

#### JOB NO.: TCS00310/06

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

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

MONTHLY EM&A REPORT FOR APRIL 2008 DESIGNATED ELEMENTS (NO. 25) (CONSTRUCTION PHASE)

**Revision: 0** 

**PREPARED FOR** 

LEADER CIVIL ENGINEERING CORPORATION LIMITED

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Prepared By	<b>Reviewed By</b>	Certified By	Approved By	Verified By
Ben Tam	Ken Wong	David Yeung	TW Tam	Dr. Anne F Kerr
to	A.	8	Alim	Acten
Environmental Consultant	Deputy Project ETL	Project ETL	General Manager	Project IEC

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# **EXECUTIVE SUMMARY**

- ES.01 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.
- ES.02 This Monthly Environmental Monitoring & Audit (EM&A) Report for April 2008 (No. 25) present the environmental impact monitoring and audit (EM&A) program conducted from 01 to 30 April 2008 for the Designated Elements. The EM&A program in April 2008 were covered air quality, construction noise and waste management.

# **Breach of Action and Limit (AL) Levels**

ES.03 No Action/Limit Level exceedance was recorded in this reporting month. All the monitoring results were complied with standard.

# **Complaint Log**

ES.04 No environmental complaint was received in this reporting month.

# Notification of Any Summons and Successful Prosecution

ES.05 There was no environmental summon or prosecution in this reporting month.

# **Reporting Changes**

ES.06 There are no changes to be reported in this reporting month.

# **Future Key Issues**

ES.07 Construction activities to be undertaken in **May 2008** include backfilling and construct the piping and manhole at Kam Tin Pumping Station (P1); backing filling, concreting and steel reinforcement work at Sha Po Pumping Station (P2); formwork and steel reinforcement work at Nam Sang Wai P/S(P3); sheet piling, excavation, pipe laying, backfilling, concreting, pipe jacking and extract sheet pile at both Nam Sang Wai Road(S4) and Pok Wai South Road(S5 &S6). Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.



# **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 25<sup>th</sup> Monthly Construction Phase EM&A Report for April 2008 (Report No. 25) summarizes the impact monitoring results and audit findings in the reporting month from 01 to 30 April 2008.

#### **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 THE REPORTING MONTH

1.04 A construction program showing the construction work undertaken in this reporting month was shown in Annex C. Environmental mitigation measures implemented are shown in Table 2-1.

#### MANAGEMENT STRUCTURE

1.05 The management structure of the Project is shown in Annex B.

### CONSTRUCTION ACTIVITIES UNDERTAKEN IN THE REPORTING MONTH

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

Kam Tin Pumping Station (P1)

- Backfilling
- Construct piping and manhole
- Extract sheet pile

Sha Po Pumping Station (P2)

- Backfilling
- Concreting
- Steel reinforcement work

Nam Sang Wai Pumping Station (P3)

- Formwork
- Steel reinforcement work

#### Nam Sang Wai Road (S4)

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



Pok Wai South Road (S5 and S6)

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

# 2.0 ENVIRONMENTAL STATUS

#### WORK UNDERTAKEN IN THE REPORTING MONTH WITH ILLUSTRATIONS

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

# Table 2-1 Work Undertaken in the Reporting Month with Illustrations of Mitigation Measures

Location	Description of Construction Activities	Environmental Mitigation Measures	EM&A Ref.
P1 (Kam Tin	<ul> <li>Sheet piling</li> </ul>	• Erect 2.4m high noise barrier hoarding around the works area at P1, P2 and	A1 & F6
Pumping	• Footing	P3	
Station)	construction	• Remove dust and spray water at the construction access	A2
		• Cover the stockpiles of dusty material properly	A3
		<ul> <li>Spray water to all dusty materials immediately before loading and unloading</li> </ul>	A4
P2 (Sha Po Pumping Station)	<ul> <li>Hoarding erection</li> </ul>	• Wash the wheels of vehicles before leaving the site	A5
P3 (Nam	<ul> <li>Pipe jacking</li> </ul>	• Install and use power-operated cover at the dump trucks	A6
Sang Wai		• Spray water at the pavement breaking locations	A7
Pumping		<ul> <li>Spray the working area of excavation frequently</li> </ul>	A8
Station)		• Maximize the use of quiet PME on site	B1, B2 & F5
S4 (Nam	<ul> <li>Drilling and</li> </ul>	<ul> <li>Apply and obtain appropriate waste disposal licenses</li> </ul>	D1
Sang Wai	grouting	• Handle, store and dispose of chemical wastes as per relevant regulations	D2, D3 & D4
Road)		<ul> <li>Implement trip-ticket system for waste disposal</li> </ul>	D5
		• Restrict open fires and provide fire fighting equipment in the works area	F9
S5 & S6 (Pok	<ul> <li>Pipe jacking</li> </ul>	<ul> <li>Perform weekly inspection with ET and monthly audit with IEC</li> </ul>	H1
Wai South		<ul> <li>Conduct noise and dust monitoring as per EM&amp;A manual during</li> </ul>	I1 & I2
Road)		construction	
		<ul> <li>Provide sedimentation tanks for treating site discharge.</li> </ul>	-
		• Recycle wheel washing water and provide sedimentation tanks for treating	-
		site discharge.	

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 (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 summary in the **Table 2-2**.



Station ID	Nature of Premise	Site Work Description	Station Coordinates
AM1	Site Boundary in NSW		835829 N 822910 E
AM5	Site Boundary in FKH		835121 N 823515 E
AM6	Site Boundary in KT		833308 N 823987 E
AM7	Site Boundary in NSW	Sheet piling and trench excavation.	836171 N 822586 E
NM3	Village House in NSW	sheet phing and trenen excavation.	835808 N 822817 E
NM4	Village House in NSW		835282 N 822811 E
NM6	Village House in KT		833288 N 823999 E
NM7	Village House in FKH		835121 N 823495 E

Table 2-2Description of the Monitoring Stations

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

# 3.0 SUMMARY OF EM&A REQUIREMENTS

# MONITORING PARAMETERS

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

Table 3-1	Summary of EM&A Requirements
-----------	------------------------------

<b>Environmental Aspect</b>	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.

Monitoring Locations	Action Le	evel (µg/m <sup>3</sup> ) Limit Level (µg/m		el (µg/m <sup>3</sup> )
Wollitor nig Locations	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 3-2Action and Limit Levels for Air Quality

Table 3-3 Act	ion and Limit I	Levels for Const	ruction Noise
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Monitoring Period		d	Action Level	Limit Level	
0700-1900 weekdays	hours	on	normal	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, licences, and/or notifications related to environmental protection under this Project during the reporting month is presented in Table 4-1.

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 08 May 2006
5	Account for Disposal of Construction Waste No. 5004959	Registration on 27 Dec 2005
6	Construction Noise Permit (CNP No. GW-RN0479-07)	Valid (06 Nov 2007 to 05 May 2008)
7	Construction Noise Permit (CNP No. GW-RN0480-07)	Valid (06 Nov 2007 to 05 May 2008)

Table 4-1Status of Environmental Licenses and Permits

# 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 complied with the PS specifications including.
  - Power supply of 220v/50 Hz for 24-Hour continuous operation;
  - $0.6-1.7 \text{ m}^3/\text{min}$  (20-60 SCFM) adjustable flow rate;
  - A 7-day mechanical timer for 24-Hour operation;
  - An elapsed time indicator with  $\pm 2$  minutes accuracy for 24-Hour operation;
  - Minimum exposed area of  $63 \text{ in}^2$ ;
  - 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 during the reporting 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  $(L_{10} \text{ and } L_{90})$  were also obtained for reference.
- 5.05 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification 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 5 m/s or wind with gusts exceeding 10 m/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.

 Env. Aspect
 Parameters
 Monitoring Equipment

 Air Quality
 24-Hour TSP
 Greasby Anderson GMWS2310 High Volume Air Sampler

 Noise
 Leq30min
 B&K Sound Level Meter Type 2238

 On-site Calibration
 B&K Noise Calibrator Type 4231

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

# **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. For this reporting month, HVAS at AM5 and AM6 were calibrated on 2 April 2008. The calibration Certificate is shown in **Annex H**. Also the HVAS of AM1 and AM7 will be calibrated in next month for reporting.



- 5.11 The sound level meters were calibrated using an acoustic 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 acoustic 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 The renew calibration certificates of the monitoring equipment include HVAS and sound level meters used during the impact monitoring program in this month are attached in **Annex H**.

# PARAMETERS MONITORED

5.13 The environmental parameters monitoring in this reporting 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 reporting 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 5-2Location of Air Quality and Construction Noise Monitoring<br/>Stations/Locations

Air Quality (4 Statio	ns)	
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	
<b>Construction Noise (</b>	(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. Due to power supply failed from 28 February 2008 to 5 April 2008 at monitoring location AM 1, so the 24-Hour TSP monitoring at AM1 was performed on 7 April 2008. Total of **23** monitoring events of 24-Hour TSP were conducted in this reporting month.
- 5.16 The impact noise monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of **20** monitoring events were carried out in this reporting month.

# MONITORING RESULTS WITH DATE AND TIME

5.17 Monitoring results in this reporting month for air quality and construction noise were summarized at **Table 5-3** to **5-7**. No Action/Limit Level exceedance of air quality and construction noise was recorded in this reporting month.



Date	24-Hour TSP (μg/m <sup>3</sup> )					
Date	AM1	AM5	AM6	AM7		
01-Apr-08	Power failure	109	32	27		
07-Apr-08	152	100	29	35		
12-Apr-08	88	53	31	32		
18-Apr-08	96	96	30	71		
24-Apr-08	73	186	43	52		
30-Apr-08	66	95	54	52		
Average (Range)	95 (66-152)	106 (53-186)	36 (29-54)	45 (27–71)		
Action / Limit	> 184 / >260	> 237 / >260	> 183 / >260	> 204 / >260		

# Table 5-3Summary of Air Quality Monitoring Results

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

# Table 5-4Summary of Noise Monitoring Results at NM3

Date Start Time				3rd Leq5			6th Leq5	Leq30	Corrected * Leq30	
02-Apr-08	16:03	50.9	53.2	51.4	52.0	51.5	51.6	51.8	54.8	
09-Apr-08	15:51	50.4	51.2	50.9	51.3	50.6	50.8	50.9	53.9	
15-Apr-08	10:24	45.7	45.9	46.1	54.6	48.1	47.2	49.4	52.4	
21-Apr-08	10:48	44.5	46.1	48.2	46.8	45.7	46.1	46.4	49.4	
26-Apr-08	26-Apr-08 11:15 50.9 47		47.2	47.2 47.8 46.4 47.2 49				48.4	51.4	
Limit L	evel								75	

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

#### 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
02-Apr-08	14:49	54.8	51.7	49.1	53.6	49.2	51.1	52.1	55.1
09-Apr-08	14:55	59.1	54.6	53.5	54.4	53.9	52.6	55.3	58.3
15-Apr-08	09:50	62.1	61.3	63.4	64.7	60.8 62.4		62.7	65.7
21-Apr-08	09:58	55.0	55.0 64.1		53.7	62.4 61.7		60.3	63.3
26-Apr-08	09:55	56.8	63.0	59.4	63.9	60.5	63.9	61.9	64.9
Limit L	evel								75

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

#### 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	Corrected * Leq30
02-Apr-08	15:19	68.0	67.7	68.3	69.6	68.4	69.1	68.6	
09-Apr-08	14:25	57.3	58.2	55.4	56.4	59.4	55.4	57.3	No
15-Apr-08	11:29	62.5	60.4	59.3	59.4	66.9	63.0	62.8	Correction
21-Apr-08	13:04	62.5	57.1	62.2	61.4	58.5	56.8	60.4	Required
26-Apr-08	11:20	62.7	58.9	56.2	61.1	53.6	54.7	59.1	
Limit Le	evel								75

\* Noise monitoring was undertaken at the façade, correction was not necessary.

#### Table 5-7 Summary of Noise Monitoring Results at NM7

Date	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30	
02-Apr-08	16:44	52.5	52.9	54.4	53.0	52.7	50.5	52.8	
09-Apr-08	15:45	56.5	56.0	56.8	57.1	57.2	56.5	56.7	No
15-Apr-08	11:00	54.0	54.1	53.8	54.6	53.2	54.1	54.0	Correction
21-Apr-08	11:15	56.3	55.5	55.4	58.8	55.1	56.3	56.4	Required
26-Apr-08	13:10	59.3	60.0	58.0	59.7	59.8	60.1	59.5	
Limit Lo	evel								75

\* Noise monitoring was undertaken at the façade, correction was not necessary.

 $\label{eq:loss2006} \end{tabular} Z: Jobs \end{tabular} Jobs \end{tabular} DC-2005-02 \end{tabular} \end{tabular} Jobs \end{tabular} Let $$ Action-United Environmental Services and Consulting $$ Action-United Environmental Services $$ Action-United$ 



5.18 The proposed monitoring schedule for the coming month (May 2008) is shown in **Table 5-8**.

		Toposal Monitoring Schedule for May 2000									
D	ate	Air Quality	Noise Leq 30min								
1-May-08	Thu										
2-May-08	Fri										
3-May-08	Sat										
4-May-08	Sun										
5-May-08	Mon										
6-May-08	Tue										
7-May-08	Wed										
8-May-08	Thu										
9-May-08	Fri										
10-May-08	Sat										
11-May-08	Sun										
12-May-08	Mon										
13-May-08	Tue										
14-May-08	Wed										
15-May-08	Thu										
16-May-08	Fri										
17-May-08	Sat										
18-May-08	Sun										
19-May-08	Mon										
20-May-08	Tue										
21-May-08	Wed										
22-May-08	Thu										
23-May-08	Fri										
24-May-08	Sat										
25-May-08	Sun										
26-May-08	Mon										
27-May-08	Tue										
28-May-08	Wed										
29-May-08	Thu										
30-May-08	Fri										
31-May-08	Sat										

Table 5-8	Proposal Monitoring Schedule for May 2008
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Monitoring Day
Sunday or Public Holiday

# WEATHER CONDITIONS DURING THE MONITORING MONTH

5.19 The meteorological data during the monitoring month are summarized in Annex I.

# **GRAPHICAL PLOTS OF TRENDS OF MONITORED PARAMETERS**

5.20 The graphical plots of air quality and construction noise monitoring data are presented in Annex J.

# WEATHER CONDITIONS THAT AFFECT THE MONITORING RESULTS

5.21 The weather conditions at the time of monitoring were considered acceptable for monitoring activities and did not have significant impact on the monitoring results obtained.

# OTHER FACTORS INFLUENCING THE MONITORING RESULTS

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



# **QA/QC RESULTS AND DETECTION LIMITS**

5.23 Not applicable.

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

# **RECORD OF NON-COMPLIANCE OF ACTION AND LIMIT LEVELS**

6.01 There was no Action or Limit Level exceedance in this reporting month.

# **RECORD OF ENVIRONMENTAL COMPLAINTS RECEIVED**

6.02 There was no environmental complaint received in this reporting month.

#### **RECORD OF NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTION**

6.03 There was no notification of summons or prosecution received in this reporting month.

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

6.04 No NC, complaints or NoS was received in this reporting month.

## **DESCRIPTION OF FOLLOW-UP ACTIONS TAKEN**

6.05 No NC, complaints or NoS was received in this reporting month.

# 7.0 OTHERS

#### **FUTURE KEY ISSUES**

7.01 Construction activities to be undertaken in **May 2008** include backfilling and construct the piping and manhole at Kam Tin Pumping Station (P1); backing filling, concreting and steel reinforcement work at Sha Po Pumping Station (P2); formwork and steel reinforcement work at Nam Sang Wai P/S(P3); sheet piling, excavation, pipe laying, backfilling, concreting, pipe jacking and extract sheet pile at both Nam Sang Wai Road(S4) and Pok Wai South Road(S5 &S6). Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). 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 reporting month are summarized in **Tables 7-1** and **7-2**.

Table 7-1 Summary of Waste Quantities for Disposal	Table 7-1	Summary of Waste Quantities for Disposal
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Type of Waste	Quantity	<b>Disposal Location</b>
C&D Materials (Inert) (tons) – Disposed	3.602	Tuen Mun 38 Fill Bank
C&D Materials (Inert) (tons) - Reused	0.26	DSD Contract DC/2005/02
C&D Materials (Non-Inert) (tons)	0	NA
Chemical Waste (Litres)	0	NA
General Refuse (tons)	0.023	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 50m<sup>3</sup> of surface runoff was discharged in the reporting month.

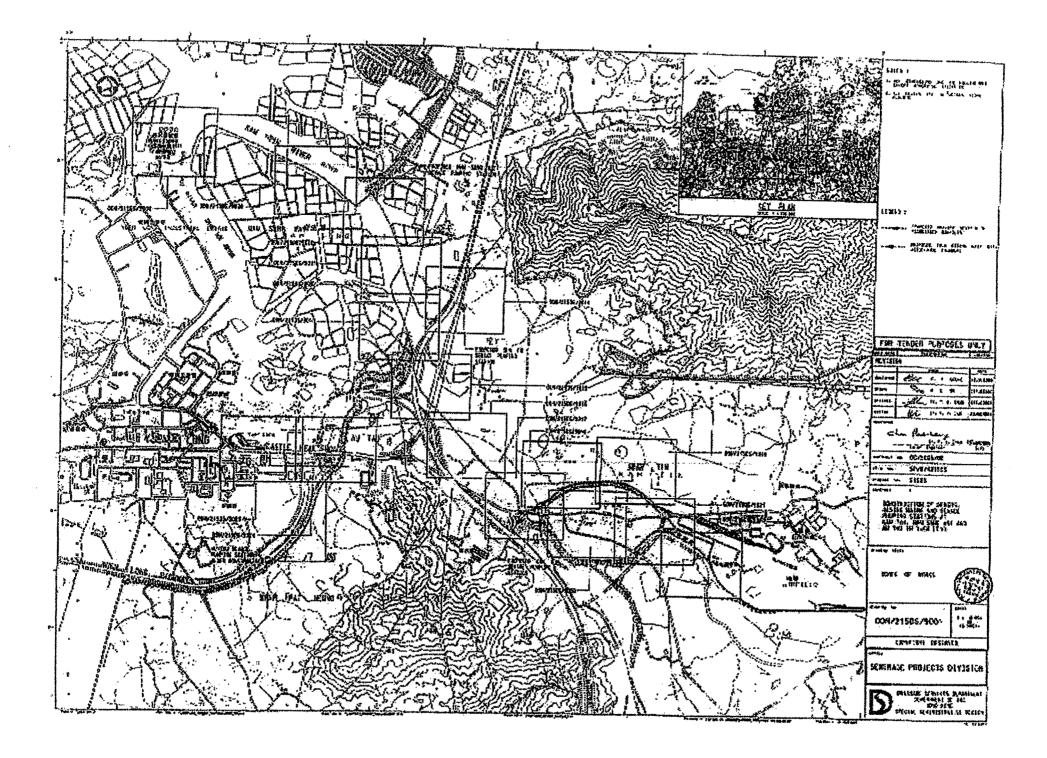
### SUBMISSION OF PROFORMA

- 7.04 Representatives of the Engineer, the Contractor and ET carried out regular weekly joint site inspection on 01, 08, 15, 22 and 29 April 2008 to evaluate the site environmental performance. No non-compliance was found in this reporting month. However there have total eight observations were noted and recorded during the five times weekly joint site inspection. The monthly IEC site audit for **April 2008** was undertaken on 08 April 2008. Four observations and one reminder were indicated by IEC.
- 7.05 Proforma of the weekly ET site inspection activities are presented in Annex K.



Annex A

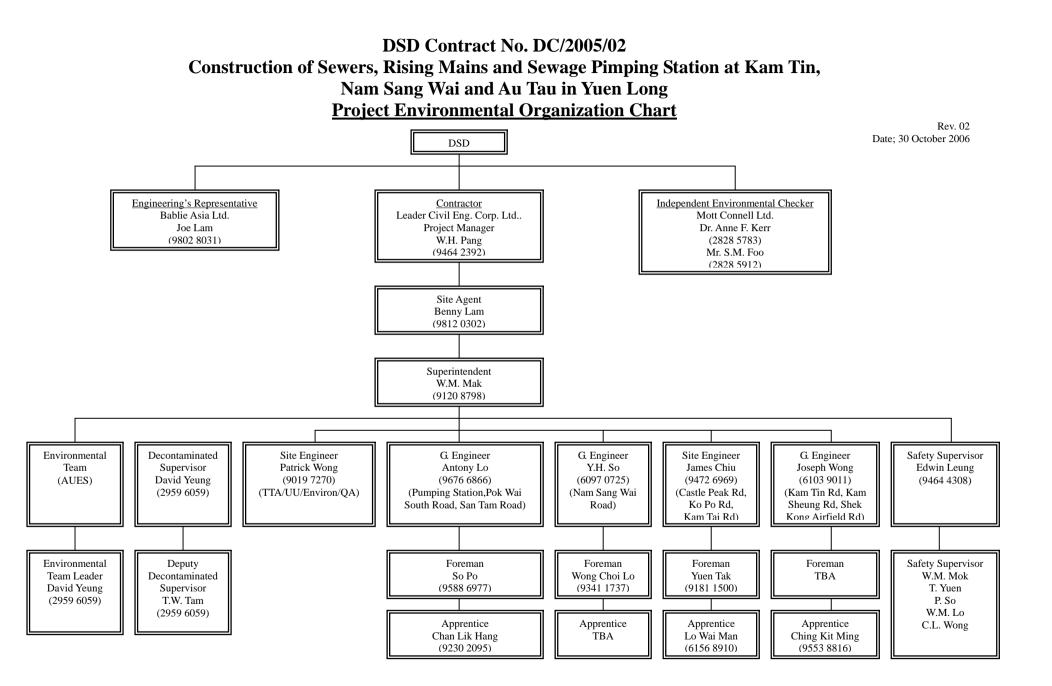
**Project Site Layout** 





Annex B

# **Project Organization and Management Structure**





Annex C

# **Construction Program**

Act ID	Description	Orig Dur		Percent Complete	Early Start	Early Finish	Late Start	Late Finish	MAR APR 24 31 07 14	21 2	2008 JUN JUL 26 05 12 19 26 02 09 16 23 30 07 14 21 28
Preliminaries											
PR2900	Deliver Ductile Iron Pipe	80			APR06 A	24NOV08	29APR06 A				
PR3100	Deliver Precast Concrete Pipe	80	-		APR06 A	05NOV08	24APR06 A		i i i	i i	
PR3300	Deliver Vitrified Clay Pipe	80			APR06 A	10DEC08	10APR06 A				
PR3400	Structural Monitoring by ISE	83	5 111d	77 06	APR06 A	18DEC08	06APR06 A	06MAY09	i i i	i i	
PR3500	Environmental monitoring by ET	81	4 150d	81 06	APR06 A	03NOV08	06APR06 A	06MAY09			
Section 1 - Kam Tin Portion A	Sewage Pumping Station										
Ground Investiga	ation										
S1AB1500						44.00	44.000	10.000			Install Settlement Markers for Pumping Station
	Install Settlement Markers for Pumping Station		2 1d	0 10	JUN08	11JUN08	11JUN08	12JUN08			
Drainage and Du Trench Method											
	DN1050 Pipe & Manhole (D1 - P/S)	1:	_		APR08	14MAY08	29FEB08	13MAR08			DN1050 Pipe & Manhole (D1 - P/S)
S1AEA1100	DN600 Pipe & Manhole (A2 - D1)	1:	2 -47d	80 27	FEB08 A	16MAY08	27FEB08 A	15MAR08			DN600 Pipe & Manhole (A2 - D1)
S1AEA1200	DN1050 Pipe & Manhole (P/S - Outfall)	1:	2 -39d	0 15	MAY08	28MAY08	27MAR08	10APR08			DN1050 Pipe & Manhole (P/S - Outfall)
S1AEA1300	Construct Flow Meter Chamber	1:	2 -47d	0 24	MAY08	06JUN08	27MAR08	10APR08			Construct Flow Meter Chamber
S1AEA1800	Install Geotextile Filter up to Ground Slab F/L		1 -57d	80 27	MAR08 A	29APR08	27MAR08 A	18FEB08			Install Geotextile Filter up to Ground Slab F/L
S1AEA1900	CCTV Inspection of Pipeline		1 91d	0 29	MAY08	29MAY08	16SEP08	16SEP08			CCTV Inspection of Pipeline
Pipework - Rising											
Trench Method	d										
S1AFA1000	Twin Rising Main DN700		6 -47d	0 17	MAY08	23MAY08	17MAR08	26MAR08			Twin Rising Main DN700
S1AFA1100		-	6 -47d		MAY08	23MAY08	17MAR08	26MAR08			Twin Rising Main DN700 in Structure
S1AFA1200	-		1 71d		JUN08	07JUN08	01SEP08	01SEP08			CCTV Inspection of Pipeline
Earthworks											
01100000					1 DD 00	001411/00	05144.000	4444 200			Backfill inside Void
S1AG2300	Backfill inside Void		9 -43d		APR08	09MAY08	05MAR08	14MAR08			
S1AG2400	Backfill to +0.00mPD	1	1 -57d		FEB08 A	29APR08	14FEB08 A	18FEB08	Demous Cad Lev	10/-lin-	Backfill to +0.00mPD
S1AG2450	Remove 2nd Layer Waling & Strut	-	2		FEB08 A	08APR08 A	26FEB08 A	08APR08 A	Remove 2nd Lay	ayer waling	
\$1AG2500	Backfill to Formation of Ground Slab	1.			MAR08 A	03MAY08	27MAR08 A			i i	Backfill to Formation of Ground Slab
S1AG2550	Remove 1st Layer Waling & Strut		2 -57d		APR08 A	05MAY08	17APR08 A	22FEB08		1	Remove 1st Layer Waling & Strut
S1AG2600	Extract Sheetpile	1	0 -57d	5 03	APR08 A	17MAY08	03APR08 A	05MAR08			Extract Sheetpile
Formwork											
S1AJ1300	Erect Formwork to Top Slab of Void		4 -43d	0 10	MAY08	15MAY08	15MAR08	19MAR08			Erect Formwork to Top Slab of Void
S1AJ1500	Erect Formwork to +5.00mPD	1:	2	100 10	APR08 A	17APR08 A	10APR08 A	17APR08 A	Ere	ect Formwor	rk to +5.00mPD
S1AJ1600	Erect Formwork to Ground Slab		3 -57d	0 19	MAY08	27MAY08	06MAR08	14MAR08			Erect Formwork to Ground Slab
S1AJ1700	Erect Formwork to +11.10mPD	1:	2 1d	0 21	JUN08	05JUL08	23JUN08	07JUL08			Erect Formwork to +11.10mPD
S1AJ1800	Erect Formwork to +14.00mPD & Roof Slab	1:	2 1d	0 18	JUL08	31JUL08	19JUL08	01AUG08			
Steel Reinforcen	ment										
S1AK1200	Fix Re-bar to Top Slab of Void		2 -43d	0 16	MAY08	17MAY08	20MAR08	25MAR08			Fix Re-bar to Top Slab of Void
S1AK1400	Fix Re-bar to +5.00mPD		3		APR08 A	09APR08 A			Fix Re-bar to +	+5.00mPD	
			1				1	1		1 1	
	EC05										Early bar
	EB10 PR08					Lead	er Civil E	ngineerir	g Corp. Ltd.		Progress bar
Page number 1A						D	SD Contra	act No. D	/2005/02		Critical bar Summary bar
					3-Mo	nth Roll	ing Progr	ramme - 3	M01 at 29 April 2008		Start milestone point
c Primavera Syste	ems, Inc.										Finish milestone point

Act	Description	Orig		Percent Early	Early	Late	Late	MAR	APR			2008 MAY 12 19 26	JUN		JUL
ID \$1AK1500	Fix Re-bar to Ground Slab	Dur	Float -57d	Complete Start 0 28MAY08	Finish 05JUN08	Start 15MAR08	Finish 27MAR08	24 31 07	14	21	28 05	12 19 26	02 09 16 Fix Re-bar to Ground S	23 30 0 ab	7 14 21 28
S1AK1600	Fix Re-bar to +11.10mPD	0	-570 1d	0 12JUN08	20JUN08	13JUN08	21JUN08							Re-bar to +11.10mF	П
		0	1d			_									Fix Re-bar to +14
S1AK1700 In-Situ Concrete	Fix Re-bar to +14.00mPD	8	Id	0 09JUL08	17JUL08	10JUL08	18JUL08								
In-Situ Concrete															
						1	-								
S1AL1300	Cast Top Slab of Void	2	-43d	0 19MAY08	20MAY08	26MAR08	27MAR08					Cast Top Slab o	Void		
S1AL1500	Cast Wall Stem to +5.00mPD	2		100 19MAR08 A	18APR08 A	19MAR08 A	18APR08 A		Ca	ast Wall St	em to +5.00mPD				
S1AL1600	Cast Ground Slab	2	-57d	0 06JUN08	07JUN08	28MAR08	29MAR08						Cast Ground Slab		
S1AL1700	Cast Wall Stem to +11.10mPD	2	1d	0 07JUL08	08JUL08	08JUL08	09JUL08							Ē	Cast Wall Stem to +11.10mPl
S1AL1900	Apply Anticorrosion Concrete Coating System	32	-57d	0 14JUL08	19AUG08	05MAY08	12JUN08								
S1AL2100	Construct Boundary Wall	45	-47d	0 07JUN08	31JUL08	11APR08	04JUN08								
Geotechnical wor	ks														
S1AP1000	Monitoring of Instruments	525	-7d	77 16NOV06 A	24SEP08	16NOV06 A	16SEP08	i i		i i		i i i		i i	
Testing															
_															
	Pressure Testing to Twin Rising Main DN700	12	71d	0 10JUN08	23JUN08	02SEP08	16SEP08							Pressure Testing to	Twin Rising Main DN700
Section 2 - Sha Po S Portion B	ewage Pumping Station														
Ground Investigat	lion														
														-	- II Cottle mont Markens for During
	Install Settlement Markers for Pumping Station	1	-29d	0 04JUL08	04JUL08	29MAY08	29MAY08			i i					all Settlement Markers for Pump
Drainage and Du	cts														
S2BEA1550	Install Geotextile Filter up to +2.00mPD	1	-305d	0 16MAY08	16MAY08	05MAY07	05MAY07					Install Geotextile Filter	up to +2.00mPD		
S2BEA1600	Install Geotextile Filter up to Ground Slab F/L	1	-305d	0 27MAY08	27MAY08	16MAY07	16MAY07					Install	Geotextile Filter up to Ground	Slab F/L	
Pipework - Rising	Main														
Trench Method															
S2BEA1000	Twin Rising Main DN500	4	59d	0 04JUN08	07JUN08	14AUG08	18AUG08						Twin Rising Main D	500	
	CCTV Inspection of Pipeline	1	59d	0 10JUN08	10JUN08	19AUG08	19AUG08						CCTV Inspectio		
Earthworks			000	0 10001100	10001100	10/10/000	10/10/000								
Earthworks															
				1		1	1								
S2BG1900	Backfill inside Void	5		100 28MAR08 A				Backfill inside Vo							
S2BG2000	Backfill to -1.40mPD	7		100 28MAR08 A		28MAR08 A	14APR08 A	. i i	Backfill	to -1.40mP	20				
S2BG2020	Backfil to +2.0mPD	6	-305d	0 17MAY08	23MAY08	07MAY07	12MAY07					Backfil to +2			
S2BG2040	Remove 1st Layer of Waling and Strut	2	-305d	0 24MAY08	26MAY08	14MAY07	15MAY07					Remove	1st Layer of Waling and Stru		
S2BG2100	Backfill to Formation of Ground Slab	12	-305d	0 28MAY08	11JUN08	17MAY07	31MAY07						Backfill to Forr	ation of Ground Slab	
S2BG2200	Extract Sheetpile	8	-305d	0 12JUN08	20JUN08	01JUN07	09JUN07			, <b></b> +			E	tract Sheetpile	
Formwork															
S2BJ1300	Erect Formwork to Void T/Slab & V/Chamber B/Slab	4		100 15APR08 A	16APR08 A	15APR08 A	16APR08 A		Erect	Formwork	to Void T/Slab & V	//Chamber B/Slab			
S2BJ1400	Erect Formwork to +2.00mPD	12	-305d	30 24APR08 A		24APR08 A	02MAY07					Erect Formwork to +2.00m	PD		
S2BJ1500	Erect Formwork to Ground Slab	12		0 21JUN08	30JUN08	17MAR08	28MAR08							Erect For	mwork to Ground Slab
S2BJ1600	Erect Formwork to +10.30mPD	12		0 15JUL08	28JUL08	10JUN08	23JUN08								
Steel Reinforcem		12	2.50	0 1330 200	2000100	10001100	20001100			. I I I					
Start date 19DE	EC05										•	· · · · · · · · ·	l l		
Finish date 17FE	B10				1			Com 141						Early bar Progress ba	ar an
Data date 29AF Page number 2A	PR08						ngineerin act No. DC	g Corp. Ltd.						Critical bar	* LEADER
age number 2A				3.M				/2005/02 /101 at 29 Ap	ril 2008					Summary b	ar 👔 🔛
c Primavera Syster	ns Inc			5-1010		ing i rogi	annie - 31	no 1 al 23 Al	2000					<ul> <li>Start milest</li> <li>Finish milest</li> </ul>	
o minavera oyster	no, mo.														

Act ID	Description	Orig Total P Dur Float Co		Early Finish	Late Start	Late Finish	MAR 24 31	APR 07 14 21	28	8 05 12	2 MAY 19 26	2008	JUN 09 16	23 3	0 07	JUL 14 21	
S2BK1200	Fix Re-bar to Void T/Slab & V/Chamber B/Slab	2	100 18APR08 A	21APR08 A	18APR08 A	21APR08 A		Fi	ix Re-bar	r to Void T/Slab & V/0	Chamber B/Slab						
S2BK1200	Fix Re-bar to +2.00mPD	8 -305d	60 25APR08 A	02MAY08	25APR08 A	21APR07				Fix Re-bar to +							
S2BK1400	Fix Re-bar to Ground Slab	8 -76d	0 12JUN08	20JUN08	07MAR08	15MAR08							Fi	ix Re-bar to	Ground Slab		
S2BK1500	Fix Re-bar to +10.30mPD	8 -29d	0 05JUL08	14JUL08	30MAY08	07JUN08										Fix Re-bar	to +10.3
In-Situ Concrete									1						1		-
· · · · · · · · · · · · · · · · · · ·																	
S2BL1300	Cast Top Slab to Void & Base Slab of V/Chamber	2	100 22APR08 A	22APR08 A	22APR08 A	22APR08 A		=	Cast Top	o Slab to Void & Base	e Slab of V/Chamber						
S2BL1400	Cast Wall Stem to +2.00mPD	2 -305d	0 14MAY08	15MAY08	03MAY07	04MAY07					Cast Wall Stem to	+2.00mPD					
S2BL1500	Cast Ground Slab	2 -76d	0 02JUL08	03JUL08	29MAR08	31MAR08									Cast Ground	d Slab	
S2BL2000	Construct Boundary Wall	47 -55d	0 21JUN08	15AUG08	15APR08	11JUN08							-			1 1	_
Geotechnical wo	orks	· · ·															
S2BP1000	Monitoring of Instruments	414 37d	84 26FEB07 A	21JUL08	26FEB07 A	02SEP08	1									N	<i>I</i> onitori
Testing																	
S2BS1000	Pressure Testing to Twin Rising Main DN500	12 59d	0 11JUN08	24JUN08	20AUG08	02SEP08								Pressur	e Testing to Twin	Rising Main D	N500
Additonal Works							1							I I			
Revised BAV	/all Details at SPPS (Claim No. 030)																
S2BV2000	Drive Sheetpiles	10 -305d	0 21JUN08	03JUL08	11JUN07	22JUN07							-		Drive Sheet	piles	
S2BV2010	Excavate to 1st Layer of Waling & Strut	6 -305d	0 04JUL08	10JUL08	23JUN07	29JUN07									E)	cavate to 1st L	ayer of
S2BV2020	Install 1st Layer of Waling & Strut	6 -305d	0 11JUL08	17JUL08	30JUN07	07JUL07									-	Install	1st Lay
S2BV2030	Excavate to 2nd Layer of Waling & Strut	6 -305d	0 18JUL08	24JUL08	09JUL07	14JUL07										_	Exc
S2BV2040	Install 2nd Layer of Waling & Strut	6 -305d	0 25JUL08	31JUL08	16JUL07	21JUL07											
Section 3 - Nam Sar	ng Wai Sewage Pumping Station																
Drainage and Du	ucts																
Trench Method	d																
S3CEA1300	DN500 DI Pipe (GCVC2 - H9) Stage 1 (VO103)	6 -190d	0 04JUN08	11JUN08	110CT07	17OCT07			1			_	DN500 DI Pipe	GCVC2 -	H9) Stage 1 (VO1	03)	
S3CEA1850		1	100 07APR08 A	08APR08 A	07APR08 A	08APR08 A		Install Geotextile Filt	ter up to	-4.80mPD							
S3CEA1900	-	1 -190d	0 03JUN08	03JUN08	10OCT07	10OCT07						Inst	all Geotextile Filter up	to -2.50mPI	0		
S3CEA1950	Install Geotextile Filter up to +0.00mPD	1 -190d	0 14JUL08	14JUL08	19NOV07	19NOV07										Install Geot	extile F
Pipework - Rising							1		1								
Trench Method	d																
S3CFA1000	Twin Rising Main DN900	6 -190d	0 29APR08	06MAY08	05SEP07	11SEP07				Twin Risi	ng Main DN900						
S3CFA1200	CCTV Inspection of Pipeline	1 70d	0 07MAY08	07MAY08	31JUL08	31JUL08				CCTV Ir	nspection of Pipeline						
Earthworks		· · · ·					1		1								
S3CG2650	Backfill to -4.80mPD	5 -190d	95 07APR08 A	06MAY08	07APR08 A	11SEP07				Backfill to	o -4.80mPD						
S3CG2670	Remove 4th Layer of Waling & Strut	4 -190d	80 21APR08 A	07MAY08	21APR08 A	12SEP07	1	-		Remove	e 4th Layer of Waling	& Strut					
\$3CG2700	Backfill to -2.50mPD	6 -186d	0 04JUN08	11JUN08	16OCT07	23OCT07	]					_	Backfill to -2.50	0mPD			
S3CG2720	Remove 3rd Layer of Waling & Strut	4 -190d	0 12JUN08	16JUN08	180CT07	23OCT07							Remov	e 3rd Layer	of Waling & Strut		
S3CG2750	Backfill to +0.00mPD	6 -190d	0 15JUL08	21JUL08	20NOV07	26NOV07	ļ.										Backfill t
	Remove 1st & 2nd Layer of Waling & Strut	4 -190d	0 22JUL08	25JUL08	27NOV07	30NOV07											Re
Formwork																	
	DEC05													E	arly bar		
Data date 29A	EB10 NPR08					ngineerin								P	rogress bar ritical bar	-	2
Page number 3A			a			ct No. DC									ritical bar ummary bar	1	FADE
- Drimer O			3-Mo	onth Rolli	ng Progra	amme - 3l	vi01 at	29 April 2008							tart milestone po inish milestone p		
c Primavera Syste	ems, inc.													<b> </b> ♥ F	inish milestone p	JINT	

	Act ID	Description	Orig Dur	Total	Percent	Early Start	Early Finish	Late Start		MAR APR	2008 MAY JUN JUL 28 05 12 19 26 02 09 16 23 30 07 14 21 28
		Erect Formwork to -4.80mPD	4	·							28 05 12 19 26 02 09 16 23 30 07 14 21 28
Note Name         <	S3CJ1400	Erect Formwork to -2.50mPD	12	-190d	5	28APR08 A	30MAY08	28APR08 A	06OCT07		Erect Formwork to -2.50mPD
100000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       1000000       10000000       10000000       10000000       10000000       10000000       10000000       10000000       10000000       10000000       100000000       100000000       1000000000000000000000000000000000000	S3CJ1500	Erect Formwork to +0.00mPD	12	-190d	0	26JUN08	10JUL08	02NOV07	15NOV07		Erect Formwork to +0.00m
Bit Single Arrow Section       In	Steel Reinforcem	nent									
Bit Disc         Product or 2 don'th         Product or 2 don'th <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>											
1         1	S3CK1200	Fix Re-bar to -4.80mPD	2		100	12FEB08 A	02APR08 A	12FEB08 A	02APR08 A	Fix Re-bar to -4.80mPD	
Image: Second Product Scheme (Scheme (S	S3CK1300	Fix Re-bar to -2.50mPD	8	-190d	0	08MAY08	17MAY08	13SEP07	21SEP07		Fix Re-bar to -2.50mPD
Bit Corpord	S3CK1400	Fix Re-bar to +0.00mPD	8	-190d	0	17JUN08	25JUN08	24OCT07	01NOV07		Fix Re-bar to +0.00mPD
	S3CK1450	Fix Re-bar to +5.00mPD	8	-190d	0	26JUL08	04AUG08	01DEC07	10DEC07		
with a line in the server in the	In-Situ Concrete										
with a line in the server in the											
1         2000         Control Same Broken         1         1000         100000000         100000000         100000000         100000000         100000000         100000000         100000000         100000000         100000000         100000000         100000000         1000000000000000000000000000000000000	S3CL1300	Cast Wall Stem to -4.80mPD	2		100	20MAR08 A	05APR08 A	20MAR08 A	05APR08 A	Cast Wall Stem to -4.80mPD	
SSCP100         Nutling of halometels         171         172         710 (004/005 / 100/002         193/002         19	S3CL1400	Cast Wall Stem to -2.50mPD	2	-190d	0	31MAY08	02JUN08	08OCT07	09OCT07		Cast Wall Stem to -2.50mPD
BC5130       Number Jan Same Jan Sa	S3CL1500	Cast Wall Stem to +0.00mPD	2	-190d	0	11JUL08	12JUL08	16NOV07	17NOV07		Cast Wall Stem to +0.0
Image: market in the Range Mark Note:         12         7/4         0         0000000         1000000         1000000         10000000         10000000         10000000         10000000         100000000         100000000         1000000000000000000000000000000000000	Geotechnical wor	rks									
Image: market in the Range Mark Note:         12         7/4         0         0000000         1000000         1000000         10000000         10000000         10000000         10000000         100000000         100000000         1000000000000000000000000000000000000											
Image: market in the Range Mark Note:         12         7/4         0         0000000         1000000         1000000         10000000         10000000         10000000         10000000         100000000         100000000         1000000000000000000000000000000000000	S3CP1000	Monitoring of Instruments	771	-72d	79	06APR06 A	10NOV08	06APR06 A	14AUG08		
Server A Science R May Protoco D P. 0; H1         Out of protoco D P. 0; H1         Out of protoco D P. 0; H1           Description D Protoco D Proto											
Server A Science R May Protoco D P. 0; H1         Out of protoco D P. 0; H1         Out of protoco D P. 0; H1           Description D Protoco D Proto											
Server A Science R May Protoco D P (2; 0; 1)         Server A Science R May Protoco D P (2; 0; 1)         Server A Science R May Protoco D P (2; 0; 1)           Description D Protoco D Prot	S3CS1000	Pressure Testing to Twin Rising Main DN900	12	70d	0	08MAY08	22MAY08	01AUG08	14AUG08		Pressure Testing to Twin Rising Main DN900
Percent         Percent <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Figure Marcol         60         603         5         31MAR08.4         144P109           Str02100         011200 Pack Manhole (St-Treammert Plant)         60         503         31MAR08.4         144P109           Str021100         Nink Ring Mann DNMOI (C>AQ006 - CA2c151)         144         1306         200EC07.4         23.440           Str021100         Construct AVC12 (V0 100)         0         1208         0         22AEPR08         114AR08         200EC07.4         23.440           Str021100         Construct VX012 (V0 100)         120         0         22AEPR08         114AR08         200EV010         0         200EV110         200EV1100         200EV100         <	Portion D										
SUEA-1000       DN1200 Ppc & Munice (G1-Treatment Plant)       00       1664       S1MAR08.A       1404P00         SUEA-100       DN1200 Ppc & Munice (G1-Treatment Plant)       00       1664       S2MAR08.A       1404P00         SUEA-1200       Contract ANC12 (V 100)       68       250 CO17.A       22MAR08.A       20DEC07.A       22MAR08.A       20DEC07.A       22MAR08.A       20MAR08.A       20DEC07.A       22MAR08.A       20MAR08.A       20DEC07.A       22MAR08.A       20MAR08.A       20DEC07.A       22MAR08.A       20MAR08.A       20MAR08.A <td></td>											
Decode CB000 Mole         Team Mark         Second CB000 Mole         S											
Function         There is the first of	S4DEA1000	DN1200 Pipe & Manhole (G1-Treatment Plant)	60	160d	5	31MAR08 A	04OCT08	31MAR08 A	18APR09		
S40FA120         Twn Rtang Main DN800 (Ch42005 - Ch42215)         148         130         50         200EC07A         28.00.00         200EC07A         28.00.00         200AP09         Construct AVIC12 (V0 100)         Construct AVIC12 (V0 100) <td></td>											
StdP1202         Construct AVIC12 (VO 100)         00         215d         0         2AAPR08         11JuLlos         6LIAN99         20MAR09           StdP12100         Construct AVIC12 (VO 100)         00         215d         0         2AAPR08         11JuLlos         6LIAN99         20MAR09         Construct WOIC1	Trench Method										
S4DFB1100         Construct WOIC1         30         1746         0         23APR08         04UN08         228P0/08         0.000/08         0.000/06         0.000/0	S4DFA1200	Twin Rising Main DN900 (ChA2095 - ChA2215)	148	130d	50	20DEC07 A	28JUL08	20DEC07 A	02JAN09		
Sk0F81100         Construct WOIC1         30         1744         0         29APR08         04JUN68         20AN99         06APR09         Construct WOIC1         Construct WOIC1           Sk0F81200         CCTV Inspection of Ppeline         3         2470         0         65JUN88         02APR09         06APR09         Construct WOIC1         Construct WOIC1           Sk0F1000         Montoring of Instruments         566         1760         78         02APR06         420APR09         Construct WOIC1           Sk0F1000         Montoring of Instruments         566         1760         78         02APR06         20APR09         Construct WOIC1         Construct WOIC1           Sk0F1000         Montoring of Instruments         566         1760         78         02APR06         20APR09         Construct WOIC1         Construct WOIC1           Pottor F         Construct Markers         730         1880         65         7APR06 A         10APR09         Construct WOIC1         Construct WOIC1         Construct WOIC1           Pottor F         F         F         F         F         F         F         F         F         F         F         F         F         F         F         F         F         F         F	S4DFA1210	Construct AVIC12 (VO 100)	60	215d	0	29APR08	11JUL08	16JAN09	30MAR09		Construct AVIC12 (VO 1
skPB1200         CCTV Inspection of Ppeline         a         2.47d         o         0sUN08         07JUN08         02APR09         06APR09           Getechnical Works	Trenchless Met	thod									
skPB1200         CCTV Inspection of Ppeline         a         2.47d         o         0sUN08         07JUN08         02APR09         06APR09           Getechnical Works	S4DFB1100	Construct WOIC1	30	174d	0	29APR08	04JUN08	26NOV08	02JAN09		Construct WOIC1
Geologic hindli works         SdP 1000         Monitoring of Instruments         556         176d         79         02NOV06 A         185EP08         02NOV06 A         20APR09           Control Investigation         SdP 1000         Install Settlement Markers         730         188d         86         27APR06 A         015EP08         27APR06 A         20APR09           Dranage and Docks         Teach Method         SdP 1000         Install Settlement Markers         730         188d         86         27APR06 A         105EP08         27APR06 A         20APR09           Dranage and Docks         Teach Method         SdP 1000         Install Settlement Markers         Teach Method         SdP 1000         Construct Receive P4 (H1)         30         486         0 03UL08         02SEP08         15DEC08           SdFEB1020         Jacking DN1200 (H2 - H1)         30         480         60         07APR08 A         31JAN08         Construct Receive P4 (H1)         Jacking DN1200 (H2 - H1)           SdFEB1020         Jacking DN1200 (H2 - H1)         45         900         0 15MAY08         08JUL08         01FE008         Teach Method         Early bar         Early bar           SdFEB1020         Jacking DN1200 (H2 - H1)         45         900         0 15MAY08         08JUL08         01FE0											
Portion F         Set PB 1500         Install Settlement Markers         730         188d         86         27APR06 A         20APR09           Drarage and Ducts											
Portion F         Set PB 1500         Install Settlement Markers         730         188d         86         27APR06 A         20APR09           Drarage and Ducts											
Portion F         Set PB 1500         Install Settlement Markers         730         188d         86         Z7APR06 A         20APR09           Drarage and Ducts	S4DP1000	Monitoring of Instruments	556	176d	79	02NOV06 A	16SEP08	02NOV06 A	20APR09		
Ground Investigation         S4FB1500       Install Settlement Markers       730       188d       86       27APR06 A       20APR09         Dianage and Ducis       Trench Mendot              S4FEA1000       DN900 Pipe & Manhole (H8 - H7) 1st Stage       53       86d       0       03JUL08       02SEP08       150CT08       15DEC08         S4FEB1000       Construct Receive Pit (H1)       30       -80d       60       07APR08 A       31JAN08       Construct Receive Pit (H1)       Jacking DN1200 (H2 - H1)         Start date       17FEB10       Daking DN1200 (H2 - H1)       045       60       01FEB08       31MAR08       Construct Receive Pit (H1)       Jacking DN1200 (H2 - H1)         Start date       17FEB10       Daking DN1200 (H2 - H1)       045       08JUL08       01FEB08       31MAR08       Construct Receive Pit (H1)       Jacking DN1200 (H2 - H1)         Start date       17FEB10       Daking DN1200 (H2 - H1)       DSD Contract No. DC/2005/02       Progress bar       Progress bar       Progress bar       Progress bar       Progress bar       Start Grie DN Progr											
Drahage and Ducis         Trench Method           S4FEA1000         DN900 Pipe & Manhole (HB - H7) 1st Stage         53         86d         0         03JUL08         02SEP08         15DCT08         15DEC08           S4FEB1000         Construct Receive Pit (H1)         30         -80d         60         07APR08 A         31JAN08           S4FEB1020         Jacking DN1200 (H2 - H1)         45         -80d         0         15MAY08         03JUL08         01FEB08         31MAR08           Start date         190EC05         Finish date         190EC05         Finish date         29APR08         FEB100         Early bar         Progress bar           DSDD Contract No. DC/2005/02         DSDD Contract No. DC/2005/02         DSDD Contract No. DC/2005/02         Summary bar         Summary bar         Summary bar	Ground Investigat	tion									
Drainage and Ducis         Trench Method           S4FEA1000         DN900 Pipe & Manhole (H8 - H7) 1st Stage         53         86d         0         03JUL08         02SEP08         15DEC08           S4FEB1000         Construct Receive Pit (H1)         30         -80d         60         07APR08 A         31JAN08           S4FEB1020         Jacking DN1200 (H2 - H1)         45         -80d         0         15MAY08         03JUL08         01FEB08         31MAR08           Start date         19DEC05         Finish date         19DEC05         Finish date         19DEC05         Finish date         29APR08         Early bar         Progress bar           DSDD Contract No. DC/2005/02         DSDD Contract No. DC/2005/02         DSDD Contract No. DC/2005/02         Summary bar         Summary bar											
Trench Method         S4FEA 1000       DN900 Pipe & Manhole (H8 - H7) 1st Stage       53       86d       0       03JUL08       02SEP08       15OCT08       15DEC08         Trenchless Method       Trenchless Method       Trenchless Method       Construct Receive Pit (H1)       30       -80d       60       07APR08 A       14MAY08       07APR08 A       31JAN08         S4FEB 1020       Jacking DN1200 (H2 - H1)       45       -80d       0       15MAY08       01FEB08       31MAR08       Construct Receive Pit (H1)         Start date       19DEC05       Finish date       19DEC05       Finish date       29APR08       23APR08       Start date       29APR08       29APR08       Start date       29APR08       20APR08 hard bard for the bit does       Construct Receive Pit (H1)       Construct Receive Pit (H1)       Early bar       Early bar       Early bar       Progress bar       Construct Receive Pit (H1)       Early bar       Progress bar       Construct Pit (H1)       Construct Pit (H1)       Construct Pit (H1)       Construct Receive Pit (H1)       Early bar       Construct Receive Pit (H1)       Construct Pit (H1)       Construct Pit (H1)       Con	S4FB1500	Install Settlement Markers	730	188d	86	27APR06 A	01SEP08	27APR06 A	20APR09		
S4FEA1000       DN900 Pipe & Manhole (H8 - H7) 1st Stage       53       86d       0       0.3JUL08       0.2SEP08       15OCT08       15DEC08         Trenchless Method         S4FEB1000       Construct Receive Pit (H1)         30       -80d       60       07APR08 A       31JAN08       Construct Receive Pit (H1)       30       -80d       0       15MAY08       07APR08 A       31JAN08       Construct Receive Pit (H1)       Jacking DN1200 (H2 - H1)       Jacking DN1200 (H2 - H1) <td< td=""><td></td><td>cts</td><td></td><td></td><td></td><td></td><td></td><td>l</td><td></td><td></td><td></td></td<>		cts						l			
Trenchless Method         S4FEB1000       Construct Receive Pit (H1)         30       -80d       60       07APR08 A       31JAN08         S4FEB1020       Jacking DN1200 (H2 - H1)       45       -80d       0       15MAY08       01FEB08       31MAR08         Start date       19DEC05       Finish date       17FEB10       2Jacking DN1200 (H2 - H1)       Jacking DN1200 (H2 - H1)       Jacking DN1200 (H2 - H1)         Start date       29APR08       Page number       4A       Leader Civil Engineering Corp. Ltd. DSD Contract No. DC/2005/02       Critical bar       Critical bar	Trench Method										
Trenchless Method         S4FEB1000       Construct Receive Pit (H1)         30       -80d       60       07APR08 A       31JAN08         S4FEB1020       Jacking DN1200 (H2 - H1)       45       -80d       0       15MAY08       01FEB08       31MAR08         Start date       19DEC05       Finish date       17FEB10       2Jacking DN1200 (H2 - H1)       Jacking DN1200 (H2 - H1)       Jacking DN1200 (H2 - H1)         Start date       29APR08       Page number       4A       Leader Civil Engineering Corp. Ltd. DSD Contract No. DC/2005/02       Critical bar       Critical bar	S4FEA1000	DN900 Pipe & Manhole (H8 - H7) 1st Stage	53	86d	0	03JUL08	02SEP08	15OCT08	15DEC08		
Start date 19DEC05 Finish date 17FEB10 Data date 29APR08 Page number 4A  Start date 19DEC05  Critical bar  Critical bar  Critical bar  Critical bar  Summary bar  Critical bar  Summary											
S4FEB102       Jacking DN1200 (H2 - H1)       45       -80d       0       15MAY08       08JUL08       01FEB08       31MAR08         Start date       19DEC05       inish date       17FEB10       Data date       29APR08       Progress bar       Early bar       Early bar         Page number       4A       DSD Contract No. DC/2005/02       DSD Contract No. DC/2005/02       Summary bar       Image: Summary bar							4.4443/202	0740555 (	04 141-122		Construct Possive Dif (11)
Start date 19DEC05 Finish date 17FEB10 Data date 29APR08 Page number 4A  Leader Civil Engineering Corp. Ltd. DSD Contract No. DC/2005/02  Summary bar											
Finish date 17FEB10 Data date 29APR08 Page number 4A DSD Contract No. DC/2005/02 Other Destination of the De			45	-80d	0	15MAY08		UTFEB08	31MAR08		
Data date 29APR08 Page number 4A DSD Contract No. DC/2005/02 — Summary bar	Finish date 17FE	EB10					Loade	ar Civil Er	ainearin	n Corn I td	
O Manuth Datilium Date manufactoria (00 Augil 0000	Data date 29AF Page number 4A	2808									Critical bar
	-					3-Mc					Start milestone point
C Primavera Systems, Inc.	c Primavera System	ms, Inc.									

Act	Description	Orig Dur	Total	Percent	Early	Early Finish	Late	Late	MAR APR	MAY		2008	JUN			.0.0	
ID S4FEB1040	Construct Manhole H2 & H1	Dur 27		Complete	Start 09JUL08	Finish 08AUG08	Start 13MAR09	Finish 14APR09		28 05 12	19 26	02	JUN 09 16	23 30	07	14	21 28
Pipework - Rising		21	2030	0	0930200	00000000	TSIMAROS	14AP1003								1	
Trench Method																	
0.4554.4000			100.1		001443/00	00441000	4705000	00144.000									
S4FFA1300 S4FFA1400	Twin Rising Main DN700 (WOIC5 - ChC2000)	80			28MAY08	30AUG08	17DEC08	26MAR09	-			Twin Rising M	ain DN700 (ChC2000	ChC2050)	i.	1	
S4FFA1400 S4FFA1500	Twin Rising Main DN700 (ChC2000 - ChC2050)	45			05APR08 A 12FEB08 A	27MAY08 05MAY08	05APR08 A 12FEB08 A	04DEC08 13NOV08		Twin Rising Mai		-		- Chozoso)			
S4FFA1600	Twin Rising Main DN700 (ChC2050 - ChC2100)           Twin Rising Main DN700 (ChC2100 - ChC2150)	45			12FEB08 A	01APR08 A	12FEB08 A	01APR08 A	Twin Rising Main DN700 (ChC2100		101000 (01102	0000 000210					
S4FFA2200	Twin Rising Main DN700 (ChC2400 - WOIC4)	93			29APR08	19AUG08	15AUG08	04DEC08		0102100)				I I		1	
S4FFA2300	Twin Rising Main DN700 (ChC2639 - H7)	52			29APR08	02JUL08	12AUG08	140CT08			·				Twin Rising N	ain DN700	) (ChC2639
Trenchless Meth		52	000	•	23/11/00	0200200	12/10/000	1400100							g.		· · · ·
							-	-									
S4FFB1200	Construct WOIC4	30			29APR08	04JUN08	31OCT08	04DEC08		1	1		nstruct WOIC4				
S4FFB1300	Construct WOIC5	30			29APR08	04JUN08	20FEB09	26MAR09				Co	nstruct WOIC5				
S4FFB1400	CCTV Inspection of Pipeline	5	275d	0	29APR08	05MAY08	31MAR09	06APR09		CCTV Inspection	n of Pipeline						
Geotechnical worl	ks																
	Monitoring of Instruments	774	81d	73 (	05JUN06 A	10JAN09	05JUN06 A	20APR09									
Portion G	ion																
Ground Investigati																	
			1														
	Install Settlement Markers	748	172d	84	21APR06 A	20SEP08	21APR06 A	20APR09					1 1				
Pipework - Rising Trench Method	Main																
S4GFA1000	Twin Rising Main DN500 (AVIC4 - ChB250)	98	173d	0	29APR08	25AUG08	25NOV08	25MAR09									
S4GFA1300	Twin Rising Main DN500 (ChB450 - ChB550)	84	174d	20	16JAN08 A	19JUL08	16JAN08 A	18FEB09						I I			Twin Rising
S4GFA1700	Construct WOIC3	30	174d	0	21JUL08	23AUG08	19FEB09	25MAR09									
Trenchless Meth	nod																
S4GFB1020	Jacking Twin DN500 (AVIC4 - P/S)	73		100	15DEC07 A	26APR08 A	15DEC07 A	26APR08 A		acking Twin DN500 (AVIC4	- P/S)						
S4GFB1100	Construct AVIC4	30	241d	0	29APR08	04JUN08	19FEB09	25MAR09				Co	nstruct AVIC4				
S4GFB1200	CCTV Inspection of Pipeline	2	248d	0	05JUN08	06JUN08	03APR09	06APR09					CCTV Inspection of P	peline			
Geotechnical worl	ks																
S4GP1000	Monitoring of Instruments	768	124d	78	22APR06 A	18NOV08	22APR06 A	20APR09								-	
Portion H											1						
Ground Investigati	ion																
S4HB1040	Boreholes & Instrumentation (ChC1302 - ChC1376)	10	16d	50	08APR08 A	05MAY08	08APR08 A	24MAY08		Boreholes & Inst	rumentation (C	hC1302 - ChC	1376)				
S4HB1300	Install Settlement Markers	727	192d	86	26MAY06 A	27AUG08	26MAY06 A	20APR09			1 1		1 1	· ·		1	1 1
Drainage and Duc	ts																
Trench Method																	
S4HEA1100	DN500 Pipe & Manhole (A6 - A9)	100	-16d	50	250CT07 A	28JUN08	250CT07 A	10JUN08			-	_		DN	500 Pipe & Mar	hole (A6 - A	A9)
S4HEA1900	DN300 Pipe & Manhole (B4 - B6)	67	15d	0	23JUN08	09SEP08	11JUL08	27SEP08							1	1	
S4HEA2000	DN300 Plpe & Manhole (B6 - B8)	44	15d	0	29APR08 *	21JUN08	19MAY08	10JUL08	1		-	_		ON300 Plpe 8	Manhole (B6 -	B8)	
Pipework - Rising	Main					<u>.</u>									1		
Trench Method																	
S4HFA1100	Twin Rising Main DN700 (ChC170 - ChC290)	50	-16d	50	250CT07 A	29JUL08	250CT07 A	10JUL08			-	_		_		_	-
Start date 19DE	C05		1			1	1				1	1		Ear	rly bar		<u> </u>
Finish date 17FE Data date 29AP						Lead	er Civil E	ngineerir	g Corp. Ltd.					Pro	gress bar	100	0
Page number 5A						D	SD Contra	act No. D	C/2005/02						tical bar mmary bar	2	LEADE
					3-Me	onth Roll	ing Progr	amme - 3	M01 at 29 April 2008					🔶 Sta	rt milestone po		and a
c Primavera System	ns, Inc.													Fin	ish milestone p	pint	

	Act ID	Description	Orig Dur		Percent Complete	Early Start	Early Finish	Late Start	Late Finish	MAR 24 31	APR 07 14 21	2008 JUN JUL MAY 2008 JUN JUL 28 05 12 19 26 02 09 16 23 30 07 14 21 28
	S4HFA1900	Twin Rising Main DN700 (ChC950 - ChC1000)	44			07JUL08	26AUG08	14AUG08	06OCT08	24 31	07 14 21	
	S4HFA2100	Twin Rising Main DN700 (ChC1150 - ChC1250)	91	I 33d	40	14JAN08 A	05JUL08	14JAN08 A	13AUG08			Twin Rising Main DN700 (ChC11
	S4HFA2310	Twin Rising Main DN700 (ChC1400 - ChC1450)	45	5 225d	30	27MAR08 A	06JUN08	27MAR08 A	09MAR09			Twin Rising Main DN700 (ChC1400 - ChC1450)
	S4HFA2500	Twin Rising Main DN700 (ChC1600 - ChC1618)	44	4 -100d	0	26JUN08	16AUG08	22FEB08	17APR08			
	S4HFA2510	Twin Rising Main DN700 (WOIC6 - ChC1664)	47	7 -103d	0	26JUN08	20AUG08	19FEB08	17APR08			
	S4HFA2700	Twin Rising Main DN700 (ChC1750 - AVIC6)	124	4 86d	0	29APR08	25SEP08	12AUG08	09JAN09			
	S4HFA3400	Construct WOIC6	20	) -76d	0	26JUN08	19JUL08	25MAR08	17APR08			Construct WC
	S4HFA3500	Construct AVIC6	30	) 180d	0	29APR08	04JUN08	03DEC08	09JAN09			Construct AVIC6
	Trenchless Meth	od										
	S4HEB1100	Construct Jack/Receive Pits (AVIC8 - WOIC7)	57	7 1d	0	24MAY08	31JUL08	26MAY08	01AUG08	-		
	Geotechnical work			14		2 1110 1100	0100200	201101100	011100000			
	S4HD1000	Monitoring of Instruments	846	2 204	69	26MAY06 A	26140 800	26MAYOR A	20APR09	1		
	S4HP1000	Monitoring of Instruments	040	6 20d	00	20101A 100 A	2010/4R09	20MA 100 A	ZUAPRUS	1		
		Disruption										
		00 ChC1620 - ChC1661 (Claim No. 026)										1 I I I I I I I I I I I I I I I I I I I
		Jack Twin DN1200 Sleeve Pipes	36			11DEC07 A	13MAY08	_	03JAN08	_		Jack Twin DN1200 Sleeve Pipes
	S4HV1110	Install Twin DN700 DI Pipes & Grouting	36	6 -103d	0	14MAY08	25JUN08	04JAN08	18FEB08			Install Twin DN700 DI Pipes & Grouting
	Re-alignment t S4HV1330	oth ChC420 & ChC607 (Claim No. 118) Twin Rising Main DN700 (ChC540 - ChC515)	4(	) 35d	70	12FEB08 A	14MAY08	12FEB08 A	25JUN08			Twin Rising Main DN700 (ChC540 - ChC515)
	S4HV1360	Twin Rising Main DN700 (ChC460 - ChC436)	20			17JUN08	10JUL08	29JUL08	20AUG08	-		Twin Rising Main DN700 (
	S4HV1370	Construct AVIC10	24			26MAR08 A	28MAY08	26MAR08 A		_		Construct AVIC10
	S4HV1390	DN500 Pipe & Manhole (A12 - A13)	30	-		12APR08 A	16JUN08	12APR08 A		-		DN500 Pipe & Manhole (A12 - A13)
	S4HV1400	DN500 Pipe & Manhole (A13 - A14)	40			11JUL08	26AUG08	21AUG08	09OCT08			
Po	rtion I			000		1100200	20,10000	2	0000100			
C	Ground Investigati	on										
	S4IB1040	Boreholes & Instrumentation (ChD0 to ChD55)	8	3 85d	0	29APR08	08MAY08	11AUG08	19AUG08			Boreholes & Instrumentation (ChD0 to ChD55)
	S4IB1300	Install Settlement Markers	736			26JUN06 A	05SEP08	26JUN06 A	_	-		
	Drainage and Duc											
	Trench Method											
	S4IEA1330	DN500 Pipe & Manhole (C11 - C12)	35	5 -14d		29APR08	11JUN08	12APR08	24MAY08			DN500 Pipe & Manhole (C11 - C12)
	S4IEA1600	DN500 Plpe & Manhole (C14 - C15)	45			12JUN08	04AUG08	26MAY08	18JUL08	-		
	S4IEA1900	DN500 Plpe & Manhole (C21 - C22)	50			01FEB08 A	17MAY08	01FEB08 A		-		DN500 Plpe & Manhole (C21 - C22)
	S4IEA2320	DN500 Plpe & Manhole (C31 - C32)	50			19MAY08	21JUL08	20MAR08	27MAY08	-		DN500 PI
	S4IEA2400	DN500 Plpe & Manhole (C32 - C34)	70			22JUL08	14OCT08	28MAY08	19AUG08	-		
	Trenchless Meth						1					
	S4IEB1000	Construct Jack/Receive Pits (C1 - C2)	30	) 155d		29APR08	04JUN08	04NOV08	08DEC08			Construct Jack/Receive Pits (C1 - C2)
	S4IEB1020	Jacking DN500 (C1 - C2)	78	3 155d	0	05JUN08	05SEP08	09DEC08	16MAR09			
	Geotechnical work	S										
	S4IP1000	Monitoring of Instruments	766	6 73d	71	28JUN06 A	20JAN09	28JUN06 A	20APR09			
	ion 5 - Sewers &	RM in Portion E										
	rtion E Preliminaries											
	05544000		1 10		100	041101/07.4		041101/07.4		Non	Mark Daried 01 New 07 - 31 Mar	
Start	S5EA1200 date 19DE	Non Work Period 01 Nov 07 - 31 Mar 08	121		100	01NOV07 A	31MAR08 A	01NOV07 A	31MAR08 A	INON V	Vork Period 01 Nov 07 - 31 Mar (	
Finis	h date 17FEI	310							naineer	a Car-	1 + d	Early bar Progress bar
Data Page	date 29API e number 6A	R08							ngineerir act No. D			Critical bar
						3-Mo					29 April 2008	Summary bar     Start milestone point
cl	Primavera System	s, Inc.						5 5			•	<ul> <li>Statt Intestore point</li> <li>Finish milestone point</li> </ul>

Act ID	Description	Orig Dur	Total Per Float Con	rcent Early nplete Start	Early Finish	Late Start	Late Finish	MAR 24 31 01	APR 7 14 21	2008 MAY JUN JUL 28 05 12 19 26 02 09 16 23 30 07 14 21
Drainage and Ducts Trenchless Method										
S5EEB1000 Construct Jack/I		30	) 3d	80 15OCT07 A	06MAY08	150CT07 A	09MAY08			Construct Jack/Receive Pits (H11 - H1)
S5EEB1020 Jacking DN600		90		17 07MAY08 A		07MAY08 A		-		
Pipework - Rising Main	(		, ou		00/10000	or instruction of	00,10000			
Trench Method										
S5EFA1000 Twin Rising Mair	n DN900 (ChA208 - ChA250)	33	3 25d	0 27MAY08*	05JUL08	26JUN08	04AUG08			Twin Rising Main DN900 (ChA2
	n DN900 (ChA250 - ChA300)	26		80 08SEP07 A	07MAY08	08SEP07 A				Twin Rising Main DN900 (ChA250 - ChA300)
-	n DN900 (ChA300 - ChA350)	26		90 06AUG07 A		06AUG07 A				Twin Rising Main DN900 (ChA300 - ChA350)
	n DN900 (ChA1400 - ChA1450)	26		50 11APR08 A	15MAY08	11APR08 A		-		Twin Rising Main DN900 (ChA1400 - ChA1450)
S5EFA4100 Construct AVIC1		20		0 02MAY08	26MAY08	02JUN08	25JUN08			Construct AVIC11
S5EFA4300 CCTV Inspection		20		0 07JUL08	29JUL08	05AUG08	27AUG08			
Trenchless Method										
055551400 007744					00 11 11 00	0540000	07411000			CCT/ Interaction of Direct
S5EFB1100 CCTV Inspection Geotechnical works	n of Pipeline	3	8 42d	0 07JUL08	09JUL08	25AUG08	27AUG08			CCTV Inspection of Pipel
S5EP1000 Monitoring of Ins	struments	535	5 102d	98 01AUG06 A	10MAY08	01AUG06 A	10SEP08			Monitoring of Instruments
Section 6 - Sewers in Portion J Portion J								-		
Ground Investigation										
								- i i		
S6JB1500 Install Settlemer	nt Marker 1st Stage	765	-32d	79 20APR06 A	10NOV08	20APR06 A	02OCT08			
S6JB2100 Install Settlemer	nt Markers 2nd Stage	600	230d	88 07JUL06 A	29JUL08	07JUL06 A	06MAY09			
Drainage and Ducts										
Trench Method										
S6JEA1210 DN1050 Pipe &	Manhole (D5 - D6)	78	3 196d	80 09APR08 A	19MAY08	09APR08 A	12JAN09			DN1050 Pipe & Manhole (D5 - D6)
	00 Pipe & Manhole (D14 - D15)	46		0 18JUL08	09SEP08	22OCT07	13DEC07	-		
	00 Pipe & Manhole (D15 - D16)	61		0 05MAY08	17JUL08	08AUG07	20OCT07	-		TTA JA7-1 DN
	00 Pipe & Manhole (D16 - D18)	81	-218d	95 30AUG07 A	03MAY08	30AUG07 A	07AUG07			TTA JA8-2 DN400 Pipe & Manhole (D16 - D18)
S6JEA1920 TTA JB2-1 DN4	00 Plpe & Manhole (D21 - D22)	68	3 -12d	0 26JUL08	16OCT08	12JUL08	30SEP08			
S6JEA2400 TTA JB6-1 DN4	00 Plpe & Manhole (D28 - D30)	80	-236d	2 25MAR08 A	01AUG08	25MAR08 A	130CT07	- +		
S6JEA3200 DN300 Pipe & N	fanhole (D40 - D42)	65	5 -32d	50 09JAN08 A	06JUN08	09JAN08 A	28APR08			DN300 Pipe & Manhole (D40 - D42)
S6JEA3300 DN300 Pipe & N	Ianhole (D42 - D44)	72	2 -32d	0 07JUN08	01SEP08	29APR08	25JUL08			
S6JEA3930 TTA JD1-2 Roa	d Reinstatement	6	6 -46d	50 16APR08 A	03MAY08	16APR08 A	05MAR08			TTA JD1-2 Road Reinstatement
S6JEA4200 TTA JD4-1 DN7	'50 Pipe & Manhole (E7 - E8)	35	5 -46d	0 21JUL08	29AUG08	26MAY08	07JUL08			
S6JEA4220 TTA JD4-2 DN7	50 Pipe & Manhole (E7 - E9)	63	3 -46d	0 05MAY08	19JUL08	06MAR08	24MAY08			TTA JD4-2
	50 Pipe & Manhole (E12 - E13)	40	) -95d	0 04JUL08	19AUG08	06MAR08	25APR08			
	'50 Pipe & Manhole (E13 - E14)	39		0 17MAY08	03JUL08	17JAN08	05MAR08			TTA JD8-1 DN750 Pipe & Manhol
S6JEA4700 TTA JD-9 DN75	0 Pipe & Manhole (E14 - E15)	69	9 -95d	80 13NOV07 A	16MAY08	13NOV07 A	16JAN08			TTA JD-9 DN750 Pipe & Manhole (E14 - E15)
Trenchless Method										
S6JEB1000 Construct Jack/	Receive Pits (D1 - D2)	28	3 1d	0 24MAY08	26JUN08	26MAY08	27JUN08			Construct Jack/Receive Pits (D1 - D2)
S6JEB1020 Jacking DN1050	D (D1 - D2)	29	) 1d	0 27JUN08	31JUL08	28JUN08	01AUG08			
S6JEB1140 Construct Manh	ole D6	25	5 278d	0 29APR08	29MAY08	03APR09	04MAY09			Construct Manhole D6
S6JEB1200 Construct Recei	ve Pits (D8)	28	3 1d	50 11APR08 A	16MAY08	11APR08 A	17MAY08			Construct Receive Pits (D8)
S6JEB1220 Jacking DN1050	D (D7 - D8)	34	l 1d	0 17MAY08	26JUN08	19MAY08	27JUN08			Jacking DN1050 (D7 - D8)
Start data 10DEC05										
Start date 19DEC05 Finish date 17FEB10					1.000	lor Civil E	nainoaria	ng Corp. L	4d	Early bar Progress bar
Data date 29APR08 Page number 7A								ng Corp. L C/2005/02		Critical bar
× · · · ·				3-M					April 2008	Summary bar
c Primavera Systems, Inc.						5 9				Start milestone point     Finish milestone point
										· · · ·

Act	Description	Orig	Total F	ercent Early	Early Finish	Late	Late	MAR	APR	2008 JUN JUL 28 05 12 19 26 02 09 16 23 30 07 14 21
ID S6 IEB1240		Dur 25	Float Co 230d			Start 03APR09	Finish 04MAY09	24 31 (	07 14 21	28 05 12 19 26 02 09 16 23 <u>30 07 14 21</u>
S6JEB1240 Geotechnical wor		20	2300	0 27JUN08	26JUL08	UJAPRU9	04IMA 109			
Geotechnical wor	165									
				I	1	1	1			
	Monitoring of Instruments	1172	-221d	55 21APR06 A	27JAN10	21APR06 A	06MAY09			
Additonal Works /	/ Disruption									
Kam Tin Road	d A/C Watermain (Claim No. 019)									1 I I I I I I I I I I I I I I I I I I I
S6JV1530	TTA JB3-1 W/M Temporary Diversion	18	-12d	0 29APR08	21MAY08	15APR08	06MAY08			TTA JB3-1 W/M Temporary Diversion
S6JV1550	TTA JB3-2 W/M Temporary Diversion	18	-12d	0 22MAY08	12JUN08	07MAY08	28MAY08			TTA JB3-2 W/M Temporary Diversion
S6JV1570	TTA JB2-2 W/M Temporary Diversion	18	-12d	0 13JUN08	04JUL08	29MAY08	19JUN08			TTA JB2-2 W/M Temporary Div
S6JV1590	TTA JB2-1 W/M Temporary Diversion	18	-12d	0 05JUL08	25JUL08	20JUN08	11JUL08			
S6JV1610	TTA JB1-1 W/M Temporary Diversion	18	38d	0 26JUL08	15AUG08	09SEP08	30SEP08			
Additional DN:	1300 W/M E2 - E3 (Claim No. 110)									
S6JV2900	Additional DN300 Watermain between E2 - E3	30	-46d	98 29DEC07 A	29APR08	29DEC07 A	01MAR08			Additional DN300 Watermain between E2 - E3
Section 7 - Sewers in	n Portion K									
Portion K Drainage and Due	cts									
Trench Method										
					1	1				
S7KEA1100		35		100 26FEB08 A	08APR08 A	26FEB08 A	08APR08 A	1 1	DN600 Pipe & Manhole (N	//2 - M3) Stage 1
S7KEA1105		35		0 21JUL08	29AUG08	02JAN08	14FEB08			
S7KEA1400		51	-62d	95 26OCT07 A	02MAY08	260CT07 A	14FEB08	1		DN900 Pipe & Manhole (M8 - M10)
S7KEA1610		54	-113d	0 29APR08	04JUL08	07DEC07	14FEB08			DN900 Pipe & Manhole (M11 -
S7KEA1900		93	-119d	50 29JAN08 A	25JUN08	29JAN08 A	26JAN08			DN900 Pipe & Manhole (M15 - M16)
S7KEA2060		24	-60d	95 14FEB08 A	29APR08	14FEB08 A	14FEB08			Demolish & Reconstruct Ext Manhole X1
Trenchless Met	thod									
S7KEB1020	Excavate & Lay DN600 (M4 - M19)	72	-128d	90 27NOV07 A	07MAY08	27NOV07 A	27NOV07			Excavate & Lay DN600 (M4 - M19)
S7KEB1040		27		0 08MAY08	10JUN08	28NOV07	31DEC07			Construct Manholes M4 & M19
S7KEB1140		27	-63d	75 30JAN08 A	07MAY08	30JAN08 A	18FEB08			Construct Manholes M8 & M20
S7KEB1220		48	-95d	75 02DEC06 A	14MAY08	02DEC06 A	14JAN08			Jacking DN900 (M13 - M14)
S7KEB1240		27	-95d	0 15MAY08	16JUN08	15JAN08	18FEB08			Construct Manholes M13 & M14
S7KEB1270		98	-161d	50 07JAN08 A	27JUN08	07JAN08 A	07DEC07			Set Up & Jack Casing (M4 - M5)
S7KEB1280		18	-161d	0 28JUN08	19JUL08	08DEC07	31DEC07			Lay DN7
S7KEB1300		2	-95d	0 17JUN08	18JUN08	19FEB08	20FEB08			CCTV Inspection of Pipeline
Roads and Paving										
	Concrete Footpath from M14 to M16a	18	-119d	0 26JUN08	17JUL08	28JAN08	20FEB08			Concrete Fo
Geotechnical wor	rks									
S7KP1000	Monitoring of Instruments	569	-75d	96 24MAY06 A	24MAY08	24MAY06 A	20FEB08			Monitoring of Instruments
	tion and Protection of Trees									
All Portions	orks and Establishment Works									
Landscape Contin										
				Ι						1 I I I I I I I I I I I I I I I I I I I
S8QR1100	Preservation & Protection of Preserved Trees	744	81d	70 29JUL06 A	29JAN09	29JUL06 A	06MAY09	1 1		
Decontamination Wo	prks									
Decontamination										
	5005									
Finish date 17FE						on 01:-11 =			4.4	Early bar Progress bar
Data date 29AP Page number 8A							ngineering act No. DC			Critical bar
age number of				3-M					) April 2008	Summary bar
c Primavera System	ms. Inc.			5-141						<ul> <li>Start milestone point</li> <li>Finish milestone point</li> </ul>
										• • • • • • • • • • • • • • • • • • •

Act ID	Description	Orig Total Percent Ea Dur Float Complete St	rly Early Late Late MA art Finish Start Finish <sub>24</sub> .	R APR 31 07 14 21	MAY	2008 JUN 26 02 09 16 2	JUL 3 30 07 14 21	28
	Decontamination Works	48 57d 0 29APF		51 -07 14 21			Decontamination Works	20
Start date 19DEC Finish date 17FEB Data date 29APR	310		Leader Civil Engineering (	Corp. Ltd.			Early bar Progress bar	
Page number 9A			Leader Civil Engineering ( DSD Contract No. DC/2 3-Month Rolling Programme - 3M0	2005/02 11 at 29 April 2008			Critical bar — Summary bar	ADER
c Primavera Systems	s, Inc.						<ul> <li>Start milestone point</li> <li>Finish milestone point</li> </ul>	



Annex D

# **Photographical Records – Noise Barrier On-Site**

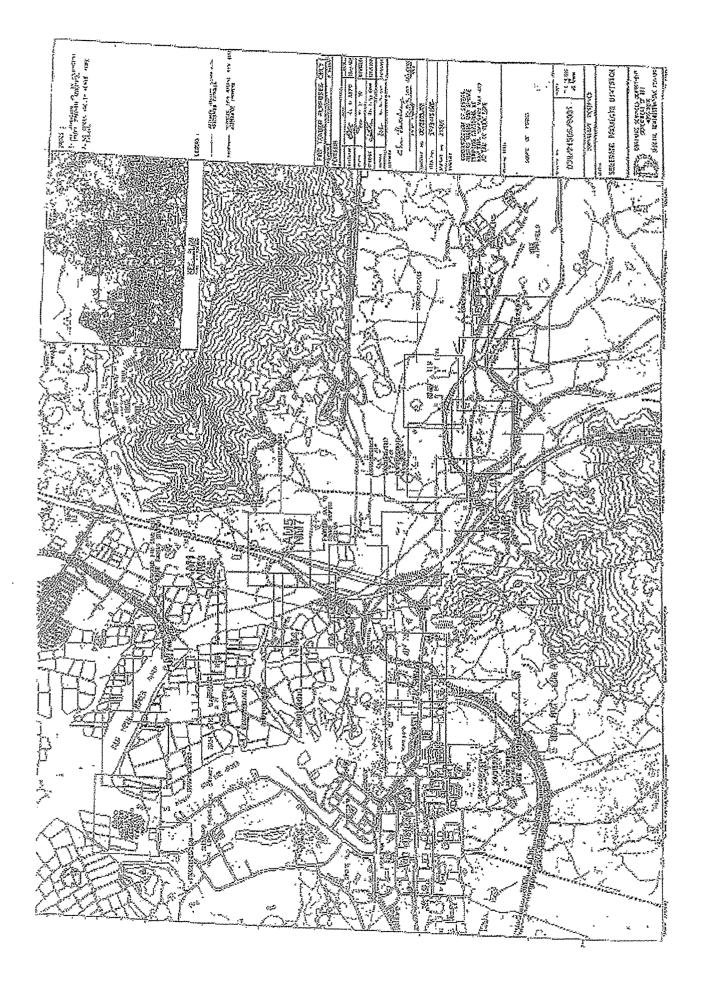


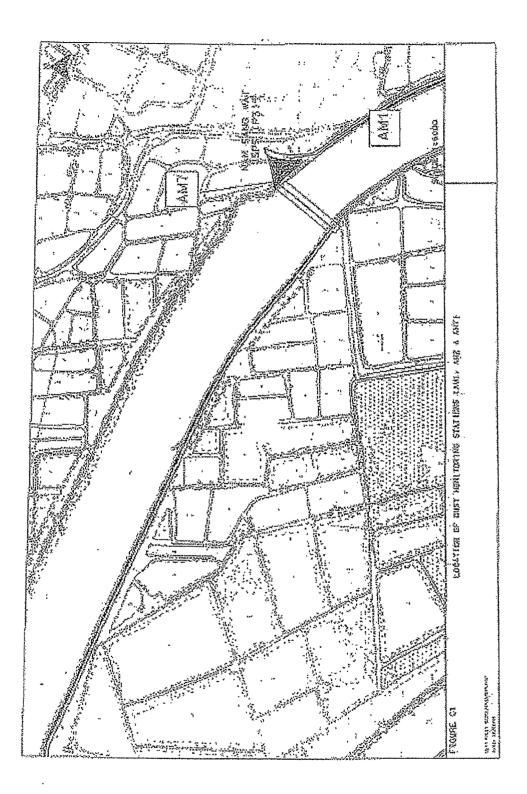


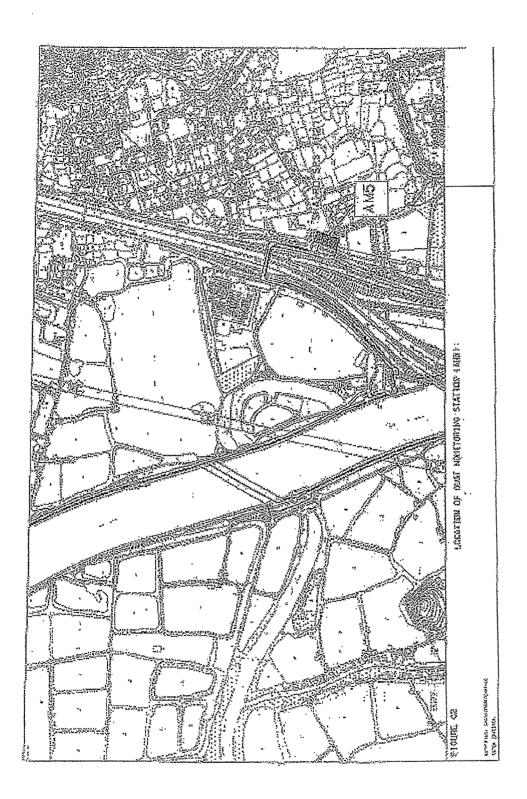


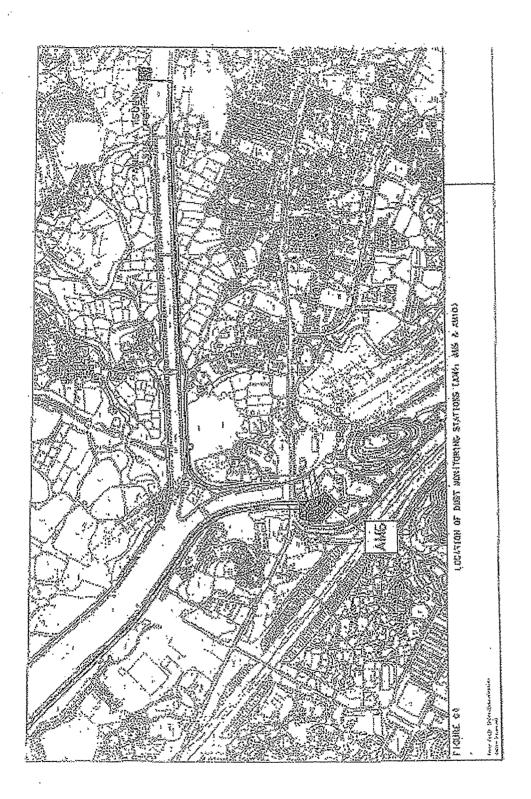
Annex E

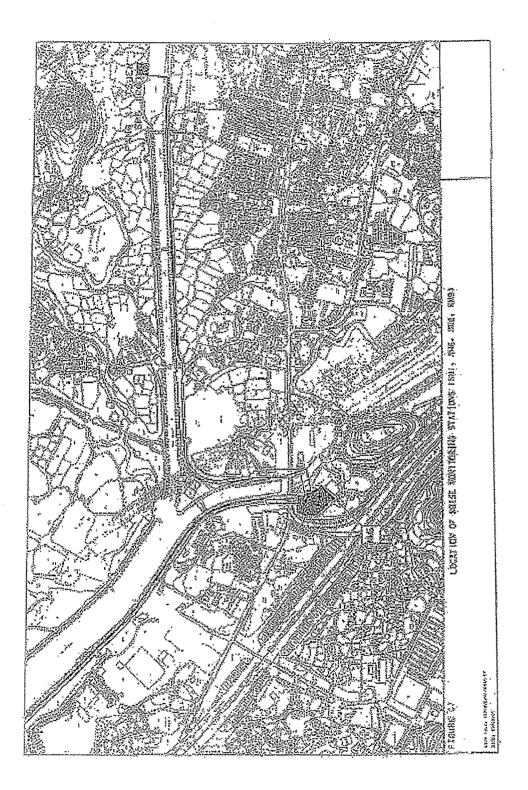
# **Locations of Monitoring Stations**

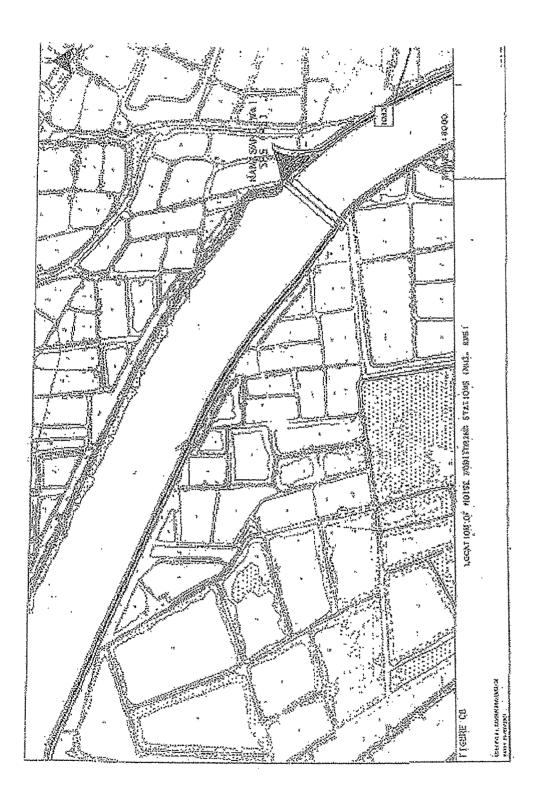


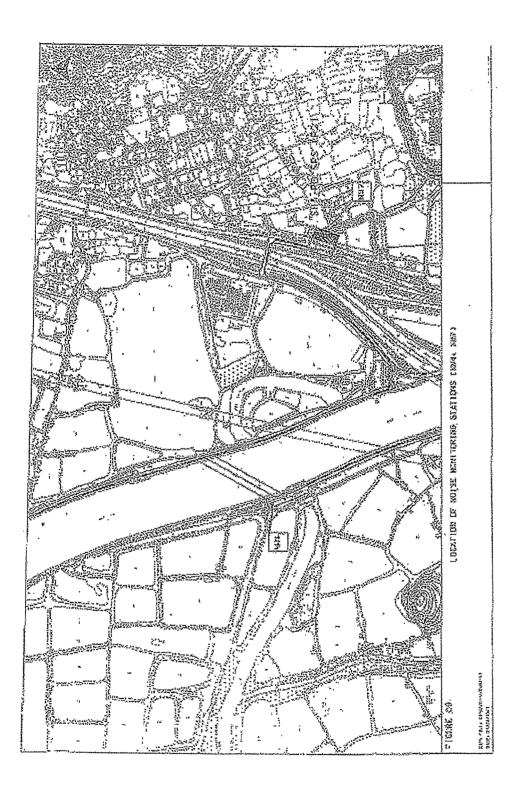














Annex F

## **Event and Action Plan**

EVENT		AC	CTION	
	ET Leader	IEC	Engineer	Contractor
Action Level				
Exceedance for one sample	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat dust measurements to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Assess efficacy of remedial measures and keep the Contractor IEC, and Engineer informed</li> </ol>	<ol> <li>Check monitoring data submitted by ET</li> <li>Check monitoring data trends and Contractors working methods</li> <li>Check and confirm Contractors proposed remedial actions and working methods are appropriate</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC</li> <li>Inform complainant of actions taken, if necessary</li> </ol>	<ol> <li>Rectify any unacceptable practice</li> <li>Liaise with Engineer and IEC to develop appropriate remedial measures to reduce dust impact</li> <li>Amend working methods and remedial proposals if required by the Engineer or IEC</li> <li>Implement the agreed remedial actions upon instruction from the Engineer and IEC</li> </ol>
Exceedance for two or more consecutive samples	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat measurements to confirm findings</li> <li>Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed</li> <li>Discuss remedial actions with IEC and Contractor</li> <li>If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions</li> <li>If exceedance stops, inform the Contractor and cease additional monitoring</li> </ol>	<ol> <li>Check monitoring data submitted by ET</li> <li>Check monitoring data trends and Contractors working methods</li> <li>Discuss with Contractor and Engineer on possible remedial measures</li> <li>Check and confirm Contractors proposed remedial measures are appropriate</li> <li>Determine the efficacy of remedial actions and keep the Engineer informed</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC</li> <li>Ensure remedial measures are properly implemented</li> <li>Inform complainant of actions taken, if necessary.</li> </ol>	<ol> <li>Rectify any unacceptable practice, if possible</li> <li>Submit proposals for remedial actions to Engineer and IEC within three working days of notification</li> <li>Discuss and amend remedial actions, if required, by the Engineer and IEC</li> <li>Implement the remedial action (s) immediately upon instruction from the Engineer and IEC, to optimise the effectiveness of the agreed remedial actions</li> </ol>

#### Event and Action Plan for Construction Phase Air Quality

#### Event and Action Plan for Construction Phase Air Quality

EVENT		ACTION							
	ET Leader	IEC	Engineer	Contractor					
Limit Level									
Exceedance for one sample	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat dust measurements to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Assess efficacy of remedial measures and keep the Contractor, IEC, Engineer and EPD informed</li> </ol>	<ol> <li>Check monitoring data submitted by ET</li> <li>Check monitoring data trends and Contractors working methods</li> <li>Check and confirm Contractors proposed remedial actions and working methods are appropriate</li> <li>Check and confirm Contractors proposed remedial measures are appropriate</li> <li>Determine the efficacy of remedial actions and keep the Engineer informed</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC,</li> <li>Ensure remedial measures are properly implemented</li> <li>Inform complainant of actions taken, if necessary.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to Engineer and IEC within three working days of notification</li> <li>Discuss and amend remedial actions, if required, by the Engineer and IEC</li> <li>Implement the remedial action (s) immediately upon instruction from the Engineer</li> <li>Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions</li> </ol>					
Exceedance for two or more consecutive samples	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat measurements to confirm findings</li> <li>Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed</li> <li>Discuss remedial actions with IEC and Contractor</li> <li>If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions</li> <li>If exceedance stops, inform the Contractor and cease additional monitoring.</li> </ol>	<ol> <li>Discuss with Contractor and Engineer on possible remedial measures</li> <li>Check and confirm Contractors proposed remedial measures are appropriate</li> <li>Determine the efficacy of remedial actions and keep the Engineer informed</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC</li> <li>Ensure remedial measures are properly implemented</li> <li>If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated</li> <li>Inform complainant of actions taken, if necessary.</li> </ol>	<ol> <li>Rectify any unacceptable practice, if possible</li> <li>Submit proposals for remedial actions to Engineer and IEC within three working days of notification</li> <li>Discuss and amend remedial actions, if required, by the Engineer and IEC</li> <li>Implement the remedial action (s) immediately upon instruction from the Engineer</li> <li>Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions</li> </ol>					

Event and Actio	on Plan for Construction Noise			
EVENT		ACTION	l	
	ET Leader	IEC	Engineer	Contractor
Limit Level				
Exceedance for one sample	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat dust measurements to confirm findings</li> <li>If repeat measurements confirm exceedance ,increase monitoring frequency to daily</li> <li>Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed</li> <li>If exceedance stops, inform Contractor and cease additional noise monitoring</li> </ol>	<ol> <li>Check monitoring data submitted by ET</li> <li>Check monitoring data trends and Contractors working methods</li> <li>Check and confirm Contractors proposed remedial actions and working methods are appropriate</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC</li> <li>Inform complainant of actions taken, if necessary</li> </ol>	<ol> <li>Rectify any unacceptable practice</li> <li>Liaise with Engineer and IEC to develop appropriate remedial measures to reduce noise impact</li> <li>Amend working methods and remedial proposals if required by the Engineer or IEC</li> <li>Implement the agreed remedial actions upon instruction from the Engineer and IEC</li> </ol>
Exceedance for two or more consecutive samples	<ol> <li>Identify source (s) of exceedance and inform IEC, Contractor and Engineer</li> <li>Repeat measurements to confirm findings</li> <li>Increase the monitoring frequency to daily</li> <li>Discuss remedial actions with IEC, Engineer and the EPD</li> <li>Assess the efficacy of remedial measures and keep the Contractor informed</li> <li>If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions</li> <li>If exceedance stops, inform the Contractor and cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET</li> <li>Check monitoring data trends and Contractors working methods</li> <li>Discuss with Contractor and Engineer on possible remedial measures</li> <li>Check and confirm Contractors proposed remedial measures are appropriate</li> <li>Determine the efficacy of remedial actions and keep the Engineer informed</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing</li> <li>Remind the Contractor of his contractual obligations and review the Contractor's working methods</li> <li>Discuss remedial actions with the Contractor and IEC</li> <li>Ensure remedial measures are properly implemented</li> <li>If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated</li> <li>Inform complainant of actions taken, if necessary.</li> </ol>	<ol> <li>Rectify any unacceptable practice, if possible</li> <li>Submit proposals for remedial actions to Engineer and IEC within three working days of notification</li> <li>Discuss and amend remedial actions, if required, by the Engineer and IEC</li> <li>Implement the remedial action (s) immediately upon instruction from the Engineer</li> <li>Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions</li> <li>Stop the relevant portion of work as determined by the Engineer until the exceedance is abated</li> </ol>



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	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	0	Dec	
		CONSTRUCTION PHASE								
3.5	A1	<ul> <li>AIR QUALITY - Construction Phase</li> <li>The following measures are enforceable under the Air Pollution Control (Construction Dust) Regulations</li> <li>Site boundary and entrance <ul> <li>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;</li> </ul> </li> </ul>	To prevent access to the site and control potential dust impacts from construction works.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part III, Clause 13 (c), Air Pollution Control (Construction Dust) Regulations
3.5	A2	<ul> <li>Access Road</li> <li>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;</li> </ul>	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part III, Clause 14, (b), Air Pollution Control (Construction Dust) Regulations
3.5	A3	<ul> <li>Stockpiling of Dusty Materials</li> <li>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;</li> </ul>	To control potential dust impacts during excavation and stockpiling activities.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part IV, Clause 18, (a, b & c), Air Pollution Control (Construction Dust) Regulations
3.5	A4	<ul> <li>Loading, unloading or transfer of dusty materials</li> <li>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;</li> </ul>	To control potential dust impacts during material handling and truck movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part IV, Clause 19, Air Pollution Control (Construction Dust) Regulations
3.5	A5	<ul> <li>Use of vehicles</li> <li>every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site;</li> </ul>	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		√			Part IV, Clause 21, (1), Air Pollution Control (Construction

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure			Relevant Legislation & Guidelines			
						Des	С	0	Dec	
3.5	A6	<ul> <li>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;</li> </ul>	To control potential dust impacts during material transportation.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Dust) Regulations Part IV, Clause 21, (2), Air Pollution Control (Construction Dust) Regulations
3.5	A7	<ul> <li>Power-driven drilling, and cutting</li> <li>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;</li> </ul>	To control potential dust impacts during mechanical breaking.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part IV, Clause 22, Air Pollution Control (Construction Dust) Regulations
3.5	A8	<ul> <li>Excavation and earth moving</li> <li>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;</li> </ul>	To control potential dust impacts arising from excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Part IV, Clause 24, Air Pollution Control (Construction Dust) Regulations
3.5	A9	<ul> <li>Construction of the superstructure of a building</li> <li>where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the round floor level of the SPS, or if a canopy is provided a the first floor level, from the first floor level, up to the highest level of the scaffolding; and</li> </ul>	To control potential dust impacts from SPS building construction works.	Full duration of SPS construction contract.	The Contractor		~			Part I, Clause 6, (a), Air Pollution Control (Construction Dust) Regulations
3.5	A10	<ul> <li>any skip hoist for material transport should be totally enclosed by the impervious sheeting.</li> </ul>	To control potential dust impacts during material transportation.	Full duration of SPS construction contract.	The Contractor		~			Part I, Clause 6, (b), Air Pollution Control (Construction Dust) Regulations

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	0	Dec	
4.7.1	B1	<ul> <li>NOISE - Construction Phase</li> <li>General Site Clearance –</li> <li>Demolition Works</li> <li>Use of quiet PME which meet the SWLs taken from British Standard, Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997 (Examples of these PME are shown in Table F2),</li> </ul>	To control potential noise impacts during site clearance and demolition works	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Annex 5 of EIAO-TM
4.7.1	B2	<ul> <li>Construction of Sewage Pumping Stations P1, P2 &amp; P3</li> <li>Use of quiet PME which meet the SWLs taken from British Standard, Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</li> </ul>	To minimise potential noise impacts arising during the construction of <i>P1, P2</i> & <i>P3</i>	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Annex 5 of EIAO-TM
		<ul> <li>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.</li> </ul>	To minimise potential noise impacts arising during the construction of <i>P1, P2 &amp; P3</i>	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Annex 5 of EIAO-TM
		Sewers and Rising Mains using Open Trench								
4.7.1	В3	<ul> <li>Method</li> <li>Use of quiet PME which meet the SWLs taken from British Standard, Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</li> </ul>	To control potential noise impacts during excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		~			Annex 5 of EIAO-TM
4.7.1	B4	• Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached.	To control potential noise impacts during road opening activities.	Where there are NSRs located within 50m of the line of sight. Throughout the full duration of the road opening activities.	The Contractor		~			
4.7.1	B5	<ul> <li>Use of movable noise barriers or 3 sided enclosures for all initial road opening activities</li> </ul>	To control potential noise impacts during road opening	Where there are NSRs located within 50m of the	The Contractor		✓			

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

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	0	Dec	
6.6.2	D2	<b>Chemical Waste</b> Chemical waste that is produced, as defined by Schedule 1 of the <i>Waste Disposal (Chemical</i> <i>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.	To control the handling, storage and disposal of chemical waste, in order to minimise potential spillages/leakages and human health and environmental impacts.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		~			Part II, (6) Waste Disposal (Chemical Waste) (General) Regulation
6.6.2	D3	<ul> <li>Storage, Packaging and Labelling of Chemical Waste</li> <li>Containers used for storage of chemical wastes should:</li> <li>be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> <li>have a capacity of less than 450 L unless the specifications have been approved by the EPD; and</li> <li>display a label in English and Chinese in accordance with instructions prescribed in</li> </ul>	To ensure the proper storage, packaging and labelling of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		~			Part IV, (9, 10, 11 & 12) Waste Disposal (Chemical Waste) (General) Regulation
6.6.2	D4	<ul> <li>Schedule 2 of the Regulations.</li> <li>Storage of chemical waste</li> <li>The storage area for chemical wastes should:</li> <li>be clearly labelled and used solely for the storage of chemical waste;</li> <li>be enclosed on at least 3 sides;</li> <li>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;</li> <li>have adequate ventilation;</li> <li>be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste, if necessary); and</li> <li>be arranged so that incompatible materials are</li> </ul>	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		V			Part IV, (13,14, 15, 16, 17, & 18) Waste Disposal (Chemical Waste) (General) Regulation

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	0	Dec	
		adequately separate								
		<ul> <li>Disposal of chemical waste</li> <li>The Contractor should ensure that the disposal of chemical waste is via a licensed Waste Collector and in accordance with the Waste Disposal (Chemical Waste) (General) Regulations.</li> </ul>	To control the disposal of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			Part IV, (20 -25) Waste Disposal (Chemical Waste) (General) Regulation
6.6.2	D5	Management of Waste Disposal A trip-ticket system should be established which monitors the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping, in accordance with Land (Miscellaneous Provisions) Ordinance (Cap28) and the Works Bureau Technical Circular No. 5/99.	To monitor the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping.	To be implemented at all worksites throughout the full duration of the construction phase.	The Engineer/ Contractor		~			Land (Miscellaneous Provisions) Ordinance (Cap 295) and Works Bureau Technical Circular No. 5/99.
7.5.6	E1	A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites. If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the	To determine the presence of soil and groundwater contamination and remedy any potential concerns to acceptable levels.		To be Implemented by DSD or their sub-consultants at the Detailed Design Stage, depending upon when site access can be gained.	*				EIAO TM Annex 19/3.1.1 & 3.1.2

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage**																																												Relevant Legislation & Guidelines
						Des	С	0	Dec																																									
		EPD, the contaminated site(s) shall be remediated in accordance with the approved CAR/RAP.																																																
8.7.1	F1	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	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	<i>Mitigation Measures Adopted - Minimisation</i> Pipe jacking method should be used instead of dredging where sewers and rising mains cross over existing MDC within the WCA and WBA.	To minimise potential construction noise impacts to ecological sensitive receivers within the WCA/WBA.	For the full duration of the construction contract.	The Contractor		✓																																											
8.7.2	F4	Regular inspections (at least twice a month) should be conducted by the ET during the winter season (November to March) for the remaining sections of the proposed sewerage alignment (including parts of S4, S5 and S6) within the WCA and WBA, where construction activities cannot be rescheduled. The site inspections shall check and report the number of workfronts and implementation of	To schedule noisy construction activities to minimise potential impacts to winter visiting birds.	Work fronts other than identified sections within WBA & WCA (see <i>Figure</i> <i>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	С	ο	Dec													
		mitigation measures (i.e. erection of movable noise barriers with a suitable footing along the sites) in the monthly EM&A reports. <i>Mitigation Measures Adopted</i>					,															
8.7.3	F5	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 <sup>3</sup> .	To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓ ✓															
8.7.4	F9	No open fires within the site boundary during	To prohibit open fires, thereby	Site wide and throughout	The Contractor		✓			Air Pollution Control												

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	ο	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.	To minimise potential landscape and visual impacts.	To be implemented during the construction phases of the project.	The Contractor		~			
		The first monthly EM&A Report should also report the appearance of the temporary hoarding barriers.								
	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	Imple Stage		tatio	n	Relevant Legislation & Guidelines
						Des	С	0	Dec	
		submitted for approval by the EPD.		project.						
		<ul> <li>The landscape plans and pumping station elevations should demonstrate that the following elements are considered:</li> <li>existing landscape elements (such as mature trees), transplantation of valuable trees, new compensatory planting</li> </ul>								
		<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>felling of mature trees are kept to a minimum.</li> </ul>								
		EM&A REQUIEMENTS - Construction Phase								
3.7	11	<ul> <li>Air Quality</li> <li>Subject to the Environmental Protection</li> <li>Departments (EPDs) agreement, construction</li> <li>phase dust monitoring shall be undertaken at the</li> <li>following locations in accordance with the</li> <li>recommendations of the EIA.</li> <li>Worksite boundary facing Scattered house in</li> <li>Nam Sang Wai (AM1);</li> </ul>	Installations of the dust monitoring stations to ensure the action and limit levels are not exceeded.	At specified dust monitoring locations for the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer /DSD		~			Air Pollution Control (Construction Dust) Regulations
		<ul> <li>Worksite boundary facing Fung Kat Heung (AM5);</li> <li>Worksite boundary facing Scattered House near Route 3 (AM6);</li> </ul>								

EIA* Ref.	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure					Relevant Legislation & Guidelines	
						Des	С	ο	Dec	
4.9.1		<ul> <li>at any additional locations, where considered necessary, in agreement with EPD.</li> <li><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.</li> <li>(NM3) Scattered House in Nam San Wai (D12);</li> <li>(NM4) Scattered House in Nam San Wai (D11);</li> <li>(NM6) Scattered House near Route 3 (D17);</li> <li>(NM7) Fung Kat Heung (D19);</li> <li>and at any additional locations, where considered necessary, in agreement with EPD</li> </ul>	Installations of the noise monitoring stations to ensure the action and limit levels are not exceeded.	throughout the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer		✓			Noise Control Ordinance
Des = l	Design, C = (	Construction, O = Operation, Dec = Decommissioning	1							



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)	19 Feb 08	19 May 08
2*		Greasby Anderson GMWS2310 High Volume Sampler	0355 (AM5)	02 Apr 08	02 Jul 08
3*		Greasby Anderson GMWS2310 High Volume Sampler	10394 (AM6)	02 Apr 08	02 Jul 08
4**		Greasby Anderson GMWS2310 High Volume Sampler	1283 (AM7)	19 Feb 08	19 May 08
5**	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	2326408	25 Apr 07	25 Apr 08
6**		Bruel & Kjaer 2238 Integrating Sound Level Meter	2285762	25 Apr 07	25 Apr 08
7*		Bruel & Kjaer 4231 Acoustical Calibrator	2292167	22 Apr 08	22 Apr 09
8*		Bruel & Kjaer 2238 Integrating Sound Level Meter	2285721	22 Apr 08	22 Apr 09

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.



輝創工程有限公司



Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071934

Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ006) Manufacturer : Bruel & Kjaer Model No. : 2238 Serial No. : 2285762

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071934.

### The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 25 April 2007

Certified by : K ¢ Lee

The test equipment used for testing are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration and Testing Laboratory of Sun Creation Engineering Limited

c/o 4/F. Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071923

## Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ081) Manufacturer : Bruel & Kjaer Model No. : 4231 Serial No. : 2326408

## has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071923.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

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輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C082037

## Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ010) Manufacturer : Bruel & Kjaer Model No. : 2238 Serial No. : 2285721

## has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C082037.

### The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 22 April 2008

Certified by : Ř/€ Lee

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Certificate No. : C082026

# Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ016) Manufacturer : Bruel & Kjaer Model No. : 4231 Serial No. : 2292167

## has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C082026.

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

Address : Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue : 22 April 2008

Certified by : K/C Lee

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### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Location IE		oumping S AM5	tation				Calibration: 2-Apr-08 ation Date: 2-Jul-08					
							Technician: Mr. Ben Tam					
					CONDIT	IONS						
		Sea Level	Pressure	(hPa)	1016.3		Corrected Pressure (n	nm Hg) 762.225				
			perature	· · ·	18.4							
				( - )			· • · · · · · · · · · · · · · · · · · ·	() 291				
				С	ALIBRATIO	N ORIFICE						
				Make->	TICOLI		Oatd Clana	4 5 4 4 9 4				
				Model->			Qstd Slope -> Qstd Intercept ->	1.54431 -0.01988				
				Serial # ->				-0.01988				
					CALIBR	ATION						
Plate	H20 (L)	H2O (R)	H20	Qstd	Ι	IC	LINEAR					
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSI					
18	5.3	5.3	10.6	2.148	51	52.23		31.8606				
13	4.1	4.1	8.2	1.891	43	44.04	Intercept = -16.3673					
10	3.3	3.3	6.6	1.698	37	37.89	Corr. coeff. =	0.9986				
7	2.3	2.3	4.6	1.419	27	27.65						
5	1.3	1.3	2.6	1.070	18	18.43						
Calculatio	ons :											
Qstd = 1/m			(Tstd/Ta))	-b]	60.00	FLOW RATE CHART						
IC = I[Sqrt(	(Pa/Pstd)(	Tstd/Ta)]			00.00							
							y = 31.861x	- 16.367				
Qstd = star IC = correct					50.00							
I = actual c					(IC)			*				
m = calibra					<mark>හ</mark> 40.00							
b = calibra					lodg							
			calibratio	on (deg K)	<b>ž</b> 30.00							
Pstd = actu	ual pressu	re during o	calibratior	n (mm Hg)	00.04 (C) 40.00 voi (C) 40.00							
_					<u>e</u> 20.00							
For subse				er flow:	Actu		▲					
1/m(( I )[So	qrt(298/1a	v)(Pav/760	))]-b)									
m = sample	er slope				10.00							
b = sample		ot										
I = chart re					0.00							
Tav = daily		temperatu	re		C	0.000 0	.500 1.000 1.500 Standard Flow Rate (m3/min	2.000 2.500				
Pav = daily								,				

### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Location ID		Car Shop AM 6	(Scattere	d House nea		Next Calibr	Calibration: 2-Apr-08 pration Date: 2-Jul-08 Technician: Mr. Ben Tam				
					CONDIT	IONS					
	:	Sea Level Tem	Pressure perature	· · ·	1016.3 18.4		Corrected Pressure (mm Hg) 762.22 Temperature (K) 29	25 91			
				C	ALIBRATIO	N ORIFICE	E				
				Make-> Model-> Serial # ->	515N		Qstd Slope -> 1.54431 Qstd Intercept -> -0.01988				
					CALIBR	ATION					
Plate		H2O (R)	H20	Qstd	(chort)	IC	LINEAR REGRESSION				
No. 18 13 10 7 5	(in) 5.0 3.9 2.7 2.0 1.3	(in) 5.0 3.9 2.7 2.0 1.3	(in) 10.0 7.8 5.4 4.0 2.6	(m3/min) 2.087 1.844 1.537 1.324 1.070	(chart) 53 44 35 26 19	corrected 54.28 45.06 35.85 26.63 19.46	REGRESSION           Slope = 34.4409           Intercept = -17.9041           Corr. coeff. = 0.9984				
Pstd = actu <i>For subse</i> 1/m(( I )[Sc	I[Sqrt(H20 (Pa/Pstd)( endard flow eted chart shart respondent tor Qstd s tor Qstd ir I temperat ual pressu equent cal grt(298/Ta	Tstd/Ta)] rate respones onse lope tercept ure during re during o	calibratio calibratior	ר סח ( deg K ) ו ( mm Hg )	60.00 50.00 50.00 40.00 50.00 50.00 50.00 50.00 50.00 10.00 50.00	· · · · · · · · · · · · · · · · · · ·	FLOW RATE CHART				
m = sample b = sample I = chart re Tav = daily Pav = daily	er intercep sponse vaverage	temperatu	re		0.00 C		0.500 1.000 1.500 2.000 2.500 Standard Flow Rate (m3/min)				



Annex I

## Meteorological Data in the Reporting Month



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

				La	au Fau S	Shan Station	<u> </u>
Date		Weather	Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Apr-08	Tue	cloudy/rain/mist/fresh/strong	4.3	16.9	18	88	Е
2-Apr-08	Wed	cloudy/rain/mist/moderate	0.7	17.9	13.5	89.5	Е
3-Apr-08	Thu	humid/misty/rain/moderate/fresh	1.4	18	7.5	91.5	E/NE
4-Apr-08	Fri				Holiday		
5-Apr-08	Sat	cloudy/sunny periods/moderate	Trace	25.5	14.5	74	E/NE
6-Apr-08	Sun	fine/cloudy/moderate	0	23.3	11.5	76.5	W
7-Apr-08	Mon	fine/cloudy/moderate	0	26.9	11	86	W/SW
8-Apr-08	Tue	Sunny periods/isolated showers/cloudy/moderate	0	27.5	15	68.5	S
9-Apr-08	Wed	sunny intervals/cloudy/moderate	Trace	27	26	73	S/SW
10-Apr-08	Thu	cloudy/fog/light winds/moderate/rain	Trace	27.8	14.5	78	SE
11-Apr-08	Fri	cloudy/mist/rain/moderate/fresh	Trace	26.6	16	75	SE
12-Apr-08	Sat	cloudy/mist/rain/moderate/fresh	Trace	24.9	20	75	SE
13-Apr-08	Sun	cloudy/mist/rain/moderate/fresh	1.3	24.4	9	83	E/NE
14-Apr-08	Mon	sunny periods/cloudy/moderate/fresh	0	25.5	11.2	75	Е
15-Apr-08	Tue	sunny periods/cloudy/moderate	0	24.8	10.5	75.5	Е
16-Apr-08	Wed	fine/hot/light winds	0	25	12.7	75.2	Е
17-Apr-08	Thu	cloudy/rain/light winds/fresh	Trace	27.1	12	78	SE
18-Apr-08	Fri	cloudy/rain/fresh/strong	Trace	25.1	21.5	67.5	Е
19-Apr-08	Sat	fresh/strong/gale/overcast/rain/squall	237.4	23.3	26.5	75.5	Е
20-Apr-08	Sun	sunny periods/isolated showers/moderate	0	27.4	13.5	78	SW
21-Apr-08	Mon	sunny periods/isolated showers/moderate	Trace	26.1	11	84.5	SE
22-Apr-08	Tue	fine/isolated showers/cloudy/light winds/moderate	0	26.8	11	80.7	SE
23-Apr-08	Wed	cloudy/rain/moderate/fresh	0.4	20.9	15	76.5	NE
24-Apr-08	Thu	cloudy/haze/moderate	0.1	20.2	18.2	68.5	N/NE
25-Apr-08	Fri	cloudy/rain/moderate	0.7	20.6	6.5	75.5	Е
26-Apr-08	Sat	bright/haze/light winds	Trace	22.3	10	75	E/SE
27-Apr-08	Sun	bright/haze/light winds	Trace	23.6	16	80.5	E/SE
28-Apr-08	Mon	cloudy/moderate	7.8	19.9	9	90.5	E/NE
29-Apr-08	Tue	cloudy/sunny intervals/moderate	Trace	22.7	6.5	77.5	E/NE
30-Apr-08	Wed	cloudy/sunny intervals/haze/light winds	Trace	23.7	6.5	77.5	Е



## Annex J

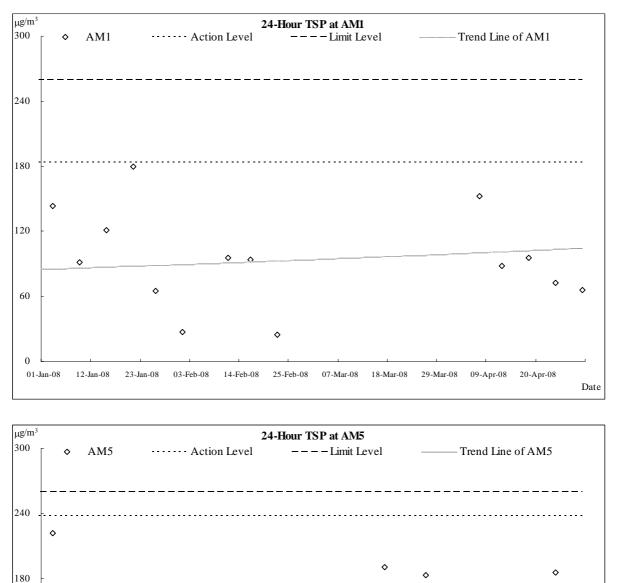
## Graphical Plots of Air Quality and Construction Noise Monitoring Results



Air Quality



### **Air Quality Monitoring Results**



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25-Feb-08 07-Mar-08 18-Mar-08

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29-Mar-08

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09-Apr-08 20-Apr-08

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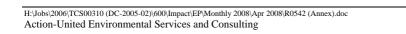
Date

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14-Feb-08

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23-Jan-08



03-Feb-08

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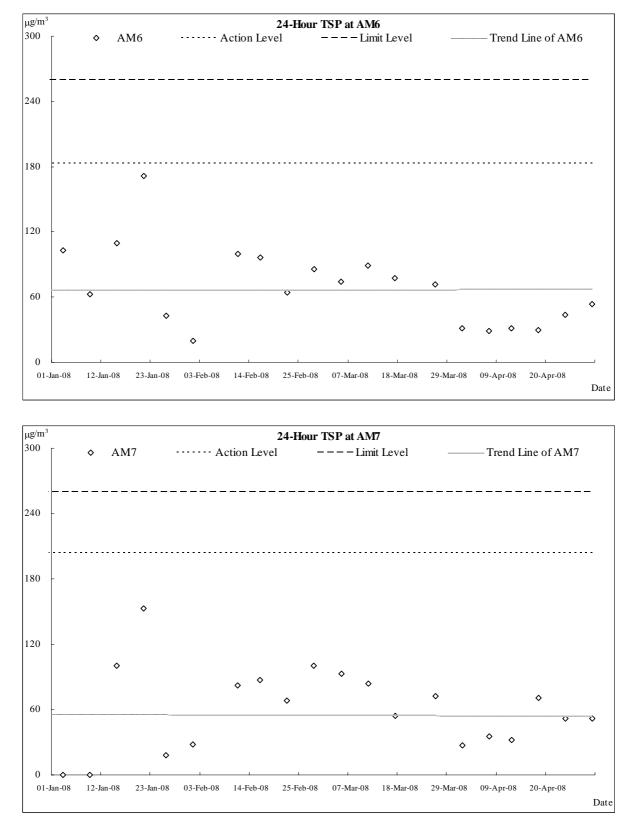
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12-Jan-08



### **Air Quality Monitoring Results**

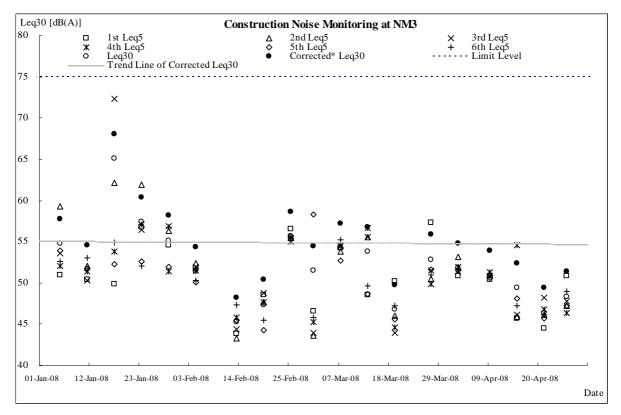


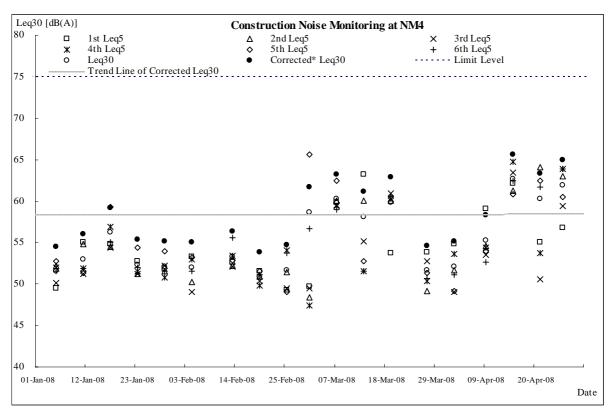


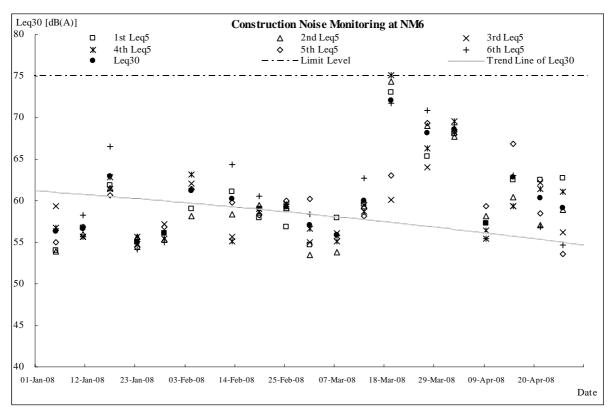
**Construction Noise** 



### **Construction Noise Monitoring Results**







#### Leq30 [dB(A)] Construction Noise Monitoring at NM7 80 1st Leq5 2nd Leq5 3rd Leq5 Δ × 5th Leq5 ж 4th Leq5 ٥ + 6th Leq5 - Limit Level Trend Line of Leq30 Leq30 • 75 70 Δ 65 Δ ¥¥° × 60 Δ × Ê х ж ₽ ¥ 0 ¥ ۲ Δ 55 8. \*\* + + + ♦ × Ş Ż ∎ X X 騫 ٥ ĕ + Â ∦ ٥ ж + 50 45 40 01-Jan-08 12-Jan-08 23-Jan-08 03-Feb-08 14-Feb-08 25-Feb-08 07-Mar-08 18-Mar-08 29-Mar-08 09-Apr-08 20-Apr-08 Date

### **Construction Noise Monitoring Results**

AUES



Annex K

## **Proforma of Site Inspection & IEC Audit in the Reporting Month**

### 28-APR-2008 14:08 From:LEADER CIVIL ENG. 24439857 23-04-00;16:40 ;

To:29596079 ż

~	Q	n.	~ <b>f</b>	V	C	ŧ	0	•	+	J	

Project	& Sewage 1	Construction of Saw Pumping Station at K Tau in Yuen Long	vers, Rising Mains am Tin, Nam Sang		ractor:		Leader Civil Engineering Corp. Ltd Babtle Asia Ltd				
Beegen	20000 B			Engi	hegr:						
inspected by:	ET Auditor: Contractor R	Ben Tam <sup>Iep:</sup> Edwin Leung		IEC:	onmental '	To more	Mott Core			Services I	
	IEC's Rep:						Consulting	3			
	new a Rep;						22 April 20 DSD-AT22		) 	Web99999.4	
					1795044 4 481 468 1	6.1 867 Mc 8 83.F31	• UUUTIIAA	~~~~	·····		
General Meteor	ological inform	ation	****							NOT OF A CONTRACT OF A CONT	
Weather	Sunny	Fine	Cloudy		Overcest	Ĺ	Orizzio		Rain	Haz	
Temp:	25]°C	an a									
Humldity;					⊳ 50%)		Low (RH	« 50%)			
Whent:	Caim Light ZBreaze				Strong						
Air Quality	254423973395899 enteren zereinteren an eren vereinteren eren eren eren eren eren eren ere				Yes	NO	NA	NC	Follow- Up	Remarks	
In hoarding of no	ot love than 2.4m	1 provided?				[]	[]				
		controlled speed limit?				pierror and				- CALIFORNIA AND AND AND AND AND AND AND AND AND AN	
		fined to designated have a	oads?				1	()			
		is kept class and free from			[					Remarks 2	
		laces waterod regularly in					Automot				
		as provided at alte ext(s?	-								
is water spraying	g used during the	é main dust-generaling a	riivitkon?					[			
Are the excav Impermeable/ter	Miód or stock Maulin sheet?	pile of dusty material	s kapt wat or cove	wed by							
is exposed area	of ground cover	ed or watered frequently?			<b>_</b>					•••••••••••••••••••••••••••••••••••••••	
Are load on vehi	olos covered by	olean Impervious sheatin	0 <sup>7</sup>		[]		[]				
Aro vohicles and	i equipment swit	iched off while not in use	7								
Are amoly emis	slons from piant	is/aquipment evolded?									
Is open burning i	avoided?										
Observable dust	i sourcos	Wind erosion			[]Ve	hicle/equ	ipmont movo	nomis			
		Losding/unloading	of materials	Others Nil							
Construction N	loise										
		dulad to minimize noise r	námuca?			[]					
Are the works or	r equipmont site:	d in minimize noise nuisa	nce?		Ī		[]				
Ara ali plant and	i equipment well	maintained and in good (	apenating condition?								
is idio equipmon	it lumed off or th	frwob beltion									
ls powersd med materials?	honical equipmo	nt covered or shiskled by	eppropriate acoustio							9797 <b>1177</b>	
iz ellaucoq ednit	oment used whe	re appropriato?								W0000000000000000000000000000000000000	
Are noise enclos	sufes or noise be	arriera used where neces	sary?		$\overline{\checkmark}$						
Does spacified e	equipment has va	alld noise label?			[7]		[]		<b>[</b> ],	1999 (1997) (199	
Are Construction	ı Noise Permits	(CNPs) available for insp	action?				*		E) _		
Major Nolas Sou	1100	Tresfic			[√]Cc	mstructio	n activilies in:	sido tho site	ł		
		Construction activ	ilion culnide of site		ex	hera	Mil				

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23-04-08;16:40 ;



## Site Inspection Checklist (SF-17)

Water Quall	ly & Drainage	Yes	NO	NA	NC	Follow- up	Remarks
ls à Wastewater discharge li	canse obtained for the Project?		- Politelerione			[]	
la elle elluent discharged in	accordance with the discharge license?	$\checkmark$					
is the discharge of slity wate	r avalded?	<b>V</b>					
ls dralnago aduquata?		<b>v</b>					
le drainaga ayatam wali mal	ntainod7						
Are there temporary ditches	for runoff discharge one appropriate watercourse?					$\Box_{-}$	
Are there sedimentation tan	its for settling runoff prior to discharge?	~					
Are the sedimentation tanks	Constructed of pre-formed individual cells?	¥					
	With adequate capacity?						
	Free from sill and sediment?						
Are there neutralization tani	a for concrete batching/mbdng dischargo?						2011-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
Are there of Interceptors (n	dialnage system?						
is wheel wash faoility provid	ed at every alle exit?	<b>(</b>			[]		****
Are vehicles and plant clear	ed of earth, mud & debris before leaving the site?						
Are wheel washing faolition	regularly inspected and maintained?						NEW YORK TO STREET, THE ST
Are toilets provided on alle?	I so, are they properly maintained?		LOBALINEER				
Are monholes covered and	ses)ad?						
is oil loakaga or spillaga av	oldad?		AZEKKAN			<u> </u>	
Waste Management and F	otential Land Contamination						
Consul Refuse:	Are receptacles (rubbish birm) avalable?						
	is there regular and proper disposal?	P					
	la proper sorting and rocycling implemented?				$\square$		
Construction Waste:	is generation of construction waste minimized?	Image: A start of the start					
	is waste sorting implemented on site?						
	is construction waste reused where practicable?	[₹]					
	la construction wasts property disposed of?	[  ]					
	Are disposel records available for inspection?				]		
Chomical waste/waste oil	ia there designated storaga aroa?						
	Is othernical wasta alored properly?	$\square$				·	
	is there proper disposal?	2					
	Is chemical waste license available for inspection?						
Excevalad Meleriale	Do excevated materials appear uncomaminated?	R					
	Are appropriate procedures followed if contaminated materials exist?	$\mathbb{Z}$		<u>[]</u>			9994-9994-9994-9994-9994-9994-9994-999
	Are disposal records available for inspection?					<u> </u>	
Chomical/Fuel	a chemical/fuel storod in bunded area?		[]				
	ts bund capacity adequate (>110% of the largest tank)?					[	
	Are slorage areas lockable?	Z	[				
ls foam, oil, grease or other	objectionable metters in writer or nearby drains of sewer	[7]					

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То:29596079

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23-04-08;16:40 ;



## Site Inspection Checklist (SF-17)

#### Remarks:

Previous Audit Follow-up:

NII

Observations Recorded in this Site Inspection:

- 1. Stagnant water was cumulated inside the drip tray was observed at Nam San Wai pumping station, the contractor was reminded to clean more frequency after the rain fall to prevent mosquito breeding.
- Sand and mud tail was observed at the Yuen Long working portion site exit, all vehicles should be cleaned before leaving the working portion.

Signatures:

Env. Auditor Name Ben

Contractor's Representative

Name; Bonn

IC(E) Auditor

Reaident Site Staff

Nøme:

Nemo:

### 28-APR-2008 14:09 From:LEADER CIVIL ENG. 24439857

23-04-08;16:40 ;

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## Site Inspection Checklist (SF-17)

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang				sctor;	L	Leader Civil Engineering Corp. Ltd					
	Wai and Au T	au in Yuen Long		Engla	eer;	Ē	Bablie Asia Ltd Mott Connell Ltd Action-United Environmental Services &					
Inspected by;	ET Audhor:	Ben Tam		16¢:		Ŗ						
	Contractor Rep	Edwin Leung	ит-листинованалистиканалистиканалисторованали	Envin	onmerstal T							
	IEC's Rep:		566/1272707275999943	Inspe	Consulting Inspection Date & Time: 15 April 2008 (10:00)							
	RE's Rep:	999900000009122000000000000000000000000	***********	Cheol	dist Refere	nce No.: T	05D-AT16	0401				
5					accountry and the second s			and a subscript of the state of				
General Meteor	ological Informat	lon	arm/orm/00/0/0/0			¥	·····]	r		()) (s_m)		
Weather	្រ្តែ នៃបកកម្	<b></b> Fine	Cloudy	[]	Overcesi	L	Drizzla		Roin	Hazy		
Temp:	28 °C		Province of the second s			<b></b>	······					
Humidity;	High (RH		Moderate (9			[	Low (RH	< 50%)				
Wind:	Calm	L]Llght	Breozo	L	Strong	YYDER CONTRACTOR OF THE OWNER OF		****		Second Contraction of		
Air Quailty					Yes	NO	NA	NC	Follow- up	Remarks		
ls hoarding of no	d leas than 2.4m p	provided?			Z					50000000000000000000000000000000000000		
Are site vehicles	: travoling within c	ontrolled speed limit?			×.							
Are sile vehicles	mavement confin	ied to designated haul re	ada?		[ <b>?</b> ]				Luzzania	anticector Anto Do Anguranti Scheder Scheder (1948) 1954 - A		
Are public roads	i culaido silo oxita	kept class and free from	i dust?		<pre>V</pre>				L	Romarks 2		
Aro haul mads e	and unpavad aurfa	ces watered regularly to	svold dust generation?						L			
Are there wheel	washing faoilitios	Satixe alia ta babivonq										
la valar aprayin	g used during the	maln dust-genoreting ec	Willias?				1		<u> </u>			
Are the excal Impormeable/te		ile of duaty materials	a kept wet or covi	nod by						1919 August - Martin Carlos - Martin - Ma		
is exposed area	of ground covered	d or watered frequently?			[ <b>7</b> ]					57500000000000000000000000000000000000		
Are load on veh	láics ácvarad by e	leen impervious sheeling	17									
Are vehicles and	d equipment ewitc	hed off while not in use?				[]		L				
Are emoky emis	islons from plants	/squipment svoided?				L						
ls open burning	evoided?								[] .			
Observable dus	l sources	Wind erosion			Ve	n)cle/aqui;	ment move	ments				
		Loading/unioading	of materials		[ <b>7</b> ]01	hors <u>N</u>	<u>II</u>					
Construction N	loise											
Are the construe	olion works achad	uled to minimize noise n	ilikantse7		$[\checkmark]$					1994 MILLION CONTRACTOR OF THE OWNER		
Are the works o	r oquipmont siled	to minimize nolas nulsor	1687		7							
Are all plant and	l squipment well r	naintained and in good o	Prolibnce galtered		[7]							
is idle equipme	n lumod oli or llu	attled down?			I							
ls powered mec materials?	ihankai equipmen	I covorod or shielded by	appropriata accustic						[			
is silenced equi	pmant used when	e appropriale?			~							
Are noise encio	suros or noise ba	niem used where neces:	icwy?									
Dona specified	equipment has va	ild noiso labai?			Z					aa F e voorgen kan oo kan age oo kan age oo kan an ar		
Are Constructio	n Noise Permila (	CNPs) available for insp	action?				Ø		Non-			
Major Nolse So	шсө	Traffic				onstruction	activities in	side the sil	a			
		Construction notivi	elia to shiatuo asili		<u> </u>	thors <u>N</u>	{II	1989-1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1				

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24439857

To:29596079 ;

23-04-08;16:40 ;



## Site Inspection Checklist (SF-17)

Water Gual	y & Drainage	Yes	NO	NA	NG	Follow- up	ffemerks
ls a wantewaler discharge li	sense obtained for the Project?						00000000000000000000000000000000000000
In aite effluent discharged in	accordance with the discharge license?	, √				<u> </u>	
is the discharge of silty wate	r ovoided?					[]	
ls drainage edequato?		$\checkmark$					······································
la drainaga syatam waii mai	niained?	(V)					*****
Are there temporary ditches	for runoff clackarge into appropriate watercourse?	$\checkmark$				[	and a subscription of the
Are there sedimentation tan	is for satiling runoff prior in discharge?						
Are the sedimentation tanks	Constructed of pre-formed individual cells?	$\square$					geometrospilististen and and and and and and and and and an
	With adequate capacity?	V				Ш.	······································
	Fise from slit and sediment?						R_RL
Are there neutralization tank	s for concrete batching/mixing discharge?					<u> </u>	
Are there oil interceptore In	drainago sysiom?			$\square$		L.	VE-de
is wheel wash facility provid	ed at avory site axil?					<u> </u>	
Are vehicles and plant clear	ed of earth, mud & dobris before leaving the site?	$[ \centering ]$					Remarks 2
Are wheel washing facilities	regularly inspected and maintained?		and the state of t				
Are loitets provided on eite?	If so, are they properly maintained?						04200452459570000526592650500000000000000000000000000
Are manholes covered and	Sholkaa						
ls oll lookage or spillage av	sided?					$\square$ .	MAN CONTRACTOR OF CONT
Waste Management and F	Atential Land Contemination						
Goneral Reference	Are receptacles (rubbish bles) available?						eeyysinyesiineesiisteesiineesiiteisteesiiteisteesiiteesiiteesiiteesiiteesiiteesiiteesiiteesiiteesiiteesiiteesi
	is there reguler and proper disposel?						······
	is proper sorting and recycling implemented?	$\square$					
Construction Wasts:	is generation of construction waste minimized?						
	is wasts sorting implemented on sits?	7					
	is construction waste raused where practicable?						
	a construction waste properly disposed of?						0.000.000.000.000.000.000.000.000.000.
	Are disposed records available for inspection?		an and a second				
Chomical westerweste oil	In there designated storage area?						1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 -
	is chemical wasta stored property?			Lancourses			Remarks 1
	la there proper disposal?						*****
	is chomical wasis license svallable for inspection?						
Excavated Meterials	Do excavated materials appear uncontaminated?						The second s
	Are appropriate procedures followed II contaminated materials exist?						*****
	Are disposel records available for inspection?						
Chomics//Fuel	is chemical/fuel stored in bunded area?	[ ]					
	is bund capacity adequate (>110% of the largest lank)?						
	Are storage areas lockuble?						NK
la foam, oil, graase or othe avoided?	r objectionable mations in water or nearby drains of sewer					[	

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## Site Inspection Checklist (SF-17)

### Remarks:

#### Previous Audit Follow-up:

- 1. Drip tray was provided for all free standing oil buckets.
- 2. No sand and mud was observed at Kam Tin working portion site exit.

### **Observations Recorded in this Site Inspection:**

No environmental issue was observed during the site inspection.

Signatures:

Env, Auditor

Name :Ben Zarr

Contractor's Representative

Name: Ban h. 64

IC(E) Auditor

**Resident Sile Staff** 

Næme:

Name:

To:29596079

P.8725 # 27 4

						Si	te Inspe	ction (	Checkli	st (SF-17)		
Project	🕹 Sewage Pu		wers, Rising Mains (am Tin, Nam Sang	Contra	ctor:		Leader GN	/II Engine	ering Cor	p. Lta		
				Engine	Engineer: Babtic Asia Ltd							
Inspected by:	ET Auditor:	Ben Yam		IEC:								
	Contractor Rep:	: Edwin Leunç	3	Enviro	nmental	l'oam:	Action-Un Consulting		ronmenta	il Services &		
	IEC'a Rep:	Joseph Char	3	-			8 April 200		(91)			
	RE's Rep:			Checki	list Refer	ence No.:	DSD-AT08	0408		101444-000 MILLION		
General Meteor	ological informati	on										
Weather	Statiny	Fine		¢	vorcesi	<u> </u>	Dnzzle	[	]Rain	Hazy		
Temp:	20 °C											
Humidity:	]Milgh (RM	> 90%)	Moderate (9	10% > RH >	50%)	[	Low (RH	< 50%)				
Wind:	Calm	Ligm	[C]Breeze	]\$	itrong	-	51.33944 1994 1997 1997 1997 1997 1997 1997 1	North Contraction of				
Air Quality					Yee	NO	NA	NC	Follow- up	Remarks		
ia hoarding of no	t less than 2.4m pr	cvidad?			[ <b>~</b> ]	[]		L		\$49.4.4.2.9.2.1.9.5.4.6.5.4.6.6.4.6.6.6.4.4.6.6.6.4.4.9.7.7.7.7.7.7.		
Aro slio vehicles	traveling within co	ntrolled speed limit?			4			<b></b>	<u> </u>			
Are site vehicles	movement confine	nd to dosignated heul	roeds?						<b>.</b>	****		
Are public roads	outside sile exite k	tepl clean and free fro	m dust?			-		<u> </u>		Remarka 2		
Are heul roads a	nd unpaved surface	es watered regularly t	o evoid dust generation?	7	<b>v</b>			angerannen				
Are there wheel	washing facilities p	novided at she exits?										
la water spraying	y used during the m	a grideneneg-laub nier	ictivities?						<b>.</b>			
Aro the excev impermeable/ter		e of dusty materia	<b>its kept wet</b> or cav	ared by	*				[] .			
is exposed area	of ground covarad	or watared fraqueotly	2		7	·····						
Are loed on vehi	clea covered by cle	an Impervious sheeth	ng?									
Are vehicles and	l equipment switch	ed off while not in use	7									
Aro smoky amis	siona from planta/s	quipment avoided?							<u> </u>			
le open burning :	avolded?									under die Gescheiten werden die Gesche Beschen die Geschen die Gesche Beschen die Gesche Beschen die Gesche Bes		
Observable dust	eourcee [	✓ Wind erosion			Ve	shicks/equ	ipment mover	ments				
	[	Loading/unloadin	g of materials		<u></u> 0	ihors _	Vil	2000 CO.				
Construction N	iolse											
Are the construc	tion works schodul	lad lo mininiza eoisa	nuisance?						Lumman ,			
Ara the works or	equipment sited to	o minimize noise nuis	foona				$\Box$					
Are all plant and	i oquipmeni well ma	aintained and in good	operating condition?									
ls i <b>dia aqu</b> ipmen	il turned off or throt	tled down?			[]				[	·		
ls poworod maci matorials?	hanical equipment	covered or shielded b	y appropriate accustic									
is stenced equip	mont used where i	appropriate?										
Are noise enclos	wres or noise barri	iers used where nace	ББЕНУ/?		<							
Doos specified a	aquipment hea vallo	i nolee label?			$\square$							
Are Construction	n Noiso Pormilis (Cl	NPs) available for ins	paction?							and the second statements and the second statements		
Major Noise Sou	uce [	Traffic			[ <b>/</b> ]C	onstructio	n activities in:	side the she	I			
	[	Construction acti	wittes outside of site		<u> </u>	thers _	Nil					

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# Site Inspection Checklist (SF-17)

Water Qual	ity & Drainage	Yes	NO	NA	NC	Follow- up	Remarks
is a wastowator discharge li	carse obtained for the Project?						
la aite effluent diacharged ir	n accordance with the discharge ficense?						
ls the discharge of sity web	a usoliqud.					[	
la drainage adequate?							
is drainage system well ma	intaked?						
Are there temporary ditches	Secucionate watercourse otni agranicalo filonuri roli					<b>[</b> ] "	
Are there addmentation tan	ks for settling runoff prior to discharge?						
Are the sedimentation tanks	a: Constructed of pre-formed individual cells?					[].	gradecontraction and a constraint of a constra
	With adoquate capacity?						
	Free from elit and sediment?					$\Box$ .	L.d.t.t.ten.tfr
Are there neutralization fan	ks for concrete batching/mixing discharge?						
Are there of interceptors in	drainaga syntem?			×)			
is wheel wash lacility provid	lod at every site exit?						
Are vehicles and plant clea	ned of earth, mud & debris before leaving the sto?		( <u> </u>				Remarks 2
Are wheel washing facilitio:	s rogularly inspected and maintainad?					[]	
Are toilets provided on sile?	? If so, are they properly maintained?						Sama a fina da barri y y y y y y y y y y y y y y y y y y
Are manholes covered and	soalod7	R			$\square$		
ls óil laskage ar spillage av	oidad?	<b>_</b>					
Weste Management and I	otential Land Contamination						
General Refuse:	Are receptacies (rubbish bins) evallable?	a constant					
	ts there regular and proper disposel?	Z					
	is proper sorting and recycling implemented?						
Construction Waste:	Is generation of construction waste minimized?	Z			$\square$		
	la wasta sorting implemented on slie?						A
	is construction waste reased where practicable?						
	Is construction waste properly disposed of?						F
	Are disposed records available for inspection?	<b></b>				[]	
Chemical waste/waste oil	la there designated storage area?						
	Sylvedord probarity (1999) Structure (19						Romarks 1
	is there proper disposal?	$\checkmark$					
	a chemical wate license available for inspection?			[			*****
Excavaled Materiala	Do excavated materials appear uncontentinated?	*					
	Are appropriate procedures followed if contaminated materials exist?				and the second s		00444440000000000000000000000000000000
	An disposal records available for inspection?	and the second sec	Poor services and	Participant of the second			**************************************
Chemical/Fuel	ie chemical/fuel stored in bunded area?						
	is bund capacity adequate (>110% of the largest tank)?	1					
	Are siórago aroas iockable?						
la foam, oil, grease or othe avoidad?	t objectionable matters in water or nearby drains of aswer						

 $\label{eq:loss_constraint} Z: Vobs \ (DC-2005-02) \ (DC-2005-02) \ (DC-2008) \ DSD-AT080406. doe$ 



Remarks:

Previous Audit Follow-up:

#### **Observations Recorded in this Site Inspection:**

- 1. Free standing oil buckets was observed at Sha Po pumping station, the contractor was reminded to proved drip tray for all chemical container.
- 2. Sand and mud was observed at Kam Tin working portion site exit, all vehicles should be cleaned before leaving the working portion.

Signatures;

Env. Auchtor Name Ban Tp

Contractor's Representative

Rem

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Name:

IC(E) Auditor

Resident Site Stelf

Name:

Nome:

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roject	DC/2005/02 Cor	istruction of Sew	ers, Rising Mains	Contra	cion:	L	Leader Civil Engineering Corp. Ltd					
J	& Sewage Pun Wai and Au Tau	ping Station at K	am Tin, Nam Sang									
	AACIA COLUMN VOTA 1 19991	BERF FLEWIE ROATING		Engine	ær:		lattic Asia					
nspecteri by:	ET Audkor:	Sylvle Wong		IEC:			Aofi Conni		าราหารคราร์เห	Services &		
	Contractor Rep:	Edwin Leung			amental T	(	consulting		LY E 18 9 1915 8 1916 1	. There could be a		
	IEC's Rep:	644.94					April 2001			·····		
	RE's Rep:			Check	lisi Relețți	nce No.:	ISD-ATD10					
General Meteor	rological Informatio	Λ										
Weather	Sunty	[]Finø	Cloudy		Wercasi		Drizzle		Rain	Haz)		
Temp:	17]°C											
Humkiity;	High (RH >	90%)	Modenaie (l	30% > RH >	- 50%)		Low (RH •	: 50%)				
Wind;	[]Caim	Light	Breeze		Strong				šdetherequermenter	1999-1999-1999-1999-1999-1999-1999-199		
Air Quality					Yes	NO	NA	NG	Follow- up	Remarks		
is hoarding of n	ol less (han 2.4m pro	wided?										
-	s travoling within con								D.			
	e movement confince		rcads?									
	s outside site exite ke				$\checkmark$				[].	97000000000000000000000000000000000000		
			o evold dust generation	2	<				$\square$			
	l washing facilitisa pr				M				<b>[]</b> .			
	ng used during the m		ucivillas?									
	walad or stockplia		alas kapt wet or co	rorad by						Remarks 2		
ls exposed erer	e of ground covorod c	n valaraci fraquently	7						<u> </u>			
Are load on vol	hicles covered by clea	an Impervious stweli	ng7							£		
Are vehicles sr	ud aquipment switche	ni off while act in use	97									
Are smoky emi	salons from planta/ee	quipment avoldod?				$\square$				•Max		
is coan huming	3 avokled?									FOR THE PARTY OF T		
Observable du	si sources	Wind erosion			[]Ve	nicio/equi	omeni movei	រាសពនៃ				
	l.	Loeding/unloadli	ng of matorials		[ <b>7</b> ]01	hers <u>h</u>	11					
Construction	Nolsa											
Are the constr	uction works schedule	ad to minimiza noise	nulsanco?							······································		
Are the works	or equipment silect to	minimize noise nuis	ance?		~			L				
Are eil plant ar	na ilew knomqiupe br	untained and in good	i operating condition?							-2000// (Constanting of Constanting		
is kile equipme	ant turned off or throll	lied down?										
la powered me moterials?	chanical aquipment i	covered or shielded i	by appropriate accustic									
ls silenced eqi	upment used where a	eppropriate?								**************		
Are noise enci	osures or noise barri	ors used where new	386 BY V?						$\square$			
Does specified	i equipment has valid	l noise jabei?			Ŋ							
Aro Constructi	ion Noise Permits (Cl	NPs) available for in:	specifor?				<ul> <li>/</li> </ul>	$\Box$				
Mojor Noise S	ource [	Trafflo			[ <b>/</b> ]c	onstructio	n activities In	sido the site	2			
	r	Construction ac	tivillos outside of sile		Πo	there i	-si					

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# Site Inspection Checklist (SF-17)

Water Guality	/ & Drainage	Yes	NO	MA	NC	Follow- Remarks	
ls a vasiowaler discharge lic	ense obtained for the Project?	× <sup>e</sup>					
	accordance with the discharge lloanse?	$\square$					
Is the discharge of ally water							
ls drainaga adaquato?							
la dminago system woli main	tsines7						د
	lor runoff discharge into appropriate watercourse?	× I					w
	s for setting runoff prior to discharge?						
Are the eedlmentation tanks:	Constructed of pre-formed individual colls?						×
	Whith adequate capacity?						••
	Free from all and sediment?	Ø					**
Are thore neutralization lank	a for concrete batching/mixing discharge?			$\overline{\mathbf{A}}$			
Are there oil interceptors in a	beinege avelern?						am.
is whoni wash facility provid	ad at every site mái?						
Are vehicles and plant close	ed of earth, mud & debris before leaving the site?					Remarks 4	MIT.
Are whoel washing facilities	regularly inspected and maintained?					Remarks 3	_
Are tollats provided on silo7	If so, are they property maknained?						f9
Are manholas covarad and	asaled?						
la oil lealoge or spillage ave	ldød?	1					
Wasto Mallingement und P	otensial Land Contamination						
General Refuse:	Are receptedes (rubbish bins) available?						6400)
	in there regular and proper disposal??	<b>[</b> ]			$\Box )$		
	is proper sorting and recycling implementad?						_
Construction Waste:	la generation of construction waste minimized?						
	is weste corting implemented on site?						_~
	is construction wasto reused where practicable?					Construction of the second sec	18-4
	is construction waste property disposed of?	[]				Remarks 1	
	Are disposal records available for inspection?						k
Chemical waste/waste oli	fains designed atorage area?			Li			····-
	la chemical wasto stored property?						
	is there proper disposal?						
	is chemical waste license available for inspection?					·	
Excavated Materials	Do excevated materials appear uncontermineted?						
	Are appropriate procedures fellowed if contaminated materials exist?			[]			
	Are disposal rocoms available for inspection?						
Chemical/Fuel	is chemical/fuel stored in bundod ever?					[]	~~~~
	is bund capacity adacase (>110% of the largest tank)?						
	Are storage areas locksble?	$\square$					
is foam, oil, graase or citre avoided?	r objectionable matters in water or nearby drama of sewer	~				ренинология полочности истотородоровалиститетородоровалист л	

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# Site Inspection Checklist (SF-17)

#### Remarks:

#### Previous Audit Follow-up:

- 1. Contractor was reminded to prevent excavated material and rubbish to be accumulated on site (especially at Kam Po Road).
- Stockpile materials should be covered at the storage area near Kam Po Road. 2.

### Observations Recorded in this Site Inspection:

- 3. Contractor was reminded to regularly manage the wheel washing facility at Kam Tin Pumping Station (P1).
- 4. Contractor was reminded to implement wheel washing practice at site entrances,

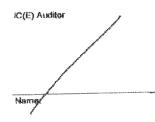
Signatures:

Env. Auditor

Name/Sylve Wong

Nama: Benn un

Contractor's Representative



Rosident Sile Staff

Namo:

	35		ng by de fan							st (SF-17)				
Project	& Sewage P	Construction of Sav Pumping Station at K	Contra	actor:	Ls	Leader Civit Engineering Corp. Ltd								
	Wai and Au	<u>Tau in Yuen Long</u>		Engineer:				Babtle Asia Ltd						
nspected by:	ET Audilor:	Sylvie Wong	**************************************	iec:			ll L.trd							
, ,	Contractor R	ep: Mr. Leung	nga panakan katan kat	Envir	onmental Té		cilon-Unit onsulting	ed Envli	onmental	Services &				
	IEC's Rep:	generation and the second s		Inspe	ction Date 8			08 (09:30	))					
	RE's Rop:			Chec	klist Referei	nce No.: D	SD-AT280	308		*****				
		Realization Contraction Contraction Contraction		****		0007762762890976778989789		NUNIO (COMPANY)						
Jeneral Memon Neather	ological Inform	naom ]Fine	Cloudy		Overcent		]Drizzła	[	]Rain	Hazy				
Temp:	[21]°C													
Humidily:	High (F	₹H ≈ 80%)	Moderale (	90% × RH	> 50%)	[	]Law (RM <	60%)						
Wind:	Caim	Light	Brooxe	]	Strong									
Air Quality	2007-00-00-00-00-00-00-00-00-00-00-00-00-			99996-11299693(CARONALIS	Yes	NO	NA	NC	Follow- up	Remarks				
is hoarding of ne	ot less than 2.4n	n provided?												
		i controlled speed limit?			<b>v</b> <sup>*</sup>									
		fined to designated heul	mada?			[]								
		lts kept clean and free fr												
		rfacos valorad regularly		17										
		es provided of alle exits?												
		he main dust-generating												
	wated or stoc	kplie of dusty maler		verad by						Remarka 5				
•	-	red or watered frequentl	V?		Z									
-		y clean Impervious shee			$\square$									
		vitehed off while not in us			( <del>/</del> )					10410000000000000000000000000000000000				
		nta/aquipment avolded?			s'									
ls open burning					[7]					182051002707000000030000000000000000				
Observeble du	-	Wind erosion			V	ahici <i>ele</i> qui	xnani mova	mania						
		Lonading/unload	ling of malerials		<b>!</b> い の	thers <u>N</u>	<u>11</u>	ALIVARIAN AND ALIVARIAN ALIVA						
Construction	Noise					*****	providentary.	ferozenský	Particular Section 1					
Are the constru	uction works soh	odukat ki minimize nois	e nuisance?				[]		المجيماً م	444				
		ied to minimize noise nu					السیسی ال		L]					
Are all plant ar	nd oquipmont we	all maintained and in gov	od operaling condition?			,		لیسیا 	لیسیا ا	arangeonomian and a constant of				
· ·	ant turned oll or					] 	]	لـــــا ۲۰۰۰۰	الــــــا ۲					
is powered me materials?	ochanical equipri	nent covered or shielder	t by appropriate acoustic	\$	×					44 NORMONAL STATE OF CONTRACT OF CONTRACT.				
is silenced ex	ulpmont used wi	hora appropriate?												
Are noise encl	loaures or noise	barriers used where no	альвагү?							<u></u>				
Doos specifier	d aquipment has	s valid noise ishel?			×									
Are Construct	ion Noise Permi	ils (CNPs) available for i	napection?											
Major Noise S	iource	Traffic				lonstructio	n activitiaa ir	naide the a	lla					
		Construction a	iclivities ougside of site		]¢	Sthors _	<u>vil</u>	and the second						

Construction activities outside of site

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# Site Inspection Checklist (SF-17)

Water Quality	a Drainage	Ves	NO	NA	NC	Follow- Remarks up
is a wastewater discharge lice	anso obtained for the Project?					K
	accordance with the discharge lloanse?					
is the discharge of ality weter						
is drainaga adaquata?						
ls dralnago system well mein	tairest?					
Are there temporary dliches i	Seauconstaw standord and indexed and solar to	[7]				20003388892
	s for selfing runoff prior to discharge?	2				
Are the sectmentation tanks:	Constructed of pre-formed individual cells?					
	Whin adequate capeoliy?	<ul> <li>Image: A set of the set of the</li></ul>				
	Free from sill and addiment?					Remarks 1
Are there neutralization lank	s for concrete batching/mixing discharge?					
Are there all interceptors in t	trainaga system?	Land Contraction of the land				
ts wheel wash facility provid	ad at every site exit?	V				
Are vehicles and plant close	ad of earth, mud & debris before leaving the site?		[			
Are wheel weating facilities	regularly inspected and maintained?					Remarks 2
Are tollets provided on site?	ff so, are they properly maintained?					
Are menholes covered and	san ed?					
la oli leakage or spillage avo	ldæt?		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Waste Management and F	otential Land Contamination					
General Refuse:	Are more placing (nublet lend available?		WARMEN PROVIDE			
	Is there regular and proper disposal?	$\checkmark$				
	is proper sorting and recycling implemented?	×				
Construction Wasia:	is generation of construction waste minimized?					
	is wasto conting implemented on alte?					
	is construction waste reused where practicable?					
	is construction waste property disposed of?		t t			Ramarka 4
	Are disposal records available for Inspection?					
Chamical waste/waste oll	is there designated storage area?	(Z)				Jamos Santa
	is chemical waste stored property?				L	
	is there proper disposal?	$\checkmark$				
	la chemical waste floonso available for inspection?					
Excavaled Materials	Do exceveted meterials appear unconteminated?					
	Are appropriate procedures followed if contermineted materials exist?	P			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Are disposel records available for inspection?					
Chemical/Fuel	is chemicalfuel alored in bunded area?	Z			<u> </u>	
	is bund capacity adequate (>110% of the largest tank)?				Language and the second	
	Are siorage areas lockable?	$\checkmark$			L	
ls foam, oll, grosse or othe	er objectionable motters in water or nearby drakes of sewer					

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#### Remarks:

#### Previous Audit Follow-up:

- 1. Sedimentation tank at Kam Tin and Kam Sheun Road was full of sediment, the Contractor was reminded to clean more frequency to maintain the efficiency of the tank.
- 2. Contractor was reminded to regularly manage the wheel washing facility at Kam Tin Pumping Station (P1).

#### Observations Recorded in this Site Inspection:

- 3. Contractor was reminded to prevent stagnant water to form on site at Nam San Wan Road.
- Contractor was reminded to prevent excavated material and rubbish to be accumulated on site (especially at Kam Po Road).
- 5. Stockpile materials should be covered at the storage area near Kam Po Road.

#### Signatures:

Env. Auditor

Norse Nong (Auto)

Contractor's Representative

Name: Bonn

Name;

IC(E) Auditor

Namo:

**Resident Sile Staff** 

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AUI	35			******	Site	e Inspec	tion C	heckli	st (SF-17)			
Project	& Sewage Pi	construction of Sewers, Rising Mains amping Station at Karn Tin, Nam Sang Tau in Yuen Long	Contr			Leader Civil Engineering Corp. Ltd Babtie Asia Ltd						
			Engin	\$\$F;								
inspected by:	ET Auditor:	Sylvie Wong	IEG;	onmental Y		Nott Conne		onmental	Services &			
	Contractor Re	p: Mr. Leung			(	Consulting						
	TEC's Rep:				-	18 March 2	-+	)				
	RE's Rep:		Gheel	klist Refere	nce NO.;	DSD-AT 180	1900					
General Meleo	rological informa	tion			9999-000-000-000-000-000-000-000-000-00	Wellindower and a second second						
Wenituer	Sunny	Fine Cloudy		Overcasi	<u> </u>	 Orizzle	1	Rain	[]Hazy			
Temp;	23 <sup>0</sup> C	Local control with the second s										
Humidity:	High (Ri	-1 > 90%)Moderate (I	20% » RH	» 50%)	Luna	Low (RH ·	< 60%)					
Wind:	[]Cəlm	Light Breeze		Strong								
Air Quality		2006 - Long and an		Yes	NO	NÁ	NG	Follow- up	Remarka			
is heardlon of n	ol lass than 2.4m	provided?										
		controlled speed limit?						[].				
	·	ned to designated haut roads?										
		s kopi clean and free from dust?										
		aces watered regularly to avoid dust generation	7									
		s provided at slip axits?			( and the second				******			
		main dusi-generaling activities?						$\square$				
Are the excr		allo of dusty materialis kapt wet or co	vered by									
is exposed are	a of ground covers	ed or writered frequently?						<u> </u>	Romerk 4			
Are load on ve	hicles covered by	slown impervious sheeling?										
Are vehiclos er	live trempings br	ched off while not in use?		<b>√</b> ″								
Are emply em	Issions from plants	s/nquipmoni avoidad?							*********			
Is open burning	Stebicve g								······			
Obsarvabla du	at sources	Wind erosion		[]Ve	ohicte/equi	pment move	menis					
		Loading/unloading of matorials		[ <b>7</b> ]0	ihers <u>h</u>	<u>ill</u>						
Construction	Noise											
Are the coastn	Liction works eche	duied to minimize noise nuisence?										
Are the works	or equipment site	f là minimiza noisa nuisanca?										
Aro all plant a	nd aquipment well	maintained and in good operating condition?										
la idia equipm	ont turned all ar th	rollist dawn7										
ls powered me meteriels?	achanical equipme	ent covered or studiod by appropriate accusic			pressourcestilled							
is slienced on	uipment used whe	re appropriate?		$\square$					1000-010010-01000000000000000000000000			
Are noise enci	losures er nolse b	arriers used where necessary?										
Dows specifier	d aquipmont has v	nlid noise label?										
Are Construct	lon Noise Permits	(CNPs) available for inspection?										
Major Noise S	antos			C	onstructio	n ectivities in	sida lha sil	Ø				
		Construction activities outside of site		[]c	)thers	NI						

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Water Quality	& Drainage	Yes	NO	NA	NC	Follow- up	Remarks
ls a waslewater dischargo lios	nse obtained for the Project?				[		
	sourdance with the discharge second and with sources					<u> </u>	
is the discharge of sitty water		, and the second			[]		
ie drainage adecante?		$\mathbb{Z}$					and the first state of the second
is drainage system well maint	almeri?	$\square$					
	or runoff discharge into appropriate watercourse?					[int.e.i	
	I for settling runoff prior to dischargs?		,]				A CONTRACTOR OF
Are the sodimoniation tanks:	Constructed of pre-formed Individual cells?		l'anno 1				
	White adoquate capacity?						and an information of the operation of the
	Free from all and sociment?						Remarka 2
Are there neutralization tanks	for concrete batching/mixing diacharge?						erry Constant of Constant Constant Space of Constant of Constant of Constant of Constant of Constant of Constant
Are there oil interceptors in d		[]		7			
is whas wash facility provide		[7]	pression and				NUMBER OF STREET, ST
	ad of earth, mud & debris before leaving the allo?						
	regularly inspected and maintained?					Ľ	Romerka 3
	lf so, are they properly molntalned?						
Are manholes covered and s		( ver					
is oil leakage or spilksge avo	idad?	See.					······
Mosta Manzesment and P	otential Land Contamination						
	Any receptucies (rubbish bins) available?	$\mathbf{Z}$					
	is there regular and proper disposes?	$\square$					angen versit de mala de regel de la construction de la construction de la construction de la construction de la
	Is proper sorting and recycling implemented?						
	is generation of construction weeks minimized?						P
	sile no betnemelorni gnitica etaevu al						
	is construction waste roused where practicable?	$\square$					
	is construction wasts properly disposed of?					Ľ	
	Are disposal records available for inspection?						
Chemical waste/wasto oil	is there designated atomge area?						]
	is chemical waste stored property?						
	is there proper disposel?					L	]
	Is chemical waste license evailable for inspection?					L	
Excensiod Materials	Do excavated moterials appear uncontaminated?	7			L		]
	Are appropriate procedures followed if contaminated materials exist?				Looperson		
	Are disposal records available for inspection?				Ľ		
Chemical/Fuol	is chamical/iusi stored in bunded area?			[]	[	]	Remarks 1
	is bund capacity adaquata (>110% of the largest tank)?				L		
	Are storage areas lockable?						
is foam, oil, grease or othe avoided?	r objectionable matters in water or nearby drains of sewer	Ţ				) Ľ.,	

29-03-08;12:59 ÷



# Site Inspection Checklist (SF-17)

#### Remarks:

#### Previous Audit Follow-up:

1. Free standing oil drum was observed at Sha Po Pumping Station, The Contractor was reminded to provide drip tray for all free standing oil drums.

### Observations Recorded in this Site Inspection:

- 2. Sedimentation tank at Kam Tin and Kam Sheun Road was full of sediment, the Contractor was reminded to clean more frequency to maintain the efficiency of the tank,
- Contractor was reminded to regularly manage the wheel washing facility at Kam Tin Pumping Station (P1). 3.
- 4. Contractor was reminded to implement dust control measures.

Signatures:

Env. Auditor

Wong

Contractor's Representative

Name Dick New

Name:

IC(E) Auditor

Namo:

Resident Site Staff

2: John 2006/TC300310 (DC-2005-02)/600/Inspection/Mar 2008/DSED-ATT 80308. doc

### 28-APR-2008 14:15 From:LEADER CIVIL ENG. 24439857

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P.20/25

29-03-08;12:59 ;

AUE	S			Site Inspection Checklist (SF-					t (SF-17)	
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nspected by: 🗍	ET Auditor:	Sylvle Wong		IEC:	nmental Tea				onmental	Services &
(	Contractor Rep	: Mr. Leung				Co	nsulting			
Ĩ	iEC's Rep:	Joseph Chan			tion Date & Ist Reference				l	
Ĩ	RE's Rep:	Mr. Tsang		Check	ist Meterent	CE 140 135	LI-PAE IGH			
Seneral Meteorok	ogical informat	ion	in an					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		[
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		1\$ (CNPs) available for	inspection?					<u> </u>	L.	]
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2. Nobs/2006/TCS00310 (DC-2005-02)/600/Inspection/Mar 2008/DSD-AT130308.doc

A	U		8
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Water Quality	y & Drainage	Yea	NO	NA	NG	Foilaw- up	Romarke
is a waslawalar discharge llo	enes obtained for the Project?	see)		]		[] _	
Is site offluent discharged in t	scentance with the discharge license?						K 66.3-11
is the discharge of silly water	avoided?					<u> </u>	
is drainaga adequala?							
la drainage system well main	tsined7	$\Box$					an and an
Are there temporary ditches (	for runoff discharge into appropriate wellarcourse?					<u> </u>	*****
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	Free from sill and sediment?			[]			Romarks 1
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Are there oil interceptors in (				<b>[</b> ]		[] ,	
k whom wash facility provide							
	ed of earth, much & debris before leaving the alte?	[ <b>*</b> ]					
	regularly inspected and maintained?	( <del>/</del> )					
Are tollets provided on site?	If so, are they properly maintained?	$[ \checkmark ]$					and and an an an and a second
Are menholos covered and r							
is oil laskage or spillage avo	bidəd?	<b>~</b>		[]			
taluata bisu saantani huri W	otential Land Contamination						
	Are receptables ("ubbish birs) gvailable?						•••••
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	is proper sorting and moyoling implemented?	*					AMARAN MATTER
Construction Waste:	is peneration of construction waste minimized?	V					Sefficient States and a second s
	is waste sering implemented on sile?	Z					A 100.000 - 200000.000 - 200000 - 200000 - 200000 - 200000
	Is construction waste reacted where practicable?						077728942000004040600727779797989269484000000002279797899999998
	is construction waste properly disposed of?						
	Are disposal records available for inspection?						**********
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	ts chemical waste license available for inspection?						
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	Are appropriate procedures followed if contaminated materials exist?						
	Are disposal records available for inspection?			[]			SSO and a second descent second se
Chamical/Fuel	is chemical/fuel stored in bundled area?				]		Romarks 2
	is bund capacity adequate (>110% of the largest tank)?						
	Aro storage areas lockable?						
le toam, oli, grease or otho	r objectionable matters in water or nearby drains of sewer	[7]					

evoided?



#### Remarks:

#### Previous Audit Follow-up:

- 1. Sedimentation tank at Nam San Wai Road Portion H was full of sediment, the Contractor was reminded to clean more frequency to maintain the efficiency of the tank.
- Free standing oil drum was observed at Sha Po Pumping Station, The Contractor was reminded to provide drip tray for all free standing oil drums.

### Observations Recorded in this Site Inspection:

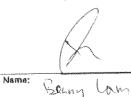
- Minor oil leakage was observed at Nam San Wai Road Portion H, and had been rectified by the Contractor immediately.
- 4. Contractor was reminded to implement dust control measures.

Signatures:

Env. Auditor

Svivie Wong

Contractor's Representativo



IC(E) Auditor

Namo:

Name:

Regident Site Staff

AUE						Site	e Inspe	ction C	Checkli	st (SF-17)	
	& Sewage	Construction of Sev Pumping Station d Au Tau in Yuen L	at Kam Tin, Nam	ns Contractor: Leader Civil Engineering Cor m				ering Corr	Sorp. Ltd		
-	Sally vea an	a ra faa in faan w	ung	Engin	een	~	Babtie Asi	a Ltd			
inspected by:	ET Auditor:	Ben Tam		IEC:			Mott Conn				
	Contractor Re	p: Mr. Leung	ans to province in the physics of the singly single to be the second second of the physics of the second second	Envir	onmental T		Action-Uni Consulting		ironmental	Services &	
	IEC's Rep:			Inspe	ction Date		04 March 2		0)		
	RE's Rep:			Chec No.:	klist Refere	ence	DSD-AT04	0308			
General Meteorol		son of the second se	атраліонікіраціян форму факторици на колоници та траліці на болу тради	12500562105622057077777777	222912220222020202020202020		****	9-34 simmaning second second	ngan yang dan geda kasa kasi ka kasa kasa kasa kasa kasa		
Weather	Sunny	Fine	Cloudy	[	Overcasl		Orizzie	[	Rain	Hazy	
Temp:	19 °C	h	Lumanot	Lancerter							
Humidity:	High (RH	1 > 90%)	Moderate (\$	90% > RH	× 50%)		Low (RH	< 50%)			
Wind:	Calm	Light	Breeze	[	Strong						
			2005 TALIN CARDON CONTRACTOR C	12,000 ENROL ( 10,000)	91900000000000000000000000000000000000				Follow-		
Air Quality					Yes	NO	NA	NC	up	Remarks	
Is hearding of not	less than 2.4m	provided?							L_] _		
Are site vehicles t	raveling within c	controlled speed limit?									
Are site vehicles r	novement confi	ned to designated haut	roads?								
Are public roads o	outside site exits	s kept clean and free fro	om dust?								
Are haul roads an	d unpaved surfi	aces watered regularly	to avoid dust generation	1?						A	
Are there wheel w	vashing facilities	provided at site exits?			$[\checkmark]$					A/10-999999999999999999999999999999999999	
Is water spraying	used during the	main dust-generaling	activities?		$\left[ \checkmark \right]$						
Are the excave impermeable/tarp	nted or stockp aulin sheet?	ile of dusty materix	uls kept wet or cov	ered by							
Is exposed area o	of ground covere	ad or watered frequently	1?							www.www.com.com.com.com.com.com.com.com.com.com	
Are load on vehic	les covered by (	dean impervious sheet	ing?							ay tanàna kaominina kaominina dia mampikambana dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina	
Are vehicles and	equipment swite	shed off while not in use	°?		[]						
Are smoky emiss	ions from plants	/equipment avoided?			Ø						
Is open huming a	woided?										
Observable dust	sources	Wind erosion			]\∕ø	hicle/oqui	pment move	ments			
		Loading/unkadi	ng of materials		[7]0I	hers <u>P</u>	<u>\$il</u>				
Construction No	olse										
Are the construct	ion works sched	tuled to minimize noise	nulsance?								
Are the works or	equipment sited	to minimize noise nuis	ance?								
Are all plant and	equipment well	maintained and in good	operating condition?								
ls idle equipment	turned off or the	rottled down?									
is powered mech materials?	anical equipme	nt covered or shielded t	oy appropriate acoustic								
Is silenced equip	ment used wher	e appropriate?							. []	~~~~~~~~~~~	
Are noise enclos	ures or noise ba	rriers used where nece	issary?								
Does specified e	quipment has va	alid noise label?									
Are Construction	Noíse Permits (	(CNPs) available for ins	spection?						<u> </u>	ana ang katalan katala	
Major Noise Sou	rce	Traffic			C	onstruction	n activities in	side the sil	Ø		
		Construction act	ivities outside of site		[]0	thers _	NII				



Water Qualit	y & Drainage	Yes	NO	NA	NC	Follow- up	Remarks
ls a wastevrater discharge lic	ense oblained for the Project?						
	accordance with the discharge license?				[]	[]	
Is the discharge of silly wate							
Is drainage adequate?		$\overline{\checkmark}$					and voor to your and the first fact operation of the to your and
Is drainage system well mali	ntained?						- AMANANA PROVIDENT CONTRACTOR OF CONTRACTOR O
	for runoff discharge into appropriate watercourse?	$\square$					
	is for settling runoff prior to discharge?		Concernant lines				ter 14 marsh 1 marsh 2
Are the sedimentation tanks			[]				
	With adequate capacity?					[] .	
	Free from silt and sediment?		$\overline{\checkmark}$				Remarks 1
Are there neutralization lan-	is for concrete batching/mixing discharge?			[		[	
Are there oil interceptors in						[]	
Is wheel wash facility provid							adag da ka ka manang maging kalanda da da da da mananan da kalanan ma
	ed of earth, mud & debris before leaving the site?	EZ]				]	y - 1 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 1
	regularly inspected and maintained?	$\overline{}$					
	If so, are they properly maintained?						
Are manholes covered and							AND PROVIDENT OF A CONTRACT OF A
is oil leakage or spillage av-		[¥]					
	rotential Land Confamination Are receptacles (rubbish bins) available?						
General Refuse:	Is there regular and proper disposal?					[]	
	Is proper sorting and recycling implemented?			[			
O . Inclus Mentor	Is generation of construction waste minimized?						
Construction Waste:	is generation of contraction results in the second states and the			1	Г		
	Is construction waste reused where practicable?		[]				
	is construction waste properly disposed of?						10 per manual de la constante d
	Are disposal records available for inspection?						which has been as the processing and the second
Chemical waste/waste oil	Is there designated storage area?						
CHELINGEL MUSICI MUSICI CH	Is chemical waste stored property?						
	Is there proper disposal?						
	Is chemical waste license available for inspection?	1/1				[]	10 million 1 million
Excavated Materials	Do excevated materials appear uncontaminated?				]]		
CADAVARGA MARCHARS	Are appropriate procedures followed if contaminated		[]	[]			
	materials exist?	L					
	Are disposal records available for inspection?	v.					-19-9
Chemical/Fuel	Is chemical/fuel stored in bundled area?					<u> </u>	Remarks 2
	ts bund capacity adequate (>110% of the largest tank)?						·····
	Are storage areas lockable?				[]		ngan man di pan di kantan gina da kan manga paganta (kanta dana da mang
ts toam, oil, grease or othe avoided?	r objectionable matters in water or nearby drains of sewer					Lannow (	



#### Remarks:

#### Previous Audit Follow-up:

- 1. Sedimentation tank at Nam San Wai Road Portion H was full of sediment, the Contractor was reminded to clean more frequency to maintain the efficiency of the tank.
- 2. Free standing oil drum was observed at Sha Po Pumping Station, The Contractor was reminded to provide drip tray for all free standing oil drums.

#### Observations Recorded in this Site Inspection:

3. No observation in this site inspection, contractor was reminded to keep sites clean and tidy.

Signatures:

Env. Auditor

Name :Ben Tam

Contractor's Representative Name

Being Lan

IC(E) Auditor

Name.

Resident Site Staff

Name:

### 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	0010000	1130 Inspected By Leader: Edwin Leung ET: Benjamin Tam DSD: WE Tsang
Site Locat	ion Nam San Wai Prad Nam Can Wai Ampsing Station Sha Di Setherye Laurysing Station	DSD: MK Sang IEC: Joseph Chrm
Weather	Com (m row).	
Condition	Sunny V Fine Overcast Dri	izzle Rain Storm Hazy
Temperatur	Humidity	gh Moderate Low
Wind	Calm 🗸 Light Breeze Str	rong Direction
EIA ref:		Close-out N/A Yes No Photo/Remarks on last or comments not Y/N obs
	Construction Phase	T/N ODS
	Air Quality - Construction Phase	
3.5	<ul> <li>Are hoardings of not less than 2.4m high provided along the site boundary?</li> </ul>	
3.5	<ul> <li>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?</li> </ul>	V See stote 417
3.5	<ul> <li>Are stockpiled dusty materials covered by impervious sheeting and placed in an area sheltered on top and 3 sides or sprayed with water?</li> </ul>	
3.5	<ul> <li>Are dusty material loads on vehicles sprayed with water prior to loading and unloading?</li> </ul>	
3.5	• Are all vehicles washed to remove dusty materials from its body and wheels before leaving site?	
3.5	• Are vehicles which are carrying dusty materials covered entirely by impervious sheeting when leaving site?	
3.5	<ul> <li>Are surfaces where any mechanical breaking operation takes place sprayed?</li> </ul>	
3.5	<ul> <li>Are working area of any excavation sprayed with water, immediately before, during and immediately after the operation?</li> </ul>	
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?	
3.5	Are skip hoists for material transport totally enclosed?	

P:\Hong Kong\INF\Projects2\225181-KamTin IEC\monthly site audits\SI\_Check List\_master.doc

3.7	<ul> <li>Have dust monitors been provided at the following locations:</li> <li>Boundary facing scattered house in NSW (AM1)</li> <li>Boundary facing Fung Kat Heung (AM5)</li> <li>Boundary facing scattered house near route 3 (AM6)</li> </ul>
	Construction Noise
4.7.1	Demolition works     Are quiet PME which meet the SWLs from BS 5228:Part 1:     1997 used?
	Sewage Pumping Stations P1, P2 & P3
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1:     1997 used?
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?
	Sewers and Rising Mains using Open Trench
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1:     1997 used?
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?
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?
	Sewers and Rising Mains using Pipe Jacking
4.7.1	Are quiet PME which meet the SWLs from BS 5228:Part 1:
4.7.1	Road Pavement and Finishes     Are quiet PME which meet the SWLs from BS 5228:Part 1:     1997 used?
4.9.1	<ul> <li>Have noise monitors been provided at the following locations:</li> <li>(NM3) Scattered house in NSW</li> <li>(NM4) Scattered house in NSW</li> <li>(NM6) Scattered house near Route 3</li> <li>(NM7) Fung Kat Heung</li> </ul>
	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?
	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?
	Are silt removal facilities provided with retention time for silt/sand traps of 5 minutes under maximum flow conditions?
	Are construction works programmed to minimize surface excavation works during the rainy seasons (April to September)?
	Are slopes minimised and erosion potential reduced?
	<ul> <li>Is deposited silt and grit removed regularly and disposed of by spreading evenly over stable, vegetated areas?</li> </ul>

- 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 50m3 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?
- 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?

#### Waste Management - Construction Phase

- 6.6.2

   Are the necessary waste disposal permits from the appropriate authorities in placed 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?
- 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?



3

	Lar	nd Contamination - Construction Phase		
7.5.6	٠	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?	$\checkmark$	
7.5.6	٠	If land contamination is confirmed, has a RAP been prepared and submitted to EPD?		
7.5.6	٠	Are contaminated sites remediated in accordance with the approved CAR/RAP?		
	For	alogy Construction Phase		
8.7.1	•	<b>blogy - Construction Phase</b> 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	٠	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	٠	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 PN1/94, 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 15m3.		
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.		
	lar	ndscape 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?		

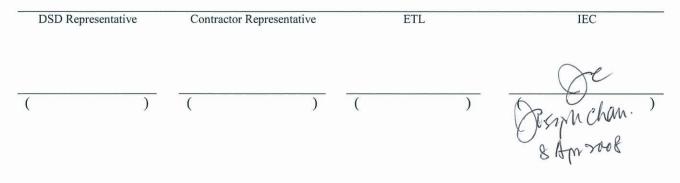
### **OTHER OBSERVATIONS**

Obenvations (8 Apr Dave) @ Sudimentation was in place and functionity at Nam Song Wai Arad, Artim F.

- @ Clean lines of public road along Nam Sange Sai Rind, Artin E was maintained.
- 3 wheel washing bay was maintained property at she Po SPS site.
- Daste eil and hydraulie ere pails were us to placed on bare ground at shape sps site. Inmudiate action was Taken by the Contraits to place them back inside drip tray. and subsequently Transfer to chemical waste store.

Reminder (8 Am 2008)

Demonder to maintain deautiness of public read at Kantin Read site. The Contractor was remonder to maintain deautiness of public read section (s) right next to their site anas.



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#### **OTHER OBSERVATIONS**

Obenvations (8 Apri 2008) O Sudimentation was in place and functionity at Nam Song Wai Arad, Artim F. (2) Clean lines of public ioad along Nam Sung Wai Arad, Artin E was maintained.

- 3 what washing bay was maintained property at sha to SPS site.
- Daste eil and hydrautic est pails were unted placed on bare ground at shape spe site. Drumediate action was Taken by the Contractor to place them back reside drip tray. and subsequently Transfer to chemical waste store.

Roundin (8 Apr 2008)

D Mud was usted deposited on public read at Kam Tin Read site. The Contracts was remonder to manutain deautiness of public read section-(s) right next to their site anas.

**DSD** Representative Contractor Representative ETL IEC

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

#### MONTHLY SITE INSPECTION PHOTOS 8 April 2008 Environmental Observations

#### This month's observations

