Main Wealth Development Ltd.

Yau Tong Bay – Decommissioning of Shipyard Sites

Monthly EM&A Report for December 2013

[01/2014]

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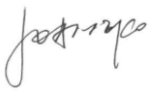
Prepared & Checked:	Joanne Ko	
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Main Wealth Development Limited
71/F Two International Finance Centre
8 Finance Street
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Hong Kong

15 January 2014

Attn : Ms. Amy Chan / Mr. Gregory Chan

Dear Madam,

Yau Tong Bay – Decommissioning of Shipyard Sites
Environmental Permit No. EP-409/2010
Condition 5.4 – Monthly EM&A Report for December 2013 (version: Rev. 0)

Further to the receipt from Environmental Team (ET) of the captioned Monthly EM&A Report on 10 and 14 January 2014 via email, pursuant to Condition 5.4 of Environmental Permit I hereby verify the captioned report (Rev. 0) for Yau Tong Bay.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Terence Kong
Independent Environmental Checker (IEC)

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Our Ref: 3.14/018/2009/at

17 January 2014

Main Wealth Development Ltd.
72 – 76/F, Two International Finance Centre
8 Finance Street
Central
Hong Kong

Attn: Ms. Amy Chan

Dear Ms. Chan,

Yau Tong Bay – Decommissioning of Shipyard Sites
Environmental Permit No. EP-409/2010
Monthly EM&A Report for December 2013 (Version: Rev.0)

With reference to the captioned document verified by IEC on 15 January 2014, we are pleased to provide our confirmation for the document on sections that is specific to soil remediation work pursuant to Condition 5.4 of the Environmental Permit No. EP-409/2010.

Yours faithfully,
Nature & Technologies (HK) Limited

Ir Dr Gabriel C K Lam
Independent Environmental Auditor

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EXECUTIVE SUMMARY

The proposed "Yau Tong Bay – Decommissioning of Shipyard Sites" (hereinafter referred to as "the Project") is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) Schedule 2 and is governed by the Environmental Permit No. EP-409/2010. The Project aims to demolish the past and existing shipyards and their building structures and marine structures and decontaminate identified contaminated spots.

The demolition works of the Project commenced on 21 November 2011 and was completed in September 2012. The impact Environmental Monitoring and Audit (hereinafter referred to as "EM&A") programme for the Project commenced on 21 November 2011. The EM&A works was suspended from November 2012 for the captioned Project and the EM&A works has been resumed on 28 October 2013. The impact EM&A programme includes daytime construction noise and water quality monitoring, soil remediation works monitoring and auditing and site auditing. The remediation method statement was approved by the EPD on 20 December 2013. The soil remediation works commenced on 23 December 2013.

This report documents the findings of EM&A works conducted in the period between 1 and 31 December 2013.

As informed by the Contractor, the major construction activities carried out in the reporting period were decommissioning of the underground oil tank at YTML 6-11, excavation of contaminated soil in Zones R1, R2, R4 and A1, and formation of biopiles.

A summary of monitoring and audit activities conducted in the reporting period is listed below:

Daytime noise monitoring	3 sessions
Water quality monitoring	0 session
Environmental site inspection	4 sessions

Breaches of Action and Limit Levels for Daytime Construction Noise

No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.

No Limit Level exceedance of construction noise was recorded in the reporting period.

Breaches of Action and Limit Levels for Water Quality

Water quality monitoring was not conducted in the reporting period as the demolition of marine structures has not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

Environmental Complaint, Non-compliance, Notification of Summons and Successful Prosecution

No complaint, non-compliance, notification of summons and successful prosecution was received in the reporting period.

Reporting Change

There was no reporting change required in the reporting period.

Future Key Issues

Excavation of contaminated soil will continue to take place in January 2014.

行政摘要

「油塘灣–船廠拆卸工程」(以下簡稱「本工程項目」)是一項被臚列於環境影響評估條例(第 499 章)附表 2 中的指定工程項目並受到環境許可證編號 EP-409/2010 所管制。本工程項目的主要目的是要拆除位於油塘灣的舊有和現有的船廠及其建築物和海事結構，以及處理指定的已受污染點。

本工程項目已於二零一一年十一月二十一日峻工並於二零一二年九月完工。本工程項目的施工期間環境監察及審核計劃亦由二零一一年十一月二十一日開始。由二零一二年十一月起，本工程項目之施工期間環境監察與審核工作暫停，並於二零一三年十月二十八日恢復。施工期間環境監察與審核計劃包括：日間建築噪音監測，水質監測，已受污染泥復育工作的監察與審核及工地審核巡查。環保署在二零一三年十二月二十日批准了土地整治方法聲明。土壤修復工程於二零一三年十二月二十三日開始。

本報告記錄了於二零一三年十二月一日至十二月三十一日期間所進行的環境監察與審核工作。

根據承建商提供的資料，在上述的期間的主要建築活動爲清拆在 YTML 6-11 的地下油缸、在區域 R1、R2、R4 和 A1 污染土壤的挖掘，以及生物堆的形成。

在上述的期間有下列次數的監察及審核活動進行：

日間建築噪音監測	3 次
水質監測	0 次
環境巡查	4 次

違反監測標準

日間建築噪音

在上述的期間沒有收到有關建築噪音的投訴，所以噪音監測結果皆符合行動水平。

在上述的期間的所有日間建築噪音監測結果皆符合極限水平。

水質

因爲相關的海事結構拆除工程仍未開始，故沒有水質監測在上述的期間進行。因此，沒有違反水質行動水平和極限水平的記錄。

有關收到的環境的投訴，傳票及檢控

在上述的期間沒有收到有關環境的投訴，傳票及檢控。

報告修訂

本報告期間並沒有修訂報告。

預計要注意的事項

污染土壤的挖掘將在 2014 年 1 月繼續。

1 INTRODUCTION

1.1 Background

1.1.1. The Project Site of "Yau Tong Bay-Decommissioning of Shipyard Sites" (hereinafter referred to as "the Project") is located along the shore of Yau Tong Bay (which is also known as Kwun Tong Tsai Wan) in East Kowloon within the Kwun Tong District and the Project Site together with its adjacent land is zoned Comprehensive Development area ("CDA") on the Approved Cha Kwo Ling, Yau Tong, Lei Yue Mun Outline Zoning Plan (OZP) No. S/K15/19. It faces Victoria Harbour to the southwest and is bounded by the Eastern Harbour Crossing Ventilation Building to the west, Cha Kwo Ling Road to the north and east, and Ko Fai Road to the south. The site is also adjacent to the former Yau Tong Industrial Area, which is at present mainly occupied by obsolete industrial buildings.

1.1.2. The Project is a designated project and is governed by the Environmental Permit No. EP-409/2010 (hereinafter referred to as "the EP").

1.1.3. Major works to be undertaken in the Project include:-

- Demolition of past and existing shipyard and building structures;
- Demolition of marine structure of shipyards; and
- Decontamination of identified contaminated spots.

1.1.4. For the decommissioning of past and existing shipyard lots, there is a total of 39 Marine Lots along the shore of Yau Tong Bay are under the control of the Project Proponent (Main Wealth Development Limited) and covered in this Project. These 39 lots (or the 'concerned lots') ,with a total area of over 1 hectare (ha), as listed below and highlighted in **Figure 1**, are hereinafter referred to as the 'Project Site'. The land uses for the Project Site had been industrial and various land uses including shipyards, timber yards, sawmills and concrete batching plant.

- YTML No. 1
- YTMLs No. 5-14
- YTML No. 15
- YTMLs No. 19-24
- YTMLs No. 27-38
- YTMLs No. 41-46
- YTML No. 54

1.1.5. Main Wealth Development Limited (the Project Proponent) has commissioned AECOM Asia Company Limited as the Engineer of the Project and Kin Wing Construction Co., Ltd was commissioned as the Decontamination Contractor of the Project (hereafter referred to as "the Contractor").

1.1.6. AECOM Asia Company Limited was appointed to undertake the Environmental Team (hereafter referred to as "ET") services for implementation of all the Environmental Monitoring and Audit (hereafter referred to as "EM&A") works under the Project. Mott MacDonald Hong Kong Limited and Nature & Technologies (HK) Limited act as the Independent Environmental Checker (hereafter referred to as "IEC") and Independent Environmental Auditor (hereafter referred to as "IEA") for the Project respectively.

1.1.7. According to the updated programme, the demolition works of the Project commenced on 21 November 2011. Hoarding and demolition works for the Project was completed in September 2012. The remediation method statement was approved by the EPD on 20 December 2013. The soil remediation works commenced on 23 December 2013.

1.1.8. In accordance with the updated Environmental Monitoring and Audit Manual (hereinafter referred to as "the EM&A Manual") of the Project, there is a need of an impact EM&A programme includes daytime construction noise and water quality monitoring, soil remediation works monitoring and auditing and site auditing. The impact EM&A Programme for the Project commenced on 21 November 2011. The EM&A works was suspended from November 2012 for the captioned Project and the EM&A works has been resumed on 28 October 2013.

1.2 Scope of Report

1.2.1 This is the fifteenth monthly EM&A Report for the Project "Yau Tong Bay – Decommissioning of Shipyard Sties". This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for the Project in December 2013 (from 1 December 2013 to 31 December 2013).

1.3 Project Organization

1.3.1 The project organization structure is shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Name	Telephone	Fax
Project Proponent (Main Wealth Development Limited)	Gregory Chan	2908 8679	2562 0029
Engineer (AECOM Asia Co. Ltd.)	Jeremy Yuen	3922 9000	3922 9797
Decontamination Contractor (Contractor) (Kin Wing Construction Co., Ltd)	Lee Kam Hung	2717 9139	2725 9316
Independent Environmental Checker (IEC) (Mott MacDonald Hong Kong Limited)	Terence Kong	2828 5919	2827 1823
Independent Environmental Auditor (IEA) (Nature & Technologies (HK) Limited)	Gabriel Lam	2877 3122	2511 0922
Environmental Team Leader (ETL) (AECOM Asia Co. Ltd.)	Y T Tang	3922 9393	3922 9797

1.4 Summary of Construction Works

1.4.1 The demolition works of the Project commenced on 21 November 2011 and was completed in September 2012.

1.4.2 The remediation method statement was approved by the EPD on 20 December 2013. The soil remediation works commenced on 23 December 2013.

1.4.3 As informed by the Contractor, the major construction activities carried out in the reporting period were decommissioning of the underground oil tank at YTML 6-11, excavation of contaminated soil in Zones R1, R2, R4 and A1, and formation of biopiles.

1.4.4 The general layout plan of the Project site is shown in **Figure 1.**

1.4.5 The latest Construction Programme is shown in **Appendix B**.

1.4.6 The environmental mitigation measures implementation schedule are presented in **Appendix C**.

1.5 Summary of EM&A Programme Requirements

1.5.1 The EM&A programme required environmental monitoring for daytime construction noise and water quality, soil remediation works monitoring and auditing and environmental site inspections for air quality, water quality, noise, waste management and landscape and visual impact. The EM&A requirements for each parameter described in the following sections include:-

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event / Action Plan;
- Environmental mitigation measures, as recommended in the Project EIA study final report; and
- Environmental requirement in contract documents.

2 NOISE MONITORING

2.1 Monitoring Requirements

2.1.1 In accordance with the EM&A Manual, impact noise monitoring was conducted for at least once per two weeks at designated noise monitoring stations during the construction phase of the Project. The Action and Limit level of the noise monitoring is provided in **Appendix D**.

2.2 Monitoring Equipment

2.2.1 Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in **Table 2.1**.

Table 2.1 Noise Monitoring Equipment

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31 (00320528); B&K 2238 (2285692); B&K 2270 (2644597)
Acoustic Calibrator	Rion NC-73 (10307223); Rion NC-73 (10186482)

2.3 Monitoring Locations

2.3.1 Monitoring stations NM1 to NM3 were set up at the proposed locations in accordance with the EM&A Manual.

2.3.2 **Figure 2** shows the locations of the monitoring stations. **Table 2.2** describes the details of the monitoring stations.

Table 2.2 Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Description
NM1	Yau Lai Estate Hong Lai House	1m from the exterior of the roof top façade of the building
NM2	S.K.H. Yau Tong Kei Hin Primary School	1m from the exterior of the roof top façade of the building
NM3	C.C.C. Kei Faat Primary School (Yau Tong)	1m from the exterior of the roof top façade of the building

2.4 Monitoring Parameters, Frequency and Duration

2.4.1 **Table 2.3** summarizes the monitoring parameters, frequency and duration of impact noise monitoring.

Table 2.3 Noise Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
30-mins measurement at each monitoring station between 0700 and 1900 on normal weekdays. L_{eq}, L_{10} and L_{90} would be recorded.	At least once per two weeks

2.5 Monitoring Methodology

2.5.1 Monitoring Procedure

(a) Façade measurements were made at all monitoring locations.

(b) The battery condition was checked to ensure the correct functioning of the meter.

(c) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:-

(i) frequency weighting: A
(ii) time weighting: Fast
(iii) time measurement: $L_{eq(30\text{-}minutes)}$ during non-restricted hours i.e. 07:00 – 1900 on normal weekdays; $L_{eq(5\text{-}minutes)}$ during restricted hours i.e. 19:00 – 23:00 and 23:00 – 07:00 of normal weekdays, whole day of Sundays and Public Holidays

(d) Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator for 94dB(A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.

(e) During the monitoring period, the L_{eq}, L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.

(f) Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.

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

2.5.2 Maintenance and Calibration

(a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.

(b) The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.

(c) Calibration certificates of the sound level meters and acoustic calibrators are provided in **Appendix E**.

2.6 Monitoring Schedule for the Reporting Period

2.6.1 The schedule for environmental monitoring in December 2013 is provided in **Appendix F**.

2.7 Monitoring Results

2.7.1 The monitoring results for noise are summarized in **Table 2.4** and the monitoring data is provided in **Appendix G**.

Table 2.4 Summary of Noise Monitoring Results in the Reporting Period

	Average, dB(A), $L_{eq\ (30\ mins)}$	**Range, dB(A),** $L_{eq\ (30\ mins)}$	**Limit Level, dB(A),** $L_{eq\ (30\ mins)}$
NM1	63.0	61.9 – 63.9	75
NM2	64.3	63.0 – 65.3	70#
NM3	53.2	49.1 – 55.2	70#

Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

2.7.2 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.

2.7.3 No Limit Level exceedance was recorded at all monitoring stations in the reporting month.

2.7.4 Major noise sources during the noise monitoring included construction activities of the Project, construction activities by other contracts and nearby traffic noise.

2.7.5 The event action plan is annexed in **Appendix H**.

3 WATER QUALITY MONITORING

3.1 Monitoring Status

3.1.1 Water quality monitoring was not conducted in the reporting period as demolition of marine structures was not commenced.

4 LAND CONTAMINATION

4.1 Monitoring Status

4.1.1 The remediation method statement was approved by the EPD on 20 December 2013. The soil remediation works commenced on 23 December 2013.

4.1.2 No soil remediation works monitoring and auditing has been conducted in the reporting period.

4.2 Excavation Progress

4.2.1 Excavation has been carried out in zone R1, R4 and A1 in the reporting period. The excavation at zone R1, R4 and A1 was completed and the excavated soil has been transported to the biopile and cement mixing facilities. The locations of the contamination zones are shown in **Figure 4**.

4.2.2 Pre-sampling of verification sample has been conducted according to the corresponding CAR/RAPs (*(a) Appendix 7C – Remediation Action Plan for Yau Tong Bay Marine Lots in the Reclamation of Yau Tong Bay Final EIA Report (January 2002); (b) Yau Tong Bay - Decommissioning of Shipyard Sites - Contamination Assessment Report and Remediation Action Plan (YTML 1, 6-11, 15, 28, 29, 38 and 41-43; (c) Yau Tong Bay – Decommissioning of Shipyard Sites - Supplementary Contamination Assessment Report and Remediation Action Plan for Previously Inaccessible Lots (YTML 27, 44, 45-46, 54 and Underground Oil Tank at YTML 6-11)*) in 18 contamination zones (T19A, T22BA, T22BB, T32C, T32D, T32E, T36A, A1, A2, A4, A5, R1, R2, R3, R4, R5, R6 and R8) to define the contamination extent. The sampling locations are indicated in **Figure 5** to **12**. A total of 51 verification samples have been collected by the Contractor under AECOM's supervision in December 2013, of which 23 samples are additional samples collected due to exceedance of relevant standards. The status of excavation and confirmatory sampling are summarized in **Table 4.1**. The testing results are summarized in **Table 4.2** and **Table 4.3**.

4.2.3 Independent Environmental Auditor (IEA) has conducted spot check sampling on 4 December 2013 and 19 December 2013 at zone T22BA and R3. A total of two soil samples were collected.

Table 4.1 Summary of Progress of Excavation and Verification Sampling

Zone ID	Status of Excavation	Verification samples	Sampling Status	Testing Result
T19A	Not Excavated	Top	-	-
		T19A.1/SW (Sidewall)	✓	Pass
		T19A.2/SW (Sidewall)	✓	Fail
		T19A.2.1/SW (Sidewall)	✓	Pass
		T19A.3/SW (Sidewall)	✓	Fail
		T19A.3.1/SW (Sidewall)	✓	Pass
		T19A.4/SW (Sidewall)	✓	Fail
		T19A.4.1/SW (Sidewall)	✓	Fail
		T19A.4.2/SW (Sidewall)	✓	Pending
		T19A/B (Base)	✓	Pass
		T19A/B1 (Base)	✓	Pass
T22BA	Not Excavated	Top	-	-
		T22BA.1/SW (Sidewall)	✓	Pass
		T22BA.2/SW (Sidewall)	✓	Pass
		T22BA.3/SW (Sidewall)	✓	Fail
		T22BA.3.1/SW (Sidewall)	✓	Fail
		T22BA.3.2/SW (Sidewall)	✓	Pending
		T22BA.4/SW (Sidewall)	✓	Fail
		T22BA.4.1/SW (Sidewall)	✓	Pass

		T22BA/B (Base)	✓	Pass
		T22BA/B1 (Base)	✓	Fail
		T22BA/B1.1 (Base)	✓	Pending
T22BB*	Not Excavated	Top	-	-
		T22BB.1/SW (Sidewall)	✓	Pass
		T22BB.3/SW (Sidewall)	✓	Fail
		T22BB.3.1/SW (Sidewall)	✓	Fail
		T22BB.3.2/SW (Sidewall)	✓	Pending
		T22BB.4/SW (Sidewall)	✓	Pass
		T22BB/B (Base)	✓	Pending
		T22BB/B1 (Base)	✓	Pending
T32C	Not Excavated	Top	-	-
		T32C.1/SW (Sidewall)	✓	Fail
		T32C.1.1/SW (Sidewall)	✓	Pending
		T32C.2/SW (Sidewall)	✓	Pass
		T32C.3/SW (Sidewall)	✓	Pass
		T32C.4/SW (Sidewall)	✓	Fail
		T32C.4.1/SW (Sidewall)	✓	Pending
		T32C/B (Base)	✓	Pass
		T32C/B1 (Base)	✓	Pass
T32D	Not Excavated	T32D/T (Top)	✓	Pass
		T32D.1/SW (Sidewall)	✓	Pass
		T32D.2/SW (Sidewall)	✓	Pass
		T32D.3/SW (Sidewall)	✓	Pass
		T32D.4/SW (Sidewall)	✓	Pass
		T32D/B (Base)	✓	Pass
T32E (PCB Contaminated Zone)	Not Excavated	Top	-	-
		T32E.1A/SW (Sidewall)	✓	Pass
		T32E.2A/SW (Sidewall)	✓	Pass
		T32E.3A/SW (Sidewall)	✓	Fail
		T32E.3A.1/SW (Sidewall)	✓	Pending
		T32E.4A/SW (Sidewall)	✓	Fail
		T32E.4A.1/SW (Sidewall)	✓	Pending
		T32E/B (Base)	✓	Pass
T32E	Not Excavated	Top	-	-
		Sidewall	O	No Sampling
		Base	O	No Sampling
T35C	Not Excavated	Top	-	-
		Sidewall	O	No Sampling
		Base	O	No Sampling
T36A	Not Excavated	Top	-	-
		T36A.1/SW (Sidewall)	✓	Pass
		T36A.2/SW (Sidewall)	✓	Pass
		T36A.3/SW (Sidewall)	✓	Pass
		T36A.4/SW (Sidewall)	✓	Pass
		T36A/B (Base)	✓	Pass
		T36A/B1 (Base)	✓	Pass
A1	Excavation completed	Top	-	-
		A1.1-A1.2/SW (Sidewall)	✓	Pass
		A1.1-A1.4/SW (Sidewall)	✓	Pass
		A1.2-A1.3/SW (Sidewall)	✓	Pass
		A1.3-A1.4/SW (Sidewall)	✓	Pass
		A1/B (Base)	✓	Pass
A2	Not Excavated	A2/T (Top)	✓	Pass
		A2.1-A2.2/SW (Sidewall)	✓	Fail
		A2.1-A2.2.1/SW (Sidewall)	✓	Pending
		A2.1-A2.4/SW (Sidewall)	✓	Pass
		A2.2-A2.3/SW (Sidewall)	✓	Pass
		A2.3-A2.4/SW (Sidewall)	✓	Pass
		A2/B (Base)	✓	Fail
A3	Not Excavated	Top	-	-

		Sidewall	O	No Sampling
		Base	O	No Sampling
A4	Not Excavated	A4/T (Top)	✓	Pass
		A4.1-A4.2/SW (Sidewall)	✓	Pass
		A4.1-A4.4/SW (Sidewall)	✓	Pass
		A4.2-A4.3/SW (Sidewall)	✓	Fail
		A4.2-A4.3.1/SW (Sidewall)	✓	Pending
		A4.3-A4.4/SW (Sidewall)	✓	Fail
		A4.2-A4.3.1/SW (Sidewall)	✓	Pending
		A4/B (Base)	✓	Pass
A5	Not Excavated	A5/T (Top)	✓	Pass
		A5.1-A5.2/SW (Sidewall)	✓	Fail
		A5.1-A5.2.1/SW (Sidewall)	✓	Pending
		A5.1-A5.4/SW (Sidewall)	✓	Fail
		A5.1-A5.4.1/SW (Sidewall)	✓	Pending
		A5.2-A5.3/SW (Sidewall)	✓	Fail
		A5.2-A5.3.1/SW (Sidewall)	✓	Pending
		A5.3-A5.4/SW (Sidewall)	✓	Pass
		A5/B (Base)	✓	Pass
R1	Excavation completed	Top	-	-
		R1.1-R1.2/SW (Sidewall)	✓	Pass
		R1.1-R1.4/SW (Sidewall)	✓	Pass
		R1.2-R1.3/SW (Sidewall)	✓	Pass
		R1.3-R1.4/SW (Sidewall)	✓	Pass
		R1/B (Base)	✓	Pass
R2	Not Excavated	Top	-	-
		R2.1-R2.2/SW (Sidewall)	✓	Pass
		R2.1-R2.4/SW (Sidewall)	✓	Pass
		R2.2-R2.3/SW (Sidewall)	✓	Fail
		R2.2-R2.3.1/SW (Sidewall)	✓	Fail
		R2.2-R2.3.2/SW (Sidewall)	✓	Pending
		R2.3-R2.4/SW (Sidewall)	✓	Pass
		R2/B (Base)	✓	Pass
R3	Not Excavated	Top	-	-
		R3.1-R3.2/SW (Sidewall)	✓	Pass
		R3.1-R3.4/SW (Sidewall)	✓	Pass
		R3.2-R3.3/SW (Sidewall)	✓	Pass
		R3.3-R3.4/SW (Sidewall)	✓	Pass
		R3/B (Base)	✓	Pass
R4	Excavation completed	Top	-	-
		R4.1-R4.2/SW (Sidewall)	✓	Pass
		R4.1-R4.4/SW (Sidewall)	✓	Pass
		R4.2-R4.3/SW (Sidewall)	✓	Pass
		R4.3-R4.4/SW (Sidewall)	✓	Pass
		R4/B (Base)	✓	Pass
R5	Not Excavated	Top	-	-
		R5.1-R5.2/SW (Sidewall)	✓	Pass
		R5.1-R5.4/SW (Sidewall)	✓	Fail
		R5.1-R5.4.1/SW (Sidewall)	✓	Pass
		R5.2-R5.3/SW (Sidewall)	✓	Pass
		R5.3-R5.4/SW (Sidewall)	✓	Pass
		R5/B (Base)	✓	Pass
R6	Not Excavated	R6/T (Top)	✓	Pending
		R6.1-R6.2/SW (Sidewall)	✓	Pending
		R6.1-R6.4/SW (Sidewall)	✓	Pending
		R6.2-R6.3/SW (Sidewall)	✓	Pending
		R6.3-R6.4/SW (Sidewall)	✓	Pending
		R6/B (Base)	O	No Sampling
R7	Not Excavated	Top	O	No Sampling
		Sidewall	O	No Sampling
		Base	O	No Sampling
R8	Not Excavated	R8/T (Top)	✓	Fail
		R8.1-R8.2/SW (Sidewall)	✓	Pass

		R8.1-R8.4/SW (Sidewall)	✓	Pass
		R8.2-R8.3/SW (Sidewall)	✓	Pass
		R8.3-R8.4/SW (Sidewall)	✓	Pass
		R8/B (Base)	✓	Pending
UG Tank	Tank Removed	Top	-	-
		U01/SW (Sidewall)	✓	Pass
		U02/SW (Sidewall)	✓	Pass
		U03/SW (Sidewall)	✓	Pass
		U04/SW (Sidewall)	✓	Pass
		U05/B (Base)	✓	Pass

Note:
✓: Sampled
O: Not sampled yet
- : Sampling not required
*: The sample at T22BB.2 (sidewall) could not be sampled as hard materials were encountered. Therefore, only 3 samples were sampled at the sidewall of Zone T22BB.

4.3 Biopiling and Cement Solidification / Stabilization Progress

4.3.1 The Biopiling facility and the Biopile are being set-up at the time of reporting. Pilot trial for cement solidification/stabilization was conducted on 30 December 2013. Cement ratio of 3% and 5% were used in the trial. The sample from the pilot trial were sent to lab for Toxicity Characteristic Leaching Procedure (TCLP) and Unconfined Compressive Strength (UCS) test. The testing result is pending..

4.4 Landfill Disposal of Contaminated Soil at Zone T32D and T32E

4.4.1 The laboratory testing result of Toxicity Characteristic Leaching Procedure (TCLP) test for the samples from zone T32D and T32E was received. The result showed that the soil in T32D and T32E passed the "Landfill Disposal Criteria for Contaminated Soil" of the *Practice Guide for Investigation and Remediation of Contaminated Land* issued by EPD. The results are summarized in **Table 4.4** and the laboratory reports are attached in **Appendix M**.

4.5 Monitoring Testing Results

4.5.1 51 verification samples were collected in 18 contamination zones (T19A, T22BA, T22BB, T32C, T32D, T32E, T36A, A1, A2, A4, A5, R1, R2, R3, R4, R5, R6 and R8) in December 2013. 104 results of verification samples, including those collected in November, have been received as of 31 December 2013. A total of 23 samples results are pending and the results will be included in next monthly report if received before 31 January 2014.

4.5.2 Exceedance of relevant standards was found in the result of 25 out of 104 samples. As a result, 23 additional samples were taken while the remaining 2 additional samples will be taken in January 2014. Among the 23 additional samples, 4 samples have passed the chemical test while another 4 have failed the test. The testing results of the remaining 15 additional samples are pending (refer to **Table 4.1**). The testing results are attached in **Appendix M** and summarized in **Table 4.2** and **Table 4.3.**

4.5.3 5 sets of QA/QC samples were collected on 18, 20, 26 Nov and 2, 9 Dec. All tested parameters are below the limit of reporting.

4.6 Underground Oil Tank at YTML 6-11

4.6.1 The oil tank was removed in 26 November 2013 and five confirmatory samples have been collected at the sidewalls and underneath the oil tank. The testing results are presented in **Table 4.3**. No exceedance of RBRGs is found among all verification samples. The excavation zone was backfilled on 27 December 2013.

Table 4.2 Laboratory Results of Verification Samples

Parameters					RBRGs (Urban Residential) (mg/kg)		Dutch List (Dutch B Standard) (mg/kg)		
					bis-(2-Ethylhexyl) phthalate	Lead	Lead	Copper	PCBs
Limit of Reporting (LOR) (mg/kg)					5	1	1	1	0.1
Standard limits (mg/kg)					30	258	150	100	1
Zone ID	Sample ID	Position	Sampling depth (m bgs)	Sampling Date					
A1	A1.1-A1.2/SW	Side wall	0.50	18-Nov-13		72			
A1	A1.1-A1.4/SW	Side wall	0.50	18-Nov-13		86			
A1	A1.2-A1.3/SW	Side wall	0.50	18-Nov-13		180			
A1	A1.3-A1.4/SW	Side wall	0.50	18-Nov-13		70			
A1	A1/B	Base	1.00	9-Dec-13		71			
A2	A2.1-A2.2/SW	Side wall	1.675	2-Dec-13	6.46	**443**			
A2	A2.1-A2.4/SW	Side wall	1.675	2-Dec-13	<5	248			
A2	A2.2-A2.3/SW	Side wall	1.675	2-Dec-13	<5	49			
A2	A2.3-A2.4/SW	Side wall	1.675	2-Dec-13	<5	150			
A2	A2/T	Top	1.00	4-Dec-13		26			
A2	A2/B	Base	2.35	12-Dec-13	<5	**294**			
A4	A4.1-A4.2/SW	Side wall	1.725	2-Dec-13		137			
A4	A4.1-A4.4/SW	Side wall	1.725	2-Dec-13		165			
A4	A4.2-A4.3/SW	Side wall	1.725	2-Dec-13		**586**			
A4	A4.3-A4.4/SW	Side wall	1.725	2-Dec-13		**7060**			
A4	A4/T	Top	1.00	4-Dec-13		78			
A4	A4/B	Base	2.45	12-Dec-13		184			
A5	A5.1-A5.2/SW	Side wall	1.975	2-Dec-13		**2980**			
A5	A5.1-A5.4/SW	Side wall	1.975	2-Dec-13		**361**			
A5	A5.2-A5.3/SW	Side wall	1.975	2-Dec-13		**398**			
A5	A5.3-A5.4/SW	Side wall	1.975	2-Dec-13		117			
A5	A5/T	Top	1.40	4-Dec-13		118			
A5	A5/B	Base	2.55	12-Dec-13		148			
R1	R1.1-R1.2/SW	Side wall	0.50	18-Nov-13	<5				
R1	R1.1-R1.4/SW	Side wall	0.50	18-Nov-13	<5				
R1	R1.2-R1.3/SW	Side wall	0.50	18-Nov-13	6.52				
R1	R1.3-R1.4/SW	Side wall	0.50	18-Nov-13	18.5				
R1	R1/B	Base	1.00	9-Dec-13	<5				
R2	R2.1-R2.2/SW	Side wall	0.50	22-Nov-13	8.36				
R2	R2.1-R2.4/SW	Side wall	0.50	22-Nov-13	19.7				
R2	R2.2-R2.3/SW	Side wall	0.50	22-Nov-13	**42**				
R2	R2.2-R2.3.1/SW	Side wall	0.50	9-Dec-13	**75.8**				
R2	R2.3-R2.4/SW	Side wall	0.50	22-Nov-13	17.7				
R2	R2/B	Base	1.00	4-Dec-13	16.4				
R3	R3.1-R3.2/SW	Side wall	0.50	22-Nov-13	<5				
R3	R3.1-R3.4/SW	Side wall	0.50	22-Nov-13	7.4				

Parameters					RBRGs (Urban Residential) (mg/kg)		Dutch List (Dutch B Standard) (mg/kg)		
					bis-(2-Ethylhexyl) phthalate	Lead	Lead	Copper	PCBs
Limit of Reporting (LOR) (mg/kg)					5	1	1	1	0.1
Standard limits (mg/kg)					30	258	150	100	1
Zone ID	Sample ID	Position	Sampling depth (m bgs)	Sampling Date					
R3	R3.2-R3.3/SW	Side wall	0.50	22-Nov-13	<5				
R3	R3.3-R3.4/SW	Side wall	0.50	22-Nov-13	<5				
R3	R3/B	Base	1.00	4-Dec-13	<5				
R4	R4.1-R4.2/SW	Side wall	0.50	2-Dec-13	<5				
R4	R4.1-R4.4/SW	Side wall	0.50	2-Dec-13	6.78				
R4	R4.2-R4.3/SW	Side wall	0.50	2-Dec-13	<5				
R4	R4.3-R4.4/SW	Side wall	0.50	2-Dec-13	<5				
R4	R4/B	Base	1.00	4-Dec-13	<5				
R5	R5.1-R5.2/SW	Side wall	0.50	20-Nov-13		104			
R5	R5.1-R5.4/SW	Side wall	0.50	20-Nov-13		**340**			
R5	R5.1-R5.4.1/SW	Side wall	0.50	9-Dec-13		101			
R5	R5.2-R5.3/SW	Side wall	0.50	20-Nov-13		184			
R5	R5.3-R5.4/SW	Side wall	0.50	20-Nov-13		120			
R5	R5/B	Base	1.00	4-Dec-13			73		
R8	R8.1-R8.2/SW	Side wall	3.725	12-Dec-13		102			
R8	R8.1-R8.4/SW	Side wall	3.725	12-Dec-13		90			
R8	R8.2-R8.3/SW	Side wall	3.725	12-Dec-13		62			
R8	R8.3-R8.4/SW	Side wall	3.725	12-Dec-13		96			
R8	R8/T	Top	3.00	12-Dec-13		**394**			
T19A	T19A.1/SW	Side wall	1.25	20-Nov-13			125		
T19A	T19A.2/SW	Side wall	1.25	20-Nov-13			**190**		
T19A	T19A.2.1/SW	Side wall	1.25	9-Dec-13			40		
T19A	T19A.3/SW	Side wall	1.25	20-Nov-13			**213**		
T19A	T19A.3.1/SW	Side wall	1.25	9-Dec-13			108		
T19A	T19A.4/SW	Side wall	1.25	20-Nov-13			**168**		
T19A	T19A.4.1/SW	Side wall	1.25	9-Dec-13			**163**		
T19A	T19A/B	Base	2.00	4-Dec-13			74		
T19A	T19A/B1	Base	2.00	4-Dec-13			75		
T22BA	T22BA.1/SW	Side wall	0.75	18-Nov-13			131		
T22BA	T22BA.2/SW	Side wall	0.75	18-Nov-13			142		
T22BA	T22BA.3/SW	Side wall	0.75	18-Nov-13			**328**		
T22BA	T22BA.3.1/SW	Side wall	0.75	4-Dec-13			**154**		
T22BA	T22BA.4/SW	Side wall	0.75	18-Nov-13			**303**		
T22BA	T22BA.4.1/SW	Side wall	0.75	4-Dec-13			126		
T22BA	T22BA/B	Base	1.50	4-Dec-13			102		
T22BA	T22BA/B1	Base	1.50	4-Dec-13			**151**		
T22BB	T22BB.1/SW	Side wall	2.25	20-Nov-13			107	1	

Parameters					RBRGs (Urban Residential) (mg/kg)		Dutch List (Dutch B Standard) (mg/kg)		
					bis-(2-Ethylhexyl) phthalate	Lead	Lead	Copper	PCBs
Limit of Reporting (LOR) (mg/kg)					5	1	1	1	0.1
Standard limits (mg/kg)					30	258	150	100	1
Zone ID	Sample ID	Position	Sampling depth (m bgs)	Sampling Date					
T22BB	T22BB.3/SW	Side wall	2.25	20-Nov-13			**199**	1	
T22BB	T22BB.3.1/SW	Side wall	2.25	9-Dec-13			**209**		
T22BB	T22BB.4/SW	Side wall	2.25	20-Nov-13			66	3	
T32C	T32C.1/SW	Side wall	2.50	26-Nov-13			**167**		
T32C	T32C.2/SW	Side wall	2.50	26-Nov-13			69		
T32C	T32C.3/SW	Side wall	2.50	26-Nov-13			61		
T32C	T32C.4/SW	Side wall	2.50	26-Nov-13			**306**		
T32C	T32C/B	Base	3.50	9-Dec-13			142		
T32C	T32C/B1	Base	3.50	9-Dec-13			141		
T32D	T32D.1/SW	Side wall	1.00	22-Nov-13					0.4
T32D	T32D.2/SW	Side wall	1.00	22-Nov-13					0.3
T32D	T32D.3/SW	Side wall	1.00	22-Nov-13					0.2
T32D	T32D.4/SW	Side wall	1.00	22-Nov-13					0.2
T32D	T32D/T	Top	0.50	26-Nov-13					<0.1
T32D	T32D/B	Base	1.50	9-Dec-13					0.4
T32E	T32E.1A/SW	Side wall	1.50	26-Nov-13			96		0.5
T32E	T32E.2A/SW	Side wall	1.50	26-Nov-13			47		<0.1
T32E	T32E.3A/SW	Side wall	1.50	26-Nov-13			**1320**		**1.1**
T32E	T32E.4A/SW	Side wall	1.50	26-Nov-13			**204**		1
T32E	T32E/B	Base	3.00	9-Dec-13			144		0.4
T36A	T36A.1/SW	Side wall	0.75	26-Nov-13			49		
T36A	T36A.2/SW	Side wall	0.75	26-Nov-13			82		
T36A	T36A.3/SW	Side wall	0.75	26-Nov-13			80		
T36A	T36A.4/SW	Side wall	0.75	26-Nov-13			51		
T36A	T36A/B	Base	1.50	9-Dec-13			67		
T36A	T36A/B1	Base	1.50	9-Dec-13			39		

Notes:
1. m bgs = meter below ground surface
2. Gray cell indicate that the parameter is not being tested in the corresponding sample.

Values exceeding RBRG/Dutch limits are indicated in **bold and underline**.

Table 4.3 Laboratory Results of Verification Samples from Underground Oil Tank

Parameters					RBRGs (Urban Residential) (mg/kg)									
					Benzene	Toluene	Ethyl-benzene	Meta- & Para-Xylene	Ortho-Xylene	Xylene (Total)	PCR (C6 - C8)	PCR (C9 - C16)	PCR (C17 - C35)	Lead
Limit of Reporting (LOR) (mg/kg)					0.2	0.5	0.5	1	0.5	2	5	200	500	1
Standard limits (mg/kg)					0.704	1440	709	-	-	95	141	2240	10000	258
Zone ID	Sample ID	Position	Sampling depth (m bgs)	Sampling Date										
UOT	U01/ SW	Side wall	0.90	26-Nov-13	<0.2	<0.5	<0.5	<1	<0.5	<2	<5	<200	<500	43
UOT	U02/ SW	Side wall	0.90	26-Nov-13	<0.2	<0.5	<0.5	<1	<0.5	<2	<5	<200	<500	41
UOT	U03/ SW	Side wall	0.90	26-Nov-13	<0.2	<0.5	<0.5	<1	<0.5	<2	<5	<200	<500	61
UOT	U04/ SW	Side wall	0.90	26-Nov-13	<0.2	<0.5	<0.5	<1	<0.5	<2	<5	<200	<500	54
UOT	U05/B	Base	1.80	26-Nov-13	<0.2	<0.5	<0.5	<1	<0.5	<2	<5	<200	<500	69

Notes:
1. m bgs = meter below ground surface

Table 4.4 Testing Results of TCLP Test of T32D and T32E

Parameters	TCLP Limit (mg/L)	Testing Results (mg/L)		
		T32D/TCLP	T32E/TCLP/1	T32E/TCLP/2
Antimony	150	<0.1	<0.1	<0.1
Arsenic	50	<0.1	<0.1	<0.1
Barium	1000	1.0	3.9	4.8
Beryllium	10	<0.1	<0.1	<0.1
Cadmium	10	0.04	<0.01	<0.01
Chromium	50	<0.1	<0.1	<0.1
Copper	250	<0.1	<0.1	<0.1
Lead	50	<0.1	<0.1	0.2
Nickel	250	0.7	0.6	0.6
Selenium	1	<0.02	<0.02	<0.02
Silver	50	<0.1	<0.1	<0.1
Thallium	50	<0.01	<0.01	<0.01
Tin	250	<0.1	<0.1	<0.1
Vanadium	250	<0.1	<0.1	<0.1
Zinc	250	21.6	14	16.5
Mercury	1	<0.002	<0.002	<0.002

5 ENVIRONMENTAL SITE INSPECTION AND AUDIT

5.1 Site Inspection

5.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. In the reporting period, 4 site inspections were carried out on 4, 12, 19 and 30 December respectively.

5.1.2 The environmental site inspection summary is provided in **Appendix K**.

5.1.3 Particular observations during the site inspection are described below:-

Air Quality

5.1.4 Wheel washing facilities with high pressure jets have not yet been provided at one entrance point of the site. The Contractor should provide wheel washing facilities at all entrance points of the site.

5.1.5 Some stockpiles of concrete blocks were not covered entirely by impervious sheeting or placed in sheltered areas. The Contractor should cover stockpiles; and regularly spray water to stockpile materials or dusty site surfaces should be maintained.

5.1.6 Some site areas are not installed with water sprinklers. Regular spraying of water by other methods (e.g. water vehicles) at those areas should be maintained.

Noise

5.1.7 A small opening was found at the hoarding at the roadside near YTML 6-11. The opening should be covered.

Water Quality

5.1.8 Open stockpiles of concrete blocks placed on site were not covered with tarpaulin or similar fabric. The Contractor should cover stockpiles of construction materials.

Chemical and Waste Management

5.1.10 No adverse observation was identified in the reporting period.

Landscape and Visual Impact

5.1.11 No adverse observation was identified in the reporting period.

Miscellaneous

5.1.12 Relevant Environmental Permits are not posted at two vehicle site entrances.

5.1.13 The Contractor has partially rectified observations as identified during environmental site inspection in the reporting month within agreed time frame. Rectifications of remaining identified items are undergoing by the Contractor. Follow-up inspections on the status on provision of mitigation measures will be conducted to ensure all identified items are mitigated properly.

5.2 Advice on the Solid and Liquid Waste Management Status

5.2.1 The Contractor had submitted the application form for registration as a chemical waste producer for the Project.

5.2.2 As advised by the Contractor, no inert C&D wastes was generated on site and disposed of at Public Fill (Tseung Kwan O Area 137 Fill Bank). No general refuse was generated on site and disposed of at

the South East New Territories (SENT) Landfill. No inert C&D materials were reused on site or reused in SENT for backfilling purpose respectively. No metals, paper/cardboard packaging or plastics were generated and collected by the registered recycling collectors. No chemical waste was collected by the licensed contractor in the reporting period.

5.2.3 The Contractor is advised to properly maintain on-site C&D materials, wastes collection, and sorting and recording systems. The Contractor is also advised to maximize the reuse / recycling of C&D materials and wastes. The Contractor is reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

5.2.4 The Contractor is reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage areas on site in accordance with the Code of Practise on the Packaging, Labelling and Storage of Chemical Wastes.

5.3 Environmental Licenses and Permits

5.3.1 The environmental licenses and permits for Stage 1 of the Project and valid in the reporting month is summarized in **Table 5.1**.

Table 5.1 Summary of Environmental Licensing and Permit Status

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		Remarks
			From	To	
EIAO	Environmental Permit	EP-409/2010	10/01/2011	N/A	Yau Tong Bay – Decommissioning of Shipyard Sites
WDO	Chemical Waste Producer Registration	5213-290-K2822-04	22/10/2013	N/A	Whole Construction Site
WDO	Billing Account for Disposal of Construction Waste	7018469	N/A	N/A	Whole Construction Site

5.4 Implementation Status of Environmental Mitigation Measures

5.4.1 In response to the site audit findings, the Contractor carried out corrective actions.

5.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix C**. Many recommended mitigation measures were implemented properly.

5.5 Summary of Exceedances of the Environmental Quality Performance Limit

5.5.1 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.

5.5.2 No Limit Level exceedance of construction noise was recorded in the reporting period.

5.5.3 Water quality monitoring was not conducted in the reporting period as the demolition of marine structures has not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

5.6 Summary of Complaints, Non-compliances, Notification of Summons and Successful Prosecutions

5.6.1 The Environmental Complaint Handling Procedure is annexed in **Figure 3**.

5.6.2 No environmental complaint, non-compliance, notification of summons and prosecution was received in the reporting period.

5.6.3 Cumulative statistics on complaints, non-compliance, notifications of summons and successful prosecutions are summarized in **Appendix L**.

6 FUTURE KEY ISSUES

6.1 Construction Programme for the Coming Months

6.1.1 The proposed major construction works for the Project in January and February 2014 include:-

- Excavation of Contaminated Soil in Zones R3, R6, R7, R8, A2, A3, A4, A5, T19A, T22BA, T22BB, T32C, T35C and T36A;
- Formation of biopiles;
- Cement solidification treatment; and
- Excavation and disposal of PCBs-Contaminated Soil in Zones T32D and T32E to Landfill.

6.2 Key Issues for the Coming Month

6.2.1 Excavation of contaminated soil will continue to take place in January 2014.

6.3 Monitoring Schedule for the Coming Month

6.3.1 The tentative schedule for environmental monitoring in January is provided in **Appendix F**.

7 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

7.1 Comments on Mitigation Measures

7.1.1 According to the environmental site inspections performed in the reporting month, the following comments are provided:-

Air Quality Impact

- The Contractor should cover stockpiles of wastes and construction materials; and regularly spray water to stockpile materials or dusty site surfaces should be maintained.

Construction Noise Impact

- Nil.

Water Quality Impact

- The Contractor should regularly spray water to stockpile materials or dusty site surfaces should be maintained.

Chemical and Waste Management

- Nil.

Landscape and Visual Impact

- Nil.

Miscellaneous

- Nil.

7.2 Recommendations on EM&A Programme

7.2.1 The impact noise monitoring programme ensured that any environmental impact to the receivers would be readily detected and timely actions could be taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental acceptability of the Project. The weekly site inspection and soil remediation monitoring and auditing ensured that all the environmental mitigation measures recommended in the EIA report were effectively implemented.

7.2.2 The EM&A programme effectively monitored the environmental impacts from the construction activities and no particular recommendation was advised for the improvement of the programme.

7.3 Conclusions

7.3.1 Noise monitoring was carried out 3 times in the reporting period.

7.3.2 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.

7.3.3 No Limit Level exceedance of construction noise was recorded in the reporting period.

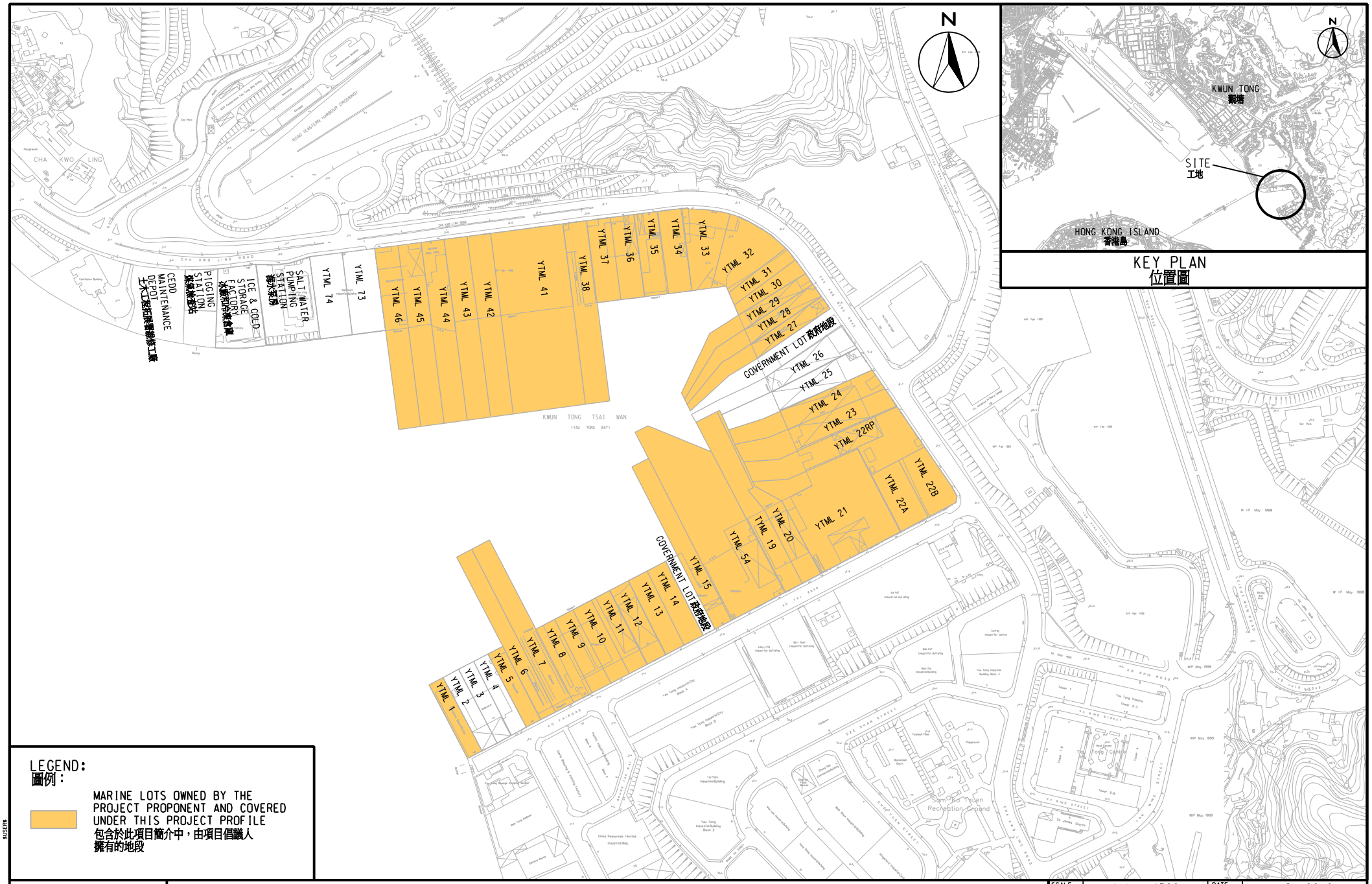
7.3.4 Water quality monitoring was not conducted in the reporting period as the demolition of marine structures has not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

7.3.5 In the reporting month, no excavation of inspection pits and borehole drilling for structural and environmental sampling were conducted in the site. No soil remediation works monitoring and auditing was conducted in the reporting period as soil remediation works was yet to be commenced.

7.3.6 Environmental site inspection was carried out 4 times in December 2013. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

7.3.7 No environmental complaint, non-compliance, notification of summons and prosecution was received in the reporting period.

FIGURES



AECOM

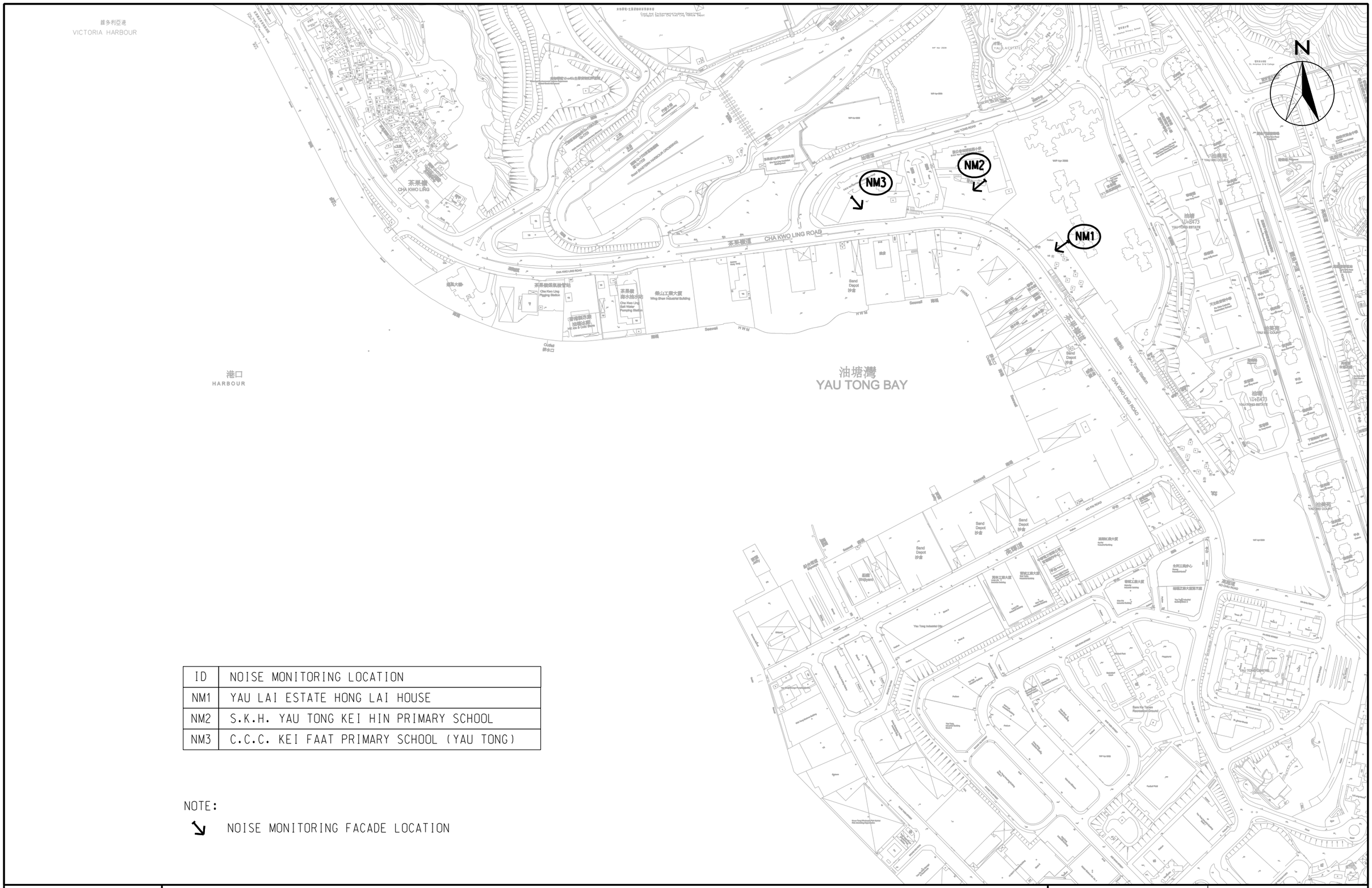
YAU TONG BAY - DECOMMISSIONING OF SHIPYARD SITES PROJECT PROFILE
油塘灣 - 船廠拆卸工程

SITE LOCATION PLAN
工地位置圖

SCALE 比例	A4 1 : 4500	DATE 日期	NOV 2010
CHECK 核對	--	DRAWN 繪圖	--
JOB No.	60048283	FIGURE NO.	1
		REV	A

Plotting By: $DATE$

$file$



ID	NOISE MONITORING LOCATION
NM1	YAU LAI ESTATE HONG LAI HOUSE
NM2	S.K.H. YAU TONG KEI HIN PRIMARY SCHOOL
NM3	C.C.C. KEI FAAT PRIMARY SCHOOL (YAU TONG)

NOTE:

↘ NOISE MONITORING FACADE LOCATION

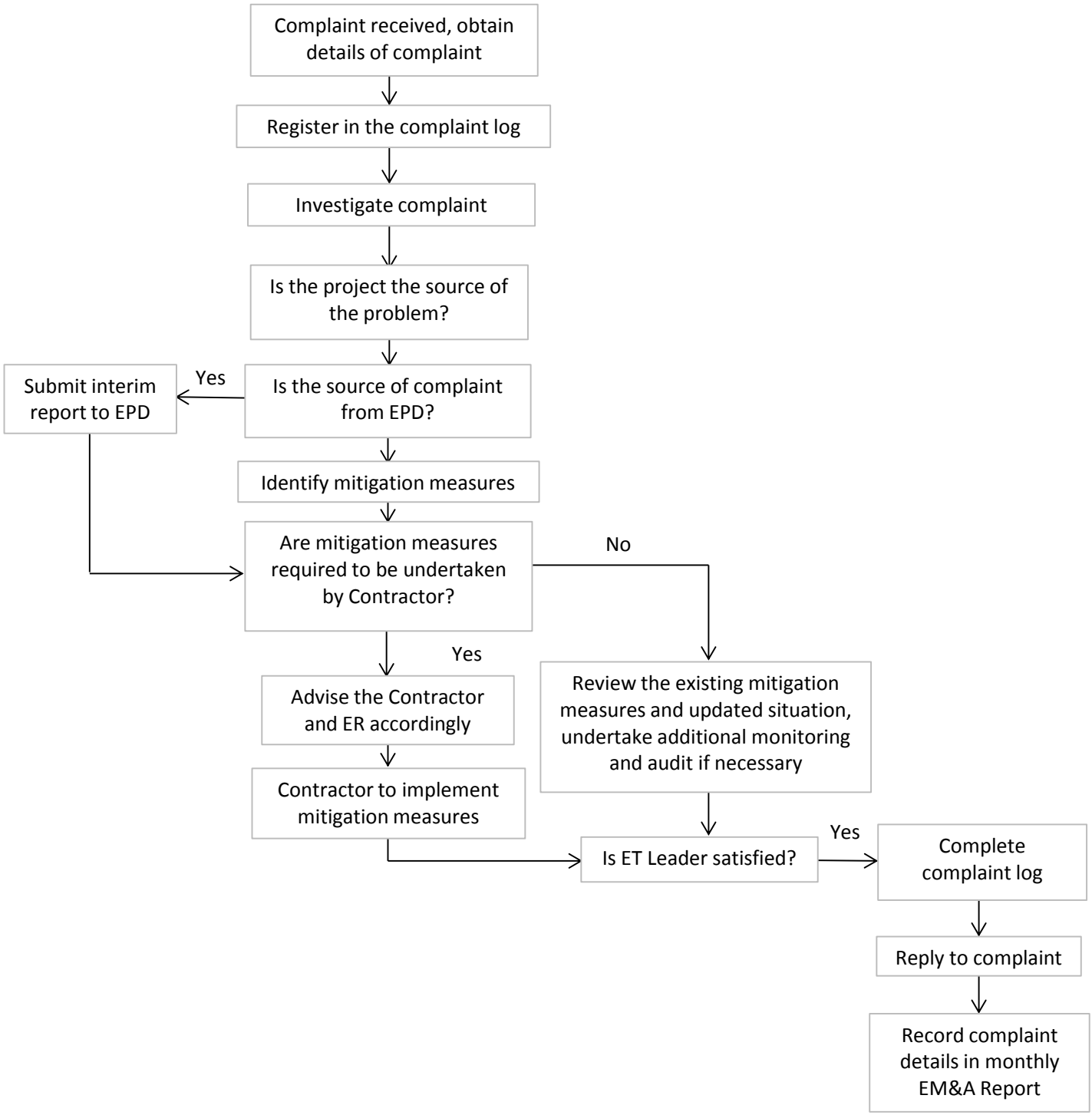
AECOM

YAU TONG BAY - DECOMMISSIONING OF SHIPYARD SITES

NOISE MONITORING LOCATIONS

SCALE	A3 1 : 3000	DATE	AUG. 2011
CHECK	LSHT	DRAWN	LLHY
PROJECT NO.	60048283	FIGURE NO.	2
		REV	--

P:\60048283.01\CAD\Drawing\Figure\EM_A Figure 3_v2noise



AECOM	Yau Tong Bay – Decommissioning of Shipyard Sites	SCALE	N.T.S.	DATE	Dec-11
		CHECK	ENFL	DRAWN	JWYM
	Environmental Complaint Handling Procedure	JOB NO.	60048283	FIGURE NO. 3	Rev. -

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R4	25	0-1	25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R8	25	3-4.45	36.25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
T36A	78.5	0-1.5	117.75

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
T35C	570.5	0-2.5	1426.25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
T32C	78.5	1.5-3.5	157
T32D	78.5	0.5-1.5	78.5
T32E	654.2	0-1.5	750.51
T32E	153.9	0-3	461.58

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R2	25	0-1	25
R3	25	0-1	25
R3	25	1-3.95	73.75

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
A3	25	2.35-4.95	65
A2	31.5	1-2.35	42.5
A4	25	1-2.45	36.25
A5	25	1.4-2.55	28.75

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R7	25	3.1-4.55	36.25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R1	25	0-1	25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
T22BA	78.5	0-1.5	117.75
T22BB	153.9	1.5-3	230.79

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
T19A	78.5	0.5-2	117.75

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
A1	25	0-1	25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R6	25	2.7-4.15	36.25

ZONE ID	AREA (m^2)	DEPTH (m)	VOLUME (m^3)
R5	25	0-1	25

LEGEND

- Marine Lot under this Project
- Excavation Zone covered in CAR/RAP-2013 & Sup-CAR/RAP-2013
- Excavation Zone covered in CAR/RAP-EIA

Note: For lots covered in both CAR/RAP-EIA and CAR/RAP-2013, the drawings in CAR/RAP-2013 shall prevail

REV	DESCRIPTION	DRAWN	CHECKED	DATE
A	AMENDMENT A	LLHY	LSHT	SEP 2013
-	TENDER DRAWING	LLHY	LSHT	MAY 2013

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATIONS OF CONTAMINATED ZONES

SCALE	A3 1:2500	DATE	MAY 2013
CHECK	LSHT	DRAWN	LLHY
PROJECT NO.	60048208	FIGURE NO.	4

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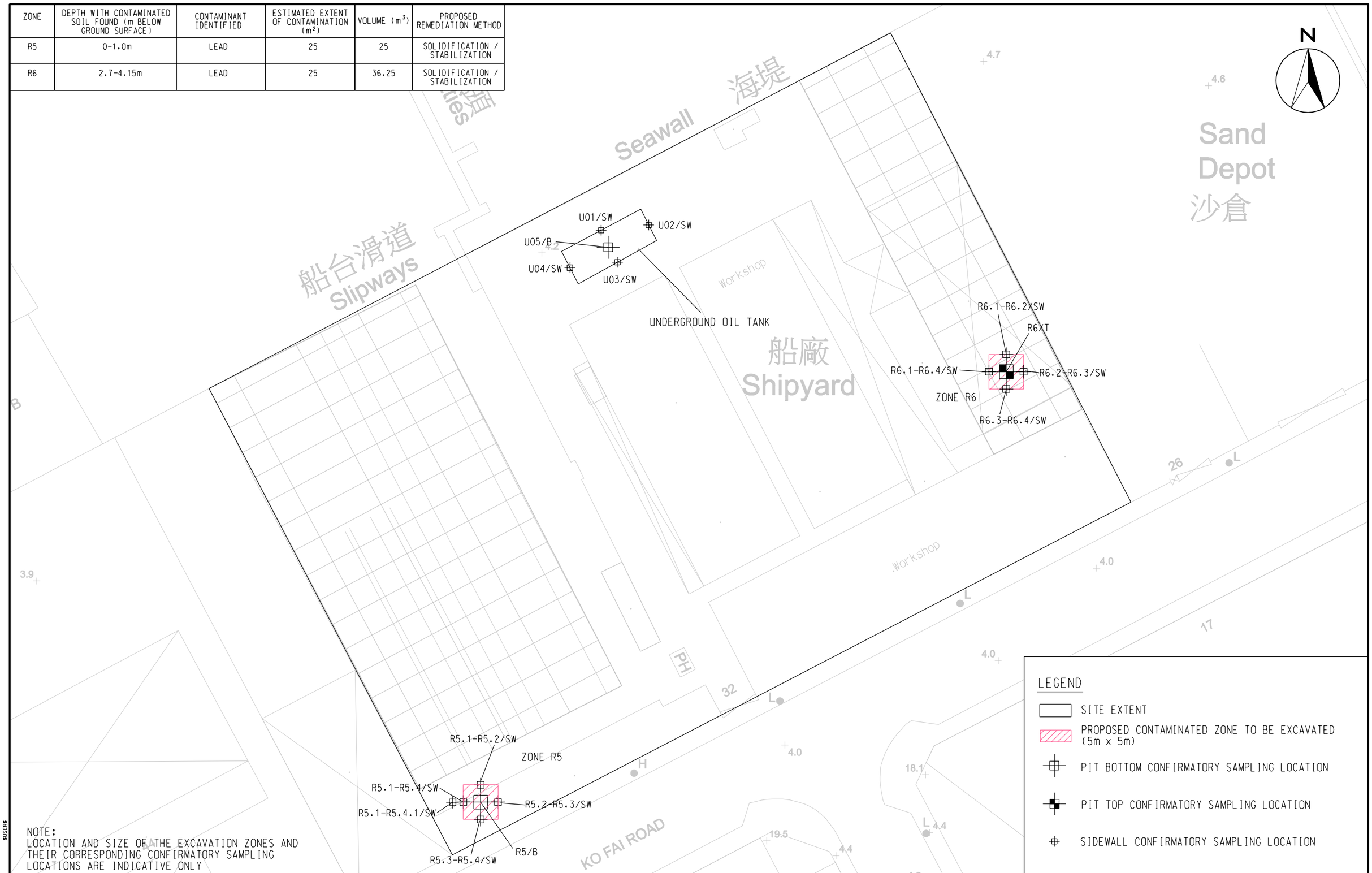
ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R5	0-1.0m	LEAD	25	25	SOLIDIFICATION / STABILIZATION
R6	2.7-4.15m	LEAD	25	36.25	SOLIDIFICATION / STABILIZATION



NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED (5m x 5m)
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- PIT TOP CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

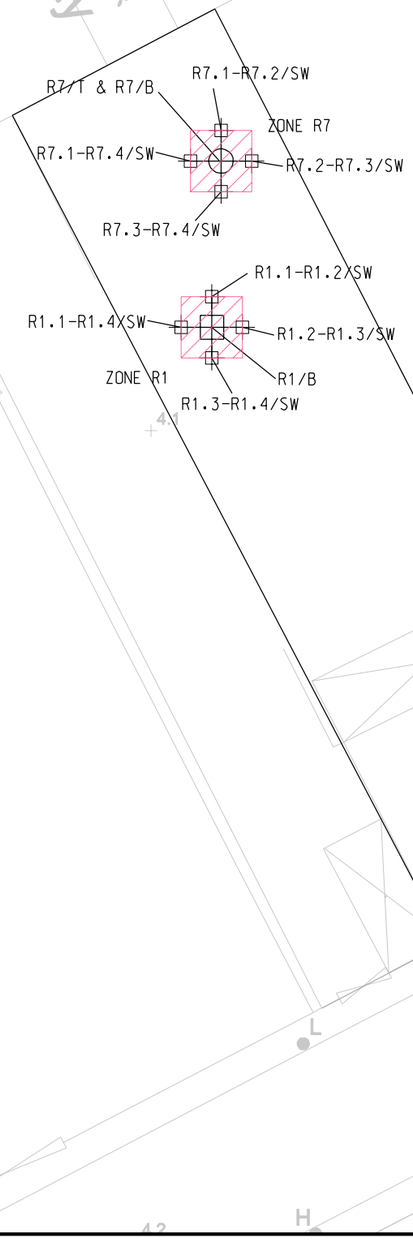
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R5 & R6)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	5
		REV	-

Plotting By: $DATE$ $USER$

ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R1	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
R7	3.1-4.55m	LEAD	25	36.25	SOLIDIFICATION / STABILIZATION



LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED (5m x 5m)
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- PIT TOP AND PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- PROPOSED SIDEWALL CONFIRMATORY SAMPLING LOCATION

NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R1 & R7)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	6
		REV	-

Plotting By: $DATE$ $USER$

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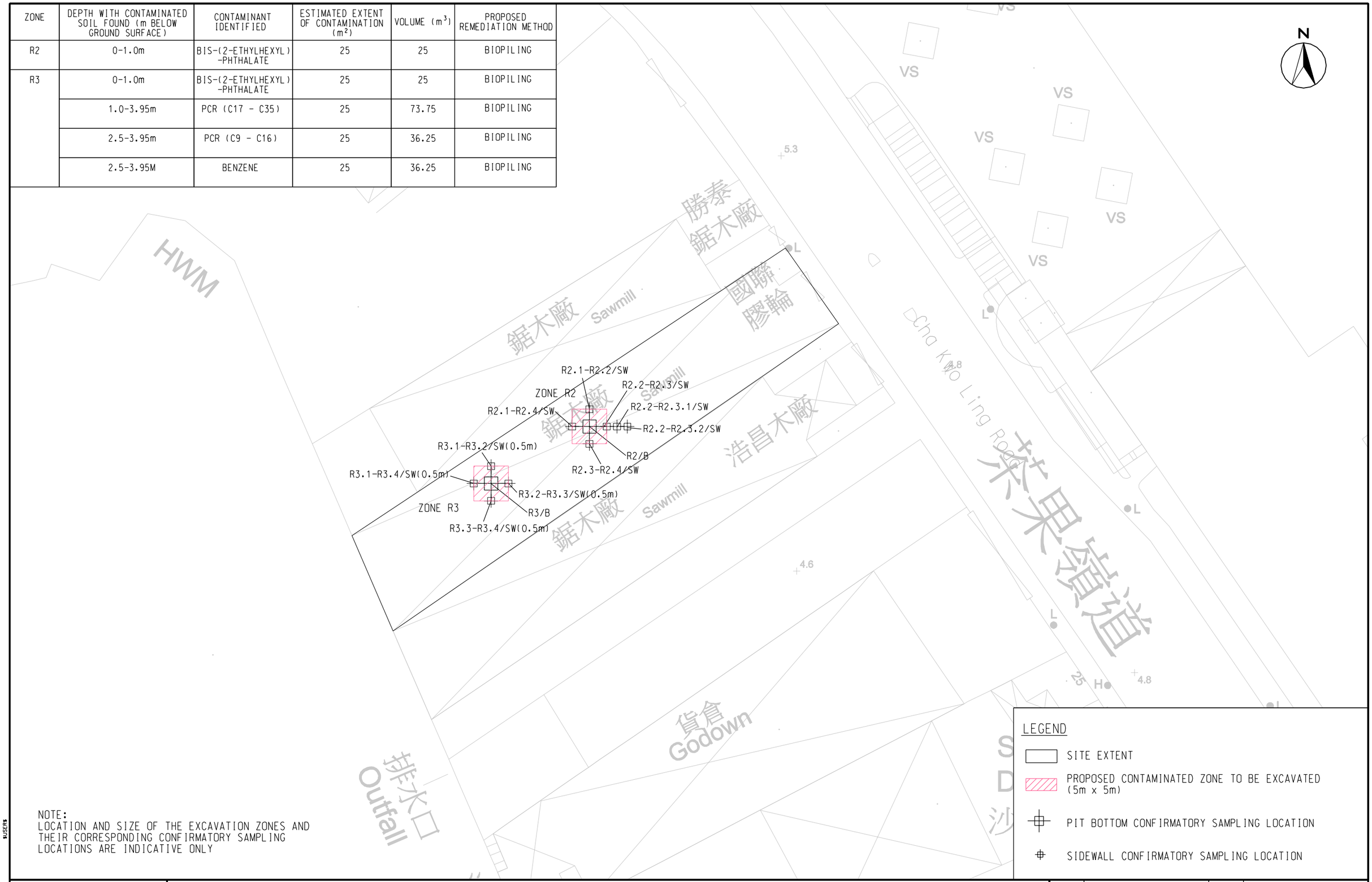
ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R2	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
R3	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
	1.0-3.95m	PCR (C17 - C35)	25	73.75	BIOPILING
	2.5-3.95m	PCR (C9 - C16)	25	36.25	BIOPILING
	2.5-3.95M	BENZENE	25	36.25	BIOPILING



NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED (5m x 5m)
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R2 & R3)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	7
		REV	–

Plotting By: $DATE$ $USER$

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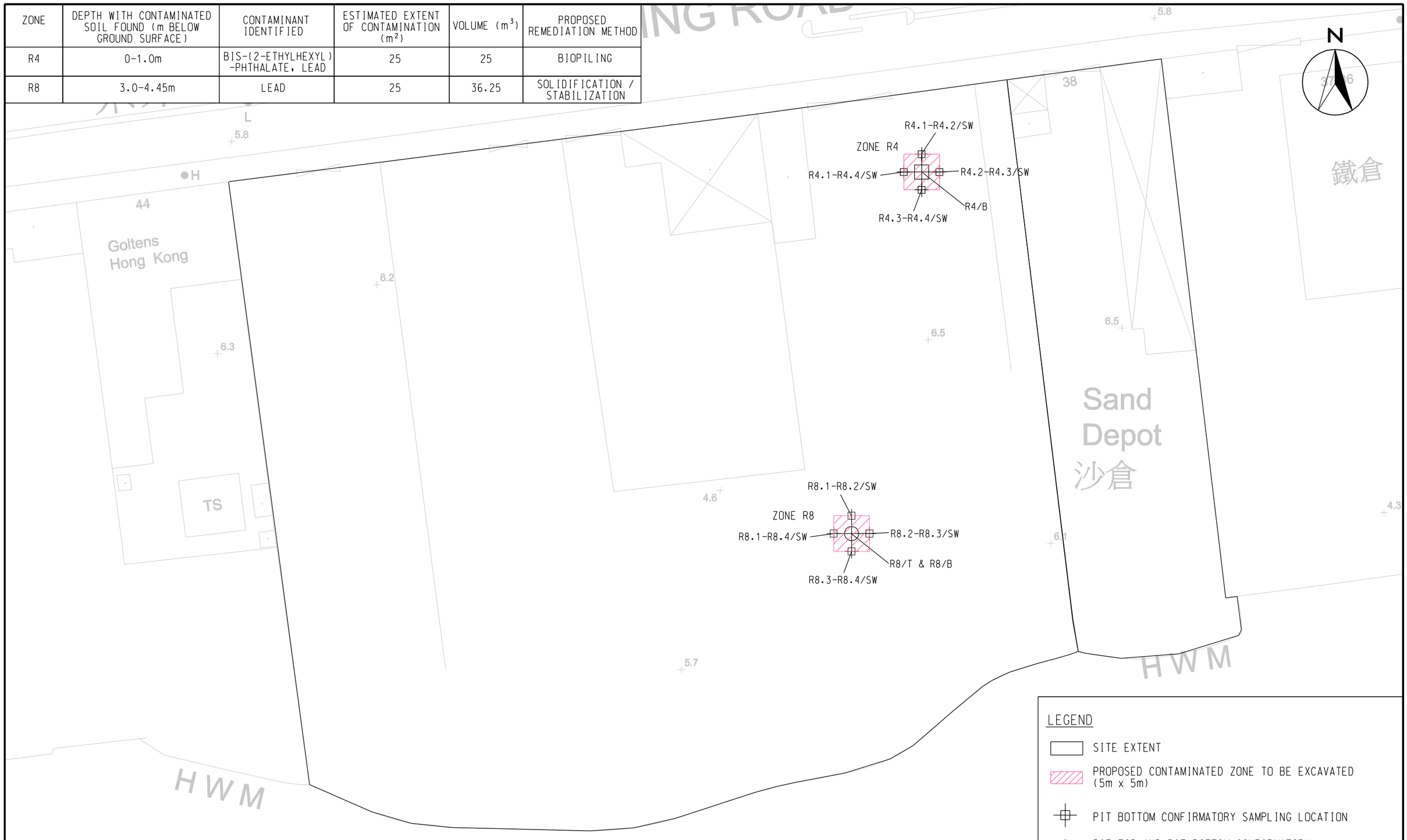
ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R4	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE, LEAD	25	25	BIOPILING
R8	3.0-4.45m	LEAD	25	36.25	SOLIDIFICATION / STABILIZATION



NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED (5m x 5m)
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- PIT TOP AND PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

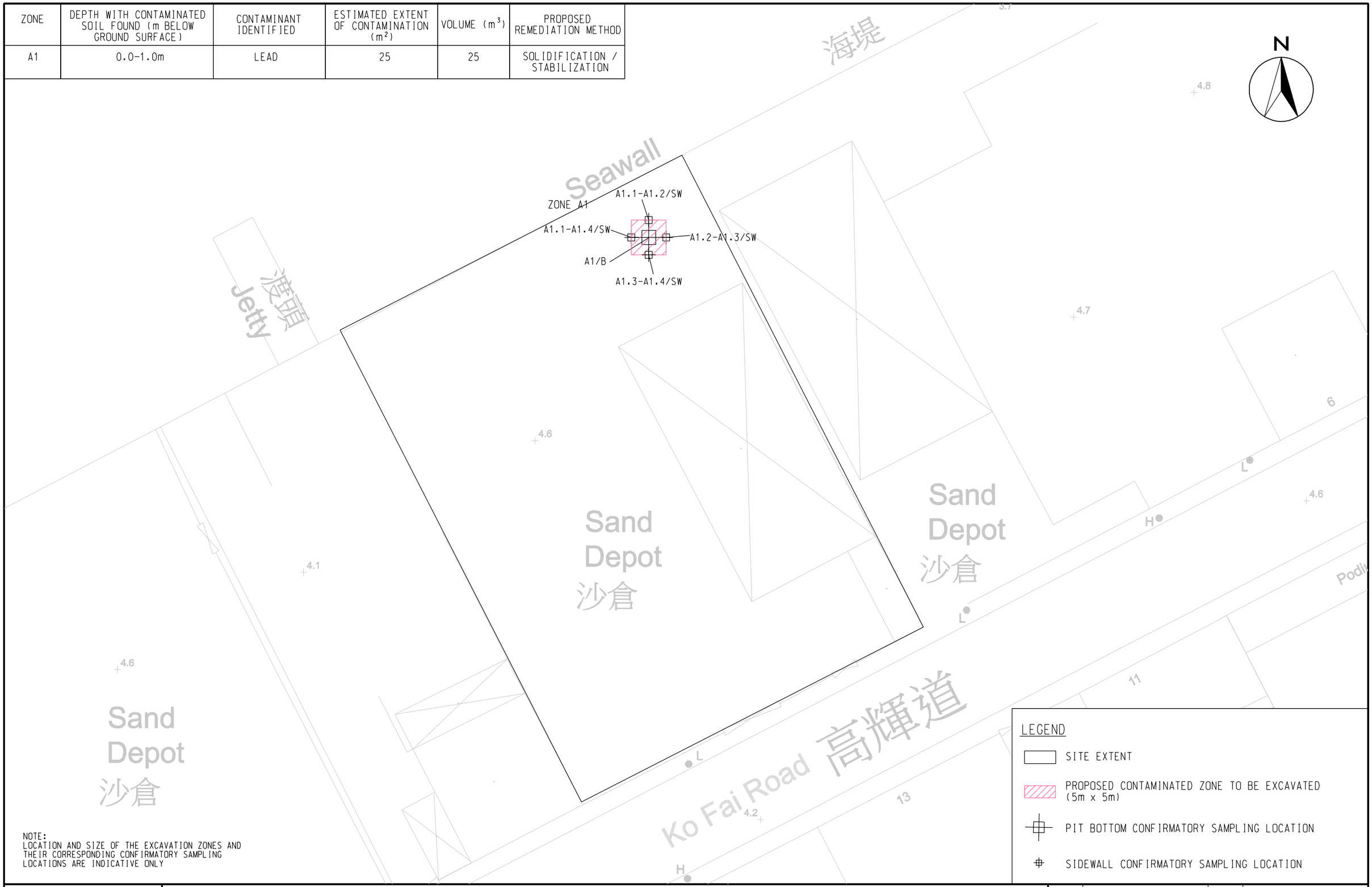
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R4 & R8)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	8
		REV	–

Plotting By: $DATE$ $USER$

ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
A1	0.0-1.0m	LEAD	25	25	SOLIDIFICATION / STABILIZATION



NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

AECOM

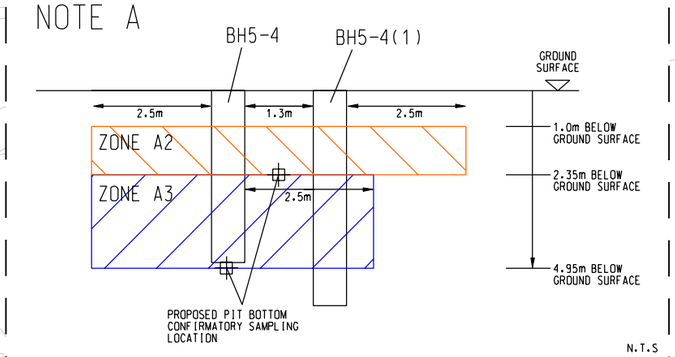
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

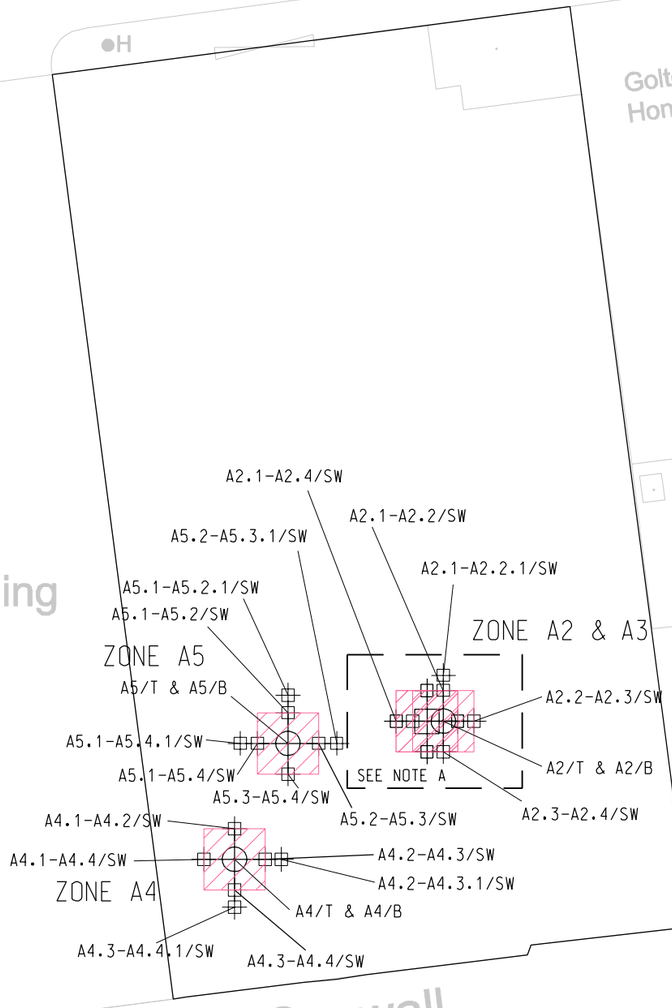
LOCATION OF CONFIRMATORY SAMPLING (ZONE A1)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	9
		REV	-

ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
A2	1.0-2.35m	BIS-(2-ETHYLHEXYL) -PHTHALATE, LEAD	31.5	42.5	BIOPILING, SOLIDIFICATION / STABILIZATION
A3	2.35-4.95m	LEAD	25	65	SOLIDIFICATION / STABILIZATION
A4	1.0-2.45m	LEAD	25	36.25	SOLIDIFICATION / STABILIZATION
A5	1.4-2.55m	LEAD	25	28.75	SOLIDIFICATION / STABILIZATION

NOTE A





LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED (5m x 5m)
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- PIT TOP AND PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

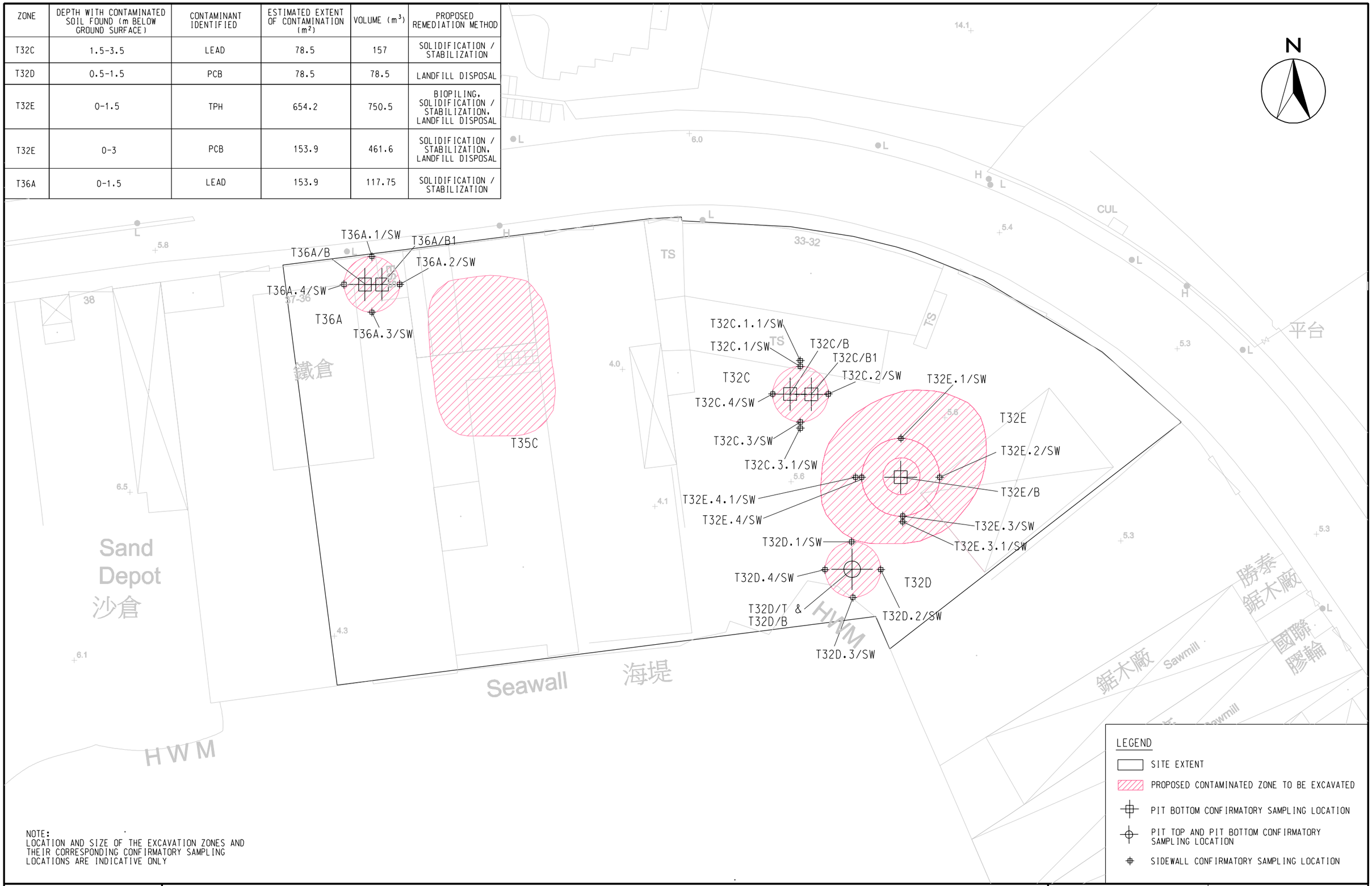
AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES A2, A3, A4 & A5)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	10
		REV	-

ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
T32C	1.5-3.5	LEAD	78.5	157	SOLIDIFICATION / STABILIZATION
T32D	0.5-1.5	PCB	78.5	78.5	LANDFILL DISPOSAL
T32E	0-1.5	TPH	654.2	750.5	BIOPILING, SOLIDIFICATION / STABILIZATION, LANDFILL DISPOSAL
T32E	0-3	PCB	153.9	461.6	SOLIDIFICATION / STABILIZATION, LANDFILL DISPOSAL
T36A	0-1.5	LEAD	153.9	117.75	SOLIDIFICATION / STABILIZATION



NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

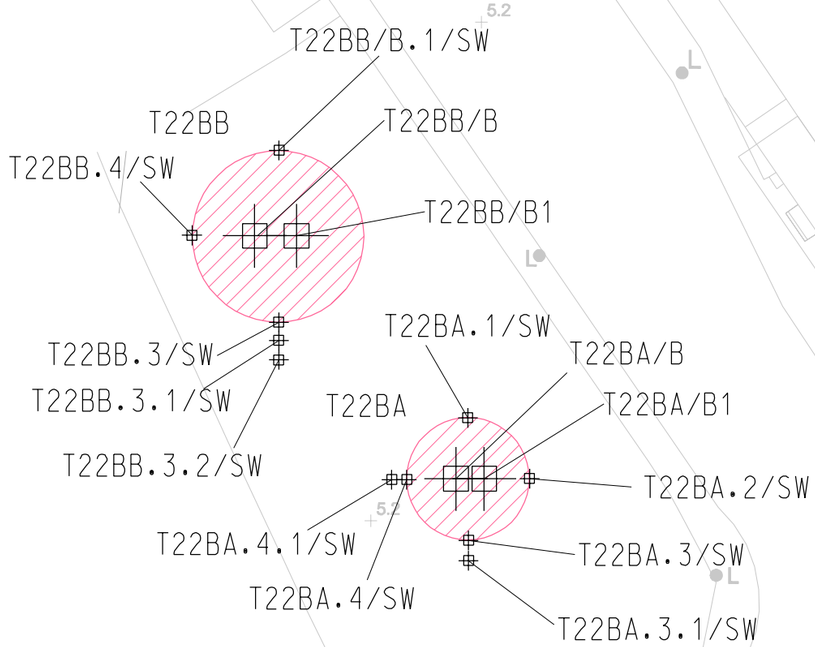
AECOM

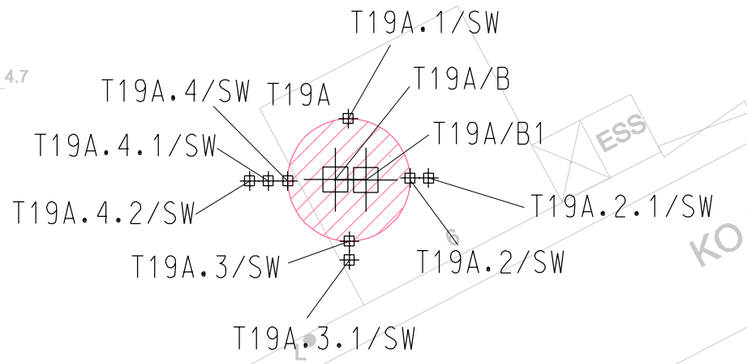
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES T32C, T32D, T32E, T35C AND T36A)

SCALE	A3 1 : 600	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
PROJECT NO.	60048208	FIGURE NO.	11
		REV	–

ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
T19A	0.5-2.0	LEAD	78.5	117.75	SOLIDIFICATION / STABILIZATION
T22BA	0.0-1.5	LEAD	78.5	117.75	SOLIDIFICATION / STABILIZATION
T22BB	1.5-3.0	LEAD & COPPER	153.9	230.8	SOLIDIFICATION / STABILIZATION





NOTE:
LOCATION AND SIZE OF THE EXCAVATION ZONES AND THEIR CORRESPONDING CONFIRMATORY SAMPLING LOCATIONS ARE INDICATIVE ONLY

LEGEND

- SITE EXTENT
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

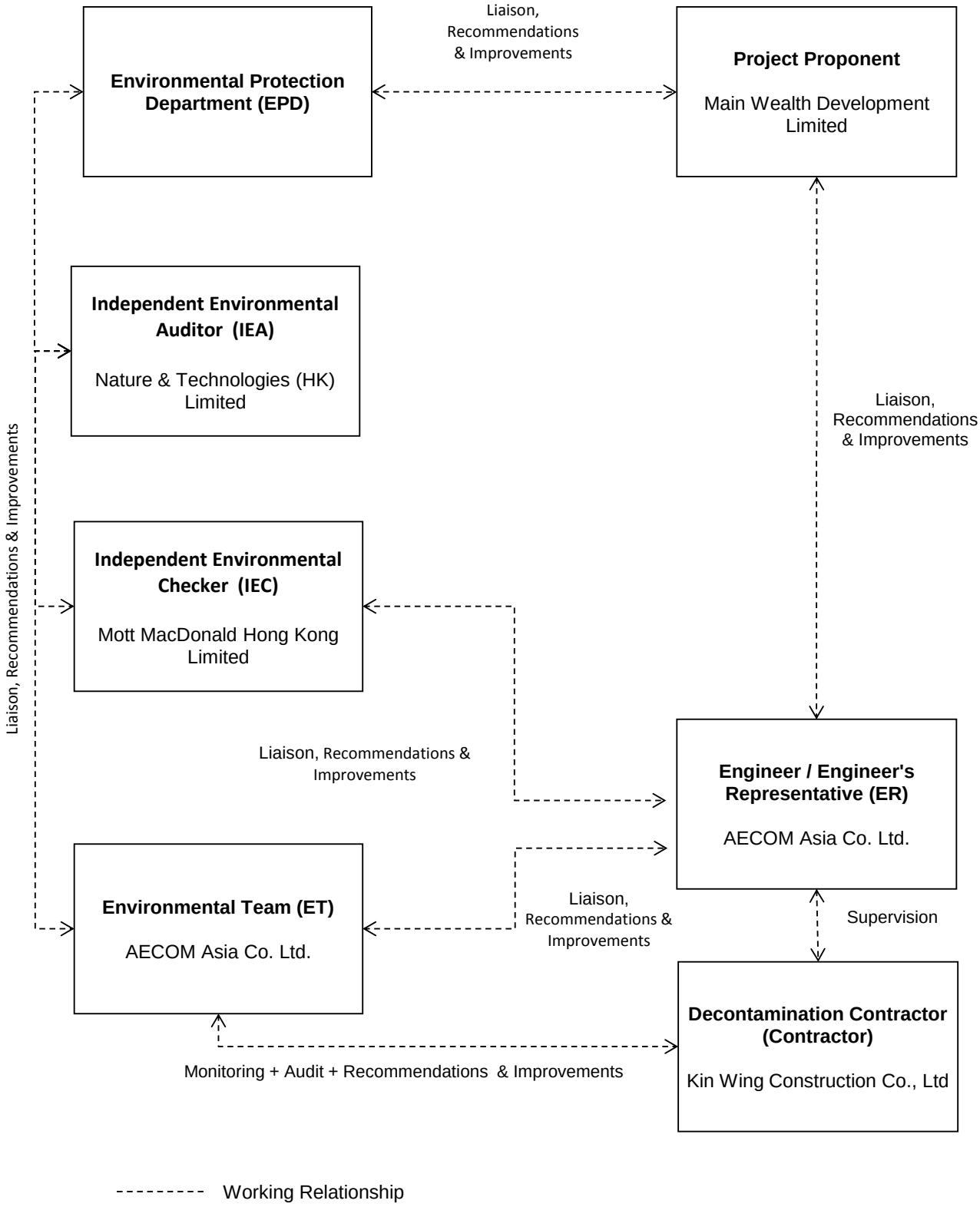
AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES T19A, T22BA, T22BB)

SCALE	A3 1 : 500	DATE	JAN 2014
CHECK	LLHY	DRAWN	KW
PROJECT NO.	60048208	FIGURE NO.	12
		REV	–

APPENDIX A
PROJECT ORGANIZATION STRUCTURE



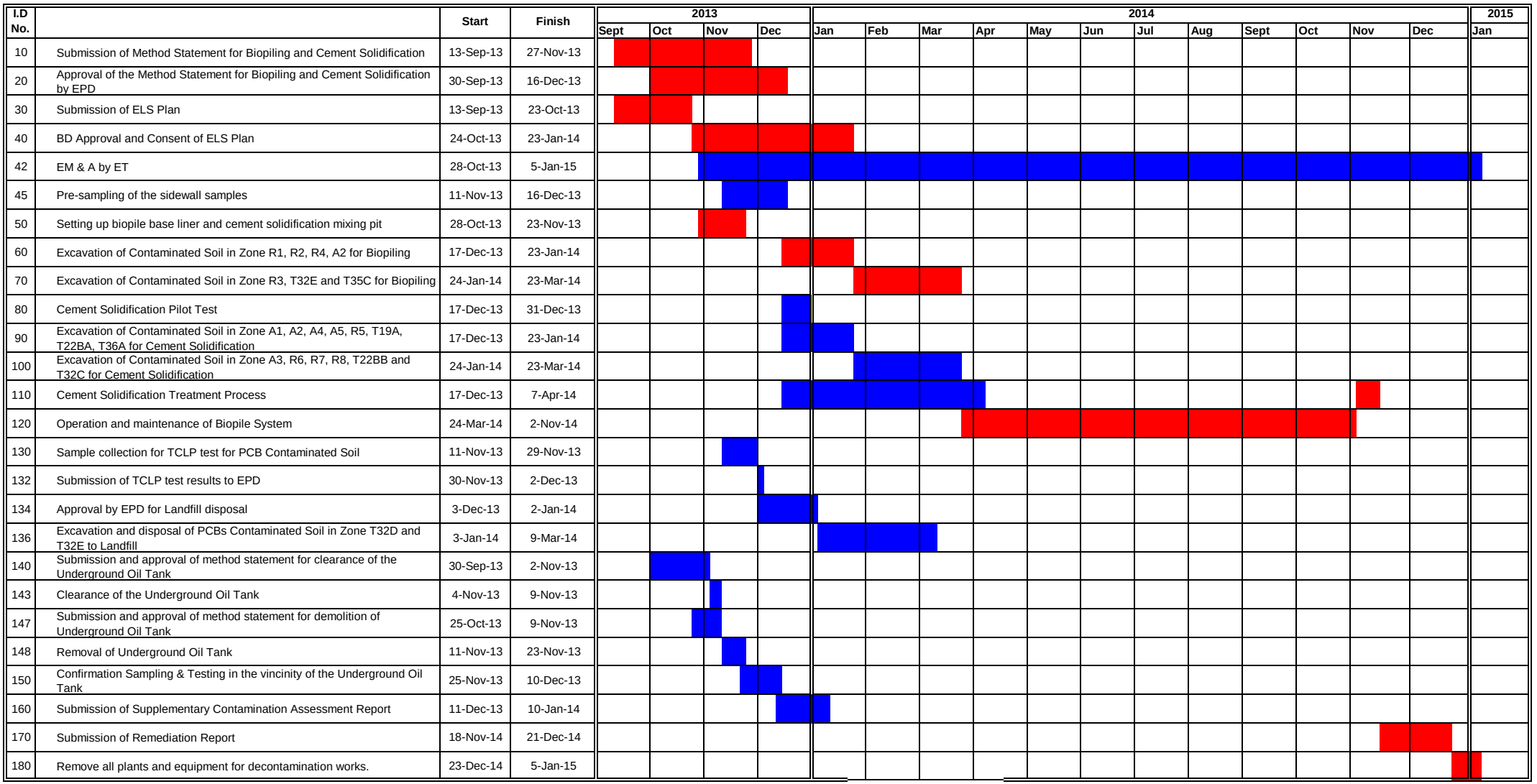
AECOM	**Yau Tong Bay - Decommissioning of Shipyard Sites**	SCALE	N.T.S.	DATE	Dec-13
		CHECK	ENFL	DRAWN	JCYK
	Project Organization Structure	JOB NO.	60048283	APPENDIX A	Rev. -

APPENDIX B
CONSTRUCTION PROGRAMME

Yau Tong Bay Redevelopment
Land Decontamination Works

Construction Programme (Rev. 2)

I.D No.		Start	Finish
10	Submission of Method Statement for Biopiling and Cement Solidification	13-Sep-13	27-Nov-13
20	Approval of the Method Statement for Biopiling and Cement Solidification by EPD	30-Sep-13	16-Dec-13
30	Submission of ELS Plan	13-Sep-13	23-Oct-13
40	BD Approval and Consent of ELS Plan	24-Oct-13	23-Jan-14
42	EM & A by ET	28-Oct-13	5-Jan-15
45	Pre-sampling of the sidewall samples	11-Nov-13	16-Dec-13
50	Setting up biopile base liner and cement solidification mixing pit	28-Oct-13	23-Nov-13
60	Excavation of Contaminated Soil in Zone R1, R2, R4, A2 for Biopiling	17-Dec-13	23-Jan-14
70	Excavation of Contaminated Soil in Zone R3, T32E and T35C for Biopiling	24-Jan-14	23-Mar-14
80	Cement Solidification Pilot Test	17-Dec-13	31-Dec-13
90	Excavation of Contaminated Soil in Zone A1, A2, A4, A5, R5, T19A, T22BA, T36A for Cement Solidification	17-Dec-13	23-Jan-14
100	Excavation of Contaminated Soil in Zone A3, R6, R7, R8, T22BB and T32C for Cement Solidification	24-Jan-14	23-Mar-14
110	Cement Solidification Treatment Process	17-Dec-13	7-Apr-14
120	Operation and maintenance of Biopile System	24-Mar-14	2-Nov-14
130	Sample collection for TCLP test for PCB Contaminated Soil	11-Nov-13	29-Nov-13
132	Submission of TCLP test results to EPD	30-Nov-13	2-Dec-13
134	Approval by EPD for Landfill disposal	3-Dec-13	2-Jan-14
136	Excavation and disposal of PCBs Contaminated Soil in Zone T32D and T32E to Landfill	3-Jan-14	9-Mar-14
140	Submission and approval of method statement for clearance of the Underground Oil Tank	30-Sep-13	2-Nov-13
143	Clearance of the Underground Oil Tank	4-Nov-13	9-Nov-13
147	Submission and approval of method statement for demolition of Underground Oil Tank	25-Oct-13	9-Nov-13
148	Removal of Underground Oil Tank	11-Nov-13	23-Nov-13
150	Confirmation Sampling & Testing in the vincinity of the Underground Oil Tank	25-Nov-13	10-Dec-13
160	Submission of Supplementary Contamination Assessment Report	11-Dec-13	10-Jan-14
170	Submission of Remediation Report	18-Nov-14	21-Dec-14
180	Remove all plants and equipment for decontamination works.	23-Dec-14	5-Jan-15



Non-critical Activity
Critical Activity

APPENDIX C
IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)

Appendix C - Implementation Schedule of Environmental Mitigation Measures (EMIS)

Air Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Air Quality during Construction	• Careful sitting of construction activities which generate substantial amount of dust can effectively reduce the overall impact.	During construction	V
	• Use of regular watering, with complete coverage if possible, to reduce dust emissions from exposed site surfaces and unpaved roads and for dusty construction areas and areas close to ASRs, particularly during dry weather.		V
	• Open stockpiles shall be avoided. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where possible, prevent placing dusty material storage piles near ASRs. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.		@
	• No free falling construction debris should be allowed; debris should be let down by hoist or enclosed tunnel to the ground.		N/A
	• All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.		V
	• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.		@
	• Height from which dusty materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading.		N/A
	• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.		V
	• Skip hoist for material transport should be totally enclosed by impervious sheeting.		V
	• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site and public roads, combined with cleaning of public roads wherever necessary and practical.		@
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.		V
	• Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit.		V
	• Imposition of speed controls for vehicles on site haul roads. Where feasible, routing of vehicles and positioning of construction plants should be at a maximum possible distances from sensitive receivers.		V
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.		N/A
	• Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.		V

Noise - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Construction Noise during Construction	• In order to reduce the excessive noise impacts at the affected NSRs during normal daytime working hours, the following mitigation measures shall be implemented:- - adopting quiet powered mechanical equipment; - scheduling of works; - erect a 3m tall moveable noise barriers along the site boundary; and - noise enclosure.	During construction	V
	• Only well-maintained plant should be operated on-site and plant should be serviced regularly.		V
	• Silencers or mufflers on construction equipment should be utilized and should be properly maintained.		V
	• Mobile plant, if any, should be sited as far away from NSRs as possible.		V
	• Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.		V
	• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.		V
	• Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.		V
	• Use of acoustic barriers as close to the source as possible. Equipment to be shielded: air compressor, water pump, concrete pump, dumper, dump truck, generator, various hand tools, saw, excavator, loader, truck mixer, mobile crane, vibrator and breaker.	During examination periods of the school nearby	V

Impact	Mitigation Measures	Timing	Implementation Status
Water Quality during Construction	**Construction works at or close to the seafront**		
	• Temporary storage of construction materials (e.g. equipment, filling materials, chemicals and fuel), chemical waste storage area and temporary stockpile of construction and demolition materials should be located well away from the seawater front and storm drainage during carrying out of the works.	During construction	V
	• Stockpiling of construction and demolition materials and dusty materials should be covered and located away from the seawater front and storm drainage.		V
	• Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby receiving waters.		V
	Construction run-off and Drainage		
	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" shall be followed as far as practicable in order to minimise surface runoff and the chance of erosion, and also to retain and reduce any suspended solids prior to discharge. These practices include, inter alia, the following items:- • Provision of perimeter channels to intercept storm-runoff from outside the site. These shall be constructed in advance of site formation works and earthworks.	During construction	V
	• Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor and/or oil/grease separator. Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance.		V
	• Sand/silt removal facilities such as sand traps, silt traps and sediment basins shall be provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the Water Pollution Control Ordinance. The design of silt removal facilities should be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures should be inspected monthly, regularly cleaned and maintained to ensure proper and efficient operation at all times and particularly during rainstorms.		V
	• Careful programming of the works to minimise the potential of soil erosion during the rainy season. Other measures that need to be implemented before, during, and after rainstorms are summarized in ProPECC PN 1/94.		V
	• Exposed soil surface shall be protected by paving as soon as possible to reduce the potential of soil erosion.		V
	• Open stockpiles of construction materials on site shall be covered with tarpaulin or similar fabric during rainstorm.		@
	General Construction Activities		
	• Debris and rubbish generated on-site shall be collected, handled and disposed of properly to avoid entering the nearby nullah and stormwater drains. Stockpiles of cement and other construction material should be kept covered when not being used.	During construction	V

Impact	Mitigation Measures	Timing	Implementation Status
Water Quality during Construction	• Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.		V
	Sewage Effluent		
	• Temporary sanitary facilities, such as portable chemical toilets, shall be employed on-site. A licensed contractor would be responsible for appropriate disposal and maintenance of these facilities.	During construction	V
	• Effluent discharged from the construction site should comply with the standards stipulated in the TM-DSS.		V
	• Subject to the sampling results of Contamination Assessment Plan of the site, any contaminated land treatments are subjected to EPD's requirements on handling, treatment and disposal. Should effluent stream and/or extracted ground water be discharged from the site, the discharge shall comply with the WPCO and any EPD special requirements.		N/A
	• Establishment of baseline and impact monitoring program to establish the baseline water quality condition and monitor the construction process in order to enforce controls and modify method of work if any adverse impacts on the water sensitive receivers are detected.		V

Waste Management- Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	**Good Site Practice**		
	• Nominate an approved personnel, such as a site manager, to be responsible for good site practices and effective arrangements for collection and disposal to an appropriate facility of all wastes generated at the works area. Training of site personnel in proper waste management and handling procedures shall be undertaken.	During construction	V
	• Construction materials should be planned and stocked carefully to minimise and avoid unnecessary generation of waste.		V
	• General refuse shall be stored and collected separately from other construction and chemical wastes. Provide on-site refuse collection facilities and enclosed transfer facility for storage and containment.		V
	• Waste points should be provided sufficiently and waste should be collected regularly.		V
	• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.		V
	• Separate chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre located at Tsing Yi. Chemical waste shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.		V

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	During construction	V
	• Develop procedures such as a trip-ticket system to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping.		V
	• A recording system for the amount of wastes generated, recycled and disposed should be proposed.		V
	Waste Reduction Measures		
	Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:-	During construction	
	• Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.		V
	• Encourage collection of aluminum cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.		V
	• Any unused chemicals or those with remaining functional capacity shall be recycled.		V
	• Use of reusable non-timber formwork to reduce the amount of C&D material.		V
	• Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill.		V
	• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.		V
	• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.		V
	General Site Wastes		
	• Collection area for construction site waste should be provided where waste can be stored prior to removal from site.	During construction	V
	• An enclosed and covered area for the collection of the waste is recommended to reduce 'wind blow' of light material.		V
	• An open area used for storage or loading/unloading of wastes should be bunded and all the polluted surface run-off collected within this area should be diverted into sewers.		V
	• General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.		V
	Workforce Wastes		
	• Suitable collection sites around site offices and canteen should be required.	During construction	V
	• Waste should be removed daily or as often as required.		V

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	**Chemical Waste**		
	• After use, chemical waste (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Package, Labelling and Storage of Chemical Wastes.	During construction	V
	• Waste should be properly stored on site within suitably designed containers and should be collected by approved licensed waste collectors for disposal at the Chemical Waste Treatment Centre (CWTC) or other licensed facility in accordance with the Waste Disposal Chemical Waste (General) Regulation.		V
	• Any service shop and minor maintenance facilities should be located on hard standing within a bunded area, and sumps and oil interceptors should be provided.	During construction	N/A
	• Provision of appropriate on-site temporary storage facility for any asbestos containing materials (ACM) where necessary. Storage facilities shall be designed in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.		V
	• Employ registered contractors for removal of ACM off-site and disposal at a designated landfill site.		V
	Construction and Demolition Material		
	• The selective demolition method is recommended to be employed to minimize the effort of sorting mixed C&D materials.	During construction	V
	• In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, it is recommended that the public fill material generated from demolition works shall be re-used on-site as far as possible.		V
	• A suitable area should be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials. Separate construction and demolition material into C&D waste (non-inert material) and public fill (inert material) for appropriate disposal. Public fill disposed at a public filling area shall only consist of earth, building debris, broken rock and concrete. The material shall be free from marine mud, household refuse, plastic, metals, industrial and chemical waste, animal and vegetable matter, and other material considered to be unsuitable by the Filling Supervisor. Small quantities of timber mixed with otherwise suitable material would be permitted. C&D waste, such as wood, glass, plastic, steel and other metals, shall be reused or recycled and, as a last resort, disposed to landfill.		V

Impact	Mitigation Measures	Timing	Implementation Status
Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)	• Further land contamination assessments to be carried out for inaccessible lots, lots which the Permit Holder opt to re-assess in accordance with the RBRGs approach, as well as areas that required further sampling to ascertain contamination extent. Supplementary CAP, CAR and RAPs to be submitted to EPD for endorsement before commencement of remediation work. These reports shall detail the further sampling & remediation works required. The development construction work shall only commence after all the remediation work has been completed.	Inaccessible lots as described under para. 3.5 of Appendix 7A of YTB-EIA as well as areas that required further sampling to ascertain contamination extent/ Upon availability of site access Supplementary CAP, CAR and RAPs to be submitted to EPD for endorsement before commencement of the remediation work. Development construction work should only commence after all the remediation	V (Two CAPs (Yau Tong Bay - Decommissioning of Shipyard Sites Supplementary CAP for Previous Inaccessible Lots (YTML 27, 44, 45-46, 54 and Underground Oil Tank at YTML 6-11) & Yau Tong Bay - Decommissioning of Shipyard Sites (CAP for YTML 1, 6-11, 15, 28, 29, 38 and 41-43)) have been submitted to EPD and approved on 6 Jul 2011 and 30 Aug 2011 respectively. The corresponding CARs and RAPs were submitted to EPD in June 2012 and were subsequently approved in June 2013 after two rounds of comment.)

Impact	Mitigation Measures	Timing	Implementation Status
		work has been completed.	
Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)	• A method statement detailing the following shall be submitted to EPD for endorsement:- - Methodology, monitoring and verification procedures for biopiling and solidification; - Pilot test procedures for solidification process to ascertain the concrete mix receipe and leachability of the product; - The sample size for the verification soil test to be conducted by IEA for spot check purpose; - The notification system for notifying the Director the satisfactory completion of the excavation and treatment of contaminated soil; and - Provision and operation requirements of equipment and personnel decontamination facilities.	All areas identified to require solidification of soil as land remediation / The pilot test results and method statement shall be submitted and endorsed at least one month prior to the full scale solidification works. All soil identified and to be identified as contaminated with TPH / The method statement shall be submitted and endorsed at least one month prior to the commencement of the biopiling works.	V (A method statement for biopiling and solidification has been submitted to EPD on 2 Oct 2013. The method statement is endorsed by EPD on 20 Dec 2013.)

Impact	Mitigation Measures	Timing	Implementation Status
Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)	• A Soil Remediation Report should be submitted to EPD to demonstrate that the remediation work has been properly carried out.	All areas identified to require soil and groundwater remediation / The Remediation Report shall be submitted and endorsed prior to the commencement of the development construction works.	N/A
	• Inspections for dioxin. Should there be signs of incineration facilities, burn pits or facilities that utilises high temperature burning, soil sampling for dioxin will be carried out. Details regarding such sampling shall be approved by EPD. A detailed proposal for dealing with dioxin contaminated material, if found, shall also be submitted to EPD for approval.	All the Yau Tong Bay marine lots inspection and testing shall commence upon availability of site.	V
Land Contamination (For lots and facilities assessed under EIA with approved CAP, CAR and RAP based on Dutch B levels	• A pilot test shall be conducted to ascertain the concrete mix receipe and leachability of the product prior to a full scale solidification and a method statement detailing the solidification procedure (including the sampling proposal for process monitoring) shall be submitted to EPD for endorsement.	All areas identified to require solidification of soil as land remediation / The pilot test results and method	V (A pilot test to ascertain the concrete mix recipe was conducted on 30 Dec 2013. The method statement for solidification has

Impact	Mitigation Measures	Timing	Implementation Status
referenced to ProPECC PN3/94 – Contaminated Land Assessment and Remediation)		statement shall be submitted and endorsed prior to the full scale solidification works.	been submitted to EPD on 2 Oct 2013 and subsequently endorsed by EPD on 20 Dec 2013.)
Land Contamination (For lots and facilities assessed under EIA with approved CAP, CAR and RAP based on Dutch B levels referenced to ProPECC PN3/94 – Contaminated Land Assessment and Remediation)	• A method statement detailing the biopiling methodology, monitoring and verification procedures shall be submitted to EPD for endorsement.	All soil identified and to be identified as contaminated with TPH / The method statement shall be submitted and endorsed prior to the commencement of the biopiling works.	V (The method statement for biopiling has been submitted to EPD on 2 Oct 2013 and subsequently endorsed by EPD on 20 Dec 2013.)
	• A Soil Remediation Report should be submitted to EPD to demonstrate that the remediation work has been properly carried out.	All areas identified to require soil and groundwater remediation / The Remediation Report shall be submitted and endorsed prior to the commencement of the development construction	N/A

Impact	Mitigation Measures	Timing	Implementation Status
		works.	

Landscape and Visual Impact - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Landscape and Visual Impact during Construction	• On-site mature trees within the Project boundary shall be retained. Any mature tree shall not be transplanted or fell unless permission has been given by EPD.	During construction	V
	• During the biopiling process, the biopiles shall be limited to a height of less than 3m.		N/A
	• Erection and maintenance of decorative screen/colour hoarding around the site.		V

Legend: V = implemented;
X = not implemented;
@ = partially implemented;
N/A = not applicable - No such work was undertaken or no such material was used on site.

APPENDIX D
SUMMARY OF ACTION AND LIMIT LEVELS

Appendix D - Summary of Action and Limit Levels

Table 1 – Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)

Location	Action Level	Limit Level
NM1	When one documented complaint, related to 0700 – 1900 hours on normal weekdays, is received from any one of the sensitive receivers.	75 dB(A)
NM2		65/70 dB(A)*
NM3		65/70 dB(A)*

*Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period.

APPENDIX E
CALIBRATION CERTIFICATES OF MONITORING EQUIPMENTS

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. Tel : (852) 2873 6860
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓 Fax : (852) 2555 7533
E-mail: smec@cigismec.com Website: www.cigismec.com
HOKLAS 028

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA1107 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	Rion Co., Ltd.	,	Rion Co., Ltd.
Type/Model No.:	NL-31	,	UC-53A
Serial/Equipment No.:	00320528 / N.007.03A	,	90565
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	07-Nov-2013

Date of test: 08-Nov-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2014	CIGISMEC
Signal generator	DS 360	33873	15-Apr-2014	CEPREI
Signal generator	DS 360	61227	15-Apr-2014	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 11-Nov-2013 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
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E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2238	,	4188
Serial/Equipment No.:	2285692 N009.04	,	2250420
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0305 01-02 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2270	,	4189
Serial/Equipment No.:	2644597	,	2638713
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO LTD
Address of Customer:	-
Request No.:	-
Date of receipt:	05-Mar-2013

Date of test: 05-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature:	(21 ± 1) °C
Relative humidity:	(60 ± 10) %
Air pressure:	(1000 ± 10) hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 05-Mar-2013 **Company Chop:**

SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
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HOKLAS 028

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA1107 01-02 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion Co., Ltd.
Type/Model No.:	NC-73
Serial/Equipment No.:	10307223 / N.004.08
Adaptors used:	-

Item submitted by

Curstomer:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	07-Nov-2013

Date of test: 08-Nov-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	17-Apr-2014	SCL
Preamplifier	B&K 2673	2239857	16-Apr-2014	CEPREI
Measuring amplifier	B&K 2610	2346941	24-Apr-2014	CEPREI
Signal generator	DS 360	61227	15-Apr-2014	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	15-Apr-2014	CEPREI
Universal counter	53132A	MY40003662	15-Apr-2014	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 11-Nov-2013 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
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CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-03 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion Co., Ltd.
Type/Model No.:	NC-73
Serial/Equipment No.:	10186482 / N.004.09
Adaptors used:	-

Item submitted by

Curstomer:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	29-May-2013	SCL
Preamplifier	B&K 2673	2239857	17-Dec-2013	CEPREI
Measuring amplifier	B&K 2610	2346941	17-Dec-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	29-May-2013	CEPREI
Universal counter	53132A	MY40003662	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

APPENDIX F
EM&A MONITORING SCHEDULES

Yau Tong Bay - Decomissioning of Shipyard Sites
Tentative Impact Air Quality and Noise Monitoring Schedule for December 2013

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

Yau Tong Bay - Decomissioning of Shipyard Sites
Tentative Impact Air Quality and Noise Monitoring Schedule for January 2014

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

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

APPENDIX G
IMPACT DAYTIME CONSTRUCTION NOISE MONITORING RESULTS AND THEIR GRAPHICAL PRESENTATION

Appendix G Impact Daytime Construction Noise Monitoring Results

Location : NM1 (Yau Lai Estate Hong Lai House Rooftop - Façade)
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
6-Dec-13	13:05	13:35	Fine	**63.9**	65.5	60.5	65.4	63.9	75.0	Construction activities of other contracts; Traffic Noise	-	18.3	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
12-Dec-13	14:01	14:31	Fine	**67.0**	68.3	65.1	65.4	61.9	75.0	Construction activities of other contracts; Traffic Noise	-	18	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10186482)
23-Dec-13	9:56	10:26	Sunny	**62.2**	64.5	60.3	65.4	62.2	75.0	Construction activities of other contracts; Traffic Noise	-	14.6	<5 m/s	B&K 2238 (2285692)	Rion NC-73 (10307223)
							Average	**63.0**							
							Min.	**61.9**							
							Max.	**63.9**							

Location : NM2 (S.K.H. Yau Tong Kei Hin Primary School Rooftop - Façade)
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)#	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
6-Dec-13	13:20	13:50	Fine	**63.0**	64.5	60.5	65.4	63.0	75.0	Construction activities of other contracts; Traffic Noise	-	18.3	<5 m/s	B&K 2270 (2644597)	Rion NC-73 (10186482)
12-Dec-13	13:10	13:40	Fine	**65.3**	67.0	63.0	65.4	65.3	75.0	Construction activities of other contracts; Traffic Noise	-	18	<5 m/s	B&K 2238 (2285692)	Rion NC-73 (10186482)
23-Dec-13	10:38	11:08	Sunny	**63.7**	64.0	60.5	65.4	63.7	75.0	Construction activities of other contracts; Traffic Noise	-	14.6	<5 m/s	B&K 2238 (2285692)	Rion NC-73 (10307223)
							Average	**64.3**							
							Min.	**63.0**							
							Max.	**65.3**							

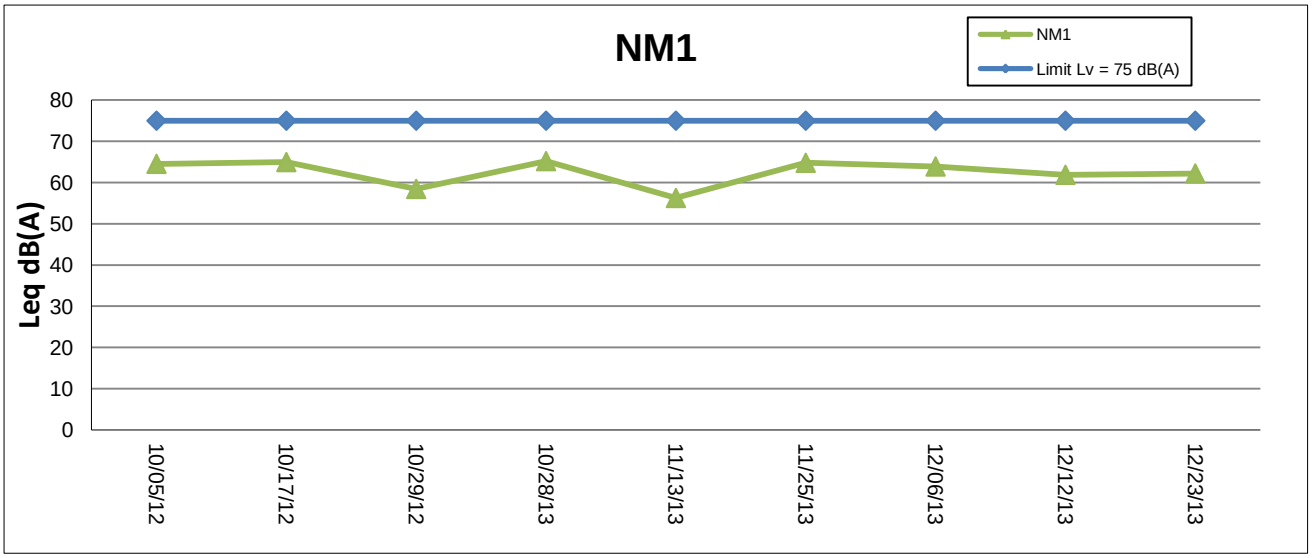
Remarks:
- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.
** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.
If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

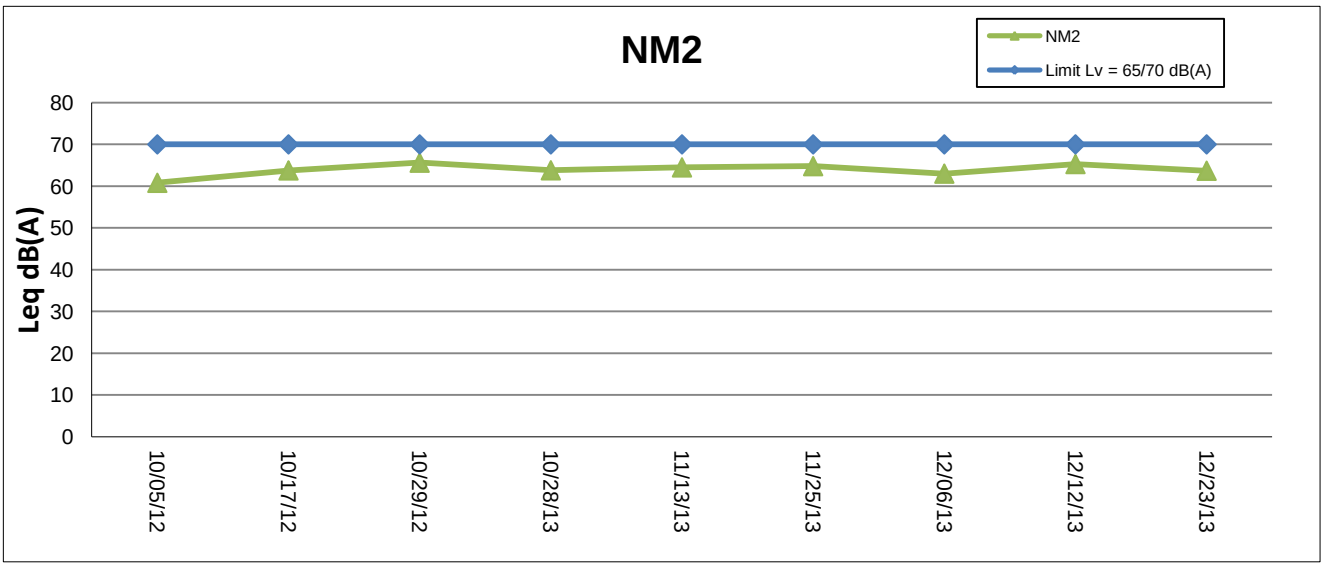
Appendix G Impact Daytime Construction Noise Monitoring Results

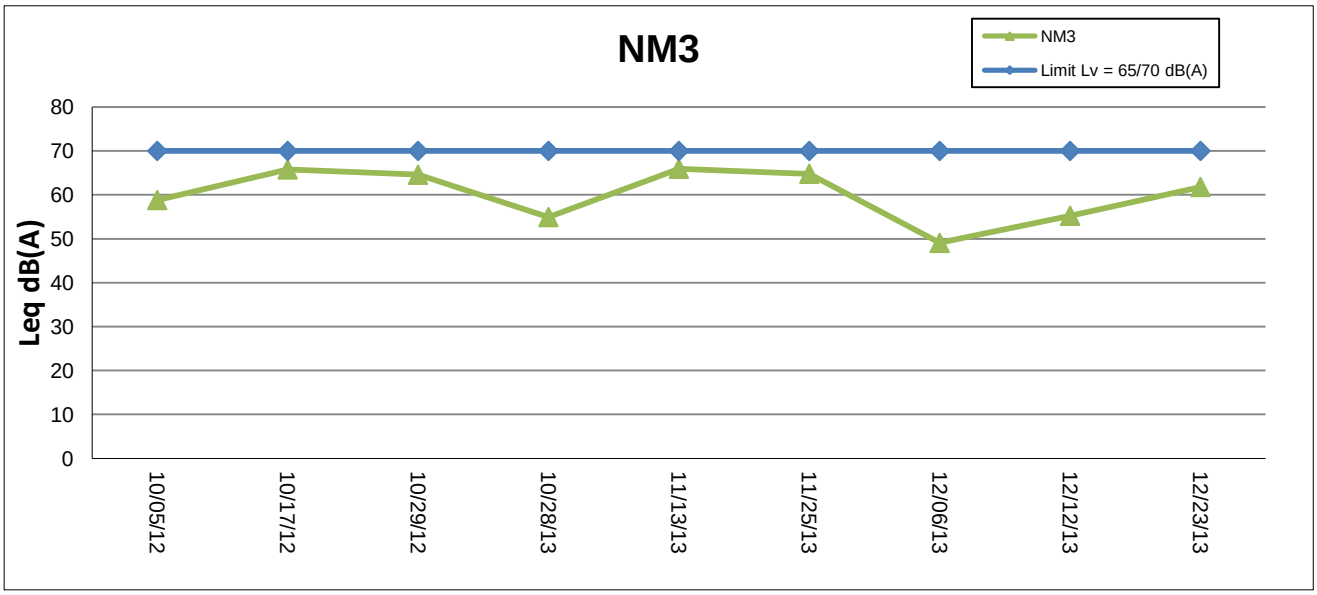
Location : NM3 (C.C.C. Kei Faat Primary School (Yau Tong) Rooftop - Façade)
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)#	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
6-Dec-13	14:05	14:35	Fine	**65.5**	68.3	60.0	65.4	49.1	75.0	Construction activities of other contracts; Traffic Noise	-	18.3	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10186482)
12-Dec-13	13:11	13:41	Fine	**65.8**	67.3	63.1	65.4	55.2	75.0	Construction activities of other contracts; Traffic Noise	-	18	<5 m/s	B&K 2238 (2285692)	Rion NC-73 (10186482)
23-Dec-13	11:16	11:46	Sunny	**61.8**	63.0	59.5	65.4	61.8	75.0	Construction activities of other contracts; Traffic Noise	-	14.6	<5 m/s	B&K 2238 (2285692)	Rion NC-73 (10307223)
							Average	**53.2**							
							Min.	**49.1**							
							Max.	**55.2**							

Remarks:
- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.
** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.
If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level







Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

AECOM	**Yau Tong Bay – Decommissioning of Shipyard Sites**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60048283	**APPENDIX No.** G	**Rev.** -

APPENDIX H
EVENT ACTION PLAN

Appendix H – Event Action Plan

Event / Action Plan for Noise

Event Limit Level	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action Level	1. Notify IEC, ER and Contactor; 2. Carry out investigation and identify the source; 3. Report the results of investigation to the IEC, ER and Contactor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, ER, EPD and Contractor; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor‟s working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures require; 7. Assess effectiveness of Contractor‟s remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring .	1. Review the investigation results submitted by the ET; 2. Check the Contractor‟s working procedures; 3. Discuss amongst ER, ET and Contractor on the potential remedial actions; 4. Review Contractor‟s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET, IEC and ER on proper remedial measures; 3. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 4. Implement the agreed proposals ; 5. Submit further proposal if problem still not under control; 6. Stop the relevant portion of works as instructed by the ER until the exceedance is abated .

APPENDIX I
TRIP TICKETS

Please carefully read the instructions overleaf before completing this form. 請細讀背頁所載指示以正確地填寫此表格。

Waste Collector's Copy
廢物收集者存根

WASTE DECLARATION: (廢物聲明) Import 入口 [ ] Part A 甲類 [ ] Export 出口 [ ] Part B 乙類 [✓]

Part A Waste Notification Reference No. (甲類化學廢物通知書編號) :

Environmental Protection Department
環 境 保 護 署

Waste Disposal Ordinance (Chapter 354)
香港法例第354章廢物處置條例
Waste Disposal (Chemical Waste) (General) Regulation
廢物處置(化學廢物)(一般)規例

TRIP TICKET
運 載 紀 錄

Ticket Number (運載紀錄編號) : 1003819

A. WASTE PRODUCER (廢物產生者)

Full Name 全名 Kin Wing Construction Co., Ltd	Contact Person 聯絡人姓名 Mr. Wong
Address 地址 Yau Tong Bay Redevelopment Cha Kwo Ling Road & Ko Fai Rd Yau Tong	Capacity 職位
	Tel. No. 電話 2785-8152
Waste Producer Number 廢物產生者編號 5213-290-K2822-04	

I certify in my best knowledge and belief that the information given in the Waste Declaration, A, D(I), and E(I) sections is correct and the waste described in D(I) has been properly labelled and consigned to the waste collector at B.

據本人所知及所信，在廢物聲明，A, D(I)及E(I)欄內填報的資料，全屬真實無訛，而D(I)欄開列的廢物是已作適當的標識及妥為付運的廢物交收集者付運，此證。

KIN WING CONSTRUCTION CO. LTD. 建榮 3

Signed 簽名 : Lee Kam Hung Co. Chop 公司印鑑 :

Name 姓名 : LEE KAM HUNG Date 日期 : 7-11-2015 Time 時間 : 10:00

B. WASTE COLLECTOR (廢物收集者) (*State the appropriate one 選擇適用者)

Company Name 公司名稱 Sun Base Environmental Services Limited	Operator 運載員姓名 張國華
Address 地址 Rm.15, 9/F., 33 Sheung Yee Rd. Kowloon Bay, Kln	Tel. No. 電話 2797-9812
	Vehicle Registration or Vessel Licence No. * 車輛登記編號或船隻牌照編號 JZ 6811
Waste Collection Licence Number 廢物收集牌照編號 9210-280-S0032-WC	
Intended Disposal Site 搬運往的處置設施	

I certify in my best knowledge and belief that I have checked and then collected the waste set out in D(I), and the information given in B, D(II), and E(II) is correct.

據本人所知及所信，本人經核對後已收集D(I)欄載列的廢物，而B,D(II)及E(II)欄內填報的資料，全屬真實無訛，此證。

Sun Base Environmental Services Ltd. 新基環保服務有限公司

Signed 簽名 : 張 Co. Chop 公司印鑑 :

Name 姓名 : 張國華 Date 日期 : 7-11-2015 Time 時間 : 10:00

C. RECEPTION POINT (廢物收集處)

Company Name 公司名稱	Contact Person 聯絡人姓名
Address 地址	Capacity 職位
	Tel. No. 電話
Waste Disposal Licence Number 廢物處置牌照編號	

I(Reception Point Manager) certify that the waste set out in D(I) has been received by this reception point and the information given in C, D(III) and E(III) is correct.

本人(收集處經理)證實本收集處已接收在D(I)欄載列的廢物，而C,D(III)及E(III)欄內填報的資料，全屬真實無訛，此證。

Dongwell Industrial Holdings Ltd. 東威實業有限公司

Signed 簽名 : Co. Chop 公司印鑑 :

Name 姓名 : 張國堅 Date 日期 : 11-7-15 Time 時間 : 14:20

D. WASTE DESCRIPTION (廢物資料)

(* State the appropriate one 選擇適用者)

Item 廢物項目	(I) Waste Type/Chemical Name 廢物種類／化學名稱	Waste Identification 廢物鑑定 Waste Code 廢物代號	Dangerous Goods (Category) 危險物品(類別) (If applicable) (如適用者)	Physical Form* 廢物形態 Solid 固體 / Liquid 液體 / Sludge 污泥 / Others 其他	Containers 容器 No. 數目	Type 種類	Capacity 容量 (L or kg)* (升或公斤)	Quantity Notified 報稱的數量 (Part A Waste only) (只適用於甲類化學廢物) (L or kg)* (升或公斤)	(II) Quantity Collected 收集的數量 (L or kg)* (升或公斤)	(III) Quantity Received 接收的數量 (L or kg)* (升或公斤)
1.	Unwanted diesel water	L73			30	桶	200 L 升 / kg 公斤	6000 L 升 / kg 公斤	L 升 / kg 公斤	6000 L 升 / kg 公斤
2.							L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤
3.							L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤
4.							L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤

E. REMARKS (註釋) (Include any additional information necessary for safe handling of the waste.)
(包括確保廢物安全處理的其他附加資料。)

(I) Waste Producer 廢物產生者 : 30桶

(II) Waste Collector 廢物收集者 :

(III) Reception Point 廢物收集處 :

In handling Part A chemical waste, Waste Producer, Waste Collector and Reception Point must strictly follow the Directions for Disposal issued by the Director of Environmental Protection under Section 17 of the Waste Disposal Ordinance.
廢物產生者、廢物收集者及廢物收集處在處置甲類化學廢物時，必須遵守環境保護署署長根據廢物處置條例第17條所簽發的指令。

WARNING: Any person(s) who knowingly or recklessly provide incorrect or misleading information or omit material particulars or information or knowingly or recklessly certify as correct anything which is incorrect, in relation to any requirement in the Regulation, commits an offence punishable with a maximum fine of $200,000 and imprisonment for 6 months.

警 告：根據廢物處置（化學廢物）（一般）規例的規定，任何人士填報本表格時故意或罔顧後果地提供不確或誤導資料或遺漏重要事項，又或故意或罔顧後果地證明任何不確事項為正確，即屬違法，最高可被判罰款港幣200,000元及入獄6個月。

Please carefully read the instructions overleaf before completing this form. 請細讀背頁所載指示以正確地填寫此表格。

Waste Collector's Copy
廢物收集者存根

WASTE DECLARATION: (廢物聲明) Import 入口 ☐ Part A 甲類 ☐ Export 出口 ☐ Part B 乙類 ☑

Part A Waste Notification Reference No. (甲類化學廢物通知書編號) :

Environmental Protection Department
環 境 保 護 署
Waste Disposal Ordinance (Chapter 354)
香港法例第354章廢物處置條例
Waste Disposal (Chemical Waste) (General) Regulation
廢物處置(化學廢物)(一般)規例
TRIP TICKET
運 載 紀 錄

Ticket Number (運載紀錄編號) : 1003820

A. WASTE PRODUCER (廢物產生者)

Full Name 全名: Kin Wing Construction Co., Ltd	Contact Person 聯絡人姓名: Mr. Wong
Address 地址: Yau Tong Bay Redevelopment, Cha Kwo Ling Road & Ko Fai Rd, Yau Tong	Capacity 職位 / Tel. No. 電話: 2785-8152
Waste Producer Number 廢物產生者編號: 5213-290-K2822-04	

I certify in my best knowledge and belief that the information given in the Waste Declaration, A, D(I), and E(I) is correct and the waste described in D(I) has been properly labelled and consigned to the waste collector at B.

據本人所知及所信，在廢物聲明、A、D(I)及E(I)欄內填報的資料，全屬真實無訛，而D(I)欄開列的廢物業已作適當的標識及交託下述的廢物收集者付運，此證。

Signed 簽名: Yan Co. Chop 公司印鑑: Kin Wing Construction Co., Ltd. 建榮

Name 姓名: Ken LAM Date 日期: 9-11-201 Time 時間: 09:30

B. WASTE COLLECTOR (廢物收集者) (*State the appropriate one 選擇適用者)

Company Name 公司名稱: Sun Base Environmental Services Limited	Operator 運載員姓名: 張國榮
Address 地址: Rm.15, 9/F., 33 Sheung Yee Rd. Kowloon Bay, Kln	Tel. No. 電話: 2797-9812
	Vehicle Registration or Vessel Licence No. * 車輛登記編號或船隻牌照編號: FB9158
Waste Collection Licence Number 廢物收集牌照編號: 9210-280-S0032-WC	
Intended Disposal Site 搬運往的處置設施	

I certify in my best knowledge and belief that I have checked and then collected the waste set out in D(I), and the information given in B, D(II), and E(II) is correct.

據本人所知及所信，本人經核對後已收集D(1)欄載列的廢物，而B,D(II)及E(II)欄內填報的資料，全屬真實無訛，此證。

Signed 簽名: 張 Co. Chop 公司印鑑: Sun Base Environmental Services Limited 新基環保服務有限公司

Name 姓名: 張國榮 Date 日期: 9-11-201 Time 時間: 09:30

C. RECEPTION POINT (廢物收集處)

Company Name 公司名稱:	Contact Person 聯絡人姓名:
Address 地址:	Capacity 職位 / Tel. No. 電話:
Waste Disposal Licence Number 廢物處置牌照編號:	

I(Reception Point Manager) certify that the waste set out in D(I) has been received by this reception point and the information given in C, D(III) and E(III) is correct.

本人(收集處經理)證實本收集處已接收在D(1)欄載列的廢物，而C,D(III)及E(III)欄內填報的資料，全屬真實無訛，此證。

Signed 簽名: 張 Co. Chop 公司印鑑: Dunwell (Holdings) Ltd.

Name 姓名: 張國榮 Date 日期: 11-9-13 Time 時間: 11:21

D. WASTE DESCRIPTION (廢物資料)

(* State the appropriate one 選擇適用者)

Item 廢物項目	(I) Waste Type/Chemical Name 廢物種類／化學名稱	Waste Identification 廢物鑑定: Waste Code 廢物代號	Dangerous Goods (Category) (If applicable) 危險物品(類別)(如適用者)	Physical Form* 廢物形態: Solid 固體 / Liquid 液體 / Sludge 污泥 / Others 其他	Containers 容器: No. 數目	Type 種類	Capacity 容量 (L or kg)* (升或公斤)	Quantity Notified 報稱的數量 (Part A Waste only) (只適用於甲類化學廢物) (L or kg)* (升或公斤)	(II) Quantity Collected 收集的數量 (L or kg)* (升或公斤)	(III) Quantity Received 接收的數量 (L or kg)* (升或公斤)
1.	Unwanted diesel water	L73			30	桶	200 L升 / kg公斤	6000 L升 / kg公斤	L升 / kg公斤	6000 L升 / kg公斤
2.							L升 / kg公斤	L升 / kg公斤	L升 / kg公斤	L升 / kg公斤
3.							L升 / kg公斤	L升 / kg公斤	L升 / kg公斤	L升 / kg公斤
4.							L升 / kg公斤	L升 / kg公斤	L升 / kg公斤	L升 / kg公斤

E. REMARKS (註釋) (Include any additional information necessary for safe handling of the waste.) (包括確保廢物安全處理的其他附加資料。)

(I) Waste Producer 廢物產生者: 30桶

(II) Waste Collector 廢物收集者:

(III) Reception Point 廢物收集處:

In handling Part A chemical waste, Waste Producer, Waste Collector and Reception Point must strictly follow the Directions for Disposal issued by the Director of Environmental Protection under Section 17 of the Waste Disposal Ordinance.
廢物產生者、廢物收集者及廢物收集處在處置甲類化學廢物時，必須遵守環境保護署署長根據廢物處置條例第17條所簽發的指令。

WARNING: Any person(s) who knowingly or recklessly provide incorrect or misleading information or omit material particulars or information or knowingly or recklessly certify as correct anything which is incorrect, in relation to any requirement in the Regulation, commits an offence punishable with a maximum fine of $200,000 and imprisonment for 6 months.

警 告：根據廢物處置（化學廢物）（一般）規例的規定，任何人士填報本表格時故意或罔顧後果地提供不確或誤導資料或遺漏重要事項，又或故意或罔顧後果地證明任何不確事項為正確，即屬違法，最高可被判罰款港幣200,000元及入獄6個月。

APPENDIX J
GAS FREE CERTIFICATE

Sun Base Environmental Service Limited
新基環保服務有限公司
Room 15, 9/F., 33 Sheung Yee Road,
Flourish Industrial Building,
Kowloon Bay, Kowloon.
Tel : 2797 9812 Fax : 2622 2816
Email : sbes@biznetvigator.com

Certificate No. : 20131108ML

Gas Free Certificate

This is to certify that the undersigned did at 16:00 hours on 08 November 2013 attend on site the Ko Fai Road, Yau Tong Bay Re-development, Kowloon. to conduct tests for the presence of explosive, combustible or toxic gases in the under-mentioned compartment and / or tank.

The Following Compartment and / or tanks were tested by me means of a gas detector for the presence of explosive, combustible or toxic gases. The Gas Detector used is branded CROWNCON and Typed Crown Terta Portable Gas Detector bearing a serial number of 100402775/06-027. The Last calibration of it was done on 26 September 2013. The gases tested are H_2S*, CO*, O_2*, LEL*.

Number	COMPARTMENT	RESULTS AND / OR REMARKS
1.	Compartment A	Flammable Vapour Free 0% LEL
2.	Compartment B	Flammable Vapour Free 0% LEL

I hereby certify the above tests and result and declare that I am an Approved Person by the Director of Fire Services for Certification of Flammable Vapour Free (Gas Free) for Work on Stores, Containers and Tanks under Regulations 108, 120 & 128 of the Dangerous Goods (General) Regulations.

Lau Kwok Wah
Test Conductor
08 November 2013

** Delete as necessary*

APPENDIX K
SITE INSPECTION SUMMARIES

Site Inspection Summary

Inspection Information

Date:	4 December 2013
Time:	15:30
Inspection No.:	56

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water to stockpile materials or dusty site surfaces should be maintained. Water sprinklers are provided along the traffic road in the site. However, some areas are not covered by sprinklers. Regular spraying of water by other methods (e.g. water vehicles) at those areas should be maintained.

2. Two wheel washing facilities have been constructed while the remaining one is under construction.

3. A small opening was found at the hoarding at the roadside near YTML 6.

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	12 December 2013
Time:	14:30
Inspection No.:	57

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water to stockpile materials or dusty site surfaces should be maintained. Water sprinklers are provided along the traffic road in the site. However, some areas are not covered by sprinklers. Regular spraying of water by other methods (e.g. water vehicles) at those areas should be maintained (Closed).

2. Two wheel washing facilities have been constructed while the remaining one is under construction.

3. A small opening was found at the hoarding at the roadside near YTML 6 (Closed).

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	19 December 2013
Time:	16:00
Inspection No.:	58

Non-compliance

Nil

Observations

Follow Up Observations

1. Two wheel washing facilities have been constructed while the remaining one is under construction.

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	30 December 2013
Time:	14:30
Inspection No.:	59

Non-compliance

Nil

Observations

Follow Up Observations

1. Two wheel washing facilities have been constructed while the remaining one is under construction.

New Observations

2. Open stockpiles of concrete blocks placed on site were not covered with tarpaulin or similar fabric. The Contractor should cover stockpiles of construction materials.

3. Relevant Environmental Permits are not posted at two vehicle site entrances.

Remarks

Nil

APPENDIX L
STATISTICS ON COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

Appendix L
Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. in this reporting period	Total no. since project commencement
Environmental complaints	-	-	-	0	4
Notification of summons	-	-	-	0	0
Successful Prosecutions	-	-	-	0	0

APPENDIX M
LABORATORY TESTING RESULTS

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1331745
Address	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 15-NOV-2013
Order number	: ----			Issue Date	: 05-DEC-2013
C-O-C number	: H021822			No. of samples received	: 3
Site	: YAU TONG BAY			No. of samples analysed	: 3

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 26-NOV-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1331745**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Sample(s) analysed and reported on an as received basis.

TCLP leachate sample(s) were filtered prior to dissolved metal analysis.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Analytical Results

Sub-Matrix: **TCLP LEACHATE**

Compound	CAS Number	LOR	Unit	Client sample ID: T32E/TCLP/1	T32E/TCLP/2	T32D/TCLP		
				Client sampling date / time: [14-NOV-2013]	[14-NOV-2013]	[14-NOV-2013]		
				HK1331745-001	HK1331745-002	HK1331745-003		
EG: Metals and Major Cations - Filtered								
EG020: Antimony	7440-36-0	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Arsenic	7440-38-2	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Barium	7440-39-3	0.1	mg/L	**3.9**	**4.8**	**1.0**		
EG020: Beryllium	7440-41-7	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Cadmium	7440-43-9	0.01	mg/L	<0.01	<0.01	**0.04**		
EG020: Chromium	7440-47-3	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Copper	7440-50-8	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	**0.2**	<0.1		
EG020: Nickel	7440-02-0	0.1	mg/L	**0.6**	**0.6**	**0.7**		
EG020: Selenium	7782-49-2	0.02	mg/L	<0.02	<0.02	<0.02		
EG020: Silver	7440-22-4	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Thallium	7440-28-0	0.01	mg/L	<0.01	<0.01	<0.01		
EG020: Tin	7440-31-5	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Vanadium	7440-62-2	0.1	mg/L	<0.1	<0.1	<0.1		
EG020: Zinc	7440-66-6	0.1	mg/L	**14.0**	**16.5**	**21.6**		
EG036: Mercury	7439-97-6	0.002	mg/L	<0.002	<0.002	<0.002		
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**	**1**		

Laboratory Duplicate (DUP) Report

- No Laboratory Duplicate (DUP) Results are required to be reported.

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3172503)											
EG020: Antimony	7440-36-0	0.001	mg/L	<0.1	1 mg/L	93.8	----	78	106	----	----
EG020: Arsenic	7440-38-2	0.01	mg/L	<0.1	1 mg/L	95.9	----	81	109	----	----
EG020: Barium	7440-39-3	0.001	mg/L	<0.1	1 mg/L	95.1	----	83	113	----	----
EG020: Beryllium	7440-41-7	0.001	mg/L	<0.1	1 mg/L	93.5	----	77	113	----	----
EG020: Cadmium	7440-43-9	0.0002	mg/L	<0.01	1 mg/L	93.3	----	81	109	----	----
EG020: Chromium	7440-47-3	0.001	mg/L	<0.1	1 mg/L	92.9	----	80	110	----	----
EG020: Copper	7440-50-8	0.001	mg/L	<0.1	1 mg/L	94.1	----	83	107	----	----
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	89.9	----	82	108	----	----
EG020: Nickel	7440-02-0	0.001	mg/L	<0.1	1 mg/L	95.2	----	83	109	----	----
EG020: Selenium	7782-49-2	0.01	mg/L	<0.02	1 mg/L	97.8	----	81	111	----	----
EG020: Silver	7440-22-4	0.001	mg/L	<0.1	1 mg/L	90.9	----	78	104	----	----
EG020: Thallium	7440-28-0	0.001	mg/L	<0.01	1 mg/L	90.2	----	82	106	----	----
EG020: Tin	7440-31-5	0.01	mg/L	<0.1	1 mg/L	93.0	----	32	148	----	----
EG020: Vanadium	7440-62-2	0.01	mg/L	<0.1	1 mg/L	96.0	----	80	116	----	----
EG020: Zinc	7440-66-6	0.01	mg/L	<0.1	1 mg/L	107	----	77	111	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 3172505)											
EG036: Mercury	7439-97-6	0.00005	mg/L	<0.002	0.02 mg/L	93.0	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3172503)										
HK1331745-001	T32E/TCLP/1	**EG020: Antimony**	7440-36-0	0.2 mg/L	92.6	91.9	75	125	0.7	----
		EG020: Arsenic	7440-38-2	0.2 mg/L	86.0	85.7	75	125	0.4	----
		EG020: Barium	7440-39-3	0.2 mg/L	# Not Determined	# Not Determined	75	125	# Not Determined	----
		EG020: Beryllium	7440-41-7	0.2 mg/L	88.6	86.5	75	125	2.4	----
		EG020: Cadmium	7440-43-9	0.2 mg/L	85.3	85.1	75	125	0.2	----
		EG020: Chromium	7440-47-3	0.2 mg/L	77.8	78.1	75	125	0.4	----
		EG020: Copper	7440-50-8	0.2 mg/L	75.3	75.2	75	125	0.1	----
		EG020: Lead	7439-92-1	0.2 mg/L	94.6	93.5	75	125	1.2	----
		EG020: Nickel	7440-02-0	0.2 mg/L	83.7	87.5	75	125	4.4	----
		EG020: Selenium	7782-49-2	0.2 mg/L	84.3	83.5	75	125	1.0	----
		EG020: Silver	7440-22-4	0.2 mg/L	79.6	79.7	75	125	0.1	----
		EG020: Thallium	7440-28-0	0.2 mg/L	82.3	81.9	75	125	0.5	----
		EG020: Tin	7440-31-5	0.2 mg/L	90.8	90.5	75	125	0.3	----
		EG020: Vanadium	7440-62-2	0.2 mg/L	82.7	83.1	75	125	0.5	----
		EG020: Zinc	7440-66-6	0.2 mg/L	# Not Determined	# Not Determined	75	125	# Not Determined	----
EG: Metals and Major Cations - Filtered (QC Lot: 3172505)										
HK1331745-001	T32E/TCLP/1	**EG036: Mercury**	7439-97-6	0.004 mg/L	90.5	----	75	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1332017
Address	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 18-NOV-2013
Order number	: ----			Issue Date	: 02-DEC-2013
C-O-C number	: H021825-H021826			No. of samples received	: 15
Site	: YAU TONG BAY			No. of samples analysed	: 15

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	Senior Chemist - Organics	Organics
Wong Wing, Kenneth	Assistant Supervisor - Metals	Inorganics

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 26-NOV-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1332017**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	R1.1-R1.2/SW/0.5	R1.2-R1.3/SW/0.5	R1.3-R1.4/SW/0.5	R1.1-R1.4/SW/0.5	A1.1-A1.2/SW/0.5
				Client sampling date / time	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]
					HK1332017-001	HK1332017-002	HK1332017-003	HK1332017-004	HK1332017-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**11.6**	**14.3**	**12.4**	**8.6**	**12.6**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		----	----	----	----	**72**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	**6.52**	**18.5**	<5.00	----
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**109**	**105**	**74.8**	**88.3**	----
4-Terphenyl-d14	1718-51-0	0.1	%		**104**	**112**	**90.2**	**82.4**	----

Sub-Matrix: **SOIL**				Client sample ID	A1.2-A1.3/SW/0.5	A1.3-A1.4/SW/0.5	A1.1-A1.4/SW/0.5	T22BA.1/SW/0.75	T22BA.2/SW/0.75
				Client sampling date / time	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]	[18-NOV-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332017-006**	**HK1332017-007**	**HK1332017-008**	**HK1332017-012**	**HK1332017-013**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**11.6**	**14.9**	**9.7**	**13.4**	**13.0**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**180**	**70**	**86**	**131**	**142**

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID* / *Client sampling date / time*				
				T22BA.3/SW/0.75 [18-NOV-2013]	**T22BA.4/SW/0.75** [18-NOV-2013]			
				HK1332017-014	**HK1332017-015**			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**13.8**	**6.4**			
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**328**	**303**			

Sub-Matrix: **WATER**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID* / *Client sampling date / time*				
				FB 1 [18-NOV-2013]	**EB 1** [18-NOV-2013]	**TRIP BLANK 1** [18-NOV-2013]		
				HK1332017-009	**HK1332017-010**	**HK1332017-011**		
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	1	µg/L	<1	<1	----		
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	µg/L	<10.0	<10.0	----		
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)								
C9 - C16 Fraction	----	0.5	mg/L	<0.5	<0.5	----		
C17 - C35 Fraction	----	0.5	mg/L	<0.5	<0.5	----		
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	µg/L	<0.5	<0.5	<0.5		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	**84.5**	**71.3**	----		
4-Terphenyl-d14	1718-51-0	0.1	%	**99.3**	**90.5**	----		
EP-074_SR-S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**102**	**102**	**101**		
Toluene-D8	2037-26-5	0.1	%	**104**	**105**	**103**		
4-Bromofluorobenzene	460-00-4	0.1	%	**99.8**	**96.9**	**99.5**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3168927)								
HK1331905-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.7	13.9	11.8
HK1332013-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.9	17.1	10.3
EA/ED: Physical and Aggregate Properties (QC Lot: 3168928)								
HK1331988-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.3	16.2	1.1
HK1331988-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.6	11.6	0.0
EG: Metals and Major Cations (QC Lot: 3169253)								
HK1331988-002	Anonymous	EG020: Lead	7439-92-1	1	mg/kg	7	8	0.0
HK1332017-013	T22BA.2/SW/0.75	EG020: Lead	7439-92-1	1	mg/kg	142	119	17.6
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3161279)								
HK1331580-005	Anonymous	Bis(2-ethylhexyl)phthalate	117-81-7	500	µg/kg	<500	<500	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)								
HK1331869-009	Anonymous	EG020: Lead	7439-92-1	1	µg/L	2	2	0.0
HK1332205-013	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3174299)								
HK1332017-009	FB 1	Benzene	71-43-2	0.5	µg/L	<0.5	<0.5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3169253)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.5	----	84	106	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3161279)											
Bis(2-ethylhexyl)phthalate	117-81-7	25	µg/kg	---- <1000	25 µg/kg ----	90.0 ----	---- ----	70 ----	120 ----	---- ----	---- ----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	86.2	----	81	109	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3168826)											
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	<10.0	0.5 µg/L	93.6	----	78	137	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3168827)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	106	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	79.5	----	8	130	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3174299)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	89.3	----	70	123	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 3169253)										
HK1331988-001	Anonymous	**EG020: Lead**	7439-92-1	5 mg/kg	84.6	----	75	125	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)										
HK1331869-008	Anonymous	**EG020: Lead**	7439-92-1	100 µg/L	77.8	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1332205
Address	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 20-NOV-2013
Order number	: ----			Issue Date	: 05-DEC-2013
C-O-C number	: H021827-H021828			No. of samples received	: 13
Site	: YAU TONG BAY			No. of samples analysed	: 13

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	Senior Chemist	Organics
Fung Lim Chee, Richard	General Manager	Inorganics

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 26-NOV-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1332205**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	R5.1-R5.2/SW/0.5	R5.2-R5.3/SW/0.5	R5.3-R5.4/SW/0.5	R5.1-R5.4/SW/0.5	T19A.1/SW/1.25
				Client sampling date / time	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]
					HK1332205-001	HK1332205-002	HK1332205-003	HK1332205-004	HK1332205-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		12.2	12.9	13.0	13.0	14.6
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		104	184	120	340	125

Sub-Matrix: **SOIL**				*Client sample ID*	**T19A.2/SW/1.25**	**T19A.3/SW/1.25**	**T19A.4/SW/1.25**	**T22BB.1/SW/2.25**	**T22BB.3/SW/2.25**
				Client sampling date / time	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]	[20-NOV-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332205-006**	**HK1332205-007**	**HK1332205-008**	**HK1332205-009**	**HK1332205-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**13.1**	**17.7**	**20.8**	**12.2**	**16.4**
EG: Metals and Major Cations									
EG020: Copper	7440-50-8	1	mg/kg		----	----	----	**1**	**1**
EG020: Lead	7439-92-1	1	mg/kg		**190**	**213**	**168**	**107**	**199**

Sub-Matrix: **SOIL**			*Client sample ID*	**T22BB.4/SW/2.25**				
			Client sampling date / time	[20-NOV-2013]				
Compound	*CAS Number*	*LOR*	*Unit*	**HK1332205-011**				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**13.1**				
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**3**				
EG020: Lead	7439-92-1	1	mg/kg	**66**				

Sub-Matrix: **WATER**				*Client sample ID*	**EB2**	**FB2**			
				Client sampling date / time	[20-NOV-2013]	[20-NOV-2013]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332205-012**	**HK1332205-013**			
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	<1			
EG020: Lead	7439-92-1	1	µg/L		<1	<1			
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	1	µg/L		<1	<1			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	µg/L		<10.0	<10.0			
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)									
C9 - C16 Fraction	----	0.5	mg/L		<0.5	<0.5			
C17 - C35 Fraction	----	0.5	mg/L		<0.5	<0.5			
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.5	µg/L		<0.5	<0.5			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**89.2**	**67.2**			
4-Terphenyl-d14	1718-51-0	0.1	%		**102**	**82.8**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**59.0**	**51.0**			
Dibutylchlorendate	1770-80-5	0.1	%		**57.0**	**51.0**			
EP-074_SR-S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**102**	**103**			
Toluene-D8	2037-26-5	0.1	%		**105**	**106**			
4-Bromofluorobenzene	460-00-4	0.1	%		**98.2**	**97.9**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3172683)								
HK1332191-012	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	51.6	51.5	0.0
HK1332197-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.6	13.8	1.4
EA/ED: Physical and Aggregate Properties (QC Lot: 3172684)								
HK1332205-008	T19A.4/SW/1.25	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.8	20.8	0.0
EG: Metals and Major Cations (QC Lot: 3176562)								
HK1332205-001	R5.1-R5.2/SW/0.5	EG020: Copper	7440-50-8	1	mg/kg	62	60	2.6
		EG020: Lead	7439-92-1	1	mg/kg	104	85	19.6
HK1332232-002	Anonymous	EG020: Copper	7440-50-8	0.05	mg/kg	106	105	1.4
		EG020: Lead	7439-92-1	0.05	mg/kg	76.7	75.7	1.3

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)								
HK1331869-009	Anonymous	EG020: Copper	7440-50-8	1	µg/L	2	2	0.0
		EG020: Lead	7439-92-1	1	µg/L	2	2	0.0
HK1332205-013	FB2	EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3166427)								
HK1331905-009	Anonymous	Benzene	71-43-2	0.5	µg/L	<0.5	<0.5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3176562)											
EG020: Copper	7440-50-8	1	mg/kg	<0.05	5 mg/kg	87.1	----	85	109	----	----
EG020: Lead	7439-92-1	1	mg/kg	<0.05	5 mg/kg	85.5	----	84	106	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	93.3	----	79	113	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	86.2	----	81	109	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 3166417)											
Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	76.3	----	43	139	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3168826)											
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	<10.0	0.5 µg/L	93.6	----	78	137	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3168827)											

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3168827) - Continued											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	106	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	79.5	----	8	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3166427)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	97.4	----	70	123	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 3176562)										
HK1332232-001	Anonymous	EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3176513)										
HK1331869-008	Anonymous	EG020: Copper	7440-50-8	100 µg/L	83.4	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	77.8	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1332521
Address	: FLAT A, BLOCK 2, G/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 22-NOV-2013
Order number	: ----			Issue Date	: 06-DEC-2013
C-O-C number	: H021829			No. of samples received	: 12
Site	: YAU TONG BAY			No. of samples analysed	: 12

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 29-NOV-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1332521**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist - Organics**	**Organics**
Chan Siu Ming, Vico	**Manager - Inorganics**	**Inorganics**
Wong Wing, Kenneth	**Assistant Supervisor - Metals**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: R2.1-R2.2/SW/0.5	R2.2-R2.3/SW/0.5	R2.3-R2.4/SW/0.5	R2.1-R2.4/SW/0.5	R3.1-R3.2/SW/0.5
				Client sampling date / time: [22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]
				HK1332521-001	HK1332521-002	HK1332521-003	HK1332521-004	HK1332521-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**12.4**	**13.1**	**11.5**	**11.1**	**12.4**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	**8.36**	**42.0**	**17.7**	**19.7**	<5.00
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**93.3**	**95.5**	**99.4**	**101**	**106**
4-Terphenyl-d14	1718-51-0	0.1	%	**92.7**	**101**	**102**	**105**	**108**

Sub-Matrix: **SOIL**				*Client sample ID*	**R3.2-R3.3/SW/0.5**	**R3.3-R3.4/SW/0.5**	**R3.1-R3.4/SW/0.5**	**T32D.1/SW/1.0**	**T32D.2/SW/1.0**
				Client sampling date / time	[22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]	[22-NOV-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332521-006**	**HK1332521-007**	**HK1332521-008**	**HK1332521-009**	**HK1332521-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**13.8**	**11.4**	**16.4**	**7.5**	**12.4**
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	----	**0.4**	**0.3**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	**7.40**	----	----
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**105**	**96.8**	**95.7**	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**106**	**94.9**	**98.4**	----	----
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	----	**52.0**	**73.8**
Dibutylchlorendate	1770-80-5	0.1	%		----	----	----	**57.8**	**54.0**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32D.3/SW/1.0**	**T32D.4/SW/1.0**			
				Client sampling date / time	[22-NOV-2013]	[22-NOV-2013]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332521-011**	**HK1332521-012**			
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.0**	**11.4**			
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		**0.2**	**0.2**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**89.4**	**73.4**			
Dibutylchlorendate	1770-80-5	0.1	%		**53.6**	**58.4**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3183532)								
HK1332467-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	9.0	9.0	0.0
HK1332521-004	R2.1-R2.4/SW/0.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	11.1	10.5	5.7
EP-066: Polychlorinated Biphenyls (QC Lot: 3179426)								
HK1332521-009	T32D.1/SW/1.0	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	0.4	0.5	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3171808)								
HK1332191-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 3179426)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	64.2	----	46	133	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3171808)											
Bis(2-ethylhexyl)phthalate	117-81-7	25	µg/kg	---- <1000	25 µg/kg ----	84.9 ----	---- ----	70 ----	120 ----	---- ----	---- ----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 11
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1332763
Address	: FLAT A, BLOCK 2, G/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 26-NOV-2013
Order number	: ----			Issue Date	: 11-DEC-2013
C-O-C number	: H021830-H021831			No. of samples received	: 20
Site	: YAU TONG BAY			No. of samples analysed	: 20

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	Senior Chemist - Organics	Organics
Wong Wing, Kenneth	Assistant Supervisor - Metals	Inorganics

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 06-DEC-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1332763**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: U01/SW/0.9	U02/SW/0.9	U03/SW/0.9	U04/SW/0.9	U05/B/1.8
				Client sampling date / time: [26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]
				HK1332763-001	HK1332763-002	HK1332763-003	HK1332763-004	HK1332763-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**11.4**	**10.0**	**11.0**	**9.0**	**10.6**
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**43**	**41**	**61**	**54**	**69**
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (Total)	----	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
EP-080_SRS: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**96.8**	**98.6**	**98.6**	**98.4**	**99.2**
Toluene-D8	2037-26-5	0.1	%	**105**	**105**	**104**	**105**	**104**
4-Bromofluorobenzene	460-00-4	0.1	%	**97.3**	**96.7**	**97.1**	**98.5**	**98.3**
EP-074_SR-S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**96.8**	**98.6**	**98.6**	**98.4**	**99.2**
Toluene-D8	2037-26-5	0.1	%	**105**	**105**	**104**	**105**	**104**
4-Bromofluorobenzene	460-00-4	0.1	%	**97.3**	**96.7**	**97.1**	**98.5**	**98.3**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32E.1A/SW/1.5**	**T32E.2A/SW/1.5**	**T32E.3A/SW/1.5**	**T32E.4A/SW/1.5**	**T36A.1/SW/0.75**
				Client sampling date / time	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332763-006**	**HK1332763-007**	**HK1332763-008**	**HK1332763-009**	**HK1332763-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**15.5**	**17.1**	**20.5**	**16.5**	**13.2**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**96**	**47**	**1320**	**204**	**49**
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		**0.5**	<0.1	**1.1**	**1.0**	----
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**64.0**	**53.6**	**65.4**	**72.8**	----
Dibutylchlorendate	1770-80-5	0.1	%		**58.6**	**64.6**	**52.4**	**69.4**	----

Sub-Matrix: **SOIL**				*Client sample ID*	**T36A.2/SW/0.75**	**T36A.3/SW/0.75**	**T36A.4/SW/0.75**	**T32C.1/SW/2.5**	**T32C.2/SW/2.5**
				Client sampling date / time	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332763-011**	**HK1332763-012**	**HK1332763-013**	**HK1332763-014**	**HK1332763-015**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**13.3**	**11.7**	**14.8**	**15.8**	**12.8**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**82**	**80**	**51**	**167**	**69**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32C.3/SW/2.5**	**T32C.4/SW/2.5**	**T32D/T/0.5**		
				Client sampling date / time	[26-NOV-2013]	[26-NOV-2013]	[26-NOV-2013]		
Compound	*CAS Number*	*LOR*	*Unit*		**HK1332763-016**	**HK1332763-017**	**HK1332763-018**		
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**12.4**	**13.8**	**4.6**		
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**61**	**306**	----		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	<0.1		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	**60.4**		
Dibutylchlorendate	1770-80-5	0.1	%		----	----	**59.2**		

Sub-Matrix: **WATER**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID*: **EB3**	**FB3**			
				Client sampling date / time: [26-NOV-2013]	[26-NOV-2013]			
				HK1332763-019	**HK1332763-020**			
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	1	µg/L	<1	<1			
EP-066: Polychlorinated Biphenyls								
Total Polychlorinated biphenyls	----	1	µg/L	<1	<1			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	µg/L	<10.0	<10.0			
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	0.02	mg/L	<0.02	<0.02			
C9 - C16 Fraction	----	0.5	mg/L	<0.5	<0.5			
C17 - C35 Fraction	----	0.5	mg/L	<0.5	<0.5			
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	µg/L	<0.5	<0.5			
Toluene	108-88-3	0.5	µg/L	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	µg/L	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1	µg/L	<1	<1			
ortho-Xylene	95-47-6	0.5	µg/L	<0.5	<0.5			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**55.2**	**51.5**			
4-Terphenyl-d14	1718-51-0	0.1	%	**105**	**103**			
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%	**55.2**	**58.2**			
Dibutylchlorendate	1770-80-5	0.1	%	**62.2**	**58.6**			
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**102**			
Toluene-D8	2037-26-5	0.1	%	**105**	**104**			
4-Bromofluorobenzene	460-00-4	0.1	%	**98.2**	**99.1**			
EP-074_SR-S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**102**			
Toluene-D8	2037-26-5	0.1	%	**105**	**104**			
4-Bromofluorobenzene	460-00-4	0.1	%	**98.2**	**99.1**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3183535)								
HK1332677-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.2	11.4	1.3
HK1332677-011	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.9	17.5	2.2
EA/ED: Physical and Aggregate Properties (QC Lot: 3183536)								
HK1332820-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	26.5	25.1	5.2
HK1332831-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.0	10.0	0.0
EG: Metals and Major Cations (QC Lot: 3191617)								
HK1332763-002	U02/SW/0.9	EG020: Lead	7439-92-1	1	mg/kg	41	49	18.0
HK1332763-015	T32C.2/SW/2.5	EG020: Lead	7439-92-1	1	mg/kg	69	65	5.3
EP-066: Polychlorinated Biphenyls (QC Lot: 3179426)								
HK1332521-009	Anonymous	Total Polychlorinated biphenyls	----	0.1	mg/kg	0.4	0.5	0.0
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181408)								
HK1332646-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181414)								
HK1332646-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3181413)								
HK1332646-001	Anonymous	Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
		Xylenes (Total)	----	2.0	mg/kg	<2.0	<2.0	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 3183420)								
HK1332594-004	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
HK1332676-002	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181519)								
HK1332498-002	Anonymous	C6 - C8 Fraction	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3182234)								
HK1332746-003	Anonymous	Benzene	71-43-2	0.5	µg/L	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	µg/L	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	µg/L	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	µg/L	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1	µg/L	<1	<1	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3191617)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	89.2	----	84	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 3179426)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	64.2	----	46	133	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181408)											
C9 - C16 Fraction	----	200	mg/kg	<200	32 mg/kg	87.1	----	36	118	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	90 mg/kg	77.7	----	28	110	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181414)											
C6 - C8 Fraction	----	5	mg/kg	<5	4.5 mg/kg	85.7	----	59	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3181413)											
Benzene	71-43-2	0.1	mg/kg	<0.1	0.25 mg/kg	91.7	----	71	128	----	----
Toluene	108-88-3	0.2	mg/kg	<0.2	0.25 mg/kg	96.3	----	65	126	----	----
Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	0.25 mg/kg	94.4	----	75	123	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.4	mg/kg	<0.4	0.50 mg/kg	98.7	----	86	116	----	----
ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	0.25 mg/kg	97.0	----	78	121	----	----
Xylenes (Total)	----	1.0	mg/kg	<1.0	0.75 mg/kg	98.2	----	86	115	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3183420)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	97.8	----	81	109	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 3183787)											
Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	59.7	----	43	139	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3183788)											
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	<10.0	0.5 µg/L	80.1	----	78	137	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181519)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.03 mg/L	92.3	----	59	126	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3183789)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	66.0	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	75.1	----	8	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3182234)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	81.2	----	70	123	----	----
Toluene	108-88-3	0.5	µg/L	<0.5	2 µg/L	89.7	----	74	120	----	----
Ethylbenzene	100-41-4	0.5	µg/L	<0.5	2 µg/L	85.2	----	77	122	----	----
meta- & para-Xylene	108-38-3 106-42-3	1	µg/L	<1	4 µg/L	92.7	----	80	131	----	----
ortho-Xylene	95-47-6	0.5	µg/L	<0.5	2 µg/L	89.8	----	81	126	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3191617)										
HK1332763-001	U01/SW/0.9	**EG020: Lead**	7439-92-1	50 mg/kg	81.2	----	75	125	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181408)										
HK1332646-002	Anonymous	**C9 - C16 Fraction**	----	32 mg/kg	60.1	----	50	130	----	----
		C17 - C35 Fraction	----	90 mg/kg	51.2	----	50	130	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3181414)										
HK1332646-002	Anonymous	**C6 - C8 Fraction**	----	4.5 mg/kg	77.7	----	50	130	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3183420)										
HK1332180-016	Anonymous	**EG020: Lead**	7439-92-1	100 µg/L	99.0	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%)* *Low*	*High*
EP-066S: PCB Surrogate - Continued			
Dibutylchlorendate	1770-80-5	50	130
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1333384
Address	: FLAT A, BLOCK 2, G/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 02-DEC-2013
Order number	: ----			Issue Date	: 16-DEC-2013
C-O-C number	: H021832-H021833			No. of samples received	: 18
Site	: YAU TONG BAY			No. of samples analysed	: 18

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	Senior Chemist - Organics	Organics
Wong Wing, Kenneth	Assistant Supervisor - Metals	Inorganics

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 12-DEC-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1333384**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: A2.1-A2.2/SW/1.675	A2.2-A2.3/SW/1.675	A2.3-A2.4/SW/1.675	A2.1-A2.4/SW/1.675	A4.1-A4.2/SW/1.725
				Client sampling date / time: [02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]
				HK1333384-001	HK1333384-002	HK1333384-003	HK1333384-004	HK1333384-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**11.9**	**5.8**	**10.1**	**9.6**	**25.1**
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**443**	**49**	**150**	**248**	**137**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	**6.46**	<5.00	<5.00	<5.00	----
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**93.8**	**61.9**	**84.2**	**83.3**	----
4-Terphenyl-d14	1718-51-0	0.1	%	**90.6**	**67.5**	**89.3**	**94.4**	----

Sub-Matrix: **SOIL**				*Client sample ID*	**A4.2-A4.3/SW/1.725**	**A4.3-A4.4/SW/1.725**	**A4.1-A4.4/SW/1.725**	**A5.1-A5.2/SW/1.975**	**A5.2-A5.3/SW/1.975**
				Client sampling date / time	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1333384-006**	**HK1333384-007**	**HK1333384-008**	**HK1333384-009**	**HK1333384-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**12.0**	**19.1**	**4.9**	**8.8**	**11.6**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**586**	**7060**	**165**	**2980**	**398**

Sub-Matrix: **SOIL**				*Client sample ID*	**A5.3-A5.4/SW/1.975**	**A5.1-A5.4/SW/1.975**	**R4.1-R4.2/SW/0.5**	**R4.2-R4.3/SW/0.5**	**R4.3-R4.4/SW/0.5**
				Client sampling date / time	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]	[02-DEC-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1333384-011**	**HK1333384-012**	**HK1333384-013**	**HK1333384-014**	**HK1333384-015**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.1**	**11.4**	**9.0**	**7.5**	**20.6**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**117**	**361**	----	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		----	----	<5.00	<5.00	<5.00
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		----	----	**93.1**	**90.0**	**96.6**
4-Terphenyl-d14	1718-51-0	0.1	%		----	----	**95.8**	**100**	**97.6**

Sub-Matrix: **SOIL**				*Client sample ID*	**R4.1-R4.4/SW/0.5**				
				Client sampling date / time	[02-DEC-2013]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1333384-016**				
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.5**				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		**6.78**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**91.2**				
4-Terphenyl-d14	1718-51-0	0.1	%		**97.6**				

Sub-Matrix: **WATER**				*Client sample ID*	**EB4**	**FB4**			
				Client sampling date / time	[02-DEC-2013]	[02-DEC-2013]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1333384-017**	**HK1333384-018**			
EG: Metals and Major Cations - Filtered									
EG020: Lead	7439-92-1	1	µg/L		<1	<1			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	µg/L		<10.0	<10.0			
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)									
C9 - C16 Fraction	----	0.5	mg/L		<0.5	<0.5			
C17 - C35 Fraction	----	0.5	mg/L		<0.5	<0.5			
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.5	µg/L		<0.5	<0.5			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**62.3**	**72.7**			
4-Terphenyl-d14	1718-51-0	0.1	%		**99.8**	**108**			
EP-074_SR-S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**109**	**110**			
Toluene-D8	2037-26-5	0.1	%		**105**	**103**			
4-Bromofluorobenzene	460-00-4	0.1	%		**97.4**	**97.1**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3205189)								
HK1333557-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	39.3	36.2	8.2
HK1333557-006	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	61.1	58.7	4.0
EG: Metals and Major Cations (QC Lot: 3197928)								
HK1333368-021	Anonymous	EG020: Lead	7439-92-1	1	mg/kg	19	20	8.8
HK1333368-027	Anonymous	EG020: Lead	7439-92-1	1	mg/kg	24	23	4.5
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3193281)								
HK1333384-001	A2.1-A2.2/SW/1.675	Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	6460	5960	8.1

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 3193253)								
HK1333010-004	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
HK1333251-006	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3195863)								
HK1333388-002	Anonymous	Benzene	71-43-2	5.0	µg/L	<5.0	<5.0	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3197928)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	90.1	----	84	106	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3193281)											
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	----	----	----	----	----	----	----
				----	25 µg/kg	105	----	70	120	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3193253)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	96.2	----	81	109	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3183788)											
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	<10.0	0.5 µg/L	80.1	----	78	137	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3183789)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	66.0	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	75.1	----	8	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3195863)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	81.8	----	70	123	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3197928)										
HK1333368-020	Anonymous	**EG020: Lead**	7439-92-1	50 mg/kg	83.5	----	75	125	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3193253)										
HK1333010-003	Anonymous	**EG020: Lead**	7439-92-1	100 µg/L	99.9	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 6
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1333644
Address	: FLAT A, BLOCK 2, G/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 04-DEC-2013
Order number	: ----			Issue Date	: 18-DEC-2013
C-O-C number	: H021835-H021836			No. of samples received	: 13
Site	: YAU TONG BAY			No. of samples analysed	: 13

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 18-DEC-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1333644**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist - Organics**	**Organics**
Wong Wing, Kenneth	**Assistant Supervisor - Metals**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID*	**A2/T/1**	**A4/T/1**	**A5/T/1.4**	**R4/B/1**	**R2/B/1**
				Client sampling date / time	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]
					HK1333644-001	**HK1333644-002**	**HK1333644-003**	**HK1333644-004**	**HK1333644-005**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.2**	**8.5**	**3.5**	**6.5**	**10.4**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**26**	**78**	**118**	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	----	----	<5.00	**16.4**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**97.7**	----	----	**89.9**	**85.9**
4-Terphenyl-d14	1718-51-0	0.1	%		**95.4**	----	----	**102**	**87.9**

Sub-Matrix: **SOIL**				*Client sample ID*	**R3/B/1**	**T22BA.3.1/SW/0.75**	**T22BA.4.1/SW/0.75**	**T22BA/B/1.5**	**T19A/B/2**
				Client sampling date / time	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1333644-006**	**HK1333644-007**	**HK1333644-008**	**HK1333644-009**	**HK1333644-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.3**	**16.4**	**7.7**	**13.6**	**12.2**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		----	**154**	**126**	**102**	**74**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	----	----	----	----
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**96.1**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**86.8**	----	----	----	----

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID*	**R5/B/1**	**T22BA/B1/1.5**	**T19A/B1/2**		
				Client sampling date / time	[04-DEC-2013]	[04-DEC-2013]	[04-DEC-2013]		
					HK1333644-011	**HK1333644-012**	**HK1333644-013**		
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**9.4**	**15.2**	**16.6**		
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**73**	**151**	**75**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3205193)								
HK1333580-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	18.8	19.1	1.3
HK1333644-005	R2/B/1	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.4	10.2	1.6
EG: Metals and Major Cations (QC Lot: 3203601)								
HK1333339-002	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	69	77	11.1
HK1333526-004	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	21	23	8.0
EG: Metals and Major Cations (QC Lot: 3203602)								
HK1333644-008	T22BA.4.1/SW/0.75	**EG020: Lead**	7439-92-1	1	mg/kg	126	140	10.6
HK1333810-003	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	110	90	19.1
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3193281)								
HK1333384-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5000	µg/kg	6460	5960	8.1

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3203601)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.2	----	84	106	----	----
EG: Metals and Major Cations (QC Lot: 3203602)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	88.5	----	84	106	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3193281)											
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	----	----	----	----	----	----	----
				----	25 µg/kg	105	----	70	120	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3203601)										
HK1333339-001	Anonymous	**EG020: Lead**	7439-92-1	50 mg/kg	86.2	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 3203602)										
HK1333644-007	T22BA.3.1/SW/0.75	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*Recovery Limits (%)* *Low*	*High*
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1334228
Address	: FLAT A, BLOCK 2, G/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 09-DEC-2013
Order number	: ----			Issue Date	: 23-DEC-2013
C-O-C number	: H021837-H021838			No. of samples received	: 16
Site	: YAU TONG BAY			No. of samples analysed	: 16

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	Senior Chemist - Organics	Organics
Wong Wing, Kenneth	Assistant Supervisor - Metals	Inorganics

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 20-DEC-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1334228**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	R5.1-R5.4.1/SW/0.5	R1/B/1	A1/B/1	T22BB.3.1/SW/2.25	T19A.3.1/SW/1.25
				Client sampling date / time	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]
					HK1334228-001	HK1334228-002	HK1334228-003	HK1334228-004	HK1334228-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**12.9**	**17.0**	**16.2**	**14.9**	**18.2**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**101**	----	**71**	**209**	**108**
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		----	<5.00	----	----	----
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		----	**70.3**	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		----	**90.5**	----	----	----

Sub-Matrix: **SOIL**				*Client sample ID*	**T19A.2.1/SW/1.25**	**T19A.4.1/SW/1.25**	**T32E/B/3**	**T32D/B/1.5**	**T36A/B/1.5**
				Client sampling date / time	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1334228-006**	**HK1334228-007**	**HK1334228-008**	**HK1334228-009**	**HK1334228-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**13.4**	**16.4**	**12.3**	**8.4**	**15.0**
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**40**	**163**	**144**	----	**67**
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	**0.4**	**0.4**	----
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	**102**	**91.6**	----
Dibutylchlorendate	1770-80-5	0.1	%		----	----	**95.8**	**102**	----

Sub-Matrix: **SOIL**				*Client sample ID*	**T36A/B1/1.5**	**R2.2-R2.3.1/SW/0.5**	**T32C/B/3.5**	**T32C/B1/3.5**	
				Client sampling date / time	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	[09-DEC-2013]	
Compound	*CAS Number*	*LOR*	*Unit*		**HK1334228-011**	**HK1334228-012**	**HK1334228-015**	**HK1334228-016**	
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**11.2**	**12.8**	**17.8**	**15.2**	
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**39**	----	**142**	**141**	
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		----	**75.8**	----	----	
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		----	**83.8**	----	----	
4-Terphenyl-d14	1718-51-0	0.1	%		----	**80.1**	----	----	

Sub-Matrix: **WATER**				*Client sample ID*	**FB5**	**EB5**			
				Client sampling date / time	[09-DEC-2013]	[09-DEC-2013]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1334228-013**	**HK1334228-014**			
EG: Metals and Major Cations - Filtered									
EG020: Lead	7439-92-1	1	µg/L		<1	<1			
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	1	µg/L		<1	<1			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	10.0	µg/L		<10.0	<10.0			
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)									
C9 - C16 Fraction	----	0.5	mg/L		<0.5	<0.5			
C17 - C35 Fraction	----	0.5	mg/L		<0.5	<0.5			
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.5	µg/L		<0.5	<0.5			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**55.2**	**67.0**			
4-Terphenyl-d14	1718-51-0	0.1	%		**105**	**105**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**59.4**	**52.2**			
Dibutylchlorendate	1770-80-5	0.1	%		**111**	**112**			
EP-074_SR-S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.4**	**95.5**			
Toluene-D8	2037-26-5	0.1	%		**104**	**105**			
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**107**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3208248)								
HK1334048-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	1.4	1.4	0.0
HK1334391-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.7	12.7	0.0
EG: Metals and Major Cations (QC Lot: 3216362)								
HK1334228-003	A1/B/1	EG020: Lead	7439-92-1	1	mg/kg	71	61	14.8
HK1334228-016	T32C/B1/3.5	EG020: Lead	7439-92-1	1	mg/kg	141	161	13.0
EP-066: Polychlorinated Biphenyls (QC Lot: 3195844)								
HK1333368-005	Anonymous	Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3200781)								
HK1333974-001	Anonymous	Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	1830	1950	6.6

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 3212284)								
HK1333584-004	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
HK1334135-004	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 3212288)								
HK1334380-003	Anonymous	EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3195863)								
HK1333388-002	Anonymous	Benzene	71-43-2	5.0	µg/L	<5.0	<5.0	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3216362)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	94.0	----	84	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 3195844)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	61.3	----	46	133	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3200781)											
Bis(2-ethylhexyl)phthalate	117-81-7	25	µg/kg	----	25 µg/kg	105	----	70	120	----	----
				<1000	----	----	----	----	----	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3212284)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	93.6	----	81	109	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 3212288)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	92.6	----	81	109	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 3206148)											
Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	51.1	----	43	139	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3196123)											
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	<10.0	0.5 µg/L	102	----	78	137	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3196124)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	57.5	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	50.5	----	8	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3195863)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	81.8	----	70	123	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 3216362)										
HK1334228-001	R5.1-R5.4.1/SW/0.5	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3212284)										
HK1333829-002	Anonymous	**EG020: Lead**	7439-92-1	100 µg/L	91.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 3212288)										
HK1334228-014	EB5	**EG020: Lead**	7439-92-1	100 µg/L	88.8	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%)* *Low*	*High*
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130
EP-074_SR-S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: KIN WING CONSTRUCTION COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1334788
Address	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: khlee425@yahoo.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2785 8152	Telephone	: +852 2610 1044		
Facsimile	: +852 2725 9316	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 12-DEC-2013
Order number	: ----			Issue Date	: 30-DEC-2013
C-O-C number	: H021839			No. of samples received	: 8
Site	: YAU TONG BAY			No. of samples analysed	: 8

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 24-DEC-2013

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK1334788**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-09 based on ASTM D3974-09, prior to determination of metals.

Hong Kong Accreditation Service (HKAS) has accedited this laboratory (ALS Technichem (HK) Pty Ltd) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories. The results shown in this certificate were determined by this laboratory in accordance with its terms of accreditation.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist - Organics**	**Organics**
Wong Wing, Kenneth	**Assistant Supervisor - Metals**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: R8.1-R8.2/SW/3.725 Client sampling date / time: [12-DEC-2013] HK1334788-001	Client sample ID: R8.2-R8.3/SW/3.725 Client sampling date / time: [12-DEC-2013] HK1334788-002	Client sample ID: R8.3-R8.4/SW/3.725 Client sampling date / time: [12-DEC-2013] HK1334788-003	Client sample ID: R8.1-R8.4/SW/3.725 Client sampling date / time: [12-DEC-2013] HK1334788-004	Client sample ID: R8/T/3 Client sampling date / time: [12-DEC-2013] HK1334788-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**7.6**	**12.7**	**13.3**	**9.7**	**11.0**
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**102**	**62**	**96**	**90**	**394**

Sub-Matrix: **SOIL**				*Client sample ID*	**A2/B/2.35**	**A4/B/2.45**	**A5/B/2.55**		
				Client sampling date / time	[12-DEC-2013]	[12-DEC-2013]	[12-DEC-2013]		
Compound	*CAS Number*	*LOR*	*Unit*		**HK1334788-006**	**HK1334788-007**	**HK1334788-008**		
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**7.2**	**13.2**	**8.6**		
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**294**	**184**	**148**		
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	----	----		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**105**	----	----		
4-Terphenyl-d14	1718-51-0	0.1	%		**87.2**	----	----		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3213851)								
HK1334725-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	26.2	27.8	5.6
HK1334725-004	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	21.3	19.8	7.4
EG: Metals and Major Cations (QC Lot: 3226568)								
HK1334788-002	R8.2-R8.3/SW/3.725	**EG020: Lead**	7439-92-1	1	mg/kg	62	60	3.6
HK1335257-003	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	2850	2670	6.5
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3214002)								
HK1334708-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5000	µg/kg	<5000	<5000	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3226568)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	88.9	----	84	106	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 3214002)											
Bis(2-ethylhexyl)phthalate	117-81-7	25	µg/kg	---- <1000	25 µg/kg ----	102 ----	---- ----	70 ----	120 ----	---- ----	---- ----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 3226568)										
HK1334788-001	R8.1-R8.2/SW/3.725	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130