MTR Corporation Limited

HONG KONG SECTION OF GUANGZHOU – SHENZHEN – HONG KONG EXPRESS RAIL LINK

(No. EP-349/2009/I)

Contamination Assessment Report (Part II) for Mai Po Ventilation Building Works Area (Site C1 and D) (Rev A)

Verified by:	
Position:	Independent Environmental Checker
Date:	27 November 2012

MTR Corporation Limited

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Position: Environmental Team Leader

Date: 23 NOV 2012

REPORT

Penta-Ocean Construction Co., Ltd

Supplementary Contamination Assessment Report (Part II) for Mai Po Ventilation Building Works Area (Site C1 and D) - XRL825 Rev.A

November 2012

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REPORT

Penta-Ocean Construction Co., Ltd

Supplementary Contamination Assessment Report (Part II) for Mai Po Ventilation Building Works Area (Sites C1 and D) - XRL825 Rev.A

November 2012

Reference 0119286

For and on behalf of
ERM-Hong Kong, Limited

Approved by: Frank Wan

Signed:

Position: Partner

Date: 23 November 2012

This report has been prepared by ERM-Hong Kong, Limited with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

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1 INTRODUCTION

1.1 BACKGROUND TO THE LAND CONTAMINATION ASSESSMENT OF XRL

The Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) is an express rail link connecting Hong Kong, Shenzhen and Guangzhou. The terminal of the XRL will be West Kowloon in Hong Kong and Shibi in Guangzhou, with Futian and Longhua in Shenzhen and Humen in Dongguan as intermediate stations. The Hong Kong section of the XRL project will comprise a 26 km long underground rail line on a dedicated track from the proposed West Kowloon terminus to the border at Huanggang, where it will connect with the XRL Mainland section (the Project).

The Project is a Designated Project under the *Environmental Impact Assessment Ordinance (EIAO)*. An Environmental Impact Assessment (EIA) for the XRL Hong Kong section was conducted and approved under the EIAO on 28 September 2009 (Register No. AEIAR-143/2009).

During the EIA stage, a Land Contamination Assessment (LCA) was conducted to assess the presence and extent of land contamination associated with the historical and current operations along the proposed alignment. A Contamination Assessment Plan, attached as Appendix 9.1 of the EIA Report, has been approved (hereinafter referred as "Approved CAP"). Stage 1 Site Investigation (SI) were conducted at accessible potential contaminated Sites during the EIA stage in accordance with the Approved CAP and a Contamination Assessment Report/Remediation Action Plan (hereinafter referred as "Approved CAR/RAP"), attached as Appendix 9.2 of the EIA Report, has been endorsed by the EPD.

An Environmental Permit (EP-349/2009) for the Project was granted on 16 October 2009 and subsequently varied by the Director of Environmental Protection (DEP) with the latest Environmental Permit (EP349/2009/H) issued on 3 September 2012. In accordance with Condition 2.21 of the EP, the Permit Holder shall carry out further LCA in accordance with the EIA Report and Approved CAP. Further site appraisal and Stage 2 Site Investigation (SI) shall be carried out when individual site access is granted to ascertain contaminating sources and hotspots of contamination. The site appraisal and Stage 2 SI results shall be submitted as a Revised Contamination Assessment Plan (hereinafter referred as 'Revised CAP') and a Supplementary Contamination Assessment Report (hereinafter referred as 'Supplementary CAR') respectively for EPD approval.

1.2 *BACKGROUND TO THIS CAR (PART II)*

In accordance with Table 9.8 of the EIA, a total of five parcels of land, namely Sites A, C (subsequently divided into Sites C1 and C2 due to different site resumption timelines), D, E and WSW, were identified within the Mai Po Ventilation Building Works Area (MPV) for further LCA. For the Sites A, C2 and E, the MTR Corporation Limited (MTRC) has commissioned Gammon Construction Limited to conduct the further LCA. A Revised CAP (Part I) and a Revised CAR/RAP (Part I) for Mai Po Ventilation Building Works Area – Sites A, C2 and E were approved by EPD in March 2010 and April 2010, respectively. In addition, Site WSW was encroached to the project areas of the Proposed Comprehensive Development at Wo Shang Wai, Yuen Long that further LCA at this Site would be assessed in accordance with the EP conditions (EP-311/2008) of the EIA of this proposed project.

Penta-Ocean Construction Co. Ltd (POC) was awarded the contract for the construction of the Express Rail Link Contract 825 (XRL 825) Mai Po Ventilation Building Works Area (hereinafter referred to as the "Project") by MTRC. The remaining Sites C1 and D, which requires further LCA, are found within the project boundary of the XRL 825 contract.

POC has commissioned ERM-Hong Kong, Limited (ERM) to undertake further LCA for Sites C1 and D. *Figure 1.1, Annex A* presents the location of these two Sites and the proposed alignments and works area. The Revised CAP, which details updated sampling locations and the proposed testing schedule for SI for Site C1 and D, was submitted to EPD in November 2010 and subsequently approved by EPD in August 2011.

In view of the latest submission schedule of CAR reports of XRL, this Supplementary CAR (Part II) was submitted in 2012 to present the SI results for the Sites C1 and D.

Due to the early access granted by the land owner for SI and prevailing construction programme, Stage 2 SI for Sites C1 and D was conducted in the period of 6 to 12 October 2010 before the approval of the revised CAP. The Stage 2 SI work, however, was conducted in accordance with the SI plan and requirements stipulated in the Approved CAP of the EIA report, the Revised CAP and the relevant land contamination assessment guidelines. During the period between the Stage 2 SI and the land resumption, there was no change in site conditions at Sites C1 and D as container truck park areas. After successful land resumption, both Sites are under MTR XRL Project Team's management and there was no change of land status since the land resumption.

2 SUMMARY OF REVISED CAP (PART II)

2.1 SUMMARY OF THE APPROVED SITE INVESTIGATION PLAN

One hotspot location was completed in accordance with the Approved CAP during the Stage 1 SI before land consumption.

Based on the recommendation of the Approved Revised CAP (Part II), a total of two hotspot locations and seven supplementary sampling locations were proposed at Sites C1 (with an approximate area of 1,500m^2 and D (with an approximate area of 7,500 m^2). *Table 2.1* summarises the proposed sampling locations of each Site, *Table 2.2* summarises the proposed sampling parameters for soil and groundwater samples collected at Site D while *Table 2.3* presented the rationales for selecting sampling locations and parameters proposed in the Approved Revised CAP (Part II).

From *Table 2.1* shown in the below, the number of sampling locations conducted at Site C1 and D in Stage 2 SI is in line with the proposed number of sampling locations stipulated in the Approved CAP during the EIA stage and the Revised CAP.

Table 2.1 Summary of Sampling Locations for Site C1 and D

Site ID	Potential Contaminating Land Use	No. of Boreholes proposed in the Approved CAP of EIA report	No. of Boreholes proposed in the Revised CAP	Sampling Locations in Stage 1 SI	Stage 2 SI		Total number of Sampling Locations
					Proposed Hotspots Location	Proposed Supplementary Sampling Locations	
C1	Container truck parking area	0-9 for Site C[(a)]	3	0	0	3	3
D	Container truck parking area with minor repair/maintenance activities	7	6[(b)]	1[(b)]	2	4	7
Total				1	2	7	10

Note:

(a) Owning to restricted site access during EIA stage, contamination hotspots could not be identified during the EIA stage and no Boreholes were proposed in Site C1 in the Approved CAP of EIA report.

(b) One Borehole (D-03) was constructed at the identified hotspot within the Site D during the EIA stage.

Table 2.2 Approved Sampling Locations and Analysis Plan

Borehole ID	Approved Sampling Coordinate	Rationale for Borehole Location	Hotspots or Supplementary Locations	Soil		Groundwater	
				Sample Depths (m below base of concrete, m bbc)	Parameters to be Analysed[b], [c], [d]	Sample Depths (m bbc)	Parameters to be Analysed [b],, [c], [e]
C1 - 01	E 824055 N 839088	Site corner, next to a shed where there may have been storage/use of oil & grease historically.	Supplementary locations	0.5, 1.5, 3.0, 4.5, 6.0 [f]	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs [g]	At static groundwater level	Petroleum Carbon Ranges, VOCs, SVOCs [g]
C1 - 02	E 824077 N 839092	Site corner, next to freight containers which may have been used for storage of materials, some staining on the floor observed.	Supplementary locations				
C1 - 03	E 824057 N 839039	Site corner, an unpaved area where some chemical containers were observed.	Supplementary locations				
D - 01	E 824068 N 838963	Next to a vehicle servicing bay and an area where waste was collected.	Vehicle repair area	0.5, 1.5, 3.0, 4.5, 6.0 [f]	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs [g]	At static groundwater level	Petroleum Carbon Ranges, VOCs, SVOCs [g]
D - 02	E 824072 N 838948	In front of the vehicle servicing workshop.	Vehicle repair area				
D – 03 [a]	E 824088.18 N 838976.64	Near east site boundary of the Site.	Area with used containers found				
D - 04	E 824068 N 838994	Near site boundary, at an area where container trucks were parked.	Supplementary locations				
D - 05	E 824094 N 839026	Near site boundary, at an area where some waste materials were observed.	Supplementary locations				
D - 06	E 824080 N 839048	Near site boundary, next to freight container/workshop where handling and storage of chemicals, oil & grease may have occurred.	Supplementary locations				

Borehole ID	Approved Sampling Coordinate	Rationale for Borehole Location	Hotspots or Supplementary Locations	Soil		Groundwater	
				Sample Depths (m below base of concrete, m bbc)	Parameters to be Analysed[(b), (c), (d)]	Sample Depths (m bbc)	Parameters to be Analysed [(b),, (c), (e)]
D - 07	E 824103 N 839082	Near site boundary, next to freight containers which may have been used for storage of materials, some staining on the floor observed.	Supplementary locations				

Notes:

(a) Sampling details proposed in the Approved CAP during EIA Stage. Proposed coordinate of the sampling location was not provided in the Approved CAP and therefore as-built coordinate in the Approved CAR was used as reference.

(b) Petroleum Carbon Ranges: C6 to C8, C9 to C16, and C17 to C35;

(c) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total);

(d) SVOCs: Acenaphthene, Acenphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, bis-(2-Ethylhexyl)phthalate, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Hexachlorobenzene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, and Pyrene; and

(e) SVOCs for groundwater: Acenaphthene, Acenphthylene, Anthracene, Benzo(b)flouranthene, Chrysene, Fluoranthene, Fluorene, Hexachlorobenzene, Naphthalene, Phenanthrene, and Pyrene;

(f) The actual sampling depths during the Stage 2 SI is in accordance to the proposed sampling depths for Site C1 and D stipulated in the Revised CAP and the Approved CAP from the EIA stage.

(g) The sampling parameters for samples collected during the Stage 2 SI is in accordance to the proposed sampling parameters stipulated in the Revised CAP and the Approved CAP from the EIA stage.

(h) Please refer to Figure 1.3 for the proposed SI location plan extracted from Approved CAP in EIA report (Source figure: NOL/ERL/300/C/XRL/ENS/M57/013 Rev. C)

3 SUMMARY OF SITE INVESTATION AND SAMPLING

3.1 STAGE 1 INTRUSIVE INVESTIGATION

Stage 1 intrusive SI was carried out by Geotechnics & Concrete Engineering (HK) Ltd (GCE). The work was conducted during the EIA stage and the results have been presented in the Approved CAR/RAP during the EIA Stage.

Borehole D–03 (also referred as 2108/XRL/EDH40) was constructed at sampling location in accordance with the Approved CAP (see *Figure 1.2, Annex A*). One groundwater sample was taken at this location. *Annex B* presents the borehole logging reports providing information on the soil strata at the sampling locations and selected site photographs. The sampling location, sampling depths and the number of samples collected during the Stage 1 SI work were included in *Table 3.1.*

3.2 STAGE 2 INTRUSIVE INVESTIGATION

Stage 2 SI works for the Project were undertaken by City Geotechnical Engineering Ltd. The borehole drilling work, groundwater well installation and soil sampling were completed in the period of 6 October to 9 October 2010 while groundwater sampling was conducted on 12 October 2010. A total of nine boreholes were constructed at the Sites C1 and D in accordance with the Revised CAP (Part II) (see *Figure 1.2, Annex A*). Inspection pits were excavated by hand down to 1.2m below base of concrete (m bbc) at each of the locations for subsurface utility clearance before the drilling of the boreholes.

Groundwater was encountered at all nine boreholes and therefore all boreholes were converted to groundwater monitoring wells. Soil strata logging for boreholes was undertaken during the course of drilling and sampling by a qualified geologist. The logs included general stratigraphic descriptions, depth of soil sampling and groundwater levels. *Annex B* presents the borehole logging report and *Annex C* presents the groundwater monitoring well installation details. The sampling location, sampling depths and the number of samples collected during the Stage 2 SI work were included in *Table 3.1.*

3.3 SOIL SAMPLE COLLECTION

Distributed soil samples were taken at 0.5 m below base of concrete (m bbc), and undistributed samples were taken at 1.5-1.95m, 3.0–3.45m, 4.5–4.95m, and 6.0–6.45m bbc for chemical analysis. Five soil samples and one groundwater sample were collected from Site D (at location D-03) in Stage 1 intrusive SI. A total of 48 soil samples (including three soil duplicate samples) and ten groundwater samples (including one groundwater duplicate sample) were collected from the Sites C1 and D in Stage 2 intrusive SI. *Table 3.1* presents

the surveyed coordinates of the sampling locations, sampling depth and sample collected from both SI Stages.

In compare with the proposed sampling plan from the Approved CAP of EIA report and the Revised CAP (refer to *Table 2.1*and *2.2* of the previous section), Stage 2 SI (refer to Table 3.1 below) was conducted in accordance to the requirements stipulated in the Approved CAP of EIA report and the Revised CAP. During Stage 2 intrusive SI, minor discolouration was observed and odour of the hydrocarbon was detected at surface soil samples of C1-01, C1-02, D-05 and D-06 during the sampling works.

Table 3.1 Summary of Sampling Locations and Number of Samples during Stage 2 SI

Borehole ID	As-built Coordinates [c]		Constructed Borehole Depth (m bbc)	Number of Soil Samples Collected	Number of Groundwater Samples Collected
	Easting (m)	Northing (m)			
C1-01	824055.662	839088.838	6.45	6 [b]	1
C1-02	824077.385	839092.103	6.45	5	1
C1-03	824057.047	839039.721	6.45	5	1
D-01	824068.457	838963.830	6.45	5	1
D-02	824072.269	838948.395	6.45	5	1
D-03 [a]	824088.18	838976.64	6.45	5	1
D-04	824068.816	838994.664	6.45	5	1
D-05	824094.463	839026.093	6.45	5	1
D-06	824080.348	839048.320	6.45	6 [b]	1
D-07	824103.565	839082.369	6.45	6 [b]	2 [b]
Stage 1 total				5	1
Stage 2 total				48 (45 + 3)	10 (9 + 1)

Notes:
(a) Sampling details reported in the approved CAR during the EIA stage.
(b) Duplicate sample collected at these sampling locations.
(c) Please refer to Figure 1.2 for the sampling location plan

A ceramic spoon was used to collect distributed soil samples. The spoon was cleaned between samples. Undistributed samples were collected using U76 cores. Clean latex gloves were worn during sampling events and they were changed before each new sample was collected. Whenever possible, a new set of sampling equipment was used for each sampling event. When this was not possible, the equipment was cleaned with Decon 90 detergent between each sampling event. All soil samples were placed into laboratory supplied pre-cleaned glass sampling jars and labeled with a permanent waterproof marker.

The presence of volatile organic compounds (VOCs) was tested using a Photo-ionisation Detector (PID) provided and calibrated by a HOKLAS accredited laboratory.

3.4 GROUNDWATER SAMPLE COLLECTION

One groundwater sample was collected from each borehole after the groundwater monitoring well had been developed and water level had been

stabilized in both intrusive SI stages. *Annex C* illustrates the groundwater monitoring well of each borehole location. The groundwater wells were developed by bailing at least five times the liquid volume, in order to remove standing water and allow for replenishment. All groundwater samples were then taken using disposable bailers (one per each location). The samples were placed directly into laboratory supplied clean sampling bottles. During Stage 2 intrusive SI, no evidence of NAPL in groundwater (visual or by odour) was apparent.

3.5 DECONTAMINATION PROCEDURES

Sampling equipment used during the course of the site investigation was thoroughly decontaminated, to minimize the potential for cross-contamination.

All equipments were decontaminated using Decon 90 detergent and water, with a distilled water rinse to clean all smaller pieces of equipment, in particular those used to sample materials such as sampling cores, hand excavation and grab samples. Larger equipments and materials were steam cleaned using mains water, where possible, or at a minimum pressure jet washed with mains water. This cleaning procedure was repeated after use at each borehole to avoid potential cross contamination between boreholes, and during sampling, to ensure that any contamination from the surface of the site does not affect deeper substrata or the groundwater.

During sampling and decontamination activities, disposable latex/nitrile gloves were worn to prevent transfer of contaminants from other sources. Any disposable equipment was disposed as general waste after each use.

3.6 QUALITY CONTROL AND QUALITY ASSURANCE (QA/QC)

3.6.1 Laboratory QA/QC Procedures

The following laboratory QA/QC program was used in order to ensure that the data obtained are accurate and representative of actual soil and groundwater conditions:

- Duplicate sample;
- Field blank;
- Equipment blank; and
- Trip blank.

3.6.2 Duplicate Sample

One field soil duplicate sample per 20 samples and one groundwater duplicate sample per 20 samples was collected for full suite analysis. Three soil field duplicate samples were collected from C1-01 (6 – 6.45m bbc), D-06 (0.5m bbc) and D-07 (4.5-4.7m bbc).

One duplicate groundwater sample was taken from borehole location D-07.

The duplicate samples were collected on a random basis and submitted to the HOKLAS accredited laboratory for analysis of full suite of parameters as the original sample.

3.6.3 Field Blank Samples

One field blank sample was taken for every 20 soil samples collected during the land contamination investigation as per the Approved Revised CAP (Part II). A total of three field blank samples were collected from the Sites.

3.6.4 Equipment Blank Sample

One equipment blank sample was taken for every 20 soil samples collected after decontamination procedures had been followed and no evidence of cross contamination was evident. A total of three equipment blank samples were collected from the Sites.

3.6.5 Trip Blank

One trip blank was taken per trip of sample delivery. A total of five trip blanks (one trip blank per trip) was submitted and analysed for VOCs to account for any potential cross-contamination as part of QA/QC.

3.7 HANDLING OF SAMPLING

All soil and groundwater samples were transported under appropriate chain-of-custody documentation, in clean coolers with ice packs at a temperature of approximately +4°C. Samples were transported to ALS Technichem (HK) Pty Ltd, a HOKLAS accredited laboratory, on a daily basis or as soon as possible after collection, noting with the recommended maximum sample holding times.

4 ASSESSMENT CRITERIA

4.1 CRITERIA FOR SOIL AND GROUNDWATER CONTAMINATION

The *RBRGs Guidance Manual* and the *RBRGs Guidance Note* were issued by EPD on 15 August 2007 and were effective immediately onwards. The RBRGs for Soil and Groundwater Limits were developed for four different post-restoration land-use scenarios namely, urban residential, rural residential, industrial and public parks.

Based on the Approved Revised CAP (Part II), it is found that the Sites were mainly used as container truck parking area with minor repair/maintenance activities in the past and will become part of the railway facilities after the completion of the Project. *Table 4.1* presents the current and future land use classifications of the Sites. Future land use of the Sites C1 and D was classified as Industrial Land Use by the *RBRGs Guidance Note*. *Annex D* presents the *Tables 2.1* and *2.2* of the *RBRGs Guidance Manual*.

Table 4.1 Current and Future Land Uses of the Sites

Site #	Current Land Use	Future Land Use (Operation Phase)	Corresponding Future RBRGs Land Use
Site C1	Container truck parking area	Railway	Industrial
Site D	Container truck parking area with minor repair/maintenance activities	Railway	Industrial

RBRGs for Soil and Groundwater Limits, used in conjunction with associated Soil Saturation Limits (C_{sat}) and Groundwater Solubility Limits (solubility limits), set the remediation goals for soil and groundwater respectively. Detected concentrations of Chemicals of Concern (CoCs) in soil and/or groundwater at the Sites were compared to the RBRG Limits for Industrial Land Use.

5 ANALYTICAL RESULTS AND RESULTS INTERPRETATION

5.1 SOIL

A total of five soil samples were collected from borehole D-03 for laboratory analysis during Stage 1 SI, while 48 soil samples (including three duplicates) were analysed in Stage 2 SI. The results have been compared to the RBRGs Limits for Industrial Land Use and the Soil Saturation Limits (C_{sat}). The results are presented in *Annex E* and summarised in *Table 5.1.*

5.1.1 *Comparison of Soil Analysis Results against RBRGs and Soil Saturation Limits*

All detected concentrations of the CoCs in the soil samples collected from the Sites were below the RBRGs Limits for Industrial Land Use and the Soil Saturation Limits. The results indicate that no significant contamination of the CoCs and no non-aqueous phase liquid (NAPL) were present in soils collected and tested at the Sites C1 and D.

Table 5.1 Summary of Soil Analysis Results (Stage 1 and Stage 2 Combined)

Parameter (CoCs)	Frequency of Detection (x/y) [a]	Range of Detected Conc. (mg/kg)	Range of method reporting limit (mg/kg)	Referenced Analytical Method	Relevant Land Use [b]	Lowest RBRGs Limit (mg/kg)	C_{sat} (mg/kg)	Maximum Concentration Exceeds	
								RBRGs Limits	C_{sat}
Metals									
Cr (VI)	0/50	BRL	1	USEPA 8260	Industrial	1,960	N/A	None	None
Cr (III)	50/50	2 - 52	1	USEPA 8260	Industrial	10,000	N/A	None	None
Cu	50/50	2 - 102	1	USEPA 8260	Industrial	10,000	N/A	None	None
Cd	1/5	0.4	0.2	USEPA 8260	Industrial	653	N/A	None	None
Pb	50/50	13 - 145	1	USEPA 8260	Industrial	2,290	N/A	None	None
Hg	0/5	BRL	0.2	USEPA 8260	Industrial	38.4	N/A	None	None
Ni	5/5	2-18	1	USEPA 8260	Industrial	10,000	N/A	None	None
Zn	50/50	9 - 852	1	USEPA 8260	Industrial	10,000	N/A	None	None
Petroleum Carbon Ranges									
C_6-C_8	0/50	BRL	5	USEPA 8015	Industrial	10,000	1,000	None	None
C_9-C_{16}	0/50	BRL	200	USEPA 8015	Industrial	10,000	3,000	None	None
C_{17}-C_{35}	4/50	580 – 1,140	500	USEPA 8015	Industrial	10,000	5,000	None	None
VOC									
Various [c]	0/50	BRL	0.04 - 50	USEPA 8260	Industrial	Var	Var	None	None
SVOC									
Various [d]	0/50	BRL	0.02 – 5	USEPA 8270	Industrial	Var	Var	None	None

Notes:

Table based on Standard Form 3.2 of the *RBRGs Guidance Manual*

(a) x = number of samples above laboratory reporting limit, y = number of samples analysed

(b) RBRGs Limits for Industrial Land Use was used for this Project

(c) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total)

(d) SVOCs: Acenaphthene, Acenphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, bis-(2-Ethylhexyl)phthalate, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Hexachlorobenzene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, and Pyrene; and

N/A - Not applicable (no C_{sat} values were available for these parameters)

BRL - Below reporting limit

Var - Various RBRGs Soil and C_{sat} Limits for individual compound

5.2 GROUNDWATER

One groundwater sample was collected from location D-03 for laboratory analysis during Stage 1 SI, while a total of ten groundwater samples (including one duplicate) were analysed during Stage 2 SI. The results were compared against the RBRGs Limits for Industrial Land Use and the Groundwater Solubility Limits. The results are presented in *Annex E* and summarised in *Table 5.2.*

5.2.1 *Comparison of Groundwater Analysis Results against RBRGs and Solubility Limits*

No groundwater sample concentrations were found to exceed the RBRGs Limits for Industrial Land Use in both SI Stages. The results indicate that no significant contamination is present in the groundwater collected and tested at the Sites C1 and D.

The petroleum carbon range C_{17}-C_{35} fraction concentrations at groundwater samples collected from monitoring wells C1-03 and D-05 were 2.9mg/L and 3.7mg/L respectively, which exceeded the Solubility Limit of 2.8mg/L.

According to the *RBRGs Guidance Manual*, if a sample has found containing contaminant concentration exceeding the solubility limits, the decision on whether or not the groundwater at the Site contains NAPL will require professional judgment based on field observations. A weight-of-evident approach to balance out potentially conflicting field and laboratory information was carried out and the following field observations information has been considered:

- Historic land use of the Sites;
- Hydrocarbon vapour readings;
- Stained, unnaturally coloured soil observed above the water table;
- Petroleum or solvent odours in soil or groundwater samples; or
- Presence of sheen on water samples or bailers.

As petroleum carbon range C_{17}-C_{35} faction is considered light non-aqueous phase liquid (LNAPL), determination of dense non-aqueous phase liquid (DNAPL) will not be required for this application. *Table 5.3* presents a summary of the field observation information for the two sampling locations.

Table 5.2 Summary of Groundwater Analysis Results (Stage 1 and Stage 2 Combined)

Parameter (CoCs)	Frequency of Detection (x/y) [a]	Range of Detected Concentration (µg/L)	Range of Method Reporting Limit (µg/L)	Reference Method	Relevant Land Use Category[b]	Lowest RBRGs Groundwater Limits (µg/L)	Solubility Limit (µg/L)	Maximum Concentration Exceeds	
								RBRGs Limits	Solubility Limit
TPH									
C_6-C_8	1/10	80	20	USEPA 8015	Industrial	1,150,000	5,230	None	None
C_9-C_{16}	3/10	500 – 2,800	500	USEPA 8015	Industrial	9,980,000	2,800	None	None
C_{17}-C_{35}	7/10	9,00 – 3,700	500	USEPA 8015	Industrial	178,000	2,800	None	3,700
VOCs [c]									
Various	0/10	BRL	5 – 500	USEPA 8260	Industrial	Var	Var	None	None
Toluene	3/10	8 – 78	5	USEPA 8260	Industrial	10,000,000	526,000	None	None
SVOCs [d]									
Various	0/10	BRL	2 – 4	USEPA 8270C	Industrial	Var	Var	None	None

Notes:

Table based on Standard Form 3.3 of the *RBRGs Guidance Manual*

(a) x = number of samples above laboratory reporting limit, y = number of samples analysed

(b) RBRGs Limits for Industrial Land Use was used for this Project

(c) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total)

(d) SVOCs for groundwater: Acenaphthene, Acenphthylene, Anthracene, Benzo(b)flouranthene, Chrysene, Fluoranthene, Fluorene, Hexachlorobenzene, Naphthalene, Phenanthrene, and Pyrene; and

BRL - Below reporting limit

Var - Various RBRGs and Solubility Limits for individual compound

Table 5.3 Field Observations at the Two Sampling Locations

Sampling Location	Historic Land Use	PID reading		Soil Visual Observation	Odour Detected	Oil Sheen on Bailer
		Depth	Reading in ppm			
C1-03	Used as agriculture land until 1990s. Area being used as workshops and freight containers parking since 1990s.	0.5 m 1.5 – 1.95 m 3 – 3.23 m 4.5 – 4.95 m 6 – 6.45 m	24 31 8 14 24	No stained, unnaturally coloured, or wet soil observed above water table.	No odour	Not observed
D-05	Used as agriculture land until 1990s. Area being used as workshops and freight containers parking since 1990s.	0.5 m 1.5 – 1.95 m 3 – 3.45 m 4.5 – 4.95 m 6 – 6.45 m	230 56 54 15 11	No stained, unnaturally coloured, or wet soil observed above water table.	No odour	Not observed

The field observation indicated the present of the NAPL at these sampling locations is unlikely. Based on the above field observations, and along with the soil and groundwater analytical results of other petroleum carbon ranges, it is considered that the NAPL is not present at sampling locations C1-03 and D-05.

5.3 QUALITY CONTROL/QUALITY ASSURANCE

A QA/QC programme was incorporated into the land contamination investigation for the project. The program included collection and analysis of field QA/QC samples and laboratory internal QA/QC samples.

5.3.2 *Field QA/QC*

The field QA/QC samples included three duplicate soil samples, one duplicate groundwater sample, three equipment blank samples, three field blank samples and five trip blank samples.

Three soil and one groundwater samples were collected as duplicates. The field duplicate samples were analyzed for the same suite of parameters as the original samples. The relative percentage difference (RPD) was used to assess the sample collection and laboratory analysis reproducibility and precision. In accordance with the USEPA guideline, RPDs were only calculated for the duplicate samples results that were higher than two times of the method detection limits. The USEPA acceptable limits for the RPDs are less than 50% for a soil sample and 30% for a groundwater sample.

The RPDs calculated for the soil duplicates collected from C1-01 (0-55.8%), D-06 (0-66.7%) and D-07 (0-56%) and groundwater duplicate at D-07 (0%) indicated the RPD level is above the acceptable limit of 50% for soil and within

the acceptable limit of 30% for groundwater. Nonetheless, as the detectable amounts were considerably small for most parameters (in the single or double digits range) and no parameters have exceeded the RBRGs Soil and Groundwater Limits, the analytical soil results fir soil and groundwater samples are still considered appropriate to use.

Rinsate equipment blank samples were taken after decontamination procedures had been followed and no evidence of cross contamination was found.

All Field QA/QC results are included in the laboratory chemical testing reports attached in *Annex F.*

5.3.3 Laboratory QA/QC Data

The laboratory QA/QC sample results, including method blank, single control spike, matrix spike, surrogate recoveries and other internal laboratory QA/QC, met their respective requirements.

Copy of laboratory chemical testing reports is attached in *Annex F*.

6 CONCLUSIONS

A total, 53 soil (including three soil duplicates) and 11 (including one groundwater duplicates) water samples were collected for laboratory analysis during Stage 1 in 2008 and Stage 2 in 2010. The analytical results were compared with the RBRGs Soil and Groundwater Limits.

6.1 INVESTIGATION RESULTS

Based on the laboratory analytical results, soil and groundwater samples collected from the Sites C1 and D did not exceed the RBRGs Limits for the COCs tested. The results showed concentrations of petroleum carbon range C_{17}-C_{35} at two groundwater samples collected during Stage 2 SI (concentrations of 2.9mg/L and 3.7 mg/L at location C1-03 and D-05, respectively) exceeded the Solubility Limit of 2.8mg/L, to determine whether NAPL is present at Sites C1 and D, further examination was carried out and a weight of balance approach of field observations and laboratory results was used. In conclusion, no conditions indicating NAPLs were present at the Sites during field observation and thus the present of NAPL is unlikely. For that reason, soil and groundwater remediation at the Sites C1 and D is not warranted.

Annex A

Figures

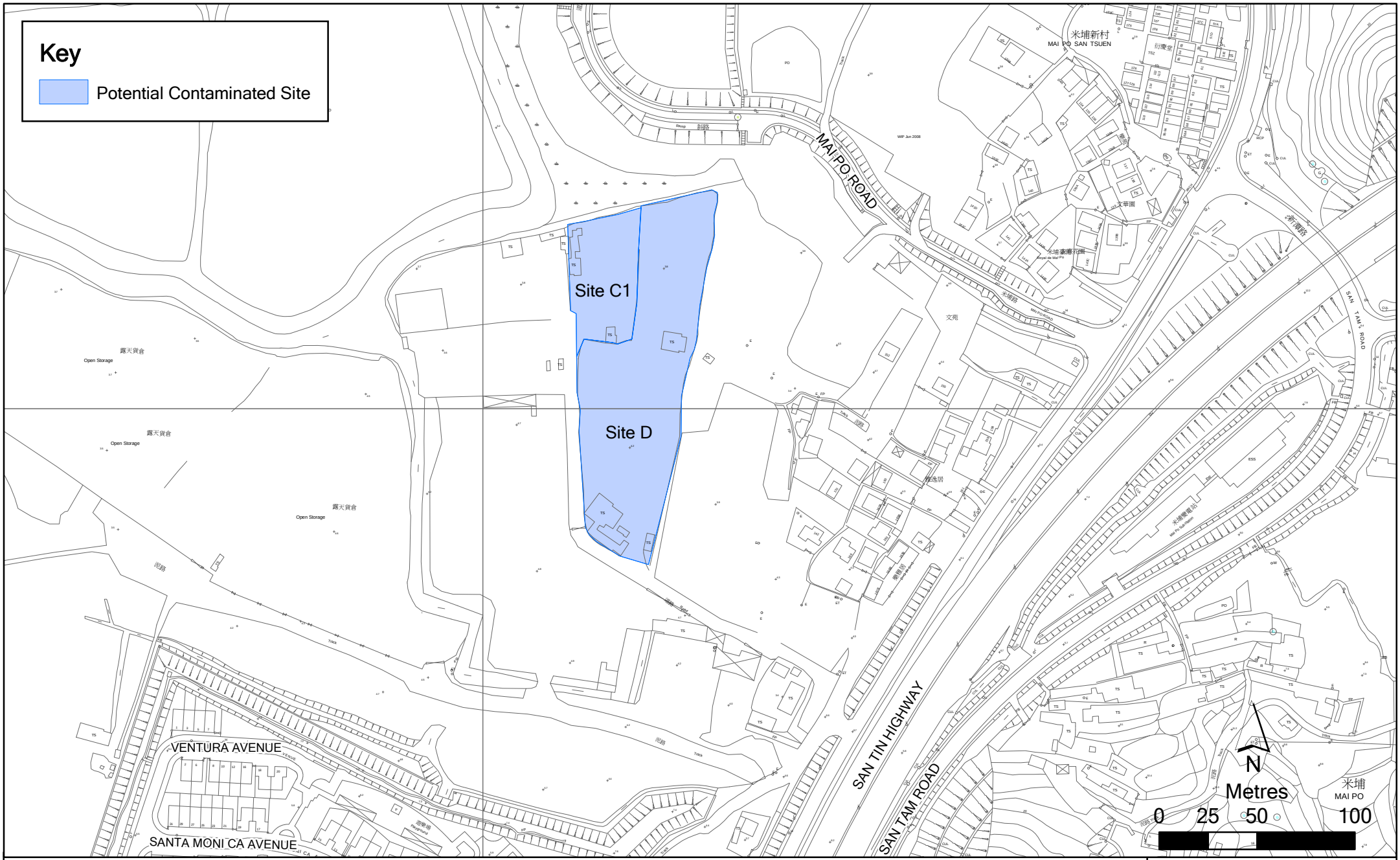


Figure 1.1

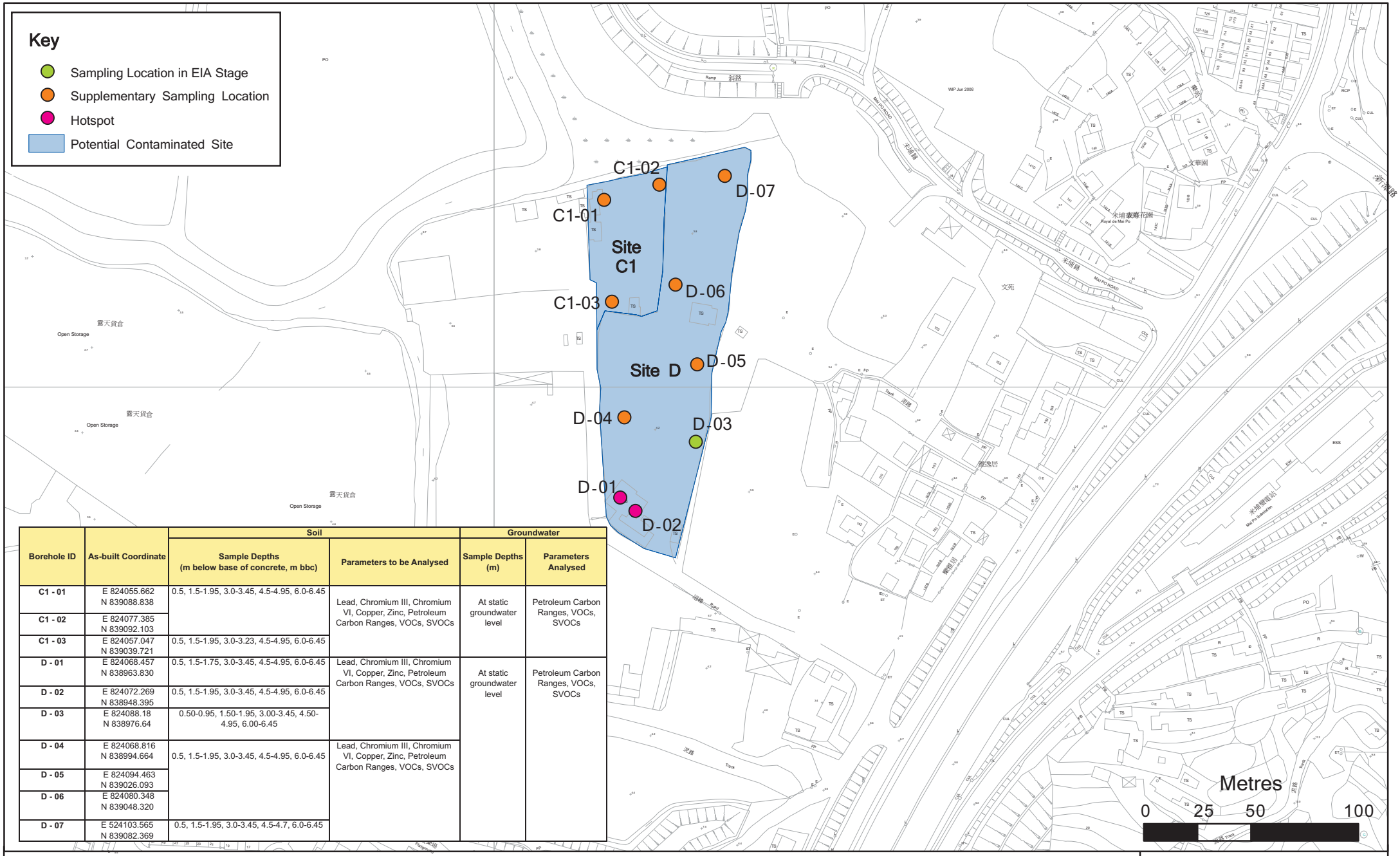
Site Layout Plan

The Express Rail Link Contract 825 - Mai Po Ventilation Building Works (XRL825)

File: 0119286_Site Layout Plan.mxd
Date: 28/12/2010

Environmental Resources Management

ERM



Borehole ID	As-built Coordinate	Soil		Groundwater	
		Sample Depths (m below base of concrete, m bbc)	Parameters to be Analysed	Sample Depths (m)	Parameters Analysed
C1 - 01	E 824055.662 N 839088.838	0.5, 1.5-1.95, 3.0-3.45, 4.5-4.95, 6.0-6.45	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level	Petroleum Carbon Ranges, VOCs, SVOCs
C1 - 02	E 824077.385 N 839092.103				
C1 - 03	E 824057.047 N 839039.721	0.5, 1.5-1.95, 3.0-3.23, 4.5-4.95, 6.0-6.45			
D - 01	E 824068.457 N 838963.830	0.5, 1.5-1.75, 3.0-3.45, 4.5-4.95, 6.0-6.45	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level	Petroleum Carbon Ranges, VOCs, SVOCs
D - 02	E 824072.269 N 838948.395	0.5, 1.5-1.95, 3.0-3.45, 4.5-4.95, 6.0-6.45			
D - 03	E 824088.18 N 838976.64	0.50-0.95, 1.50-1.95, 3.00-3.45, 4.50-4.95, 6.00-6.45			
D - 04	E 824068.816 N 838994.664	0.5, 1.5-1.95, 3.0-3.45, 4.5-4.95, 6.0-6.45	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs		
D - 05	E 824094.463 N 839026.093				
D - 06	E 824080.348 N 839048.320				
D - 07	E 524103.565 N 839082.369	0.5, 1.5-1.95, 3.0-3.45, 4.5-4.7, 6.0-6.45			

Figure 1.2

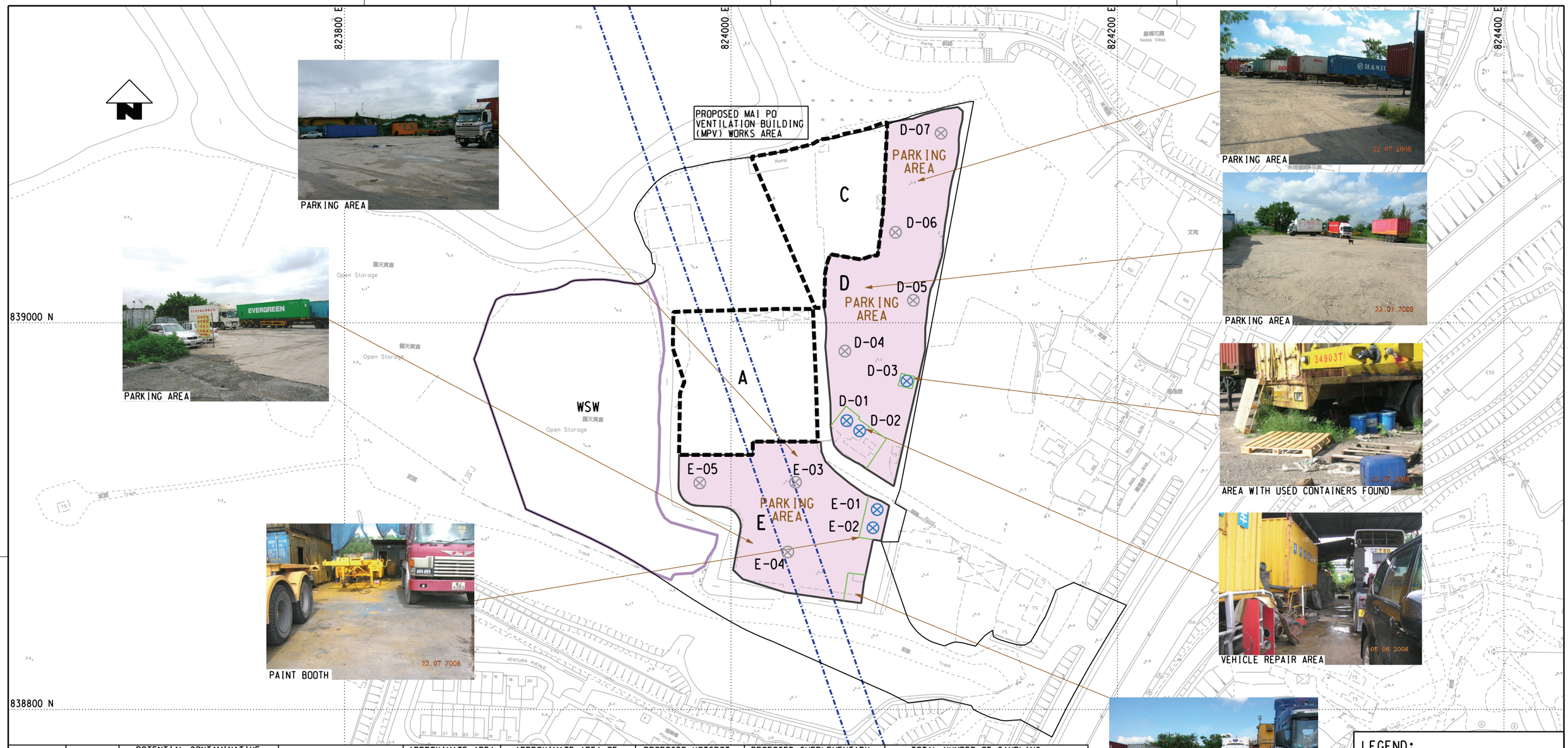
Hotspots and Supplementary Site Investigation Locations at Site C1 and D

The Express Rail Link Contract 825 - Mai Po Ventilation Building Works (XRL825)

File: 0119286 g1
Date: 06/12/2011

Environmental Resources Management

ERM



LOCATION	SITE ID	POTENTIAL CONTAMINATIVE LAND USES IDENTIFIED	HOTSPOTS OBSERVED	APPROXIMATE AREA OF THE SITE	APPROXIMATE AREA OF CONTAMINATIVE ACTIVITIES	PROPOSED HOTSPOT SAMPLING LOCATION(S)	PROPOSED SUPPLEMENTARY SITE SAMPLING LOCATION(S)	TOTAL NUMBER OF SAMPLING POINT(S) PROPOSED WITHIN THE SITE
MPV	A	SUSPECTED RECYCLING INDUSTRY	NA	5000m²*	NA	NA	NA	0-15**
	C	SUSPECTED CONTAINER TRUCK PARKING AREA WITH REPAIR/ MAINTENANCE ACTIVITIES	NA	3000m²*	NA	NA	NA	0-9**
	D	CONTAINER TRUCK PARKING AREA WITH MINOR REPAIR/ MAINTENANCE ACTIVITIES	VEHICLE REPAIR AREA CONTAINER DUMPING AREA	7500m²	150m²	3	4	7
	E	CONTAINER TRUCK PARKING AREA WITH CAR WASH AND PAINT BOOTH	PAINT BOOTH	6000m²	150m²	2	3	5

NOTES:

1. IN SITES D AND E, AREAS OUTSIDE MARKED ACTIVITIES WERE USED FOR PARKING.
2. THE LAYOUTS ARE NOT TO SCALE.

* SINCE THE SITE IS INACCESSIBLE / INFEASIBLE FOR INSPECTION, THE AREA OF CONTAMINATIVE ACTIVITIES ARE CONSIDERED TO BE THE SAME AS THE AREA OF THE SITE. IF HOTSPOTS ARE IDENTIFIED IN THE LATER STAGE, THE AREA OF CONTAMINATIVE ACTIVITIES WOULD BE CHANGED.

** THE NUMBER OF SAMPLING POINTS IS PROPOSED WITH REFERENCE TO THE "GUIDANCE NOTES FOR INVESTIGATION AND REMEDIATION OF CONTAMINATED SITES OF PETROL FILLING STATIONS, BOATYARDS AND CAR REPAIR / DISMANTLING WORKSHOP". IN CASE THE SITE IS ACCESSIBLE IN LATER STAGE, THE NUMBER OF SAMPLING POINTS WOULD BE SUBJECTED TO CHANGE UPON EPD'S AGREEMENT.

LEGEND:

- CONSTRUCTION WORKS SITES BOUNDARY
- BOUNDARY OF USAGE
- PROPOSED ALIGNMENT
- POTENTIAL CONTAMINATED SITE
- AREA ASSESSED UNDER WSW - EIA (AEIAR - 120/2008)
- INACCESSIBLE SITE FOR INSPECTION
- PROPOSED HOTSPOT SAMPLING LOCATION
- PROPOSED SUPPLEMENTARY SAMPLING LOCATION

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	LC
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	26/JUL/2008

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
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CADD REF. NOL_ERL_300_C_XRL_ENS_M57_013C.dgn

TITLE

NOL / ERL-300
ENVIRONMENTAL INPACT ASSESSMENT
PROPOSED SI LOCATIONS AT POTENTIAL CONTAMINATED SITES - MPV

SCALE 1 : 2000 (A3) | FIGURE NO. NOL/ERL/300/C/XRL/ENS/M57/013 | REV. C

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Annex B

Borehole Logs and Site Photographs

CITY GEOTECHNICAL ENGINEERING LTD

Site Investigation Works

for

Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels,
Land Contamination Assessment for Site D and C1

Survey Records

Drillhole No.	Easting (m)	Northing (m)	Level (m.P.D.)
C1-01	824055.662	839088.838	+3.371
C1-02	824077.385	839092.103	+3.366
C1-03	824057.047	839039.721	+3.697
D01	824068.457	838963.830	+3.902
D02	824072.269	838948.395	+4.052
D04	824068.816	838994.664	+3.802
D05	824094.463	839026.093	+3.614
D06	824080.348	839048.320	+3.756
D07	824103.565	839082.369	+3.469

Drillhole Log

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: C1-01 SHEET: 1 OF 1 DATE: 7/10/10 TO 8/10/10

PROJECT: Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD: ROTARY	CO-ORDINATES E 824055.662 N 839088.838	ROCK COREBIT: N/A
MACHINE & NO.: XY-2B, SF05		HOLE DIA.: HX
FLUSHING MEDIUM: DRY DRILL	ORIENTATION: VERTICAL	GROUND LEVEL: +3.371 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
7/10	Hx											+3.371	0.00				Loose, light black, silty SAND with some fine to medium gravels. (FILL)
									A	●	0.50	+2.871	0.50				
									B	●	1.00	+2.371	1.00				Loose, grey, silty SAND. (FILL)
				100				5 blows	1	▮	1.50						Soft, black, CLAY. (POND DEPOSIT)
									2	●	1.95						
7/10				100				8 blows	3	▮	3.00						
8/10									4	●	3.45						
												-1.129	4.50				Soft, light grey, silty CLAY. (ALLUVIUM)
				100				10 blows	5	▮	4.50						
									6	●	4.95						
8/10	Hx 6.45			100				14 blows	7	▮	6.00						
									8	●	6.45	-3.079	6.45				End of the hole at 6.45m.

- ● Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- P/S Piston sample
- Water sample
- Water table
- Standard penetration test
- Permeability test
- Piezometer tip
- Standpipe

LOGGED: LKM
DATE: 11/10/10
CHECKED: AW
DATE: 12/10/10

REMARKS
1. An inspection pit was excavated by hand to a depth of 1.20m.
2. A standpipe was installed at depth of 4.00m.

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: C1-02 SHEET: 1 OF 1 DATE: 6/10/10 TO 6/10/10

PROJECT: Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD: ROTARY	CO-ORDINATES E 824077.385 N 839092.103	ROCK COREBIT: N/A
MACHINE & NO.: XY-2B, SF05		HOLE DIA.: HX
FLUSHING MEDIUM: DRY DRILL	ORIENTATION: VERTICAL	GROUND LEVEL: +3.366 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
6/10	Hx											+3.366	0.00				Loose, brownish grey & dark grey, silty SAND with some fine to medium gravels. (FILL)
									A	•	0.50						
									B	•	1.00	+2.366	1.00				Soft, black, CLAY. (POND DEPOSIT)
				100				6 blows	1	▮	1.50						
									2	•	1.95						
				100				9 blows	3	▮	3.00						
									4	•	3.45						
													4.50				Soft, light grey, clayey SILT. (ALLUVIUM)
				100				12 blows	5	▮	4.50	-1.134					
									6	•	4.95						
				100				13 blows	7	▮	6.00						
6/10	Hx 6.45								8	•	6.45	-3.084	6.45				End of the hole at 6.45m.

- • Small disturbed sample
- Large disturbed sample
- SPT liner sample
- U76 undisturbed sample
- U100 undisturbed sample
- Mazier sample
- P/S Piston sample
- Water sample
- Water table
- Standard penetration test
- Permeability test
- Piezometer tip
- Standpipe

LOGGED: LKM
DATE: 7/10/10
CHECKED: AW
DATE: 7/10/10

REMARKS
1. An inspection pit was excavated by hand to a depth of 1.20m.
2. A standpipe was installed at depth of 4.00m.

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: C1-03 SHEET: 1 OF 1 DATE: 8/10/10 TO 8/10/10

PROJECT: Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD: ROTARY	CO-ORDINATES E 824057.047 N 839039.721	ROCK COREBIT: N/A
MACHINE & NO.: XY-2B, SF05		HOLE DIA.: HX
FLUSHING MEDIUM: DRY DRILL	ORIENTATION: VERTICAL	GROUND LEVEL: +3.697 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
8/10	Hx											+3.697	0.00				Loose, light black, silty SAND with some fine gravels. (FILL)
									A	●	0.50						
									B	●	1.00	+2.697	1.00				Soft, black, sandy CLAY. (POND DEPOSIT)
				100				7 blows	1	▮	1.50						
									2	●	1.95						
				100				10 blows	3	▮	3.00						
									4	●	3.45						
				100				12 blows	5	▮	4.50	-0.803	4.50				Soft, light black, CLAY. (POND DEPOSIT)
									6	●	4.95						
				100				15 blows	7	▮	6.00	-2.303	6.00				Soft, reddish grey & light grey, clayey SILT. (ALLUVIUM)
8/10	Hx 6.45								8	●	6.45	-2.753	6.45				End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample	LOGGED LKM	REMARKS
‡ Large disturbed sample	▽ Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
▯ SPT liner sample	↓ Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
▮ U75 undisturbed sample	◉ Permeability test	DATE 12/10/10	
■ U100 undisturbed sample	▲ Piezometer tip		
▨ Mazier sample	△ Standpipe		
P/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: D01 SHEET: 1 OF 1 DATE: 8/10/10 TO 9/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES E 824068.457 N 838963.830	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF05		HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +3.902 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
8/10	Hx											+3.902	0.00				Loose, grey, silty SAND with some fine gravels. (FILL)
									A	●	0.50	+3.402	0.50				Soft, black, clayey SILT. (POND DEPOSIT)
									B	●	1.00						
				100				7 blows	1	▮	1.50						
									2	●	1.95						
8/10													3.00				
9/10				100				6 blows	3	▮	3.00	+0.902					Soft, light black, CLAY. (POND DEPOSIT)
									4	●	3.45						
													4.50				
				100				12 blows	5	▮	4.50	-0.598					Soft, reddish grey & light grey, CLAY. (ALLUVIUM)
									6	●	4.95						
													6.00				
				100				13 blows	7	▮	6.00	-2.098					Soft, yellowish grey & light grey, SILT. (ALLUVIUM)
9/10	Hx 6.45								8	●	6.45	-2.548	6.45				
																	End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample	LOGGED LKM	REMARKS
↕ Large disturbed sample	▼ Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
▯ SPT liner sample	↓ Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
▮ U76 undisturbed sample	Permeability test	DATE 12/10/10	
■ U100 undisturbed sample	Piezometer tip		
▨ Mazier sample	Standpipe		
P/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: D02 SHEET: 1 OF 1 DATE: 9/10/10 TO 9/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES E 824072.269 N 838948.395	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF01		HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +4.052 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
9/10	Hx											+4.052	0.00				Very loose, grey, silty SAND. (FILL)
									A	●	0.50	+3.552	0.50				Very loose, yellowish grey & grey, silty SAND. (FILL)
									B	●	1.00	+3.052	1.00				Very soft, light black, silty CLAY. (POND DEPOSIT)
				100				4 blows	1	▮	1.50						
									2	●	1.95						
				100				4 blows	3	▮	3.00						
									4	●	3.45						
				100				4 blows	5	▮	4.50						
									6	●	4.95						
													6.00				
				100				7 blows	7	▮	6.00	-1.948					Soft, reddish grey & light grey, silty CLAY. (ALLUVIUM)
9/10	Hx 6.45								8	●	6.45	-2.398	6.45				End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample	LOGGED LKM	REMARKS
↕ Large disturbed sample	▼ Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
▯ SPT liner sample	↓ Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
▮ U76 undisturbed sample	⊥ Permeability test	DATE 12/10/10	
■ U100 undisturbed sample	▲ Piezometer tip		
▨ Mazier sample	⊥ Standpipe		
P/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: D04 SHEET: 1 OF 1 DATE: 8/10/10 TO 8/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF01	E 824068.816 N 838994.664	HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +3.802 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
8/10	Hx											+3.802	0.00				Very loose, grey, silty SAND with some fine gravels. (FILL)
									A	●	0.50	+3.302	0.50				
									B	●	1.00	+2.802	1.00				Very loose, yellowish grey, silty SAND. (FILL)
				100				4 blows	1	▮	1.50						Very soft, light black, CLAY. (POND DEPOSIT)
									2	●	1.95						
				100				4 blows	3	▮	3.00						
									4	●	3.45						
				100				4 blows	5	▮	4.50						
									6	●	4.95						
				100				5 blows	7	▮	6.00						
8/10	Hx 6.45								8	●	6.45	-2.648	6.45				End of the hole at 6.45m.

Small disturbed sample	Water sample	LOGGED LKM	REMARKS
Large disturbed sample	Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
SPT liner sample	Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
U76 undisturbed sample	Permeability test	DATE 12/10/10	
U100 undisturbed sample	Piezometer tip		
Mazier sample	Standpipe		
P/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: D05 SHEET: 1 OF 1 DATE: 8/10/10 TO 8/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF01	E 824094.463 N 839026.093	HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +3.614 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
8/10	Hx											+3.614	0.00				Very loose, grey, silty SAND with some fine gravels. (FILL)
									A	●	0.50	+3.114	0.50				
									B	●	1.00	+2.614	1.00				Very loose, yellowish grey & grey, silty SAND. (FILL)
								4 blows	1	▮	1.50	+2.114	1.50				Very soft, reddish light black, silty CLAY. (POND DEPOSIT)
				100					2	●	1.95						Soft, reddish grey & light grey, silty CLAY. (ALLUVIUM)
				100				5 blows	3	▮	3.00						
									4	●	3.45						
				100				6 blows	5	▮	4.50						
									6	●	4.95						
				100				9 blows	7	▮	6.00						
8/10	Hx 6.45								8	●	6.45	-2.836	6.45				End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample	LOGGED LKM	REMARKS
↕ Large disturbed sample	▼ Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
SPT liner sample	↓ Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
U76 undisturbed sample	Permeability test	DATE 12/10/10	
U100 undisturbed sample	Piezometer tip		
Mazier sample	Standpipe		
F/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO.: C682 HOLE NO.: D06 SHEET: 1 OF 1 DATE: 7/10/10 TO 7/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF01	E 824080.348 N 839048.320	HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +3.756 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
7/10	Hx											+3.756	0.00				Very loose, grey, silty SAND with some fine gravels. (FILL)
									A	●	0.50	+3.256	0.50				
									B	●	1.00						Very loose, yellowish grey & grey, silty SAND. (FILL)
													1.50				
				100				4 blows	1	▮	1.50	+2.256					Soft, reddish grey & light grey, clayey SILT. (ALLUVIUM)
									2	●	1.95						
				100				6 blows	3	▮	3.00						
									4	●	3.45						
				100				6 blows	5	▮	4.50						
									6	●	4.95						
													6.00				Loose, light grey, clayey silty SAND with some fine quartz gravels. (ALLUVIUM)
				100				7 blows	7	▮	6.00	-2.244					
7/10	Hx 6.45								8	●	6.45	-2.694	6.45				
																	End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample	LOGGED LKM	REMARKS
↕ Large disturbed sample	▼ Water table	DATE 11/10/10	1. An inspection pit was excavated by hand to a depth of 1.20m.
▯ SPT liner sample	↓ Standard penetration test	CHECKED AW	2. A standpipe was installed at depth of 4.00m.
▮ U76 undisturbed sample	Permeability test	DATE 12/10/10	
■ U100 undisturbed sample	Piezometer tip		
▨ Mazier sample	Standpipe		
P/S Piston sample			

CITY GEOTECHNICAL ENGINEERING LTD.	DRILLHOLE RECORD	JOB NO. : C682 HOLE NO. : D07 SHEET : 1 OF 1 DATE : 6/10/10 TO 6/10/10

PROJECT : Express Rail Link, Contract 825, Mai Po to Ngau Tam Mei Tunnels, Land Contamination Assessment for Site D and C1

METHOD : ROTARY	CO-ORDINATES E 824103.565 N 839082.369	ROCK COREBIT : N/A
MACHINE & NO. : XY-2B, SF01		HOLE DIA. : HX
FLUSHING MEDIUM : DRY DRILL	ORIENTATION : VERTICAL	GROUND LEVEL : +3.469 mPD.

Drilling Progress	Casing Depth/Size	Water Level/Time	Water Recovery %	Total Core Recovery %	Solid Core Recovery %	R. Q. D.	Fracture Index	Tests	Samples No.	Type	Depth	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
6/10	Hx											+3.469	0.00				Very loose, yellowish grey & grey, slightly clayey silty SAND. (FILL)
									A	●	0.50						
									B	●	1.00						
				100				4 blows	1	▮	1.50						
									2	●	1.95						
				100				4 blows	3	▮	3.00						
									4	●	3.45						
													4.50				
				100				4 blows	5	▮	4.50	-1.031					Very soft, reddish grey & light grey, CLAY. (ALLUVIUM)
									6	●	4.95						
													6.00				
				100				5 blows	7	▮	6.00	-2.531					Loose, light grey, silty SAND. (ALLUVIUM)
6/10	Hx 6.45								8	●	6.45	-2.981	6.45				
																	End of the hole at 6.45m.

● Small disturbed sample	▲ Water sample
↕ Large disturbed sample	▼ Water table
▯ SPT liner sample	↓ Standard penetration test
▮ U76 undisturbed sample	Permeability test
■ U100 undisturbed sample	Piezometer tip
▨ Mazier sample	Standpipe
P/S Piston sample	

LOGGED LKM
DATE 7/10/10
CHECKED AW
DATE 7/10/10

REMARKS
1. An inspection pit was excavated by hand to a depth of 1.20m.
2. A standpipe was installed at depth of 4.00m.

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.
GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDH40**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT **Contract NEX/2108 Ground Investigation Works for Express Rail Link**

METHOD	**Rotary Cored**	CO-ORDINATES **E 824088.18 N 838976.64**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO.	**DR113**		DATE FROM **24/10/2008** TO **24/10/2008**
FLUSHING MEDIUM	**Water**	ORIENTATION **Vertical**	GROUND LEVEL **+3.81** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 24/10/2008	HX	08:00							+3.81	0.00			Dark grey, silty fine to coarse SAND with occasional angular to subangular fine gravel sized quartz fragments and some fine to medium gravel sized moderately decomposed and slightly decomposed meta-sandstone fragments. (FILL)
			100					1, 2, 3 INSPECTION PIT	+3.31	0.50			
1										0.95			Firm, greyish brown mottled yellowish brown, reddish yellow and dark grey, organic, sandy clayey SILT with occasional angular to subangular fine gravel sized quartz fragments and occasional subangular to subrounded fine to medium gravel sized highly decomposed meta-siltstone fragments. (FILL with intense offensive smell)
			100					4, 5, 6, 7	+2.31	1.50			
2										1.95 2.00			
													Firm, dark greenish grey mottled brown, organic, slightly sandy clayey SILT. (LACUSTRINE DEPOSIT with intense offensive smell)
3									+0.81	3.00			
			100				7 bls	8, 9					Firm, greyish brown mottled light grey, yellow and red, sandy CLAY with occasional angular to subangular fine gravel sized quartz and highly decomposed meta-siltstone fragments. (ALLUVIUM)
4										3.45			
									-0.69	4.50			
			100				16 bls	10, 11					Light grey mottled yellow and red, very clayey/silty fine to coarse SAND with occasional angular to subangular fine to medium gravel sized quartz fragments. (ALLUVIUM)
5										4.95			
6									-2.19	6.00			
	HX	1.20m at 18:00	100				22 bls	12, 13					Firm, red mottled light grey and yellow, sandy clayey SILT with occasional angular to subangular fine gravel sized quartz fragments, (ALLUVIUM)
24/10/2008	6.45								-2.64	6.45			
													Hole completed at 6.45m.
7													
8													
9													
10													

- ● SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- △ WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	**D.Y. Yip**
DATE	**25/10/2008**
CHECKED	**James Lu**
DATE	**27/10/2008**

REMARKS
1. Seven bottles of water sample were taken at the depths of 6.45m.

Digging of inspection pits before drilling.	Drilling at sampling location C-02.
Drilling at sampling location D-02.	Decontamination of sampling tools.
Collection of soil samples from the U76 sampler.	Labelling of sampling bottles on site.
Field observation testing at groundwater well C-03.	Field observation testing at groundwater well D-05.

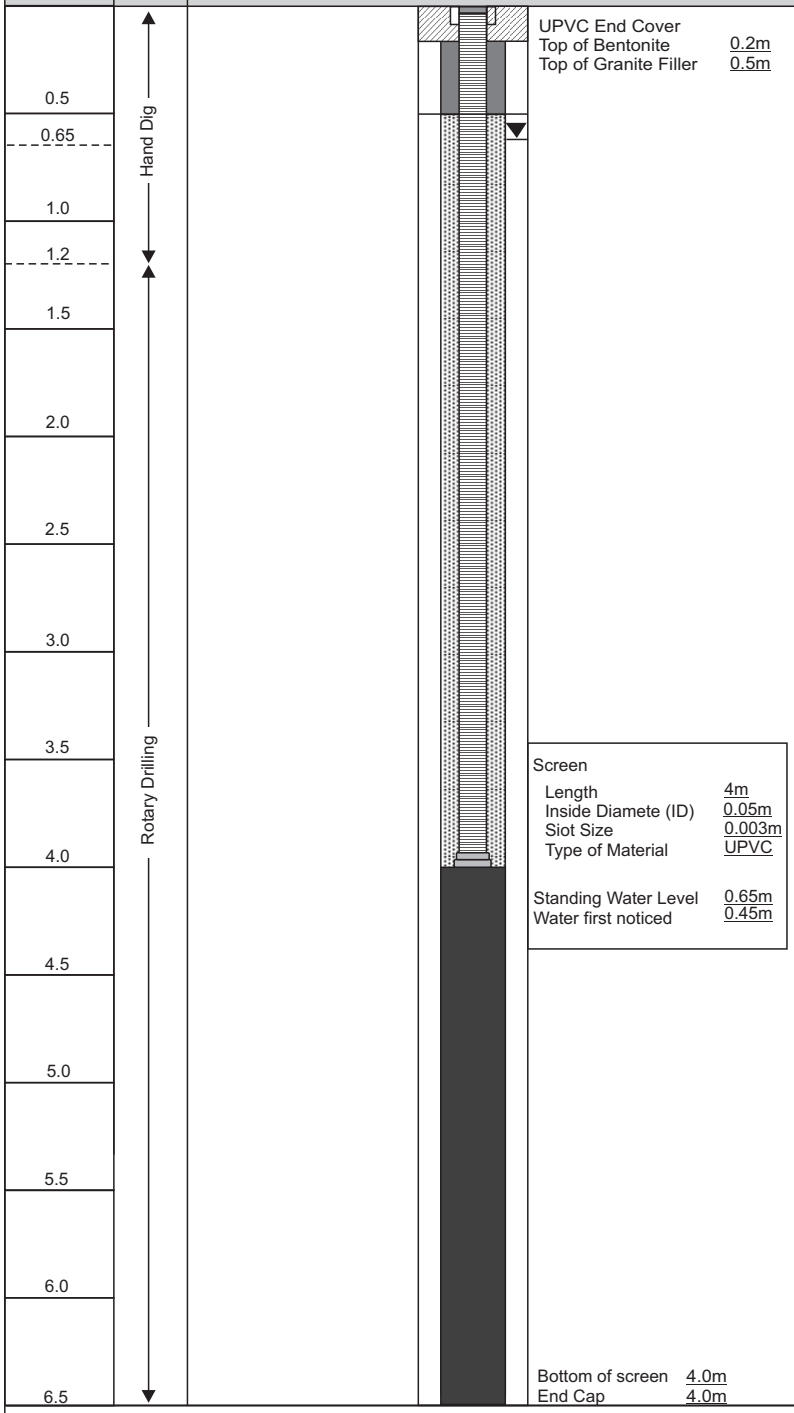
Annex C

Groundwater Monitoring Well Diagrams

Project Title : 825 SIR Site C1 & D
Coordinates : E824055.662, N839088.838
Ground Level Elevation: + 3.371 mPD

Hole No. : C1 - 01
Installation Date :08 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.45m

Annex C1

Groundwater Monitoring Well at C1-01

FILE: 0119286e
DATE: 26/01/2011

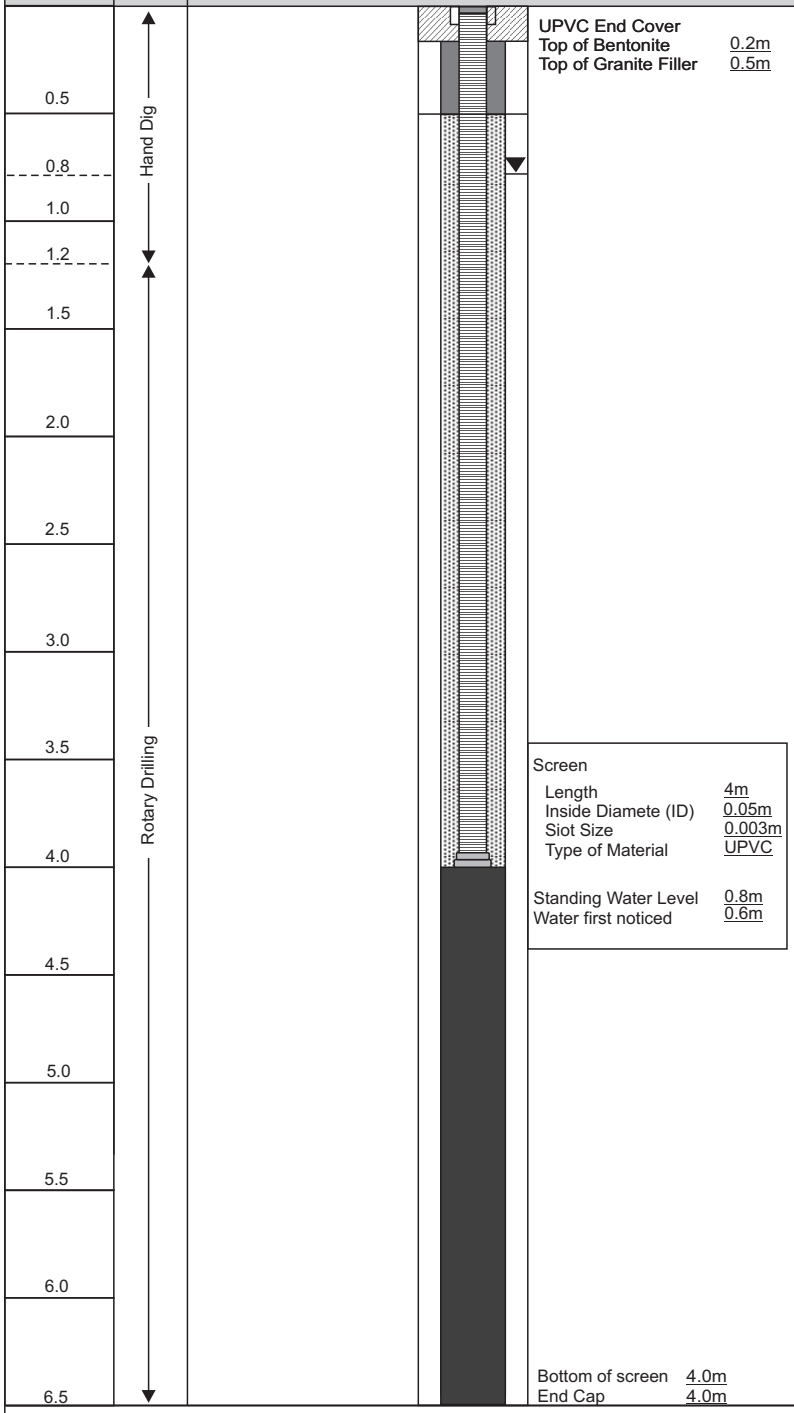
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824077.385, N839092.103
Ground Level Elevation: + 3.371 mPD

Hole No. : C1 - 02
Installation Date :06 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.6m

Annex C2

Groundwater Monitoring Well at C1-02

FILE: 0119286e1
DATE: 01/02/2011

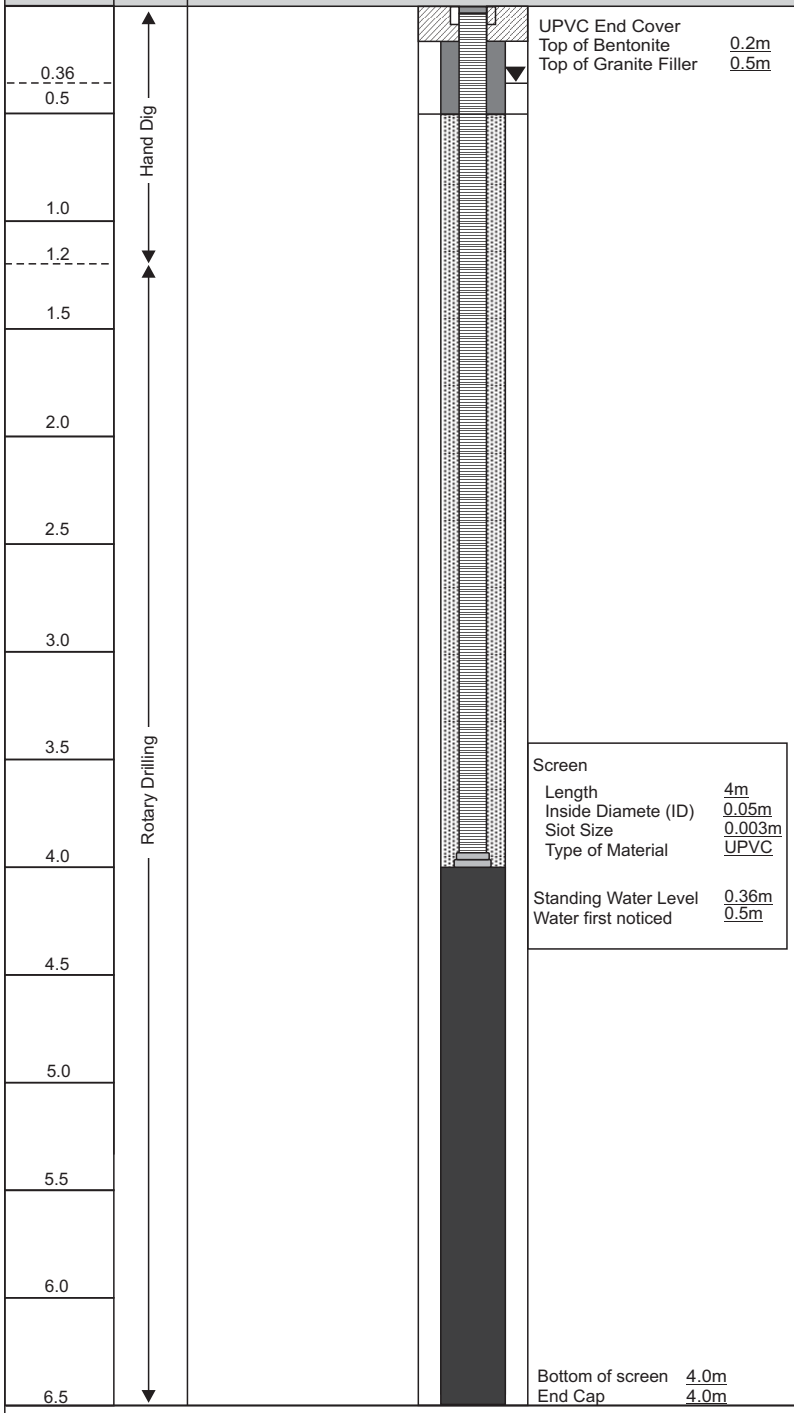
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824057.047, N839039.721
Ground Level Elevation: + 3.366 mPD

Hole No. : C1 - 03
Installation Date :06 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.5m

Annex C3

Groundwater Monitoring Well at C1-03

FILE: 0119286e2
DATE: 01/02/2011

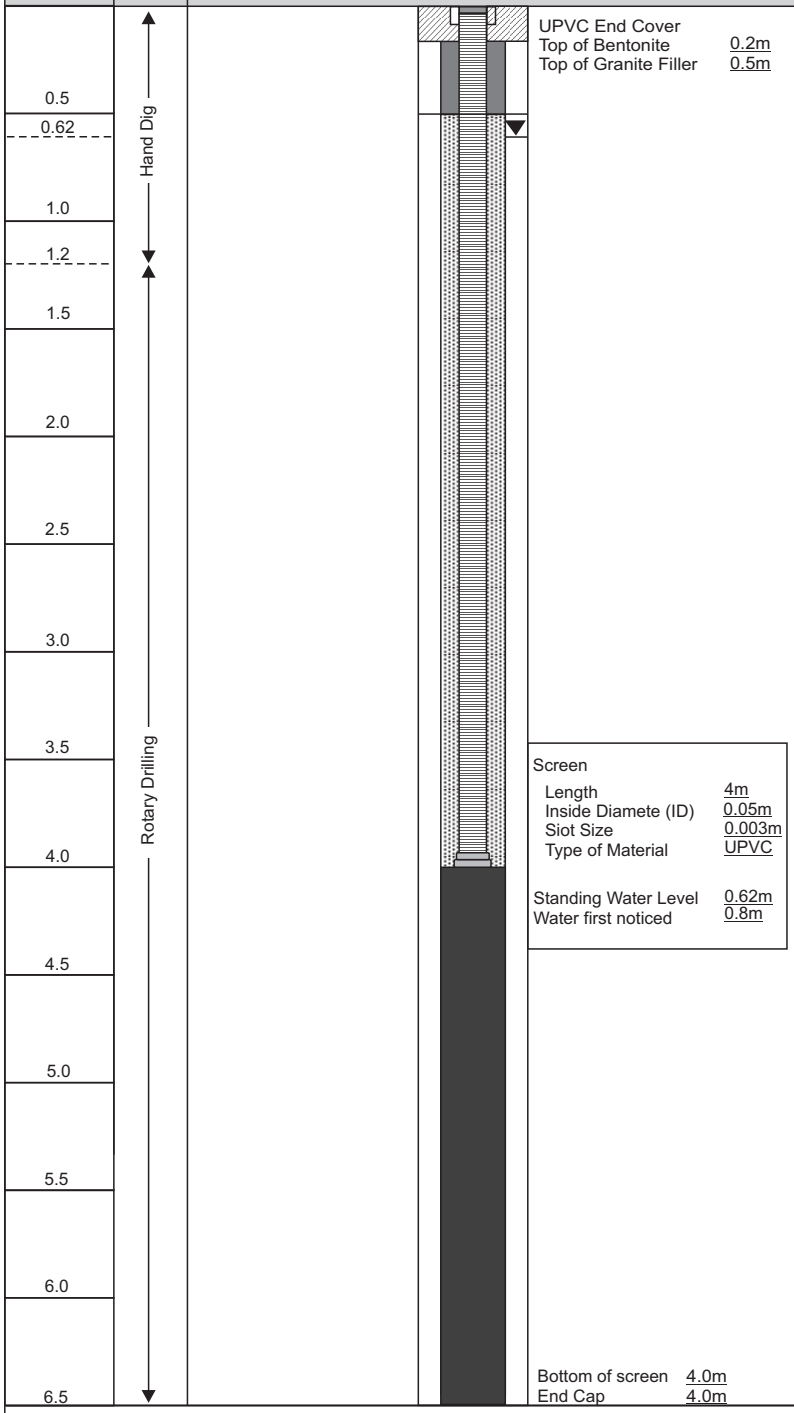
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824068.457, N838963.830
Ground Level Elevation: + 3.902 mPD

Hole No. : D - 01
Installation Date :09 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.8m

Annex C4

Groundwater Monitoring Well at D-01

FILE: 0119286e3
DATE: 01/02/2011

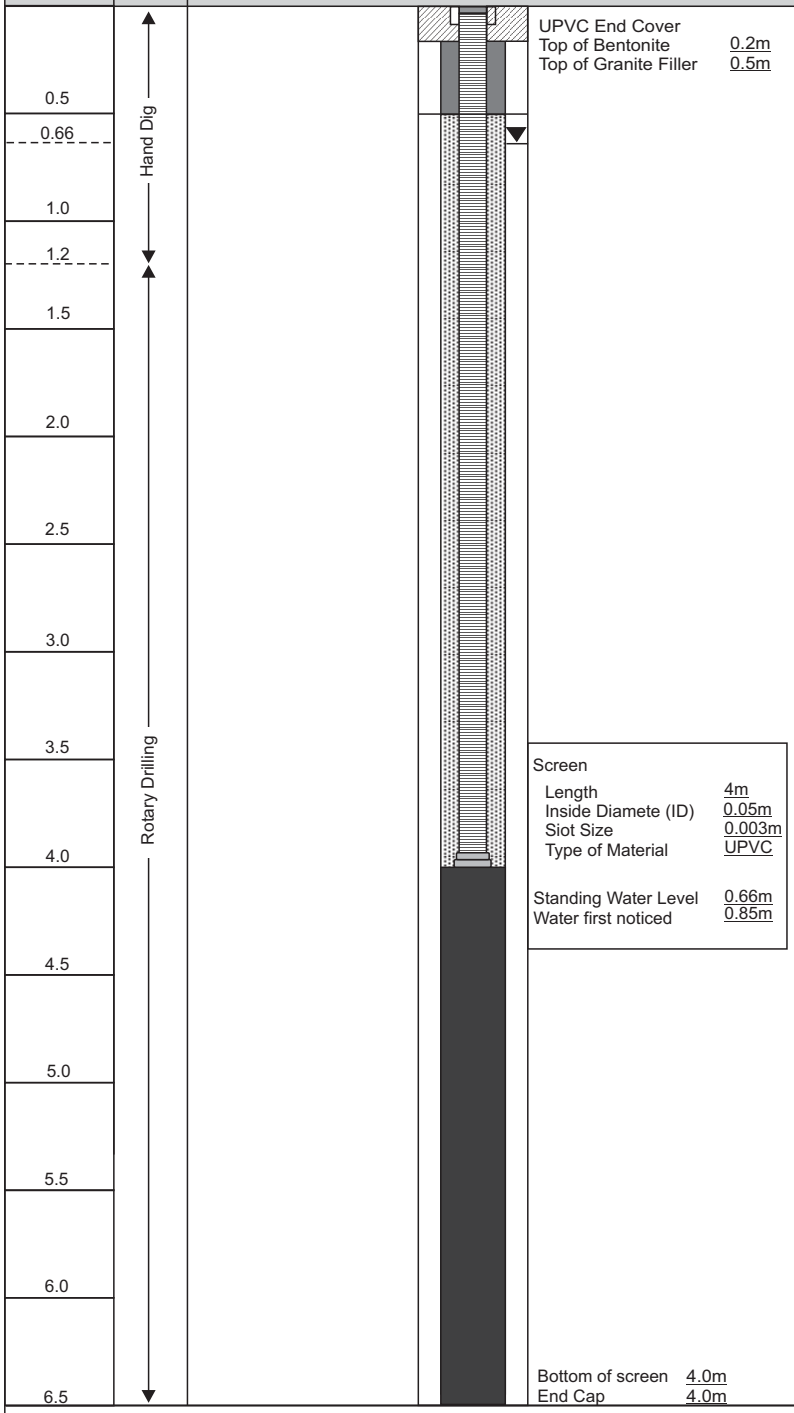
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824072.269, N838948.395
Ground Level Elevation: + 4.052 mPD

Hole No. : D - 02
Installation Date :09 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.85m

Annex C5

Groundwater Monitoring Well at D-02

FILE: 0119286e4
DATE: 01/02/2011

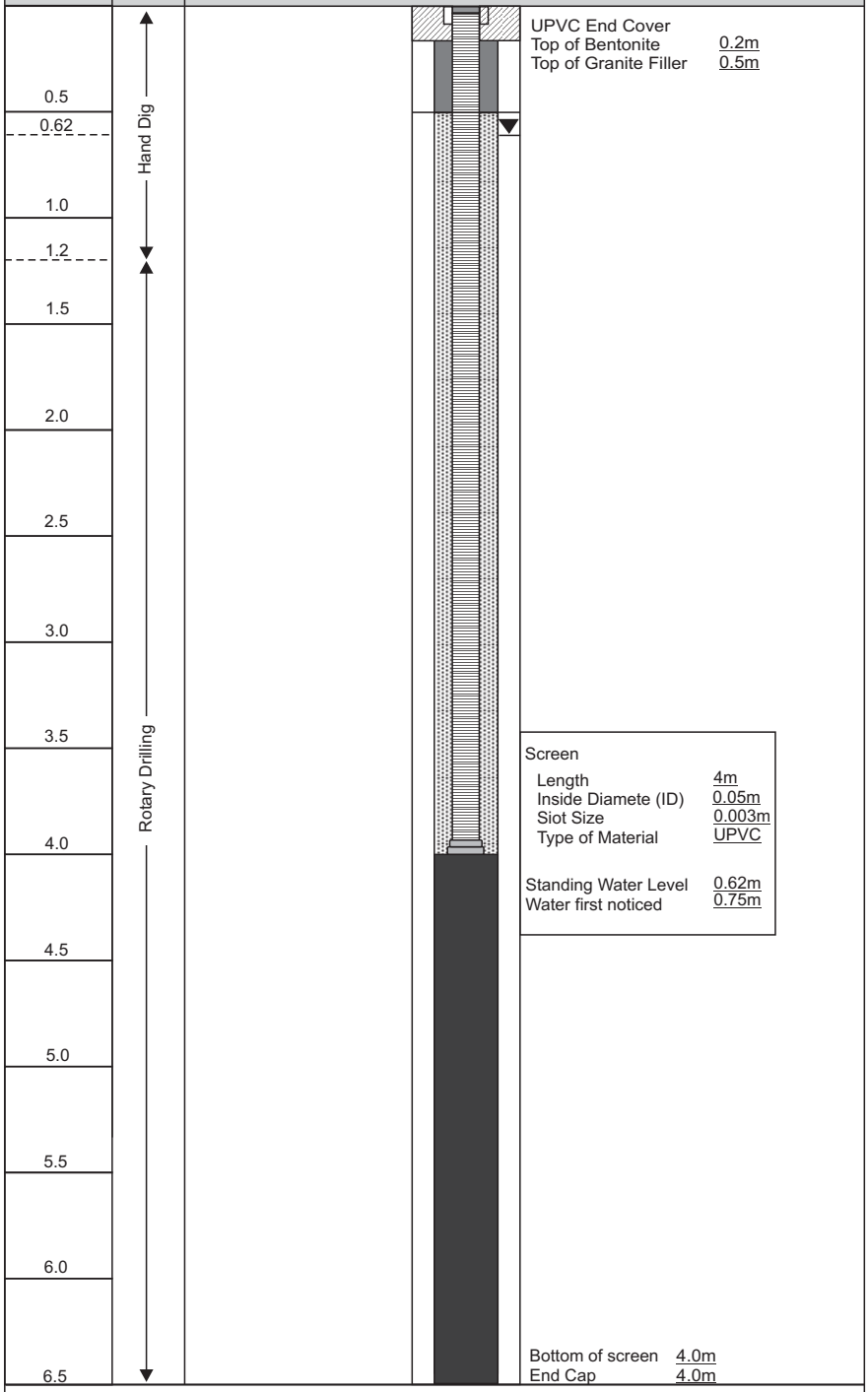
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824068.816, N838994.664
Ground Level Elevation: + 3.802 mPD

Hole No. : D - 04
Installation Date :08 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.75m

Annex C6

Groundwater Monitoring Well at D-04

FILE: 0119286e5
DATE: 01/02/2011

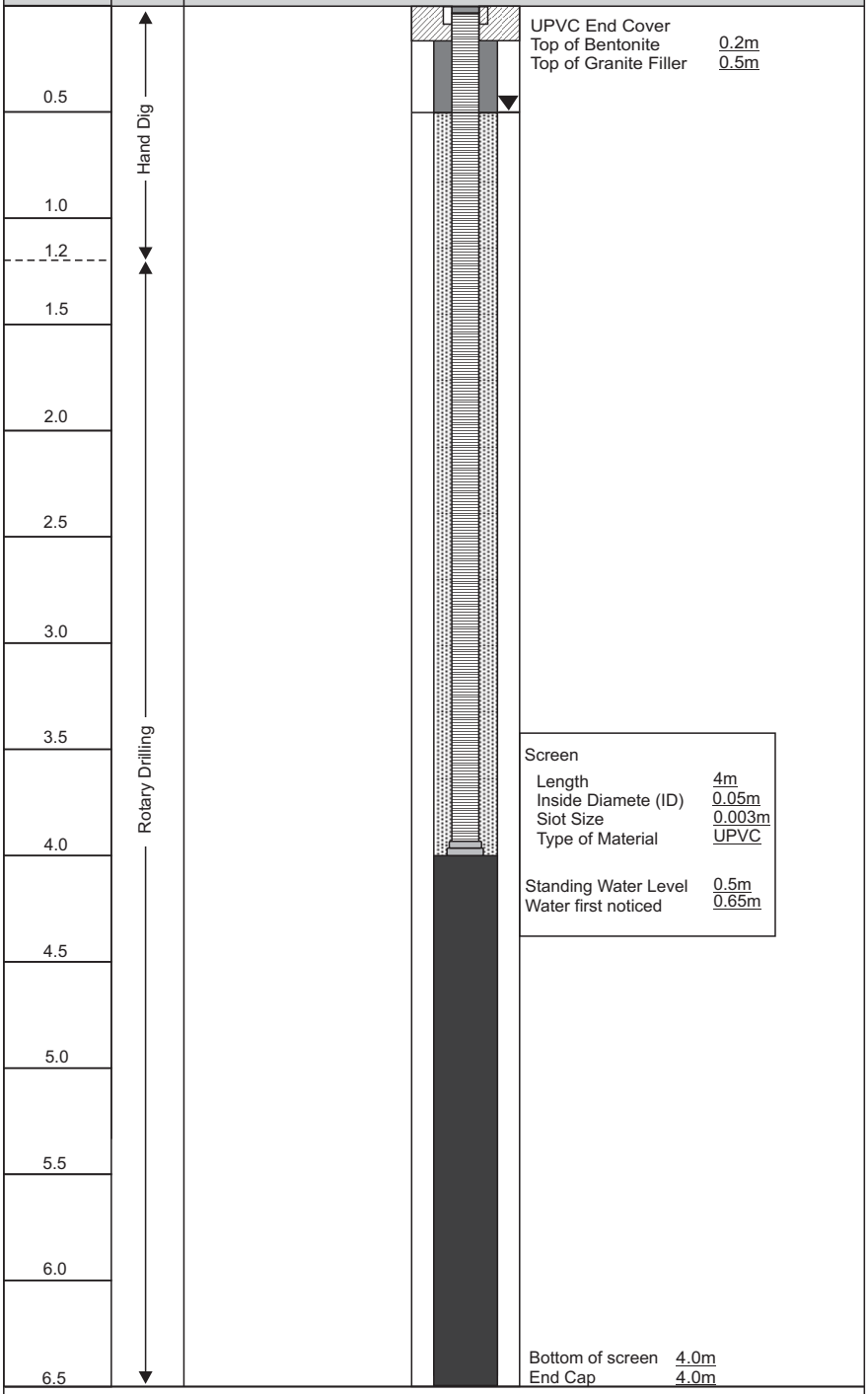
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824094.463, N839026.093
Ground Level Elevation: + 3.614 mPD

Hole No. : D - 05
Installation Date :08 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.65m

Annex C7

Groundwater Monitoring Well at D-05

FILE: 0119286e6
DATE: 01/02/2011

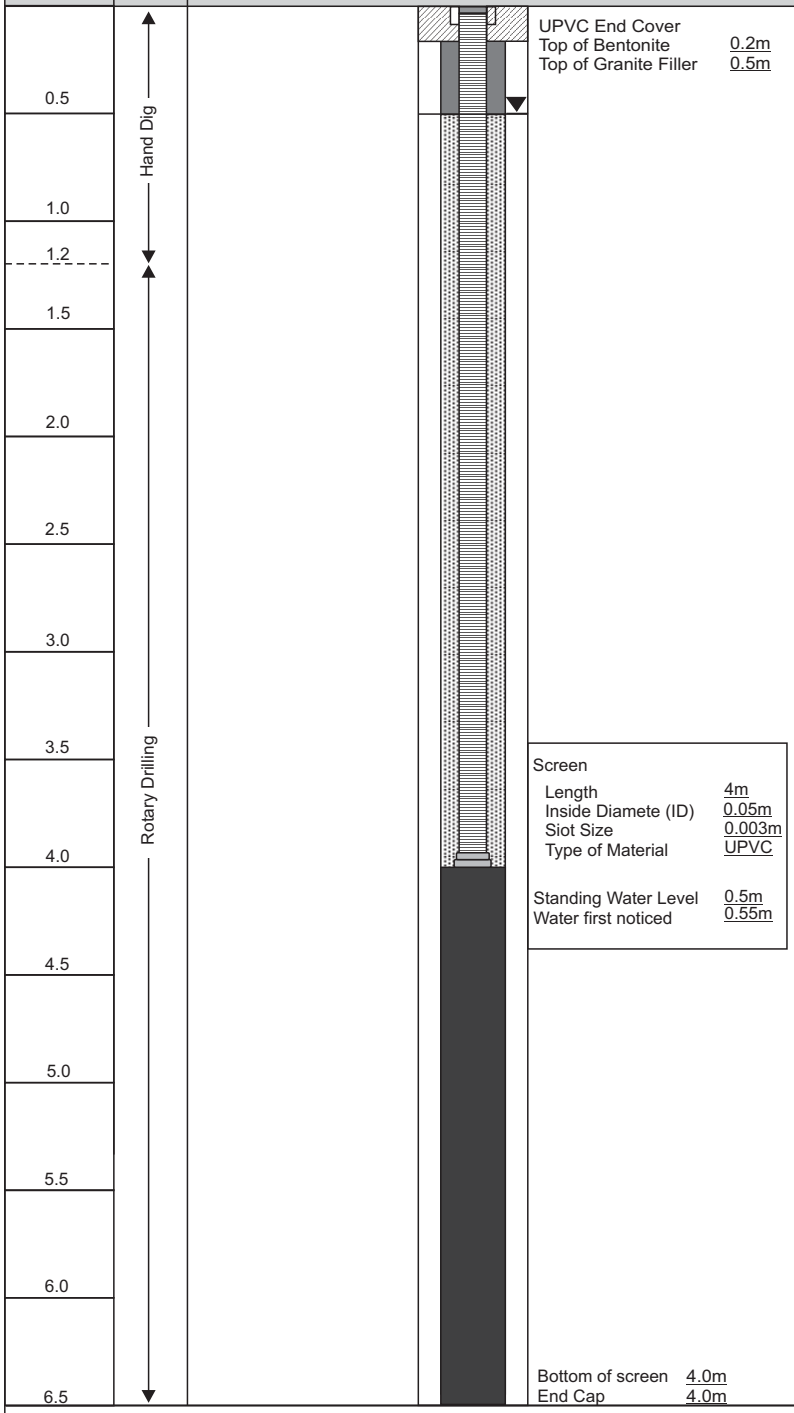
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824080.348, N839148.320
Ground Level Elevation: + 3.756 mPD

Hole No. : D - 06
Installation Date :07 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.55m

Annex C8

Groundwater Monitoring Well at D-06

FILE: 0119286e7
DATE: 01/02/2011

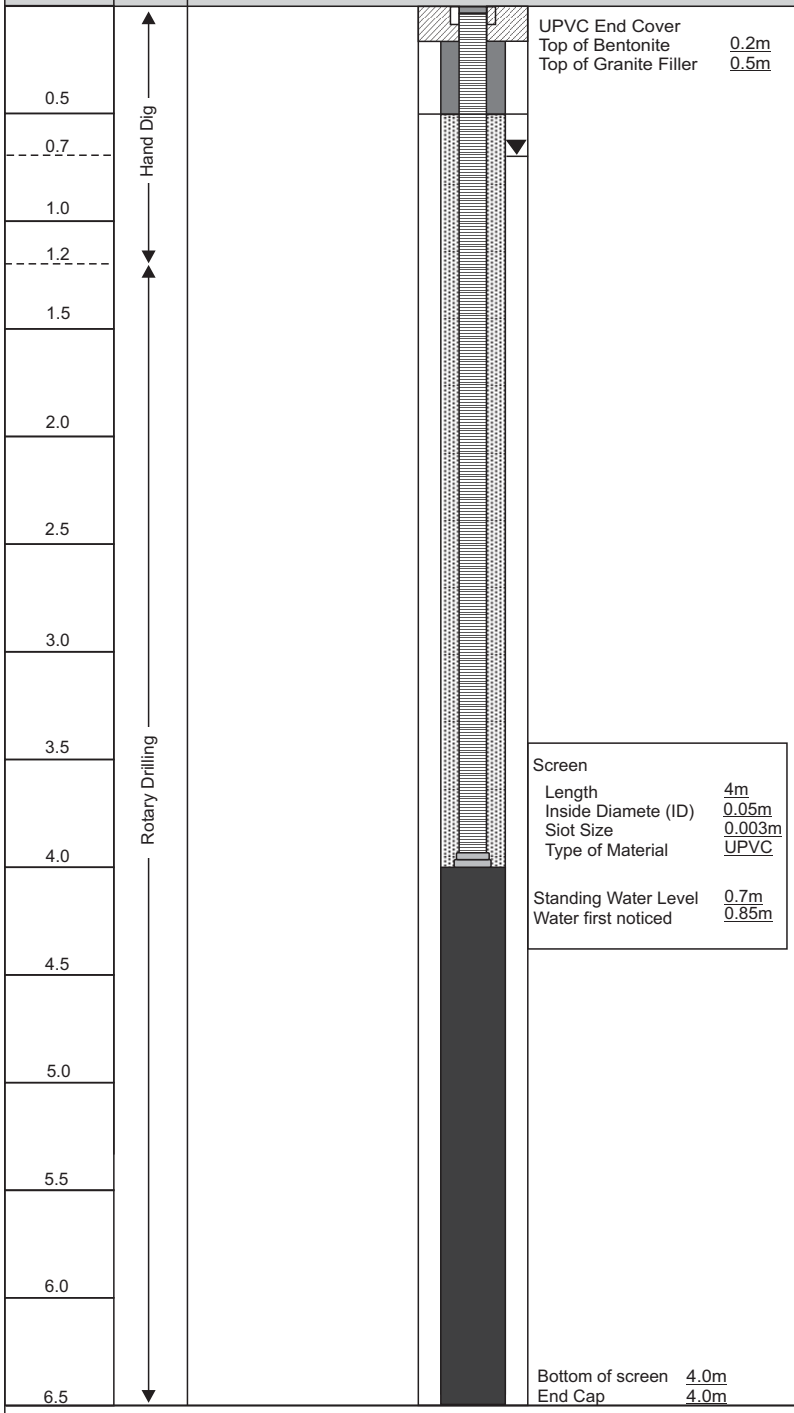
Environmental Resources Management

ERM

Project Title : 825 SIR Site C1 & D
Coordinates : E824103.565, N839082.369
Ground Level Elevation: + 3.469 mPD

Hole No. : D - 07
Installation Date :06 Oct 2010
Driller : City Geotechnical Engineering (HK) Ltd.

Depth (m)	Method	Well Diagram



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 4.0m
Screen: 0.0 to 4.0m
Granite Pack: 0.5 to 4.0m
Gravel Pack: 4.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 0.85m

Annex C9

Groundwater Monitoring Well at D-07

FILE: 0119286e8
DATE: 01/02/2011

Environmental Resources Management

ERM

Annex D

RBRGs for Soil and Groundwater

Table 2.1
Risk-Based Remediation Goals (RBRGs) for Soil & Soil Saturation Limit

Chemical	Risk-Based Remediation Goals for Soil				Soil Saturation Limit (C_{sat}) (mg/kg)
	Urban Residential (mg/kg)	Rural Residential (mg/kg)	Industrial (mg/kg)	Public Parks (mg/kg)	
VOCs					
Acetone	9.59E+03	4.26E+03	1.00E+04*	1.00E+04*	***
Benzene	7.04E-01	2.79E-01	9.21E+00	4.22E+01	3.36E+02
Bromodichloromethane	3.17E-01	1.29E-01	2.85E+00	1.34E+01	1.03E+03
2-Butanone	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	***
Chloroform	1.32E-01	5.29E-02	1.54E+00	2.53E+02	1.10E+03
Ethylbenzene	7.09E+02	2.98E+02	8.24E+03	1.00E+04*	1.38E+02
Methyl tert-Butyl Ether	6.88E+00	2.80E+00	7.01E+01	5.05E+02	2.38E+03
Methylene Chloride	1.30E+00	5.29E-01	1.39E+01	1.28E+02	9.21E+02
Styrene	3.22E+03	1.54E+03	1.00E+04*	1.00E+04*	4.97E+02
Tetrachloroethene	1.01E-01	4.44E-02	7.77E-01	1.84E+00	9.71E+01
Toluene	1.44E+03	7.05E+02	1.00E+04*	1.00E+04*	2.35E+02
Trichloroethene	5.23E-01	2.11E-01	5.68E+00	6.94E+01	4.88E+02
Xylenes (Total)	9.50E+01	3.68E+01	1.23E+03	1.00E+04*	1.50E+02
SVOCs					
Acenaphthene	3.51E+03	3.28E+03	1.00E+04*	1.00E+04*	6.02E+01
Acenaphthylene	2.34E+03	1.51E+03	1.00E+04*	1.00E+04*	1.98E+01
Anthracene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	2.56E+00
Benzo(a)anthracene	1.20E+01	1.14E+01	9.18E+01	3.83E+01	
Benzo(a)pyrene	1.20E+00	1.14E+00	9.18E+00	3.83E+00	
Benzo(b)fluoranthene	9.88E+00	1.01E+01	1.78E+01	2.04E+01	
Benzo(g,h,i)perylene	1.80E+03	1.71E+03	1.00E+04*	5.74E+03	
Benzo(k)fluoranthene	1.20E+02	1.14E+02	9.18E+02	3.83E+02	
bis-(2-Ethylhexyl)phthalate	3.00E+01	2.80E+01	9.18E+01	9.42E+01	
Chrysene	8.71E+02	9.19E+02	1.14E+03	1.54E+03	
Dibenzo(a,h)anthracene	1.20E+00	1.14E+00	9.18E+00	3.83E+00	
Fluoranthene	2.40E+03	2.27E+03	1.00E+04*	7.62E+03	
Fluorene	2.38E+03	2.25E+03	1.00E+04*	7.45E+03	5.47E+01
Hexachlorobenzene	2.43E-01	2.20E-01	5.82E-01	7.13E-01	
Indeno(1,2,3-cd)pyrene	1.20E+01	1.14E+01	9.18E+01	3.83E+01	
Naphthalene	1.82E+02	8.56E+01	4.53E+02	9.14E+02	1.25E+02
Phenanthrene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	2.80E+01
Phenol	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	7.26E+03
Pyrene	1.80E+03	1.71E+03	1.00E+04*	5.72E+03	
Metals					
Antimony	2.95E+01	2.91E+01	2.61E+02	9.79E+01	
Arsenic	2.21E+01	2.18E+01	1.96E+02	7.35E+01	
Barium	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Cadmium	7.38E+01	7.28E+01	6.53E+02	2.45E+02	
Chromium III	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Chromium VI	2.21E+02	2.18E+02	1.96E+03	7.35E+02	
Cobalt	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Copper	2.95E+03	2.91E+03	1.00E+04*	9.79E+03	
Lead	2.58E+02	2.55E+02	2.29E+03	8.57E+02	
Manganese	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Mercury	1.10E+01	6.52E+00	3.84E+01	4.56E+01	
Molybdenum	3.69E+02	3.64E+02	3.26E+03	1.22E+03	
Nickel	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Tin	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Zinc	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Dioxins / PCBs					
Dioxins (I-TEQ)	1.00E-03	1.00E-03	5.00E-03	1.00E-03	
PCBs	2.36E-01	2.26E-01	7.48E-01	7.56E-01	
Petroleum Carbon Ranges					
C6 - C8	1.41E+03	5.45E+02	1.00E+04*	1.00E+04*	1.00E+03
C9 - C16	2.24E+03	1.33E+03	1.00E+04*	1.00E+04*	3.00E+03
C17 - C35	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	5.00E+03
Other Inorganic Compounds					
Cyanide, free	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Organometallics					
TBTO	2.21E+01	2.18E+01	1.96E+02	7.35E+01	

Notes:
(1) For Dioxins, the cleanup levels in USEPA Office of Solid Waste and Emergency Response (OSWER) Directive of 1998 have been adopted. The OSWER Directive value of 1 ppb for residential use has been applied to the scenarios of "Urban Residential", "Rural Residential", and "Public Parks", while the low end of the range of values for industrial, 5 ppb, has been applied to the scenario of "Industrial".
(2) Soil saturation limits for petroleum carbon ranges taken from the Canada-Wide Standards for Petroleum Hydrocarbons in Soil, CCME 2000.
(3) * indicates a 'ceiling limit' concentration.
(4) *** indicates that the C_{sat} value exceeds the 'ceiling limit' therefore the RBRG applies.

Table 2.2
Risk-Based Remediation Goals (RBRGs) for Groundwater and Solubility Limit

Chemical	Risk-Based Remediation Goals for Groundwater			Solubility Limit (mg/L)
	Urban Residential (mg/L)	Rural Residential (mg/L)	Industrial (mg/L)	
VOCs				
Acetone	1.00E+04*	1.00E+04*	1.00E+04*	***
Benzene	3.86E+00	1.49E+00	5.40E+01	1.75E+03
Bromodichloromethane	2.22E+00	8.71E-01	2.62E+01	6.74E+03
2-Butanone	1.00E+04*	1.00E+04*	1.00E+04*	***
Chloroform	9.56E-01	3.82E-01	1.13E+01	7.92E+03
Ethylbenzene	1.02E+03	3.91E+02	1.00E+04*	1.69E+02
Methyl tert-Butyl Ether	1.53E+02	6.11E+01	1.81E+03	***
Methylene Chloride	1.90E+01	7.59E+00	2.24E+02	***
Styrene	3.02E+03	1.16E+03	1.00E+04*	3.10E+02
Tetrachloroethene	2.50E-01	9.96E-02	2.95E+00	2.00E+02
Toluene	5.11E+03	1.97E+03	1.00E+04*	5.26E+02
Trichloroethene	1.21E+00	4.81E-01	1.42E+01	1.10E+03
Xylenes (Total)	1.12E+02	4.33E+01	1.57E+03	1.75E+02
SVOCs				
Acenaphthene	1.00E+04*	7.09E+03	1.00E+04*	4.24E+00
Acenaphthylene	1.41E+03	5.42E+02	1.00E+04*	3.93E+00
Anthracene	1.00E+04*	1.00E+04*	1.00E+04*	4.34E-02
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene	5.39E-01	2.03E-01	7.53E+00	1.50E-03
Benzo(g,h,i)perylene				
Benzo(k)fluoranthene				
bis-(2-Ethylhexyl)phthalate				
Chrysene	5.81E+01	2.19E+01	8.12E+02	1.60E-03
Dibenzo(a,h)anthracene				
Fluoranthene	1.00E+04*	1.00E+04*	1.00E+04*	2.06E-01
Fluorene	1.00E+04*	1.00E+04*	1.00E+04*	1.98E+00
Hexachlorobenzene	5.89E-02	2.34E-02	6.95E-01	6.20E+00
Indeno(1,2,3-cd)pyrene				
Naphthalene	6.17E+01	2.37E+01	8.62E+02	3.10E+01
Phenanthrene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+00
Phenol				
Pyrene	1.00E+04*	1.00E+04*	1.00E+04*	1.35E-01
Metals				
Antimony				
Arsenic				
Barium				
Cadmium				
Chromium III				
Chromium VI				
Cobalt				
Copper				
Lead				
Manganese				
Mercury	4.86E-01	1.84E-01	6.79E+00	
Molybdenum				
Nickel				
Tin				
Zinc				
Dioxins / PCBs				
Dioxins (I-TEQ)				
PCBs	4.33E-01	1.71E-01	5.11E+00	3.10E-02
Petroleum Carbon Ranges				
C6 - C8	8.22E+01	3.17E+01	1.15E+03	5.23E+00
C9 - C16	7.14E+02	2.76E+02	9.98E+03	2.80E+00
C17 - C35	1.28E+01	4.93E+00	1.78E+02	2.80E+00
Other Inorganic Compounds				
Cyanide, free				
Organometallics				
TBTO				

Notes:
(1) Blank indicates that RBRG could not be calculated because the toxicity or physical/chemical values were unavailable, or the condition of Henry's Law Constant>1.00E-05 was not met for the inhalation pathway.
(2) Water solubilities for Petroleum Carbon Range aliphatic C9-C16 and greater than C16 generally are considered to be effectively zero and therefore the aromatic solubility for C9-C16 is used.
(3) * indicates a 'ceiling limit' concentration.
(4) *** indicates that the solubility limit exceeds the 'ceiling limit' therefore the RBRG applies.

Annex E

Summary of Laboratory Analytical Results

E1 The Summary of Analytical Result for Soil Samples (mg/kg)

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	C1-01[c] 0.5m HK1023587	C1-01[c] 1.5-1.95m HK1023587	C1-01[c] 3.0-3.45m HK1023587	C1-01[c] 4.5-4.95m HK1023871	C1-01[c] 6-6.45m[b] HK1023871	C1-02[c] 0.5m HK1023290	C1-02[c] 1.5-1.95m HK1023290	C1-02[c] 3.0-3.45m HK1023290
Metals											
Copper	10,000	NA	1	18	33	11	11	9	15	30	21
Lead	2,290	NA	1	145	101	42	38	71	38	53	122
Zinc	10,000	NA	1	188	112	66	26	17	76	102	36
Trivalent Chromium	10,000	NA	1	10	29	21	13	3	19	20	15
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	580	BDL	BDL
VOCs											
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	C1-01[c] 0.5m HK1023587	C1-01[c] 1.5-1.95m HK1023587	C1-01[c] 3.0-3.45m HK1023587	C1-01[c] 4.5-4.95m HK1023871	C1-01[c] 6-6.45m[b] HK1023871	C1-02[c] 0.5m HK1023290	C1-02[c] 1.5-1.95m HK1023290	C1-02[c] 3.0-3.45m HK1023290
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

(b) A duplicate sample with sample ID: DUP C (soil) was taken from this location; the higher of the two results is reported in this table.

(c) Samples collected at site C1 were expressed as C-01, C-02 and C-03 respectively in the laboratory reports.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	C1-02[b] 4.5-4.95m HK1023290	C1-02[b] 6-6.45m HK1023290	C1-03[b] 0.5m HK1023587	C1-03[b] 1.5-1.95m HK1023871	C1-03[b] 3-3.23m HK1023871	C1-03[b] 4.5-4.95m HK1023871	C1-03[b] 6-6.45m HK1023871
Metals										
Copper	10,000	NA	1	26	6	34	60	31	42	22
Lead	2,290	NA	1	86	32	79	103	107	85	71
Zinc	10,000	NA	1	36	10	128	234	98	144	75
Trivalent Chromium	10,000	NA	1	13	4	23	52	24	33	23
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges										
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs										
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs										
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	C1-02[b] 4.5-4.95m HK1023290	C1-02[b] 6-6.45m HK1023290	C1-03[b] 0.5m HK1023587	C1-03[b] 1.5-1.95m HK1023871	C1-03[b] 3-3.23m HK1023871	C1-03[b] 4.5-4.95m HK1023871	C1-03[b] 6-6.45m HK1023871
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

(b) Samples collected at site C1 were expressed as C-01, C-02 and C-03 respectively in the laboratory reports.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-01 0.5m HK1023587	D-01 1.5-1.75m HK1023871	D-01 3-3.45m HK1023872	D-01 4.5-4.95m HK1023872	D-01 6-6.45m HK1023872	D-02 0.5m HK1023872	D-02 1.5-1.95m HK1023872	D-02 3-3.45m HK1023872	D-02 4.5-4.95m HK1023872
Metals												
Copper	10,000	NA	1	28	6	20	10	11	102	15	16	14
Lead	2,290	NA	1	129	40	50	52	38	38	47	49	70
Zinc	10,000	NA	1	90	24	94	48	32	71	46	58	46
Trivalent Chromium	10,000	NA	1	18	8	16	17	15	8	15	17	10
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg) [(a)]	LOR (mg/kg)	D-01 0.5m HK1023587	D-01 1.5-1.75m HK1023871	D-01 3-3.45m HK1023872	D-01 4.5-4.95m HK1023872	D-01 6-6.45m HK1023872	D-02 0.5m HK1023872	D-02 1.5-1.95m HK1023872	D-02 3-3.45m HK1023872	D-02 4.5-4.95m HK1023872
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-02 6.0-6.45m HK1023872	D-03[b] 0.50-0.95m HK0818774	D-03[b] 1.50-1.95m HK0818774	D-03[b] 3.00-3.45m HK0818774	D-03[b] 4.50-4.95m HK0818774	D-03[b] 6.00-6.45m HK0818774	D-04 0.5m HK1023587	D-04 1.5-1.95m HK1023871
Metals											
Cadmium	653	NA	0.2[c]	-	BDL	BDL	0.4	BDL	BDL	-	-
Copper	10,000	NA	1	15	17	17	12	23	13	8	15
Lead	2,290	NA	1	31	53	64	59	38	33	72	95
Mercury	38.4	NA	0.2[c]	-	BDL	BDL	BDL	BDL	BDL	-	-
Nickel	10,000	NA	1[c]	-	8	18	11	3	2	-	-
Zinc	10,000	NA	1	11	58	144	108	233	22	63	107
Trivalent Chromium	10,000	NA	1	13	16	25	18	8	6	5	18
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs											
Acetone	10,000	NA	5[c]/50[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5[c]/0.20[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5[c]/0.10[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5[c]/0.04[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5.0[c]/0.5[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5[c]/0.04[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5[c]/0.10[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-02 6.0-6.45m HK1023872	D-03[b] 0.50-0.95m HK0818774	D-03[b] 1.50-1.95m HK0818774	D-03[b] 3.00-3.45m HK0818774	D-03[b] 4.50-4.95m HK0818774	D-03[b] 6.00-6.45m HK0818774	D-04 0.5m HK1023587	D-04 1.5-1.95m HK1023871
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2[c]/0.020[d]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

(b) Data Extracted from the approved CAR in the EIA stage. Relevant samples are expressed as 2108/XRL/EDH40

(c) LORs apply to sample D-03 0.50-0.95m, D-03 1.50-1.95m, D-03 3.00-3.45m, D-03 4.50-4.95m and D-03 6.00-6.45m.

(d) LORs apply to sample D-02 6.0-6.45m, D-04 0.5m and D-04 1.5-1.95m

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg) [(a)]	LOR (mg/kg)	D-04 3.0-3.45m HK1023871	D-04 4.5-4.95m HK1023871	D-04 6.0-6.45m HK1023872	D-05 0.5m HK1023587	D-05 1.5-1.95m HK1023871	D-05 3.0-3.45m HK1023871	D-05 4.5-4.95m HK1023871	D-05 6.0-6.45m HK1023871
Metals											
Copper	10,000	NA	1	9	17	18	3	25	12	6	2
Lead	2,290	NA	1	37	78	88	14	70	39	31	13
Zinc	10,000	NA	1	54	45	39	29	64	34	13	9
Trivalent Chromium	10,000	NA	1	17	12	24	3	21	20	9	3
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	1140	BDL	BDL	BDL	BDL
VOCs											
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg) [(a)]	LOR (mg/kg)	D-04 3.0-3.45m HK1023871	D-04 4.5-4.95m HK1023871	D-04 6.0-6.45m HK1023872	D-05 0.5m HK1023587	D-05 1.5-1.95m HK1023871	D-05 3.0-3.45m HK1023871	D-05 4.5-4.95m HK1023871	D-05 6.0-6.45m HK1023871
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-06[b] 0.5m HK1023587	D-06 1.5-1.95m HK1023587	D-06 3.0-3.45m HK1023587	D-06 4.5-4.95m HK1023871	D-06 6.0-6.45m HK1023871	D-07 0.5m HK1023290	D-07 1.5-1.95m HK1023290	D-07 3.0-3.45m HK1023290
Metals											
Copper	10,000	NA	1	16	19	11	6	7	22	15	11
Lead	2,290	NA	1	89	78	49	48	42	81	87	66
Zinc	10,000	NA	1	70	99	68	20	18	852	94	19
Trivalent Chromium	10,000	NA	1	6	14	22	24	14	9	7	18
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	830	BDL	BDL	BDL	BDL	960	BDL	BDL
VOCs											
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-06[b] 0.5m HK1023587	D-06 1.5-1.95m HK1023587	D-06 3.0-3.45m HK1023587	D-06 4.5-4.95m HK1023871	D-06 6.0-6.45m HK1023871	D-07 0.5m HK1023290	D-07 1.5-1.95m HK1023290	D-07 3.0-3.45m HK1023290
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

(b) A duplicate sample with sample ID: DUP B was taken from this location; the higher of the two results is reported in this table.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Cont. of Table E1

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg) [a]	LOR (mg/kg)	D-07[b] 4.5-4.7m HK1023290	D-07 6.0-6.45m HK1023290
Metals					
Copper	10,000	NA	1	16	6
Lead	2,290	NA	1	43	39
Zinc	10,000	NA	1	29	12
Trivalent Chromium	10,000	NA	1	19	4
Hexavalent Chromium	1,960	NA	1	BDL	BDL
Petroleum Carbon Ranges					
C_6-C_8	10,000	1,000	5	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL
VOCs					
Acetone	10,000	NA	50	BDL	BDL
Benzene	9.21	336	0.20	BDL	BDL
Bromodichloromethane	2.85	1,030	0.10	BDL	BDL
2-Butanone	10,000	NA	5.0	BDL	BDL
Chloroform	1.54	1,100	0.04	BDL	BDL
Ethylbenzene	8,240	138	0.50	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL
Styrene	10,000	497	0.50	BDL	BDL
Tetrachloroethene	0.777	97.1	0.04	BDL	BDL
Toluene	10,000	235	0.50	BDL	BDL
Trichloroethene	5.68	488	0.10	BDL	BDL
Xylenes (Total)	1,230	150	1.50	BDL	BDL
SVOCs					
Acenaphthene	10,000	60.2	0.500	BDL	BDL
Acenaphthylene	10,000	19.8	0.500	BDL	BDL
Anthracene	10,000	2.56	0.500	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.500	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.500	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.500	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.500	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.500	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg) [(a)]	LOR (mg/kg)	D-07[(b)] 4.5-4.7m HK1023290	D-07 6.0-6.45m HK1023290
Chrysene	1,140	NA	0.500	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.500	BDL	BDL
Fluoranthene	10,000	NA	0.500	BDL	BDL
Fluorene	10,000	54.7	0.500	BDL	BDL
Hexachlorobenzene	0.582	NA	0.020	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.500	BDL	BDL
Napththalene	453	125	0.500	BDL	BDL
Phenanthrene	10,000	28	0.500	BDL	BDL
Phenol	10,000	7,260	0.50	BDL	BDL
Pyrene	10,000	NA	0.500	BDL	BDL

Notes:

(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.

(b) A duplicate sample with sample ID: DUP A was taken from this location; the higher of the two results is reported in this table.

NA – No respective RBRGs for Soil/Soil Saturation Limits available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Table E2 The Summary of Analytical Results for Groundwater (µg/L)

Parameters	RBRGs for groundwater (µg/L) [a]	Solubility Limit (µg/L) [a]	LOR (µg/L)	C1-01[d]	C1-02[d]	C1-03[d]	D-01	D-02	D-03[b]	D-04	D-05
				HK1024056	HK1024056	HK1024056	HK1024056	HK1024056	HK0818774	HK1024056	HK1024056
Petroleum Carbon Ranges											
C_6-C_8	1,150,000	5230	20	BDL	BDL	BDL	BDL	BDL	BDL	80	BDL
C_9-C_{16}	9,980,000	2800	500	500	800	2,800	BDL	BDL	BDL	600	500
C_{17}-C_{35}	178,000	2800	500	1,700	900	**2,900**	BDL	1,100	BDL	900	**3,700**
VOCs											
Acetone	10,000,000	NA	500/50[c]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	54,000	1,750,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	26,200	6,740,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	11,300	7,920,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	1,0000,000	169,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	1,810,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	224,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000,000	310,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	2,950	200,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000,000	526,000	5	BDL	BDL	BDL	BDL	14	BDL	78	BDL
Trichloroethene	14,200	1,100,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,570,000	175,000	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000,000	4,240	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000,000	3,930	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000,000	43.4	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) & Benzo (k)fluoranthene	7,530[c]	1.5[c]	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	812,000	1.6	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000,000	206	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000,000	1,980	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	695	6,200	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	862,000	31,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000,000	1,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000,000	135	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

(a) RBRGs for Groundwater for Industrial Land Use and Solubility Limits were used for comparisons of results in this Project.

(b) Data extracted from the Approved CAR in EIA stage. Relevant sample is expressed as 2108/XRL/EDH40 in the laboratory report.

(c) LOR applies to sample D-03

(d) Samples collected at Site C1 were expressed as C-01, C-02 and C-03 respectively in the laboratory report.

NA – No respective RBRGs for Groundwater/Solubility values available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results – Samples with contaminant concentrations exceeding RBRGs for Groundwater/Solubility Limit.

Cont of Table E2

Parameters	RBRGs for groundwater (µg/L) [a]	Solubility Limit (µg/L) [a]	LOR (µg/L)	D-06	D-07[b]
				HK1024056	HK1024056
Petroleum Carbon Ranges					
C_6-C_8	1,150,000	5230	20	BDL	BDL
C_9-C_{16}	9,980,000	2800	500	BDL	BDL
C_{17}-C_{35}	178,000	2800	500	1,000	BDL
VOCs [a]					
Acetone	10,000,000	NA	500	BDL	BDL
Benzene	54,000	1,750,000	5	BDL	BDL
Bromodichloromethane	26,200	6,740,000	5	BDL	BDL
2-Butanone	10,000,000	NA	50	BDL	BDL
Chloroform	11,300	7,920,000	5	BDL	BDL
Ethylbenzene	1,0000,000	169,000	5	BDL	BDL
Methyl tert-Butyl Ether	1,810,000	NA	5	BDL	BDL
Methylene Chloride	224,000	NA	50	BDL	BDL
Styrene	10,000,000	310,000	5	BDL	BDL
Tetrachloroethene	2,950	200,000	5	BDL	BDL
Toluene	10,000,000	526,000	5	8	BDL
Trichloroethene	14,200	1,100,000	5	BDL	BDL
Xylenes (Total)	1,570,000	175,000	15	BDL	BDL
SVOCs [b]					
Acenaphthene	10,000,000	4,240	2	BDL	BDL
Acenaphthylene	10,000,000	3,930	2	BDL	BDL
Anthracene	10,000,000	43.4	2	BDL	BDL
Benzo(b) & Benzo(k)fluoranthene	7,530	1.5	4	BDL	BDL
Chrysene	812,000	1.6	2	BDL	BDL
Fluoranthene	10,000,000	206	2	BDL	BDL
Fluorene	10,000,000	1,980	2	BDL	BDL
Hexachlorobenzene	695	6,200	4	BDL	BDL
Napththalene	862,000	31,000	2	BDL	BDL
Phenanthrene	10,000,000	1,000	2	BDL	BDL
Pyrene	10,000,000	135	2	BDL	BDL

Notes:

(a) RBRGs for Groundwater for Industrial Land Use and Solubility Limits were used for comparisons of results in this Project.

(b) A duplicate sample with sample ID: DUP D was taken from this location; the higher of the two results is reported in this table.

NA – No respective RBRGs for Groundwater/Solubility values available for these chemicals.

LOR – Limit of Reporting indicates the detection limits of the analytical results.

BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.

Bold results - Samples with contaminant concentrations exceeding RBRGs for Groundwater/Solubility Limit.

Annex F

Laboratory Testing Reports

Index of Annex F

Report Number	Lab Report Reference
A	HK0818774
B	HK1023290
C	HK1023587
D	HK1023871
E	HK1023872
F	HK1024056

Soil Samples					
Sampling Locations	C1-01	C1-01	C1-01	C1-01	C1-01 + dup
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.95m	6-6.45m
Sampling Date	07-Oct-10	07-Oct-10	07-Oct-10	08-Oct-10	08-Oct-10
Report Number	Report C	Report C	Report C	Report D	Report D

Soil Samples					
Sampling Locations	C1-02	C1-02	C1-02	C1-02	C1-02
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.95m	6-6.45m
Sampling Date	06-Oct-10	06-Oct-10	06-Oct-10	06-Oct-10	06-Oct-10
Report Number	Report B	Report B	Report B	Report B	Report B

Soil Samples					
Sampling Locations	C1-03	C1-03	C1-03	C1-03	C1-03
Sampling Depth	0.5m	1.5-1.95m	3-3.23m	4.5-4.95m	6-6.45m
Sampling Date	07-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10
Report Number	Report C	Report D	Report D	Report D	Report D

Soil Samples					
Sampling Locations	D-01	D-01	D-01	D-01	D-01
Sampling Depth	0.5m	1.5-1.75m	3-3.45m	4.5-4.95m	6-6.45m
Sampling Date	07-Oct-10	08-Oct-10	09-Oct-10	09-Oct-10	09-Oct-10
Report Number	Report C	Report D	Report E	Report E	Report E

Soil Samples					
Sampling Locations	D-02	D-02	D-02	D-02	D-02
Sampling Depth	0.5m	1.5-1.95m	3-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	09-Oct-10	09-Oct-10	09-Oct-10	09-Oct-10	09-Oct-10
Report Number	Report E	Report E	Report E	Report E	Report E

Soil Samples					
Sampling Locations	D-03	D-03	D-03	D-03	D-03
Sampling Depth	0.50-0.95m	1.50-1.95m	3.00-3.45m	4.50-4.95m	6.00-6.45m
Sampling Date	24-Oct-08	24-Oct-08	24-Oct-08	24-Oct-08	24-Oct-08
Report Number	Report A	Report A	Report A	Report A	Report A

Soil Samples					
Sampling Locations	D-04	D-04	D-04	D-04	D-04
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	07-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10
Report Number	Report C	Report D	Report D	Report D	Report E

Soil Samples					
Sampling Locations	D-05	D-05	D-05	D-05	D-05
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	07-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10	08-Oct-10
Report Number	Report C	Report D	Report D	Report D	Report D

Note:
Samples collected at location D-03 were expressed as 2108/XRL/EDH40 in the laboratory reports
Samples collected at site C1 were expressed as C-01, C-02 and C-03 in the laboratory reports

Soil Samples					
Sampling Locations	D-06 + dup	D-06	D-06	D-06	D-06
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	07-Oct-10	07-Oct-10	07-Oct-10	07-Oct-10	07-Oct-10
Report Number	Report C	Report C	Report C	Report D	Report D

Soil Samples					
Sampling Locations	D-07	D-07	D-07	D-07 + DUP	D-07
Sampling Depth	0.5m	1.5-1.95m	3.0-3.45m	4.5-4.7m	6.0-6.45m
Sampling Date	06-Oct-10	06-Oct-10	06-Oct-10	06-Oct-10	06-Oct-10
Report Number	Report B	Report B	Report B	Report B	Report B

Groundwater Samples					
Sampling Locations	C1-01	C1-02	C1-03	D-01	D-02
Sampling Date	12-Oct-10	12-Oct-10	12-Oct-10	12-Oct-10	12-Oct-10
Report Number	Report F	Report F	Report F	Report F	Report F

Groundwater Samples					
Sampling Locations	D-03	D-04	D-05	D-06	D-07 + dup
Sampling Date	24-Oct-08	12-Oct-10	12-Oct-10	12-Oct-10	12-Oct-10
Report Number	Report A	Report F	Report F	Report F	Report F

Note:
Sample collected at location D-03 was expressed as 2108/XRL/EDH40
Samples collected at site C1 were expressed as C-01, C-02 and C-03 in the laboratory reports

Report No. A

HK0818774

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 15
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0818774
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
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Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 24-OCT-2008
Order number	: ----			Issue Date	: 10-NOV-2008
C-O-C number	: H004117			No. of samples received	: 6
Site	: ----			No. of samples analysed	: 6

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

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client. The completion date of analysis is: 31-OCT-2008

Key: LOR = Limit of reporting; CAS Number = Chemistry Abstract Services number

Specific comments for Work Order: **HK0818774**

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

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

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

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

Sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	LOR	Unit	2108/XRL/EDH40 (0.5M-0.95M)	2108/XRL/EDH40 (1.5M-1.95M)	2108/XRL/EDH40 (3.0M-3.45M)	2108/XRL/EDH40 (4.5M-4.95M)	2108/XRL/EDH40 (6.0M-6.45M)
			Client sampling date / time	24-OCT-2008 09:05	24-OCT-2008 09:50	24-OCT-2008 10:30	24-OCT-2008 11:10	24-OCT-2008 11:55
				HK0818774-001	HK0818774-002	HK0818774-003	HK0818774-004	HK0818774-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**19.7**	**22.1**	**30.5**	**14.7**	**15.2**
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	**0.4**	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	**17**	**17**	**12**	**23**	**13**
EG020: Lead	7439-92-1	1	mg/kg	**53**	**64**	**59**	**38**	**33**
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Nickel	7440-02-0	1	mg/kg	**8**	**18**	**11**	**3**	**2**
EG020: Zinc	7440-66-6	1	mg/kg	**58**	**144**	**108**	**233**	**22**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**16**	**25**	**18**	**8**	**6**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0

Sub-Matrix: SEDIMENT			Client sample ID	2108/XRL/EDH40 (0.5M-0.95M)	2108/XRL/EDH40 (1.5M-1.95M)	2108/XRL/EDH40 (3.0M-3.45M)	2108/XRL/EDH40 (4.5M-4.95M)	2108/XRL/EDH40 (6.0M-6.45M)
			Client sampling date / time	24-OCT-2008 09:05	24-OCT-2008 09:50	24-OCT-2008 10:30	24-OCT-2008 11:10	24-OCT-2008 11:55
Compound	CAS Number	LOR	Unit	HK0818774-001	HK0818774-002	HK0818774-003	HK0818774-004	HK0818774-005
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**92.9**	**93.4**	**95.4**	**95.3**	**97.9**
Toluene-D8	2037-26-5	0.1	%	**100**	**100**	**101**	**100**	**102**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.7**	**99.4**	**101**	**99.7**	**98.9**
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**92.9**	**93.4**	**95.4**	**95.3**	**97.9**
Toluene-D8	2037-26-5	0.1	%	**100**	**100**	**101**	**100**	**102**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.7**	**99.4**	**101**	**99.7**	**98.9**
EP-075S: Acid Extractable Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%	**71.4**	**66.1**	**53.8**	**71.2**	**58.2**
Phenol-d6	13127-88-3	0.1	%	**85.4**	**67.7**	**59.2**	**82.2**	**66.8**
2.4.6-Tribromophenol	118-79-6	0.1	%	**64.9**	**56.4**	**49.5**	**53.0**	**49.5**
EP-075T: Base/Neutral Extractable Surrogates							Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%	**75.5**	**68.0**	**53.6**	**74.4**	**59.4**
2-Fluorobiphenyl	321-60-8	0.1	%	**51.4**	**46.5**	**44.0**	**49.9**	**47.1**
4-Terphenyl-d14	1718-51-0	0.1	%	**56.8**	**53.8**	**50.0**	**59.0**	**51.4**

Sub-Matrix: SEDIMENT			Client sample ID	2108/XRL/EDH40 (0.5M-0.95M)	2108/XRL/EDH40 (1.5M-1.95M)	2108/XRL/EDH40 (3.0M-3.45M)	2108/XRL/EDH40 (4.5M-4.95M)	2108/XRL/EDH40 (6.0M-6.45M)
			Client sampling date / time	24-OCT-2008 09:05	24-OCT-2008 09:50	24-OCT-2008 10:30	24-OCT-2008 11:10	24-OCT-2008 11:55
Compound	CAS Number	LOR	Unit	HK0818774-001	HK0818774-002	HK0818774-003	HK0818774-004	HK0818774-005
EP-075T: Base/Neutral Extractable Surrogates - Continued								Surrogate control limits listed at end of this report.

Sub-Matrix: WATER			Client sample ID	2108/XRL/EDH40 (WATER SAMPLE)				
			Client sampling date / time	24-OCT-2008 14:30				
Compound	CAS Number	LOR	Unit	HK0818774-006				
EG: Metals and Major Cations - Filtered								
EG036: Mercury	7439-97-6	0.05	µg/L	<0.05				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C9 - C16 Fraction	----	500	µg/L	<500				
C17 - C35 Fraction	----	500	µg/L	<500				
C6 - C8 Fraction	----	20	µg/L	<20				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5				
Toluene	108-88-3	5	µg/L	<5				
Ethylbenzene	100-41-4	5	µg/L	<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10				
Styrene	100-42-5	5	µg/L	<5				
ortho-Xylene	95-47-6	5	µg/L	<5				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50				
2-Butanone (MEK)	78-93-3	50	µg/L	<50				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50				
Trichloroethene	79-01-6	5	µg/L	<5				
Tetrachloroethene	127-18-4	5	µg/L	<5				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5				
Bromodichloromethane	75-27-4	5	µg/L	<5				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5				
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2				
Acenaphthylene	208-96-8	2	µg/L	<2				
Acenaphthene	83-32-9	2	µg/L	<2				
Fluorene	86-73-7	2	µg/L	<2				
Phenanthrene	85-01-8	2	µg/L	<2				
Anthracene	120-12-7	2	µg/L	<2				
Fluoranthene	206-44-0	2	µg/L	<2				
Pyrene	129-00-0	2	µg/L	<2				
Chrysene	218-01-9	2	µg/L	<2				
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4				
EP-075G: Chlorinated Hydrocarbons								

Sub-Matrix: WATER			Client sample ID	2108/XRL/EDH40 (WATER SAMPLE)				
			Client sampling date / time	24-OCT-2008 14:30				
Compound	CAS Number	LOR	Unit	HK0818774-006				
EP-075G: Chlorinated Hydrocarbons - Continued								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**104**				
Toluene-D8	2037-26-5	0.1	%	**99.1**				
4-Bromofluorobenzene	460-00-4	0.1	%	**108**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**104**				
Toluene-D8	2037-26-5	0.1	%	**99.1**				
4-Bromofluorobenzene	460-00-4	0.1	%	**108**				
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**40.2**				
Phenol-d6	13127-88-3	0.1	%	**32.0**				
2.4.6-Tribromophenol	118-79-6	0.1	%	**22.5**				
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**43.8**				
2-Fluorobiphenyl	321-60-8	0.1	%	**55.9**				
4-Terphenyl-d14	1718-51-0	0.1	%	**40.3**				

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: 800160)								
HK0818773-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.0	21.7	13.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 804313)								
HK0818773-003	Anonymous	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 808057)								
HK0818774-001	2108/XRL/EDH40 (0.5M-0.95M)	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 804379)								
HK0818547-002	Anonymous	**EG020: Mercury**	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	7	0.0
		EG020: Lead	7439-92-1	1	mg/kg	52	53	2.8
		EG020: Nickel	7440-02-0	1	mg/kg	5	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	74	80	8.8
HK0818774-003	2108/XRL/EDH40 (3.0M-3.45M)	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	0.4	0.3	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	13	9.3
		EG020: Lead	7439-92-1	1	mg/kg	59	56	4.4
		EG020: Nickel	7440-02-0	1	mg/kg	11	10	13.4
		EG020: Zinc	7440-66-6	1	mg/kg	108	129	17.1
EG: Metals and Major Cations (QC Lot: 805389)								
HK0818773-003	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799868)								
HK0818773-003	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799877)								
HK0818774-001	2108/XRL/EDH40 (0.5M-0.95M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 795166)								
HK0817886-001	Anonymous	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 795166)								
HK0817886-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-074B: Oxygenated Compounds (QC Lot: 795166) - Continued								
HK0817886-001	Anonymous	**2-Butanone (MEK)**	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 795166)								
HK0817886-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 795166)								
HK0817886-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 795166)								
HK0817886-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 795172)								
HK0817886-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 795172)								
HK0817886-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 795172)								
HK0817886-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 795172)								
HK0817886-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EG: Metals and Major Cations - Filtered (QC Lot: 800685)								
HK0818773-004	Anonymous	**EG036: Mercury**	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 794584)								
HK0818139-004	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 801216)								
HK0818773-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 801216)								
HK0818773-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 801216)								
HK0818773-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 801216)								
HK0818773-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	8	9	20.7
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 801216)								
HK0818773-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 804313)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	.2 mg/kg ----	99.1 ----	---- ----	85 ----	115 ----	---- ----	---- ----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 808057)											
EK025: Free Cyanide	----	1	mg/kg	<1 ----	---- 9.83 mg/kg	---- 100	---- ----	---- 85	---- 115	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 804379)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	88.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	94.3	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	92.0	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	94.6	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	91.6	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 805389)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 805389) - Continued											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799868)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	111	----	63	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799877)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	68.1	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	74.7	----	50	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 795166)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	109	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	114	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	108	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	105	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	108	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 795166)											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	----	----	----	----	----	----
				----	5.0 mg/kg	115	----	16	138	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 795166)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	124	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 795166)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	108	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	59	142	----	----
EP-075A: Phenols (QC Lot: 795172)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	74.2	----	49	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 795172)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	77.0	----	61	101	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	56	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	87.2	----	63	104	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	92.6	----	65	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	91.8	----	66	103	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	66	98	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	97.4	----	69	106	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	98.8	----	68	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	98.0	----	57	109	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	98.2	----	66	109	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	92.7	----	72	104	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	88.0	----	60	104	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 795172) - Continued											
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	95.6	----	63	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	97.5	----	64	111	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	98.9	----	68	112	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 795172)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	88.6	----	68	109	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 800685)											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.05	2 µg/L	85.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 794584)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	----	----	----	----	----	----	----
				----	0.15 mg/L	71.4	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 795224)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	67.4	----	25	90	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	96.3	----	29	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 801216)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	70.3	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	73.8	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	88.6	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	98.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	100	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	92.2	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 801216)											
2-Propanone (Acetone)	67-64-1	50	µg/L	<50	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	# 43.4	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 801216)											
Methylene chloride	75-09-2	5	µg/L	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	96.0	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	93.2	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 801216)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	90.9	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	98.4	----	77	120	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 801216)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	----	----	----	----	----	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 799892)											

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 799892) - Continued											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	85.3	----	42	113	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	88.9	----	42	120	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	77.1	----	44	115	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	82.2	----	47	116	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	83.2	----	51	112	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	81.0	----	51	113	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	86.9	----	63	112	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	86.3	----	64	113	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	83.8	----	62	116	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	84.6	----	65	114	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 799892)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	76.1	----	65	113	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 804379)										
HK0818547-002	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	90.8	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	99.0	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	99.0	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	90.0	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 805389)										
HK0818774-001	2108/XRL/EDH40 (0.5M-0.95M)	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	113	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799868)										
HK0818773-003	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	76.6	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 799877)										
HK0818774-002	2108/XRL/EDH40 (1.5M-1.95M)	**C9 - C16 Fraction**	----	31 mg/kg	64.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	53.8	----	50	130	----	----

Matrix: **WATER**

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

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 800685)										
HK0818773-001	Anonymous	**EG036: Mercury**	7439-97-6	2 µg/L	80.0	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075T: Base/Neutral Extractable Surrogates - Continued			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. B

HK1023290

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 20
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1023290
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: MAI PO	Quote number	: ----	Date Samples Received	: 06-OCT-2010
Order number	: ----			Issue Date	: 20-OCT-2010
C-O-C number	: H024551-H024552			No. of samples received	: 14
Site	: ----			No. of samples analysed	: 14

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

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

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 20-OCT-2010

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: **HK1023290**

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

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

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

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

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL			Client sample ID	D-07 0.5M	D-07 3.0-3.45M	D-07 1.5-1.95M	D-07 4.5-4.7M	D-07 6.0-6.45M
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023290-001	HK1023290-002	HK1023290-003	HK1023290-004	HK1023290-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.9	14.6	17.5	21.5	14.7
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	22	11	15	16	6
EG020: Lead	7439-92-1	1	mg/kg	81	66	87	43	39
EG020: Zinc	7440-66-6	1	mg/kg	852	19	94	29	12
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	9	18	7	19	4
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	960	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-07 0.5M	D-07 3.0-3.45M	D-07 1.5-1.95M	D-07 4.5-4.7M	D-07 6.0-6.45M
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023290-001	HK1023290-002	HK1023290-003	HK1023290-004	HK1023290-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**92.8**	**94.6**	**99.2**	**93.4**	**95.8**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**102**	**100**	**99.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.2**	**98.4**	**101**	**99.7**	**99.4**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**92.7**	**94.6**	**99.2**	**93.4**	**95.8**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**102**	**100**	**99.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.2**	**98.3**	**101**	**99.7**	**99.4**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**96.1**	**63.4**	**74.2**	**57.8**	**80.7**
4-Terphenyl-d14	1718-51-0	0.1	%	**107**	**76.8**	**87.6**	**65.9**	**82.8**

Sub-Matrix: SOIL			Client sample ID	C-02 0.5M	C-02 1.5-1.95M	C-02 3.0-3.45M	C-02 4.5-4.95M	C-02 6.0-6.45M
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023290-006	HK1023290-007	HK1023290-008	HK1023290-009	HK1023290-010
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.0	21.8	23.6	22.8	15.6
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	15	30	21	26	6
EG020: Lead	7439-92-1	1	mg/kg	38	53	122	86	32
EG020: Zinc	7440-66-6	1	mg/kg	76	102	36	36	10
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	19	20	15	13	4
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	580	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	C-02 0.5M	C-02 1.5-1.95M	C-02 3.0-3.45M	C-02 4.5-4.95M	C-02 6.0-6.45M
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023290-006	HK1023290-007	HK1023290-008	HK1023290-009	HK1023290-010
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**93.4**	**90.6**	**92.9**	**95.7**	**93.4**
Toluene-D8	2037-26-5	0.1	%	**99.4**	**99.0**	**98.9**	**100**	**99.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.4**	**100**	**99.2**	**99.5**	**98.7**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**93.4**	**90.6**	**92.9**	**95.7**	**93.3**
Toluene-D8	2037-26-5	0.1	%	**99.4**	**98.9**	**98.9**	**100**	**99.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**99.3**	**100**	**99.3**	**99.5**	**98.7**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**69.1**	**79.2**	**73.5**	**65.4**	**78.3**
4-Terphenyl-d14	1718-51-0	0.1	%	**86.8**	**81.3**	**84.0**	**97.9**	**96.6**

Sub-Matrix: SOIL			Client sample ID	DUP A				
			Client sampling date / time	[06-OCT-2010]				
Compound	CAS Number	LOR	Unit	HK1023290-011				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**14.8**				
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**9**				
EG020: Lead	7439-92-1	1	mg/kg	**31**				
EG020: Zinc	7440-66-6	1	mg/kg	**22**				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**18**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5				
Trichloroethene	79-01-6	0.10	mg/kg	<0.10				
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04				
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500				
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500				
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500				
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500				
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500				

Sub-Matrix: SOIL			Client sample ID	DUP A				
			Client sampling date / time	[06-OCT-2010]				
Compound	CAS Number	LOR	Unit	HK1023290-011				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500				
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500				
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500				
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500				
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500				
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500				
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500				
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500				
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500				
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500				
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50				
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020				
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.4**				
Toluene-D8	2037-26-5	0.1	%	**99.8**				
4-Bromofluorobenzene	460-00-4	0.1	%	**100**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.4**				
Toluene-D8	2037-26-5	0.1	%	**99.8**				
4-Bromofluorobenzene	460-00-4	0.1	%	**100**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**66.8**				
4-Terphenyl-d14	1718-51-0	0.1	%	**88.5**				

Sub-Matrix: WATER			Client sample ID	EQ 1	FIELD BLANK 1	TRIP BLANK 1		
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]		
Compound	CAS Number	LOR	Unit	HK1023290-012	HK1023290-013	HK1023290-014		
EG: Metals and Major Cations								
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L	<0.02	<0.02	----		
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	<0.02	----		
EG: Metals and Major Cations - Filtered								
EG020: Copper	7440-50-8	1	µg/L	**5**	**11**	----		
EG020: Lead	7439-92-1	1	µg/L	<1	<1	----		
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	----		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20	----		
C9 - C16 Fraction	----	500	µg/L	<500	<500	----		
C17 - C35 Fraction	----	500	µg/L	<500	<500	----		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5		
Toluene	108-88-3	5	µg/L	<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10		
Styrene	100-42-5	5	µg/L	<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	<500		
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5		
EP-075A: Phenols								
Phenol	108-95-2	2	µg/L	<2	<2	----		
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	----		
Acenaphthylene	208-96-8	2	µg/L	<2	<2	----		
Acenaphthene	83-32-9	2	µg/L	<2	<2	----		
Fluorene	86-73-7	2	µg/L	<2	<2	----		

Sub-Matrix: WATER			Client sample ID	EQ 1	FIELD BLANK 1	TRIP BLANK 1		
			Client sampling date / time	[06-OCT-2010]	[06-OCT-2010]	[06-OCT-2010]		
Compound	CAS Number	LOR	Unit	HK1023290-012	HK1023290-013	HK1023290-014		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued								
Phenanthrene	85-01-8	2	µg/L	<2	<2	----		
Anthracene	120-12-7	2	µg/L	<2	<2	----		
Fluoranthene	206-44-0	2	µg/L	<2	<2	----		
Pyrene	129-00-0	2	µg/L	<2	<2	----		
Benz(a)anthracene	56-55-3	2	µg/L	<2	<2	----		
Chrysene	218-01-9	2	µg/L	<2	<2	----		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	----		
Benzo(a)pyrene	50-32-8	2	µg/L	<2	<2	----		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	<2	----		
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	<2	----		
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	<2	----		
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	<20	----		
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	----		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**102**	----		
Toluene-D8	2037-26-5	0.1	%	**101**	**101**	----		
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**	**98.8**	----		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**102**	**104**		
Toluene-D8	2037-26-5	0.1	%	**101**	**101**	**101**		
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**	**98.8**	**99.1**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**32.3**	**32.5**	----		
Phenol-d6	13127-88-3	0.1	%	**22.0**	**22.9**	----		
2.4.6-Tribromophenol	118-79-6	0.1	%	**31.0**	**24.6**	----		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**56.9**	**51.2**	----		
2-Fluorobiphenyl	321-60-8	0.1	%	**51.9**	**47.2**	----		
4-Terphenyl-d14	1718-51-0	0.1	%	**40.4**	**38.3**	----		

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: 1518682)								
HK1023290-001	D-07 0.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.9	11.6	6.7
HK1023290-011	DUP A	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.8	14.8	0.0
EG: Metals and Major Cations (QC Lot: 1518668)								
HK1023290-002	D-07 3.0-3.45M	EG020: Copper	7440-50-8	1	mg/kg	11	11	0.0
		EG020: Lead	7439-92-1	1	mg/kg	66	63	4.4
		EG020: Zinc	7440-66-6	1	mg/kg	19	23	17.0
HK1023290-011	DUP A	EG020: Copper	7440-50-8	1	mg/kg	9	8	13.1
		EG020: Lead	7439-92-1	1	mg/kg	31	31	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	22	23	6.3
EG: Metals and Major Cations (QC Lot: 1518691)								
HK1023290-002	D-07 3.0-3.45M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1023290-011	DUP A	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)								
HK1023290-001	D-07 0.5M	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)								
HK1023290-001	D-07 0.5M	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	960	1030	6.9
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517497)								
HK1023290-001	D-07 0.5M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517497)								
HK1023290-001	D-07 0.5M	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517497)								
HK1023290-001	D-07 0.5M	Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517497)								
HK1023290-001	D-07 0.5M	Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517497)								
HK1023290-001	D-07 0.5M	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1513477)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1513477) - Continued								
HK1023303-001	Anonymous	EP076HK: Fluoranthene	206-44-0	150	µg/kg	<150	<150	0.0
		EP076HK: Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		EP076HK: Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		EP076HK: Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		EP076HK: Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		EP076HK: Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1515751)								
HK1023339-004	Anonymous	EP076HK: Fluoranthene	206-44-0	150	µg/kg	<150	<150	0.0
		EP076HK: Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		EP076HK: Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		EP076HK: Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		EP076HK: Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		EP076HK: Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1517425)								
HK1023290-001	D-07 0.5M	EP076HK: Naphthalene	91-20-3	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		EP076HK: Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		EP076HK: Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		EP076HK: Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		EP076HK: Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1517425) - Continued								
HK1023290-001	D-07 0.5M	**EP076HK: Pyrene**	129-00-0	500	µg/kg	<500	<500	0.0
		EP076HK: Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		EP076HK: Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1513477)								
HK1023303-001	Anonymous	**EP076HK: Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1515751)								
HK1023339-004	Anonymous	**EP076HK: Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1517425)								
HK1023290-001	D-07 0.5M	**EP076HK: Hexachlorobenzene (HCB)**	118-74-1	20	µg/kg	<20	<20	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EG: Metals and Major Cations (QC Lot: 1527649)								
HK1023350-001	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)								
HK1023290-013	FIELD BLANK 1	**EG020: Copper**	7440-50-8	1	µg/L	11	12	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK1023495-001	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	12	12	0.0
		EG020: Lead	7439-92-1	1	µg/L	1	1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	23	23	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)								
HK1023350-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)								
HK1023290-012	EQ 1	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	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-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723) - Continued								
HK1023290-012	EQ 1	Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517723)								
HK1023290-012	EQ 1	2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)								
HK1023290-012	EQ 1	Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)								
HK1023290-012	EQ 1	Chloroform	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517723)								
HK1023290-012	EQ 1	Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1518668)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	98.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	89.1	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	98.6	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1518691)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	111	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	104	----	74	129	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	92.7	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	88.6	----	54	102	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517497)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.6	----	78	115	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	89.9	----	74	118	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	75	121	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	99.7	----	80	116	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	74	116	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	70	127	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517497)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074B: Oxygenated Compounds (QC Lot: 1517497) - Continued											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	83.0	----	64	132	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517497)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	94.1	----	83	111	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	74	124	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517497)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.5	----	73	119	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	90.1	----	79	109	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517497)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1513477)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	84.9	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	88.1	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	86.8	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	89.4	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	93.9	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	80.5	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	87.1	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	101	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	85.9	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	101	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	89.2	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	86.8	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	92.8	----	50	130	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1515751)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	78.4	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	79.6	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	77.8	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	82.0	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	86.2	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	83.1	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	88.3	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	93.9	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	91.9	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	92.8	----	50	130	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1515751) - Continued											
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	91.1	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	93.5	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	108	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	91.8	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	91.1	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	94.7	----	50	130	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1517425)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	85.0	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	88.3	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	85.6	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	91.1	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	88.9	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	80.6	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	93.2	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	95.8	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	90.7	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	88.8	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	97.1	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	85.3	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	111	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	90.0	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	89.3	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	86.2	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1513477)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	80.1	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	93.7	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	102	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1515751)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	70.7	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	87.8	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	101	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1517425)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	92.3	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	92.1	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	104	----	50	130	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1517238)											

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1517238) - Continued											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1527649)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	91.1	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	95.7	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	92.1	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	101	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522462)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	96.3	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	113	----	32	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	83.6	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	81.4	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.7	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	89.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	87.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.4	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517723)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	68.3	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	86.2	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	97.1	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.1	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	90.4	----	77	120	----	----
EP-075A: Phenols (QC Lot: 1517467)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	52.0	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	56.4	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	59.7	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	66.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	73.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.0	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	84.9	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	89.0	----	67	105	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467) - Continued											
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	87.5	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	94.6	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	92.9	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	91.8	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	74.8	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	86.3	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	82.7	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	88.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1517467)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	101	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1517467)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	75.7	----	52	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 (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1518668)										
HK1023290-001	D-07 0.5M	**EG020: Copper**	7440-50-8	5 mg/kg	100	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1518691)										
HK1023290-001	D-07 0.5M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	101	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)										
HK1023290-002	D-07 3.0-3.45M	**C6 - C8 Fraction**	----	3 mg/kg	106	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)										
HK1023290-002	D-07 3.0-3.45M	**C9 - C16 Fraction**	----	31 mg/kg	64.2	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	63.5	----	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 (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1517238)										
HK1023290-012	EQ 1	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	106	----	75	125	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)										
HK1023290-013	FIELD BLANK 1	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	92.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)										
HK1023350-001	Anonymous	**EG020: Copper**	7440-50-8	100 µg/L	93.4	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	92.9	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	82.2	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075T: Base/Neutral Extractable Surrogates - Continued			
4-Terphenyl-d14	1718-51-0	33	141

Report No. C

HK1023587

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 18
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1023587
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Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: MAI PO	Quote number	: ----	Date Samples Received	: 07-OCT-2010
Order number	: ----			Issue Date	: 25-OCT-2010
C-O-C number	: H024554-H024555			No. of samples received	: 13
Site	: ----			No. of samples analysed	: 13

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

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

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 21-OCT-2010

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: **HK1023587**

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

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

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

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

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL			Client sample ID	C-01 0.5M	C-03 0.5M	D-01 0.5M	D-04 0.5M	D-06 0.5M
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023587-001	HK1023587-002	HK1023587-003	HK1023587-004	HK1023587-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.1	17.8	16.5	7.5	5.1
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	18	34	28	8	8
EG020: Lead	7439-92-1	1	mg/kg	145	79	129	72	46
EG020: Zinc	7440-66-6	1	mg/kg	188	128	90	63	70
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	10	23	18	5	3
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	830
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	C-01 0.5M	C-03 0.5M	D-01 0.5M	D-04 0.5M	D-06 0.5M
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023587-001	HK1023587-002	HK1023587-003	HK1023587-004	HK1023587-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**93.9**	**93.2**	**91.8**	**89.4**	**97.3**
Toluene-D8	2037-26-5	0.1	%	**100**	**99.6**	**100**	**99.5**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**99.7**	**101**	**99.6**	**100**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**93.9**	**93.2**	**91.8**	**89.4**	**97.3**
Toluene-D8	2037-26-5	0.1	%	**100**	**99.6**	**100**	**99.5**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**99.7**	**101**	**99.6**	**100**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**79.7**	**73.7**	**82.2**	**91.0**	**87.6**
4-Terphenyl-d14	1718-51-0	0.1	%	**85.1**	**79.0**	**87.0**	**96.8**	**94.2**

Sub-Matrix: SOIL			Client sample ID	D-05 0.5M	C-01 1.5-1.95M	C-01 3-3.45M	D-06 1.5-1.95M	D-06 3-3.45M
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023587-006	HK1023587-007	HK1023587-008	HK1023587-009	HK1023587-010
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	5.4	32.2	30.1	20.6	23.5
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	3	33	11	19	11
EG020: Lead	7439-92-1	1	mg/kg	14	101	42	78	49
EG020: Zinc	7440-66-6	1	mg/kg	29	112	66	99	68
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	3	29	21	14	22
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	1140	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-05 0.5M	C-01 1.5-1.95M	C-01 3-3.45M	D-06 1.5-1.95M	D-06 3-3.45M
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023587-006	HK1023587-007	HK1023587-008	HK1023587-009	HK1023587-010
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.5**	**94.2**	**93.6**	**96.8**	**94.4**
Toluene-D8	2037-26-5	0.1	%	**99.8**	**101**	**99.3**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**103**	**102**	**102**	**102**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.5**	**94.2**	**93.6**	**96.8**	**94.4**
Toluene-D8	2037-26-5	0.1	%	**99.8**	**101**	**99.3**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**103**	**102**	**102**	**102**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**84.6**	**81.6**	**85.4**	**80.7**	**83.9**
4-Terphenyl-d14	1718-51-0	0.1	%	**90.6**	**88.8**	**92.9**	**86.7**	**88.2**

Sub-Matrix: SOIL			Client sample ID	DUP B				
			Client sampling date / time	[07-OCT-2010]				
Compound	CAS Number	LOR	Unit	HK1023587-011				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**17.4**				
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**16**				
EG020: Lead	7439-92-1	1	mg/kg	**89**				
EG020: Zinc	7440-66-6	1	mg/kg	**46**				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5				
Trichloroethene	79-01-6	0.10	mg/kg	<0.10				
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04				
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500				
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500				
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500				
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500				
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500				

Sub-Matrix: SOIL			Client sample ID	DUP B				
			Client sampling date / time	[07-OCT-2010]				
Compound	CAS Number	LOR	Unit	HK1023587-011				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500				
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500				
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500				
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500				
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500				
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500				
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500				
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500				
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500				
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500				
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50				
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020				
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**91.6**				
Toluene-D8	2037-26-5	0.1	%	**99.1**				
4-Bromofluorobenzene	460-00-4	0.1	%	**102**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**91.6**				
Toluene-D8	2037-26-5	0.1	%	**99.1**				
4-Bromofluorobenzene	460-00-4	0.1	%	**102**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**82.8**				
4-Terphenyl-d14	1718-51-0	0.1	%	**87.3**				

Sub-Matrix: WATER			Client sample ID	FIELD BLANK 2	TRIP BLANK			
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1023587-012	HK1023587-013			
EG: Metals and Major Cations								
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L	<0.02	----			
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	----			
EG: Metals and Major Cations - Filtered								
EG020: Copper	7440-50-8	1	µg/L	**11**	----			
EG020: Lead	7439-92-1	1	µg/L	<1	----			
EG020: Zinc	7440-66-6	10	µg/L	<10	----			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	----			
C9 - C16 Fraction	----	500	µg/L	<500	----			
C17 - C35 Fraction	----	500	µg/L	<500	----			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5			
Toluene	108-88-3	5	µg/L	<5	<5			
Ethylbenzene	100-41-4	5	µg/L	<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10			
Styrene	100-42-5	5	µg/L	<5	<5			
ortho-Xylene	95-47-6	5	µg/L	<5	<5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500			
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50			
Trichloroethene	79-01-6	5	µg/L	<5	<5			
Tetrachloroethene	127-18-4	5	µg/L	<5	<5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5			
Bromodichloromethane	75-27-4	5	µg/L	<5	<5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5			
EP-075A: Phenols								
Phenol	108-95-2	2	µg/L	<2	----			
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	----			
Acenaphthylene	208-96-8	2	µg/L	<2	----			
Acenaphthene	83-32-9	2	µg/L	<2	----			
Fluorene	86-73-7	2	µg/L	<2	----			

Sub-Matrix: WATER			Client sample ID	FIELD BLANK 2	TRIP BLANK			
			Client sampling date / time	[07-OCT-2010]	[07-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1023587-012	HK1023587-013			
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued								
Phenanthrene	85-01-8	2	µg/L	<2	----			
Anthracene	120-12-7	2	µg/L	<2	----			
Fluoranthene	206-44-0	2	µg/L	<2	----			
Pyrene	129-00-0	2	µg/L	<2	----			
Benz(a)anthracene	56-55-3	2	µg/L	<2	----			
Chrysene	218-01-9	2	µg/L	<2	----			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	----			
Benzo(a)pyrene	50-32-8	2	µg/L	<2	----			
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	----			
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	----			
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	----			
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	----			
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	----			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**97.2**	----			
Toluene-D8	2037-26-5	0.1	%	**101**	----			
4-Bromofluorobenzene	460-00-4	0.1	%	**99.6**	----			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**97.2**	**96.9**			
Toluene-D8	2037-26-5	0.1	%	**101**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%	**99.6**	**99.5**			
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**30.6**	----			
Phenol-d6	13127-88-3	0.1	%	**31.6**	----			
2.4.6-Tribromophenol	118-79-6	0.1	%	**66.7**	----			
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**49.9**	----			
2-Fluorobiphenyl	321-60-8	0.1	%	**45.6**	----			
4-Terphenyl-d14	1718-51-0	0.1	%	**85.7**	----			

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: 1522334)								
HK1023587-001	C-01 0.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.1	11.0	8.2
HK1023587-011	DUP B	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.4	17.6	1.2
EG: Metals and Major Cations (QC Lot: 1525104)								
HK1023587-002	C-03 0.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1023587-011	DUP B	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1525106)								
HK1023587-002	C-03 0.5M	EG020: Copper	7440-50-8	1	mg/kg	34	32	5.2
		EG020: Lead	7439-92-1	1	mg/kg	79	78	2.0
		EG020: Zinc	7440-66-6	1	mg/kg	128	134	4.9
HK1023587-011	DUP B	EG020: Copper	7440-50-8	1	mg/kg	16	15	10.5
		EG020: Lead	7439-92-1	1	mg/kg	89	99	11.0
		EG020: Zinc	7440-66-6	1	mg/kg	46	43	5.8
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)								
HK1023290-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)								
HK1023290-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	960	1030	6.9
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)								
HK1023587-001	C-01 0.5M	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)								
HK1023587-001	C-01 0.5M	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1518465)								
HK1023842-001	Anonymous	Benzene	71-43-2	0.04	mg/kg	<0.04	<0.04	0.0
		Toluene	108-88-3	0.04	mg/kg	<0.04	<0.04	0.0
		Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	<0.04	0.0
		Styrene	100-42-5	0.04	mg/kg	<0.04	<0.04	0.0
		ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	<0.04	0.0
		meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	<0.08	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1518465)								
HK1023842-001	Anonymous	2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	<0.4	0.0
		2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1518465)								
HK1023842-001	Anonymous	Trichloroethene	79-01-6	0.04	mg/kg	<0.04	<0.04	0.0
		Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1518465)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1518465) - Continued								
HK1023842-001	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	<0.04	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1518465)								
HK1023842-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1521930)								
HK1023943-004	Anonymous	**EP076HK: Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		EP076HK: Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		EP076HK: Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		EP076HK: Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		EP076HK: Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		EP076HK: Phenanthrene	85-01-8	50	µg/kg	142	137	3.6
		EP076HK: Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1521930)								
HK1023943-004	Anonymous	**EP076HK: Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1527649)								
HK1023350-001	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)								
HK1023290-013	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	11	12	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK1023495-001	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	12	12	0.0
		EG020: Lead	7439-92-1	1	µg/L	1	1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	23	23	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)								
HK1023350-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)								

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723) - Continued								
HK1023290-012	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517723)								
HK1023290-012	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1525104)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	104	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1525106)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.9	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	91.8	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	104	----	74	129	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	92.7	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	88.6	----	54	102	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	93.6	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	88.2	----	54	102	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000) - Continued											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	103	----	74	129	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1518465)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	81.2	----	78	115	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	79.5	----	74	118	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	80.2	----	75	121	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	80.2	----	80	116	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	95.4	----	74	116	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	83.6	----	70	127	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1518465)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	82.3	----	64	132	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1518465)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	85.5	----	83	111	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	85.7	----	74	124	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1518465)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	83.8	----	73	119	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	83.0	----	79	109	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1518465)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1521930)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	85.9	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	103	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	94.3	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	107	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	96.9	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	117	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	107	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	98.8	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	108	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	105	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1521930)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1521930) - Continued											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	75.2	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	116	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	110	----	50	130	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	91.1	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	95.7	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	92.1	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	101	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522462)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	96.3	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	113	----	32	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	83.6	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	81.4	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.7	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	89.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	87.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.4	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517723)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	68.3	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	86.2	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	97.1	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.1	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	90.4	----	77	120	----	----
EP-075A: Phenols (QC Lot: 1517467)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	52.0	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	56.4	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	59.7	----	43	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467) - Continued											
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	66.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	73.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.0	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	84.9	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	89.0	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	87.5	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	94.6	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	92.9	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	91.8	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	74.8	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	86.3	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	82.7	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	88.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1517467)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	101	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1517467)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	75.7	----	52	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 (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1525104)										
HK1023587-001	C-01 0.5M	EG3060: Hexavalent Chromium	18540-29-9	40 mg/kg	103	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1525106)										
HK1023587-001	C-01 0.5M	EG020: Copper	7440-50-8	5 mg/kg	88.9	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522403)										
HK1023290-002	Anonymous	C6 - C8 Fraction	----	3 mg/kg	106	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522635)										
HK1023290-002	Anonymous	C9 - C16 Fraction	----	31 mg/kg	64.2	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	63.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)										

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414) - Continued										
HK1023587-002	C-03 0.5M	**C9 - C16 Fraction**	----	31 mg/kg	91.1	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	73.3	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)										
HK1023587-002	C-03 0.5M	**C6 - C8 Fraction**	----	3 mg/kg	87.0	----	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 (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)										
HK1023290-013	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	92.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523479)										
HK1023350-001	Anonymous	**EG020: Copper**	7440-50-8	100 µg/L	93.4	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	92.9	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	82.2	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates - Continued			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. D

HK1023871

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

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Project	: MAI PO	Quote number	: ----	Date Samples Received	: 08-OCT-2010
Order number	: ----			Issue Date	: 25-OCT-2010
C-O-C number	: H024556-H024557			No. of samples received	: 18
Site	: ----			No. of samples analysed	: 18

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

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

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 21-OCT-2010

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: **HK1023871**

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.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL			Client sample ID	C-03 1.5-1.95M	C-01 4.5-4.95M	C-01 6.00-6.45M	D-05 1.5-1.95M	D-05 3.0-3.45M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-001	HK1023871-002	HK1023871-003	HK1023871-004	HK1023871-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.0	18.1	13.4	24.3	23.1
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	60	11	7	25	12
EG020: Lead	7439-92-1	1	mg/kg	103	38	40	70	39
EG020: Zinc	7440-66-6	1	mg/kg	234	26	14	64	34
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	52	13	2	21	20
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	C-03 1.5-1.95M	C-01 4.5-4.95M	C-01 6.00-6.45M	D-05 1.5-1.95M	D-05 3.0-3.45M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-001	HK1023871-002	HK1023871-003	HK1023871-004	HK1023871-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.2**	**92.4**	**96.8**	**94.6**	**97.0**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**100**	**100**	**99.4**
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**101**	**102**	**102**	**98.9**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.2**	**92.4**	**96.8**	**94.6**	**97.0**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**100**	**100**	**99.4**
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**101**	**102**	**102**	**98.9**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**85.8**	**79.3**	**77.3**	**82.8**	**83.0**
4-Terphenyl-d14	1718-51-0	0.1	%	**93.0**	**97.2**	**85.5**	**89.8**	**90.6**

Sub-Matrix: SOIL			Client sample ID	D-05 4.5-4.95M	D-05 6.0-6.45M	C-03 3.0-3.23M	C-03 6.0-6.45M	C-03 4.5-4.95M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-006	HK1023871-007	HK1023871-008	HK1023871-009	HK1023871-010
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**15.4**	**7.3**	**19.2**	**26.9**	**23.3**
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**6**	**2**	**31**	**22**	**42**
EG020: Lead	7439-92-1	1	mg/kg	**31**	**13**	**107**	**71**	**85**
EG020: Zinc	7440-66-6	1	mg/kg	**13**	**9**	**98**	**75**	**144**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**9**	**3**	**24**	**23**	**33**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-05 4.5-4.95M	D-05 6.0-6.45M	C-03 3.0-3.23M	C-03 6.0-6.45M	C-03 4.5-4.95M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-006	HK1023871-007	HK1023871-008	HK1023871-009	HK1023871-010
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**92.0**	**97.5**	**96.6**	**95.3**	**96.4**
Toluene-D8	2037-26-5	0.1	%	**99.6**	**101**	**99.8**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**101**	**101**	**101**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**92.0**	**97.5**	**96.6**	**95.3**	**96.4**
Toluene-D8	2037-26-5	0.1	%	**99.6**	**101**	**99.8**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**101**	**101**	**101**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**85.6**	**90.6**	**86.6**	**92.7**	**92.0**
4-Terphenyl-d14	1718-51-0	0.1	%	**92.9**	**99.2**	**92.4**	**97.3**	**98.5**

Sub-Matrix: SOIL			Client sample ID	D-04 1.5-1.95M	D-04 3.0-3.45M	D-04 4.5-4.95M	DUP C (SOIL)	D-06 6.00-6.45M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-011	HK1023871-012	HK1023871-013	HK1023871-014	HK1023871-016
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	24.4	24.8	25.0	14.6	20.0
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	15	9	17	9	7
EG020: Lead	7439-92-1	1	mg/kg	95	37	78	71	42
EG020: Zinc	7440-66-6	1	mg/kg	107	54	45	17	18
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	18	17	12	3	14
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-04 1.5-1.95M	D-04 3.0-3.45M	D-04 4.5-4.95M	DUP C (SOIL)	D-06 6.00-6.45M
			Client sampling date / time	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[08-OCT-2010]	[07-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023871-011	HK1023871-012	HK1023871-013	HK1023871-014	HK1023871-016
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.4**	**104**	**97.8**	**94.3**	**102**
Toluene-D8	2037-26-5	0.1	%	**100**	**102**	**101**	**99.8**	**102**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**101**	**100**	**100**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.4**	**104**	**97.8**	**94.3**	**102**
Toluene-D8	2037-26-5	0.1	%	**100**	**102**	**101**	**99.8**	**102**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**101**	**100**	**100**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**89.0**	**84.4**	**77.1**	**63.7**	**90.6**
4-Terphenyl-d14	1718-51-0	0.1	%	**92.6**	**89.8**	**80.6**	**67.9**	**97.2**

Sub-Matrix: SOIL			Client sample ID	D-01 1.50-1.75M	D-06 4.50-4.95M			
			Client sampling date / time	[08-OCT-2010]	[07-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1023871-017	HK1023871-018			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.0	17.6			
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	6	6			
EG020: Lead	7439-92-1	1	mg/kg	40	48			
EG020: Zinc	7440-66-6	1	mg/kg	24	20			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	8	24			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10			
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04			
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500			
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500			
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500			
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500			
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500			

Sub-Matrix: SOIL			Client sample ID	D-01 1.50-1.75M	D-06 4.50-4.95M			
			Client sampling date / time	[08-OCT-2010]	[07-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1023871-017	HK1023871-018			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500			
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500			
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500			
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500			
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500			
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500			
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500			
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500			
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500			
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500			
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50			
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020			
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.8**	**92.9**			
Toluene-D8	2037-26-5	0.1	%	**100**	**99.2**			
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**100**			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.8**	**92.9**			
Toluene-D8	2037-26-5	0.1	%	**100**	**99.2**			
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**100**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**89.8**	**98.6**			
4-Terphenyl-d14	1718-51-0	0.1	%	**98.0**	**104**			

Sub-Matrix: WATER			Client sample ID	TRIP BLANK (3)				
			Client sampling date / time	[08-OCT-2010]				
Compound	CAS Number	LOR	Unit	HK1023871-015				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5				
Toluene	108-88-3	5	µg/L	<5				
Ethylbenzene	100-41-4	5	µg/L	<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10				
Styrene	100-42-5	5	µg/L	<5				
ortho-Xylene	95-47-6	5	µg/L	<5				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500				
2-Butanone (MEK)	78-93-3	50	µg/L	<50				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50				
Trichloroethene	79-01-6	5	µg/L	<5				
Tetrachloroethene	127-18-4	5	µg/L	<5				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5				
Bromodichloromethane	75-27-4	5	µg/L	<5				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**98.7**				
Toluene-D8	2037-26-5	0.1	%	**100**				
4-Bromofluorobenzene	460-00-4	0.1	%	**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: 1522334)								
HK1023587-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.1	11.0	8.2
HK1023587-011	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.4	17.6	1.2
EA/ED: Physical and Aggregate Properties (QC Lot: 1522335)								
HK1023871-009	C-03 6.0-6.45M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	26.9	25.8	4.5
HK1023872-005	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	24.8	25.0	1.0
EG: Metals and Major Cations (QC Lot: 1525104)								
HK1023587-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1023587-011	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1525105)								
HK1023871-011	D-04 1.5-1.95M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1023872-006	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1525106)								
HK1023587-002	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	34	32	5.2
		EG020: Lead	7439-92-1	1	mg/kg	79	78	2.0
		EG020: Zinc	7440-66-6	1	mg/kg	128	134	4.9
HK1023587-011	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	16	15	10.5
		EG020: Lead	7439-92-1	1	mg/kg	89	99	11.0
		EG020: Zinc	7440-66-6	1	mg/kg	46	43	5.8
EG: Metals and Major Cations (QC Lot: 1525107)								
HK1023871-011	D-04 1.5-1.95M	**EG020: Copper**	7440-50-8	1	mg/kg	15	17	12.3
		EG020: Lead	7439-92-1	1	mg/kg	95	88	7.6
		EG020: Zinc	7440-66-6	1	mg/kg	107	88	19.2
HK1023872-006	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	11	13	18.8
		EG020: Lead	7439-92-1	1	mg/kg	38	48	22.7
		EG020: Zinc	7440-66-6	1	mg/kg	32	40	21.3
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)								
HK1023587-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)								
HK1023587-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1518465)								
HK1023842-001	Anonymous	**Benzene**	71-43-2	0.04	mg/kg	<0.04	<0.04	0.0
		Toluene	108-88-3	0.04	mg/kg	<0.04	<0.04	0.0
		Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	<0.04	0.0
		Styrene	100-42-5	0.04	mg/kg	<0.04	<0.04	0.0
		ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	<0.04	0.0
		meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	<0.08	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1521909)								
HK1023871-001	C-03 1.5-1.95M	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1518465)								
HK1023842-001	Anonymous	**2-Butanone (MEK)**	78-93-3	0.4	mg/kg	<0.4	<0.4	0.0
		2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1521909)								
HK1023871-001	C-03 1.5-1.95M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1518465)								
HK1023842-001	Anonymous	**Trichloroethene**	79-01-6	0.04	mg/kg	<0.04	<0.04	0.0
		Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1521909)								
HK1023871-001	C-03 1.5-1.95M	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1518465)								
HK1023842-001	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	<0.04	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1521909)								
HK1023871-001	C-03 1.5-1.95M	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1518465)								
HK1023842-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1521909)								
HK1023871-001	C-03 1.5-1.95M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1521930)								
HK1023943-004	Anonymous	**EP076HK: Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		EP076HK: Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		EP076HK: Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		EP076HK: Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1521930) - Continued								
HK1023943-004	Anonymous	**EP076HK: Dibenz(a.h)anthracene**	53-70-3	150	µg/kg	<150	<150	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		EP076HK: Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		EP076HK: Phenanthrene	85-01-8	50	µg/kg	142	137	3.6
		EP076HK: Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523418)								
HK1023871-001	C-03 1.5-1.95M	**EP076HK: Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		EP076HK: Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		EP076HK: Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		EP076HK: Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		EP076HK: Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		EP076HK: Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		EP076HK: Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		EP076HK: Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1521930)								
HK1023943-004	Anonymous	**EP076HK: Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418)								
HK1023871-001	C-03 1.5-1.95M	**EP076HK: Hexachlorobenzene (HCB)**	118-74-1	20	µg/kg	<20	<20	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	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-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723) - Continued								
HK1023290-012	Anonymous	**Ethylbenzene**	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517723)								
HK1023290-012	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1525104)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	104	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1525105)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	110	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1525106)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.9	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	91.8	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1525107)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	108	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.8	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	113	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	93.6	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	88.2	----	54	102	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	103	----	74	129	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1518465)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	81.2	----	78	115	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1518465) - Continued											
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	79.5	----	74	118	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	80.2	----	75	121	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	80.2	----	80	116	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	95.4	----	74	116	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	83.6	----	70	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1521909)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	78	115	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	114	----	74	118	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	75	121	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	104	----	80	116	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	74	116	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	112	----	70	127	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1518465)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	82.3	----	64	132	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1521909)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	109	----	64	132	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1518465)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	85.5	----	83	111	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	85.7	----	74	124	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1521909)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	83	111	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	74	124	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1518465)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	83.8	----	73	119	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	83.0	----	79	109	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1521909)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	73	119	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	79	109	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1518465)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1521909)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	----	----	----	----	----	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1521930)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	85.9	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	103	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	94.3	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	107	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	96.9	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	117	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	107	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	98.8	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	108	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	105	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	106	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523418)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	92.4	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	91.8	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	93.5	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	93.6	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	98.7	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	89.5	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	99.8	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	101	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	96.3	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	98.8	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	97.4	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	95.9	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	105	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1521930)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	75.2	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	116	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	110	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	100	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	96.3	----	50	130	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418) - Continued											
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	93.2	----	50	130	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	83.6	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	81.4	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.7	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	89.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	87.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.4	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517723)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	68.3	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	86.2	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	97.1	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.1	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	90.4	----	77	120	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1525104)										
HK1023587-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	103	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1525105)										
HK1023871-010	C-03 4.5-4.95M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	108	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1525106)										
HK1023587-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	88.9	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1525107)										
HK1023871-010	C-03 4.5-4.95M									

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1525107) - Continued										
HK1023871-010	C-03 4.5-4.95M	**EG020: Copper**	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)										
HK1023587-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	91.1	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	73.3	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)										
HK1023587-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	87.0	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. E

HK1023872

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 17
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1023872
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Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: MAI PO	Quote number	: ----	Date Samples Received	: 09-OCT-2010
Order number	: ----			Issue Date	: 25-OCT-2010
C-O-C number	: H024558			No. of samples received	: 12
Site	: ----			No. of samples analysed	: 12

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

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

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 21-OCT-2010

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: **HK1023872**

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

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

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

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

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL			Client sample ID	D-01 3.00-3.45M	D-01 4.50-4.95M	D-01 6.00-6.45M	D-02 0.5M	D-02 1.5-1.95M
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023872-004	HK1023872-005	HK1023872-006	HK1023872-007	HK1023872-008
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	27.0	24.8	20.0	9.7	18.0
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	20	10	11	102	15
EG020: Lead	7439-92-1	1	mg/kg	50	52	38	38	47
EG020: Zinc	7440-66-6	1	mg/kg	94	48	32	71	46
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	16	17	15	8	15
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-01 3.00-3.45M	D-01 4.50-4.95M	D-01 6.00-6.45M	D-02 0.5M	D-02 1.5-1.95M
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023872-004	HK1023872-005	HK1023872-006	HK1023872-007	HK1023872-008
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.2**	**94.1**	**90.9**	**94.5**	**94.9**
Toluene-D8	2037-26-5	0.1	%	**100**	**101**	**99.3**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**98.9**	**98.0**	**101**	**100**	**100**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**94.2**	**94.1**	**90.9**	**94.5**	**94.9**
Toluene-D8	2037-26-5	0.1	%	**100**	**101**	**99.3**	**100**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%	**98.9**	**98.0**	**101**	**100**	**100**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**88.4**	**84.9**	**92.6**	**89.0**	**73.3**
4-Terphenyl-d14	1718-51-0	0.1	%	**94.9**	**99.7**	**112**	**111**	**83.6**

Sub-Matrix: SOIL			Client sample ID	D-02 3.0-3.45M	D-02 4.5-4.95M	D-02 6.0-6.45M	D-04 6.0-6.45M
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[08-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1023872-009	HK1023872-010	HK1023872-011	HK1023872-012
EA/ED: Physical and Aggregate Properties							
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**20.1**	**16.3**	**21.9**	**25.5**
EG: Metals and Major Cations							
EG020: Copper	7440-50-8	1	mg/kg	**16**	**14**	**15**	**18**
EG020: Lead	7439-92-1	1	mg/kg	**49**	**70**	**31**	**88**
EG020: Zinc	7440-66-6	1	mg/kg	**58**	**46**	**11**	**39**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**17**	**10**	**13**	**24**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)							
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)							
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds							
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics							
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5
Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04
EP-074G: Trihalomethanes (THM)							
Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
EP-074L: Methyl-tert-butyl Ether							
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)							
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL			Client sample ID	D-02 3.0-3.45M	D-02 4.5-4.95M	D-02 6.0-6.45M	D-04 6.0-6.45M	
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]	[08-OCT-2010]	
Compound	CAS Number	LOR	Unit	HK1023872-009	HK1023872-010	HK1023872-011	HK1023872-012	
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP076HK: Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
EP076HK: Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
EP076HK: Hexachlorobenzene (HCB)	118-74-1	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**93.9**	**92.9**	**95.3**	**94.1**	
Toluene-D8	2037-26-5	0.1	%	**99.6**	**99.6**	**100**	**99.2**	
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**100**	**101**	
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**93.9**	**92.9**	**95.3**	**94.1**	
Toluene-D8	2037-26-5	0.1	%	**99.6**	**99.6**	**100**	**99.2**	
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**101**	**100**	**101**	
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	**85.6**	**82.0**	**51.3**	**82.5**	
4-Terphenyl-d14	1718-51-0	0.1	%	**96.8**	**90.4**	**50.8**	**91.9**	

Sub-Matrix: WATER			Client sample ID	EQ 2	EQ 3	TRIP BLANK		
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]		
Compound	CAS Number	LOR	Unit	HK1023872-001	HK1023872-002	HK1023872-003		
EG: Metals and Major Cations								
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L	<0.02	<0.02	----		
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	<0.02	----		
EG: Metals and Major Cations - Filtered								
EG020: Copper	7440-50-8	1	µg/L	**12**	**19**	----		
EG020: Lead	7439-92-1	1	µg/L	<1	<1	----		
EG020: Zinc	7440-66-6	10	µg/L	<10	<10	----		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20	----		
C9 - C16 Fraction	----	500	µg/L	<500	<500	----		
C17 - C35 Fraction	----	500	µg/L	<500	<500	----		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5		
Toluene	108-88-3	5	µg/L	<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10		
Styrene	100-42-5	5	µg/L	<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	<500		
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5		
EP-075A: Phenols								
Phenol	108-95-2	2	µg/L	<2	<2	----		
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	----		
Acenaphthylene	208-96-8	2	µg/L	<2	<2	----		
Acenaphthene	83-32-9	2	µg/L	<2	<2	----		
Fluorene	86-73-7	2	µg/L	<2	<2	----		

Sub-Matrix: WATER			Client sample ID	EQ 2	EQ 3	TRIP BLANK		
			Client sampling date / time	[09-OCT-2010]	[09-OCT-2010]	[09-OCT-2010]		
Compound	CAS Number	LOR	Unit	HK1023872-001	HK1023872-002	HK1023872-003		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued								
Phenanthrene	85-01-8	2	µg/L	<2	<2	----		
Anthracene	120-12-7	2	µg/L	<2	<2	----		
Fluoranthene	206-44-0	2	µg/L	<2	<2	----		
Pyrene	129-00-0	2	µg/L	<2	<2	----		
Benz(a)anthracene	56-55-3	2	µg/L	<2	<2	----		
Chrysene	218-01-9	2	µg/L	<2	<2	----		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	----		
Benzo(a)pyrene	50-32-8	2	µg/L	<2	<2	----		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	<2	----		
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	<2	----		
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	<2	----		
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	<20	----		
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	----		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**106**	**110**	----		
Toluene-D8	2037-26-5	0.1	%	**102**	**103**	----		
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**100**	----		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**106**	**110**	**115**		
Toluene-D8	2037-26-5	0.1	%	**102**	**103**	**103**		
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**100**	**99.5**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**36.0**	**23.4**	----		
Phenol-d6	13127-88-3	0.1	%	**32.8**	**23.9**	----		
2.4.6-Tribromophenol	118-79-6	0.1	%	**74.7**	**71.3**	----		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**51.0**	**37.0**	----		
2-Fluorobiphenyl	321-60-8	0.1	%	**45.8**	**44.9**	----		
4-Terphenyl-d14	1718-51-0	0.1	%	**91.8**	**94.2**	----		

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1522335)								
HK1023871-009	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	26.9	25.8	4.5
HK1023872-005	D-01 4.50-4.95M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	24.8	25.0	1.0
EG: Metals and Major Cations (QC Lot: 1525105)								
HK1023871-011	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1023872-006	D-01 6.00-6.45M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1525107)								
HK1023871-011	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	15	17	12.3
		EG020: Lead	7439-92-1	1	mg/kg	95	88	7.6
		EG020: Zinc	7440-66-6	1	mg/kg	107	88	19.2
HK1023872-006	D-01 6.00-6.45M	**EG020: Copper**	7440-50-8	1	mg/kg	11	13	18.8
		EG020: Lead	7439-92-1	1	mg/kg	38	48	22.7
		EG020: Zinc	7440-66-6	1	mg/kg	32	40	21.3
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)								
HK1023587-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523419)								
HK1023872-004	D-01 3.00-3.45M	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)								
HK1023587-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524001)								
HK1023872-004	D-01 3.00-3.45M	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1521909)								
HK1023871-001	Anonymous	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1521909)								
HK1023871-001	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1521909)								
HK1023871-001	Anonymous	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1521909)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-074G: Trihalomethanes (THM) (QC Lot: 1521909) - Continued								
HK1023871-001	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1521909)								
HK1023871-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523418)								
HK1023871-001	Anonymous	**EP076HK: Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		EP076HK: Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		EP076HK: Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		EP076HK: Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		EP076HK: Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		EP076HK: Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		EP076HK: Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		EP076HK: Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523420)								
HK1023872-004	D-01 3.00-3.45M	**EP076HK: Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		EP076HK: Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		EP076HK: Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		EP076HK: Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		EP076HK: Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		EP076HK: Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		EP076HK: Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		EP076HK: Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		EP076HK: Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		EP076HK: Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		EP076HK: Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418)								
HK1023871-001	Anonymous	**EP076HK: Hexachlorobenzene (HCB)**	118-74-1	20	µg/kg	<20	<20	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418) - Continued								
HK1023871-001	Anonymous	**EP076HK: Phenol**	108-95-2	500	µg/kg	<500	<500	0.0
		EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523420)								
HK1023872-004	D-01 3.00-3.45M	**EP076HK: Hexachlorobenzene (HCB)**	118-74-1	20	µg/kg	<20	<20	0.0
		EP076HK: Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
				Laboratory Duplicate (DUP) Report				
EG: Metals and Major Cations (QC Lot: 1527649)								
HK1023350-001	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)								
HK1023872-002	EQ 3	**EG020: Copper**	7440-50-8	1	µg/L	19	19	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)								
HK1023350-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517723)								
HK1023290-012	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1525105)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	110	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1525107)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	108	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.8	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	113	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	93.6	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	88.2	----	54	102	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523419)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	92.7	----	57	104	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.5	----	54	102	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	103	----	74	129	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524001)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	102	----	74	129	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1521909)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	78	115	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	114	----	74	118	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	75	121	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	104	----	80	116	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	74	116	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	112	----	70	127	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1521909)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	109	----	64	132	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1521909)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	83	111	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	74	124	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1521909)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	73	119	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	79	109	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1521909)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.5	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523418)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	92.4	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	91.8	----	50	130	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523418) - Continued											
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	93.5	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	93.6	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	98.7	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	89.5	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	99.8	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	101	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	96.3	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	98.8	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	97.4	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	112	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	95.9	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	105	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1523420)											
EP076HK: Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	94.8	----	50	130	----	----
EP076HK: Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	110	----	50	130	----	----
EP076HK: Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	98.2	----	50	130	----	----
EP076HK: Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	104	----	50	130	----	----
EP076HK: Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	102	----	50	130	----	----
EP076HK: Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	98.6	----	50	130	----	----
EP076HK: Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	110	----	50	130	----	----
EP076HK: Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	115	----	50	130	----	----
EP076HK: Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	100	----	50	130	----	----
EP076HK: Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	108	----	50	130	----	----
EP076HK: Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP076HK: Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	104	----	50	130	----	----
EP076HK: Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	101	----	50	130	----	----
EP076HK: Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	109	----	50	130	----	----
EP076HK: Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	110	----	50	130	----	----
EP076HK: Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	110	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523418)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	100	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	96.3	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	93.2	----	50	130	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1523420)											
EP076HK: Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	80.6	----	50	130	----	----
EP076HK: Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	115	----	50	130	----	----
EP076HK: Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	105	----	50	130	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	113	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	102	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	109	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	101	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1522462)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	96.3	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	113	----	32	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	83.6	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	81.4	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.7	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	89.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	87.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.4	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517723)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	68.3	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	86.2	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	97.1	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.1	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	90.4	----	77	120	----	----
EP-075A: Phenols (QC Lot: 1517467)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	52.0	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	56.4	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	59.7	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	66.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	73.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.0	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	84.9	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	89.0	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	87.5	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	94.6	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	92.9	----	68	114	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1517467) - Continued											
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	91.8	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	74.8	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	86.3	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	82.7	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	88.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1517467)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	101	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1517467)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	75.7	----	52	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 (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1525105)										
HK1023871-010	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	40 mg/kg	108	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1525107)										
HK1023871-010	Anonymous	EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523414)										
HK1023587-002	Anonymous	C9 - C16 Fraction	----	31 mg/kg	91.1	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	73.3	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1523419)										
HK1023872-005	D-01 4.50-4.95M	C9 - C16 Fraction	----	31 mg/kg	81.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	85.4	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524000)										
HK1023587-002	Anonymous	C6 - C8 Fraction	----	3 mg/kg	87.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524001)										
HK1023872-005	D-01 4.50-4.95M	C6 - C8 Fraction	----	3 mg/kg	84.4	----	50	130	----	----

Matrix: **WATER**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	RPD (%)

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)										
HK1023290-013	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	92.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)										
HK1023872-001	EQ 2	**EG020: Copper**	7440-50-8	100 µg/L	108	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	106	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	104	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP-080S: 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-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075T: Base/Neutral Extractable Surrogates - Continued			
4-Terphenyl-d14	1718-51-0	33	141

Report No. F

HK1024056

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 12
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1024056
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: MAI PO	Quote number	: ----	Date Samples Received	: 12-OCT-2010
Order number	: ----			Issue Date	: 26-OCT-2010
C-O-C number	: H024559-h024560			No. of samples received	: 12
Site	: ----			No. of samples analysed	: 12

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 20-OCT-2010

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: **HK1024056**

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.

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

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

Analytical Results

Sub-Matrix: WATER			Client sample ID	C-01	C-02	C-03	D-01	D-02
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1024056-001	HK1024056-002	HK1024056-003	HK1024056-004	HK1024056-005
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L	**500**	**800**	**2800**	<500	<500
C17 - C35 Fraction	----	500	µg/L	**1700**	**900**	**2900**	<500	**1100**
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L	<5	<5	<5	<5	**14**
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L	<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	<500	<500	<500
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5	<5	<5
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L	<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L	<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L	<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L	<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L	<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L	<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L	<2	<2	<2	<2	<2
Chrysene	218-01-9	2	µg/L	<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	<4	<4	<4

Sub-Matrix: WATER			Client sample ID	C-01	C-02	C-03	D-01	D-02
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1024056-001	HK1024056-002	HK1024056-003	HK1024056-004	HK1024056-005
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	<4	<4	<4
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**101**	**104**	**108**	**108**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**99.6**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%	**98.1**	**99.4**	**100**	**100**	**99.0**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**101**	**101**	**104**	**108**	**108**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**99.6**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%	**98.1**	**99.4**	**100**	**100**	**99.0**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**38.9**	**36.0**	**56.6**	**39.0**	**30.3**
Phenol-d6	13127-88-3	0.1	%	**32.9**	**27.6**	**29.1**	**26.0**	**22.8**
2.4.6-Tribromophenol	118-79-6	0.1	%	**67.1**	**82.2**	**86.8**	**73.4**	**91.6**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**56.4**	**50.4**	**99.3**	**54.5**	**44.3**
2-Fluorobiphenyl	321-60-8	0.1	%	**55.9**	**51.1**	**96.1**	**49.2**	**53.0**
4-Terphenyl-d14	1718-51-0	0.1	%	**77.0**	**94.3**	**87.6**	**87.2**	**102**

Sub-Matrix: WATER			Client sample ID	D-04	D-05	D-06	D-07	DUP D
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1024056-006	HK1024056-007	HK1024056-008	HK1024056-009	HK1024056-010
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	**80**	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L	**600**	**500**	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L	**900**	**3700**	**1000**	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L	**78**	<5	**8**	<5	<5
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L	<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	<500	<500	<500
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5	<5	<5
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L	<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L	<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L	<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L	<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L	<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L	<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L	<2	<2	<2	<2	<2
Chrysene	218-01-9	2	µg/L	<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	<4	<4	<4
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	<4	<4	<4

Sub-Matrix: WATER			Client sample ID	D-04	D-05	D-06	D-07	DUP D
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]	[12-OCT-2010]
Compound	CAS Number	LOR	Unit	HK1024056-006	HK1024056-007	HK1024056-008	HK1024056-009	HK1024056-010
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**110**	**104**	**103**	**109**	**106**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**101**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**99.0**	**99.8**	**99.0**	**99.1**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**110**	**104**	**103**	**109**	**106**
Toluene-D8	2037-26-5	0.1	%	**101**	**100**	**101**	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%	**100**	**99.0**	**99.8**	**99.0**	**99.1**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**97.3**	**58.0**	**50.0**	**56.4**	**52.4**
Phenol-d6	13127-88-3	0.1	%	**76.1**	**44.0**	**34.0**	**38.6**	**41.0**
2.4.6-Tribromophenol	118-79-6	0.1	%	**77.1**	**103**	**83.6**	**102**	**92.7**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**99.5**	**79.2**	**66.9**	**73.3**	**73.1**
2-Fluorobiphenyl	321-60-8	0.1	%	**76.9**	**83.4**	**69.4**	**71.5**	**79.0**
4-Terphenyl-d14	1718-51-0	0.1	%	**82.6**	**105**	**92.7**	**110**	**103**

Sub-Matrix: WATER			Client sample ID	FIELD BLANK 3	EQUIPMENT BLANK 4			
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1024056-011	HK1024056-012			
EG: Metals and Major Cations								
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L	<0.02	----			
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	----			
EG: Metals and Major Cations - Filtered								
EG020: Copper	7440-50-8	1	µg/L	**18**	----			
EG020: Lead	7439-92-1	1	µg/L	<1	----			
EG020: Zinc	7440-66-6	10	µg/L	<10	----			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20			
C9 - C16 Fraction	----	500	µg/L	<500	<500			
C17 - C35 Fraction	----	500	µg/L	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5			
Toluene	108-88-3	5	µg/L	<5	<5			
Ethylbenzene	100-41-4	5	µg/L	<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10			
Styrene	100-42-5	5	µg/L	<5	<5			
ortho-Xylene	95-47-6	5	µg/L	<5	<5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500			
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50			
Trichloroethene	79-01-6	5	µg/L	<5	<5			
Tetrachloroethene	127-18-4	5	µg/L	<5	<5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	**14**			
Bromodichloromethane	75-27-4	5	µg/L	<5	<5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5			
EP-075A: Phenols								
Phenol	108-95-2	2	µg/L	<2	<2			
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2			
Acenaphthylene	208-96-8	2	µg/L	<2	<2			
Acenaphthene	83-32-9	2	µg/L	<2	<2			
Fluorene	86-73-7	2	µg/L	<2	<2			

Sub-Matrix: WATER			Client sample ID	FIELD BLANK 3	EQUIPMENT BLANK 4			
			Client sampling date / time	[12-OCT-2010]	[12-OCT-2010]			
Compound	CAS Number	LOR	Unit	HK1024056-011	HK1024056-012			
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued								
Phenanthrene	85-01-8	2	µg/L	<2	<2			
Anthracene	120-12-7	2	µg/L	<2	<2			
Fluoranthene	206-44-0	2	µg/L	<2	<2			
Pyrene	129-00-0	2	µg/L	<2	<2			
Benz(a)anthracene	56-55-3	2	µg/L	<2	<2			
Chrysene	218-01-9	2	µg/L	<2	<2			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4			
Benzo(a)pyrene	50-32-8	2	µg/L	<2	<2			
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	<2			
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	<2			
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	<2			
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	<20			
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**112**	**100**			
Toluene-D8	2037-26-5	0.1	%	**101**	**99.6**			
4-Bromofluorobenzene	460-00-4	0.1	%	**98.2**	**98.9**			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**112**	**100**			
Toluene-D8	2037-26-5	0.1	%	**101**	**99.6**			
4-Bromofluorobenzene	460-00-4	0.1	%	**98.2**	**98.9**			
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**37.4**	**41.4**			
Phenol-d6	13127-88-3	0.1	%	**30.9**	**34.8**			
2.4.6-Tribromophenol	118-79-6	0.1	%	**77.4**	**70.4**			
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**64.4**	**63.4**			
2-Fluorobiphenyl	321-60-8	0.1	%	**53.1**	**52.8**			
4-Terphenyl-d14	1718-51-0	0.1	%	**104**	**95.5**			

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 (QC Lot: 1527649)								
HK1023350-001	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)								
HK1023872-002	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	19	19	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)								
HK1023350-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1525109)								
HK1024105-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1525108)								
HK1024056-008	D-06	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	8	9	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1517723)								
HK1023290-012	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1525108)								
HK1024056-008	D-06	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1525108)								
HK1024056-008	D-06	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	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-074E: Halogenated Aliphatics (QC Lot: 1525108) - Continued								
HK1024056-008	D-06	**Methylene chloride**	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1525108)								
HK1024056-008	D-06	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1517723)								
HK1023290-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1525108)								
HK1024056-008	D-06	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	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 LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	113	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	102	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	109	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1521752)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	101	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1524023)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	88.6	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.50	0.5 mg/L	101	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1525109)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	90.7	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1517723)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	83.6	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	81.4	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.7	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	89.1	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	87.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.4	----	72	125	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1525108)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	86.8	----	54	132	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1525108) - Continued											
Toluene	108-88-3	5	µg/L	<5	10 µg/L	94.0	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	91.4	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	88.0	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	88.3	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	90.5	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1517723)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	68.3	----	63	126	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1525108)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	81.4	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1517723)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	86.2	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	97.1	----	59	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1525108)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	92.0	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	89.2	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1517723)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.1	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	90.4	----	77	120	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1525108)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	92.2	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	91.2	----	77	120	----	----
EP-075A: Phenols (QC Lot: 1527422)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	38.2	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1527412)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	76.8	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	68.1	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	77.7	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	81.7	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	86.4	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	91.1	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	93.7	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	92.8	----	65	105	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	94.8	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	95.4	----	53	104	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1527422)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	71.5	----	48	102	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1527422) - Continued											
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	71.9	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	70.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	73.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	79.3	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	81.6	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	84.2	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	83.9	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	89.0	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	86.0	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	87.7	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	71.2	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	84.1	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	83.4	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	87.1	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1527422)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	95.8	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1527412)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	83.9	----	52	110	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1527422)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	74.2	----	52	110	----	----

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 (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1527649)										
HK1023290-013	Anonymous	EG050: Hexavalent Chromium	18540-29-9	0.5 mg/L	92.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1523494)										
HK1023872-001	Anonymous	EG020: Copper	7440-50-8	100 µg/L	108	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	106	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	104	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

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

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%)* Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate - Continued			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141