Highways Department

Route 9 Between Tsing Yi and Cheung Sha Wan - Phase 1 Ngong Shuen Chau Viaduct: *Monthly Monitoring Report (November 2002)*

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EP - 085/2000/C
Route 9 Between Tsing Yi and Cheung Sha Wan Phase 1 Ngong Shuen Chau Viaduct

Monthly Monitoring Report November 2002

Certified by the Environmental Team Leader
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Signed: _____ Date: 6.11.2002

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EXECUTIVE SUMMARY

This is the third monthly Environmental Monitoring and Audit (EM&A) report for the Project HY/2000/21 - Route 9 Ngong Shuen Chau Viaduct. This report presents the results of the EM&A works conducted during the month of October 2002 (between 29th September 2002 and 28th October 2002) in accordance with the EM&A Manual which forms part of the EIA Report (Register No. AEIAR-018/1999).

During the month of October 2002, the following construction activities have taken place:

- Site Clearance;
- Site investigation;
- Traffic and utilities diversions;
- Hoarding erection;
- Tree transplanting;
- Steel piling; and
- Bored piling at Area P1-SA6 and P1-SA13.

Construction works have been carried out during evening time on 9 and 18 October 2002 (any day not being a general holiday between 1900 and 2300) during the reporting period.

Monitoring of 24-hour Total Suspended Particulates (TSP) and noise was performed and the results were checked and reviewed. Site audits were conducted on a weekly basis. The implementation of environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also reviewed.

Air Quality

For 1-hr. TSP monitoring, a total of 30 sets of measurement were carried out during the reporting month and all were below the Action and Limit (AL) Levels.

For 24-hr. TSP monitoring, a total of 10 sets of measurement were carried out during the reporting month and all were below the AL Levels.

Noise

Daytime Monitoring

A total of 10 sets of L_{eq}(30min) measurement during Daytime (i.e. 0700 to1900 hours on normal weekdays) were carried out during the reporting month and all measured levels were below the Action and Limit (AL) Levels.

Evening-time Monitoring

A total of 2 noise exceedances were both recorded at the noise sensitive receiver, NSR 2 on 9 and 18 October 2002. In summary, the exceedances were attributable to nearby traffic noise as reflected by high L_{10} and field records. Notifications of Exceedances were submitted to IEC and EPD. IEC verbally confirmed that all exceedances were unlikely to be due to the Project construction's activities due to the large separation between the works area and monitoring station.

Night-time Monitoring

Since no construction works were undertaken during night-time, therefore no noise monitoring was carried out for these periods during the reporting month.

Waste Management

Approximately 616 m^3 of Excavated Materials were produced on-site and have been delivered to the government approved public filling area in Tuen Mun Area 38 during the reporting month.

Approximate 2.52 tonnes of C&D Wastes were produced on-site and have been delivered to the SENT landfills during the reporting period.

Site Inspection

Weekly site inspections were undertaken by the ET and the major findings are summarized as follows:

Item	Findings	Proposed Mitigation Measures	Environmental Outcome
1	Accumulation of water in drip tray at chemical/fuel storage area was observed.	Contaminated water collected and disposed of properly.	The wastewater was collected and temporary stored at the chemical waste storage area.
2	Idling equipment was observed at P1-SA13 (CC402) and P1-SA6.	Idling equipment should be switched off while not in use.	The idling equipment was switched off accordingly.
3	Stockpiles and exposed surface were not covered properly at Area P1-SA6 (facing Sewage Treatment Plant)	Cover the stockpiles and exposed surface.	CHEC covered the stockpiles by tarpaulin accordingly.
4	Haul roads and unpaved area were found dry and dust emission was observed.	The haul roads should be frequently cleaned and watered to minimize the fugitive dust emissions.	Labours were allocated to conduct water spraying on site.
5	Site runoff accumulate on-site especially in wheel washing bays.	Site runoff should be diverted to temporary sedimentation tanks for treatment before discharge.	Temporary measures were employed. Permanent drainage system and new wheel washing bays being arranged by CHEC.

IEC Audit was carried out on 25th October 2002 and the major findings are as follows:

Item	Findings	Proposed Mitigation Measures	Environmental Outcome
1	Wheel washing facilities were not provided at site exit of area P1-SA6 (CP3/D16) and P1-SA8.	Wheel washing facilities shall be installed and used by all vehicles leaving the site.	The site exits of the mentioned area were closed temporary and the wheel washing facilities being arranged by CHEC.
2	Stockpiles and exposed surface were not covered properly at Area P1-SA6 (facing Sewage Treatment Plant)	Cover the stockpiles and exposed surface.	CHEC covered the stockpiles by tarpaulin accordingly.

Item	Findings	Proposed Mitigation Measures	Environmental Outcome
3	Haul roads were found dry.	The haul roads should be frequently cleaned and watered to minimize the fugitive dust emissions.	CHEC reported that a watering browser has been purchased and labours were allocated to conduct water spraying on site.
4	Silty surface runoff draining outside the site and discharge into the gully next to the site exit was observed. (P1-SA6, facing KMB Depot)	Site runoff should be diverted to temporary sedimentation tanks for treatment before discharge.	Temporary measures were employed. Permanent drainage system and new wheel washing bays being arranged by CHEC.

No formal site inspection was conducted by EPD during the reporting period.

Environmental Licensing and Permitting

Permits granted to the Project include Environmental Permit for the Project and construction noise permits. Information of these permits is provided in ***Table 5.1***.

Complaint Log

One environmental complaint was received during the reporting period.

There were totally 3 complaints received for the Route 9 Phase 1 Ngong Shuen Chau Viaduct contract since the commencement of the construction. All the complaint cases were handled in accordance with the complaint investigation procedures.

Notification of Summons and Prosecutions

No notification of summons and prosecutions regarding non-compliance of environmental performance of the construction site was received during the reporting period.

Future Key Issues

The tentative program of major site activities as well as the impact prediction and control measures for the coming three months, i.e. October 2002 to January 2003 are summarized as follows:

Construction Works	Major Impact Prediction	Control Measures
Bore piling, pre-drilling and excavation	Dust impact	• Frequent watering of haul road and unpaved areas; • Frequent watering or covering the open area/stockpiles with tarpaulin; • Maintain onsite machinery and vehicles regularly;
	Generation of silty water	• The wastewater produced will be collected and recycled on-site if possible; • The footing of hoardings will be sealed to avoid untreated wastewater from entering the existing drainage system; and • The collected effluent will be diverted to de-silting facilities for treatment before discharge to public drains.

Construction Works	Major Impact Prediction	Control Measures
	Noise Impact	• Schedule of the noisy construction activities if necessary to avoid persistent noisy operation. • Control the number of plant use on site.

1. INTRODUCTION

ERM-Hong Kong, Ltd (ERM) was appointed by the Highways Department to undertake the role of the Environmental Team Leader for Route 9 between Tsing Yi and Cheung Sha Wan Phase 1 – Ngong Shuen Chau Viaduct" (hereinafter called the "Project").

Under the requirements of Section 4 of Environmental Permit EP085/2000/C, EM&A programme is required to be implemented as set out in the Environmental Monitoring and Audit (EM&A) Manual which forms part of the EIA Report (Register No. AEIAR-018/1999).

1.1 Purpose of the Report

This is the 3rd monthly EM&A report which presents the results and findings of all EM&A works for the Project between 29th September 2002 and 28th October 2002.

1.2 Structure of the Report

The structure of the report is as follows:

Section 1: **INTRODUCTION** – details the scope and structure of the report.

Section 2: **PROJECT INFORMATION** – summarizes the background and scope of the project, project organization, construction programme and the construction works undertaken during the reporting period.

Section 3: **ENVIRONMENTAL MONITORING REQUIREMENTS** – summarizes the monitoring programmes, Action and Limit Levels, Event Action Plans, environmental mitigation measures as recommended in the EIA Report and relevant environmental requirements.

Section 4: **IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS** – summarizes the implementation of environmental protection measures during the reporting period.

Section 5: **ENVIRONMENTAL LICENCE AND PERMITTING REQUIREMENTS** – summarizes the environmental licences and permits obtained or being applied during the reporting period.

Section 6: **MONITORING RESULTS** – reports the monitoring results obtained in the reporting period.

Section 7: **AUDIT RESULTS –** summarizes the audit findings in the reporting period.

Section 8: **COMPLAINTS, NOTIFICATIONS OF SUMMONS AND PROSECUTIONS DURING THE REPORTING PERIOD** – summarizes the complaints, notifications of summons and prosecutions recorded during the reporting period.

Section 9: **FUTURE KEY ISSUES –** summarizes the future key issues as reviewed from the works programme and work method statements.

Section 10: **RECOMMENDATIONS AND CONCLUSIONS**

2. PROJECT INFORMATION

2.1 Background

The Design and Construction Consultancy Assignment "Agreement No. CE72/98 Route 9 between Tsing Yi and Cheung Sha Wan" was awarded to Ove Arup and Partners Hong Kong Ltd (Arup).

The construction of the Phase 1 of the Route 9 Project comprises of the Ngong Shuen Chau Viaduct and its link with CT8, R9T Cheung Sha Wan – Shatin, and West Kowloon Highway, has been awarded to China Harbour Engineering Company (Group) (CHEC) on 10 April 2002. The construction works was commenced on 29th July 2002 and is scheduled to be completed by December 2006.

2.2 Site Description

Phase 1 works area is located in urban area. The sensitive receivers are mainly residential buildings and schools at Mei Foo Sun Chuen and the dwellings at Stonecutters Military Base. The works area is shown in ***Appendix A***.

2.3 Project Organisation

The project organization chart and contact details are shown in ***Appendix B***.

2.4 Project Work Programme

The project works programme for the coming three months is presented in ***Appendix C***. The major site activities undertaken during the reporting month are summaries in ***Table 2.1***.

Table 2.1 Site Activities undertaken from 29th September 2002 to 28th October 2002

Area	Details of Site Activities
P1-SA6	Excavation, Utility Diversion, Bore Piling and Site Investigation
P1-SA8	Hoarding Erection and Site Investigation.
P1-SA10	Modification of the existing wheel washing facilities.
P1-SA13 and 14	Bored Piling and Utility Diversion.
P1-SA15	Stockpile of excavated material to be reused on site.

3. ENVIRONMENTAL MONITORING REQUIREMENTS

3.1 Air Quality

Monitoring Requirements

Monitoring of 1-hour and 24-hour TSP was conducted to monitor the construction dust impact. ***Appendix D1*** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Frequency and Schedule

The monitoring parameters and frequency are summarized in ***Table 3.1***. The monitoring schedule for the reporting period is shown in ***Appendix E***.

Table 3.1 TSP Monitoring Parameter and Frequency

Parameters	Duration / hour	Frequency
24-hour TSP	24	Once Every Six Days
1-hour TSP	1	Three Times Every Six Days

Monitoring Locations

In accordance with the EM&A Manual and project specifications, two air quality monitoring locations were selected. Both 1 hour and 24-hour TSP monitoring were performed in the reporting month. The locations of the two monitoring stations are listed in ***Table 3.2*** and are shown in ***Appendix F***.

Table 3.2 TSP Monitoring Locations

Location I.D.	Description
ASR1	Lai Chi Kok Park at Mei Foo Sun Chuen (at the roof of the toilet block)
ASR2	DSD Pumping Station (in the proximity of Stonecutters Military Base)

Wind data monitoring was carried out at a conspicuous location for logging wind speed and wind direction near the dust monitoring locations. Weather station was relocated at the Area P1-SA9 on October 2002.

Monitoring Equipment

Continuous 24-hour and 1-hour TSP air quality monitoring was performed using a TE-5170 Tisch Environmental Inc. High Volume Sampler (HVS) was installed at each of the above monitoring stations. The sampler composed of a motor, filter holder, flow controller and a sampling inlet. Its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

Wind data in terms of wind speed and direction was measured using wind data monitor. Details of the monitoring equipment are given in ***Table 3.3***. A copy of the calibration certificate for the HVS and wind data monitor are attached in ***Appendix G1*** and ***Appendix G2*** respectively.

Table 3.3 Air Quality Monitoring Equipment

Equipment	Model	Qty.
HVS Sampler	TE-5170 Tisch Environmental Inc.	2
Calibrator	TE-5028A Tisch Environmental Inc.	1

Monitoring Procedures and Calibration Details

Calibration Procedures

Calibration procedures of HVS were as follows:

- A certified orifice transfer standard with a calibration curve was used for the calibration.
- The transfer standard was connected to the inlet of the sampler. The orifice manometer was then connected to the orifice pressure port. The manometer's connecting tubing was inspected to make sure that there are no leaks between the orifice unit and the sampler.
- The motor was then disconnected from the flow controller and plugged directly to an AC power source.
- A weather station has been setup at the Site Office to measure and record the ambient temperature, Ta (K) and the barometer pressure Pa (mmHg) during calculation.
- The sampler was allowed to run for at least 2 minutes to re-establish the run temperature conditions. The pressure drop across the orifice and the well-type manometer reading was recorded during calibration. The variable resistance was adjusted to repeat recording for four different flow rates.
- The best fit straight line was determined by linear regression and find the slope (m1),

intercept (b1) and correlation coefficient (r).

Certificate for calibration is attached in ***Appendix G3***.

Operating/Analytical Procedures

- The flow rate of the high volume sampler was set to about 1.1 m^3/min - 1.7 m^3/min prior to commencement of the dust sampling in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

- The samplers was located such that:

  - the filter was about 1.3 meters above ground.
  - it was greater than 20 meters away from trees.
  - it was separated from any obstacle by at least twice the height of the obstacle protruding above the sampler.
  - it has unrestricted airflow 270° around the sampler.

- Fibreglass filters were used for TSP sampling (G810) [Note: these filters have a collection efficiency of > 99% for particles of 0.3 mm diameter].

- All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was between 25°C and 30°C and not vary by more than ±3°C; the relative humidity was < 50% and not vary by more than ±5%.

- A new filter was placed with stamped number upward on a supporting screen.

- The filter was properly aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter.

- Shelter lid closed and catch secured with the aluminum strip.

- The sampler was then allowed to run for at least 5 minutes to establish run-temperature conditions.

- The flow indicator reading was recorded and the sampler flow rate was determined.

- The programmable timer was set and the starting sampling time, weather condition and the filter number was recorded.

- At the end of sampling, the filter was transferred from the filter holder of the HVS to a sealable plastic bag and sent to the laboratory for weighing. The elapsed time was also recorded.

- Before weighing, all filters were equilibrated in a desiccator for 24 hours with temperature of 25°C±3°C and the relative humidity (RH) 50%±5%, preferably 40%.

Maintenance

- The volume sampler and their accessories were maintained in good working condition, include replacing motor brushes routinely and checking electrical wiring to ensure continuous power supply.

- The high volume samplers were calibrated at bi-monthly intervals using TE-5028A Tisch Environmental Inc. Calibration Kit throughout all stages of the air quality monitoring.

Event/Action Plan

The Event/Action Plan for Air Quality is shown in ***Appendix H1***.

3.2 Noise Quality

Monitoring Requirements

Noise monitoring was conducted at two monitoring stations to monitor the construction noise impact. ***Appendix D2*** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Frequency and Schedule

Noise monitoring was conducted during the period of 07:00 to 23:00. The monitoring schedule is shown in ***Appendix E***. The frequency and parameters of noise measurement are presented in Table 3.4.

Table 3.4 Noise Monitoring Frequency and Parameters

Time Period	Duration / min.	Parameters	Frequency
Daytime (0700 to 1900)	30 (6 consecutive L_{eq}(5min) in average)	L_{eq}, L_{90} & L_{10}	Once per week
*Evening (1900 to 2300)	5	L_{eq}, L_{90} & L_{10}	Six times per week
*Night (2300 to 0700 next day)	5	L_{eq}, L_{90} & L_{10}	Four times per week

* Conduct noise monitoring only when there is construction work.

Monitoring Locations

In accordance with the EM&A Manual and project specifications, two noise monitoring stations (as detailed in ***Table 3.5*** and shown in ***Appendix F***) were selected for noise measurement.

Table 3.5 Location of the Noise Monitoring Stations

Location I.D.	Description	Type of measurement
NSR1	Lai Chi Kok Park at Mei Foo Sun Chuen (at the roof of the toilet block)	Free Field
NSR2	DSD Pumping Station (in the proximity of Stonecutters Military Base)	Free Field

Monitoring Equipment

Integrating Sound Level Meters were used for noise monitoring which were Type 1 sound level meters capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x). They comply with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). Also, a portable electronic wind speed indicator capable of measuring wind speed in m/s was used to monitor the wind speed. ***Table 3.6*** summarizes the noise monitoring equipment used.

Table 3.6 Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	SC-30, CESVA
Calibrator	CB-5, CESVA
Portable Wind Speed Indicator	PWM1, Dwyer

Monitoring Procedures and Calibration Details

Field Monitoring

- The microphone of the Sound Level Meter (with weatherproof kit) was mounted on a tripod at a height of 2m above ground level.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- AC power supply was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes

- Prior to and after each noise measurement, the meter was calibrated using the Calibrator for 94 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1 dB (A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.

- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

Maintenance and Calibration

- The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- The meter was sent to the supplier to check and calibrate yearly.
- Calibration certificates are attached in ***Appendix G3***.

Event/Action Plan

The Event/Action Plan for Noise impact is presented in ***Appendix H2***.

4. IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status during the reporting period is summarized in ***Appendix I***.

5. ENVIRONMENTAL LICENCE AND PERMITTING REQUIREMENTS

The status of the permits, licenses and EPD notifications for all relevant environmental issues for this project is summarized in ***Table 5.1*** of the reporting period.

Table 5.1 Summary of Environmental Licensing, Notification and Permit Status

Description	Permit No.	Valid Period		Section	Status / Remarks
		From	To		
Environmental Permit	EP-085/2000 C	15/04/02	-	Whole work site	Valid
Chemical Waste Producer Registration	WPN – 5213-269-C3215-01	15/04/02	-	Whole construction site	Valid (for disposal of empty fuel/lubricant drums, scrap batteries, spent lubricating oil, diesel, mineral oil and solvent)
Waste Water Discharge License	EP482/269/0038/I	15/04/02 (revised on 02/08/02)	30/06/07	Whole construction site	Valid (carry out analyses on a quarterly basis)
Construction Noise Permit	GW-UE0352-02	25/09/02	16/03/03	Lai Wan Interchange near West Kowloon Highway & Lai Po Road	Valid (Any day from 0700h - 2300h)
Construction Noise Permit	GW-UE0353-02	25/09/02	16/03/03	Hing Wah Street West between Container Port Road South Roundabout	Valid (Any day from 0700h - 2300h)

Description	Permit No.	Valid Period		Section	Status / Remarks
		From	To		
Construction Noise Permit	GW-UE0354-02	25/09/02	16/03/03	Construction Site below West Kowloon Highway near Hing Wah Street West	Valid (Any day from 0700h - 2300h)
Construction Noise Permit	PP-UE0051-02	13/07/02	08/01/03	West Kowloon Highway Flyover near Hing Wah Street. West	Valid (Any day not being a general holiday from 0700h-1900h)
Construction Noise Permit	PP-UE0055-02	13/07/02	08/01/03	Hing Wah Street. West off Kowloon Refuse Transfer Station	Valid (Any day not being a general holiday from 0800h-0930h, 1230h-1400h, 1700h-1900h)
Construction Noise Permit	PP-UE0063-02	10/08/02	30/01/03	Lai Po Road off KMB Depot	Valid (Any day not being a general holiday from 0700h-1900h)

6. MONITORING RESULTS

6.1 Air Quality

1-hour TSP

1-hour TSP monitoring was carried out at 2 monitoring stations between 29th September 2002 and 28th October 2002. All monitoring data is presented in ***Appendix J***. A summary of the measured 1-hour TSP levels is given in ***Table 6.1***. Graphical presentation of the 1-hour TSP monitoring results for the reporting month is shown in ***Appendix K***.

Table 6.1 Summary of 1-hour TSP Impact Monitoring Results

Location I.D.	1-hour TSP(μg/m^3)		Action Level (μg/m^3)	Limit Level (μg/m^3)
	Mean	Range		
ASR1	159.7	103.8 - 248.4	318	500
ASR2	191.2	90.7 - 263.9	324	500

24-hour TSP

24-hour TSP monitoring was carried out at 2 monitoring stations between 29th September 2002 and 28th October 2002. All monitoring data is presented in ***Appendix J***. A summary of the measured results is given in ***Table 6.2***. Graphical presentation of the results is shown in ***Appendix K***.

No exceedance of the Action/Limit Levels of 24-hour TSP was recorded during the reporting period.

Table 6.2 Summary of 24-hour TSP Impact Monitoring Results

Location I.D.	24-hour TSP (μg/m^3)		Action Level (μg/m^3)	Limit Level (μg/m^3)
	Mean	Range		
ASR1	72.7	40.7 - 90.5	163	260
ASR2	78.7	57.3 - 117.6	178	260

The wind data monitoring results recorded during the reporting period are summarised in ***Appendix L***.

Observations

There are several significant dust sources identified during the reporting period and they are mainly contributed by the following activities:

- Site clearance;
- Excavation;
- Other construction activities nearby; and
- Traffic.

6.2 Noise

Normal Hour Monitoring

Noise monitoring was carried out at all the noise monitoring stations between 29th September 2002 and 28th October 2002. A 3 dB(A) façade correction was made to the free field measurements at the monitoring stations. All corrected noise levels are presented in ***Appendix M1***. A summary of the results is given in ***Table 6.3***. Graphical presentation of the monitoring results for the reporting month is shown in ***Appendix N1***.

No exceedance of the Action/Limit Levels of Noise for normal hour monitoring was recorded during the reporting period.

Table 6.3 Summary of Corrected Impact Noise Levels for Normal Hour Monitoring

Daytime 0700-1900 hrs on normal weekdays	**Noise Level, dB(A) Mean (Range)**		
	Leq	**L_{10}**	**L_{90}**
NSR1*	64.1 (60.0 - 67.4)	67.3 (61.5 - 71.8)	60.7 (58.3 - 62.0)
NSR2*	60.2 (58.1 - 62.1)	62.8 (60.4 - 65.0)	55.7 (53.4 - 58.0)

** Free-field measurement*

Observations

The major noise sources during the normal hour in this reporting period were dominated by the following activities:

- Bored piling;
- Excavation;
- Traffic noise; and
- Other construction works nearby.

Restricted Hour Monitoring

Construction works were carried out at site area P1-SA13 during Evening-time (i.e. 1900 – 2300 hours) on 9 and 18 October 2002 and noise monitoring was carried out at all the noise monitoring stations. All corrected noise levels are presented in ***Appendix M2***. A summary of the results is given in ***Table 6.4***. Graphical presentation of the monitoring results for the reporting month is shown in ***Appendix N2***.

A total of 2 noise exceedances were recorded at the noise sensitive receiver, NSR 2, on 9 and 18 October 2002. In summary, the exceedances were attributable to nearby traffic noise as reflected by high L_{10} level recorded during the measurement period, owing to the fact that vehicles in the area travel at higher speed in the evening. Notifications of Exceedances were submitted to IEC and EPD. IEC verbally confirmed that all exceedances were unlikely to be due to the Project construction's activities since the large distance between the works are and monitoring station.

Since the monitoring location, NSR2 is quite some distance away from the con-current construction area, therefore, it was decided that the noise measurement for restricted hour monitoring will only be conducted at the closest noise monitoring location, NSR 1 in the coming reporting month.

Table 6.4 Summary of Corrected Impact Noise Levels for Restricted Hour Monitoring

Evening-time (1900-2300 hrs)	***Noise Level, dB(A) Mean (Range)**		
	Leq	**L_{10}**	**L_{90}**
NSR1*	60.2 (58.1-62.1)	62.8 (60.4-65.0)	55.7 (53.4-58.0)
NSR2*	75.0 (73.8-76.6)**	78.9 (78.0-80.1)	68.4 (7.1-69.3)

** A 3dB (A) façade correction was made to the Free-field measurements*
*** Noise exceedances recorded on 9 and 18 October 2002at NSR2.*

Observations

The major noise sources during the restricted hour monitoring were dominated by the traffic noise.

7. AUDIT RESULTS

7.1 Air Quality

The 1-hour and 24-hour TSP measurements at the air monitoring locations were all below the corresponding Action/Limit Levels.

7.2 Noise

For $L_{eq(30min)}$ measurement, a total of 10 sets of readings measured during daytime (i.e. 0700 to 1900 from Monday to Saturday) were carried out during the reporting period and all measurement results were below the Limit Level.

For restricted hour monitoring, a total of 4 sets of reading measured at NSR1 and NSR2 during evening time (i.e. from 1900 to 2300) were carried out on 9 and 18 October 2002. Noise exceedances were both recorded at the NSR 2 on 9 and 18 October 2002. In summary, the exceedances were attributable to nearby traffic noise as reflected by high L_{10} level recorded during the measurement period, owing to the fact that vehicles in the area travel at higher speed in the evening. Notifications of Exceedances were submitted to IEC and EPD. IEC verbally confirmed that all exceedances were unlikely to be due to the Project construction's activities since the large distance between the works are and monitoring station.

7.3 Waste Management

Wastes from this Project include construction and demolition (C&D) waste, excavated materials, chemical waste and general refuse. The Waste Management Plan has recommended procedures for handling of C&D waste, excavated materials, chemical waste and general refuse.

Based on the information provided by CHEC with respect to relevant handling records and trip tickets of this project, the quantities of different wastes and their handling are summarized in ***Table 7.1***.

Table 7.1 Summary of Different Categories of Waste during the Reporting Period

Material Type		Quantity Produced in Oct 02	Handling Method	Handling Quantities in Oct 02	Storage Locations (if applicable)
C&D material	(inert waste)	88 no. of Dump Truck	Deliver to Public Fill (Tuen Mun Area 38)	88 no. of Dump Truck	N/A
			Reuse on site for filing	N/A	N/A
	(non-inert waste)	140 kg	To be recycled (paper)	140 kg	P1-SA9
		N/A	To be reused	N/A	N/A
		N/A	To be returned to supplier	N/A	N/A
		2.52 tonnes	Collected by licensed collector for disposal	2.52 tonnes	N/A
Chemical waste		2200 L	Collected by licensed chemical waste collector	2200L	Chemical Waste Storage Area in P1-SA10

7.4 Site Inspection by Environmental Team (ET)

Weekly site inspections were conducted by the ET and the major findings are summarized as follows:

- CHEC was reminded that haul roads and exposed areas should be watered regularly to minimize dust impact.
- Idling equipment was observed at P1-SA13 (CC402) and P1-SA6 on 25 October 2002. CHEC was advised to switch off idling equipment while not in use.
- CHEC was advised to protect the u-channel at P1-SA6 (Bus Depot) and P1-SA8 by using suitable bund/sandbags on 8 and 25 October 2002.
- Engine oil containers were not stored properly at Area P1-SA6 and P1-SA13. CHEC had made arrangement to place all fuel/oil tanks within a bunded chemical storage area.
- CHEC was reminded that water accumulated in the wheel washing bay and sedimentation tanks should be pumped to de-silting facilities before discharge, to avoid overflowing and mosquito breeding.

7.5 Site Inspection by Independent Environmental Checker (IEC)

IEC Audit was carried out on 25th October 2002 and the major findings are as follows:

- No wheel washing facilities were found at site area P1-SA6 (CP3/D16) and P1-SA8 (near NB41 (M); and it was found that mud and dust was deposited on public roads. CHEC was reminded that wheel washing facilities shall be installed and used by all vehicles leaving the site.

- Stockpiles of excavated material and exposed earth were not covered properly at Area P1-SA6 (facing Sewage Treatment Plant). With respect to this situation, CHEC had made arrangements to cover the stockpiles using tarpaulin accordingly.

- Silty wheel washing water overflowed and discharged into the gully next to the site exit was observed at Area P1-SA6 (facing Bus Depot). CHEC reported that new wheel washing facilities will be in place soon. CHEC was advised to made arrangement to collect and settled the waste water in the temporary sedimentation tanks for proper treatment before final discharge.

- CHEC was reminded to frequently clean and water the site to minimize the fugitive dust emissions.

7.6 Site Inspection by Environmental Protection Department (EPD)

No formal site inspection was conducted by EPD during the reporting period.

8. COMPLAINTS, NOTIFICATIONS OF SUMMONS AND PROSECUTIONS

8.1 Summary of Complaints

One complaint was received during the reporting period. The details of the complaints and the follow up actions are presented in ***Table 8.1***.

Table 8.1 Summary of Complaints Received between 29th September 2002 and 28th October 2002

Case No. **Received Date (Complaint Mode)**	***EC2002/03*** **Verbal complaint referred by HyD on 15 October 2002.**
Parameters	The stacking of grass within the fenced area between the Lai Po Road northbound and MTRC boundary fence.
Description	Complaint received by ICC on 15 October 2002 and referred by HyD/ H/Q on 17 October 2002 regarding the stacking of grass within the fenced area between the Lai Po Road northbound and MTRC boundary fence. The fenced area was a vacant Government Land maintained by District Land Office (DLO). The sub-contractor of DLO carried out grass cutting on 12 October 2002.
Follow-up Action	• Investigation was conducted by RSS on 15 October 2002; and the stack of grass stockpiled was found inside the fenced area. • After consultation with HyD, LCSD and DLO, DLO confirmed that the grass was cut by his contractor and replied that the stack of grass would be removed from the area within a week. • A follow-up site meeting was held between DLO and RSS on 21 October 2002. The stacks of grass had been removed from site.
Recommended Mitigation Measures	The stack of grass should be removed from the concerned area.
Status/ Remarks	Closed • A comprehensive letter was sent to the complainant on 22 October 2002.

The summary for all the complaints received since the commencement of the Contract is presented in ***Table 8.2***. The details of previous complaints and statistics are attached in ***Appendices O1*** and ***O2*** respectively.

Table 8.2 Summary of Total Complaint Received

Total No. of Complaint Received	No. of complaint received within reporting period	No. of Active Complaint	No. of Inactive/Closed Complaint
3	1	0	3

8.2 Summary of Notification of Summon and Prosecution

No notification of summons or prosecutions was received regarding the non-compliance of the environmental performance of the construction site since the commencement of works.

9. FUTURE KEY ISSUES

9.1 Key Issues for the Coming Month

Works to be taken for the coming monitoring period will be similar to the previous month as follows:

- Utilities diversion, detection and trial pit excavation;
- Hoarding Erection;
- Pre-drilling;
- Plant mobilization;
- Sheet piling; and bored piling.

Potential environmental impacts arising from the above construction activities are mainly associated with dust, noise, site runoff and waste. However, with the implementation of the following mitigation measures, potential impacts to the surrounding sensitive receivers could be minimised:

Construction Dust

- Frequent watering of haul road and unpaved areas;
- Prohibition of any open burning on site;
- Investigation of other dust sources near air sensitive receivers;
- Regularly watering or covering the open area/stock piles with tarpaulin;
- Hydroseeding or covering the inactive sandfill area with impervious sheeting if necessary;
- Switching off vehicles and equipments while not in use; and
- Maintaining onsite machinery and vehicles regularly.

Construction Noise

- Identification of noise sources arising within or outside worksite;
- Follow-up of any exceedance caused by the construction works.

Construction Runoff

- Identification of sources of wastewater generate from the site;
- Provision of sandbags/bunds/channel to direct site surface run-off to silt/sand removal facilities; and
- Treatment of wastewater and surface run-off prior to disposal.

Construction Waste Management

- Avoidance of accumulation of waste materials or rubbish on site;
- Collection of chemical waste or oil and disposal of as chemical waste; and
- Regularly removing of waste materials on site.

9.2 Monitoring Schedule for the Coming Three Months

The tentative schedules for dust and noise monitoring from 29th October 2002 to 28th January 2002 are attached in ***Appendix P***.

10. RECOMMENDATIONS AND CONCLUSIONS

10.1 Conclusions

This Environmental Monitoring and Audit (EM&A) report presents the EM&A works undertaken during the month from 29th September 2002 to 28th October 2002 in accordance with EM&A Manual which forms part of the EIA Report (Register No. AEIAR-018/1999).

All 1-hour and 24-hour TSP monitoring were carried out at the 2 monitoring stations and their results were well below the Action/Limit Levels.

Noise monitoring of $L_{eq(30min)}$ was carried out at the 2 monitoring stations during the reporting period.

A total of 2 noise exceedances were recorded at the noise sensitive receiver, NSR 2 on 9 and 18 October 2002. Notifications of Exceedances were submitted to IEC and EPD; and IEC verbally confirmed that all exceedances were unlikely to be due to the Project construction activities.

One complaint was received during the reporting period. In total, three complaints were received since the commencement of construction works.

No prosecution or summons was received for this Contract since the commencement of construction works.

The environmental monitoring results indicated that the site activities undertaken by the Contractor during the reporting period were in general comply with the relevant environmental requirements, except for deficiencies found during site audits as stated in ***Section 7.4*** , ***7.5*** and ***7.6*** of this report.

10.2 Recommendations

According to the environmental audits undertaken during the reporting month, the following recommendations are made:

Construction Dust

- Site access road and bare soil should be watered regularly to ensure the soil surface is wet;
- Dusty areas should be watered frequently during hot/dry weather; and
- Stockpiles of excavated material should be covered properly by tarpaulin.

Construction Noise

- The number of plant operating should not exceed the allowable plant number for each construction activity stated in the Construction Noise Permit; and
- Noisy equipment should be located away from nearby NSRs.

Water Quality

- All surface runoff/wastewater should be diverted to appropriate water treatment facility before disposal;
- Sedimentation tanks/basins should have adequate capacity for settling surface runoff;
- Wheel washing facilities should be installed and used by all vehicles leaving the site;
- Vehicle and plant servicing area, wheel washing bay should be connected to storm drains via a petrol interceptor;
- Site hoarding should be tightly sealed at the bottom to prevent seepage of surface runoff from the site; and
- Accumulation of water in drip tray at chemical/fuel storage area should be avoided.

Waste Management

- Surface water which contaminated with oil or petrol should be collected and disposed of as chemical waste;
- All type of wastes should be collected by licensed waste collectors; and
- Good housekeeping should be implemented.

Appendix A

Site Layout Plan

N

LAI WAN INTERCHANGE

REALIGNED LIN CHEUNG ROAD

WEST KOWLOON HIGHWAY

ROUTE 9 BY OTHERS (CSW & SHATIN)

ROUTE 9 (TSING YI & CSW)

REALIGNED HING WAH SLIP1

CP3/D16 ROUNDABOUT

REALIGNED HING WAH STREET WEST E/B

REALIGNED SLIP3

REALIGNED SLIP4

CP3/CP4 ROUNDABOUT

REALIGNED HING WAH SLIP2

REALIGNED HING WAH STREET WEST W/B

REALIGNED CONTAINER PORT ROAD SOUTH W/B

REALIGNED CONTAINER PORT ROAD SOUTH E/B

PROPOSED STONECUTTERS BRIDGE

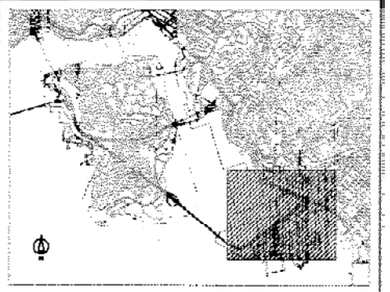
PROPOSED DSD MAINTENANCE ACCESS

CP3 END ROUNDABOUT

ACCESS ROAD CONSTRUCTED BY OTHERS

PROPOSED ACCESS ROAD TO MARINE TRAFFIC CONTROL STATION (BY OTHERS)

E 831000 E 831500 E 832000 E 832500 E 833000 E 833500



LOCATION PLAN

NOTES:

1. CO-ORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).

LEGEND:

- WORKS LIMIT
- WEST RAIL TUNNEL BOX
- ROUTE 9 VIADUCTS
- GROUND LEVEL ROADS
- GROUND LEVEL ROADS (BY OTHERS)

Rev	Description	By	Date
0	ISSUE FOR CONSTRUCTION	RL	03/02

Consultant

ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

Supported By :

Charles Haswell & Partners ○ ERM Hong Kong Ltd. ○
GOWI Consulting Engineers ○ EI Group ○
Chris Wilkinson Architects ○ Urbis Ltd. ●
RMJM Hong Kong Ltd. ○ BMT Asia Pacific Ltd. ○

Project title

HY/2000/21

Route 9 - Ngong Shuen Chau Viaduct

Drawing title

OVERALL GROUND LEVEL ROADS LAYOUT PLAN

Drawing no.	Rev.
22794/P/1/01/120	0

Drawn	Date	Checked	Approved
SL	08/00	RL	NH

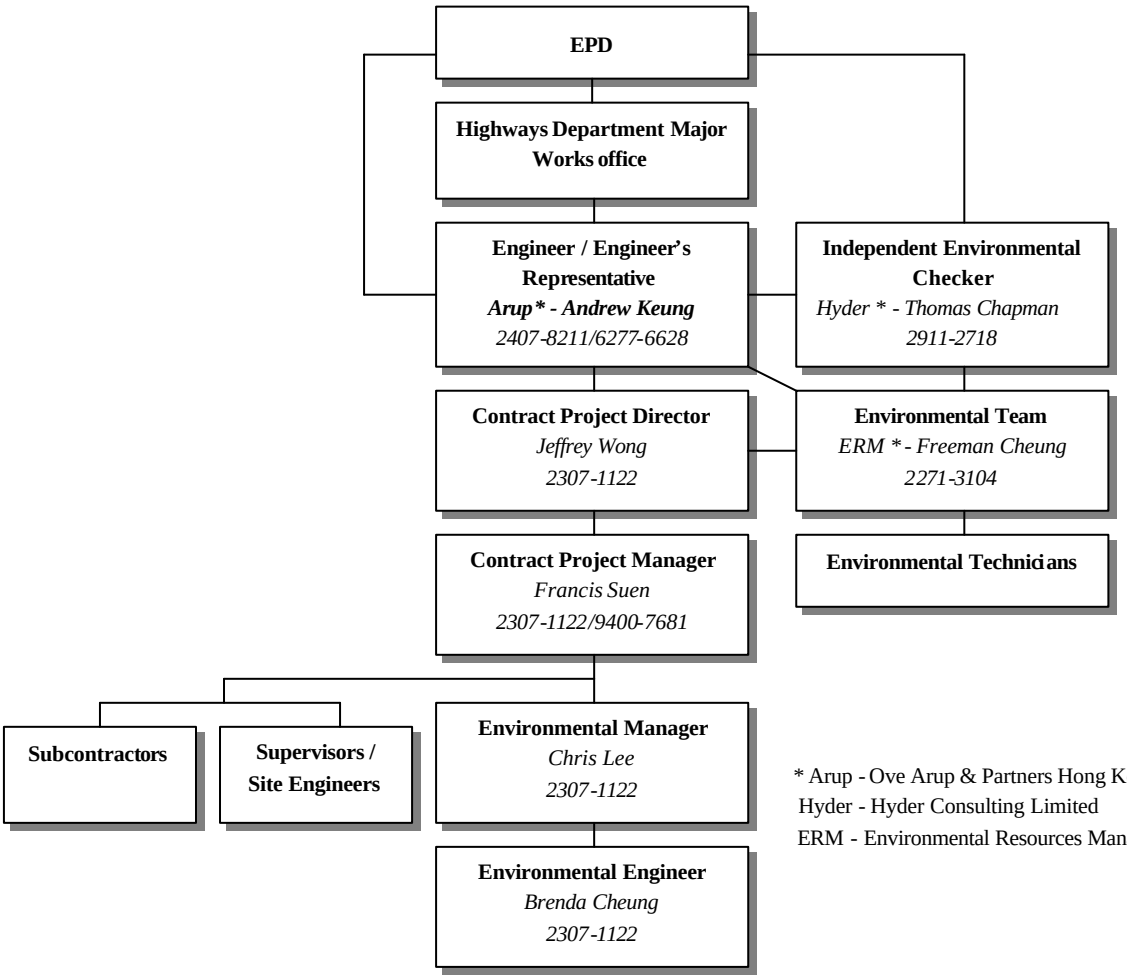
Scale	Status
1:5000 ON A1	WORKING

路政署 HIGHWAYS DEPARTMENT 主要工程管理處 Major Works Project Management Office

Appendix B

Project Organization Chart and Contact Detail

Appendix B: Project Organization Chart and Contact Details

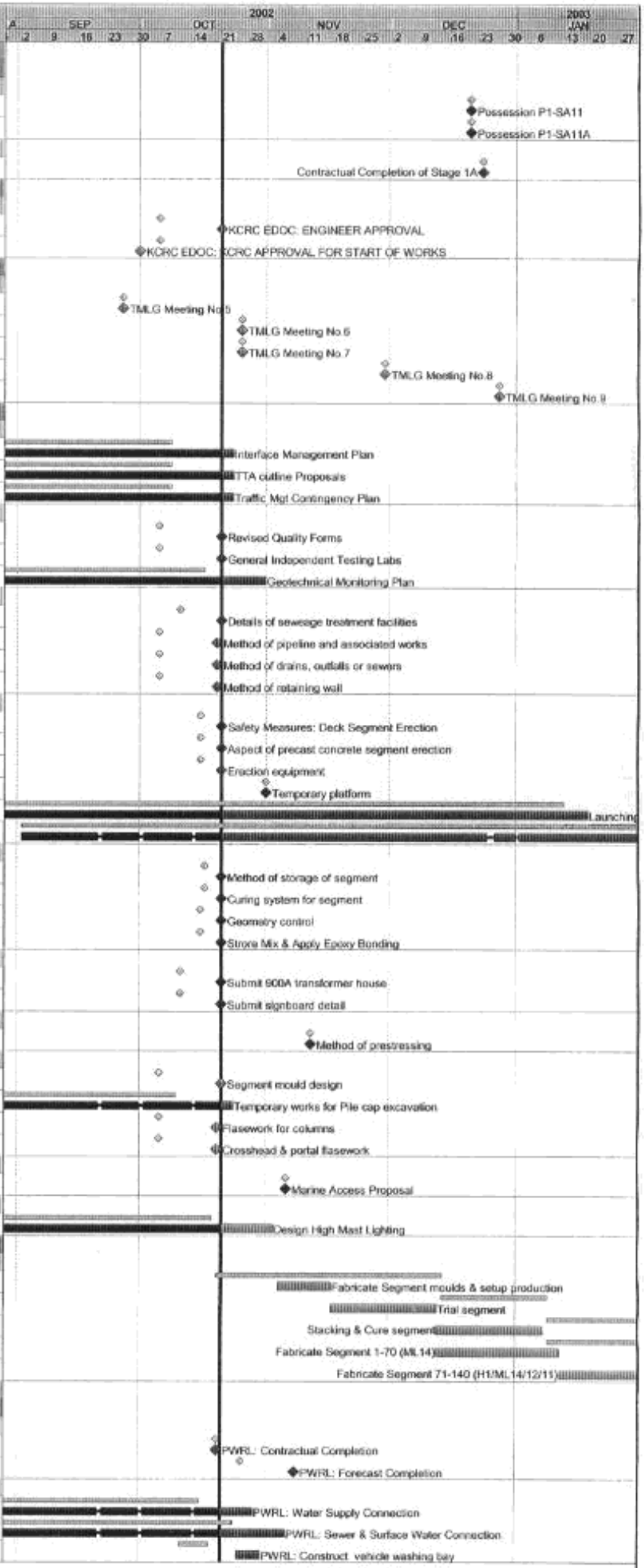


* Arup - Ove Arup & Partners Hong Kong Limited
Hyder - Hyder Consulting Limited
ERM - Environmental Resources Management

Appendix C

Project Work Programme

Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
PRELIMINARIES, DESIGN & PROCUREMENT					
PROJECT MILESTONES					
Site Possession Dates					
CH0000190	Possession P1-SA11	0	0	21/12/02	
CH0000200	Possession P1-SA11A	0	0	21/12/02	
Key Commencement & Completion Dates					
CH0005100	Contractual Completion of Stage 1A	0	0		23/12/02*
PERMITS & SUBMISSIONS					
Submissions: Method Statements & EDOCs					
CH0050140	KCRC EDOC: ENGINEER APPROVAL	0	0		20/10/02
CH0050150	KCRC EDOC: KCRC APPROVAL FOR START OF	100	0		30/09/02A
TMLG MEETING					
TMLG Meeting					
CH0052140	TMLG Meeting No.5	100	0		26/09/02A
CH0052150	TMLG Meeting No.6	0	0		25/10/02*
CH0052160	TMLG Meeting No.7	0	0		25/10/02*
CH0052170	TMLG Meeting No.8	0	0		29/11/02*
CH0052180	TMLG Meeting No.9	0	0		27/12/02*
DESIGN & SUBMISSION					
Permits & Submissions: Traffic Related					
CH0053190	Interface Management Plan	97	100	29/06/02A	23/10/02
CH0060300	TTA outline Proposals	97	100	30/04/02A	23/10/02
CH0060310	Traffic Mgt Contingency Plan	70	10	19/04/02A	23/10/02
Submissions: Project Control Related					
CH0053280	Revised Quality Forms	0	0		20/10/02*
CH0053310	General Independent Testing Labs	0	0		20/10/02*
CH0060450	Geotechnical Monitoring Plan	78	50	13/06/02A	31/10/02
Submissions: Preliminaries					
CH0053270	Details of sewerage treatment facilities	0	0		20/10/02*
CH0060370	Method of pipeline and associated works	0	0		19/10/02*
CH0060380	Method of drains, outfalls or sewers	0	0		19/10/02*
CH0060390	Method of retaining wall	0	0		19/10/02*
Design: Segment Launching Gantry					
CH0053185	Safety Measures: Deck Segment Erection	0	0		20/10/02*
CH0060160	Aspect of precast concrete segment erection	0	0		20/10/02*
CH0060170	Erection equipment	0	0		20/10/02*
CH0060180	Temporary platform	0	0		31/10/02*
CH0060240	Launching girder design	40	272	04/04/02A	18/01/03
CH0060260	Fabrication girder	20	140	02/09/02A	04/03/03
Design: Segment Yard & Storage					
CH0060130	Method of storage of segment	0	0		20/10/02*
CH0060140	Curing system for segment	0	0		20/10/02*
CH0060150	Geometry control	0	0		20/10/02*
CH0060190	Strore Mix & Apply Epoxy Bonding	0	0		20/10/02*
Design: Public Works Regional Laboratory					
CHTPWR100	Submit 900A transformer house	0	0	21/10/02*	
CHTPWR130	Submit signboard detail	0	0	21/10/02*	
Design: Temporary Pre-stressing					
CH0060120	Method of prestressing	0	0		11/11/02*
Design: Mould, Formwork & Shutters					
CH0060200	Segment mould design	0	0		20/10/02*
CH0060460	Temporary works for Pile cap excavation	0	10	20/05/02A	23/10/02
CH0060470	Flasework for columns	0	0		19/10/02*
CH0060480	Crosshead & portal flasework	0	0		19/10/02*
Design P1-SA9 Marine Access					
CH0060100	Marine Access Proposal	0	0		05/11/02*
Street Lighting & High Mast Lighting					
CH0060320	Design High Mast Lighting	87	100	05/06/02A	02/11/02
PROCUREMENT					
Precast Segments Manufacture					
CH0060210	Fabricate Segment moulds & setup production	0	13	04/11/02	16/11/02
CH0060220	Trial segment	0	26	17/11/02	12/12/02
CH0060230	Stacking & Cure segment	0	26	13/12/02	07/01/03
CH0120500	Fabricate Segment 1-70 (ML14)	0	30	13/12/02	11/01/03
CH0120510	Fabricate Segment 71-140 (H1/ML14/12/11)	0	30	12/01/03	10/02/03
CONSTRUCT BUILDINGS					
TSUEN WAN PUBLIC WORKS REGIONAL LABORATORY (PWRL)					
PWRL: KEY DATES					
CHTPWR031	PWRL: Contractual Completion	0	0		19/10/02*
CHTPWR040	PWRL: Forecast Completion	0	0		07/11/02*
Utilities, Services & Temporary Works					
CHTPWR170	PWRL: Water Supply Connection	93	40	06/06/02A	28/10/02
CHTPWR180	PWRL: Sewer & Surface Water Connection	81	45	15/07/02A	05/11/02
CHTPWR380	PWRL: Construct vehicle washing bay	0	5	25/10/02	30/10/02



Start Date 04/04/02
Finish Date 31/12/07
Data Date 21/10/02
Run Date 04/11/02 15:21

As-Planned Bar
Early Bar
Progress Bar
Critical Activity

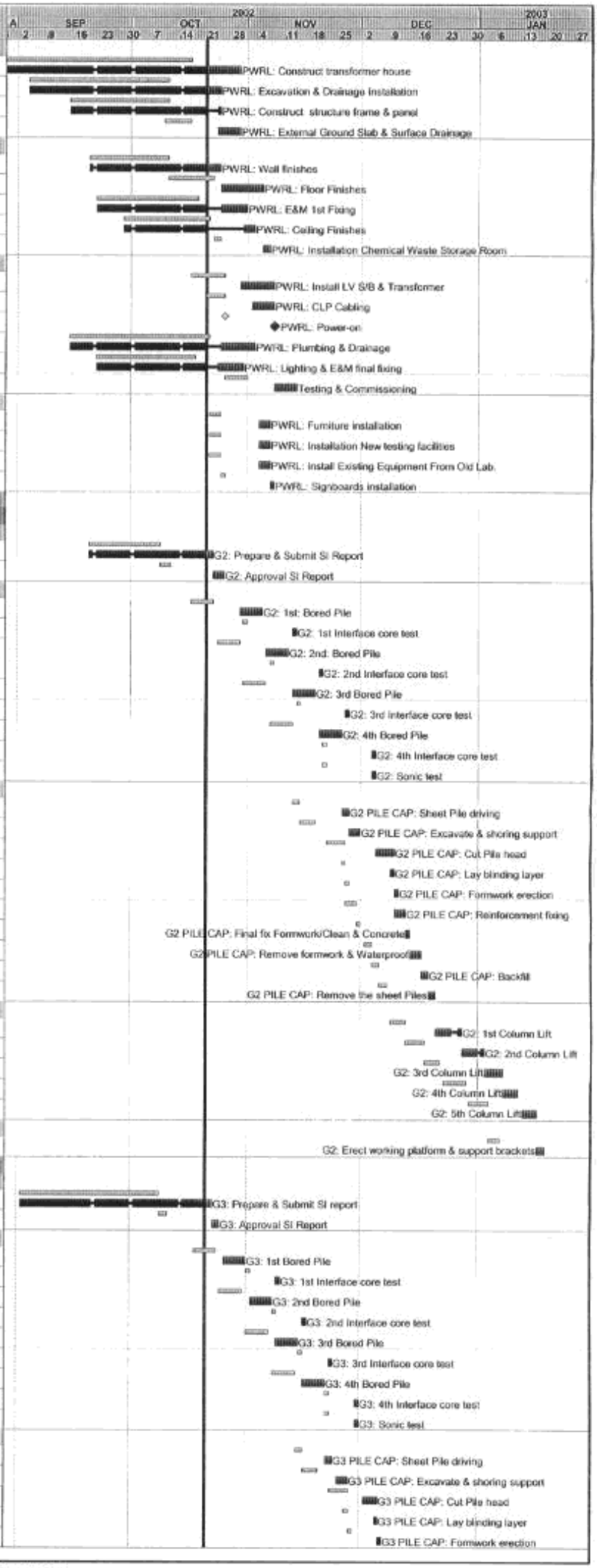
216A

Sheet 1 of 15

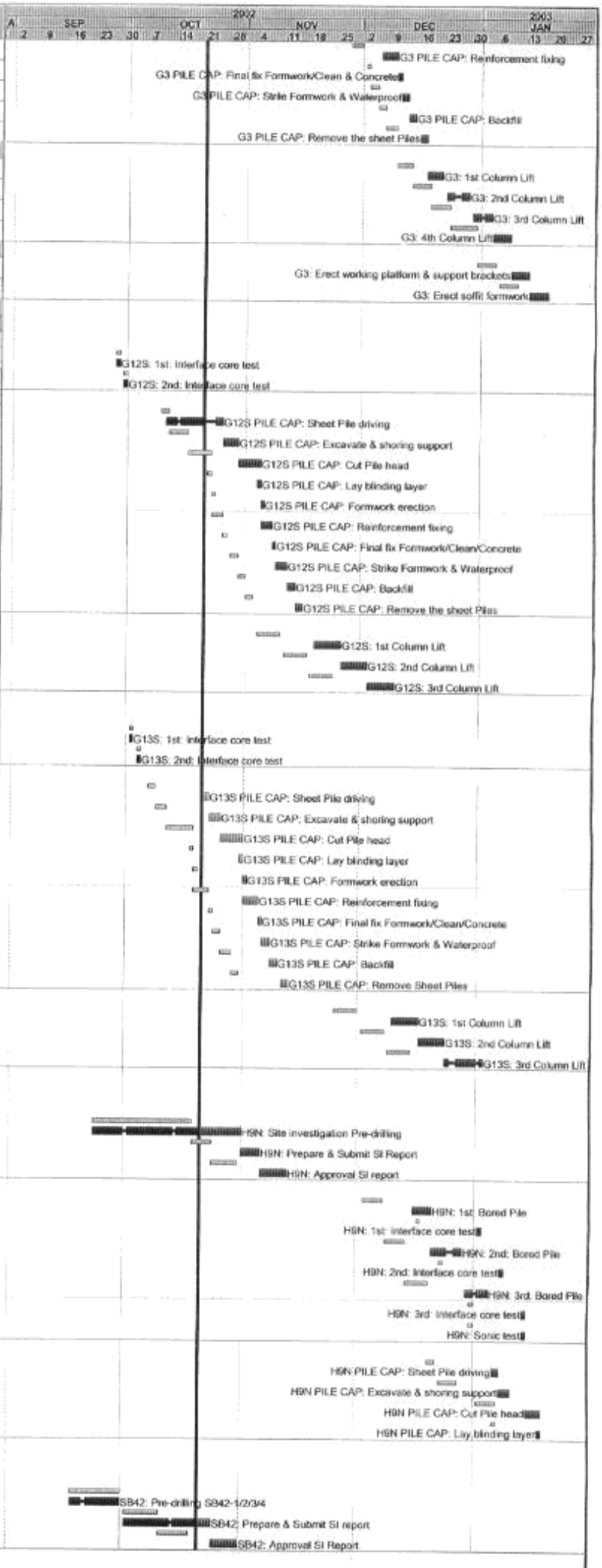
CHINA HARBOUR ENGINEERING COMPANY (GROUP)
ROUTE 9-NSCV
CONTRACT NO. HY/2000/21
3 Month Rolling Programme

Date	Revision	Checked	Approved

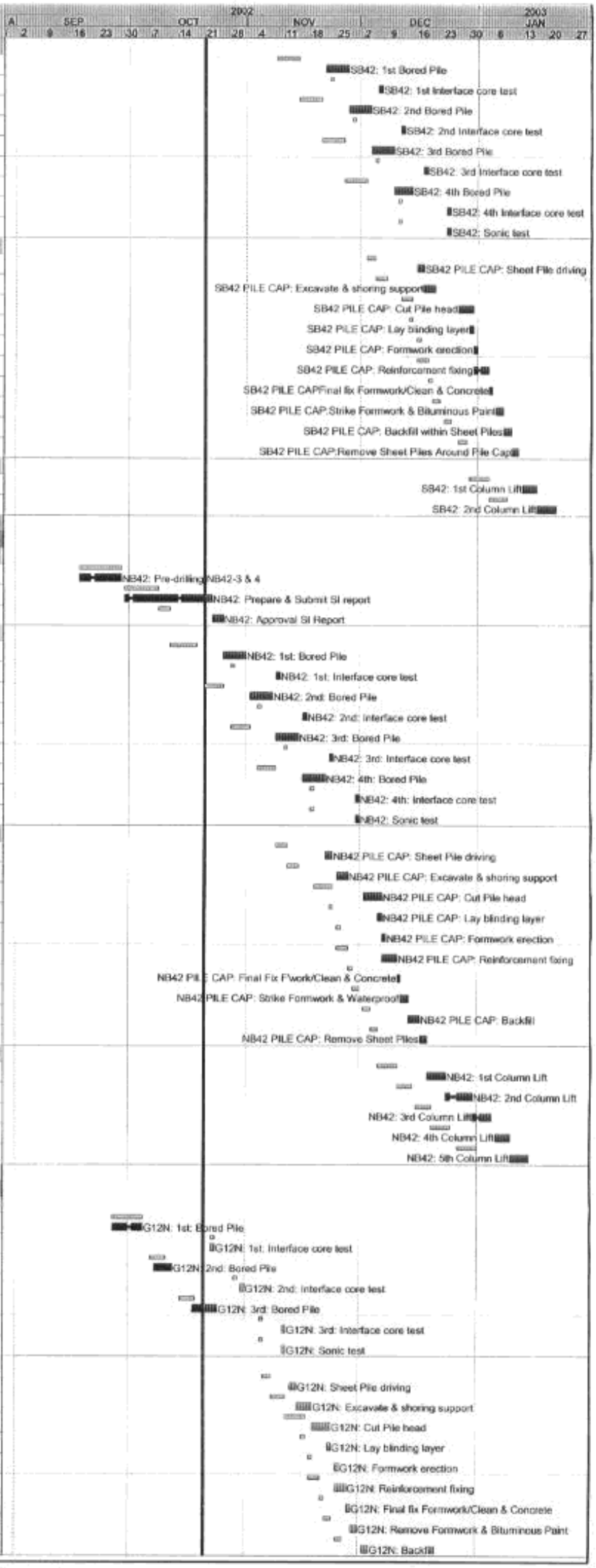
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
PWRL: Drainage, Excavation & Structure					
CHTPWR200	PWRL: Construct transformer house	94	30	15/07/02A	29/10/02
CHTPWR240	PWRL: Excavation & Drainage Installation	60	4	04/09/02A	24/10/02
CHTPWR260	PWRL: Construct structure frame & panel	79	30	15/08/02A	24/10/02
CHTPWR390	PWRL: External Ground Slab & Surface Drainage	0	5	24/10/02	29/10/02
PWRL: 1st & 2nd Fixes					
CHTPWR270	PWRL: Wall finishes	63	15	20/09/02A	24/10/02
CHTPWR280	PWRL: Floor Finishes	0	9	25/10/02	04/11/02
CHTPWR290	PWRL: E&M 1st Fixing	50	14	22/09/02A	31/10/02
CHTPWR320	PWRL: Ceiling Finishes	75	15	29/09/02A	02/11/02
CHTPWR400	PWRL: Installation Chemical Waste Storage Room	0	2	05/11/02	06/11/02
PWRL: E & M Works					
CHTPWR210	PWRL: Install LV S/B & Transformer	0	8	30/10/02	07/11/02
CHTPWR220	PWRL: CLP Cabling	0	5	02/11/02	07/11/02
CHTPWR230	PWRL: Power-on	0	0		07/11/02
CHTPWR300	PWRL: Plumbing & Drainage	75	9	15/09/02A	02/11/02
CHTPWR310	PWRL: Lighting & E&M final fixing	50	14	22/09/02A	30/10/02
CHTPWR330	Testing & Commissioning	0	5	08/11/02	13/11/02
PWRL: Finishing Works					
CHTPWR340	PWRL: Furniture installation	0	3	04/11/02	06/11/02
CHTPWR350	PWRL: Installation New testing facilities	0	3	04/11/02	06/11/02
CHTPWR360	PWRL: Install Existing Equipment From Old Lab.	0	3	04/11/02	06/11/02
CHTPWR370	PWRL: Signboards installation	0	1	07/11/02	07/11/02
CONSTRUCT BRIDGE G1 - STAGE 1A WORKS					
BRIDGE G1: PIER G2 - STAGE 1A					
G1: Pier G2: SI Pre-drilling					
CH3010110	G2: Prepare & Submit SI Report	65	2	20/09/02A	22/10/02
CH3010120	G2: Approval SI Report	0	3	23/10/02	25/10/02
G1: Pier G2: Bored Piling					
CH3015100	G2: 1st: Bored Pile	0	5	30/10/02	04/11/02
CH3015110	G2: 1st Interface core test	0	1	13/11/02	13/11/02
CH3015120	G2: 2nd: Bored Pile	0	5	06/11/02	11/11/02
CH3015130	G2: 2nd Interface core test	0	1	20/11/02	20/11/02
CH3015140	G2: 3rd Bored Pile	0	5	13/11/02	18/11/02
CH3015150	G2: 3rd Interface core test	0	1	27/11/02	27/11/02
CH3015160	G2: 4th Bored Pile	0	5	20/11/02	25/11/02
CH3015170	G2: 4th Interface core test	0	1	04/12/02	04/12/02
CH3015180	G2: Sonic test	0	1	04/12/02	04/12/02
G1: Pier G2 Pile Cap					
CH3020100	G2 PILE CAP: Sheet Pile driving	0	2	26/11/02	27/11/02
CH3020110	G2 PILE CAP: Excavate & shoring support	0	3	28/11/02	30/11/02
CH3020120	G2 PILE CAP: Cut Pile head	0	4	05/12/02	09/12/02
CH3020130	G2 PILE CAP: Lay blinding layer	0	1	09/12/02	09/12/02
CH3020140	G2 PILE CAP: Formwork erection	0	1	10/12/02	10/12/02
CH3020150	G2 PILE CAP: Reinforcement fixing	0	3	10/12/02	12/12/02
CH3020160	G2 PILE CAP: Final fix Formwork/Clean & Concrete	0	1	13/12/02	13/12/02
CH3020170	G2 PILE CAP: Remove formwork & Waterproof	0	2	14/12/02	16/12/02
CH3020180	G2 PILE CAP: Backfill	0	2	17/12/02	18/12/02
CH3020190	G2 PILE CAP: Remove the sheet Piles	0	2	19/12/02	20/12/02
G1: Pier G2 Column (Type C3 hollow)					
CH3025100	G2: 1st Column Lift	0	4	21/12/02	27/12/02
CH3025110	G2: 2nd Column Lift	0	4	28/12/02	02/01/03
CH3025120	G2: 3rd Column Lift	0	4	03/01/03	07/01/03
CH3025122	G2: 4th Column Lift	0	4	08/01/03	11/01/03
CH3025124	G2: 5th Column Lift	0	4	13/01/03	16/01/03
G1: Pier G2: Crosshead (Type H5)					
CH3030100	G2: Erect working platform & support brackets	0	2	17/01/03	18/01/03
BRIDGE G1: PIER G3 - STAGE 1A					
G1: Pier G3 SI Pre-Drilling					
CH3045110	G3: Prepare & Submit SI report	94	2	02/09/02A	22/10/02
CH3045120	G3: Approval SI Report	0	2	23/10/02	24/10/02
G1: Pier G3: Bored Piling					
CH3050100	G3: 1st Bored Pile	0	5	26/10/02	31/10/02
CH3050110	G3: 1st Interface core test	0	1	09/11/02	09/11/02
CH3050120	G3: 2nd Bored Pile	0	5	02/11/02	07/11/02
CH3050130	G3: 2nd Interface core test	0	1	16/11/02	16/11/02
CH3050140	G3: 3rd Bored Pile	0	5	09/11/02	14/11/02
CH3050150	G3: 3rd Interface core test	0	1	23/11/02	23/11/02
CH3050160	G3: 4th Bored Pile	0	5	16/11/02	21/11/02
CH3050170	G3: 4th Interface core test	0	1	30/11/02	30/11/02
CH3050180	G3: Sonic test	0	1	30/11/02	30/11/02
G1: Pier G3 Pile Cap					
CH3055100	G3 PILE CAP: Sheet Pile driving	0	2	22/11/02	23/11/02
CH3055110	G3 PILE CAP: Excavate & shoring support	0	3	25/11/02	27/11/02
CH3055120	G3 PILE CAP: Cut Pile head	0	4	02/12/02	05/12/02
CH3055130	G3 PILE CAP: Lay blinding layer	0	1	05/12/02	05/12/02
CH3055140	G3 PILE CAP: Formwork erection	0	1	06/12/02	06/12/02



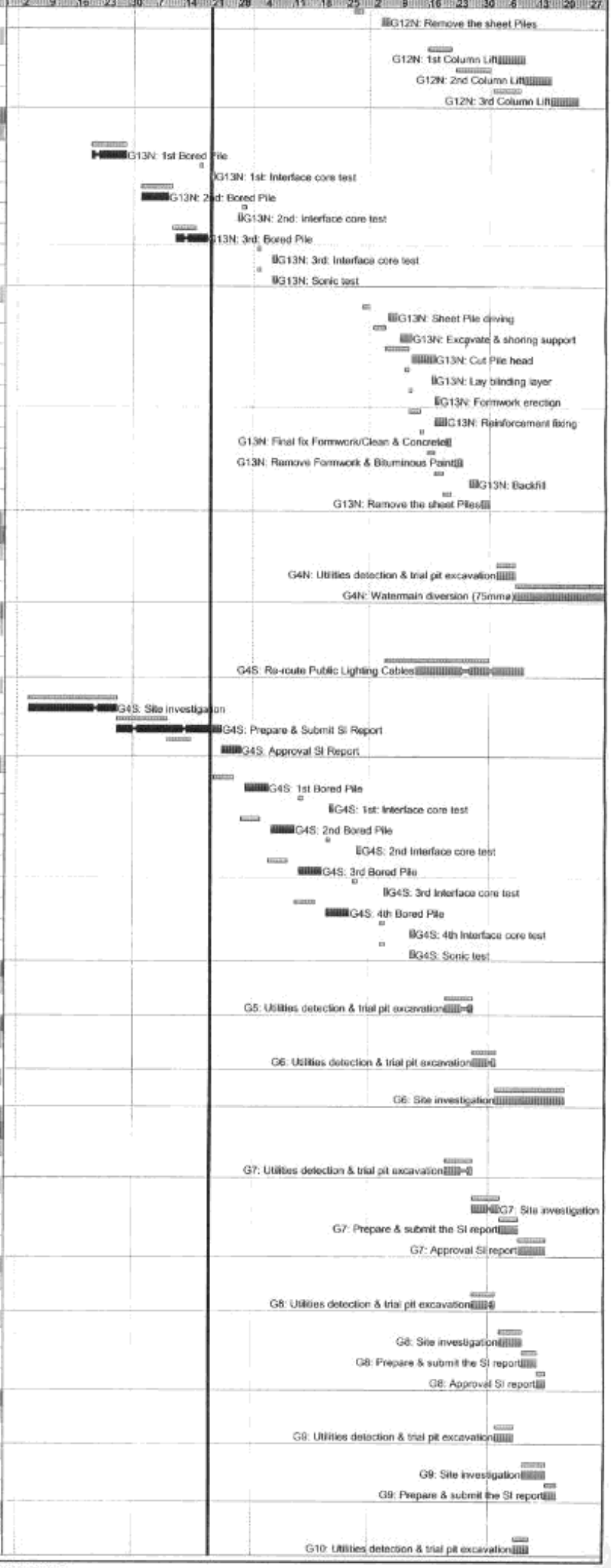
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
CH3055150	G3 PILE CAP: Reinforcement fixing	0	3	06/12/02	09/12/02
CH3055160	G3 PILE CAP: Final fix Formwork/Clean & Concrete	0	1	10/12/02	10/12/02
CH3055170	G3 PILE CAP: Strike Formwork & Waterproof	0	2	11/12/02	12/12/02
CH3055180	G3 PILE CAP: Backfill	0	2	13/12/02	14/12/02
CH3055190	G3 PILE CAP: Remove the sheet Piles	0	2	16/12/02	17/12/02
G3: Pier G3 Column (Type C3S solid)					
CH3060100	G3: 1st Column Lift	0	4	18/12/02	21/12/02
CH3060110	G3: 2nd Column Lift	0	4	23/12/02	28/12/02
CH3060120	G3: 3rd Column Lift	0	4	30/12/02	03/01/03
CH3060125	G3: 4th Column Lift	0	4	04/01/03	08/01/03
G3: Pier G3 Crosshead (Type H-C)					
CH3065100	G3: Erect working platform & support brackets	0	4	09/01/03	13/01/03
CH3065110	G3: Erect soffit formwork	0	5	14/01/03	18/01/03
CONSTRUCT BRIDGE G2 - STAGE 1A WORKS					
BRIDGE G2: PIER G12S					
G2: Pier G12S Bored Piling					
CH3480110	G12S: 1st: Interface core test	100	1	28/09/02A	28/09/02A
CH3480130	G12S: 2nd: Interface core test	100	1	30/09/02A	30/09/02A
G2: Pier G12S Pile Cap					
CH2485100	G12S PILE CAP: Sheet Pile driving	0	2	11/10/02A	25/10/02
CH2485110	G12S PILE CAP: Excavate & shoring support	0	3	26/10/02	29/10/02
CH2485120	G12S PILE CAP: Cut Pile head	0	5	30/10/02	04/11/02
CH2485130	G12S PILE CAP: Lay blinding layer	0	1	04/11/02	04/11/02
CH2485140	G12S PILE CAP: Formwork erection	0	1	05/11/02	05/11/02
CH2485150	G12S PILE CAP: Reinforcement fixing	0	3	05/11/02	07/11/02
CH2485160	G12S PILE CAP: Final fix Formwork/Clean/Concrete	0	1	08/11/02	08/11/02
CH2485170	G12S PILE CAP: Strike Formwork & Waterproof	0	2	09/11/02	11/11/02
CH2485180	G12S PILE CAP: Backfill	0	2	12/11/02	13/11/02
CH2485190	G12S PILE CAP: Remove the sheet Piles	0	2	14/11/02	15/11/02
G2: Pier G12S Column (Type C3)					
CH3490100	G12S: 1st Column Lift	0	6	19/11/02*	25/11/02
CH3490110	G12S: 2nd Column Lift	0	6	26/11/02	02/12/02
CH3490120	G12S: 3rd Column Lift	0	6	03/12/02	09/12/02
BRIDGE G2: PIER G13S					
G2: Pier G13S Bored Piling					
CH3545110	G13S: 1st: Interface core test	100	1	02/10/02A	02/10/02A
CH3545130	G13S: 2nd: Interface core test	100	1	04/10/02A	04/10/02A
G2: Pier G13S Pile Cap					
CH3550100	G13S PILE CAP: Sheet Pile driving	0	2	21/10/02	22/10/02
CH3550110	G13S PILE CAP: Excavate & shoring support	0	3	23/10/02	25/10/02
CH3550120	G13S PILE CAP: Cut Pile head	0	5	26/10/02	31/10/02
CH3550130	G13S PILE CAP: Lay blinding layer	0	1	31/10/02	31/10/02
CH3550140	G13S PILE CAP: Formwork erection	0	1	01/11/02	01/11/02
CH3550150	G13S PILE CAP: Reinforcement fixing	0	3	01/11/02	04/11/02
CH3550160	G13S PILE CAP: Final fix Formwork/Clean/Concrete	0	1	05/11/02	05/11/02
CH3550170	G13S PILE CAP: Strike Formwork & Waterproof	0	2	06/11/02	07/11/02
CH3550180	G13S PILE CAP: Backfill	0	2	08/11/02	09/11/02
CH3550190	G13S PILE CAP: Remove Sheet Piles	0	2	11/11/02	12/11/02
G2: Pier G13S Column (Type C3)					
CH3555100	G13S: 1st Column Lift	0	6	10/12/02	16/12/02
CH3555110	G13S: 2nd Column Lift	0	6	17/12/02	23/12/02
CH3555120	G13S: 3rd Column Lift	0	6	24/12/02	02/01/03
CONSTARUCT BRIDGE H2 - STAGE 1A WORKS					
BRIDGE H2: PIER H9N - STAGE 1A					
H2: Pier H9N SI Pre-Drilling					
CH4335100	H9N: Site investigation Pre-drilling	66	10	23/09/02A	31/10/02
CH4335110	H9N: Prepare & Submit SI Report	0	4	01/11/02	05/11/02
CH4335120	H9N: Approval SI report	0	6	06/11/02	12/11/02
H2: Pier H9N Bored Piling					
CH4340100	H9N: 1st: Bored Pile	0	5	16/12/02	20/12/02
CH4340110	H9N: 1st: Interface core test	0	1	02/01/03	02/01/03
CH4340120	H9N: 2nd: Bored Pile	0	5	21/12/02	28/12/02
CH4340130	H9N: 2nd: Interface core test	0	1	08/01/03	08/01/03
CH4340140	H9N: 3rd: Bored Pile	0	5	30/12/02	04/01/03
CH4340150	H9N: 3rd: Interface core test	0	1	14/01/03	14/01/03
CH4340160	H9N: Sonic test	0	1	14/01/03	14/01/03
H2: Pier H9N Pile Cap					
CH4345100	H9N PILE CAP: Sheet Pile driving	0	2	06/01/03	07/01/03
CH4345110	H9N PILE CAP: Excavate & shoring support	0	3	08/01/03	10/01/03
CH4345120	H9N PILE CAP: Cut Pile head	0	4	15/01/03	18/01/03
CH4345130	H9N PILE CAP: Lay blinding layer	0	1	18/01/03	18/01/03
CONSTRUCT BRIDGE ML15 - STAGE 1A WORKS					
BRIDGE ML15: PIER SB42					
ML15: Pier SB42 SI Pre-Drilling					
CH6888100	SB42: Pre-drilling SB42-1/2/3/4	100	50	18/09/02A	30/09/02A
CH6888110	SB42: Prepare & Submit SI report	0	4	02/10/02A	24/10/02
CH6888120	SB42: Approval SI Report	0	6	25/10/02	31/10/02



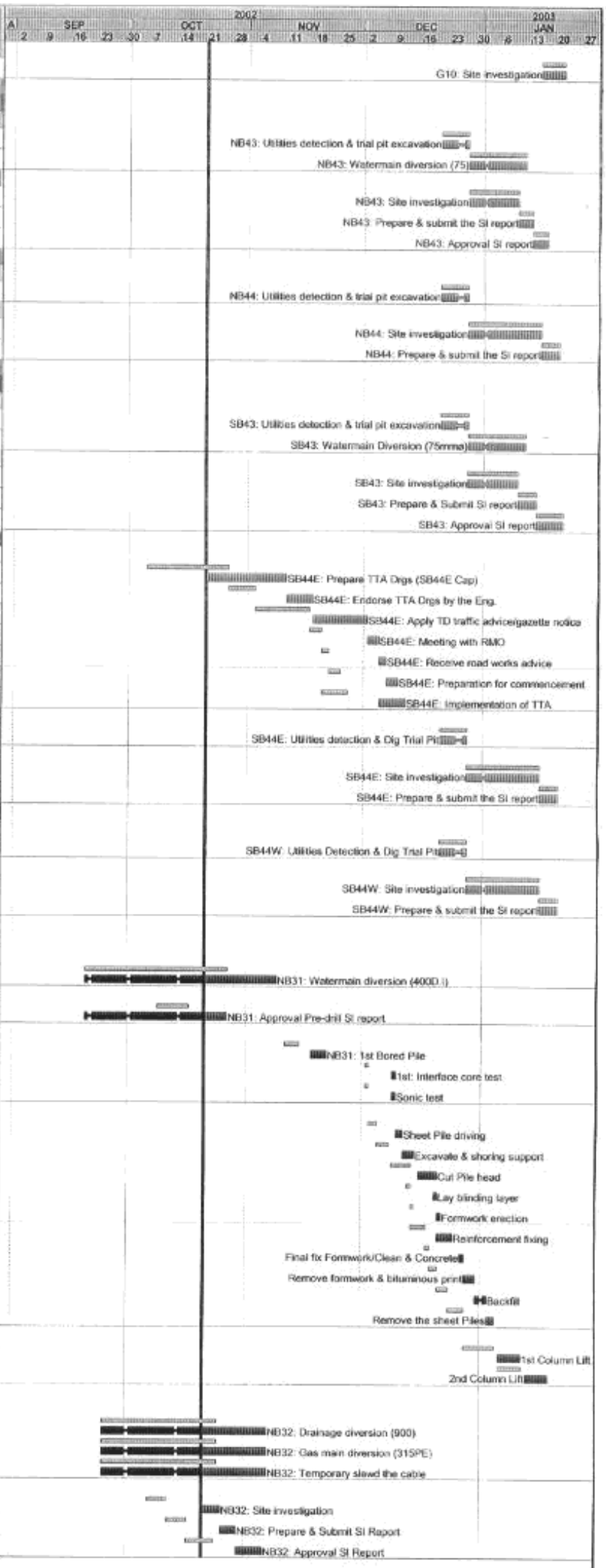
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
ML15: Pier SB42 Bored Piling					
CH6891100	SB42: 1st Bored Pile	0	5	22/11/02	27/11/02
CH6891110	SB42: 1st Interface core test	0	1	06/12/02	06/12/02
CH6891120	SB42: 2nd Bored Pile	0	5	28/11/02	03/12/02
CH6891130	SB42: 2nd Interface core test	0	1	12/12/02	12/12/02
CH6891140	SB42: 3rd Bored Pile	0	5	04/12/02	09/12/02
CH6891150	SB42: 3rd Interface core test	0	1	18/12/02	18/12/02
CH6891160	SB42: 4th Bored Pile	0	5	10/12/02	14/12/02
CH6891170	SB42: 4th Interface core test	0	1	24/12/02	24/12/02
CH6891180	SB42: Sonic test	0	1	24/12/02	24/12/02
ML15: Pier SB42 Pile Cap					
CH6894100	SB42 PILE CAP: Sheet Pile driving	0	2	16/12/02	17/12/02
CH6894110	SB42 PILE CAP: Excavate & shoring support	0	3	18/12/02	20/12/02
CH6894120	SB42 PILE CAP: Cut Pile head	0	3	27/12/02	30/12/02
CH6894130	SB42 PILE CAP: Lay blinding layer	0	1	30/12/02	30/12/02
CH6894140	SB42 PILE CAP: Formwork erection	0	1	31/12/02	31/12/02
CH6894150	SB42 PILE CAP: Reinforcement fixing	0	3	31/12/02	03/01/03
CH6894160	SB42 PILE CAPFinal fix Formwork/Clean & Concrete	0	1	04/01/03	04/01/03
CH6894170	SB42 PILE CAP:Strike Formwork & Bituminous Paint	0	2	05/01/03	07/01/03
CH6894180	SB42 PILE CAP: Backfill within Sheet Piles	0	2	08/01/03	09/01/03
CH6894190	SB42 PILE CAP:Remove Sheet Piles Around Pile	0	2	10/01/03	11/01/03
ML15: Pier SB42 Column (Type C3S Solid)					
CH6897100	SB42: 1st Column Lift	0	4	13/01/03	16/01/03
CH6897110	SB42: 2nd Column Lift	0	4	17/01/03	21/01/03
CONSTRUCT BRIDGE ML16 - STAGE 1A WORKS					
BRIDGE ML16: PIER NB42					
ML16: Pier NB42 SI Pre-Drilling					
CH7002101	NB42: Pre-drilling NB42-3 & 4	100	10	18/09/02A	28/09/02A
CH7002110	NB42: Prepare & Submit SI report	20	2	30/09/02A	22/10/02
CH7002120	NB42: Approval SI Report	0	3	23/10/02	25/10/02
ML16: Pier NB42 Bored Piling					
CH7005100	NB42: 1st: Bored Pile	0	5	28/10/02	31/10/02
CH7005110	NB42: 1st: Interface core test	0	1	09/11/02	09/11/02
CH7005120	NB42: 2nd: Bored Pile	0	5	02/11/02	07/11/02
CH7005130	NB42: 2nd: Interface core test	0	1	16/11/02	16/11/02
CH7005140	NB42: 3rd: Bored Pile	0	5	09/11/02	14/11/02
CH7005150	NB42: 3rd: Interface core test	0	1	23/11/02	23/11/02
CH7005160	NB42: 4th: Bored Pile	0	5	16/11/02	21/11/02
CH7005170	NB42: 4th: Interface core test	0	1	30/11/02	30/11/02
CH7005180	NB42: Sonic test	0	1	30/11/02	30/11/02
ML16: Pier NB42 Pile Cap					
CH7008100	NB42 PILE CAP: Sheet Pile driving	0	2	22/11/02	23/11/02
CH7008110	NB42 PILE CAP: Excavate & shoring support	0	3	25/11/02	27/11/02
CH7008120	NB42 PILE CAP: Cut Pile head	0	5	02/12/02	06/12/02
CH7008130	NB42 PILE CAP: Lay blinding layer	0	1	06/12/02	06/12/02
CH7008140	NB42 PILE CAP: Formwork erection	0	1	07/12/02	07/12/02
CH7008150	NB42 PILE CAP: Reinforcement fixing	0	3	07/12/02	10/12/02
CH7008160	NB42 PILE CAP: Final Fix F'work/Clean & Concrete	0	1	11/12/02	11/12/02
CH7008170	NB42 PILE CAP: Strike Formwork & Waterproof	0	2	12/12/02	13/12/02
CH7008180	NB42 PILE CAP: Backfill	0	2	14/12/02	16/12/02
CH7008190	NB42 PILE CAP: Remove Sheet Piles	0	2	17/12/02	18/12/02
ML16: Pier NB42 Column (Type C3 Hollow)					
CH7011100	NB42: 1st Column Lift	0	4	19/12/02	23/12/02
CH7011110	NB42: 2nd Column Lift	0	4	24/12/02	30/12/02
CH7011120	NB42: 3rd Column Lift	0	4	31/12/02	04/01/03
CH7011122	NB42: 4th Column Lift	0	4	06/01/03	09/01/03
CH7011124	NB42: 5th Column Lift	0	4	10/01/03	14/01/03
CONTRUCT BRIDGE G2 - STAGE 1 WORKS					
BRIDGE G2: PIER G12N					
G2: Pier G12N Bored Piling					
CH3450100	G12N: 1st: Bored Pile	100	4	27/09/02A	04/10/02A
CH3450110	G12N: 1st: Interface core test	0	1	23/10/02	23/10/02
CH3450120	G12N: 2nd: Bored Pile	100	4	08/10/02A	12/10/02A
CH3450130	G12N: 2nd: Interface core test	0	1	31/10/02	31/10/02
CH3450140	G12N: 3rd: Bored Pile	0	4	18/10/02A	24/10/02
CH3450150	G12N: 3rd: Interface core test	0	1	11/11/02	11/11/02
CH3450180	G12N: Sonic test	0	1	11/11/02	11/11/02
G2: Pier G12N Pile Cap					
CH3455100	G12N: Sheet Pile driving	0	2	13/11/02	14/11/02
CH3455110	G12N: Excavate & shoring support	0	3	15/11/02	18/11/02
CH3455120	G12N: Cut Pile head	0	5	19/11/02	23/11/02
CH3455130	G12N: Lay blinding layer	0	1	23/11/02	23/11/02
CH3455140	G12N: Formwork erection	0	1	25/11/02	25/11/02
CH3455150	G12N: Reinforcement fixing	0	3	25/11/02	27/11/02
CH3455160	G12N: Final fix Formwork/Clean & Concrete	0	1	28/11/02	28/11/02
CH3455170	G12N: Remove Formwork & Bituminous Paint	0	2	29/11/02	30/11/02
CH3455180	G12N: Backfill	0	2	02/12/02	03/12/02



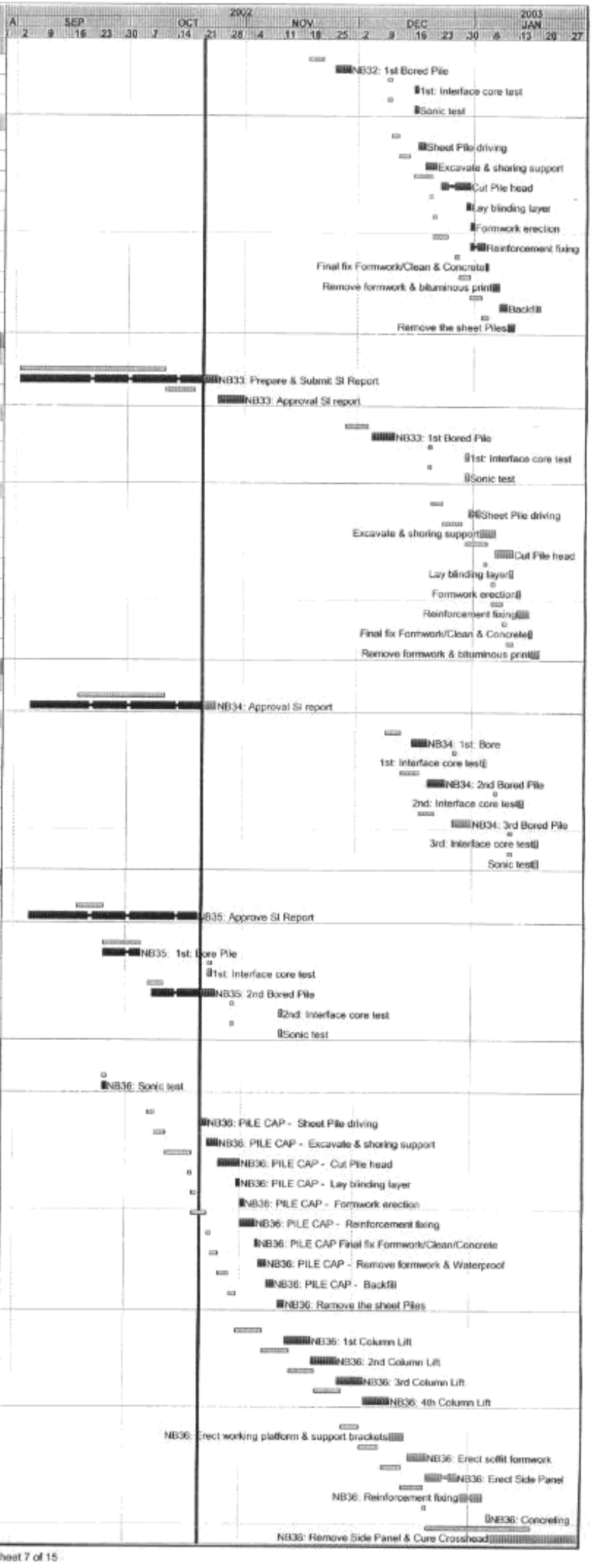
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
CH3455100	G12N: Remove the sheet Piles	0	2	04/12/02	05/12/02
G2: Pier G12N Column (Type C5)					
CH3460100	G12N: 1st Column Lift	0	6	03/01/03	09/01/03
CH3460110	G12N: 2nd Column Lift	0	6	10/01/03	16/01/03
CH3460120	G12N: 3rd Column Lift	0	6	17/01/03	23/01/03
BRIDGE G2: PIER G13N					
G2: Pier G13N Bored Piling					
CH3515100	G13N: 1st Bored Pile	100	4	20/09/02A	26/09/02A
CH3515110	G13N: 1st: Interface core test	0	1	21/10/02	21/10/02
CH3515120	G13N: 2nd: Bored Pile	100	4	03/10/02A	09/10/02A
CH3515130	G13N: 2nd: Interface core test	0	1	28/10/02	28/10/02
CH3515140	G13N: 3rd: Bored Pile	100	4	12/10/02A	19/10/02A
CH3515150	G13N: 3rd: Interface core test	0	1	06/11/02	06/11/02
CH3515160	G13N: Sonic test	0	1	06/11/02	06/11/02
G2: Pier G13N Pile Cap					
CH3520100	G13N: Sheet Pile driving	0	2	06/12/02	07/12/02
CH3520110	G13N: Excavate & shoring support	0	3	09/12/02	11/12/02
CH3520120	G13N: Cut Pile head	0	5	12/12/02	17/12/02
CH3520130	G13N: Lay blinding layer	0	1	17/12/02	17/12/02
CH3520140	G13N: Formwork erection	0	1	18/12/02	18/12/02
CH3520150	G13N: Reinforcement fixing	0	3	18/12/02	20/12/02
CH3520160	G13N: Final fix Formwork/Clean & Concrete	0	1	21/12/02	21/12/02
CH3520170	G13N: Remove Formwork & Bituminous Paint	0	2	23/12/02	24/12/02
CH3520180	G13N: Backfill	0	2	27/12/02	28/12/02
CH3520190	G13N: Remove the sheet Piles	0	2	30/12/02	31/12/02
CONSTRUCT BRIDGE G1 - STAGE 2 WORKS					
BRIDGE G1: PIER G4N (04/176)					
G1: Pier G4N Utilities & Services Diversions					
CH3075100	G4N: Utilities detection & trial pit excavation	0	4	03/01/03	07/01/03
CH3105110	G4N: Watermain diversion (75mma)	0	21	08/01/03	31/01/03
BRIDGE G1: PIER G4S (04/176)					
G1: Pier G4S Utilities & Services Diversions					
CH3105100	G4S: Utilities Detection & Dig Trial Pit	100	4	19/08/02A	
CH3105101	G4S: Re-route Public Lighting Cables	0	21	13/12/02	09/01/03
G1: Pier G4S SI Pre-Drilling					
CH3110100	G4S: Site investigation	100	12	04/09/02A	26/09/02A
CH3110110	G4S: Prepare & Submit SI Report	0	3	27/09/02A	23/10/02
CH3110120	G4S: Approval SI Report	0	4	24/10/02	28/10/02
G1: Pier G4S Bored Piling					
CH3115100	G4S: 1st Bored Pile	0	5	30/10/02	04/11/02
CH3115110	G4S: 1st: Interface core test	0	1	21/11/02	21/11/02
CH3115120	G4S: 2nd Bored Pile	0	5	05/11/02	11/11/02
CH3115130	G4S: 2nd Interface core test	0	1	25/11/02	25/11/02
CH3115140	G4S: 3rd Bored Pile	0	5	13/11/02	18/11/02
CH3115150	G4S: 3rd Interface core test	0	1	05/12/02	05/12/02
CH3115160	G4S: 4th Bored Pile	0	5	20/11/02	25/11/02
CH3115170	G4S: 4th Interface core test	0	1	12/12/02	12/12/02
CH3115180	G4S: Sonic test	0	1	12/12/02	12/12/02
BRIDGE G1: PIER G5					
G1: Pier G5 Utilities & Services Diversions					
CH3140100	G5: Utilities detection & trial pit excavation	0	4	21/12/02	27/12/02
BRIDGE G1: PIER G6					
G1: Pier G6 Utilities & Services Diversions					
CH3175100	G6: Utilities detection & trial pit excavation	0	4	28/12/02	02/01/03
G1: Pier G3 SI Pre-Drilling					
CH3180100	G6: Site investigation	0	15	03/01/03	20/01/03
CONSTRUCT BRIDGE G2 - STAGE 2 WORKS					
BRIDGE G2: PIER G7					
G2: Pier G7 Utilities & Services Diversions					
CH3265100	G7: Utilities detection & trial pit excavation	0	4	21/12/02	27/12/02
G2: Pier G7 SI Pre-Drilling					
CH3270100	G7: Site investigation	0	5	28/12/02	03/01/03
CH3270110	G7: Prepare & submit the SI report	0	4	04/01/03	08/01/03
CH3270120	G7: Approval SI report	0	6	09/01/03	15/01/03
BRIDGE G2: PIER G8 (Type C5/H5 solid)					
G2: Pier G3 Utilities & Services Diversions					
CH3300100	G8: Utilities detection & trial pit excavation	0	4	28/12/02	02/01/03
G2: Pier G3 SI Pre-Drilling					
CH3305100	G8: Site investigation	0	5	04/01/03	09/01/03
CH3305110	G8: Prepare & submit the SI report	0	3	10/01/03	13/01/03
CH3305120	G8: Approval SI report	0	2	14/01/03	15/01/03
BRIDGE G2: PIER G9 (Type C5/H5 solid)					
G2: Pier G3 Utilities & Services Diversions					
CH3335100	G9: Utilities detection & trial pit excavation	0	4	03/01/03	07/01/03
G2: Pier G3 SI Pre-Drilling					
CH3340100	G9: Site investigation	0	5	10/01/03	15/01/03
CH3340110	G9: Prepare & submit the SI report	0	3	16/01/03	18/01/03
BRIDGE G2: PIER G10 (Type C5/H5 solid)					
G2: Pier G10 Utilities & Services Diversions					
CH3370100	G10: Utilities detection & trial pit excavation	0	4	08/01/03	11/01/03



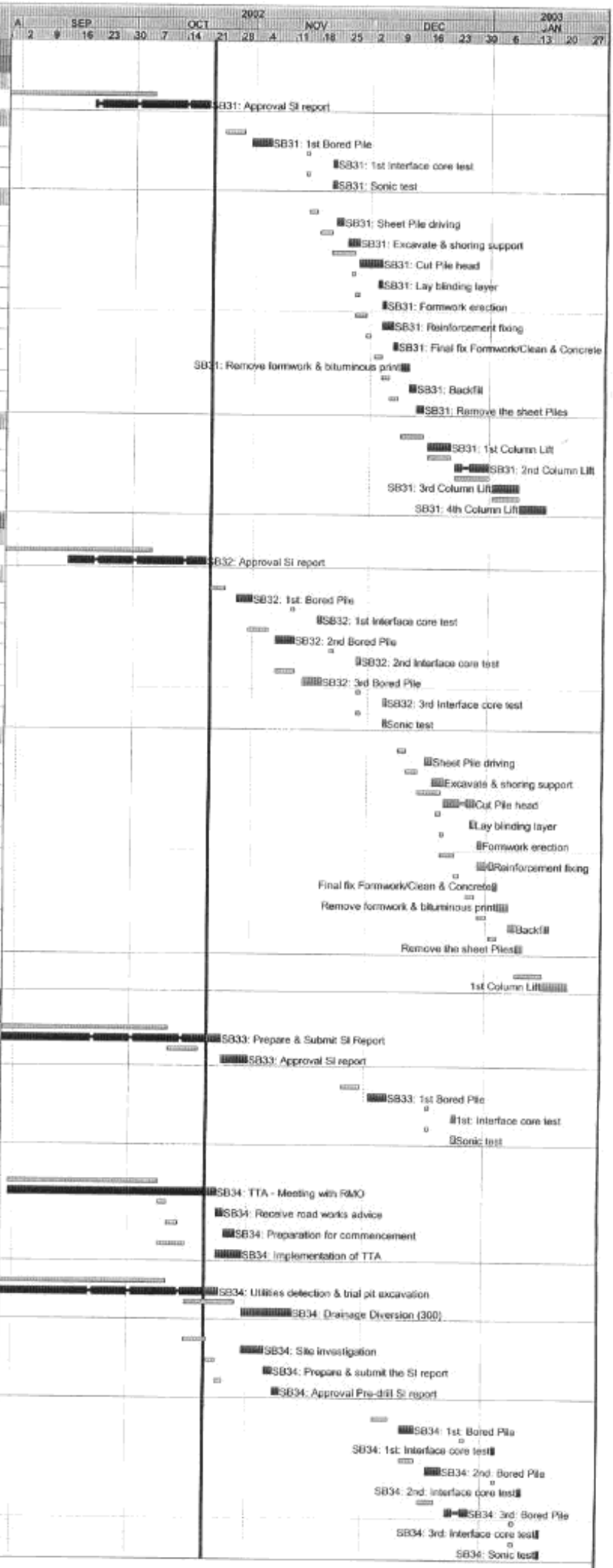
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
G2: Pier G10 SI Pre-Drilling					
CH3375100	G10: Site investigation	0	5	16/01/03	21/01/03
CONSTRUCT BRIDGE ML16 - STAGE 2 WORKS					
BRIDGE ML16: PIER NB43					
ML16: Pier NB43 Utilities & Services Diversions					
CH7020100	NB43: Utilities detection & trial pit excavation	0	4	21/12/02	27/12/02
CH7020110	NB43: Watermain diversion (75)	0	12	28/12/02	11/01/03
ML16: Pier NB43 SI Pre-Drilling					
CH7023100	NB43: Site investigation	0	10	28/12/02	09/01/03
CH7023110	NB43: Prepare & submit the SI report	0	3	10/01/03	13/01/03
CH7023120	NB43: Approval SI report	0	4	14/01/03	17/01/03
BRIDGE ML16: PIER NB44					
ML16: Pier NB44 Utilities & Services Diversions					
CH7041100	NB44: Utilities detection & trial pit excavation	0	4	21/12/02	27/12/02
ML16: Pier NB44 SI Pre-Drilling					
CH7044100	NB44: Site investigation	0	15	28/12/02	15/01/03
CH7044110	NB44: Prepare & submit the SI report	0	4	16/01/03	20/01/03
CONSTRUCT BRIDGE ML15 - STAGE 2 WORKS					
BRIDGE ML15: PIER SB43					
ML15: Pier SB43 Utilities & Services Diversions					
CH6906100	SB43: Utilities detection & trial pit excavation	0	4	21/12/02	27/12/02
CH6906110	SB43: Watermain Diversion (75mmø)	0	12	28/12/02	11/01/03
ML15: Pier SB43 SI Pre-Drilling					
CH6909100	SB43: Site investigation	0	10	28/12/02	09/01/03
CH6909110	SB43: Prepare & Submit SI report	0	4	10/01/03	14/01/03
CH6909120	SB43: Approval SI report	0	6	15/01/03	21/01/03
BRIDGE ML15: PIER SB44E					
ML15: Pier SB44E TTA Implementation					
CH6924100	SB44E: Prepare TTA Drgs (SB44E Cap)	0	21	21/10/02*	10/11/02
CH6924110	SB44E: Endorse TTA Drgs by the Eng.	0	7	11/11/02	17/11/02
CH6924120	SB44E: Apply TD traffic advice/gazette notice	0	14	18/11/02	01/12/02
CH6924130	SB44E: Meeting with RMO	0	3	02/12/02	04/12/02
CH6924140	SB44E: Receive road works advice	0	2	05/12/02	06/12/02
CH6924150	SB44E: Preparation for commencement	0	3	07/12/02	09/12/02
CH6924160	SB44E: Implementation of TTA	0	7	05/12/02	11/12/02
ML15: Pier SB44E Utilities & Services Diversions					
CH6927100	SB44E: Utilities detection & Dig Trial Pit	0	4	21/12/02	27/12/02
ML15: Pier SB44E SI Pre-Drilling					
CH6930100	SB44E: Site investigation	0	15	28/12/02	15/01/03
CH6930110	SB44E: Prepare & submit the SI report	0	4	16/01/03	20/01/03
BRIDGE ML15: PIER SB44W					
ML15: Pier SB44W Utilities & Services Diversions					
CH6945100	SB44W: Utilities Detection & Dig Trial Pit	0	4	21/12/02	27/12/02
ML15: Pier SB44W SI Pre-Drilling					
CH6948100	SB44W: Site investigation	0	15	28/12/02	15/01/03
CH6948110	SB44W: Prepare & submit the SI report	0	4	16/01/03	20/01/03
CONSTRUCT BRIDGE ML12					
BRIDGE ML12: PIER NB31					
ML12: Pier NB31 Utilities & Services Diversions					
CH6408110	NB31: Watermain diversion (400D.I)	25	27	20/09/02A	08/11/02
ML12: Pier NB31 SI Pre-Drilling					
CH6411120	NB31: Approval Pre-drill SI report	0	6	20/09/02A	26/10/02
ML12: Pier NB31 Bored Piling					
CH6414100	NB31: 1st Bored Pile	0	4	18/11/02	21/11/02
CH6414110	1st: Interface core test	0	1	09/12/02	09/12/02
CH6414180	Sonic test	0	1	09/12/02	09/12/02
ML12: Pier NB31 Pile Cap					
CH6417100	Sheet Pile driving	0	2	10/12/02	11/12/02
CH6417110	Excavate & shoring support	0	3	12/12/02	14/12/02
CH6417120	Cut Pile head	0	5	16/12/02	20/12/02
CH6417130	Lay blinding layer	0	1	20/12/02	20/12/02
CH6417140	Formwork erection	0	1	21/12/02	21/12/02
CH6417150	Reinforcement fixing	0	3	21/12/02	24/12/02
CH6417160	Final fix Formwork/Clean & Concrete	0	1	27/12/02	27/12/02
CH6417170	Remove formwork & bituminous print	0	2	28/12/02	30/12/02
CH6417180	Backfill	0	2	31/12/02	02/01/03
CH6417190	Remove the sheet Piles	0	2	03/01/03	04/01/03
ML12: Pier NB31 Column (Type C3/HEB Follow)					
CH6420100	1st Column Lift	0	6	06/01/03	11/01/03
CH6420110	2nd Column Lift	0	6	13/01/03	18/01/03
BRIDGE ML12: PIER NB32					
ML12: Pier NB32 Utilities & Services Diversions					
CH6429110	NB32: Drainage diversion (900)	10	25	25/09/02A	06/11/02
CH6429130	NB32: Gas main diversion (315PE)	10	25	25/09/02A	06/11/02
CH6429140	NB32: Temporary slewd the cable	50	21	25/09/02A	06/11/02
ML12: Pier NB32 SI Pre-Drilling					
CH6432100	NB32: Site investigation	0	5	21/10/02	25/10/02
CH6432110	NB32: Prepare & Submit SI Report	0	3	26/10/02	29/10/02
CH6432120	NB32: Approval SI Report	0	6	30/10/02	05/11/02



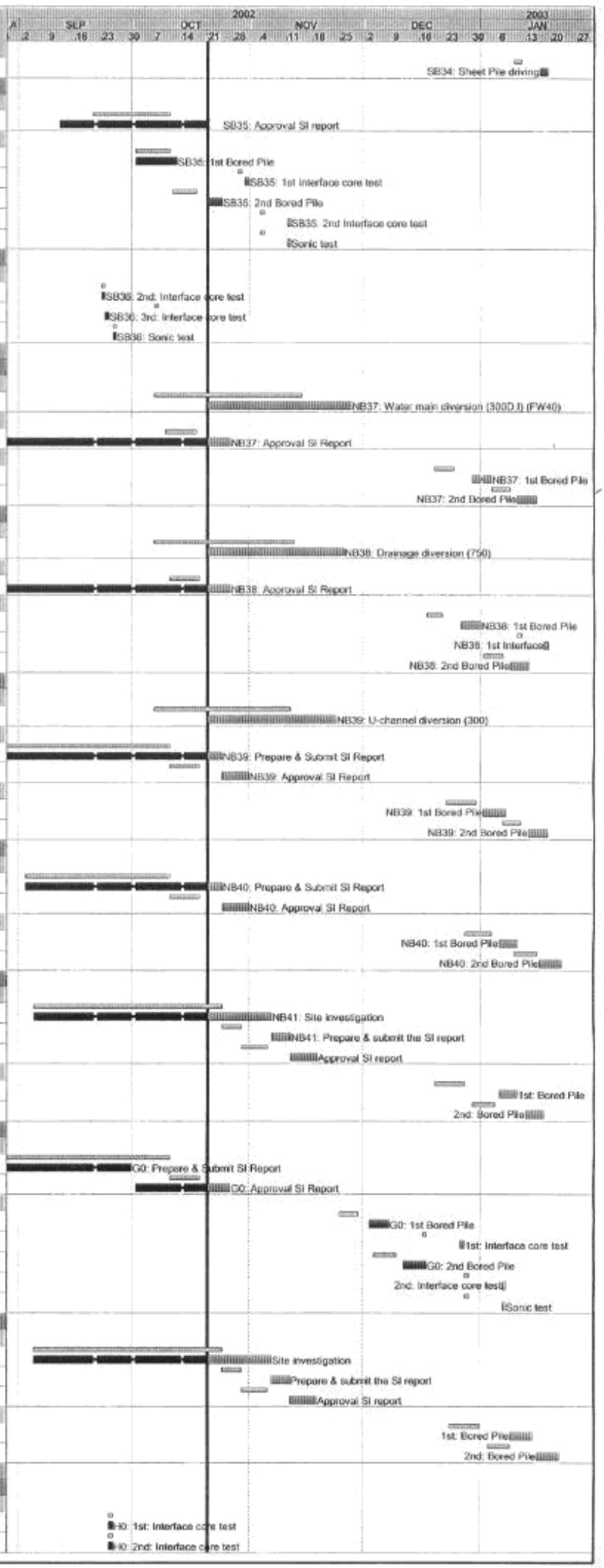
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
ML12: Pier NB32 Bored Piling					
CH6435100	NB32: 1st Bored Pile	0	4	25/11/02	28/11/02
CH6435110	1st: Interface core test	0	1	16/12/02	16/12/02
CH6435180	Sonic test	0	1	16/12/02	16/12/02
ML12: Pier NB32 Pile Cap					
CH6438100	Sheet Pile driving	0	2	17/12/02	18/12/02
CH6438110	Excavate & shoring support	0	3	19/12/02	21/12/02
CH6438120	Cut Pile head	0	5	23/12/02	30/12/02
CH6438130	Lay blinding layer	0	1	30/12/02	30/12/02
CH6438140	Formwork erection	0	1	31/12/02	31/12/02
CH6438150	Reinforcement fixing	0	3	31/12/02	03/01/03
CH6438160	Final fix Formwork/Clean & Concrete	0	1	04/01/03	04/01/03
CH6438170	Remove formwork & bituminous print	0	2	06/01/03	07/01/03
CH6438180	Backfill	0	2	08/01/03	09/01/03
CH6438190	Remove the sheet Piles	0	2	10/01/03	11/01/03
BRIDGE ML12: PIER NB33					
ML12: Pier NB33 SI Pre-Drilling					
CH6453110	NB33: Prepare & Submit SI Report	0	4	02/09/02A	24/10/02
CH6453120	NB33: Approval SI report	0	6	25/10/02	31/10/02
ML12: Pier NB33 Bored Piling					
CH6456100	NB33: 1st Bored Pile	0	5	05/12/02	10/12/02
CH6456110	1st: Interface core test	0	1	30/12/02	30/12/02
CH6456180	Sonic test	0	1	30/12/02	30/12/02
ML12: Pier NB33 Pile Cap					
CH6459100	Sheet Pile driving	0	2	31/12/02	02/01/03
CH6459110	Excavate & shoring support	0	3	03/01/03	06/01/03
CH6459120	Cut Pile head	0	5	07/01/03	11/01/03
CH6459130	Lay blinding layer	0	1	11/01/03	11/01/03
CH6459140	Formwork erection	0	1	13/01/03	13/01/03
CH6459150	Reinforcement fixing	0	3	13/01/03	15/01/03
CH6459160	Final fix Formwork/Clean & Concrete	0	1	16/01/03	16/01/03
CH6459170	Remove formwork & bituminous print	0	2	17/01/03	18/01/03
BRIDGE ML12: PIER NB34					
ML12: Pier NB34 SI Pre-Drilling					
CH6474120	NB34: Approval SI report	0	6	05/09/02A	24/10/02
ML12: Pier NB34 Bored Piling					
CH6477100	NB34: 1st: Bore	0	4	16/12/02	14/12/02
CH6477110	1st: Interface core test	0	1	04/01/03	04/01/03
CH6477120	NB34: 2nd Bored Pile	0	4	20/12/02	24/12/02
CH6477130	2nd: Interface core test	0	1	14/01/03	14/01/03
CH6477140	NB34: 3rd Bored Pile	0	4	27/12/02	31/12/02
CH6477150	3rd: Interface core test	0	1	18/01/03	18/01/03
CH6477180	Sonic test	0	1	18/01/03	18/01/03
BRIDGE ML12: PIER NB35(M)					
ML12: Pier NB35 SI Pre-Drilling					
CH6495120	NB35: Approve SI Report	0	6	05/09/02A	19/10/02
ML12: Pier NB35 Bored Piling					
CH6498100	NB35: 1st: Bore Pile	100	4	25/09/02A	04/10/02A
CH6498110	1st: Interface core test	0	1	23/10/02	23/10/02
CH6498140	NB35: 2nd Bored Pile	80	4	08/10/02A	24/10/02
CH6498150	2nd: Interface core test	0	1	11/11/02	11/11/02
CH6498180	Sonic test	0	1	11/11/02	11/11/02
BRIDGE ML12: PIER NB36(M)					
ML12: Pier NB36 Bored Piling					
CH6519180	NB36: Sonic test	100	1	25/09/02A	25/09/02A
ML12: Pier NB36 Pile Cap					
CH6522100	NB36: PILE CAP - Sheet Pile driving	0	2	21/10/02	22/10/02
CH6522110	NB36: PILE CAP - Excavate & shoring support	0	3	23/10/02	25/10/02
CH6522120	NB36: PILE CAP - Cut Pile head	0	5	26/10/02	31/10/02
CH6522130	NB36: PILE CAP - Lay blinding layer	0	1	31/10/02	31/10/02
CH6522140	NB36: PILE CAP - Formwork erection	0	1	01/11/02	01/11/02
CH6522150	NB36: PILE CAP - Reinforcement fixing	0	3	01/11/02	04/11/02
CH6522160	NB36: PILE CAP Final fix Formwork/Clean/Concrete	0	1	05/11/02	05/11/02
CH6522170	NB36: PILE CAP - Remove formwork & Waterproof	0	2	06/11/02	07/11/02
CH6522180	NB36: PILE CAP - Backfill	0	2	08/11/02	09/11/02
CH6522190	NB36: Remove the sheet Piles	0	2	11/11/02	12/11/02
ML12: Pier NB36 Column (Type CB/12M hollow)					
CH6525100	NB36: 1st Column Lift	0	6	13/11/02	19/11/02
CH6525110	NB36: 2nd Column Lift	0	6	20/11/02	26/11/02
CH6525120	NB36: 3rd Column Lift	0	6	27/11/02	03/12/02
CH6525125	NB36: 4th Column Lift	0	6	04/12/02	10/12/02
ML12: Crosshead NB36 (Type HJ08(M))					
CH6528100	NB36: Erect working platform & support brackets	0	4	11/12/02	14/12/02
CH6528110	NB36: Erect soffit formwork	0	5	16/12/02	20/12/02
CH6528120	NB36: Erect Side Panel	0	5	21/12/02	28/12/02
CH6528130	NB36: Reinforcement fixing	0	5	30/12/02	04/01/03
CH6528140	NB36: Concreting	0	1	06/01/03	06/01/03
CH6528150	NB36: Remove Side Panel & Cure Crosshead	0	28	07/01/03	03/02/03



Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
CONSTRUCT BRIDGE ML11					
BRIDGE ML11 PIER SB31					
ML11: Pier SB31 SI Pre-Drilling					
CH6264120	SB31: Approval SI report	0	6	20/09/02A	19/10/02
ML11: Pier SB31 Bored Piling					
CH6267140	SB31: 1st Bored Pile	0	4	31/10/02	04/11/02
CH6267150	SB31: 1st Interface core test	0	1	21/11/02	21/11/02
CH6267160	SB31: Sonic test	0	1	21/11/02	21/11/02
ML11: Pier SB31 Pile Cap					
CH6270100	SB31: Sheet Pile driving	0	2	22/11/02	23/11/02
CH6270110	SB31: Excavate & shoring support	0	3	25/11/02	27/11/02
CH6270120	SB31: Cut Pile head	0	5	28/11/02	03/12/02
CH6270130	SB31: Lay blinding layer	0	1	03/12/02	03/12/02
CH6270140	SB31: Formwork erection	0	1	04/12/02	04/12/02
CH6270150	SB31: Reinforcement fixing	0	3	04/12/02	06/12/02
CH6270160	SB31: Final fix Formwork/Clean & Concrete	0	1	07/12/02	07/12/02
CH6270170	SB31: Remove formwork & bituminous print	0	2	09/12/02	10/12/02
CH6270180	SB31: Backfill	0	2	11/12/02	12/12/02
CH6270190	SB31: Remove the sheet Piles	0	2	13/12/02	14/12/02
ML11: Pier SB31 Column (Type C3 / RS hollow)					
CH6273100	SB31: 1st Column Lift	0	6	16/12/02	21/12/02
CH6273110	SB31: 2nd Column Lift	0	6	23/12/02	31/12/02
CH6273120	SB31: 3rd Column Lift	0	6	02/01/03	08/01/03
CH6273125	SB31: 4th Column Lift	0	6	09/01/03	15/01/03
BRIDGE ML11 PIER SB32					
ML11: Pier SB32 SI Pre-Drilling					
CH6282120	SB32: Approval SI report	0	6	14/09/02A	19/10/02
ML11: Pier SB32 Bored Piling					
CH6285100	SB32: 1st: Bored Pile	0	4	28/10/02	31/10/02
CH6285110	SB32: 1st Interface core test	0	1	18/11/02	18/11/02
CH6285120	SB32: 2nd Bored Pile	0	4	07/11/02	11/11/02
CH6285130	SB32: 2nd Interface core test	0	1	28/11/02	28/11/02
CH6285160	SB32: 3rd Bored Pile	0	4	14/11/02	18/11/02
CH6285170	SB32: 3rd Interface core test	0	1	05/12/02	05/12/02
CH6285180	Sonic test	0	1	05/12/02	05/12/02
ML11: Pier SB32 Pile Cap					
CH6288100	Sheet Pile driving	0	2	16/12/02	17/12/02
CH6288110	Excavate & shoring support	0	3	18/12/02	20/12/02
CH6288120	Cut Pile head	0	5	21/12/02	28/12/02
CH6288130	Lay blinding layer	0	1	28/12/02	28/12/02
CH6288140	Formwork erection	0	1	30/12/02	30/12/02
CH6288150	Reinforcement fixing	0	3	30/12/02	02/01/03
CH6288160	Final fix Formwork/Clean & Concrete	0	1	03/01/03	03/01/03
CH6288170	Remove formwork & bituminous print	0	2	04/01/03	06/01/03
CH6288180	Backfill	0	2	07/01/03	08/01/03
CH6288190	Remove the sheet Piles	0	2	09/01/03	10/01/03
ML11: Pier SB32 Column (Type C3/Portal IN5B32 HX)					
CH6291100	1st Column Lift	0	6	16/01/03	22/01/03
BRIDGE ML11 PIER SB33					
ML11: Pier SB33 SI Pre-Drilling					
CH6300110	SB33: Prepare & Submit SI Report	0	4	27/08/02A	24/10/02
CH6300120	SB33: Approval SI report	0	6	25/10/02	31/10/02
ML11: Pier SB33 Bored Piling					
CH6303100	SB33: 1st Bored Pile	0	5	02/12/02	06/12/02
CH6303110	1st: Interface core test	0	1	24/12/02	24/12/02
CH6303180	Sonic test	0	1	24/12/02	24/12/02
BRIDGE ML11 PIER SB34					
ML11: Pier SB34 TTA Implementation					
CH6312130	SB34: TTA - Meeting with RMO	0	3	31/08/02A	23/10/02
CH6312140	SB34: Receive road works advice	0	2	24/10/02	25/10/02
CH6312150	SB34: Preparation for commencement	0	3	28/10/02	28/10/02
CH6312160	SB34: Implementation of TTA	0	7	24/10/02	30/10/02
ML11: Pier SB34 Utilities & Services Diversions					
CH6315100	SB34: Utilities detection & trial pit excavation	0	4	25/04/02A	24/10/02
CH6315110	SB34: Drainage Diversion (300)	0	11	31/10/02	12/11/02
ML11: Pier SB34 SI Pre-Drilling					
CH6318100	SB34: Site Investigation	0	5	31/10/02	05/11/02
CH6318110	SB34: Prepare & submit the SI report	0	2	06/11/02	07/11/02
CH6318120	SB34: Approval Pre-drill SI report	0	2	08/11/02	09/11/02
ML11: Pier SB34 Bored Piling					
CH6321100	SB34: 1st: Bored Pile	0	4	11/12/02	14/12/02
CH6321110	SB34: 1st: Interface core test	0	1	04/01/03	04/01/03
CH6321120	SB34: 2nd: Bored Pile	0	4	18/12/02	21/12/02
CH6321130	SB34: 2nd: Interface core test	0	1	11/01/03	11/01/03
CH6321140	SB34: 3rd: Bored Pile	0	4	23/12/02	28/12/02
CH6321150	SB34: 3rd: Interface core test	0	1	16/01/03	16/01/03
CH6321160	SB34: Sonic test	0	1	16/01/03	16/01/03

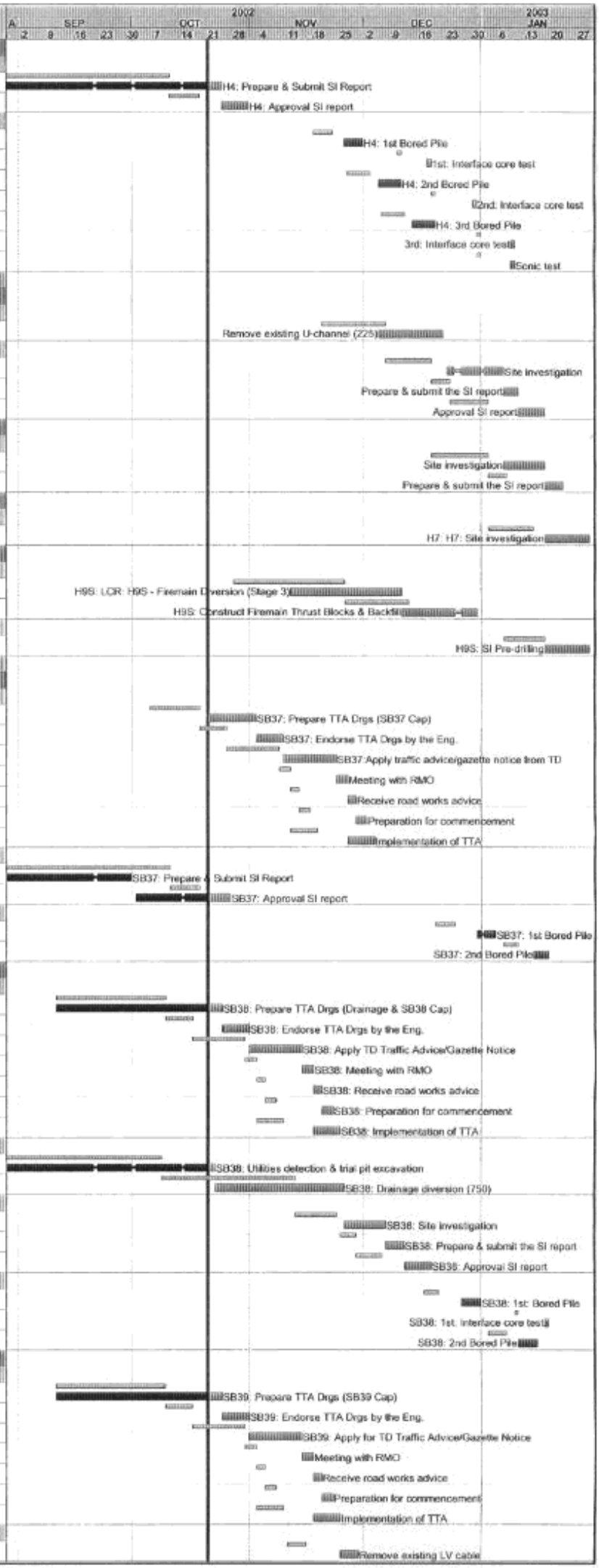


Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
ML11: Pier SB34 Pile Cap					
CH6324100	SB34: Sheet Pile driving	0	2	17/01/03	18/01/03
BRIDGE ML11: PIER SB35(M)					
ML11: Pier SB35 SI Pre-Drilling					
CH6336120	SB35: Approval SI report	0	6	12/09/02A	24/10/02
ML11: Pier SB35 Bored Piling					
CH6339100	SB35: 1st Bored Pile	100	4	02/10/02A	12/10/02A
CH6339110	SB35: 1st Interface core test	0	1	31/10/02	31/10/02
CH6339140	SB35: 2nd Bored Pile	0	4	21/10/02	24/10/02
CH6339150	SB35: 2nd Interface core test	0	1	11/11/02	11/11/02
CH6339180	Sonic test	0	1	11/11/02	11/11/02
BRIDGE ML11: PIER SB36(M)					
ML11: Pier SB36 Bored Piling					
CH6357130	SB36: 2nd: Interface core test	100	1	23/09/02A	23/09/02A
CH6357150	SB36: 3rd: Interface core test	100	1	24/09/02A	24/09/02A
CH6357180	SB36: Sonic test	100	1	26/09/02A	26/09/02A
CONSTRUCT BRIDGE ML14					
BRIDGE ML14: PIER NB37					
ML14: Pier NB37 Utilities & Services Diversions					
CH6684120	NB37: Water main diversion (300D.I) (FW40)	0	33	21/10/02	27/11/02
ML14: Pier NB37 SI Pre-Drilling					
CH6687120	NB37: Approval SI Report	0	6	17/08/02A	26/10/02
ML14: Pier NB37 Bored Piling					
CH6690100	NB37: 1st Bored Pile	0	4	30/12/02	03/01/03
CH6690120	NB37: 2nd Bored Pile	0	4	11/01/03	15/01/03
BRIDGE ML14: PIER NB38					
ML14: Pier NB38 Utilities & Services Diversions					
CH6705120	NB38: Drainage diversion (750)	0	31	21/10/02	25/11/02
ML14: Pier NB38 SI Pre-Drilling					
CH6708120	NB38: Approval SI Report	0	6	23/08/02A	26/10/02
ML14: Pier NB38 Bored Piling					
CH6711100	NB38: 1st Bored Pile	0	4	27/12/02	31/12/02
CH6711110	NB38: 1st Interface	0	1	18/01/03	18/01/03
CH6711120	NB38: 2nd Bored Pile	0	4	09/01/03	13/01/03
BRIDGE ML14: PIER NB39					
ML14: Pier NB39 Utilities & Services Diversions					
CH6726120	NB39: U-channel diversion (300)	0	30	21/10/02	23/11/02
ML14: Pier NB39 SI Pre-Drilling					
CH6729110	NB39: Prepare & Submit SI Report	0	4	17/08/02A	24/10/02
CH6729120	NB39: Approval SI Raport	0	6	25/10/02	31/10/02
ML14: Pier NB39 Bored Piling					
CH6732100	NB39: 1st Bored Pile	0	5	02/01/03	07/01/03
CH6732140	NB39: 2nd Bored Pile	0	5	14/01/03	18/01/03
BRIDGE ML14: PIER NB40					
ML14: Pier NB40 SI Pre-Drilling					
CH6750110	NB40: Prepare & Submit SI Report	0	4	03/09/02A	24/10/02
CH6750120	NB40: Approval SI Report	0	6	25/10/02	31/10/02
ML14: Pier NB40 Bored Piling					
CH6753100	NB40: 1st Bored Pile	0	5	06/01/03	10/01/03
CH6753140	NB40: 2nd Bored Pile	0	5	17/01/03	22/01/03
BRIDGE ML14: PIER NB41					
ML14: Pier NB41 SI Pre-Drilling					
CH6771100	NB41: Site investigation	50	15	05/09/02A	06/11/02
CH6771110	NB41: Prepare & submit the SI report	0	4	07/11/02	11/11/02
CH6771120	Approval SI report	0	6	12/11/02	18/11/02
ML14: Pier NB41 Bored Piling					
CH6774100	1st: Bored Pile	0	5	06/01/03	10/01/03
CH6774120	2nd: Bored Pile	0	5	13/01/03	17/01/03
BRIDGE ML14: PIER G0					
ML14: Pier G0 SI Pre-Drilling					
CH6792110	G0: Prepare & Submit SI Report	100	4	14/08/02A	30/09/02A
CH6792120	G0: Approval SI Report	0	6	02/10/02A	26/10/02
ML14: Pier G0 Bored Piling					
CH6795100	G0: 1st Bored Pile	0	5	03/12/02	07/12/02
CH6795110	1st: Interface core test	0	1	27/12/02	27/12/02
CH6795140	G0: 2nd Bored Pile	0	5	12/12/02	17/12/02
CH6795150	2nd: Interface core test	0	1	07/01/03	07/01/03
CH6795180	Sonic test	0	1	07/01/03	07/01/03
BRIDGE ML14: PIER G1(M)					
ML14: Pier G1(M) SI Pre-Drilling					
CH6813100	Site investigation	70	15	05/09/02A	06/11/02
CH6813110	Prepare & submit the SI report	0	4	07/11/02	11/11/02
CH6813120	Approval SI report	0	6	12/11/02	18/11/02
ML14: Pier G1(M) Bored Piling					
CH6816100	1st: Bored Pile	0	5	09/01/03	14/01/03
CH6816120	2nd: Bored Pile	0	5	16/01/03	21/01/03
CONSTRUCT BRIDGE H1					
BRIDGE H1: PIER H0					
H1: Pier H0 Bored Piling					
CH4015110	H0: 1st: Interface core test	100	1	25/09/02A	25/09/02A
CH4015130	H0: 2nd: Interface core test	100	1	25/09/02A	25/09/02A

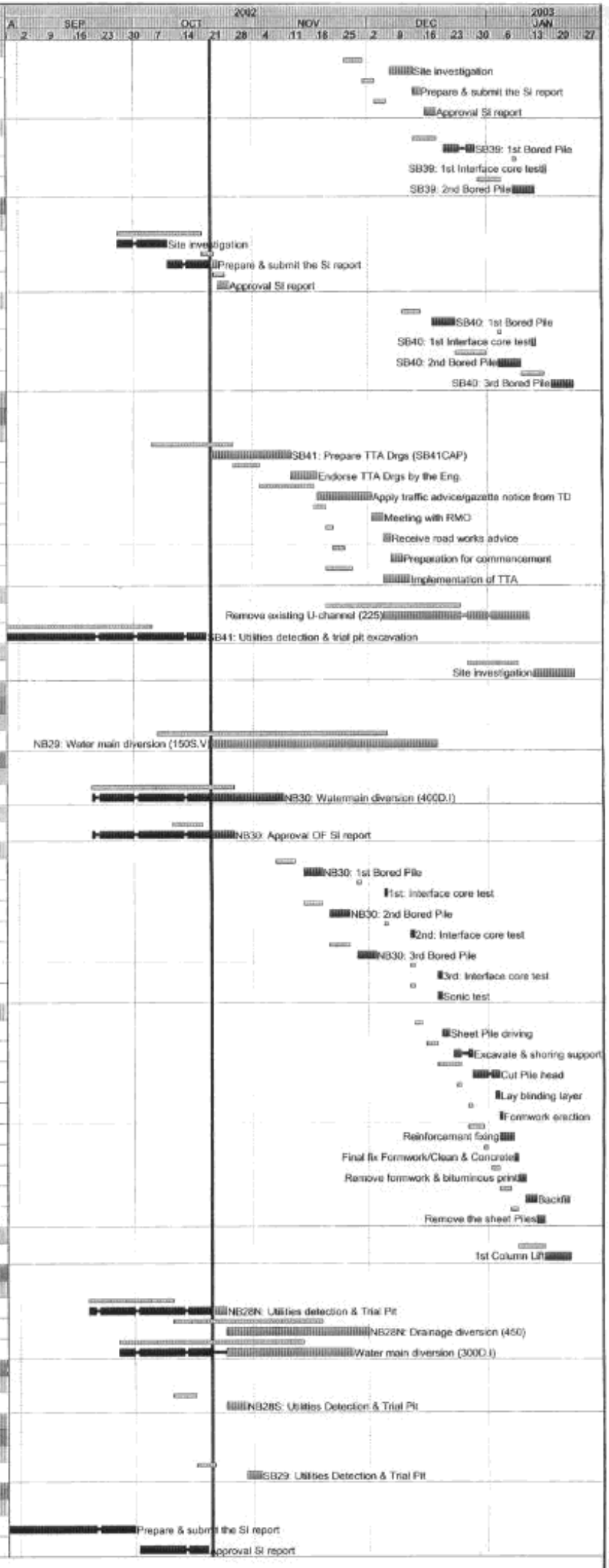


Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
CH4015150	H0: 3rd: Interface core test	100	1	26/09/02A	26/09/02A
H1: Pier H0 Pile Cap					
CH4020100	H0: PILE CAP - Sheet Pile driving	0	2	21/10/02	22/10/02
CH4020110	H0: PILE CAP - Excavate & shoring support	0	3	23/10/02	25/10/02
CH4020120	H0: PILE CAP - Cut Pile head	0	5	26/10/02	31/10/02
CH4020130	H0: PILE CAP - Lay blinding layer	0	1	31/10/02	31/10/02
CH4020140	H0: PILE CAP - Formwork erection	0	1	01/11/02	01/11/02
CH4020150	H0: PILE CAP - Reinforcement fixing	0	3	01/11/02	04/11/02
CH4020160	H0: PILE CAP - Final fix Formwork/Clean/Concrete	0	1	05/11/02	05/11/02
CH4020170	H0: PILE CAP - Remove Formwork & Waterproof	0	2	06/11/02	07/11/02
CH4020180	H0: Backfill	0	2	08/11/02	09/11/02
CH4020190	H0: Remove the sheet Piles	0	2	11/11/02	12/11/02
H1: Pier H0 Column (Type C3/T3M hollow)					
CH4025100	H0: 1st Column Lift	0	6	13/11/02	19/11/02
CH4025110	H0: 2nd Column Lift	0	6	20/11/02	26/11/02
CH4025120	H0: 3rd Column Lift	0	6	27/11/02	03/12/02
CH4025122	H0: 4th Column Lift	0	6	04/12/02	10/12/02
CH4025124	H0: 5th Column Lift	0	6	11/12/02	17/12/02
BRIDGE H1: PIER H1					
H1: Pier H1 Bored Piling					
CH4045130	H1: 2nd: Interface core test	100	1	23/09/02A	23/09/02A
CH4045150	H1: 3rd: Interface Core Test	100	1	24/09/02A	24/09/02A
CH4045180	H1: Sonic test	100	1	26/09/02A	27/09/02A
H1: Pier H1 Pile Cap					
CH4050100	H1: Sheet Pile driving	0	2	13/11/02	14/11/02
CH4050110	H1: Excavate & shoring support	0	3	15/11/02	18/11/02
CH4050120	H1: Cut Pile head	0	5	19/11/02	23/11/02
CH4050130	H1: Lay blinding layer	0	1	23/11/02	23/11/02
CH4050140	H1: Formwork erection	0	1	25/11/02	25/11/02
CH4050150	H1: Reinforcement fixing	0	3	25/11/02	27/11/02
CH4050160	H1: Final fix Formwork/Clean & Concrete	0	1	28/11/02	28/11/02
CH4050170	H1: Remove formwork & bituminous print	0	2	29/11/02	30/11/02
CH4050180	H1: Backfill	0	2	02/12/02	03/12/02
CH4050190	H1: Remove the sheet Piles	0	2	04/12/02	05/12/02
H1: Pier H1 Column (Type C3/T3 hollow)					
CH4055100	H1: 1st Column Lift	0	6	18/12/02	24/12/02
CH4055110	H1: 2nd Column Lift	0	6	27/12/02	03/01/03
CH4055120	H1: 3rd Column Lift	0	6	04/01/03	10/01/03
CH4055122	H1: 4th Column Lift	0	6	11/01/03	17/01/03
CH4055124	H1: 5th Column Lift	0	6	18/01/03	24/01/03
BRIDGE H1: PIER H2					
H1: Pier H2 Utilities & Services Diversions					
CH4065120	H2: Drainage Diversion (750MMe)	0	31	21/10/02*	25/11/02
H1: Pier H2 SI Pre-Drilling					
CH4070120	H2: Approval SI Report	0	6	20/09/02A	26/10/02
H1: Pier H2 Bored Piling					
CH4075100	H2: 1st Bored Pile	0	4	30/11/02	04/12/02
CH4075110	1st: Interface core test	0	1	21/12/02	21/12/02
CH4075160	H2: 2nd Bored Pile	0	4	10/12/02	13/12/02
CH4075170	2nd: Interface core test	0	1	03/01/03	03/01/03
CH4075180	Sonic test	0	1	03/01/03	03/01/03
H1: Pier H2 Pile Cap					
CH4080100	Sheet Pile driving	0	2	04/01/03	05/01/03
CH4080110	Excavate & shoring support	0	3	07/01/03	09/01/03
CH4080120	Cut Pile head	0	5	10/01/03	15/01/03
CH4080130	Lay blinding layer	0	1	15/01/03	15/01/03
CH4080140	Formwork erection	0	1	16/01/03	16/01/03
CH4080150	Reinforcement fixing	0	3	16/01/03	18/01/03
BRIDGE H1: PIER H3					
H1: Pier H3 SI Pre-Drilling					
CH4100110	H3: Prepare & Submit SI Report	0	4	10/08/02A	24/10/02
CH4100120	H3: Approval SI report	0	6	25/10/02	31/10/02
H1: Pier H3 Bored Piling					
CH4105160	H3: 1st Bored Pile	0	5	28/11/02	03/12/02
CH4105110	1st: Interface core test	0	1	20/12/02	20/12/02
CH4105140	H3: 2nd Bored Pile	0	5	07/12/02	12/12/02
CH4105150	2nd: Interface core test	0	1	02/01/03	02/01/03
CH4105180	Sonic test	0	1	02/01/03	02/01/03
H1: Pier H3 Pile Cap					
CH4110100	Sheet Pile driving	0	2	03/01/03	04/01/03
CH4110110	Excavate & shoring support	0	3	06/01/03	08/01/03
CH4110120	Cut Pile head	0	5	09/01/03	14/01/03
CH4110130	Lay blinding layer	0	1	14/01/03	14/01/03
CH4110140	Formwork erection	0	1	15/01/03	15/01/03
CH4110150	Reinforcement fixing	0	3	15/01/03	17/01/03
CH4110160	Final fix Formwork/Clean & Concrete	0	1	18/01/03	18/01/03

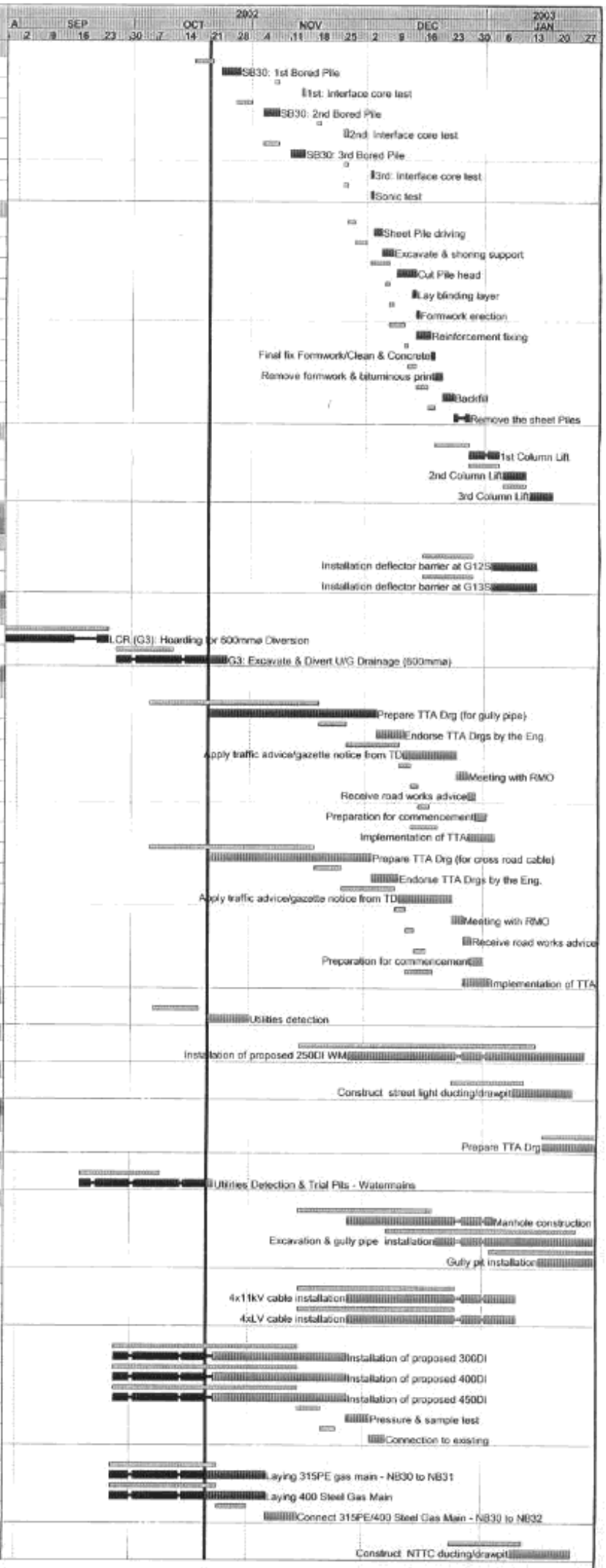
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
BRIDGE H1: PIER H4					
H1: Pier H4 S. Pre-Drilling					
CH4130110	H4: Prepare & Submit SI Report	0	4	22/08/02A	24/10/02
CH4130120	H4: Approval SI report	0	6	25/10/02	31/10/02
H1: Pier H4 Bored Piling					
CH4135100	H4: 1st Bored Pile	0	5	26/11/02	30/11/02
CH4135110	1st: Interface core test	0	1	18/12/02	18/12/02
CH4135120	H4: 2nd Bored Pile	0	5	05/12/02	10/12/02
CH4135130	2nd: Interface core test	0	1	30/12/02	30/12/02
CH4135140	H4: 3rd Bored Pile	0	5	14/12/02	19/12/02
CH4135150	3rd: Interface core test	0	1	09/01/03	09/01/03
CH4135160	Sonic test	0	1	09/01/03	09/01/03
CONSTRUCT BRIDGE H2					
BRIDGE H2: PIER H5					
H2: Pier H5 Utilities & Services Diversions					
CH4210100	Remove existing U-channel (225)	0	15	05/12/02	21/12/02
H2: Pier H5 SI Pre-Drilling					
CH4215100	Site investigation	0	10	23/12/02	06/01/03
CH4215110	Prepare & submit the SI report	0	4	07/01/03	10/01/03
CH4215120	Approval SI report	0	6	11/01/03	17/01/03
BRIDGE H6: PIER H6					
H2: Pier H6 SI Pre-Drilling					
CH4245100	Site investigation	0	10	07/01/03	17/01/03
CH4245110	Prepare & submit the SI report	0	4	18/01/03	22/01/03
BRIDGE H7: PIER H7					
H2: Pier H7 SI Pre-Drilling					
CH4275100	H7: H7: Site investigation	0	10	18/01/03	29/01/03
BRIDGE H2: PIER H9S (STAGE 3)					
H2: Pier H9S Utilities & Services Diversions					
CH4365103	H9S: LCR: H9S - Firemain Diversion (Stage 3)	0	25	12/11/02	10/12/02
CH4365104	H9S: Construct Firemain Thrust Blocks & Backfill	0	15	11/12/02	30/12/02
H2: Pier H9S S/ Pre-Drilling					
CH4370100	H9S: SI Pre-drilling	0	10	18/01/03	29/01/03
CONSTRUCT BRIDGE ML13					
BRIDGE ML13: PIER SB37					
ML13: Pier SB37 TTA Implementation					
CH6564100	SB37: Prepare TTA Drgs (SB37 Cap)	0	13	21/10/02*	02/11/02
CH6564101	SB37: Endorse TTA Drgs by the Eng.	0	7	03/11/02	09/11/02
CH6564102	SB37:Apply traffic advice/gazette notice from TD	0	14	10/11/02	23/11/02
CH6564103	Meeting with RMO	0	3	24/11/02	26/11/02
CH6564104	Receive road works advice	0	2	27/11/02	28/11/02
CH6564105	Preparation for commencement	0	3	29/11/02	01/12/02
CH6564106	Implementation of TTA	0	7	27/11/02	03/12/02
ML13: Pier SB37 SI Pre-Drilling					
CH6570110	SB37: Prepare & Submit SI Report	100	4	02/08/02A	30/09/02A
CH6570120	SB37: Approval SI report	0	6	02/10/02A	26/10/02
ML13: Pier SB37 Bored Piling					
CH6573100	SB37: 1st Bored Pile	0	4	31/12/02	04/01/03
CH6573160	SB37: 2nd Bored Pile	0	4	15/01/03	18/01/03
BRIDGE ML13: PIER SB38					
ML13: Pier SB38 TTA Implementation					
CH6585100	SB38: Prepare TTA Drgs (Drainage & SB38 Cap)	0	13	11/09/02A	24/10/02
CH6585101	SB38: Endorse TTA Drgs by the Eng.	0	7	25/10/02	31/10/02
CH6585102	SB38: Apply TD Traffic Advice/Gazette Notice	0	14	01/11/02	14/11/02
CH6585103	SB38: Meeting with RMO	0	3	15/11/02	17/11/02
CH6585104	SB38: Receive road works advice	0	2	18/11/02	19/11/02
CH6585105	SB38: Preparation for commencement	0	3	20/11/02	22/11/02
CH6585106	SB38: Implementation of TTA	0	7	18/11/02	24/11/02
ML13: Pier SB38 Utilities & Services Diversions					
CH6588110	SB38: Utilities detection & trial pit excavation	50	4	07/05/02A	22/10/02
CH6588120	SB38: Drainage diversion (750)	0	29	23/10/02	25/11/02
ML13: Pier SB38 SI Pre-Drilling					
CH6591100	SB38: Site investigation	0	10	26/11/02	06/12/02
CH6591110	SB38: Prepare & submit the SI report	0	4	07/12/02	11/12/02
CH6591120	SB38: Approval SI report	0	6	12/12/02	18/12/02
ML13: Pier SB38 Bored Piling					
CH6594100	SB38: 1st: Bored Pile	0	4	27/12/02	31/12/02
CH6594110	SB38: 1st: Interface core test	0	1	18/01/03	18/01/03
CH6594160	SB38: 2nd Bored Pile	0	4	11/01/03	15/01/03
BRIDGE ML13: PIER SB39					
ML13: Pier SB39 TTA Implementation					
CH6606100	SB39: Prepare TTA Drgs (SB39 Cap)	0	13	11/09/02A	24/10/02
CH6606101	SB39: Endorse TTA Drgs by the Eng.	0	7	25/10/02	31/10/02
CH6606102	SB39: Apply for TD Traffic Advice/Gazette Notice	0	14	01/11/02	14/11/02
CH6606103	Meeting with RMO	0	3	15/11/02	17/11/02
CH6606104	Receive road works advice	0	2	18/11/02	19/11/02
CH6606105	Preparation for commencement	0	3	20/11/02	22/11/02
CH6606106	Implementation of TTA	0	7	18/11/02	24/11/02
ML13: Pier SB39 Utilities & Services Diversions					
CH6609120	Remove existing LV cable	0	5	25/11/02	29/11/02



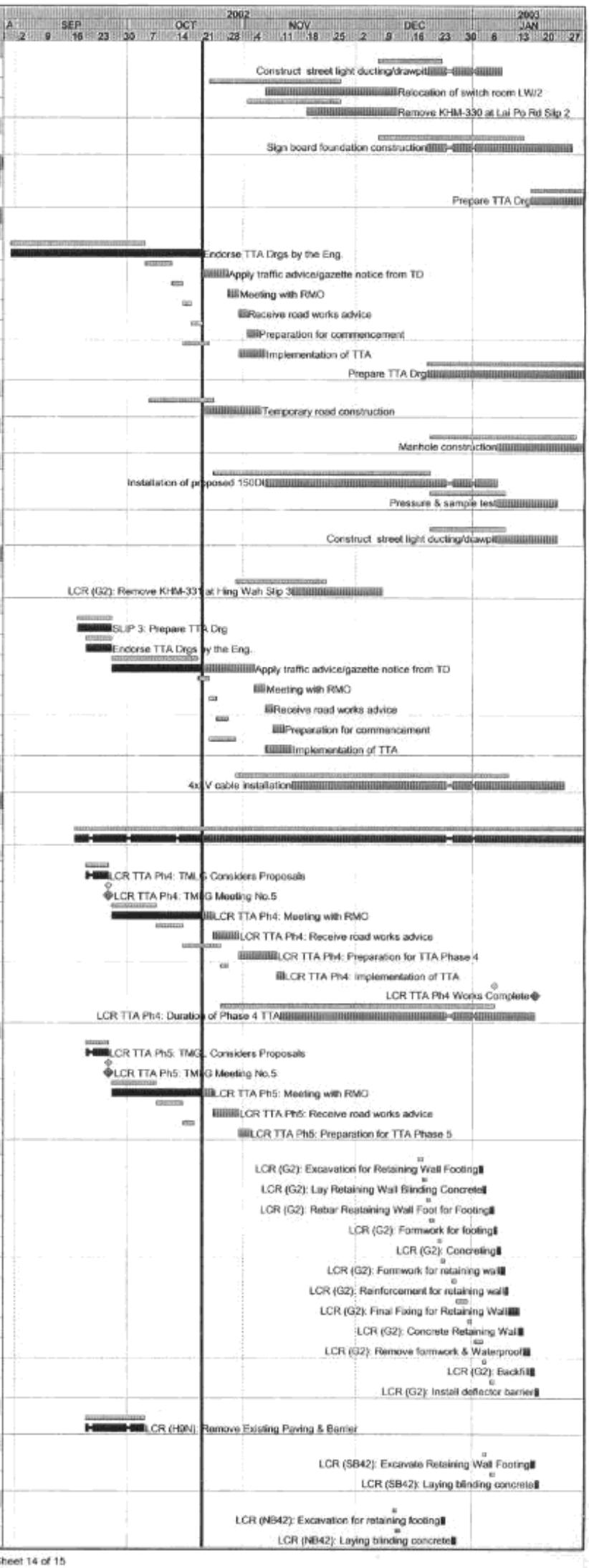
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
ML13: Pier SB39 SI Pre-Drilling					
CH6612100	Site investigation	0	5	07/12/02	12/12/02
CH6612110	Prepare & submit the SI report	0	2	13/12/02	14/12/02
CH6612120	Approval SI report	0	3	16/12/02	18/12/02
ML13: Pier SB39 Bored Piling					
CH6615100	SB39: 1st Bored Pile	0	5	21/12/02	28/12/02
CH6615110	SB39: 1st Interface core test	0	1	16/01/03	16/01/03
CH6615160	SB39: 2nd Bored Pile	0	5	08/01/03	13/01/03
BRIDGE ML13: PIER SB40					
ML13: Pier SB40 SI Pre-Drilling					
CH6633100	Site investigation	100	10	27/09/02A	09/10/02A
CH6633110	Prepare & submit the SI report	0	2	10/10/02A	22/10/02
CH6633120	Approval SI report	0	3	23/10/02	25/10/02
ML13: Pier SB40 Bored Piling					
CH6636100	SB40: 1st Bored Pile	0	5	18/12/02	23/12/02
CH6636110	SB40: 1st Interface core test	0	1	13/01/03	13/01/03
CH6636120	SB40: 2nd Bored Pile	0	5	04/01/03	09/01/03
CH6636140	SB40: 3rd Bored Pile	0	5	18/01/03	23/01/03
CONSTRUCT BRIDGE ML15 - STAGE 3 WORKS					
BRIDGE ML15: PIER SB41					
ML15: Pier SB41 TTA Implementation					
CH6861100	SB41: Prepare TTA Drgs (SB41CAP)	0	21	21/10/02*	19/11/02
CH6861110	Endorse TTA Drgs by the Eng.	0	7	11/11/02	17/11/02
CH6861120	Apply traffic advice/gazette notice from TD	0	14	18/11/02	01/12/02
CH6861130	Meeting with RMO	0	3	02/12/02	04/12/02
CH6861140	Receive road works advice	0	2	05/12/02	06/12/02
CH6861150	Preparation for commencement	0	3	07/12/02	09/12/02
CH6861160	Implementation of TTA	0	7	05/12/02	11/12/02
ML15: Pier SB41 Utilities & Services Diversions					
CH6864100	Remove existing U-channel (225)	0	30	05/12/02	11/01/03
CH6864110	SB41: Utilities detection & trial pit excavation	88	4	14/08/02A	19/10/02
ML15: Pier SB41 S. Pile Cap					
CH6867100	Site investigation	0	10	13/01/03	23/01/03
CONSTRUCT BRIDGE ML10					
BRIDGE ML10: PIER NB29(M)					
ML10: Pier NB29 Utilities & Services Diversions					
CH6150110	NB29: Water main diversion (150S.V)	0	51	21/10/02	18/12/02
BRIDGE ML10: PIER NB30(M)					
ML10: Pier NB30 Utilities & Services Diversions					
CH6171110	NB30: Watermain diversion (400D.I)	25	17	20/09/02A	08/11/02
ML10: Pier NB30 SI Pre-Drilling					
CH6174120	NB30: Approval OF SI report	0	6	20/09/02A	26/10/02
ML10: Pier NB30 Bored Piling					
CH6177100	NB30: 1st Bored Pile	0	4	14/11/02	18/11/02
CH6177110	1st: Interface core test	0	1	05/12/02	05/12/02
CH6177120	NB30: 2nd Bored Pile	0	4	21/11/02	25/11/02
CH6177130	2nd: Interface core test	0	1	12/12/02	12/12/02
CH6177140	NB30: 3rd Bored Pile	0	4	28/11/02	02/12/02
CH6177150	3rd: Interface core test	0	1	19/12/02	19/12/02
CH6177160	Sonic test	0	1	19/12/02	19/12/02
ML10: Pier NB30 Pile Cap					
CH6180100	Sheet Pile driving	0	2	20/12/02	21/12/02
CH6180110	Excavate & shoring support	0	3	23/12/02	27/12/02
CH6180120	Cut Pile head	0	5	28/12/02	03/01/03
CH6180130	Lay blinding layer	0	1	03/01/03	03/01/03
CH6180140	Formwork erection	0	1	04/01/03	04/01/03
CH6180150	Reinforcement fixing	0	3	04/01/03	07/01/03
CH6180160	Final fix Formwork/Clean & Concrete	0	1	08/01/03	08/01/03
CH6180170	Remove formwork & bituminous print	0	2	09/01/03	10/01/03
CH6180180	Backfill	0	2	11/01/03	13/01/03
CH6180190	Remove the sheet Piles	0	2	14/01/03	15/01/03
ML10: Pier NB30 Column (Type C3 hollow)					
CH6183100	1st Column Lift	0	6	16/01/03	22/01/03
BRIDGE ML10: PIER NB28N					
ML10: Pier NB28N Utilities & Services Diversions					
CH6111100	NB28N: Utilities detection & Trial Pit	0	4	19/09/02A	24/10/02
CH6111110	NB28N: Drainage diversion (450)	0	32	25/10/02	30/11/02
CH6111120	Water main diversion (300D.I)	10	32	27/09/02A	26/11/02
BRIDGE ML10: PIER NB28S(M)					
ML10: Pier NB28S Utilities & Services Diversions					
CH6129100	NB28S: Utilities Detection & Trial Pit	0	4	25/10/02	29/10/02
CONSTRUCT BRIDGE ML9					
BRIDGE ML9: PIER SB29					
ML9: Pier SB29 Utilities & Services Diversions					
CH5934100	SB29: Utilities Detection & Trial Pit	0	4	30/10/02	02/11/02
BRIDGE ML9: PIER SB30 (M)					
ML9: Pier SB30 SI Pre-Drilling					
CH5955110	Prepare & submit the SI report	100	4	21/05/02A	30/09/02A
CH5955120	Approval SI report	0	6	02/10/02A	19/10/02



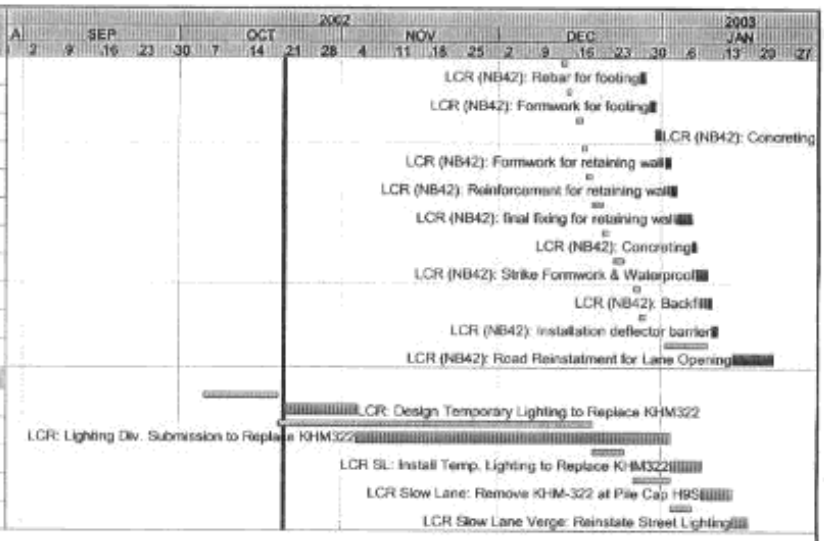
Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
M.9: Pier S830 Bored Piling					
CH5958100	S830: 1st Bored Pile	0	4	24/10/02	28/10/02
CH5958110	1st: Interface core test	0	1	14/11/02	14/11/02
CH5958120	S830: 2nd Bored Pile	0	4	04/11/02	07/11/02
CH5958130	2nd: Interface core test	0	1	25/11/02	25/11/02
CH5958140	S830: 3rd Bored Pile	0	4	11/11/02	14/11/02
CH5958150	3rd: Interface core test	0	1	02/12/02	02/12/02
CH5958180	Sonic test	0	1	02/12/02	02/12/02
M.9: Pier S.830 Pile Cap					
CH5961100	Sheet Pile driving	0	2	03/12/02	04/12/02
CH5961110	Excavate & shoring support	0	3	05/12/02	07/12/02
CH5961120	Cut Pile head	0	5	09/12/02	13/12/02
CH5961130	Lay blinding layer	0	1	13/12/02	13/12/02
CH5961140	Formwork erection	0	1	14/12/02	14/12/02
CH5961150	Reinforcement fixing	0	3	14/12/02	17/12/02
CH5961160	Final fix Formwork/Clean & Concrete	0	1	18/12/02	18/12/02
CH5961170	Remove formwork & bituminous print	0	2	19/12/02	20/12/02
CH5961180	Backfill	0	2	21/12/02	23/12/02
CH5961190	Remove the sheet Piles	0	2	24/12/02	27/12/02
M.9: Pier S.830 Column (Type C3 hollow)					
CH5964100	1st Column Lift	0	6	28/12/02	04/01/03
CH5964110	2nd Column Lift	0	6	06/01/03	11/01/03
CH5964120	3rd Column Lift	0	6	13/01/03	18/01/03
GROUND LEVEL ROAD WORKS					
ROAD P1: UTILITIES DIVERSIONS & ROAD WORKS					
Road P1 Stage 1A Works					
CH3470120	Installation deflector barrier at G12S	0	10	03/01/03	14/01/03
CH3535120	Installation deflector barrier at G13S	0	10	03/01/03	14/01/03
BRIDGE G3: PIER G3 - STAGE 1A					
Pier G3 Utilities, Services & Roadworks					
CH3040115	LCR (G3): Hoarding for 600mme Diversion	100	5	15/08/02A	24/09/02A
CH3040130	G3: Excavate & Divert U/G Drainage (600mme)	0	5	27/09/02A	25/10/02
REALIGNMENT OF KING WAH STREET W. E/B (HWW E/B)					
HWW E/B: TTA's					
CH8400170	Prepare TTA Drg (for gully pipe)	0	44	21/10/02	03/12/02
CH8400180	Endorse TTA Drgs by the Eng.	0	7	04/12/02	10/12/02
CH8400190	Apply traffic advice/gazette notice from TD	0	14	11/12/02	24/12/02
CH8400200	Meeting with RMO	0	3	25/12/02	27/12/02
CH8400210	Receive road works advice	0	2	28/12/02	29/12/02
CH8400220	Preparation for commencement	0	3	30/12/02	01/01/03
CH8400230	Implementation of TTA	0	7	28/12/02	03/01/03
CH8400240	Prepare TTA Drg (for cross road cable)	0	43	21/10/02	02/12/02
CH8400250	Endorse TTA Drgs by the Eng.	0	7	03/12/02	09/12/02
CH8400260	Apply traffic advice/gazette notice from TD	0	14	10/12/02	23/12/02
CH8400270	Meeting with RMO	0	3	24/12/02	26/12/02
CH8400280	Receive road works advice	0	2	27/12/02	28/12/02
CH8400290	Preparation for commencement	0	3	29/12/02	31/12/02
CH8400300	Implementation of TTA	0	7	27/12/02	02/01/03
HWW E/B: Utilities & Services Diversions					
CH8410110	Utilities detection	0	10	21/10/02	31/10/02
HWW E/B: Water Mains					
CH8430100	Installation of proposed 250DI WM	0	50	27/11/02	27/01/03
HWW E/B: Street Lighting					
CH8450100	Construct street light ducting/drawpit	0	14	09/01/03	24/01/03
REALIGNMENT OF KING WAH STREET W. W/B (HWW W/B)					
HWW W/B: TTA's					
CH8500170	Prepare TTA Drg	0	43	17/01/03*	28/02/03
HWW W/B: Utilities & Services Diversions					
CH8510110	Utilities Detection & Trial Pits - Watermains	0	2	18/09/02A	22/10/02
HWW W/B: Drainage					
CH8515115	Manhole construction	0	30	27/11/02	03/01/03
CH8515120	Excavation & gully pipe installation	0	40	20/12/02	11/02/03
CH8515130	Gully pit installation	0	30	16/01/03	22/02/03
HWW W/B: HV Power Supply Civil Provision					
CH8520140	4x11kV cable installation	0	35	27/11/02	09/01/03
CH8520150	4xLV cable installation	0	35	27/11/02	09/01/03
HWW W/B: Water Mains					
CH8530160	Installation of proposed 300DI	10	16	27/09/02A	26/11/02
CH8530162	Installation of proposed 400DI	10	16	27/09/02A	26/11/02
CH8530164	Installation of proposed 450DI	10	16	27/09/02A	26/11/02
CH8530170	Pressure & sample test	0	5	27/11/02	02/12/02
CH8530180	Connection to existing	0	4	03/12/02	06/12/02
HWW W/B: Gas Mains					
CH8535190	Laying 315PE gas main - NB30 to NB31	40	14	26/09/02A	05/11/02
CH8535192	Laying 400 Steel Gas Main	40	14	26/09/02A	05/11/02
CH8535200	Connect 315PE/400 Steel Gas Main - NB30 to NB32	0	7	06/11/02	13/11/02
HWW W/B: Telecommunications Civil Provision					
CH8540220	Construct NTTC ducting/drawpit	0	14	09/01/03	24/01/03



Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
HWW W/O: Street Lighting					
CH8550260	Construct street light ducting/drawpit	0	14	20/12/02	08/01/03
CHHIGH110	Relocation of switch room LW/2	0	30	07/11/02	11/12/02
CHHIGH120	Remove KHM-330 at Lai Po Rd Slip 2	0	21	18/11/02	11/12/02
HWW W/O: Road Signs, Markings & Bollards					
CH8565350	Sign board foundation construction	0	30	20/12/02	27/01/03
REALIGNMENT OF HING WAH SLIP1 (HWS1)					
HWS1: TTA's					
CH8700100	Prepare TTA Drg	0	43	17/01/03*	28/02/03
REALIGNMENT OF HING WAH SLIP2 (HWS2)					
HWS2: TTA's					
CH8800101	Endorse TTA Drgs by the Eng.	0	7	31/08/02A	20/10/02
CH8800102	Apply traffic advice/gazette notice from TD	0	7	21/10/02	27/10/02
CH8800103	Meeting with RMO	0	3	28/10/02	30/10/02
CH8800104	Receive road works advice	0	2	31/10/02	01/11/02
CH8800105	Preparation for commencement	0	3	02/11/02	04/11/02
CH8800106	Implementation of TTA	0	7	31/10/02	06/11/02
CH8800110	Prepare TTA Drg	0	43	20/12/02*	31/01/03
HWS2: Temporary Road Construction					
CH8802100	Temporary road construction	0	14	21/10/02	05/11/02
HWS2: Drainage					
CH8815100	Manhole construction	0	30	08/01/03	14/02/03
HWS2: Water Mains					
CH8530100	Installation of proposed 150DI	0	50	07/11/02	07/01/03
CH8530110	Pressure & sample test	0	14	08/01/03	23/01/03
HWS2: Street Lighting					
CH8840140	Construct street light ducting/drawpit	0	14	08/01/03	23/01/03
REALIGNED SLIP 3 (S3)					
3005					
CHHIGH130	LCR (G2): Remove KHM-331 at Hing Wah Slip 3	0	21	14/11/02	07/12/02
S3: TTA's					
CH8900100	SLIP 3: Prepare TTA Drg	100	44	18/09/02A	26/09/02A
CH8900110	Endorse TTA Drgs by the Eng.	100	7	20/09/02A	26/09/02A
CH8900120	Apply traffic advice/gazette notice from TD	0	14	27/09/02A	03/11/02
CH8900130	Meeting with RMO	0	3	04/11/02	06/11/02
CH8900140	Receive road works advice	0	2	07/11/02	08/11/02
CH8900150	Preparation for commencement	0	3	09/11/02	11/11/02
CH8900160	Implementation of TTA	0	7	07/11/02	13/11/02
S3: HV Power Supply Chb Provision					
CH8920100	4xLV cable installation	0	60	14/11/02	25/01/03
STAGE 1A: REALIGNMENT OF WAN CHEUNG ROAD (LCR)					
LCR TTA Phase 3: 2nd Fast Lane Closure					
CH3007110	LCR TTA Ph3: Duration of Phase 3 TTA	21	143*	17/09/02A	12/03/03
LCR TTA Phase 4: Slow Lane Closure at H8S					
CH3008100	LCR TTA Ph4: TMLG Considers Proposals	100	7	20/09/02A	25/09/02A
CH3008102	LCR TTA Ph4: TMLG Meeting No.5	100	0	26/09/02A	
CH3008104	LCR TTA Ph4: Meeting with RMO	0	3	27/09/02A	23/10/02
CH3008106	LCR TTA Ph4: Receive road works advice	0	7	24/10/02	30/10/02
CH3008108	LCR TTA Ph4: Preparation for TTA Phase 4	0	10	31/10/02	09/11/02
CH3008110	LCR TTA Ph4: Implementation of TTA	0	2	10/11/02	11/11/02
CH3008111	LCR TTA Ph4 Works Complete	0	0		17/01/03
CH3008112	LCR TTA Ph4: Duration of Phase 4 TTA	0	56*	11/11/02	17/01/03
LCR TTA Phase 5: 3rd Slow Lane Closure					
CH3009100	LCR TTA Ph5: TMGL Considers Proposals	100	7	20/09/02A	25/09/02A
CH3009102	LCR TTA Ph5: TMLG Meeting No.5	100	0	26/09/02A	
CH3009104	LCR TTA Ph5: Meeting with RMO	0	3	27/09/02A	23/10/02
CH3009106	LCR TTA Ph5: Receive road works advice	0	7	24/10/02	30/10/02
CH3009108	LCR TTA Ph5: Preparation for TTA Phase 5	0	3	31/10/02	02/11/02
Part G2: Utilities, Services & Roadworks					
CH3005130	LCR (G2): Excavation for Retaining Wall Footing	0	1	03/01/03	03/01/03
CH3005140	LCR (G2): Lay Retaining Wall Blinding Concrete	0	1	04/01/03	04/01/03
CH3005150	LCR (G2): Rebar Reataining Wall Foot for Footing	0	1	06/01/03	06/01/03
CH3005160	LCR (G2): Formwork for footing	0	1	07/01/03	07/01/03
CH3005170	LCR (G2): Concreting	0	1	08/01/03	08/01/03
CH3005180	LCR (G2): Formwork for retaining wall	0	1	09/01/03	09/01/03
CH3005190	LCR (G2): Reinforcement for retaining wall	0	1	10/01/03	10/01/03
CH3005200	LCR (G2): Final Fixing for Retaining Wall	0	2	11/01/03	13/01/03
CH3005210	LCR (G2): Concrete Retaining Wall	0	1	14/01/03	14/01/03
CH3005220	LCR (G2): Remove formwork & Waterproof	0	2	15/01/03	16/01/03
CH3006230	LCR (G2): Backfill	0	1	17/01/03	17/01/03
CH3006240	LCR (G2): Install deflector barrier	0	1	18/01/03	18/01/03
Part H9N: Utilities, Services & Roadworks					
CH4332120	LCR (H9N): Remove Existing Paving & Barrier	100	5	20/09/02A	05/10/02A
Part SB42: Utilities, Services & Roadworks					
CH8885120	LCR (SB42): Excavate Retaining Wall Footing	0	1	17/01/03	17/01/03
CH8885130	LCR (SB42): Laying blinding concrete	0	1	18/01/03	18/01/03
Part NB42: Utilities, Services & Roadworks					
CH8999130	LCR (NB42): Excavation for retaining footing	0	1	24/12/02	24/12/02
CH8999140	LCR (NB42): Laying blinding concrete	0	1	27/12/02	27/12/02



Activity ID	Activity Description	% Comp	Orig Dur	Early Start	Early Finish
CH6999150	LCR (NB42): Rebar for footing	0	1	28/12/02	28/12/02
CH6999160	LCR (NB42): Formwork for footing	0	1	30/12/02	30/12/02
CH6999170	LCR (NB42): Concreting	0	1	31/12/02	31/12/02
CH6999180	LCR (NB42): Formwork for retaining wall	0	1	02/01/03	02/01/03
CH6999190	LCR (NB42): Reinforcement for retaining wall	0	1	03/01/03	03/01/03
CH6999200	LCR (NB42): final fixing for retaining wall	0	2	04/01/03	06/01/03
CH6999210	LCR (NB42): Concreting	0	1	07/01/03	07/01/03
CH6999220	LCR (NB42): Strike Formwork & Waterproof	0	2	08/01/03	09/01/03
CH6999230	LCR (NB42): Backfill	0	1	10/01/03	10/01/03
CH6999240	LCR (NB42): Installation deflector barrier	0	1	11/01/03	11/01/03
CH6999250	LCR (NB42): Road Reinstatment for Lane Opening	0	7	15/01/03	22/01/03
LCR: Street Lighting					
CHHIGH151	LCR: Design Temporary Lighting to Replace	0	14	21/10/02	03/11/02
CHHIGH152	LCR: Lighting Div. Submission to Replace KHM322	0	60	04/11/02	02/01/03
CHHIGH153	LCR SL: Install Temp. Lighting to Replace KHM322	0	5	03/01/03	08/01/03
CHHIGH190	LCR Slow Lane: Remove KHM-322 at Pile Cap H9S	0	5	09/01/03	14/01/03
CHHIGH193	LCR Slow Lane Verge: Reinstate Street Lighting	0	3	15/01/03	17/01/03



Appendix D1

Active/Limit Levels for Air Quality

Appendix D1: Action /Limit Levels for Air Quality

ACTION AND LIMIT LEVELS FOR 24-HOUR TSP

Location	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
ASR1	163	260
ASR2	178	260

ACTION AND LIMIT LEVELS FOR 1-HOUR TSP

Location	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
ASR1	318	500
ASR2	324	500

Appendix D2

Active/Limit Levels for Noise

Appendix D2: Action/Limit Levels for Noise

Action and Limit Levels for Construction Noise

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	75dB(A)*
0700-2300 hrs on holidays; and 1900-2300 hrs on all other days	When one documented complaint is received	70 dB(A)
2300-0700 hrs of next day	When one documented complaint is received	55 dB(A)

* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Appendix E

Environmental Monitoring Schedule from 29th September 2002 and 28th October 2002

Environmental Monitoring Schedule between 29-September and 28-October 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29-Sep	30-Sep 24hrs-TSP	1-Oct	2-Oct 1hr-TSP Noise	3-Oct	4-Oct	5-Oct 24hrs-TSP
6-Oct	7-Oct 1hr-TSP Noise	8-Oct	9-Oct $Noise_{Evening}$	10-Oct	11-Oct 24hrs-TSP	12-Oct 1hr-TSP
13-Oct	14-Oct	15-Oct	16-Oct	17-Oct 24hrs-TSP	18-Oct 1hr-TSP Noise $Noise_{Evening}$	19-Oct
20-Oct	21-Oct	22-Oct	23-Oct 24hrs-TSP	24-Oct 1hr-TSP Noise	25-Oct	26-Oct
27-Oct	28-Oct					

1hr-TSP	3 x 1 hour TSP monitoring at ASR1 and ASR2 during 09:00~18:00.
24hrs-TSP	24 hours TSP monitoring at ASR1 and ASR2
Noise	Leq_{30} measurement at NSR1 and NSR2 during 07:00~19:00.
$Noise_{Evening}$	6 x Leq_5 measurement at NSR1 and NSR2 during 19:00~23:00.

Appendix F

Locations Monitoring Stations

N 822000

N 821500

N 821000

N 820500

N 820000

N 819500

E 830500

E 831000

E 831500

E 832000

E 832500

E 833000

E 833500

N

Terminal 6

Container Terminal

Terminal 7

Container Terminal

Terminal 8

Lai Chi Kok Park

Cheung Sha Wan Road South

Cheung Sha Wan Road

ROUTE 3

MEI FOO

ROOF OF TOILET BLOCK AT LAI CHI KOK PARK (ASR1, NSR1)

WEATHER STATION

SITE 10

(CURRENTLY UNDER CONSTRUCTION)

SITE 6

(CURRENTLY UNDER CONSTRUCTION)

STONECUTTER'S ISLAND

Barracks

Navy Base

DSD PUMPING STATION (ASR2, NSR2)

STONECUTTER'S BASE

(ACCESS NOT POSSIBLE TO THE MILITARY BASE, ALTERNATIVE LOCATION IS REQUIRED)

LOCATION PLAN

LEGEND

- SENSITIVE RECEIVER IDENTIFIED IN EM&A MANUAL
- PROPOSED AIR MONITORING STATION
- PROPOSED NOISE MONITORING STATION
- WEATHER STATION

Rev	Description	By	Date

Consultant

ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

Supported By :

Charles Haswell & Partners ○ ERM Hong Kong Ltd. ○
COWI Consulting Engineers ○ IBI Group ○
Chris Wilkinson Architects ○ Urbis Ltd. ○
RMJM Hong Kong Ltd. ○ BMT Asia Pacific Ltd. ○

Project title

HY/2000/21

Route 9 - Ngong Shuen Chau Viaduct

Drawing title

PROPOSED AIR AND NOISE MONITORING LOCATIONS AND WEATHER STATIONS

Drawing no.	Rev.
FIGURE 1a	–

Drawn	Date	Checked	Approved
RT	12/00	AL	AH

Scale 1:5000 Status PRELIMINARY

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 Major Works Project Management Office

Cad File : R95KC175.DGN

Plan Filename : J:\22794\SKETCHES\CIVIL\9-sket175.dgn

Appendix G1

Calibration Certificates for HVS

ARUP

TSP - Total Suspended Particulates High Volume Sampler
In-situ Calibration Report

Calibration Date	28-Sep-02	**Next Calibration Date**	**28-Nov-02**
Station	ASR1	Equipment no.	E.HVS.01

Ambient Condition			
Temperature, Ta (K)	301.4	Pressure, Pa (mmHg)	759.1

Orifice Transfer Standard Information			
Equipment no.	E.CAL.01		
Slope, mo	1.5507	Intercept, co	-0.00514
Last Calibration Date	07-May-02	Next Calibration Date	07-May-03
$mo \times Q_{std} + co = [\Delta O \times (Pa/760) \times (298/Ta)]^{1/2}$			
$Q_{std} = \{[\Delta O \times (Pa/760) \times (298/Ta)]^{1/2} - co\} / mo$			

Calibration Point	Orifice Manometer Reading, ΔO (inch)	Orifice Q_{std} (CMM) x-axis	HVS Manometer Reading, ΔH (inch)	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ y-axis
1	7.1	1.71	7.3	2.69
2	5.9	1.56	6.1	2.45
3	4.8	1.41	5.0	2.22
4	3.8	1.25	3.9	1.96
5	3.0	1.11	3.0	1.72

By Liner Regression of y on x

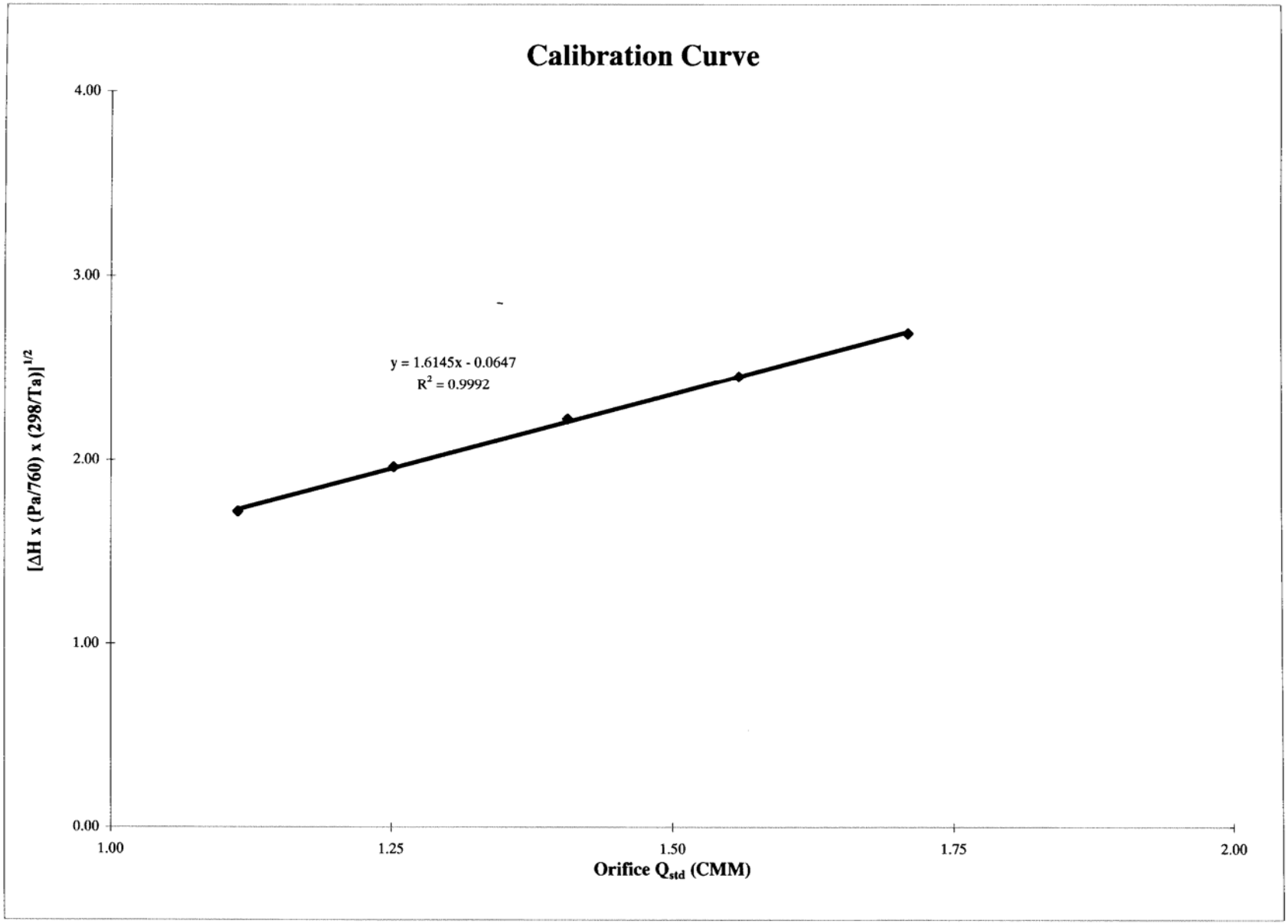
Slope, mh =	1.6145	Intercept, ch =	-0.0647
*Correction Coefficient, R =	0.9996		
Calibration Result:	**ACCEPT**		

* If the Correlation Coefficient, R is < 0.9900. Checking and Recalibration are require.

Remark: _____

Calibrated By: Liang Date: 30-9-2002

Checked By: [signature] Date: 30-9-2002


Calibration Curve
4.00
3.00
2.00
1.00
0.00
[ΔH x (Pa/760) x (298/Ta)]^1/2
y = 1.6145x - 0.0647
R^2 = 0.9992
1.00
1.25
1.50
1.75
2.00
Orifice Q_std (CMM)

ARUP

TSP - Total Suspended Particulates High Volume Sampler
In-situ Calibration Report

Calibration Date	28-Sep-02	**Next Calibration Date**	**28-Nov-02**
Station	ASR2	Equipment no.	E.HVS.02

Ambient Condition			
Temperature, Ta (K)	301.6	Pressure, Pa (mmHg)	759.2

Orifice Transfer Standard Information			
Equipment no.	E.CAL.01		
Slope, mo	1.5507	Intercept, co	-0.00514
Last Calibration Date	07-May-02	Next Calibration Date	07-May-03
$mo \times Q_{std} + co = [\Delta O \times (Pa/760) \times (298/Ta)]^{1/2}$			
$Q_{std} = \{[\Delta O \times (Pa/760) \times (298/Ta)]^{1/2} - co\} / mo$			

Calibration Point	Orifice Manometer Reading, ΔO (inch)	Orifice Q_{std} (CMM) x-axis	HVS Manometer Reading, ΔH (inch)	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ y-axis
1	7.3	1.73	7.1	2.65
2	6.3	1.61	6.1	2.45
3	5.1	1.45	5.0	2.22
4	4.1	1.30	4.1	2.01
5	3.2	1.15	3.1	1.75

By Liner Regression of y on x

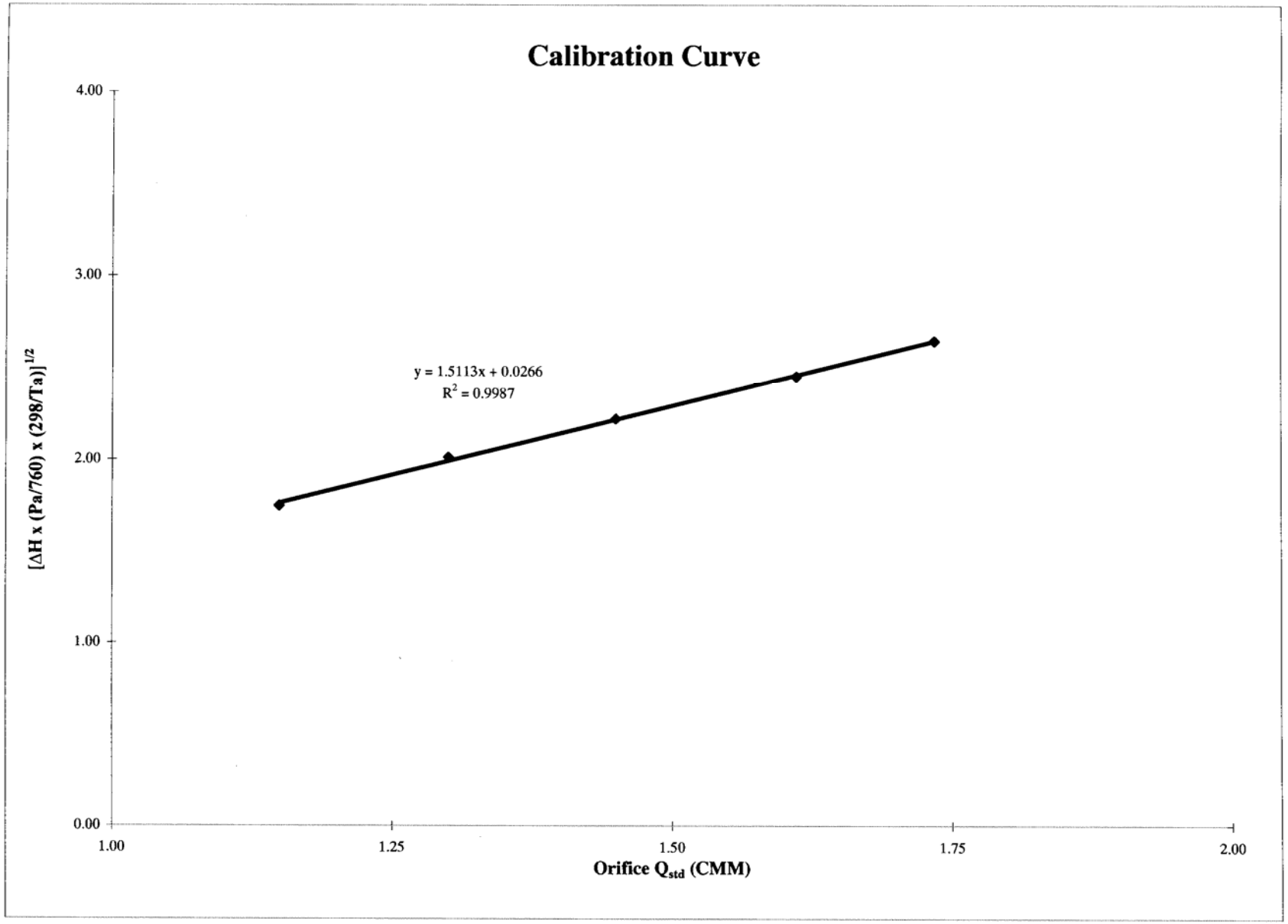
Slope, mh =	1.5113	Intercept, ch =	0.0266
*Correction Coefficient, R =	0.9993		
Calibration Result:	**ACCEPT**		

* If the Correlation Coefficient, R is < 0.9900. Checking and Recalibration are require.

Remark: _____

Calibrated By: Wing _____ Date: 30-9-2002

Checked By: _____ Date: 30-9-2002


Calibration Curve
4.00
3.00
2.00
1.00
0.00
y = 1.5113x + 0.0266
R2 = 0.9987
[ΔH x (Pa/760) x (298/Ta)]1/2
1.00
1.25
1.50
1.75
2.00
Orifice Qstd (CMM)

Appendix G2

Calibration Certificates for the Weather Station

Werkszeugnis nach DIN EN 10204/2.2

Test report according to DIN EN 10204/2.2

ZERTIFIZIERT
DIN ISO 9001
NR 70100 F 222
CERTIFIED

Lufft

Geräte-Typ Model type Type d'instrument	**8352.00**
Modell Model Modèle	**Wind sensor for speed and direction**
Anzahl number nombre	**1**
Genauigkeit Accuracy Précision	**Speed: ± 0, 5 m/s or 3%** **Direction ± 5°**

Hiermit bescheinigen wir, daß dieses LUFFT-Erzeugnis in Übereinstimmung mit dem QM-Handbuch der LUFFT Mess-und Regeltechnik GmbH nach DIN EN ISO 9001 gefertigt wurde. Die Bestellvorgaben wurden eingehalten. Die Ausführung und Anzeigegenauigkeit der Geräte / Systeme wurde im Rahmen der LUFFT-Qualitätssicherungsmaßnahmen überwacht. Die Qualitätsprüfung ergab keine Beanstandung.

This is to certify, that this Lufft product has been tested according to the TQM of the LUFFT Mess- und Regeltechnik GmbH manual in accordance with DIN EN ISO 9001. Ordering specifications are complied with. Execution of instruments / systems as well as testing of accuracy was carried out following LUFFT quality assurance procedures. Quality inspection was successfully passed.

Par ce document, nous certifions que le produit correspondant a bien été testé suivant les normes TQM de Lufft Mess- und Regeltechnik GmbH en accord avec la norme DIN EN ISO 9001. Les conditions stipulées dans la commande ont été remplies. La réalisation des appareils / systèmes ainsi que les tests de précision ont été fait en concordance avec les procédés de qualité Lufft.

Stempel *Seal*	Datum *Date*	Prüfer *Checked by*	Qualitätsmanagement *quality management*
G. LUFFT Meß- u. Regeltechnik GmbH Gutenbergstraße 20 70736 Fellbach Postfach 4252 70719 Fellbach	06.05.02		Lufft GmbH

LUFFT Mess- und Regeltechnik GmbH
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70736 Fellbach
Tel.: 0711-51822-0
Fax: 0711-51822-41
email: info@lufft.de
Internet: www.lufft.de

Geschäftsführer
Dipl.-Wirtsch.-Ing. Klaus Hirzel
Dipl.-Ing. Axel Schmitz-Hübsch

Postbank Stuttgart
Konto 857-702
BLZ 600 100 70

Südwestbank AG, Stuttgart
Konto 21839
BLZ 600 602 01

Deutsche Bank AG, Stuttgart
S.W.I.F.T.Code: DEUT DE SS
Konto 1325 794

Werkszeugnis nach DIN EN 10204/2.2

Test report according to DIN EN 10204/2.2

ZERTIFIZIERT
DIN ISO 9001
NR 70100 F 222
CERTIFIED

Lufft

Geräte-Typ Model type Type d'instrument	**8355.03**

Modell Model Modèle	**Air pressure sensor**

Anzahl number nombre	**1**

Genauigkeit Accuracy Précision	**± 0,2 % of final value** **optimal accuracy at 1010 hPa**

Hiermit bescheinigen wir, daß dieses LUFFT-Erzeugnis in Übereinstimmung mit dem QM-Handbuch der LUFFT Mess-und Regeltechnik GmbH nach DIN EN ISO 9001 gefertigt wurde. Die Bestellvorgaben wurden eingehalten. Die Ausführung und Anzeigegenauigkeit der Geräte / Systeme wurde im Rahmen der LUFFT-Qualitätssicherungsmaßnahmen überwacht. Die Qualitätsprüfung ergab keine Beanstandung.

This is to certify, that this Lufft product has been tested according to the TQM of the LUFFT Mess- und Regeltechnik GmbH manual in accordance with DIN EN ISO 9001. Ordering specifications are complied with. Execution of instruments / systems as well as testing of accuracy was carried out following LUFFT quality assurance procedures. Quality inspection was successfully passed.

Par ce document, nous certifions que le produit correspondant a bien été testé suivant les normes TQM de Lufft Mess- und Regeltechnik GmbH en accord avec la norme DIN EN ISO 9001. Les conditions stipulées dans la commande ont été remplies. La réalisation des appareils / systèmes ainsi que les tests de précision ont été fait en concordance avec les procédés de qualité Lufft.

Stempel *Seal*	Datum *Date*	Prüfer *Checked by*	Qualitätsmanagement *quality management*
G. LUFFT Mess- u. Regeltechnik GmbH Gutenbergstraße 20 70736 Fellbach Postfach 4252	06.05.02		Lufft GmbH

LUFFT Mess- und Regeltechnik GmbH
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70736 Fellbach
Tel.: 0711-51822-0
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Internet: www.lufft.de

Geschäftsführer
Dipl.-Wirtsch.-Ing. Klaus Hirzel
Dipl.-Ing. Axel Schmitz-Hübsch

Postbank Stuttgart
Konto 857-702
BLZ 600 100 70

Südwestbank AG, Stuttgart
Konto 21839
BLZ 600 602 01

Deutsche Bank AG, Stuttgart
S.W.I.F.T.Code: DEUT DE SS
Konto 1325 794

Werkszeugnis nach DIN EN 10204/2.2

Test report according to DIN EN 10204/2.2

ZERTIFIZIERT
DIN ISO 9001
NR 70100 F 222
CERTIFIED

Lufft

Geräte-Typ Model type Type d'instrument	**8160.TF**
Modell Model Modèle	**Temperature sensor**
Anzahl number nombre	**1**
Genauigkeit Accuracy Précision	**± 0,2 °C (-30°C...+70°C)**

Hiermit bescheinigen wir, daß dieses LUFFT-Erzeugnis in Übereinstimmung mit dem QM-Handbuch der LUFFT Mess-und Regeltechnik GmbH nach DIN EN ISO 9001 gefertigt wurde. Die Bestellvorgaben wurden eingehalten. Die Ausführung und Anzeigegenauigkeit der Geräte / Systeme wurde im Rahmen der LUFFT-Qualitätssicherungsmaßnahmen überwacht. Die Qualitätsprüfung ergab keine Beanstandung.

This is to certify, that this Lufft product has been tested according to the TQM of the LUFFT Mess- und Regeltechnik GmbH manual in accordance with DIN EN ISO 9001. Ordering specifications are complied with. Execution of instruments / systems as well as testing of accuracy was carried out following LUFFT quality assurance procedures. Quality inspection was successfully passed.

Par ce document, nous certifions que le produit correspondant a bien été testé suivant les normes TQM de Lufft Mess- und Regeltechnik GmbH en accord avec la norme DIN EN ISO 9001. Les conditions stipulées dans la commande ont été remplies. La réalisation des appareils / systèmes ainsi que les tests de précision ont été fait en concordance avec les procédés de qualité Lufft.

Stempel *Seal*	Datum *Date*	Prüfer *Checked by*	Qualitätsmanagement *quality management*
G. LUFFT Mess- u. Regeltechnik GmbH Gutenbergstraße 20 70736 Fellbach Postfach 4254 Fellbach	06.05.02		Lufft GmbH

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Tel.: 0711-51822-0
Fax: 0711-51822-41
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Internet: www.lufft.de

Geschäftsführer
Dipl.-Wirtsch.-Ing. Klaus Hirzel
Dipl.-Ing. Axel Schmitz-Hübsch

Postbank Stuttgart
Konto 857-702
BLZ 600 100 70

Südwestbank AG, Stuttgart
Konto 21839
BLZ 600 602 01

Deutsche Bank AG, Stuttgart
S.W.I.F.T.Code: DEUT DE SS
Konto 1325 794

Appendix G3

Calibration Certificates for High Volume Orifice Calibrator

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

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5028A

Date - May 07, 2002 Rootsmeter S/N 9833620 Ta (K) - 293
Operator Tisch Orifice I.D. - 0491 Pa (mm) - 751.84

PLATE OR VDC #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.2640	4.2	1.50
2	NA	NA	1.00	0.9660	7.0	2.50
3	NA	NA	1.00	0.8830	8.4	3.00
4	NA	NA	1.00	0.8210	9.7	3.50
5	NA	NA	1.00	0.6200	16.7	6.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0005	0.7915	1.2285		0.9944	0.7867	0.7646
0.9967	1.0318	1.5860		0.9906	1.0255	0.9871
0.9948	1.1267	1.7374		0.9888	1.1198	1.0813
0.9931	1.2096	1.8766		0.9870	1.2022	1.1679
0.9837	1.5867	2.4570		0.9777	1.5770	1.5291
Qstd slope (m) =		1.55070		Qa slope (m) =		0.97102
intercept (b) =		-0.00514		intercept (b) =		-0.00320
coefficient (r) =		0.99978		coefficient (r) =		0.99978
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

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

For subsequent flow rate calculations:

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

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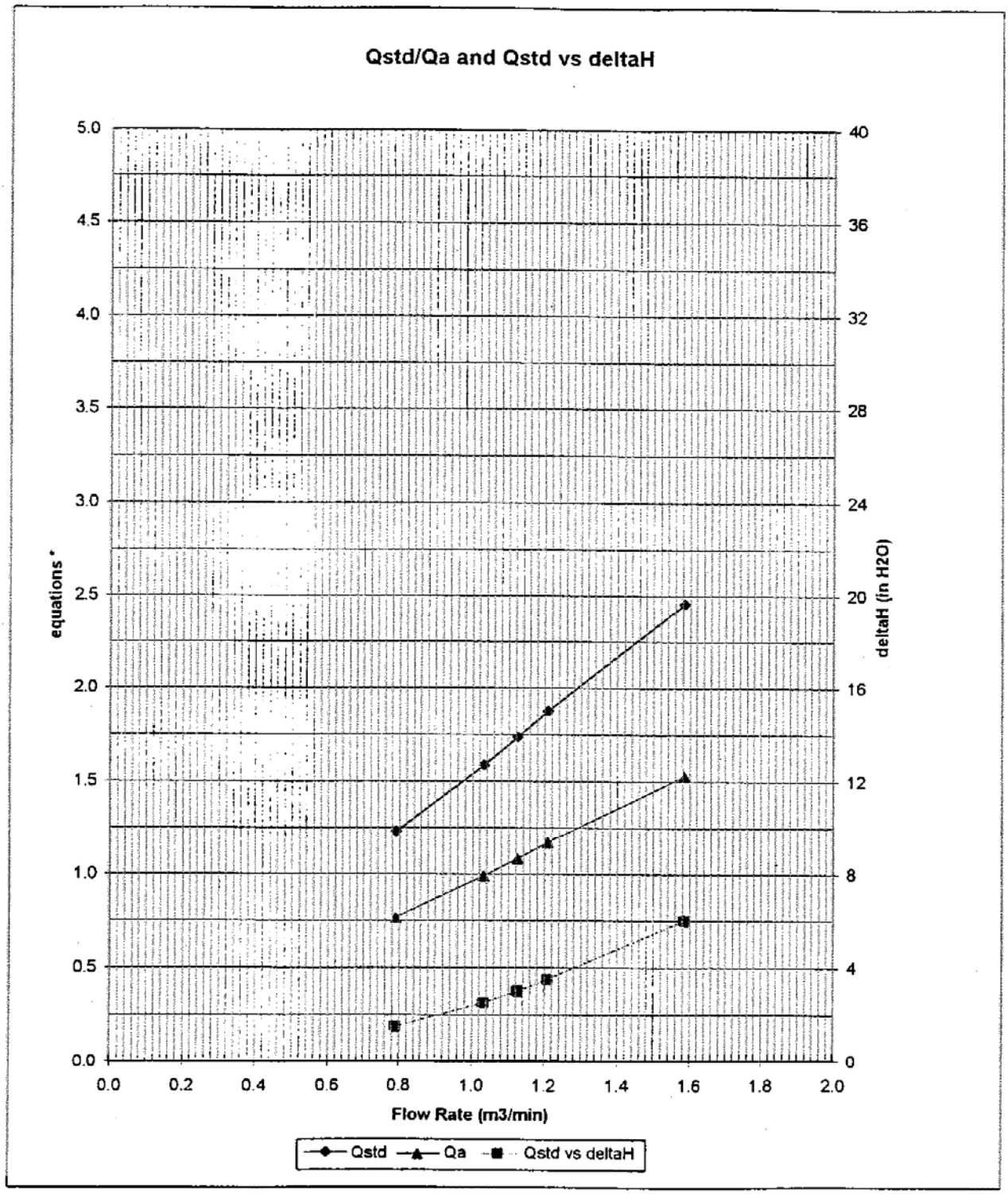
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT



*** y-axis equations:**

Qstd series: $\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$

Qa series: $\sqrt{(\Delta H\ (Ta\ /\ Pa))}$

#0491

Appendix G4

Calibration Certificates for Sound Level Meter and Calibrator

DICESVA S.L.
Calibration laboratory

CERTIFICATE OF VERIFICATION

NUMBER: **02/00379**

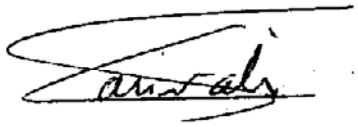
DICESVA S.L.
Calibration laboratory

Villar, 20
08041 BARCELONA
SPAIN
Phone number 934 335 240 / Fax 933 479 310

The calibration has been performed following calibration procedure P015 (Revision 01) for acoustic tests and P016 (Revision 01) for electrical tests, based on standards IEC60651:1979/A1:1993 and IEC60804:1985/ A1:1989/A2:1993.

INSTRUMENT:	**Integrating-averaging sound level meter**
MANUFACTURER:	**CESVA**
MODEL:	**SC-30**
SERIAL NUMBER:	**T215638**
MICROPHONE:	**C-130, serial number 6154**
TYPE:	**1**
DATE OF CALIBRATION:	**2002-05-24**
DATE OF ISSUE:	**2002-05-27**
CALIBRATION RESULT:	**Within the specifications in the values measured**

LABORATORY MANAGER



Xavier Solà Gimeno

DICESVA S.L.
Calibration laboratory

CERTIFICATE OF VERIFICATION

NUMBER: **02/00381**

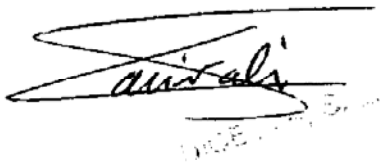
DICESVA S.L.
Calibration laboratory

Villar, 20
08041 BARCELONA
SPAIN
Phone number 934 335 240 / Fax 933 479 310

The calibration has been performed following calibration procedure P015 (Revision 01) for acoustic tests and P016 (Revision 01) for electrical tests, based on standards IEC60651:1979/A1:1993 and IEC60804:1985/ A1:1989/A2:1993.

INSTRUMENT:	**Integrating-averaging sound level meter**
MANUFACTURER:	**CESVA**
MODEL:	**SC-30**
SERIAL NUMBER:	**T215622**
MICROPHONE:	**C-130, serial number 6147**
TYPE:	**1**
DATE OF CALIBRATION:	**2002-05-24**
DATE OF ISSUE:	**2002-05-27**
CALIBRATION RESULT:	**Within the specifications in the values measured**

LABORATORY MANAGER



Xavier Solà Gimeno

DICESVA S.L.
Calibration laboratory

CERTIFICATE OF VERIFICATION

NUMBER: **02/00382**

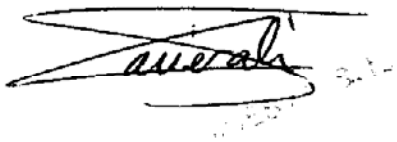
DICESVA S.L.
Calibration laboratory

Villar, 20
08041 BARCELONA
SPAIN
Phone number 934 335 240 / Fax 933 479 310

The calibration has been performed following calibration procedure P017 (Revision 02) , based on standard IEC942:1988.

INSTRUMENT:	**Sound calibrator**
MANUFACTURER:	**CESVA**
MODEL:	**CB-5**
SERIAL NUMBER:	**0032450**
TYPE:	**1L**
DATE OF CALIBRATION:	**2002-05-09**
DATE OF ISSUE:	**2002-05-27**
CALIBRATION RESULT:	**Within the specifications in the values measured**

LABORATORY MANAGER



Xavier Solà Gimeno

DICESVA S.L.
Calibration laboratory

CERTIFICATE OF VERIFICATION

NUMBER: **02/00380**

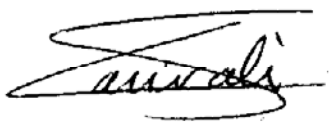
DICESVA S.L.
Calibration laboratory

Villar, 20
08041 BARCELONA
SPAIN
Phone number 934 335 240 / Fax 933 479 310

The calibration has been performed following calibration procedure P017 (Revision 02) , based on standard IEC942:1988.

INSTRUMENT:	**Sound calibrator**
MANUFACTURER:	**CESVA**
MODEL:	**CB-5**
SERIAL NUMBER:	**0032456**
TYPE:	**1L**
DATE OF CALIBRATION:	**2002-05-09**
DATE OF ISSUE:	**2002-05-27**
CALIBRATION RESULT:	**Within the specifications in the values measured**

LABORATORY MANAGER



Xavier Solà Gimeno

Appendix H1

Event/Action Plan for Air Quality

Appendix H1: Event/Action Plan for Air Quality

Event Level	Action		
	ET	**ER**	**CONTRACTOR**
Action Level			
Exceedance for one sample	• Identify source • Inform ER • Repeat Measurement to confirm finding • Increase monitoring frequency to daily	• Notify Contractor • Check monitoring data and Contractor's working methods	• Rectify any unacceptable practice • Amend working methods if appropriate
Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER 3. Repeat measurements to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with ER for remedial actions required 6. If exceedance continues arrange meeting with ER 7. If exceedance stops, cease additional monitoring	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Check monitoring data and Contractor's working methods 4. Discuss with Environmental Team and Contractor on potential remedial actions 5. Ensure remedial actions properly implemented	1. Submit proposals for remedial actions to ER within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
Limit Level			
Exceedance for one sample	1. Identify source 2. Inform ER and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep EPD and ER informed of the results	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Check monitoring data and Contractor's working methods 4. Discuss with Environmental Team Leader and Contractor potential remedial actions 5. Ensure remedial actions properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to ER within 3 working days of notification 3. Implements the agreed proposals 4. Amend proposal if appropriate

Event Level	Action		
	ET	**ER**	**CONTRACTOR**
Action Level			
Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER and EPD the causes & actions taken for the exceedances 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Investigate the causes of exceedance 6. Arrange meeting with EPD and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep EPD and ER informed of the results & if exceedance stops, cease additional monitoring	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 4. Discuss amongst Environmental Team Leader and the Contractor potential remedial actions 5. Review Contractor's remedial actions whenever necessary to assure their effectiveness 6. If exceedance continues consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action avoid further exceedance 2. Submit proposals for remedial actions to ER within 3 working days of notification 3. Implements the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Appendix H2

Event/Action Plan for Noise

Appendix H2: Event/Action Plan for Construction Noise

Event	Action		
	ET Leader	**ER**	**Contractor**
Action Level	1. Notify ER 2. Analyse investigation 3. Increase monitoring frequency to check mitigation effectiveness	1. Notify Contractor 2. Require Contractor to propose measures* for the analysed noise problem	1. Submit noise mitigation proposals to Environmental Team 2. Implement noise mitigation proposals*
Limit Level	1. Notify ER 2. Notify EPD	1. Notify Contractor 2. Require contractor to implement mitigation measures* Increase monitoring frequency to check mitigation effectiveness	1. Implement mitigation measures 2. Prove to Environmental Team Leader ER effectiveness of measures applied
*	*Mitigation Measures may include:* • *Relocation of noise emitting plant* • *Use of silenced or super-silenced equipment* • *Use of acoustic sheds or screens* • *Limit quantity of plant operating* • *Change working technique*		

Appendix I

Implementation Status of Environmental Protection Requirements

Appendix I: Implementation Status of Environmental Protection Requirement

Environmental Protection Measures		Timing	Implementation Stages*		
Activities			29/7/02 to 28/8/02	29/8/02 to 28/9/02	29/9/02 to 28/9/02
Landscape and visual	Erection, painting and maintenance of site hoardings around works and storage areas.	Throughout the construction period	√ (not all)	√ (not all)	√ (In progress)
	Restrictions on the height of material/spoil stockpiles.		√	√	√
	Prompt hydro-seeding of disturbed areas and cut/fill slopes prior to the permanent landscaping works.		N/A	N/A	N/A
	Avoidance of chunam or shotcreting slope treatments.		√	√ (not all)	√ (not all)
	Conservation of topsoil where practical.		√	√ (not all)	√ (not all)
	Site litter patrols and regular site waste collection.		√	?	?
	Maintenance of planting.		√	√	√
Ecological Impact	Minimise damage outside works areas		√	√	√
Construction:					
Material Storage	Covers for dusty stockpiles	Throughout the construction period	√ (not all)	√ (not all)	?
Vehicle movement	Haul road watering, vehicle wheel wash prior to exit. Where practical, access roads should be protected with crushed gravel.		√ (not all)	√ (not all)	?
Plant maintenance	All plant shall be maintained to prevent any undue air emissions.		√	√	√
All plant activity	Reference should be made the EM&A Manual Action Plan for measures for consideration when Noise Limit Levels are not met.		N/A	N/A	N/A

* N/A = Not Applicable
✓ = Implemented
? = Rectified

Environmental Protection Measures		Timing	Implementation Stages*		
Activities			29/7/02 to 28/8/02	29/8/02 to 28/9/02	29/9/02 to 28/9/02
Plant maintenance	All plant shall be maintained to prevent any undue noise nuisance.	Throughout the construction period	√	√	√
Wheel wash	All wheel wash water shall be diverted to a sediment pit.		√ (Not all)	√ (Not all, in progress)	√ (Not all, in progress)
Concrete Truck Washout	All concrete trucks shall wash out into a lined pit.		√ (Not all)	√ (Not all)	√ (Not all)
Surface water diversion	All clean surface water shall be diverted around the site.		√ (Not all)	√ (Not all)	√ (Not all)
Sediment control	Sediment removal facilities shall be provided and be maintained and excavated as necessary to prevent sedimentation of the channel. Perimeter channels shall be provided. Works shall be programmed for the dry season where feasible.		√ (Not all, in progress)	√ (Not all, in progress)	√ (In progress) 1 Chemical Wastewater plant has been established
Fuel can storage	All fuel cans shall be placed within a bundled area. Any fuel spills shall be mopped up as necessary.		√	√ (Not all)	√ (Not all)
Slope covers	Finished slopes and other slopes near drainage areas shall be covered prior to rains to reduce sedimentation of runoff. Slopes should be hydroseeded or shotcreted as early as possible to prevent erosion.		√	√ (Not all)	√ (Not all)
Excavation works	Excavation works shall avoid sensitive areas.	Throughout the excavation work period	√	√	√
Material, plant movement & fuel can refilling.	Any fuel or oil spills shall be excavated and disposed of.	Throughout the construction period	√	√	√

* N/A = Not Applicable
✓ = Implemented
? = Rectified

Environmental Protection Measures		Timing	Implementation Stages*		
Activities			29/7/02 to 28/8/02	29/8/02 to 28/9/02	29/9/02 to 28/9/02
Generators	All generators shall be placed within a bundled area. Any fuel spills shall be mopped up as necessary.	Throughout the construction period	√ (not all)	√	√
Material containers	All empty bags and containers shall be collected for disposal.		√	√	?
Worker generated litter and Waste	Litter receptacles shall be placed around the site. Litter shall be taken regularly to the refuse collection points. Chemical toilets (or suitable equivalent) should be provided for workers. Any canteens should have grease-traps.		√	?	?
Neighborhood nuisance	All complaints regarding construction works shall be relayed to the Environmental Team.		√	√	√
Legal requirements	Different types of waste should be segregated, stored, transported and disposed of in accordance with the relevant legislative requirements and guidelines		√	√	√ (in progress)
On-site separation	On-site separation of municipal solid waste and construction/demolition wastes should be conducted as far as possible in order to minimize the amount of solid waste to be disposed to landfill.		√	√ (in progress)	√ (in progress)
Temporary storage area	Separated wastes should be stored in different containers, skips, or stockpiles to enhance reuse or recycling of materials and encourage their proper disposal.		√	√	√ (in progress)
Record of wastes	Records of quantities of wastes generated, recycled and disposed (with locations) should be properly kept.		√ (in progress)	√ (in progress)	√ (in progress)
Trip-ticket system	To monitor the disposal of waste at landfills and control fly-tipping, a "trip-ticket" system for all solid waste transfer/disposal operations should be implemented. The system should be included as a contractual requirement, and monitored by the Environmental Team and audited by the Independent Environmental Checker.		√	√	√

* N/A = Not Applicable
✓ = Implemented
? = Rectified

Appendix J

1-hour and 24-hour TSP Monitoring Results

The Summary of 1-hr TSP Concentration (μg/m^3) at Mei Foo Sun Chuen (ASR 1)

Date	Sampling Time	Elapsed Time (min)	Initial Standard Flow Rate (m^3/min)	Final Standard Flow Rate (m^3/min)	Averaged Standard Flow Rate (m^3/min)	Total Standard Volume (m^3)	Initial Filter Weight (g)	Final Filter Weight (g)	TSP Concentration μg/m^3
2-Oct-02	9:35	67.20	1.39	1.39	1.39	93.40	2.7514	2.7648	143.5
2-Oct-02	10:44	52.56	1.37	1.37	1.37	72.23	2.7349	2.7463	157.8
2-Oct-02	11:45	65.40	1.37	1.37	1.37	89.76	2.7498	2.7648	167.1
7-Oct-02	9:30	70.80	1.41	1.42	1.41	100.18	2.7490	2.7688	197.7
7-Oct-02	10:43	57.00	1.42	1.41	1.41	80.64	2.7470	2.7659	234.4
7-Oct-02	11:45	79.20	1.41	1.41	1.41	111.89	2.7311	2.7507	175.2
12-Oct-02	9:29	56.40	1.40	1.40	1.40	79.01	2.7404	2.7600	248.1
12-Oct-02	10:24	60.00	1.40	1.40	1.40	83.90	2.7416	2.7537	144.2
12-Oct-02	11:26	81.60	1.40	1.39	1.40	113.85	2.7487	2.7656	148.4
18-Oct-02	14:03	66.00	1.39	1.39	1.39	91.82	2.7625	2.7752	138.3
18-Oct-02	15:09	59.40	1.39	1.39	1.39	82.64	2.7481	2.7575	113.7
18-Oct-02	16:10	54.00	1.39	1.39	1.39	75.13	2.7662	2.7740	103.8
24-Oct-02	9:20	63.00	1.42	1.42	1.42	89.51	2.7534	2.7671	153.1
24-Oct-02	10:25	61.20	1.41	1.40	1.40	85.85	2.7568	2.7667	115.3
24-Oct-02	11:28	64.20	1.41	1.41	1.41	90.77	2.7380	2.7520	154.2

The Summary of 24-hrs TSP Concentration (μg/m^3) at Mei Foo Sun Chuen (ASR1)

Date	Sampling Time	Elapsed Time (min)	Initial Standard Flow Rate (m^3/min)	Final Standard Flow Rate (m^3/min)	Averaged Standard Flow Rate (m^3/min)	Total Standard Volume (m^3)	Initial Filter Weight (g)	Final Filter Weight (g)	TSP Concentration μg/m^3
30-Sep-02	0:00	1432.80	1.36	1.36	1.36	1950.08	2.7548	2.9069	78.0
5-Oct-02	0:00	1455.60	1.37	1.39	1.38	2008.16	2.7496	2.9314	90.5
11-Oct-02	0:00	1434.60	1.41	1.40	1.41	2018.81	2.7489	2.9273	88.4
17-Oct-02	0:00	1434.00	1.39	1.39	1.39	1991.35	2.7664	2.8973	65.7
23-Oct-02	0:00	1459.80	1.40	1.42	1.41	2060.77	2.7600	2.8439	40.7

The Summary of 1-hr TSP Concentration (μg/m^3) at Stonecutters Base (ASR2)

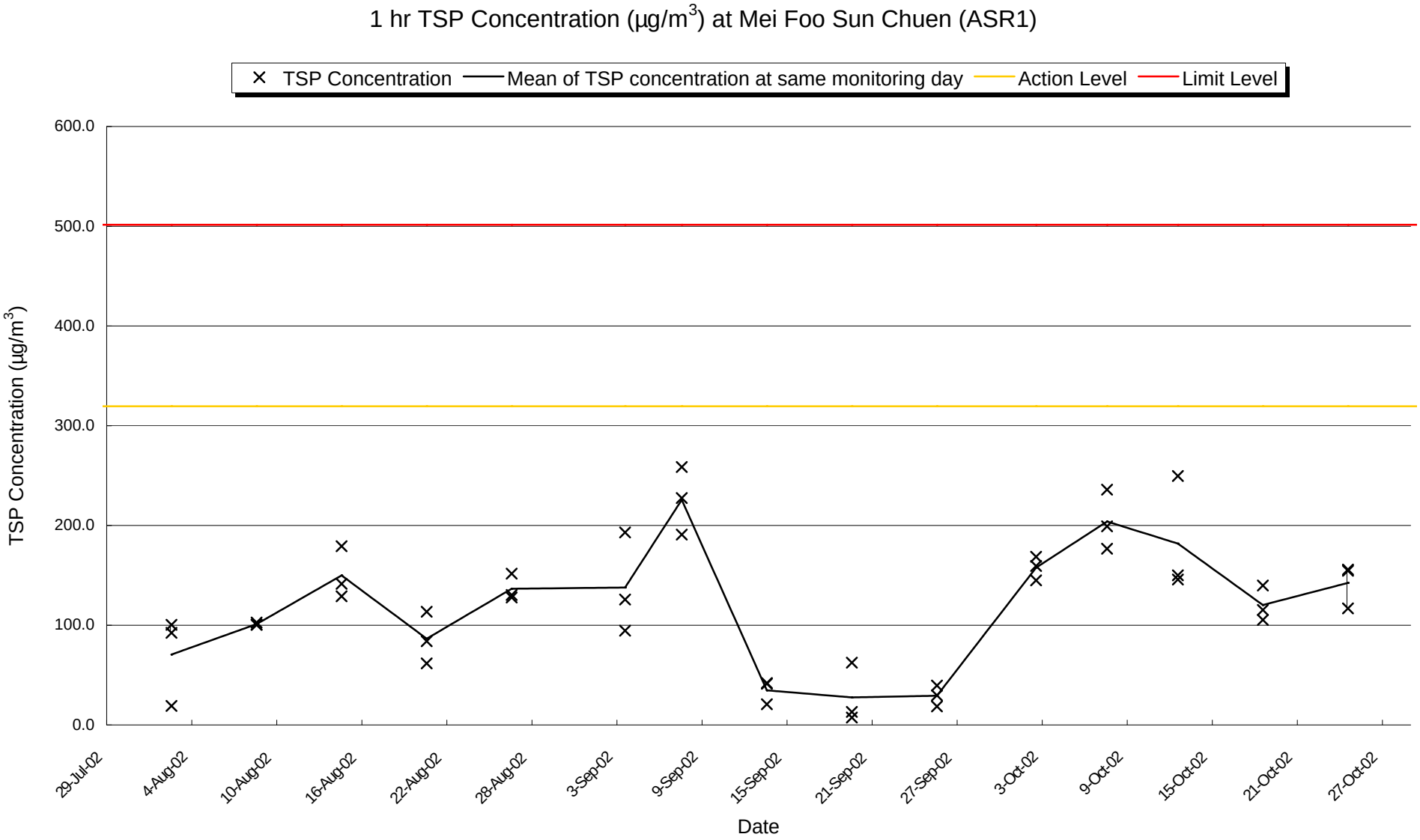
Date	Sampling Time	Elapsed Time (min)	Initial Standard Flow Rate (m^3/min)	Final Standard Flow Rate (m^3/min)	Averaged Standard Flow Rate (m^3/min)	Total Standard Volume (m^3)	Initial Filter Weight (g)	Final Filter Weight (g)	TSP Concentration μg/m^3
2-Oct-02	9:09	74.40	1.41	1.41	1.41	104.86	2.7543	2.7780	226.0
2-Oct-02	10:25	58.20	1.41	1.41	1.41	81.89	2.7414	2.7544	158.7
2-Oct-02	11:25	53.40	1.41	1.40	1.41	75.04	2.7450	2.7589	185.2
7-Oct-02	9:11	70.20	1.44	1.44	1.44	100.81	2.7442	2.7708	263.9
7-Oct-02	10:23	62.40	1.45	1.45	1.45	90.52	2.7397	2.7611	236.4
7-Oct-02	11:25	54.00	1.45	1.45	1.45	78.25	2.7574	2.7749	223.6
12-Oct-02	9:09	54.60	1.44	1.44	1.44	78.46	2.7312	2.7458	186.1
12-Oct-02	10:05	54.00	1.44	1.43	1.43	77.46	2.7441	2.7539	126.5
12-Oct-02	10:58	55.80	1.43	1.41	1.42	79.40	2.7665	2.7737	90.7
18-Oct-02	10:29	47.40	1.41	1.41	1.41	66.87	2.7668	2.7773	157.0
18-Oct-02	14:36	53.40	1.44	1.44	1.44	76.94	2.7522	2.7690	218.4
18-Oct-02	15:31	60.00	1.44	1.46	1.45	86.89	2.7428	2.7590	186.4
24-Oct-02	9:09	63.00	1.46	1.44	1.45	91.35	2.7474	2.7666	210.2
24-Oct-02	10:09	62.40	1.44	1.43	1.44	89.70	2.7542	2.7737	217.4
24-Oct-02	11:14	54.00	1.43	1.43	1.43	77.44	2.7271	2.7412	182.1

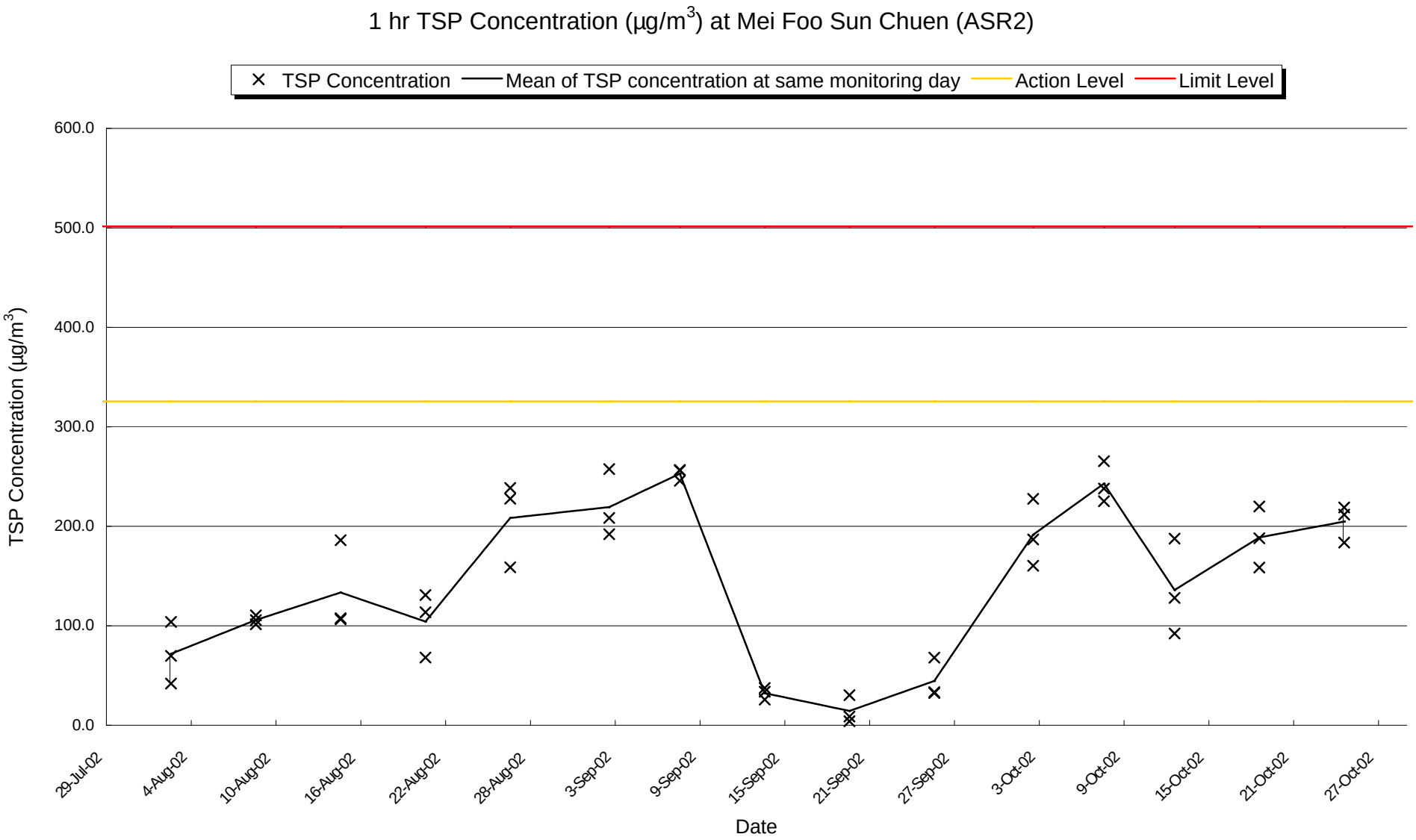
The Summary of 24-hrs TSP Concentration (μg/m^3) at Stonecutters Base (ASR2)

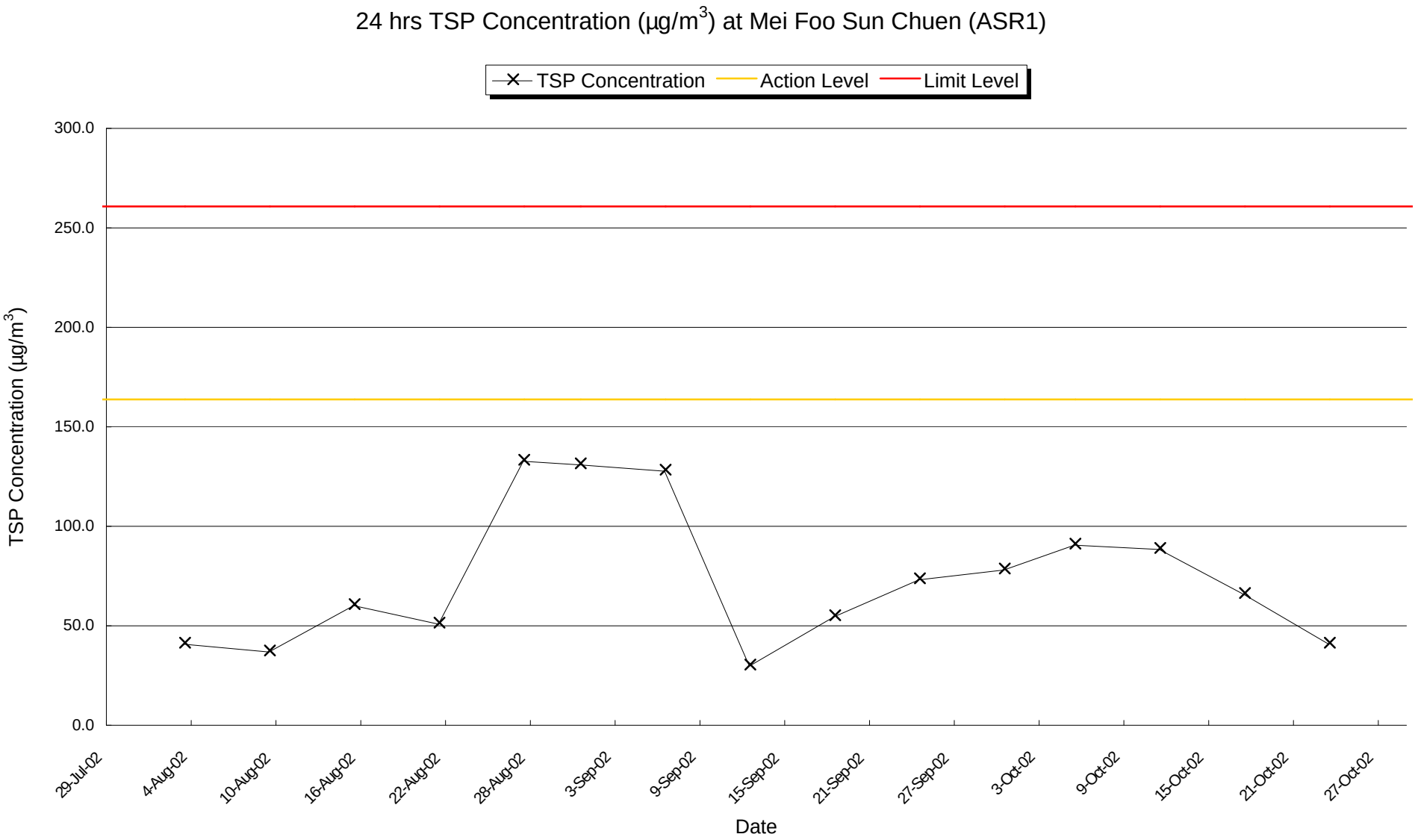
Date	Sampling Time	Elapsed Time (min)	Initial Standard Flow Rate (m^3/min)	Final Standard Flow Rate (m^3/min)	Averaged Standard Flow Rate (m^3/min)	Total Standard Volume (m^3)	Initial Filter Weight (g)	Final Filter Weight (g)	TSP Concentration μg/m^3
30-Sep-02	0:00	1482.00	1.38	1.38	1.38	2040.78	2.7651	2.8820	57.3
5-Oct-02	0:00	1418.40	1.41	1.42	1.41	2004.89	2.7516	2.9156	81.8
11-Oct-02	0:00	1432.80	1.45	1.42	1.43	2055.91	2.7458	2.9875	117.6
17-Oct-02	0:00	1429.80	1.40	1.41	1.41	2012.15	2.7297	2.8609	65.2
23-Oct-02	0:00	1416.60	1.45	1.46	1.46	2062.09	2.7651	2.9129	71.7

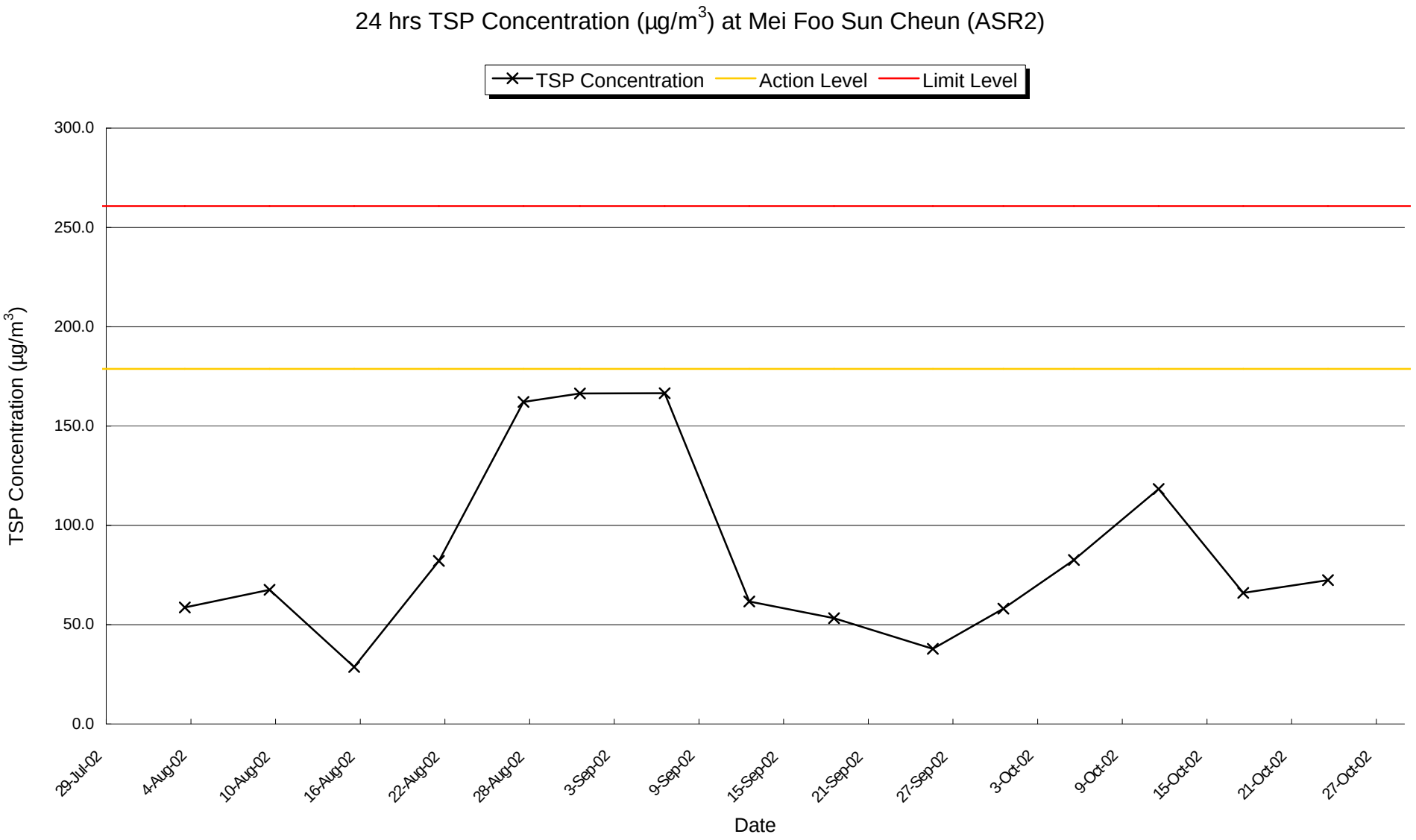
Appendix K

Graphical Presentation of 1-hour and 24-hour. TSP Monitoring Results


1 hr TSP Concentration (µg/m3) at Mei Foo Sun Chuen (ASR1)
TSP Concentration
Mean of TSP concentration at same monitoring day
Action Level
Limit Level
TSP Concentration (µg/m3)
600.0
500.0
400.0
300.0
200.0
100.0
0.0
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
9-Oct-02
15-Oct-02
21-Oct-02
27-Oct-02
Date


1 hr TSP Concentration (µg/m3) at Mei Foo Sun Chuen (ASR2)
TSP Concentration
Mean of TSP concentration at same monitoring day
Action Level
Limit Level
TSP Concentration (µg/m3)
600.0
500.0
400.0
300.0
200.0
100.0
0.0
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
9-Oct-02
15-Oct-02
21-Oct-02
27-Oct-02
Date


24 hrs TSP Concentration (µg/m3) at Mei Foo Sun Chuen (ASR1)
TSP Concentration
Action Level
Limit Level
TSP Concentration (µg/m3)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
9-Oct-02
15-Oct-02
21-Oct-02
27-Oct-02
Date


24 hrs TSP Concentration (µg/m3) at Mei Foo Sun Cheun (ASR2)
TSP Concentration
Action Level
Limit Level
TSP Concentration (µg/m3)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
9-Oct-02
15-Oct-02
21-Oct-02
27-Oct-02
Date

Appendix L

Wind Data Monitoring Results

Appendix L: Wind Data Monitoring Result

Wind Speed during Impact Noise Monitoring

		Wind Speed m/s	
Date	Time	Mean	Max
2-Oct-02	09:55~10:25	0.0	0.0
2-Oct-02	10:44~11:14	0.3	1.2
7-Oct-02	09:50~10:20	0.3	0.7
7-Oct-02	10:40~11:10	0.4	0.7
9-Oct-02	19:10~19:40	0.2	1.2
9-Oct-02	19:38~20:08	0.0	0.0
12-Oct-02	09:49~10:19	0.0	0.0
12-Oct-02	10:30~11:00	1.6	2.9
[1]18-Oct-02	13:30~14:00	-	-
[1]18-Oct-02	14:35~15:05	-	-
18-Oct-02	19:21~19:51	0.5	2.9
18-Oct-02	20:06~20:36	0.0	0.0
24-Oct-02	09:41~10:11	0.3	0.8
24-Oct-02	10:23~10:53	0.5	0.9

[1]No wind speed data due to relocation of weather station

Appendix L: Wind Data Monitoring Result

Wind Direction during Impact Air Monitoring
- Frequency of Wind Direction at 5 minute Interval

Date	Wind Direction (Degree)															
	0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
30-Sep-02	0	0	0	22	216	0	0	0	0	0	0	0	0	0	0	0
2-Oct-02	0	0	0	17	70	2	0	0	0	0	0	0	0	0	0	0
5-Oct-02	1	0	0	12	161	16	0	0	0	0	0	0	0	0	0	0
7-Oct-02	8	3	14	18	2	0	1	0	1	1	0	1	8	3	3	12
11-Oct-02	0	0	2	16	5	6	3	2	6	13	8	8	5	2	1	0
12-Oct-02	0	0	1	56	66	0	0	0	0	0	0	0	0	0	0	1
17-Oct-02	0	0	0	25	144	77	17	0	0	0	0	0	0	0	0	0
[1]18-Oct-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23-Oct-02	58	48	16	7	9	10	15	13	2	1	0	0	2	1	3	25
24-Oct-02	47	16	1	1	12	6	20	13	13	0	0	0	0	0	0	9

[1]No wind direction data due to relocation of weather station

Appendix M1

Noise Monitoring Results for Normal Hour

The Summary of Day-time Leq_{30} Level at Mei Foo Sun Chuen (NSR 1)

Date	Monitoring Time	Duration min	Leq dB(A)	L10 dB(A)	L90 dB(A)	Limit Level dB(A)
2-Oct-02	10:44	30	62.5	63.7	60.9	75.0
7-Oct-02	10:40	30	62.8	64.0	60.9	75.0
18-Oct-02	10:40	30	67.4	71.8	62.0	75.0
24-Oct-02	10:23	30	60.0	61.5	58.3	75.0

The Summary of Day-time Leq_{30} Level at Stonecutters Base (NSR 2)

Date	Monitoring Time	Duration min	Leq dB(A)	L10 dB(A)	L90 dB(A)	Limit Level dB(A)
2-Oct-02	09:55	30	74.2	78.2	69.5	75.0
7-Oct-02	09:50	30	74.5	77.2	68.4	75.0
18-Oct-02	14:35	30	74.4	79.1	69.0	75.0
24-Oct-02	09:41	30	70.9	73.4	66.0	75.0

Appendix M2

Noise Monitoring Results for Restricted Hour

The Summary of Evening-time Leq_5 Level at Mei Foo Sun Chuen (NSR 1)

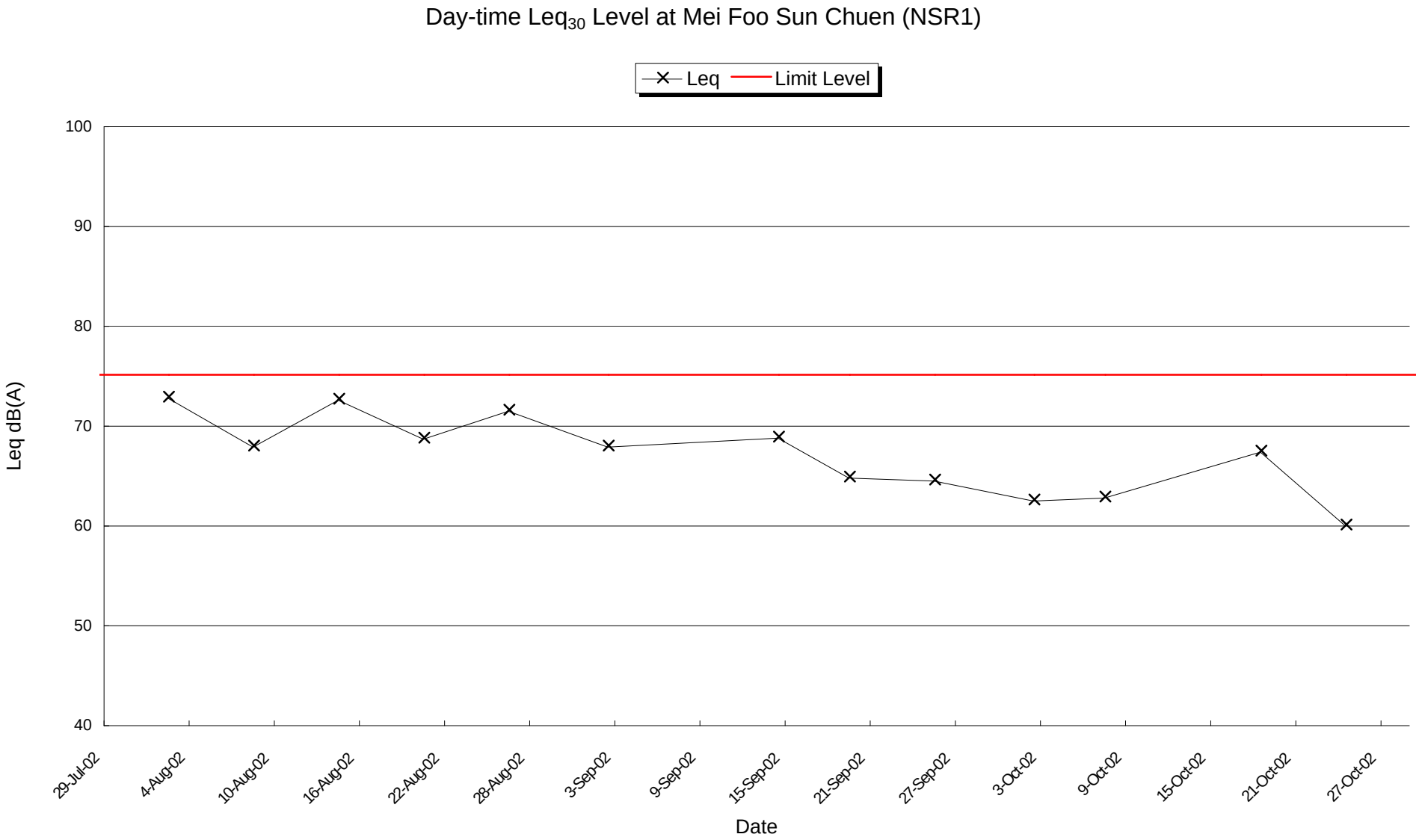
Date	Monitoring Time	Duration min	Leq dB(A)	L10 dB(A)	L90 dB(A)	Limit Level dB(A)
9-Oct-02	19:38	5	60.9	63.2	57.1	70.0
9-Oct-02	19:43	5	61.3	63.5	57.0	70.0
9-Oct-02	19:48	5	62.1	64.3	58.0	70.0
9-Oct-02	19:53	5	58.4	60.4	53.8	70.0
9-Oct-02	19:58	5	58.6	60.9	54.4	70.0
9-Oct-02	20:03	5	59.1	61.2	54.4	70.0
18-Oct-02	20:06	5	60.6	63.0	56.1	70.0
18-Oct-02	20:11	5	61.0	64.5	56.5	70.0
18-Oct-02	20:16	5	61.6	65.0	57.0	70.0
18-Oct-02	20:21	5	58.1	61.0	53.4	70.0
18-Oct-02	20:26	5	59.2	61.6	54.0	70.0
18-Oct-02	20:31	5	58.4	61.5	53.6	70.0

The Summary of Evening-time Leq_5 Level at Stonecutters Base (NSR 2)

Date	Monitoring Time	Duration min	Leq dB(A)	L10 dB(A)	L90 dB(A)	Limit Level dB(A)
9-Oct-02	19:10	5	76.6	79.8	68.0	70.0
9-Oct-02	19:15	5	76.1	80.1	69.3	70.0
9-Oct-02	19:20	5	76.5	78.8	67.1	70.0
9-Oct-02	19:25	5	74.9	78.9	67.8	70.0
9-Oct-02	19:30	5	75.6	79.1	68.1	70.0
9-Oct-02	19:35	5	74.5	78.5	68.4	70.0
18-Oct-02	19:21	5	74.8	78.8	69.1	70.0
18-Oct-02	19:26	5	74.4	78.7	68.8	70.0
18-Oct-02	19:31	5	73.8	78.0	67.9	70.0
18-Oct-02	19:36	5	73.9	78.0	68.1	70.0
18-Oct-02	19:41	5	74.1	78.7	68.2	70.0
18-Oct-02	19:46	5	74.0	79.0	69.3	70.0

Appendix N1

Graphical Presentation of Noise Monitoring Results for Normal Hour


Day-time Leq30 Level at Mei Foo Sun Chuen (NSR1)
Leq
Limit Level
Leq dB(A)
100
90
80
70
60
50
40
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
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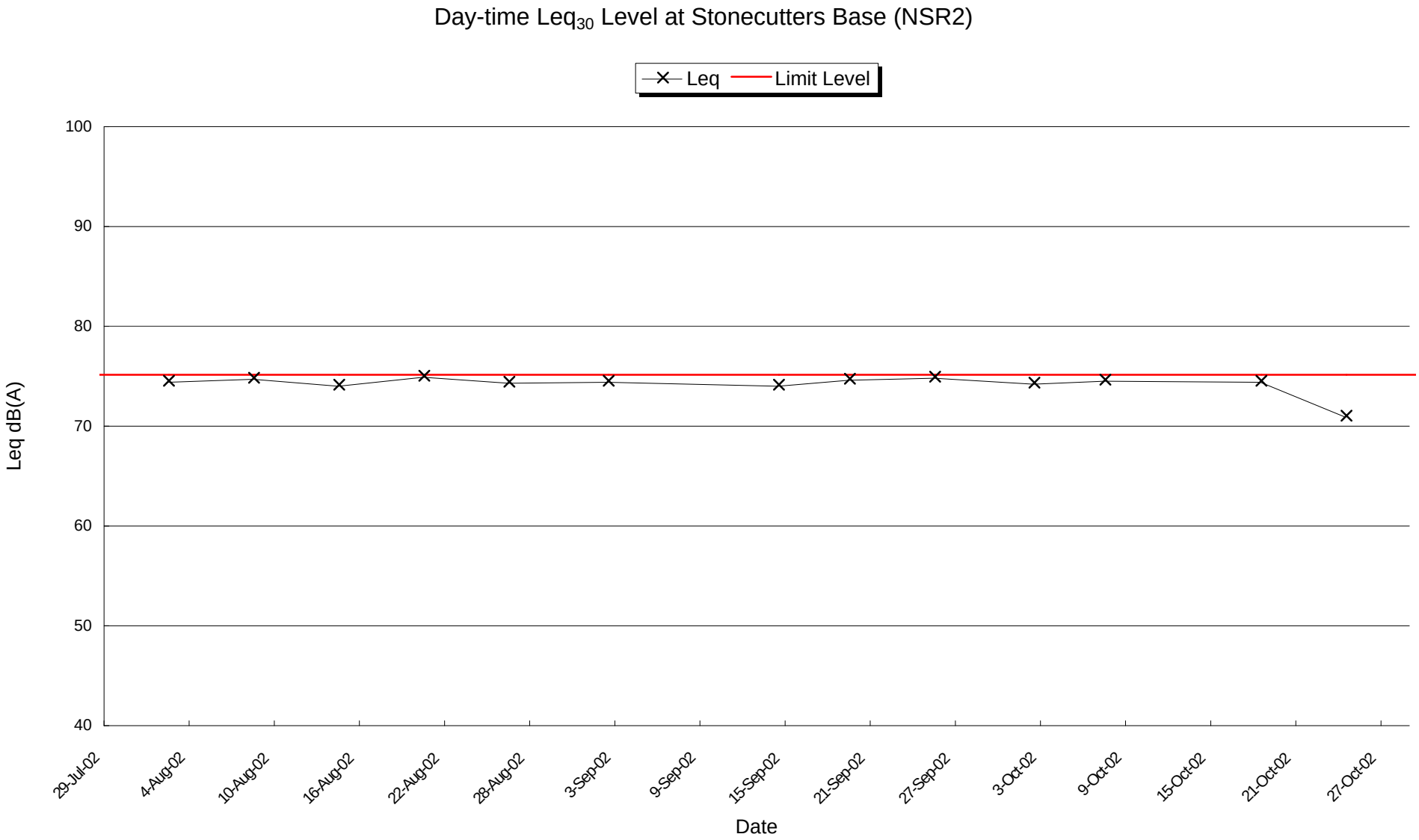
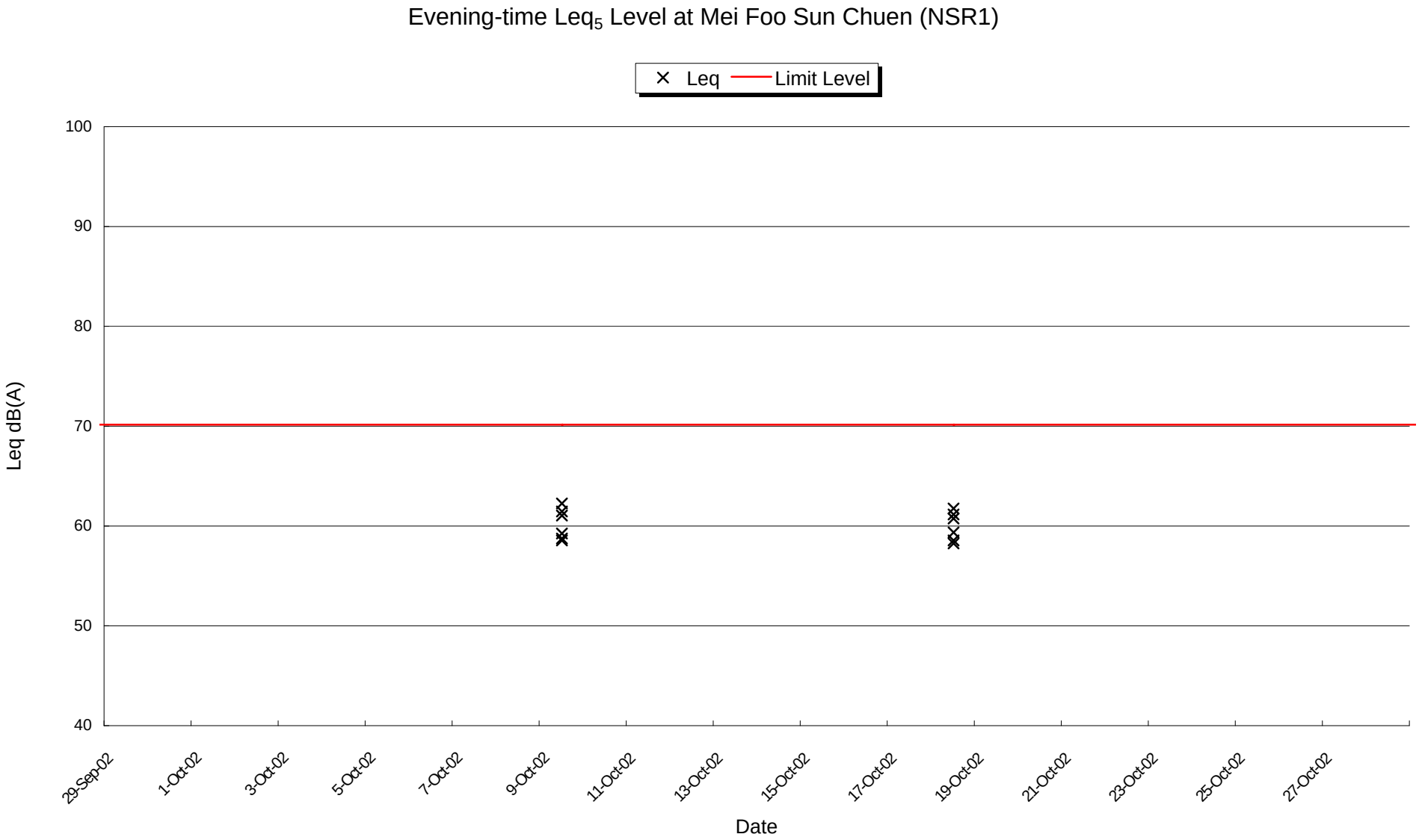
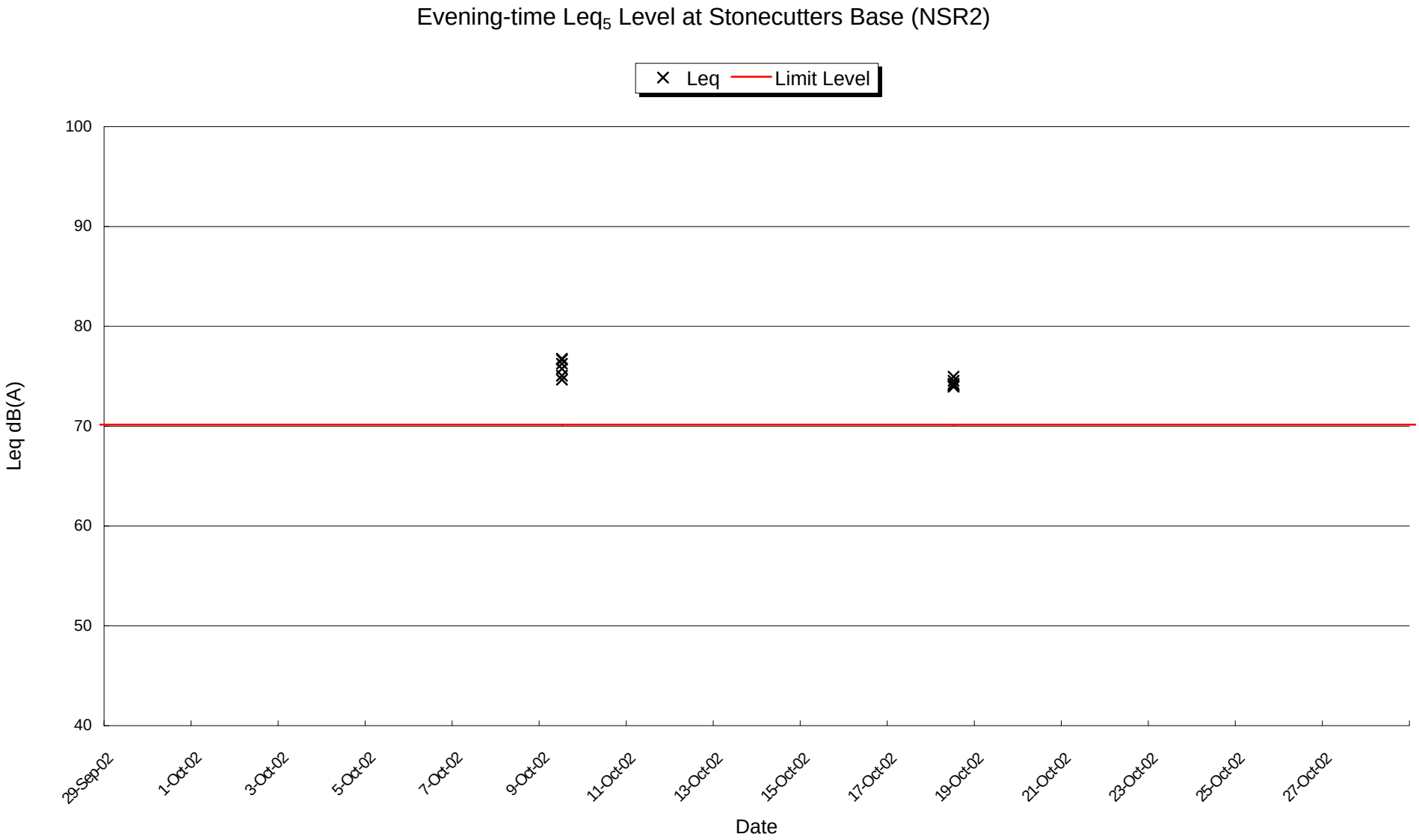
15-Oct-02
21-Oct-02
27-Oct-02
Date


Day-time Leq30 Level at Stonecutters Base (NSR2)
Leq
Limit Level
Leq dB(A)
100
90
80
70
60
50
40
29-Jul-02
4-Aug-02
10-Aug-02
16-Aug-02
22-Aug-02
28-Aug-02
3-Sep-02
9-Sep-02
15-Sep-02
21-Sep-02
27-Sep-02
3-Oct-02
9-Oct-02
15-Oct-02
21-Oct-02
27-Oct-02
Date

Appendix N2

Graphical Presentation of Noise Monitoring Results for Restricted Hour


Evening-time Leq5 Level at Mei Foo Sun Chuen (NSR1)
Leq
Limit Level
Leq dB(A)
100
90
80
70
60
50
40
29-Sep-02
1-Oct-02
3-Oct-02
5-Oct-02
7-Oct-02
9-Oct-02
11-Oct-02
13-Oct-02
15-Oct-02
17-Oct-02
19-Oct-02
21-Oct-02
23-Oct-02
25-Oct-02
27-Oct-02
Date


Evening-time Leq5 Level at Stonecutters Base (NSR2)
Leq
Limit Level
Leq dB(A)
100
90
80
70
60
50
40
29-Sep-02
1-Oct-02
3-Oct-02
5-Oct-02
7-Oct-02
9-Oct-02
11-Oct-02
13-Oct-02
15-Oct-02
17-Oct-02
19-Oct-02
21-Oct-02
23-Oct-02
25-Oct-02
27-Oct-02
Date

Appendix O1

Environmental Complaint Log Book

Appendix O1-Summary of Previous Complaints Details

Case No	Date of Received	Date of Complaint	Complainant's information	Detail's of complaint	Recommended Mitigation Measures	Follow-up Action	Status/Remarks
E2002-01	19-Aug-02	19-Aug-02	Complaint was referred by HyD on 19-Aug-02	Illegal Dumping (Soil and mud/C&D waste) on Lai Po Road; near the site entrance of KMB Depot on 19-Aug-02. Suspect not due to the Project's work.	Clear up the illegal dumping on site.	CHEC and RSS report that the illegal dumping were found within the site boundary in a.m. on 19-Aug-02. CHEC cleared up the soil and waste in p.m. on 19-Aug-02.	Closed. Follow-up phone call to complainant on 20-Aug-02. The complainant was satisfied to our prompt action.
						Investigations were undertaken by ET on 20 and 21 Aug 02. The waste was cleared up and no further illegal dumping was found at the same location.	
EC2002-02	20-Sep-02	9-Sep-02	Complaint was referred by EPD on 20-Sept-02.	Noise and vibration at the complainant's office generated from the piling works at the site between Hing Wah Street West and Lai Po Road.	Several vibration measures were implemented since 27 August 2002. The Contractor used a smaller power vibro hammer for casing installation, limit the casing installation operation to 7:00am-9:00am, 12:00-13:00pm and 17:00 -19:00pm, and carry out vibration monitoring to ensure the magnitude of vibration during casing installation is within the specified limit.	Site investigation by ET Leader on 24 and 25 September 2002.	Closed. Site meeting with EPD on 25 September 2002 and they had no further comment for the carried out mitigation measures. ET Leader send a comprehensive report to EPD on 30 September 2002.
						No noise exceedance was recorded at the two designated location since the commencement of construction work.	
EC2002-03	15-Oct-02	15-Oct-02	Complaint was referred by HyD H/Q on 15-Oct-02.	Stacking of grass stockpiled within the fenced area between the Lai Po Road northbound and MTRC boundary fence. The fence area was a vacant Government Land maintained by District Land Officer (DLO), Kwai Tsing. The stack of glass was generated from grass cutting which was conducted by the sub-contractor of DLO on 12-Oct-02.	Investigations were carried out by RSS on 15, 16 and 18 October 2002. After confirming with HyD and LCSD that the glass cutting was not by their contractors; DLO was consulted. DLO comfirmed that the grass was cut by his contractor and replied that the stack of glass would be removed from the area within a week.	Follow-up phone call to complainant on 21-Oct-02. The complainant was satisfied to DLO's action.	Closed. A comprehensive letter has been send to the complainant on 22 October 2002.
					A follow-up site meeting was held between DLO and RSS on 21-Oct-02. The stacks of glass had been removed from site.		

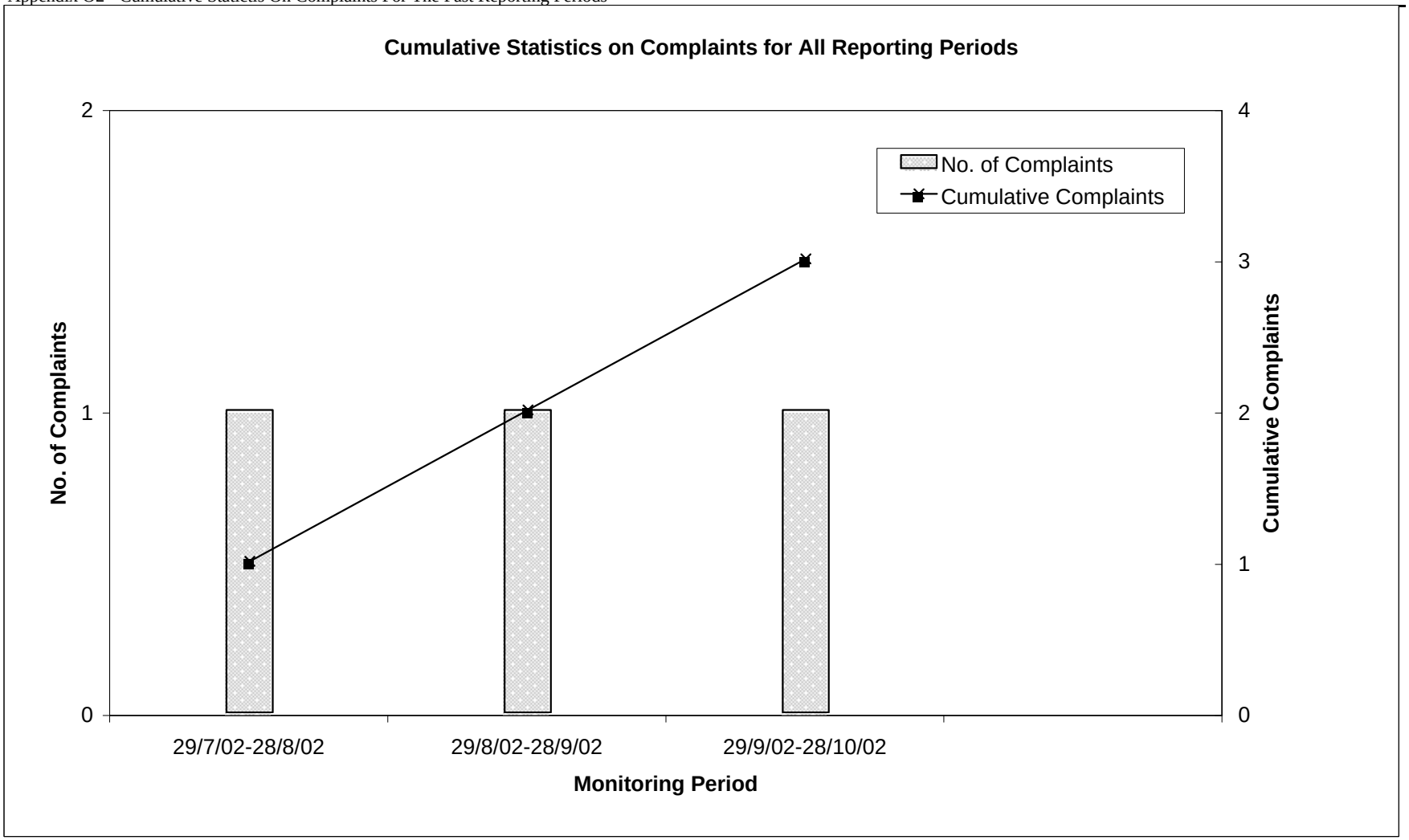
Appendix O2

Cumulative Statistics for Environmental Complaint

Appendix O2 - Cumulative Statistics of Complaints

Route 9 Ngong Shuen Chau Viaduct

Appendix O2 - Cumulative Statictis On Complaints For The Past Reporting Periods



Appendix P

Tentative Enviromental Monitoring Schedule from 29th October 2002 to 28th January 2003

Environmental Monitoring Schedule between 29-October and 28-November 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		29-Oct 24hrs-TSP	30-Oct 1hr-TSP Noise	31-Oct	1-Nov	2-Nov
3-Nov $Noise_{PH}$	4-Nov 24hrs-TSP	5-Nov 1hr-TSP Noise	6-Nov	7-Nov	8-Nov	9-Nov 24hrs-TSP
10-Nov $Noise_{PH}$	11-Nov 1hr-TSP Noise	12-Nov	13-Nov	14-Nov	15-Nov 24hrs-TSP	16-Nov 1hr-TSP
17-Nov $Noise_{PH}$	18-Nov	19-Nov	20-Nov	21-Nov 24hrs-TSP	22-Nov 1hr-TSP Noise	23-Nov
24-Nov $Noise_{PH}$	25-Nov	26-Nov	27-Nov 24hrs-TSP	28-Nov 1hr-TSP Noise		

1hr-TSP	3 x 1 hour TSP monitoring at ASR1 and ASR2 during 09:00~18:00.
24hrs-TSP	24 hours TSP monitoring at ASR1 and ASR2
Noise	Leq_{30} measurement at NSR1 and NSR2 during 07:00~19:00.
$Noise_{Evening}$	6 x Leq_5 measurement at NSR1 and NSR2 during 19:00~23:00 (if construction activities are undertaken).
$Noise_{PH}$	6 x leq_5 will be measured during 07:00~19:00 (if construction activities are undertaken).

Tentative Environmental Monitoring Schedule between 29-November and 28-December 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					29-Nov	30-Nov
1-Dec $Noise_{PH}$	2-Dec	3-Dec 24hrs-TSP	4-Dec 1hr-TSP Noise	5-Dec	6-Dec	7-Dec
8-Dec $Noise_{PH}$	9-Dec 24hrs-TSP	10-Dec 1hr-TSP Noise	11-Dec	12-Dec	13-Dec	14-Dec 24hrs-TSP
15-Dec $Noise_{PH}$	16-Dec 1hr-TSP Noise	17-Dec	18-Dec	19-Dec	20-Dec 24hrs-TSP	21-Dec 1hr-TSP
22-Dec $Noise_{PH}$	23-Dec	24-Dec 24hrs-TSP	25-Dec	26-Dec	27-Dec 1hr-TSP Noise	28-Dec

1hr-TSP	3 x 1 hour TSP monitoring at ASR1 and ASR2 during 09:00~18:00.
24hrs-TSP	24 hours TSP monitoring at ASR1 and ASR2
Noise	Leq_{30} measurement at NSR1 and NSR2 during 07:00~19:00.
$Noise_{Evening}$	6 x Leq_5 measurement at NSR1 and NSR2 during 19:00~23:00 (if construction activities are undertaken).
$Noise_{PH}$	6 x leq_5 will be measured during 07:00~19:00 (if construction activities are undertaken).

Tentative Environmental Monitoring Schedule between 29-December and 28-January 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29-Dec $Noise_{PH}$	30-Dec	31-Dec 24hrs-TSP Noise	1-Jan	2-Jan 1hr-TSP Noise	3-Jan	4-Jan
5-Jan $Noise_{PH}$	6-Jan	7-Jan 24hrs-TSP	8-Jan 1hr-TSP Noise	9-Jan	10-Jan	11-Jan
12-Jan $Noise_{PH}$	13-Jan 24hrs-TSP	14-Jan 1hr-TSP Noise	15-Jan	16-Jan	17-Jan	18-Jan 24hrs-TSP
19-Jan $Noise_{PH}$	20-Jan 1hr-TSP Noise	21-Jan	22-Jan	23-Jan	24-Jan 24hrs-TSP	25-Jan 1hr-TSP
26-Jan $Noise_{PH}$	27-Jan	28-Jan				

1hr-TSP	3 x 1 hour TSP monitoring at ASR1 and ASR2 during 09:00~18:00.
24hrs-TSP	24 hours TSP monitoring at ASR1 and ASR2
Noise	Leq_{30} measurement at NSR1 and NSR2 during 07:00~19:00.
$Noise_{Evening}$	6 x Leq_5 measurement at NSR1 and NSR2 during 19:00~23:00 (if construction activities are undertaken).
$Noise_{PH}$	6 x leq_5 will be measured during 07:00~19:00 (if construction activities are undertaken).