apr-09	Sun	cloudy/moderate/fresh	0	23.7	14	68.5	W/NW
6-Apr-09	Mon	cloudy/rain/moderate	8.1	18.2	13	76	E/NE
7-Apr-09	Tue	cloudy/dry/moderate	0.6	17.7	9.2	78.5	E/NE
8-Apr-09	Wed	cloudy/sunny periods/moderate/fresh	0	21.6	8.5	72.2	E/NE
9-Apr-09	Thu	dry/sunny periods/fresh/strong	0	22.7	14	57	E
10-Apr-09	Fri	Holiday	-	-	-	-	-
11-Apr-09	Sat	Holiday	-	-	-	-	-
12-Apr-09	Sun	Holiday	-	-	-	-	-
13-Apr-09	Mon	Holiday	-	-	-	-	-
14-Apr-09	Tue	fine/hazy/isolated showers/light winds	0	25.4	10.5	82	W/SW
15-Apr-09	Wed	sunny periods/cloudy/a few shoers/moderate/fresh	4.3	25	10	74.5	E/NE
16-Apr-09	Thu	sunny periods/showers/moderate	2.9	23	23.5	76.2	E/NE
17-Apr-09	Fri	haze/sunny intervals/cloudy/moderate/fresh	0	24.5	7.5	78	E/NE
18-Apr-09	Sat	cloudy/a few showers/fresh/strong	34.1	22.2	17.5	71	E/SE
19-Apr-09	Sun	cloudy/rain/strong	4.5	25.3	21	86	S/SW
20-Apr-09	Mon	sunny periods/cloudy/moderate	0	27.3	13.7	76	W/SW
21-Apr-09	Tue	cloudy/moderate	1.5	26.7	11.5	55.5	E/NE
22-Apr-09	Wed	cloudy/rain/fresh/strong	Trace	24.1	16.5	63	E
23-Apr-09	Thu	cloudy/rain/fresh/strong	0.2	25.1	20.5	70	E
24-Apr-09	Fri	cloudy/mist/moderate	Trace	25.3	11.7	78	E/SE
25-Apr-09	Sat	overcast/rain/squally thunderstorm/moderate./fresh	43	21.4	15	81.5	E/NE
26-Apr-09	Sun	cloudy/sunny intervals/moderate/fresh	4.5	19	11	87	E/SE
27-Apr-09	Mon	sunny periods/cloudy/moderate/fresh	0	22.7	15.2	67	E/NE
28-Apr-09	Tue	fine/dry/fresh/strong	0	23.3	19.5	48.5	E
29-Apr-09	Wed	sunny periods/cloudy/moderate/fresh	0	23.2	16.2	44	E/SE
30-Apr-09	Thu	cloudy/sunny periods/moderate/fresh	Trace	24.3	17	61	E

May 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-May-09	Fri	Holiday					
2-May-09	Sat	Holiday					
3-May-09	Sun	Holiday					
4-May-09	Mon	cloudy/sunny periods/moderate	0.3	25.1	12.5	71	E
5-May-09	Tue	fine/dry/moderate/fresh	0	24.9	11.2	66	E/NE
6-May-09	Wed	fine/dry/moderate/fresh	0	24.5	13	59	E/NE
7-May-09	Thu	sunny/very dry/fine/moderate/fresh	0	24.6	15	45.7	E
8-May-09	Fri	fine/dry/moderate/fresh	0	25.2	12	49.7	E/SE
9-May-09	Sat	fine/dry/cloudy/moderate	Trace	25.4	12.5	65	E/NE
10-May-	Sun	cloudy/sunny	Trace	27.2	11.5	67.2	E/SE
11-May-	Mon	sunny periods/cloudy/moderate	0	26.8	6	76.5	E/NE
12-May-09	Tue	fine/hot/light winds	0	26.6	12.5	75.5	S/SE
13-May-	Wed	fine/hot/cloudy/light	Trace	27.4	13	74.5	S/SE
14-May-	Thu	cloudy/sunny intervals/fresh	T	27.3	15	69.3	E/SE
15-May-09	Fri	sunny periods/cloudy/moderate	0	27.6	10.5	69	E/NE
16-May-	Sat	cloudy/rain/moderate/	0.1	26.4	11.5	65	S/SE
17-May-09	Sun	sunny periods/a few showers/moderate	0.2	28.3	14	78	W/SW
18-May-	Mon	sunny periods/hot/moderate	0	29.6	10.5	79.5	W/SW
19-May-	Tue	cloudy/showers/sunny	0.3	30.3	14.5	67	S/SE
20-May-	Wed	cloudy/showers/sunny	10.9	26.9	19.5	79.5	S/SE
21-May-	Thu	sunny intervals/shower/squally	1.4	27.5	3	83	E/SE
22-May-	Fri	cloudy/a few showers/squally	2.3	28.8	12.7	73.5	E/NE
23-May-	Sat	overcast/rain/squally	62.3	25.2	16.5	76.2	E/NE
24-May-	Sun	cloudy/showers/squally	61.2	24.8	18.5	91.7	E/NE
25-May-09	Mon	showers/squally thunderstorm/showers/fresh	29.8	25.5	18.5	87	E/NE
26-May-	Tue	cloudy/a few showers/moderate	20.2	26.2	12.7	86	E
27-May-	Wed	cloudy/showers/sunny	39.2	28	12	78.5	E/NE
28-May-	Thu	Holiday					
29-May-	Fri	cloudy/rain/moderate/fresh	5.5	21.8	14.5	78	E/NE
30-May-	Sat	cloudy/sunny periods/dry/moderate	0	24.8	10	73.5	E
31-May-	Sun	fne/light winds	0	26.6	13.7	65	S/SE

June 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-Jun-09	Mon	fine/light winds	0	27.3	8	67	S/SE
2-Jun-09	Tue	sunny periods/isolated	Trace	27	14.5	67.7	S/SE
3-Jun-09	Wed	cloudy/showers/squally	10.4	28.5	20	79.5	S/SE
4-Jun-09	Thu	cloudy/sunny	36.8	27.5	27.5	79.2	W/NW
5-Jun-09	Fri	hot/fine/dry/light winds	0	28.1	15	66.5	W/NW
6-Jun-09	Sat	fine/day/hot/light winds	0	28.5	10.5	68	S/SE
7-Jun-09	Sun	cloudy/a few	Trace	28.1	16.5	63.5	S/SE
8-Jun-09	Mon	sunny intervals/a few	11.2	27.8	16.5	67.5	S/SE
9-Jun-09	Tue	cloudy/rain/squally	16.5	27.1	16	76.7	S/SE
10-Jun-09	Wed	cloudy/showers/squally	Trace	28.4	11.5	81.7	S/SE
11-Jun-09	Thu	overcast/rain/squally	49.2	25.8	11.5	86	S/SE
12-Jun-09	Fri	cloudy/rain/squally thunderstorm/moderate	7.9	26.5	26.5	82	E/SE
13-Jun-09	Sat	cloudy/squally thunderstorm/fresh	Trace	28.6	16	87	E/SE
14-Jun-09	Sun	cloudy/scattered	24	28.3	13.7	78.2	SE
15-Jun-09	Mon	cloudy/rain/squally thunderstorm/sunny	17.3	28.4	10.7	79.5	E
16-Jun-09	Tue	cloudy/scattered showers/squally	6.1	27	13.5	85.5	E/NE
17-Jun-09	Wed	sunny periods/isolated showers/cloudy/moderate	Trace	28.8	9.7	81	E/NE
18-Jun-09	Thu	fine/hot/haze/light winds	0	28.6	10.2	79	S/SE
19-Jun-09	Fri	isolated	5.7	28.9	12.5	75.5	S/SE
20-Jun-09	Sat	sunny periods/islated	0	30	10.5	77	E/NE
21-Jun-09	Sun	cloudy/moderate/fresh/sunny	0	29.3	13.7	77.5	W/SW
22-Jun-09	Mon	cloudy/scattered showers/squally	15.7	30.1	23.7	78	S/SW
23-Jun-09	Tue	hot/a few showers/squally	12.5	28.9	17.5	82.5	S/SW
24-Jun-09	Wed	cloudy/showers/squally	8.5	29.5	15.5	82.5	W/SW
25-Jun-09	Thu	a few showers/squally thunderstorm/sunny	6.6	29.5	13.5	76.7	S/SE
26-Jun-09	Fri	cloudy/squally	17.7	28.8	12	79.2	E/NE
27-Jun-09	Sat	cloudy/rain/fresh/strong	46.9	26.7	23.5	80	E/NE
28-Jun-09	Sun	cloudy/showers/squally	48.7	27.3	23.5	85	S/SE
29-Jun-09	Mon	a few showers/sunny	Trace	28.5	16	82.5	S/SE
30-Jun-09	Tue	hot/sunny periods/isolated	0.1	30.4	18.5	Maintenance	S/SE

July 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-Jul-09	Wed	Holiday					
2-Jul-09	Thu	hot/sunny periods/moderate/fresh	Trace	30.2	18.2	72	S/SW
3-Jul-09	Fri	cloudy/a few showers/sunny	0.5	29.6	20.5	73.5	S/SW
4-Jul-09	Sat	cloudy/showers/squally	17.4	26.2	17.2	80	S/SE
5-Jul-09	Sun	cloudy/scattered showers/squally	49.6	27.3	21	84	S/SE
6-Jul-09	Mon	fine/isolated showers/moderate	31.2	28.3	16.5	81.5	E/SE
7-Jul-09	Tue	fine/hot/isolated showers/light	20.1	29.4	13	76.5	S/SE
8-Jul-09	Wed	fine/hot/light winds	0	29.5	13	75.5	S/SE
9-Jul-09	Thu	fine/very hot/light winds	0	29.9	14.5	71.5	W/SW
10-Jul-09	Fri	fine/very hot/moderate	Trace	30.2	16	75	W/SW
11-Jul-09	Sat	cloudy/squally	8.1	29.7	16.5	70.7	E/NE
12-Jul-09	Sun	fine/moderate	Trace	30.4	12	75.5	E/SE
13-Jul-09	Mon	fine/hot/light winds	0	29.8	11	55	E/NE
14-Jul-09	Tue	fine/very hot/isolated	0	28.8	12.2	72.5	W/SW
15-Jul-09	Wed	cloudy/a few showers/sunny periods/moderate	4.8	29.4	12.5	80.2	E/NE
16-Jul-09	Thu	fine/very hot/isolated	0.8	30.3	14	74.5	E/SE
17-Jul-09	Fri	fine/very hot/light winds	0.4	29.8	11	73	E/SE
18-Jul-09	Sat	very hot/hazy/squally	11.7	30.7	12	73.5	W/SW
19-Jul-09	Sun	sunny periods/isolated	124.6	26.6	20	82.5	S/SE
20-Jul-09	Mon	sunny periods/isolated	8.1	29.1	13.7	81	SE
21-Jul-09	Tue	fine/hot/moderate	0.6	29.4	15	76	S/SE
22-Jul-09	Wed	a few showers/sunny	0	29.3	10	74.5	S/SE
23-Jul-09	Thu	a few showers/sunny	0.6	28.7	13.5	78	S/SE
24-Jul-09	Fri	hot/a few	2.6	29.5	16.5	79.5	S/SE
25-Jul-09	Sat	hot/sunny periods/a few showers/moderate/fresh	8.3	30.1	15	79.5	S/SW
26-Jul-09	Sun	cloudy/a few showers/moderate	24.1	30.6	15.7	75.2	S/SE
27-Jul-09	Mon	cloudy/a few showers/sunny	33.6	28.3	12.5	90	S/SE
28-Jul-09	Tue	cloudy/showers/squally	10.2	29.2	13.5	85.5	S/SE
29-Jul-09	Wed	cloudy/a few showers/sunny	2.4	29	13.2	84	S/SE
30-Jul-09	Thu	cloudy/showers/squally	14	29.3	13.5	81	S/SE
31-Jul-09	Fri	fine/showers/moderate/fresh	8.7	29.8	18.5	77.5	E/SE

August 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-Aug-09	Sat	fine/very hot/showers/light winds	0	29.8	14	76	E
2-Aug-09	Sun	sunny periods/showers/very	0	31.4	10.5	72.5	S/SE
3-Aug-09	Mon	sunny periods/very hot/a few	21.4	31.7	9.5	77	E/NE
4-Aug-09	Tue	strong/cloudy/rain/squalls	21.3	28.1	17.5	75.5	E/NE
5-Aug-09	Wed	cloudy/rain/squalls/moderate/fresh/str	92.5	27	21	89.7	E/SE
6-Aug-09	Thu	cloudy/a few showers/squally	8.3	28.1	18.5	88.5	SE
7-Aug-09	Fri	fine/moderate	0	29.4	11	84.2	S/SE
8-Aug-09	Sat	very hot/fresh/moderate	0	30.2	14.5	82.3	S/SE
9-Aug-09	Sun	sunny periods/very hot/a few	0	30	12	79	W/SW
10-Aug-09	Mon	cloudy/showers/thunderstorms/light	21.8	29.5	9.5	82.5	W/SW
11-Aug-09	Tue	cloudy/rain/squally thunderstorm/light	32.2	27.7	17	84.5	S/SE
12-Aug-09	Wed	cloudy/rain/squally thunderstorm/light winds	3.1	26.7	16.2	88.5	E/SE
13-Aug-09	Thu	cloudy/rain/squally	70.7	26.2	8.2	93.5	S/SE
14-Aug-09	Fri	cloudy/a few showers/sunny	44.9	28.2	10.5	86.5	S/SE
15-Aug-09	Sat	hot/sunny periods/a few showers/moderate	0	28.7	11	85.5	S/SE
16-Aug-09	Sun	sunny periods/a few	0	30.2	15.7	78	W/NW
17-Aug-09	Mon	cloudy/showers/squally thunderstorm/light winds	2	29.4	8	76.5	S/SE
18-Aug-09	Tue	fine/hot/isolated	12.7	28.6	11.5	77	E/NE
19-Aug-09	Wed	fine/isolated showers/very hot/light	0.3	29	16	83	E/SE
20-Aug-09	Thu	fine/isolated showers/very hot/light	0	29.3	9.5	79	S/SE
21-Aug-09	Fri	fine/very hot/light winds	0	29.9	13.5	71.7	E/SE
22-Aug-09	Sat	fine/isolated showers/very	0	30.3	14	67	W
23-Aug-09	Sun	very hot/fine/isolated	Trace	30.1	15.7	Maintenance	W/SW
24-Aug-09	Mon	sunny	0	29.4	8	Maintenance	N/NE
25-Aug-09	Tue	sunny periods/a few showers/thunderstorm/cloudy/moderate	Trace	30.9	12	72	E/NE
26-Aug-09	Wed	fine/very hot/isolated	Trace	28.3	10	76	E/NE
27-Aug-09	Thu	fine/very hot/isolated	Trace	29.3	13.5	81	E/SE
28-Aug-09	Fri	fine/very hot/isolated showers/light	0	30.4	13.5	77.7	S/SE
29-Aug-09	Sat	fine/very hot/isolated showers/light	Trace	28.8	8	69	W/SW
30-Aug-09	Sun	fine/hazy/hot/moderate	2.4	30.5	14	75	E/NE
31-Aug-09	Mon	fine/hazy/very hot/moderate	0.5	29.1	6.2	75.2	E/NE

September 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-Sep-09	Tue	fine/very hot/a few showers/moderate	Trace	29.9	18	72	E/NE
2-Sep-09	Wed	fine/very hot/isolated showers/moderate	Trace	30.1	12.5	71	E/NE
3-Sep-09	Thu	fine/very hot/hazy/moderate	Trace	31.2	10	69.5	E/NE
4-Sep-09	Fri	fine/very hot/isolated showers/moderate	Trace	29.8	12	71	E/SE
5-Sep-09	Sat	fine/very hot/isolated showers/moderate	Trace	31.1	13.7	65.2	E/NE
6-Sep-09	Sun	fine/very hot isolated showers/moderate	0	31	14.5	68	E/NE
7-Sep-09	Mon	fine/very hot/moderate	0	31.2	8.2	66.5	E/NE
8-Sep-09	Tue	fine/very hot/moderate	0	30.6	13	61	E/SE
9-Sep-09	Wed	sunny periods/hot/isolated showers/moderate	37.1	30.6	15	66	E/NE
10-Sep-09	Thu	cloudy/squally showers/fresh/strong	0.9	30.3	14.7	63	E/NE
11-Sep-09	Fri	cloudy/rain/squally thunderstorms/moderate/fresh/strong	11.8	28.5	21.5	71.5	E
12-Sep-09	Sat	a few showers/sunny intervals/moderate/fresh	5.7	30.5	20	78.2	E
13-Sep-09	Sun	fresh/cloudy/rain/moderate	23.4	29.8	18.7	78.5	W/SW
14-Sep-09	Mon	fresh/strong/gales/cloudy/squally thunderstorm	38.8	27.4	20	82	N/NE
15-Sep-09	Tue	fresh/strong/gales	190.3	27	37.5	82.5	SE
16-Sep-09	Wed	scattered showers/squally thunderstorms/sunny intervals/moderate/fresh	20.5	29.1	23	81.7	SE
17-Sep-09	Thu	fine/hot/isolated showers/moderate	Trace	28.6	11.5	87.5	S/SE
18-Sep-09	Fri	fine/very hot/moderate	0	29.6	16	80.5	W/SW
19-Sep-09	Sat	fine/very hot/moderate	0	30.4	8.5	77.5	W/SW
20-Sep-09	Sun	fine/very hot/moderate	Trace	30.3	12.2	73.5	S/SE
21-Sep-09	Mon	cloudy/sunny intervals/haze/light winds/moderate/rain	9.5	30.7	11.2	81	S/SE
22-Sep-09	Tue	fine/dry/moderate	1.3	Maintenance			
23-Sep-09	Wed	sunny periods/cloudy/rain/moderate	0	28.3	14.2	71.7	E/NE
24-Sep-09	Thu	sunny periods/cloudy/fresh/strong	Trace	30.2	16.5	67	E/NE
25-Sep-09	Fri	fine/hot/moderate/fresh	0	30.2	17	68	E/SE
26-Sep-09	Sat	fine/dry/very hot/moderate	0.3	30.8	10.5	67	E/NE
27-Sep-09	Sun	fine/hot/moderate/fresh	0	29.1	18.5	68	NE
28-Sep-09	Mon	cloudy/rain/squally thunderstorms/fresh/strong	52.7	26.4	18.5	79.2	E/NE
29-Sep-09	Tue	overcast/rain/fresh/strong	31	24.7	13.5	93.5	E/NE
30-Sep-09	Wed	cloudy/rain/moderate/fresh	63	26.9	14.5	86	E/NE