




**CERTIFICATE OF ANALYSIS**

Client	: MOTT MACDONALD HONG KONG LIMITED	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 12
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Telephone	: +852 2828 5933	Telephone	: +852 2610 1044	Date Samples Received	: 04-Oct-2019
Facsimile	: +852 2828 1823	Facsimile	: +852 2610 2021	Issue Date	: 16-Oct-2019
Project	: SOIL TESTING AT HONG KONG AIRPORT			No. of samples received	: 4
Order number	: ---	Quote number	: HKE/1861c/2018	No. of samples analysed	: 4
C-O-C number	: H037888				
Site	: CONTRACT NO. C3503 TERMINAL 2 FOUNDATION AND SUBSTRUCTURE WORKS				

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This document has been signed by those names that appear on this report and are the authorised signatories.

<i>Signatories</i>	<i>Position</i>	<i>Authorised results for</i>
 Anh Ngoc Huynh .	Senior Chemist	Organics_ENV
 Chan Siu Ming , Vico	Manager - Inorganics	Inorganics
 Leung Chak Cheong , Mike	Senior Chemist	Metals_ENV



### **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. Testing period is from 04-Oct-2019 to 15-Oct-2019.

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: HK1942798**

Sample(s) were received in chilled condition.

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

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

Sample information (Project name, Sample ID, Sampling date/ time) is provided by client.

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



### Analytical Results

Sub-Matrix: SOIL				Client sample ID	BH1-700MBS	BH1-1600MBS	BH1-UNDERS500	---	---
				Client sampling date / time	04-Oct-2019	04-Oct-2019	04-Oct-2019	---	---
Compound	CAS Number	LOR	Unit	HK1942798-001	HK1942798-002	HK1942798-003	-----	-----	-----
<b>EA/ED: Physical and Aggregate Properties</b>									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.2	19.4	13.6	---	---	---
<b>EG: Metals and Major Cations</b>									
EG020: Lead	7439-92-1	1	mg/kg	9	8	38	---	---	---
<b>EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
EP076HK: Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	---	---	---
EP076HK: Benzo(a)pyrene	50-32-8	0.500	mg/kg	<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	---	---	---
EP076HK: Dibenz(a,h)anthracene	53-70-3	0.500	mg/kg	<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	---	---	---
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)</b>									
EP070HK_SR: C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	---	---	---
EP071HK_SR: C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	---	---	---
EP071HK_SR: C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	---	---	---
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)</b>									
EP074_SR: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	---	---	---
EP074_SR: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	---	---	---
EP074_SR: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	---	---	---



Sub-Matrix: SOIL				Client sample ID	BH1-700MBS	BH1-1600MBS	BH1-UNDERS500	---	---
				Client sampling date / time	04-Oct-2019	04-Oct-2019	04-Oct-2019	---	---
Compound	CAS Number	LOR	Unit	HK1942798-001	HK1942798-002	HK1942798-003	---	---	---
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) - Continued</b>									
EP074_SR: meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0	---	---	---
EP074_SR: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	---	---	---
EP074_SR: Xylenes (Total)	----	2.0	mg/kg	<2.0	<2.0	<2.0	---	---	---
<b>EP-074_SR-I: Methyl-tert-butyl Ether</b>									
EP074_SR: Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.2	mg/kg	<0.2	<0.2	<0.2	---	---	---
<b>EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates</b>									
EP076HK: 2-Fluorobiphenyl	321-60-8	0.1	%	79.6	83.7	88.5	---	---	---
EP076HK: 4-Terphenyl-d14	1718-51-0	0.1	%	90.1	89.9	87.5	---	---	---
<b>EP-080_SRS: TPH(Volatile)/BTEX Surrogate</b>									
EP070HK_SR: Dibromofluoromethane	1868-53-7	0.1	%	94.2	94.4	93.1	---	---	---
EP070HK_SR: Toluene-D8	2037-26-5	0.1	%	105	105	106	---	---	---
EP070HK_SR: 4-Bromofluorobenzene	460-00-4	0.1	%	102	102	100	---	---	---
<b>EP-074_SR-S: VOC Surrogates</b>									
EP074_SR: Dibromofluoromethane	1868-53-7	0.1	%	94.2	94.4	93.1	---	---	---
EP074_SR: Toluene-D8	2037-26-5	0.1	%	105	105	106	---	---	---
EP074_SR: 4-Bromofluorobenzene	460-00-4	0.1	%	102	102	100	---	---	---



Sub-Matrix: WATER				Client sample ID	Trip Blank	---	---	---	---
				Client sampling date / time	04-Oct-2019	---	---	---	---
Compound	CAS Number	LOR	Unit	HK1942798-004	---	---	---	---	---
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH)</b>									
EP070HK_SR: C6 - C8 Fraction	---	20	µg/L	<20	---	---	---	---	---
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH)</b>									
EP074_SR: Benzene	71-43-2	5.0	µg/L	<5.0	---	---	---	---	---
EP074_SR: Toluene	108-88-3	5.0	µg/L	<5.0	---	---	---	---	---
EP074_SR: Ethylbenzene	100-41-4	5.0	µg/L	<5.0	---	---	---	---	---
EP074_SR: meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	---	---	---	---	---
EP074_SR: ortho-Xylene	95-47-6	5.0	µg/L	<5.0	---	---	---	---	---
EP074_SR: Xylenes (Total)	---	20	µg/L	<20	---	---	---	---	---
<b>EP-074_SR-I: Methyl-tert-butyl Ether</b>									
EP074_SR: Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	µg/L	<0.5	---	---	---	---	---
<b>EP-080_SRS: TPH(Volatile)/BTEX Surrogate</b>									
EP070HK_SR: Dibromofluoromethane	1868-53-7	0.1	%	107	---	---	---	---	---
EP070HK_SR: Toluene-D8	2037-26-5	0.1	%	108	---	---	---	---	---
EP070HK_SR: 4-Bromofluorobenzene	460-00-4	0.1	%	101	---	---	---	---	---
<b>EP-074_SR-S: VOC Surrogates</b>									
EP074_SR: Dibromofluoromethane	1868-53-7	0.1	%	107	---	---	---	---	---
EP074_SR: Toluene-D8	2037-26-5	0.1	%	108	---	---	---	---	---
EP074_SR: 4-Bromofluorobenzene	460-00-4	0.1	%	101	---	---	---	---	---



### Laboratory Duplicate (DUP) Report

Matrix: SOIL				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2630253)</b>								
HK1942798-001	BH1-700MBS	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.2	20.0	1.14
HK1943120-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.6	12.6	0.00
<b>EG: Metals and Major Cations (QC Lot: 2631832)</b>								
HK1942473-001	Anonymous	EG020: Lead	7439-92-1	1	mg/kg	57	52	9.04
<b>EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 2627021)</b>								
HK1942736-001	Anonymous	Naphthalene	91-20-3	50	µg/kg	<50	<50	0.00
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.00
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.00
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.00
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.00
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.00
		Fluoranthene	206-44-0	50	µg/kg	<150	<150	0.00
		Pyrene	129-00-0	50	µg/kg	<150	<150	0.00
		Benzo(a)anthracene	56-55-3	50	µg/kg	<150	<150	0.00
		Chrysene	218-01-9	50	µg/kg	<150	<150	0.00
		Benzo(b)fluoranthene	205-99-2	50	µg/kg	<150	<150	0.00
		Benzo(k)fluoranthene	207-08-9	50	µg/kg	<150	<150	0.00
		Benzo(a)pyrene	50-32-8	50	µg/kg	<150	<150	0.00
		Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<150	<150	0.00
Dibenz(a,h)anthracene	53-70-3	50	µg/kg	<150	<150	0.00		
Benzo(g,h,i)perylene	191-24-2	50	µg/kg	<150	<150	0.00		
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2618554)</b>								
HK1941870-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.00
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2627023)</b>								
HK1942736-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.00
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.00
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627026)</b>								
HK1942798-001	BH1-700MBS	EP074_SR: Benzene	71-43-2	0.1	mg/kg	<0.2	<0.2	0.00
		EP074_SR: Toluene	108-88-3	0.2	mg/kg	<0.5	<0.5	0.00
		EP074_SR: Ethylbenzene	100-41-4	0.2	mg/kg	<0.5	<0.5	0.00



Matrix: SOIL				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627026) - Continued</b>								
HK1942798-001	BH1-700MBS	EP074_SR: ortho-Xylene	95-47-6	0.2	mg/kg	<0.5	<0.5	0.00
		EP074_SR: meta- & para-Xylene	108-38-3 106-42-3	0.4	mg/kg	<1.0	<1.0	0.00
		EP074_SR: Xylenes (Total)	----	1	mg/kg	<2.0	<2.0	0.00
<b>EP-074_SR-I: Methyl-tert-butyl Ether (QC Lot: 2627026)</b>								
HK1942798-001	BH1-700MBS	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.2	mg/kg	<0.2	<0.2	0.00

**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					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)		
						LCS	DCS	Low	High	Value	Control Limit	
<b>EG: Metals and Major Cations (QC Lot: 2631832)</b>												
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	99.0	----	92.0	115	----	----	
<b>EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 2627021)</b>												
Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	76.6	----	52.0	116	----	----	
Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	86.4	----	48.0	107	----	----	
Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	79.6	----	55.0	109	----	----	
Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	81.7	----	53.0	119	----	----	
Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	80.6	----	70.0	106	----	----	
Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	82.4	----	35.0	108	----	----	
Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	84.4	----	60.0	125	----	----	
Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	84.1	----	60.0	124	----	----	
Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	79.0	----	53.0	120	----	----	
Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	79.6	----	56.0	133	----	----	
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	81.0	----	56.0	130	----	----	
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	78.6	----	64.0	128	----	----	
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	77.7	----	24.0	119	----	----	
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	81.9	----	47.0	128	----	----	
Dibenz(a,h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	77.3	----	55.0	114	----	----	
Benzo(g,h,i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	77.7	----	44.0	128	----	----	



Matrix: SOIL		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2618554)</b>											
C6 - C8 Fraction	----	5	mg/kg	<5	4.5 mg/kg	103	----	78.0	131	----	----
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2627023)</b>											
C9 - C16 Fraction	----	200	mg/kg	<200	31.5 mg/kg	104	----	70.0	118	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	67.5 mg/kg	81.0	----	50.0	111	----	----
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627026)</b>											
EP074_SR: Benzene	71-43-2	0.1	mg/kg	<0.1	0.25 mg/kg	104	----	86.0	122	----	----
EP074_SR: Toluene	108-88-3	0.2	mg/kg	<0.2	0.25 mg/kg	105	----	86.0	123	----	----
EP074_SR: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	0.25 mg/kg	103	----	87.0	121	----	----
EP074_SR: meta- & para-Xylene	108-38-3 106-42-3	0.4	mg/kg	<0.4	0.5 mg/kg	94.8	----	83.0	118	----	----
EP074_SR: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	0.25 mg/kg	104	----	85.0	117	----	----
EP074_SR: Xylenes (Total)	----	1	mg/kg	<1.0	0.75 mg/kg	98.0	----	85.0	116	----	----
<b>EP-074_SR-I: Methyl-tert-butyl Ether (QC Lot: 2627026)</b>											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.2	mg/kg	<0.2	0.25 mg/kg	90.3	----	77.0	104	----	----
Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2627962)</b>											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.03 mg/L	87.0	----	74.0	120	----	----
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627961)</b>											
EP074_SR: Benzene	71-43-2	0.5	µg/L	<0.5	2 µg/L	117	----	80.0	127	----	----
EP074_SR: Toluene	108-88-3	0.5	µg/L	<0.5	2 µg/L	117	----	76.0	128	----	----
EP074_SR: Ethylbenzene	100-41-4	0.5	µg/L	<0.5	2 µg/L	118	----	74.0	121	----	----
EP074_SR: meta- & para-Xylene	108-38-3 106-42-3	1	µg/L	<1	4 µg/L	107	----	77.0	107	----	----
EP074_SR: ortho-Xylene	95-47-6	0.5	µg/L	<0.5	2 µg/L	118	----	82.0	124	----	----
EP074_SR: Xylenes (Total)	----	2	µg/L	<2	6 µg/L	110	----	82.0	113	----	----
<b>EP-074_SR-I: Methyl-tert-butyl Ether (QC Lot: 2627961)</b>											





Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EP-074_SR-I: Methyl-tert-butyl Ether (QC Lot: 2627961) - Continued</b>											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	µg/L	<0.5	2 µg/L	107	----	61.0	120	----	----



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

Matrix: SOIL

					<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report</b>					
<b>Laboratory sample ID</b>	<b>Client sample ID</b>	<b>Method: Compound</b>	<b>CAS Number</b>	<b>Spike Concentration</b>	<b>Spike Recovery (%)</b>		<b>Recovery Limits (%)</b>		<b>RPD (%)</b>	
					<b>MS</b>	<b>MSD</b>	<b>Low</b>	<b>High</b>	<b>Value</b>	<b>Control Limit</b>
<b>EG: Metals and Major Cations (QC Lot: 2631832)</b>										
HK1941888-001	Anonymous	EG020: Lead	7439-92-1	5 mg/kg	84.6	----	75.0	125	----	----
<b>EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 2627021)</b>										
HK1941888-001	Anonymous	Naphthalene	91-20-3	250 µg/kg	77.2	----	50.0	130	----	----
		Acenaphthylene	208-96-8	250 µg/kg	85.8	----	50.0	130	----	----
		Acenaphthene	83-32-9	250 µg/kg	79.0	----	50.0	130	----	----
		Fluorene	86-73-7	250 µg/kg	82.4	----	50.0	130	----	----
		Phenanthrene	85-01-8	250 µg/kg	81.4	----	50.0	130	----	----
		Anthracene	120-12-7	250 µg/kg	82.4	----	50.0	130	----	----
		Fluoranthene	206-44-0	250 µg/kg	84.2	----	50.0	130	----	----
		Pyrene	129-00-0	250 µg/kg	84.1	----	50.0	130	----	----
		Benz(a)anthracene	56-55-3	250 µg/kg	76.8	----	50.0	130	----	----
		Chrysene	218-01-9	250 µg/kg	77.1	----	50.0	130	----	----
		Benzo(b)fluoranthene	205-99-2	250 µg/kg	79.1	----	50.0	130	----	----
		Benzo(k)fluoranthene	207-08-9	250 µg/kg	75.1	----	50.0	130	----	----
		Benzo(a)pyrene	50-32-8	250 µg/kg	73.9	----	50.0	130	----	----
		Indeno(1.2.3.cd)pyrene	193-39-5	250 µg/kg	79.2	----	50.0	130	----	----
		Dibenz(a.h)anthracene	53-70-3	250 µg/kg	74.0	----	50.0	130	----	----
		Benzo(g.h.i)perylene	191-24-2	250 µg/kg	76.2	----	50.0	130	----	----
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2618554)</b>										
HK1941871-001	Anonymous	C6 - C8 Fraction	----	4.5 mg/kg	100	----	50.0	130	----	----
<b>EP-071HK_SR: Total Petroleum Hydrocarbons (TPH) (QC Lot: 2627023)</b>										
HK1942736-001	Anonymous	C9 - C16 Fraction	----	31.5 mg/kg	94.7	----	50.0	130	----	----
		C17 - C35 Fraction	----	67.5 mg/kg	64.1	----	50.0	130	----	----
<b>EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627026)</b>										
HK1942798-002	BH1-1600MBS	EP074_SR: Benzene	71-43-2	0.25 mg/kg	94.2	----	50.0	130	----	----
		EP074_SR: Toluene	108-88-3	0.25 mg/kg	102	----	50.0	130	----	----
		EP074_SR: Ethylbenzene	100-41-4	0.25 mg/kg	105	----	50.0	130	----	----



Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EP-074_SR-A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 2627026) - Continued										
HK1942798-002	BH1-1600MBS	EP074_SR: meta- & para-Xylene	108-38-3	0.5 mg/kg	96.7	----	50.0	130	----	----
			106-42-3							
		EP074_SR: ortho-Xylene	95-47-6	0.25 mg/kg	104	----	50.0	130	----	----
		EP074_SR: Xylenes (Total)	----	0.75 mg/kg	99.3	----	50.0	130	----	----
EP-074_SR-I: Methyl-tert-butyl Ether (QC Lot: 2627026)										
HK1942798-002	BH1-1600MBS	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.25 mg/kg	78.8	----	50.0	130	----	----

### Surrogate Control Limits

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

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP-080_SRS: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074_SR-S: VOC Surrogates			



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