

JOB NO.: TCS00310/06

VERSION NO.: 2

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

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

**MONTHLY ENVIRONMENTAL MONITORING &
 AUDIT (EM&A) REPORT FOR **October 2009**
(No. 43) (DESIGNATED ELEMENTS)**

PREPARED FOR

**LEADER CIVIL ENGINEERING CORPORATION
 LIMITED**

Quality Index

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1	9 November 2009	First Submission
2	12 November 2009	Amended against IEC's comments received on 12 November 2009

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EXECUTIVE SUMMARY

- ES01. Leader Civil Engineering Corporation Limited (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project requires an Environmental Monitoring and Audit (EM&A) program to be implemented by an Environmental Team (ET) throughout the contract period in compliance with the requirements as stated in the project Environmental Permit (EP-220/2005) and the Project's Updated EM&A (Designated Elements) Manual.
- ES02. This Monthly Environmental Monitoring and Audit (EM&A) Report for **October 2009 (No. 43)** presents the environmental impact monitoring and audit (EM&A) program conducted from **1 to 31 October 2009** for the Designated Elements. The EM&A program in **October 2009** covered air quality, construction noise and waste management only.

BREACH OF ACTION AND LIMIT (AL) LEVELS

- ES03. A total of 4 Limit Level exceedances for 24-hour TSP monitoring were recorded at AM5 on 5, 10 and 29 October 2009, and at AM7 on 29 October 2009. Investigation is under progress pending information from the Contractor.
- ES04. No construction noise complaint (Action Level) or exceeded the Limit Level was recorded in this month.

COMPLAINT LOG

- ES05. No environmental complaint was received in this month.

NOTIFICATION OF ANY SUMMONS AND SUCCESSFUL PROSECUTION

- ES06. There was no environmental summons or prosecution in this month.

REPORTING CHANGES

- ES07. There are no changes in the reporting format or content in this month.

FUTURE KEY ISSUES

- ES08. Construction activities to be undertaken in **November 2009** include sheet piling, excavation, pipe laying, backfilling, concreting and extract sheet pile. Potential environmental impacts arising from the works include construction waste, air quality, noise and water quality (particularly site runoff during rainy seasons). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

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1.0 BASIC PROJECT INFORMATION

- 1.01 Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project is part of the Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKTSSD) Scheme. A site layout map showing the site boundary and the work areas is shown in [Annex A](#).
- 1.02 This [Monthly EM&A Report for October 2009 \(No. 43\)](#) (Designated Elements – Construction Phase) summarizes the impact monitoring results and audit findings from **1 to 31 October 2009**.

PROJECT ORGANIZATION

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

CONSTRUCTION PROGRAM OF THIS MONTH

- 1.04 A construction program showing the construction work undertaken in this month is shown in [Annex C](#). Environmental mitigation measures implemented are given in [Table 2-1](#).

MANAGEMENT STRUCTURE

- 1.05 The management structure of the Project is provided in [Annex B](#).

CONSTRUCTION ACTIVITIES UNDERTAKEN IN THIS MONTH

- 1.06 The major construction activities undertaken during this month under the Environmental Permit (EP-220/2005) were as follows:-

Kam Tin Pumping Station (P1)

- Sheet piling
- Excavation

Sha Po Pumping Station (P2)

- Sheet piling
- Excavation
- Backfilling
- Concreting

Nam Sang Wai Pumping Station (P3)

- Backfilling
- Concreting

Nam Sang Wai Road (S4)

- Sheet piling
- Excavation
- Pipe laying
- Backfilling
- Concreting
- Extract sheet pile

Pok Wai South Road (S5 and S6)

- Sheet piling
- Excavation
- Pipe laying
- Backfilling
- Concreting
- Extract sheet pile

2.0 ENVIRONMENTAL STATUS

WORKS UNDERTAKEN IN THIS MONTH

2.01 A summary of the works undertaken in this month with illustrations and environmental mitigation measures implemented is shown in [Table 2-1](#).

Table 2-1 Work Undertaken and Illustrations of Mitigation Measures

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

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

PROJECT DRAWINGS

2.03 Drawings showing the work areas under EP-220/2005 and the locations of the designated monitoring stations are presented in [Annex E](#).

- 2.04 There are four designated air quality monitoring stations (AM1, AM5, AM6 & AM7) and four noise monitoring stations (NM3, NM4, NM6 & NM7) under the project EP. Locations of the monitoring stations and description are summarized in **Table 2-2**.

Table 2-2 Description of the Monitoring Stations

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

3.0 SUMMARY OF EM&A REQUIREMENTS

MONITORING PARAMETERS

- 3.01 Environmental monitoring and audit requirements are set out in the Updated EM&A Manual. Air quality and construction noise have been identified as the key monitoring parameters during the construction phase of the project.
- 3.02 A summary of the impact EM&A requirements for air quality and construction noise is shown in **Table 3-1**.

Table 3-1 Summary of EM&A Requirements

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

ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

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

Table 3-2 Action and Limit Levels for Air Quality

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

Table 3-3 Action and Limit Levels for Construction Noise

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

EVENT AND ACTION PLANS

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

ENVIRONMENTAL MITIGATION MEASURES

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

ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS

- 3.06 The environmental requirements in the contract documents generally refer to the compliance of the requirements as stipulated in the project EP (EP-220/2005) and the updated EM&A Manual.

4.0 IMPLEMENTATION STATUS

- 4.01 The implementation status of environmental protection and pollution control/mitigation measures as recommended in the project EIA report are summarized in [Table 2-1](#) and the implementation schedule as shown in [Annex G](#).
- 4.02 The status of permits, licenses, and/or notifications related to environmental protection under this Project during the month is presented in [Table 4-1](#).

Table 4-1 Status of Environmental Licenses and Permits

Items	Item Description	License/Permit Status
1	Environmental Permit No.: EP-220/2005	Issued in June 2005
2	Air Pollution Control (Construction Dust)	Notified EPD on 24 Dec 2005
3	Chemical Waste Producer Registration (No. 5213-528-L2544-08)	Registration on 27 Jan 2006
4	Water Pollution Control (Discharge License No. 1U434/1)	Issued on 8 May 2006
5	Account for Disposal of Construction Waste No. 5004959	Registration on 27 Dec 2005

5.0 MONITORING RESULTS

MONITORING METHODOLOGY OF AIR QUALITY MONITORING

- 5.01 The 24-hour TSP monitoring was carried out by a High Volume Air Sampler (HVAS) in compliance with the updated EM&A Manual. The HVAS employed complies with the PS specifications including.
- Power supply of 220v/50 Hz for 24-hour continuous operation;
 - 0.6-1.7m³/min (20-60 SCFM) adjustable flow rate;
 - A 7-day mechanical timer for 24-hour operation;
 - An elapsed time indicator with ± 2 minutes accuracy for 24-hour operation;
 - Minimum exposed area of 63in²;
 - Flow control accuracy of $\pm 2.5\%$ deviation over 24-hour operation;
 - An anodized aluminum shelter to protect the filter and sampler;
 - A motor speed-voltage control to control mass flow rate with accuracy of $\pm 2.5\%$ deviation over 24-hour sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 5.02 The filter papers used in 24-hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis. The validation of all monitoring practices and data were following the in-house QA/QC procedures. Blank filters samples were collected and delivered to the HOKLAS-accredited laboratory for QA/QC check.
- 5.03 The meteorological information in this month was obtained from Lau Fau Shan Station of the Hong Kong Observatory (HKO).

METHODOLOGY FOR CONSTRUCTION NOISE MONITORING

- 5.04 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results (L₁₀ and L₉₀) were also obtained for reference.
- 5.05 Hand-held sound level meters and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specifications were used for taking the baseline noise measurements.
- 5.06 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).
- 5.07 No noise measurement was made in the presence of fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s.

LABORATORY AND MONITORING EQUIPMENT USED

- 5.08 A local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66), is responsible for the analytical testing of the 24-hour TSP filter papers.
- 5.09 Monitoring equipment used in the impact EM&A program is presented in [Table 5-1](#).

Table 5-1 Monitoring Equipment Used in Impact EM&A Program

Env. Aspect	Parameters	Monitoring Equipment
Air Quality	24-hour TSP	Greasby Anderson GMWS2310 High Volume Air Sampler
Noise	Leq(30mins)	B&K Sound Level Meter (Type 2238) and Acoustics Calibrator (Type 4231)

EQUIPMENT CALIBRATION

- 5.10 Initial calibration of the HVAS was performed upon installation and thereafter at a six month intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A). The calibration data are properly documented and the records are maintained by ET for future reference. HVAS of AM5 and AM6 was required calibration in this month, HVAS of AM5 and AM6 monitoring equipment required to calibrate in next month. Updated calibration certificate and schedule is shown in **Annex H**.
- 5.11 The sound level meters were calibrated using an acoustical calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustical calibrator generating a known sound pressure level at a known frequency. Measurements were considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 5.12 Calibration certificates of the sound level meters will provide depend on the annual calibration had undertaken.

PARAMETERS MONITORED

- 5.13 The environmental parameters monitoring in this month were compliance with the monitoring requirements as in **Table 3-1**.

MONITORING LOCATIONS

- 5.14 There are four designated air quality and four noise monitoring stations under the project EP. For this month, monitoring was carried out at four designated air (AM1, AM5, AM6 & AM7) and four noise (NM3, NM4, NM6 & NM7) monitoring stations. The locations of the designated monitoring stations are shown in **Table 5-2** and geographically in **Annex E**.

Table 5-2 Location of Air Quality and Construction Noise Monitoring Stations/Locations

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

MONITORING FREQUENCY AND PERIOD

- 5.15 The impact 24-hour TSP monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A Manual. In this month, **15** monitoring events of 24-hour TSP monitoring were conducted.

5.16 The impact noise monitoring was conducted at the designated stations once every 6 normal working days in compliance with the updated EM&A Manual. Total of **20** monitoring events were carried out in this month.

MONITORING RESULTS AND SCHEDULE

5.17 Monitoring results in this month for air quality and construction noise were summarized at **Tables 5-3 to 5-7**.

5.18 A total of 4 Limit Level exceedances for 24-Hour TSP monitoring were recorded at AM5 on 5, 10 and 29 October 2009, and at AM7 on 29 October 2009. Investigation is under progress due to information pending from Contractor. Power failure occurred at Location AM1 from 26 September 2009 till present. Due to the power supply has not yet rectified, thus no subsequent monitoring would be made until further notification from the Contractor.

Table 5-3 Summary of Air Quality Monitoring Results

Date	24-hour TSP ($\mu\text{g}/\text{m}^3$)			
	AM1	AM5	AM6	AM7
5-Oct-09	#Power failure	278	177 (6-Oct-09)	154
10-Oct-09	#Power failure	307	55	69
16-Oct-09	#Power failure	217	29	110
22-Oct-09	#Power failure	174	103	62
29-Oct-09	#Power failure	271	64	304
Average (Range)	-	249 (174-307)	85 (29-177)	140 (62-304)
Action / Limit	> 184 / >260	> 237 / >260	> 183 / >260	> 204 / >260

Note: All 24-hour TSP monitoring were preset to start at 00:00 on each monitoring date.
 * Monitoring date for made up the lost sample.
 # Monitoring was affected due to power failure.

5.19 No construction noise complaint (Action Level) was received and no construction noise monitoring above the Limit Level was recorded in this month. Noise monitoring was cancelled due to the heavy rain condition on 16 September 2009.

Table 5-4 Summary of Noise Monitoring Results at NM3

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected* Leq30
6-Oct-09	14:20	56.4	59.7	59.3	55.9	61.8	57.2	58.9	61.9
11-Oct-09	14:57	60.2	63.4	61.8	64.2	58.7	57.9	61.6	64.6
17-Oct-09	10:05	50.1	56.8	52.2	53.5	50.4	52.7	53.2	56.2
23-Oct-09	10:35	63.2	64.7	67.9	61.1	62.3	64.7	64.6	67.6
30-Oct-09	15:25	70.8	70.2	72.0	70.9	72.1	71.4	71.3	74.3
Limit Level									75

Note: * A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.
 # Noise monitoring for 16 September 2009 was cancelled due to heavy rain condition.

Table 5-5 Summary of Noise Monitoring Results at NM4

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected* Leq30
6-Oct-09	13:00	57.3	61.1	55.9	57.8	60.2	56.3	58.5	61.5
11-Oct-09	13:07	58.3	58.9	61.3	59.6	60.3	61.1	60.1	63.1
17-Oct-09	11:00	63.4	65.3	66.8	61.5	64.2	65.9	64.8	67.8
23-Oct-09	13:00	61.8	62.3	64.1	60.2	62.6	64.9	62.9	65.9
30-Oct-09	16:07	69.8	67.7	67.9	68.3	68.5	69.5	68.7	71.7
Limit Level									75

Note: * A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.
 # Noise monitoring for 16 September 2009 was cancelled due to heavy rain condition.

Table 5-6 Summary of Noise Monitoring Results at NM6

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
6-Oct-09	11:30	54.4	53.8	54.0	54.3	55.2	54.6	54.4
11-Oct-09	10:29	54.1	56.3	57.2	57.8	58.2	61.1	58.0
17-Oct-09	11:25	55.2	54.7	55.6	55.3	56.2	53.9	55.2
23-Oct-09	11:20	58.7	54.4	54.0	53.7	53.4	53.8	55.1
30-Oct-09	11:17	68.5	68.3	68.5	68.6	68.2	68.7	68.5
Limit Level								75

Note: * Noise monitoring was undertaken at the façade, correction was not necessary.
Noise monitoring for 16 September 2009 was cancelled due to heavy rain condition.

Table 5-7 Summary of Noise Monitoring Results at NM7

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30
6-Oct-09	09:12	52.9	53.1	61.3	54.6	55.4	53.7	56.4
12-Oct-09	09:41	54.7	55.6	58.0	57.3	59.7	58.9	57.7
17-Oct-09	09:00	62.4	64.4	65.1	67.3	63.4	67.8	65.5
23-Oct-09	09:00	56.4	57.6	56.2	61.2	59.3	58.9	58.6
30-Oct-09	14:17	55.6	57.1	58.2	58.9	57.2	57.3	57.5
Limit Level								75

Note: * Noise monitoring was undertaken at the façade, correction was not necessary.
Noise monitoring for 16 September 2009 was cancelled due to heavy rain condition.

5.20 The tentative monitoring schedule for the coming month (**November 2009**) is shown in **Table 5-8**.

Table 5-8 Tentative Schedule of Monitoring for Next Month

Date	Air Quality	NOISE LEQ 30MIN
Sun 1-Nov-09		
Mon 2-Nov-09		
Tue 3-Nov-09		
Wed 4-Nov-09		
Thu 5-Nov-09		
Fri 6-Nov-09		
Sat 7-Nov-09		
Sun 8-Nov-09		
Mon 9-Nov-09		
Tue 10-Nov-09		
Wed 11-Nov-09		
Thu 12-Nov-09		
Fri 13-Nov-09		
Sat 14-Nov-09		
Sun 15-Nov-09		
Mon 16-Nov-09		
Tue 17-Nov-09		
Wed 18-Nov-09		
Thu 19-Nov-09		
Fri 20-Nov-09		
Sat 21-Nov-09		
Sun 22-Nov-09		
Mon 23-Nov-09		
Tue 24-Nov-09		
Wed 25-Nov-09		
Thu 26-Nov-09		
Fri 27-Nov-09		
Sat 28-Nov-09		

Sun	29-Nov-09		
Mon	30-Nov-09		

	Monitoring Day
	Sunday or Public

WEATHER CONDITIONS DURING THE MONITORING MONTH

5.21 The meteorological data during the monitoring date are summarized in [Annex I](#).

GRAPHICAL PLOTS OF TRENDS OF MONITORED PARAMETERS

5.22 The graphical plots of air quality and construction noise monitoring data are presented in [Annex J](#).

WEATHER CONDITIONS THAT AFFECT THE MONITORING RESULTS

5.23 The weather conditions during monitoring were considered acceptable for monitoring activities and did not have significant impact on the monitoring results obtained.

OTHER FACTORS INFLUENCING THE MONITORING RESULTS

5.24 There were no other noticeable external factors generally affecting the monitoring results in this month.

QA/QC RESULTS AND DETECTION LIMITS

5.25 Not applicable.

6.0 REPORT ON NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

RECORD OF NON-COMPLIANCE OF ACTION AND LIMIT LEVELS

- 6.01 A total of 4 Limit Level exceedances for 24-Hour TSP monitoring were recorded at AM5 on 5, 10 and 29 October 2009, and at AM7 on 29 October 2009.
- 6.02 No construction noise complaint (Action Level) or monitoring noise level exceeding the Limit Level was recorded in this reporting month.

RECORD OF ENVIRONMENTAL COMPLAINTS RECEIVED

- 6.03 There was no environmental complaint received in this month.

RECORD OF NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTION

- 6.04 There was no notification of summons or prosecution received in this month.

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

- 6.05 No complaints or notification of summons was received in this month.

DESCRIPTION OF FOLLOW-UP ACTIONS TAKEN

- 6.06 As mention in Section 6.05, no non-compliance, complaints or notification of symmons was received in this month. Therefore, no follow-up action was needed. The Contractor was reminded to implement the environmental mitigation measures as present in **Table 2-1** as necessary.

7.0 OTHERS

FUTURE KEY ISSUES

- 7.01 Construction activities to be undertaken in **November 2009** include sheet piling, excavation, pipe laying, backfilling, concreting and extract sheet pile. Potential environmental impacts arising from the works include construction waste, air quality, noise and water quality (particularly site runoff during rainy seasons). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

SOLID AND LIQUID WASTE MANAGEMENT STATUS

- 7.02 The quantities of waste for disposal or reuse in this month are summarized in **Tables 7-1** and **7-2**.

Table 7-1 Summary of Waste Quantities for Disposal

Type of Waste	Quantity	Disposal Location
C&D Materials (Inert) (tons) – Disposed	774	Tuen Mun 38 Fill Bank
C&D Materials (Inert) (tons) – Reused	0	DSD Contract DC/2005/02
C&D Materials (Non-Inert) (tons)	0	NA
Chemical Waste (Litres)	500	NA
General Refuse (tons)	168	Refuse Collector

Table 7-2 Summary of Waste Quantities for Reuse/Recycling

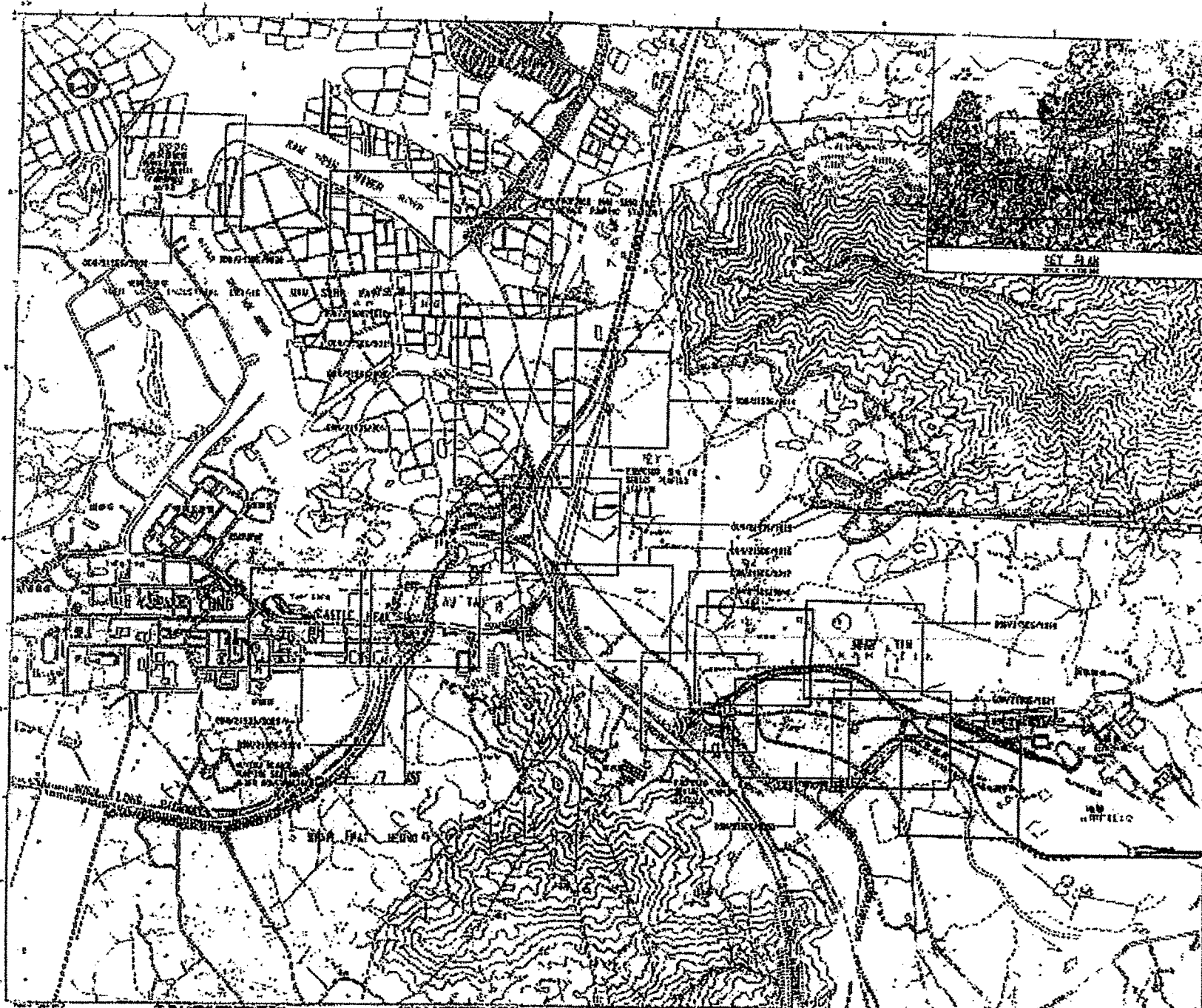
Type of Waste	Quantity	Disposal Location
Metals for Recycling (kg)	0	NA
Paper for Recycling (kg)	0	NA
Plastics for Recycling (kg)	0	NA

- 7.03 There was no site effluent discharged but an estimated volume of less than 50m³ of surface runoff was discharged in the month. The sampling of effluent had been carried out by the Contractor in compliance with the Discharge License (No.1U434/1) requirement in this month.

SUBMISSION OF PROFORMA

- 7.04 Representatives of the Engineer, the Contractor and ET carried out regular weekly site inspection on **6, 13, 20 and 30 October 2009** to evaluate the site environmental performance. No non-compliance was found in this month. **Four** observations were recorded from the ET weekly site inspections: **1** observation was recorded on 6 October 2009; **1** observation was recorded on 13 October 2009; **1** observation was recorded on 20 October 2009 and **1** observation was found on 30 October 2009 during the regular weekly site inspections. The monthly site audit by the IEC for **October 2009** was undertaken on **20 October 2009**. No non-compliance but **3** observations were indicated by IEC.
- 7.05 Records of the weekly site inspection and joint IEC site audit are presented in **Annex K**.

ANNEX A
PROJECT SITE LAYOUT



SHEET 1
 1:50,000 SCALE
 U.S. GEOLOGICAL SURVEY

LEGEND:
 --- UNIMPROVED HIGHWAY
 --- IMPROVED HIGHWAY
 --- RAILROAD

FIRE TENDER PLACES ONLY

NAME	TYPE	CLASS
...
...
...
...

DATE: 10/15/50
 BY: [Signature]
 CHECKED BY: [Signature]

LOCATION OF SPARK
 AND TRUCK
 STATION
 AND THE LOCATION OF
 ALL THE TANKS

DATE OF WORK
 [Stamp]

004/21505/300

COPYING PERMIT

GENERAL PROJECTS DIVISION

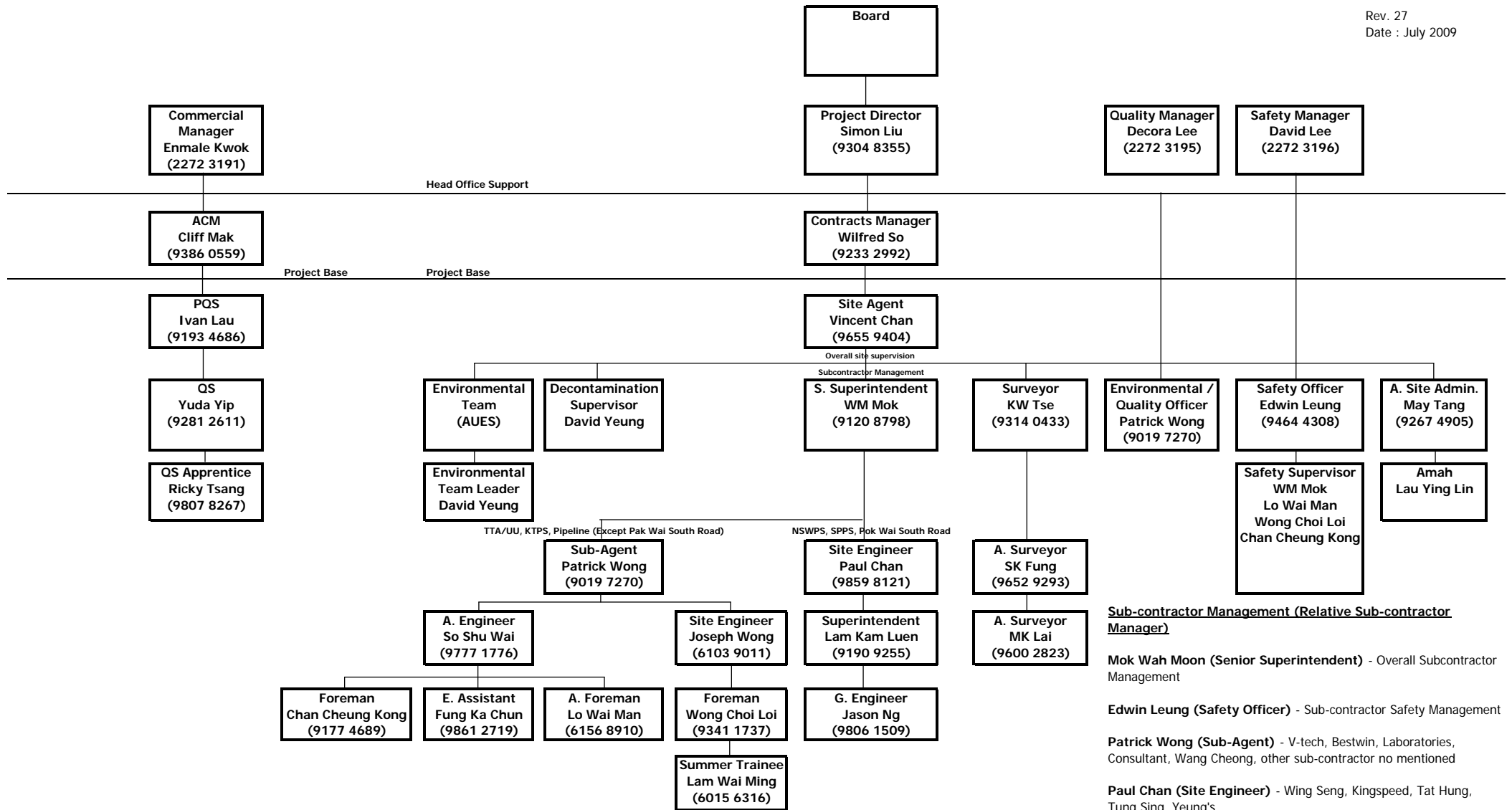
D FEDERAL BUREAU OF INVESTIGATION
 U.S. DEPARTMENT OF JUSTICE
 SPECIAL INVESTIGATIVE SECTION

ANNEX B

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

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

Rev. 27
 Date : July 2009



Sub-contractor Management (Relative Sub-contractor Manager)

Mok Wah Moon (Senior Superintendent) - Overall Subcontractor Management

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

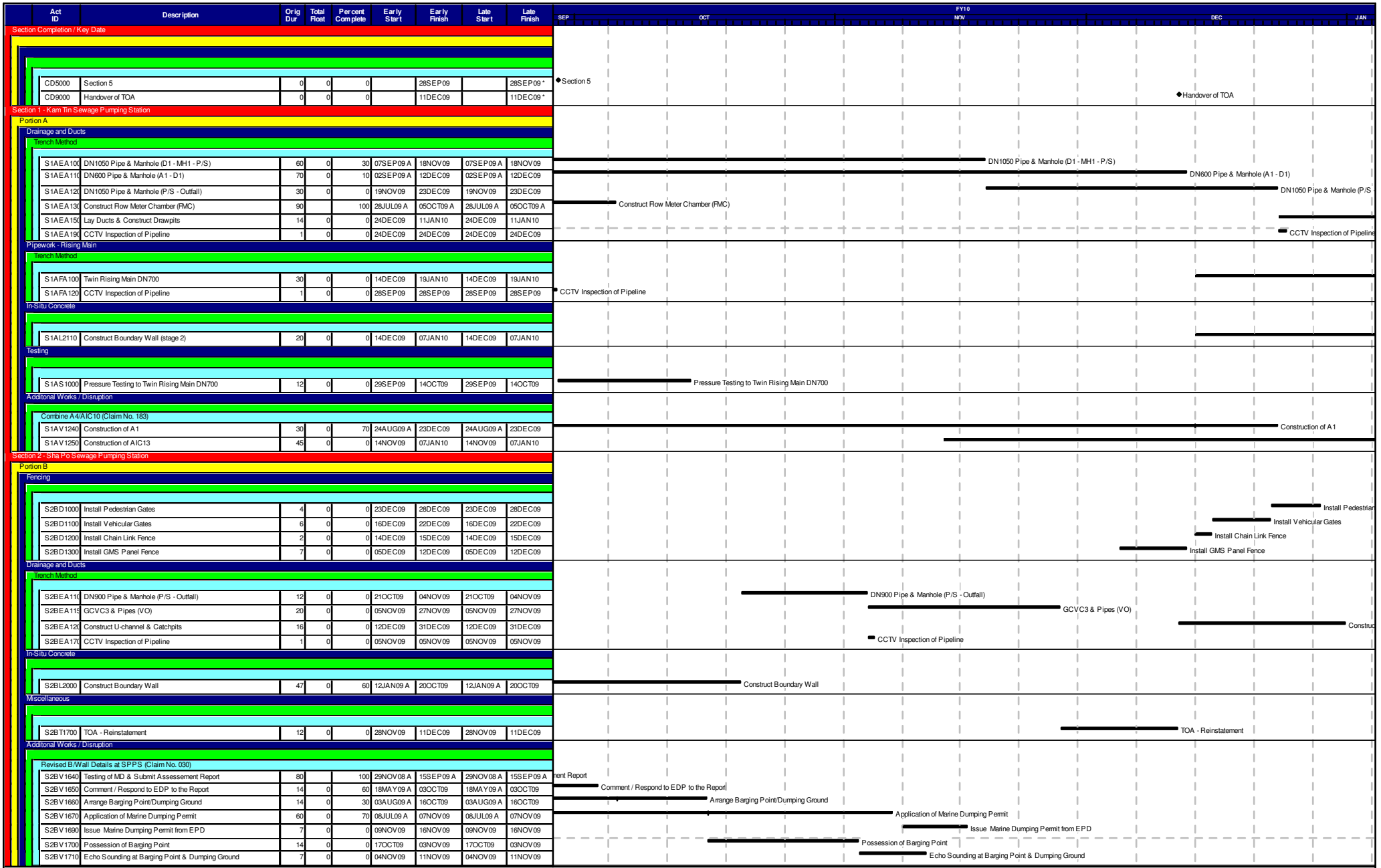
Patrick Wong (Sub-Agent) - V-tech, Bestwin, Laboratories, Consultant, Wang Cheong, other sub-contractor no mentioned

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

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

ANNEX C

CONSTRUCTION PROGRAM



Start date	19DEC05
Finish date	24FEB11
Data date	28SEP09
Page number	1A
Project name	3M01
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Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 Sep 2009

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

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	FY10											
									SEP	OCT	NOV	DEC	JAN							
S2BV1730	Marine Dumping Commencement	1	0	0	17NOV09	17NOV09	17NOV09	17NOV09	Marine Dumping Commencement											
S2BV2130	Backfill & Remove 1st Layer of Waling & Strut	20	0	50	28AUG09	10OCT09	28AUG09	10OCT09	Backfill & Remove 1st Layer of Waling & Strut											
S2BV2140	Modify Cofferdam & Extract Sheetpile	8	0	0	12OCT09	20OCT09	12OCT09	20OCT09	Modify Cofferdam & Extract Sheetpile											
S2BV2150	Construct Wall Stem 2nd lift for Bay 1	8	0	0	21OCT09	30OCT09	21OCT09	30OCT09	Construct Wall Stem 2nd lift for Bay 1											
S2BV2160	Construct Wall Stem 2nd lift for Bay 2	8	0	0	31OCT09	09NOV09	31OCT09	09NOV09	Construct Wall Stem 2nd lift for Bay 2											
S2BV2170	Construct Wall Stem 2nd lift for Bay 3	8	0	0	10NOV09	18NOV09	10NOV09	18NOV09	Construct Wall Stem 2nd lift for Bay 3											
S2BV2180	Construct Wall Stem 2nd lift for Bay 4	8	0	0	18NOV09	27NOV09	18NOV09	27NOV09	Construct Wall Stem 2nd lift for Bay 4											
S2BV2190	Backfill to ground level	6	0	0	28NOV09	04DEC09	28NOV09	04DEC09	Backfill to ground level											
S2BV2210	Excavation and Waling Install to formation	8	0	100	17AUG09	15SEP09	17AUG09	15SEP09	Excavation and Waling Install to formation											
S2BV2230	Construct Base Slab for Bay 5	8	0	5	28SEP09	30OCT09	28SEP09	30OCT09	Construct Base Slab for Bay 5											
S2BV2240	Construct Base Slab for Bay 6	8	0	100	18SEP09	25SEP09	18SEP09	25SEP09	Construct Base Slab for Bay 6											
S2BV2250	Backfill & Remove Waling & Strut	6	0	0	31OCT09	06NOV09	31OCT09	06NOV09	Backfill & Remove Waling & Strut											
S2BV2260	Construct Wall Stem for Bay 5	8	0	0	07NOV09	16NOV09	07NOV09	16NOV09	Construct Wall Stem for Bay 5											
S2BV2270	Construct Wall Stem for Bay 6	8	0	0	17NOV09	25NOV09	17NOV09	25NOV09	Construct Wall Stem for Bay 6											
S2BV2280	Backfilling to Ground Level	8	0	0	28NOV09	04DEC09	28NOV09	04DEC09	Backfilling to Ground Level											
S2BV2290	Extract Sheetpile	6	0	0	05DEC09	11DEC09	05DEC09	11DEC09	Extract Sheetpile											

Section 3 - Nam Sang Wai Sewage Pumping Station

Portion C

Drainage and Ducts																				
Trench Method																				
S3CEA14	DN1200 Pipe & Manhole (P/S - SC1- Outfall)	50	0	0	28SEP09	27NOV09	28SEP09	27NOV09	DN1200 Pipe & Manhole (P/S - SC1- Outfall)											
S3CEA15	Construct U-channel, Dish Channel & Catchpit	27	0	0	28DEC09	28JAN10	28DEC09	28JAN10	Construct U-channel, Dish Channel & Catchpit											
Earthworks																				
S3CG3000	Trim & Compact Formation of Paved Areas	6	0	20	26SEP09	10FEB10	26SEP09	10FEB10	Trim & Compact Formation of Paved Areas											
Steel Reinforcement																				
S3CK1800	Fix Rebar to Roof Slab	8	0	100	28FEB09	28SEP09	28FEB09	28SEP09	Fix Rebar to Roof Slab											
In Situ Concrete																				
S3CL2100	Construct Boundary Wall	24	0	0	28NOV09	28DEC09	28NOV09	28DEC09	Construct Boundary Wall											
Miscellaneous																				
S3CT1300	Plumbing Work	24	0	40	18JUN09	15OCT09	18JUN09	15OCT09	Plumbing Work											
S3CT1400	Electrical and Mechanical Installations	24	0	0	28SEP09	28OCT09	28SEP09	28OCT09	Electrical and Mechanical Installations											
S3CT1500	Install FRP Water Storage Tanks	12	0	0	28SEP09	13OCT09	28SEP09	13OCT09	Install FRP Water Storage Tanks											

Section 4 - Sewers & RM in Portion D, F, G, H, I

Portion D

Drainage and Ducts																				
Trench Method																				
S4DEA100	DN1000 Pipe & Manhole (G1-G2-YLSTP) (VO)	50	0	80	27APR09	02DEC09	27APR09	02DEC09	DN1000 Pipe & Manhole (G1-G2-YLSTP) (VO)											
S4DEA101	Reinstatement of the road at G1	10	0	90	24JUL09	03DEC09	24JUL09	03DEC09	Reinstatement of the road at G1											
S4DEA110	CCTV Inspection of Pipeline	1	0	0	03DEC09	03DEC09	03DEC09	03DEC09	CCTV Inspection of Pipeline											
Pipework - Rising Main																				
Trench Method																				
S4DFA110	Twin Rising Main DN900 (ChA1850- WOIC1)	101	0	90	15DEC09	02DEC09	15DEC09	02DEC09	Twin Rising Main DN900 (ChA1850- WOIC1)											
S4DFA120	Twin Rising Main DN900 (ChA2095 - ChA2215)	148	0	70	20DEC07	20NOV09	20DEC07	20NOV09	Twin Rising Main DN900 (ChA2095 - ChA2215)											
S4DFA130	CCTV Inspection of Pipeline	5	0	100	16AUG08	28SEP09	16AUG08	28SEP09	CCTV Inspection of Pipeline											
Additional Works / Disruption																				
AIC2																				
S4DV1530	Confirmation of Tree Obstruction	30	0	100	13FEB09	10SEP09	13FEB09	10SEP09	Confirmation of Tree Obstruction											
S4DV1560	Enlarge Cofferdam	18	0	50	27AUG09	14DEC09	27AUG09	14DEC09	Enlarge Cofferdam											
S4DV1590	Construction of AIC 2	75	0	60	25APR09	20JAN10	25APR09	20JAN10	Construction of AIC 2											
WOIC1																				
S4DV1620	Construction of WOIC1 Remaining	60	0	100	26JUN09	29SEP09	26JUN09	29SEP09	Construction of WOIC1 Remaining											
Portion F																				
Drainage and Ducts																				
Trench Method																				
S4FEA120	CCTV Inspection of Pipeline	1	0	0	28SEP09	28SEP09	28SEP09	28SEP09	CCTV Inspection of Pipeline											
Pipework - Rising Main																				

Start date	19DEC05
Finish date	24FEB11
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Page number	2A
Project name	3M01
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- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	FY10															
									SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG				
Trench Method																								
S4FFA1300	Twin Rising Main DN700 (WOIC5 - ChC2000)	80	0	95	05JUN08 A	02OCT09	05JUN08 A	02OCT09	Twin Rising Main DN700 (WOIC5 - ChC2000)															
S4FFA2300	Twin Rising Main DN700 (ChC2639 - H7)	52	0	95	29MAY09 A	29SEP09	29MAY09 A	29SEP09	Twin Rising Main DN700 (ChC2639 - H7)															
S4FFA2400	Construct A VIC5	30	0	100	22JAN09 A	28SEP09	22JAN09 A	28SEP09	Construct A VIC5															
S4FFA2600	CCTV Inspection of Pipeline	8	0	0	03OCT09	13OCT09	03OCT09	13OCT09	CCTV Inspection of Pipeline															
Additional Works / Disruption																								
AIC5																								
S4FV1050	Pipe Connection inside Chamber	20	0	100	25AUG09 A	25SEP09 A	25AUG09 A	25SEP09 A	Connection inside Chamber															
S4FV1060	Cast of Chamber Top Slab	30	0	0	30SEP09	06NOV09	30SEP09	06NOV09	Cast of Chamber Top Slab															
Portion G																								
Pipework - Rising Main																								
Trench Method																								
S4GFA140	Twin Rising Main DN500 (ChB550 - ChB650)	107	0	100	27JUL06 A	25SEP09 A	27JUL06 A	25SEP09 A	Rising Main DN500 (ChB550 - ChB650)															
S4GFA170	Construct WOIC3	30	0	30	11SEP09 A	23OCT09	11SEP09 A	23OCT09	Construct WOIC3															
S4GFA190	CCTV Inspection of Pipeline	9	0	100	06MAR07 A	28SEP09	06MAR07 A	28SEP09	CCTV Inspection of Pipeline															
Additional Works / Disruption																								
AIC6																								
S4GV1025	Extraction of Sheet Pile	24	0	0	28SEP09	28OCT09	28SEP09	28OCT09	Extraction of Sheet Pile															
S4GV1030	Engineer Instruction of Pipe Connection	14	0	0	29OCT09	13NOV09	29OCT09	13NOV09	Engineer Instruction of Pipe Connection															
S4GV1040	Pipe Connection inside Chamber	20	0	0	14NOV09	07DEC09	14NOV09	07DEC09	Pipe Connection inside Chamber															
Portion H																								
Ground Investigation																								
S4HB1300	Install Settlement Markers	727	0	85	26MAY06 A	08FEB10	26MAY06 A	08FEB10																
Drainage and Ducts																								
Trench Method																								
S4HEA100	DN500 Pipe & Manhole (A4 - A6)	90	0	100	03OCT08 A	01SEP09 A	03OCT08 A	01SEP09 A																
Trenchless Method																								
S4HEB110	CCTV Inspection of Pipeline	1	0	0	28SEP09	28SEP09	28SEP09	28SEP09	CCTV Inspection of Pipeline															
Pipework - Rising Main																								
Trench Method																								
S4HFA100	Twin Rising Main DN700 (ChC100 - ChC170)	45	0	90	08OCT08 A	02OCT09	08OCT08 A	02OCT09	Twin Rising Main DN700 (ChC100 - ChC170)															
S4HFA180	Twin Rising Main DN700 (ChC850 - ChC950)	125	0	50	14APR09 A	11DEC09	14APR09 A	11DEC09	Twin Rising Main DN700 (ChC850 - ChC950)															
S4HFA240	Twin Rising Main DN700 (ChC1450 - ChC1550)	110	0	0	28SEP09	08FEB10	28SEP09	08FEB10																
S4HFA261	Twin Rising Main DN700 (ChC1715 - ChC1790)	80	0	100	27JUN09 A	24SEP09 A	27JUN09 A	24SEP09 A	Rising Main DN700 (ChC1715 - ChC1790)															
S4HFA270	Twin Rising Main DN700 (ChC1790 - AIC7(AVIC6))	90	0	90	22JUN09 A	09OCT09	22JUN09 A	09OCT09	Twin Rising Main DN700 (ChC1790 - AIC7(AVIC6))															
S4HFA350	Construct AIC7 (AVIC6)	91	0	100	05MAY09 A	21SEP09 A	05MAY09 A	21SEP09 A	AIC7 (AVIC6)															
Trenchless Method																								
S4HFB120	Construct WOIC7	60	0	90	11MAY09 A	06OCT09	11MAY09 A	06OCT09	Construct WOIC7															
S4HFB130	CCTV Inspection of Pipeline	2	0	0	28SEP09	29SEP09	28SEP09	29SEP09	CCTV Inspection of Pipeline															
Geotechnical works																								
S4HP1000	Monitoring of Instruments	947	0	85	26MAY06 A	22MAR10	26MAY06 A	22MAR10																
Additional Works / Disruption																								
Combine A4/AIC10 (Claim No. 183)																								
S4HV1510	Construct combine A4/AIC10	100	0	50	28JUL09 A	27NOV09	28JUL09 A	27NOV09	Construct combine A4/AIC10															
S4HV5040	Extraction of Sheetpile	12	0	0	28SEP09	13OCT09	28SEP09	13OCT09	Extraction of Sheetpile															
S4HV5050	Confirmation of Delay Pipe connection	14	0	0	14OCT09	30OCT09	14OCT09	30OCT09	Confirmation of Delay Pipe connection															
S4HV5060	Delay Pipe Connection	10	0	0	31OCT09	11NOV09	31OCT09	11NOV09	Delay Pipe Connection															
Portion I																								
Ground Investigation																								
S4IB1300	Install Settlement Markers	736	0	82	26JUN06 A	12MAR10	26JUN06 A	12MAR10																
Drainage and Ducts																								
Trench Method																								
S4IEA2500	CCTV Inspection of Pipeline	8	0	0	28SEP09	08OCT09	28SEP09	08OCT09	CCTV Inspection of Pipeline															

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Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 29 Sep 2009

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

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	FY10												
									SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Trenchless Method																					
S4IEB1000	Construct Jack/Receive Pits (C1 - C2)	30	0	0	28SEP09	04NOV09	28SEP09	04NOV09	Construct Jack/Receive Pits (C1 - C2)												
S4IEB1002	Jacking DN500 (C1 - C2)	78	0	0	05NOV09	05FEB10	05NOV09	05FEB10													
Pipework - Rising Main																					
Trench Method																					
S4IFA1000	Twin Rising Main DN250 (ChD55-81) (Deleted SA2)	0	100	100	06NOV09 A	05NOV09 A	06NOV09 A	05NOV09 A	Twin Rising Main DN250 (ChD55-81) (Deleted SA2)												
S4IFA1100	CCTV Inspection of Pipeline (Deleted SA2)	0	100	100	06NOV09 A	05NOV09 A	06NOV09 A	05NOV09 A	CCTV Inspection of Pipeline (Deleted SA2)												
Geotechnical works																					
S4IP1000	Monitoring of Instruments	827	0	85	28JUN06 A	01MAR10	28JUN06 A	01MAR10													
Miscellaneous																					
Testing																					
S4PS1100	Pressure Testing to Twin Rising Main DN500	12	0	0	24OCT09	07NOV09	24OCT09	07NOV09	Pressure Testing to Twin Rising Main DN500												
S4PS1300	Pressure Testing to Twin Rising Main DN900	12	0	0	21NOV09	04DEC09	21NOV09	04DEC09	Pressure Testing to Twin Rising Main DN900												
Section 5 - Sewers & RM in Portion E																					
Portion E																					
Preliminaries																					
SSEA1300	Non Work Period 01 Nov 08 - 31 Mar 09	121	0	98	01NOV08 A	30SEP09	01NOV08 A	30SEP09	Non Work Period 01 Nov 08 - 31 Mar 09												
Testing																					
SSES1000	Pressure Testing to Twin Rising Main DN900	12	0	90	17MAR09 A	28SEP09	17MAR09 A	28SEP09	Pressure Testing to Twin Rising Main DN900												
Additional Works / Disruption																					
Additional Chambers (Claim No. 151)																					
SSEV1070	Construct AIC4 (VO)	150	0	100	01APR09 A	10SEP09 A	01APR09 A	10SEP09 A													
Section 6 - Sewers in Portion J																					
Portion J																					
Ground Investigation																					
S6JB1500	Install Settlement Marker 1st Stage	765	0	100	20APR06 A	27DEC09 A	20APR06 A	27DEC09 A	Install Settlement M												
Drainage and Ducts																					
Trench Method																					
S6JEA100	DN500 Pipe & Manhole (C1 - D2) (Deleted SA2)	80	0	0	04DEC09	12MAR10	04DEC09	12MAR10													
S6JEA101	DN1050 Pipe & Manhole (D2 - D3) (Deleted SA2)	78	0	0	28SEP09	31DEC09	28SEP09	31DEC09	DN1050												
S6JEA260	DN400 Pipe (D32 - D33) Stage 1 (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN400 Pipe (D32 - D33) Stage 1 (deleted SA2)												
S6JEA270	DN400 Pipe (D32 - D33) Stage 2 (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN400 Pipe (D32 - D33) Stage 2 (deleted SA2)												
S6JEA280	DN400 Pipe (D32 - D33) Stage 3 (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN400 Pipe (D32 - D33) Stage 3 (deleted SA2)												
S6JEA320	DN300 Pipe & Manhole (D40 - D42)	65	0	50	09JAN08 A	07NOV09	09JAN08 A	07NOV09	DN300 Pipe & Manhole (D40 - D42)												
S6JEA330	DN300 Pipe & Manhole (D42 - D44) (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN300 Pipe & Manhole (D42 - D44) (deleted SA2)												
S6JEA340	DN300 Pipe & Manhole (D44 - D47) (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN300 Pipe & Manhole (D44 - D47) (deleted SA2)												
S6JEA361	DN300 Pipe & Manhole (D54 - D56) (deleted SA2)	0	100	100	08OCT09 A	07OCT09 A	08OCT09 A	07OCT09 A	DN300 Pipe & Manhole (D54 - D56) (deleted SA2)												
Trenchless Method																					
S6JEB104	Construct Manholes D1 & D2	25	0	5	28AUG09 A	27OCT09	28AUG09 A	27OCT09	Construct Manholes D1 & D2												
S6JEB130	CCTV Inspection of Pipeline	2	0	0	28OCT09	29OCT09	28OCT09	29OCT09	CCTV Inspection of Pipeline												
Geotechnical works																					
S6JP1000	Monitoring of Instruments	1152	0	63	21APR06 A	24FEB11	21APR06 A	24FEB11													
Section 7 - Sewers in Portion K																					
Portion K																					
Drainage and Ducts																					
Trench Method																					
S7KEA210	CCTV Inspection of Pipeline	5	100	100	16AUG08 A	28SEP09	16AUG08 A	28SEP09	CCTV Inspection of Pipeline												
Section 8 - Preservation and Protection of Trees																					
All Portions																					
Landscape Softworks and Establishment Works																					
S8OR1100	Preservation & Protection of Preserved Trees	1192	0	79	28JUL06 A	28JUL10	28JUL06 A	28JUL10													
Decontamination Works																					

Start date	19DEC05
Finish date	24FEB11
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Page number	4A
Project name	3M01
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Leader Civil Engineering Corp. Ltd.
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3-Month Rolling Programme - 3M01 at 29 Sep 2009

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

Act ID	Description	Orig Dur	Total Float	Per cent Complete	Early Start	Early Finish	Late Start	Late Finish	FY10															
									SEP	OCT	NOV	DEC	JAN											
Portion F																								
Decontamination																								
S9FU1000	Decontamination Works	48	0	95	28AUG09 A	29SEP09	28AUG09 A	29SEP09																
Portion H																								
Decontamination																								
S9HU1000	Decontamination Works	48	0	95	26MAR09 A	29SEP09	26MAR09 A	29SEP09																

Start date 19DEC05
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 Page number 5A
 Project name 3M01
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Early bar
 Progress bar
 Critical bar
 Summary bar
 Start milestone point
 Finish milestone point

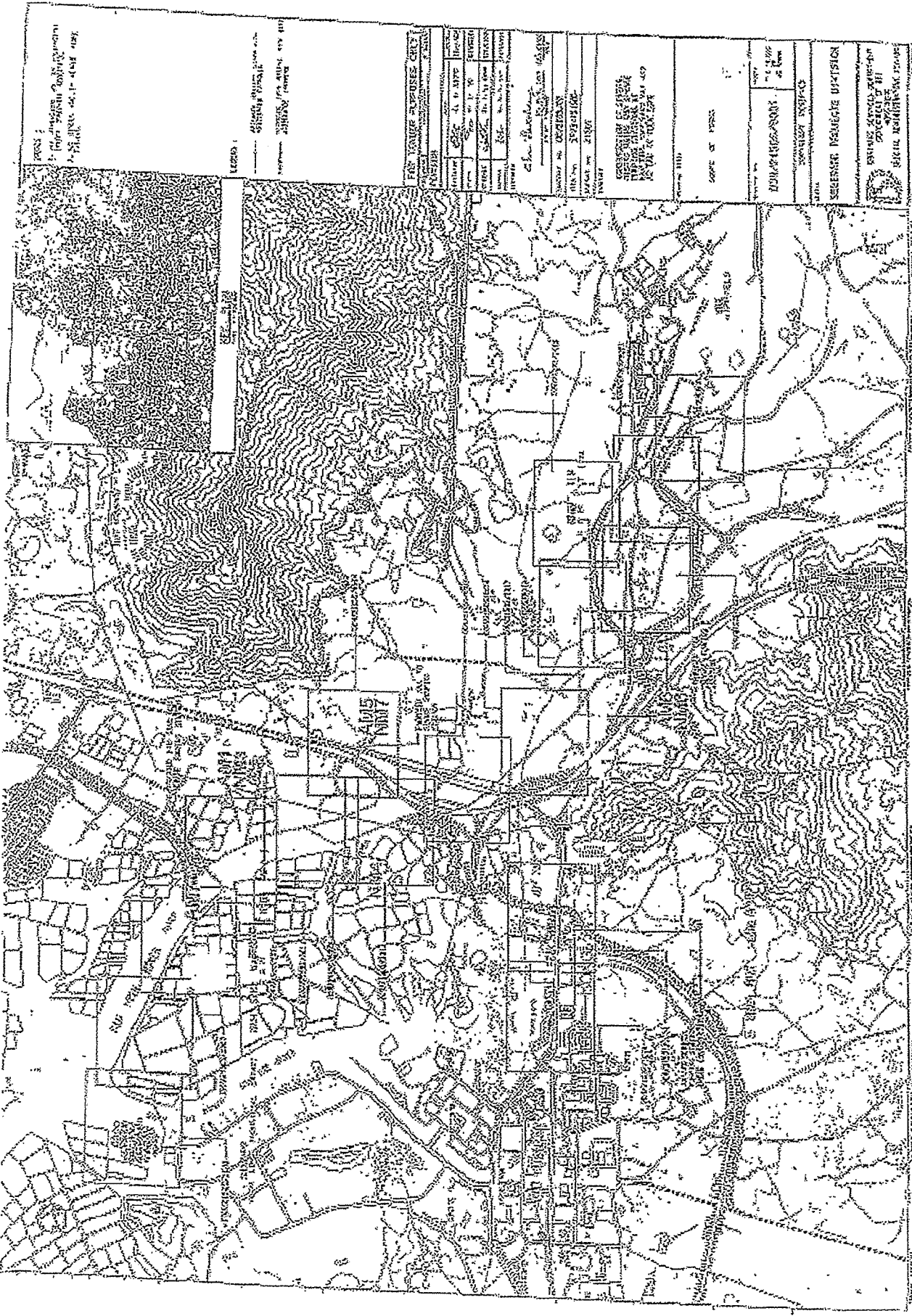
ANNEX D

PHOTOGRAPHICAL RECORDS – NOISE BARRIER ON-SITE



ANNEX E

LOCATIONS OF MONITORING STATIONS



1:50,000
 1:50,000
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 1:50,000

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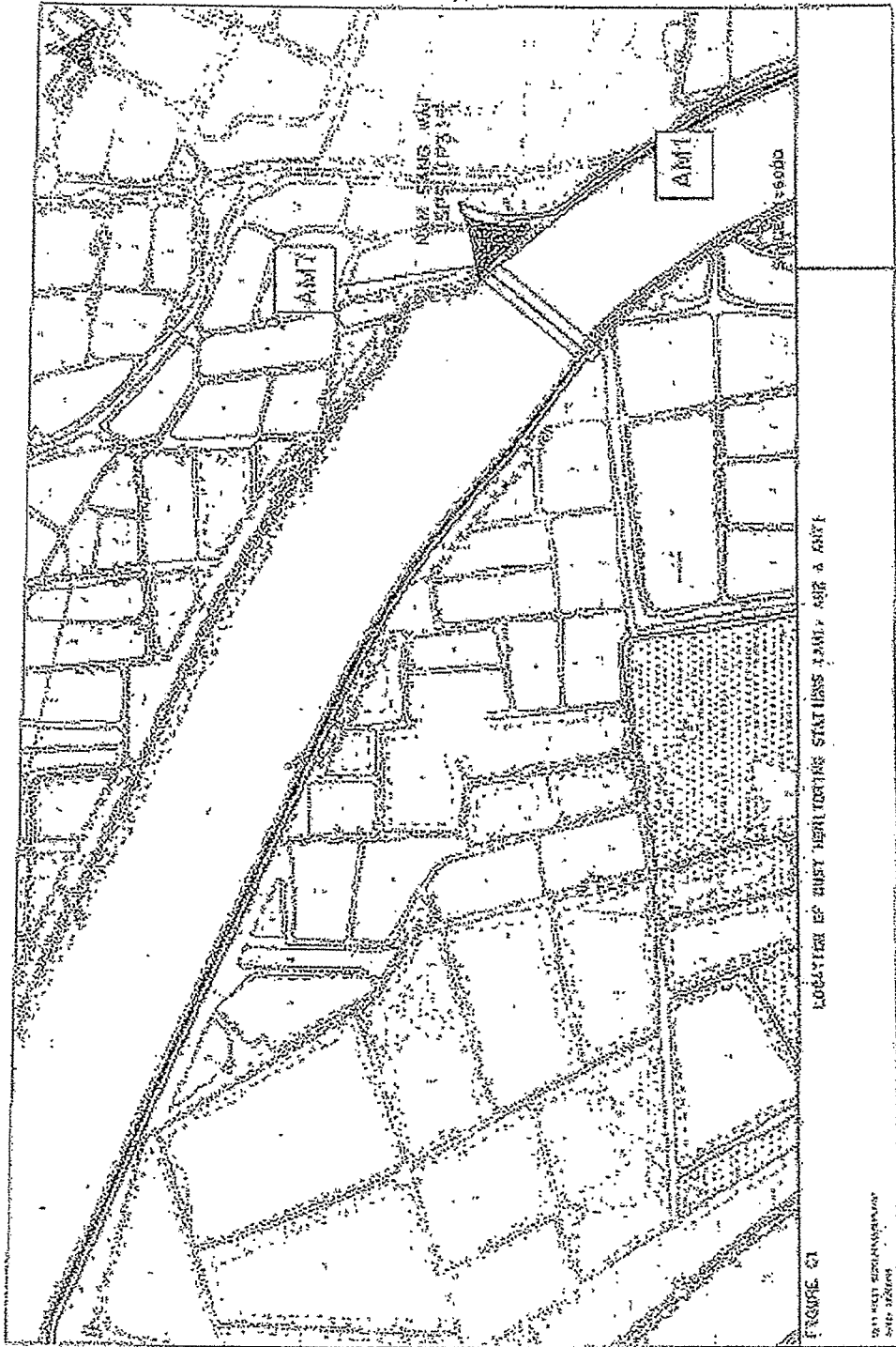
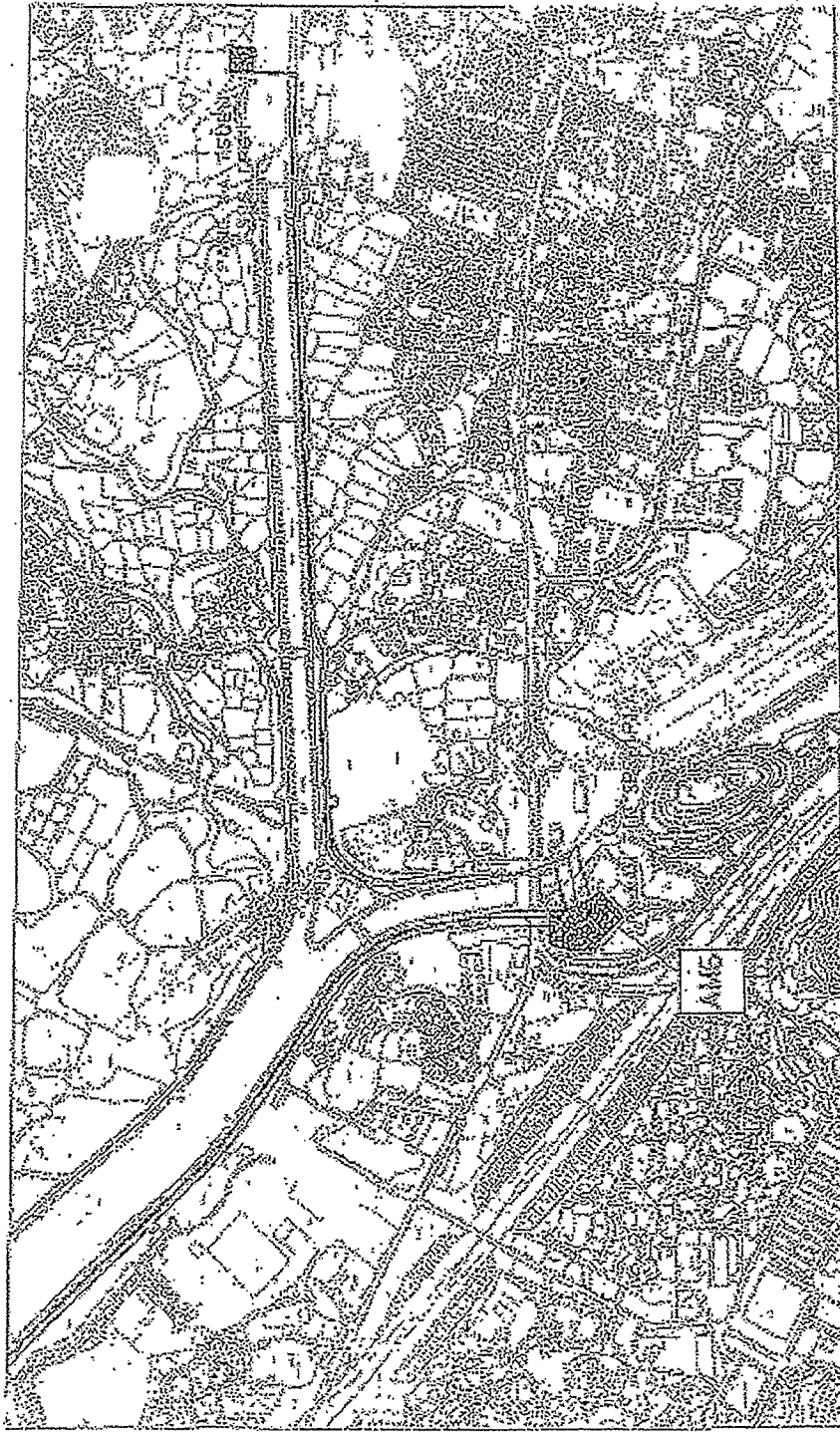




FIGURE OF BEST MONITORING STATION LAYOUT

FIGURE 22

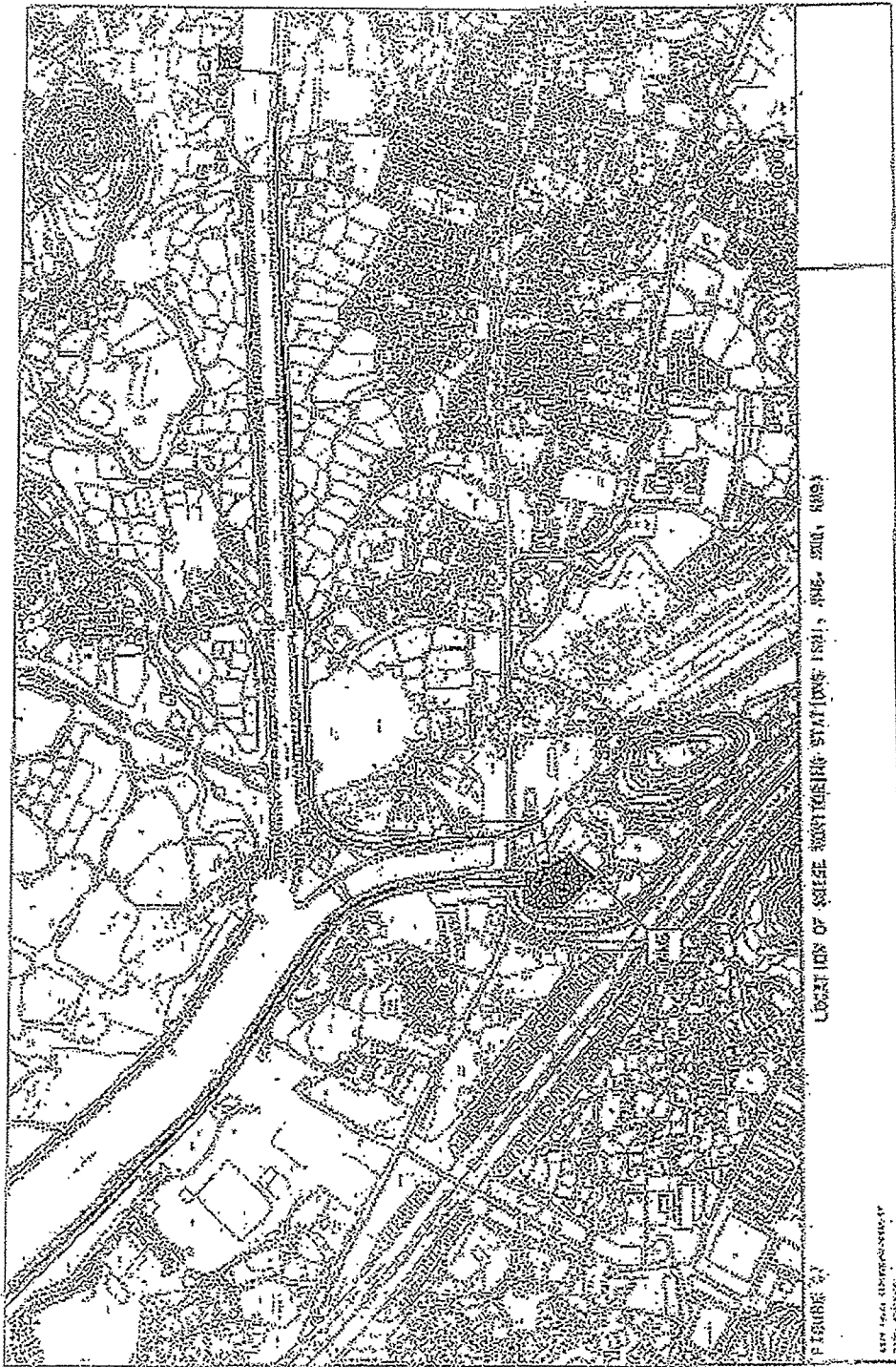
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LOCATION OF BEST MONITORING STATIONS (AMC, AMS & AMOS)

FIGURE 20

AMERICAN OVERSEAS AIRWAYS CORPORATION
1960-1961



LOCATIONS OF SILECE MONASTERY STATIONS 1881, 1892, 1900, 1902

FIGURE 4

NEW YORK UNIVERSITY
LIBRARY

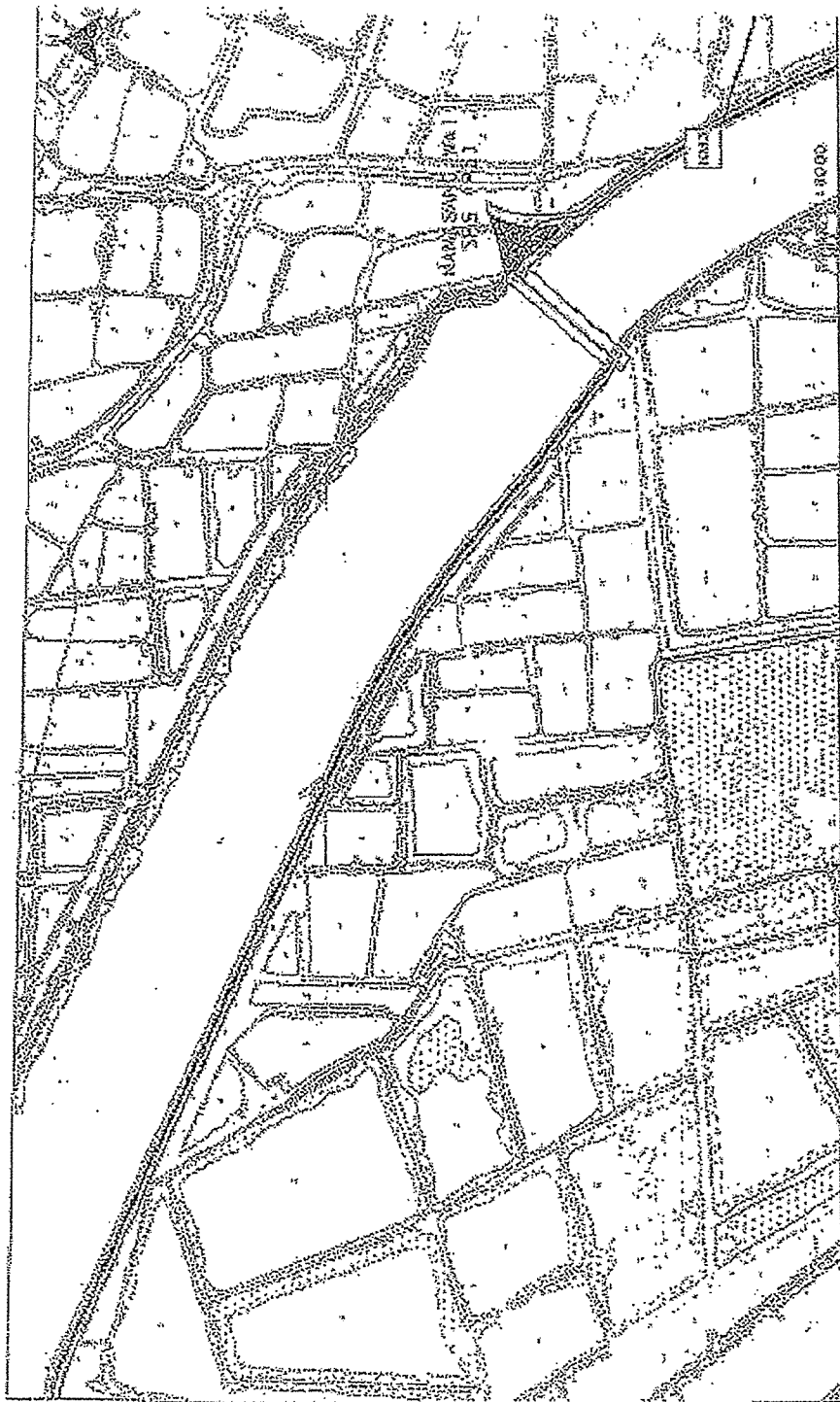


FIGURE 10

LOCATION OF HOUSE PURCHASES STATISTICS (1943-1951)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF ECONOMIC ANALYSIS



LOCATION OF NOISE MONITORING STATIONS FROM MAP 2

SCALE 1:500

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DATE: [unreadable]

ANNEX F

EVENT AND ACTION PLAN

Monthly EM&A Report for October 2009 (No. 43) (Designated Elements)

Event and Action Plan for Construction Phase Air Quality

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

Event and Action Plan for Construction Phase Air Quality

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

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

ANNEX G

MITIGATION IMPLEMENTATION SCHEDULE

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

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

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

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

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

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

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

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

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

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

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

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

ANNEX H

EQUIPMENT CALIBRATION CERTIFICATES

Equipment Calibration List for Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long Project

Items	Aspect	Description of Equipment	Serial No.	Date of Calibration	Date of Next Calibration
1#	Air	Greasby Anderson GMWS2310 High Volume Sampler	0329 (AM1)	1 Aug 09	1 Oct 09
2*		Greasby Anderson GMWS2310 High Volume Sampler	(AM5)	2 Oct 09	2 Dec 09
3*		Greasby Anderson GMWS2310 High Volume Sampler	(AM6)	2 Oct 09	2 Dec 09
4*		Greasby Anderson GMWS2310 High Volume Sampler	1283 (AM7)	2 Oct 09	2 Dec 09
5	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	2326408	28 Apr 09	28 Apr 10
6		Bruel & Kjaer 2238 Integrating Sound Level Meter	T212509	28 Apr 09	28 Apr 10

Note: Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.
 * Calibration done in this reporting month, see calibration certificate attached.
 ** Calibration will be done in next reporting month.
 # No power was received starting from 26 September 2009 till present, thus equipment could not be re-calibrated.

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Sha Po Pumping Station	Date of Calibration: 2-Oct-09
Location ID : AM5	Next Calibration Date: 2-Dec-09
	Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1010.5	Corrected Pressure (mm Hg)	757.875
Temperature (°C)	28.0	Temperature (K)	301

CALIBRATION ORIFICE

Make-> TISCH	Qstd Slope -> 2.01546
Model-> 515N	Qstd Intercept -> -0.02851
Serial # -> 355	

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION		
							Slope =	Intercept =	Corr. coeff. =
18	5.3	5.3	10.6	1.619	47	46.47	Slope = 33.6695 Intercept = -8.6047 Corr. coeff. = 0.9994		
13	4.2	4.2	8.4	1.443	40	39.55			
10	3.2	3.2	6.4	1.261	34	33.61			
7	2.1	2.1	4.2	1.024	26	25.70			
5	1.1	1.1	2.2	0.745	17	16.81			

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate

IC = corrected chart responses

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

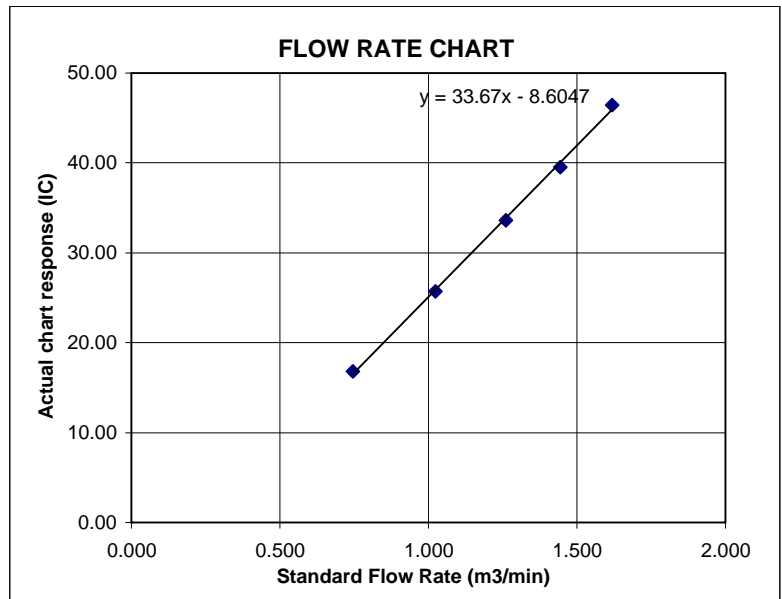
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tai Hing Car Shop (Scattered House near Route 3)	Date of Calibration: 2-Oct-09
Location ID : AM 6	Next Calibration Date: 2-Dec-09
	Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1010.5	Corrected Pressure (mm Hg)	757.875
Temperature (°C)	28.0	Temperature (K)	301

CALIBRATION ORIFICE

Make-> TISCH	Qstd Slope ->	2.01546
Model-> 515N	Qstd Intercept ->	-0.02851
Serial # -> 10394		

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION		
							Slope =	Intercept =	Corr. coeff. =
18	5.4	5.4	10.8	1.634	51	50.42	Slope = 36.4511 Intercept = -9.2247 Corr. coeff. = 0.9980		
13	3.7	3.7	7.4	1.355	40	39.55			
10	2.5	2.5	5.0	1.117	32	31.64			
7	1.7	1.7	3.4	0.923	26	25.70			
5	1.0	1.0	2.0	0.711	16	15.82			

Calculations :

$$Q_{std} = 1/m[\text{Sqrt}(H20(Pa/P_{std})(T_{std}/T_a)) - b]$$

$$IC = I[\text{Sqrt}(Pa/P_{std})(T_{std}/T_a)]$$

Qstd = standard flow rate

IC = corrected chart responses

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

T_a = actual temperature during calibration (deg K)

P_{std} = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/T_{av})(P_{av}/760)] - b)$$

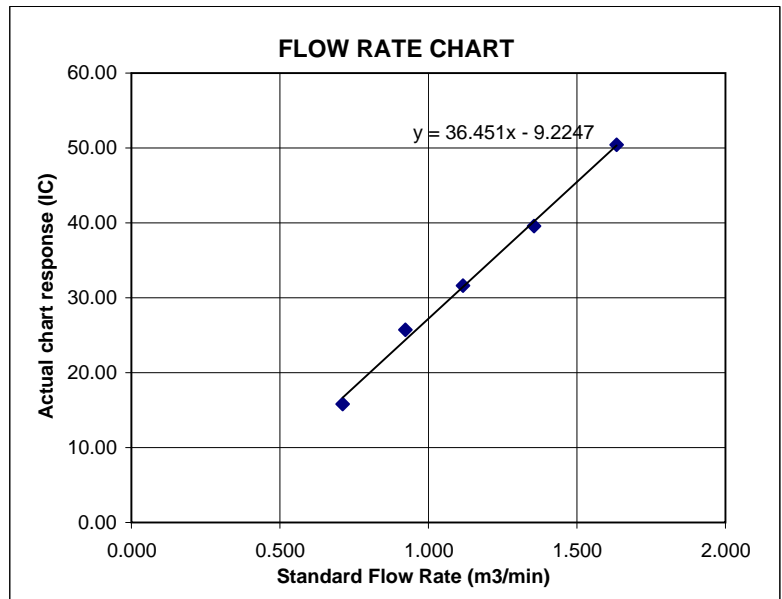
m = sampler slope

b = sampler intercept

I = chart response

T_{av} = daily average temperature

P_{av} = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Nam Sang Wai	Date of Calibration: 2-Oct-09
Location ID : AM 7 (Designated)	Next Calibration Date: 2-Dec-09
Serial No: 1283	Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1010.5	Corrected Pressure (mm Hg)	757.875
Temperature (°C)	28.0	Temperature (K)	301

CALIBRATION ORIFICE

Make-> TISCH	Qstd Slope ->
Model-> 515N	2.01546
Serial # -> 0285	Qstd Intercept ->
	-0.02851

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION		
							Slope =	Intercept =	Corr. coeff. =
18	5.1	5.1	10.2	1.589	46	45.48	Slope = 32.4114 Intercept = -6.0531 Corr. coeff. = 0.9988		
13	4.1	4.1	8.2	1.426	41	40.53			
10	3	3	6	1.222	33	32.63			
7	2.1	2.1	4.2	1.024	28	27.68			
5	0.9	0.9	1.8	0.676	16	15.82			

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate

IC = corrected chart responses

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

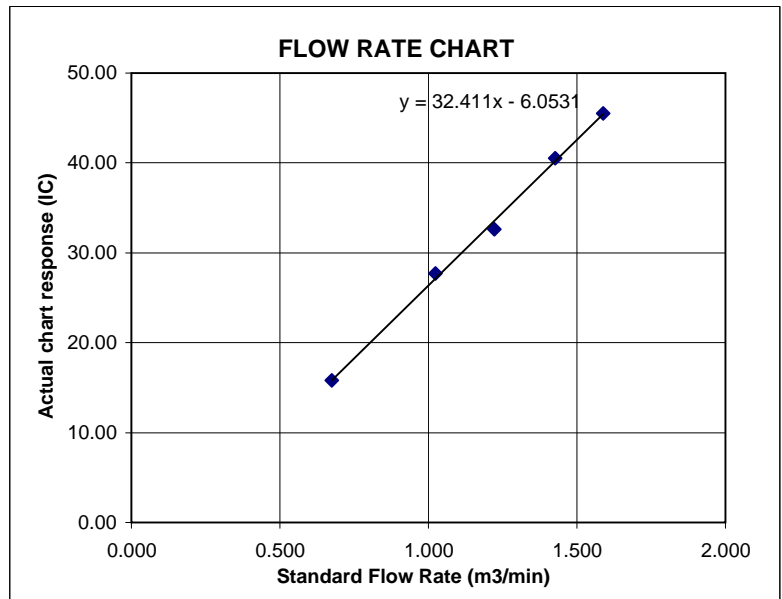
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



ANNEX I

METEOROLOGICAL DATA

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

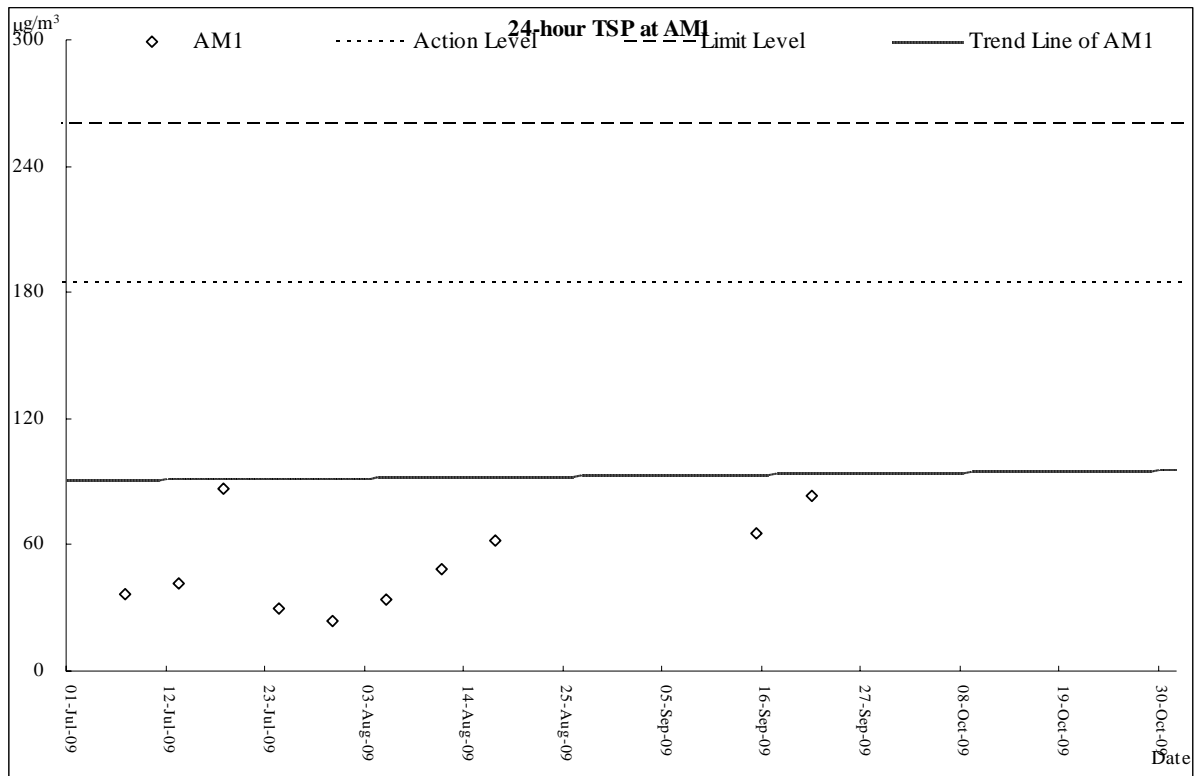
Date	Weather	Lau Fau Shan Weather Station					
		Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction	
Thu	1-Oct-09	Holiday					
Fri	2-Oct-09	fine/dry/cloudy/moderate	Trace	28.2	11.5	70.5	E/NE
Sat	3-Oct-09	Holiday					
Sun	4-Oct-09	fine/dry/moderate	0	27	16	64.5	S/SE
Mon	5-Oct-09	fine/dry/moderate/fresh	0	27.3	17.2	53.2	N/NE
Tue	6-Oct-09	fine/dry/moderate/fresh	0	27.7	12	52.5	N/NE
Wed	7-Oct-09	fine/dry/moderate	25.4	27.6	8.5	60	E/NE
Thu	8-Oct-09	fine/dry/moderate	0	25.8	10	63.5	E/SE
Fri	9-Oct-09	fine/dry/moderate	0	25.7	9	67	S/SE
Sat	10-Oct-09	fine/dry/moderate	0	26.5	13.5	55.5	E/NE
Sun	11-Oct-09	cloudy/rain/fresh/strong	5.1	27.5	16.5	74.5	E
Mon	12-Oct-09	cloudy/rain/fresh/strong	1.5	26.9	18.5	76	E
Tue	13-Oct-09	sunny	Trace	28.2	26	67.2	E
Wed	14-Oct-09	cloudy/rain/moderate/fresh	9.5	27.5	16.5	72.5	E
Thu	15-Oct-09	sunny intervals/rain	0	25.9	12.5	68.5	E/NE
Fri	16-Oct-09	fine/haze/moderate	Trace	27.2	8	74.2	E/NE
Sat	17-Oct-09	fine/dry/hazy/moderate	0	27.5	9.2	69.5	E/NE
Sun	18-Oct-09	cloudy/moderate/fresh	0	27.2	17.5	55	E
Mon	19-Oct-09	cloudy/rain/moderate/fresh	2	26.6	14.5	69.2	E/NE
Tue	20-Oct-09	cloudy/rain/fresh/strong	0.9	24.8	20	78.5	E
Wed	21-Oct-09	cloudy/moderate	0	25.2	15.5	78	E/NE
Thu	22-Oct-09	fine/haze/moderate	0	25.5	8	71.5	N/NE
Fri	23-Oct-09	fine/dry/faze/light winds	0	25.8	9.2	68	E
Sat	24-Oct-09	Fine and dry with some haze. Light winds.	0	26.1	12.7	67.2	E
Sun	25-Oct-09	Fine and dry with some haze.	Trace	25	10.3	77	E/SE
Mon	26-Oct-09	Holiday					
Tue	27-Oct-09	Mainly fine. Moderate easterly winds, fresh over offshore waters.	0	25.7	13	63.7	E
Wed	28-Oct-09	Mainly fine. Moderate easterly winds, occasionally fresh over offshore waters and on high ground.	Trace	25.4	12.2	64.5	E/NE
Thu	29-Oct-09	Mainly fine and dry. Moderate easterly winds.	0	25.9	12	65	E/NE
Fri	30-Oct-09	Mainly fine. Some haze tomorrow. Temperatures will range between 23 and 28 degrees. Moderate easterly winds	0	25.7	9	68.2	E/SE
Sat	31-Oct-09	Mainly fine and dry. Moderate easterly winds	0	25.7	10.2	65	E

ANNEX J

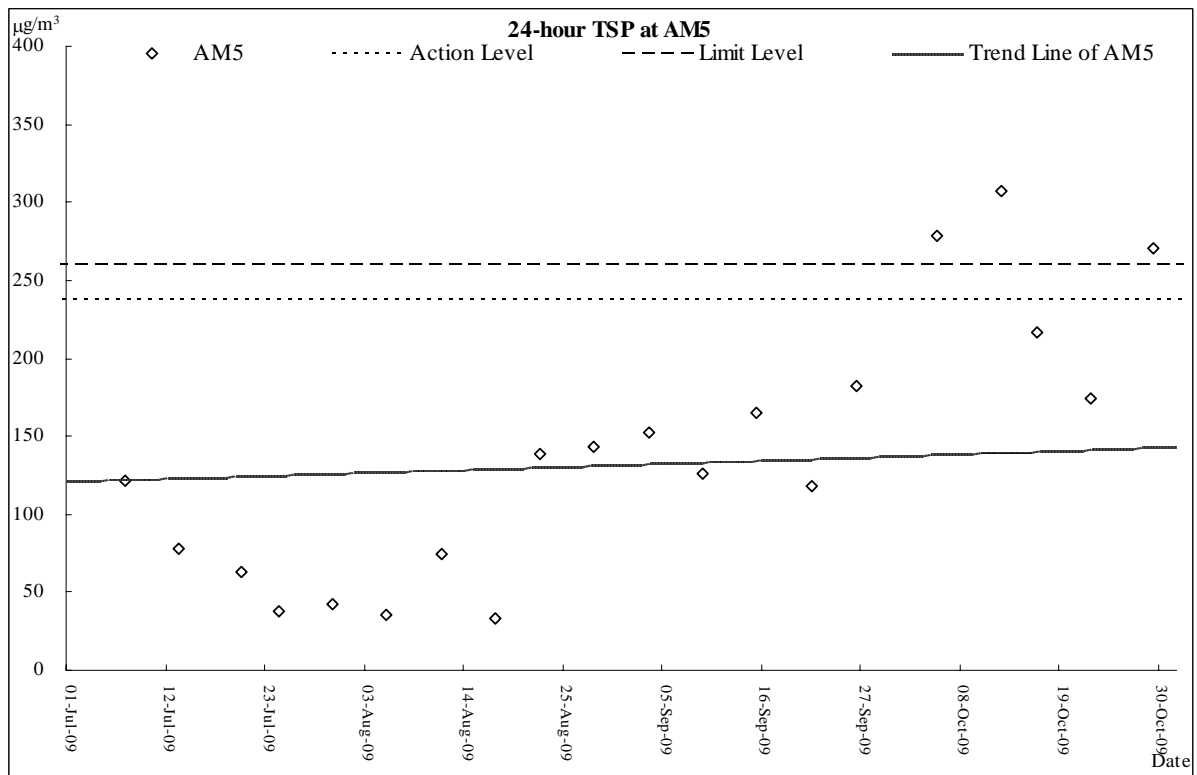
GRAPHICAL PLOTS OF AIR QUALITY AND CONSTRUCTION NOISE MONITORING RESULTS

AIR QUALITY

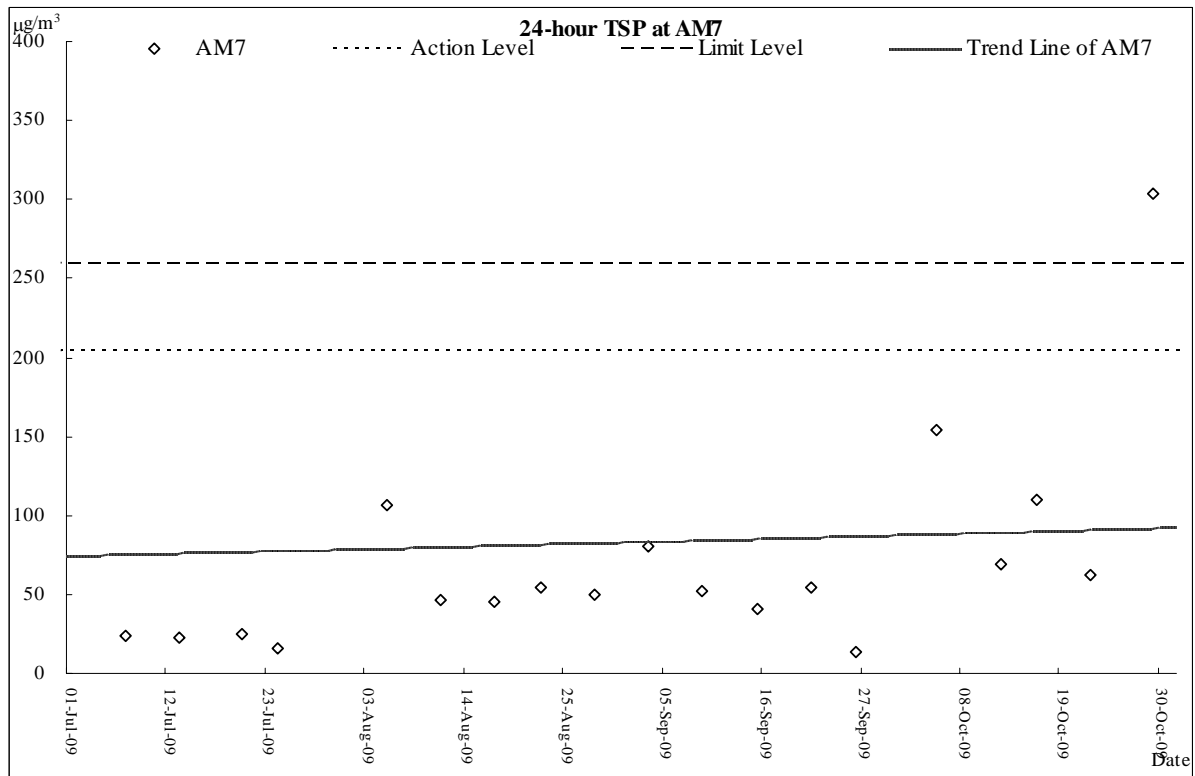
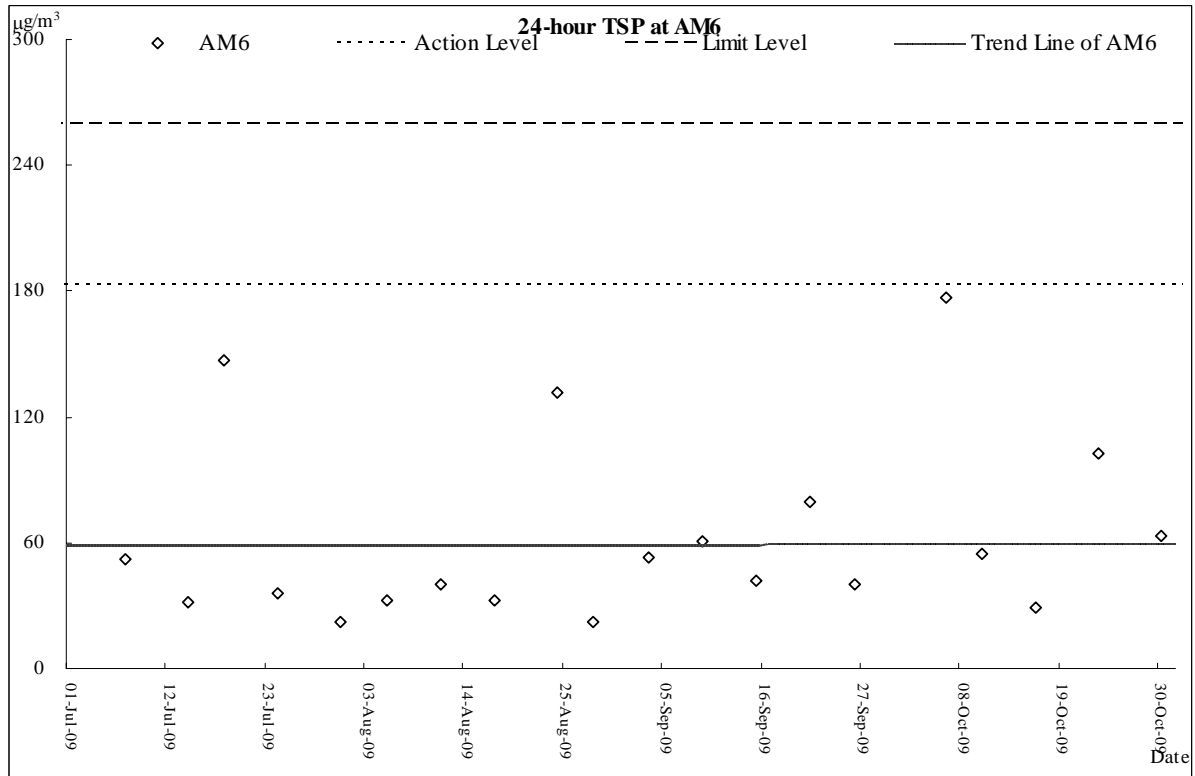
Air Quality Monitoring Results



Note: power failure occurred on 9 and 26 September 2009, therefore no result on plotting is shown.

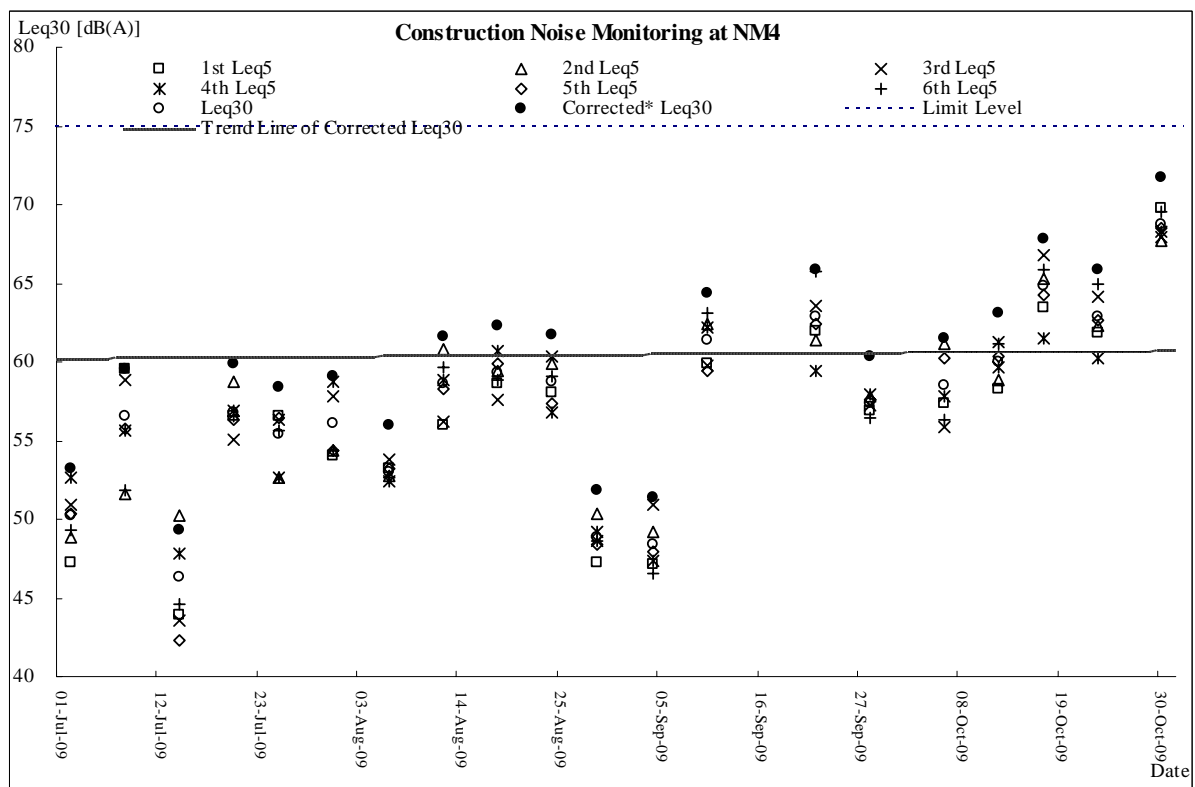
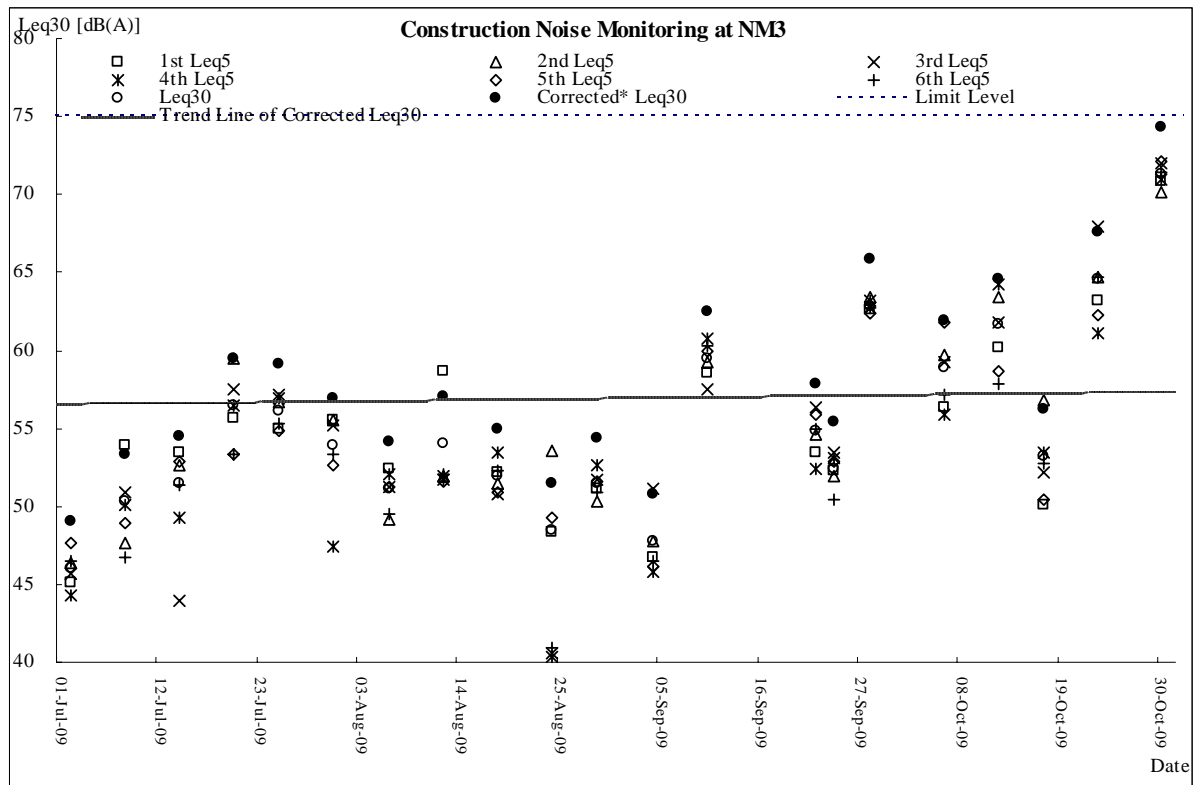


Air Quality Monitoring Results

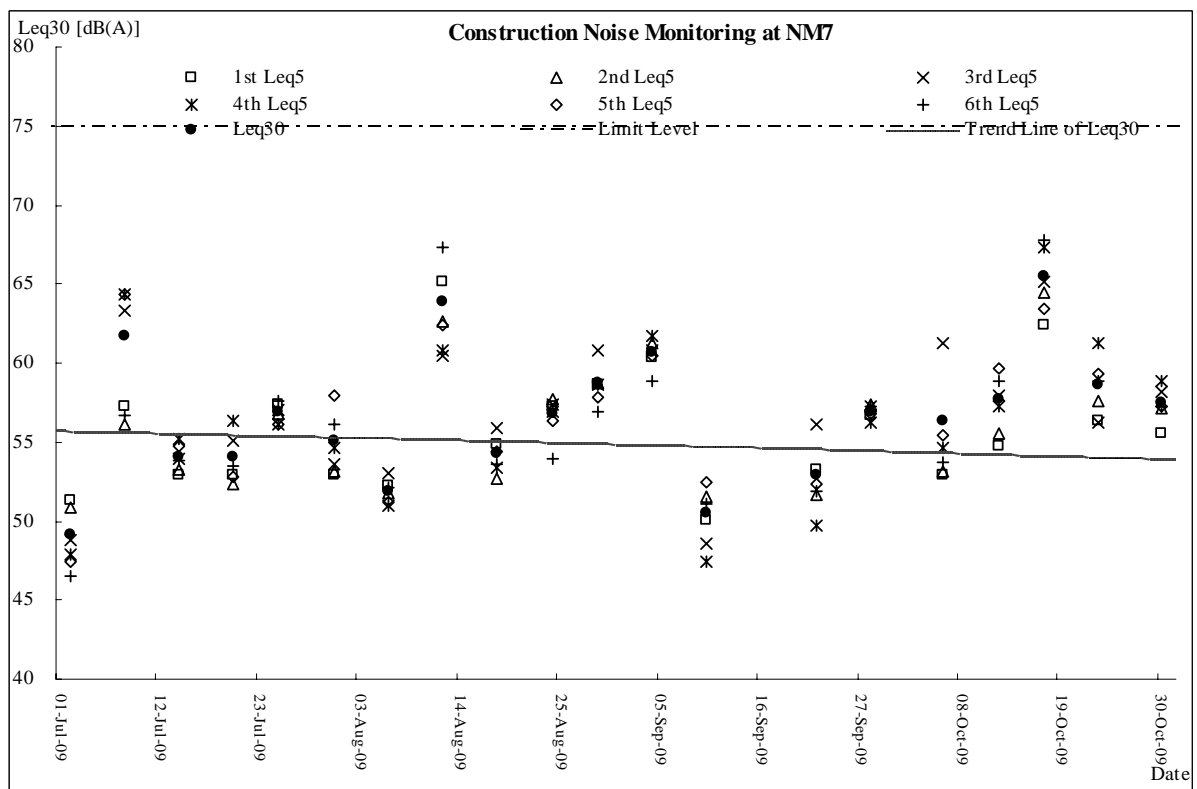
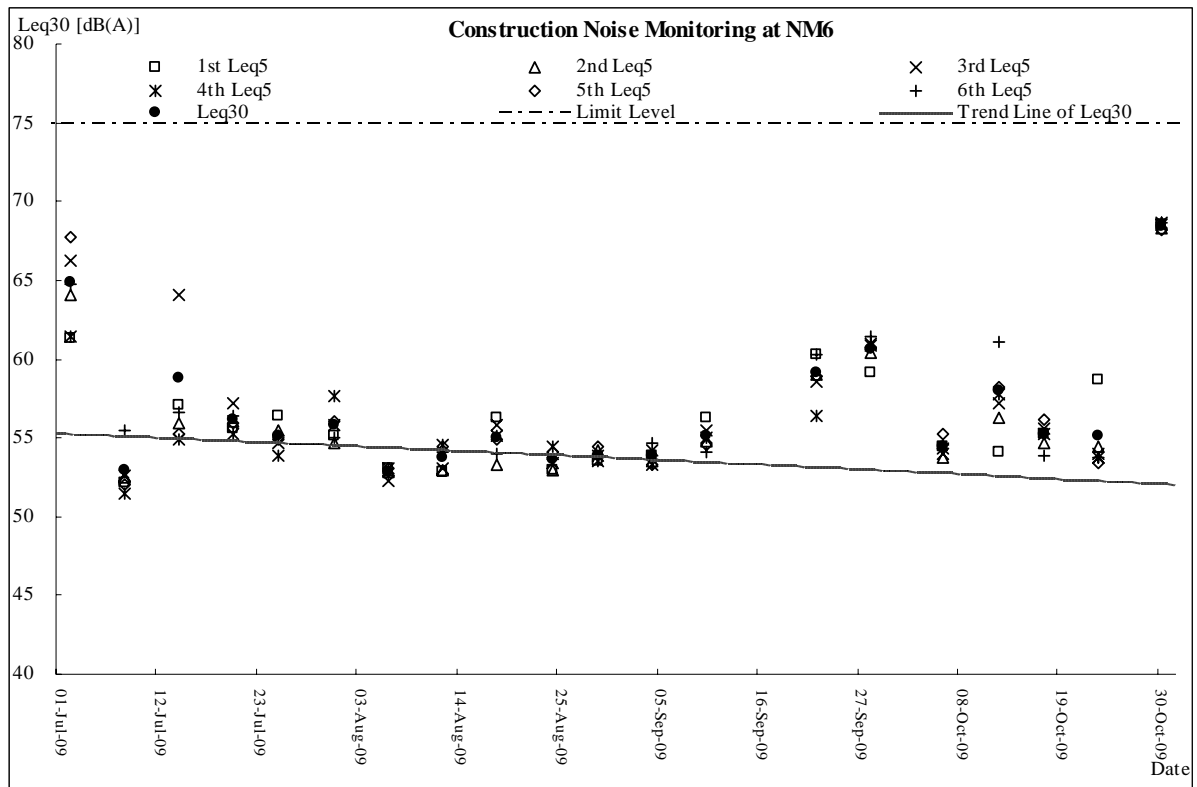


CONSTRUCTION NOISE

Construction Noise Monitoring Results



Construction Noise Monitoring Results



ANNEX K

PROFORMA OF SITE INSPECTION & IEC AUDIT

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Ben Tam	Engineer:	Babtie Asia Ltd
	Contractor Rep: Edwin Leung	IEC:	Mott MacDonald Hong Kong Ltd
	IEC's Rep:	Environmental Team:	Action-United Environmental Services & Consulting
	RE's Rep:	Inspection Date & Time:	6 October 2009 (09:30)
		Checklist Reference No.:	DSD-AT061009

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

	Yes	NO	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources <input type="checkbox"/> Wind erosion	<input checked="" type="checkbox"/>	NA				
<input type="checkbox"/> Loading/unloading of materials	<input type="checkbox"/>	Others				

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source <input type="checkbox"/> Traffic	<input checked="" type="checkbox"/>	Construction activities inside the site				
<input type="checkbox"/> Construction activities outside of site	<input type="checkbox"/>	Others	Nil			

Water Quality & Drainage		Yes	NO	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage system well maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are wheel washing facilities regularly inspected and maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are manholes covered and sealed?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical waste/waste oil	Is there designated storage area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste stored properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste license available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are appropriate procedures followed if contaminated materials exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical/Fuel	Is chemical/fuel stored in bounded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is bund capacity adequate (>110% of the largest tank)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remarks 1
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks:

Follow up

Sand bags were provided at Nam San Wai pumping station to prevent surface runoff.


Observations Recorded in this Site Inspection:



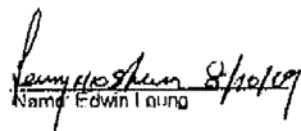
1. Stagnant water cumulated inside the drip tray was observed at Kam Tai Road works area, the contractor was reminded to clean.

Signatures:

Env. Auditor


Name: Bon Tam


Contractor's Representative


Name: Edwin Loung

IC(E) Auditor

Name: _____

Witness by RF's Representative


Name: _____

TSANG Wing-kai
Sew

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Ben Tam	Engineer:	Babtie Asia Ltd
	Contractor Rep: Edwin Leung	IEC:	Mott MacDonald Hong Kong Ltd
	IEC's Rep:	Environmental Team:	Action-United Environmental Services & Consulting
	RE's Rep:	Inspection Date & Time:	13 October 2009 (09:30)
		Checklist Reference No.:	DSD-AT131009

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

	Yes	NO	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources <input type="checkbox"/> Wind erosion	<input checked="" type="checkbox"/>	NA				
<input type="checkbox"/> Loading/unloading of materials	<input type="checkbox"/>	Others				

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source <input type="checkbox"/> Traffic	<input checked="" type="checkbox"/>	Construction activities inside the site				
<input type="checkbox"/> Construction activities outside of site	<input type="checkbox"/>	Others	Nil			

Water Quality & Drainage		Yes	NO	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is drainage system well maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remark 1
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are wheel washing facilities regularly inspected and maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are manholes covered and sealed?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical waste/waste oil	Is there designated storage area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste stored properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste license available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are appropriate procedures followed if contaminated materials exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical/Fuel	Is chemical/fuel stored in bounded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks:

Follow up

Stagnant water inside the drip tray was cleared.

Observations Recorded in this Site Inspection:



1. Stagnant water cumulated inside the un-used sedimentation tank was observed at Kam Tai Road works area, the contractor was reminded to clean.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Witness by RE's Representative

Name: Bon Tam

Name/Edwin Loung

Name: _____

Name: _____

TSANG Wing-kai

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Nicola Hon	Engineer:	Babtie Asia Ltd
	Contractor Rep: Edwin Leung	IEC:	Mott MacDonald Hong Kong Ltd
	IEC's Rep: Isaac Chu	Environmental Team:	Action-United Environmental Services & Consulting
	RE's Rep:	Inspection Date & Time:	20 October 2009 (10:00)
		Checklist Reference No.:	DSD-AT201009

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

	Yes	NO	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are load on vehicles covered by clean impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Observable dust sources <input type="checkbox"/> Wind erosion	<input checked="" type="checkbox"/>	NA				
<input type="checkbox"/> Loading/unloading of materials	<input type="checkbox"/>	Others _____				

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is silenced equipment used where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are noise enclosures or noise barriers used where necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Does specified equipment has valid noise label?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Major Noise Source <input type="checkbox"/> Traffic	<input checked="" type="checkbox"/>	Construction activities inside the site				
<input type="checkbox"/> Construction activities outside of site	<input type="checkbox"/>	Others Nil _____				

Water Quality & Drainage		Yes	NO	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage system well maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the sedimentation tanks: Constructed of pre-formed individual cells?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
With adequate capacity?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Free from silt and sediment?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are wheel washing facilities regularly inspected and maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are manholes covered and sealed?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste properly disposed of?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remark 1
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical waste/waste oil	Is there designated storage area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste stored properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste license available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are appropriate procedures followed if contaminated materials exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical/Fuel	Is chemical/fuel stored in bounded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks:

Follow up

Stagnant water was cleared.

Observations Recorded in this Site Inspection:



1. Scattered C&D waste was observed at Nam San Wai Road.
The Contractor is reminded to keep the site clean and tidy.

Signatures:

Env Auditor

Name: Nicola Hon

Contractor's Representative

Name: Edwin Leung

IC(E) Auditor

Name

Witness by RE's Representative

Name

TSANG Wing-kai

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Carson Chan	Engineer:	Babtie Asia Ltd
	Contractor Rep: Edwin Leung	IEC:	Mott MacDonald Hong Kong Ltd
	IEC's Rep:	Environmental Team:	Action-United Environmental Services & Consulting
	RE's Rep:	Inspection Date & Time:	30 October 2009 (10:00)
		Checklist Reference No.:	DSD-AT301009

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

	Yes	NO	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources <input type="checkbox"/> Wind erosion	<input checked="" type="checkbox"/>	NA				
<input type="checkbox"/> Loading/unloading of materials	<input type="checkbox"/>	Others				

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source <input type="checkbox"/> Traffic	<input checked="" type="checkbox"/>	Construction activities inside the site				
<input type="checkbox"/> Construction activities outside of site	<input type="checkbox"/>	Others	Nil			

Water Quality & Drainage		Yes	NO	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is drainage system well maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remark 1
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are wheel washing facilities regularly inspected and maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are manholes covered and sealed?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical waste/waste oil	Is there designated storage area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste stored properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste license available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are appropriate procedures followed if contaminated materials exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical/Fuel	Is chemical/fuel stored in bounded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks:

Follow up

C&D waste was cleared at Nam San Wai Pumping Station.

Observations Recorded in this Site Inspection:



1. Stagnant water and waste was observed at the unused sedimentation tank at Nam San Wai Road. The Contractor is reminded to clear.

Signatures:

Env. Auditor

Name: Carson Chan

Contractor's Representative

Name: Edwin Leung

IC(E) Auditor

Name:

Witness by RE's Representative

Name

TSANG Wing-kai
Snow

**Agreement No. CE37/2005 (EP)
Environmental Monitoring and Audit for
Kam Tin Trunk Sewerage Phase 1 and Au Tau Trunk sewers**

MONTHLY SITE INSPECTION CHECKLIST

Inspection Date	20 Oct 2009	Time	10:30 - 11:30	Inspected By	Leader: Edwin Leung ET: Nicola Man DSD: Kenny Tsui IEC: Isaac Chu
Site Location	New San Wai Road PK Nui South Road New San Wai Pumping Station				

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Hazy

Temperature Humidity High Moderate Low

Wind Calm Light Breeze Strong Direction

EIA ref:		Close-out on last comments Y/N	N/A or not obs	Yes	No	Photo/Remarks
Construction Phase						
Air Quality - Construction Phase						
3.5	• Are hoardings of not less than 2.4m high provided along the site boundary?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.5	• Is the portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit kept clear of dusty materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are stockpiled dusty materials covered by impervious sheeting and placed in an area sheltered on top and 3 sides or sprayed with water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are dusty material loads on vehicles sprayed with water prior to loading and unloading?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are all vehicles washed to remove dusty materials from its body and wheels before leaving site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are vehicles which are carrying dusty materials covered entirely by impervious sheeting when leaving site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are surfaces where any mechanical braking operation takes place sprayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are working area of any excavation sprayed with water, immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	• Where a scaffolding is erected around the perimeter of a building under construction, are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the SPS, or a canopy from the first floor level up to the highest level of the scaffolding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.5	• Are skip hoists for material transport totally enclosed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.7	<ul style="list-style-type: none"> Have dust monitors been provided at the following locations: <ul style="list-style-type: none"> Boundary facing scattered house in NSW (AM1) Boundary facing Fung Kat Heung (AM5) Boundary facing scattered house near route 3 (AM8) 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Noise						
Demolition works						
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewage Pumping Stations P1, P2 & P3						
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7.1	Are temporary noise barrier, in the form of a site hoarding (with superficial density of at least 20kg/m2, with no substantial gaps), along the site boundaries of the pumping station sites adopted?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewers and Rising Mains using Open Trench						
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7.1	Are handheld breakers used for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7.1	Are movable noise barriers or 3 sided enclosures installed for all initial road opening activities (breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached) where there NSRs within 50m of the line of sight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewers and Rising Mains using Pipe Jacking						
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road Pavement and Finishes						
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.9.1	<ul style="list-style-type: none"> Have noise monitors been provided at the following locations: <ul style="list-style-type: none"> (NM3) Scattered house in NSW (NM4) Scattered house in NSW (NM6) Scattered house near Route 3 (NM7) Fung Kat Heung 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Runoff and Site Drainage						
	Are perimeter cut-off drains to direct off-site water around the site constructed with internal drainage works and erosion and sedimentation control facilities implemented. Are channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers provided on site to direct stormwater to silt removal facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are dikes or embankments for flood protection implemented around the boundaries of earthwork areas. Are sediment/silt traps incorporated in the permanent drainage channels to enhance deposition rates?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are silt removal facilities provided with retention time for silt/sand traps of 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are construction works programmed to minimize surface excavation works during the rainy seasons (April to September)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are slopes minimized and erosion potential reduced?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is deposited silt and grit removed regularly and disposed of by spreading evenly over stable, vegetated areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• Are measures taken to minimise the ingress of site drainage into excavations? Is water pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?			✓	
• Are open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m ³ covered with tarpaulin or similar fabric during rainstorms?			✓	
• Are manholes (including newly constructed ones) adequately covered and temporarily sealed?			✓	
• Are precautions taken before rainstorms?		✓		
• Are all vehicles and plant cleaned before leaving site?		✓		
• Is solid waste, debris and rubbish on site appropriately collected, handled and disposed of properly to avoid water quality impacts?	Y		✓	
• Are all fuel tanks and storage areas provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby?		✓		

Sewage Effluent - Construction Phase

1) Are portable chemical toilets and sewage holding tanks provided? Is handling the construction sewage generated for collection and disposal of this waste? Is a licensed contractor employed?			✓	
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Waste Management - Construction Phase

6.6.2	• Are the necessary waste disposal permits from the appropriate authorities in place for chemical and C&D wastes, in accordance with the Waste Disposal (Chemical Waste) (General) Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap 28)?			✓	
6.6.2	• Is chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, being handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes?			✓	
6.6.2	• Are containers used for the storage of chemical wastes suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation?			✓	
6.6.2	• Is the storage area for chemical wastes clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated?		✓		
6.6.2	• Is disposal of chemical waste via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD?		✓		
6.6.2	• Are trip tickets for disposal available to monitor disposal of C&DM and solid wastes at public filling and landfills, and to control fly tipping?		✓		

Land Contamination - Construction Phase					
7.5.6	• Is a revised CAP submitted to the EPD before commencement of construction works? Is the CAP implemented and findings of the investigations reported in the CAR, before ground disturbance is allowed?		✓		
7.5.6	• If land contamination is confirmed, has a RAP been prepared and submitted to EPD?		✓		
7.5.6	• Are contaminated sites remediated in accordance with the approved CAR/RAP?		✓		
Ecology - Construction Phase					
8.7.1	• Are construction activities prohibited during November to March for the sections of works within the WCA and WBA, and close to locations of ecologically sensitive species.			✓	
8.7.1	• During November to March periods, are regular site inspections (at least twice a month) undertaken by ET to ensure proper implementation of this restriction?		✓		
8.7.2	• Is pipe jacking method used for sewers and rising mains crossing over MDC within the WCA and WBA?			✓	
8.7.2	• During November to March, are regular site inspections (at least twice a month) undertaken by ET for the remaining sewerage sections (including parts of S4, S5 and S6) within the WCA and WBA where construction activities cannot be rescheduled?		✓		
8.7.2	• The site inspections shall check and report the number of workfronts and implementation of mitigation measures in the monthly EM&A Report.			✓	
8.7.3	• Are quietened construction plant and equipment used for PS (P2 and P3) and sewers (S4, S5, S6) within the WCA and WBA?		✓		
8.7.4	• For P1-P3, have fences along the boundary of the pumping stations construction sites been erected?			✓	
8.7.4	• There shall be no filling and dumping to the remaining abandoned fishpond at P2.			✓	
8.7.4	• Are silt removal facilities, designed to the ProPECC Note PN1/04, installed and operated at the P1 to P3 sites? The minimal total combined volume of the silt removal facilities at P3 (NSW SPS) should be 15m ³ .			✓	
8.7.4	• There shall be no open fires within the site boundary.			✓	
8.7.4	• Have temporary fire fighting equipment provided in the works areas.			✓	
Landscape and Visual - Construction Phase					
	• Have the implementation of mitigation measures (i.e., top soil reused, new compensatory planting) been reported in the monthly EM&A?			✓	
	• The first monthly EM&A Report should report on the appearance of the temporary hoarding barriers.			✓	
	• Are screen planting (3m wide) and trees with dense canopy (up to 5m) provided?		✓		
	• Is felling of mature trees kept to a minimum?			✓	



OTHER OBSERVATIONS

This month's observations (20 October 2009)

- 1. A stockpile of construction waste was observed at Nam Sang Wai Road. The contractor was reminded to clear the waste as soon as possible.

Follow-up last month's observation (22 September 2009)

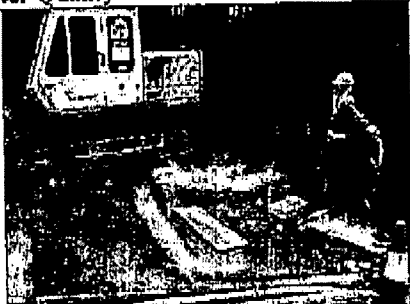


- 1. Ponding water observed at various locations at Nam Sang Wai Road has been cleared after the backfilling and leveling of the ground.
- 2. A steel skip containing mixed waste and blackish water observed previously at Pok Wai South Road was removed.

			
DSD Representative	Contractor Representative	ETC ET Rep.	IEC
()	()	 (Nicky Hsin)	Isaac Cheu (20/10/09)

**Agreement No. CE37/2005 (EP)
Environmental Monitoring and Audit for
Kam Tin Trunk Sewerage Phase 1 and Au Tau Trunk Sowers**

**MONTHLY SITE INSPECTION PHOTOS
20 October 2009
Environmental Observations**

This month's observations

Water Quality	Waste Management
	
<p>Ponding water observed at various locations at Nam Sang Wai Road has been cleared after the backfilling and levelling of the ground.</p>	<p>A steel skip containing mixed waste and blackish water observed previously at Pok Wai South Road was removed.</p>
<p>Waste Management</p>	
	
<p>A stockpile of construction waste was observed at Nam Sang Wai Road. The contractor was reminded to clear the waste as soon as possible.</p>	