Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	N/A
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
I12	Where sampling date has not been provided, Eurofins | Environment Testing is not able to determine whether analysis has been performed within recommended holding times.
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Savini Suduweli	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Atma Environmental
56 William St
Abbotsford
VIC 3067

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Glenn Berry**

Report **732366-W**
Project name ELWOOD
Project ID 1865B
Received Date Jul 15, 2020

Client Sample ID			**DECON140720**
Sample Matrix			**Water**
Eurofins Sample No.			**M20-JI28273**
Date Sampled			**Not Provided**[I12]
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.01	mg/L	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	85
p-Terphenyl-d14 (surr.)	1	%	96

Client Sample ID			DECON140720
Sample Matrix			Water
Eurofins Sample No.			M20-JI28273
Date Sampled			Not Provided[I12]
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Barium (filtered)	0.02	mg/L	< 0.02
Beryllium (filtered)	0.001	mg/L	< 0.001
Boron (filtered)	0.05	mg/L	< 0.05
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Cobalt (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001
Manganese (filtered)	0.005	mg/L	< 0.005
Mercury (filtered)	0.0001	mg/L	< 0.0001
Molybdenum (filtered)	0.005	mg/L	< 0.005
Nickel (filtered)	0.001	mg/L	< 0.001
Selenium (filtered)	0.001	mg/L	< 0.001
Silver (filtered)	0.005	mg/L	< 0.005
Tin (filtered)	0.005	mg/L	< 0.005
Zinc (filtered)	0.005	mg/L	< 0.005

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 17, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 17, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 17, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding Methyl Mercury/PBDE			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 17, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Vic EPA Metals : Metals M17 filtered	Melbourne	Jul 17, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BH1/0.1	Not Provided		Soil	M20-JI28230		X	X	X			X			X
2	BH2/0.1	Not Provided		Soil	M20-JI28231			X	X			X			X
3	BH3/0.1	Not Provided		Soil	M20-JI28232							X		X	
4	BH4/0.1	Not Provided		Soil	M20-JI28233			X	X			X			X
5	BH5/0.1	Not Provided		Soil	M20-JI28234			X	X			X			X
6	BH6/0.1	Not Provided		Soil	M20-JI28235							X		X	
7	BH7/0.1	Not Provided		Soil	M20-JI28236			X	X			X			X
8	BH8/0.1	Not Provided		Soil	M20-JI28237			X	X			X			X
9	BH9/0.1	Not Provided		Soil	M20-JI28238			X	X			X			X
10	BH10/0.1	Not Provided		Soil	M20-JI28239			X	X			X	X		X

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
11	BH11/0.1	Not Provided		Soil	M20-JI28240			X	X			X	X		X
12	BH12/0.1	Not Provided		Soil	M20-JI28241						X	X			
13	BH13/0.1	Not Provided		Soil	M20-JI28242		X	X	X			X			X
14	BH14/0.1	Not Provided		Soil	M20-JI28243			X	X			X			X
15	BH15/0.1	Not Provided		Soil	M20-JI28244			X	X			X			X
16	BH16/0.1	Not Provided		Soil	M20-JI28245			X	X			X			X
17	BH17/0.1	Not Provided		Soil	M20-JI28246		X	X	X			X			X
18	BH18/0.1	Not Provided		Soil	M20-JI28247							X		X	
19	BH19/0.1	Not Provided		Soil	M20-JI28248							X		X	
20	BH20/0.1	Not Provided		Soil	M20-JI28249			X	X			X			X
21	BH21/0.1	Not Provided		Soil	M20-JI28250			X	X			X			X
22	BH22/0.1	Not Provided		Soil	M20-JI28251			X	X			X			X
23	BH23/0.1	Not Provided		Soil	M20-JI28252		X	X	X			X	X		X

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
24	BH24/0.1	Not Provided		Soil	M20-JI28253			X	X			X			X
25	BH25/0.1	Not Provided		Soil	M20-JI28254		X	X	X			X			X
26	BH26/0.1	Not Provided		Soil	M20-JI28255			X	X			X			X
27	BH27/0.1	Not Provided		Soil	M20-JI28256			X	X		X	X			X
28	BH28/0.1	Not Provided		Soil	M20-JI28257			X	X			X			X
29	BH29/0.1	Not Provided		Soil	M20-JI28258			X	X			X			X
30	BH30/0.1	Not Provided		Soil	M20-JI28259		X	X	X			X			X
31	BH31/0.1	Not Provided		Soil	M20-JI28260			X	X			X			X
32	BH32/0.1	Not Provided		Soil	M20-JI28261		X	X	X		X	X			X
33	BH33/0.1	Not Provided		Soil	M20-JI28262			X	X			X			X
34	BH34/0.1	Not Provided		Soil	M20-JI28263			X	X			X	X		X
35	BH35/0.1	Not Provided		Soil	M20-JI28264			X	X			X			X
36	BH36/0.1	Not Provided		Soil	M20-JI28265			X	X			X	X		X

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
37	BH37/0.1	Not Provided		Soil	M20-JI28266			X	X			X			X
38	T1/0.1	Not Provided		Woodchips	M20-JI28267									X	
39	T2/0.1	Not Provided		Soil	M20-JI28268							X	X	X	
40	DUP-140720A	Not Provided		Soil	M20-JI28269				X			X			
41	DUP-140720B	Not Provided		Soil	M20-JI28270			X	X			X			
42	DUP-140720C	Not Provided		Soil	M20-JI28271			X	X			X			
43	DUP-140720D	Not Provided		Soil	M20-JI28272			X				X			X
44	DECON140720	Not Provided		Water	M20-JI28273			X		X					X
45	BH1/0.5	Not Provided		Soil	M20-JI28274	X									
46	BH2/0.5	Not Provided		Soil	M20-JI28275	X									
47	BH2/1.0	Not Provided		Soil	M20-JI28276	X									
48	BH3/0.5	Not Provided		Soil	M20-JI28277	X									

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
49	BH3/1.0	Not Provided		Soil	M20-JI28278	X									
50	BH4/0.5	Not Provided		Soil	M20-JI28279	X									
51	BH5/1.0	Not Provided		Soil	M20-JI28280	X									
52	BH5/1.5	Not Provided		Soil	M20-JI28281	X									
53	BH6/0.5	Not Provided		Soil	M20-JI28282	X									
54	BH7/0.5	Not Provided		Soil	M20-JI28283	X									
55	BH7/1.0	Not Provided		Soil	M20-JI28284	X									
56	BH8/0.5	Not Provided		Soil	M20-JI28285	X									
57	BH9/0.5	Not Provided		Soil	M20-JI28286	X									
58	BH10/0.5	Not Provided		Soil	M20-JI28287	X									
59	BH11/0.5	Not Provided		Soil	M20-JI28288	X									
60	BH13/0.5	Not Provided		Soil	M20-JI28289	X									
61	BH13/1.0	Not Provided		Soil	M20-JI28290	X									

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
62	BH13/1.5	Not Provided		Soil	M20-JI28291	X									
63	BH14/0.5	Not Provided		Soil	M20-JI28292	X									
64	BH14/1.0	Not Provided		Soil	M20-JI28293	X									
65	BH14/1.5	Not Provided		Soil	M20-JI28294	X									
66	BH15/0.5	Not Provided		Soil	M20-JI28295	X									
67	BH15/1.0	Not Provided		Soil	M20-JI28296	X									
68	BH17/0.5	Not Provided		Soil	M20-JI28297	X									
69	BH17/1.0	Not Provided		Soil	M20-JI28298	X									
70	BH18/0.5	Not Provided		Soil	M20-JI28299	X									
71	BH18/1.0	Not Provided		Soil	M20-JI28300	X									
72	BH19/0.5	Not Provided		Soil	M20-JI28301	X									
73	BH19/1.0	Not Provided		Soil	M20-JI28302	X									
74	BH21/0.5	Not Provided		Soil	M20-JI28303	X									

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
75	BH21/1.0	Not Provided		Soil	M20-JI28304	X									
76	BH22/0.5	Not Provided		Soil	M20-JI28305	X									
77	BH23/0.5	Not Provided		Soil	M20-JI28307	X									
78	BH23/1.0	Not Provided		Soil	M20-JI28308	X									
79	BH24/0.5	Not Provided		Soil	M20-JI28309	X									
80	BH25/0.5	Not Provided		Soil	M20-JI28310	X									
81	BH25/1.0	Not Provided		Soil	M20-JI28311	X									
82	BH26/0.5	Not Provided		Soil	M20-JI28312	X									
83	BH27/0.5	Not Provided		Soil	M20-JI28313	X									
84	BH28/0.5	Not Provided		Soil	M20-JI28314	X									
85	BH29/0.5	Not Provided		Soil	M20-JI28315	X									
86	BH29/1.0	Not Provided		Soil	M20-JI28316	X									
87	BH30/0.5	Not Provided		Soil	M20-JI28317	X									

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
88	BH31/0.5	Not Provided		Soil	M20-JI28318	X									
89	BH31/1.0	Not Provided		Soil	M20-JI28319	X									
90	BH32/0.5	Not Provided		Soil	M20-JI28320	X									
91	BH32/1.0	Not Provided		Soil	M20-JI28321	X									
92	BH32/1.5	Not Provided		Soil	M20-JI28322	X									
93	BH33/0.5	Not Provided		Soil	M20-JI28323	X									
94	BH34/0.5	Not Provided		Soil	M20-JI28324	X									
95	BH35/0.5	Not Provided		Soil	M20-JI28325	X									
96	BH36/0.5	Not Provided		Soil	M20-JI28326	X									
97	BH37/0.5	Not Provided		Soil	M20-JI28327	X									
98	T1/0.5	Not Provided		Soil	M20-JI28328	X									
99	T2/0.5	Not Provided		Soil	M20-JI28330	X									
100	DUP-140720E	Not Provided		Soil	M20-JI28331	X									

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 732366
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 15, 2020 2:00 PM
Due: Jul 22, 2020
Priority: 5 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Vic EPA Metals : Metals M17 filtered	Aggressivity Soil Set	Moisture Set	Cation Exchange Capacity	NEPM Screen Table 1(A) HIL's for Soil Contaminants - Basic Suite - Excluding	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
101	FIELD-140720	Not Provided		Water	M20-JI28332	X									
102	TRIP-140720	Not Provided		Water	M20-JI28333	X									
103	BH5/0.5	Not Provided		Soil	M20-JI28426	X									
104	BH15/1.5	Not Provided		Soil	M20-JI28437	X									
105	T1/1.0	Not Provided		Soil	M20-JI28462	X									
Test Counts						61	7	36	35	1	3	42	6	6	34

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							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Barium (filtered)	mg/L	< 0.02			0.02	Pass	
Beryllium (filtered)	mg/L	< 0.001			0.001	Pass	
Boron (filtered)	mg/L	< 0.05			0.05	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Cobalt (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Molybdenum (filtered)	mg/L	< 0.005			0.005	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Selenium (filtered)	mg/L	< 0.001			0.001	Pass	
Silver (filtered)	mg/L	< 0.005			0.005	Pass	
Tin (filtered)	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	105			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	93			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
TRH >C10-C16	%	100			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	111			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	107			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	97			70-130	Pass	
Benzo(b&j)fluoranthene	%	86			70-130	Pass	
Benzo(g.h.i)perylene	%	99			70-130	Pass	
Benzo(k)fluoranthene	%	105			70-130	Pass	
Chrysene	%	105			70-130	Pass	
Dibenz(a.h)anthracene	%	71			70-130	Pass	
Fluoranthene	%	93			70-130	Pass	
Fluorene	%	97			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	80			70-130	Pass	
Naphthalene	%	98			70-130	Pass	
Phenanthrene	%	100			70-130	Pass	
Pyrene	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M20-Jl27546	NCP	%	88			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M20-Jl27546	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M20-Jl13719	NCP	%	98			70-130	Pass	
Acenaphthylene	M20-Jl13719	NCP	%	94			70-130	Pass	
Anthracene	M20-Jl13719	NCP	%	82			70-130	Pass	
Benz(a)anthracene	M20-Jl13719	NCP	%	92			70-130	Pass	
Benzo(a)pyrene	M20-Jl13719	NCP	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	M20-Jl13719	NCP	%	95			70-130	Pass	
Benzo(g.h.i)perylene	M20-Jl13719	NCP	%	90			70-130	Pass	
Benzo(k)fluoranthene	M20-Jl13719	NCP	%	98			70-130	Pass	
Chrysene	M20-Jl13719	NCP	%	84			70-130	Pass	
Dibenz(a.h)anthracene	M20-Jl13719	NCP	%	102			70-130	Pass	
Fluoranthene	M20-Jl13719	NCP	%	102			70-130	Pass	
Fluorene	M20-Jl13719	NCP	%	97			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl13719	NCP	%	101			70-130	Pass	
Naphthalene	M20-Jl13719	NCP	%	94			70-130	Pass	
Phenanthrene	M20-Jl13719	NCP	%	105			70-130	Pass	
Pyrene	M20-Jl13719	NCP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M20-Jl27738	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	M20-Jl27545	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	M20-Jl27545	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	M20-Jl27545	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M20-Jl27738	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M20-Jl27738	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	M20-Jl27545	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	M20-Jl27545	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	M20-Jl27545	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M20-Jl27308	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	N/A
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
I12	Where sampling date has not been provided, Eurofins | Environment Testing is not able to determine whether analysis has been performed within recommended holding times.

Authorised By

Savini Suduweli	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson
General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Chain of Custody Record

Atma *Environmental*

(modified after US EPA chain of custody form)

Sheet 1 of 1

PROJECT: 18658 Elwood

Sampler's Signature:

Sampler's Name: Kyle O'Brien

Site No: 18658 DATE: 23/07/20 Time:

SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK /____	ANALYSIS FOR: M12	PAH	TRH	VOC (Trace detection)	~~BTEX~~ BTEX	BTE	TDS	Hold	NO. of CONTAINERS	HIGH CONTAM EXPECTED	COMPOSITING INSTRUCTIONS:
MW01					X		X	X	X	X	X	X	X		8		
MW02					X		X	X	X	X	X	X	X		8		
MW03					X		X	X	X	X	X	X	X		8		
DUP-230720					X		X	X	X						6		
~~SPLIT-230720~~					~~X~~										4		
DECON-230720						X								X	4		
FIELD-230720						X								X	4		
TRIP-230720						X								X	4		

TOTAL:

DISPATCHED BY: (sign) (DATE/TIME)

△

COURIERED BY: (sign) (DATE/TIME)

604

■ RECEIVED BY: (sign) (DATE/TIME)

Mollie Reeve 24/7 2:25pm

LAB NAME: Eurofins

INITIAL RESULTS REQUESTED WITHIN: 24Hrs 48Hrs 3 - 4 DAYS NORMAL

REMARKS: Please email completed COC, Sample Receipt Notification, results and invoices to: kobrien@atmaenvironmental.com

Please email results to: rmcphillips@atmaenvironmental.com

NOTE: △ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

UCB 13:60

733826

Mollie Reeve

Chain of Custody Record

(modified after US EPA chain of custody form)

Sheet 1 of 1

Atma *Environmental*

(5)

PROJECT: Elwood

Sampler's Signature:

Sampler's Name: Kyle O'Brien

Site No: 1865B

DATE: 23/07/20

Time:

SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK / ____	ANALYSIS FOR: S3	S4	PAH	NO. of CONTAINERS	HIGH CONTAM EXPECTED	COMPOSITING INSTRUCTIONS:
SPILT-230720					X		X	X	X			
TOTAL:												

DISPATCHED BY: (sign) (DATE/TIME)

△

RECEIVED BY: (sign) (DATE/TIME)

COURIERED BY: (sign) (DATE/TIME)

LAB NAME: ALS

INITIAL RESULTS REQUESTED WITHIN: 24Hrs 48Hrs 3 - 4 DAYS NORMAL

REMARKS: **Please email completed COC, Sample Receipt Notification, results and invoices to:**

Please email results to:

kobrien@atmaenvironmental.com

rmcphillips@atmaenvironmental.com

NOTE: △ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

733 Mitcham Road 826

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **Atma Environmental**

Contact name: Kyle Obrien
Project name: ELWOOD
Project ID: 1865B
COC number: Not provided
Turn around time: 2 Day
Date/Time received: Jul 24, 2020 2:15 PM
Eurofins reference: **733826**

Sample information

- ☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 13.6 degrees Celsius.
- ☑ All samples have been received as described on the above COC.
- ☑ COC has been completed correctly.
- ☑ Attempt to chill was evident.
- ☑ Appropriately preserved sample containers have been used.
- ☑ All samples were received in good condition.
- ☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☑ Appropriate sample containers have been used.
- ☑ Sample containers for volatile analysis received with zero headspace.
- ☑ Split sample sent to requested external lab.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Savini Suduweli on Phone : or by e.mail: SaviniSuduweli@eurofins.com

Results will be delivered electronically via e.mail to Kyle Obrien - kobrien@atmaenvironmental.com.

eurofins | Environment Testing

Certificate of Analysis

Atma Environmental
56 William St
Abbotsford
VIC 3067

Attention: **Kyle Obrien**

Report **733826-W**
Project name ELWOOD
Project ID 1865B
Received Date Jul 24, 2020

Client Sample ID			**MW01**	**MW02**	**MW03**	**DUP-230720**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**M20-JI40646**	**M20-JI40647**	**M20-JI40648**	**M20-JI40649**
Date Sampled			**Jul 23, 2020**	**Jul 23, 2020**	**Jul 23, 2020**	**Jul 23, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Volatile Organics (selected analytes by SIM)						
1.1-Dichloroethane (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.2-Dichloroethane (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
1.4-Dichlorobenzene (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
2-Propanone (Acetone)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Bromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	-

Client Sample ID			MW01	MW02	MW03	DUP-230720
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M20-JI40646	M20-JI40647	M20-JI40648	M20-JI40649
Date Sampled			Jul 23, 2020	Jul 23, 2020	Jul 23, 2020	Jul 23, 2020
Test/Reference	LOR	Unit				
Volatile Organics (selected analytes by SIM)						
Chlorobenzene (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Chloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Chloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
cis-1.2-Dichloroethene (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	-
Methylene chloride (SIM)	0.00002	mg/L	< 0.00002	< 0.00002	< 0.00002	-
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Tetrachloroethene (SIM)	0.00002	mg/L	< 0.00002	< 0.00002	< 0.00002	-
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Trichloroethene (SIM)	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Vinyl chloride (SIM)	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	-
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
Toluene-d8 (surr.)	1	%	113	109	104	-
4-Bromofluorobenzene (surr.)	1	%	92	89	87	-
Vic EPA IWRG 621 Other chlorinated hydrocarbons (Total)	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Vic EPA IWRG 621 Chlorinated hydrocarbons (Total)	0.005	mg/L	< 0.005	< 0.005	< 0.005	-
Total MAH*	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW01	MW02	MW03	DUP-230720
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M20-JI40646	M20-JI40647	M20-JI40648	M20-JI40649
Date Sampled			Jul 23, 2020	Jul 23, 2020	Jul 23, 2020	Jul 23, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	82	56	61	64
p-Terphenyl-d14 (surr.)	1	%	82	53	92	71
Chloride	1	mg/L	4900	520	3300	-
Sulphate (as SO4)	5	mg/L	430	420	720	-
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	10000	2600	8400	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	360	2000	820	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	-
Total Alkalinity (as CaCO3)	20	mg/L	360	2000	820	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.002	0.008	0.003	0.002
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.016	0.003	0.18	0.018
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	0.003	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Molybdenum (filtered)	0.005	mg/L	< 0.005	0.014	< 0.005	< 0.005
Nickel (filtered)	0.001	mg/L	0.067	0.044	0.098	0.066
Selenium (filtered)	0.001	mg/L	0.002	0.007	0.004	0.002
Silver (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Tin (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Zinc (filtered)	0.005	mg/L	0.035	0.018	0.13	0.053
Alkali Metals						
Calcium	0.5	mg/L	430	32	510	-
Magnesium	0.5	mg/L	530	45	390	-
Potassium	0.5	mg/L	83	36	73	-
Sodium	0.5	mg/L	1800	1300	1500	-

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 24, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics (selected analytes by SIM)	Melbourne	Jul 24, 2020	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and Aqueous (SIM) (USEPA 8260)			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 24, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals IWRG 621 : Metals M12 filtered	Melbourne	Jul 24, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Eurofins Suite B11C: Na/K/Ca/Mg	Melbourne	Jul 24, 2020	180 Days
- Method: LTM-MET-3010 Alkali Metals by ICP-AES			
Eurofins Suite B11E: Cl/SO4/Alkalinity			
Chloride	Melbourne	Jul 24, 2020	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Sulphate (as SO4)	Melbourne	Jul 24, 2020	28 Days
- Method: LTM-INO-4110 Sulfate by Discrete Analyser			
Alkalinity (speciated)	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Melbourne	Jul 24, 2020	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 733826
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 24, 2020 2:15 PM
Due: Jul 28, 2020
Priority: 2 Day
Contact Name: Kyle Obrien

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Metals IWRG 621 : Metals M12 filtered	Volatile Organics (selected analytes by SIM)	Total Recoverable Hydrocarbons	Eurofins Suite B11E: Cl/SO4/Alkalinity	Eurofins Suite B11C: Na/K/Ca/Mg	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	MW01	Jul 23, 2020		Water	M20-Jl40646		X	X	X	X	X	X	X
2	MW02	Jul 23, 2020		Water	M20-Jl40647		X	X	X	X	X	X	X
3	MW03	Jul 23, 2020		Water	M20-Jl40648		X	X	X	X	X	X	X
4	DUP-230720	Jul 23, 2020		Water	M20-Jl40649		X	X		X			
5	DECON-230720	Jul 23, 2020		Water	M20-Jl40650	X							
6	FIELD-230720	Jul 23, 2020		Water	M20-Jl40651	X							
7	TRIP-230720	Jul 23, 2020		Water	M20-Jl40652	X							
Test Counts						3	4	4	3	4	3	3	3

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							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
Volatile Organics (selected analytes by SIM)							
1.1-Dichloroethane (SIM)	mg/L	< 0.00001			0.00001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane (SIM)	mg/L	< 0.00001			0.00001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene (SIM)	mg/L	< 0.00001			0.00001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
2-Propanone (Acetone)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Benzene	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene (SIM)	mg/L	< 0.00001			0.00001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene (SIM)	mg/L	< 0.00001			0.00001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
Methylene chloride (SIM)	mg/L	< 0.00002			0.00002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene (SIM)	mg/L	< 0.00002			0.00002	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene (SIM)	mg/L	< 0.00001			0.00001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride (SIM)	mg/L	< 0.00005			0.00005	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Chloride	mg/L	< 1			1	Pass	
Sulphate (as SO4)	mg/L	< 5			5	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	mg/L	< 10			10	Pass	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 10			10	Pass	
Hydroxide Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Total Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Molybdenum (filtered)	mg/L	< 0.005			0.005	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Selenium (filtered)	mg/L	< 0.001			0.001	Pass	
Silver (filtered)	mg/L	< 0.005			0.005	Pass	
Tin (filtered)	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	86			70-130	Pass	
TRH C10-C14	%	82			70-130	Pass	
LCS - % Recovery							
Volatile Organics (selected analytes by SIM)							
1.1-Dichloroethene	%	122			70-130	Pass	
1.1.1-Trichloroethane	%	119			70-130	Pass	
1.2-Dichlorobenzene	%	97			70-130	Pass	
Benzene	%	100			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	90			70-130	Pass	
Toluene	%	123			70-130	Pass	
Xylenes - Total*	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	86			70-130	Pass	
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	80			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	117			70-130	Pass	
Acenaphthylene	%	117			70-130	Pass	
Anthracene	%	113			70-130	Pass	
Benz(a)anthracene	%	74			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	%	78			70-130	Pass	
Benzo(g.h.i)perylene	%	98			70-130	Pass	
Benzo(k)fluoranthene	%	99			70-130	Pass	
Chrysene	%	112			70-130	Pass	
Dibenz(a.h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	99			70-130	Pass	
Fluorene	%	100			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	99			70-130	Pass	
Naphthalene	%	105			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	99			70-130	Pass	
LCS - % Recovery							
Chloride	%	100			70-130	Pass	
Sulphate (as SO4)	%	98			70-130	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	%	102			70-130	Pass	
LCS - % Recovery							
Alkalinity (speciated)							
Carbonate Alkalinity (as CaCO3)	%	118			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Alkalinity (as CaCO3)			%	121			70-130	Pass	
LCS - % Recovery									
Alkali Metals									
Calcium			%	90			80-120	Pass	
Magnesium			%	93			80-120	Pass	
Potassium			%	90			80-120	Pass	
Sodium			%	101			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M20-JI38762	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M20-JI38762	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S20-JI25246	NCP	%	106			70-130	Pass	
Acenaphthylene	S20-JI25246	NCP	%	102			70-130	Pass	
Anthracene	S20-JI25246	NCP	%	88			70-130	Pass	
Benz(a)anthracene	S20-JI25246	NCP	%	103			70-130	Pass	
Benzo(a)pyrene	S20-JI25246	NCP	%	108			70-130	Pass	
Benzo(b&j)fluoranthene	S20-JI25246	NCP	%	104			70-130	Pass	
Benzo(g.h.i)perylene	S20-JI25246	NCP	%	122			70-130	Pass	
Benzo(k)fluoranthene	S20-JI25246	NCP	%	93			70-130	Pass	
Chrysene	S20-JI25246	NCP	%	129			70-130	Pass	
Dibenz(a.h)anthracene	S20-JI25246	NCP	%	113			70-130	Pass	
Fluoranthene	S20-JI25246	NCP	%	109			70-130	Pass	
Fluorene	S20-JI25246	NCP	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S20-JI25246	NCP	%	120			70-130	Pass	
Naphthalene	S20-JI25246	NCP	%	87			70-130	Pass	
Phenanthrene	S20-JI25246	NCP	%	104			70-130	Pass	
Pyrene	S20-JI25246	NCP	%	109			70-130	Pass	
Spike - % Recovery									
				Result 1					
Chloride	P20-JI36654	NCP	%	101			70-130	Pass	
Sulphate (as SO4)	P20-JI36654	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Alkalinity (speciated)				Result 1					
Bicarbonate Alkalinity (as CaCO3)	M20-My31793	NCP	%	100			70-130	Pass	
Carbonate Alkalinity (as CaCO3)	M20-My31783	NCP	%	113			70-130	Pass	
Total Alkalinity (as CaCO3)	M20-My31783	NCP	%	112			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	B20-JI36939	NCP	%	98			75-125	Pass	
Magnesium	B20-JI36939	NCP	%	99			75-125	Pass	
Potassium	B20-JI36939	NCP	%	93			75-125	Pass	
Sodium	B20-JI36939	NCP	%	111			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	M20-JI41948	NCP	%	116			75-125	Pass	
Cadmium (filtered)	M20-JI41948	NCP	%	96			75-125	Pass	
Chromium (filtered)	M20-JI41948	NCP	%	93			75-125	Pass	
Copper (filtered)	M20-JI41948	NCP	%	86			75-125	Pass	
Lead (filtered)	M20-JI41948	NCP	%	95			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury (filtered)	M20-Jl41948	NCP	%	97			75-125	Pass	
Molybdenum (filtered)	M20-Jl41948	NCP	%	86			75-125	Pass	
Nickel (filtered)	M20-Jl41948	NCP	%	89			75-125	Pass	
Selenium (filtered)	M20-Jl41948	NCP	%	118			75-125	Pass	
Silver (filtered)	M20-Jl41948	NCP	%	93			75-125	Pass	
Tin (filtered)	M20-Jl41948	NCP	%	102			75-125	Pass	
Zinc (filtered)	M20-Jl41948	NCP	%	92			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M20-Jl39407	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M20-Jl39407	NCP	%	83			70-130	Pass	
TRH C6-C10	M20-Jl39407	NCP	%	104			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	B20-Jl36933	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	B20-Jl36933	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	B20-Jl36933	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	B20-Jl36933	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	B20-Jl36933	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	B20-Jl36933	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M20-Jl35583	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	N20-Jl37643	NCP	mg/L	24	25	3.0	30%	Pass	
Sulphate (as SO4)	N20-Jl37643	NCP	mg/L	240	250	5.0	30%	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	M20-Jl39158	NCP	mg/L	11000	14000	24	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	M20-Jl40018	NCP	mg/L	160	150	3.0	30%	Pass	
Carbonate Alkalinity (as CaCO3)	M20-Jl40018	NCP	mg/L	51	59	14	30%	Pass	
Hydroxide Alkalinity (as CaCO3)	M20-Jl40018	NCP	mg/L	< 20	< 20	<1	30%	Pass	
Total Alkalinity (as CaCO3)	M20-Jl40018	NCP	mg/L	210	210	2.0	30%	Pass	

Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	B20-JI36939	NCP	mg/L	18	15	18	30%	Pass	
Magnesium	B20-JI36939	NCP	mg/L	22	20	11	30%	Pass	
Potassium	B20-JI36939	NCP	mg/L	9.5	9.4	<1	30%	Pass	
Sodium	B20-JI36939	NCP	mg/L	1300	1200	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	M20-JI41948	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	M20-JI41948	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	M20-JI41948	NCP	mg/L	0.005	0.005	3.0	30%	Pass	
Copper (filtered)	M20-JI41948	NCP	mg/L	0.003	0.003	10	30%	Pass	
Lead (filtered)	M20-JI41948	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	M20-JI41948	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Molybdenum (filtered)	M20-JI41948	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Nickel (filtered)	M20-JI41948	NCP	mg/L	0.005	0.004	6.0	30%	Pass	
Selenium (filtered)	M20-JI41948	NCP	mg/L	0.015	0.015	3.0	30%	Pass	
Silver (filtered)	M20-JI41948	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Tin (filtered)	M20-JI41948	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Zinc (filtered)	M20-JI41948	NCP	mg/L	0.007	0.007	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M20-JI39421	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M20-JI39421	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M20-JI39421	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Savini Suduweli	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Atma Environmental**
Contact name:	Glenn Berry
Project name:	ELWOOD
Project ID:	1865B
COC number:	Not provided
Turn around time:	2 Day
Date/Time received:	Jul 24, 2020 5:09 PM
Eurofins reference:	**733886**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Savini Suduweli on Phone : or by e.mail: SaviniSuduweli@eurofins.com

Results will be delivered electronically via e.mail to Glenn Berry - gberry@atmaenvironmental.com.

Further Sample Analysis Request

Atma Environmental

Sheet 1 of 1 Date: 24/07/20 (Samples Despatched On: 15/07/2020)

Previous Report Number: **732366**

PROJECT: **1865B ELWOOD**

SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK /____	ANALYSIS: M17	PAHs	B1- TRH/BTEXN						CONTAINERS	COMPOSITING INSTRUCTIONS:
BH2/0.5				x			X	X							1	J128275 - HT348
BH3/0.5				x				X							1	J128277 -
BH5/0.5				x			X	X							1	J128426 -
BH6/0.5				x				X							1	J128282 -
BH7/0.5				x			X	X	X						1	J128283 -
BH8/0.5				x			X	X							1	J128285 - HT351
BH9/0.5				x				X							1	J128286
BH10/0.5				x			X								1	J128287
BH12/0.1				x			X	X							1	J128241 - GT427
BH13/0.5				x			X		X						1	J128289 - HT351
BH14/0.5				x					X						1	J128292 -
BH18/0.5				x			X	X							1	J128299 -
BH19/0.5				x				X							1	J128301 -
BH22/0.5				x				X							1	J128305 -
BH24/0.5				x			X								1	J128309 - HT352
BH25/0.5				x			X	X							1	J128310 -
BH26/0.5				x			X	X	X						1	J128312 -
BH28/0.5				x				X	X						1	J128314 -
BH29/0.5				x			X	X	X						1	J128319 -
BH29/1.0				x				X	X						1	J128316 -
BH33/0.5				x			X	X	X						1	J128323
BH35/0.5				x					X						1	J128325 -
BH36/0.5				x					X						1	J128326 -
T2/0.5				x			X	X	X						1	J128330 - HT353
MW3/1.0				x					X						1	
Total:				**25**			**14**	**18**	**12**						**25**	~~Not on original report~~

REQUESTED BY: (sign) (DATE/TIME)

△ GLENN BERRY 24/07/2020

■ LAB NAME: **Eurofins** JL27284 (DATE/TIME)

Jake 24/7 5:09pm. From 732271 HT346

REC'D FOR LAB BY: (sign)

FINAL RESULTS SHALL BE AVAILABLE WITHIN: ~~24 Hr~~ 48 Hr ~~3 Day~~ ~~NORMAL~~

REMARKS: **Email Results to:**

gberry@atmaenvironmental.com

kobrien@atmaenvironmental.com

733886

NOTE:

△ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

#AU_CAU001_EnviroSampleVic

From: Michael Cassidy
Sent: Friday, 24 July 2020 5:09 PM
To: #AU_CAU001_EnviroSampleVic
Cc: Savini Suduweli Kondage
Subject: URGENT 2 DAY TAT ADDITIONAL ANALYSIS FW: Eurofins FASR - Report 732366 : Site ELWOOD (1865B)
Attachments: 1865B FSAR Soil 24.7.2020.pdf

Thanks Canh,

Kind Regards,

Michael Cassidy

Phone: 8564 5940
Mobile: 0498 700 069
Email : MichaelCassidy@eurofins.com

From: Glenn Berry <gberry@atmaenvironmental.com>
Sent: Friday, 24 July 2020 5:06 PM
To: Michael Cassidy <MichaelCassidy@eurofins.com>
Cc: Kyle O'Brien <kobrien@atmaenvironmental.com>; Julian Hawkins <Julian.Hawkins@portphillip.vic.gov.au>
Subject: RE: Eurofins FASR - Report 732366 : Site ELWOOD (1865B)

EXTERNAL EMAIL*

Hi Mic

Please refer to attached further sample analysis request (48 Hr TAT) re this batch of soils from Elwood.

Regards,
Glenn Berry, *CEnvP*
Director | Principal Environmental Consultant

Atma *Environmental*

56 William Street, ABBOTSFORD, Vic 3067 Australia
Tel: +61-3-9429 6955 Fax: +61-3-9429 5911 Mob: +61-412 000 445
Email: gberry@atmaenvironmental.com Web: www.atmaenvironmental.com

From: MichaelCassidy@eurofins.com <MichaelCassidy@eurofins.com>
Sent: Tuesday, 21 July 2020 3:42 PM
To: Glenn Berry <gberry@atmaenvironmental.com>
Cc: Kyle O'Brien <kobrien@atmaenvironmental.com>
Subject: Eurofins Test Results, Invoice - Report 732366 : Site ELWOOD (1865B)

eurofins | Environment Testing

Certificate of Analysis

Atma Environmental
56 William St
Abbotsford
VIC 3067

Attention: **Glenn Berry**

Report **733886-S**
Project name ELWOOD
Project ID 1865B
Received Date Jul 24, 2020

Client Sample ID			**BH2/0.5**	**BH3/0.5**	**BH5/0.5**	**BH6/0.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M20-JI41160**	**M20-JI41161**	**M20-JI41162**	**M20-JI41163**
Date Sampled			**Jul 15, 2020**	**Jul 15, 2020**	**Jul 15, 2020**	**Jul 15, 2020**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	13	0.8
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	13	1.1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	13	1.4
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	3.0	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	7.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	8.4	0.7
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	6.1	0.6
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	5.0	0.6
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	6.4	0.6
Chrysene	0.5	mg/kg	< 0.5	< 0.5	6.8	0.6
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.9	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.6	16	0.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	4.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	13	< 0.5
Pyrene	0.5	mg/kg	0.5	0.6	16	0.9
Total PAH*	0.5	mg/kg	0.5	1.2	96.8	4.8
2-Fluorobiphenyl (surr.)	1	%	98	88	88	82
p-Terphenyl-d14 (surr.)	1	%	79	86	88	77
Heavy Metals						
Arsenic	2	mg/kg	4.2	-	36	-
Barium	10	mg/kg	11	-	140	-
Beryllium	2	mg/kg	< 2	-	< 2	-
Boron	10	mg/kg	< 10	-	< 10	-
Cadmium	0.4	mg/kg	< 0.4	-	1.3	-
Chromium	5	mg/kg	6.0	-	25	-
Cobalt	5	mg/kg	< 5	-	8.3	-
Copper	5	mg/kg	< 5	-	1500	-
Lead	5	mg/kg	9.8	-	580	-
Manganese	5	mg/kg	42	-	210	-
Mercury	0.1	mg/kg	< 0.1	-	2.8	-
Molybdenum	5	mg/kg	< 5	-	< 5	-

Client Sample ID			BH2/0.5	BH3/0.5	BH5/0.5	BH6/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41160	M20-JI41161	M20-JI41162	M20-JI41163
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Nickel	5	mg/kg	< 5	-	38	-
Selenium	2	mg/kg	< 2	-	< 2	-
Silver	0.2	mg/kg	< 0.2	-	0.9	-
Tin	10	mg/kg	< 10	-	59	-
Zinc	5	mg/kg	7.7	-	1500	-
% Moisture	1	%	8.8	8.2	5.6	7.3

Client Sample ID			BH7/0.5	BH8/0.5	BH9/0.5	BH10/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41164	M20-JI41165	M20-JI41166	M20-JI41167
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	6.1	0.8	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	6.1	1.1	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	6.1	1.4	-
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	2.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	4.4	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	3.9	0.7	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	2.9	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	2.7	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	3.9	0.6	-
Chrysene	0.5	mg/kg	< 0.5	4.6	0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	0.8	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	9.4	0.9	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	2.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	8.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	9.9	1.0	-
Total PAH*	0.5	mg/kg	< 0.5	56	3.7	-
2-Fluorobiphenyl (surr.)	1	%	84	84	140	-
p-Terphenyl-d14 (surr.)	1	%	80	82	77	-
Heavy Metals						
Arsenic	2	mg/kg	4.1	14	-	2.7
Barium	10	mg/kg	16	54	-	< 10
Beryllium	2	mg/kg	< 2	< 2	-	< 2
Boron	10	mg/kg	< 10	< 10	-	< 10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	6.9	16	-	< 5
Cobalt	5	mg/kg	< 5	< 5	-	< 5
Copper	5	mg/kg	5.3	14	-	< 5
Lead	5	mg/kg	45	140	-	< 5
Manganese	5	mg/kg	34	58	-	22
Mercury	0.1	mg/kg	0.2	0.1	-	< 0.1

Client Sample ID			BH7/0.5	BH8/0.5	BH9/0.5	BH10/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41164	M20-JI41165	M20-JI41166	M20-JI41167
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	-	< 5
Nickel	5	mg/kg	< 5	9.2	-	< 5
Selenium	2	mg/kg	< 2	< 2	-	< 2
Silver	0.2	mg/kg	< 0.2	0.2	-	< 0.2
Tin	10	mg/kg	11	< 10	-	< 10
Zinc	5	mg/kg	34	76	-	33
% Moisture	1	%	8.7	11	10	14
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	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
4-Bromofluorobenzene (surr.)	1	%	88	-	-	-
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	-	-	-

Client Sample ID			BH12/0.1	BH13/0.5	BH14/0.5	BH18/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41168	M20-JI41169	M20-JI41170	M20-JI41171
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	0.8	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.1	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.4	-	-	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	0.7	-	-	< 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

Client Sample ID			BH12/0.1	BH13/0.5	BH14/0.5	BH18/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41168	M20-JI41169	M20-JI41170	M20-JI41171
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	0.7	-	-	< 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	0.7	-	-	< 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	0.8	-	-	< 0.5
Total PAH*	0.5	mg/kg	2.9	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	90	-	-	92
p-Terphenyl-d14 (surr.)	1	%	120	-	-	82
Heavy Metals						
Arsenic	2	mg/kg	5.7	2.9	-	6.5
Barium	10	mg/kg	22	13	-	< 10
Beryllium	2	mg/kg	< 2	< 2	-	< 2
Boron	10	mg/kg	11	< 10	-	< 10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	9.2	< 5	-	< 5
Cobalt	5	mg/kg	< 5	< 5	-	< 5
Copper	5	mg/kg	12	5.3	-	< 5
Lead	5	mg/kg	92	6.6	-	12
Manganese	5	mg/kg	67	90	-	21
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	-	< 5
Nickel	5	mg/kg	6.6	< 5	-	< 5
Selenium	2	mg/kg	< 2	< 2	-	< 2
Silver	0.2	mg/kg	0.2	< 0.2	-	< 0.2
Tin	10	mg/kg	< 10	< 10	-	< 10
Zinc	5	mg/kg	180	44	-	19
% Moisture	1	%	7.1	7.5	7.4	3.8
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	88	-
TRH C29-C36	50	mg/kg	-	< 50	90	-
TRH C10-C36 (Total)	50	mg/kg	-	< 50	178	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	81	81	-

Client Sample ID			BH12/0.1	BH13/0.5	BH14/0.5	BH18/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41168	M20-JI41169	M20-JI41170	M20-JI41171
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	140	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	140	-

Client Sample ID			BH19/0.5	BH22/0.5	BH24/0.5	BH25/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41172	M20-JI41173	M20-JI41174	M20-JI41175
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	7.4	< 0.5	-	1.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	8.4	0.6	-	2.2
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	9.4	1.2	-	2.4
Acenaphthene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	4.0	< 0.5	-	1.0
Benzo(a)pyrene	0.5	mg/kg	5.8	< 0.5	-	1.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	3.8	< 0.5	-	0.9
Benzo(g.h.i)perylene	0.5	mg/kg	4.0	< 0.5	-	0.9
Benzo(k)fluoranthene	0.5	mg/kg	4.2	< 0.5	-	1.3
Chrysene	0.5	mg/kg	5.0	< 0.5	-	1.0
Dibenz(a.h)anthracene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	13	0.5	-	1.9
Fluorene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	2.9	< 0.5	-	0.8
Naphthalene	0.5	mg/kg	< 2	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	3.8	< 0.5	-	1.1
Pyrene	0.5	mg/kg	9.0	0.6	-	2.1
Total PAH*	0.5	mg/kg	55.5	1.1	-	12.5
2-Fluorobiphenyl (surr.)	1	%	95	81	-	80
p-Terphenyl-d14 (surr.)	1	%	69	78	-	80
Heavy Metals						
Arsenic	2	mg/kg	-	-	8.3	18
Barium	10	mg/kg	-	-	36	49
Beryllium	2	mg/kg	-	-	< 2	< 2
Boron	10	mg/kg	-	-	< 10	22
Cadmium	0.4	mg/kg	-	-	< 0.4	< 0.4
Chromium	5	mg/kg	-	-	17	42
Cobalt	5	mg/kg	-	-	6.2	12
Copper	5	mg/kg	-	-	19	22
Lead	5	mg/kg	-	-	73	39
Manganese	5	mg/kg	-	-	99	140

Client Sample ID			BH19/0.5	BH22/0.5	BH24/0.5	BH25/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41172	M20-JI41173	M20-JI41174	M20-JI41175
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.1	mg/kg	-	-	< 0.1	0.2
Molybdenum	5	mg/kg	-	-	< 5	< 5
Nickel	5	mg/kg	-	-	26	38
Selenium	2	mg/kg	-	-	< 2	< 2
Silver	0.2	mg/kg	-	-	< 0.2	< 0.2
Tin	10	mg/kg	-	-	< 10	< 10
Zinc	5	mg/kg	-	-	75	81
% Moisture	1	%	8.9	5.1	5.8	14

Client Sample ID			BH26/0.5	BH28/0.5	BH29/0.5	BH29/1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41176	M20-JI41177	M20-JI41178	M20-JI41179
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	1.1	1.0	2.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.4	1.3	2.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.7	1.6	3.0
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	0.5	1.4
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.9	0.8	1.9
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	0.6	0.6	1.2
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	0.7	0.6	1.2
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	0.8	0.8	1.7
Chrysene	0.5	mg/kg	< 0.5	0.6	0.7	1.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.9	0.9	2.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	0.5	< 0.5	1.0
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.5
Pyrene	0.5	mg/kg	< 0.5	1.0	1.0	2.8
Total PAH*	0.5	mg/kg	< 0.5	6	5.9	16.7
2-Fluorobiphenyl (surr.)	1	%	86	81	83	107
p-Terphenyl-d14 (surr.)	1	%	81	77	78	78
Heavy Metals						
Arsenic	2	mg/kg	4.2	-	5.1	-
Barium	10	mg/kg	< 10	-	13	-
Beryllium	2	mg/kg	< 2	-	< 2	-
Boron	10	mg/kg	< 10	-	16	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	< 5	-	6.7	-
Cobalt	5	mg/kg	< 5	-	< 5	-
Copper	5	mg/kg	< 5	-	9.7	-
Lead	5	mg/kg	5.3	-	55	-

Client Sample ID			BH26/0.5	BH28/0.5	BH29/0.5	BH29/1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41176	M20-JI41177	M20-JI41178	M20-JI41179
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Manganese	5	mg/kg	35	-	34	-
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	-
Molybdenum	5	mg/kg	< 5	-	< 5	-
Nickel	5	mg/kg	6.0	-	5.8	-
Selenium	2	mg/kg	< 2	-	< 2	-
Silver	0.2	mg/kg	< 0.2	-	< 0.2	-
Tin	10	mg/kg	< 10	-	< 10	-
Zinc	5	mg/kg	9.4	-	83	-
% Moisture	1	%	3.3	8.1	11	12
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	67	61	84
TRH C29-C36	50	mg/kg	< 50	110	110	96
TRH C10-C36 (Total)	50	mg/kg	< 50	177	171	180
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	93	86	79	130
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	130	130	140
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	130	130	140

Client Sample ID			BH33/0.5	BH35/0.5	BH36/0.5	[R16]T2/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41180	M20-JI41181	M20-JI41182	M20-JI41183
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	150
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	150
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	150
Acenaphthene	0.5	mg/kg	< 0.5	-	-	11
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	6.6
Anthracene	0.5	mg/kg	< 0.5	-	-	56
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	99
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	99

Client Sample ID			BH33/0.5	BH35/0.5	BH36/0.5	R16T2/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41180	M20-JI41181	M20-JI41182	M20-JI41183
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	68
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	57
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	74
Chrysene	0.5	mg/kg	< 0.5	-	-	87
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	21
Fluoranthene	0.5	mg/kg	< 0.5	-	-	230
Fluorene	0.5	mg/kg	< 0.5	-	-	9.2
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	53
Naphthalene	0.5	mg/kg	< 0.5	-	-	3.1
Phenanthrene	0.5	mg/kg	< 0.5	-	-	210
Pyrene	0.5	mg/kg	< 0.5	-	-	240
Total PAH*	0.5	mg/kg	< 0.5	-	-	1323.9
2-Fluorobiphenyl (surr.)	1	%	119	-	-	66
p-Terphenyl-d14 (surr.)	1	%	110	-	-	81
Heavy Metals						
Arsenic	2	mg/kg	9.4	-	-	5.4
Barium	10	mg/kg	23	-	-	36
Beryllium	2	mg/kg	< 2	-	-	< 2
Boron	10	mg/kg	< 10	-	-	< 10
Cadmium	0.4	mg/kg	< 0.4	-	-	< 0.4
Chromium	5	mg/kg	7.2	-	-	11
Cobalt	5	mg/kg	< 5	-	-	11
Copper	5	mg/kg	11	-	-	21
Lead	5	mg/kg	35	-	-	50
Manganese	5	mg/kg	63	-	-	210
Mercury	0.1	mg/kg	< 0.1	-	-	< 0.1
Molybdenum	5	mg/kg	< 5	-	-	< 5
Nickel	5	mg/kg	11	-	-	49
Selenium	2	mg/kg	< 2	-	-	< 2
Silver	0.2	mg/kg	< 0.2	-	-	< 0.2
Tin	10	mg/kg	< 10	-	-	< 10
Zinc	5	mg/kg	80	-	-	73
% Moisture	1	%	6.6	9.1	7.0	8.1
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 100
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	110
TRH C15-C28	50	mg/kg	< 50	160	230	7600
TRH C29-C36	50	mg/kg	< 50	82	210	3100
TRH C10-C36 (Total)	50	mg/kg	< 50	242	440	10810
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 1
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 1.5
4-Bromofluorobenzene (surr.)	1	%	87	91	114	115

Client Sample ID			BH33/0.5	BH35/0.5	BH36/0.5	R16T2/0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-JI41180	M20-JI41181	M20-JI41182	M20-JI41183
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 2.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 100
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 100
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	470
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	470
TRH >C16-C34	100	mg/kg	< 100	210	370	9500
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	1100
TRH >C10-C40 (total)*	100	mg/kg	< 100	210	370	11070

Client Sample ID			MW3/1.0
Sample Matrix			Soil
Eurofins Sample No.			M20-JI41184
Date Sampled			Jul 15, 2020
Test/Reference	LOR	Unit	
% Moisture	1	%	6.2
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
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	79
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

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
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
VIC EPA Metals : Metals M17	Melbourne	Jul 24, 2020	180 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
% Moisture	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B1			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 24, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 24, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 733886
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 24, 2020 5:09 PM
Due: Jul 28, 2020
Priority: 2 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Moisture Set	Eurofins Suite B1
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH2/0.5	Jul 15, 2020		Soil	M20-Jl41160	X	X	X	
2	BH3/0.5	Jul 15, 2020		Soil	M20-Jl41161	X		X	
3	BH5/0.5	Jul 15, 2020		Soil	M20-Jl41162	X	X	X	
4	BH6/0.5	Jul 15, 2020		Soil	M20-Jl41163	X		X	
5	BH7/0.5	Jul 15, 2020		Soil	M20-Jl41164	X	X	X	X
6	BH8/0.5	Jul 15, 2020		Soil	M20-Jl41165	X	X	X	
7	BH9/0.5	Jul 15, 2020		Soil	M20-Jl41166	X		X	
8	BH10/0.5	Jul 15, 2020		Soil	M20-Jl41167		X	X	
9	BH12/0.1	Jul 15, 2020		Soil	M20-Jl41168	X	X	X	
10	BH13/0.5	Jul 15, 2020		Soil	M20-Jl41169		X	X	X

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 733886
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 24, 2020 5:09 PM
Due: Jul 28, 2020
Priority: 2 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Moisture Set	Eurofins Suite B1
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
11	BH14/0.5	Jul 15, 2020		Soil	M20-Jl41170			X	X
12	BH18/0.5	Jul 15, 2020		Soil	M20-Jl41171	X	X	X	
13	BH19/0.5	Jul 15, 2020		Soil	M20-Jl41172	X		X	
14	BH22/0.5	Jul 15, 2020		Soil	M20-Jl41173	X		X	
15	BH24/0.5	Jul 15, 2020		Soil	M20-Jl41174		X	X	
16	BH25/0.5	Jul 15, 2020		Soil	M20-Jl41175	X	X	X	
17	BH26/0.5	Jul 15, 2020		Soil	M20-Jl41176	X	X	X	X
18	BH28/0.5	Jul 15, 2020		Soil	M20-Jl41177	X		X	X
19	BH29/0.5	Jul 15, 2020		Soil	M20-Jl41178	X	X	X	X
20	BH29/1.0	Jul 15, 2020		Soil	M20-Jl41179	X		X	X
21	BH33/0.5	Jul 15, 2020		Soil	M20-Jl41180	X	X	X	X
22	BH35/0.5	Jul 15, 2020		Soil	M20-Jl41181			X	X
23	BH36/0.5	Jul 15, 2020		Soil	M20-Jl41182			X	X

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 733886
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 24, 2020 5:09 PM
Due: Jul 28, 2020
Priority: 2 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Moisture Set	Eurofins Suite B1
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
24	T2/0.5	Jul 15, 2020		Soil	M20-Jl41183	X	X	X	X
25	MW3/1.0	Jul 15, 2020		Soil	M20-Jl41184			X	X
Test Counts						18	14	25	12

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							
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							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Boron	mg/kg	< 10			10	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	< 0.2			0.2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			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							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	78			70-130	Pass	
Acenaphthylene	%	83			70-130	Pass	
Anthracene	%	98			70-130	Pass	
Benz(a)anthracene	%	80			70-130	Pass	
Benzo(a)pyrene	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	%	80			70-130	Pass	
Benzo(g.h.i)perylene	%	71			70-130	Pass	
Benzo(k)fluoranthene	%	92			70-130	Pass	
Chrysene	%	82			70-130	Pass	
Dibenz(a.h)anthracene	%	74			70-130	Pass	
Fluoranthene	%	78			70-130	Pass	
Fluorene	%	84			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	74			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
Phenanthrene	%	87			70-130	Pass	
Pyrene	%	82			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	106			80-120	Pass	
Barium	%	105			80-120	Pass	
Beryllium	%	114			80-120	Pass	
Boron	%	112			80-120	Pass	
Cadmium	%	97			80-120	Pass	
Chromium	%	107			80-120	Pass	
Cobalt	%	105			80-120	Pass	
Copper	%	112			80-120	Pass	
Lead	%	107			80-120	Pass	
Manganese	%	108			80-120	Pass	
Mercury	%	97			80-120	Pass	
Molybdenum	%	107			80-120	Pass	
Nickel	%	109			80-120	Pass	
Selenium	%	103			80-120	Pass	
Silver	%	100			80-120	Pass	
Tin	%	103			80-120	Pass	
Zinc	%	107			80-120	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	108			70-130	Pass	
TRH C10-C14	%	103			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	110			70-130	Pass	
Toluene	%	125			70-130	Pass	
Ethylbenzene	%	110			70-130	Pass	
m&p-Xylenes	%	116			70-130	Pass	
Xylenes - Total*	%	118			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions									
Naphthalene			%	107			70-130	Pass	
TRH C6-C10			%	98			70-130	Pass	
TRH >C10-C16			%	106			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M20-Jl41324	NCP	%	84			70-130	Pass	
TRH C10-C14	M20-Jl41090	NCP	%	93			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M20-Jl41324	NCP	%	85			70-130	Pass	
Toluene	M20-Jl41324	NCP	%	99			70-130	Pass	
Ethylbenzene	M20-Jl41324	NCP	%	81			70-130	Pass	
m&p-Xylenes	M20-Jl41324	NCP	%	89			70-130	Pass	
o-Xylene	M20-Jl41324	NCP	%	92			70-130	Pass	
Xylenes - Total*	M20-Jl41324	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M20-Jl41324	NCP	%	82			70-130	Pass	
TRH C6-C10	M20-Jl41324	NCP	%	76			70-130	Pass	
TRH >C10-C16	M20-Jl41090	NCP	%	93			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M20-Jl41167	CP	%	99			75-125	Pass	
Barium	M20-Jl41167	CP	%	102			75-125	Pass	
Beryllium	M20-Jl41167	CP	%	105			75-125	Pass	
Boron	M20-Jl41167	CP	%	97			75-125	Pass	
Cadmium	M20-Jl41167	CP	%	96			75-125	Pass	
Chromium	M20-Jl41167	CP	%	108			75-125	Pass	
Cobalt	M20-Jl41167	CP	%	104			75-125	Pass	
Copper	M20-Jl41167	CP	%	107			75-125	Pass	
Lead	M20-Jl41167	CP	%	104			75-125	Pass	
Manganese	M20-Jl41167	CP	%	111			75-125	Pass	
Mercury	M20-Jl41167	CP	%	100			75-125	Pass	
Molybdenum	M20-Jl41167	CP	%	105			75-125	Pass	
Nickel	M20-Jl41167	CP	%	107			75-125	Pass	
Selenium	M20-Jl41167	CP	%	95			75-125	Pass	
Silver	M20-Jl41167	CP	%	96			75-125	Pass	
Tin	M20-Jl41167	CP	%	103			75-125	Pass	
Zinc	M20-Jl41167	CP	%	102			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M20-Jl41171	CP	%	79			70-130	Pass	
Acenaphthylene	M20-Jl41171	CP	%	82			70-130	Pass	
Anthracene	M20-Jl41171	CP	%	95			70-130	Pass	
Benz(a)anthracene	M20-Jl41171	CP	%	77			70-130	Pass	
Benzo(a)pyrene	M20-Jl41171	CP	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	M20-Jl41171	CP	%	83			70-130	Pass	
Benzo(g.h.i)perylene	M20-Jl41171	CP	%	70			70-130	Pass	
Benzo(k)fluoranthene	M20-Jl41171	CP	%	85			70-130	Pass	
Chrysene	M20-Jl41171	CP	%	83			70-130	Pass	
Dibenz(a.h)anthracene	M20-Jl41171	CP	%	72			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene	M20-Jl41171	CP	%	77			70-130	Pass	
Fluorene	M20-Jl41171	CP	%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl41171	CP	%	73			70-130	Pass	
Naphthalene	M20-Jl41171	CP	%	78			70-130	Pass	
Phenanthrene	M20-Jl41171	CP	%	85			70-130	Pass	
Pyrene	M20-Jl41171	CP	%	78			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M20-Jl41163	CP	%	7.3	8.2	12	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	N20-Jl37528	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M20-Jl38758	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M20-Jl38758	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M20-Jl38758	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	N20-Jl37528	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	N20-Jl37528	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	N20-Jl37528	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	N20-Jl37528	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	N20-Jl37528	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	N20-Jl37528	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	N20-Jl37528	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	N20-Jl37528	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M20-Jl38758	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M20-Jl38758	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M20-Jl38758	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M20-Jl41165	CP	mg/kg	14	13	2.0	30%	Pass	
Barium	M20-Jl41165	CP	mg/kg	54	54	<1	30%	Pass	
Beryllium	M20-Jl41165	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Boron	M20-Jl41165	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Cadmium	M20-Jl41165	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M20-Jl41165	CP	mg/kg	16	16	1.0	30%	Pass	
Cobalt	M20-Jl41165	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	M20-Jl41165	CP	mg/kg	14	14	<1	30%	Pass	
Lead	M20-Jl41165	CP	mg/kg	140	140	<1	30%	Pass	
Manganese	M20-Jl41165	CP	mg/kg	58	57	1.0	30%	Pass	
Mercury	M20-Jl41165	CP	mg/kg	0.1	0.1	<1	30%	Pass	
Molybdenum	M20-Jl41165	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M20-Jl41165	CP	mg/kg	9.2	9.1	1.0	30%	Pass	
Selenium	M20-Jl41165	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M20-Jl41165	CP	mg/kg	0.2	< 0.2	3.0	30%	Pass	
Tin	M20-Jl41165	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M20-Jl41165	CP	mg/kg	76	76	1.0	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M20-Jl41167	CP	mg/kg	2.7	2.7	1.0	30%	Pass	
Barium	M20-Jl41167	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Beryllium	M20-Jl41167	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Boron	M20-Jl41167	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Cadmium	M20-Jl41167	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Cobalt	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Manganese	M20-Jl41167	CP	mg/kg	22	21	1.0	30%	Pass	
Mercury	M20-Jl41167	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M20-Jl41167	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Selenium	M20-Jl41167	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M20-Jl41167	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tin	M20-Jl41167	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M20-Jl41167	CP	mg/kg	33	33	1.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M20-Jl41168	CP	mg/kg	0.7	0.7	3.0	30%	Pass	
Benzo(b&j)fluoranthene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M20-Jl41168	CP	mg/kg	0.7	0.6	14	30%	Pass	
Chrysene	M20-Jl41168	CP	mg/kg	< 0.5	0.5	9.0	30%	Pass	
Dibenz(a.h)anthracene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M20-Jl41168	CP	mg/kg	0.7	0.9	20	30%	Pass	
Fluorene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M20-Jl41168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M20-Jl41168	CP	mg/kg	0.8	1.0	21	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M20-Jl41173	CP	%	5.1	6.0	16	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M20-Jl41183	CP	%	8.1	8.1	15	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
R16	The LORs have been raised due to the high concentration of one or more analytes

Authorised By

Savini Suduweli	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Atma Environmental**
Contact name:	Glenn Berry
Project name:	ELWOOD
Project ID:	1865B
COC number:	Not provided
Turn around time:	3 Day
Date/Time received:	Jul 28, 2020 12:16 PM
Eurofins reference:	**734380**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 6 degrees Celsius.

☑ All samples have been received as described on the above COC.

☒ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Savini Suduweli on Phone : or by e.mail: SaviniSuduweli@eurofins.com

Results will be delivered electronically via e.mail to Glenn Berry - gberry@atmaenvironmental.com.

Further Sample Analysis Request

Atma Environmental

Sheet 1 of 1 Date: 28/07/20 (Samples Despatched On: 15/07/2020)

Previous Report Number: **733886**

PROJECT: **1865B ELWOOD**

SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK / ____	ANALYSIS M17	PAHs							CONTAINERS	COMPOSITING INSTRUCTIONS:
BH19/0.5				x			X								1	JL28301 HT 351
BH19/1.0				x				x							1	JL28302
BH05/1.0			x				x	x							1	JL28280 HT248
Total:							**2**	**2**								

△ REQUESTED BY: (sign) (DATE/TIME)

Kyle O'Brien 24/07/2020

■ LAB NAME: **Eurofins** (DATE/TIME)

REC'D FOR LAB BY: (sign)

FINAL RESULTS SHALL BE AVAILABLE WITHIN: ~~24 Hr~~ ~~48 Hr~~ 3 Day ~~NORMAL~~

REMARKS:

Email Results to:

gberry@atmaenvironmental.com

kobrien@atmaenvironmental.com

E.F.

28/7 1:47 PM

734380

NOTE:

△ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

#AU_CAU001_EnviroSampleVic

From: Savini Suduweli Kondage
Sent: Tuesday, 28 July 2020 12:23 PM
To: Kyle O'Brien
Cc: Glenn Berry; #AU_CAU001_EnviroSampleVic; Catherine Wilson
Subject: RE: FSAR Elwood 1865B
Attachments: 1865B FSAR Soil 28.7.2020.pdf

Hi Kyle,

Thanks for sending that through.

SR – Please see attached for additional analysis.

Kind Regards,
Savini Suduweli

Phone : +61 3 8564 5051
Mobile : +61 447 222 760
Email : SaviniSuduweli@eurofins.com

From: Kyle O'Brien <kobrien@atmaenvironmental.com>
Sent: Tuesday, July 28, 2020 12:16 PM
To: Savini Suduweli Kondage <SaviniSuduweli@eurofins.com>
Cc: Glenn Berry <gberry@atmaenvironmental.com>
Subject: FSAR Elwood 1865B

EXTERNAL EMAIL*

Hi Savini,

Please find the attached FSAR for Elwood on 3-4 Day TAT.

Cheers,

Kyle O'Brien, Senior Environmental Scientist

Atma Environmental

56 William Street, ABBOTSFORD, Vic 3067 Australia
Tel: +61-3-9429 6955 Fax: +61-3-9429 5911 Mob: +61-490 196 114
E-mail: kobrien@atmaenvironmental.com Web: www.atmaenvironmental.com

Follow us on LinkedIn

Atma Environmental
56 William St
Abbotsford
VIC 3067

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Glenn Berry**

Report **734380-S**
Project name ELWOOD
Project ID 1865B
Received Date Jul 28, 2020

Client Sample ID			**BH19/0.5**	**BH19/1.0**	**BH05/1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M20-JI45877**	**M20-JI45878**	**M20-JI45879**
Date Sampled			**Jul 15, 2020**	**Jul 15, 2020**	**Jul 15, 2020**
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	2	mg/kg	6.6	-	39
Barium	10	mg/kg	130	-	14
Beryllium	2	mg/kg	< 2	-	< 2
Boron	10	mg/kg	< 10	-	< 10
Cadmium	0.4	mg/kg	0.6	-	< 0.4
Chromium	5	mg/kg	16	-	22
Cobalt	5	mg/kg	14	-	< 5
Copper	5	mg/kg	74	-	30
Lead	5	mg/kg	310	-	35
Manganese	5	mg/kg	260	-	33
Mercury	0.1	mg/kg	0.1	-	0.1
Molybdenum	5	mg/kg	< 5	-	< 5
Nickel	5	mg/kg	61	-	5.3
Selenium	2	mg/kg	< 2	-	< 2
Silver	0.2	mg/kg	< 0.2	-	< 0.2
Tin	10	mg/kg	< 10	-	< 10
Zinc	5	mg/kg	310	-	53
% Moisture	1	%	8.6	11	4.6
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	3.9	0.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	3.9	1.2
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	3.9	1.5
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	-	1.7	0.6
Benzo(a)pyrene	0.5	mg/kg	-	2.7	0.7
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	1.8	0.6
Benzo(g.h.i)perylene	0.5	mg/kg	-	1.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	2.4	0.7
Chrysene	0.5	mg/kg	-	1.9	0.7
Dibenz(a.h)anthracene	0.5	mg/kg	-	0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	3.6	1.7
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5

Client Sample ID			BH19/0.5	BH19/1.0	BH05/1.0
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M20-JI45877	M20-JI45878	M20-JI45879
Date Sampled			Jul 15, 2020	Jul 15, 2020	Jul 15, 2020
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	1.2	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	1.6	0.8
Pyrene	0.5	mg/kg	-	3.9	1.8
Total PAH*	0.5	mg/kg	-	22.8	7.6
2-Fluorobiphenyl (surr.)	1	%	-	70	68
p-Terphenyl-d14 (surr.)	1	%	-	81	84

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
VIC EPA Metals : Metals M17	Melbourne	Jul 28, 2020	180 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 28, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Melbourne	Jul 28, 2020	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ELWOOD
Project ID: 1865B

Order No.:
Report #: 734380
Phone: 9429 6955
Fax: 9429 5911

Received: Jul 28, 2020 12:16 PM
Due: Jul 31, 2020
Priority: 3 Day
Contact Name: Glenn Berry

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						Polycyclic Aromatic Hydrocarbons	VIC EPA Metals : Metals M17	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH19/0.5	Jul 15, 2020		Soil	M20-Jl45877		X	X
2	BH19/1.0	Jul 15, 2020		Soil	M20-Jl45878	X		X
3	BH05/1.0	Jul 15, 2020		Soil	M20-Jl45879	X	X	X
Test Counts						2	2	3

eurofins | Environment Testing

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	
Boron	mg/kg	< 10			10	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	< 0.2			0.2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	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	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Barium	%	105			80-120	Pass	
Beryllium	%	99			80-120	Pass	
Boron	%	98			80-120	Pass	
Cadmium	%	93			80-120	Pass	
Chromium	%	106			80-120	Pass	
Cobalt	%	106			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	107			80-120	Pass	
Manganese	%	105			80-120	Pass	
Mercury	%	95			80-120	Pass	
Molybdenum	%	102			80-120	Pass	
Nickel	%	102			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Selenium	%	100			80-120	Pass	
Silver	%	94			80-120	Pass	
Tin	%	103			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	78			70-130	Pass	
Acenaphthylene	%	83			70-130	Pass	
Anthracene	%	95			70-130	Pass	
Benz(a)anthracene	%	77			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	
Benzo(b&j)fluoranthene	%	104			70-130	Pass	
Benzo(g.h.i)perylene	%	77			70-130	Pass	
Benzo(k)fluoranthene	%	105			70-130	Pass	
Chrysene	%	76			70-130	Pass	
Dibenz(a.h)anthracene	%	78			70-130	Pass	
Fluoranthene	%	78			70-130	Pass	
Fluorene	%	83			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	78			70-130	Pass	
Naphthalene	%	73			70-130	Pass	
Phenanthrene	%	87			70-130	Pass	
Pyrene	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M20-Jl45662	NCP	%	108			75-125	Pass	
Barium	M20-Jl45662	NCP	%	126			75-125	Fail	Q08
Beryllium	M20-Jl45662	NCP	%	95			75-125	Pass	
Boron	M20-Jl45662	NCP	%	82			75-125	Pass	
Cadmium	M20-Jl45662	NCP	%	112			75-125	Pass	
Chromium	M20-Jl45662	NCP	%	110			75-125	Pass	
Cobalt	M20-Jl45662	NCP	%	110			75-125	Pass	
Copper	M20-Jl45662	NCP	%	113			75-125	Pass	
Lead	M20-Jl45662	NCP	%	116			75-125	Pass	
Manganese	M20-Jl45662	NCP	%	108			75-125	Pass	
Mercury	M20-Jl45662	NCP	%	105			75-125	Pass	
Molybdenum	M20-Jl45662	NCP	%	114			75-125	Pass	
Nickel	M20-Jl45662	NCP	%	113			75-125	Pass	
Selenium	M20-Jl45662	NCP	%	109			75-125	Pass	
Silver	M20-Jl45662	NCP	%	111			75-125	Pass	
Tin	M20-Jl45662	NCP	%	113			75-125	Pass	
Zinc	M20-Jl45662	NCP	%	109			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M20-Jl41171	NCP	%	79			70-130	Pass	
Acenaphthylene	M20-Jl41171	NCP	%	82			70-130	Pass	
Anthracene	M20-Jl41171	NCP	%	95			70-130	Pass	
Benz(a)anthracene	M20-Jl41171	NCP	%	77			70-130	Pass	
Benzo(a)pyrene	M20-Jl41171	NCP	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	M20-Jl41171	NCP	%	83			70-130	Pass	
Benzo(g.h.i)perylene	M20-Jl41171	NCP	%	70			70-130	Pass	
Benzo(k)fluoranthene	M20-Jl41171	NCP	%	85			70-130	Pass	
Chrysene	M20-Jl41171	NCP	%	83			70-130	Pass	
Dibenz(a.h)anthracene	M20-Jl41171	NCP	%	72			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene	M20-Jl41171	NCP	%	77			70-130	Pass	
Fluorene	M20-Jl41171	NCP	%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl41171	NCP	%	73			70-130	Pass	
Naphthalene	M20-Jl41171	NCP	%	78			70-130	Pass	
Phenanthrene	M20-Jl41171	NCP	%	85			70-130	Pass	
Pyrene	M20-Jl41171	NCP	%	78			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M20-Jl46049	NCP	mg/kg	5.0	5.2	4.0	30%	Pass	
Barium	M20-Jl46049	NCP	mg/kg	65	68	4.0	30%	Pass	
Beryllium	M20-Jl46049	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Boron	M20-Jl46049	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Cadmium	M20-Jl46049	NCP	mg/kg	2.2	2.2	2.0	30%	Pass	
Chromium	M20-Jl46049	NCP	mg/kg	8.5	8.8	4.0	30%	Pass	
Cobalt	M20-Jl46049	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	M20-Jl46049	NCP	mg/kg	30	31	4.0	30%	Pass	
Lead	M20-Jl46049	NCP	mg/kg	250	260	4.0	30%	Pass	
Manganese	M20-Jl46049	NCP	mg/kg	160	170	3.0	30%	Pass	
Mercury	M20-Jl46049	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M20-Jl46049	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M20-Jl46049	NCP	mg/kg	10	11	5.0	30%	Pass	
Selenium	M20-Jl46049	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M20-Jl46049	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tin	M20-Jl46049	NCP	mg/kg	28	29	4.0	30%	Pass	
Zinc	M20-Jl46049	NCP	mg/kg	1700	1800	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M20-Jl45659	NCP	%	16	15	8.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M20-Jl41168	NCP	mg/kg	0.7	0.7	3.0	30%	Pass	
Benzo(b&j)fluoranthene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M20-Jl41168	NCP	mg/kg	0.7	0.6	14	30%	Pass	
Chrysene	M20-Jl41168	NCP	mg/kg	< 0.5	0.5	9.0	30%	Pass	
Dibenz(a.h)anthracene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M20-Jl41168	NCP	mg/kg	0.7	0.9	20	30%	Pass	
Fluorene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M20-Jl41168	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M20-Jl41168	NCP	mg/kg	0.8	1.0	21	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised By

Savini Suduweli	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson
General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Chain of Custody Record

(modified after US EPA chain of custody form)

Sheet 1 of 1

Atma Environmental

PROJECT: **ELWOOD**

Sampler's Signature: K O'Brien

Sampler's Name: **K. O'BRIEN**

Site No: **1865B**

DATE: **16/07/2020**

Time: **17:30**

COMPOSITING INSTRUCTIONS:

	SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK /___	ANALYSIS FOR: R20 - NEPM SCREEN	M17 - METALS SUITE	PAHs	TRHs	L2- AGGRESSIVITY SUITE	pH - CaCl2	C.E.C.		HOLD AT LAB	NO. of CONTAINERS	HIGH CONTAM EXPECTED
1	SPLIT140720A	X			X						X						1	
2	SPLIT140720B	X			X					X	X						1	
3	SPLIT140720C	X			X					X							1	
4	SPLIT140720D	X			X				X								1	
5	SPLIT140720E	X			X				X								1	
	TOTAL:								2	2	2							

1

Environmental Division
Melbourne
Work Order Reference
EM2012544

Telephone : +61-3-8549 9600

Received: W/S. 0700 Carrier:
C/note:
Temp: 6.3 °C Seal Y/N
Ice / Icebricks / N/A

ALS

DISPATCHED BY: (sign) (DATE/TIME)

△

RECEIVED BY: (sign) (DATE/TIME)

COURIERED BY: (sign) EUROFINS (DATE/TIME) 16/07/2020

LAB NAME: **ALS**

INITIAL RESULTS REQUESTED WITHIN: ~~24Hrs~~ ~~48Hrs~~ ~~3 - 4 DAYS~~ **NORMAL**

REMARKS: **Please email completed COC, Sample Receipt Notification, results and invoices to:**

Please email results to: gberry@atmaenvironmental.com kobrien@atmaenvironmental.com

NOTE: △ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

rel'q: Zoe E.f 20/7 6:27am.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EM2012544**

Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR GLEN BERRY	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: gberry@atmaenvironmental.com	E-mail	: ALSEnviro.Melbourne@alsglobal.com
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Facsimile	: +61 94295911	Facsimile	: +61-3-8549 9626
Project	: ELWOOD	Page	: 1 of 2
Order number	: ----	Quote number	: EM2015ATMENV0001 (EN/333 Seconday work only)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 1865B		
Sampler	: KO		

Dates

Date Samples Received	: 20-Jul-2020 10:00	Issue Date	: 21-Jul-2020
Client Requested Due Date	: 27-Jul-2020	Scheduled Reporting Date	: **27-Jul-2020**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 4.3°C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 5 / 5

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Sample(s) received in non-ALS container(s).**
- **Please direct any queries related to sample condition / numbering / breakages to Client Services.**
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **Analytical work for this work order will be conducted at ALS Springvale.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - EA055-103 Moisture Content	SOIL - EG005T (solids) Total Metals by ICP-AES	SOIL - EP075 SIM PAH only SIM - PAH only	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - TPH only TRH (C6 - C40)
EM2012544-001	14-Jul-2020 00:00	SPLIT140720A	✓					✓
EM2012544-002	14-Jul-2020 00:00	SPLIT140720B	✓				✓	
EM2012544-003	14-Jul-2020 00:00	SPLIT140720C	✓		✓			
EM2012544-004	14-Jul-2020 00:00	SPLIT140720D	✓	✓		✓		
EM2012544-005	14-Jul-2020 00:00	SPLIT140720E	✓	✓		✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

GLEN BERRY

- *AU Certificate of Analysis - NATA (COA)	Email	gberry@atmaenvironmental.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	gberry@atmaenvironmental.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	gberry@atmaenvironmental.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	gberry@atmaenvironmental.com
- A4 - AU Tax Invoice (INV)	Email	gberry@atmaenvironmental.com
- Chain of Custody (CoC) (COC)	Email	gberry@atmaenvironmental.com
- EDI Format - ENMRG (ENMRG)	Email	gberry@atmaenvironmental.com
- EDI Format - ESDAT (ESDAT)	Email	gberry@atmaenvironmental.com

INVOICES

- A4 - AU Tax Invoice (INV)	Email	rmcphillips@atmaenvironmental.com

KYLE O'BRIEN

- *AU Certificate of Analysis - NATA (COA)	Email	kobrien@atmaenvironmental.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	kobrien@atmaenvironmental.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	kobrien@atmaenvironmental.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	kobrien@atmaenvironmental.com
- A4 - AU Tax Invoice (INV)	Email	kobrien@atmaenvironmental.com
- Chain of Custody (CoC) (COC)	Email	kobrien@atmaenvironmental.com
- EDI Format - ENMRG (ENMRG)	Email	kobrien@atmaenvironmental.com
- EDI Format - ESDAT (ESDAT)	Email	kobrien@atmaenvironmental.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM2012544**	Page	: 1 of 6
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR GLEN BERRY	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 20-Jul-2020 10:00
Order number	: ----	Date Analysis Commenced	: 22-Jul-2020
C-O-C number	: ----	Issue Date	: 24-Jul-2020 13:08
Sampler	: KO		
Site	: 1865B		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 5		
No. of samples analysed	: 5		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Andrew Lu	VOC Section Supervisor	Melbourne Inorganics, Springvale, VIC
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: **SOIL**
(Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SPLIT140720A	SPLIT140720B	SPLIT140720C	SPLIT140720D	SPLIT140720E
				Client sampling date / time	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00
					EM2012544-001	EM2012544-002	EM2012544-003	EM2012544-004	EM2012544-005
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		----	----	**8.6**	----	----
Moisture Content	----	1.0	%		**20.3**	**11.6**	----	**44.8**	**30.9**
EG005(ED093)T: Total Metals by ICP-AES									
Barium	7440-39-3	10	mg/kg		----	----	----	**30**	**40**
Beryllium	7440-41-7	1	mg/kg		----	----	----	<1	<1
Boron	7440-42-8	50	mg/kg		----	----	----	<50	<50
Cobalt	7440-48-4	2	mg/kg		----	----	----	**3**	**5**
Manganese	7439-96-5	5	mg/kg		----	----	----	**111**	**88**
Molybdenum	7439-98-7	2	mg/kg		----	----	----	**4**	<2
Selenium	7782-49-2	5	mg/kg		----	----	----	<5	<5
Silver	7440-22-4	2	mg/kg		----	----	----	<2	<2
Tin	7440-31-5	5	mg/kg		----	----	----	<5	<5
Arsenic	7440-38-2	5	mg/kg		----	----	----	**7**	**21**
Cadmium	7440-43-9	1	mg/kg		----	----	----	<1	<1
Chromium	7440-47-3	2	mg/kg		----	----	----	**7**	**10**
Copper	7440-50-8	5	mg/kg		----	----	----	**16**	**7**
Lead	7439-92-1	5	mg/kg		----	----	----	**26**	**24**
Nickel	7440-02-0	2	mg/kg		----	----	----	**8**	**8**
Zinc	7440-66-6	5	mg/kg		----	----	----	**101**	**50**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		----	----	----	<0.1	<0.1
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	**2.0**	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	**0.6**	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	**4.6**	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	**4.5**	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	**2.3**	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	**1.9**	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	**2.8**	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	**0.8**	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SPLIT140720A	SPLIT140720B	SPLIT140720C	SPLIT140720D	SPLIT140720E
				Client sampling date / time	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00
Compound	CAS Number	LOR	Unit		EM2012544-001	EM2012544-002	EM2012544-003	EM2012544-004	EM2012544-005
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	**2.5**	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	**1.3**	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	**1.6**	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	**24.9**	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	**3.2**	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	**3.5**	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	**3.8**	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		**170**	**100**	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**170**	**100**	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		**200**	**160**	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**200**	**160**	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	----	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SPLIT140720A	SPLIT140720B	SPLIT140720C	SPLIT140720D	SPLIT140720E
				Client sampling date / time	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00	14-Jul-2020 00:00
Compound	CAS Number	LOR	Unit		EM2012544-001	EM2012544-002	EM2012544-003	EM2012544-004	EM2012544-005
					Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
Phenol-d6	13127-88-3	0.5	%		----	83.8	98.8	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	82.9	84.6	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	81.6	83.3	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	93.3	96.4	----	----
Anthracene-d10	1719-06-8	0.5	%		----	98.2	99.3	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	85.1	88.1	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		80.4	88.9	----	----	----
Toluene-D8	2037-26-5	0.2	%		78.4	87.7	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		102	110	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	54	125
2-Chlorophenol-D4	93951-73-6	65	123
2.4.6-Tribromophenol	118-79-6	34	122
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	61	125
Anthracene-d10	1719-06-8	62	130
4-Terphenyl-d14	1718-51-0	67	133
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	51	125
Toluene-D8	2037-26-5	55	125
4-Bromofluorobenzene	460-00-4	56	124

QUALITY CONTROL REPORT

Work Order	: **EM2012544**	Page	: 1 of 9
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR GLEN BERRY	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 20-Jul-2020
Order number	: ----	Date Analysis Commenced	: 22-Jul-2020
C-O-C number	: ----	Issue Date	: 24-Jul-2020
Sampler	: KO		
Site	: 1865B		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 5		
No. of samples analysed	: 5		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Andrew Lu	VOC Section Supervisor	Melbourne Inorganics, Springvale, VIC
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3155474)									
EM2012544-005	SPLIT140720E	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	40	40	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	10	10	0.00	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	5	4	0.00	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	8	7	0.00	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	21	20	9.15	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	7	8	17.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	24	25	5.26	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	88	86	1.62	0% - 50%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	50	57	12.9	0% - 50%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.00	No Limit
EM2012548-012	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	160	150	0.00	0% - 50%
		EG005T: Chromium	7440-47-3	2	mg/kg	23	20	16.5	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	17	19	10.3	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	64	75	14.9	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	7	0.00	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3155474) - continued									
EM2012548-012	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	70	81	14.9	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	186	170	8.66	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	616	592	4.14	0% - 20%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	10	9	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	368	332	10.1	0% - 20%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.00	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3154320)									
EM2012525-003	Anonymous	EA055: Moisture Content	----	0.1	%	26.6	25.0	6.19	0% - 20%
EM2012544-003	SPLIT140720C	EA055: Moisture Content	----	0.1	%	8.6	8.5	2.02	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3155472)									
EM2012443-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EM2012481-008	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3155475)									
EM2012544-005	SPLIT140720E	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EM2012548-012	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.3	0.3	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3152725)									
EM2012456-003	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EM2012548-003	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	0.7	0.5	26.1	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3152725) - continued									
EM2012548-003	Anonymous	EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	2.1	1.5	31.1	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	2.3	1.7	29.4	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	1.4	1.0	29.1	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	1.1	0.9	24.1	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	1.9	1.5	22.8	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	1.6	1.2	25.1	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.9	0.7	21.1	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	1.1	0.9	19.3	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3152758)									
EM2012371-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	6.0	6.9	12.6	0% - 50%
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	3.3	3.6	9.31	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	0.8	0.9	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	2.3	2.5	8.58	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	15.0	15.6	3.33	0% - 20%
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	4.4	4.6	3.65	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	14.0	15.3	9.29	0% - 20%
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	14.3	15.5	7.68	0% - 20%
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	6.2	6.9	10.9	0% - 50%
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	5.0	5.4	8.76	0% - 50%
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	6.5	6.6	0.00	0% - 50%
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	1.9	2.8	38.8	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	5.9	6.5	9.32	0% - 50%
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	2.6	2.9	11.7	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	0.8	0.9	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	3.3	3.6	10.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3152759)									
EM2012441-007	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
		EP071: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.00	No Limit
EM2012371-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	300	340	11.9	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	140	150	9.56	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
		EP071: C10 - C36 Fraction (sum)	----	50	mg/kg	440	490	10.8	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3153242)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3153242) - continued									
EM2012439-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EM2012500-012	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3152759)									
EM2012441-007	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
		EP071: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	0.00	No Limit
EM2012371-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	380	430	11.6	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
		EP071: >C10 - C40 Fraction (sum)	----	50	mg/kg	380	430	12.3	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3153242)									
EM2012439-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EM2012500-012	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080: BTEXN (QC Lot: 3153242)									
EM2012439-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EM2012500-012	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

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

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3155474)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	106	78.5	107
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	103	76.4	110
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	112	85.4	114
EG005T: Boron	7440-42-8	50	mg/kg	<50	33.2 mg/kg	123	84.4	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	98.2	76.2	108
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	92.0	77.7	110
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16 mg/kg	98.1	78.1	112
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	99.5	78.1	108
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	97.1	78.4	106
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	104	80.6	110
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	7.9 mg/kg	94.4	78.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	101	79.9	109
EG005T: Selenium	7782-49-2	5	mg/kg	<5	5.37 mg/kg	103	92.0	110
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.1 mg/kg	88.5	80.0	108
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.2 mg/kg	87.6	78.4	117
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	99.7	79.1	110
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3155472)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	105	76.9	110
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3155475)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	102	76.9	110
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3152725)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	105	84.6	128
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	106	76.9	127
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	103	85.3	128
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	100	82.1	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	103	85.4	133
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	107	88.7	136
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	104	83.4	136
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	105	85.1	140
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	104	80.7	130
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	106	85.2	141
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	90.5	68.5	120
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	107	80.1	132

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3152725) - continued								
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	100	67.4	120
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	96.0	66.0	126
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	94.6	65.4	127
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	97.3	67.8	127
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3152758)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	99.2	84.6	128
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	99.3	76.9	127
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	98.8	85.3	128
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	96.9	82.1	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	100	85.4	133
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	105	88.7	136
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	101	83.4	136
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	103	85.1	140
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	98.8	80.7	130
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	105	85.2	141
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	91.2	68.5	120
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	103	80.1	132
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	98.5	67.4	120
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	99.4	66.0	126
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	96.9	65.4	127
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	103	67.8	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3152759)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	900 mg/kg	81.6	71.8	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	3030 mg/kg	90.3	83.9	125
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1520 mg/kg	94.3	77.9	119
EP071: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3153242)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	36 mg/kg	96.6	61.2	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3152759)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	1160 mg/kg	89.5	72.2	128
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	4020 mg/kg	89.5	82.1	122
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	280 mg/kg	90.0	55.1	131
EP071: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3153242)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	94.7	59.5	125
EP080: BTEXN (QCLot: 3153242)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	94.5	62.7	119

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080: BTEXN (QCLot: 3153242) - continued								
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	94.6	66.6	126
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	93.2	66.3	124
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	102	67.5	128
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	102	73.0	128
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	96.2	61.2	123

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3155474)							
EM2012548-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	94.3	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	93.0	84.0	116
		EG005T: Chromium	7440-47-3	50 mg/kg	90.4	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	96.2	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	85.1	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	82.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	99.6	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3155472)							
EM2012443-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	105	76.0	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3155475)							
EM2012548-001	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	109	76.0	116
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3152725)							
EM2012548-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	100.0	67.0	117
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	# Not Determined	52.0	148
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3152758)							
EM2012371-004	Anonymous	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	96.0	67.0	117
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	81.1	52.0	148
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3152759)							
EM2012371-003	Anonymous	EP071: C10 - C14 Fraction	----	900 mg/kg	85.1	53.0	123
		EP071: C15 - C28 Fraction	----	3030 mg/kg	96.1	70.0	124
		EP071: C29 - C36 Fraction	----	1520 mg/kg	102	64.0	118

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3153242)							
EM2012471-008	Anonymous	EP080: C6 - C9 Fraction	----	28 mg/kg	94.0	42.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3152759)							
EM2012371-003	Anonymous	EP071: >C10 - C16 Fraction	----	1160 mg/kg	93.4	65.0	123
		EP071: >C16 - C34 Fraction	----	4020 mg/kg	96.2	67.0	121
		EP071: >C34 - C40 Fraction	----	280 mg/kg	96.9	44.0	126
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3153242)							
EM2012471-008	Anonymous	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	89.3	39.0	129
EP080: BTEXN (QCLot: 3153242)							
EM2012471-008	Anonymous	EP080: Benzene	71-43-2	2 mg/kg	106	50.0	136
		EP080: Toluene	108-88-3	2 mg/kg	104	56.0	139

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2012544**	Page	: 1 of 4
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR GLEN BERRY	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 20-Jul-2020
Site	: 1865B	Issue Date	: 24-Jul-2020
Sampler	: KO	No. of samples received	: 5
Order number	: ----	No. of samples analysed	: 5

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	EM2012548--001	Anonymous	**Pyrene**	129-00-0	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SPLIT140720A, SPLIT140720C, SPLIT140720E	SPLIT140720B, SPLIT140720D,	**14-Jul-2020**	**----**	----	----	**22-Jul-2020**	28-Jul-2020	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SPLIT140720D,	SPLIT140720E	**14-Jul-2020**	**23-Jul-2020**	10-Jan-2021	✓	**23-Jul-2020**	10-Jan-2021	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
SPLIT140720D,	SPLIT140720E	**14-Jul-2020**	**23-Jul-2020**	11-Aug-2020	✓	**23-Jul-2020**	11-Aug-2020	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
SPLIT140720B,	SPLIT140720C	**14-Jul-2020**	**22-Jul-2020**	28-Jul-2020	✓	**22-Jul-2020**	31-Aug-2020	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
SPLIT140720A,	SPLIT140720B	**14-Jul-2020**	**22-Jul-2020**	28-Jul-2020	✓	**22-Jul-2020**	28-Jul-2020	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080)								
SPLIT140720A,	SPLIT140720B	**14-Jul-2020**	**22-Jul-2020**	28-Jul-2020	✓	**22-Jul-2020**	28-Jul-2020	✓
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
SPLIT140720A,	SPLIT140720B	**14-Jul-2020**	**22-Jul-2020**	28-Jul-2020	✓	**22-Jul-2020**	28-Jul-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	3	28	**10.71**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	32	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 6.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270E. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260D. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM amended 2013.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (2013) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

Chain of Custody Record

(modified after US EPA chain of custody form)

Sheet 1 of 1

Atma *Environmental*

(5)

PROJECT: Elwood

Sampler's Signature:

Sampler's Name: Kyle O'Brien

Site No: 1865B

DATE: 23/07/20

Time:

SAMPLE NO.	DISCRETE	COMPOSITE	GRAB	SAMPLE MATRIX: SOIL	WATER	BLANK /	ANALYSIS FOR: S3	S4	PAH	NO. of CONTAINERS	HIGH CONTAM EXPECTED	COMPOSITING INSTRUCTIONS:
(1) SPILT-23072O					X		X	X	X			
TOTAL:												

URGENT

Environmental Division
Melbourne
Work Order Reference
EM2012989

Telephone : +61-8-8549 9600

Received: 24/7, 9:17 Carrier:
C/note:
Temp: 3.1 °C Seal: Y (N)
Ice / Icebricks / NA

ALS

DISPATCHED BY: (sign) (DATE/TIME)

△

COURIERED BY: (sign) (DATE/TIME)

■ RECEIVED BY: (sign) (DATE/TIME)

LAB NAME: ALS

INITIAL RESULTS REQUESTED WITHIN: 24Hrs 48Hrs 3 - 4 DAYS (NORMAL)

REMARKS: **Please email completed COC, Sample Receipt Notification, results and invoices to:**

Please email results to: kobrien@atmaenvironmental.com

rmcphillips@atmaenvironmental.com

NOTE: △ Must be completed by Atma Environmental ■ Must be completed with date and time by laboratory.

rel:q: Zoe E.f 27/7 6:20am

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EM2012989**

Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: rmcphillips@atmaenvironmental.com	E-mail	: ALSEnviro.Melbourne@alsglobal.com
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Facsimile	: +61 03 94295911	Facsimile	: +61-3-8549 9626
Project	: ELWOOD	Page	: 1 of 2
Order number	: ----	Quote number	: EM2015ATMENV0001 (EN/333 Seconday work only)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 1865B		
Sampler	: KO		

Dates

Date Samples Received	: 27-Jul-2020 09:15	Issue Date	: 27-Jul-2020
Client Requested Due Date	: 29-Jul-2020	Scheduled Reporting Date	: **29-Jul-2020**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 3.1°C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Sample received in non-ALS container(s).**
- **Please direct any queries related to sample condition / numbering / breakages to Client Services.**
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **Analytical work for this work order will be conducted at ALS Springvale.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-03 15 Metals (NEPM Suite)	WATER - W-07 TRH/BTEX/PAH
EM2012989-001	23-Jul-2020 00:00	SPLIT_230720	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

INVOICES

- A4 - AU Tax Invoice (INV)	Email	rmcphillips@atmaenvironmental.com

KYLE O'BRIEN

- *AU Certificate of Analysis - NATA (COA)	Email	kobrien@atmaenvironmental.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	kobrien@atmaenvironmental.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	kobrien@atmaenvironmental.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	kobrien@atmaenvironmental.com
- A4 - AU Tax Invoice (INV)	Email	kobrien@atmaenvironmental.com
- Chain of Custody (CoC) (COC)	Email	kobrien@atmaenvironmental.com
- EDI Format - ENMRG (ENMRG)	Email	kobrien@atmaenvironmental.com
- EDI Format - ESDAT (ESDAT)	Email	kobrien@atmaenvironmental.com

RORY McPHILLIPS

- *AU Certificate of Analysis - NATA (COA)	Email	rmcphillips@atmaenvironmental.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	rmcphillips@atmaenvironmental.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	rmcphillips@atmaenvironmental.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	rmcphillips@atmaenvironmental.com
- A4 - AU Tax Invoice (INV)	Email	rmcphillips@atmaenvironmental.com
- Chain of Custody (CoC) (COC)	Email	rmcphillips@atmaenvironmental.com
- EDI Format - ENMRG (ENMRG)	Email	rmcphillips@atmaenvironmental.com
- EDI Format - ESDAT (ESDAT)	Email	rmcphillips@atmaenvironmental.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM2012989**	Page	: 1 of 6
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 27-Jul-2020 09:15
Order number	: ----	Date Analysis Commenced	: 27-Jul-2020
C-O-C number	: ----	Issue Date	: 29-Jul-2020 18:40
Sampler	: KO		
Site	: 1865B		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	SPLIT_230720	----	----	----	----
				Client sampling date / time	23-Jul-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EM2012989-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		**0.007**	----	----	----	----
Boron	7440-42-8	0.05	mg/L		**0.93**	----	----	----	----
Barium	7440-39-3	0.001	mg/L		**0.073**	----	----	----	----
Beryllium	7440-41-7	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Cobalt	7440-48-4	0.001	mg/L		<0.001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		**0.008**	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.010**	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.037**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Selenium	7782-49-2	0.01	mg/L		<0.01	----	----	----	----
Vanadium	7440-62-2	0.01	mg/L		<0.01	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.014**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	----	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	----	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	SPLIT_230720	----	----	----	----
				Client sampling date / time	23-Jul-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EM2012989-001	--------	--------	--------	--------
					Result	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L		<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ Total Xylenes	----	2	µg/L		<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**10.5**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**49.2**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**45.7**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**46.2**	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		**52.8**	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**51.6**	----	----	----	----

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)				Client sample ID	**SPLIT_230720**	**----**	**----**	**----**	**----**
				Client sampling date / time	23-Jul-2020 00:00	----	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**EM2012989-001**	**--------**	**--------**	**--------**	**--------**
					Result	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**110**	**----**	**----**	**----**	**----**
Toluene-D8	2037-26-5	2	%		**94.6**	**----**	**----**	**----**	**----**
4-Bromofluorobenzene	460-00-4	2	%		**102**	**----**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	46
2-Chlorophenol-D4	93951-73-6	23	104
2.4.6-Tribromophenol	118-79-6	28	130
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	36	114
Anthracene-d10	1719-06-8	51	119
4-Terphenyl-d14	1718-51-0	49	127
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	73	129
Toluene-D8	2037-26-5	70	125
4-Bromofluorobenzene	460-00-4	71	129

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **EM2012989**	Page	: 1 of 6
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 27-Jul-2020
Order number	: ----	Date Analysis Commenced	: 27-Jul-2020
C-O-C number	: ----	Issue Date	: 29-Jul-2020
Sampler	: KO		
Site	: 1865B		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 1		
No. of samples analysed	: 1		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3164410)									
EM2012871-014	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.068	0.073	8.18	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.002	0.003	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.003	0.003	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.011	0.014	24.8	0% - 50%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.013	0.019	36.4	0% - 50%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.006	0.012	68.3	No Limit
		EG020A-F: Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.17	0.19	8.79	No Limit
EM2012939-007	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.828	0.924	11.0	0% - 20%
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.040	0.043	8.49	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.046	0.052	12.0	0% - 20%
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.001	0.00	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	2.13	2.40	12.1	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.105	0.119	12.3	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.039	0.045	13.1	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3164410) - continued									
EM2012939-007	Anonymous	EG020A-F: Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.10	0.09	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 3164409)									
EM2012871-014	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3164388)									
EM2012804-021	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
EM2012973-024	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	40	40	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3164388)									
EM2012804-021	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EM2012973-024	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	30	30	0.00	No Limit
EP080: BTEXN (QC Lot: 3164388)									
EM2012804-021	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
EM2012973-024	Anonymous	EP080: Benzene	71-43-2	1	µg/L	5	5	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	3	2	41.6	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

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

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3164410)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	102	88.5	108
EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	106	81.6	109
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	98.8	83.6	109
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	94.6	83.5	108
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.4	83.2	105
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	99.6	84.3	108
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	97.7	83.1	106
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	99.0	84.6	107
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	99.8	84.8	107
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	101	84.3	108
EG020A-F: Selenium	7782-49-2	0.01	mg/L	<0.01	0.1 mg/L	97.2	82.3	110
EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	97.6	83.7	106
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	101	86.3	111
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	103	85.4	113
EG035F: Dissolved Mercury by FIMS (QCLot: 3164409)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	93.3	71.1	112
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3163691)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	68.2	41.1	116
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	73.8	47.2	121
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	73.2	47.3	118
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	75.6	49.4	121
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	77.3	52.5	124
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	76.8	52.3	125
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	77.6	52.4	127
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	76.4	51.3	130
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	78.9	50.0	130
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	78.7	49.6	131
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	79.0	51.5	132
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	83.3	54.0	131
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	82.4	52.3	133
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	79.6	50.4	127
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	80.3	50.0	127
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	80.5	50.8	128

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3163692)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	3330 µg/L	94.2	44.8	125
EP071: C15 - C28 Fraction	----	100	µg/L	<100	16500 µg/L	88.4	51.3	135
EP071: C29 - C36 Fraction	----	50	µg/L	<50	7800 µg/L	88.6	49.4	134
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3164388)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	360 µg/L	96.9	65.5	129
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3163692)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	5690 µg/L	81.4	47.3	129
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	20700 µg/L	86.9	50.4	133
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	1510 µg/L	89.0	45.2	136
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3164388)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	450 µg/L	102	64.3	126
EP080: BTEXN (QCLot: 3164388)								
EP080: Benzene	71-43-2	1	µg/L	<1	20 µg/L	94.7	69.8	124
EP080: Toluene	108-88-3	2	µg/L	<2	20 µg/L	102	73.6	126
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	20 µg/L	103	72.0	126
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	40 µg/L	106	71.5	132
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	20 µg/L	103	76.5	132
EP080: Naphthalene	91-20-3	5	µg/L	<5	5 µg/L	102	70.5	127

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3164410)							
EM2012871-014	Anonymous	EG020A-F: Arsenic	7440-38-2	0.2 mg/L	102	85.0	131
		EG020A-F: Beryllium	7440-41-7	0.2 mg/L	101	73.0	141
		EG020A-F: Barium	7440-39-3	0.2 mg/L	96.6	75.0	127
		EG020A-F: Cadmium	7440-43-9	0.05 mg/L	90.8	81.0	133
		EG020A-F: Chromium	7440-47-3	0.2 mg/L	91.9	71.0	135
		EG020A-F: Cobalt	7440-48-4	0.2 mg/L	95.6	78.0	132
		EG020A-F: Copper	7440-50-8	0.2 mg/L	99.6	76.0	130
		EG020A-F: Lead	7439-92-1	0.2 mg/L	90.2	75.0	133
		EG020A-F: Manganese	7439-96-5	0.2 mg/L	92.9	64.0	134
		EG020A-F: Nickel	7440-02-0	0.2 mg/L	97.4	73.0	131

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EG020F: Dissolved Metals by ICP-MS (QCLot: 3164410) - continued							
EM2012871-014	Anonymous	EG020A-F: Vanadium	7440-62-2	0.2 mg/L	91.8	73.0	131
		EG020A-F: Zinc	7440-66-6	0.2 mg/L	104	75.0	131
EG035F: Dissolved Mercury by FIMS (QCLot: 3164409)							
EM2012871-015	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	# 65.4	70.0	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3164388)							
EM2012805-035	Anonymous	EP080: C6 - C9 Fraction	----	280 µg/L	68.1	43.0	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3164388)							
EM2012805-035	Anonymous	EP080: C6 - C10 Fraction	C6_C10	330 µg/L	64.7	44.0	122
EP080: BTEXN (QCLot: 3164388)							
EM2012805-035	Anonymous	EP080: Benzene	71-43-2	20 µg/L	85.4	68.0	130
		EP080: Toluene	108-88-3	20 µg/L	89.4	72.0	132

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2012989**	Page	: 1 of 5
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Telephone	: +61-3-8549 9600
Project	: ELWOOD	Date Samples Received	: 27-Jul-2020
Site	: 1865B	Issue Date	: 29-Jul-2020
Sampler	: KO	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG035F: Dissolved Mercury by FIMS	EM2012871--015	Anonymous	**Mercury**	7439-97-6	65.4 %	70.0-120%	**Recovery less than lower data quality objective**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	2	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	2	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
SPLIT_230720	**23-Jul-2020**	**----**	----	----	**27-Jul-2020**	19-Jan-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
SPLIT_230720	**23-Jul-2020**	**----**	----	----	**28-Jul-2020**	20-Aug-2020	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	30-Jul-2020	✓	**28-Jul-2020**	05-Sep-2020	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	30-Jul-2020	✓	**28-Jul-2020**	05-Sep-2020	✓
Clear glass VOC vial - HCl (EP080)							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	06-Aug-2020	✓	**28-Jul-2020**	06-Aug-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	30-Jul-2020	✓	**28-Jul-2020**	05-Sep-2020	✓
Clear glass VOC vial - HCl (EP080)							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	06-Aug-2020	✓	**28-Jul-2020**	06-Aug-2020	✓
EP080: BTEXN							
Clear glass VOC vial - HCl (EP080)							
SPLIT_230720	**23-Jul-2020**	**27-Jul-2020**	06-Aug-2020	✓	**28-Jul-2020**	06-Aug-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	1	5	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	1	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	2	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	2	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270E Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260D Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510B 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (2013) Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

Landserv
Environment

CHAIN OF CUSTODY

ALS LANDSERV
LANDSERV 20-40358
MEL-C-04 Due Date: 01/09/2020

LANDSERV DETAILS		LABORATORY DETAILS	
Address: 293A Bay Street, Port Melbourne	Tel: 61 3 9646 0833	Lab. Name:	ALS
Project Manager: Angus Robinson	E-mail: ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.mcasey@landserv.com.au	Lab. Address:	22 Dalmore Drive, Scoresby, VIC
		Contact Name:	Tuyen Nguyen
		Tel:	03 8756 8116
		Lab Quote No:	Quote - Soil M0790

Sampled By: EM & AR | Landserv Project No: M0790 | Project Name: Wattle Watson BSA | Page 1 of 1

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20 - 40358

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.19:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container	Analysis Request															Other		
			soil	water	leachate	filt'ed	acid	ice	(No. & type)	A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence															
6678572	BH01/0-0.05	24/08/2020	X					X	Jar		X	X															
573	BH01/0.15-0.25	24/08/2020	X					X	Jar																		
574	BH01/0.4-0.5	24/08/2020	X					X	Jar		X																
575	BH501/0.4-0.5	24/08/2020	X					X	Jar		X																
	BH601/0.4-0.5	24/08/2020	X					X	Jar	FORWARD TO ENVIROLAB																	
6678576	BH01/0.6-0.7	24/08/2020	X					X	Jar		X																
577	BH01/0.9-1.0	24/08/2020	X					X	Jar																		
578	BH01/1.4-1.5	24/08/2020	X					X	Jar	X		X															
579	BH03/0-0.05	24/08/2020	X					X	Jar		X																
580	BH03/0.15-0.25	24/08/2020	X					X	Jar																		
581	BH03/0.4-0.5	24/08/2020	X					X	Jar																		
582	BH03/0.6-0.7	24/08/2020	X					X	Jar		X																
553	BH503/0.6-0.7	24/08/2020	X					X	Jar		X																
	BH603/0.6-0.7	24/08/2020	X					X	Jar	FORWARD TO ENVIROLAB																	
6678584	BH04/0-0.05	24/08/2020	X					X	Jar																		
585	BH04/0.15-0.25	24/08/2020	X					X	Jar		X	X															
586	BH04/0.4-0.5	24/08/2020	X					X	Jar																		
587	BH04/0.6-0.7	24/08/2020	X					X	Jar																		
588	BH05/0-0.05	24/08/2020	X					X	Jar		X																
589	BH05/0.15-0.25	24/08/2020	X					X	Jar		X																

Lab Report No. | Esky ID

Relinquished by:	Signed:	Date:	Relinquished by:	Signed:	Date:
Angus Robinson of Landserv		25/08/2020		of	
Received by:	Signed:	Date:	Received by:	Signed:	Date:
G. Hine of ALS SCORESBY 8°C		25/8/20 1515		of	

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project file and use to check off against Sample Receipt Advice YELLOW COPY - Retain in COC book as a back-up / spare record.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS

Address: 293A Bay Street, Port Melbourne
Project Manager: Angus Robinson
Tel: 61 3 9646 0833
E-mail: ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.mcasey@landserv.com.au

LABORATORY DETAILS

Lab. Name: ALS
Lab. Address: 22 Dalmore Drive, Scoresby, VIC
Contact Name: Tuyen Nguyen
Tel: 03 8756 8116
Fax:
Preliminary Report by:
Final Report by:
Lab Quote No: Quote - Soil M0790

Sampled By: EM & AR
Landserv Project No: M0790
Project Name: Wattle Watson ESA

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20-40358

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.19:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container (No. & type)	Analysis Request: A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence	Other
			soil	water	leachate	fil'ed	acid	ice					
667859D	BH05/0.4-0.5	24/08/2020	X					X	Jar		X		
591	BH05/0.6-0.7	24/08/2020	X					X	Jar				
592	BH06/0-0.05	24/08/2020	X					X	Jar				
593	BH06/0.15-0.25	24/08/2020	X					X	Jar		X		
594	BH06/0.4-0.5	24/08/2020	X					X	Jar		X	X	
595	BH06/0.6-0.7	24/08/2020	X					X	Jar				
596	BH07/0-0.05	24/08/2020	X					X	Jar				
597	BH07/0.15-0.25	24/08/2020	X					X	Jar				
598	BH07/0.4-0.5	24/08/2020	X					X	Jar		X	X	
599	BH07/0.6-0.7	24/08/2020	X					X	Jar				
600	BH08/0-0.05	24/08/2020	X					X	Jar	X			
601	BH08/0.15-0.25	24/08/2020	X					X	Jar				
602	BH08/0.4-0.5	24/08/2020	X					X	Jar				
603	BH08/0.6-0.7	24/08/2020	X					X	Jar		X		
604	BH09/0-0.05	24/08/2020	X					X	Jar		X	X	
605	BH09/0.15-0.25	24/08/2020	X					X	Jar				
606	BH09/0.4-0.5	24/08/2020	X					X	Jar				
607	BH09/0.6-0.7	24/08/2020	X					X	Jar		X	X	
608	BH10/0-0.05	24/08/2020	X					X	Jar				
609	BH10/0.15-0.25	24/08/2020	X					X	Jar	X			

Lab Report No.
Esky ID

Relinquished by: Angus Robinson of Landserv
Signed:
Date: 25/08/2020

Relinquished by:
Signed:
Date:
of

Received by:
Signed:
Date:
of ALS SCORESBY 2°C 25/8/20 1515

Received by:
Signed:
Date:
of

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project file and use to check off against Sample Receipt Advice. YELLOW COPY - Retain in COC book as a back-up / spare record.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS

Address: 293A Bay Street, Port Melbourne
Project Manager: Angus Robinson
Tel: 61 3 9646 0833
E-mail: ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.mcasey@landserv.com.au

LABORATORY DETAILS

Lab. Name: ALS
Lab. Address: 22 Dalmore Drive, Scoresby, VIC
Contact Name: Tuyen Nguyen
Tel: 03 8756 8116
Fax:
Preliminary Report by:
Final Report by:
Lab Quote No: Quote - Soil M0790

Sampled By: EM & AR
Landserv Project No: M0790
Project Name: Wattle Watson ESA

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20-40358

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM S.T.1?:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container (No. & type)	Analysis Request: A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence	Other
			soil	water	leachate	filtered	acid	ice					
667610	BH10/0.4-0.5	24/08/2020	X					X	Jar				
611	BH10/0.6-0.7	24/08/2020	X					X	Jar				
612	BH11/0-0.05	24/08/2020	X					X	Jar				
613	BH11/0.15-0.25	24/08/2020	X					X	Jar				
614	BH11/0.4-0.5	24/08/2020	X					X	Jar		X	X	
615	BH11/0.6-0.7	24/08/2020	X					X	Jar				
616	BH12/0-0.05	24/08/2020	X					X	Jar				
617	BH12/0.15-0.25	24/08/2020	X					X	Jar		X		
618	BH12/0.4-0.5	24/08/2020	X					X	Jar		X		
619	BH12/0.6-0.7	24/08/2020	X					X	Jar				
620	BH13/0-0.05	24/08/2020	X					X	Jar		X	X	
621	BH13/0.15-0.25	24/08/2020	X					X	Jar				
622	BH13/0.4-0.5	24/08/2020	X					X	Jar				
623	BH13/0.6-0.7	24/08/2020	X					X	Jar	X			
624	BH14/0-0.05	24/08/2020	X					X	Jar		X		
625	BH14/0.15-0.25	24/08/2020	X					X	Jar				
626	BH14/0.4-0.5	24/08/2020	X					X	Jar		X		
627	BH14/0.6-0.7	24/08/2020	X					X	Jar				
628	BH02/0-0.05	24/08/2020	X					X	Jar				
629	BH02/0.15-0.25	24/08/2020	X					X	Jar		X		

Lab Report No.
Esky ID

Relinquished by: Angus Robinson of Landserv
Signed:
Date: 25/08/2020

Relinquished by:
Signed:
Date:
of

Received by: G. Hill
Signed:
Date: 25/8/20 1515
of ALS SCORESBY 2°C

Received by:
Signed:
Date:
of

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project File and use to check off against Sample Receipt Advice. YELLOW COPY - Retain in COC book as a back-up / spare record.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS		LABORATORY DETAILS			
Address: 293A Bay Street, Port Melbourne	**Tel:** 61 3 9646 0833	**Lab. Name:**	ALS	**Fax:**	
Project Manager: Angus Robinson	**E-mail:** ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.mcasey@landserv.com.au	**Lab. Address:**	22 Dalmore Drive, Scoresby, VIC	**Preliminary Report by:**	
		Contact Name:	Tuyen Nguyen	**Final Report by:**	
		Tel:	03 8756 8116	**Lab Quote No:**	Quote - Soil M0790

Sampled By: EM & AR | **Landserv Project No:** M0790 | **Project Name:** Wattle Watson ESA | Page 1 of 1

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20-40358

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1%:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container (No. & type)	Analysis Request																Other		
			soil	water	leachate	fil'ed	acid	ice		A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence																
6678630	BH02/0.4-0.5	24/08/2020	X					X	Jar																			
631	BH02/0.6-0.7	24/08/2020	X					X	Jar																			
632	BH02/0.9-1.0	24/08/2020	X					X	Jar		X	X																
633	BH02/1.4-1.5	24/08/2020	X					X	Jar		X																	
634	BH15/0-0.05	24/08/2020	X					X	Jar																			
635	BH15/0.15-0.25	24/08/2020	X					X	Jar		X																	
636	BH15/0.4-0.5	24/08/2020	X					X	Jar																			
637	BH15/0.6-0.7	24/08/2020	X					X	Jar																			
638	BH16/0.0-0.05	24/08/2020	X					X	Jar																			
639	BH16/0.15-0.25	24/08/2020	X					X	Jar		X																	
640	BH16/0.4-0.5	24/08/2020	X					X	Jar		X	X																
641	BH16/0.6-0.7	24/08/2020	X					X	Jar																			
642	BH17/0.0-0.05	24/08/2020	X					X	Jar																			
643	BH17/0.15-0.25	24/08/2020	X					X	Jar																			
644	BH17/0.4-0.5	24/08/2020	X					X	Jar		X																	
645	BH17/0.6-0.7	24/08/2020	X					X	Jar	X																		
646	BH18/0.0-0.05	24/08/2020	X					X	Jar		X	X																
647	BH18/0.15-0.25	24/08/2020	X					X	Jar																			
648	BH18/0.4-0.5	24/08/2020	X					X	Jar	X																		
649	BH18/0.6-0.7	24/08/2020	X					X	Jar		X																	

Lab Report No. | Esky ID

Relinquished by: Angus Robinson of Landserv	Signed:	Date: 25/08/2020	Relinquished by:	Signed:	Date:
			of		
Received by: G. Hill of ALS Scoresby	Signed:	Date: 25°C 25/8/20 1515	Received by:	Signed:	Date:
			of		

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project file and use to check off against Sample Receipt Advice. YELLOW COPY - Retain in COC book as a back-up / spare record.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS		LABORATORY DETAILS			
Address: 293A Bay Street, Port Melbourne	Tel: 61 3 9646 0833	Lab. Name:	ALS	Fax:	
Project Manager: Angus Robinson	E-mail: ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.measey@landserv.com.au	Lab. Address:	22 Dalmore Drive, Scoresby, VIC	Preliminary Report by:	
		Contact Name:	Tuyen Nguyen	Final Report by:	
		Tel:	03 8756 8116	Lab Quote No:	Quote - Soil M0790

Sampled By: EM & AR | Landserv Project No: M0790 | Project Name: Wattle Watson ESA | Page 1 of 1

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20-40558

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.13:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container (No. & type)	Analysis Request																Other		
			soil	water	leachate	fil'ed	acid	ice		A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence																
6678650	BH19/0.0-0.05	24/08/2020	X					X	Jar		X																	
651	BH19/0.15-0.25	24/08/2020	X					X	Jar																			
652	BH19/0.4-0.5	24/08/2020	X					X	Jar																			
653	BH19/0.6-0.7	24/08/2020	X					X	Jar		X																	
654	BH20/0.0-0.05	24/08/2020	X					X	Jar																			
655	BH20/0.15-0.25	24/08/2020	X					X	Jar		X																	
656	BH20/0.4-0.5	24/08/2020	X					X	Jar																			
657	BH20/PACM 0.4-0.5	24/08/2020	X					X	Plastic Bag x2			X																
658	BH20/0.6-0.7	24/08/2020	X					X	Jar																			
659	BH21/0.0-0.05	24/08/2020	X					X	Jar																			
660	BH21/0.15-0.25	24/08/2020	X					X	Jar	X																		
661	BH21/0.4-0.5	24/08/2020	X					X	Jar																			
662	BH21/0.5-0.6	24/08/2020	X					X	Jar																			
663	BH21/0.6-0.7	24/08/2020	X					X	Jar																			
664	BH22/0.0-0.05	24/08/2020	X					X	Jar																			
665	BH22/0.15-0.25	24/08/2020	X					X	Jar																			
666	BH22/0.4-0.5	24/08/2020	X					X	Jar		X																	
667	BH22/0.6-0.7	24/08/2020	X					X	Jar																			
668	BH23/0.0-0.05	24/08/2020	X					X	Jar		X	X																
669	BH23/0.15-0.25	24/08/2020	X					X	Jar																			
670	BH23/0.4-0.5	24/08/2020	X					X	Jar																			
671	BH23/0.6-0.7	24/08/2020	X					X	Jar		X																	

Lab Report No. | Esky ID

Relinquished by:	Signed:	Date:	Relinquished by:	Signed:	Date:
Angus Robinson of Landserv		25/08/2020	of		
Received by: G. Hill of ALS SCORESBY	Signed:	Date: 25/8/2020 15:15 2°C	Received by: of	Signed:	Date:

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project file and use to check off against Sample Receipt Advice. YELLOW COPY - Retain in COC book as a back-up / spare record.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS

Address: 293A Bay Street, Port Melbourne
Project Manager: Angus Robinson
Tel: 61 3 9646 0833
E-mail: ryan.edwards@landserv.com.au, angus.robinson@landserv.com.au, emily.mcasey@landserv.com.au

LABORATORY DETAILS

Lab. Name: ALS
Lab. Address: 22 Dalmore Drive, Scoresby, VIC
Contact Name: Tuyen Nguyen
Tel: 03 8756 8116
Fax:
Preliminary Report by:
Final Report by:
Lab Quote No: Quote - Soil M0790

Sampled By: EM & AR
Landserv Project No: M0790
Project Name: Wattle Watson ESA

Specifications: Metals Screen includes 8 metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)

20-40358

	Yes /No
1. TAT required? 24hr 48hr 3 days 5days	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.19:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container	Analysis Request																		Other		
			soil	water	leachate	filt'ed	acid	ice	(No. & type)	A-S1-R (IWRG EPA Screen)	A-S14 (TRH, PAH and Metals Screen)	Asbestos absence/presence	Cation Exchange Capacity (CEC)	pH (CaCl)	Screen Metals (8)															
667872	BH24/0.0-0.05	24/08/2020	X					X	Jar																					
673	BH24/0.15-0.25	24/08/2020	X					X	Jar																					
674	BH24 ACM 0.2	24/08/2020	x					x	Plastic Bag x2			X																		
675	BH24/0.4-0.5	24/08/2020	X					X	Jar		X	X																		
676	BH24/0.6-0.7	24/08/2020	X					X	Jar																					
677	BH25/0.0-0.05	24/08/2020	X					X	Jar	X																				
678	BH25/0.15-0.25	24/08/2020	X					X	Jar																					
679	BH25/0.4-0.5	24/08/2020	X					X	Jar		X																			
680	BHS25/0.4-0.5	24/08/2020	X					X	Jar		X																			
←	BH625/0.4-0.5	24/08/2020	X					X	Jar	FORWARD TO ENVIROLAB																				
667863	BH25/0.6-0.7	24/08/2020	X					X	Jar		X																			
682	BH26/0.00-0.05	24/08/2020	X					X	Jar																					
683	BH26/0.15-0.25	24/08/2020	X					X	Jar																					
684	BH26/0.4-0.5	24/08/2020	X					X	Jar	X		X																		
685	BH26/0.6-0.7	24/08/2020	X					X	Jar																					
686	R01	24/08/2020		X			X	X	4 x vials, 1 plastic						X															

Lab Report No.
Esky ID

Relinquished by:	Signed:	Date:	Relinquished by:	Signed:	Date:
Angus Robinson of Landserv		25/08/2020	of		
Received by:	**Signed:**	**Date:**	**Received by:**	**Signed:**	**Date:**
G. Hill of ALS Scoresby 2°C		25/8/2020 1535	of		

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project File and use to check off against Sample Receipt Advice. **YELLOW COPY - Retain in COC book as a back-up / spare record.**

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 : 20-40358**

Date Received : 25/08/2020 3:54:01PM
Scheduled Reporting Date : 01-Sep-2020

Client Job Ref : M0790 Wattie Watson ESA
No. of Sample(s) : 115

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. 2 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
6678572	BH01/0-0.05	24/08/2020	**8**
6678574	BH01/0.4-0.5	24/08/2020	**7**
6678575	BH501/0.4-0.5	24/08/2020	**7**
6678576	BH01/0.6-0.7	24/08/2020	**7**
6678578	BH01/1.4-1.5	24/08/2020	**21**
6678579	BH03/0-0.05	24/08/2020	**7**
6678582	BH03/0.6-0.7	24/08/2020	**7**
6678583	BH503/0.6-0.7	24/08/2020	**7**
6678585	BH04/0.15-0.25	24/08/2020	**8**
6678588	BH05/0-0.05	24/08/2020	**7**
6678589	BH05/0.15-0.25	24/08/2020	**7**
6678590	BH05/0.4-0.5	24/08/2020	**7**
6678593	BH06/0.15-0.25	24/08/2020	**7**
6678594	BH06/0.4-0.5	24/08/2020	**8**
6678598	BH07/0.4-0.5	24/08/2020	**8**
6678600	BH08/0-0.05	24/08/2020	**20**
6678603	BH08/0.6-0.7	24/08/2020	**7**
6678604	BH09/0-0.05	24/08/2020	**8**
6678607	BH09/0.6-0.7	24/08/2020	**8**
6678609	BH10/0.15-0.25	24/08/2020	**20**
6678614	BH11/0.4-0.5	24/08/2020	**8**
6678617	BH12/0.15-0.25	24/08/2020	**7**
6678618	BH12/0.4-0.5	24/08/2020	**7**
6678620	BH13/0-0.05	24/08/2020	**8**
6678623	BH13/0.6-0.7	24/08/2020	**20**
6678624	BH14/0-0.05	24/08/2020	**7**
6678626	BH14/0.4-0.5	24/08/2020	**7**
6678629	BH02/0.15-0.25	24/08/2020	**7**
6678632	BH02/0.9-1.0	24/08/2020	**8**

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

			Test Count
6678633	BH02/1.4-1.5	24/08/2020	**7**
6678635	BH15/0.15-0.25	24/08/2020	**7**
6678639	BH16/0.15-0.25	24/08/2020	**7**
6678640	BH16/0.4-0.5	24/08/2020	**8**
6678644	BH17/0.4-0.5	24/08/2020	**7**
6678645	BH17/0.6-0.7	24/08/2020	**20**
6678646	BH18/0.0-0.05	24/08/2020	**8**
6678648	BH18/0.4-0.5	24/08/2020	**20**
6678649	BH18/0.6-0.7	24/08/2020	**7**
6678650	BH19/0.0-0.05	24/08/2020	**7**
6678653	BH19/0.6-0.7	24/08/2020	**7**
6678655	BH20/0.15-0.25	24/08/2020	**7**
6678657	BH20/PACM 0.4-0.5	24/08/2020	**1**
6678660	BH21/0.15-0.25	24/08/2020	**20**
6678666	BH22/0.4-0.5	24/08/2020	**7**
6678668	BH23/0.0-0.05	24/08/2020	**8**
6678671	BH23/0.6-0.7	24/08/2020	**7**
6678674	BH24 ACM 0.2	24/08/2020	**1**
6678675	BH24/0.4-0.5	24/08/2020	**8**
6678677	BH25/0.0-0.05	24/08/2020	**20**
6678679	BH25/0.4-0.5	24/08/2020	**7**
6678680	BH525/0.4-0.5	24/08/2020	**7**
6678681	BH25/0.6-0.7	24/08/2020	**7**
6678684	BH26/0.4-0.5	24/08/2020	**21**
6678686	R01	24/08/2020	**1**

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:	**20-40358**	*Page*	Page 1 of 37
Final Report	844277	*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
		Date Samples Received:	25-Aug-2020
Client Program Ref:	**M0790 Wattie Watson ESA**		
ALS Program Ref:	**LANDSERV**	*Date Issued:*	**01-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*
BTEXN	WP074	Scoresby	**CHC**	WP084	Scoresby			
Cyanide	WK026SF	Scoresby	**Total Fluoride**	QWI-EN.WK040T	Scoresby			
HVOL	WP074	Scoresby	**MAH**	WP125 & WP074	Scoresby			
Moisture	WA055	Scoresby	**MS Total Metals**	WG020B	Scoresby			
OCP	WP068A	Scoresby	**PAH**	WP075B	Scoresby			
PCB	WP066	Scoresby	**pH**	EA002	Scoresby			
Phenols(Halo)	WP075A	Scoresby	**Phenols(NonHalo)**	WP075A	Scoresby			
Total Cr 6+ DA	EG048G	Scoresby	**TRH F2** #	WP071	Scoresby			
TRH & TPH (>C10)	WP071	Scoresby	**TRH (C6-C10) & F1**	WP071 (F1 not NATA)	Scoresby			
MS Total Metals	WG020A	Scoresby	**Asbestos**	EA200	ALS Melbourne			

Asbestos analysis conducted at ALS Springvale. 4 Westall Rd Springvale VIC 3170. The results may be found in their Work Order: EM2014690. NATA Accredited Laboratory Number: 825.

Please note:

			Asbestos
6678572	24-08-20	BH01/0-0.05 is the same as #6678723	Not Detected
6678578	24-08-20	BH01/1.4-1.5 is the same as #6678725	Not Detected

6678585	24-08-20	BH04/0.15-0.25 is the same as #6678726	Not Detected
6678594	24-08-20	BH06/0.4-0.5 is the same as #6678727	Not Detected
6678598	24-08-20	BH07/0.4-0.5 is the same as #6678728	Not Detected
6678604	24-08-20	BH09/0-0.05 is the same as #6678729	Not Detected
6678607	24-08-20	BH09/0.6-0.7 is the same as #6678730	Not Detected
6678614	24-08-20	BH11/0.4-0.5 is the same as #6678731	Not Detected
6678620	24-08-20	BH13/0-0.05 is the same as #6678732	Not Detected
6678632	24-08-20	BH02/0.9-1.0 is the same as #6678733	Not Detected
6678640	24-08-20	BH16/0.4-0.5 is the same as #6678734	Not Detected
6678646	24-08-20	BH18/0.0-0.05 is the same as #6678735	Not Detected
6678657	24-08-20	BH20/PACM 0.4-0.5 is the same as #6678736	Chrysotile Detected
6678668	24-08-20	BH23/0.0-0.05 is the same as #6678737	Not Detected
6678674	24-08-20	BH24 ACM 0.2 is the same as #6678738	Chrysotile Detected
6678675	24-08-20	BH24/0.4-0.5 is the same as #6678739	Not Detected
6678684	24-08-20	BH26/0.4-0.5 is the same as #6678740	Not Detected

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

Signatories

Name	*Title*	*Name*	*Title*
Brad Snibson	**Client Manager**	**Chatura Perera**	**Team Leader Nutrients**
Hao Zhang	**Team Leader Organics**	**Kosta Christopoulos**	**Deputy Team Leader Organics**
Mario Solorzano	**Analyst**	**Ricky Singh**	**Analyst**

Soil Analysis

Sample	Sampled Date	Your Ref	Sample Type	Moisture Moisture % w/wet w	pH pH Units	Total Fluoride Total Fluoride mg/kg	Cyanide CN mg/kg	Total Cr 6+ DA Total Cr6+ DA mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	8	9.0	240	<5	<1
6678600	24-08-20	BH08/0-0.05	SOIL	44	6.6	120	<5	<1
6678609	24-08-20	BH10/0.15-0.25	SOIL	19	7.3	190	<5	<1
6678623	24-08-20	BH13/0.6-0.7	SOIL	23	8.4	260	<5	<1
6678645	24-08-20	BH17/0.6-0.7	SOIL	18	8.4	260	<5	<1
6678648	24-08-20	BH18/0.4-0.5	SOIL	8	8.0	130	<5	<1
6678660	24-08-20	BH21/0.15-0.25	SOIL	22	7.5	150	<5	<1
6678677	24-08-20	BH25/0.0-0.05	SOIL	28	6.9	130	<5	<1
6678684	24-08-20	BH26/0.4-0.5	SOIL	22	8.7	200	<5	<1

Metals

Sample	Sampled Date	Your Ref	Sample Type	MS Total Metals Arsenic mg/L	MS Total Metals Cadmium mg/L	MS Total Metals Chromium mg/L	MS Total Metals Copper mg/L	MS Total Metals Lead mg/L	MS Total Metals Mercury mg/L	MS Total Metals Nickel mg/L	MS Total Metals Zinc mg/L
6678686	24-08-20	R01	WATER	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001

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.

Batch No: **20-40358**
Report Number: **844277**
Client: **Landserv Pty Ltd**
Client Program Ref: **M0790 Wattie Watson ESA**

Soil Metals

Sample	*Sampled Date*	*Your Ref*	*Analysis:*	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals
			Component:	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678572	24-08-20	BH01/0-0.05	SOIL	<5	<0.2	9	16	56	0.1		8	
6678574	24-08-20	BH01/0.4-0.5	SOIL	11	2.2	22	230	1100	0.53		69	
6678575	24-08-20	BH501/0.4-0.5	SOIL	11	1.5	23	120	820	0.51		62	
6678576	24-08-20	BH01/0.6-0.7	SOIL	9	2.2	22	240	910	0.62		72	
6678578	24-08-20	BH01/1.4-1.5	SOIL	13	0.2		32	130	0.18	<5	47	<3
6678579	24-08-20	BH03/0-0.05	SOIL	5	<0.2	8	10	60	0.13		8	
6678582	24-08-20	BH03/0.6-0.7	SOIL	8	<0.2	7	16	56	0.09		17	
6678583	24-08-20	BH503/0.6-0.7	SOIL	11	<0.2	8	16	64	0.08		18	
6678585	24-08-20	BH04/0.15-0.25	SOIL	6	<0.2	11	13	71	0.16		14	
6678588	24-08-20	BH05/0-0.05	SOIL	<5	<0.2	12	17	80	0.12		9	
6678589	24-08-20	BH05/0.15-0.25	SOIL	<5	<0.2	15	17	88	0.12		12	
6678590	24-08-20	BH05/0.4-0.5	SOIL	16	1.3	23	250	1200	0.66		69	
6678593	24-08-20	BH06/0.15-0.25	SOIL	8	<0.2	10	7	50	0.08		10	
6678594	24-08-20	BH06/0.4-0.5	SOIL	16	0.3	21	22	150	0.18		36	
6678598	24-08-20	BH07/0.4-0.5	SOIL	15	0.3	25	23	170	0.28		24	
6678600	24-08-20	BH08/0-0.05	SOIL	<5	<0.2		11	49	0.09	<5	9	<3
6678603	24-08-20	BH08/0.6-0.7	SOIL	17	0.4	27	33	190	0.30		27	
6678604	24-08-20	BH09/0-0.05	SOIL	<5	<0.2	10	11	65	0.10		10	
6678607	24-08-20	BH09/0.6-0.7	SOIL	8	<0.2	18	10	59	0.11		12	
6678609	24-08-20	BH10/0.15-0.25	SOIL	5	<0.2		9	53	0.08	<5	9	<3
6678614	24-08-20	BH11/0.4-0.5	SOIL	15	0.3	25	26	230	0.68		28	
6678617	24-08-20	BH12/0.15-0.25	SOIL	9	<0.2	13	16	100	0.11		18	
6678618	24-08-20	BH12/0.4-0.5	SOIL	16	0.3	27	22	180	0.25		24	
6678620	24-08-20	BH13/0-0.05	SOIL	<5	<0.2	6	8	33	<0.05		5	
6678623	24-08-20	BH13/0.6-0.7	SOIL	17	0.5		32	200	0.30	<5	23	<3
6678624	24-08-20	BH14/0-0.05	SOIL	<5	<0.2	10	10	28	0.05		6	
6678626	24-08-20	BH14/0.4-0.5	SOIL	16	0.4	26	31	320	0.36		29	
6678629	24-08-20	BH02/0.15-0.25	SOIL	11	0.2	22	17	140	0.15		19	
6678632	24-08-20	BH02/0.9-1.0	SOIL	56	<0.2	38	8	34	0.06		8	
6678633	24-08-20	BH02/1.4-1.5	SOIL	35	<0.2	52	13	17	0.07		22	
6678635	24-08-20	BH15/0.15-0.25	SOIL	6	<0.2	10	9	45	0.06		10	
6678639	24-08-20	BH16/0.15-0.25	SOIL	7	0.2	10	13	93	0.12		13	
6678640	24-08-20	BH16/0.4-0.5	SOIL	14	0.4	22	27	220	1.3		25	

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.

				MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals
				As mg/kg	Cd mg/kg	Cr mg/kg	Cu mg/kg	Pb mg/kg	Hg mg/kg	Mo mg/kg	Ni mg/kg	Se mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	13	0.3	18	24	140	0.17		27	
6678645	24-08-20	BH17/0.6-0.7	SOIL	14	0.2		21	130	0.20	<5	19	<3
6678646	24-08-20	BH18/0.0-0.05	SOIL	8	<0.2	13	11	76	0.09		15	
6678648	24-08-20	BH18/0.4-0.5	SOIL	6	<0.2		22	110	0.07	<5	27	<3
6678649	24-08-20	BH18/0.6-0.7	SOIL	15	<0.2	15	120	140	0.08		42	
6678650	24-08-20	BH19/0.0-0.05	SOIL	<5	<0.2	6	6	23	<0.05		<5	
6678653	24-08-20	BH19/0.6-0.7	SOIL	24	0.2	23	16	120	0.15		20	
6678655	24-08-20	BH20/0.15-0.25	SOIL	6	<0.2	14	13	60	0.06		12	
6678660	24-08-20	BH21/0.15-0.25	SOIL	6	0.3		11	110	0.1	<5	12	<3
6678666	24-08-20	BH22/0.4-0.5	SOIL	14	0.3	27	24	210	0.31		26	
6678668	24-08-20	BH23/0.0-0.05	SOIL	8	0.2	13	17	120	0.10		14	
6678671	24-08-20	BH23/0.6-0.7	SOIL	7	0.3	14	60	630	0.22		43	
6678675	24-08-20	BH24/0.4-0.5	SOIL	10	0.3	17	23	130	0.15		21	
6678677	24-08-20	BH25/0.0-0.05	SOIL	<5	<0.2		8	50	0.05	<5	8	<3
6678679	24-08-20	BH25/0.4-0.5	SOIL	14	0.4	23	24	170	0.26		24	
6678680	24-08-20	BH525/0.4-0.5	SOIL	14	0.4	25	26	190	0.23		26	
6678681	24-08-20	BH25/0.6-0.7	SOIL	17	<0.2	11	12	85	0.09		13	
6678684	24-08-20	BH26/0.4-0.5	SOIL	18	0.2		22	130	0.19	<5	24	<3

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.

Soil Metals

Sample	Sampled Date	Your Ref	Analysis:	MS Total Metals	MS Total Metals	MS Total Metals
			Component:	Ag	Sn	Zn
			Units:	mg/kg	mg/kg	mg/kg
			Sample Type			
6678572	24-08-20	BH01/0-0.05	SOIL			120
6678574	24-08-20	BH01/0.4-0.5	SOIL			1500
6678575	24-08-20	BH501/0.4-0.5	SOIL			790
6678576	24-08-20	BH01/0.6-0.7	SOIL			1100
6678578	24-08-20	BH01/1.4-1.5	SOIL	<5	11	130
6678579	24-08-20	BH03/0-0.05	SOIL			98
6678582	24-08-20	BH03/0.6-0.7	SOIL			140
6678583	24-08-20	BH503/0.6-0.7	SOIL			120
6678585	24-08-20	BH04/0.15-0.25	SOIL			120
6678588	24-08-20	BH05/0-0.05	SOIL			130
6678589	24-08-20	BH05/0.15-0.25	SOIL			120
6678590	24-08-20	BH05/0.4-0.5	SOIL			1000
6678593	24-08-20	BH06/0.15-0.25	SOIL			68
6678594	24-08-20	BH06/0.4-0.5	SOIL			210
6678598	24-08-20	BH07/0.4-0.5	SOIL			310
6678600	24-08-20	BH08/0-0.05	SOIL	<5	<5	100
6678603	24-08-20	BH08/0.6-0.7	SOIL			410
6678604	24-08-20	BH09/0-0.05	SOIL			98
6678607	24-08-20	BH09/0.6-0.7	SOIL			110
6678609	24-08-20	BH10/0.15-0.25	SOIL	<5	<5	86
6678614	24-08-20	BH11/0.4-0.5	SOIL			320
6678617	24-08-20	BH12/0.15-0.25	SOIL			150
6678618	24-08-20	BH12/0.4-0.5	SOIL			260
6678620	24-08-20	BH13/0-0.05	SOIL			89
6678623	24-08-20	BH13/0.6-0.7	SOIL	<5	9	410
6678624	24-08-20	BH14/0-0.05	SOIL			67
6678626	24-08-20	BH14/0.4-0.5	SOIL			400
6678629	24-08-20	BH02/0.15-0.25	SOIL			190
6678632	24-08-20	BH02/0.9-1.0	SOIL			29
6678633	24-08-20	BH02/1.4-1.5	SOIL			25
6678635	24-08-20	BH15/0.15-0.25	SOIL			87
6678639	24-08-20	BH16/0.15-0.25	SOIL			130
6678640	24-08-20	BH16/0.4-0.5	SOIL			310

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.

				MS Total Metals	MS Total Metals	MS Total Metals
				Ag mg/kg	Sn mg/kg	Zn mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL			210
6678645	24-08-20	BH17/0.6-0.7	SOIL	<5	8	280
6678646	24-08-20	BH18/0.0-0.05	SOIL			110
6678648	24-08-20	BH18/0.4-0.5	SOIL	<5	13	99
6678649	24-08-20	BH18/0.6-0.7	SOIL			110
6678650	24-08-20	BH19/0.0-0.05	SOIL			43
6678653	24-08-20	BH19/0.6-0.7	SOIL			200
6678655	24-08-20	BH20/0.15-0.25	SOIL			97
6678660	24-08-20	BH21/0.15-0.25	SOIL	<5	<5	130
6678666	24-08-20	BH22/0.4-0.5	SOIL			320
6678668	24-08-20	BH23/0.0-0.05	SOIL			140
6678671	24-08-20	BH23/0.6-0.7	SOIL			340
6678675	24-08-20	BH24/0.4-0.5	SOIL			250
6678677	24-08-20	BH25/0.0-0.05	SOIL	<5	<5	94
6678679	24-08-20	BH25/0.4-0.5	SOIL			360
6678680	24-08-20	BH525/0.4-0.5	SOIL			360
6678681	24-08-20	BH25/0.6-0.7	SOIL			57
6678684	24-08-20	BH26/0.4-0.5	SOIL	<5	39	180

Soil MAH

Sample	*Sampled Date*	*Your Ref*	*Analysis:* / *Component:* / *Units:* / *Sample Type*	MAH Styrene mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.5
6678600	24-08-20	BH08/0-0.05	SOIL	<0.5
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.5
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.5
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.5
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.5
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.5
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.5

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.

Soil BTEXN

Sample	*Sampled Date*	*Your Ref*	*Analysis:*	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN
			Component:	Benzene	Toluene	Ethyl Benzene	Xylene - m&p	Xylene - O	Naphthalene	Total Xylenes	BTEX (Sum)
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type								
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.5	<0.5	<0.5	<1	<0.5	1.5	<1	<1
6678600	24-08-20	BH08/0-0.05	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1

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.

Soil TRH/TPH (Volatile)

Sample	*Sampled Date*	*Your Ref*	*Analysis:*	TRH (C6-C10) & F1	TRH (C6-C10) & F1	TRH (C6-C10) & F1
			Component:	TPHC6-C9	TRHC6-C10	TRHC6-C10 minus BTEX
			Units:	mg/kg	mg/kg	mg/kg
			Sample Type			
6678572	24-08-20	BH01/0-0.05	SOIL	<20	<20	<20
6678574	24-08-20	BH01/0.4-0.5	SOIL	<20	<20	<20
6678575	24-08-20	BH501/0.4-0.5	SOIL	<20	<20	<20
6678576	24-08-20	BH01/0.6-0.7	SOIL	<20	<20	<20
6678578	24-08-20	BH01/1.4-1.5	SOIL	<20	<20	<20
6678579	24-08-20	BH03/0-0.05	SOIL	<20	<20	<20
6678582	24-08-20	BH03/0.6-0.7	SOIL	<20	<20	<20
6678583	24-08-20	BH503/0.6-0.7	SOIL	<20	<20	<20
6678585	24-08-20	BH04/0.15-0.25	SOIL	<20	<20	<20
6678588	24-08-20	BH05/0-0.05	SOIL	<20	<20	<20
6678589	24-08-20	BH05/0.15-0.25	SOIL	<20	<20	<20
6678590	24-08-20	BH05/0.4-0.5	SOIL	<20	<20	<20
6678593	24-08-20	BH06/0.15-0.25	SOIL	<20	<20	<20
6678594	24-08-20	BH06/0.4-0.5	SOIL	<20	<20	<20
6678598	24-08-20	BH07/0.4-0.5	SOIL	<20	<20	<20
6678600	24-08-20	BH08/0-0.05	SOIL	<20	<20	<20
6678603	24-08-20	BH08/0.6-0.7	SOIL	<20	<20	<20
6678604	24-08-20	BH09/0-0.05	SOIL	<20	<20	<20
6678607	24-08-20	BH09/0.6-0.7	SOIL	<20	<20	<20
6678609	24-08-20	BH10/0.15-0.25	SOIL	<20	<20	<20
6678614	24-08-20	BH11/0.4-0.5	SOIL	<20	<20	<20
6678617	24-08-20	BH12/0.15-0.25	SOIL	<20	<20	<20
6678618	24-08-20	BH12/0.4-0.5	SOIL	<20	<20	<20
6678620	24-08-20	BH13/0-0.05	SOIL	<20	<20	<20
6678623	24-08-20	BH13/0.6-0.7	SOIL	<20	<20	<20
6678624	24-08-20	BH14/0-0.05	SOIL	<20	<20	<20
6678626	24-08-20	BH14/0.4-0.5	SOIL	<20	<20	<20
6678629	24-08-20	BH02/0.15-0.25	SOIL	<20	<20	<20
6678632	24-08-20	BH02/0.9-1.0	SOIL	<20	<20	<20
6678633	24-08-20	BH02/1.4-1.5	SOIL	<20	<20	<20
6678635	24-08-20	BH15/0.15-0.25	SOIL	<20	<20	<20
6678639	24-08-20	BH16/0.15-0.25	SOIL	<20	<20	<20
6678640	24-08-20	BH16/0.4-0.5	SOIL	<20	<20	<20

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.

				TRH (C6-C10) & F1	TRH (C6-C10) & F1	TRH (C6-C10) & F1
				TPHC6-C9 mg/kg	TRHC6-C10 mg/kg	TRHC6-C10 minus BTEX mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	<20	<20	<20
6678645	24-08-20	BH17/0.6-0.7	SOIL	<20	<20	<20
6678646	24-08-20	BH18/0.0-0.05	SOIL	<20	<20	<20
6678648	24-08-20	BH18/0.4-0.5	SOIL	<20	<20	<20
6678649	24-08-20	BH18/0.6-0.7	SOIL	<20	<20	<20
6678650	24-08-20	BH19/0.0-0.05	SOIL	<20	<20	<20
6678653	24-08-20	BH19/0.6-0.7	SOIL	<20	<20	<20
6678655	24-08-20	BH20/0.15-0.25	SOIL	<20	<20	<20
6678660	24-08-20	BH21/0.15-0.25	SOIL	<20	<20	<20
6678666	24-08-20	BH22/0.4-0.5	SOIL	<20	<20	<20
6678668	24-08-20	BH23/0.0-0.05	SOIL	<20	<20	<20
6678671	24-08-20	BH23/0.6-0.7	SOIL	<20	<20	<20
6678675	24-08-20	BH24/0.4-0.5	SOIL	<20	<20	<20
6678677	24-08-20	BH25/0.0-0.05	SOIL	<20	<20	<20
6678679	24-08-20	BH25/0.4-0.5	SOIL	<20	<20	<20
6678680	24-08-20	BH525/0.4-0.5	SOIL	<20	<20	<20
6678681	24-08-20	BH25/0.6-0.7	SOIL	<20	<20	<20
6678684	24-08-20	BH26/0.4-0.5	SOIL	<20	<20	<20

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.

Soil TRH/TPH

Sample	Sampled Date	Your Ref	Analysis:	TRH F2	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)
			Component:	TRH>C10-C16 minusNAP	TPH C10-C14	TPH C15-C28	TPH C29-C36	TRH>C10-C16	TRH>C16-C34	TRH>C34-C40	Sum of TRH>C10-C40
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type								
6678572	24-08-20	BH01/0-0.05	SOIL	<20	<20	<50	67	<20	79	<50	79
6678574	24-08-20	BH01/0.4-0.5	SOIL	<20	<20	310	480	<20	730	260	990
6678575	24-08-20	BH501/0.4-0.5	SOIL	<60	<60 LORR	260	500	<60 LORR	710	270	980
6678576	24-08-20	BH01/0.6-0.7	SOIL	<60	<60 LORR	290	570	<60 LORR	790	320	1100
6678578	24-08-20	BH01/1.4-1.5	SOIL	<20	<200 LORR	6800	2200	<200 LORR	9100	590	9700
6678579	24-08-20	BH03/0-0.05	SOIL	<20	<20	120	200	<20	290	76	370
6678582	24-08-20	BH03/0.6-0.7	SOIL	<400	<400 LORR	2900	2700	<400 LORR	5600	<1000 LORR	5600
6678583	24-08-20	BH503/0.6-0.7	SOIL	<400	<400 LORR	2700	2300	<400 LORR	5300	<1000 LORR	5300
6678585	24-08-20	BH04/0.15-0.25	SOIL	<20	<20	240	230	<20	470	74	540
6678588	24-08-20	BH05/0-0.05	SOIL	<40	<40 LORR	<100 LORR	110	<40 LORR	110	<100 LORR	110
6678589	24-08-20	BH05/0.15-0.25	SOIL	<20	<20	<50	54	<20	68	<50	68
6678590	24-08-20	BH05/0.4-0.5	SOIL	<60	<60 LORR	460	590	<60 LORR	980	280	1300
6678593	24-08-20	BH06/0.15-0.25	SOIL	<20	<20	79	100	<20	170	<50	170
6678594	24-08-20	BH06/0.4-0.5	SOIL	<60	<60 LORR	890	640	<60 LORR	1500	200	1700
6678598	24-08-20	BH07/0.4-0.5	SOIL	<20	<20	960	750	<20	1700	230	1900
6678600	24-08-20	BH08/0-0.05	SOIL	<20	<20	180	200	<20	360	77	440
6678603	24-08-20	BH08/0.6-0.7	SOIL	<20	<20	1000	880	<20	1900	280	2200
6678604	24-08-20	BH09/0-0.05	SOIL	<40	<40 LORR	120	230	<40 LORR	340	<100 LORR	340
6678607	24-08-20	BH09/0.6-0.7	SOIL	<20	<20	360	280	<20	650	80	730
6678609	24-08-20	BH10/0.15-0.25	SOIL	<20	<20	110	180	<20	270	81	350
6678614	24-08-20	BH11/0.4-0.5	SOIL	<80	<80 LORR	730	610	<80 LORR	1300	<200 LORR	1300
6678617	24-08-20	BH12/0.15-0.25	SOIL	<60	<60 LORR	290	250	<60 LORR	500	<150 LORR	500
6678618	24-08-20	BH12/0.4-0.5	SOIL	<20	<20	790	750	<20	1400	370	1800
6678620	24-08-20	BH13/0-0.05	SOIL	<20	<20	120	220	<20	270	100	370
6678623	24-08-20	BH13/0.6-0.7	SOIL	<80	<80 LORR	320	350	<80 LORR	630	<200 LORR	630
6678624	24-08-20	BH14/0-0.05	SOIL	<20	<20	85	170	<20	200	78	280
6678626	24-08-20	BH14/0.4-0.5	SOIL	<80	<80 LORR	1200	1100	<80 LORR	2100	270	2400
6678629	24-08-20	BH02/0.15-0.25	SOIL	<80	<80 LORR	460	420	<80 LORR	810	<200 LORR	810
6678632	24-08-20	BH02/0.9-1.0	SOIL	<20	<20	58	<50	<20	100	<50	100
6678633	24-08-20	BH02/1.4-1.5	SOIL	<20	<20	<50	<50	<20	<50	<50	<50
6678635	24-08-20	BH15/0.15-0.25	SOIL	<20	<20	71	91	<20	140	<50	140
6678639	24-08-20	BH16/0.15-0.25	SOIL	<20	<20	190	210	<20	370	57	430
6678640	24-08-20	BH16/0.4-0.5	SOIL	<80	<80 LORR	720	660	<80 LORR	1300	<200 LORR	1300

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.

				TRH F2	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)
				TRH>C10-C16 minusNAP mg/kg	TPH C10-C14 mg/kg	TPH C15-C28 mg/kg	TPH C29-C36 mg/kg	TRH>C10-C16 mg/kg	TRH>C16-C34 mg/kg	TRH>C34-C40 mg/kg	Sum of TRH>C10-C40 mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	<60	<60 LORR	520	390	<60 LORR	870	<150 LORR	870
6678645	24-08-20	BH17/0.6-0.7	SOIL	<20	<20	300	310	<20	570	150	720
6678646	24-08-20	BH18/0.0-0.05	SOIL	<80	<80 LORR	240	220	<80 LORR	430	<200 LORR	430
6678648	24-08-20	BH18/0.4-0.5	SOIL	<60	<60 LORR	430	430	<60 LORR	810	<150 LORR	810
6678649	24-08-20	BH18/0.6-0.7	SOIL	<60	<60 LORR	1600	1600	<60 LORR	2900	570	3500
6678650	24-08-20	BH19/0.0-0.05	SOIL	<20	<20	<50	63	<20	66	<50	66
6678653	24-08-20	BH19/0.6-0.7	SOIL	<80	<80 LORR	360	270	<80 LORR	620	<200 LORR	620
6678655	24-08-20	BH20/0.15-0.25	SOIL	<20	<20	88	110	<20	170	<50	170
6678660	24-08-20	BH21/0.15-0.25	SOIL	<80	<80 LORR	230	210	<80 LORR	410	<200 LORR	410
6678666	24-08-20	BH22/0.4-0.5	SOIL	<60	<60 LORR	890	650	<60 LORR	1700	210	1900
6678668	24-08-20	BH23/0.0-0.05	SOIL	<20	<20	240	340	<20	530	170	700
6678671	24-08-20	BH23/0.6-0.7	SOIL	<60	<60 LORR	1400	1300	<60 LORR	2700	410	3100
6678675	24-08-20	BH24/0.4-0.5	SOIL	<60	<60 LORR	490	480	<60 LORR	950	<150 LORR	950
6678677	24-08-20	BH25/0.0-0.05	SOIL	<20	<20	190	290	<20	400	100	500
6678679	24-08-20	BH25/0.4-0.5	SOIL	<60	<60 LORR	880	720	<60 LORR	1600	210	1800
6678680	24-08-20	BH525/0.4-0.5	SOIL	<60	<60 LORR	980	790	<60 LORR	1800	240	2000
6678681	24-08-20	BH25/0.6-0.7	SOIL	<200	<200 LORR	560	510	<200 LORR	1100	<500 LORR	1100
6678684	24-08-20	BH26/0.4-0.5	SOIL	<200	<200 LORR	900	490	<200 LORR	1400	<500 LORR	1400

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Batch No: 20-40358
Report Number: 844277
Client: Landserv Pty Ltd
Client Program Ref: M0790 Wattie Watson ESA

Soil PAH

Sample	Sampled Date	Your Ref	Analysis:	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
			Component:	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benz(b)fluranthen	Benzo(ghi)perylene	Benz(k)fluranthen	Chrysene
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678572	24-08-20	BH01/0-0.05	SOIL	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.2	0.1	0.1
6678574	24-08-20	BH01/0.4-0.5	SOIL	<0.3 LORR	0.5	0.8	3.4	4.4	3.9	4.2	3.4	3.5
6678575	24-08-20	BH501/0.4-0.5	SOIL	<0.3 LORR	0.5	0.8	3.4	4.4	3.9	4.4	3.4	3.4
6678576	24-08-20	BH01/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	0.8	2.9	5.4	4.1	4.1	4.1	4.2
6678578	24-08-20	BH01/1.4-1.5	SOIL	2.6	24	57	130	130	100	74	98	120
6678579	24-08-20	BH03/0-0.05	SOIL	<0.1	0.2	0.3	1.6	2.3	2.4	2.0	1.4	1.8
6678582	24-08-20	BH03/0.6-0.7	SOIL	<2 LORR	<2 LORR	2.3	21	37	36	31	26	24
6678583	24-08-20	BH503/0.6-0.7	SOIL	<2 LORR	<2 LORR	3.1	23	38	36	31	28	26
6678585	24-08-20	BH04/0.15-0.25	SOIL	<0.2 LORR	0.5	0.9	4.5	6.0	5.3	5.2	4.2	4.8
6678588	24-08-20	BH05/0-0.05	SOIL	<0.1	<0.1	<0.1	0.3	0.5	0.4	0.4	0.4	0.4
6678589	24-08-20	BH05/0.15-0.25	SOIL	<0.1	<0.1	<0.1	0.4	0.6	0.5	0.5	0.4	0.5
6678590	24-08-20	BH05/0.4-0.5	SOIL	<0.6 LORR	0.6	2.0	5.2	8.7	6.5	4.7	6.2	7.4
6678593	24-08-20	BH06/0.15-0.25	SOIL	<0.1	0.2	0.3	1.7	2.2	1.9	1.8	1.5	1.8
6678594	24-08-20	BH06/0.4-0.5	SOIL	<0.3 LORR	2.2	2.9	16	20	18	16	14	17
6678598	24-08-20	BH07/0.4-0.5	SOIL	<0.6 LORR	1.6	2.4	13	27	21	22	21	21
6678600	24-08-20	BH08/0-0.05	SOIL	<0.2 LORR	0.3	0.5	3.0	4.2	3.5	3.6	3.0	3.2
6678603	24-08-20	BH08/0.6-0.7	SOIL	<0.6 LORR	1.5	2.1	10	24	19	16	19	19
6678604	24-08-20	BH09/0-0.05	SOIL	<0.2 LORR	0.3	0.4	2.3	3.2	2.8	2.8	2.6	2.5
6678607	24-08-20	BH09/0.6-0.7	SOIL	<0.2 LORR	0.8	1.1	6.3	8.6	8.8	7.2	4.9	7.1
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.2 LORR	0.3	0.4	2.2	3.1	2.6	2.6	2.5	2.5
6678614	24-08-20	BH11/0.4-0.5	SOIL	<0.6 LORR	1.3	2.1	11	24	18	14	18	18
6678617	24-08-20	BH12/0.15-0.25	SOIL	<0.6 LORR	<0.6 LORR	1.4	5.3	11	8.1	6.8	8.0	8.7
6678618	24-08-20	BH12/0.4-0.5	SOIL	<0.6 LORR	1.4	1.7	8.2	19	15	17	15	15
6678620	24-08-20	BH13/0-0.05	SOIL	<0.1	<0.1	0.1	0.5	1.1	0.8	0.8	0.9	0.9
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.6 LORR	0.7	0.9	5.0	8.2	7.3	7.6	6.4	7.1
6678624	24-08-20	BH14/0-0.05	SOIL	<0.2 LORR	<0.2 LORR	0.7	1.5	2.3	1.6	1.5	1.4	1.8
6678626	24-08-20	BH14/0.4-0.5	SOIL	<0.6 LORR	2.0	3.1	17	36	27	25	27	25
6678629	24-08-20	BH02/0.15-0.25	SOIL	<0.6 LORR	0.8	1.2	6.2	14	11	10	11	11
6678632	24-08-20	BH02/0.9-1.0	SOIL	<0.1	<0.1	0.2	0.8	1.5	1.2	1.0	1.2	1.2
6678633	24-08-20	BH02/1.4-1.5	SOIL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678635	24-08-20	BH15/0.15-0.25	SOIL	<0.1	0.1	0.2	1.0	2.2	1.7	1.6	1.7	1.7
6678639	24-08-20	BH16/0.15-0.25	SOIL	<0.3 LORR	0.3	0.5	2.7	6.2	4.9	4.7	4.9	4.8
6678640	24-08-20	BH16/0.4-0.5	SOIL	<0.6 LORR	1.4	2.0	12	21	15	15	13	16

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.

				PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
				Acenaphthene mg/kg	Acenaphthylene mg/kg	Anthracene mg/kg	Benz(a)anthracene mg/kg	Benzo(a)pyrene mg/kg	Benz(b)fluranthen mg/kg	Benzo(ghi)perylene mg/kg	Benz(k)fluranthen mg/kg	Chrysene mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	<0.6 LORR	<0.6 LORR	2.9	9.4	18	13	10	13	14
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.6 LORR	0.6	0.7	3.7	6.2	5.2	5.1	4.5	5.3
6678646	24-08-20	BH18/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	0.8	4.4	9.9	7.5	6.0	7.6	7.7
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5 LORR	0.8	1.0	9.1	16	11	11	9.8	11
6678649	24-08-20	BH18/0.6-0.7	SOIL	<0.6 LORR	1.3	3.4	26	43	28	27	26	27
6678650	24-08-20	BH19/0.0-0.05	SOIL	<0.1	<0.1	<0.1	0.5	0.7	0.6	0.7	0.6	0.7
6678653	24-08-20	BH19/0.6-0.7	SOIL	<0.6 LORR	0.8	1.1	5.9	12	9.3	7.0	9.1	10
6678655	24-08-20	BH20/0.15-0.25	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	1.2	2.9	2.3	2.0	2.3	2.2
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.6 LORR	<0.6 LORR	0.7	3.7	6.1	5.0	4.8	4.4	5.1
6678666	24-08-20	BH22/0.4-0.5	SOIL	<0.6 LORR	1.7	2.6	13	23	17	16	15	17
6678668	24-08-20	BH23/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	2.5	5.8	4.6	3.8	4.5	4.6
6678671	24-08-20	BH23/0.6-0.7	SOIL	<0.6 LORR	1.1	2.1	13	24	17	19	16	16
6678675	24-08-20	BH24/0.4-0.5	SOIL	<0.6 LORR	0.9	1.4	6.6	11	8.3	8.3	7.3	9.0
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	2.3	3.9	3.5	3.5	3.1	3.4
6678679	24-08-20	BH25/0.4-0.5	SOIL	<0.6 LORR	1.5	2.2	12	20	14	15	13	15
6678680	24-08-20	BH525/0.4-0.5	SOIL	<0.6 LORR	1.6	2.5	13	22	16	16	14	16
6678681	24-08-20	BH25/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	0.7	4.1	9.9	7.4	6.3	7.2	7.6
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.7 LORR	<0.7 LORR	0.9	4.5	7.9	6.3	6.2	5.5	6.1

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Batch No: **20-40358**
Report Number: **844277**
Client: **Landserv Pty Ltd**
Client Program Ref: **M0790 Wattie Watson ESA**

Soil PAH

Sample	Sampled Date	Your Ref	Analysis: / Component: / Units: / Sample Type	PAH Dibenz(ah)anthrcn mg/kg	PAH Fluoranthene mg/kg	PAH Fluorene mg/kg	PAH Indeno(123)pyrene mg/kg	PAH Naphthalene mg/kg	PAH Phenanthrene mg/kg	PAH Pyrene mg/kg	PAH Total PAHs mg/kg	PAH BaP TEQ (zero) mg/kg
6678572	24-08-20	BH01/0-0.05	SOIL	<0.1	0.2	<0.1	0.2	<0.1	<0.1	0.3	1.6	0.3
6678574	24-08-20	BH01/0.4-0.5	SOIL	0.9	5.9	<0.3 LORR	3.9	<0.3 LORR	2.3	6.0	43	6.8
6678575	24-08-20	BH501/0.4-0.5	SOIL	1.0	5.8	<0.3 LORR	4.1	<0.3 LORR	2.2	5.9	43	7.0
6678576	24-08-20	BH01/0.6-0.7	SOIL	<0.6 LORR	6.7	<0.6 LORR	3.4	<0.6 LORR	2.6	6.9	45	6.9
6678578	24-08-20	BH01/1.4-1.5	SOIL	16	360	12	84	5.5	310	310	1800	190
6678579	24-08-20	BH03/0-0.05	SOIL	0.5	3.0	<0.1	2.0	<0.1	1.0	3.1	22	3.6
6678582	24-08-20	BH03/0.6-0.7	SOIL	7.6	28	<2 LORR	32	<2 LORR	4.7	32	280	57
6678583	24-08-20	BH503/0.6-0.7	SOIL	8.1	32	<2 LORR	32	<2 LORR	8.3	35	300	59
6678585	24-08-20	BH04/0.15-0.25	SOIL	1.2	9.0	<0.2 LORR	5.2	<0.2 LORR	3.4	9.0	59	9.2
6678588	24-08-20	BH05/0-0.05	SOIL	<0.1	0.6	<0.1	0.4	<0.1	0.2	0.6	4.2	0.7
6678589	24-08-20	BH05/0.15-0.25	SOIL	0.1	0.7	<0.1	0.5	<0.1	0.2	0.8	5.2	0.9
6678590	24-08-20	BH05/0.4-0.5	SOIL	1.1	15	<0.6 LORR	4.5	<0.6 LORR	9.6	15	86	12
6678593	24-08-20	BH06/0.15-0.25	SOIL	0.5	3.0	<0.1	1.9	<0.1	0.9	3.1	21	3.4
6678594	24-08-20	BH06/0.4-0.5	SOIL	3.9	30	0.6	16	0.3	13	31	200	31
6678598	24-08-20	BH07/0.4-0.5	SOIL	4.1	35	0.7	16	<0.6 LORR	13	36	230	39
6678600	24-08-20	BH08/0-0.05	SOIL	0.7	5.5	<0.2 LORR	3.5	<0.2 LORR	1.9	5.8	39	6.3
6678603	24-08-20	BH08/0.6-0.7	SOIL	3.3	30	<0.6 LORR	15	<0.6 LORR	11	31	200	34
6678604	24-08-20	BH09/0-0.05	SOIL	0.7	3.9	<0.2 LORR	2.8	<0.2 LORR	1.1	4.3	30	5.0
6678607	24-08-20	BH09/0.6-0.7	SOIL	1.7	12	0.2	7.2	<0.2 LORR	4.5	13	83	13
6678609	24-08-20	BH10/0.15-0.25	SOIL	0.6	4.1	<0.2 LORR	2.6	<0.2 LORR	1.4	4.3	29	4.7
6678614	24-08-20	BH11/0.4-0.5	SOIL	3.5	30	<0.6 LORR	14	<0.6 LORR	11	31	200	34
6678617	24-08-20	BH12/0.15-0.25	SOIL	1.3	15	<0.6 LORR	6.3	<0.6 LORR	7.6	16	96	15
6678618	24-08-20	BH12/0.4-0.5	SOIL	2.8	23	<0.6 LORR	12	<0.6 LORR	8.2	24	160	27
6678620	24-08-20	BH13/0-0.05	SOIL	0.2	1.4	<0.1	0.6	<0.1	0.5	1.6	9.4	1.6
6678623	24-08-20	BH13/0.6-0.7	SOIL	1.1	11	<0.6 LORR	7.6	<0.6 LORR	3.9	12	79	12
6678624	24-08-20	BH14/0-0.05	SOIL	0.2	4.3	<0.2 LORR	1.6	<0.2 LORR	2.9	3.9	24	3.1
6678626	24-08-20	BH14/0.4-0.5	SOIL	4.9	43	0.7	21	<0.6 LORR	15	45	290	51
6678629	24-08-20	BH02/0.15-0.25	SOIL	2.1	18	<0.6 LORR	8.6	<0.6 LORR	6.6	18	120	20
6678632	24-08-20	BH02/0.9-1.0	SOIL	0.2	2.3	<0.1	0.8	<0.1	1.2	2.2	14	2.1
6678633	24-08-20	BH02/1.4-1.5	SOIL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678635	24-08-20	BH15/0.15-0.25	SOIL	0.3	2.5	<0.1	1.4	<0.1	0.8	2.7	18	3.1
6678639	24-08-20	BH16/0.15-0.25	SOIL	0.9	7.3	<0.3 LORR	3.7	<0.3 LORR	2.4	7.8	51	8.8
6678640	24-08-20	BH16/0.4-0.5	SOIL	2.3	24	<0.6 LORR	16	<0.6 LORR	8.0	26	170	29

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.

				PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
				Dibenz(ah)anthrcn mg/kg	Fluoranthene mg/kg	Fluorene mg/kg	Indeno(123)pyrene mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg	Pyrene mg/kg	Total PAHs mg/kg	BaP TEQ (zero) mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	2.5	27	<0.6 LORR	9.3	<0.6 LORR	13	25	160	25
6678645	24-08-20	BH17/0.6-0.7	SOIL	0.7	8.0	<0.6 LORR	5.1	<0.6 LORR	2.8	8.4	56	8.9
6678646	24-08-20	BH18/0.0-0.05	SOIL	1.5	12	<0.7 LORR	5.8	<0.7 LORR	4.3	12	80	14
6678648	24-08-20	BH18/0.4-0.5	SOIL	1.9	14	<0.5 LORR	12	<0.5 LORR	3.3	15	120	22
6678649	24-08-20	BH18/0.6-0.7	SOIL	4.9	38	<0.6 LORR	30	<0.6 LORR	9.4	44	310	59
6678650	24-08-20	BH19/0.0-0.05	SOIL	0.1	0.9	<0.1	0.7	<0.1	0.3	1.0	6.8	1.1
6678653	24-08-20	BH19/0.6-0.7	SOIL	1.7	17	<0.6 LORR	6.6	<0.6 LORR	6.3	18	100	17
6678655	24-08-20	BH20/0.15-0.25	SOIL	0.4	3.2	<0.3 LORR	1.7	<0.3 LORR	1.2	3.5	23	4.1
6678660	24-08-20	BH21/0.15-0.25	SOIL	0.7	7.0	<0.6 LORR	5.0	<0.6 LORR	2.3	7.5	52	8.7
6678666	24-08-20	BH22/0.4-0.5	SOIL	2.8	27	<0.6 LORR	17	<0.6 LORR	9.0	28	190	32
6678668	24-08-20	BH23/0.0-0.05	SOIL	0.8	6.5	<0.7 LORR	3.6	<0.7 LORR	2.0	7.2	46	8.2
6678671	24-08-20	BH23/0.6-0.7	SOIL	2.8	21	<0.6 LORR	19	<0.6 LORR	5.9	23	180	34
6678675	24-08-20	BH24/0.4-0.5	SOIL	1.1	14	<0.6 LORR	8.8	<0.6 LORR	5.2	15	97	15
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.7 LORR	4.4	<0.7 LORR	3.6	<0.7 LORR	1.4	4.9	34	5.2
6678679	24-08-20	BH25/0.4-0.5	SOIL	2.3	24	<0.6 LORR	15	<0.6 LORR	8.3	25	170	28
6678680	24-08-20	BH525/0.4-0.5	SOIL	2.8	26	<0.6 LORR	17	<0.6 LORR	9.1	28	180	31
6678681	24-08-20	BH25/0.6-0.7	SOIL	1.3	11	<0.6 LORR	5.7	<0.6 LORR	3.6	12	77	14
6678684	24-08-20	BH26/0.4-0.5	SOIL	1.0	8.3	<0.7 LORR	6.2	<0.7 LORR	2.5	8.7	64	11

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Soil PAH

Sample	Sampled Date	Your Ref	Analysis:	PAH	PAH
			Component:	BaP TEQ (half LOR)	BaP TEQ (LOR)
			Units:	mg/kg	mg/kg
			Sample Type		
6678572	24-08-20	BH01/0-0.05	SOIL	0.3	0.4
6678574	24-08-20	BH01/0.4-0.5	SOIL	6.8	6.8
6678575	24-08-20	BH501/0.4-0.5	SOIL	7.0	7.0
6678576	24-08-20	BH01/0.6-0.7	SOIL	7.2	7.5
6678578	24-08-20	BH01/1.4-1.5	SOIL	190	190
6678579	24-08-20	BH03/0-0.05	SOIL	3.6	3.6
6678582	24-08-20	BH03/0.6-0.7	SOIL	57	57
6678583	24-08-20	BH503/0.6-0.7	SOIL	59	59
6678585	24-08-20	BH04/0.15-0.25	SOIL	9.2	9.2
6678588	24-08-20	BH05/0-0.05	SOIL	0.7	0.8
6678589	24-08-20	BH05/0.15-0.25	SOIL	0.9	0.9
6678590	24-08-20	BH05/0.4-0.5	SOIL	12	12
6678593	24-08-20	BH06/0.15-0.25	SOIL	3.4	3.4
6678594	24-08-20	BH06/0.4-0.5	SOIL	31	31
6678598	24-08-20	BH07/0.4-0.5	SOIL	39	39
6678600	24-08-20	BH08/0-0.05	SOIL	6.3	6.3
6678603	24-08-20	BH08/0.6-0.7	SOIL	34	34
6678604	24-08-20	BH09/0-0.05	SOIL	5.0	5.0
6678607	24-08-20	BH09/0.6-0.7	SOIL	13	13
6678609	24-08-20	BH10/0.15-0.25	SOIL	4.7	4.7
6678614	24-08-20	BH11/0.4-0.5	SOIL	34	34
6678617	24-08-20	BH12/0.15-0.25	SOIL	15	15
6678618	24-08-20	BH12/0.4-0.5	SOIL	27	27
6678620	24-08-20	BH13/0-0.05	SOIL	1.6	1.6
6678623	24-08-20	BH13/0.6-0.7	SOIL	12	12
6678624	24-08-20	BH14/0-0.05	SOIL	3.1	3.1
6678626	24-08-20	BH14/0.4-0.5	SOIL	51	51
6678629	24-08-20	BH02/0.15-0.25	SOIL	20	20
6678632	24-08-20	BH02/0.9-1.0	SOIL	2.1	2.1
6678633	24-08-20	BH02/1.4-1.5	SOIL	0.1	0.2
6678635	24-08-20	BH15/0.15-0.25	SOIL	3.1	3.1
6678639	24-08-20	BH16/0.15-0.25	SOIL	8.8	8.8
6678640	24-08-20	BH16/0.4-0.5	SOIL	29	29

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.

				PAH	PAH
				BaP TEQ (half LOR) mg/kg	BaP TEQ (LOR) mg/kg
6678644	24-08-20	BH17/0.4-0.5	SOIL	25	25
6678645	24-08-20	BH17/0.6-0.7	SOIL	8.9	8.9
6678646	24-08-20	BH18/0.0-0.05	SOIL	14	14
6678648	24-08-20	BH18/0.4-0.5	SOIL	22	22
6678649	24-08-20	BH18/0.6-0.7	SOIL	59	59
6678650	24-08-20	BH19/0.0-0.05	SOIL	1.1	1.1
6678653	24-08-20	BH19/0.6-0.7	SOIL	17	17
6678655	24-08-20	BH20/0.15-0.25	SOIL	4.1	4.1
6678660	24-08-20	BH21/0.15-0.25	SOIL	8.7	8.7
6678666	24-08-20	BH22/0.4-0.5	SOIL	32	32
6678668	24-08-20	BH23/0.0-0.05	SOIL	8.2	8.2
6678671	24-08-20	BH23/0.6-0.7	SOIL	34	34
6678675	24-08-20	BH24/0.4-0.5	SOIL	15	15
6678677	24-08-20	BH25/0.0-0.05	SOIL	5.6	5.9
6678679	24-08-20	BH25/0.4-0.5	SOIL	28	28
6678680	24-08-20	BH525/0.4-0.5	SOIL	31	31
6678681	24-08-20	BH25/0.6-0.7	SOIL	14	14
6678684	24-08-20	BH26/0.4-0.5	SOIL	11	11

Soil O.C. Pesticides

Sample	Sampled Date	Your Ref	Analysis: / Component: / Units: / Sample Type	OCP BHC (alpha) mg/kg	OCP a-Endosulphan mg/kg	OCP Aldrin mg/kg	OCP BHC (beta) mg/kg	OCP b-Endosulphan mg/kg	OCP Chlordane mg/kg	OCP cis-Chlordane mg/kg	OCP trans-Chlordane mg/kg	OCP BHC (delta) mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Soil O.C. Pesticides

Sample	Sampled Date	Your Ref	Analysis:	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
			Component:	DDD	DDE	DDT	Dieldrin	Endosulphan	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Soil O.C. Pesticides

Sample	Sampled Date	Your Ref	Analysis:	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
			Component:	HexaChlorBenzene	Heptchlor Epoxide	Heptachlor	Lindane	Methoxychlor	Oxychlordane	DDD+DDE+DDT	Aldrin and Dieldrin
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type								
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR	<0.08 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR	<0.07 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Soil PCBs

Sample	Sampled Date	Your Ref	Sample Type	Aroclor 1016 mg/kg	Aroclor 1221 mg/kg	Aroclor 1232 mg/kg	Aroclor 1242 mg/kg	Aroclor 1248 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg	Total PCBs mg/kg
		Analysis:		PCB	PCB	PCB	PCB	PCB	PCB	PCB	PCB
		Component:		Aroclor 1016 mg/kg	Aroclor 1221 mg/kg	Aroclor 1232 mg/kg	Aroclor 1242 mg/kg	Aroclor 1248 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg	Total PCBs mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Soil CHCs

Sample	Sampled Date	Your Ref	Sample Type	1234TetraChlBenz mg/kg	1235TetraChlBenz mg/kg	123TriChloroBenz mg/kg	1245TetraChlBenz mg/kg	124TriChloroBenz mg/kg	12DiChloroBenz mg/kg	135TriChloroBenz mg/kg	13DiChloroBenz mg/kg	14DiChloroBenz mg/kg
		Analysis:		CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC
		Component:		1234TetraChlBenz mg/kg	1235TetraChlBenz mg/kg	123TriChloroBenz mg/kg	1245TetraChlBenz mg/kg	124TriChloroBenz mg/kg	12DiChloroBenz mg/kg	135TriChloroBenz mg/kg	13DiChloroBenz mg/kg	14DiChloroBenz mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Soil CHCs

Sample	Sampled Date	Your Ref	Analysis:	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC
			Component:	2ChloroNaphthlene	Benzal Chloride	BenzoTriChloride	Benzylcl	HexaChloroEthane	HexaChlButadiene	HexaClCyclPenten	PentaChlBenzene
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type								
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR	<0.2 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR	<0.7 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Phenols (Halogenated)

Sample	Sampled Date	Your Ref	Analysis:	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)
			Component:	4Chlor3MethylPhnl	2-ChloroPhenol	24DiChloroPhenol	2,6DiChloroPhenol	PentaChlorPhenol	2345TetraChloPhnl	2346TetraChloPhnl	2356TetraChloPhnl	245TriChlorPhenol
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<10 LORR	<10 LORR	<10 LORR	<10 LORR	<10 LORR	<10 LORR	<10 LORR	<10 LORR	<10 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR	<2 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Phenols (Halogenated)

Sample	Sampled Date	Your Ref	Analysis:	Phenols(Halo)	Phenols(Halo)
			Component:	246TriChlorPhenol	Total Phenols (Halo)
			Units:	mg/kg	mg/kg
			Sample Type		
6678578	24-08-20	BH01/1.4-1.5	SOIL	<10 LORR	<10 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<2 LORR	<2 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<2 LORR	<2 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<2 LORR	<2 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<2 LORR	<2 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<2 LORR	<2 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<2 LORR	<2 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<2 LORR	<2 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<2 LORR	<2 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Phenols (Non Halogenated)

Sample	Sampled Date	Your Ref	Analysis:	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)
			Component:	Phenol	Total Cresols	2,4DiMethylPhenol	2,4-Dinitrophenol	2Mthyl46DiNitrPhnl	2-NitroPhenol	4-NitroPhenol	2CyHxl46DiNitPhnl	Dinoseb
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<10 LORR	<20 LORR	<10 LORR	<600 LORR	<200 LORR	<10 LORR	<10 LORR	<600 LORR	<200 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<2 LORR	<5 LORR	<2 LORR	<150 LORR	<50 LORR	<2 LORR	<2 LORR	<150 LORR	<50 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

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.

Phenols (Non Halogenated)

Sample	Sampled Date	Your Ref	Analysis:	Phenols(NonHalo)
			Component:	Total Phenols(NonH)
			Units:	mg/kg
			Sample Type	
6678578	24-08-20	BH01/1.4-1.5	SOIL	<600 LORR
6678600	24-08-20	BH08/0-0.05	SOIL	<150 LORR
6678609	24-08-20	BH10/0.15-0.25	SOIL	<150 LORR
6678623	24-08-20	BH13/0.6-0.7	SOIL	<150 LORR
6678645	24-08-20	BH17/0.6-0.7	SOIL	<150 LORR
6678648	24-08-20	BH18/0.4-0.5	SOIL	<150 LORR
6678660	24-08-20	BH21/0.15-0.25	SOIL	<150 LORR
6678677	24-08-20	BH25/0.0-0.05	SOIL	<150 LORR
6678684	24-08-20	BH26/0.4-0.5	SOIL	<150 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Soil Halo. Volatiles

Sample	Sampled Date	Your Ref	Analysis:	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			Component:	1112TetraClEthane	1122TetraClEthane	1,1DiChloroEthane	1,1DiChloroEthene	11DiChlorPropene	123TriChlPropane	12DiBr3ChlPrpane	12DiChlorEthene[c]	12DiChlorEthene[t]
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600	24-08-20	BH08/0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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.

Soil Halo. Volatiles

Sample	Sampled Date	Your Ref	Analysis:	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			Component:	12DiChloroEthane	12 DiChloPropane	13DiChlorPropane	13DiChlPropene[c]	13DiChlPropene[t]	22DiChlorPropane	2-ChloroToluene	4-ChloroToluene	BromChloMethane
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600	24-08-20	BH08/0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Soil Halo. Volatiles

Sample	Sampled Date	Your Ref	Analysis:	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			Component:	BroDiChloMethane	BromoBenzene	Bromoform	CarbonTetChloride	Chloroform	ChloroBenzene	DiBroChloMethane	DiBromoMethane	12DiBromoEthane
			Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Sample Type									
6678578	24-08-20	BH01/1.4-1.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600	24-08-20	BH08/0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678609	24-08-20	BH10/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678623	24-08-20	BH13/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	24-08-20	BH17/0.6-0.7	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678648	24-08-20	BH18/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678660	24-08-20	BH21/0.15-0.25	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678677	24-08-20	BH25/0.0-0.05	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678684	24-08-20	BH26/0.4-0.5	SOIL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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.

Soil Halo. Volatiles

Sample	Sampled Date	Your Ref	Sample Type	DiChloroMethane mg/kg	TriChloFluMethane mg/kg	TetraChloroEthene mg/kg	Vinyl Chloride mg/kg	111TriChlorEthane mg/kg	112TriChlorEthane mg/kg	TriChloroEthene mg/kg
		Analysis:		HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
		Component:		DiChloroMethane	TriChloFluMethane	TetraChloroEthene	Vinyl Chloride	111TriChlorEthane	112TriChlorEthane	TriChloroEthene
		Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
6678578	24-08-20	BH01/1.4-1.5	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678600	24-08-20	BH08/0-0.05	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678609	24-08-20	BH10/0.15-0.25	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678623	24-08-20	BH13/0.6-0.7	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678645	24-08-20	BH17/0.6-0.7	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678648	24-08-20	BH18/0.4-0.5	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678660	24-08-20	BH21/0.15-0.25	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678677	24-08-20	BH25/0.0-0.05	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678684	24-08-20	BH26/0.4-0.5	SOIL	<1	<2	<0.5	<1	<0.5	<0.5	<0.5

Subcontracted

Sample	Sampled Date	Your Ref	Sample Type	Asbestos -
		Analysis:		Asbestos
		Component:		Asbestos
		Units:		-
6678572	24-08-20	BH01/0-0.05	SOIL	Not Detected
6678578	24-08-20	BH01/1.4-1.5	SOIL	Not Detected
6678585	24-08-20	BH04/0.15-0.25	SOIL	Not Detected
6678594	24-08-20	BH06/0.4-0.5	SOIL	Not Detected
6678598	24-08-20	BH07/0.4-0.5	SOIL	Not Detected
6678604	24-08-20	BH09/0-0.05	SOIL	Not Detected
6678607	24-08-20	BH09/0.6-0.7	SOIL	Not Detected
6678614	24-08-20	BH11/0.4-0.5	SOIL	Not Detected
6678620	24-08-20	BH13/0-0.05	SOIL	Not Detected
6678632	24-08-20	BH02/0.9-1.0	SOIL	Not Detected
6678640	24-08-20	BH16/0.4-0.5	SOIL	Not Detected
6678646	24-08-20	BH18/0.0-0.05	SOIL	Not Detected
6678657	24-08-20	BH20/PACM 0.4-0.5	SOIL	Chrysotile Detecte
6678668	24-08-20	BH23/0.0-0.05	SOIL	Not Detected
6678674	24-08-20	BH24 ACM 0.2	SOIL	Chrysotile Detecte
6678675	24-08-20	BH24/0.4-0.5	SOIL	Not Detected
6678684	24-08-20	BH26/0.4-0.5	SOIL	Not Detected

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.

Quality Control

Soil BTEXN

	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN	BTEXN
	Benzene	Toluene	Ethyl Benzene	Xylene - m&p	Xylene - O	Naphthalene	Total Xylenes	BTEX (Sum)
6677851 DUPLICATE Sample Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6677851 DUPLICATE Duplicate Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6677851 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677855 SPIKE Sample Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5		
6677855 SPIKE Expected Value	4.7	4.7	4.7	9.3	4.7	4.7		
6677855 SPIKE % Recovery	**99.6**	**103**	**96.1**	**114**	**105**	**74.1**		
6680019 BLANK Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678677 DUPLICATE Sample Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678677 DUPLICATE Duplicate Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
6678677 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678684 SPIKE Sample Value	<0.5	<0.5	<0.5	<1	<0.5			
6678684 SPIKE Expected Value	5.2	5.2	5.2	10	5.2			
6678684 SPIKE % Recovery	**80.1**	**75.5**	**71.0**	**84.4**	**83.5**			
6681573 BLANK Value	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1

Soil CHCs

	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC
	1234TetraChlBenz	1235TetraChlBenz	123TriChloroBenz	1245TetraChlBenz	124TriChloroBenz	12DiChloroBenz	135TriChloroBenz	13DiChloroBenz	14DiChloroBenz
6678645 DUPLICATE Sample Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645 DUPLICATE Duplicate Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE Sample Value	<0.5 LORR		<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR
6678648 SPIKE Expected Value	1.3		1.3	2.7	1.3	1.3	1.3	1.3	1.3
6678648 SPIKE % Recovery	**110**		**100**	**106**	**114**	**120**	**110**	**110**	**120**
6681679 BLANK Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE Sample Value	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677857 SPIKE Expected Value	1.3		1.3	2.6	1.3	1.3	1.3	1.3	1.3
6677857 SPIKE % Recovery	**109**		**96.6**	**112**	**100**	**81.2**	**97.8**	**85.4**	**92.4**
6682144 BLANK Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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.

Soil CHCs

		CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC
		2ChloroNaphthlene	Benzal Chloride	BenzoTriChloride	Benzylcl	HexaChloroEthane	HexaChlButadiene	HexaClCyclPenten	PentaChlBenzene
6678645 DUPLICATE	Sample Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645 DUPLICATE	Duplicate Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR
6678645 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE	Sample Value	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR	<0.5 LORR		<0.5 LORR
6678648 SPIKE	Expected Value	1.3	1.3	1.3	1.3	1.3	1.3		1.3
6678648 SPIKE	**% Recovery**	**104**	**100**	**112**	**104**	**122**	**118**		**110**
6681679 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677857 SPIKE	Expected Value	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
6677857 SPIKE	**% Recovery**	**115**	**96.0**	**91.4**	**98.0**	**93.8**	**91.4**	**71.8**	**102**
6682144 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Soil Halo. Volatiles

		HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
		1112TetraClEthane	1122TetraClEthane	1,1DiChloroEthane	1,1DiChloroEthene	11DiChlorPropene	123TriChlPropane	12DiBr3ChlPrpane	12DiChlorEthene[c]	12DiChlorEthene[t]
6678600 DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600 DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678578 SPIKE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5
6678578 SPIKE	Expected Value	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3
6678578 SPIKE	**% Recovery**	**80.0**	**93.0**	**92.0**	**90.6**	**83.6**	**88.9**		**85.0**	**85.7**
6680190 BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645 DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645 DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6681729 BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Soil Halo. Volatiles

		HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
		12DiChloroEthane	12 DiChloPropane	13DiChlorPropane	13DiChlPropene[c]	13DiChlPropene[t]	22DiChlorPropane	2-ChloroToluene	4-ChloroToluene	BromChloMethane
6678600 DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600 DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678578 SPIKE	Sample Value	<0.5	<0.5	<0.5				<0.5	<0.5	<0.5
6678578 SPIKE	Expected Value	4.3	4.3	4.3				4.3	4.3	4.3

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.

			HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			12DiChloroEthane	12 DiChloPropane	13DiChlorPropane	13DiChlPropene[c]	13DiChlPropene[t]	22DiChlorPropane	2-ChloroToluene	4-ChloroToluene	BromChloMethane
6678578	**SPIKE**	**% Recovery**	**102**	**93.2**	**99.8**				**88.7**	**83.1**	**92.2**
6680190	BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6681729	BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Soil Halo. Volatiles

			HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			BroDiChloMethane	BromoBenzene	Bromoform	CarbonTetChloride	Chloroform	ChloroBenzene	DiBroChloMethane	DiBromoMethane	12DiBromoEthane
6678600	DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600	DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678600	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678578	SPIKE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5
6678578	SPIKE	Expected Value	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3
6678578	**SPIKE**	**% Recovery**	**85.3**	**86.1**	**78.5**	**76.7**	**98.0**	**92.1**		**93.3**	**86.5**
6680190	BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	DUPLICATE	Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	DUPLICATE	Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6678645	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6681729	BLANK	Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Soil Halo. Volatiles

			HVOL	HVOL	HVOL	HVOL	HVOL	HVOL	HVOL
			DiChloroMethane	TriChloFluMethane	TetraChloroEthene	Vinyl Chloride	111TriChlorEthane	112TriChlorEthane	TriChloroEthene
6678600	DUPLICATE	Sample Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678600	DUPLICATE	Duplicate Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678600	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678578	SPIKE	Sample Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678578	SPIKE	Expected Value	4.3	4.3	4.3	4.3	4.3	4.3	4.3
6678578	**SPIKE**	**% Recovery**	**89.7**	**92.2**	**88.8**	**105**	**83.6**	**93.9**	**93.3**
6680190	BLANK	Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678645	DUPLICATE	Sample Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678645	DUPLICATE	Duplicate Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5
6678645	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6681729	BLANK	Value	<1	<2	<0.5	<1	<0.5	<0.5	<0.5

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.

Soil MAH

		MAH
		Styrene
6678600	DUPLICATE Sample Value	<0.5
6678600	DUPLICATE Duplicate Value	<0.5
6678600	**DUPLICATE % RPD**	**0**
6678578	SPIKE Sample Value	<0.5
6678578	SPIKE Expected Value	4.3
6678578	**SPIKE % Recovery**	**83.2**
6680194	BLANK Value	<0.5
6678645	DUPLICATE Sample Value	<0.5
6678645	DUPLICATE Duplicate Value	<0.5
6678645	**DUPLICATE % RPD**	**0**
6681732	BLANK Value	<0.5
6683313	BLANK Value	<0.5

Metals

		MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals
		Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
6680371	BLANK Value	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001
6673847	DUPLICATE Sample Value	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001
6673847	DUPLICATE Duplicate Value	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001
6673847	**DUPLICATE % RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6643977	SPIKE Sample Value	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	0.019
6643977	SPIKE Expected Value	0.40	0.40	0.40	0.40	0.40	0.0020	0.40	0.42
6643977	**SPIKE % Recovery**	**105**	**103**	**100**	**97.7**	**98.3**	**95.5**	**98.3**	**102**

Soil O.C. Pesticides

		OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
		BHC (alpha)	a-Endosulphan	Aldrin	BHC (beta)	b-Endosulphan	Chlordane	cis-Chlordane	trans-Chlordane	BHC (delta)
6678645	DUPLICATE Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645	DUPLICATE Duplicate Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645	**DUPLICATE % RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648	SPIKE Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678648	SPIKE Expected Value	2.7	1.3	1.3	2.4	1.3	2.7	1.3	1.3	2.7
6678648	**SPIKE % Recovery**	**77.0**	**90.0**	**80.0**	**62.2**	**98.0**	**78.0**	**78.0**	**78.0**	**97.0**
6681696	BLANK Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855	DUPLICATE Sample Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855	DUPLICATE Duplicate Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855	**DUPLICATE % RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857	SPIKE Sample Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

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.

		OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
		BHC (alpha)	a-Endosulphan	Aldrin	BHC (beta)	b-Endosulphan	Chlordane	cis-Chlordane	trans-Chlordane	BHC (delta)
6677857 SPIKE	Expected Value	2.6	1.3	1.3	2.4	1.3	2.6	1.3	1.3	2.6
6677857 SPIKE	**% Recovery**	**94.1**	**68.8**	**79.0**	**74.3**	**70.0**	**92.4**	**88.2**	**85.2**	**106**
6682174 BLANK	Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Soil O.C. Pesticides

		OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
		DDD	DDE	DDT	Dieldrin	Endosulphan	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone
6678645 DUPLICATE	Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645 DUPLICATE	Duplicate Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE	Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR		<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678648 SPIKE	Expected Value	1.3	1.3	1.3	1.3		1.3	1.3	1.3	1.3
6678648 SPIKE	**% Recovery**	**90.0**	**76.0**	**60.0**	**78.0**		**76.0**	**88.0**	**62.0**	**74.0**
6681696 BLANK	Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855 DUPLICATE	Sample Value	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855 DUPLICATE	Duplicate Value	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855 DUPLICATE	**% RPD**	**0**	**17.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE	Sample Value	<0.05	<0.05	<0.05	<0.05		<0.05		<0.05	<0.05
6677857 SPIKE	Expected Value	1.3	1.3	1.3	1.3		1.3		1.3	1.3
6677857 SPIKE	**% Recovery**	**69.4**	**74.6**	**68.0**	**69.8**		**64.8**		**97.2**	**86.8**
6682174 BLANK	Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Soil O.C. Pesticides

		OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
		HexaChlorBenzene	Heptchlor Epoxide	Heptachlor	Lindane	Methoxychlor	Oxychlordane	DDD+DDE+DDT	Aldrin and Dieldrin
6678645 DUPLICATE	Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645 DUPLICATE	Duplicate Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR
6678645 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE	Sample Value	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR	<0.3 LORR			
6678648 SPIKE	Expected Value	2.2	1.3	1.3	2.7	1.3			
6678648 SPIKE	**% Recovery**	**95.0**	**72.0**	**70.0**	**73.0**	**74.0**			
6681696 BLANK	Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6677855 DUPLICATE	Sample Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05
6677855 DUPLICATE	Duplicate Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05
6677855 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**15.4**	**0**
6677857 SPIKE	Sample Value	<0.05	<0.05	<0.05	<0.05	<0.05			
6677857 SPIKE	Expected Value	2.5	1.3	1.3	2.6	1.3			
6677857 SPIKE	**% Recovery**	**99.7**	**78.6**	**79.4**	**88.1**	**61.6**			

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.

		OCP	OCP	OCP	OCP	OCP	OCP	OCP	OCP
		HexaChlorBenzene	Heptchlor Epoxide	Heptachlor	Lindane	Methoxychlor	Oxychlordane	DDD+DDE+DDT	Aldrin and Dieldrin
6682174 BLANK	Value	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Soil PAH

		PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benz(b)fluranthen	Benzo(ghi)perylene	Benz(k)fluranthen	Chrysene
6678650 DUPLICATE	Sample Value	<0.1	<0.1	<0.1	0.5	0.7	0.6	0.7	0.6	0.7
6678650 DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	0.5	0.8	0.7	0.7	0.6	0.7
6678650 DUPLICATE	**% RPD**	**0**	**0**	**0**	**9.2**	**9.8**	**8.7**	**3.8**	**8.8**	**7.5**
6681681 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6681684 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678645 DUPLICATE	Sample Value	<0.6 LORR	0.6	0.7	3.7	6.2	5.2	5.1	4.5	5.3
6678645 DUPLICATE	Duplicate Value	<0.6 LORR	0.6	0.9	4.9	8.2	6.7	6.6	5.9	6.9
6678645 DUPLICATE	**% RPD**	**0**	**6.4**	**23.1**	**27.8**	**28.0**	**25.2**	**27.1**	**25.5**	**26.4**
6678648 SPIKE	Sample Value	<0.5 LORR								
6678648 SPIKE	Expected Value	1.3								
6678648 SPIKE	**% Recovery**	**86.0**								
6681688 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677857 SPIKE	Expected Value	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
6677857 SPIKE	**% Recovery**	**84.4**	**92.0**	**89.2**	**89.6**	**84.6**	**77.6**	**84.8**	**87.2**	**85.0**
6682164 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Soil PAH

		PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
		Dibenz(ah)anthrcn	Fluoranthene	Fluorene	Indeno(123)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs	BaP TEQ (zero)
6678650 DUPLICATE	Sample Value	0.1	0.9	<0.1	0.7	<0.1	0.3	1.0	6.8	1.1
6678650 DUPLICATE	Duplicate Value	0.1	1.0	<0.1	0.7	<0.1	0.3	1.0	7.1	1.2
6678650 DUPLICATE	**% RPD**	**6.1**	**8.3**	**0**	**5.7**	**0**	**2.1**	**6.5**	**4.3**	**9.9**
6681681 BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678633 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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.

			PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH
			Dibenz(ah)anthrcn	Fluoranthene	Fluorene	Indeno(123)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs	BaP TEQ (zero)
6681684	BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6678645	DUPLICATE	Sample Value	0.7	8.0	<0.6 LORR	5.1	<0.6 LORR	2.8	8.4	56	8.9
6678645	DUPLICATE	Duplicate Value	1.0	10	<0.6 LORR	6.8	<0.6 LORR	3.3	11	73	12
6678645	**DUPLICATE**	**% RPD**	**31.6**	**24.7**	**0**	**27.1**	**0**	**16.2**	**26.9**	**25.6**	**28.2**
6678648	SPIKE	Sample Value			<0.5 LORR		<0.5 LORR				
6678648	SPIKE	Expected Value			1.3		1.3				
6678648	**SPIKE**	**% Recovery**			**94.0**		**94.0**				
6681688	BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855	DUPLICATE	Sample Value	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	0.3	<0.1
6677855	DUPLICATE	Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855	**DUPLICATE**	**% RPD**	**0**	**NA**	**0**	**0**	**0**	**NA**	**NA**	**NA**	**0**
6677857	SPIKE	Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
6677857	SPIKE	Expected Value	1.3	1.3	1.3	1.3	1.3	1.3	1.3		
6677857	**SPIKE**	**% Recovery**	**85.2**	**86.0**	**100**	**106**	**86.2**	**87.6**	**87.4**		
6682164	BLANK	Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Soil PAH

			PAH	PAH
			BaP TEQ (half LOR)	BaP TEQ (LOR)
6678650	DUPLICATE	Sample Value	1.1	1.1
6678650	DUPLICATE	Duplicate Value	1.2	1.2
6678650	**DUPLICATE**	**% RPD**	**9.9**	**9.9**
6681681	BLANK	Value	0.1	0.2
6678633	DUPLICATE	Sample Value	0.1	0.2
6678633	DUPLICATE	Duplicate Value	0.1	0.2
6678633	**DUPLICATE**	**% RPD**	**0.0**	**0.0**
6681684	BLANK	Value	0.1	0.2
6678645	DUPLICATE	Sample Value	8.9	8.9
6678645	DUPLICATE	Duplicate Value	12	12
6678645	**DUPLICATE**	**% RPD**	**28.2**	**28.2**
6681688	BLANK	Value	0.1	0.2
6677855	DUPLICATE	Sample Value	0.1	0.2
6677855	DUPLICATE	Duplicate Value	0.1	0.2
6677855	**DUPLICATE**	**% RPD**	**0.0**	**0.0**
6682164	BLANK	Value	0.1	0.2

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.

Soil PCBs

	PCB	PCB	PCB	PCB	PCB	PCB	PCB	PCB
	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
6678645 DUPLICATE Sample Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	
6678645 DUPLICATE Duplicate Value	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	<0.6 LORR	
6678645 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
6678648 SPIKE Sample Value	<0.5 LORR						<0.5 LORR	
6678648 SPIKE Expected Value	2.3						2.6	
6678648 SPIKE % Recovery	**76.5**						**89.5**	
6681699 BLANK Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE Sample Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE Duplicate Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6677855 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE Sample Value	<0.1						<0.1	
6677857 SPIKE Expected Value	2.3						2.2	
6677857 SPIKE % Recovery	**85.6**						**91.8**	
6682178 BLANK Value	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Phenols (Halogenated)

	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)	Phenols(Halo)
	4Chlor3MethylPhnl	2-ChloroPhenol	24DiChloroPhenol	2,6DiChloroPhenol	PentaChlorPhenol	2345TetraChloPhnl	2346TetraChloPhnl	2356TetraChloPhnl	245TriChlorPhenol
6678645 DUPLICATE Sample Value	<2	<2	<2	<2	<2	<2	<2	<2	<2
6678645 DUPLICATE Duplicate Value	<2	<2	<2	<2	<2	<2	<2	<2	<2
6678645 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE Sample Value	<2	<2	<2	<2			<2	<2	<2
6678648 SPIKE Expected Value	1.3	1.3	1.3	1.3			2.7	1.3	1.3
6678648 SPIKE % Recovery	**84.0**	**82.0**	**80.0**	**88.0**			**75.0**	**74.0**	**84.0**
6681705 BLANK Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6677857 SPIKE Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5
6677857 SPIKE Expected Value	1.3	1.3	1.3	1.3	1.3			1.3	1.3
6677857 SPIKE % Recovery	**89.8**	**94.4**	**74.4**	**82.4**	**70.6**			**72.0**	**95.4**
6677853 DUPLICATE Sample Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6677853 DUPLICATE Duplicate Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6677853 DUPLICATE % RPD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6682157 BLANK Value	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Phenols (Halogenated)

	Phenols(Halo)	Phenols(Halo)
	246TriChlorPhenol	Total Phenols (Halo)
6678645 DUPLICATE Sample Value	<2	<2
6678645 DUPLICATE Duplicate Value	<2	<2

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.

		Phenols(Halo)	Phenols(Halo)
		246TriChlorPhenol	Total Phenols (Halo)
6678645 DUPLICATE	**% RPD**	**0**	**0**
6678648 SPIKE	Sample Value	<2	
6678648 SPIKE	Expected Value	1.3	
6678648 SPIKE	**% Recovery**	**76.0**	
6681705 BLANK	Value	<0.5	<0.5
6677857 SPIKE	Sample Value	<0.5	
6677857 SPIKE	Expected Value	1.3	
6677857 SPIKE	**% Recovery**	**75.6**	
6677853 DUPLICATE	Sample Value	<0.5	<0.5
6677853 DUPLICATE	Duplicate Value	<0.5	<0.5
6677853 DUPLICATE	**% RPD**	**0**	**0**
6682157 BLANK	Value	<0.5	<0.5

Phenols (Non Halogenated)

		Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)	Phenols(NonHalo)
		Phenol	Total Cresols	2,4DiMethylPhenol	2,4-Dinitrophenol	2Mthyl46DiNitrPhnl	2-NitroPhenol	4-NitroPhenol	2CyHxl46DiNitPhnl	Dinoseb
6678645 DUPLICATE	Sample Value	<2	<5	<2	<150	<50	<2	<2	<150	<50
6678645 DUPLICATE	Duplicate Value	<2	<5	<2	<150	<50	<2	<2	<150	<50
6678645 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6678648 SPIKE	Sample Value	<2	<5	<2			<2			
6678648 SPIKE	Expected Value	1.3	4.0	1.3			1.3			
6678648 SPIKE	**% Recovery**	**104**	**107**	**94.0**			**76.0**			
6681702 BLANK	Value	<0.5	<1	<0.5	<30	<10	<0.5	<0.5	<30	<10
6677855 DUPLICATE	Sample Value	<0.5	<1	<0.5	<30	<10	<0.5	<0.5	<30	<10
6677855 DUPLICATE	Duplicate Value	<0.5	<1	<0.5	<30	<10	<0.5	<0.5	<30	<10
6677855 DUPLICATE	**% RPD**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6677857 SPIKE	Sample Value	<0.5	<1	<0.5			<0.5			
6677857 SPIKE	Expected Value	1.3	3.9	1.3			1.3			
6677857 SPIKE	**% Recovery**	**101**	**86.7**	**100**			**80.4**			
6682153 BLANK	Value	<0.5	<1	<0.5	<30	<10	<0.5	<0.5	<30	<10

Phenols (Non Halogenated)

		Phenols(NonHalo)
		Total Phenols(NonH)
6678645 DUPLICATE	Sample Value	<150
6678645 DUPLICATE	Duplicate Value	<150
6678645 DUPLICATE	**% RPD**	**0**
6681702 BLANK	Value	<30

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.

			Phenols(NonHalo)
			Total Phenols(NonH)
6677855	DUPLICATE	Sample Value	<30
6677855	DUPLICATE	Duplicate Value	<30
6677855	**DUPLICATE**	**% RPD**	**0**
6682153	BLANK	Value	<30

Soil Analysis

			Moisture	pH	Total Fluoride	Cyanide	Total Cr 6+ DA
			Moisture	pH	Total Fluoride	CN	Total Cr6+ DA
6677857	SPIKE	Sample Value					<1
6677857	SPIKE	Expected Value					20
6677857	**SPIKE**	**% Recovery**					**108**
6677857	DUPLICATE	Sample Value					<1
6677857	DUPLICATE	Duplicate Value					<1
6677857	**DUPLICATE**	**% RPD**					**0**
6679871	BLANK	Value					<1
6678609	DUPLICATE	Sample Value	19				
6678609	DUPLICATE	Duplicate Value	19				
6678609	**DUPLICATE**	**% RPD**	**0.6**				
6678609	DUPLICATE	Sample Value		7.3			
6678609	DUPLICATE	Duplicate Value		7.3			
6678609	**DUPLICATE**	**% RPD**		**0.4**			
6680429	BLANK	Value			<100		
6678609	DUPLICATE	Sample Value			190		
6678609	DUPLICATE	Duplicate Value			190		
6678609	**DUPLICATE**	**% RPD**			**1.1**		
6678645	SPIKE	Sample Value				<5	
6678645	SPIKE	Expected Value				20	
6678645	**SPIKE**	**% Recovery**				**104**	
6678645	DUPLICATE	Sample Value				<5	
6678645	DUPLICATE	Duplicate Value				<5	
6678645	**DUPLICATE**	**% RPD**				**0**	

Soil Metals

			MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals
			As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se
6680869	BLANK	Value	<5	<0.2	<5	<5	<5	<0.05	<5	<5	<3
6678623	DUPLICATE	Sample Value	17	0.5	29	32	200	0.30	<5	23	<3
6678623	DUPLICATE	Duplicate Value	17	0.4	28	30	180	0.25	<5	22	<3

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.

		MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals	MS Total Metals
		As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se
6678623 DUPLICATE	**% RPD**	**3.4**	**8.6**	**3.3**	**8.5**	**10.4**	**17.1**	**0**	**0.7**	**0**
6678648 SPIKE	Sample Value	6	<0.2		22	110		<5	27	<3
6678648 SPIKE	Expected Value	110	100		120	200		100	120	100
6678648 SPIKE	**% Recovery**	**89.1**	**97.4**		**91.5**	**114**		**97.3**	**96.7**	**88.0**

Soil Metals

		MS Total Metals	MS Total Metals	MS Total Metals
		Ag	Sn	Zn
6680869 BLANK	Value	<5	<5	<5
6678623 DUPLICATE	Sample Value	<5	9	410
6678623 DUPLICATE	Duplicate Value	<5	9	360
6678623 DUPLICATE	**% RPD**	**0**	**2.0**	**12.6**
6678648 SPIKE	Sample Value		13	99
6678648 SPIKE	Expected Value		110	190
6678648 SPIKE	**% Recovery**		**103**	**102**

Soil TRH/TPH (Volatile)

		TRH (C6-C10) & F1	TRH (C6-C10) & F1	TRH (C6-C10) & F1
		TPHC6-C9	TRHC6-C10	TRHC6-C10 minus BTE
6677848 SPIKE	Sample Value	<20	<20	
6677848 SPIKE	Expected Value	160	160	
6677848 SPIKE	**% Recovery**	**91.0**	**94.9**	
6678574 DUPLICATE	Sample Value	<20	<20	<20
6678574 DUPLICATE	Duplicate Value	<20	<20	<20
6678574 DUPLICATE	**% RPD**	**0**	**0**	**0**
6680028 BLANK	Value	<20	<20	<20
6678633 SPIKE	Sample Value	<20	<20	
6678633 SPIKE	Expected Value	170	170	
6678633 SPIKE	**% Recovery**	**71.5**	**74.4**	
6678677 DUPLICATE	Sample Value	<20	<20	<20
6678677 DUPLICATE	Duplicate Value	<20	<20	<20
6678677 DUPLICATE	**% RPD**	**0**	**0**	**0**
6681579 BLANK	Value	<20	<20	<20

Soil TRH/TPH

		TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)
		TPH C10-C14	TPH C15-C28	TPH C29-C36	TRH>C10-C16	TRH>C16-C34	TRH>C34-C40	Sum of TRH>C10-C40
6678588 DUPLICATE	Sample Value	<40	<100	110	<40	110	<100	110
6678588 DUPLICATE	Duplicate Value	<40	<100	130	<40	140	<100	140

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.

			TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)	TRH & TPH (>C10)
			TPH C10-C14	TPH C15-C28	TPH C29-C36	TRH>C10-C16	TRH>C16-C34	TRH>C34-C40	Sum of TRH>C10-C40
6678588	**DUPLICATE**	**% RPD**	**0**	**0**	**16.8**	**0**	**20.0**	**0**	**24.0**
6681551	BLANK	Value	<20	<50	<50	<20	<50	<50	<50
6678655	SPIKE	Sample Value		88			170		
6678655	SPIKE	Expected Value		1200			1200		
6678655	**SPIKE**	**% Recovery**		**95.7**			**96.1**		
6679976	DUPLICATE	Sample Value	<400	1300	1300	<400	2200	<1000	2200
6679976	DUPLICATE	Duplicate Value	<400	1200	1300	<400	2100	<1000	2100
6679976	**DUPLICATE**	**% RPD**	**0**	**5.4**	**2.5**	**0**	**2.5**	**0**	**4.7**
6681742	BLANK	Value	<20	<50	<50	<20	<50	<50	<50
6681751	DUPLICATE	Sample Value	<20	<50	<50	<20	51	<50	51
6681751	DUPLICATE	Duplicate Value	<20	<50	<50	<20	50	<50	50
6681751	**DUPLICATE**	**% RPD**	**0**	**0**	**0**	**0**	**1.1**	**0**	**2.0**
6681755	SPIKE	Sample Value		<50			<50		
6681755	SPIKE	Expected Value		960			990		
6681755	**SPIKE**	**% Recovery**		**103**			**102**		
6684975	BLANK	Value	<20	<50	<50	<20	<50	<50	<50

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.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM2014690**	Page	: 1 of 6
Client	: **ALS WATER RESOURCES GROUP**	Laboratory	: Environmental Division Melbourne
Contact	: TUYEN NGUYEN	Contact	: Customer Services EM
Address	: CARIBBEAN BUSINESS PARK 22 DALMORE DRIVE SCORESBY VIC, AUSTRALIA 3179	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 03 8756 8000	Telephone	: +61-3-8549 9600
Project	: LANDSERV (20-40358)	Date Samples Received	: 26-Aug-2020 09:00
Order number	: 111595	Date Analysis Commenced	: 26-Aug-2020
C-O-C number	: ----	Issue Date	: 26-Aug-2020 17:17
Sampler	: ----		
Site	: ----		
Quote number	: EN/109/18 Scoresby for EM batches		
No. of samples received	: 17		
No. of samples analysed	: 17		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Uyen Dalkin	Approved Asbestos Identifier	Melbourne Asbestos, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- **EA200 Legend**
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.
- EA200: N/A - Not Applicable

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)			Client sample ID	6678723	6678725	6678726	6678727	6678728
			Client sampling date / time	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00
Compound	*CAS Number*	*LOR*	*Unit*	**EM2014690-001**	**EM2014690-002**	**EM2014690-003**	**EM2014690-004**	**EM2014690-005**
				Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	**No**	**No**	**No**	**No**	**No**
Asbestos (Trace)	1332-21-4	5	Fibres	**No**	**No**	**No**	**No**	**No**
Asbestos Type	1332-21-4	-	--	**-**	**-**	**-**	**-**	**-**
Sample weight (dry)	----	0.01	g	**25.5**	**62.0**	**25.9**	**22.3**	**28.0**
APPROVED IDENTIFIER:	----	-	--	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**
Synthetic Mineral Fibre	----	0.1	g/kg	**No**	**No**	**No**	**No**	**No**
Organic Fibre	----	0.1	g/kg	**Yes**	**No**	**Yes**	**No**	**Yes**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	6678729	6678730	6678731	6678732	6678733
				Client sampling date / time	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00
Compound	CAS Number	LOR	Unit		EM2014690-006	EM2014690-007	EM2014690-008	EM2014690-009	EM2014690-010
					Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		**No**	**No**	**No**	**No**	**No**
Asbestos (Trace)	1332-21-4	5	Fibres		**No**	**No**	**No**	**No**	**No**
Asbestos Type	1332-21-4	-	--		**-**	**-**	**-**	**-**	**-**
Sample weight (dry)	----	0.01	g		**13.0**	**34.7**	**34.2**	**15.3**	**37.5**
APPROVED IDENTIFIER:	----	-	--		**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**
Synthetic Mineral Fibre	----	0.1	g/kg		**No**	**No**	**No**	**No**	**No**
Organic Fibre	----	0.1	g/kg		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)				Client sample ID	6678734	6678735	6678737	6678739	6678740
				Client sampling date / time	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00	24-Aug-2020 00:00
Compound	*CAS Number*	*LOR*	*Unit*		**EM2014690-011**	**EM2014690-012**	**EM2014690-014**	**EM2014690-016**	**EM2014690-017**
					Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		**No**	**No**	**No**	**No**	**No**
Asbestos (Trace)	1332-21-4	5	Fibres		**No**	**No**	**No**	**No**	**No**
Asbestos Type	1332-21-4	-	--		**-**	**-**	**-**	**-**	**-**
Sample weight (dry)	----	0.01	g		**35.0**	**42.3**	**22.9**	**33.4**	**25.2**
APPROVED IDENTIFIER:	----	-	--		**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**	**U.DALKIN**
Synthetic Mineral Fibre	----	0.1	g/kg		**No**	**No**	**No**	**No**	**No**
Organic Fibre	----	0.1	g/kg		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Analytical Results

Sub-Matrix: SOLID (Matrix: SOLID)			Client sample ID	6678736	6678738	----	----	----
			Client sampling date / time	24-Aug-2020 00:00	24-Aug-2020 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EM2014690-013	EM2014690-015	--------	--------	--------
				Result	Result	----	----	----
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Asbestos Detected	1332-21-4	0.1	g/kg	**Yes**	**Yes**	**----**	**----**	**----**
Asbestos Type	1332-21-4	-	--	**Ch**	**Ch**	**----**	**----**	**----**
Asbestos (Trace)	1332-21-4	5	Fibres	**N/A**	**N/A**	**----**	**----**	**----**
Sample weight (dry)	----	0.01	g	**10.8**	**18.2**	**----**	**----**	**----**
Synthetic Mineral Fibre	----	0.1	g/kg	**No**	**No**	**----**	**----**	**----**
Organic Fibre	----	0.1	g/kg	**No**	**No**	**----**	**----**	**----**
APPROVED IDENTIFIER:	----	-	--	**U.DALKIN**	**U.DALKIN**	**----**	**----**	**----**

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	6678723 - 24-Aug-2020 00:00	Brown sandy soil with organic matter.
EA200: Description	6678725 - 24-Aug-2020 00:00	Brown soil with rock matter.
EA200: Description	6678726 - 24-Aug-2020 00:00	Brown sandy soil with rock and organic matter.
EA200: Description	6678727 - 24-Aug-2020 00:00	Brown sandy soil with rock matter.
EA200: Description	6678728 - 24-Aug-2020 00:00	Brown soil with rock and organic matter.
EA200: Description	6678729 - 24-Aug-2020 00:00	Brown beige sandy soil with organic matter.
EA200: Description	6678730 - 24-Aug-2020 00:00	Brown tan clay like soil with rock and organic matter.
EA200: Description	6678731 - 24-Aug-2020 00:00	Brown clay like soil with rock and organic matter.
EA200: Description	6678732 - 24-Aug-2020 00:00	Brown sandy soil with organic matter.
EA200: Description	6678733 - 24-Aug-2020 00:00	Tan sandy soil with rock and organic matter.
EA200: Description	6678734 - 24-Aug-2020 00:00	Brown sandy soil with rock and organic matter.
EA200: Description	6678735 - 24-Aug-2020 00:00	Brown sandy soil with rock and organic matter.
EA200: Description	6678737 - 24-Aug-2020 00:00	Brown sandy soil with rock and organic matter.
EA200: Description	6678739 - 24-Aug-2020 00:00	Brown beige clay like soil with rock and organic matter.
EA200: Description	6678740 - 24-Aug-2020 00:00	Brown sandy soil with rock and organic matter.

Sub-Matrix: **SOLID**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples		
EA200: Description	6678736 - 24-Aug-2020 00:00	Asbestos sheeting fragments approx 35 x 30 x 3mm.
EA200: Description	6678738 - 24-Aug-2020 00:00	Asbestos sheeting fragment approx 90 x 50 x 4mm.

Landserv
Environment

CHAIN OF CUSTODY

LANDSERV DETAILS

Address: 293A Bay Street, Port Melbourne
Tel: 61 3 9646 0833
Project Manager: Angus Robinson
E-mail: angus.robinson@landserv.com.au
ryan.edwards@landserv.com.au emily.mcasey@landserv.com.au

LABORATORY DETAILS

Lab. Name: Envirolab
Fax:
Lab. Address: 25 Research Drive, Croydon South VIC
Preliminary Report by:
Contact Name: Pamela Adams
Final Report by:
Tel: 03 9763 2500
Lab Quote No: 20M149

Sampled By: AR + EM
Landserv Project No: M0790
Project Name: Wattle Watson ESA

Specifications:	Yes /No
1. TAT required? 24hr 48hr 3 days **5days**	Yes
2. Fast TAT Guarantee Required?	No
3. Is any sediment layer present in waters to be excluded from extractions?:	No
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?:	No
5. Special storage requirements:	No
6. Low reporting limits required for groundwaters?	No

Lab I.D. Number	Sample ID	Sample Date	Matrix			Preservation			Container (No. & type)	Analysis Request: 8	Other
			soil	water	leachate	filt'ed	acid	ice			
1	BH601/0.4-0.5	24/08/2020	x					x	Jar	x	
2	BH603/0.6-0.7	24/08/2020	x					x	Jar	x	
3	BH625/0.4-0.5	24/08/2020	x					x	Jar	x	

ENVIROLAB GROUP
Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: 27269
Date Received: 26/8/20
Time Received: 10am
Received By: GB
Temp: Cool/Ambient 12.6
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Esky ID

Relinquished by:	Signed:	Date:	Relinquished by:	Signed:	Date:
Angus Robinson of Landserv		25/08/2020	of		
Received by:	**Signed:**	**Date:**	**Received by:**	**Signed:**	**Date:**
of			of		

ORIGINAL (White Copy) - Attach to sample cooler with lid taped shut. PINK COPY - Retain in Project File and use to check off against Sample Receipt Advice. YELLOW COPY - Retain in COC book as a back-up / spare record.