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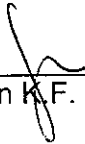
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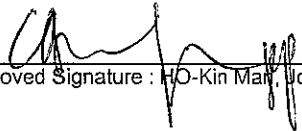
Updated Contamination Assessment Plan

Client : Sum Kee Construction Ltd.
Project : Contract No. DC/2006/01
Drainage Improvement Works in Sai Kung
Report No. : 075117EN70416A

Prepared by :


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Date :

31. Aug 2007

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1. Project Background

- 1.1 Sai Kung River, Ho Chung River and Pak Kong River are the watercourses causing flooding problems in Sai Kung town centre, Ho Chung and Pak Kong. These watercourses remain natural with irregular cross sections along most of their lengths. Although engineering works have been locally carried out in some parts of the watercourses, flooding persists due to inadequate flow capacities of these rivers exacerbated by the development strain in Sai Kung.
- 1.2 Drainage Services Department (DSD) completed the "Stormwater Drainage Master Plan in Sai Kung, East Kowloon and Southern Lantau" (DMP Study) and "Preliminary Project Feasibility Study Report" for the drainage improvement in Sai Kung in September 2000 and October 2001 respectively.
- 1.3 The DMP Study identified deficiencies and flooding problems in the existing drainage systems within the study area. This proposed drainage improvement works in Sai Kung River, Pak Kong River and Ho Chung Channel are part of the recommendations in the DMP Study for upgrading three existing drainage capacity. The improvement works cover only a limited length at the downstream side of three rivers while the rest of the rivers will remain at the present conditions.

2. Introduction

- 2.1 Potential contaminative workshops have been identified close to the proposed site boundary of Pak Kong River based on the findings of the desktop study and site appraisal. As recommended in the Environmental Impact Assessment (EIA) report, further investigation shall be required to determine the presence and extent of contamination before the construction works taken place at the concerned areas. The contamination assessment shall be carried out in accordance with Environmental Protection Department (EPD)'s *ProPECC PN3/94 "Contaminated Land Assessment and Remediation"* and *"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair / Dismantling Workshops"*.
- 2.2 The contaminated sites shall be remediated before commencement of any construction work at the concerned sites which may disturb the ground. In all cases, contaminated soil remediation, treatment or disposal must be managed in an environmentally sound manner, including compliance with all relevant legislation and Government requirements.

Potential Areas Recommended for Further Investigation

- 2.3 A preliminary Contamination Assessment Plan (CAP) has been prepared and included in the EIA report. The CAP recommended that site investigation shall be conducted for the potential contaminated areas encroaching upon the proposed drainage works area of Pak Kong River. As shown in Appendix I, two potential zones (SI-1 and SI-2) have been confined for further investigation due to the presence of two potential contaminative workshops partially located within the proposed works area, including *Workshop A - Wah Shing Motor Repairing Factory* and *Workshop B - Wing Chong Car Repair*.

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Preparation of Contamination Assessment Plan

- 2.4 Due to the possibility of land-use changes and variable future site conditions caused by different factors such as weather and business operation, a full site inspection is required by the future Environmental Team (ET) to review the validity of the preliminary CAP. The ET shall base on the findings of the EIA and further detailed site appraisal to prepare an updated CAP immediately after the site was resumed for this project. Such updated CAP should be submitted to EPD for approval
- 2.5 Upon receipt of EPD's approval on the updated CAP, the actual site investigation for land contamination impact assessment shall be conducted accordingly before any construction work started at the identified contaminated sites. Soil and groundwater samples shall be collected and tested as described in the approved CAP to provide site-specific information for the assessment. The soil and groundwater sampling and testing work may be carried out by the Contractor or other drilling contractors under suitable contractual arrangement by the Project Proponent or ER. The field sampling work shall be supervised by the ET and audited by the Independent Environmental Checker (IEC).
- 2.6 A Contamination Assessment Report (CAR) shall be prepared by the ET to document the findings of the site investigation. Interpretation of laboratory testing results in accordance with the *ProPECC Note No. 3/94* and comparison of the findings with relevant standards, such as the Dutch guidelines or other international practices as appropriate shall be also included in the CAR.
- 2.7 If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared by the ET and drawn up to formulate necessary remedial measures, and potential water quality impact to the river shall be also addressed if necessary in the remediation measures. The subsequent CAR and RAP shall be endorsed by EPD before implementation of any remedial technology. The contaminated sites should be remediated before commencement of any construction work at the concerned sites which may disturb the ground. The duration of remediation should be taken into account by the Project Proponent or the Contractor as part of the construction programme.

3. Assessment Methodology and Criteria

- 3.1 The assessment methodology was developed in accordance with the Practice Note ProPECC PN3/94 "*Contaminated Land Assessment and Remediation*" and "*Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair / Dismantling Workshops*" issued by EPD. Under the ProPECC PN 3/94 and the Guidance Notes, evaluation of the following issues are made before any construction works being carried out in the subject site. They include:
- i) Preliminary review of the present and historical land uses to evaluate the likely level of potential for soil/groundwater contamination;
 - ii) Identification of the nature of potential contaminants;
 - iii) Evaluation of potential environmental impacts, risks, hazards or health concerns arising from the proposed river/channel improvement works; and
 - iv) Overview of possible remediation and mitigation measures for the site, where necessary, in order to remedy the site to the satisfaction of the EPD.
- 3.2 During the course of the study, the following tasks with respect to land contamination assessment have been undertaken:
- Desktop study (including review of Hong Kong Government Survey Maps, Hong Kong Geological Survey Maps (Series: HGM20) – Sheets no. 7, 8 and 11 and The Geochemical Atlas of Hong Kong by R J Sewall, 1999).
 - Review of historical aerial photographs taken along the three rivers
 - Acquisition of relevant information from government departments
 - Site inspection

4. Description of the Environment**Baseline Condition**

- 4.1 The principle works of this Project are improvement of the three watercourses in order to prevent flooding problems in Sai Kung Town Centre, Pak Kong and Ho Chung. The existing Sai Kung River flows through Sai Kung town centre in a box culvert before entering Inner Port Shelter. The Pak Kong River currently runs alongside Hiram's Highway before entering a road crossing to Hebe Haven. The Ho Chung Channel runs along Ho Chung Road before passing under Hiram's Highway to Hebe Haven in the South. Based on reviewing the contemporary and historic Hong Kong Government Survey Maps and site appraisal carried out in November 2002 and July 2007, the surrounding areas of the three rivers are mostly undeveloped sites, either rural in nature with mainly agricultural lands or villages/squatter houses scattered on the nearby lands. A number of vehicle repairing/maintenance workshops were also identified close to the Pak Kong River. As potential contaminants including heavy metals, petroleum oils, acids and solvents could be released to the environment due to localised spillages/leakages from the above mentioned activities, these land uses may give rise to potential concerns for land contamination and warrant this contaminated land study.

Land Zoning

- 4.2 The Pak Kong & Sha Kok Mei Outline Zoning Plan (OZP No. S/SK-PK/7) gazetted in February 2004 was reviewed and the OZP showed that the proposed land uses along the study boundary of Sai Kung River and Pak Kong River are mostly zoned for 'Recreation', 'Agricultural', 'Village Type Development' and 'Green Belt'. For the Ho Chung Channel, the information obtained from the Ho Chung Outline Zoning Plan (OZP No. S/SK-HC/6) gazetted in July 2004 also revealed that the lands adjacent to the Ho Chung Channel are zoned for Green Belt, agricultural and Village Type Development. As observed from the site visits, vehicle repair workshops which encroach upon the proposed Pak Kong River alignment are located at the areas currently zoned for 'Recreation' and 'Green Belt'.

Site Geology and Superficial Geological Deposits

- 4.3 According to the Hong Kong Geological Survey Map (Series: HGM20) – Sheets No. 7, 8 and 11 on the solid geology across the Sai Kung area, the inferred solid geology of the subject area is mainly identified to be undivided and coarse ash crystal tuff of Tai Mo Shan Formation. Not much variation is identified for the superficial geology beneath the three rivers. A layer of alluvium, which consists of well-sorted to semi-sorted clay/silt, sand and gravel from the Pleistocene and Holocene eras of the Quaternary age is shown underlying the three rivers and its surrounding areas. The subsurface geology is important in connection to surface contamination. Any contaminants, especially those associated with petroleum hydrocarbon products such as gasoline, fuels and oils, may enter the soil through spills and easily migrate through the underground medium if the soil matrix consists of high content of sand and gravel. For the subject site with alluvial deposit, the nature is generally with low permeability and the ability of potential contaminant migration through this horizon would be relatively low.

Site History

- 4.4 A review of historical aerial photographs (Table 4.1) covering the study area has been undertaken. The aim of this review is to evaluate land-use changes and development of specific properties closely along Sai Kung River, Pak Kong River and Ho Chung Channel.

Table 4.1 Historical Aerial Photographs Reviewed

Year	Photograph References	Height (feet)
1976	12309, 12331, 12898	6000, 6000, 4000
1979	25642, 25729, 25678	2500, 2500, 2500
1981	39518, 36524, 37331	2500, 2500, 4000
1984	57430, 57427, 57424	4000, 4000, 4000
1986	A05250, A04162, A05256	3800, 2000, 3800
1989	A16889, A16901, A16357	4000, 1500, 2000
1991	A25909, A26761, A25732	2000, 2000, 2500
1993	A35506, A35501, A35779	4000, 4000, 1500
1995	CN10846, CN 10934, CN10966	2500, 2500, 2500
1999	CN23106, CN23112, CN23115	2800, 4000, 2500
2001	CNW32821, CW32602, CW30728	4000, 1400, 1500

Source of historical aerial photographs: Survey and Mapping Office, Lands Department.

- 4.5 As revealed from the historical aerial photographs from 1976 to 2001, most of the areas adjacent to the Sai Kung River were agricultural lands. Village houses adjacent to the proposed river boundary were built in late 1970s and since then no significant change was observed along the Sai Kung River. For Ho Chung Channel, a large number of village houses and the ATV Studio which is currently still in operation were found along the Channel. Apart from some new village houses be recently built opposite to the Ho Chung Village as well as the road construction works opposite to the Sai Kung Central Primary School in 2001, neither major development nor contamination-related industry was found along the Ho Chung Channel in the recent decade. For Pak Kong River, few locations have been identified to have potential contaminating sources during the site visits as mentioned above.

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- 4.6 The aerial photographs further confirm that there are two locations, namely Workshops A and B, were noticed to have land use changes leading to potential land contamination implication. The locations are shown in Appendix I. The findings of the historical aerial photograph review in respect of Pak Kong River are summarised as follows:

Year 1976

- Mainly farmland and open spaces were observed along the Pak Kong River.

Year 1981

- Some small houses were built at the location of Site A but exact activities being carried out at the site could not be recognised due to the small resolution of the photograph.

Years 1984 and 1986

- No significant change was observed.

Year 1989

- Workshops at both Sites A and B were developed.

Year 1993

- No significant change in terms of land use was noticed at both sites since 1993.

- 4.7 As shown in the above records, land-use changes were initiated since late 1980s. Most of the obvious changes were from vegetated lands to car repairing workshops of which might cause potential land contamination although the scale may be generally localised. Historical records of chemical spillage and registration of Chemical Waste Producers (CWPs) within the study area were sought by sending inquiry letters to several Government Departments. Details are shown in the following section.

Acquisition of Relevant Information from Government Departments

Environmental Protection Department (EPD)

- 4.8 Inquiry letter has been sent to EPD to acquire information about the registered CWPs within the Study Area and records of accidents of spill/leakage of chemicals within the Study Area.
- 4.9 According to the information provided by EPD, there were 4, 21 and 25 registered/de-registered CWPs found near Sai Kung River, Pak Kok River and Ho Chung Channel respectively. However, there were no records of chemical spill/leakage within the Study Area.

- 4.10 Most of the CWP's on the list were vehicle repair workshops. As noted, some of the CWP's were in a considerable distance from the project boundary and some were either not found at the address provided by EPD or already surrendered, only one of which in proximity to the project worksite likely had a potential for contaminated land concerns. Details of the CWP are tabulated in Table 4.2. It should be noted that this CWP had already been identified as potential contaminated site during the site visits. Relevant photographs are shown in Appendix II.

Table 4.2 Details of Chemical Waste Producer (CWP) Within the Study Area

Nearby River	CWP	Business	Status
Pak Kong River	Wah Shing Motor Repair Factory	Repairing of Motor Vehicle	Existing CWP

Fire Services Department (FSD)

- 4.11 Inquiry letter had also been sent to FSD to acquire information about current and past registration of dangerous goods stored within the Study Area and records of spillage/leakage of dangerous goods stored within the Study Area. According to the information provided by the FSD, there were no available records of application for storage of dangerous goods nor any known spillage/leakage of dangerous goods within the Study Area.

Lands Department (LD)

- 4.12 Inquiry letter had been sent to Lands Department to acquire information about the current and past land uses within the Study Area. Response from LD indicated that there was no available information regarding land uses within the Study Area.

5. Identification of Environmental Impacts

- 5.1 Based on the information obtained from the site visits conducted in November 2002 and July 2007, activities related to land contamination were not identified in or near to Sai Kung River and Ho Chung Channel. However, there were two potential contaminated workshops, mainly vehicle repairing workshops, identified near Pak Kong River. Site inspection, photo-documentation and interview with the site personnel were carried out as far as possible. Details of the two potential contaminated workshops are listed in Table 5.1 and their locations are illustrated in Appendix II.

Table 5.1 Potentially Contaminative Land Uses Near Proposed Work Boundary of Pak Kong River

Workshop Reference Number	Name of Company	Nature of Trade
Workshop A	Wah Shing Motor Car Repairing Factory	Before June 2006 : Repairing of lorry engines After June 2006 : Parking area and general maintenance work of truck
Workshop B	Wing Chong Car Repair	Repairing of car engines

Workshop - A: Wah Shing Motor Repairing Factory

- 5.2 This motor repair workshop has been operated for more than 10 years as revealed by the site personnel and historical aerial photographs. It located at the area adjacent to the riverbank of Pak Kong River. As observed during the site visits, activities of general maintenance for truck had been carried out in the site. Physical evidence of contamination was identified as oil stains were noted on the paved ground. This might be caused by the local spillage of engine oils/lubricating oils during repairing or direct leakage from the parking vehicles. Equipment for motor maintenance was observed inside the working hut of the workshop. This workshop has been registered as a Chemical Waste Producer with EPD. As told by the site personnel, the chemical waste would be stored in a 220 litre lid drum inside a chemical waste storing room with size of approximately 1.5m x 1.5m in the past. Now, no chemical waste is produced since the trade nature had changed since June 2007. Based on the nature of the industry and the general site observation, further investigation for contaminated land is recommended for this workshop.

Workshop – B: Wing Chong Car Repair

- 5.3 As shown in the review of historical aerial photographs, this car repair workshop being relatively smaller in scale than the Wah Shing Motor Repairing Factory has been operated for about 14 years. It located just next to the Pak Kong River with land location number of Lot DD 217 989 6A. The business nature of this workshop is engine repairing for private cars and mini-vans. During the site inspection, oil stains were observed at a few locations and the ground was not well paved. Interview had been carried out with the site personnel and they expressed that chemical waste generated from this site would be usually transferred to the chemical waste storage drum of Wah Shing Motor Car Repair Factory. Due to the nature of business and its long history of operation, further investigation for contaminated land is also recommended for this workshop.

6. Site Investigation for Land Contamination

- 6.1 The proposed drainage improvement works at Pak Kong River include (1) reconstruction of one footbridge and one vehicular crossing to 3-cell box culverts, and (2) construction of a retaining wall for the purpose of stabilizing the existing riverbank adjacent to the Hiram's Highway. In regard to this, site clearance, excavation, construction of concrete structures would be carried out within the defined site boundary.

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- 6.2 As aforementioned, the findings of the site inspection and desktop study indicated that there are two potential contaminative workshops located within the proposed site boundary of Pak Kong River. Activities mostly car repairing/servicing were undertaken by such workshops and stains were generally observed on the ground of the sites. Potential sensitive receivers which may come into contact with excavated contaminated soils are mainly construction workers via the principal exposure routes of (1) inhalation of dust, (2) direct ingestion through poor hygiene practices, such as eating or drinking on site as well as (3) dermal contact with the contaminated materials. As there may have potential adverse effects on the health and safety of workers during construction of Project, a detailed site investigation would be recommended for those areas falling within the Project boundary in order to assess the degree and extent of potential land contamination. Contaminated soil should be remediated before construction work could be started at the concerned areas.
- 6.3 As shown in Appendix II, there are two workshops, including *Workshop A - Wah Shing Motor Repairing Factory* and *Workshop B - Wing Chong Car Repair*, with part of the site areas encroaching upon the proposed drainage work area of Pak Kong River. The major concern associated with these workshops would be of lube oil, engine oil and/or solvents that could be inaptly be disposed of by workers or leaked from vehicles causing contamination in the site and its vicinity. According to EPD's "*Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair / Dismantling Workshops*" and "*ProPECC PN3/94*", site contamination assessment and remediation, where necessary, are required to avoid or minimise any risks or hazards associated with the sites prior to any construction works taken place. In regard to this, two potential zones, namely SI-1 and SI-2, are confined for conducting site contamination investigation, as shown in Appendix I.
- 6.4 Based on the requirement stated in EPD's "*Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards*", a full-scale site investigation is required for both workshops A and B. Eight trial pits for chemical analysis are proposed and the details are summarized in Table 6.1 and Appendix III. If contamination is encountered, extra samples at deeper sampling depths may be required. The testing methodology and detection limits are summarized in Table 6.2.
- 6.5 If ground water is encountered during soil sampling, ground water sample would be taken at each sampling location by purging or similar method for subsequent chemical analysis. Monitoring well would be established within the site area.

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Table 6.1 Contamination Assessment Plan for Further Investigation of Identified Potential Sites

Potential Site	Potential Contaminating Area for SI	Workshops within the Potential Contaminating Areas for SI	Current Activities/Uses	Potential Contaminants	Size/Area of Concern to This Project	Proposed no. of Sampling Points*	Parameters to be Analysed*
Site A (Pak Kong River)	SI - 1	Workshop -A Wah Shing Motor Car Repairing Factory	Truck parking and maintenance	Lubricants, petroleum products, fuels, battery acid and cleansing solvents.	200 m ²	4	BTEX, TPH, halogenated and non-halogenated solvents, lead, copper, chromium, zinc & PAHs.
Site B (Pak Kong River)	SI - 2	Workshop -B Wing Cheong Car Repair	Repairing of private vehicles and mini-vans in majority	Lubricants, petroleum products, fuels, battery acid and cleansing solvents.	177 m ²	4	BTEX, TPH, halogenated and non-halogenated solvents, lead copper, chromium, zinc & PAHs.

Notes: * To be endorsed by EPD before the sampling work.

TPH: Total petroleum hydrocarbons

BTEX: Benzene, toluene, ethylbenzene and xylenes

PAHs: Polycyclic aromatic hydrocarbons

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Table 6.2 Methodology and Detection Limits of Chemical Analysis

Analyte Description	Reference Methods	Detection Limit (mg/kg)
Metals (Lead, Chromium, Zinc and Copper)	USEPA 6020	1 mg/kg (each)
BTEX	USEPA 8260 / Purge and trap GCMS	
Benzene		0.2 mg/kg
Toluene		0.2 mg/kg
EthylBenzene		0.2 mg/kg
Meta & Para Xylene		0.4 mg/kg
Ortho xylene		0.2 mg/kg
Non-halogenated Solvent	USEPA 8260 / Purge and trap GCMS	
Acetone		50 mg/kg
Vinyl acetate		5 mg/kg
2-Butanone (MEK)		5 mg/kg
4-Methyl-2-pentanone (MIBK)		5 mg/kg
2-Hexanone (MBK)		5 mg/kg
Halogenated Solvents	USEPA 8260 / Purge and trap GCMS	
1,1-Dichloroethene		0.5 mg/kg
trans-1,2-Dichloroethene		0.5 mg/kg
1,1-Dichloroethane		0.5 mg/kg
cis-1,2-Dichloroethene		0.5 mg/kg
1,1,1-Trichloroethane		0.5 mg/kg
1,1-Dichloropropylene		0.5 mg/kg
Carbon tetrachloride		0.5 mg/kg
1,2-Dichloroethane		0.5 mg/kg
trichloroethene		0.5 mg/kg
Dibromomethane		0.5 mg/kg
1,1,2-Trichloroethane		0.5 mg/kg
1,3-Dichloropropane		0.5 mg/kg
Tetrachloroethene		0.5 mg/kg
1,1,1,2-Tetrachloroethane		0.5 mg/kg
1,1,2,2,-Tetrachloroethane		0.5 mg/kg
1,2,3-Trichloropropane		0.5 mg/kg
1,2-Dibromo-3-chloropropane		0.5 mg/kg
Hexachlorobutadiene		0.5 mg/kg

Table 6.2 Methodology and Detection Limits of Chemical Analysis (Cont'd)

Polyaromatic Hydrocarbons (PAH)	USEPA 8270 / GCMS	
Naphthalene		0.5 mg/kg
Acenaphthylene		0.5 mg/kg
Acenaphthene		0.5 mg/kg
Fluorene		0.5 mg/kg
Phenanthrene		0.5 mg/kg
Anthracene		0.5 mg/kg
Fluoranthene		0.5 mg/kg
Pyrene		0.5 mg/kg
Benzo(a) anthracene		0.5 mg/kg
Chrysene		0.5 mg/kg
Benzo(b) & (k) fluoranthene		1 mg/kg
Benzo(a)pyrene		0.5 mg/kg
Indeno(1,2,3-cd) pyrene		0.5 mg/kg
Dibenzo (a,h) anthracene		0.5 mg/kg
Benzo(g,h,i)perylene		0.5 mg/kg
TPH		
C6-C9	USEPA 8260 / Purge and trap GCMS	2 mg/kg
C10-C14	USEPA 8015	50 mg/kg
C15-C28		100 mg/kg
C29-C36		100 mg/kg

7. Prediction and Evaluation of Impacts

7.1 As illustrated above, there are some land uses in the vicinity of the proposed work limit of Pak Kong River that could feasibly result in land contamination. Considering the nature of business and the general site practice of the workshops, two potentially contaminative zones have been identified at which car repairing/servicing workshops impinging upon the proposed alignment of the River was found. As observed during the site visits, area-wide land contamination would not be likely in terms of the appearance of current site condition and scale of the business. Localised contamination due to the potential incidence of spillage/leaking from maintenance and dismantling of equipment within the study boundary would be more likely encountered. As a whole, the overall contamination concerns would be limited to the works area within the project boundary and significant impact would not be anticipated taken into account the scale of the workshops.

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8. Mitigation Measures

- 8.1 Mitigation measures are proposed for handling of the contaminated materials in order to minimise (1) the potentially adverse effects on the health and safety of construction workers and (2) the impacts arising from the disposal of potentially contaminated materials. These measures include:
- Construction workers' potential contact with contaminated materials should be minimised by using bulk earth-moving excavator equipment;
 - Exposure to any contaminated materials should be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (when interacting directly with suspected contaminated material), providing adequate hygiene and washing facilities and preventing smoking and eating during such activities;
 - Stockpiling of contaminated excavated materials on site should be avoided as far as possible;
 - The use of contaminated soil for landscaping should be prohibited unless there is proper treatment of soil;
 - Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or during wet conditions;
 - Only licensed waste haulers should be used to collect and transport any contaminated material to an appropriate disposal site and procedures should be developed to ensure that illegal disposal of waste does not occur;
 - The necessary waste disposal permits should be obtained, as required, from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 35), as required;
 - Records of the quantities of wastes generated and disposed of should be maintained; and
 - In accordance with good construction practice, silt traps should be used to reduce the impact to drainage caused by suspended solids arising from disturbed ground, or any construction materials such as cement and gravel. Wastewater, surface runoff or extracted groundwater should be disposed of in accordance with the Water Pollution Control Ordinance.

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Appendix I

Location of Concerned Potential Zones for Size Investigation near Pak Kong River



Hebe Haven
(Pak Sha Wan)


Workshop A
(Wah Shing Motor Car Repairing Factory)


SI-1 (Area: 200m²)


SI-2 (Area: 177m²)

Workshop B
(Wing Cheong Car Repair)

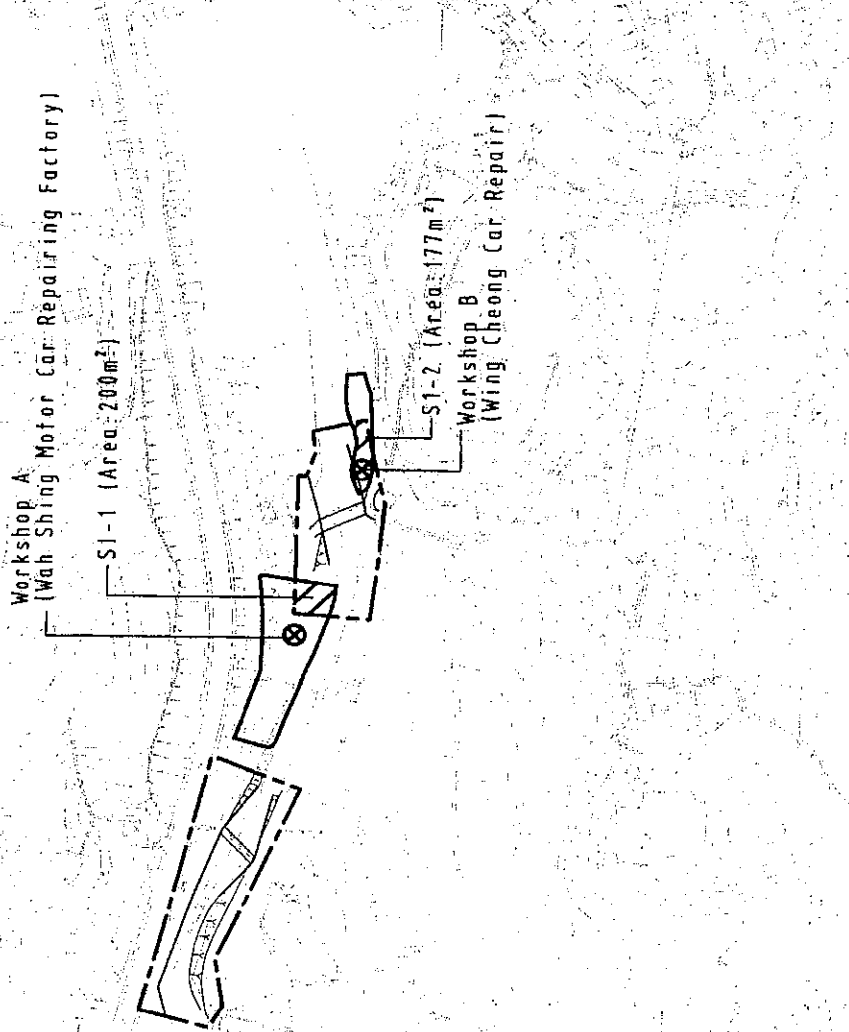
LEGEND

 POTENTIAL SITES PROPOSED FOR SITE INVESTIGATION BEFORE CONSTRUCTION WORKS TAKEN PLACE

 POTENTIAL CONTAMINATIVE WORKSHOPS

 PROJECT BOUNDARY

 0 40 80 Meters



Title

Agreement No. CE 11/2002 (DS) Drainage Improvement in Sai Kung - Design and Construction

Location of Concerned Potential Zones for Site Investigation near Pak Kong River

Scale
As Shown

Project No. A05602

Date
Nov 2004

Figure No. 6.1

Maunsell
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MANAGEMENT CONSULTANTS LTD

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Appendix II

Photographs of Workshop A and Workshop B

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MateriaLab



Workshop A

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Workshop B

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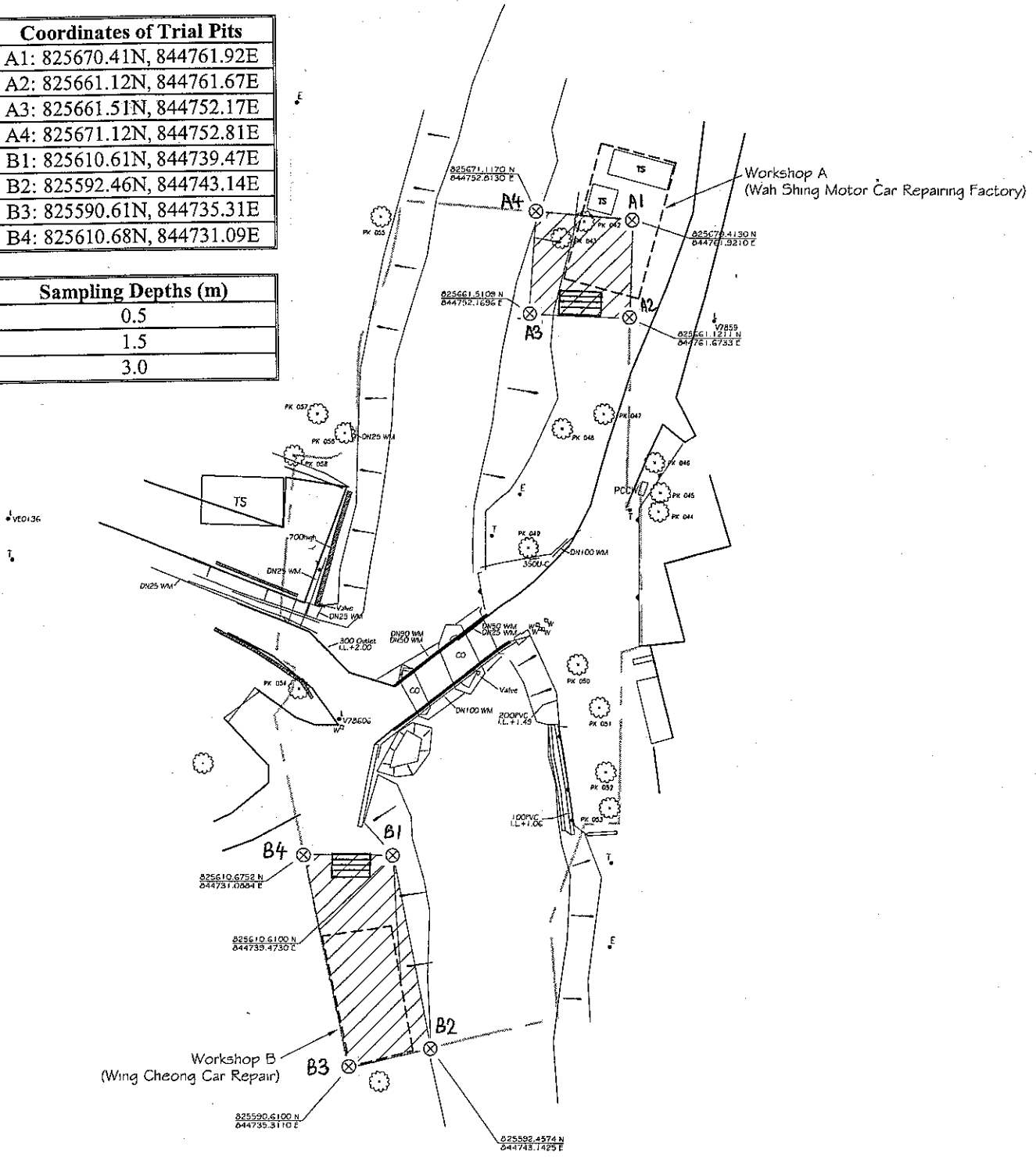
MateriaLab


Appendix III

Proposed Locations of Trial Pits

Coordinates of Trial Pits	
A1:	825670.41N, 844761.92E
A2:	825661.12N, 844761.67E
A3:	825661.51N, 844752.17E
A4:	825671.12N, 844752.81E
B1:	825610.61N, 844739.47E
B2:	825592.46N, 844743.14E
B3:	825590.61N, 844735.31E
B4:	825610.68N, 844731.09E

Sampling Depths (m)	
0.5	
1.5	
3.0	



LEGEND =  WASHING AREA OF TRUCK AND EQUIPMENT

NOTE = EXCAVATOR WILL MOBILIZE IN THE SITE AREA.

Proposed Locations of Trial Pits (A1 to A4 and B1 to B4)