Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Landserv Pty Limited
Attention	Angus Robinson

Sample Login Details

Your reference	M0790 Wattie Watson ESA
Envirolab Reference	22269
Date Sample Received	26/08/2020
Date Instructions Received	26/08/2020
Date Results Expected to be Reported	02/09/2020

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	3 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	12.6
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Pamela Adams	Chris De Luca
Phone: 03 9763 2500	**Phone: 03 9763 2500**
Fax: 03 9763 2633	**Fax: 03 9763 2633**
Email: padams@envirolab.com.au	**Email: cdeluca@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	TRH Soil C10-C40 NEPM	PAHs in Soil	Acid Extractable metalsin soil
BH601/0.4-0.5	✓	✓	✓	✓
BH603/0.6-0.7	✓	✓	✓	✓
BH625/0.4-0.5	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

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CERTIFICATE OF ANALYSIS 22269

Client Details

Client	Landserv Pty Limited
Attention	Angus Robinson
Address	293A Bay st, Port Melbourne, VIC, 3207

Sample Details

Your Reference	**M0790 Wattie Watson ESA**
Number of Samples	3 Soil
Date samples received	26/08/2020
Date completed instructions received	26/08/2020

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	01/09/2020
Date of Issue	01/09/2020

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Chris De Luca, Operations Manager

Authorised By

Pamela Adams, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		22269-1	22269-2	22269-3
Your Reference	UNITS	BH601/0.4-0.5	BH603/0.6-0.7	BH625/0.4-0.5
Date Sampled		24/08/2020	24/08/2020	24/08/2020
Type of sample		Soil	Soil	Soil
Date extracted	-	28/08/2020	28/08/2020	28/08/2020
Date analysed	-	29/08/2020	29/08/2020	29/08/2020
vTRH C_6 - C_9	mg/kg	<25	<25	<25
vTRH C_6 - C_{10}	mg/kg	<25	<25	<25
TRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Total BTEX	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	85	86	88

TRH Soil C10-C40 NEPM				
Our Reference		22269-1	22269-2	22269-3
Your Reference	UNITS	BH601/0.4-0.5	BH603/0.6-0.7	BH625/0.4-0.5
Date Sampled		24/08/2020	24/08/2020	24/08/2020
Type of sample		Soil	Soil	Soil
Date extracted	-	28/08/2020	28/08/2020	28/08/2020
Date analysed	-	29/08/2020	29/08/2020	29/08/2020
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	240	3,000	990
TRH C_{29} - C_{36}	mg/kg	470	3,000	1,100
Total +ve TRH (C10-C36)	mg/kg	710	6,000	2,100
TRH >C_{10} -C_{16}	mg/kg	<50	80	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	80	<50
TRH >C_{16} -C_{34}	mg/kg	540	5,100	1,700
TRH >C_{34} -C_{40}	mg/kg	370	1,700	700
Total +ve TRH (>C10-C40)	mg/kg	910	6,800	2,400
Surrogate o-Terphenyl	%	82	86	83

PAHs in Soil				
Our Reference		22269-1	22269-2	22269-3
Your Reference	UNITS	BH601/0.4-0.5	BH603/0.6-0.7	BH625/0.4-0.5
Date Sampled		24/08/2020	24/08/2020	24/08/2020
Type of sample		Soil	Soil	Soil
Date extracted	-	28/08/2020	28/08/2020	28/08/2020
Date analysed	-	29/08/2020	29/08/2020	29/08/2020
Naphthalene	mg/kg	<1	<1	<1
Acenaphthylene	mg/kg	<1	1.3	2.0
Acenaphthene	mg/kg	<1	<1	<1
Fluorene	mg/kg	<1	<1	<1
Phenanthrene	mg/kg	<1	21	11
Anthracene	mg/kg	<1	6.3	3.5
Fluoranthene	mg/kg	2.5	56	31
Pyrene	mg/kg	2.4	55	33
Benzo(a)anthracene	mg/kg	1.5	29	18
Chrysene	mg/kg	1.8	33	19
Benzo(b,j&k)fluoranthene	mg/kg	3.1	55	32
Benzo(a)pyrene	mg/kg	1.7	34	19
Indeno(1,2,3-c,d)pyrene	mg/kg	1.6	25	15
Dibenzo(a,h)anthracene	mg/kg	<1	7.8	4.0
Benzo(g,h,i)perylene	mg/kg	2.6	31	19
Total +ve PAH's	mg/kg	17	350	210
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	<5	54	30
Benzo(a)pyrene TEQ calc (Half)	mg/kg	<5	54	30
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	<5	54	30
Surrogate p-Terphenyl-d_{14}	%	116	114	118

Acid Extractable metals in soil				
Our Reference		22269-1	22269-2	22269-3
Your Reference	UNITS	BH601/0.4-0.5	BH603/0.6-0.7	BH625/0.4-0.5
Date Sampled		24/08/2020	24/08/2020	24/08/2020
Type of sample		Soil	Soil	Soil
Date digested	-	29/08/2020	29/08/2020	29/08/2020
Date analysed	-	29/08/2020	29/08/2020	29/08/2020
Arsenic	mg/kg	10	11	14
Cadmium	mg/kg	1	<0.4	0.4
Chromium	mg/kg	19	7	20
Copper	mg/kg	110	18	27
Lead	mg/kg	610	56	150
Mercury	mg/kg	0.5	<0.1	0.4
Nickel	mg/kg	44	16	22
Zinc	mg/kg	510	120	340

Moisture				
Our Reference		22269-1	22269-2	22269-3
Your Reference	UNITS	BH601/0.4-0.5	BH603/0.6-0.7	BH625/0.4-0.5
Date Sampled		24/08/2020	24/08/2020	24/08/2020
Type of sample		Soil	Soil	Soil
Date prepared	-	28/08/2020	28/08/2020	28/08/2020
Date analysed	-	29/08/2020	29/08/2020	29/08/2020
Moisture	%	17	5.6	18

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			28/08/2020	[NT]	[NT]	[NT]	[NT]	28/08/2020	[NT]
Date analysed	-			29/08/2020	[NT]	[NT]	[NT]	[NT]	29/08/2020	[NT]
vTRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	94	[NT]
vTRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	94	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	81	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	87	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	102	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: TRH Soil C10-C40 NEPM						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			28/08/2020	[NT]	[NT]	[NT]	[NT]	28/08/2020	[NT]
Date analysed	-			29/08/2020	[NT]	[NT]	[NT]	[NT]	29/08/2020	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C_{10}-C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH >C_{16}-C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C_{34}-C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
Surrogate o-Terphenyl	%		Org-020	83	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			28/08/2020	[NT]	[NT]	[NT]	[NT]	28/08/2020	[NT]
Date analysed	-			29/08/2020	[NT]	[NT]	[NT]	[NT]	29/08/2020	[NT]
Naphthalene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Acenaphthylene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Acenaphthene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Phenanthrene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Anthracene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Pyrene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Benzo(b,j&k)fluoranthene	mg/kg	0.2	Org-022	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022	<0.05	[NT]	[NT]	[NT]	[NT]	90	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-022	116	[NT]	[NT]	[NT]	[NT]	122	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			29/08/2020	[NT]	[NT]	[NT]	[NT]	29/08/2020	[NT]
Date analysed	-			29/08/2020	[NT]	[NT]	[NT]	[NT]	29/08/2020	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	106	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

PAH: PQL has been raised due to the high concentration of analytes in the sample/s, resulting in the sample/s requiring dilution.

#20-41232.

From: Angus Robinson [mailto:angus.robinson@landserv.com.au]
Sent: Tuesday, 1 September 2020 12:24 PM
To: Tuyen Nguyen <Tuyen.Nguyen@alsglobal.com>
Cc: Ryan Edwards <ryan.edwards@landserv.com.au>; Emily McAsey <emily.mcasey@landserv.com.au>
Subject: [EXTERNAL] - RE: Results for M0790 - 20-40358

Hi Tuyen ,

Please can we select the following analysis for M0790 – Wattie Watson ESA

ASLP (Acetate) on a standard TAT

sampled: 24/08.
Rec: 25/08.

- BH18/0.0-0.05 - Benzo(a)pyrene – 6678646
- BH02/0.15-0.25 - Benzo(a)pyrene – 6678629
- BH05/0.4-0.5 – Metals (8) – 6678590
- BH01/0.4-0.5 - Metals (8) – 6678574
- BH16/0.4-0.5 - Mercury – 6678640
- BH14/0.4-0.5 - Benzo(a)pyrene – 6678626
- BH07/0.4-0.5 - Benzo(a)pyrene – 6678598
- BH01/0.6-0.7 Metals (8) – 6678576
- BH19/0.6-0.7 – Arsenic and Zinc – 6678653
- BH23/0.6-0.7 – Lead and Zinc – 6678671
- BH18/0.6-0.7 – Benzo(a)pyrene – 6678649
- BH03/0.6-0.7 – Benzo(a)pyrene – 6678582
- BH02/1.4-1.5 – Arsenic – 6678633
- BH01 1.4-1.5 – Benzo(a)pyrene – 6678578

Please can we select the following sample for CEC and pH

- BH12/0.15-0.25 – 6678617

Please let me know if you have any questions or concerns.

Thankyou.

Landserv
Environment

B Corporation Certified
ISO 9001 QMS Certified
MAV Procurement Certified

Angus Robinson
Environmental Scientist (BHSc, GradDipEnvHlth)

Landserv Pty Ltd
293A Bay Street, Port Melbourne 3207
T. 03 9646 0833 M. 0431 177 498
angus.robinson@landserv.com.au

ALS Water
A trading name of:
Ecowise Australia Pty Ltd ABN: 94 105 060 320
Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
www.ecowise.com.au www.alsglogal.com

Sample Receipt Advice (SRA)

Client:	**Client Contact:**	**Angus Robinson**
Landserv Pty Ltd	Phone :	9646 0833
293A Bay Street	Mobile :	0431 177 498
PORT MELBOURNE VIC 3207	Fax :	
	Email :	angus.robinson@landserv.com.au

Batch Summary: **ALS Water Batch No : 20-41232**

Date Received : 1/09/2020 2:12:20PM
Scheduled Reporting Date : 08-Sep-2020

Client Job Ref : M0790 Wattie Watson ESA
No. of Sample(s) : 15

Program : Misc Analysis
Purchase Order : n/a

NATA report : Reqd.

Lab. Contact :

Tuyen Nguyen

Phone: (03) 8756 8116

Tuyen.Nguyen@alsglobal.com

Please direct any enqeris you have regarding this project to the above ALS Water contact .

Delivery Details:

COC Received : YES

☐ Sample Temperature on Receipt. 3 C°

☑ Samples preserved where applicable #

Comments:

Comparisons are made against pretreatment/prersevation as per AS,VICEPA,APHA,USEPA standards
Sample disposal - Aqueous (14 days), Solid (60 days) from date of completio of work order

Client:	Client Contact: Angus Robinson
Landserv Pty Ltd 293A Bay Street PORT MELBOURNE VIC 3207	Phone : 9646 0833 Mobile : 0431 177 498 Fax : Email : angus.robinson@landserv.com.au

Summary of Sample and Received Analysis:

ALS Sample	Sample Name	Date	Test Count
6685790	BH18/0.0-0.05	24/08/2020	**2**
6685791	BH02/0.15-0.25	24/08/2020	**2**
6685792	BH05/0.4-0.5	24/08/2020	**2**
6685793	BH01/0.4-0.5	24/08/2020	**2**
6685794	BH16/0.4-0.5	24/08/2020	**2**
6685795	BH14/0.4-0.5	24/08/2020	**2**
6685796	BH07/0.4-0.5	24/08/2020	**2**
6685797	BH01/0.6-0.7	24/08/2020	**2**
6685798	BH19/0.6-0.7	24/08/2020	**2**
6685799	BH23/0.6-0.7	24/08/2020	**2**
6685800	BH18/0.6-0.7	24/08/2020	**2**
6685801	BH03/0.6-0.7	24/08/2020	**2**
6685802	BH02/1.4-1.5	24/08/2020	**2**
6685803	BH01/1.4-1.5	24/08/2020	**2**
6685804	BH12/0.15-0.25	24/08/2020	**3**

Comparisons are made against pretreatment/prersevation as per AS,VICEPA,APHA,USEPA standards

Sample disposal - Aqueous (14 days), Solid (60 days) from date of completio of work order

CERTIFICATE OF ANALYSIS

Batch No:	**20-41232**	*Page*	Page 1 of 4
Final Report	844960	*Laboratory*	Scoresby Laboratory
		Address	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
Client:	**Landserv Pty Ltd**	*Phone*	03 8756 8000
		Fax	03 9763 1862
Contact:	**Angus Robinson**	Contact:	Tuyen Nguyen Client Manager Tuyen.Nguyen@alsglobal.com
Address:	293A Bay Street PORT MELBOURNE VIC 3207 AUSTRALIA		
		Date Sampled:	24-Aug-2020
Client Program Ref:	**M0790 Wattie Watson ESA**	Date Samples Received:	01-Sep-2020
ALS Program Ref:	**LANDSERV**	*Date Issued:*	**04-Sep-2020**
PO No:	**Not Available**		

The hash (#) below indicates methods not covered by NATA accreditation in the performance of this service .

Analysis	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*
ASLP(Acetate) Prep	WN33SC	Scoresby	**ASLP(Acet.) PAH**	WP075B, WN33SC	Scoresby			
CEC	WD003	Scoresby	**MS ASLP(Acet) Metals**	WG020A; WN33SC	Scoresby			
pH	EA002	Scoresby						

Analysis conducted outside holding time due to late arrival or delayed extraction/analysis. Based on APHA, VICEPA, AS & NEPM

Late Sample Arrival - pH[6685804]

100 grams of sample was taken for ASLP determinations unless a lesser amount was submitted to this laboratory .

Measurement Uncertainties values for your compliance results are available at this link

Signatories

Name	*Title*	*Name*	*Title*
Chatura Perera	**Team Leader Nutrients**	**Hao Zhang**	**Team Leader Organics**
John Earl	**Team Leader Metals**	**John Levvey**	**Principal Trace Metals Chemist**
Mario Solorzano	**Analyst**		

Batch No: 20-41232
Report Number: 844960
Client: Landserv Pty Ltd
Client Program Ref: M0790 Wattie Watson ESA

Soil Analysis

Sample	Sampled Date	Your Ref	Sample Type	pH pH Units	CEC CEC meq/100g
6685804	24-08-20	BH12/0.15-0.25	SOIL	7.6	7.7

Metals- ASLP (Acetate Buffer)

Sample	Sampled Date	Your Ref	Sample Type	MS ASLP(Acet) Metals ASLP-Arsenic mg/L	MS ASLP(Acet) Metals ASLP-Cadmium mg/L	MS ASLP(Acet) Metals ASLP-Chromium mg/L	MS ASLP(Acet) Metals ASLP-Copper mg/L	MS ASLP(Acet) Metals ASLP-Lead mg/L	MS ASLP(Acet) Metals ASLP-Mercury mg/L	MS ASLP(Acet) Metals ASLP-Nickel mg/L	MS ASLP(Acet) Metals ASLP-Zinc mg/L
6685792	24-08-20	BH05/0.4-0.5	SOIL	<0.01	0.008	<0.01	0.19	0.67	<0.001	0.04	5.6
6685793	24-08-20	BH01/0.4-0.5	SOIL	0.02	0.009	<0.01	0.08	0.45	<0.001	0.02	6.3
6685794	24-08-20	BH16/0.4-0.5	SOIL						<0.001		
6685797	24-08-20	BH01/0.6-0.7	SOIL	0.02	0.006	0.09	0.13	0.33	<0.001	0.02	3.5
6685798	24-08-20	BH19/0.6-0.7	SOIL	<0.01							0.25
6685799	24-08-20	BH23/0.6-0.7	SOIL					0.72			5.8
6685802	24-08-20	BH02/1.4-1.5	SOIL	<0.01							

ASLP (Acetate Buffer)-PAH

Sample	Sampled Date	Your Ref	Sample Type	ASLP(Acet.) PAH Benzo(a)pyrene mg/L
6685790	24-08-20	BH18/0.0-0.05	SOIL	<0.001
6685791	24-08-20	BH02/0.15-0.25	SOIL	<0.001
6685795	24-08-20	BH14/0.4-0.5	SOIL	<0.001
6685796	24-08-20	BH07/0.4-0.5	SOIL	<0.001
6685800	24-08-20	BH18/0.6-0.7	SOIL	0.002
6685801	24-08-20	BH03/0.6-0.7	SOIL	0.002
6685803	24-08-20	BH01/1.4-1.5	SOIL	0.002

Samples not collected by ALS and are tested as received.

A blank space indicates no test performed. Soil microbiological testing was commenced within 4 days from the day collected unless otherwise stated.
Water microbiological testing was commenced on the day received and within 24 hours of sampling unless otherwise stated.
MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate.
MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate.
Calculated results are based on raw data.

Acetate Leachate Preparation

Sample	*Sampled Date*	*Your Ref*	*Analysis:*	ASLP(Acetate) Prep	ASLP(Acetate) Prep
			Component:	Leach Fluid pH	pH (post rolling)
			Units:	pH units	pH units
			Sample Type		
6685790	24-08-20	BH18/0.0-0.05	SOIL	5.0	4.8
6685791	24-08-20	BH02/0.15-0.25	SOIL	5.0	4.9
6685792	24-08-20	BH05/0.4-0.5	SOIL	5.0	5.0
6685793	24-08-20	BH01/0.4-0.5	SOIL	5.0	5.0
6685794	24-08-20	BH16/0.4-0.5	SOIL	5.0	4.8
6685795	24-08-20	BH14/0.4-0.5	SOIL	5.0	4.8
6685796	24-08-20	BH07/0.4-0.5	SOIL	5.0	4.8
6685797	24-08-20	BH01/0.6-0.7	SOIL	5.0	5.0
6685798	24-08-20	BH19/0.6-0.7	SOIL	5.0	4.8
6685799	24-08-20	BH23/0.6-0.7	SOIL	5.0	4.9
6685800	24-08-20	BH18/0.6-0.7	SOIL	5.0	4.9
6685801	24-08-20	BH03/0.6-0.7	SOIL	5.0	4.8
6685802	24-08-20	BH02/1.4-1.5	SOIL	5.0	4.8
6685803	24-08-20	BH01/1.4-1.5	SOIL	5.0	4.9

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MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate.
Calculated results are based on raw data.

Quality Control

ASLP (Acetate Buffer)-PAH

		ASLP(Acet.) PAH
		Benzo(a)pyrene
6685791 DUPLICATE	Sample Value	<0.001
6685791 DUPLICATE	Duplicate Value	<0.001
6685791 DUPLICATE	**% RPD**	**0**
6685795 SPIKE	Sample Value	<0.001
6685795 SPIKE	Expected Value	0.033
6685795 SPIKE	**% Recovery**	**116**
6688788 BLANK	Value	<0.001

Metals- ASLP (Acetate Buffer)

		MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals	MS ASLP(Acet) Metals
		ASLP-Arsenic	ASLP-Cadmium	ASLP-Chromium	ASLP-Copper	ASLP-Lead	ASLP-Mercury	ASLP-Nickel	ASLP-Zinc
6687959 BLANK	Value	<0.01	<0.002	<0.01	<0.01	<0.01	<0.001	<0.01	<0.01
6684099 SPIKE	Sample Value	<0.01	<0.002	<0.01	<0.01	<0.01	<0.001	0.01	0.82
6684099 SPIKE	Expected Value	0.40	0.40	0.40	0.41	0.40	0.0021	0.41	1.2
6684099 SPIKE	**% Recovery**	**111**	**104**	**98.1**	**93.0**	**96.5**	**83.9**	**94.1**	**96.2**
6685802 DUPLICATE	Sample Value	<0.01	<0.002	0.01	<0.01	<0.01	<0.001	<0.01	0.02
6685802 DUPLICATE	Duplicate Value	<0.01	<0.002	0.01	<0.01	<0.01	<0.001	<0.01	0.02
6685802 DUPLICATE	**% RPD**	**0**	**0**	**8.2**	**0**	**0**	**0**	**0**	**1.2**

Soil Analysis

		pH	CEC
		pH	CEC
6685135 DUPLICATE	Sample Value	5.9	
6685135 DUPLICATE	Duplicate Value	5.9	
6685135 DUPLICATE	**% RPD**	**0.0**	
6685804 DUPLICATE	Sample Value		7.7
6685804 DUPLICATE	Duplicate Value		7.5
6685804 DUPLICATE	**% RPD**		**3.3**

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MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate.
MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate.
Calculated results are based on raw data.

Greencap VIC P/L
Level 1, 677 High St
Kew East
VIC 3102

Attention: **Luke Richards**

Report **745197-S**
Project name
Project ID J169564
Received Date Sep 18, 2020

Client Sample ID			**QC01**	**BH01_0.1**	**BH01_1.0**	**BH02_0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M20-Se33596**	**M20-Se33600**	**M20-Se33601**	**M20-Se33602**
Date Sampled			**Sep 18, 2020**	**Sep 18, 2020**	**Sep 18, 2020**	**Sep 18, 2020**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	16	38	35	14
Barium	10	mg/kg	-	-	37	-
Beryllium	2	mg/kg	-	-	< 2	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	20	28	24	15
Cobalt	5	mg/kg	-	-	6.0	-
Copper	5	mg/kg	7.1	7.1	6.0	15
Lead	5	mg/kg	47	52	33	91
Manganese	5	mg/kg	-	-	56	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.3
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	11	13	11	18
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	56	59	40	100
% Moisture	1	%	12	15	14	8.3
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	-	7.0	-	6.8
Chromium (hexavalent)	1	mg/kg	-	-	< 1	-
Cyanide (free)	5	mg/kg	-	-	< 5	-
Cyanide (total)	5	mg/kg	-	-	< 5	-
Fluoride (Total)	100	mg/kg	-	-	190	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	-	6.4	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	2.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	3.1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	3.4
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	0.7
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	2.0
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	2.2
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	1.8
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	1.0

Client Sample ID			QC01	BH01_0.1	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33596	M20-Se33600	M20-Se33601	M20-Se33602
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	1.7
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	2.1
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	5.8
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	0.9
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	2.8
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	5.2
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	26.2
2-Fluorobiphenyl (surr.)	1	%	-	60	97	65
p-Terphenyl-d14 (surr.)	1	%	-	60	86	66
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	< 20	-
TRH C10-C14	20	mg/kg	-	-	< 20	-
TRH C15-C28	50	mg/kg	-	-	< 50	-
TRH C29-C36	50	mg/kg	-	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	-	-	< 50	-
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.5	mg/kg	-	-	< 0.5	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			QC01	BH01_0.1	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33596	M20-Se33600	M20-Se33601	M20-Se33602
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	-
Total MAH*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	-	-	58	-
Toluene-d8 (surr.)	1	%	-	-	66	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100	-
Organochlorine Pesticides						
Bifenthrin	0.05	mg/kg	-	-	< 0.05	-
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-BHC	0.05	mg/kg	-	-	< 0.05	-
d-BHC	0.05	mg/kg	-	-	< 0.05	-

Client Sample ID			QC01	BH01_0.1	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33596	M20-Se33600	M20-Se33601	M20-Se33602
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.05	mg/kg	-	-	< 0.05	-
Toxaphene	1	mg/kg	-	-	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	133	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	127	-
Chlorinated Hydrocarbons						
1.2.4-Trichlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Organophosphorus Pesticides						
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	-
Total PCB*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	133	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	127	-
Triazines						
Atrazine	0.2	mg/kg	-	-	< 0.2	-
Acid Herbicides						
2.4-D	0.5	mg/kg	-	-	< 0.5	-
2.4-DB	0.5	mg/kg	-	-	< 0.5	-
2.4.5-T	0.5	mg/kg	-	-	< 0.5	-
2.4.5-TP	0.5	mg/kg	-	-	< 0.5	-
Actril (loxynil)	0.5	mg/kg	-	-	< 0.5	-
Dicamba	0.5	mg/kg	-	-	< 0.5	-
Dichlorprop	0.5	mg/kg	-	-	< 0.5	-
Dinitro-o-cresol	0.5	mg/kg	-	-	< 0.5	-
Dinoseb	0.5	mg/kg	-	-	< 0.5	-
MCPA	0.5	mg/kg	-	-	< 0.5	-
MCPB	0.5	mg/kg	-	-	< 0.5	-
Mecoprop	0.5	mg/kg	-	-	< 0.5	-
Warfarin (surr.)	1	%	-	-	119	-

Client Sample ID			QC01	BH01_0.1	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33596	M20-Se33600	M20-Se33601	M20-Se33602
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4.5-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.4.6-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
4-Chloro-3-methylphenol	1	mg/kg	-	-	< 1	-
Pentachlorophenol	1	mg/kg	-	-	< 1	-
Tetrachlorophenols - Total	10	mg/kg	-	-	< 10	-
Total Halogenated Phenol*	1	mg/kg	-	-	< 1	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	-	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	-	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	< 0.2	-
2-Nitrophenol	1.0	mg/kg	-	-	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	-	-	< 5	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	< 0.4	-
4-Nitrophenol	5	mg/kg	-	-	< 5	-
Dinoseb	20	mg/kg	-	-	< 20	-
Phenol	0.5	mg/kg	-	-	< 0.5	-
Total Non-Halogenated Phenol*	20	mg/kg	-	-	< 20	-
Phenol-d6 (surr.)	1	%	-	-	46	-

Client Sample ID			BH02_0.9	BH03_0.1	BH03_1.0	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33603	M20-Se33604	M20-Se33605	M20-Se33606
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	37	2.7	26	170
Barium	10	mg/kg	-	< 10	-	-
Beryllium	2	mg/kg	-	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	44	< 5	23	34
Cobalt	5	mg/kg	-	< 5	-	-
Copper	5	mg/kg	6.5	< 5	8.4	8.9
Lead	5	mg/kg	21	25	120	25
Manganese	5	mg/kg	-	37	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	15	< 5	12	25
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	33	24	48	59

Client Sample ID			BH02_0.9	BH03_0.1	BH03_1.0	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33603	M20-Se33604	M20-Se33605	M20-Se33606
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
% Moisture	1	%	10	3.5	10	11
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	8.0	-	6.5	8.0
Chromium (hexavalent)	1	mg/kg	-	< 1	-	-
Cyanide (free)	5	mg/kg	-	< 5	-	-
Cyanide (total)	5	mg/kg	-	< 5	-	-
Fluoride (Total)	100	mg/kg	-	< 100	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	7.4	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	-	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	0.5
Total PAH*	0.5	mg/kg	-	< 0.5	-	0.5
2-Fluorobiphenyl (surr.)	1	%	-	63	-	67
p-Terphenyl-d14 (surr.)	1	%	-	82	-	69
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	-
TRH C10-C14	20	mg/kg	-	< 20	-	-
TRH C15-C28	50	mg/kg	-	< 50	-	-
TRH C29-C36	50	mg/kg	-	53	-	-
TRH C10-C36 (Total)	50	mg/kg	-	53	-	-
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	-	< 0.5	-	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	-	-

Client Sample ID			BH02_0.9	BH03_0.1	BH03_1.0	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33603	M20-Se33604	M20-Se33605	M20-Se33606
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Volatile Organics						
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	-	-
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	-	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	-	-
Allyl chloride	0.5	mg/kg	-	< 0.5	-	-
Benzene	0.1	mg/kg	-	< 0.1	-	-
Bromobenzene	0.5	mg/kg	-	< 0.5	-	-
Bromochloromethane	0.5	mg/kg	-	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	-	-
Bromoform	0.5	mg/kg	-	< 0.5	-	-
Bromomethane	0.5	mg/kg	-	< 0.5	-	-
Carbon disulfide	0.5	mg/kg	-	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	-	-
Chloroethane	0.5	mg/kg	-	< 0.5	-	-
Chloroform	0.5	mg/kg	-	< 0.5	-	-
Chloromethane	0.5	mg/kg	-	< 0.5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	-	-
Dibromomethane	0.5	mg/kg	-	< 0.5	-	-
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	-	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	-
Iodomethane	0.5	mg/kg	-	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	-	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	-
Methylene Chloride	0.5	mg/kg	-	< 0.5	-	-
o-Xylene	0.1	mg/kg	-	< 0.1	-	-
Styrene	0.5	mg/kg	-	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	-	-
Toluene	0.1	mg/kg	-	< 0.1	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	-
Trichloroethene	0.5	mg/kg	-	< 0.5	-	-
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	-	-
Vinyl chloride	0.5	mg/kg	-	< 0.5	-	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	-	-
Total MAH*	0.5	mg/kg	-	< 0.5	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	-	-
4-Bromofluorobenzene (surr.)	1	%	-	75	-	-
Toluene-d8 (surr.)	1	%	-	80	-	-

Client Sample ID			BH02_0.9	BH03_0.1	BH03_1.0	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33603	M20-Se33604	M20-Se33605	M20-Se33606
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-	-
TRH C6-C10	20	mg/kg	-	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	-	-
TRH >C10-C16	50	mg/kg	-	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-	-
TRH >C16-C34	100	mg/kg	-	< 100	-	-
TRH >C34-C40	100	mg/kg	-	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	-	-
Organochlorine Pesticides						
Bifenthrin	0.05	mg/kg	-	< 0.05	-	-
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	126	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	78	-	-
Chlorinated Hydrocarbons						
1.2.4-Trichlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Organophosphorus Pesticides						
Chlorpyrifos	0.2	mg/kg	-	< 0.2	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	-	< 0.1	-	-

Client Sample ID			BH02_0.9	BH03_0.1	BH03_1.0	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-Se33603	M20-Se33604	M20-Se33605	M20-Se33606
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Total PCB*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	126	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	78	-	-
Triazines						
Atrazine	0.2	mg/kg	-	< 0.2	-	-
Acid Herbicides						
2.4-D	0.5	mg/kg	-	< 0.5	-	-
2.4-DB	0.5	mg/kg	-	< 0.5	-	-
2.4.5-T	0.5	mg/kg	-	< 0.5	-	-
2.4.5-TP	0.5	mg/kg	-	< 0.5	-	-
Actril (loxynil)	0.5	mg/kg	-	< 0.5	-	-
Dicamba	0.5	mg/kg	-	< 0.5	-	-
Dichlorprop	0.5	mg/kg	-	< 0.5	-	-
Dinitro-o-cresol	0.5	mg/kg	-	< 0.5	-	-
Dinoseb	0.5	mg/kg	-	< 0.5	-	-
MCPA	0.5	mg/kg	-	< 0.5	-	-
MCPB	0.5	mg/kg	-	< 0.5	-	-
Mecoprop	0.5	mg/kg	-	< 0.5	-	-
Warfarin (surr.)	1	%	-	122	-	-
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2.4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2.4.5-Trichlorophenol	1	mg/kg	-	< 1	-	-
2.4.6-Trichlorophenol	1	mg/kg	-	< 1	-	-
2.6-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	1	mg/kg	-	< 1	-	-
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Tetrachlorophenols - Total	10	mg/kg	-	< 10	-	-
Total Halogenated Phenol*	1	mg/kg	-	< 1	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	< 20	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	< 5	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	< 0.2	-	-
2-Nitrophenol	1.0	mg/kg	-	< 1	-	-
2.4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-
2.4-Dinitrophenol	5	mg/kg	-	< 5	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	< 0.4	-	-
4-Nitrophenol	5	mg/kg	-	< 5	-	-
Dinoseb	20	mg/kg	-	< 20	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
Total Non-Halogenated Phenol*	20	mg/kg	-	< 20	-	-
Phenol-d6 (surr.)	1	%	-	47	-	-

Client Sample ID			BH04_0.5	BH05_0.1	BH05_0.5
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M20-Se33607	M20-Se33608	M20-Se33609
Date Sampled			Sep 18, 2020	Sep 18, 2020	Sep 18, 2020
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	2	mg/kg	48	19	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	36	16	20
Copper	5	mg/kg	13	6.4	6.4
Lead	5	mg/kg	70	18	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5
Nickel	5	mg/kg	19	19	18
Selenium	2	mg/kg	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2
Tin	10	mg/kg	14	< 10	< 10
Zinc	5	mg/kg	71	29	23
% Moisture	1	%	14	11	6.7
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	7.4	8.4	7.7
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	2.0	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	2.3	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	2.5	-
Acenaphthene	0.5	mg/kg	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	-
Anthracene	0.5	mg/kg	-	0.5	-
Benz(a)anthracene	0.5	mg/kg	-	1.2	-
Benzo(a)pyrene	0.5	mg/kg	-	1.6	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	1.1	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	1.2	-
Benzo(k)fluoranthene	0.5	mg/kg	-	1.0	-
Chrysene	0.5	mg/kg	-	1.4	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	3.3	-
Fluorene	0.5	mg/kg	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	0.8	-
Naphthalene	0.5	mg/kg	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	1.8	-
Pyrene	0.5	mg/kg	-	3.1	-
Total PAH*	0.5	mg/kg	-	17	-
2-Fluorobiphenyl (surr.)	1	%	-	65	-
p-Terphenyl-d14 (surr.)	1	%	-	68	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Metals IWRG 621 : Metals M12	Melbourne	Sep 21, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Melbourne	Sep 21, 2020	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Metals (Ag/As/B/Be/Cd/Cr/Co/Cu/Hg/Mn/Mo/Ni/Pb/Se/Sn/Zn)	Melbourne	Sep 21, 2020	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Chromium (hexavalent)	Melbourne	Sep 21, 2020	28 Days
- Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)			
Cyanide (free)	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Cyanide (total)	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Fluoride (Total)	Melbourne	Sep 22, 2020	28 Days
- Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Sep 21, 2020	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Polycyclic Aromatic Hydrocarbons	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Melbourne	Sep 21, 2020	7 Days
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Volatile Organics	Melbourne	Sep 21, 2020	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Sep 21, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
Organochlorine Pesticides	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Chlorinated Hydrocarbons	Melbourne	Sep 21, 2020	14 Days
- Method: USEPA 8121 Chlorinated Hydrocarbons			
Organophosphorus Pesticides	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8081)			
Polychlorinated Biphenyls	Melbourne	Sep 21, 2020	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)			
Triazines	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2210 Triazine Herbicides in Soil and Water by GC-MS/MS			
Acid Herbicides	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2180 Phenoxy Acid Herbicides			
Phenols (Halogenated)	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Sep 21, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Melbourne	Sep 18, 2020	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

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Company Name: Greencap VIC P/L
Address: Level 1, 677 High St
Kew East
VIC 3102

Project Name:
Project ID: J169564

Order No.:
Report #: 745197
Phone: 9890 8811
Fax: 9890 8911

Received: Sep 18, 2020 3:31 PM
Due: Sep 25, 2020
Priority: 5 Day
Contact Name: Luke Richards

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	TRH C6-C10	Polycyclic Aromatic Hydrocarbons	Metals IWRG 621 : Metals M12	Moisture Set	R20A: NEPM Basic Suite plus VIC EPA IWRG 621 Suite
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217												
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Newcastle Laboratory												
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	QC01	Sep 18, 2020		Soil	M20-Se33596					X	X	
2	QC03	Sep 18, 2020		Water	M20-Se33597					X		
3	QC04	Sep 18, 2020		Water	M20-Se33598					X		
4	QC05	Sep 18, 2020		Water	M20-Se33599			X				
5	BH01_0.1	Sep 18, 2020		Soil	M20-Se33600		X		X	X	X	
6	BH01_1.0	Sep 18, 2020		Soil	M20-Se33601						X	X
7	BH02_0.1	Sep 18, 2020		Soil	M20-Se33602		X		X	X	X	
8	BH02_0.9	Sep 18, 2020		Soil	M20-Se33603		X			X	X	
9	BH03_0.1	Sep 18, 2020		Soil	M20-Se33604						X	X

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Company Name: Greencap VIC P/L
Address: Level 1, 677 High St
Kew East
VIC 3102

Project Name:
Project ID: J169564

Order No.:
Report #: 745197
Phone: 9890 8811
Fax: 9890 8911

Received: Sep 18, 2020 3:31 PM
Due: Sep 25, 2020
Priority: 5 Day
Contact Name: Luke Richards

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	TRH C6-C10	Polycyclic Aromatic Hydrocarbons	Metals IWRG 621 : Metals M12	Moisture Set	R20A: NEPM Basic Suite plus VIC EPA IWRG 621 Suite
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217												
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
10	BH03_1.0	Sep 18, 2020		Soil	M20-Se33605		X			X	X	
11	BH04_0.1	Sep 18, 2020		Soil	M20-Se33606		X		X	X	X	
12	BH04_0.5	Sep 18, 2020		Soil	M20-Se33607		X			X	X	
13	BH05_0.1	Sep 18, 2020		Soil	M20-Se33608		X		X	X	X	
14	BH05_0.5	Sep 18, 2020		Soil	M20-Se33609		X			X	X	
15	BH01_0.5	Sep 18, 2020		Soil	M20-Se33610	X						
16	BH01_1.5	Sep 18, 2020		Soil	M20-Se33611	X						
17	BH02_0.5	Sep 18, 2020		Soil	M20-Se33612	X						
18	BH03_0.5	Sep 18, 2020		Soil	M20-Se33613	X						
Test Counts						4	8	1	4	11	11	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Volatile Organics							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Organochlorine Pesticides							
Bifenthrin	mg/kg	< 0.05			0.05	Pass	
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Chlorinated Hydrocarbons							
1.2.4-Trichlorobenzene	mg/kg	< 0.05			0.05	Pass	
Method Blank							
Organophosphorus Pesticides							
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Triazines							
Atrazine	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	111			80-120	Pass	
Barium	%	114			80-120	Pass	
Beryllium	%	112			80-120	Pass	
Cadmium	%	103			80-120	Pass	
Chromium	%	117			80-120	Pass	
Cobalt	%	116			80-120	Pass	
Copper	%	116			80-120	Pass	
Lead	%	120			80-120	Pass	
Manganese	%	115			80-120	Pass	
Mercury	%	109			80-120	Pass	
Molybdenum	%	115			80-120	Pass	
Nickel	%	112			80-120	Pass	
Selenium	%	109			80-120	Pass	
Silver	%	106			80-120	Pass	
Tin	%	113			80-120	Pass	
Zinc	%	110			80-120	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	98			70-130	Pass	
Cyanide (total)	%	93			70-130	Pass	
Fluoride (Total)	%	109			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	77			70-130	Pass	
Acenaphthylene	%	73			70-130	Pass	
Anthracene	%	79			70-130	Pass	
Benz(a)anthracene	%	72			70-130	Pass	
Benzo(a)pyrene	%	75			70-130	Pass	
Benzo(b&j)fluoranthene	%	100			70-130	Pass	
Benzo(g.h.i)perylene	%	84			70-130	Pass	
Benzo(k)fluoranthene	%	94			70-130	Pass	
Chrysene	%	81			70-130	Pass	
Dibenz(a.h)anthracene	%	78			70-130	Pass	
Fluoranthene	%	76			70-130	Pass	
Fluorene	%	72			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	73			70-130	Pass	
Naphthalene	%	81			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	%	72			70-130	Pass	
Pyrene	%	80			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	98			70-130	Pass	
TRH C10-C14	%	83			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	114			70-130	Pass	
1.1.1-Trichloroethane	%	94			70-130	Pass	
1.2-Dichlorobenzene	%	123			70-130	Pass	
1.2-Dichloroethane	%	116			70-130	Pass	
Benzene	%	106			70-130	Pass	
Ethylbenzene	%	117			70-130	Pass	
m&p-Xylenes	%	111			70-130	Pass	
Toluene	%	106			70-130	Pass	
Trichloroethene	%	122			70-130	Pass	
Xylenes - Total*	%	113			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	92			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	87			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Bifenthrin	%	94			70-130	Pass	
Chlordanes - Total	%	79			70-130	Pass	
4.4'-DDD	%	100			70-130	Pass	
4.4'-DDE	%	96			70-130	Pass	
4.4'-DDT	%	78			70-130	Pass	
a-BHC	%	98			70-130	Pass	
Aldrin	%	90			70-130	Pass	
b-BHC	%	82			70-130	Pass	
d-BHC	%	101			70-130	Pass	
Dieldrin	%	76			70-130	Pass	
Endosulfan I	%	109			70-130	Pass	
Endosulfan II	%	110			70-130	Pass	
Endosulfan sulphate	%	89			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	77			70-130	Pass	
Endrin ketone	%	73			70-130	Pass	
g-BHC (Lindane)	%	77			70-130	Pass	
Heptachlor	%	95			70-130	Pass	
Heptachlor epoxide	%	83			70-130	Pass	
Hexachlorobenzene	%	93			70-130	Pass	
Methoxychlor	%	77			70-130	Pass	
LCS - % Recovery							
Chlorinated Hydrocarbons							
1.2.4-Trichlorobenzene	%	95			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	99			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Chlorophenol	%	59			30-130	Pass	
2.4-Dichlorophenol	%	65			30-130	Pass	
2.4.5-Trichlorophenol	%	90			30-130	Pass	
2.4.6-Trichlorophenol	%	57			30-130	Pass	
2.6-Dichlorophenol	%	53			30-130	Pass	
4-Chloro-3-methylphenol	%	58			30-130	Pass	
Pentachlorophenol	%	43			30-130	Pass	
Tetrachlorophenols - Total	%	78			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	51			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	38			30-130	Pass	
2-Methylphenol (o-Cresol)	%	59			30-130	Pass	
2-Nitrophenol	%	70			30-130	Pass	
2.4-Dimethylphenol	%	80			30-130	Pass	
2.4-Dinitrophenol	%	33			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	60			30-130	Pass	
4-Nitrophenol	%	84			30-130	Pass	
Dinoseb	%	54			30-130	Pass	
Phenol	%	58			30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M20-Se33972	NCP	%	96			75-125	Pass	
Cadmium	M20-Se33972	NCP	%	101			75-125	Pass	
Chromium	M20-Se33972	NCP	%	106			75-125	Pass	
Copper	M20-Se33972	NCP	%	97			75-125	Pass	
Lead	M20-Se33972	NCP	%	103			75-125	Pass	
Mercury	M20-Se33972	NCP	%	102			75-125	Pass	
Molybdenum	M20-Se33972	NCP	%	104			75-125	Pass	
Nickel	M20-Se33972	NCP	%	103			75-125	Pass	
Selenium	M20-Se33972	NCP	%	87			75-125	Pass	
Silver	M20-Se33972	NCP	%	101			75-125	Pass	
Tin	M20-Se33972	NCP	%	112			75-125	Pass	
Zinc	M20-Se33972	NCP	%	110			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	B20-Se26792	NCP	%	74			70-130	Pass	
Acenaphthylene	B20-Se26792	NCP	%	72			70-130	Pass	
Anthracene	B20-Se26792	NCP	%	72			70-130	Pass	
Benz(a)anthracene	B20-Se26792	NCP	%	71			70-130	Pass	
Benzo(a)pyrene	B20-Se26792	NCP	%	98			70-130	Pass	
Benzo(b&j)fluoranthene	B20-Se26792	NCP	%	103			70-130	Pass	
Benzo(g.h.i)perylene	B20-Se26792	NCP	%	75			70-130	Pass	
Benzo(k)fluoranthene	B20-Se26792	NCP	%	113			70-130	Pass	
Chrysene	B20-Se26792	NCP	%	76			70-130	Pass	
Dibenz(a.h)anthracene	B20-Se26792	NCP	%	77			70-130	Pass	
Fluoranthene	B20-Se26792	NCP	%	82			70-130	Pass	
Fluorene	B20-Se26792	NCP	%	72			70-130	Pass	
Indeno(1.2.3-cd)pyrene	B20-Se26792	NCP	%	77			70-130	Pass	
Naphthalene	B20-Se26792	NCP	%	77			70-130	Pass	
Phenanthrene	B20-Se26792	NCP	%	71			70-130	Pass	
Pyrene	B20-Se26792	NCP	%	84			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heavy Metals				Result 1					
Barium	M20-Se33972	NCP	%	21			75-125	Fail	Q08
Beryllium	M20-Se33972	NCP	%	95			75-125	Pass	
Cobalt	M20-Se33972	NCP	%	95			75-125	Pass	
Manganese	M20-Se33972	NCP	%	133			75-125	Fail	Q08
Spike - % Recovery									
				Result 1					
Cyanide (total)	M20-Se33226	NCP	%	80			70-130	Pass	
Fluoride (Total)	M20-Se04016	NCP	%	69			70-130	Fail	Q08
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M20-Se35617	NCP	%	116			70-130	Pass	
TRH C10-C14	M20-Se33106	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M20-Se33697	NCP	%	87			70-130	Pass	
1.1.1-Trichloroethane	M20-Se33697	NCP	%	71			70-130	Pass	
1.2-Dichlorobenzene	M20-Se33697	NCP	%	113			70-130	Pass	
1.2-Dichloroethane	M20-Se33697	NCP	%	95			70-130	Pass	
Benzene	M20-Se33697	NCP	%	86			70-130	Pass	
Ethylbenzene	M20-Se33697	NCP	%	119			70-130	Pass	
m&p-Xylenes	M20-Se33697	NCP	%	114			70-130	Pass	
o-Xylene	M20-Se33697	NCP	%	111			70-130	Pass	
Toluene	M20-Se33697	NCP	%	87			70-130	Pass	
Trichloroethene	M20-Se33697	NCP	%	98			70-130	Pass	
Xylenes - Total*	M20-Se33697	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M20-Se33697	NCP	%	91			70-130	Pass	
TRH C6-C10	M20-Se35617	NCP	%	112			70-130	Pass	
TRH >C10-C16	M20-Se33106	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Bifenthrin	M20-Se29740	NCP	%	89			70-130	Pass	
Chlordanes - Total	M20-Se29740	NCP	%	119			70-130	Pass	
4.4'-DDD	M20-Se29740	NCP	%	110			70-130	Pass	
4.4'-DDE	M20-Se29740	NCP	%	99			70-130	Pass	
4.4'-DDT	M20-Se29740	NCP	%	88			70-130	Pass	
a-BHC	M20-Se29740	NCP	%	97			70-130	Pass	
Aldrin	M20-Se29740	NCP	%	93			70-130	Pass	
b-BHC	M20-Se29740	NCP	%	127			70-130	Pass	
d-BHC	M20-Se29740	NCP	%	87			70-130	Pass	
Dieldrin	M20-Se29740	NCP	%	106			70-130	Pass	
Endosulfan I	M20-Se29740	NCP	%	109			70-130	Pass	
Endosulfan II	M20-Se29740	NCP	%	109			70-130	Pass	
Endosulfan sulphate	M20-Se29740	NCP	%	114			70-130	Pass	
Endrin	M20-Se29740	NCP	%	117			70-130	Pass	
Endrin aldehyde	M20-Se29740	NCP	%	125			70-130	Pass	
Endrin ketone	M20-Se29740	NCP	%	111			70-130	Pass	
g-BHC (Lindane)	M20-Se29740	NCP	%	106			70-130	Pass	
Heptachlor	M20-Se29740	NCP	%	83			70-130	Pass	
Heptachlor epoxide	M20-Se29740	NCP	%	120			70-130	Pass	
Methoxychlor	M20-Se29740	NCP	%	77			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	M20-Se33177	NCP	%	88			70-130	Pass	
Aroclor-1260	M20-Se33177	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Acid Herbicides				Result 1					
Actril (loxynil)	M20-Se31456	NCP	%	80			70-130	Pass	
Dichlorprop	M20-Se31456	NCP	%	78			70-130	Pass	
MCPA	M20-Se31456	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M20-Se33181	NCP	%	72			30-130	Pass	
2.4-Dichlorophenol	M20-Se33181	NCP	%	91			30-130	Pass	
2.4.5-Trichlorophenol	M20-Se33181	NCP	%	125			30-130	Pass	
2.4.6-Trichlorophenol	M20-Se33181	NCP	%	75			30-130	Pass	
2.6-Dichlorophenol	M20-Se33181	NCP	%	96			30-130	Pass	
4-Chloro-3-methylphenol	M20-Se33181	NCP	%	73			30-130	Pass	
Pentachlorophenol	M20-Se33181	NCP	%	63			30-130	Pass	
Tetrachlorophenols - Total	M20-Se33181	NCP	%	114			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	B20-Se26827	NCP	%	58			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M20-Se33181	NCP	%	57			30-130	Pass	
2-Methylphenol (o-Cresol)	M20-Se33181	NCP	%	76			30-130	Pass	
2-Nitrophenol	M20-Se33181	NCP	%	89			30-130	Pass	
2.4-Dimethylphenol	M20-Se33181	NCP	%	113			30-130	Pass	
2.4-Dinitrophenol	B20-Se26827	NCP	%	77			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M20-Se33181	NCP	%	75			30-130	Pass	
4-Nitrophenol	M20-Se33181	NCP	%	107			30-130	Pass	
Dinoseb	M20-Se33181	NCP	%	94			30-130	Pass	
Phenol	M20-Se33181	NCP	%	74			30-130	Pass	
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	M20-Se33604	CP	%	94			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Hexachlorobenzene	M20-Se29740	NCP	%	83			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M20-Se33600	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M20-Se33600	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M20-Se33600	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M20-Se33600	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M20-Se33600	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M20-Se33600	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M20-Se33600	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M20-Se33600	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	M20-Se33600	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M20-Se33600	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M20-Se33600	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M20-Se33600	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M20-Se33600	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M20-Se33600	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M20-Se33601	CP	mg/kg	35	45	25	30%	Pass	
Barium	M20-Se33601	CP	mg/kg	37	27	31	30%	Fail	Q15
Beryllium	M20-Se33601	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	M20-Se33601	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M20-Se33601	CP	mg/kg	24	27	13	30%	Pass	
Cobalt	M20-Se33601	CP	mg/kg	6.0	6.9	13	30%	Pass	
Copper	M20-Se33601	CP	mg/kg	6.0	5.7	6.0	30%	Pass	
Lead	M20-Se33601	CP	mg/kg	33	33	<1	30%	Pass	
Manganese	M20-Se33601	CP	mg/kg	56	48	16	30%	Pass	
Mercury	M20-Se33601	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M20-Se33601	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M20-Se33601	CP	mg/kg	11	14	23	30%	Pass	
Selenium	M20-Se33601	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M20-Se33601	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M20-Se33601	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M20-Se33601	CP	mg/kg	40	39	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M20-Se33601	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Cyanide (total)	M20-Se33182	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Fluoride (Total)	M20-Au47712	NCP	mg/kg	150	250	47	30%	Fail	Q15
pH (1:5 Aqueous extract at 25°C as rec.)	M20-Se35294	NCP	pH Units	8.8	8.8	pass	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M20-Se33618	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M20-Se33182	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M20-Se33182	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M20-Se33182	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	M20-Se33618	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	M20-Se33618	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	M20-Se33618	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	M20-Se33618	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	M20-Se33618	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total*	M20-Se33618	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M20-Se33618	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M20-Se33618	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M20-Se33182	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M20-Se33182	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M20-Se33182	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Bifenthrin	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordanes - Total	M20-Se33177	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M20-Se26087	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M20-Se33177	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M20-Se28926	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Chlorinated Hydrocarbons				Result 1	Result 2	RPD			
1.2.4-Trichlorobenzene	M20-Se26087	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Chlorpyrifos	M20-Se33177	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Triazines				Result 1	Result 2	RPD			
Atrazine	M20-Se33177	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M20-Se33177	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M20-Se33177	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M20-Se33177	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M20-Se33177	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M20-Se33177	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M20-Se33177	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M20-Se33177	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M20-Se33177	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M20-Se33177	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M20-Se33177	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M20-Se33177	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	M20-Se33177	NCP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2.4-Dimethylphenol	M20-Se33177	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M20-Se33177	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M20-Se33177	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M20-Se33177	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M20-Se33177	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M20-Se33177	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M20-Se33607	CP	%	14	13	2.0	30%	Pass	