AECOM

Main Wealth Development Ltd.

Yau Tong Bay – Decommissioning of Shipyard Sites

Monthly EM&A Report for March 2014

[04/2014]

	Name	Signature
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Main Wealth Development Limited
71/F Two International Finance Centre
8 Finance Street
Central
Hong Kong

16 April 2014

Attn : Ms. Amy Chan / Mr. Gregory Chan

Dear Madam/ Sir,

Yau Tong Bay – Decommissioning of Shipyard Sites
Environmental Permit No. EP-409/2010
Condition 5.4 – Monthly EM&A Report for March 2014 (version: Rev. 0)

Further to the receipt from Environmental Team (ET) of the captioned Monthly EM&A Report on 11 and 14 April 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)

NATURE & TECHNOLOGIES (HK) LIMITED
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Our Ref: 3.14/018/2009/at

17 April 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 March 2014 (Version: Rev.0)

With reference to the captioned document verified by IEC on 16 April 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 building structures on land commenced on 21 November 2011 and was completed in September 2012. The demolition works of marine structures are yet to commence.

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 March 2014.

As informed by the Contractor, the major construction activities carried out in the reporting period were:

- Excavation of Contaminated Soil in Zones T19A, T22BA, T22BB, T32C and R3;
- Backfill to Zones R2, R4, A1, T32E (inner) and T36A;
- Formation of biopile; and
- Cement solidification treatment for Zones T19A, T22BA, T22BB, T32C and R8.

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

Daytime noise monitoring	2 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 April 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。

船廠陸上建築物的拆卸工程於二零一一年十一月二十一日展開，並於二零一二年九月完工。船廠海上建築物的拆除工作尚未開始。

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。

本報告記錄了於二零一四年三月一日至三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為：

1. 在區域 T19A、T22BA、T22BB、T32C and 和 R3 污染土壤的挖掘、
2. 在區域 R2、R4、A1、T32E（內部）和 T36A 的回填、
3. 生物堆的形成以及
4. 在區域 T19A、T22BA、T22BB、T32C 和 R8 的水泥固化處理。

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	2 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

因為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 4 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 were 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 eighteenth 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 from 1 to 31 March 2014.

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:

- Excavation of Contaminated Soil in Zones T19A, T22BA, T22BB, T32C and R3;
- Backfill to Zones R2, R4, A1, T32E (inner) and T36A;
- Formation of biopile; and
- Cement solidification treatment for Zones T19A, T22BA, T22BB, T32C and R8.

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 **implemen**tation 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 2250 (2681366)
Acoustic Calibrator	Rion NC-73 (10307223)

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 March 2014 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	62.2	55.2 – 64.7	75
NM2	62.8	59.5 – 64.7	70#
NM3	63.0	53.9 – 65.8	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 were commenced on 23 December 2013.

4.1.2 Cement Solidification and Stabilization commenced on 21 January 2014 and biopile remediation commenced on 24 March 2014. Monitoring works has been conducted accordingly.

4.2 Excavation Progress

4.2.1 Excavation has been carried out and completed in zones T19A, T22BA, T22BB, T32C, T32E and T35C in the reporting period. The excavated soil from T35C and T32E has been transported to the biopile; and those from T19A, T22BA, T22BB and T32C have undergone cement solidification and stabilization. All the soil requiring biopiling treatment has been transferred to the biopile and the biopilng treatment was commenced on 24 March 2014. 20 monitoring samples of the biopile were collected in the reporting period whereas the results are pending. Samples of cement treated soil were collected for TCLP and UCS tests and the details are presented in Section 4.3.

4.2.2 Verification sampling 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)*) to define the contamination extent. The locations of the contamination zones are shown in **Figure 4** and the sampling locations are indicated in **Figures 5** to **14**. A total of 19 verification samples have been collected by the Contractor under AECOM's supervision in March 2014. The status of excavation and confirmatory sampling are summarized in **Table 4.1** All testing results received as of 31 March 2014 are presented in **Appendix L**.

4.2.3 Independent Environmental Auditor (IEA) has conducted spot check sampling for T19A cement treated soil on 14 March 2014. The testing results of the IEA samples and the corresponding verification samples collected since December 2013 are summarized in **Table 4.2** and are found to be in order with the results of the Contractor.

Table 4.1 Summary of Progress of Excavation and Verification Sampling

Zone ID	Status of Excavation	Verification samples	Additional samples	Sampling Status	Testing Result (Pass/Fail)
T19A	Excavation Completed	Top	-	-	-
		T19A.1/SW (Sidewall)	-	✓	Pass
		T19A.2/SW (Sidewall)	T19A.2.1/SW (Sidewall)	✓	Pass
		T19A.3/SW (Sidewall)	T19A.3.1/SW (Sidewall)	✓	Pass
		T19A.4/SW (Sidewall)	T19A.4.1/SW (Sidewall)	✓	Pass
			T19A.4.2/SW (Sidewall)		
		T19A/B (Base)	-	✓	Pass
		T19A/B1 (Base)	-	✓	Pass
T22BA	Excavation Completed	Top	-	-	-
		T22BA.1/SW (Sidewall)	-	✓	Pass
		T22BA.2/SW (Sidewall)	-	✓	Pass
		T22BA.3/SW (Sidewall)	T22BA.3.1/SW (Sidewall)	✓	Pass
			T22BA.3.2/SW (Sidewall)		
			T22BA.3.3/SW (Sidewall)		

			T22BA.3.4/SW (Sidewall)		
		T22BA.4/SW (Sidewall)	T22BA.4.1/SW (Sidewall)	✓	Pass
		T22BA/B (Base)	-	✓	Pass
		T22BA/B1 (Base)	T22BA/B1.1 (Base)	✓	Pass
			T22BA/B1.2 (Base)		
T22BB	Excavation Completed	Top	-	-	-
		T22BB.1/SW (Sidewall)	-	✓	Pass
		T22BB.2/SW (Sidewall)	-	✓	Pass
		T22BB.3/SW (Sidewall)	T22BB.3.1/SW (Sidewall)	✓	Pass
			T22BB.3.2/SW (Sidewall)		
		T22BB.4/SW (Sidewall)	-	✓	Pass
		T22BB/B (Base)	-	✓	Pass
		T22BB/B1 (Base)	-	✓	Pass
T32C	Excavation Completed	Top	-	-	-
		T32C.1/SW (Sidewall)	T32C.1.1/SW (Sidewall)	✓	Pass
		T32C.2/SW (Sidewall)	-	✓	Pass
		T32C.3/SW (Sidewall)	-	✓	Pass
		T32C.4/SW (Sidewall)	T32C.4.1/SW (Sidewall)	✓	Pass
		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)	Excavation Completed	Top	-	-	-
		T32E.1A/SW (Sidewall)	-	✓	Pass
		T32E.2A/SW (Sidewall)	-	✓	Pass
		T32E.3A/SW (Sidewall)	T32E.3A.1/SW (Sidewall)	✓	Pass
			T32E.3A.2/SW (Sidewall)		
		T32E.4A/SW (Sidewall)	T32E.4A.1/SW (Sidewall)	✓	Pass
			T32E.4A.2/SW (Sidewall)		
			T32E.4A.3/SW (Sidewall)		
		T32E/B (Base)	-	✓	Pass
T32E	Excavation Completed	Top	-	-	-
		T32E.1/SW – T32E.58/SW (Sidewall)	T32E.10,11,15-19,25,26,30-32, 34,37 .1 (Sidewall)	✓	Pass
			T32E.(11,15-17,26,30-32,34) .2 (Sidewall)		
			T32E.11.3 (Sidewall)		
		T32E/B/1-14 (Base)	-	✓	Pass
		T32E/B/15-18 (Base)	T32E/B/17.1	✓	Pass
T35C	Excavation Completed	Top	-	-	-
		T35C.1/SW – T35C.77/SW (Sidewall)	-	✓	Pass
		T35C/B1 – T35C/B26 (Base)	T35C/B5.1	✓	Pass
		T35C/B27 – T35C/B47 (Base)	T35C/B27.1	✓	Pass
		T35C/B48 – T35C/B66 (Base)	-	✓	Pass
T36A	Excavation Completed	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	Excavation Completed	A2/T (Top)	-	✓	Pass
		A2.1-A2.2/SW (Sidewall)	A2.1-A2.2.1/SW (Sidewall)	✓	Pass
		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	-	-	-
		A3.1-A3.2/SW (Sidewall)	A3.1-A3.2.1/SW (Sidewall)	✓	Pending
		A3.2-A3.3/SW (Sidewall)	A3.2-A3.3.1/SW (Sidewall)	✓	Pending
		A3.3-A3.4/SW (Sidewall)	-	✓	Pass
		A3.1-A3.4/SW (Sidewall)	-	✓	Pass
		A3/B (Base)	-	✓	Pass
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)	A4.2-A4.3.1/SW (Sidewall)	✓	Pass
		A4.3-A4.4/SW (Sidewall)	A4.3-A4.4.1/SW (Sidewall)	✓	Pass
			A4.3-A4.4.2/SW (Sidewall)		
			A4.3-A4.4.3/SW (Sidewall)		
			A4.3-A4.4.4/SW (Sidewall)		
		A4/B (Base)	-	✓	Pass
A5	Not Excavated	A5/T (Top)	-	✓	Pass
		A5.1-A5.2/SW (Sidewall)	A5.1-A5.2.1/SW (Sidewall)	✓	Pass
			A5.1-A5.2.2/SW (Sidewall)		
		A5.1-A5.4/SW (Sidewall)	A5.1-A5.4.1/SW (Sidewall)	✓	Pass
			A5.1-A5.4.2/SW (Sidewall)		
			A5.1-A5.4.3/SW (Sidewall)		
			A5.1-A5.4.4/SW (Sidewall)		
		A5.2-A5.3/SW (Sidewall)	A5.2-A5.3.1/SW (Sidewall)	✓	Pass
		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	Excavation Completed	Top	-	-	-
		R2.1-R2.2/SW (Sidewall)	-	✓	Pass
		R2.1-R2.4/SW (Sidewall)	-	✓	Pass
		R2.2-R2.3/SW (Sidewall)	R2.2-R2.3.1/SW (Sidewall)	✓	Pass
			R2.2-R2.3.2/SW (Sidewall)		
		R2.3-R2.4/SW (Sidewall)	-	✓	Pass
		R2/B (Base)	-	✓	Pass
R3 (0-1m below ground surface)	Excavation Completed	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
R3 (1-3.95m below ground surface)	Excavation Completed	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	Excavation Completed	Top	-	-	-
		R5.1-R5.2/SW (Sidewall)	-	✓	Pass
		R5.1-R5.4/SW (Sidewall)	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)	-	✓	Pass
		R6.1-R6.2/SW (Sidewall)	-	✓	Pass
		R6.1-R6.4/SW (Sidewall)	-	✓	Pass

		R6.2-R6.3/SW (Sidewall)	-	✓	Pass
		R6.3-R6.4/SW (Sidewall)	-	✓	Pass
		R6/B (Base)	-	✓	Pass
R7	Not Excavated	R7/T (Top)	-	✓	Pending
		R7.1-R7.2/SW (Sidewall)	-	✓	Pending
		R7.1-R7.4/SW (Sidewall)	-	✓	Pending
		R7.2-R7.3/SW (Sidewall)	-	✓	Pending
		R7.3-R7.4/SW (Sidewall)	-	✓	Pending
		R7/B (Base)	-	✓	Pending
R8	Excavation Completed	R8/T (Top)	R8/T.1 (Top)	✓	Pass
		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)	-	✓	Pass
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
- : Sampling not required
^: Where applicable, the indicated testing results represent the status of the most recent additional sample taken for the same location.
*: Additional base sampling for A2 is not required as that part of soil is included in A3.

Table 4.2 Results of Spot-check Samples and Corresponding Verification Samples

Parameters			***Lead (Dutch B Standard) (mg/kg)***	***TPH (Dutch B Standard) (µg/kg)***					***PCR(RBRG) (µg/kg)***		***TCLP (mg/kg)***
			Lead	C6-C9	C10-C14	C15-C28	C29-C36	Total TPH	C9-C16	C17-C35	Lead
Limit of Reporting (LOR)			1	2	50	100	100	252	200	500	0.1
Standard limits			150	-	-	-	-	1,000	2,240	10,000	0.75
Zone ID	**Sampling ID**	**Sampling Date**									
T22BA	T22BA.4.1/SW/0.75	4/12/2014	131	-	-	-	-	-	-	-	-
	T22BA.4.1/ SW/0.75/IEA*	4/12/2014	112	-	-	-	-	-	-	-	-
R3	R3.1-R3.2/ SW/2.475	19/12/2013	-	-	-	-	-	-	299	9,030	-
	R3.1-R3.2/ SW/2.475/IEA*	19/12/2013	-	-	-	-	-	-	266	9,270	-
T35C	T35C.56/SW/1.25	9/1/2014	-	<2	<50	<100	<100	<252	-	-	-
	T35C.56/ SW/1.25/IEA*	9/1/2014	-	<2	<50	<100	<100	<252	-	-	-
R5	R5/TCLP	22/1/2014	-	-	-	-	-	-	<0.1	<0.1	<0.1
	R5/TCLP/IEA*	22/1/2014	-	-	-	-	-	-	<0.1	<0.1	<0.1
T32E	T32E/B/5	24/2/2014	-	<2	<50	<100	<100	<252	-	-	-
	T32E/B/5/IEA*	24/2/2014	-	<2	<50	<100	<100	<252	-	-	-
T19A	T19A/TCLP.2	14/3/2014	-	-	-	-	-	-	-	-	<0.1
	T19A/TCLP.2/IEA*	14/3/2014	-	-	-	-	-	-	-	-	<0.1

Note:
*: Spot check samples collected by IEA

4.3 Biopiling and Cement Solidification / Stabilization Progress

4.3.1 The set up of the biopiling facility has been completed in the reporting period. Excavated soil from zones A2, R1, R2, R3, R4, T32E and T35C have been transferred to the facility. The establishment of biopile has been completed and biopiling treatment was commenced on 24 March 2014. 20

monitoring samples were collected from the biopile as indicated in Figure 15. The results were not received as of 31 March and will be included in the next monthly report. The cement solidification and stabilization facility is in operation. In March, excavated soil from zones T19A, T22BA, T22BB and T32C have undergone cement solidification and stabilization and samples of the treated soil were collected for Toxicity Characteristic Leaching Procedure (TCLP) and Unconfined Compressive Strength (UCS) tests to verify if the treatment standard is achieved. The TCLP and UCS test results received in March are summarized in **Table 4.4** and **Table 4.5** respectively. The results indicate that the cement treated soil comply with the relevant standards.

4.4 Monitoring Testing Results

Excavation

4.4.1 In accumulation, 407 verification samples have been collected at this stage, of which 388 samples were collected from November 2013 to February 2014; while 19 verification samples were collected in the reporting period from 7 contamination zones (T32E, T35C, A3, A4, A5, R6 and R7). As of 31 Match 2014, 399 results for the verification samples were received, of which 320 results were received from December 2013 to February 2014, and 79 results were received in the reporting period. A total of 8 samples results are pending and the results will be included in next monthly report.

4.4.2 Among the 79 results received in March, exceedance of relevant standards was found in 5 samples. These 5 samples are taken in zones A3, T32E and T35C. Additional samples for these locations have been collected. The sampling and reporting status of the verification samples are indicated in **Table 4.1**. The testing results are summarized in the table of **Appendix L,** and the laboratory testing reports are filed in **Appendix K.**

4.4.3 1 set of QA/QC sample (EB/FB 20) was collected in March 2014. The results of QA/QC samples received in the reporting period, including those collected in February, are summarized in **Table 4.3**. The results show that all tested parameters are below the limit of reporting. The corresponding laboratory reports are attached in **Appendix K**.

Table 4.3 Results of QA/QC Samples Received in March 2014

Parameter		Benzene (µg/L)	PCR C9-C16 (mg/L)	PCR C17-C35 (mg/L)	TPH C6-C9 (µg/L)	TPH C10-C14 (µg/L)	TPH C15-C28 (µg/L)	TPH C29-C36 (µg/L)
Limit of Reporting (LOR)		0.5	0.5	0.5	2	50	100	100
RBRGs (Urban Residential)		704	2240	10000	-	-	-	-
Sample ID	**Date of Sampling**							
FB17	19/2/2014	<0.5	<0.5	<0.5	<20	<50	<100	<50
EB17	19/2/2014	<0.5	<0.5	<0.5	<20	<50	<100	<50
FB18	20/2/2014	-	-	-	<20	<50	<100	<50
EB18	20/2/2014	-	-	-	<20	<50	<100	<50
EB19	25/2/2014	-	-	-	<20	<50	<100	<50
FB19	25/2/2014	-	-	-	<20	<50	<100	<50
EB20	14/3/2014	-	-	-	<20	<50	<100	<50
FB20	14/3/2014	-	-	-	<20	<50	<100	<50

Solidification / Stabilization (S/S)

4.4.4 A total of 28 set of monitoring samples (TCLP & UCS) were collected since the commencement of cement solidification, of which 10 set of samples were collected in February 2014 and 18 samples were collected in March 2014. As of 31 March, 17 results for TCLP and 16 results for UCS test were received while 13 TCLP and 12 UCS results were received in the reporting period. The results are summarized in **Table 4.4** and **4.5.** The testing results show that all the cement treated soils have met the relevant treatment target. The relevant laboratory reports are annexed in **Appendix K**.

Table 4.4 Results of TCLP Test of Cement S/S Treated Soil

Parameter			TCLP (Lead)
LOR (mg/kg)			0.1
Treatment Target Limit (mg/kg)			<0.75
Zone ID	Sample ID	Date of Sampling	
T36A	T36A/TCLP	25/2/2014	<0.1
	T36A/TCLP.1	26/2/2014	<0.1
	T36A/TCLP.2	26/2/2014	<0.1
R8	R8/TCLP	28/2/2014	<0.1
	R8/TCLP.1	28/2/2014	<0.1
	R8/TCLP.2	28/2/2014	<0.1
T32C	T32C/TCLP	4/3/2014	<0.1
	T32C/TCLP.1	4/3/2014	<0.1
	T32C/TCLP.2	5/3/2014	<0.1
	T32C/TCLP.3	5/3/2014	<0.1
T19A	T19A/TCLP	12/3/2014	<0.1
	T19A/TCLP.1	12/3/2014	<0.1
	T19A/TCLP.2	14/3/2014	<0.1

Table 4.5 Results of UCS Test of Cement S/S Treated Soil

Parameter			UCS
LOR (kPa)			0.5
Treatment Target Limit (kPa)			>1
Zone ID	Sample ID	Date of Sampling	
T36A	T36A/UCS	25/2/2014	2
	T36A/UCS.2	26/2/2014	1.7
	T36A/UCS.1	27/2/2014	2.1
R8	R8/UCS	28/2/2014	1.5
	R8/UCS.1	28/2/2014	1.3
	R8/UCS.2	28/2/2014	1.4
T32C	T32C.UCS	3/3/2014	1.6
	T32C.UCS.1	4/3/2014	1.2
	T32C.UCS.2	4/3/2014	1.2
	T32C.UCS.3	4/3/2014	1.1
T19A	T19A/UCS	12/3/2014	1.6
	T19A/UCS.1	12/3/2014	1.5

Bioremediation

4.4.5 Biopiling treatment was commenced on 24 March 2014. Progress monitoring samples are required for every 20m^3 contaminated soils from zones R1-R4 and A2 per month; and every 360m^3 soils from zones T32E and T35C per fortnight. In total, 20 monitoring samples were collected from the biopile in March 2014. The sampling locations are indicated in **Figure 15**. The test results were not yet received and will be included in next monthly report. The sampling plan for biopile monitoring is summarized in **Table 4.6**.

4.4.6 Bioremediation system closure assessment will be conducted once satisfactory results are obtained during progress monitoring. Soil samples will be taken for every 20m^3 soils from zones R1-R4 and A2;

and every 76.5m^3 soils from zones T32E and T35C for closure assessment. The sampling plan is indicated in **Table 4.6**.

Table 4.6 Sampling Plan for Bioremediation Progress Monitoring

Zone	Volume of Soil (m^3)	Progress Monitoring			Closure Assessment
		Minimum No. of samples required	Sampling Frequency	Respective Samples	Minimum No. of samples required
R1, R2, & R4 #	80	4	Monthly	BP1-BP4	4
R3	98.75	5	Monthly	BP14-BP19*	5
A2	46.78	3	Monthly	BP5, BP6, BP6A	3
T35C	1435.07	4	Fortnightly	BP7-BP10	19
T32E	775.43	3	Fortnightly	BP11-BP13	11

Note:
The soil volume of R1, R2 and R4 are 25m^3, 30m^3 and 25m^3 respectively.
* BP19 is an extra sample taken by the Contractor.

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 7, 14, 20 and 27 March respectively.

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

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

Air Quality

5.1.4 Regular spraying of water has been maintained for areas not covered by water sprinklers (Reminder).

Noise

5.1.5 No adverse observation was identified in the reporting period.

Water Quality

5.1.6 No adverse observation was identified in the reporting period.

Land Contamination

5.1.7 IEA has collected spot check samples and the results are in order with the verification samples collected by the Contractor. The IEA sample results are listed with its corresponding test samples in Table 4.2. The laboratory report of IEA sample is included in Appendix K.

Chemical and Waste Management

5.1.8 No adverse observation was identified in the reporting period.

Landscape and Visual Impact

5.1.9 No adverse observation was identified in the reporting period.

Miscellaneous

5.1.10 No adverse observation was identified in the reporting period.

5.1.11 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, 1,674m^3 of soil (of which 27m^3 was artificial hard material) was excavated on site; it will be either mixed with cement or transferred to biopile for treatment. No general refuse was generated on site and disposed of at the South East New Territories (SENT) Landfill. 83m^3 and 0m^3 of inert C&D materials were reused on site and 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
APCO	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	365200	02/10/2013	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 J**.

6 FUTURE KEY ISSUES

6.1 Construction Programme for the Coming Months

6.1.1 The proposed major construction works for the Project in April and May 2014 include:-

- Excavation of Contaminated Soil in Zones R6, R7, A3, A4 and A5;
- Operation and maintenance of biopiles system;
- 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 April 2014.

6.3 Monitoring Schedule for the Coming Month

6.3.1 The tentative schedule for environmental monitoring in April 2014 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

- Nil.

Construction Noise Impact

- Nil.

Water Quality Impact

- Nil.

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 2 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.

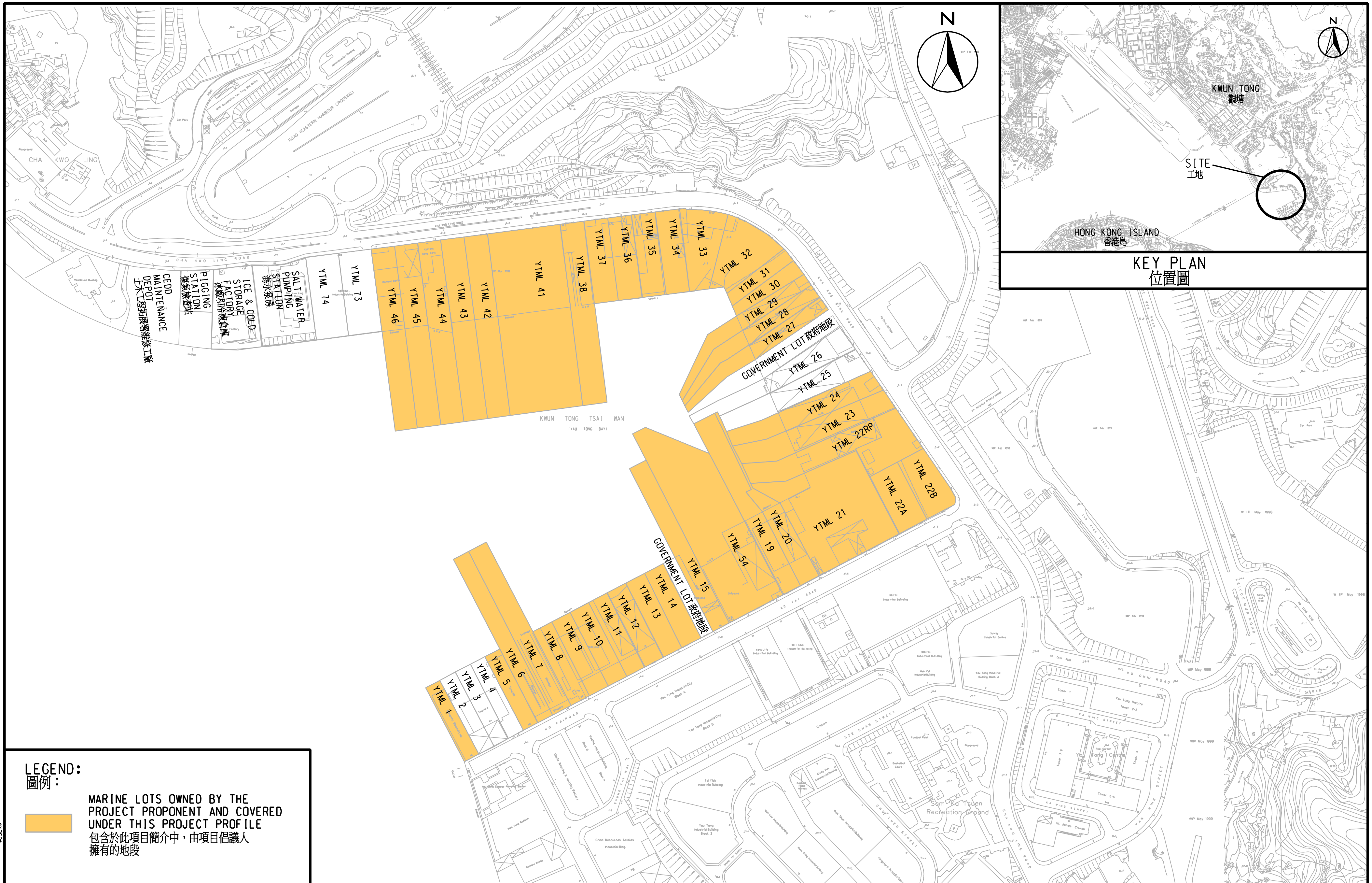
7.3.4 Water quality monitoring was not conducted in the reporting period as the demolition of marine structures has not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

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 March 2014. 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



LEGEND:
圖例：

MARINE LOTS OWNED BY THE PROJECT PROPONENT AND COVERED UNDER THIS PROJECT PROFILE
包含於此項目簡介中，由項目倡議人擁有的地段

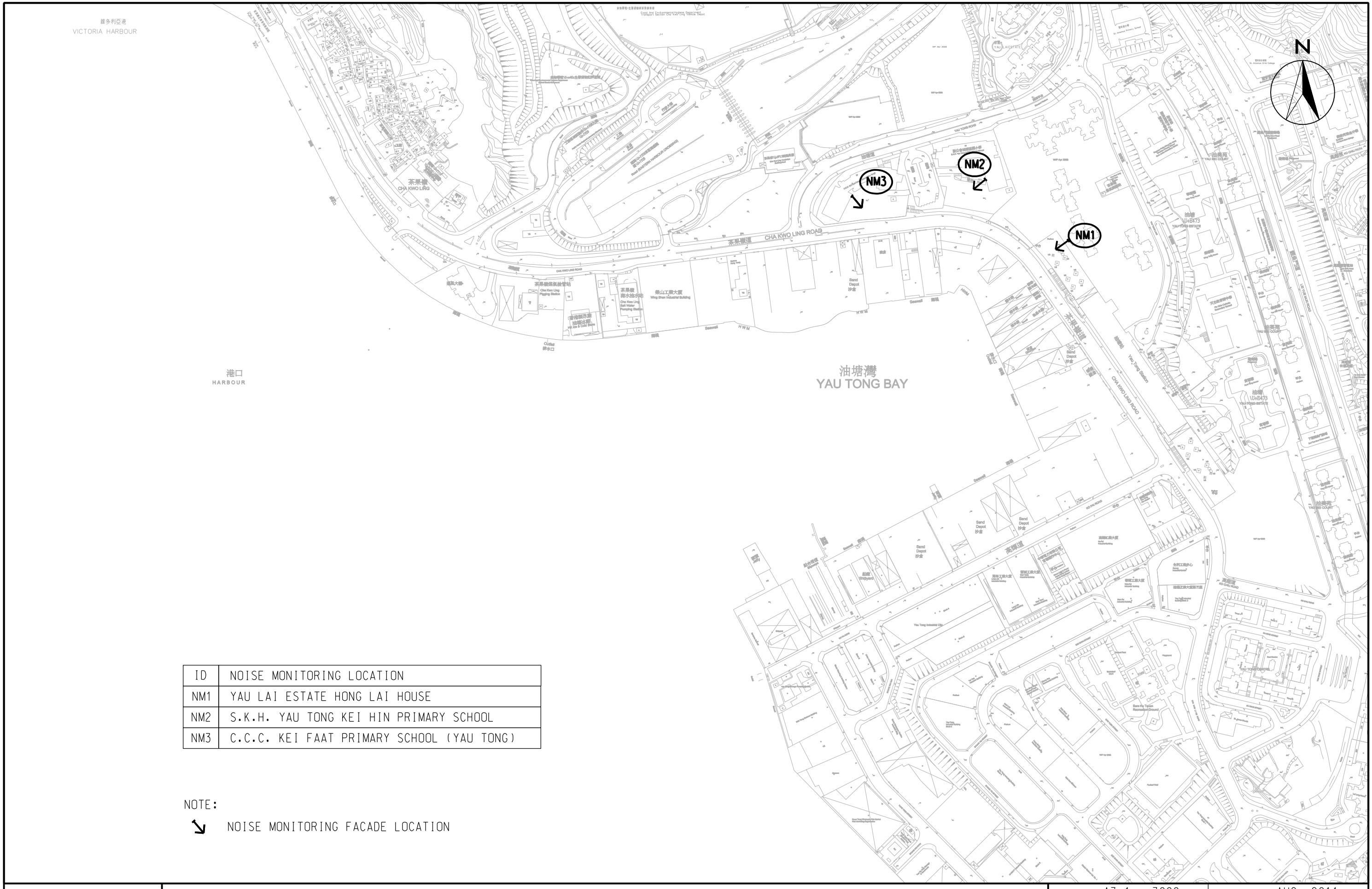
AECOM

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 校對	--	DRAWN 繪圖	--
JOB No.	60048283	FIGURE NO.	1
		REV	A

Plotting By: $DATE$ $USER$
$file$



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

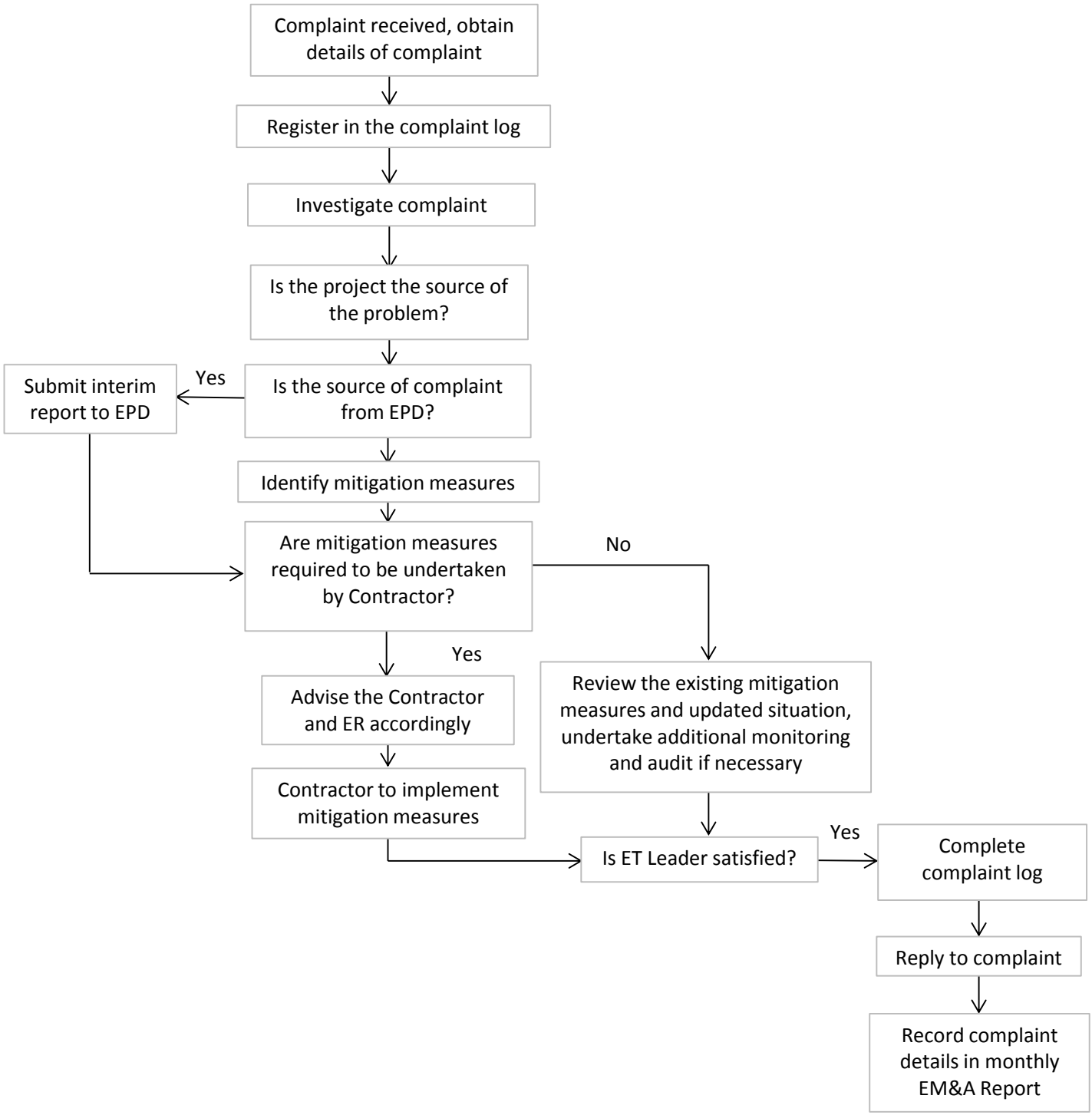
AECOM

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

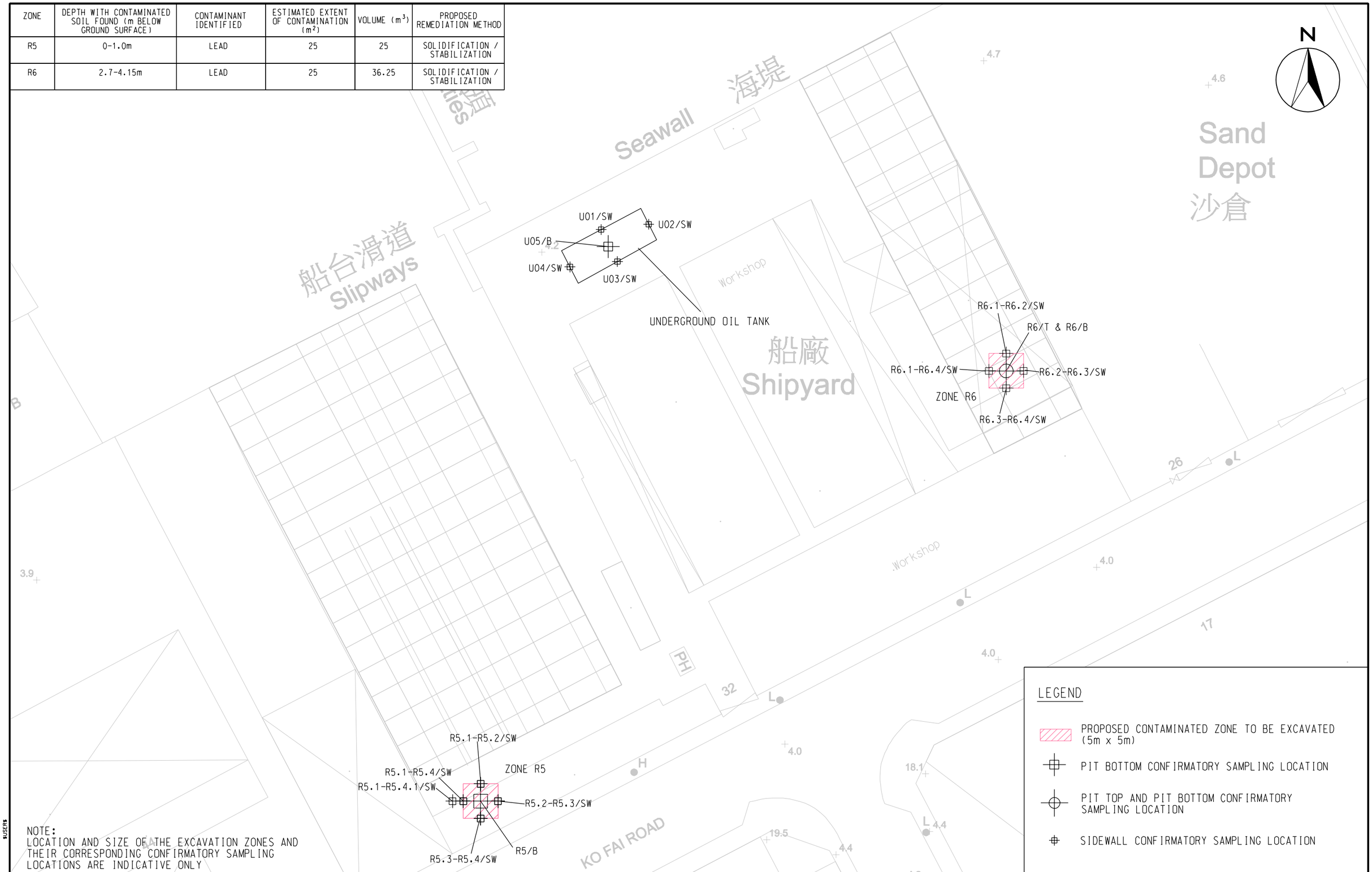
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATIONS OF CONTAMINATED ZONES

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

P:\60048208\ 1.01\CAD\Drawing\Figure\Remediation Spec

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

- 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

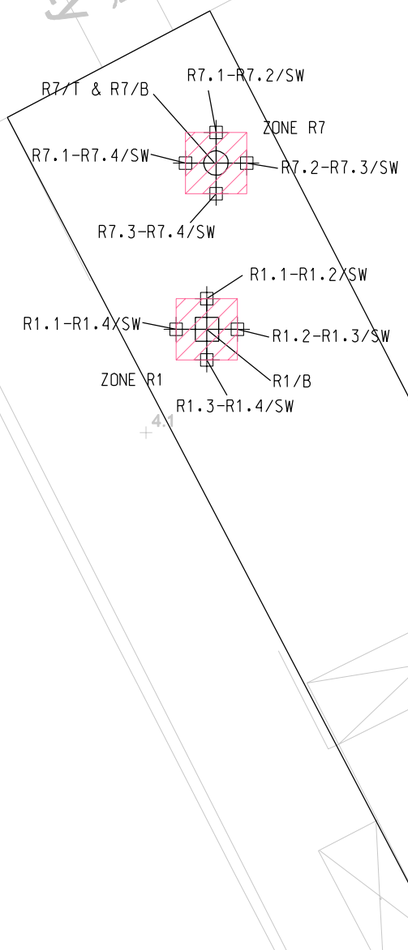
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R5 & R6)

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

Plotting By: $USER$ $DATE$

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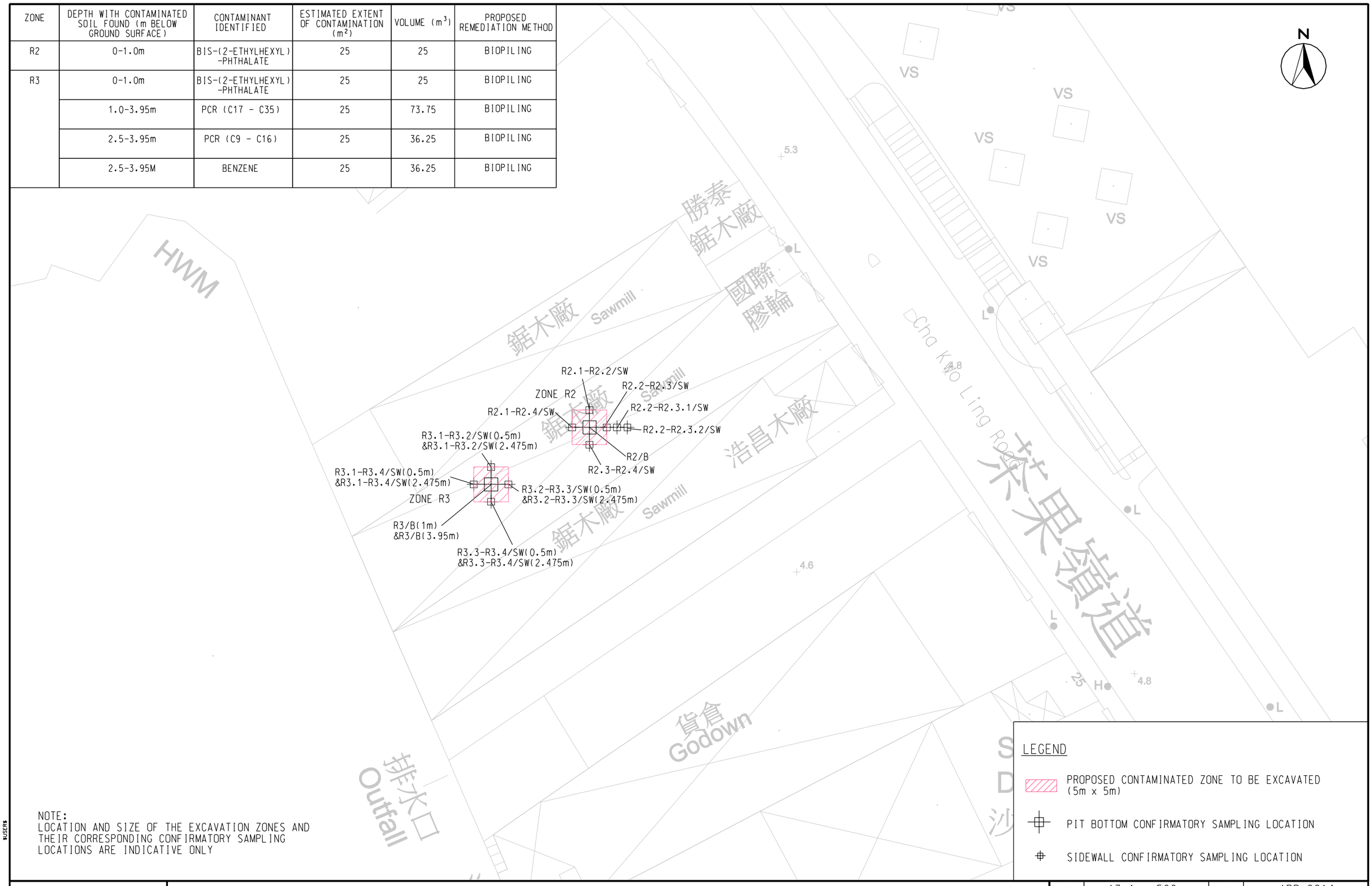
ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R2	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
R3	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
	1.0-3.95m	PCR (C17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

- 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	APR 2014
CHECK	LLHY	DRAWN	KW
JOB No.	60048208	DRAWING No.	7
		REV	-

Plotting By: $DATE$ $USER$

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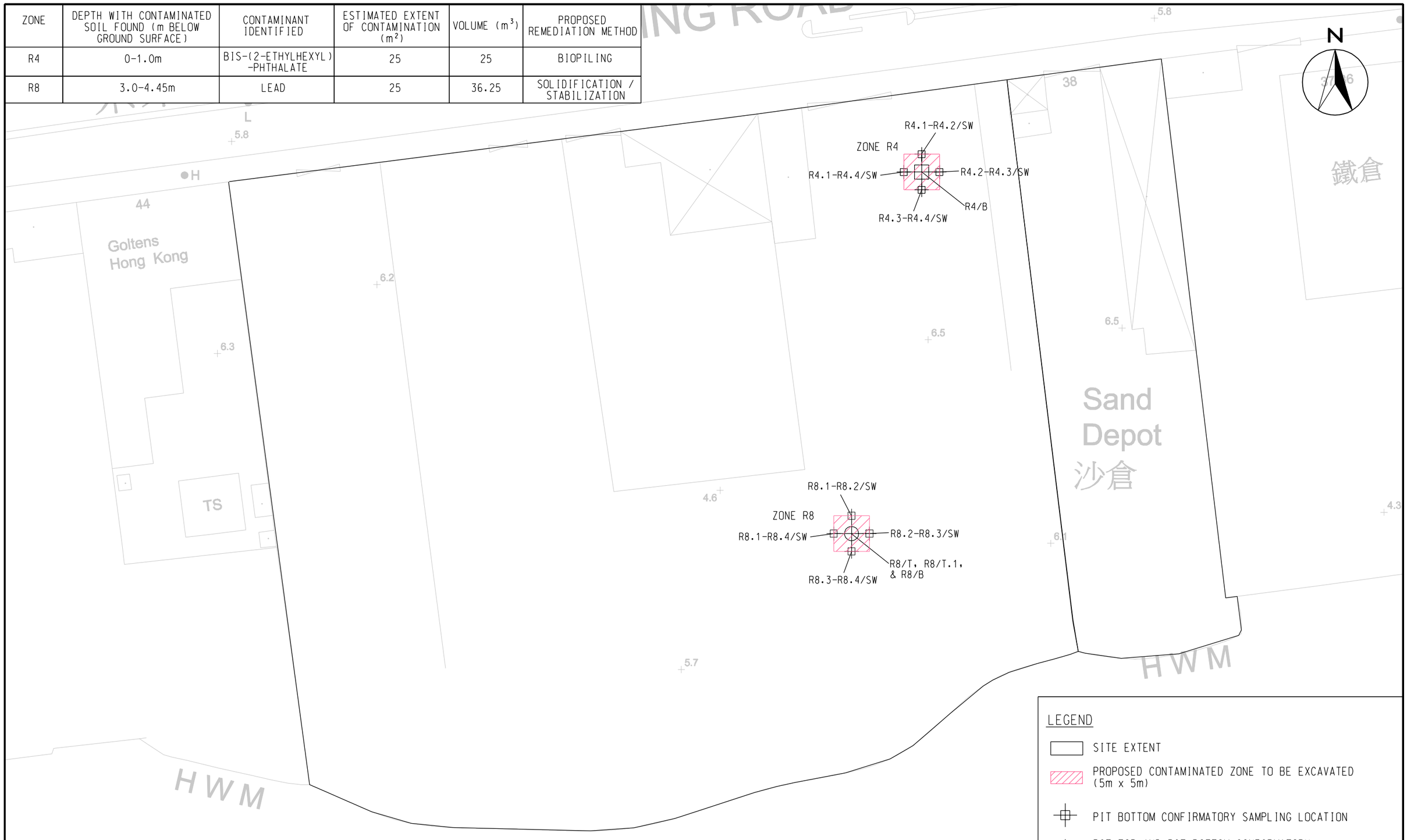
ZONE	DEPTH WITH CONTAMINATED SOIL FOUND (m BELOW GROUND SURFACE)	CONTAMINANT IDENTIFIED	ESTIMATED EXTENT OF CONTAMINATION (m^2)	VOLUME (m^3)	PROPOSED REMEDIATION METHOD
R4	0-1.0m	BIS-(2-ETHYLHEXYL) -PHTHALATE	25	25	BIOPILING
R8	3.0-4.45m	LEAD	25	36.25	SOLIDIFICATION / STABILIZATION



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

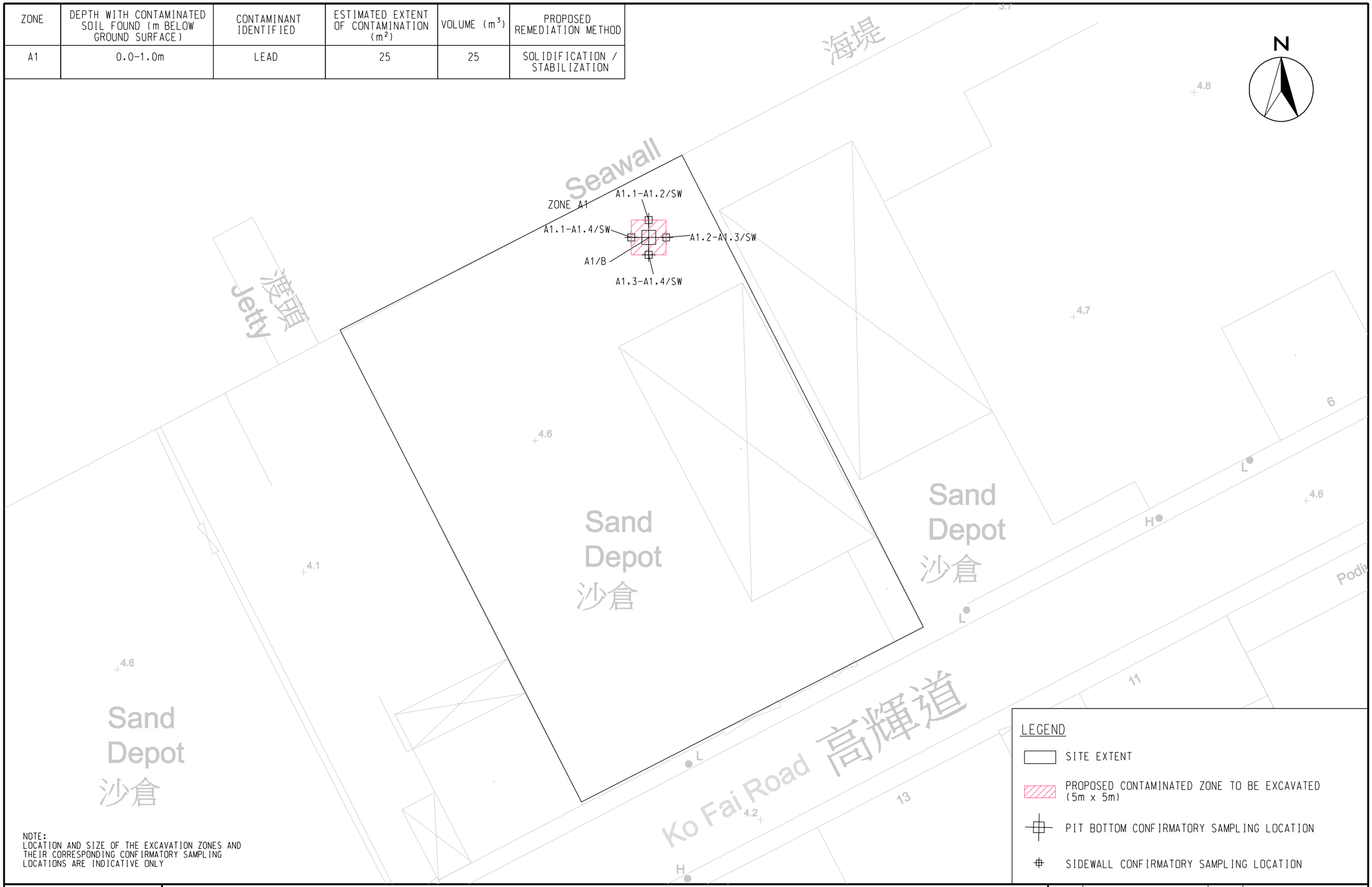
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONES R4 & R8)

SCALE	A3 1 : 500	DATE	APR 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

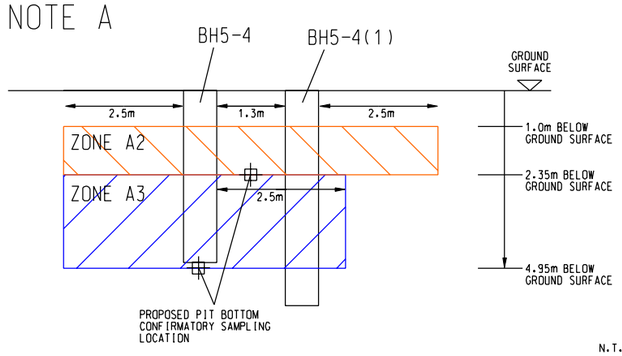
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

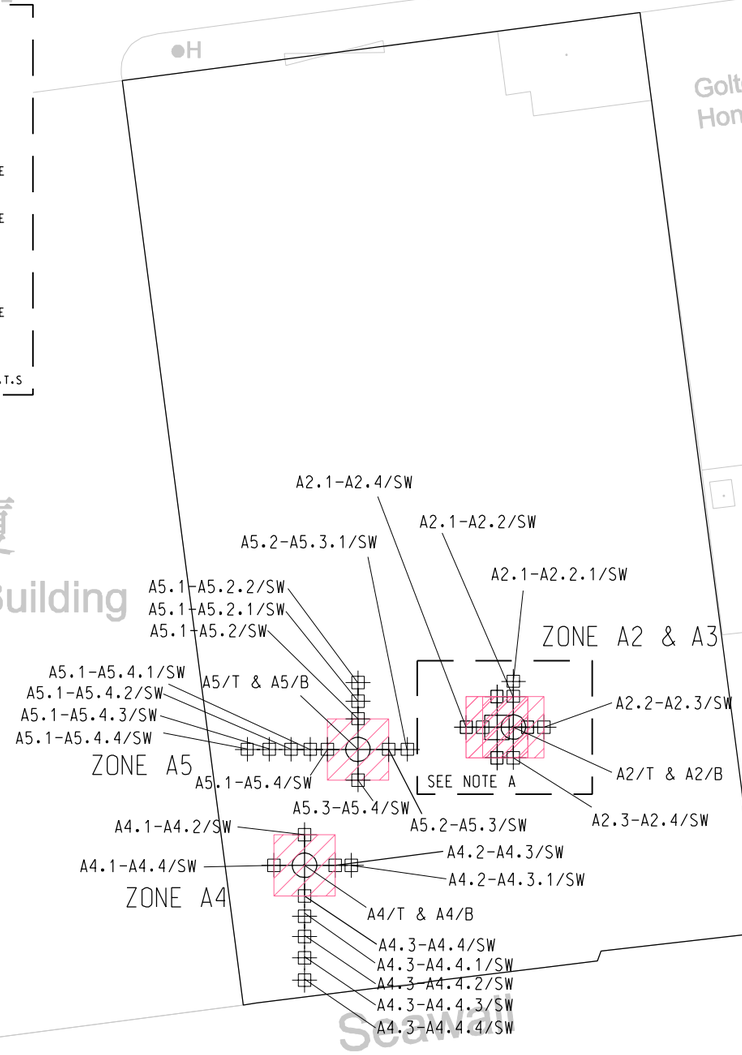
LOCATION OF CONFIRMATORY SAMPLING (ZONE A1)

SCALE	A3 1 : 500	DATE	MAR 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

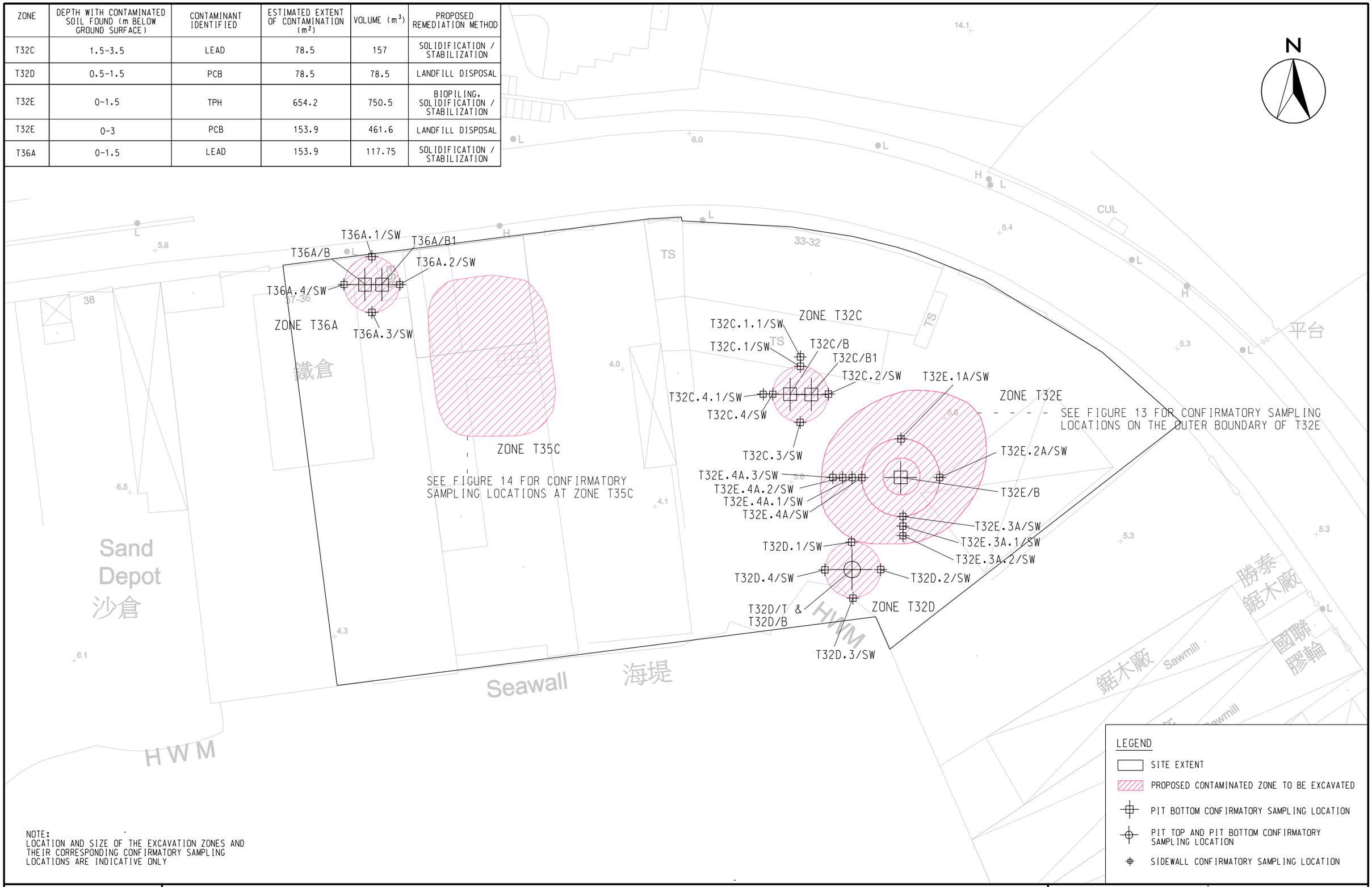
AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

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

SCALE	A3 1 : 500	DATE	MAR 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
T32E	0-3	PCB	153.9	461.6	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

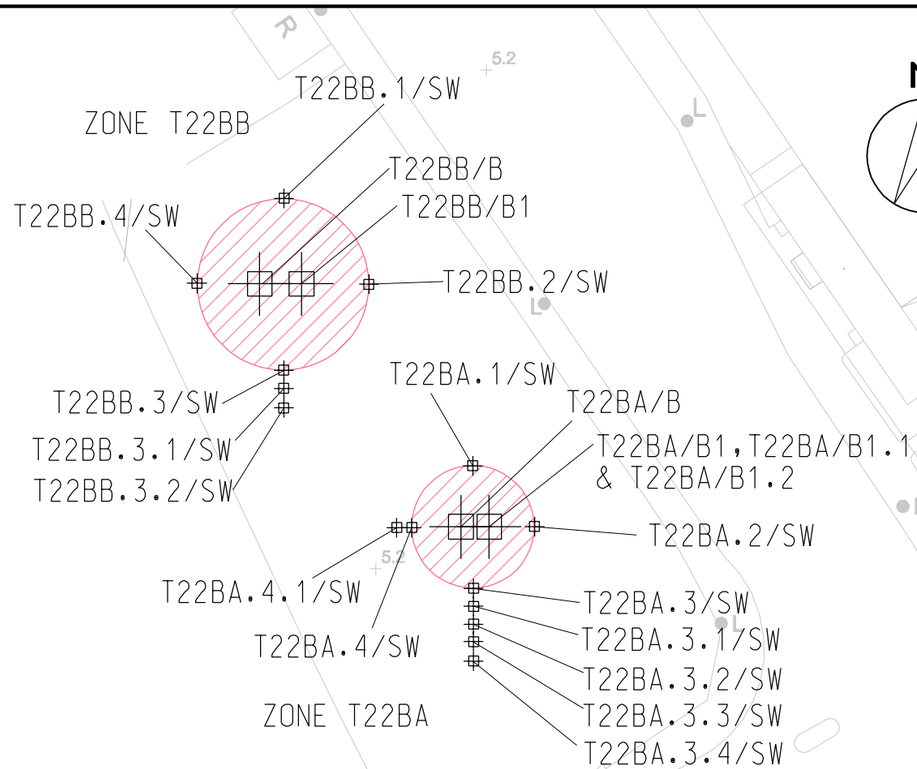
AECOM

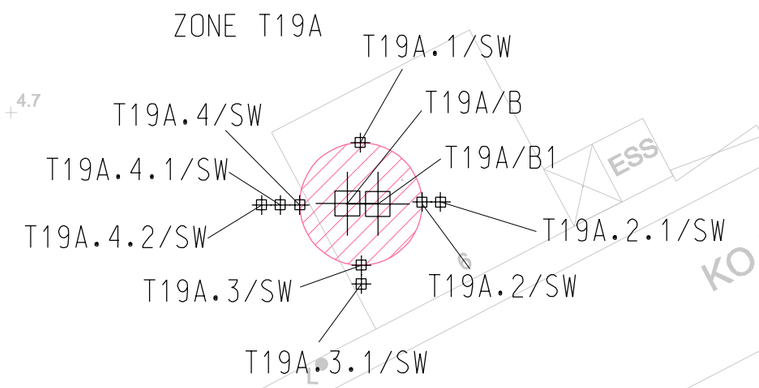
YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

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

SCALE	A3 1 : 600	DATE	MAR 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

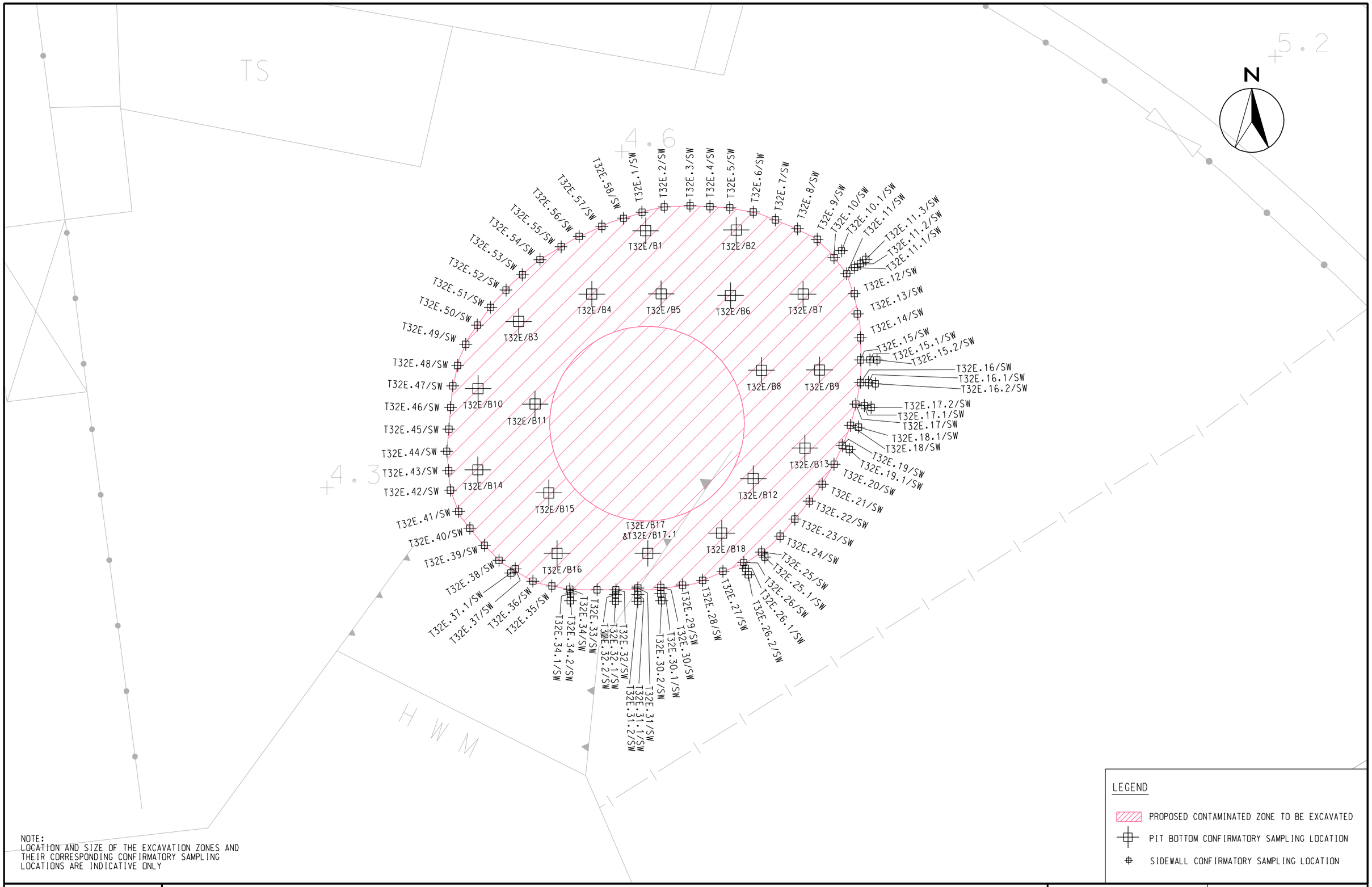
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

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

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



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

LEGEND

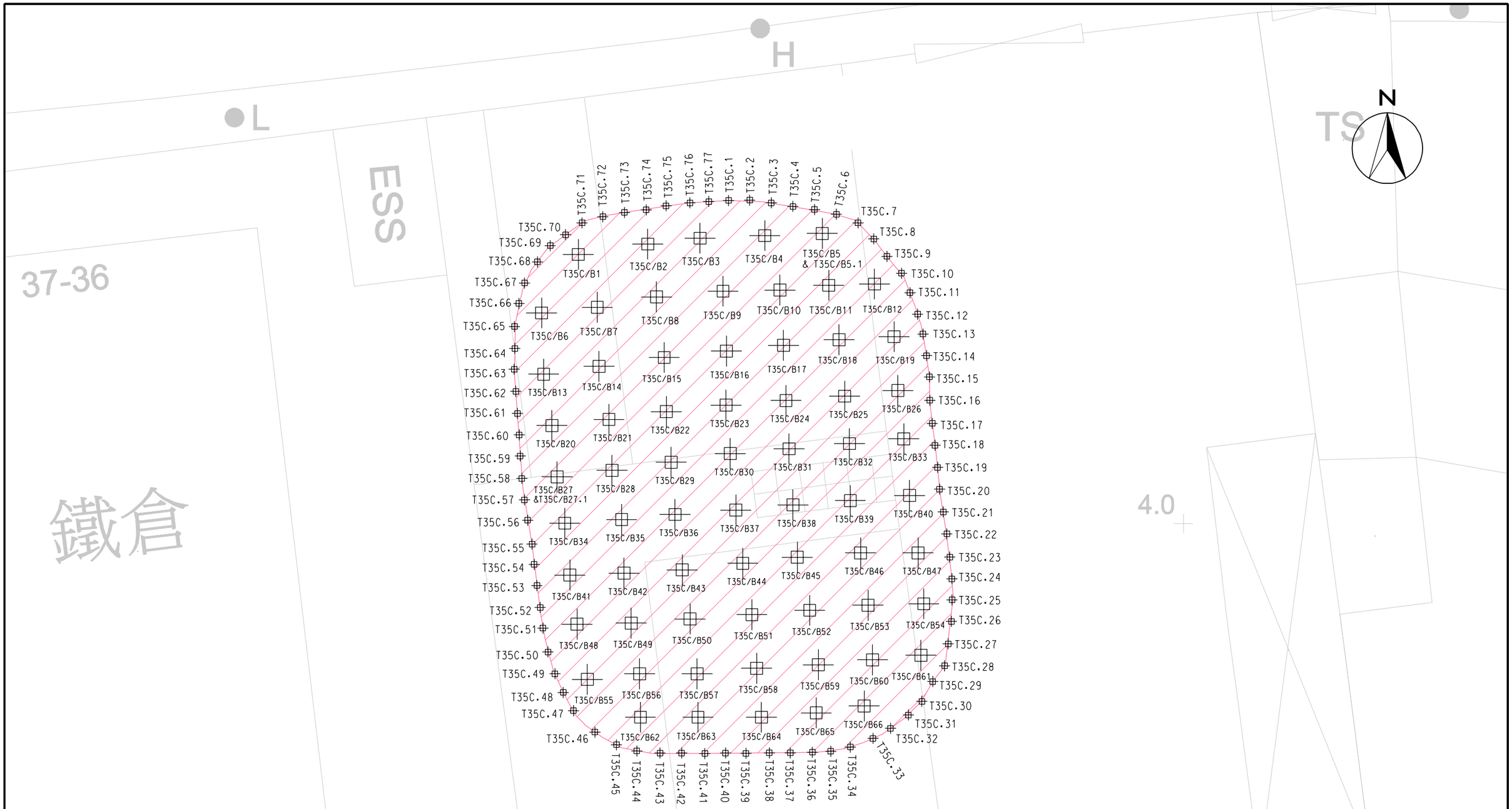
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED
- PIT BOTTOM CONFIRMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (ZONE T32E)

SCALE	A3 1:250	DATE	APR 2014
CHECK	LLHY	DRAWN	KW
PROJECT NO.	60048208	FIGURE NO.	13
		REV	–



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

LEGEND

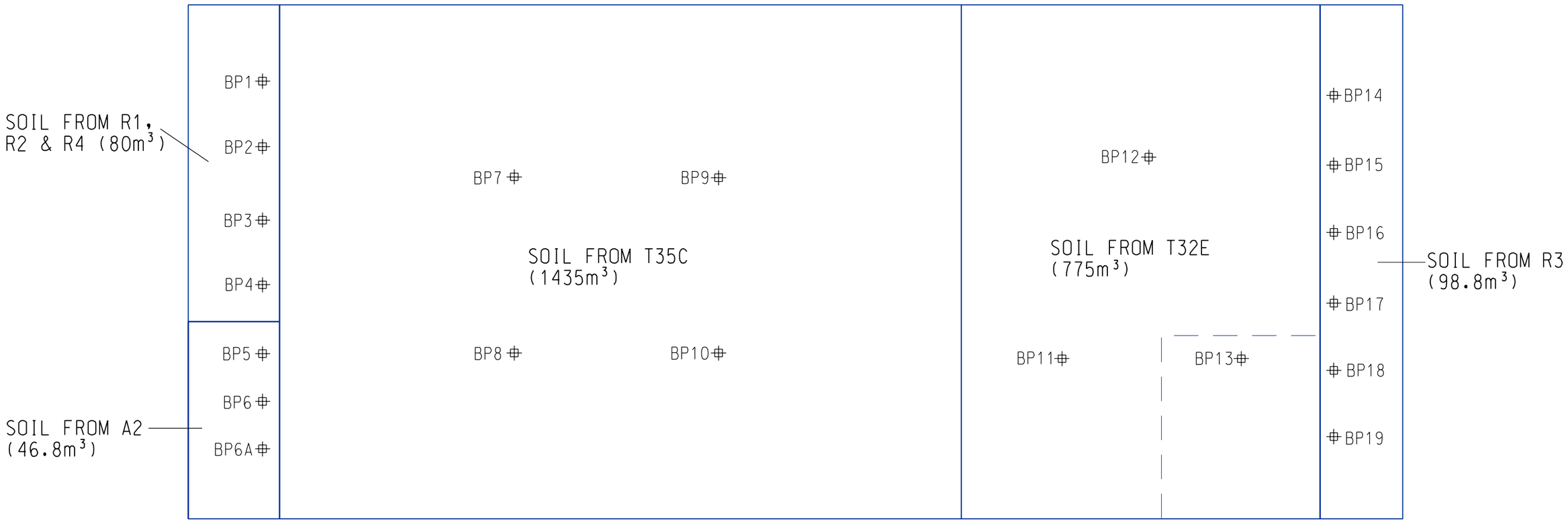
- PROPOSED CONTAMINATED ZONE TO BE EXCAVATED
- PIT BOTTOM CONFRIMATORY SAMPLING LOCATION
- SIDEWALL CONFIRMATORY SAMPLING LOCATION

AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

LOCATION OF CONFIRMATORY SAMPLING (T35C)

SCALE	A3 1 : 200	DATE	APR 2014
CHECK	LLHY	DRAWN	KW
PROJECT NO.	60048208	FIGURE NO.	14
		REV	–



NOTE:
THE SAMPLING LOCATIONS ARE INDICATIVE ONLY

LEGEND

BIOPILE SET-UP

SAMPLING LOCATION

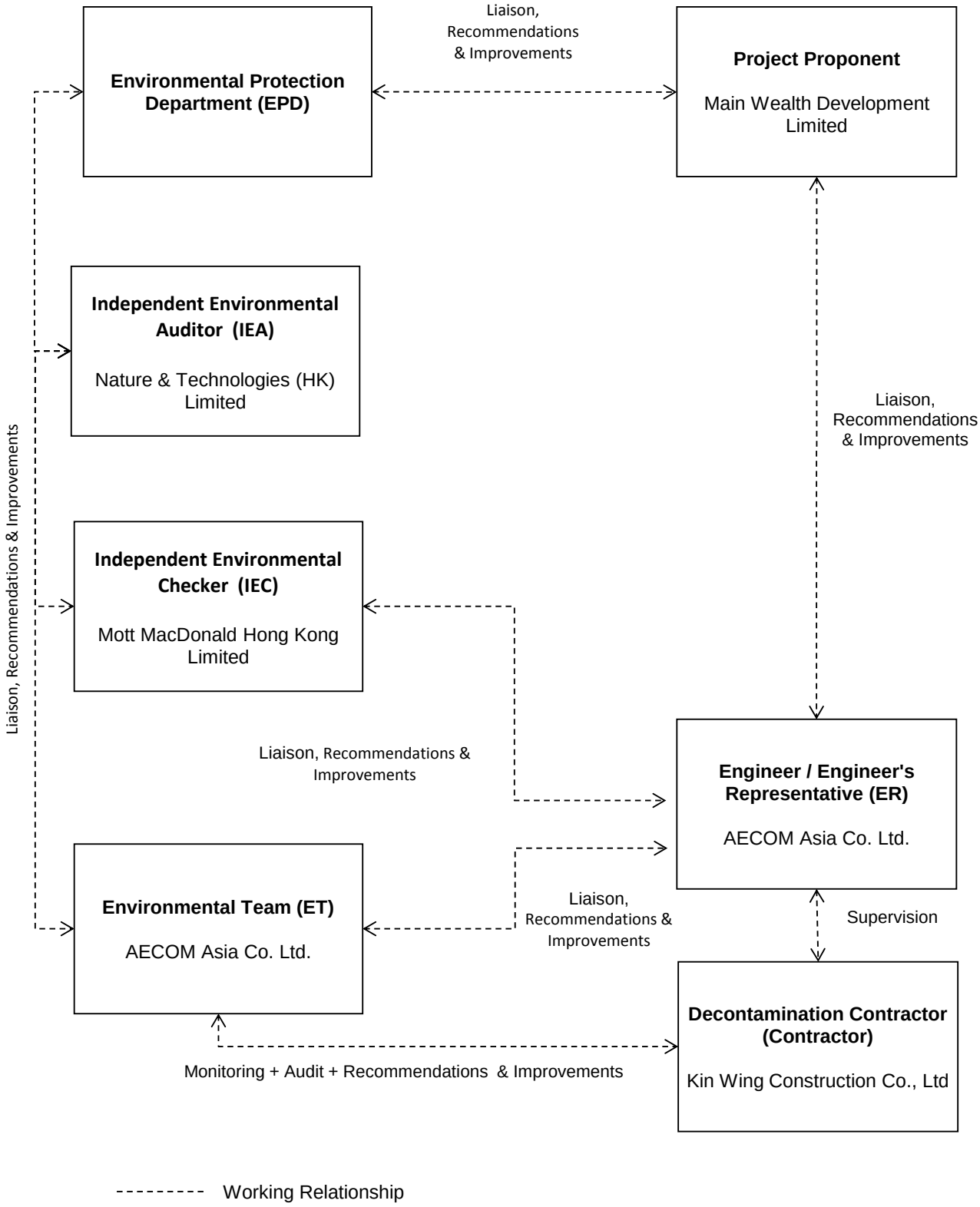
AECOM

YAU TONG BAY REDEVELOPMENT
LAND DECONTAMINATION WORKS

SAMPLING PLAN FOR BIOPILE MONITORING

SCALE	A3 1 : 200	DATE	APR 2014
CHECK	LLHY	DRAWN	KW
PROJECT NO.	60048208	FIGURE NO.	15
		REV	–

APPENDIX A
PROJECT ORGANIZATION STRUCTURE



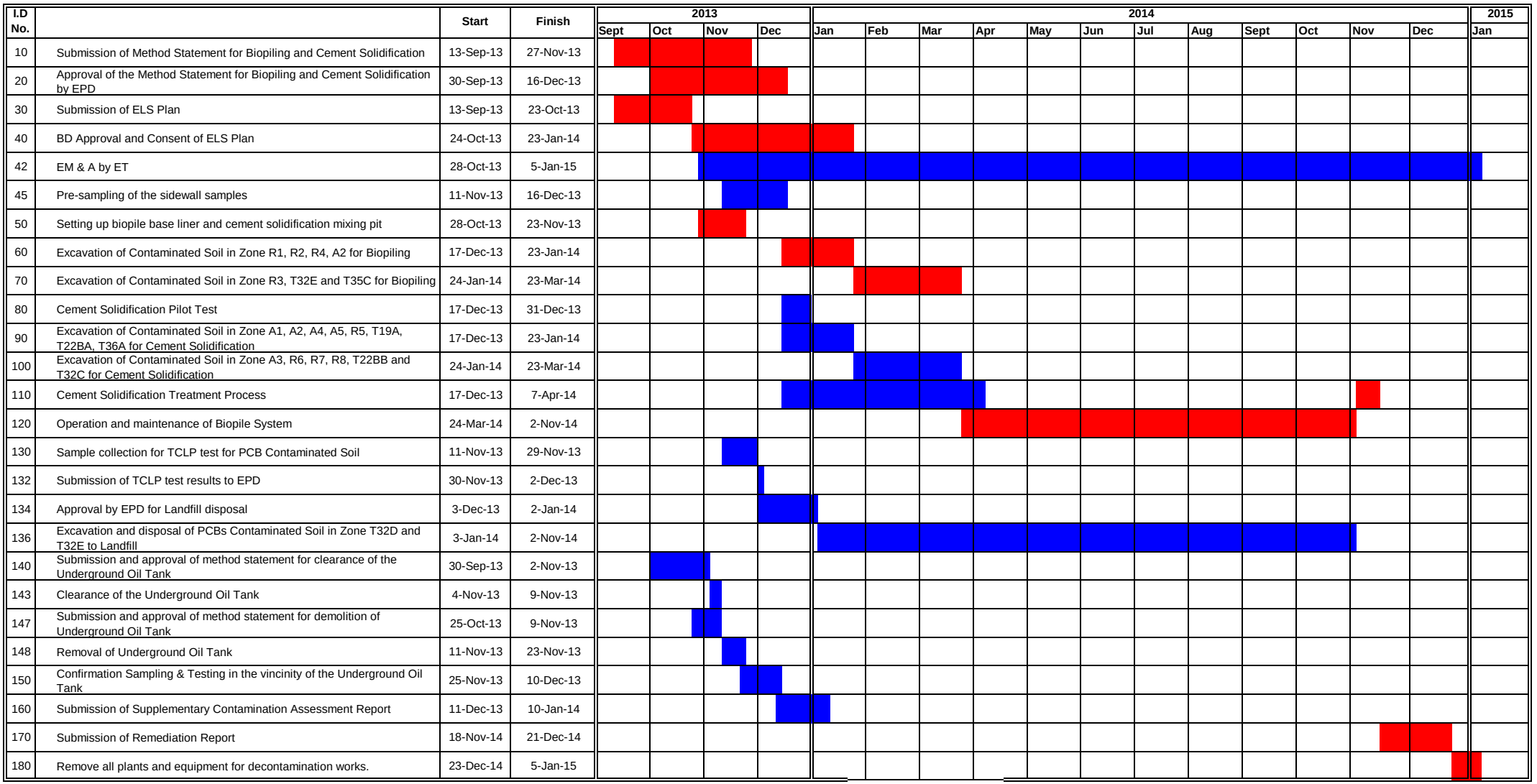
AECOM	**Yau Tong Bay - Decommissioning of Shipyard Sites**	SCALE	N.T.S.	DATE	Dec-13
		CHECK	ENFL	DRAWN	JCYK
	Project Organization Structure	JOB NO.	60048283	APPENDIX A	Rev. -

APPENDIX B
CONSTRUCTION PROGRAMME

Yau Tong Bay Redevelopment
Land Decontamination Works

Construction Programme (Rev. 3)

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	2-Nov-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.		V
	• 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.		V
	• 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.		V
	• 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

Water Quality - Schedule of Recommended Mitigation Measures

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.		V
	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 the EPD.	During construction	V
	• During the biopiling process, the biopiles shall be limited to a height of less than 3m.		V
	• 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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CERTIFICATE OF CALIBRATION

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

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2250-L	,	4950
Serial/Equipment No.:	2681366 (N.011.01)	,	2665582
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO LIMITED
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	23-May-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.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. Tel : (852) 2873 6860
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E-mail: smec@cigismec.com Website: www.cigismec.com
HOKLAS 028

CERTIFICATE OF CALIBRATION

Certificate No.: 14CA0305 06-02 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2250	,	4950
Serial/Equipment No.:	2681366 N.011.01	,	2665582
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO. LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	05-Mar-2014

Date of test: 07-Mar-2014

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:** 12-Mar-2014 **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.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
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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.

APPENDIX F
EM&A MONITORING SCHEDULES

Yau Tong Bay - Decomissioning of Shipyard Sites
Tentative Impact Noise Monitoring Schedule for March 2014

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

Yau Tong Bay - Decomissioning of Shipyard Sites
Tentative Impact Noise Monitoring Schedule for April 2014

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

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	Exceedance (Y/N)	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
4-Mar-14	9:30	10:00	Sunny	**65.8**	60.7	64.2	65.4	55.2	75.0	Traffic Noise	N	16.8	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
21-Mar-14	10:50	11:20	Sunny	**64.7**	66.2	61.0	65.4	64.7	75.0	Traffic Noise	N	16.5	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
							Average	**62.2**							
							Min.	**55.2**							
							Max.	**64.7**							

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	Exceedance (Y/N)	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
4-Mar-14	10:15	10:45	Sunny	**64.7**	60.0	62.8	65.4	64.7	70.0	Traffic Noise	N	16.8	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
21-Mar-14	9:50	10:20	Sunny	**66.4**	68.5	62.0	65.4	59.5	70.0	Traffic Noise	N	16.5	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
							Average	**62.8**							
							Min.	**59.5**							
							Max.	**64.7**							

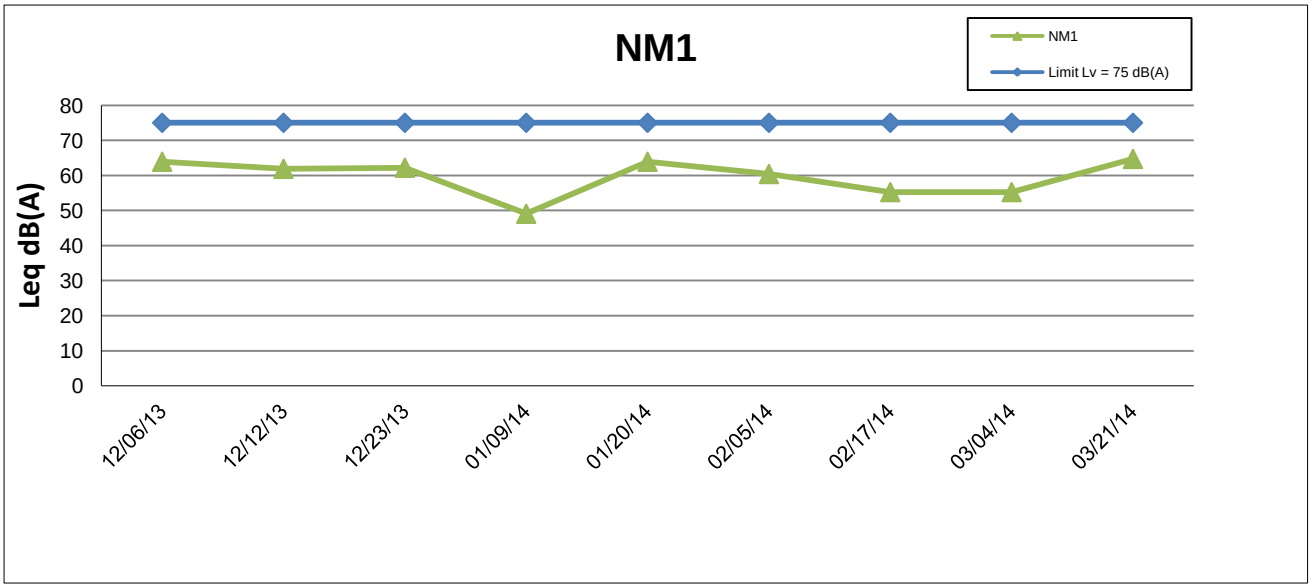
Remarks:
- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.
** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.
If Measured noise level < Baseline noise level, Corrected noise level = Measured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

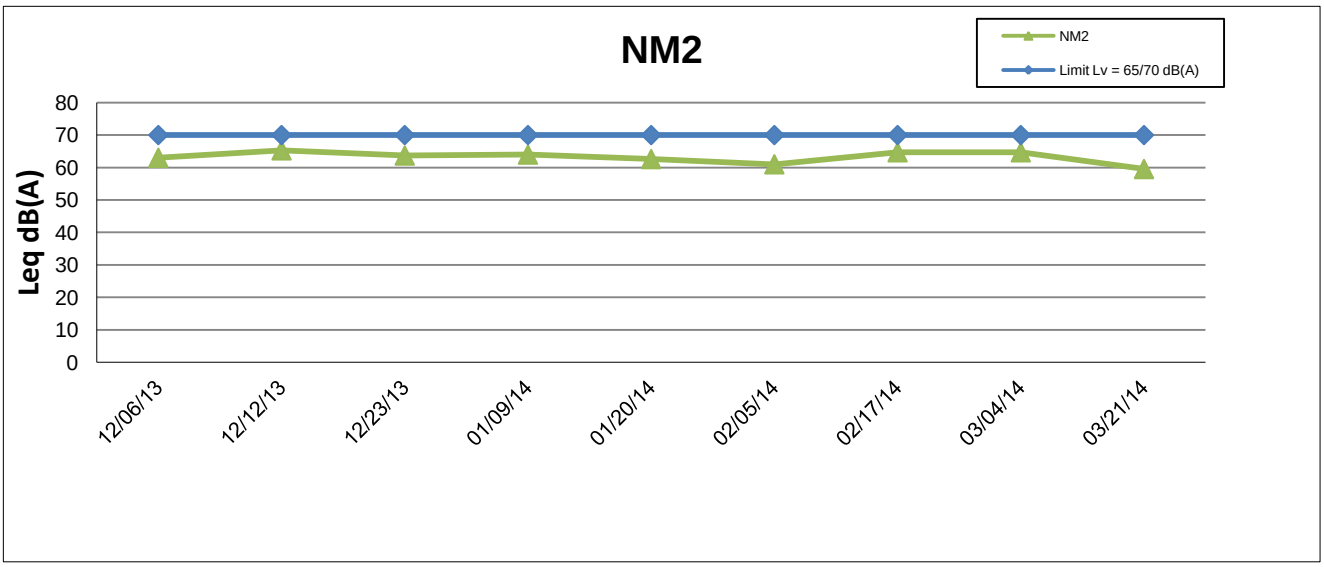
Appendix G Impact Daytime Construction Noise Monitoring Results

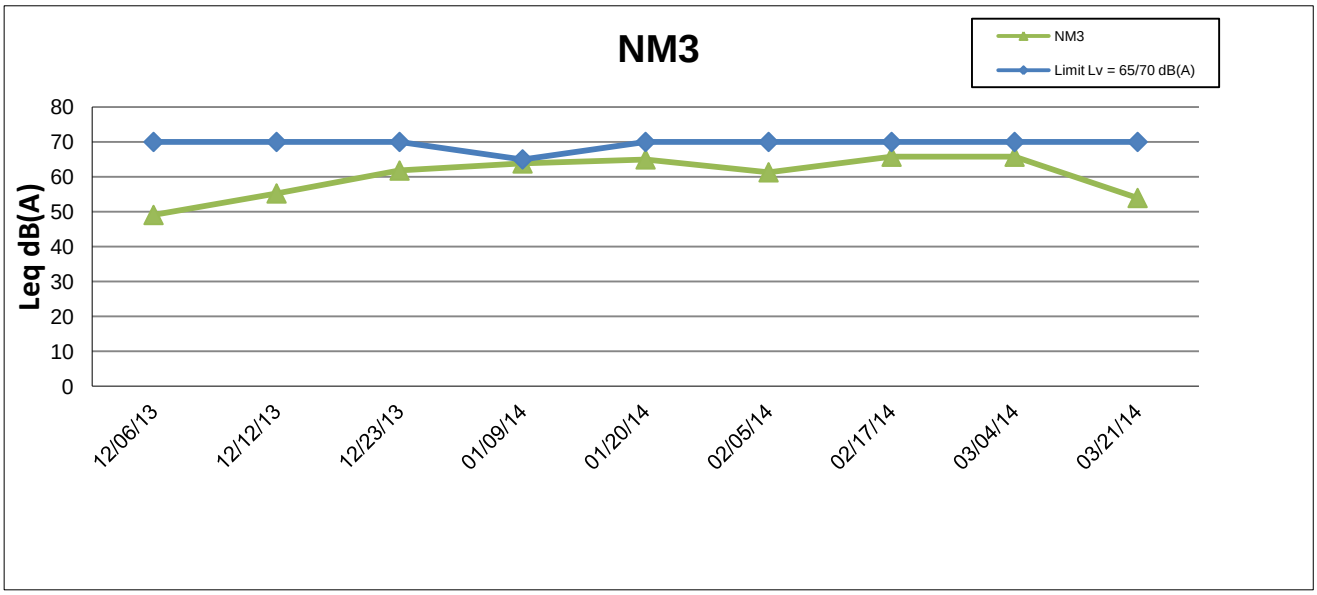
Location : NM3 (C.C.C. Kei Faat Primary School (Yau Tong) Rooftop - Façade)
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

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	Exceedance (Y/N)	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
4-Mar-14	11:00	11:30	Sunny	**68.6**	59.7	65.7	65.4	65.8	70.0	Traffic Noise	N	16.8	<5 m/s	Rion NL-31 (00320528)	Rion NC-73 (10307223)
21-Mar-14	10:00	10:30	Sunny	**65.7**	68.0	62.5	65.4	53.9	70.0	Traffic Noise	N	16.5	<5 m/s	B&K 2270 (2644597)	Rion NC-73 (10307223)
							Average	**63.0**							
							Min.	**53.9**							
							Max.	**65.8**							

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	Apr-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
SITE INSPECTION SUMMARIES

Site Inspection Summary

Inspection Information

Date:	7 March 2014
Time:	16:00
Inspection No.:	68

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water has been maintained for areas not covered by water sprinklers (Closed).

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	14 March 2014
Time:	16:00
Inspection No.:	69

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water has been maintained for areas not covered by water sprinklers (Closed).

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	20 March 2014
Time:	16:00
Inspection No.:	70

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water has been maintained for areas not covered by water sprinklers (Closed).

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Date:	27 March 2014
Time:	14:30
Inspection No.:	71

Non-compliance

Nil

Observations

Follow Up Observations

1. Regular spraying of water has been maintained for areas not covered by water sprinklers (Closed).

New Observations

Nil.

Remarks

Nil

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

Appendix J
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 K
LABORATORY TESTING RESULTS

RESULTS FROM THE CONTRACTOR

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 15
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1405421
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	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-FEB-2014
Order number	: ----			Issue Date	: 13-MAR-2014
C-O-C number	: H025188-H025191			No. of samples received	: 45
Site	: YAU TONG BAY			No. of samples analysed	: 45

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-FEB-2014

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: **HK1405421**

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.

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**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	T35C/B27/2.5	T35C/B28/2.5	T35C/B29/2.5	T35C/B30/2.5	T35C/B31/2.5
				Client sampling date / time	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]
					HK1405421-001	HK1405421-002	HK1405421-003	HK1405421-004	HK1405421-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**19.2**	**14.7**	**23.8**	**18.5**	**16.8**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		**1600**	<50	**176**	<50	<50
C15 - C28 Fraction	----	100	mg/kg		**336**	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		**299**	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**89.3**	**91.5**	**94.6**	**91.5**	**88.8**
Toluene-D8	2037-26-5	0.1	%		**98.8**	**100**	**99.2**	**102**	**99.9**
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**103**	**103**	**103**	**104**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B32/2.5**	**T35C/B33/2.5**	**T35C/B34/2.5**	**T35C/B35/2.5**	**T35C/B36/2.5**
				Client sampling date / time	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-006**	**HK1405421-007**	**HK1405421-008**	**HK1405421-009**	**HK1405421-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**25.6**	**19.5**	**15.7**	**24.4**	**22.0**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	**268**	**344**
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	**139**
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	**108**
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**95.4**	**92.1**	**91.9**	**92.2**	**86.8**
Toluene-D8	2037-26-5	0.1	%		**100**	**100**	**99.8**	**100**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**105**	**104**	**105**	**104**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B37/2.5**	**T35C/B38/2.5**	**T35C/B39/2.5**	**T35C/B40/2.5**	**T35C/B41/2.5**
				Client sampling date / time	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-011**	**HK1405421-012**	**HK1405421-013**	**HK1405421-014**	**HK1405421-015**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**18.9**	**22.0**	**17.7**	**23.7**	**21.2**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	**351**
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	**107**
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**89.3**	**86.1**	**89.4**	**90.0**	**93.9**
Toluene-D8	2037-26-5	0.1	%		**100**	**101**	**100**	**99.1**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**106**	**106**	**104**	**104**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B42/2.5**	**T35C/B43/2.5**	**T35C/B44/2.5**	**T35C/B45/2.5**	**T35C/B46/2.5**
				Client sampling date / time	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]	[19-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-016**	**HK1405421-017**	**HK1405421-018**	**HK1405421-019**	**HK1405421-020**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**25.0**	**22.3**	**25.6**	**16.8**	**20.5**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		**508**	**122**	**85**	**68**	<50
C15 - C28 Fraction	----	100	mg/kg		**164**	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		**129**	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**88.5**	**92.8**	**104**	**97.6**	**86.4**
Toluene-D8	2037-26-5	0.1	%		**101**	**102**	**103**	**102**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**105**	**107**	**103**	**103**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B47/2.5**	**T35C/B48/2.5**	**T35C/B49/2.5**	**T35C/B50/2.5**	**T35C/B51/2.5**
				Client sampling date / time	[19-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-021**	**HK1405421-022**	**HK1405421-023**	**HK1405421-024**	**HK1405421-025**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**17.1**	**17.6**	**22.3**	**19.8**	**23.3**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	**620**	**236**	**92**
C15 - C28 Fraction	----	100	mg/kg		<100	<100	**173**	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	**123**	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**92.1**	**94.9**	**91.3**	**90.0**	**83.8**
Toluene-D8	2037-26-5	0.1	%		**102**	**99.9**	**99.9**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**105**	**104**	**101**	**105**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B52/2.5**	**T35C/B53/2.5**	**T35C/B54/2.5**	**T35C/B55/2.5**	**T35C/B56/2.5**
				Client sampling date / time	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-026**	**HK1405421-027**	**HK1405421-028**	**HK1405421-029**	**HK1405421-030**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**16.0**	**16.4**	**12.0**	**25.3**	**23.2**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	**224**
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**92.4**	**91.3**	**85.0**	**94.2**	**92.2**
Toluene-D8	2037-26-5	0.1	%		**101**	**102**	**101**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**106**	**105**	**101**	**104**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B57/2.5**	**T35C/B58/2.5**	**T35C/B59/2.5**	**T35C/B60/2.5**	**T35C/B61/2.5**
				Client sampling date / time	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-031**	**HK1405421-032**	**HK1405421-033**	**HK1405421-034**	**HK1405421-035**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**19.4**	**24.4**	**21.8**	**17.1**	**17.2**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		**53**	**236**	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	**104**	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**85.5**	**90.3**	**88.0**	**90.4**	**96.4**
Toluene-D8	2037-26-5	0.1	%		**102**	**99.7**	**103**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**103**	**106**	**105**	**107**

Sub-Matrix: **SOIL**				*Client sample ID*	**T35C/B62/2.5**	**T35C/B63/2.5**	**T35C/B64/2.5**	**T35C/B65/2.5**	**T35C/B66/2.5**
				Client sampling date / time	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-036**	**HK1405421-037**	**HK1405421-038**	**HK1405421-039**	**HK1405421-040**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**16.8**	**18.1**	**17.0**	**15.6**	**7.1**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**91.7**	**97.5**	**94.3**	**91.2**	**91.7**
Toluene-D8	2037-26-5	0.1	%		**102**	**100**	**104**	**99.8**	**102**
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**106**	**104**	**105**	**107**

Sub-Matrix: **SOIL**			*Client sample ID*	**R3/B/3.95**				
			Client sampling date / time	[19-FEB-2014]				
Compound	*CAS Number*	*LOR*	*Unit*	**HK1405421-041**				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**21.7**				
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)								
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.2	mg/kg	<0.2				
EP-074_SR-S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**91.5**				
Toluene-D8	2037-26-5	0.1	%	**98.2**				
4-Bromofluorobenzene	460-00-4	0.1	%	**105**				

Sub-Matrix: **WATER**				*Client sample ID*	**EB17**	**FB17**	**EB18**	**FB18**	
				Client sampling date / time	[19-FEB-2014]	[19-FEB-2014]	[20-FEB-2014]	[20-FEB-2014]	
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405421-042**	**HK1405421-043**	**HK1405421-044**	**HK1405421-045**	
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	20	µg/L		<20	<20	<20	<20	
C10 - C14 Fraction	----	50	µg/L		<50	<50	<50	<50	
C15 - C28 Fraction	----	100	µg/L		<100	<100	<100	<100	
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	<50	
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)									
C9 - C16 Fraction	----	500	µg/L		<500	<500	----	----	
C17 - C35 Fraction	----	500	µg/L		<500	<500	----	----	
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.5	µg/L		<0.5	<0.5	----	----	
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**104**	**100**	**98.2**	**105**	
Toluene-D8	2037-26-5	0.1	%		**98.9**	**101**	**100**	**100**	
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**100**	**99.6**	**100**	
EP-074_SR-S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**104**	**100**	----	----	
Toluene-D8	2037-26-5	0.1	%		**98.9**	**101**	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**100**	----	----	

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: 3310193)								
HK1405421-001	T35C/B27/2.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.2	19.6	1.6
HK1405421-011	T35C/B37/2.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	18.9	18.0	4.5
EA/ED: Physical and Aggregate Properties (QC Lot: 3310194)								
HK1405421-021	T35C/B47/2.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.1	18.6	8.3
HK1405421-031	T35C/B57/2.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.4	20.6	6.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3310195)								
HK1405421-041	R3/B/3.95	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	21.7	19.4	11.2
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298525)								
HK1404610-003	Anonymous	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298552)								
HK1404610-003	Anonymous	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307158)								
HK1405421-006	T35C/B32/2.5	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)								
HK1405421-026	T35C/B52/2.5	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307161)								
HK1405421-006	T35C/B32/2.5	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)								
HK1405421-026	T35C/B52/2.5	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	0.0
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3301409)								
HK1404914-002	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3303074)								
HK1404931-001	Anonymous	**Benzene**	71-43-2	0.2	mg/kg	<0.2	<0.2	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 (%)
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3296954)								
HK1404027-017	Anonymous	**C10 - C14 Fraction**	----	10	µg/L	<10	<10	0.0
		C15 - C28 Fraction	----	10	µg/L	38	37	0.0
		C29 - C36 Fraction	----	10	µg/L	38	35	7.3
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248)								

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248) - Continued								
HK1405686-001	Anonymous	**C6 - C9 Fraction**	----	20	µg/L	<20	<20	0.0
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3314434)								
HK1405861-018	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298525)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	103	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	101	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	87.4	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298552)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	93.5	----	72	123	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307158)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	73.2	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	56.5	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	30.7	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	72.9	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	56.8	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	28.2	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307161)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	97.1	----	72	123	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	93.7	----	72	123	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3301409)											
C9 - C16 Fraction	----	200	mg/kg	<200	32 mg/kg	108	----	36	118	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	90 mg/kg	81.4	----	28	110	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3303074)											
Benzene	71-43-2	0.1	mg/kg	<0.1	0.25 mg/kg	92.7	----	66	125	----	----

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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3296954)											
C10 - C14 Fraction	----	50	µg/L	<50	150 µg/L	68.8	----	15	96	----	----
C15 - C28 Fraction	----	100	µg/L	<100	350 µg/L	79.5	----	13	122	----	----
C29 - C36 Fraction	----	50	µg/L	<50	350 µg/L	57.3	----	11	111	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248)											

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
		LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248) - Continued											
C6 - C9 Fraction	----	20	µg/L	<20	40 µg/L	103	----	65	123	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3296404)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.21 mg/L	94.9	----	14	106	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.60 mg/L	97.5	----	8	130	----	----
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 3314434)											
Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	92.3	----	53	129	----	----

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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298525)										
HK1404610-003	Anonymous	C10 - C14 Fraction	----	23 mg/kg	91.7	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	80.4	----	50	130	----	----
		C29 - C36 Fraction	----	53 mg/kg	62.0	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3298552)										
HK1404610-003	Anonymous	C6 - C9 Fraction	----	6 mg/kg	94.9	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307158)										
HK1405421-007	T35C/B33/2.5	C10 - C14 Fraction	----	16 mg/kg	96.1	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	61.6	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	53.4	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)										
HK1405421-027	T35C/B53/2.5	C10 - C14 Fraction	----	16 mg/kg	125	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	92.6	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	56.3	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307161)										
HK1405421-007	T35C/B33/2.5	C6 - C9 Fraction	----	6 mg/kg	106	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)										
HK1405421-027	T35C/B53/2.5	C6 - C9 Fraction	----	6 mg/kg	103	----	50	130	----	----
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3301409)										
HK1404914-003	Anonymous	C9 - C16 Fraction	----	32 mg/kg	99.7	----	50	130	----	----
		C17 - C35 Fraction	----	90 mg/kg	73.2	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*Recovery Limits (%)* *Low*	*High*
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-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 6
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1405718
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		
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Project	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	Quote number	: ----	Date Samples Received	: 24-FEB-2014
Order number	: ----			Issue Date	: 10-MAR-2014
C-O-C number	: H025192-H025193			No. of samples received	: 14
Site	: YAU TONG BAY			No. of samples analysed	: 14

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-FEB-2014

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: **HK1405718**

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**
Lin Wai Yu, Iris	**Senior Chemist - Inorganics**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T32E/B1/1.5	T32E/B2/1.5	T32E/B3/1.5	T32E/B4/1.5	T32E/B5/1.5
				Client sampling date / time: [24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]
				HK1405718-001	HK1405718-002	HK1405718-003	HK1405718-004	HK1405718-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**6.0**	**3.2**	**4.6**	**7.1**	**11.2**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**96.3**	**93.9**	**92.1**	**90.8**	**89.4**
Toluene-D8	2037-26-5	0.1	%	**97.7**	**97.7**	**98.9**	**94.8**	**95.3**
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**99.5**	**98.0**	**103**	**103**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32E/B6/1.5**	**T32E/B7/1.5**	**T32E/B8/1.5**	**T32E/B9/1.5**	**T32E/B10/1.5**
				Client sampling date / time	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405718-006**	**HK1405718-007**	**HK1405718-008**	**HK1405718-009**	**HK1405718-010**
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**11.5**	**5.8**	**8.6**	**11.4**	**5.5**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**91.4**	**90.1**	**92.8**	**93.8**	**87.2**
Toluene-D8	2037-26-5	0.1	%		**97.0**	**96.7**	**97.8**	**92.7**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**102**	**105**	**106**	**99.2**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32E/B11/1.5**	**T32E/B12/1.5**	**T32E/B13/1.5**	**T32E/B14/1.5**	
				Client sampling date / time	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	[24-FEB-2014]	
Compound	*CAS Number*	*LOR*	*Unit*		**HK1405718-011**	**HK1405718-012**	**HK1405718-013**	**HK1405718-014**	
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**5.7**	**10.2**	**9.0**	**8.4**	
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg		**284**	**118**	<100	<100	
C29 - C36 Fraction	----	100	mg/kg		**225**	<100	<100	<100	
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.0**	**87.1**	**97.3**	**91.5**	
Toluene-D8	2037-26-5	0.1	%		**96.8**	**96.9**	**100**	**98.6**	
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**102**	**105**	**104**	

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: 3313277)								
HK1405670-006	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	65.9	65.7	0.3
HK1405671-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	65.4	67.9	3.7
EA/ED: Physical and Aggregate Properties (QC Lot: 3313278)								
HK1405718-013	T32E/B13/1.5	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	9.0	9.1	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)								
HK1405421-026	Anonymous	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)								
HK1405421-026	Anonymous	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)								
HK1405718-001	T32E/B1/1.5	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)								
HK1405718-001	T32E/B1/1.5	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	72.9	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	56.8	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	28.2	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	93.7	----	72	123	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	97.3	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	80.7	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	35.0	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	96.6	----	72	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307159)										
HK1405421-027	Anonymous	**C10 - C14 Fraction**	----	16 mg/kg	125	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	92.6	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	56.3	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3307162)										
HK1405421-027	Anonymous	**C6 - C9 Fraction**	----	6 mg/kg	103	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)										
HK1405718-002	T32E/B2/1.5	**C10 - C14 Fraction**	----	16 mg/kg	106	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	67.2	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	56.1	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)										
HK1405718-002	T32E/B2/1.5	**C6 - C9 Fraction**	----	6 mg/kg	106	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
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

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	: HK1406128
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	: 26-FEB-2014
Order number	: ----			Issue Date	: 12-MAR-2014
C-O-C number	: H025194			No. of samples received	: 7
Site	: YAU TONG BAY			No. of samples analysed	: 7

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: 07-MAR-2014

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: **HK1406128**

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.
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: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T32E/B15/1.5	T32E/B16/1.5	T32E/B17/1.5	T32E/B18/1.5	
				Client sampling date / time: [25-FEB-2014]	[25-FEB-2014]	[25-FEB-2014]	[25-FEB-2014]	
				HK1406128-001	HK1406128-002	HK1406128-003	HK1406128-004	
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**9.6**	**10.8**	**11.9**	**8.1**	
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2	<2	<2	<2	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	**226**	**311**	**1150**	**187**	
C29 - C36 Fraction	----	100	mg/kg	**159**	**194**	**604**	<100	
EP-080_SRS: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**94.9**	**95.0**	**92.7**	**97.4**	
Toluene-D8	2037-26-5	0.1	%	**98.9**	**98.7**	**99.4**	**97.8**	
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**99.8**	**102**	**102**	

Sub-Matrix: **TCLP LEACHATE**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID*: **T36A/TCLP**				
				Client sampling date / time: [25-FEB-2014]				
				HK1406128-007				
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1				
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**				

Sub-Matrix: **WATER**				*Client sample ID*	**FB19**	**EB19**			
				Client sampling date / time	[25-FEB-2014]	[25-FEB-2014]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1406128-005**	**HK1406128-006**			
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	20	µg/L		<20	<20			
C10 - C14 Fraction	----	50	µg/L		<50	<50			
C15 - C28 Fraction	----	100	µg/L		<100	<100			
C29 - C36 Fraction	----	50	µg/L		<50	<50			
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**97.7**	**100**			
Toluene-D8	2037-26-5	0.1	%		**99.5**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**102**			

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: 3320030)								
HK1406126-009	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.1	13.1	0.0
HK1406128-001	T32E/B15/1.5	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.6	9.9	3.3
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)								
HK1405718-001	Anonymous	C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)								
HK1405718-001	Anonymous	C6 - C9 Fraction	----	2	mg/kg	<2	<2	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318390)								
HK1406128-003	T32E/B17/1.5	C15 - C28 Fraction	----	100	mg/kg	1150	959	18.2
		C29 - C36 Fraction	----	100	mg/kg	604	552	8.9
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318404)								
HK1406128-003	T32E/B17/1.5	C6 - C9 Fraction	----	2	mg/kg	<2	<2	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: 3326485)								
HK1406163-001	Anonymous	EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248)								
HK1405686-001	Anonymous	C6 - C9 Fraction	----	20	µg/L	<20	<20	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	97.3	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	80.7	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	35.0	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	96.6	----	72	123	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318390)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	93.3	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	75.8	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	41.3	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318404)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	99.5	----	72	123	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
		LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3326485)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	103	----	82	104	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3309624)											
C10 - C14 Fraction	----	50	µg/L	<50	150 µg/L	55.8	----	15	96	----	----
C15 - C28 Fraction	----	100	µg/L	<100	350 µg/L	53.7	----	13	122	----	----
C29 - C36 Fraction	----	50	µg/L	<50	350 µg/L	36.3	----	11	111	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311248)											
C6 - C9 Fraction	----	20	µg/L	<20	40 µg/L	103	----	65	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)										
HK1405718-002	Anonymous	C10 - C14 Fraction	----	16 mg/kg	106	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	67.2	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	56.1	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)										
HK1405718-002	Anonymous	C6 - C9 Fraction	----	6 mg/kg	106	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318390)										
HK1406128-004	T32E/B18/1.5	C10 - C14 Fraction	----	16 mg/kg	77.4	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	--	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	70.0	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3318404)										
HK1406128-004	T32E/B18/1.5	C6 - C9 Fraction	----	6 mg/kg	101	----	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: 3326485)										
HK1406128-007	T36A/TCLP	EG020: Lead	7439-92-1	1 mg/L	99.9	101	75	125	1.1	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate - Continued			
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
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

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	: HK1406163
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	: 27-FEB-2014
Order number	: ----			Issue Date	: 13-MAR-2014
C-O-C number	: H025195			No. of samples received	: 2
Site	: YAU TONG BAY			No. of samples analysed	: 2

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*
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: 07-MAR-2014

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: **HK1406163**

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: T36A/TCLP.1 Client sampling date / time: [26-FEB-2014] HK1406163-001	Client sample ID: T36A/TCLP.2 Client sampling date / time: [26-FEB-2014] HK1406163-002			
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1			
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**			

Laboratory Duplicate (DUP) Report

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: 3326485)								
HK1406163-001	T36A/TCLP.1	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3326485)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	103	----	82	104	----	----

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: 3326485)										
HK1406128-007	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	99.9	101	75	125	1.1	----

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	: HK1406235
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	: 28-FEB-2014
Order number	: ----			Issue Date	: 05-MAR-2014
C-O-C number	: H025196			No. of samples received	: 9
Site	: YAU TONG BAY			No. of samples analysed	: 9

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: 04-MAR-2014

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: **HK1406235**

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**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	T32E.11.2/SW/0.75	T32E.15.2/SW/0.75	T32E.16.2/SW/0.75	T32E.17.2/SW/0.75	T32E.26.2/SW/0.75
				Client sampling date / time	[28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]
					HK1406235-001	HK1406235-002	HK1406235-003	HK1406235-004	HK1406235-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**10.3**	**14.0**	**14.0**	**14.4**	**12.2**
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	<2
C10 - C14 Fraction	----	50	mg/kg		**263**	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		**1590**	**456**	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		**860**	<100	<100	<100	<100
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.6**	**100**	**96.2**	**100**	**100**
Toluene-D8	2037-26-5	0.1	%		**98.8**	**102**	**101**	**101**	**97.5**
4-Bromofluorobenzene	460-00-4	0.1	%		**100**	**104**	**105**	**109**	**102**

Sub-Matrix: **SOIL**				*Client sample ID*	**T32E.30.2/SW/0.75**	**T32E.31.2/SW/0.75**	**T32E.32.2/SW/0.75**	**T32E.34.2/SW/0.75**	
				Client sampling date / time	[28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]	
Compound	*CAS Number*	*LOR*	*Unit*		**HK1406235-006**	**HK1406235-007**	**HK1406235-008**	**HK1406235-009**	
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**12.9**	**13.4**	**11.0**	**12.2**	
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	2	mg/kg		<2	<2	<2	<2	
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.6**	**96.3**	**96.9**	**96.5**	
Toluene-D8	2037-26-5	0.1	%		**101**	**99.2**	**102**	**98.0**	
4-Bromofluorobenzene	460-00-4	0.1	%		**107**	**106**	**104**	**102**	

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: 3320963)								
HK1406235-001	T32E.11.2/SW/0.75	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.3	12.4	18.3
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320303)								
HK1406235-001	T32E.11.2/SW/0.75	**C15 - C28 Fraction**	----	100	mg/kg	1590	1890	17.2
		C29 - C36 Fraction	----	100	mg/kg	860	867	0.8
		C10 - C14 Fraction	----	50	mg/kg	263	249	5.4
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320304)								
HK1406235-001	T32E.11.2/SW/0.75	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320303)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	99.1	----	23	155	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	79.6	----	12	154	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	41.7	----	0	131	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320304)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	100	----	72	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320303)										
HK1406235-002	T32E.15.2/SW/0.75	**C10 - C14 Fraction**	----	23 mg/kg	61.4	52.3	50	130	16.0	20
		C15 - C28 Fraction	----	53 mg/kg	-	-	50	130	----	20
		C29 - C36 Fraction	----	53 mg/kg	60.8	53.8	50	130	12.1	20
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3320304)										
HK1406235-002	T32E.15.2/SW/0.75	**C6 - C9 Fraction**	----	6 mg/kg	97.9	103	50	130	5.1	20

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
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

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	: HK1406413
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	: 03-MAR-2014
Order number	: ----			Issue Date	: 17-MAR-2014
C-O-C number	: H025197			No. of samples received	: 3
Site	: YAU TONG BAY			No. of samples analysed	: 3

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.

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Signatories	*Position*	*Authorised results for*
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: 13-MAR-2014

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: **HK1406413**

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: R8/TCLP	R8/TCLP.1	R8/TCLP.2		
				Client sampling date / time: [28-FEB-2014]	[28-FEB-2014]	[28-FEB-2014]		
				HK1406413-001	HK1406413-002	HK1406413-003		
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1	<0.1		
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**	**1**		

Laboratory Duplicate (DUP) Report

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: 3336443)								
HK1406413-002	R8/TCLP.1	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3336443)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	89.4	----	82	104	----	----

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: 3336443)										
HK1406413-001	R8/TCLP	**EG020: Lead**	7439-92-1	1 mg/L	92.7	91.7	75	125	1.1	----

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	: HK1406454
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	: 04-MAR-2014
Order number	: ----			Issue Date	: 18-MAR-2014
C-O-C number	: H025199			No. of samples received	: 4
Site	: YAU TONG BAY			No. of samples analysed	: 4

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.

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Signatories	*Position*	*Authorised results for*
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: 13-MAR-2014

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: **HK1406454**

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.

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: **SOIL**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID*	**A4.3-A4.4.4/SW/1.725**	**A5.1-A5.4.4/SW/1.975**			
				Client sampling date / time	[04-MAR-2014]	[04-MAR-2014]			
					HK1406454-003	**HK1406454-004**			
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**10.6**	**9.0**			
EG: Metals and Major Cations									
EG020: Lead	7439-92-1	1	mg/kg		**99**	**103**			

Sub-Matrix: **TCLP LEACHATE**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID* **T32C/TCLP**	**T32C/TCLP.1**			
				Client sampling date / time [03-MAR-2014]	[03-MAR-2014]			
				HK1406454-001	**HK1406454-002**			
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1			
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**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: 3326225)								
HK1406454-003	A4.3-A4.4.4/SW/1.725	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.6	10.3	2.4
HK1406550-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	48.0	46.7	2.8
EG: Metals and Major Cations (QC Lot: 3329877)								
HK1406454-004	A5.1-A5.4.4/SW/1.975	**EG020: Lead**	7439-92-1	1	mg/kg	103	89	15.4
HK1406608-002	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	73	67	8.2

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: 3336443)								
HK1406413-002	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	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: 3329877)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	99.0	----	80	104	----	----

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: 3336443)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	89.4	----	82	104	----	----

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: 3329877)										
HK1406608-001	Anonymous	**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 (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 3336443)										
HK1406413-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	92.7	91.7	75	125	1.1	----

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	: HK1406604
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	: 05-MAR-2014
Order number	: ----			Issue Date	: 19-MAR-2014
C-O-C number	: H025200			No. of samples received	: 2
Site	: YAU TONG BAY			No. of samples analysed	: 2

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.

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Signatories	*Position*	*Authorised results for*
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: 13-MAR-2014

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: **HK1406604**

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* **T32C/TCLP.2**	**T32C/TCLP.3**			
				Client sampling date / time [04-MAR-2014]	[04-MAR-2014]			
				HK1406604-001	**HK1406604-002**			
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1			
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**			

Laboratory Duplicate (DUP) Report

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: 3336443)								
HK1406413-002	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3336443)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	89.4	----	82	104	----	----

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: 3336443)										
HK1406413-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	92.7	91.7	75	125	1.1	----

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 3
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1406843
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	: 06-MAR-2014
Order number	: ----			Issue Date	: 20-MAR-2014
C-O-C number	: H017951			No. of samples received	: 1
Site	: YAU TONG BAY			No. of samples analysed	: 1

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-MAR-2014

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: **HK1406843**

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*
Wong Wing, Kenneth	**Assistant Supervisor - Metals**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: R6/B/4.15				
				Client sampling date / time: [06-MAR-2014]				
				HK1406843-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**25.8**				
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**68**				

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: 3331936)								
HK1406417-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	12.8	13.1	2.2
HK1406971-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.0	9.5	4.8
EG: Metals and Major Cations (QC Lot: 3333212)								
HK1406764-001	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	42	49	16.3

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: 3333212)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	103	----	80	104	----	----

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: 3333212)										
HK1406764-001	Anonymous	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	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 3
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1406967
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	: 07-MAR-2014
Order number	: ----			Issue Date	: 12-MAR-2014
C-O-C number	: H017952			No. of samples received	: 2
Site	: YAU TONG BAY			No. of samples analysed	: 2

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: 10-MAR-2014

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: **HK1406967**

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**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T35C/B27.1/3.0 Client sampling date / time: [07-MAR-2014] HK1406967-001	Client sample ID: T32E.11.3/SW/0.75 Client sampling date / time: [07-MAR-2014] HK1406967-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**17.4**	**12.9**			
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2	<2			
C10 - C14 Fraction	----	50	mg/kg	<50	<50			
C15 - C28 Fraction	----	100	mg/kg	<100	<100			
C29 - C36 Fraction	----	100	mg/kg	<100	<100			
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**97.7**	**93.2**			
Toluene-D8	2037-26-5	0.1	%	**98.2**	**99.6**			
4-Bromofluorobenzene	460-00-4	0.1	%	**104**	**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: 3331935)								
HK1406967-001	T35C/B27.1/3.0	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.4	16.6	4.5
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3330411)								
HK1406967-001	T35C/B27.1/3.0	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3330414)								
HK1406967-001	T35C/B27.1/3.0	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3330411)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	94.4	----	72	123	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3330414)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	100	----	23	155	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	100	----	12	154	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	77.8	----	0	131	----	----

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-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

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 3
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1406971
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	: 07-MAR-2014
Order number	: ----			Issue Date	: 21-MAR-2014
C-O-C number	: H017952			No. of samples received	: 5
Site	: YAU TONG BAY			No. of samples analysed	: 5

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-MAR-2014

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: **HK1406971**

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*
Lin Wai Yu, Iris	Senior Chemist - Inorganics	Inorganics
Wong Wing, Kenneth	Assistant Supervisor - Metals	Inorganics

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: A3.1-A3.2/SW/3.65	A3.2-A3.3/SW/3.65	A3.3-A3.4/SW/3.65	A3.1-A3.4/SW/3.65	A3/B/4.95
				Client sampling date / time: [07-MAR-2014]	[07-MAR-2014]	[07-MAR-2014]	[07-MAR-2014]	[07-MAR-2014]
				HK1406971-001	HK1406971-002	HK1406971-003	HK1406971-004	HK1406971-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**10.0**	**10.9**	**11.8**	**9.8**	**20.4**
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**406**	**353**	**176**	**35**	**60**

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: 3331936)								
HK1406417-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	12.8	13.1	2.2
HK1406971-001	A3.1-A3.2/SW/3.65	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.0	9.5	4.8
EG: Metals and Major Cations (QC Lot: 3333212)								
HK1406764-001	Anonymous	**EG020: Lead**	7439-92-1	1	mg/kg	42	49	16.3

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: 3333212)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	103	----	80	104	----	----

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: 3333212)										
HK1406764-001	Anonymous	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	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 4
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1407822
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	: 13-MAR-2014
Order number	: ----			Issue Date	: 27-MAR-2014
C-O-C number	: H017953			No. of samples received	: 2
Site	: YAU TONG BAY			No. of samples analysed	: 2

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Signatories	*Position*	*Authorised results for*
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: 22-MAR-2014

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: **HK1407822**

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* **T19A/TCLP**	**T19A/TCLP.1**			
				Client sampling date / time [12-MAR-2014]	[12-MAR-2014]			
				HK1407822-001	**HK1407822-002**			
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1			
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**			

Laboratory Duplicate (DUP) Report

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: 3351821)								
HK1407712-002	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0
HK1408243-001	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3351821)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	92.2	----	82	104	----	----

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: 3351821)										
HK1407712-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	80.5	79.2	75	125	1.7	----

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 3
Contact	: MR KAM HUNG LEE	Contact	: Fung Lim Chee, Richard	Work Order	: HK1407869
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	: 13-MAR-2014
Order number	: ----			Issue Date	: 18-MAR-2014
C-O-C number	: H017953			No. of samples received	: 1
Site	: YAU TONG BAY			No. of samples analysed	: 1

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: 17-MAR-2014

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: **HK1407869**

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**
Lin Wai Yu, Iris	**Senior Chemist - Inorganics**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T32E/B17.1/2.0				
				Client sampling date / time: [13-MAR-2014]				
				HK1407869-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**6.7**				
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2				
C10 - C14 Fraction	----	50	mg/kg	<50				
C15 - C28 Fraction	----	100	mg/kg	<100				
C29 - C36 Fraction	----	100	mg/kg	<100				
EP-080_SRS: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**98.1**				
Toluene-D8	2037-26-5	0.1	%	**97.9**				
4-Bromofluorobenzene	460-00-4	0.1	%	**102**				

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: 3343451)								
HK1407869-001	T32E/B17.1/2.0	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	6.7	6.5	3.3
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3340419)								
HK1407869-001	T32E/B17.1/2.0	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3343180)								
HK1407869-001	T32E/B17.1/2.0	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3340419)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	99.8	----	23	155	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	104	----	12	154	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	88.7	----	0	131	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3343180)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	106	----	72	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3340419)										
HK1407869-001	T32E/B17.1/2.0	**C10 - C14 Fraction**	----	16 mg/kg	111	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	87.7	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	128	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
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

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	: HK1408145
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	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	: 14-MAR-2014
Order number	: ----			Issue Date	: 28-MAR-2014
C-O-C number	: H017954			No. of samples received	: 3
Site	: YAU TONG BAY			No. of samples analysed	: 3

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: 22-MAR-2014

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: **HK1408145**

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.
Water sample(s) were filtered prior to dissolved metal analysis.
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**

				Client sample ID	**T19A/TCLP.2**				
				Client sampling date / time	[14-MAR-2014]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1408145-001**				
EG: Metals and Major Cations - Filtered									
EG020: Lead	7439-92-1	0.1	mg/L		<0.1				
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**				

Sub-Matrix: **WATER**				*Client sample ID*	**FB20**	**EB20**			
				Client sampling date / time	[14-MAR-2014]	[14-MAR-2014]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1408145-002**	**HK1408145-003**			
EG: Metals and Major Cations - Filtered									
EG020: Lead	7439-92-1	1	µg/L		<1	<1			
EP-071_SR: Total Petroleum Hydrocarbons (TPH)									
C6 - C9 Fraction	----	20	µg/L		<20	<20			
C10 - C14 Fraction	----	50	µg/L		<50	<50			
C15 - C28 Fraction	----	100	µg/L		<100	<100			
C29 - C36 Fraction	----	50	µg/L		<50	<50			
EP-080_SRS: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.4**	**109**			
Toluene-D8	2037-26-5	0.1	%		**98.2**	**98.5**			
4-Bromofluorobenzene	460-00-4	0.1	%		**95.6**	**93.7**			

Laboratory Duplicate (DUP) Report

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: 3347080)								
HK1408145-003	EB20	**EG020: Lead**	7439-92-1	1	µg/L	<1	<1	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 3351821)								
HK1407712-002	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0
HK1408243-001	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3349452)								
HK1408145-002	FB20	**C6 - C9 Fraction**	----	20	µg/L	<20	<20	0.0

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: 3347080)											
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	88.1	----	82	108	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 3351821)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	92.2	----	82	104	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3347807)											
C10 - C14 Fraction	----	50	µg/L	<50	150 µg/L	79.4	----	15	96	----	----
C15 - C28 Fraction	----	100	µg/L	<100	350 µg/L	95.2	----	13	122	----	----
C29 - C36 Fraction	----	50	µg/L	<50	350 µg/L	81.7	----	11	111	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3349452)											
C6 - C9 Fraction	----	20	µg/L	<20	40 µg/L	96.8	----	57	130	----	----

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: 3347080)										
HK1408145-002	FB20	**EG020: Lead**	7439-92-1	100 µg/L	90.4	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 3351821)										
HK1407712-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	80.5	79.2	75	125	1.7	----

Surrogate Control Limits

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%) Low*	*High*
EP-080_SRS: TPH(Volatile)/BTEX Surrogate - Continued			
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

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	**WORK ORDER**	: **HK1406200**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 26-FEB-2014 : 11-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 1 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

WORK ORDER	: HK1406200
SUB-BATCH	: 1
CLIENT	: KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1406200-001	T36A/UCS	CONCRETE	25-FEB-2014	GCD140300352

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140300352 Date of Issue : 06-03-2014

Sample Details as Supplied by Client :

Client : ALS Technichem (HK) Pty Ltd. Contract No. : -- W.O. No. / Job No. : --
Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong Audit / Request No. : --
Project / Site : --

Location in Works of Concrete Batch Sampled : --

Supplier	: --	Plant	: --		
Source of Coarse Agg.	: --	Source of Fine Agg.	: --		
Cement Brand	: --	Admixture Brand	: --	Dosage	: --
Concrete Mix I.D. No.	: --	Concrete Grade	: --	Designed / Measured Slump	: --
Cement Content	: --	W/C Ratio	: --	A/C Ratio	: --
PFA Content	: --	PFA Source	: --		
Date Cast	: 25-02-2014	Time of Adding Water to Mix	: --		
Date of Sampling	: 25-02-2014	Time of Sampling	: --		
Place of Sampling	: --	Place / Time of Making Cube	: --		
Method of Compaction	: --	Name of Person Making Cubes	: --		
Site Curing Method	: --	Site Max. / Min. Temperature	: --		
No. of Cubes	: 1	Nominal Size	: 150 mm	Test at Age of	: 7 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received : 03-03-2014 Date / Time Tested : 04-03-2014 16:39 GCE Test Unit Reg. No. : MI14013
Curing Method : In Air Max. / Min. Temp. : -- / -- Cube Age at Test : 7 days
Test Location : No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong

Laboratory Reference Number			--	--	--	--	--	--
Cube Mark			HK1406200-001 T36A/UCS	--	--	--	--	--
Mould No.			--	--	--	--	--	--
Mass of Specimen in Air		kg	6.355	--	--	--	--	--
Mass of Specimen in Water		kg	--	--	--	--	--	--
Length of Specimen		mm	150.4	--	--	--	--	--
Width of Specimen		mm	150.7	--	--	--	--	--
Height of Specimen		mm	150.6	--	--	--	--	--
As-received Density	-Vol. by Calculation	kg/m^3	1860	--	--	--	--	--
	-Vol. by Water Displacement	kg/m^3	--	--	--	--	--	--
Maximum Load at Failure		kN	44.5	--	--	--	--	--
Compressive Strength		MPa	2.0	--	--	--	--	--
Observation Code			P	--	--	--	--	--
Failure Mode			S	--	--	--	--	--

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize;
H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho
Checked By :

Approved Signatory :
LAU SUN HUNG, IVAN
Post : Senior Testing Manager

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	**WORK ORDER**	: **HK1406204**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 27-FEB-2014 : 11-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 2 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

WORK ORDER : HK1406204
SUB-BATCH : 1
CLIENT : KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT : YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1406204-001	T36A/UCS.1	CONCRETE	26-FEB-2014	GCD140300360
HK1406204-002	T36A/UCS.2	CONCRETE	26-FEB-2014	GCD140300360

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140300360 Date of Issue : 06-03-2014

Sample Details as Supplied by Client :

Client : ALS Technichem (HK) Pty Ltd. Contract No. : -- W.O. No. / Job No. : --
Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong Audit / Request No. : --
Project / Site : --

Location in Works of Concrete Batch Sampled : --

Supplier	: --	Plant	: --		
Source of Coarse Agg.	: --	Source of Fine Agg.	: --		
Cement Brand	: --	Admixture Brand	: --	Dosage	: --
Concrete Mix I.D. No.	: --	Concrete Grade	: --	Designed / Measured Slump	: --
Cement Content	: --	W/C Ratio	: --	A/C Ratio	: --
PFA Content	: --	PFA Source	: --		
Date Cast	: 26-02-2014	Time of Adding Water to Mix	: --		
Date of Sampling	: 26-02-2014	Time of Sampling	: --		
Place of Sampling	: --	Place / Time of Making Cube	: --		
Method of Compaction	: --	Name of Person Making Cubes	: --		
Site Curing Method	: --	Site Max. / Min. Temperature	: --		
No. of Cubes	: 2	Nominal Size	: 150 mm	Test at Age of	: 7 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received : 03-03-2014 Date / Time Tested : 05-03-2014 09:00 GCE Test Unit Reg. No. : MI14013
Curing Method : In Air Max. / Min. Temp. : -- / -- Cube Age at Test : 7 days
Test Location : No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong

Laboratory Reference Number			--	--	--	--	--	--
Cube Mark			HK1406204-001 T36A/UCS.1	HK1406204-002 T36A/UCS.2	--	--	--	--
Mould No.			--	--	--	--	--	--
Mass of Specimen in Air		kg	6.431	6.519	--	--	--	--
Mass of Specimen in Water		kg	--	--	--	--	--	--
Length of Specimen		mm	150.3	150.8	--	--	--	--
Width of Specimen		mm	150.6	150.8	--	--	--	--
Height of Specimen		mm	150.6	150.4	--	--	--	--
As-received Density	-Vol. by Calculation	kg/m^3	1890	1910	--	--	--	--
	-Vol. by Water Displacement	kg/m^3	--	--	--	--	--	--
Maximum Load at Failure		kN	47.2	38.9	--	--	--	--
Compressive Strength		MPa	2.1	1.7	--	--	--	--
Observation Code			P	P	--	--	--	--
Failure Mode			S	S	--	--	--	--

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize;
H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho Approved Signatory : LAU SUN HUNG, IVAN

Checked By : Post : Senior Testing Manager

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	**WORK ORDER**	: **HK1406378**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 3-MAR-2014 : 12-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 3 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Trading Name: ALS Technichem (HK) Pty Ltd
1/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com
A Campbell Brothers Limited Company

WORK ORDER : HK1406378
SUB-BATCH : 1
CLIENT : KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT : YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1406378-001	R8/UCS	CONCRETE	28-FEB-2014	GCD140300522
HK1406378-002	R8/UCS.1	CONCRETE	28-FEB-2014	GCD140300522
HK1406378-003	R8/UCS.2	CONCRETE	28-FEB-2014	GCD140300522

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140300522 Date of Issue : 11-03-2014

Sample Details as Supplied by Client :

Client : ALS Technichem (HK) Pty Ltd. Contract No. : – W.O. No. / Job No. : –
Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong Audit / Request No. : –
Project / Site : –

Location in Works of Concrete Batch Sampled : –

Supplier	: –	Plant	: –		
Source of Coarse Agg.	: –	Source of Fine Agg.	: –		
Cement Brand	: –	Admixture Brand	: –	Dosage	: –
Concrete Mix I.D. No.	: –	Concrete Grade	: –	Designed / Measured Slump	: –
Cement Content	: –	W/C Ratio	: –	A/C Ratio	: –
PFA Content	: –	PFA Source	: –		
Date Cast	: 28-02-2014	Time of Adding Water to Mix	: –		
Date of Sampling	: 28-02-2014	Time of Sampling	: –		
Place of Sampling	: –	Place / Time of Making Cube	: –		
Method of Compaction	: –	Name of Person Making Cubes	: –		
Site Curing Method	: –	Site Max. / Min. Temperature	: –		
No. of Cubes	: 2	Nominal Size	: 150 mm	Test at Age of	: 6 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received : 06-03-2014 Date / Time Tested : 06-03-2014 17:34 GCE Test Unit Reg. No. : MI14014
Curing Method : In Air Max. / Min. Temp. : – / – Cube Age at Test : 6 days
Test Location : No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong

Laboratory Reference Number			–	–	–	–	–	–
Cube Mark			HK1406378-001 R8/UCS	HK1406378-002 R8/UCS.1	HK1406378-003 R8/UCS.2	–	–	–
Mould No.			–	–	–	–	–	–
Mass of Specimen in Air		kg	6.620	6.642	6.615	–	–	–
Mass of Specimen in Water		kg	–	–	–	–	–	–
Length of Specimen		mm	150.6	150.8	150.9	–	–	–
Width of Specimen		mm	150.3	150.2	150.9	–	–	–
Height of Specimen		mm	150.1	150.2	149.6	–	–	–
As-received Density	-Vol. by Calculation	kg/m^3	1950	1950	1940	–	–	–
	-Vol. by Water Displacement	kg/m^3	–	–	–	–	–	–
Maximum Load at Failure		kN	33.3	29.2	32.4	–	–	–
Compressive Strength		MPa	1.5	1.3	1.4	–	–	–
Observation Code			P	–	–	–	–	–
Failure Mode			S	–	–	–	–	–

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize;
H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho
Checked By :

Approved Signatory : LAU SUN HUNG, IVAN
Post : Senior Testing Manager

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	WORK ORDER	: **HK1406508**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 4-MAR-2014 : 14-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 1 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

WORK ORDER : HK1406508
SUB-BATCH : 1
CLIENT : KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT : YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1406508-001	T32C/UCS	CONCRETE	03-MAR-2014	GCD140300530

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140300530 Date of Issue : 11-03-2014

Sample Details as Supplied by Client :

Client : ALS Technichem (HK) Pty Ltd. Contract No. : -- W.O. No. / Job No. : --
Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong Audit / Request No. : --
Project / Site : --

Location in Works of Concrete Batch Sampled : --

Supplier	: --	Plant	: --		
Source of Coarse Agg.	: --	Source of Fine Agg.	: --		
Cement Brand	: --	Admixture Brand	: --	Dosage	: --
Concrete Mix I.D. No.	: --	Concrete Grade	: --	Designed / Measured Slump	: --
Cement Content	: --	W/C Ratio	: --	A/C Ratio	: --
PFA Content	: --	PFA Source	: --		
Date Cast	: 03-03-2014	Time of Adding Water to Mix	: --		
Date of Sampling	: 03-03-2014	Time of Sampling	: --		
Place of Sampling	: --	Place / Time of Making Cube	: --		
Method of Compaction	: --	Name of Person Making Cubes	: --		
Site Curing Method	: --	Site Max. / Min. Temperature	: --		
No. of Cubes	: 1	Nominal Size	: 150 mm	Test at Age of	: 7 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received : 06-03-2014 Date / Time Tested : 10-03-2014 14:32 GCE Test Unit Reg. No. : MI14014
Curing Method : In Air Max. / Min. Temp. : -- / -- Cube Age at Test : 7 days
Test Location : No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong

Laboratory Reference Number			--	--	--	--	--	--
Cube Mark			HK1406508-001 T32C/UCS	--	--	--	--	--
Mould No.			--	--	--	--	--	--
Mass of Specimen in Air		kg	6.625	--	--	--	--	--
Mass of Specimen in Water		kg	--	--	--	--	--	--
Length of Specimen		mm	150.7	--	--	--	--	--
Width of Specimen		mm	150.6	--	--	--	--	--
Height of Specimen		mm	150.6	--	--	--	--	--
As-received Density	-Vol. by Calculation	kg/m^3	1940	--	--	--	--	--
	-Vol. by Water Displacement	kg/m^3	--	--	--	--	--	--
Maximum Load at Failure		kN	35.5	--	--	--	--	--
Compressive Strength		MPa	1.6	--	--	--	--	--
Observation Code			P	--	--	--	--	--
Failure Mode			S	--	--	--	--	--

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize;
H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho Approved Signatory : LAU SUN HUNG, IVAN

Checked By : Post : Senior Testing Manager

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	**WORK ORDER**	: **HK1406799**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 6-MAR-2014 : 14-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 3 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

WORK ORDER : HK1406799
SUB-BATCH : 1
CLIENT : KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT : YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1406799-001	T32C/UCS.1	CONCRETE	04-MAR-2014	GCD140300548
HK1406799-002	T32C/UCS.2	CONCRETE	04-MAR-2014	GCD140300548
HK1406799-003	T32C/UCS.3	CONCRETE	04-MAR-2014	GCD140300548

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140300548 Date of Issue : 11-03-2014

Sample Details as Supplied by Client :

Client : ALS Technichem (HK) Pty Ltd. Contract No. : -- W.O. No. / Job No. : --
Address : 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong Audit / Request No. : --
Project / Site : --

Location in Works of Concrete Batch Sampled : --

Supplier	: --	Plant	: --		
Source of Coarse Agg.	: --	Source of Fine Agg.	: --		
Cement Brand	: --	Admixture Brand	: --	Dosage	: --
Concrete Mix I.D. No.	: --	Concrete Grade	: --	Designed / Measured Slump	: --
Cement Content	: --	W/C Ratio	: --	A/C Ratio	: --
PFA Content	: --	PFA Source	: --		
Date Cast	: 04-03-2014	Time of Adding Water to Mix	: --		
Date of Sampling	: 04-03-2014	Time of Sampling	: --		
Place of Sampling	: --	Place / Time of Making Cube	: --		
Method of Compaction	: --	Name of Person Making Cubes	: --		
Site Curing Method	: --	Site Max. / Min. Temperature	: --		
No. of Cubes	: 3	Nominal Size	: 150 mm	Test at Age of	: 6 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received : 08-03-2014 Date / Time Tested : 10-03-2014 10:29 GCE Test Unit Reg. No. : MI14017
Curing Method : In Air Max. / Min. Temp. : -- / -- Cube Age at Test : 6 days
Test Location : No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong

Laboratory Reference Number			--	--	--	--	--	--
Cube Mark			HK1406799-001 T32C/UCS.1	HK1406799-002 T32C/UCS.2	HK1406799-003 T32C/UCS.3	--	--	--
Mould No.			--	--	--	--	--	--
Mass of Specimen in Air		kg	6.609	6.523	6.555	--	--	--
Mass of Specimen in Water		kg	--	--	--	--	--	--
Length of Specimen		mm	150.4	150.7	150.8	--	--	--
Width of Specimen		mm	150.4	150.3	150.2	--	--	--
Height of Specimen		mm	150.6	150.4	150.5	--	--	--
As-received Density	-Vol. by Calculation	kg/m^3	1940	1910	1920	--	--	--
	-Vol. by Water Displacement	kg/m^3	--	--	--	--	--	--
Maximum Load at Failure		kN	26.4	27.7	24.7	--	--	--
Compressive Strength		MPa	1.2	1.2	1.1	--	--	--
Observation Code			P	--	--	--	--	--
Failure Mode			S	--	--	--	--	--

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize; H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho
Checked By : _____
Approved Signatory : _____
LAU SUN HUNG, IVAN
Post : Senior Testing Manager

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR KAM HUNG LEE	**WORK ORDER**	: **HK1407994**
CLIENT	: **KIN WING CONSTRUCTION COMPANY LIMITED**		
ADDRESS	: FLAT A, BLOCK 2, 6/F., KIN HO INDUSTRIAL BUILDING, 14-24 AU PUI WAN STREET, FOTAN, SHATIN, N.T. HONG KONG	SUB-BATCH DATE RECEIVED DATE OF ISSUE	: 1 : 14-MAR-2014 : 27-MAR-2014
PROJECT	: YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS	NO. OF SAMPLES CLIENT ORDER	: 2 : ----

General Comments

- **Sample(s) were picked up from client by ALS Technichem (HK) staff in an ambient condition.**
- **Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.**
- **UCS was subcontracted to and analysed by Geotechnics & Concrete Engineering (H.K.) Ltd (GCE).**

Signatories

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*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

WORK ORDER : HK1407994
SUB-BATCH : 1
CLIENT : KIN WING CONSTRUCTION COMPANY LIMITED
PROJECT : YAU TONG BAY REDEVELOPMENT - LAND DECONTAMINATION WORKS

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1407994-001	T19A/UCS	CONCRETE	12-MAR-2014	GCD140303994
HK1407994-002	T19A/UCS.1	CONCRETE	12-MAR-2014	GCD140303994

GEOTECHNICS & CONCRETE ENGINEERING (H.K.) LTD.
6 KO SHAN RD., GROUND FL., HUNG HOM, KOWLOON, HONG KONG.
TEL.: 852-2365 9123 FAX NO.: 852-2765 8034

REPORT ON DETERMINATION OF COMPRESSIVE STRENGTH OF CONCRETE CUBE

Report No. : GCD140303994 Date of Issue : 20-03-2014

Sample Details as Supplied by Client :

Client	: ALS Technichem (HK) Pty Ltd.	Contract No.	: --	W.O. No. / Job No.	: --
Address	: 11/F., Chung Shun Knitting Centre, 1-3 Wing Yip St., Kwai Chung, N.T., Hong Kong			Audit / Request No.	: --
Project / Site	: --				

Location in Works of Concrete Batch Sampled : --

Supplier	: --	Plant	: --		
Source of Coarse Agg.	: --	Source of Fine Agg.	: --		
Cement Brand	: --	Admixture Brand	: --	Dosage	: --
Concrete Mix I.D. No.	: --	Concrete Grade	: --	Designed / Measured Slump	: --
Cement Content	: --	W/C Ratio	: --	A/C Ratio	: --
PFA Content	: --	PFA Source	: --		
Date Cast	: 12-03-2014	Time of Adding Water to Mix	: --		
Date of Sampling	: 12-03-2014	Time of Sampling	: --		
Place of Sampling	: --	Place / Time of Making Cube	: --		
Method of Compaction	: --	Name of Person Making Cubes	: --		
Site Curing Method	: --	Site Max. / Min. Temperature	: --		
No. of Cubes	: 2	Nominal Size	: 150 mm	Test at Age of	: 7 days

Certificate of Sampling, Slump Test, Cube Making and Curing :

A Certificate of Sampling, Slump Test, Cube Making and Curing is not available.

Laboratory Test Results :

Date Received	: 18-03-2014	Date / Time Tested	: 19-03-2014 18:50	GCE Test Unit Reg. No.	: MI14017
Curing Method	: In Air	Max. / Min. Temp.	: -- / --	Cube Age at Test	: 7 days
Test Location	: No. 6, Ko Shan Road, Ground Floor, Hung Hom, Kowloon, Hong Kong				

Laboratory Reference Number			--	--	--	--	--	--
Cube Mark			HK1407994-001 T19A/UCS	HK1407994-002 T19A/UCS.1	--	--	--	--
Mould No.			--	--	--	--	--	--
Mass of Specimen in Air		kg	6.210	6.244	--	--	--	--
Mass of Specimen in Water		kg	--	--	--	--	--	--
Length of Specimen		mm	150.4	150.7	--	--	--	--
Width of Specimen		mm	150.3	150.5	--	--	--	--
Height of Specimen		mm	150.2	150.0	--	--	--	--
As-received Density	-Vol. by Calculation	kg/m^3	1830	1840	--	--	--	--
	-Vol. by Water Displacement	kg/m^3	--	--	--	--	--	--
Maximum Load at Failure		kN	36.9	33.5	--	--	--	--
Compressive Strength		MPa	1.6	1.5	--	--	--	--
Observation Code			P	P	--	--	--	--
Failure Mode			S	S	--	--	--	--

Legend :

A - Dry on Receipt; B - Poor Compaction; C - Honeycombing; D - Damaged Edge; E - Damaged Corner; F - Irregular; G - Oversize; H - Undersize; P - No Irregularity in Squareness; S - Satisfactory Failure; U - Unsatisfactory Failure.

Remarks : 1) Martix : Cement Cube
2) The maximum load at failure of the specimens are lower than the minimum calibrated range of compression machine (i.e. 50kN).

--END--

Tested By : T.T. Ho

Approved Signatory : LAU SUN HUNG, IVAN

Checked By :

Post : Senior Testing Manager

TESTING RESULTS OF IEA SPOT-CHECK SAMPLES

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 3
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1333796
Address	: UNIT B, 11/F, GRANDION PLAZA, 932 CHEUNG SHA WAN ROAD, CHEUNG SHA WAN, KOWLOON HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2877 3122	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 04-DEC-2013
Order number	: 3.14/018/2009			Issue Date	: 18-DEC-2013
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

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: **HK1333796**

Sample(s) were received 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.

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**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T22BA.4.1/SW/0.75/IEA Client sampling date / time: [04-DEC-2013] HK1333796-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**8.6**				
EG: Metals and Major Cations								
EG020: Lead	7439-92-1	1	mg/kg	**112**				

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: 3205194)								
HK1333810-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	18.2	17.6	3.2
HK1333810-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.1	15.7	2.7
EG: Metals and Major Cations (QC Lot: 3203602)								
HK1333644-008	Anonymous	**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

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: 3203602)											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	88.5	----	84	106	----	----

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: 3203602)										
HK1333644-007	Anonymous	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 3
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1335631
Address	: UNIT B, 11/F, GRANDION PLAZA, 932 CHEUNG SHA WAN ROAD, CHEUNG SHA WAN, KOWLOON HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2877 3122	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 20-DEC-2013
Order number	: 3.14/018/2009			Issue Date	: 08-JAN-2014
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

General Comments

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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: **HK1335631**

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.

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

Analytical Results

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID* / *Client sampling date / time*				
				R3.1 - R3.2/SW/2.475/IEA [19-DEC-2013]				
				HK1335631-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**31.6**				
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)								
C9 - C16 Fraction	----	200	mg/kg	**266**				
C17 - C35 Fraction	----	500	mg/kg	**9270**				

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: 3230696)								
HK1335715-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	24.6	23.9	2.8
HK1335715-004	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	29.5	29.6	0.4
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3224594)								
HK1335577-023	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	3000	2810	6.7
		C17 - C35 Fraction	----	500	mg/kg	2360	2250	4.7

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-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3224594)											
C9 - C16 Fraction	----	200	mg/kg	<200	32 mg/kg	63.0	----	36	118	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	90 mg/kg	52.0	----	28	110	----	----

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
EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3224594)										
HK1335577-024	Anonymous	**C9 - C16 Fraction**	----	32 mg/kg	--	----	50	130	----	----
		C17 - C35 Fraction	----	90 mg/kg	--	----	50	130	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1401194
Address	: UNIT B, 11/F, GRANDION PLAZA, 932 CHEUNG SHA WAN ROAD, CHEUNG SHA WAN, KOWLOON HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2877 3122	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 09-JAN-2014
Order number	: 3.14/018/2009			Issue Date	: 23-JAN-2014
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

General Comments

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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: **HK1401194**

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.

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

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T35C.56/SW/1.25/IEA Client sampling date / time: [09-JAN-2014] HK1401194-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**7.6**				
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2				
C10 - C14 Fraction	----	50	mg/kg	<50				
C15 - C28 Fraction	----	100	mg/kg	<100				
C29 - C36 Fraction	----	100	mg/kg	<100				
EP-080_SRS: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**94.3**				
Toluene-D8	2037-26-5	0.1	%	**101**				
4-Bromofluorobenzene	460-00-4	0.1	%	**105**				

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: 3249105)								
HK1401212-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	0.7	0.6	17.0
HK1401212-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	0.5	0.5	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244382)								
HK1400969-008	Anonymous	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244433)								
HK1400969-008	Anonymous	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244382)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	65.1	----	31	125	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	35.3	----	28	116	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	19.0	----	6	108	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244433)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	96.3	----	58	127	----	----

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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244382)										
HK1400969-009	Anonymous	**C10 - C14 Fraction**	----	16 mg/kg	88.8	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	61.8	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	76.3	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3244433)										
HK1400969-009	Anonymous	**C6 - C9 Fraction**	----	6 mg/kg	93.8	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate - Continued			
4-Bromofluorobenzene	460-00-4	74	121

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1402447
Address	: UNIT B, 11/F, GRANDION PLAZA, 932 CHEUNG SHA WAN ROAD, CHEUNG SHA WAN, KOWLOON HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2877 3122	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 22-JAN-2014
Order number	: 3.14/018/2009			Issue Date	: 04-FEB-2014
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

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

General Comments

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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: **HK1402447**

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: R5/TCLP/IEA				
				Client sampling date / time: [22-JAN-2014]				
				HK1402447-001				
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1				
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	1				

Laboratory Duplicate (DUP) Report

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: 3269082)								
HK1402484-003	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3269082)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.001	1 mg/L	101	----	82	104	----	----

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: 3269082)										
HK1401992-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	94.8	92.2	75	125	2.9	----

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1406103
Address	: UNIT B, 11/F, GRANDION PLAZA, 932 CHEUNG SHA WAN ROAD, CHEUNG SHA WAN, KOWLOON HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2877 3122	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 24-FEB-2014
Order number	: 3.14/018/2009			Issue Date	: 12-MAR-2014
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

General Comments

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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: **HK1406103**

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.

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

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: T32E/B5/1.5/IEA Client sampling date / time: [24-FEB-2014] HK1406103-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**10.8**				
EP-071_SR: Total Petroleum Hydrocarbons (TPH)								
C6 - C9 Fraction	----	2	mg/kg	<2				
C10 - C14 Fraction	----	50	mg/kg	<50				
C15 - C28 Fraction	----	100	mg/kg	<100				
C29 - C36 Fraction	----	100	mg/kg	<100				
EP-080_SRS: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**96.0**				
Toluene-D8	2037-26-5	0.1	%	**98.2**				
4-Bromofluorobenzene	460-00-4	0.1	%	**103**				

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: 3320029)								
HK1406053-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.8	16.9	0.8
HK1406125-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	13.2	14.0	5.8
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)								
HK1405718-001	Anonymous	**C15 - C28 Fraction**	----	100	mg/kg	<100	<100	0.0
		C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0
		C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)								
HK1405718-001	Anonymous	**C6 - C9 Fraction**	----	2	mg/kg	<2	<2	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-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)											
C10 - C14 Fraction	----	50	mg/kg	<50	22.5 mg/kg	97.3	----	38	105	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	52.5 mg/kg	80.7	----	18	103	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	52.5 mg/kg	35.0	----	0	94	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)											
C6 - C9 Fraction	----	2	mg/kg	<2	6 mg/kg	96.6	----	72	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
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311610)										
HK1405718-002	Anonymous	**C10 - C14 Fraction**	----	16 mg/kg	106	----	50	130	----	----
		C15 - C28 Fraction	----	53 mg/kg	67.2	----	50	130	----	----
		C29 - C36 Fraction	----	45 mg/kg	56.1	----	50	130	----	----
EP-071_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 3311614)										
HK1405718-002	Anonymous	**C6 - C9 Fraction**	----	6 mg/kg	106	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate - Continued			
4-Bromofluorobenzene	460-00-4	74	121

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: NATURE & TECHNOLOGIES (HK) LTD	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4
Contact	: MR GABRIEL LAM	Contact	: Fung Lim Chee, Richard	Work Order	: HK1408239
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E-mail	: glam@nt.com.hk	E-mail	: Richard.Fung@alsglobal.com		
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Facsimile	: +852 2511 0922	Facsimile	: +852 2610 2021		
Project	: YAU TONG BAY DEVELOPMENT	Quote number	: ----	Date Samples Received	: 14-MAR-2014
Order number	: 3.14/018/2009			Issue Date	: 27-MAR-2014
C-O-C number	: ----			No. of samples received	: 1
Site	: ----			No. of samples analysed	: 1

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

General Comments

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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: **HK1408239**

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: T19A/TCLP.2/IEA				
				Client sampling date / time: [14-MAR-2014]				
				HK1408239-001				
EG: Metals and Major Cations - Filtered								
EG020: Lead	7439-92-1	0.1	mg/L	<0.1				
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	1				

Laboratory Duplicate (DUP) Report

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: 3351821)								
HK1407712-002	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0
HK1408243-001	Anonymous	**EG020: Lead**	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0

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: 3351821)											
EG020: Lead	7439-92-1	0.001	mg/L	<0.1	1 mg/L	92.2	----	82	104	----	----

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: 3351821)										
HK1407712-001	Anonymous	**EG020: Lead**	7439-92-1	1 mg/L	80.5	79.2	75	125	1.7	----

APPENDIX L
LABORATORY RESULTS OF VERIFICATION SAMPLES

Table L.1 Summary of Laboratory Results of Verification Samples With Reference to RBRG

Parameter			Benzene	bis- (2-Ethylhexyl) phthalate	PCR (C9-C16)	PCR (C17-C35)	Lead
LOR (mg/kg)			0.2	5	200	500	1
RBRGs (Urban Residential) (mg/kg)			0.704	30	2240	10000	258
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**					
A1.1-A1.2/SW	0.5	18/11/2013					72
A1.1-A1.4/SW	0.5	18/11/2013					86
A1.2-A1.3/SW	0.5	18/11/2013					180
A1.3-A1.4/SW	0.5	18/11/2013					70
A1/B	1	9/12/2013					71
A2/T	1	4/12/2013		<5			26
A2.1-A2.2/SW	1.675	2/12/2013		6.46			**443**
A2.1-A2.2.1/SW	1.675	19/12/2013					87
A2.1-A2.4/SW	1.675	2/12/2013		<5			248
A2.2-A2.3/SW	1.675	2/12/2013		<5			49
A2.3-A2.4/SW	1.675	2/12/2013		<5			150
A2/B	2.35	12/12/2013		<5			**294**
A3.1-A3.2/SW	3.65	3/7/2014					**406**
A3.1-A3.4/SW	3.65	3/7/2014					35
A3.2-A3.3/SW	3.65	3/7/2014					**353**
A3.3-A3.4/SW	3.65	3/7/2014					176
A3/B	4.95	3/7/2014					60
A4/T	1	4/12/2013					78
A4.1-A4.2/SW	1.725	2/12/2013					137
A4.1-A4.4/SW	1.725	2/12/2013					165
A4.2-A4.3/SW	1.725	2/12/2013					**586**
A4.2-A4.3.1/SW	1.725	19/12/2013					222
A4.3-A4.4/SW	1.725	2/12/2013					**7060**
A4.3-A4.4.1/SW	1.725	19/12/2013					**394**
A4.3-A4.4.2/SW	1.725	24/1/2014					**1420**
A4.3-A4.4.3/SW	1.725	12/2/2014					**2480**
A4.3-A4.4.4/SW	1.725	4/3/2014					99
A4/B	2.45	12/12/2013					184
A5/T	1.4	4/12/2013					118
A5.1-A5.2/SW	1.975	2/12/2013					**2980**
A5.1-A5.2.1/SW	1.975	19/12/2013					**595**
A5.1-A5.2.2/SW	1.975	24/1/2014					174
A5.1-A5.4/SW	1.975	2/12/2013					**361**
A5.1-A5.4.1/SW	1.975	19/12/2013					**391**

Parameter			Benzene	bis- (2-Ethylhexyl) phthalate	PCR (C9-C16)	PCR (C17-C35)	Lead
LOR (mg/kg)			0.2	5	200	500	1
RBRGs (Urban Residential) (mg/kg)			0.704	30	2240	10000	258
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**					
A5.1-A5.4.2/SW	1.975	24/1/2014					**500**
A5.1-A5.4.3/SW	1.975	12/2/2014					**1540**
A5.1-A5.4.4/SW	1.975	4/3/2014					103
A5.2-A5.3/SW	1.975	2/12/2013					**398**
A5.2-A5.3.1/SW	1.975	19/12/2013					51
A5.3-A5.4/SW	1.975	2/12/2013					117
A5/B	2.55	12/12/2013					148
R1.1-R1.2/SW	0.5	18/11/2013		<5			
R1.1-R1.4/SW	0.5	18/11/2013		<5			
R1.2-R1.3/SW	0.5	18/11/2013		6.52			
R1.3-R1.4/SW	0.5	18/11/2013		18.5			
R1/B	1	9/12/2013		<5			
R2.1-R2.2/SW	0.5	22/11/2013		8.36			
R2.1-R2.4/SW	0.5	22/11/2013		19.7			
R2.2-R2.3/SW	0.5	22/11/2013		**42**			
R2.2-R2.3.1/SW	0.5	9/12/2013		**75.8**			
R2.2-R2.3.2/SW	0.5	27/12/2013		19.7			
R2.3-R2.4/SW	0.5	22/11/2013		17.7			
R2/B	1	4/12/2013		16.4			
R3.1-R3.2/SW	0.5	22/11/2013		<5			
R3.1-R3.4/SW	0.5	22/11/2013		7.4			
R3.2-R3.3/SW	0.5	22/11/2013		<5			
R3.3-R3.4/SW	0.5	22/11/2013		<5			
R3/B	1	4/12/2013		<5			
R3.1-R3.2/SW	2.475	19/12/2013	<0.2		299	9030	
R3.1-R3.4/SW	2.475	19/12/2013	<0.2		244	6190	
R3.2-R3.3/SW	2.475	19/12/2013	<0.2		<200	1480	
R3.3-R3.4/SW	2.475	19/12/2013	<0.2		291	8060	
R3/B	3.95	19/2/2014	<0.2		<200	<500	
R4.1-R4.2/SW	0.5	2/12/2013		<5			
R4.1-R4.4/SW	0.5	2/12/2013		6.78			
R4.2-R4.3/SW	0.5	2/12/2013		<5			
R4.3-R4.4/SW	0.5	2/12/2013		<5			
R4/B	1	4/12/2013		<5			

Parameter			Benzene	bis- (2-Ethylhexyl) phthalate	PCR (C9-C16)	PCR (C17-C35)	Lead
LOR (mg/kg)			0.2	5	200	500	1
RBRGs (Urban Residential) (mg/kg)			0.704	30	2240	10000	258
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**					
R5.1-R5.2/SW	0.5	20/11/2013					104
R5.1-R5.4/SW	0.5	20/11/2013					**340**
R5.1-R5.4.1/SW	0.5	9/12/2013					101
R5.2-R5.3/SW	0.5	20/11/2013					184
R5.3-R5.4/SW	0.5	20/11/2013					120
R5/B	1	4/12/2013					73
R6/T	2.7	27/12/2013					200
R6.1-R6.2/SW	3.425	23/12/2013					196
R6.1-R6.4/SW	3.425	23/12/2013					57
R6.2-R6.3/SW	3.425	23/12/2013					179
R6.3-R6.4/SW	3.425	23/12/2013					159
R6/B	4.15	6/3/2014					68
R8/T	3	12/12/2013					**394**
R8/T.1	2.5	2/1/2014					68
R8.1-R8.2/SW	3.725	12/12/2013					102
R8.1-R8.4/SW	3.725	12/12/2013					90
R8.2-R8.3/SW	3.725	12/12/2013					62
R8.3-R8.4/SW	3.725	12/12/2013					96
R8/B	4.45	19/12/2013					162

Notes:
1. m bgs = meter below ground surface
2. Gray cell indicates that the parameter is not being tested in the corresponding sample.
3. Values exceeding RBRG/Dutch limits are indicated in **bold and underline**.

Table L.2 Summary of Laboratory Results of Verification Samples With Reference to Dutch B

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T19A.1/SW	1.25	20/11/2013	125							
T19A.2/SW	1.25	20/11/2013	**190**							
T19A.2.1/SW	1.25	9/12/2013	40							
T19A.3/SW	1.25	20/11/2013	**213**							
T19A.3.1/SW	1.25	9/12/2013	108							
T19A.4/SW	1.25	20/11/2013	**168**							
T19A.4.1/SW	1.25	9/12/2013	**163**							
T19A.4.2/SW	1.25	27/12/2013	87							
T19A/B	2	4/12/2013	74							
T19A/B1	2	4/12/2013	75							
T22BA.1/SW	0.75	18/11/2013	131							
T22BA.2/SW	0.75	18/11/2013	142							
T22BA.3/SW	0.75	18/11/2013	**328**							
T22BA.3.1/SW	0.75	4/12/2013	**154**							
T22BA.3.2/SW	0.75	23/12/2013	**194**							
T22BA.3.3/SW	0.75	10/1/2014	**172**							
T22BA.3.4/SW	0.75	27/1/2014	129							
T22BA.4/SW	0.75	18/11/2013	**303**							
T22BA.4.1/SW	0.75	4/12/2013	126							
T22BA/B	1.5	4/12/2013	102							
T22BA/B1	1.5	4/12/2013	**151**							
T22BA/B1.1	2	23/12/2013	**779**							
T22BA/B1.2	2.5	10/1/2014	144							
T22BB.1/SW	2.25	20/11/2013	107	1						
T22BB.2/SW	2.25	11/1/2014	39	2						
T22BB.3/SW	2.25	20/11/2013	**199**	1						
T22BB.3.1/SW	2.25	9/12/2013	**209**							
T22BB.3.2/SW	2.25	27/12/2013	119							
T22BB.4/SW	2.25	22/11/2013	66	3						
T22BB/B	3	16/12/2013	49	2						
T22BB/B1	3	16/12/2013	40	2						
T32C.1/SW	2.5	26/11/2013	**167**							
T32C.1.1/SW	2.5	19/12/2013	64							
T32C.2/SW	2.5	26/11/2013	69							

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T32C.3/SW	2.5	26/11/2013	61							
T32C.4/SW	2.5	26/11/2013	**306**							
T32C.4.1/SW	2.5	19/12/2013	105							
T32C/B	3.5	9/12/2013	142							
T32C/B1	3.5	9/12/2013	141							
T32D/T	0.5	26/11/2013								<0.1
T32D.1/SW	1	22/11/2013								0.4
T32D.2/SW	1	22/11/2013								0.3
T32D.3/SW	1	22/11/2013								0.2
T32D.4/SW	1	22/11/2013								0.2
T32D/B	1.5	9/12/2013								0.4
T32E.1/SW	0.75	20/1/2014			<2	<50	253	145	450	
T32E.2/SW	0.75	20/1/2014			<2	<50	224	130	406	
T32E.3/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.4/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.5/SW	0.75	20/1/2014			<2	<50	203	146	401	
T32E.6/SW	0.75	20/1/2014			<2	<50	123	101	276	
T32E.7/SW	0.75	20/1/2014			<2	<50	118	<100	270	
T32E.8/SW	0.75	20/1/2014			<2	<50	132	102	286	
T32E.9/SW	0.75	20/1/2014			<2	<50	151	132	335	
T32E.10/SW	0.75	20/1/2014			<2	105	828	686	**1621**	
T32E.10.1/SW	0.75	17/2/2014			<2	59	466	242	769	
T32E.11/SW	0.75	20/1/2014			<2	55	716	709	**1482**	
T32E.11.1/SW	0.75	17/2/2014			<2	<50	928	1170	**2150**	
T32E.11.2/SW	0.75	28/2/2014			<2	263	1590	860	**2715**	
T32E.11.3/SW	0.75	7/3/2014			<2	<50	<100	<100	252	
T32E.12/SW	0.75	20/1/2014			<2	<50	274	304	630	
T32E.13/SW	0.75	20/1/2014			<2	<50	173	240	465	
T32E.14/SW	0.75	20/1/2014			<2	<50	420	352	824	
T32E.15/SW	0.75	20/1/2014			<2	117	702	403	**1224**	
T32E.15.1/SW	0.75	17/2/2014			<2	<50	629	412	**1093**	
T32E.15.2/SW	0.75	28/2/2014			<2	<50	456	<100	608	
T32E.16/SW	0.75	20/1/2014			<2	<50	4720	3350	**8122**	
T32E.16.1/SW	0.75	17/2/2014			<2	<50	937	1310	**2299**	
T32E.16.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T32E.17/SW	0.75	20/1/2014			<2	141	7790	4920	**12853**	
T32E.17.1/SW	0.75	17/2/2014			<2	<50	839	1130	**2021**	
T32E.17.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.18/SW	0.75	20/1/2014			<2	70	1420	948	**2440**	
T32E.18.1/SW	0.75	17/2/2014			<2	<50	269	162	483	
T32E.19/SW	0.75	20/1/2014			<2	145	4460	2280	**6887**	
T32E.19.1/SW	0.75	17/2/2014			<2	<50	152	110	314	
T32E.20/SW	0.75	20/1/2014			<2	<50	179	139	370	
T32E.21/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.22/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.23/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.24/SW	0.75	20/1/2014			<2	112	<100	<100	314	
T32E.25/SW	0.75	20/1/2014			<2	<50	1140	738	**1930**	
T32E.25.1/SW	0.75	17/2/2014			<2	300	370	213	885	
T32E.26/SW	0.75	20/1/2014			<2	<50	1030	737	**1819**	
T32E.26.1/SW	0.75	17/2/2014			<2	109	815	562	**1488**	
T32E.26.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.27/SW	0.75	20/1/2014			<2	<50	301	246	599	
T32E.28/SW	0.75	20/1/2014			<2	<50	230	225	507	
T32E.29/SW	0.75	20/1/2014			<2	<50	143	<100	295	
T32E.30/SW	0.75	20/1/2014			<2	<50	1200	732	**1984**	
T32E.30.1/SW	0.75	17/2/2014			<2	<50	1130	1110	**2292**	
T32E.30.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.31/SW	0.75	20/1/2014			<2	<50	908	530	**1490**	
T32E.31.1/SW	0.75	17/2/2014			<2	<50	524	431	**1007**	
T32E.31.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.32/SW	0.75	20/1/2014			<2	<50	812	472	**1336**	
T32E.32.1/SW	0.75	17/2/2014			<2	56	978	965	**2001**	
T32E.32.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.33/SW	0.75	20/1/2014			<2	<50	398	248	698	
T32E.34/SW	0.75	20/1/2014			<2	<50	5100	3630	**8782**	
T32E.34.1/SW	0.75	17/2/2014			<2	62	1480	1090	**2634**	
T32E.34.2/SW	0.75	28/2/2014			<2	<50	<100	<100	252	
T32E.35/SW	0.75	20/1/2014			<2	<50	476	304	832	
T32E.36/SW	0.75	20/1/2014			<2	<50	359	211	622	

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T32E.37/SW	0.75	20/1/2014			<2	<50	1300	912	**2264**	
T32E.37.1/SW	0.75	17/2/2014			<2	<50	<100	<100	252	
T32E.38/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.39/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.40/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.41/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.42/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.43/SW	0.75	20/1/2014			<2	<50	327	254	633	
T32E.44/SW	0.75	20/1/2014			<2	<50	371	203	626	
T32E.45/SW	0.75	20/1/2014			<2	<50	334	109	495	
T32E.46/SW	0.75	20/1/2014			<2	<50	105	<100	257	
T32E.47/SW	0.75	20/1/2014			<2	<50	123	<100	275	
T32E.48/SW	0.75	20/1/2014			<2	<50	107	<100	259	
T32E.49/SW	0.75	20/1/2014			<2	<50	111	<100	263	
T32E.50/SW	0.75	20/1/2014			<2	<50	286	224	562	
T32E.51/SW	0.75	20/1/2014			<2	<50	266	253	571	
T32E.52/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.53/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.54/SW	0.75	20/1/2014			<2	<50	<100	<100	252	
T32E.55/SW	0.75	20/1/2014			<2	<50	272	156	480	
T32E.56/SW	0.75	20/1/2014			<2	<50	284	169	505	
T32E.57/SW	0.75	20/1/2014			<2	<50	308	154	514	
T32E.58/SW	0.75	20/1/2014			<2	<50	208	145	405	
T32E/B1	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B2	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B3	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B4	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B5	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B6	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B7	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B8	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B9	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B10	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B11	1.5	24/2/2014			<2	<50	284	225	561	
T32E/B12	1.5	24/2/2014			<2	<50	118	<100	270	

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T32E/B13	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B14	1.5	24/2/2014			<2	<50	<100	<100	252	
T32E/B15	1.5	25/2/2014			<2	<50	225	159	436	
T32E/B16	1.5	25/2/2014			<2	<50	311	194	557	
T32E/B17	1.5	25/2/2014			<2	<50	1150	604	**1806**	
T32E/B17.1	2	13/3/2014			<2	<50	<100	<100	252	
T32E/B18	1.5	25/2/2014			<2	<50	187	<100	339	
T32E.1A/SW	1.5	26/11/2013	96							0.5
T32E.2A/SW	1.5	26/11/2013	47							<0.1
T32E.3A/SW	1.5	26/11/2013	**1320**							**1.1**
T32E.3A.1/SW	1.5	19/12/2013	**208**							**44.1**
T32E.3A.2/SW	1.5	8/1/2014	65							0.4
T32E.4A/SW	1.5	26/11/2013	**204**							1
T32E.4A.1/SW	1.5	19/12/2013	**233**							
T32E.4A.2/SW	1.5	8/1/2014	**336**							
T32E.4A.3/SW	1.5	23/1/2014	96							
T32E/B	3	9/12/2013	144							0.4
T35C.1/SW – T35C.8/SW	1.25	7/1/2014			<2	<50	<100	<100	252	
T35C.9/SW	1.25	7/1/2014			<2	<50	114	<100	266	
T35C.10/SW – T35C.77/SW	1.25	7/1/2014			<2	<50	<100	<100	252	
T35C.B1	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B2	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B3	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B4	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B5	2.5	24/1/2014			<2	<50	1030	1070	**2152**	
T35C/B5.1	3	12/2/2014			<2	<50	<100	<100	252	
T35C.B6	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B7	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B8	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B9	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B10	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B11	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B12	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B13	2.5	24/1/2014			<2	<50	<100	<100	252	

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T35C.B14	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B15	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B16	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B17	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B18	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B19	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B20	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B21	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B22	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B23	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B24	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B25	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C.B26	2.5	24/1/2014			<2	<50	<100	<100	252	
T35C/B27	2.5	19/2/2014			<2	1600	336	299	**2237**	
T35C/B27.1	3	7/3/2014			<2	<50	<100	<100	252	
T35C/B28	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B29	2.5	19/2/2014			<2	176	<100	<100	378	
T35C/B30	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B31	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B32	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B33	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B34	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B35	2.5	19/2/2014			<2	268	<100	<100	470	
T35C/B36	2.5	19/2/2014			<2	344	139	108	593	
T35C/B37	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B38	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B39	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B40	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B41	2.5	19/2/2014			<2	351	107	<100	560	
T35C/B42	2.5	19/2/2014			<2	508	164	129	803	
T35C/B43	2.5	19/2/2014			<2	122	<100	<100	324	
T35C/B44	2.5	19/2/2014			<2	85	<100	<100	287	
T35C/B45	2.5	19/2/2014			<2	68	<100	<100	270	
T35C/B46	2.5	19/2/2014			<2	<50	<100	<100	252	

Parameter			Lead (mg/kg)	Copper (mg/kg)	TPH C6-C9 (µg/kg)	TPH C10-C14 (µg/kg)	TPH C15-C28 (µg/kg)	TPH C29-C36 (µg/kg)	Total TPH (µg/kg)	PCBs (mg/kg)
LOR			1	1	2	50	100	100	252	0.1
Dutch List (Dutch B Standard)			150	100	-	-	-	-	1000	1
Sample ID	**Sampling Depth (m bgs)**	**Date of Sampling**								
T35C/B47	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B48	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B49	2.5	19/2/2014			<2	620	173	123	918	
T35C/B50	2.5	19/2/2014			<2	236	<100	<100	438	
T35C/B51	2.5	19/2/2014			<2	92	<100	<100	294	
T35C/B52	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B53	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B54	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B55	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B56	2.5	19/2/2014			<2	224	<100	<100	426	
T35C/B57	2.5	19/2/2014			<2	53	<100	<100	255	
T35C/B58	2.5	19/2/2014			<2	236	104	<100	442	
T35C/B59	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B60	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B61	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B62	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B63	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B64	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B65	2.5	19/2/2014			<2	<50	<100	<100	252	
T35C/B66	2.5	19/2/2014			<2	<50	<100	<100	252	
T36A.1/SW	0.75	26/11/2013	49							
T36A.2/SW	0.75	26/11/2013	82							
T36A.3/SW	0.75	26/11/2013	80							
T36A.4/SW	0.75	26/11/2013	51							
T36A/B	1.5	9/12/2013	67							
T36A/B1	1.5	9/12/2013	39							

Notes:
1. m bgs = meter below ground surface
2. Gray cell indicates that the parameter is not being tested in the corresponding sample.
3. Values exceeding RBRG/Dutch limits are indicated in **bold and underline**.